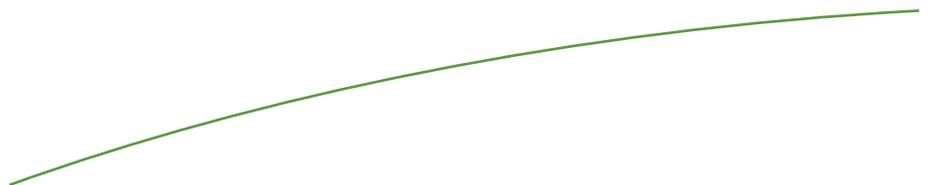




Appendix H

ASTM PHASE I AND PHASE II  
ENVIRONMENTAL SITE ASSESSMENTS



**REPORT ON  
ASTM PHASE I ENVIRONMENTAL SITE ASSESSMENT  
CARGILL PROPERTY - 54.53-ACRE PARCEL  
SOUTHWEST OF HICKORY STREET AND  
ENTERPRISE DRIVE  
NEWARK, CALIFORNIA**

by

**Haley & Aldrich, Inc.  
Walnut Creek, California**

for

**Dumbarton Area 2, LLC  
Newport Beach, CA**

**File No. 40451-000  
January 2014**

Haley & Aldrich, Inc.  
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HaleyAldrich.com



9 January 2014  
File No. 40451-000

Dumbarton Area 2, LLC  
3 San Joaquin Plaza, Suite 100  
Newport Beach, California 92660

Attention: Mr. Glenn Brown

Subject: ASTM Phase I Environmental Site Assessment  
Cargill Property – 54.53-Acre Parcel  
Southwest of Hickory Street and Enterprise Drive  
Newark, California

Dear Mr. Brown:

The enclosed report presents the results of a Phase I Environmental Site Assessment (Phase I ESA) conducted at the above-referenced property, located on approximately 54.53 acres southwest of the intersection of Hickory Street and Enterprise Drive in Newark, California (herein referred to as the “subject site”). This work was performed by Haley & Aldrich, Inc. (Haley & Aldrich), in accordance with our proposal to Dumbarton Area 2, LLC (DA2) dated 25 September 2013 (“Agreement”) as authorized by DA2 on 27 September 2013. As indicated in our proposal, this Phase I ESA was conducted using practices consistent with the American Society of Testing and Materials (ASTM) E 1527-05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-05 Standard) as referenced in 40 Code of Federal Regulations (CFR) Part 312 (the All Appropriate Inquiries [AAI] Rule).

The objective of a Phase I ESA is to assess whether known or suspect “recognized environmental conditions” (RECs), historical RECs (HRECs), and *de minimis* conditions are associated with the subject site, as defined in the ASTM E 1527-05 Standard, by evaluating site history, existing observable conditions, current site use, and current and former uses of adjoining properties as well as potential releases at surrounding properties that may impact the subject site.

Our conclusions regarding the presence and potential impact of RECs on the subject site are intended to help the user evaluate the “business environmental risk” associated with the subject site, as defined in the ASTM E 1527-05 Standard and discussed in Section 1.1 of this report.

Dumbarton Area 2, LLC

16 October 2013

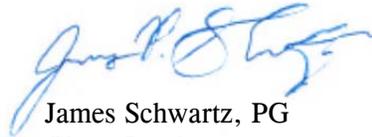
Page 2

Thank you for the opportunity to perform these services for you. Please do not hesitate to contact us if you have any questions or comments.

Sincerely yours,  
HALEY & ALDRICH, INC.

A handwritten signature in blue ink, appearing to read "D. Schlotterbeck", with a large, sweeping flourish at the end.

David Schlotterbeck, REA  
Senior Environmental Scientist

A handwritten signature in blue ink, appearing to read "James Schwartz", with a large, sweeping flourish at the end.

James Schwartz, PG  
Client Leader

Enclosures

**REPORT ON  
ASTM PHASE I ENVIRONMENTAL SITE ASSESSMENT  
CARGILL PROPERTY – 54.53-ACRE PARCEL  
SOUTHWEST OF HICKORY STREET AND ENTERPRISE DRIVE  
NEWARK, CALIFORNIA**

**By**

**Haley & Aldrich, Inc.  
Walnut Creek, California**

The undersigned declare the following:

We declare that, to the best of my professional knowledge and belief, we meet the definition of Environmental Professional as defined in 40 CFR Part 312, §312.10.

We have the specific qualifications based on education, training, and experience to assess the nature, history, and setting of the subject site and “develop opinions and conclusions regarding conditions indicative of releases or threatened releases.” We have developed and performed “all appropriate inquiries” (AAI) in conformance with the standards and practices set forth in 40 CFR Part 312.



David Schlotterbeck, REA  
Senior Environmental Scientist



James Schwartz, PG  
Client Leader

**for**

**Dumbarton Area 2, LLC  
Newport Beach, California**

**File No. 40451-000**

## **EXECUTIVE SUMMARY**

Haley & Aldrich, Inc. (Haley & Aldrich) has performed a Phase I Environmental Site Assessment (Phase I ESA) of the Cargill Property, an approximately 54.53-acre parcel located southwest of Hickory Street and Enterprise Drive in Newark, California (herein referred to as the “subject site”) (Figure 1). The subject site consists of three parcels of land identified by the Alameda County Assessor’s office as assessor parcel numbers (APN) 537-852-9, 537-852-10 and 537-852-11 and described as “salt ponds.”

The objective of a Phase I ESA is to identify known and suspect recognized environmental conditions (RECs), historical RECs (HRECs), and *de minimis* conditions associated with the subject site, as defined in the American Society of Testing and Materials (ASTM) E 1527-05 Standard and in Section 1.1 of this report.

According to the City of Newark Planning Division, the subject site is currently zoned as “MT-1” for High Technology Park. The area in the vicinity of the subject site is generally characterized as vacant, previously developed industrial properties and is bordered to the north by the former FMC facility, to the east by the former Ashland Chemical Company and Torian facility, to the south by the Plummer Creek Wetlands Area and to the west by Cargill Bittern Ponds. The Ashland and Torian properties are both vacant aside from the remnants of former building foundations and the former FMC property has several structures remaining on the property.

Current uses of the subject site include the following: 1) The northwestern portion of the subject site is undeveloped and used as a storage area by R.J. Gordon Construction (access is provided by Cargill under a License Agreement) to store construction equipment and materials. 2) The northeastern portion of the subject site is undeveloped with four groundwater monitoring wells (W-25, B-26, B-27 and B-28). These groundwater monitoring wells are part of a groundwater monitoring network that originally consisted of 30 monitoring wells and are used to assess the impacts to groundwater offsite and hydrologically downgradient of the Ashland Chemical Company’s property. Access to these groundwater monitoring wells is secured through an Access Agreement pursuant to the Regional Water Quality Control Board (RWQCB)’s Site Cleanup Requirements (SCR) Order No. 89-109, which allows Ashland Chemical Company access to the subject site for the purposes of collecting groundwater samples from the four groundwater monitoring wells. Currently, only groundwater monitoring wells B-26, B-27 and B-28 are required to be sampled under the revised SCR Order R2-2005-0038, which was adopted by the RWQCB on 14 September 2005. 3) Portions of the southeastern portion of the subject site are used by the Newark Police Department as a pistol firing range and the Witmer-Tyson Police Dog Training School and the Menlo Park Schutzhund Club that operate a K-9 training facility. 4) The southwestern portion of the subject site is undeveloped and is used by Cargill to access the Bittern Ponds on the adjoining properties to the west.

### **DATA GAPS**

Due to the federal government shutdown, Haley & Aldrich has been unable to access the Pipeline Information Management Mapping Application (PIMMA) on the National Pipeline Mapping System’s website ([www.npms.phmsa.dot.gov](http://www.npms.phmsa.dot.gov)). Due to information obtained through the review of previous investigations completed at the subject site, it is Haley & Aldrich’s opinion that the lack of information related to the presence of gas and/or hazardous liquid transmission pipeline in the vicinity of the subject site is a non-significant data gap and does not represent a REC to the subject site. No additional data

gaps were identified during the performance of this Phase I ESA. Thus, it is our opinion that sufficient information was obtained to identify subject site conditions indicative of releases or threatened releases of hazardous substances and petroleum hydrocarbons.

Based on the results of this Phase I ESA, our findings are as follows:

### **KNOWN OR SUSPECT RECOGNIZED ENVIRONMENTAL CONDITIONS**

The ASTM E 1527-05 Standard defines a REC as “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.” A material threat is defined by the ASTM E 1527-05 Standard as “a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the environmental professional, is threatening and might result in impact to public health or the environment.”

This Phase I ESA has revealed evidence of RECs in connection with the subject site.

#### **REC #1: Former Magnesia Waste Pile**

**Description:** A Former Magnesia Waste Pile is located on the northwestern portion of the subject site. Remediation work performed in 1991 focused on removal of waste materials classified as hazardous waste (i.e., containing contaminant concentrations that exceeded total threshold limit concentrations [TTLCs]). Additional non-hazardous waste material was removed in 1998 and 1999. During the prior remediation work, residential use of the subject site was not anticipated and it does not appear that residential use was considered when establishing site cleanup goals. However, analyses of verification soil samples collected following both removal actions generally did not detect copper, mercury or thallium (the primary contaminants) above current residential screening levels (California Human Health Screening Levels [CHHSLs], CalEPA 2005). The sampling results appear to suggest that the subject site is suitable for residential use. However, consideration should be given to obtaining regulatory agency concurrence. Additionally, some residual waste material that is generally white in color remains at the subject site, primarily on the northwestern portion of the property in the vicinity of the former Magnesia Waste Pile. The material reportedly is alkaline (high pH), which can cause irritation to human tissue. The State of California Department of Toxic Substances Control (DTSC) noted that some of the materials have a pH comparable to laundry soap.

#### **REC #2: Impacted Groundwater**

**Description:** Former investigations of groundwater at the subject site indicate that the regional plume of volatile organic compounds (VOCs), predominantly 1,2-dichloroethane (1,2-DCA), has encroached onto the northern portion of the subject site; these VOCs appear to be from off-site sources. Total petroleum hydrocarbons as gasoline, diesel and motor oil (TPHg, TPHd, TPHmo) and benzene also were detected in groundwater near the Former Magnesia Waste Pile location; the source of these compounds is not known. Based on the review of the Environmental Data Resources, Inc. (EDR) database report, there are multiple facilities located adjoining to and hydrologically upgradient of the subject site that are listed in environmental databases as having known releases that have impacted the groundwater. These facilities and the associated groundwater impacts have been, or are currently being investigated under the oversight of the lead regulatory agency, which in most cases is the RWQCB.

Areas overlying impacted groundwater are suitable for residential use provided vapor intrusion mitigation measures are included in development if determined to be necessary.

### **REC #3: Former Bittern Truck Loading Area**

**Description:** The southwestern corner of the subject site was previously used as a bittern loading area up until late 2011 and early 2012. Historical observations of this portion of the subject site indicated spilled bittern on the gravel surface at the truck loading area. Bittern reportedly contains residual sodium chloride as well as various other salts, including magnesium sulfate, magnesium chloride, potassium chloride and magnesium bromide. It is reported by Cargill to be non-hazardous, but may result in elevated levels of salts in the soil or groundwater. Thus, bittern impacted soil may require special handling or disposal if this area is redeveloped. Additionally, oil reportedly was discharged to overflow ponds at the truck loading area. One lined overflow pond and one unlined overflow pond have historically been located on this portion of the subject site; however, evidence of the ponds and staining was not observed during the site reconnaissance completed for this Phase I ESA. It is our understanding redevelopment activities are not planned for this area, therefore this REC does not warrant any action at this time.

### **REC #4: Former Newark Sportsman's Club (NSC) Area**

**Description:** During remedial activities in 2002 and 2003, identified lead and polycyclic aromatic hydrocarbons (PAH) impacted soil and clay pigeon debris exceeding the established cleanup criteria were removed from the NSC area. The cleanup goal for lead was set at the then current residential Preliminary Remediation Goal (PRG) (EPA Region 9, 2000) for lead of 400 milligrams per kilogram (mg/kg). The cleanup goal used for PAHs was a total PAH concentration of 10 mg/kg. CalEPA recently revised their screening level for lead; the revised residential CHHSL for lead is 80 mg/kg (CalEPA, 2009). The average lead level detected in verification soil samples does not exceed the current CHHSL of 80 mg/kg; however, lead concentrations in some of the individual samples are above this level. Additionally, some of the individual PAH concentrations detected in verification soil samples are above the current Environmental Screening Levels (ESLs) established by the RWQCB (2008). Due to the limited nature of identified impacts, this REC does not pose a significant concern with respect to residential redevelopment of the subject site.

### **REC #5: Pistol Range**

**Description:** The City of Newark Police Department has used a portion of the subject site since 1975 as a pistol firing range. Lead and copper were detected in soil from the pistol range area at up to 11,000 mg/kg and 270 mg/kg, respectively. The lead concentrations exceed both the residential CHHSL (80 mg/kg) and the TTLC (1,000 mg/kg). Waste material with concentrations above the TTLC is classified as a hazardous waste. Due to the limited nature of identified impacts, this REC does not pose a significant concern with respect to residential redevelopment of the subject site.

### **REC #6: Naturally Occurring Asbestos (NOA)**

**Description:** Serpentine that contains NOA was identified within the southern area of exposed bedrock (near the pistol range). Analyses of samples collected from the southern hill area detected NOA at concentrations ranging from 0.25 to 6.25 percent. This REC does not pose a significant concern with respect to residential redevelopment of the subject site provided mitigation measures to prevent the release of asbestos fibers from this material are implemented during site development activities.

### **REC #7: E-1 Drainage Ditch**

**Description:** The E-1 Ditch bisects the subject site from the north-central property line to the southwestern corner of the subject site. As described in section 3.1.1, historically, the E-1 Ditch began on adjacent FMC and was used by FMC for various discharges. Although current water quality in the E-1 Ditch is not likely to be impacted by historic discharges, sediment within the E-1 Ditch could contain residual contaminants. Due to the limited nature of potential impacts along the ditch alignment, this REC does not pose a significant concern with respect to residential redevelopment of the subject site.

### **REC #8: Evaporation Ponds and Detention Basin**

**Description:** During the late 1930s through at least the 1960s, portions of the northwestern subject site, west of the E-1 Ditch appear to have been used as salt evaporation ponds. Additionally, what appears to be a detention basin is apparent on aerial photographs from the late 1930s through at least the late 1950s. This potential detention basin was located where the E-1 Ditch intersects with adjacent FMC property along the northern property line. Due to the limited nature of potential impacts in this area, this REC does not pose a significant concern with respect to residential redevelopment of the subject site.

### **REC #9: Historical Industrial Use**

**Description:** Based on the long industrial history of the subject site, previously unidentified buried structures, debris or impacted soil may be encountered during site development activities; these materials may require special handling and disposal. To limit construction delays, consideration should be given to developing a Site Management Plan (SMP) to establish management practices for handling these materials/structures if encountered.

### **HISTORICAL RECs**

The ASTM E 1527-05 Standard defines an HREC as an environmental condition “which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently.”

This Phase I ESA has revealed no evidence of HRECs in connection with the subject site.

### **DE MINIMIS CONDITIONS**

The ASTM E 1527-05 Standard defines *de minimis* conditions as those conditions which “do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.” The ASTM E 1527-05 Standard notes that “conditions determined to be *de minimis* are not recognized environmental conditions.”

This Phase I ESA has revealed evidence of a *de minimis* condition related to stained soil observed on the northwestern portion of the subject site in an area used by R.J. Gordon Construction to store construction equipment and materials. The stained soil appears to be the result of leaking motor oil or

hydraulic fluid from construction equipment. Due to the heavy nature of motor oil and hydraulic fluid, the impact to the soil caused by this release is likely surficial and is considered a *de minimis* condition.

## **CONCLUSIONS**

In conclusion, although this site has nine RECs, due to the limited environmental risks associated with the known or potential impacts, these RECs do not pose a significant concern with respect to residential redevelopment of the subject site.

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## 1. INTRODUCTION

The enclosed report presents the results of a Phase I Environmental Site Assessment (Phase I ESA) conducted at the above-referenced property, located southwest of the intersection of Hickory Street and Enterprise Drive in Newark, California (herein referred to as the “subject site”) (Figure 1). The subject site consists of approximately 54.53-acres of land bordered to the north by the former FMC facility, to the east by the former Ashland Chemical Company and Torian facility, to the south by the Plummer Creek Wetlands Area and to the west by Cargill Bittern Ponds, as shown on Figure 2.

This work was performed by Haley & Aldrich, Inc. (Haley & Aldrich), in accordance with our proposal to Dumbarton Area 2, LLC (DA2) dated 25 September 2013 (“Agreement”) as authorized by DA2 on 27 September 2013 (Appendix A). As indicated in our proposal, this Phase I ESA was conducted using practices consistent with the American Society for Testing and Materials (ASTM) E 1527-05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-05 Standard) as referenced in 40 Code of Federal Regulations (CFR) Part 312 (the All Appropriate Inquiries [AAI] Rule).

### 1.1 Objective

The objective of a Phase I ESA is to assess whether known or suspect “recognized environmental conditions” (RECs), historical RECs (HRECs), and *de minimis* conditions are associated with the subject site, as defined in the ASTM E 1527-05 Standard, by evaluating site history, existing observable conditions, current site use, and current and former uses of adjoining properties as well as potential releases at surrounding properties that may impact the subject site. RECs are defined in the ASTM E 1527-05 Standard as “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water at the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.” A material threat is defined by the ASTM E 1527-05 Standard as “a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the environmental professional, is threatening and might result in impact to public health or the environment.”

Consistent with ASTM E 1527-05 Section 12.5 (Report Format), and for the purposes of this assessment, those RECs that have been identified as being present with respect to the subject site are referred to as Known Recognized Environmental Conditions (KRECs), and those RECs that have been identified as being likely present with respect to the subject site are referred to as Suspect Recognized Environmental Conditions (SRECs). The ASTM E 1527-05 Standard defines HRECs as environmental conditions “which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently.”

Our conclusions are intended to help the user evaluate the “business environmental risk” associated with the subject site, defined in the ASTM E 1527-05 Standard as “a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required

to be investigated in this practice. Consideration of business environmental risk issues may involve addressing one or more non-scope considerations...”

The completion of this Phase I ESA is only one component of the process required to satisfy the AAI Rule. In addition, the user must adhere to a set of user responsibilities as defined by the ASTM E 1527-05 Standard and the AAI Rule. User responsibilities are discussed in Section 5.3 of this report. A user seeking protection from Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) liability as an innocent landowner, bona fide prospective purchaser, or contiguous property owner must complete all components of the AAI process in addition to meeting ongoing obligations. AAI components, CERCLA liability relief, and ongoing obligations are discussed in the AAI Rule and in Appendix XI of the ASTM E 1527-05 Standard.

## **1.2 Site Identification**

The subject site is located in Alameda County and consists of three parcels of land totaling 54.53 acres. These parcels are identified by the Alameda County Assessor’s office as assessor parcel number (APN) 537-852-9, 537-852-10 and 537-852-11. The Alameda County Assessor’s office describes these parcels as “salt ponds.”

## **1.3 Scope of Services**

Haley & Aldrich performed the following scope of services to complete this Phase I ESA. These services were performed either by, or under the direct supervision of, an environmental professional as defined by the AAI Rule.

1. Conducted visual observations of site conditions, and of abutting property use, to evaluate the nature and type of activities that have been or are being conducted at and adjoining to the subject site, in terms of the potential for release or threat of release of hazardous substances or petroleum products.
2. Reviewed federal, state, tribal, and local environmental database information within the ASTM-specified distance from the subject site using a database service to access records. Used 7.5-minute topographic maps to evaluate the subject site’s physical setting.
3. Reviewed state environmental files pertaining to the subject site and nearby sites with the potential to impact the subject site.
4. Reviewed previous reports prepared for the subject site.
5. Reviewed the following sources of historical use information: aerial photographs, topographic maps, and existing environmental documents.
6. Contacted state and local agencies regarding the subject site and surrounding properties and structures.
7. Interviewed the Key Site Manager.

8. Interpreted the information and data assembled as a result of the above work tasks, and formulated conclusions regarding the potential presence and impact of RECs, including HRECs.

#### **1.4 Non-Scope Considerations**

The ASTM E 1527-05 Standard includes the following list of “additional issues” that are non scope considerations outside of the scope of the ASTM Phase I ESA practice: asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, bio-agents, and mold. These items were not included in this Phase I ESA of the subject site.

A limited assessment of the presence of polychlorinated biphenyls (PCBs) is included in the ASTM work scope. Accordingly, our assessment of the presence of PCBs is limited to those potential sources specified in the ASTM E 1527-05 Standard as “electrical or hydraulic equipment known or likely to contain PCBs...to the extent visually and or physically observed or identified from the interview or records review.”

#### **1.5 Exceptions and Deviations**

##### **1.5.1 Deviations**

Haley & Aldrich completed this Phase I ESA in substantial conformance with the ASTM E 1527-05 Standard. In our opinion, no additions were made to or deviations and deletions made from the ASTM work scope in completing this Phase I ESA.

##### **1.5.2 Data Gaps**

No data gaps were identified during the performance of this Phase I ESA. Thus, it is our opinion that sufficient information was obtained to identify subject site conditions indicative of releases or threatened releases of hazardous substances and petroleum hydrocarbons. Our opinion is limited by the conditions prevailing at the time our work is performed and the applicable regulatory requirements in effect.

##### **1.5.3 Limitations**

Our work for this project was performed in accordance with the standards and practices set forth in 40 CFR Part 312 and is consistent with the ASTM E 1527-05 Standard for Phase I Environmental Site Assessments. Several organizations other than ASTM, such as professional associations ASFE and AGWSE, have also developed guidelines or standards for environmental site assessments. The Phase I ESA presented in this report may vary from the specific guidelines or standards required by other organizations.

This Phase I ESA was prepared pursuant to an Agreement dated 27 September 2013 between DA2 (Client) and Haley & Aldrich, which Agreement is attached hereto and is made a part of this report. All uses of this report are subject to, and deemed accepting of, the conditions and restrictions contained in the Agreement. The observations and conclusions described in this report are based solely on the Scope of Services provided pursuant to the Agreement. Haley & Aldrich has not performed any additional observations, investigations, studies, or other testing

not specified in the Agreement. Haley & Aldrich shall not be liable for the existence of any condition the discovery of which would have required the performance of services not authorized under the Agreement.

This report is prepared for the exclusive use of the Client in connection with establishing current environmental conditions at the subject site. There are no intended beneficiaries other than the Client. Haley & Aldrich shall owe no duty whatsoever to any other person or entity on account of the Agreement or the report. Use of this report by any person or entity other than the Client for any purpose whatsoever is expressly forbidden unless such other person or entity obtains written authorization from the Client and from Haley & Aldrich. Use of this report by such other person or entity without the written authorization of the Client and Haley & Aldrich shall be at such other person's or entity's sole risk, and shall be without legal exposure or liability to Haley & Aldrich.

Use of this report by any person or entity, including by the Client, for a purpose other than establishing current environmental conditions at the subject site is expressly prohibited unless such person or entity obtains written authorization from Haley & Aldrich indicating that the report is adequate for such other use. Use of this report by any person or entity for such other purpose without written authorization by Haley & Aldrich shall be at such person's or entity's sole risk and shall be without legal exposure or liability to Haley & Aldrich.

This report reflects site conditions observed and described by records available to Haley & Aldrich as of the date of report preparation. The passage of time may result in significant changes in site conditions, technology, or economic conditions, which could alter the findings and/or recommendations of the report. Accordingly, the Client and any other party to whom the report is provided recognize and agree that Haley & Aldrich shall bear no liability for deviations from observed conditions or available records after the time of report preparation.

Use of this report by any person or entity in violation of the restrictions expressed in this report shall be deemed and accepted by the user as conclusive evidence that such use and the reliance placed on this report, or any portions thereof, is unreasonable, and that the user accepts full and exclusive responsibility and liability for any losses, damages, or other liability which may result.

## **2. SITE DESCRIPTION**

### **2.1 Site Ownership and Location**

#### **2.1.1 Name of Site Owner**

According to the Alameda County Assessor's office, the owner of the subject site is Leslie Salt (Cargill, Inc. [Cargill]).

#### **2.1.2 Name of Site Operator**

The majority of the subject site is currently vacant. However, the owner of the subject site, Cargill, has permitted R.J. Gordon Construction access to a portion of the subject site for the sole purpose of storing equipment and materials. According to Exhibit A, provided in the License Agreement (Appendix B), the area of the subject site used by R.J. Gordon Construction is located on the northwestern portion of the subject site. Additionally, the Witmer-Tyson Police Dog Training School and the Menlo Park Schutzhund Club operate a dog training facility on the southeastern corner of the subject site, and the Newark Police Department operates a pistol firing range immediately to the north of the dog training facility.

#### **2.1.3 Project Locus Map**

The United States Geologic Survey (USGS) topographic map reviewed during this Phase I ESA for the subject site is the Newark, CA Quadrangle, dated 1997 (see Figure 1). The USGS topographic map was used as a source for subject site setting and historical use information. The subject site is located in Alameda County.

### **2.2 Site and Vicinity Description**

Figure 2 is a Site Plan of the subject site and shows relevant features of the subject site and immediately adjoining properties, as described below.

- The subject site consists of three parcels identified by the Alameda County Assessor's office as APN 537-852-9, 537-852-10 and 537-852-11. A drainage ditch, identified as the E-1 Ditch, is located on APN 537-852-9 and 537-852-11. Four groundwater monitoring wells, associated with the ongoing groundwater investigation at Ashland Chemical Company adjoining to the east of the northern portion of the subject site, are located on the northeastern portion of APN 537-852-11. The Newark Police Department Pistol Range and the Witmer-Tyson Police Dog Training School are located on the southeastern portion of APN 537-852-11, and R.J. Gordon Construction uses the northwestern portion of APN 537-852-11 to store construction equipment.
- According to the City of Newark Planning Division, the subject site is currently zoned as "MT-1" for High Technology Park.
- The area in the vicinity of the subject site is generally characterized as vacant, previously developed industrial. Surrounding properties have historically been used as industrial, manufacturing, chemical processing and salt production facilities. Industrial chemical

operations were largely phased out by the 1990s, leaving the surrounding properties mostly vacant and underutilized; however, Cargill's salt production facilities remain active.

- The subject site is bordered to the north by the former FMC Chemical Company, to the east by the former Ashland Chemical Company and Torian properties, to the south by undeveloped wetlands (Plummer Creek Wetlands Area) and to the west by Cargill Bittern Ponds.

## **2.3 Physical Setting**

Subsurface explorations were not performed for this Phase I ESA; therefore, subject site geology and hydrology is described on the basis of readily available public information, and/or based upon our experience and understanding of subsurface conditions in the subject area.

### **2.3.1 Topography**

Topographically, the subject site is relatively flat with the majority of the subject site situated at elevations ranging from between 8 and 12 feet above sea level. Several natural rock outcroppings and areas of previous stockpiling on the northwestern and central portions of the subject site are located at elevations ranging from approximately 15 to 45 feet above sea level.

### **2.3.2 Geology**

The subject site is located within the Alameda Creek Niles Cone Groundwater Basin, which is defined by the Department of Water Resources as a sub-basin of the larger Santa Clara Valley. Bedrock and unconsolidated sediments in the San Francisco Bay region are from Jurassic to Recent in age. The subject property lies in the Niles subarea of the Fremont Ground Water Area (California Department of Water Resources, 1975). The subject property also lies within the physiographic province known as the Niles Cone, which is an alluvial fan formed by Alameda Creek. The Niles subarea consists of a series of flat-lying gravel aquifers separated by extensive clay aquicludes. The gravel portion of the alluvium is thickest in the eastern portion of the Niles subarea and gradually thins out to the west. The subject property is likely underlain by unconsolidated sand, silt, and clay deposits, which in turn is underlain at depth by a sequence of alluvial sand, gravel, silt, and clay deposits as in most areas of the City of Newark. In addition, serpentinite outcrops have been identified on the southeastern portion of the subject site (see Section 3.1.4).

### **2.3.3 Hydrology**

Based on the review of a semi-annual groundwater report prepared for the former Ashland Chemical Company on the adjoining property to the east, the Shallow Zone groundwater is first encountered at depths of approximately 3 to 12 feet bgs. The depth to water varies seasonally and quarterly monitoring records show that the lowest water levels are consistently recorded in early fall (October). The general Shallow Zone groundwater flow direction is toward the south and historically was influenced by the operation of an on-site groundwater pump and treat system. The local Shallow Zone hydraulic gradient is somewhat flat and is currently influenced by groundwater extraction systems operating on nearby properties. Groundwater flow in the Newark Aquifer varies from south to southwest, and is subject to groundwater extraction activities conducted on the FMC Corporation property located to the north (EHS, 2013). Four of the groundwater monitoring wells used in the investigation at the adjoining former Ashland

Chemical Company are located on the subject site. On 22 April 2013, the depth to first groundwater was recorded at these wells (W-25, B-26, B-27 and B-28) located on the northeastern portion of the subject site. The results indicated that depth to groundwater on the northeastern portion of the subject site ranged from 4.34 feet (B-28) and 5.97 feet (B-27) below the top of the well casing. The groundwater gradient for this monitoring event was determined to be towards the west-southwest (EHS, 2013).

According to the Environmental Data Resource (EDR) Database Report, the majority of the subject site is located within a 100-year flood zone. Additionally, EDR reports that there are no Public Water Supply Wells located within 1 mile of the subject site.

### 3. PREVIOUS REPORTS

#### 3.1 Subject Site

Haley & Aldrich has reviewed existing environmental documents that have been prepared for the subject site. Because of the extensive history, a large volume of environmental documents pertaining to the subject site have been generated over the past 20 to 30 years. A detailed review of each document was not feasible within the time and budget constraints of this Phase I ESA. A portion of the existing documents, but not all, were obtained and reviewed during this study. Additionally, our review focused on reports that contained summaries of previous investigations and includes summaries provided in a recent Phase I ESA prepared by TRC and dated 30 August 2011. Copies of the documents reviewed for this Phase I ESA have been provided in a CD included as Appendix B.

The documents reviewed are related to investigations that have been completed for the Magnesia Waste Pile Area (northwestern portion of the subject site), E-1 Ditch (bisects the subject site from the north-central property line to the southwestern corner of the subject site), former Bittern Truck Loading Overflow Ponds (southwestern corner of the subject site); and the former Newark Sportsman's Club (NSC), naturally occurring asbestos and the City of Newark Police Department Pistol Range (southeastern portion of the subject site). Summaries of these investigations are provided below.

##### 3.1.1 Magnesia Waste Pile Area

###### Site History (Magnesia Waste Pile Area)

The subject property was purchased from August and Agnes Schilling by the Arden Salt Company in 1926 (DHS, 1988). The Arden Salt Company leased the Site to Westvaco Chemicals in 1929. Leslie Salt Company merged with Arden Salt Company in 1936 and was subsequently acquired in 1979 by Cargill (the current owner of the subject site). FMC Corporation acquired Westvaco Chemicals in 1950 and the lease was extended in FMC Corporation's name until 1968 when the lease was terminated.

The primary industrial activities of Westvaco and FMC (located adjacent to the north of the subject site) included the production of magnesia oxide ("magnesia"), phosphoric acid, ethylene dibromide (EDB), gypsum, and various catalysts (HCI, 1990). Magnesia is used as a fluxing agent, as a feedstock for the chemical industry and other industrial uses. Gypsum is used primarily as the basis for plaster, and as an additive in fertilizer. Phosphoric acid is a common feedstock used by the fertilizer and chemical industries, while EDB is used as a soil fumigant, and is also a minor component of petroleum-based fuels (used as an octane enhancer). Manufacture of these materials used bittern from the adjacent salt-production operations as a primary raw material. Bittern is the concentrated brine which remains after salt has been removed from sea water concentrated in evaporation ponds.

Over the years, the subject site was used by Westvaco and subsequently FMC to discard waste products. Most materials discarded on the subject property reportedly were non-hazardous (HCI, 1990) as defined by Title 22 of the California Code of Regulations. The wastes consisted primarily of bulk quantities of off-grade or residual products resulting from manufacturing activities at the adjacent FMC facilities, and included magnesia (MgO), gypsum (CaSO<sub>4</sub>), dolomite (CaMg(CO<sub>3</sub>)<sub>2</sub>), lime (CaO) and limestone (CaCO<sub>3</sub>). Other reported waste products

included four to eight drums of phosphorus-containing sludge, copper catalyst pellets used in synthetic rubber production, scrap lumber, kiln brick, general trash, and old concrete machinery foundations. The waste pile reportedly was 40 to 50 feet high, 300 to 400 feet wide at its base, and approximately 1,200 feet in length. The waste pile was located primarily to the west of the currently present on-site drainage ditch (E-1 Ditch) that extends to the south from the northerly adjacent FMC property.

In 1982, Parson's Ag Materials began excavating and removing dolomite for agricultural uses. Parson's removed approximately 5,000 tons of material per year over a period of several years (HCI, 1990).

### Environmental Studies

During the 1980s, several studies of the subject site were conducted by the California Department of Health Services (DHS), EMCON Associates, Environmental Solutions, Inc. and S.S. Papadopulos and Associates. Based on these studies, the DHS issued a Remedial Action Order (RAO) to FMC and Leslie Salt dated July 19, 1988. The RAO required the preparation of a Remedial Investigation (RI) to further evaluate soil, groundwater, surface water and air in the vicinity of the magnesia waste pile and a Feasibility Study (FS) to assess various remedial alternatives.

The results of the RI demonstrated that the contaminants of primary concern within the pile were copper and mercury (HCI, 1990). Copper and mercury were considered to be hazardous because the concentrations of these chemicals in the magnesia exceed their respective Total Threshold Limit Concentrations (TTLCs) as defined by Title 22. Ethylene dibromide (EDB) was detected at concentrations of less than 0.020 milligrams per kilogram (mg/kg) in five samples out of 35 samples collected during the RI. Cyanide was also detected in the waste pile materials. The maximum concentration found was 11 mg/kg, detected in one sample. Cyanide was not detected in the majority of the soil/waste samples.

Analyses of samples taken in 1981 show several samples with a pH between 12.0 and 12.4 (DHS, 1988). Per Title 22 of the California Code of Regulations, an aqueous solution with pH greater than 12.5 is considered to be a hazardous substance. Although the detected pH levels are below the hazardous criteria, the RAO notes that they are close enough to 12.5 to be of concern.

Samples collected from trenches during the RI were screened in the field using an organic vapor meter; measurements reportedly varied between 0 and 140 parts per million (ppm). Based on the screening results, nine samples were selected for laboratory analysis to test for the possible presence of organic compounds. The samples were analyzed for volatile and semi-volatile organic compounds (VOCs and SVOCs), for pesticides, and for polychlorinated biphenyls (PCBs). Eleven semi-volatile organic compounds and 10 volatile organic compounds were detected. The results are reported in Table 8 of the HCI Remedial Action Plan (1990). HCI indicated that the detected concentrations were low (generally less than 1 ppm) and it was therefore concluded that VOCs and SVOCs did not present a vapor hazard at the Magnesia Waste Pile, and would not be considered during the evaluation of remedial alternatives.

The Magnesia Waste Pile reportedly contained approximately 65,000 cubic yards (CY) of general magnesia material, 9,600 CY of general construction debris (concrete, lumber, etc.),

approximately 600 CY of copper catalyst pellets and approximately 2,500 CY of mercury-contaminated magnesia material (HCI, 1990). During RI site overview activities, DHS sampled a small waste area to the east of the pile. Magnesia/soil material in this area contained thallium at concentrations that exceeded the TTLC for thallium. The volume of soil material that contained thallium concentrations in excess of the TTLC was estimated to be 50 CY. The copper and mercury contaminated wastes were reportedly restricted to distinct areas of the waste pile, generally on the west side of the pile.

#### Surface Water (E-1 Ditch)

To evaluate potential impacts to surface water, water within the on-site drainage ditch (E-1 Ditch) was sampled during a rain event in 1989 (HCI, 1990). The HCI report notes that FMC had a National Pollutant Discharge Elimination System (NPDES) permit that allowed effluent to be discharged to the E-1 Ditch. A discharge rate of 60 gallons per minute was indicated. Copper was detected at the FMC out-fall at a maximum concentration of 0.036 milligrams per liter (mg/l). After the E-1 Ditch water had passed the Magnesia Waste Pile, the concentration had declined to a maximum of 0.017 mg/l. HCI indicated that these data suggest that the Magnesia Waste Pile was not contributing significant amounts of copper to E-1 Ditch. Mercury, thallium and cyanide were not detected in any of the surface-water samples. The only organic compound detected was chloroform, at maximum concentrations of 0.0024 mg/l.

To obtain additional information regarding effluent discharges to E-1 Ditch, a Remedial Investigation Report (McLaren Hart, 1999) for the adjacent FMC property was reviewed. The E-1 Ditch is described as FMC's effluent (E-1) ditch. Prior to about 1972, the E-1 Ditch began on FMC property at a pit used for disposal of filter cake. The filter cake reportedly contained diatoms (diatomaceous earth) and arsenic sulfide, generated during the production of food grade phosphoric acid. The pit, along with 700 to 800 feet of ditch on FMC property, was closed by excavation and off-site disposal in 1972, and the area was backfilled with clean fill and graded. The remaining portion of the ditch was used for discharge of effluent from a pond on FMC property (E-1 pond). The pond was clay lined and was operated from the mid-1970s to 1995 as part of the FMC plant's effluent management and treatment system under a NPDES permit. Effluent from the plant reportedly consisted of cooling tower blowdown, boiler blowdown, softener regeneration brines, and stormwater runoff, which were collected in the E-1 pond and adjusted for pH prior to discharge to the E-1 Ditch. The effluent pond was taken out of service and backfilled with clean fill in mid-1996. In 1987 and 1988, effluent from a groundwater treatment system at FMC also was discharged to the E-1 Ditch.

#### Groundwater

To assess the effects of the waste pile on groundwater quality, down gradient wells W-2 and W-19 were sampled in 1989. These wells appear to have been located on adjacent FMC property. The groundwater samples were analyzed for halogenated VOCs, copper, mercury and thallium (HCI, 1990). No mercury or thallium were detected. Copper was detected at up to 0.21 mg/l which is below the EPA Action Level of 1.3 mg/l for drinking water. The only VOC detected was 1,2 dichloroethane (DCA) at 0.0018 mg/l. HCI (1990) noted that DCA has been found in groundwater in the course of other on-going investigations in the site area, and that there is no evidence that it is associated with the Magnesia Waste Pile.

## Remedial Actions

A general site cleanup was undertaken in 1985 and included the excavation and removal of about 450 CY of copper catalyst pellets, and the removal of visible trash and debris (HCI, 1990). The copper catalyst material was disposed at the IT Corporation Class I landfill in Benicia, California, and the general trash was disposed in a municipal landfill.

Thallium was among the contaminants of concern identified by the DHS; however, only one soil sample collected by DHS contained thallium in concentrations greater than 700 mg/kg (the TTLC). The elevated thallium concentrations in soil/waste were reportedly restricted to a small area east of the main pile. As an interim remedial measure, approximately 67,000 pounds of thallium contaminated soil was removed on April 26, 1990 (ITC, 1991) and disposed at an off-site landfill. Thallium was not detected in six verification soils that were collected from the base of the excavation.

The selected remedial alternative for the main waste pile included excavation and off-site disposal of all hazardous materials (i.e., materials with contaminant concentrations exceeding their respective TTLCs [2,500 mg/kg for copper and 20 mg/kg for mercury]). Identified alternatives for management of magnesia and other materials that were considered non-hazardous included off-site recycling and leaving the material on-site.

Remediation work was performed in 1991 and documented in a Final Remediation Report (ITC, 1991). Three types of waste material were encountered at the subject site: 1) Copper pellet contaminated magnesia; 2) Naphthalene contaminated magnesia; and 3) Waste oil contaminated magnesia. Approximately 5,620 tons of hazardous waste was transported by rail car to the USPCI Grassy Mountain facility in Utah and approximately 4,095 tons were transported to the Chemical Waste Management facility in Kettleman City, California (DTSC, 1992). The naphthalene and waste oil contaminated magnesia was encountered during excavation and was not previously identified in the RI. During remedial work, material suspected of being contaminated with mercury (based on prior sampling data) was placed into interim stockpiles for further sampling. Several 8-point composite samples were collected and analyzed. Mercury was detected at up to 1.3 mg/kg. Because the detected concentrations did not exceed the TTLC for mercury (20 mg/kg divided by the number of samples forming the composite), this material was left on-site (ITC, 1991).

Verification sampling was performed at the completion of contaminated material removal from each excavation (ITC, 1991). Samples of the magnesia material were obtained from the base and the sidewalls of the excavation, and were analyzed for copper, mercury, naphthalene or waste oil, depending on the location. A sampling density of about one sample per 135 square feet of excavated area was utilized. The highest detected copper concentration was 730 mg/kg. The mean copper concentrations for each excavated area ranged from 23 mg/kg to 170 mg/kg. Mercury was detected in verification soil samples at up to 2.2 mg/kg. The mean mercury concentrations ranged from 0.196 mg/kg to 0.511 mg/kg. Naphthalene and waste oil were not detected in verification samples.

## Certification of Completion

In a 28 October 1991 letter, the California Department of Toxic Substances Control (DTSC) stated that the remedial actions have addressed the concerns expressed in the Remedial Action

Plan. A certification form attached to the DTSC letter indicates that *The Department has determined that all appropriate response actions have been completed, that all acceptable engineering practices were implemented and that no further removal/remedial action is necessary.*

The letter also requested that the final report be revised to remove references to "final closure" and indicated that *the actions taken did not achieve the standards as prescribed in 40 CFR 264.258, nor did they include the requirements of 40 CFR 264, Subpart G. Therefore, the Department cannot approve the "certification of site closure" or the "final closure report."*

In a subsequent Fact Sheet (DTSC, 1992), the DTSC states that alkaline (high pH) materials are still present on-site at levels that can cause irritation to human tissue, but are not classified as hazardous waste. It is noted that some of the materials have a pH comparable to laundry soap.

#### Removal of Remaining Non-Hazardous Magnesia

In 1996, the Alameda County Environmental Health Department, Hazardous Materials Division reportedly required further investigation of the remaining magnesia material at the subject site (URS, 2002). Cargill and FMC subsequently proposed to excavate and remove the material and conduct post-removal sampling. Approximately 120,000 CY (as reported by URS) of magnesia material reportedly was removed in 1998 and 1999. An annual progress report (FMC, 1999) indicates that 140,000 CY were removed. The material reportedly was reused at the Waste Management Inc. Altamont and Tri-City landfills as fill for construction of new cells and operation layers. After the material was removed, soil samples were collected from 20 locations. Depending upon the location, the samples were analyzed for copper, mercury and/or thallium. Copper and mercury were detected at up to 160 and 0.189 mg/kg, respectively. Thallium was not detected. Analyses for pH were additionally performed (apparently by an FMC laboratory) on 15 samples collected from an area known to contain gypsum located on the west side of the former waste pile, and on five samples from an area described as a residual magnesia area located outside the southeast portion of the former waste pile; pH levels ranging from 8.3 to 10.3 were reported (URS, 2002).

In a 15 July 2002 letter, the City of Newark Fire Department indicated that they reviewed the post-removal sampling data and that all closure activities for the magnesia pile have been completed as required.

### **3.1.2 Former Newark Sportsman's Club**

#### Site History (Newark Sportsman's Club Area)

Between 1969 and 1995, the NSC leased approximately 18-acres of land on the southeastern portion of the subject site and used it as a recreational outdoor shooting range (Treadwell & Rollo, 2002). This use resulted in surficial and shallow soil deposition of lead shot, residual total lead, and clay pigeon debris containing elevated levels of polycyclic aromatic hydrocarbons (PAHs). In a 1994 cleanup order, the Regional Water Quality Control Board (RWQCB) noted that shooting ranges have existed at the subject site since before World War II.

The Witmer-Tyson Police Dog Training School and the Menlo Park Schutzhund Club (both dog training operations) currently use former NSC site area. Treadwell & Rollo (2002) also noted that approximately ½ to 1 foot of soil was imported from an adjacent area to the south and used to form a pad at the dog training facility; details regarding the soil source area were not provided.

#### Soil Quality Evaluation and Remediation Activities

The lateral and vertical distribution of lead and PAHs was established through several field investigations, involving the collection and analysis of 159 soil samples from 93 locations (Treadwell & Rollo, 2002). Lead concentrations reportedly decrease rapidly with depth, with very little contamination deeper than 0.5 foot below ground surface (bgs). PAHs reportedly were detected only in soil samples collected from clay pigeon debris stockpiles, and in one soil sample collected adjacent to a debris stockpile.

A Remedial Action Workplan (RAW) and associated cleanup criteria were approved by the RWQCB in letter dated 14 January 2002. The RAW selected cleanup criteria for total residual lead of 400 mg/kg, a lead shot count of 10 shot per square foot, and a total PAH concentration of 10 mg/kg.

During site characterization work, a sampling grid was established covering the former NSC shooting area. Of the 90 grid sampling locations, 23 grid areas had sample results exceeding the total lead cleanup criteria, and 9 additional areas had visible lead shot likely exceeding the visual cleanup criteria. Additionally, the four clay pigeon debris stockpiles exceeded the cleanup criteria for PAHs (Treadwell & Rollo, 2002).

Between July and October 2002, the identified lead and PAH impacted soil and debris exceeding the cleanup criteria were removed from the site and sent to appropriate landfills (Treadwell & Rollo, 2002). A total of 5,910 tons were removed. Confirmation samples were collected in the excavation areas and below former stockpile locations. Laboratory analyses of the confirmation samples showed that lead and PAH concentrations were below the cleanup criteria. Lead reportedly was detected at concentrations ranging from 6.6 to 270 mg/kg, with an average lead concentration of 67 mg/kg; twenty-six 4-point composite verification samples were analyzed for lead. Total PAHs were not detected above the cleanup goal of 10 mg/kg; five 4-point composite verification samples were analyzed for PAHs.

#### Additional Remedial Activities

Based on an a 12 December 2003 addendum letter prepared by Cargill and submitted to the RWQCB, approximately 483 tons of additional clay pigeon debris and soil were excavated in 2003 and disposed at off-site landfills. The additional material reportedly was identified during a site walk in November 2002 with the RWQCB. Analyses of final verification samples (consisting of two 3-point composites) reportedly did not detect PAHs.

#### Certification of Completion

In a 10 March 2004 letter, the RWQCB indicated that remedial actions at the former NSC area were completed pursuant to the RAW and that no additional remedial action is necessary.

### 3.1.3 Phase II Soil and Groundwater Investigation

In 2001, the subject site was being considered as a possible location of a planned Ohlone College Campus. In association with the proposed development, a Phase II Soil and Groundwater Investigation of the subject site were performed by Treadwell & Rollo (2001). The report describes work completed at the Magnesia Waste Pile and NSC site areas, which were summarized above in Section 3.1.1 and 3.1.2. Additionally, Treadwell & Rollo evaluated groundwater quality at the subject site and evaluated soil quality at an on-site pistol range; this work is summarized below.

#### Pistol Range Soil Quality Evaluation

The City of Newark has reportedly leased a portion of the subject property (located north of the NSC) since 1975, and continues to use the area as a pistol firing range for local police departments. The pistol range consists of an approximately 15 foot high soil berm located between two serpentinite rock outcrops. Eighteen soil samples were collected from the pistol range area and analyzed for total lead and/or copper (Treadwell & Rollo 2001). Lead was detected in soil within the berm at up to 11,000 mg/kg and up to 190 mg/kg in areas up- and down-range from the berm. Copper was detected at up to 270 mg/kg in soil from the berm and up to 44 mg/kg in other samples.

#### 4-Parties Groundwater Plume

Treadwell & Rollo (2001) noted that several phases of soil and groundwater investigations and remediation have been completed by others at properties adjacent to the subject property. A regional groundwater contamination plume, which has affected the shallow aquifer at properties to the north and east, has been identified by the RWQCB. Four off-site facilities (Ashland Chemical [east], FMC Corporation [north], Romic Chemical [currently SHH] [east], and Jones-Hamilton [east]) have reportedly been named by the RWQCB as the responsible parties and are referred to as the "4-Parties." The shallow groundwater below these facilities, as well as below a portion of the subject property has been impacted with VOCs. The western edge of the 4-Parties plume extends below the northern portion of the subject property, where four on-site groundwater monitoring wells are present (W-25, B-26, B-27 and B-28). Based on sampling data from the on-site and nearby wells, concentrations of several VOCs (predominantly DCA and EDB) exceed drinking water maximum contaminant levels (MCLs). The results of the groundwater sampling for the four well located on the subject site, completed during the most recent semi-annual groundwater sampling event for the former Ashland Chemical Company (adjacent to the east), are summarized in Section 3.2.

#### Groundwater Sampling

To further evaluate on-site groundwater quality, Treadwell & Rollo (2001) collected grab groundwater samples from five additional locations across the subject site. The samples were analyzed for VOCs and total petroleum hydrocarbons as gasoline, diesel and motor oil (TPHg, TPHd and TPHmo). Groundwater at the subject site is reported to be present in two zones, shallow groundwater between depths of 2 and 20 feet, and within the deeper Newark Aquifer at depths between 50 and 70 feet.

VOCs including DCA, carbon tetrachloride and benzene were detected in the grab samples at up to 18, 6.2 and 2.4 micrograms per liter (ug/l), respectively. Treadwell & Rollo stated that the VOCs appeared likely to originate from an off-site source. TPHg, TPHd and TPHmo were detected at up to 63, 1,800 and 4,500 ug/l, respectively. The highest petroleum hydrocarbon levels were detected in a groundwater sample collected on the southwest side of the former magnesia waste pile. Treadwell & Rollo concluded that the TPH concentrations are not high enough to warrant further investigation.

#### **3.1.4 Naturally Occurring Asbestos**

In 2006 and 2007, Berlogar Geotechnical Consultants (Berlogar) performed a geotechnical study of the subject site and evaluate for the presence of naturally occurring asbestos (NOA). The reports describe the subject site as containing a partially buried ridgeline of Franciscan Assemblage bedrock trending northwest/southeast, with two exposed portions. The northwest portion (the location of the former magnesia waste pile) was determined by Berlogar to not contain NOA. Serpentine, which can contain NOA, was identified within the southern area of exposed bedrock (near the pistol range). Analyses of samples collected from the southern hill area detected NOA at concentrations ranging from 0.25 to 6.25 percent.

#### **3.1.5 Cargill Preliminary Environmental Evaluation**

A Preliminary Environmental Evaluation (PEE) document was provided to TRC during a Phase I ESA completed for the subject site in 2011, which was described as an internal Cargill document that summarizes the environmental setting of the subject property. The PEE reportedly was prepared on behalf of Cargill by Teri Peterson of Bureau Veritas (a former Cargill Employee). The following is a brief summary of the information presented in the 27 October 2008 PEE. Much of the information presented in the PEE is consistent with that described above in Sections 3.1.1 through 3.1.4; to avoid repetition, only information not previously summarized is presented below.

At the time of the TRC investigation (2011) the uses of the subject site included 1) bittern truck loading, 2) leased area to Southern Alameda County Radio Controllers (subleased to dog training schools), 3) leased area to City of Newark for use as a pistol range, 4) a license agreement allowing contractors to store equipment on-site, and 5) stockpiling of soil by Cargill. *Note: At the time of Haley & Aldrich's site reconnaissance (8 October 2013), the bittern truck loading area consisted of a gravel area with no observed evidence of spilled bittern, aboveground storage tanks (ASTs) or lined overflow pond, as described below.*

##### Bittern Truck Loading Overflow Ponds

A bittern truck loading area on the southwest corner of the subject site is noted to be unpaved, surrounded by an earth berm, and sloped such that storm water and excess bittern drains to a lined overflow pond. Evidence of bittern spills to the dirt area is reportedly apparent. The bittern is noted to be non-hazardous, but may result in elevated levels of salts in the soil or groundwater. An empty out-of-service AST is noted to be present at the bittern truck loading area, which formerly contained sodium citrate.

The current lined overflow pond was historically not lined, and a second nearby unlined pond was historically present. In about 1987, a liner was installed within the current pond and the

other unlined pond was backfilled with soil. It is noted that the trucks used to haul bittern also may have been used to haul oil. There were reportedly several instances of trucks unloading residual oil into the overflow ponds prior to being loaded with bittern. At least once in 1987, Cargill required the trucking company to clean up free floating oil from the overflow pond. There has been no sampling in the area of the current or former overflow ponds.

### Septic Tank

A septic tank is noted to be present on the north side of the dog training clubhouse.

### Wetlands

An evaluation of wetlands is not within the scope of this Phase I ESA; however, the PEE notes that several wetlands assessments have been conducted for various portions of the subject property and wetlands may exist on other portions of subject property not included in the previous assessments.

### Easements

Two easements reportedly exist on the subject property, one by Pacific Gas and Electric for high-tension power lines that bisect the subject site, and one by Union Sanitary District for sewer pipelines.

### Storm Water Management

The subject site reportedly is covered by a State General Industrial Storm Water Discharge Permit due to residual magnesia material remaining on-site. Information from the State Water Resources Control Board website indicates that the General Industrial Permit requires the implementation of management measures that will achieve the performance standard of best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT). The General Industrial Permit also requires the development of a Storm Water Pollution Prevention Plan (SWPPP) and a monitoring plan. Through the SWPPP, sources of pollutants are to be identified and the means to manage the sources to reduce storm water pollution are described. The General Industrial Permit requires that an annual report be submitted each July 1.

Cargill reportedly conducts sampling of storm water discharge from the subject site, and maintains a SWPPP and monitoring plan. From January 2002 through February 2008, the pH has reportedly averaged 8.5, total suspended solids (TSS) have averaged 137 mg/l, and specific conductance has averaged 26,830 micro-mhos per centimeter (umhos/cm). Iron has been detected at an average of 7.2 mg/l. The sampling results were compared by Cargill to EPA benchmark values. The benchmark for pH was exceeded in one sample, the benchmark for TSS was exceeded in five samples, the benchmark for iron was exceeded in four samples and the benchmark for specific conductance was exceeded in all samples. The PEE notes that elevated pH, TSS and specific conductance are consistent with small amounts of residual magnesia solids in the storm water. The benchmarks are not numeric storm water effluent limits, are not related to or necessarily protective of any specific receiving water, and exceedances of the benchmarks are not automatically considered permit violations. When sample results exceed one or more of

the benchmarks, the USEPA recommends dischargers reevaluate the effectiveness of their BMPs and develop, when appropriate, additional BMPs.

### Imported Soil

Based on the PEE and discussions with Cargill representatives, soil has been imported to the subject site from multiple off-site sources. Some of the soil is subsequently used by Cargill on-site and at other Cargill properties during construction activities, such as levee maintenance. Prior to accepting soil at the subject site, Cargill requires that laboratory analyses be performed, which are reviewed by Cargill staff. Cargill provided a list of 45 properties from which soil has been imported, along with the laboratory analytical data for soil samples collected from the properties. The list included the import source property address/location and stated the current use of each property (i.e., the property use at the time the soil was exported). Based on hand written notes present on the records, the total volume of imported soil is approximately 110,000 CY; the volume imported from individual properties appears to range between 150 CY to 15,000 CY.

Based on review of this data by TRC and reported in their 2011 Phase I ESA, analyses for organochlorine pesticides, metals (17 CAM Metals), and gasoline, diesel and oil range petroleum hydrocarbons were typically performed. Many of the samples were additionally analyzed for VOCs, SVOCs, PCBs and asbestos. The number of samples analyzed from each source property was variable, but commonly ranged from one to four. Based on a cursory review of the data, the reported analyte concentrations were generally well below residential screening levels (ESLs [RWQCB 2008] and California Human Health Screening Levels (CHHSLs) [CalEPA 2005 and 2009]). One noted exception was a sample from an 8,000 CY import source (2855 Story Road, San Jose) in which oil and grease was detected at 1,400 mg/kg in one of the soil samples. The ESL for oil range hydrocarbons (RWQCB, 2008) is 370 mg/kg. Oil and grease was reported at 36.2 and 12.0 mg/kg in two other samples; no TPHg, TPHd, BTEX, organochlorine pesticides or PCBs were detected.

#### **3.1.6 2011 TRC Phase I ESA**

The most recent environmental document prepared for the subject site and reviewed by Haley & Aldrich is the Phase I ESA completed by TRC and dated 30 August 2011. At the time of TRC's investigation, uses of the subject site included: City of Newark pistol range, bittern truck loading, stockpiling of soil by Cargill, storage of construction equipment and material, and use by Southern Alameda Radio Controllers and dog training schools. TRC identified the following RECs at the subject site. TRC's suggested recommendations to address these RECs are provided in italics.

- Former Magnesia Waste Pile Area
  - *During the prior remediation work, residential use of the subject site was not anticipated and it does not appear that residential use was considered when establishing site cleanup goals. However, analyses of verification soil samples collected following both removal actions generally did not detect copper, mercury or thallium (the primary contaminants) above current residential screening levels (CHHSLs, CalEPA 2005). The sampling results appear to suggest that the subject site is suitable for residential use. However, prior to purchasing the site,*

*consideration should be given to obtaining regulatory agency concurrence. Additionally, some residual waste material that is generally white in color remains at the subject site. The material reportedly is alkaline (high pH), which can cause irritation to human tissue. The DTSC noted that some of the materials have a pH comparable to laundry soap. The residual waste materials may not be suitable in a residential setting; thus, it was recommended that they be removed or otherwise managed on-site to limit exposure to residential occupants.*

■ Impacted Groundwater from Off-site Sources

- *Because of the planned residential development of the subject site, it was recommended that soil vapor sampling be conducted in the vicinity of the former waste pile and areas overlying impacted ground water to evaluate the potential for vapor intrusion into occupied structures and potential health risks, if any. It was also recommended that the petroleum hydrocarbon and benzene sampling data be provided to the RWQCB and/or Alameda County Water District (ACWD) to evaluate if these agencies may require further actions associated with these contaminants.*

■ Bittern Truck Loading Area

- *It was recommended that soil and ground water quality in the vicinity of the truck loading area and overflow ponds be evaluated to assess the potential that bittern loading activities have impacted the subsurface.*

■ Former NSC Area

- *In a 10 March 2004 letter, the RWQCB indicated that remedial actions at the former NSC area were completed pursuant to the RAW and that no additional remedial action is necessary. It was recommend that the RWQCB be informed that the subject site is now being considered for residential development and that confirmation be obtained that no further remedial action is necessary.*

■ Pistol Range

- *Lead and copper were detected in soil from the pistol range area at up to 11,000 mg/kg and 270 mg/kg, respectively. The lead concentrations exceed both the residential CHHSL (80 mg/kg) and the TTLC (1,000 mg/kg). Waste material with concentrations above the TTLC is classified as a hazardous waste. It was recommended that a remedial action plan be developed for this area and that remediation be completed under regulatory agency oversight.*

■ Naturally-Occurring Asbestos

- *Analyses of samples collected from the southern hill area detected NOA at concentrations ranging from 0.25 to 6.25 percent. Mitigation measures to prevent the release of asbestos fibers from this material will be required during site development activities. Capping of the material below clean fill is often an approved mitigation measure. Air monitoring likely will be required if the NOA is*

*disturbed. The Bay Area Air Quality Management District (BAAQMD) enforces the California Airborne Toxic Control Measure (ATCM) which regulates the NOA.*

- E-1 Drainage Ditch
  - *Although current water quality in the E-1 Ditch is not likely to be impacted by historic discharges, sediment within the E-1 Ditch could contain residual contaminants. It was recommended that sediment quality in the E-1 Ditch be evaluated.*
- Evaporation Ponds and Detention Basin
  - *Because residual contaminant concentrations can accumulate in sediments within detention basins and evaporation ponds, it was recommended that general soil quality in these areas be evaluated.*
- Railroad Tracks and Roadways
  - *Abandoned railroad tracks were observed on the northwest portion of the subject site. Assorted chemicals were often historically used for dust suppression and weed control along rail lines. Consideration should be given to evaluating soil quality along the tracks. Also, the wooden rail ties typically contain toxic preservatives and should be removed and appropriately disposed prior to development. Cargill reported that waste oil may historically have been applied to on-site gravel roadways for dust control purposes. Soil quality along the roadways should be evaluated. Note: Based on information provided by Mr. Pat Mapelli, the Real Property Manager with Cargill and the “Key Site Contact” for this Phase I ESA, the railroad tracks were located on the FMC property adjoining to the north and connected to a barge channel offsite. He also indicated that the dirt access roads on the subject site were sprayed with bittern as a dust suppressant and not waste oil.*
- Site Management Plan
  - *Based on the long industrial history of the subject site, previously unidentified buried structures, debris or impacted soil may be encountered during site development activities; these materials may require special handling and disposal. To limit construction delays, it was recommended that a Site Management Plan (SMP) be developed to establish management practices for handling these materials/structures if encountered.*

### **3.2 Relevance of Ashland Chemical Company Reports to Subject Site**

Haley & Aldrich was provided with a copy of Access Agreement (Appendix B), pursuant to RWQCB Site Cleanup Requirements (SCR) Order No. 89-109, which allows Ashland Chemical Company access to the subject site for the purposes of collecting groundwater samples from four groundwater monitoring wells located on the northeastern portion of the subject site. These groundwater monitoring wells (W-25, B-26, B-27 and B-28) are part of a groundwater monitoring network that originally

consisted of 30 monitoring wells and are used to assess the impacts to groundwater offsite and hydrologically downgradient of the Ashland Chemical Company's property. Currently, only groundwater monitoring wells B-26, B-27 and B-28 are required to be sampled under the revised SCR Order R2-2005-0038, which was adopted by the RWQCB on 14 September 2005. Monitoring wells B-26, B-27 and B-28 are located in the Shallow Zone groundwater, which is first encountered at depths ranging from approximately 3 to 12 feet bgs. To provide a summary of groundwater monitoring activities completed at the adjoining Ashland Chemical Company, Haley & Aldrich has reviewed the following documents and summarized information relevant to the subject site.

*2011 Three-Year Status Report, Prepared for: Ashland Inc., Former Ashland Chemical Company, 8610 Enterprise Drive, Newark, California, prepared by EHS Support and dated 31 August 2011.*

Based on the results from implementation of soil remedial excavation and groundwater attenuation monitoring, the following conclusions are summarized:

#### **Soil Remediation Excavation Activities**

- A total of approximately 22,700 CY of soil exceeding SCRs from within the former tank farm and warehouse areas at the subject site were mitigated by remedial excavation and offsite disposal or ex-situ soil vapor extraction (SVE) treatment. Residual chemicals of concern (COCs) in soil borings located within and at the perimeter of the 2005/2006 remedial excavation area are below SCRs, thus current property soil conditions meet the requirements of SCR Order No. R2-2005-0038.
- An estimated amount of approximately 13,301 pounds of total VOC mass was removed during the 2005/2006 excavation activities. Soil remedial excavation activities removed approximately 99% of the total VOC mass in Shallow Zone soil which exceeds the estimate of 96% referenced in SCR Order No. R2-2005-0038.
- Results of the Environmental Risk Assessment (ERA) indicate the presence of a moderate risk from COCs in soil and shallow groundwater and no apparent ecological or groundwater migration risk. Under the current industrial setting, no additional removal actions are required pursuant to SCR Order No. R2-2005-0038.

#### **Attenuation Groundwater Monitoring Activities**

- COCs exceed SCRs in Shallow Zone groundwater in wells located in the vicinity of the former tank farm at the subject site and in the upgradient direction. Only the COC 1,2-DCA exceeds the SCR in Newark Aquifer wells D-1 and D-3 at the subject site, which is associated with offsite conditions beneath the adjacent property at FMC.
- Groundwater data indicate that, since remedy implementation, Shallow Zone source area impacts above SCRs are limited to subject site groundwater as COCs have not exceeded SCRs in cross-gradient and downgradient Shallow Zone groundwater.
- Groundwater data at the subject site indicate that downward migration of COCs from the Shallow Zone is controlled because of a prominent upward hydraulic gradient from the Newark Aquifer that is also segregated by the 20 feet thick Newark Aquitard.

- Since implementation of the remedial activities, the estimated total VOC mass reduction in groundwater is 88%, or 802 pounds, which demonstrates that the program has been effective in reducing the VOC mass in Shallow Zone groundwater.
- On the basis of these results, there should be no imminent human health risk under current site conditions. Furthermore, although residual VOC concentrations in the former tank farm area still exceed SCRs, there is no risk to impacting the underlying Newark Aquifer because of a prominent upward groundwater gradient still exists beneath the subject site. Future property re-development, however, may require an RMP with institutional and/or engineering controls to eliminate potential exposure for human health risk concerns.
- Groundwater samples were collected at B-26, B-27 and B-28 on 26 April 2011. A groundwater sample was not collected at W-25. Groundwater samples were analyzed for VOCs by US EPA Method 8260B. VOCs were not detected above laboratory reporting limits in the groundwater samples collected from B-26, B-27 and B-28 with the following exceptions: Concentrations of 1,1-DCA (0.93 ug/l) and 1,2-DCA (1.0 ug/l) were detected in the groundwater sample collected from B-27.

*2013 First Semi-Annual Monitoring Report (January through June 2013), Prepared for: Ashland Inc., Ashland Chemical Company, 8610 Enterprise Drive, Newark, California, prepared by EHS Support and dated 30 July 2013.*

The report summarizes the results of groundwater monitoring and remediation activities for the 2013 first semi-annual (January through June) at the adjoining former Ashland Chemical Company facility. It also provides a statistical assessment of residual VOCs in groundwater and an outline of planned activities for the next semester. The report was prepared pursuant to the RWQCB SCR Order No. R2-2005-0038. Groundwater was purged and sampled from 22 Shallow Zone wells and 3 Newark Aquifer wells between 23 and 25 April 2013. The following summary of findings was developed based on the results of the first Semi-Annual 2013 reporting period:

- Benzene was the only aromatic VOC concentration detected above the SCR in Shallow Zone groundwater. These exceedances occurred in wells B-33, B-37 and B-38; wells located within the former tank farm area.
- Chlorinated compounds exceeding the SCRs included 1,2-DCA (B-13 and B-31), cis-1,2-DCE (B-33), and vinyl chloride (B-33, B-36, and B-37). A summary of the historical trends indicates that constituent concentrations in Shallow Zone groundwater have been decreasing over time.
- The highest concentrations of total chlorinated VOCs were detected in monitoring wells (B-33, B-36, and B-37) located in the former source area (the former tank farm and warehouse building). Groundwater samples collected from areas immediately down-gradient of this area only yielded trace to non-detect concentrations of chlorinated VOCs.

- Results of the statistical assessment indicate that: 1) there is a continuing likelihood of 1,2-DCA migration from offsite up-gradient sources in Shallow Zone groundwater, 2) additional degradation is required to reduce the concentrations of benzene, cis-1,2-DCE, and VC to concentrations below SCRs in the source area wells, and 3) there is no indication of lateral migration of dissolved COCs from the source area wells to the down-gradient and cross-gradient wells.
- Concentration trends in Shallow Zone groundwater for key historical COCs show that the upper concentration limit has decreased during and after the 2005 and 2006 remedial excavation events. The decay trends indicate that the dissolved COCs in Shallow Zone groundwater continue to decrease toward meeting SCRs. Key COCs including xylenes, toluene, PCE, and TCE have already decreased to concentrations below the SCRs.
- Groundwater samples were collected at B-26, B-27 and B-28 on 23 April 2013. A groundwater sample was not collected at W-25. Groundwater samples were analyzed for VOCs by US EPA Method 8260B. VOCs were not detected above laboratory reporting limits in the groundwater samples collected from B-26, B-27 and B-28. The following J-flag (trace concentrations) were detected in the groundwater sample collected from B-27: 1,1-DCA (0.49J ug/l) and 1,2-DCA (0.48J ug/l).

The following activities were planned at the subject site during the third and fourth quarters of 2013 (July through December 2013):

#### Closure Assessment

- Conduct a shallow soil and groundwater investigation in the former rail spur area along the southeast property boundary.
- Develop a Health Risk Assessment (HRA) Work Plan that includes a site conceptual model and a description of the methodologies that will be used to assess whether there are potential human health and ecological risks associated with future development of the Property.

#### 0.33-Acre Lot Line Adjustment

- Submit results of a soil and groundwater investigation for the 0.33-acre property subject to a lot line adjustment.
- Update the Property deed restriction and finalize a SCR Amendment that incorporates the lot line adjustment.

#### Groundwater Monitoring

- Measure groundwater levels in October 2013 for the monitoring well-field specified in the Modified SMP per Order R2-2005-0038.
- Conduct semi-annual groundwater sampling in October 2013 for VOCs in 25 monitoring wells as specified in the Modified SMP per Order R2-2005-0038.

## **4. SITE HISTORY**

### **4.1 Past Usage of the Subject Site**

Haley & Aldrich assessed past usage of the subject site through a review of aerial photographs dated 1939, 1946, 1958, 1968, 1979, 1982, 1993, 1999, 2005, 2006, 2009, 2009 and 2012; and historical topographic maps dated 1899, 1915, 1947, 1948, 1959, 1968, 1973, 1980, 1993 and 1997. According to EDR, there is no Sanborn Fire Insurance Map coverage for the subject site. A search of city directories dated between 1920 and 2012 was performed by EDR. No listings for the subject site were identified.

In the reviewed 1939 and 1946 aerial photographs, areas of disturbed soil and white material are visible on the northwestern portion of the subject site. The white material is possibly associated with salt evaporation activities to the west of the subject site. A drainage ditch, identified as the E-1 Ditch (see Section 3.1.1), is visible crossing over the central portion of the subject site from near the northeastern corner to the southwestern corner of the property. A small, unidentifiable area of development or disturbed soil is visible as a rectangular-shaped area immediately west of the E-1 Ditch along the northern property line. This area may have been a detention basin associated with use of the E-1 Ditch. An unimproved access road leading to a small structure is visible on the southern half of the subject site. Areas of disturbed soil are also visible on the central and southeastern portions of the subject site. In the 1958 aerial photograph, an additional small structure is visible on the eastern side of the subject site, east of an area of disturbed soil in the southeastern section of the property. Portions of the subject site to the east of the E-1 Ditch appear to be used as salt evaporation ponds. In the 1968 through 1993 aerial photographs, several low-lying areas on the northwestern portion of the subject site appear to contain water and are either retention basins or salt evaporation ponds. An increase in light-colored or white material is visible on the northwestern portion of the subject site, west of the E-1 Ditch. Several structures are visible in two areas of development on the southeastern portion of the subject site near the eastern property line. This portion of the subject site has historically been associated with the NSC shooting range and dog training facility. A small body of water is visible on the southwestern corner of the subject site in the 1979 through 2010 aerial photographs. In the 1999 through 2012 aerial photographs, the northwestern portion of the subject site appears to show disturbed soil, possibly stockpiled material. In the 2005 through 2012 aerial photographs, an unimproved access road is visible leading from the northeastern corner of the subject site and circling around the stockpiled material on the northwestern portion of the subject site. With the exception of the areas of development previously described on the southeastern portion of the subject site, equipment stored on the northwestern portion of the subject site and the E-1 Ditch, the majority of the subject site appears to be undeveloped.

On the 1899 and 1915 topographic maps, there are no structures, tanks, or wells depicted on the subject site. On the 1947 topographic map, increasing elevation contours are depicted on the northwestern and southeastern portions of the subject site and a drainage channel (E-1 Ditch) is depicted traversing the subject site from near the northeastern to southwestern portions of the subject site. On the 1948 topographic map, a mining symbol is depicted on the northwestern portion of the subject site in the same area as the increasing elevation contours described on the 1947 topographic map. On the 1959 topographic map, water channels or dikes, likely outlining salt evaporation ponds, which are depicted to the south and west of the subject site, are depicted on the central portion of the subject site. Symbols depicting overhead utility lines are depicted traversing the subject site and a boundary showing the city limits of Newark and Fremont is depicted on the northwestern and southwestern portions of the subject

site. On the 1968 through 1997 topographic maps, only the symbols representing the overhead utility lines and natural rock outcroppings are depicted on the subject site.

Copies of the aerial photographs, topographic maps and city directory abstract are included in Appendix B.

#### **4.2 Past Usage of Adjoining Properties**

Haley & Aldrich assessed past usage of the adjoining properties through a review of aerial photographs dated 1939, 1946, 1958, 1968, 1979, 1982, 1993, 1999, 2005, 2006, 2009, 2009 and 2012; and historical topographic maps dated 1899, 1915, 1947, 1948, 1959, 1968, 1973, 1980, 1993 and 1997. According to EDR, there is no Sanborn Fire Insurance Map coverage for the adjoining properties.

In the reviewed 1939 and 1946 aerial photograph, the adjoining properties to the northeast, east and south appear to be predominately undeveloped. Salt evaporation ponds are visible to the west of the subject site and industrial development consisting of multiple structures and ASTs are visible on the adjoining property to the north. In the 1958 aerial photograph, additional areas of industrial development are visible to the northeast and east of the subject site. These adjoining areas of industrial development consist of multiple structures, ASTs, stockpiled material and railroad spurs. In the 1968 through 1993 aerial photographs, additional industrial development is visible on the adjoining properties to the north, northeast and east of the subject site. The adjoining properties to the south and southwest remain undeveloped and the adjoining property to the west continues to be used as salt evaporation ponds. Beginning in the 1999 aerial photograph and continuing through the 2006 aerial photograph, structures and ASTs associated with the adjoining industrial development to the north, northeast and east have been removed and/or demolished and it appears that industrial activities at these facilities have significantly diminished or ceased. In the 2009 through 2012 aerial photographs, four structures are visible on the adjoining property to the north, one structure is visible on the adjoining property to the northeast and several small structures with concrete foundations and paved areas from previous industrial development are visible to the east of the subject site. The adjoining properties to the south and southeast are undeveloped and the adjoining properties to the west and southwest are salt evaporation ponds.

On the 1899 and 1915 topographic maps, there appears to be no development depicted on the adjoining properties. Central Newark is depicted to the northeast, “Crystal Salt Works” is depicted to the south-southeast and Southern Pacific railroad tracks are depicted to the north and northwest of the subject site on the 1915 topographic map. On the 1947 topographic map, multiple structures and tanks labeled as “Chlorine Works” are depicted adjoining to the north and “Salt Evaporating Ponds” are depicted to the west and south of the subject site. On the 1959 topographic map a railroad spur and a single industrial structure is depicted to the east of the subject site. On the 1973 through 1980 topographic maps, additional structures are depicted on the industrial properties to the north and east of the subject site. The structures previously depicted on the adjoining property to the north are not shown on the 1993 and 1997 topographic maps. A large rectangular structure and a small structure are depicted adjoining to the east of the southern portion of the subject site. The Newark and Fremont city limits are depicted further to the west, beyond the salt evaporation ponds adjoining to the west of the subject site.

Copies of the aerial photographs and topographic maps are included in Appendix B.

## 5. ENVIRONMENTAL RECORDS REVIEW

### 5.1 Standard Environmental Records Review

Haley & Aldrich used the electronic database service EDR to complete the environmental records review. The database search was used to identify properties that may be listed in the referenced agency records, located within the ASTM-specified approximate minimum search distances as shown in the table below. Section 5.1.1 presents a description of each database searched.

| Database Searched  | Approximate Minimum Search Distance | Subject Site Listed? | Number of Facilities within Search Distance |
|--|-------------------------------------|----------------------|---|
| NPL Sites  | 1 mile                              | No                   | 0   |
| Delisted NPL Sites   | 0.5 mile                            | No                   | 0   |
| CERCLIS Sites  | 0.5 mile                            | No                   | 0   |
| CERCLIS-NFRAP Sites  | 0.5 mile                            | No                   | 6   |
| Federal ERNS   | Site only                           | No                   | 0   |
| RCRA non-CORRACTS TSD Facilities                                       | 0.5 mile                            | No                   | 0   |
| RCRA CORRACTS TSD Facilities   | 1 mile                              | No                   | 4   |
| RCRA Generators  | Site & Adjoining                    | No                   | 3   |
| RCRA -Non Generators   | Site & Adjoining                    | No                   | 0   |
| Federal Institutional Controls/Engineering Controls                    | Site Only                           | No                   | 0   |
| US Brownfield  | 0.5 mile                            | No                   | 0   |
| State and Tribal Equivalent NPL Sites (CA RESPONSE)                    | 1 mile                              | Yes                  | 3   |
| State and Tribal Equivalent CERCLIS Sites ENVIROSTOR                   | 1 mile                              | Yes                  | 9   |
| State and Tribal Registered Storage Tanks                              | Site & Adjoining                    | No                   | 0   |
| State FID Underground Storage Tank                                     | Site & Adjoining                    | No                   | 0   |
| SWEEPS Underground Storage Tank  | Site & Adjoining                    | No                   | 0   |
| Historical UST Registrations (HIST UST)                                | Site & Adjoining                    | No                   | 2   |
| Aboveground Storage Tank (AST)   | Site & Adjoining                    | No                   | 0   |
| HAZNET   | Site Only                           | No                   | 0   |
| State and Tribal Landfills and Solid Waste Disposal Sites (WMUDS/SWAT) | 0.5 mile                            | No                   | 2   |
| State and Tribal Leaking Storage Tanks (LUST)                          | 0.5 mile                            | No                   | 5   |
| State and Tribal Institutional Controls/Engineering Controls           | Site Only                           | No                   | 0   |
| State and Tribal Voluntary Cleanup Sites                               | 0.5 mile                            | No                   | 0   |
| State and Tribal Brownfield Sites                                      | 0.5 mile                            | No                   | 0   |

| Database Searched  | Approximate Minimum Search Distance | Subject Site Listed? | Number of Facilities within Search Distance |
|--|-------------------------------------|----------------------|---|
| State Spills, Leaks, Investigation and Cleanup (SLIC)                | 0.5 mile                            | No                   | 19  |
| Recycling Facilities in California (SWRCY)                           | 0.25 mile                           | No                   | 0   |
| State CORTESE  | 0.5 mile                            | No                   | 4   |
| National Pollutant Discharge Elimination System (NPDES)              | Site Only                           | No                   | 0   |
| State Dry Cleaner Facilities   | 0.25 mile                           | No                   | 0   |
| State California Hazardous Materials Incident Report System (CHMIRS) | Site Only                           | No                   | 0   |
| State No Further Action Determination (NFA)                          | 0.25 mile                           | No                   | 0   |
| State – Unconfirmed Properties Referred to Another Agency (REF)      | 0.25 mile                           | No                   | 0   |
| State – School Property Evaluation Program (SCH)                     | 0.25 mile                           | No                   | 0   |
| State – Properties Needing Further Evaluation (NFE)                  | 0.25 mile                           | No                   | 0   |
| HIST CAL-SITES   | 1 mile                              | No                   | 0   |
| TOXIC PITS   | 1 mile                              | No                   | 1   |
| Consent  | 1 mile                              | No                   | 0   |
| HAZNET   | Site only                           | No                   | 0   |
| EMI  | Site Only                           | No                   | 0   |
| DEED   | 0.5 mile                            | No                   | 1   |
| Notify 65  | 1 mile                              | No                   | 0   |

Haley & Aldrich also searched the Orphan Site List provided in the EDR report for the subject site and facilities adjoining the subject site. Orphan sites are those that, due to incorrect or incomplete addresses, could not be mapped. According to EDR Orphan list, the following reports were reviewed for the subject site: Cargill, Inc. Hill Parcel Area (CA NPDES, CA WDS), Leslie Salt Co. Magnesia Pile (CERC-NFRAP), Cargill Salt (CA HAZNET), Cargill, Inc. (FINDS), Leslie Salt (CA BOND EXP. PLAN), Cargill Inc./Leslie Salt (US MINES) and Cargill, Inc. (ICIS). These supplemental reports were reviewed and either identify the facility as a salt mine, an active NPDES facility or are related to investigations previously described in Section 3 of this report. The complete EDR report and the supplemental Orphan reports are provided in Appendix C.

### 5.1.1 Descriptions of Databases Searched

Numerous regulatory databases were searched during this Phase I ESA. Each database reviewed is described in the EDR report presented in Appendix C. Those databases required by the ASTM E 1527-05 Standard are identified below.

1. **NPL Sites:** The National Priorities List (NPL) is a list of contaminated sites that are considered the highest priority for cleanup by the U.S. Environmental Protection Agency (USEPA).

2. **Delisted NPL Sites:** The Delisted NPL is a list of formal NPL sites formerly considered the highest priority for cleanup by the USEPA that met the criteria of the National Oil and Hazardous Substances Pollution Contingency Plan (NCP) for deletion from the NPL because no further response was appropriate.
3. **CERCLIS Sites:** The Comprehensive Environmental Response, Compensation, and Liability Act Information System (CERCLIS) list identifies sites which are suspected to have contamination and require additional investigation to assess whether they should be considered for inclusion on the NPL.
4. **CERCLIS-NFRAP Sites:** CERCLIS-NFRAP status indicates that a site was once on the CERCLIS List but has No Further Response Actions Planned (NFRAP). Sites on the CERCLIS-NFRAP List were removed from the CERCLIS List in February 1995 because, after an initial investigation was performed, no contamination was found, contamination was removed quickly, or the contamination was not significant enough to warrant NPL status.
5. **Federal ERNS:** The Federal Emergency Response Notification System (ERNS) list tracks information on reported releases of oil and hazardous materials.
6. **FINDS:** This Facility Registry System points to other sources such as permit compliance, emissions tracking, and enforcement docket cases which are listed for the site.
7. **HAZNET:** This is a list of hazardous waste manifests kept by the California Environmental Protection Agency (Cal EPA).
8. **RCRA non-CORRACTS TSD facilities:** The Resource Conservation and Recovery Act (RCRA) non-CORRACTS TSD Facilities List tracks facilities which treat, store, or dispose of hazardous waste and are not associated with corrective action activity.
9. **RCRA CORRACTS TSD facilities:** The RCRA CORRACTS TSD Facilities list catalogues facilities that treat, store, or dispose of hazardous waste and have been associated with corrective action activity.
10. **RCRA Generators:** The RCRA Generator list is maintained by the USEPA to track facilities that generate hazardous waste.
11. **Federal Institutional Controls/Engineering Controls:** The Federal Institutional Control list and Engineering Control list are maintained by the USEPA. Some Institutional Control and Engineering Control information may not be made publicly available and therefore will not be included on this registry.
12. **State and Tribal Equivalent NPL/CERCLIS Sites:** The ASTM E 1527-05 Standard requires searching “State and Tribal Equivalent CERCLIS Sites.” In California, the equivalent CERCLIS is the Cal-Sites database, which is maintained by the Department of Toxic Substance Control (DTSC).

13. **State and Tribal Registered Storage Tanks:** In California, local regulatory agencies (e.g., County health departments and fire departments) and the State Water Resources Control Board (SWRCB) maintain lists of aboveground and underground storage tanks registered with those agencies (e.g., County health departments). For tribal property, the USEPA Region 9 maintains a list of underground storage tanks on Indian land.
14. **State and Tribal Landfills and Solid Waste Disposal Sites:** In California, the SWRCB in coordination with the RWQCBs and the Integrated Waste Management Board (IWMB) maintain lists of regulated waste disposal sites.
15. **State and Tribal Leaking Storage Tanks:** In California, the SWRCB in coordination with the RWQCBs maintain lists of Leaking Storage Tanks (LUST/LAST). The LUST/LAST lists are a listing of release sites that have an underground or aboveground storage tank listed as the source. For tribal property, the USEPA Region 9 maintains a list of leaking USTs on Indian land.
16. **State and Tribal Institutional Controls/Engineering Controls:** The USEPA maintains lists of sites with Institutional controls or Engineering controls in place. In addition, DTSC maintains a list of environmental deed restrictions.
17. **State and Tribal Voluntary Cleanup Sites:** In California, the DTSC, RWQCBs, and local regulatory agencies (e.g., County health departments) maintain lists of Voluntary Cleanup sites.
18. **State and Tribal Brownfield Sites:** In California, the DTSC maintains a list of Brownfield sites which includes any property where a redevelopment or re-use may be compromised by the presence or presumed presence of hazardous materials or petroleum.
19. **Other State Hazardous Waste Sites and Releases:** In California, the Cal/EPA including DTSC, and the SWRCB including RWQCBs have created and/or maintain databases that identify hazardous waste sites and locations of hazardous substance releases/spills. These databases include:
  - **SLIC** – The Spills, Leaks, Investigation and Cleanup (SLIC) database maintained by the RWQCBs identifies sites that are being investigated and/or remediated for known releases other than those associated with leaking USTs.
  - **AST** – A list of registered aboveground storage tanks from the RWQCB.
  - **AWP** – The Annual Workplan Sites list, formerly the Bond Expenditure Plan (BEP) list, maintained by DTSC, identifies known hazardous substance sites targeted for cleanup.
  - **CA FID UST** – Facility Inventory database contains a historical listing of active and inactive underground storage tank locations from the State Water Resources Control Board. This has not been updated since 1998.
  - **CORTESE** – The CORTESE Hazardous Waste and Substances Sites list includes a list of public drinking water wells with detectable levels of

contamination, hazardous substance sites selected for remedial action, sites with known toxic material identified through the abandoned site assessment program, sites with USTs having a reportable release, and all solid waste disposal facilities from which there is known migration. The sites on this list were those included on the SWRCB Leaking Underground Storage Tank (LUST) list, the IWMB Solid Waste Information System (SWF/LF, also referred to as SWIS), and the DTSC Cal-Sites. The CORTESE listing is no longer updated.

- **ENVIROSTOR** – The DTSC database identifies sites that have known contamination or for which there may be reason to investigate further. It consists of NPL, state response, voluntary cleanup and school sites.
- **HIST UST** – Hazardous Substance Storage Container database is a historical listing of UST sites.
- **LUST** – Geotracker’s Leaking Underground Fuel Tank Report. LUST records contain an inventory of reported leaking underground storage tank incidents. This list was last updated on 9/17/2013.
- **NOTIFY 65** - Notify 65 records contain facility notifications about any release that could impact drinking water and thereby expose the public to a potential health risk. The data comes from the SWRCB’s Proposition 65 database.
- **CHMIRS** - The California Hazardous Material Incident Report System (CHMIRS), maintained by the Cal/EPA Office of Emergency Services, contains information on reported hazardous material incidents (accidental releases or spills).
- **HIST CAL\_SITES** – Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. It has been replaced by ENVIROSTOR.
- **TOXIC PITS** – Database identifies facilities suspected of containing hazardous substances where cleanup has not yet been completed. The data comes from the SWRCB.
- **DRY CLEANERS** – The source of this list is the DTSC.
- **NFA** - No Further Action Determination (NFA) sites are properties for which DTSC has made a clear determination that the property does not pose a problem to the environment or to public health.
- **REF** - Unconfirmed Properties Referred to Another Agency (REF) sites are properties where contamination has not been confirmed and which were determined as not requiring direct DTSC Site Mitigation Program action or oversight. Accordingly, these sites have been referred to another state or local regulatory agency.
- **SCH** - School Property Evaluation Program (SCH) sites are proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the

Cal-Sites category depending on the level of threat to public health and safety or the environment they pose.

- **DEED** – database includes facilities with Deed/Land Use Restrictions The DTSC Site Mitigation and Brownfields Reuse Program list includes sites cleaned up under the program’s oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste permit.
- **NFE** - Properties Needing Further Evaluation (NFE) are properties that are suspected of being contaminated. These are unconfirmed contaminated properties that need to be assessed using the Preliminary Endangerment Assessment (PEA) process. PEA in Progress indicates properties where DTSC is currently conducting a PEA. PEA Required indicates properties where DTSC has determined a PEA is required, but it is not currently underway.
- **SWEEPS UST** – This underground storage tank listing was maintained only in the 1980s.
- **UST** – Active UST facilities list is gathered from local regulatory agencies. This list was last updated on 9/17/2013.

### 5.1.2 Detailed Description of Relevant Subject Site Listings

In addition to the databases previously identified in the Orphan Site List, the subject site is also listed in the CA RESPONSE, CA HIST Cal-Sites and CA ENVIROSTOR databases. A description of these listings is summarized below.

Leslie Salt/FMC Magnesia Waste (EDR Map ID G26), listed west of Enterprise Drive. These databases refer to the activities related to the removal and remediation of the Magnesia Waste Pile (see Section 3.1.1). According to the CA HIST Cal-Sites database, the lead agency for this investigation was the DTSC and as of 24 October 1991 the status is reported to be “certified as having been remediated satisfactorily under DTSC oversight.” The database further indicates that material contaminated with copper, naphthalene and oily wastes were excavated and disposed of at the USPCI Class I Landfill in Clive, Utah. Although the Leslie Salt/FMC Magnesia Waste Pile was been satisfactorily remediated under DTSC oversight, the former Magnesia Waste Pile is considered a REC to the subject site.

### 5.1.3 Detailed Descriptions of Relevant Nearby Site Listings

As previously indicated, the database search identified a number of facilities on the database within the minimum search radii. However, it is Haley & Aldrich’s opinion that based on the case status and/or hydrogeologic gradient of some of the facilities relative to the subject site, only those facilities adjacent to the subject site and/or up-gradient with respect to inferred groundwater flow (to the west-southwest), would have the potential to affect the subject site. Groundwater contamination is known to exist beneath the subject site. The impacted groundwater is a result of historical operations at surrounding industrial operations and is considered a REC to the subject site. Details on subsurface investigations completed at the subject site and adjoining properties, are provided in Section 3 of this report. Refer to the database report in Appendix C for complete listings and facility details.

Former Ashland Chemical Site, 8610 Enterprise Drive (Map ID B3): This address, located adjoining to the east of the subject site, is listed in the SLIC and ENVIROSTOR, databases. The ENVIROSTOR database indicates that this facility is under oversight by the RWQCB. The SLIC database indicates that as of 6 April 2009 the status of the subject site, with regards to the San Francisco Bay RWQCB (Region 2), is “Open-Verification Monitoring” with “Other Groundwater (uses other than drinking water) Affected.” The SLIC database provides a site history that in summary indicates the following: “Ashland operated a shallow groundwater pump and treatment system from 1982 to 2005. 22,700 cubic yards of VOC impacted soil was excavated in 2005-2006 in the tank farm area and former warehouse area. In 2003 a deed restriction was filed and recorded with Alameda County. All buildings and structures have been razed and the property is presently vacant. It is likely to be developed in accordance with the City of Newark’s AREA 2 Specific Plan.”

Ashland Chemical Company, 8610 Enterprise Drive (Map ID C11): This address, located adjoining to the east of the subject site, is listed in multiple environmental databases including RCRA-TSD, CERC-NFRAP, CORRACTS and CA HIST UST. CERCLA and RCRA databases describe the Ashland Chemical facility as a “handler engaged in the treatment, storage, or disposal of hazardous waste.” Reportable RCRA violations at the subject date back to the mid-1980s. Some of the violations resulted in civil judicial action for compliance and/or monetary penalty. Beginning in 1987, RCRA designated the subject site as a “high corrective action priority” facility. The HIST UST database indicates that the subject site historically had five USTs at the facility. These USTs were used for waste and three of the tanks were reportedly installed in 1981. The USTs ranged in capacity from 1,000 gallons to 11,300 gallons.

Previous operations at this facility have resulted in regulatory involvement with multiple local and state regulatory agencies and violations due to releases of hazardous materials and waste to the ground that have impacted the subsurface soil and groundwater. Impacted groundwater from this facility has migrated beneath the subject site and is considered a REC. Additional information related to previous and ongoing investigations at this facility is provided in Section 3.

FMC Corp Newark, 8787 Enterprise Drive (Map ID B5): This address, located adjoining to the north of the subject site, is listed in multiple environmental databases including RCRA-TSDF, CERC-NFRAP, CORRACTS, RCRA-LQG, CA SLIC, CA HIST UST and ENVIROSTOR. The CORRACTS database indicates that this facility is currently undergoing remediation and the migration of contaminated groundwater and current human exposures are under control. The SLIC database indicates that as of 10 June 2009 the status of this facility, with regards to the San Francisco Bay RWQCB (Region 2), is “Open-Remediation” with “Other Groundwater (uses other than drinking water) Affected.”

Romic/Romic Environmental Technologies, Corp., 37445 Willow Street (Map ID E15/E17): This address is located approximately 650 feet east of the subject site, is listed in multiple environmental databases including RCRA-TSDF, CERC-NFRAP, CORRACTS, RCRA-SQG, CA SLIC and ENVIROSTOR. According to the RWQCB, this facility’s status is listed as “Open – Remediation”. This facility is formerly known as Foster Chemical Corporation that operated from 1975 to 1985 and has known release of solvents that have affected the subsurface soil and groundwater.

Jones-Hamilton, 8400 Enterprise Drive (Map ID D21/D24): This address located approximately 1,500 feet to the east-northeast of the subject site, is listed in multiple environmental databases and according to the RWQCB, this facility's status is listed as "Open - Site Assessment." According to a hazardous waste summary provided by RCRA, one of the wastes generated at this facility was 1-2 DCA.

Baron Blakeslee Facility, 8333 Enterprise Drive (Map ID E18): This facility is located approximately 1,500 feet northeast of the subject site and is listed in multiple environmental databases. According to the RWQCB, the groundwater (other than drinking water) has been impacted by TCA, PCE, toluene, TCE, vinyl chloride, and xylene. The status of this facility is listed as "Open - Remediation" is undergoing post-remedial.

Based on the review of the EDR database report, there are multiple facilities located adjoining to and hydrologically upgradient of the subject site that are listed in environmental databases as having known releases that have impacted the groundwater. These facilities and the associated groundwater impacts have been, or are currently being investigated under the oversight of the lead regulatory agency, which in most cases is the RWQCB. These listings are considered a REC to the subject site.

## **5.2 Additional Environmental Records Review**

The subject site does not have a physical address; therefore, a request for records could not be submitted to state and local regulatory agencies. These regulatory agencies, along with agencies that provide information without a physical address, are listed below.

### **5.2.1 National Pipeline Mapping System**

Due to the federal government shutdown, Haley & Aldrich has been unable to access the Pipeline Information Management Mapping Application (PIMMA) on the National Pipeline Mapping System's website ([www.npms.phmsa.dot.gov](http://www.npms.phmsa.dot.gov)). Due to information obtained through the review of previous investigations completed at the subject site, it is Haley & Aldrich's opinion that the lack of information related to the presence of gas and/or hazardous liquid transmission pipeline in the vicinity of the subject site is a non-significant data gap and this data gap does not represent a REC to the subject site.

### **5.2.2 State Water Resources Control Board**

There is no physical address for the subject site; therefore, a request for records was not submitted to the RWQCB. Haley & Aldrich accessed the State Water Resources Control Board's GeoTracker website for records associated with the subject site on 9 October 2013. The GeoTracker database (<http://geotracker.swrcb.ca.gov>) has records related to the former Newark Sportsman Club located on the southeastern portion of the subject site. These records, which include a copy of the Newark Gun Club, Alameda County - Certification of Remediation Completion Report letter dated 10 March 2004, indicate that no additional remedial action is necessary for previous activities related to the gun club. Additional information related to this investigation is summarized in Section 3.1.2 of this report.

### **5.2.3 Department of Toxic Substances Control**

There is no physical address for the subject site; therefore, a request for records was not submitted to the DTSC. Haley & Aldrich accessed the DTSC's Envirostor website for records associated with the subject site on 9 October 2013. The Envirostor database (<http://www.envirostor.dtsc.ca.gov>) has records related to Leslie Salt/FMC Magnesia Waste Pile located on the northwestern portion of the subject site. These records, which include a copy of the Certification of Completion: Remedial Action Plan letter dated 28 October 1991, indicate that the remedial actions, as detailed in the Remedial Action Workplan, have addressed all concerns in the Workplan and that the site has been adequately remediated. Additional information related to this investigation is summarized in Section 3.1.1 of this report. As indicated in the 28 October 1991 letter, the DTSC states that they cannot approve "certification of site closure" or the "final closure report." Haley & Aldrich attempted to contact the listed DTSC supervisor for this case, Ms. Denise Tsuji, on 9 October 2013 to obtain clarification on the status of this case. At the time this report was submitted, a response from the DTSC had not been received. If the information provided by the DTSC alters the findings and conclusions of this report, DA2 will be contacted.

### **5.2.4 Bay Area Air Quality Management District**

There is no physical address for the subject site; therefore, a request for records was not submitted to the BAAQMD.

### **5.2.5 Alameda County Water District**

There is no physical address for the subject site; therefore, a request for records was not submitted to the Alameda County Water District.

### **5.2.6 Alameda County Assessor's Office**

Haley & Aldrich contacted the Alameda County Tax Assessor's Office on 4 October 2013. The subject site's APNs are 537-852-9, 537-852-10 and 537-852-11 and are currently owned by Leslie Salt (Cargill). It is Haley & Aldrich's understanding that Alameda County is in the process of combining these three parcels into a single 54.53-acre parcel. At the time this report was submitted, the Alameda County Assessor's office indicated that the subject site is still identified by the three APNs mentioned above. A copy of the APN map is included in Appendix C.

### **5.2.7 Alameda County Fire Department/Newark Fire Prevention Bureau**

There is no physical address for the subject site; therefore, a request for records was not submitted to the Alameda County Fire Department or Newark Fire Prevention Bureau.

### **5.2.8 City of Newark Building & Safety/Planning Department**

There is no physical address for the subject site; therefore, a request to review existing building records with the City of Newark was not submitted. On 9 October 2013, Haley & Aldrich visited the City of Newark Planning Division for zoning information on the subject site.

According to the City of Newark, the subject site is zoned “MT-1” for High Technology Park and there are no physical addresses assigned to these parcels.

### 5.3 User Responsibilities

Haley & Aldrich provided DA2 with a “User Responsibilities Questionnaire” to be completed by the user of the report (Appendix B). The questionnaire was completed by Mr. Peter Lezak, Dumbarton Area 2, LLC and the responses are embedded below. The AAI Rule requires that the user of the report consider the following:

- Are you aware of any environmental cleanup laws against the property that are filed or recorded under federal, tribal, state, or local laws?
  - *No.*
- Are you aware of any Activity and Use Limitations (AULs), such as engineering controls, land use restrictions, or institutional controls that are in place at the Site, or have been filed or recorded in a registry under federal, tribal, state, or local laws?
  - *No.*
- As the user of this Phase I ESA, do you have any specialized knowledge or experience related to the property or nearby properties? For example, are you involved in the same line of business as the current or former occupants of the property or an adjoining property so that you would have specialized knowledge of the chemicals and processes used by this type of business?
  - *No.*
- Does the purchase price being paid for this property reasonably reflect the market value of the property? If you conclude that there is a difference, have you considered whether the lower price is because contamination is known or believed to be present at the property?
  - *Yes.*
- Are you aware of commonly known or reasonably ascertainable information about the property that would help the environmental professional to identify conditions indicative of releases or threatened releases? For example, as user...
  - Do you know the past use of the property? *No.*
  - Do you know the specific chemicals that are present or once were present at the property? *No.*
  - Do you know of spills or other chemical releases that have taken place at the property? *No.*
  - Do you know of any environmental cleanups that have taken place at the property? *No.*
- As the user of this ESA, based on your knowledge and experience related to the property, are there any obvious indicators that point to the presence of contamination at the property?
  - *No.*

### 5.4 Environmental Liens

According to EDR’s Environmental LienSearch™ Report, dated 11 October 2013, there are no environmental liens or AULs for the subject site. This research was completed by EDR using the APNs 537-852-9, 537-852-10 and 537-852-11 provided by Haley & Aldrich. The Environmental LienSearch™

Report provided additional information related to the Former Magnesia Pile located on the subject site (see section 3.1.1). This information is reported as follows:

*Leslie Salt owned the site and leased it to FMC Corporation from 1928 to 1968. During this period FMC used the site for disposal of their process waste. These wastes included: off-grade magnesia, dolomite, general rubbish, phosphorous sludges, gypsum and excess catalysts which were used for the production of synthetic rubber. The waste materials were disposed onsite in large piles. The catalyst material contains approximately 1-2% copper (20,000 ppm) and mercury above the TTLC.*

*The DTSC has determined that all appropriate response actions have been completed, that all acceptable engineering practices were implemented and that no further removal/remedial action is necessary.*

A copy of EDR's Environmental LienSearch™ Report is included in Appendix C.

## **5.5 License, Lease and Access Agreements**

The following documents define current contractual relationships between the site owner and other parties that utilize portions of the subject site for various purposes.

- That certain License Agreement dated 5 December 2008 between the City of Newark and Cargill Inc., as amended from time to time;
- That certain Access Agreement dated 4 January 2008 by and between Cargill, Incorporated and its successors or assigns and Ashland, Inc., as amended by that certain First Amendment to Property Access Agreement dated 1 January 2013 and as may be further amended from time to time;
- That certain Lease Agreement dated 1 July 1995 by and between Cargill, Incorporated and Southern Alameda Radio Controllers, Incorporated, as amended by certain amendments through Amendment No. 17 to the Lease Agreement and as may be further amended from time to time; and
- That certain License Agreement dated 1 January 2010 between Cargill, Incorporated and R.J. Gordon Construction, as amended by certain amendments through Amendment No. 5 to the Lease Agreement and as may be further amended from time to time.

These documents are related to the pistol range, ongoing Ashland environmental investigations, radio-controlled vehicle club and storage of construction equipment/materials, respectively. See Sections 2 and 3 for additional information. Copies of all four documents, as provided to Haley & Aldrich, are included in Appendix B.

## **6. SITE RECONNAISSANCE AND KEY PERSONNEL INTERVIEWS**

A site reconnaissance to observe site conditions was conducted by Mr. David Schlotterbeck of Haley & Aldrich, Inc. on 8 October 2013. Photographs taken during the site reconnaissance are included as Appendix D. At the time of the initial site reconnaissance, access to the subject site was unobstructed and with the exception of two locked storage containers located at the City of Newark Police Department's Pistol Range, Haley & Aldrich personnel had access to all areas of the subject site, including the property boundaries, and observed adjoining property conditions from the subject site boundaries and/or public thoroughfares. No weather-related conditions or other conditions that would limit our ability to observe the subject site or adjoining properties occurred during our site visit. Haley & Aldrich interviewed Mr. Pat Mapelli with Cargill. Mr. Mapelli is the Real Property Manager and has worked for Cargill for 24 years and has been identified as the "key contact" for this project. Additionally, Haley & Aldrich interviewed Mr. Dave Witmer, operator of the Witmer-Tyson Police Dog Training School and Commander Lawson with the City of Newark Police Department. During a telephone interview with Commander Lawson, conducted by Haley & Aldrich on 10 October 2013, Commander Lawson stated that the two locked storage containers located at the Pistol Range contain targets and cones used for training purposes. He indicated that there are no petroleum products or hazardous chemicals used or stored at the Pistol Range. Additional responses to interview questions provided by these individuals are included in the appropriate sections below.

ASTM E 1527-05 Standard Section 10.8 requires that, prior to the site visit, the current subject site owner or Key Site Manager and user, if different from the current owner or Key Site Manager, be asked if there are any helpful documents that can be made available for review. These consist of environmental site assessment reports, audits, permits, tank registrations, Material Safety Data Sheets, Community Right-to-Know plans, safety plans, hydrogeologic or geotechnical reports, or hazardous waste generator reports. Haley & Aldrich has reviewed multiple environmental documents, which are summarized on Section 3 of this report.

### **6.1 Subject Site Observations**

#### **6.1.1 Current Use of the Property**

The former magnesia waste pile area on the northwestern portion of the subject site is currently being used by R.J. Gordon Construction to store construction equipment and materials. This equipment and material consisted of steel and wood beams, metal and PVC piping, cement mixing truck, forklift, scraper, crane and two trailers. The Newark Police Department utilizes a pistol firing range on the southeastern portion of the subject site and the Witmer-Tyson Police Dog Training School and the Menlo Park Schutzhund Club operate K-9 training on the southeastern corner of the subject site, just south of the pistol firing range. According to Mr. Mapelli, Cargill ceased stockpiling operations at the subject site when Cargill was under contract with DA2 in 2010. Additionally, Mr. Mapelli indicated that bittern truck loading operations were halted at the subject site in late 2011 and early 2012. He indicated that the facilities were removed from the southwestern corner of the property and relocated to their facility on Central Avenue. Once the facilities were removed, the area was graded and covered with all-weather gravel.

### **6.1.2 General Description of Structures**

A single-story, wood-framed clubhouse is located at the Witmer-Tyson Police Dog Training School and Menlo Park Schutzhund Club on the southeastern corner of the facility; and a partially enclosed, multi-room, plywood training structure is located at the Newark Police Department pistol range.

### **6.1.3 Potable Water Supply and Sewage Disposal System or Septic Systems**

According to Mr. Mapelli, potable water at the clubhouse is provided by the Alameda County Water District and a septic system is located on the north side of the clubhouse.

### **6.1.4 Use of Petroleum Products and Hazardous Materials**

A one-gallon container of heavy duty motor oil was observed on the forklift being stored by R.J. Gordon Construction on the northwestern portion of the subject site. No staining was observed around the container of motor oil; however, moderate staining was observed on the bare soil beneath the engine of the forklift. An additional area of soil staining, apparently from leaking construction equipment, was observed in the area being used to store equipment by R.J. Gordon Construction on the northwestern portion of the subject site. The stained soil appears to be the result of leaking motor oil or hydraulic fluid from construction equipment. Due to the heavy nature of motor oil and hydraulic fluid, the impact to the soil caused by this release is likely surficial and is considered a *de minimis* condition.

Seven gasoline cans (five 5-gallon and two 2½ gallon) were observed in a storage container on the north side of the K-9 training clubhouse on the southeastern corner of the subject site. The gasoline appeared to be used to fuel landscaping equipment (e.g. lawnmowers) also observed in the storage container. No staining was observed in the storage container.

Mr. Mapelli stated that the contents of a locked storage container on the southwestern portion of the subject site, adjacent to the former Bittern Truck Loading Area, contains four cases of grease gun cartridges and two 1-gallon containers of WD-40, in addition to other equipment used by Cargill.

According to Mr. Mapelli, Cargill does not use, store or dispose of petroleum products at the subject site. Commander Lawson also indicated that petroleum products and/or hazardous materials are not used in their operations at pistol firing range.

### **6.1.5 Storage of Petroleum Products and Hazardous Materials (Storage Tanks, Drums)**

See Section 6.1.4. No storage tanks containing petroleum products or hazardous materials were observed at the subject site. Four empty 55-gallon drums labeled “trash” were observed in the R.J Gordon Construction area on the northwestern portion of the subject site. No staining was observed on the ground surrounding the 55-gallon drums.

Eleven plastic 55-gallon drums were observed at the Newark Police Department pistol range. These drums had bullet holes in them and apparently have been used for target practice.

#### **6.1.6 Disposal of Petroleum Products and Hazardous Materials**

The disposal of petroleum products or hazardous materials was observed on the subject site. According to Mr. Mapelli, petroleum products and/or hazardous materials are not disposed of at the subject site and hazardous waste is not generated.

#### **6.1.7 Storage Tanks**

No storage tanks were observed at the subject site.

#### **6.1.8 Odors**

No unusual odors were noted during the site visit.

#### **6.1.9 PCBs Associated with Electrical or Hydraulic Equipment**

Three pole-mounted transformers (one utility pole) were observed along the northern property line on the northwestern corner of the subject site and two pole-mounted transformers (one each on two utility poles) were observed along the southern property line on the southwestern corner of the subject site. One of the pole-mounted transformers along the southern property line had a "No PCBs" sticker affixed to the side. No staining was observed on the transformers or on the ground surrounding the utility poles. Although transformer oil is not highly toxic or mobile in the environment, the oil may contain PCBs. If the transformers are to be removed or if leaks are observed, the oil should be tested for PCBs.

#### **6.1.10 Unidentified Substance Containers**

A broken five-gallon bucket containing dark-colored soil was observed in the R.J Gordon Construction equipment storage area. The stained soil appeared to be contained in the bottom of the five-gallon bucket and did not appear to be in contact with the ground. This soil should be removed from the subject site and appropriately disposed of.

#### **6.1.11 Stains or Corrosion**

Stained soil was observed on the bare soil at two locations on the northwestern portion of the subject site where R.J. Gordon Construction is currently storing equipment. See Section 6.1.4.

#### **6.1.12 Floor Drains and Sumps**

No floor drains and sumps were observed at the subject site.

#### **6.1.13 Hydraulic Elevators**

No hydraulic elevators were observed at the subject site.

#### **6.1.14 Vehicle Maintenance Lifts**

No vehicle maintenance lifts were observed at the subject site.

#### **6.1.15 Emergency Generators and Sprinkler System Pumps**

No emergency generators or sprinkler system pumps were observed at the subject site.

#### **6.1.16 Catch Basins**

Two geologic depressions were observed on the subject site. These features are located on the northwestern corner and south-central (east of E-1 Ditch and west of Serpentine rock outcropping) portion of the subject site. These “catch basins” were dry at the time of the site reconnaissance, but appear to capture water and/or stormwater runoff during rain events. The depression on the northwestern corner of the subject site appears to have been used as a salt evaporation and/or bittern storage pond at one time. According to Mr. Mapelli, all stormwater runoff that is captured at low points at the subject site, including in the E-1 Ditch are pumped into a brine ditch located on along the southwestern property line. Mr. Mapelli further indicated that the low point/geologic depression located on the northwestern corner of the property was a magnesium sulfate settling pond used by FMC until the 1960s and has not been used for any purposes by Cargill, including salt production.

#### **6.1.17 Pits, Ponds, Lagoons, and Pools of Liquid**

No pits, ponds or pools of liquid were observed at the subject site. However, there are two locations on the subject site where evidence of standing water was observed. See Section 6.1.16.

#### **6.1.18 Stained Soil or Pavement**

See Sections 6.1.4 and 6.1.11.

#### **6.1.19 Stressed Vegetation**

No stressed vegetation was observed during the site visit.

#### **6.1.20 Solid Waste and Evidence of Waste Filling**

No evidence of solid waste filling was observed or reported on subject site. A small trash receptacle was observed in the parking area of the Witmer-Tyson Police Dog Training School and Menlo Park Schutzhund Club. The trash receptacle was empty and no staining was observed on the ground surrounding the receptacle.

#### **6.1.21 Wastewater and Stormwater Discharge**

Wastewater is not generated at the subject site. Stormwater runoff follows the natural topography at the subject site. The E-1 Ditch is a likely drainage ditch for heavy stormwater runoff. Any water that ends up in the E-1 Ditch would flow towards the south and southwest towards the Plummer Creek Wetlands Area adjoining to the south of the subject site.

### **6.1.22 Monitoring, Water Supply, or Irrigation Wells**

No water supply or irrigation wells were observed at the subject site. Four groundwater monitoring wells were observed on the subject site. These groundwater monitoring wells (W-25, B-26, B-27 and B-28) are part of a groundwater monitoring network that originally consisted of 30 monitoring wells and were used to assess the impacts to groundwater offsite and hydrologically downgradient of the Ashland Chemical Company's property. See Section 3.2 for additional information on these monitoring wells.

### **6.2 Adjoining Property Observations**

The subject site is bordered to the north by the former FMC Chemical Company (8787 Enterprise Drive), to the east by the former Ashland Chemical Company (8610 Enterprise Drive) and Torian (37555 Willow Street) properties, to the south by undeveloped wetlands (Plummer Creek Wetlands Area) and to the west by Cargill Bittern Ponds.

## 7. FINDINGS AND CONCLUSIONS

Haley & Aldrich has performed a Phase I ESA of the subject site (Figure 1). The subject site consists of approximately 54.53-acres in Alameda County and consists of three parcels of land identified by the Alameda County Assessor's office as APN 537-852-9, 537-852-10 and 537-852-11. The Alameda County Assessor's office describes these parcels as "salt ponds."

The objective of a Phase I ESA is to identify known and suspect RECs, HRECs, and *de minimis* conditions associated with the subject site, as defined in the ASTM E 1527-05 Standard and in Section 1.1 of this report.

According to the City of Newark Planning Division, the subject site is currently zoned as "MT-1" for High Technology Park. The area in the vicinity of the subject site is generally characterized as vacant, previously developed industrial properties and is bordered to the north by the former FMC facility, balance of the Ashland property, to the east by the former Ashland Chemical Company and Torian facility, to the south by the Plummer Creek Wetlands Area and to the west by Cargill Bittern Ponds. The Ashland and Torian properties are both vacant aside from the remnants of former building foundations and the former FMC property has several structures remaining on the property.

Current uses of the subject site include the following: 1) The northwestern portion of the subject site is undeveloped and used as a storage area by R.J. Gordon Construction (access is provided by Cargill under License Agreement 2001.008:18) to store construction equipment and materials. 2) The northeastern portion of the subject site is undeveloped with four groundwater monitoring wells (W-25, B-26, B-27 and B-28). These groundwater monitoring wells are part of a groundwater monitoring network that originally consisted of 30 monitoring wells and are used to assess the impacts to groundwater offsite and hydrologically downgradient of the Ashland Chemical Company's property. Access to these groundwater monitoring wells is secured through an Access Agreement pursuant to RWQCB's SCR Order No. 89-109, which allows Ashland Chemical Company access to the subject site for the purposes of collecting groundwater samples from the four groundwater monitoring wells. Currently, only groundwater monitoring wells B-26, B-27 and B-28 are required to be sampled under the revised SCR Order R2-2005-0038, which was adopted by the RWQCB on 14 September 2005. 3) Portions of the southeastern portion of the subject site are used by the Newark Police Department as a pistol firing range and the Witmer-Tyson Police Dog Training School and the Menlo Park Schutzhund Club that operate a K-9 training facility. 4) The southwestern portion of the subject site is undeveloped and was previously used by Cargill to access the Bittern Ponds on the adjoining properties to the west.

### **DATA GAPS**

Due to the federal government shutdown, Haley & Aldrich has been unable to access the PIMMA on the National Pipeline Mapping System's website ([www.npms.phmsa.dot.gov](http://www.npms.phmsa.dot.gov)). Due to information obtained through the review of previous investigations completed at the subject site, it is Haley & Aldrich's opinion that the lack of information related to the presence of gas and/or hazardous liquid transmission pipeline in the vicinity of the subject site is a non-significant data gap and does not represent a REC to the subject site. No additional data gaps were identified during the performance of this Phase I ESA. Thus, it is our opinion that sufficient information was obtained to identify subject site conditions indicative of releases or threatened releases of hazardous substances and petroleum hydrocarbons.

Based on the results of this Phase I ESA, our findings are as follows:

### **KNOWN OR SUSPECT RECOGNIZED ENVIRONMENTAL CONDITIONS**

The ASTM E 1527-05 Standard defines a REC as “the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property.” A material threat is defined by the ASTM E 1527-05 Standard as “a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the environmental professional, is threatening and might result in impact to public health or the environment.”

This Phase I ESA has revealed evidence of RECs in connection with the subject site.

#### **REC #1: Former Magnesia Waste Pile**

**Description:** A Former Magnesia Waste Pile is located on the northwestern portion of the subject site. Remediation work performed in 1991 focused on removal of waste materials classified as hazardous waste (i.e., containing contaminant concentrations that exceeded total threshold limit concentrations [TTLCs]). Additional non-hazardous waste material was removed in 1998 and 1999. During the prior remediation work, residential use of the subject site was not anticipated and it does not appear that residential use was considered when establishing site cleanup goals. However, analyses of verification soil samples collected following both removal actions generally did not detect copper, mercury or thallium (the primary contaminants) above current residential screening levels (California Human Health Screening Levels [CHHSLs], CalEPA 2005). The sampling results appear to suggest that the subject site is suitable for residential use. However, consideration should be given to obtaining regulatory agency concurrence. Additionally, some residual waste material that is generally white in color remains at the subject site, primarily on the northwestern portion of the property in the vicinity of the former Magnesia Waste Pile. The material reportedly is alkaline (high pH), which can cause irritation to human tissue. The State of California Department of Toxic Substances Control (DTSC) noted that some of the materials have a pH comparable to laundry soap.

#### **REC #2: Impacted Groundwater**

**Description:** Former investigations of groundwater at the subject site indicate that the regional plume of volatile organic compounds (VOCs), predominantly 1,2-dichloroethane (1,2-DCA), has encroached onto the northern portion of the subject site; these VOCs appear to be from off-site sources. Total petroleum hydrocarbons as gasoline, diesel and motor oil (TPHg, TPHd, TPHmo) and benzene also were detected in groundwater near the Former Magnesia Waste Pile location; the source of these compounds is not known. Based on the review of the Environmental Data Resources, Inc. (EDR) database report, there are multiple facilities located adjoining to and hydrologically upgradient of the subject site that are listed in environmental databases as having known releases that have impacted the groundwater. These facilities and the associated groundwater impacts have been, or are currently being investigated under the oversight of the lead regulatory agency, which in most cases is the RWQCB. Areas overlying impacted groundwater are suitable for residential use provided vapor intrusion mitigation measures are included in development if determined to be necessary.

### **REC #3: Former Bittern Truck Loading Area**

**Description:** The southwestern corner of the subject site was previously used as a bittern loading area up until late 2011 and early 2012. Historical observations of this portion of the subject site indicated spilled bittern on the gravel surface at the truck loading area. Bittern reportedly contains residual sodium chloride as well as various other salts, including magnesium sulfate, magnesium chloride, potassium chloride and magnesium bromide. It is reported by Cargill to be non-hazardous, but may result in elevated levels of salts in the soil or groundwater. Thus, bittern impacted soil may require special handling or disposal if this area is redeveloped. Additionally, oil reportedly was discharged to overflow ponds at the truck loading area. One lined overflow pond and one unlined overflow pond have historically been located on this portion of the subject site; however, evidence of the ponds and staining was not observed during the site reconnaissance completed for this Phase I ESA. It is our understanding redevelopment activities are not planned for this area, therefore this REC does not warrant any action at this time.

### **REC #4: Former Newark Sportsman's Club (NSC) Area**

**Description:** During remedial activities in 2002 and 2003, identified lead and polycyclic aromatic hydrocarbons (PAH) impacted soil and clay pigeon debris exceeding the established cleanup criteria were removed from the NSC area. The cleanup goal for lead was set at the then current residential Preliminary Remediation Goal (PRG) (EPA Region 9, 2000) for lead of 400 milligram per kilogram (mg/kg). The cleanup goal used for PAHs was a total PAH concentration of 10 mg/kg. CalEPA recently revised their screening level for lead; the revised residential CHHSL for lead is 80 mg/kg (CalEPA, 2009). The average lead level detected in verification soil samples does not exceed the current CHHSL of 80 mg/kg; however, lead concentrations in some of the individual samples are above this level. Additionally, some of the individual PAH concentrations detected in verification soil samples are above the current Environmental Screening Levels (ESLs) established by the RWQCB (2008). Due to the limited nature of identified impacts, this REC does not pose a significant concern with respect to residential redevelopment of the subject site.

### **REC #5: Pistol Range**

**Description:** The City of Newark Police Department has used a portion of the subject site since 1975 as a pistol firing range. Lead and copper were detected in soil from the pistol range area at up to 11,000 mg/kg and 270 mg/kg, respectively. The lead concentrations exceed both the residential CHHSL (80 mg/kg) and the TTLC (1,000 mg/kg). Waste material with concentrations above the TTLC is classified as a hazardous waste. Due to the limited nature of identified impacts, this REC does not pose a significant concern with respect to residential redevelopment of the subject site.

### **REC #6: Naturally Occurring Asbestos (NOA)**

**Description:** Serpentinite that contains NOA was identified within the southern area of exposed bedrock (near the pistol range). Analyses of samples collected from the southern hill area detected NOA at concentrations ranging from 0.25 to 6.25 percent. This REC does not pose a significant concern with respect to residential redevelopment of the subject site provided mitigation measures to prevent the release of asbestos fibers from this material are implemented during site development activities.

### **REC #7: E-1 Drainage Ditch**

**Description:** The E-1 Ditch bisects the subject site from the north-central property line to the southwestern corner of the subject site. As described in section 3.1.1, historically, the E-1 Ditch began on adjacent FMC and was used by FMC for various discharges. Although current water quality in the E-1 Ditch is not likely to be impacted by historic discharges, sediment within the E-1 Ditch could contain residual contaminants. Due to the limited nature of potential impacts along the ditch alignment, this REC does not pose a significant concern with respect to residential redevelopment of the subject site.

### **REC #8: Evaporation Ponds and Detention Basin**

**Description:** During the late 1930s through at least the 1960s, portions of the northwestern subject site, west of the E-1 Ditch appear to have been used as salt evaporation ponds. Additionally, what appears to be a detention basin is apparent on aerial photographs from the late 1930s through at least the late 1950s. This potential detention basin was located where the E-1 Ditch intersects with adjacent FMC property along the northern property line. Due to the limited nature of potential impacts in this area, this REC does not pose a significant concern with respect to residential redevelopment of the subject site.

### **REC #9: Historical Industrial Use**

**Description:** Based on the long industrial history of the subject site, previously unidentified buried structures, debris or impacted soil may be encountered during site development activities; these materials may require special handling and disposal. To limit construction delays, consideration should be given to developing a Site Management Plan (SMP) to establish management practices for handling these materials/structures if encountered.

### **HISTORICAL RECs**

The ASTM E 1527-05 Standard defines an HREC as an environmental condition “which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently.”

This Phase I ESA has revealed no evidence of HRECs in connection with the subject site.

### **DE MINIMIS CONDITIONS**

The ASTM E 1527-05 Standard defines *de minimis* conditions as those conditions which “do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies.” The ASTM E 1527-05 Standard notes that “conditions determined to be *de minimis* are not recognized environmental conditions.”

This Phase I ESA has revealed evidence of a *de minimis* condition related to stained soil observed on the northwestern portion of the subject site in an area used by R.J. Gordon Construction to store construction equipment and materials. The stained soil appears to be the result of leaking motor oil or hydraulic fluid from construction equipment. Due to the heavy nature of motor oil and hydraulic fluid, the impact to the soil caused by this release is likely surficial and is considered a *de minimis* condition.

## CONCLUSIONS

In conclusion, although this site has nine RECs, due to the limited environmental risks associated with the known or potential impacts, these RECs do not pose a significant concern with respect to residential redevelopment of the subject site.

## **8. CREDENTIALS**

This Phase I ESA report was prepared by David Schlotterbeck, who served as the Senior Environmental Scientist of this project. The report was completed under the direct supervision of James Schwartz, who served as the Officer-in-Charge and Client Leader of this project. Qualification information for the project personnel is provided below.

### **JAMES SCHWARTZ, PG Senior Geologist**

James Schwartz, P.G., has over 18 years of professional experience in the environmental consulting industry. His background covers a wide variety of areas, including planning and management of small- and large-scale investigations, project site remediation, Brownfields redevelopment, litigation support, corporate management, client development, marketing, and detailed data analysis using databases and geographic information systems. Mr. Schwartz's expertise also involves a number of specialized fields, including vapor intrusion, stable and radiogenic isotope hydrology, and sewer issues. He has worked closely with clients, regulators, attorneys, testifying experts, information technology specialists, modelers, field contractors and other environmental professionals.

### **DAVID SCHLOTTERBECK Senior Environmental Scientist**

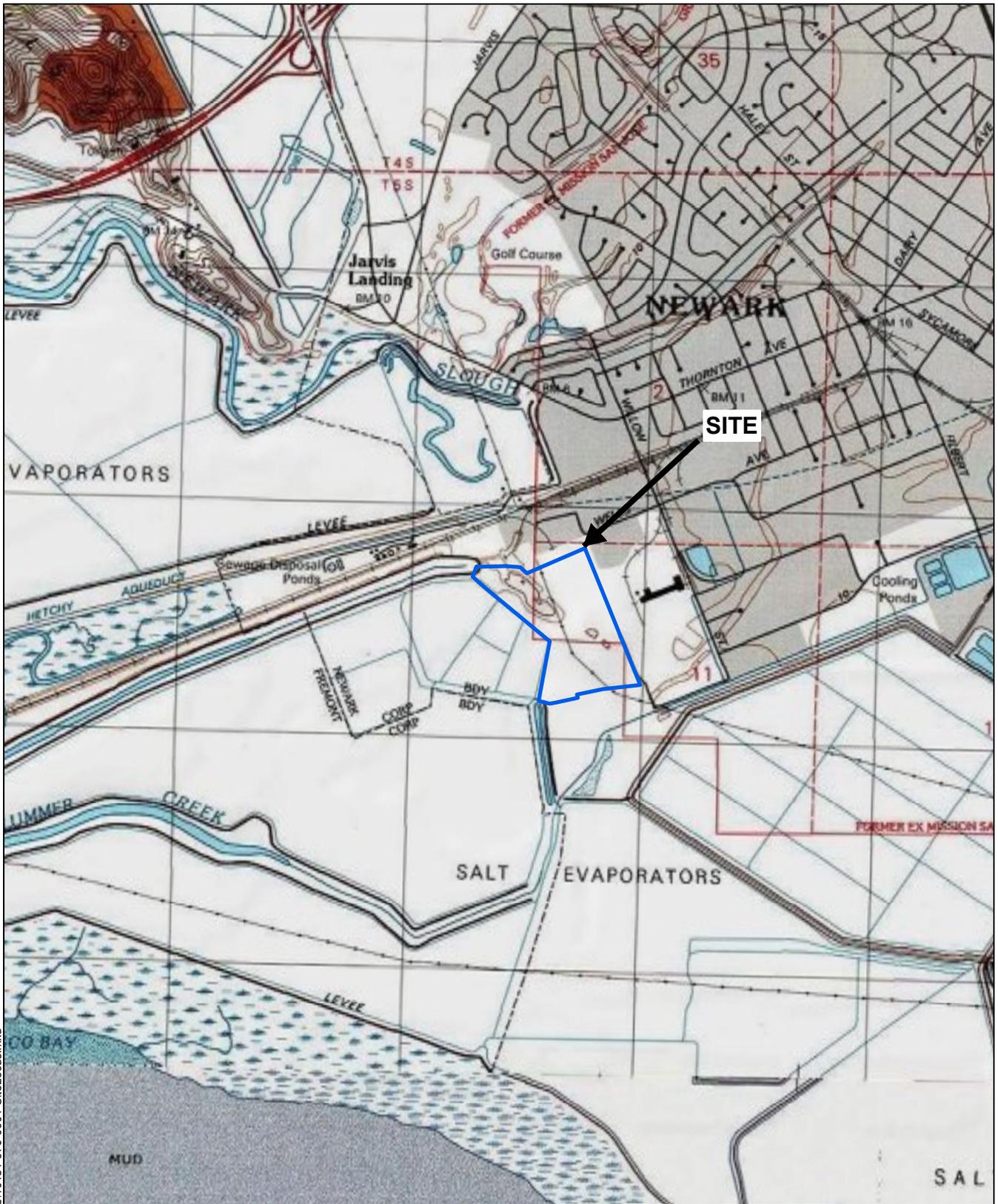
Mr. Schlotterbeck has over 13 years of experience in preparing Phase I environmental site assessments, preliminary endangerment assessments, soil groundwater investigation work plans, remedial action work plans, and site closure reports. He has experience working with regulatory agencies to satisfy AAI due diligence requirements for Phase I ESAs throughout the United States. He has performed, as well as trained and managed personnel, in preparing Phase I and Phase II assessments for agricultural, industrial, manufacturing, automotive, retail, commercial and undeveloped properties. He has been responsible for managing and implementing soil and groundwater environmental investigations both to meet regulatory requirements and in support of litigation. His experience also includes management of underground storage tank removals, oversight for excavation and disposal of chemically impacted soils.

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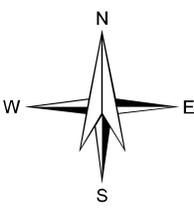
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## FIGURES



G:\40451\_Cargill\Global\GIS\MapProjects\40451-970-0001-SiteLocus.mxd

SITE COORDINATES : 122° 03' 14.32" W 37° 31' 03.55" N



**HALEY & ALDRICH**

CARGILL PROPERTY  
 54.53-ACRE PARCEL  
 SOUTHWEST OF HICKORY STREET AND ENTERPRISE DRIVE  
 NEWARK, CALIFORNIA

SITE LOCUS

SCALE: 1:24,000  
 OCTOBER 2013

FIGURE 1

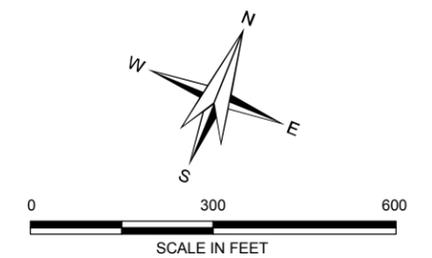


**LEGEND**

-  GROUNDWATER MONITORING WELL LOCATION
-  SITE BOUNDARY

**NOTES:**

1. ALL LOCATIONS AND DIMENSIONS ARE APPROXIMATE.
2. SC = STORAGE CONTAINER
3. T = POLE-MOUNTED TRANSFORMER



**HALEY & ALDRICH** CARGILL PROPERTY  
 54.53-ACRE PARCEL  
 SOUTHWEST OF HICKORY STREET AND ENTERPRISE DRIVE  
 NEWARK, CALIFORNIA

**SITE PLAN**

SCALE: AS SHOWN  
 OCTOBER 2013

**FIGURE 2**

**APPENDIX A**

**Haley & Aldrich Proposal dated 25 September 2013**

## PROFESSIONAL SERVICES AGREEMENT

THIS PROFESSIONAL SERVICES AGREEMENT ("Agreement") is dated for reference purposes as of September 27, 2013, by and between DUMBARTON AREA 2, LLC, a Delaware limited liability company ("Owner"), and HALEY & ALDRICH, INC., a Massachusetts corporation ("Professional").

### R E C I T A L S

A. Owner is under contract for the purchase of that certain real property located in Newark, California and identified as APNs 537-852-09, -10 and -11, currently owned by Cargill Incorporated (the "Site"), which Site, if acquired by Owner, will be developed into a residential project (the "Project").

B. Owner desires to engage Professional to provide certain environmental consulting services with respect to the Site as more particularly set forth herein.

NOW, THEREFORE, Professional and Owner agree as follows:

#### 1. BASIC AGREEMENTS.

1.1 Basic Services. In compliance with all of the terms and conditions of this Agreement, the Professional shall provide those services specified in the "Scope of Services" attached hereto as Exhibit "A", which services are referred to herein as the "Basic Services". Professional shall meet with Owner from time to time as requested by Owner to discuss the progress of the Basic Services rendered to date and to ensure that Owner is satisfied with the scope and quality of the Basic Services. Owner may have a representative present at any meeting of Professional concerning the Project.

1.2 Subconsultants. Professional may retain professional consultants subject to the prior written approval of Owner ("Subconsultants"). The retention of the Subconsultants shall not diminish or reduce the obligations and duties of Professional hereunder. Unless Owner specifically approves, in each instance, that the payment to any Subconsultant is a reimbursable expense pursuant to Section 2.4 below, Owner shall not have any liability for the cost and expenses of any Subconsultant, and Professional solely shall be liable for any payment due to such Subconsultants from the Fees (as defined below) paid by Owner to Professional. Professional shall work with and coordinate its Basic Services with other consultants retained by Owner in connection with the design of the Project as a Basic Service hereunder, but Professional shall not be responsible for the content of their work.

1.3 Supervisor and Employees. James Schwartz is a principal of the Professional and will supervise the Services (as hereinafter defined) provided under this Agreement and will represent Professional in all matters of coordination, decision and policy pertaining to Professional's professional services under this Agreement. Any replacement of said individual(s) shall be subject to Owner's prior written approval and Owner shall be permitted to terminate this Agreement, without penalty, in the event a satisfactory replacement is not immediately available. Owner, in its sole discretion, may direct Professional to remove an

employee or Subconsultant performing work hereunder. Professional shall replace said employee or Subconsultant with another qualified employee or Subconsultant acceptable to Owner.

1.4 Standard of Performance. As a material inducement to Owner to enter into this Agreement, Professional hereby represents Professional has all applicable licenses to perform the Basic Services and is experienced in performing work or services similar to the Basic Services and, in light of such experience, Professional hereby covenants that it shall follow the standard of care of a Competent Consultant (as defined below) in performing all services required hereunder. "Competent Consultant" shall mean that all of Professional's services provided under and related to this Agreement shall represent Professional's judgment as an environmental engineer whose competence and professionalism equals that of environmental engineers performing services similar in scope and complexity to those required of Professional hereunder, for large corporate, governmental and institutional clients in the area where and at the time that the Professional practices.

1.5 Notice by Professional. The Professional shall notify the Owner immediately in writing if the Professional is aware or becomes aware of any omissions or deficiencies in the data or information supplied to the Professional by the Owner or any of its employees, agents, consultants or contractors.

1.6 Compliance with Laws. Professional shall comply with all applicable federal, state and local laws, ordinances, regulations and orders in performing the services hereunder.

1.7 Additional Services. The Owner shall have the right at any time during the performance of the services, without invalidating this Agreement, to order extra work beyond that specified in the Scope of Services or make changes by altering, adding to or deducting from said work ("Additional Services"). No Additional Services may be undertaken unless authorized by Owner in advance and in writing, nor shall Professional be entitled to any payment for work or services performed without such written agreement. Additional Services shall be paid for by the Owner as provided in Section 2.2. All services performed in connection with this Agreement may be referred to herein as the "Services." All terms and conditions under this Agreement applicable to Basic Services shall be applicable to all Services except as otherwise agreed to in writing by Owner and Professional.

2. COMPENSATION. The Owner shall compensate the Professional for the services to be performed in accordance with the terms and conditions of this Agreement as follows:

2.1 Basic Services. For Basic Services, as described in the Scope of Services, Professional shall be paid as set forth in the "Schedule of Compensation" attached hereto as Exhibit "B" (the "Basic Services Fee"). Said compensation shall be inclusive of all benefits, compensation costs and expenses unless specifically set forth to the contrary in this Section 2 or in the Schedule of Compensation.

2.2 Additional Services. For Additional Services, as described in Section 1.7 hereof, compensation shall be paid as set forth in the Schedule of Compensation or as otherwise set forth in a written agreement between Owner and Professional for such Additional Services (the

“Additional Services Fee” and, together with the Basic Services Fee and any other amounts owed by Owner pursuant to this Agreement, the “Fees”).

2.3 No Compensation for Deficiencies. Notwithstanding anything contained in this Agreement to the contrary, no compensation shall be paid to or claimed by the Professional for services, whether as Additional Services or Basic Services, required to correct deficiencies in any documents prepared by or on behalf of the Professional, or attributable to defaults, failures, errors or omissions of the Professional, or conflicts in the design documents attributable to the Professional, or changes requested by the Professional, unless previously approved by the Owner.

2.4 Reimbursable Expenses. The Owner shall, in addition to the amounts described in Sections 2.1 and 2.2, if applicable, reimburse the Professional on the basis of actual cost for those out-of-pocket expenses specifically set forth on the Schedule of Compensation. All other costs, expenses or charges, including, but not limited to, reproduction costs for drawings and specifications for the Professional’s internal purposes and coordination between the Professionals, daily working and commuting travel expenses, and all compensation and benefits paid to Professional’s employees, incurred by the Professional in connection with the services provided hereunder, shall be paid by the Professional without reimbursement from the Owner. Notwithstanding anything in the Schedule of Compensation to the contrary, Professional shall not be entitled to reimbursement for such reimbursable expenses unless Owner pre-approves such expenses in writing.

2.5 Fees, Taxes, and Assessments. Professional shall pay its own income taxes, federal, state or city, and self-employment taxes. Professional shall have the sole obligation to pay for any fees, assessments and taxes, plus applicable penalties and interest, which may be imposed by law and arise from or are necessary for the Professional’s performance of the services required by this Agreement, and Professional shall indemnify, defend and hold harmless the Owner against any such fees, assessments, taxes or penalties or interest assessed, levied or imposed against Owner hereunder.

2.6 Payment. Payment of the compensation set forth herein shall be made to Professional as set forth on Exhibit “B” attached hereto. Professional shall render an invoice (together with all applicable lien releases and other supporting documentation reasonably requested by Owner) to Owner for all expenses incurred by Professional for which Professional seeks payment. Upon timely submission by Professional, Owner shall pay Professional for all payments due and payable within thirty (30) days thereafter. Should a bona fide dispute arise with respect to an invoice submitted by Professional, or to the extent reasonably necessary to protect the Owner from loss for which the Professional is responsible, Owner shall pay the undisputed amount within the time period set forth on the Schedule of Compensation, but shall withhold the disputed amount until the matter is resolved.

3. PROJECT SCHEDULE. The Professional shall commence its work hereunder within five (5) days of the receipt of an authorization to proceed from Owner and shall complete the work on or before the target dates set forth in the “Project Schedule” promulgated by Owner from time to time; provided, however, that no such work shall be commenced until Owner has approved the insurance required to be obtained by Professional pursuant to Section 4.1.

Professional will perform the Services with due and reasonable diligence and expediency consistent with the standard of care of a Competent Consultant.

4. INSURANCE AND INDEMNIFICATION.

4.1 Insurance. Prior to commencing any work hereunder, Professional shall, at its sole cost and expense, fully comply with the terms and requirements of this Section. Professional shall maintain in full force and effect during the entire term of this Agreement the following policies of insurance written by insurance companies satisfactory to Owner:

(a) Workers' Compensation and Employers' Insurance. Workers' Compensation Insurance in an amount required by the laws of the state in which the Site is located and Employer's Liability Insurance in an amount not less than ONE MILLION DOLLARS (\$1,000,000.00) combined single limit for all damages arising from each accident or occupational disease.

(b) Commercial General Liability Insurance. Commercial General Liability Insurance covering bodily injury, property damage, personal injury and advertising injury written on a per-occurrence and not a claims-made basis in an amount not less than ONE MILLION DOLLARS (\$1,000,000.00) combined single limit and TWO MILLION DOLLARS (\$2,000,000.00) in the aggregate.

(c) Automobile Liability Insurance. A policy of comprehensive automobile liability insurance written on a per-occurrence basis in an amount not less than ONE MILLION DOLLARS (\$1,000,000.00) combined single limit covering all owned, non-owned, leased and hired vehicles used in connection with the Work.

(d) Professional Errors and Omissions Insurance. A policy of professional errors and omissions insurance in an amount not less than ONE MILLION DOLLARS (\$1,000,000.00) per claim and ONE MILLION DOLLARS (\$1,000,000.00) in the aggregate. Said errors and omissions insurance shall remain in effect until the date of final completion of the services hereunder plus ten (10) years. If Owner so elects and agrees to pay for the cost thereof, and if available, Professional shall procure and maintain in effect an additional Professional Errors and Omissions Insurance Policy covering this Site, and this Site only, of the same kind and for the same duration set forth above.

(e) Contractor's Pollution Liability Insurance. A policy that that will pay those sums that the Professional becomes legally obligated to pay as damages for bodily injury or property damage resulting from the discharge, dispersal, release, seepage, migration or escape of pollutants, including solid, liquid, gaseous or thermal irritant or contaminant. The contractor's pollution liability insurance policy shall have a policy limit of not less than TWO MILLION DOLLARS (\$2,000,000.00) per occurrence.

(f) Umbrella Liability Insurance. Unless waived by Owner, such insurance shall provide coverage with limits of not less than TWO MILLION DOLLARS (\$2,000,000) per occurrence and TWO MILLION DOLLARS \$2,000,000 in the aggregate, in excess of the coverages listed in 4.1(a), (b), and (c) above.

(g) Other Insurance. Such other policies of insurance, including, but not limited to, casualty insurance, business interruption insurance and fidelity insurance, as may be required in the Scope of Services.

(h) General Provisions. All of the foregoing policies of insurance (except for the professional errors and omissions insurance) shall be primary insurance and any insurance maintained by Owner shall be excess and non-contributing. All of the foregoing policies, including workers compensation (but excluding professional errors and omissions insurance), shall contain a blanket waiver of subrogation endorsement, waiving all rights against Owner and any other party against whom the Named Insured has waived its rights of subrogation by a written contract prior to the loss. All policies of insurance required to be obtained by Professional hereunder shall be issued by insurance companies authorized to do business in the state in which the Site is located and rated not less than A:VIII or better (A:V for professional liability cover) in Best's Insurance Guide. Prior to commencing any work hereunder, Professional shall deliver to Owner and Owner shall have approved (i) certificate(s) of insurance evidencing the coverages specified herein covering all operations and (ii) additional insured endorsement(s) for each such policy (other than the worker's compensation and professional errors and omissions insurer) on an ISO Form CG 20 10 (3/97 or 10/01) and accompanied by form CG 20 37 (07/04) or substantially similar forms (and not a ISO Form CG 20 09) covering Owner, its parent, subsidiary and affiliated entities, and the fee owner of the Site (if different than Owner) as additional insureds. All such certificates will have the words "endeavor to" struck out of the "Cancellation" provision thereof and shall also have deleted from such provision any language that excuses the insurer from failing to provide any notice; provided, however, Owner will accept certificates of such insurance without the foregoing deletions if Professional has, despite commercially reasonable efforts, been unable to have such language deleted. If requested by Owner, Professional shall provide to Owner duplicate originals of the commercial general liability and umbrella policies. Such policies shall not be cancelled, endorsed, altered, non-renewed, reissued to effect a change in coverage or allowed to expire without the insurer providing Owner thirty (30) days prior written notice. Professional shall require the same minimum insurance as listed above from all its Subconsultants, if any. All such policies shall provide for severability of interests and shall provide that any act or omission of any one (1) of the insureds or additional insureds that would void or otherwise reduce coverage shall not reduce or void any coverage as to any of the other insureds or additional insureds. No cross suits exclusion will apply. None of the foregoing policies shall have a deductible amount greater than \$25,000.00 without the prior written approval of Owner.

#### 4.2 Indemnification.

(a) Professional shall indemnify, protect, defend (except to the extent limited by Section 4.2(b) below), save and hold Owner and its parent, affiliated and subsidiary entities and their respective principals, agents, employees, partners, directors, officers and anyone else acting for or on behalf of any of them (all of said parties are herein collectively referred to as the "Indemnitee") harmless from and against all liability, damage, loss, claims, demands, actions and expenses of any nature whatsoever, including, but not limited to, reasonable attorney's fees (collectively, "Claims"), only to

the extent such Claims arise out of or are connected with, or are claimed to directly or indirectly arise out of or be connected with (except to the extent limited by Section 4.2(b) below): (i) the negligent act or omission of Professional, its officers, employees, invitees, licensees, independent contractors and agents (all of said parties are herein collectively referred to as the "Professional Parties"); (ii) the willful misconduct of any of the Professional Parties; (iii) the breach of any material provision of this Agreement by Professional; or (iv) the failure of any of the Professional Parties to comply with the laws, statutes, ordinances or regulations of any governmental or quasi-governmental authority in effect at the time any such services are rendered, except to the extent such loss or damage is attributable to the negligent acts or omissions or willful misconduct of such Indemnitee.

(b) Notwithstanding anything in Section 4.2(a) to the contrary, for Claims covered by Professional's policy of professional errors and omissions, or required to be maintained by Professional pursuant to this Agreement, (i) Professional's obligations pursuant to Section 4.2(a) above shall only apply to the extent the applicable Claim is "caused by" any of the events set forth in clauses (i) through (iv) in Section 4.2(a); (ii) Owner and Professional agree Professional has no obligation to provide an immediate defense of such Claims and (iii) Professional shall reimburse Indemnitee its share of defense costs only to the extent of Professional's actual indemnity obligation hereunder.

## 5. RIGHTS AND REMEDIES.

5.1 Default by Professional. In the event (i) Professional fails to expeditiously perform the services required to be performed hereby in a skilled and expeditious manner; or (ii) Professional, or any employee or agent of Professional, shall wrongfully file or record a lien against the Site or any property of Owner or any agent or employee of Owner; or (iii) any representation or certification made by Professional to Owner shall prove to be false or misleading on the date said representation or certification is made; or (iv) default shall be made in the observance or performance of any covenant, agreement or condition contained in this Agreement required to be kept, performed or observed by Professional; (v) Professional violates any laws, ordinances, rules, regulations or orders of any public authority in the performance of its duties hereunder; or (vi) Professional suffers bankruptcy; then, provided the event as described above is not cured within thirty (30) days after written notice from Owner to Professional, Owner may declare Professional to be in default hereunder. "Bankruptcy" shall be deemed to occur when Professional makes an assignment for the benefit of creditor, files a petition in bankruptcy court, voluntarily takes advantage of any bankruptcy or insolvency laws, or is adjudicated bankrupt or judicially insolvent, or if a petition or an answer is filed proposing the adjudication of such Professional as bankrupt. If Professional is in default under the provision of this Agreement pursuant to this Section, Owner may, in addition to any other right or remedy Owner may have, terminate the employment of Professional and take possession of all plans, specifications, drawings and other data theretofore prepared by Professional with respect to the services performed hereunder. Additionally, Owner may pursue any action available to it at law or in equity to obtain relief for actual damages suffered by reason of defaults, failures, or breaches of Professional hereunder.

5.2 Default by Owner. In the event Owner shall fail to perform its obligations pursuant to this Agreement after thirty (30) days' written notice from Professional to Owner, Professional may declare Owner to be in default hereunder and exercise any remedies available to it. Should Owner default in its obligations hereunder, Professional may terminate this Agreement. Upon such a termination, Professional may recover from Owner full payment for all work performed to the date of such termination and for all reimbursable amounts.

5.3 Termination by Owner Without Fault of Professional. Owner shall have the right to cancel and terminate this Agreement at any time whether or not a default exists hereunder, and Owner shall incur no penalty or liability to Professional or any other person by reason of such cancellation. If the cancellation is for no fault of Professional hereunder, Owner shall pay to Professional all sums due under this Agreement as a percent of work completed effective as of the date of termination, plus Owner approved out-of-pocket expenses actually incurred by Professional that are specifically set forth on the Schedule of Compensation. Upon receipt of notice of termination of the Agreement, Professional shall promptly take whatever reasonable steps are required to economically and efficiently transition any services remaining under the Agreement to Owner, as of such termination date, including but not limited to, delivery of all Work Product (as defined in Section 5.5) to Owner.

5.4 Transfers on Termination. In the event of termination of this Agreement, Professional and Owner shall forthwith return to the other all papers, materials and other properties of the other held by each for purposes of execution of this Agreement. In addition, each party will assist the other party in orderly termination of this Agreement and the transfer of all aspects hereof, tangible and intangible, as may be necessary for the orderly, non-disrupted business continuation of each party.

5.5 Work Product. All test data, survey results, models, renderings, drawings, plans and specifications prepared by the Professional in connection with the performance of services under this Agreement (collectively, "Work Product") are and shall remain the property of Professional, including all copyrights, rights of reproduction and other interests relating thereto, except as provided herein. Owner shall be entitled to retain copies, including reproducible copies, of the Work Product for information and reference in connection with Owner's use and development of the Project and for future phases of the Project. As to those Work Product subject or which will be subject to any form of intellectual property protection or other ownership, Professional hereby grants or causes or will cause to be granted to Owner a world-wide, paid up, nonexclusive license for the term of intellectual property protection or other ownership, for the Owner to use, reproduce and have reproduced, display and allow others to display and to publish and allow others, subject to the restrictions contained herein, to display and to publish, in any manner related to the Project or for future phases of the Project, such Work Product without further compensation to Professional or any third party and with the right to transfer such rights to a purchaser of the Site. If the Professional is in default under this Agreement and this Agreement is terminated by reason thereof, Owner shall be entitled to use the Work Product for completion of the Project by others without additional compensation. Submission or distribution of documents to meet official regulatory requirements or for similar purposes in connection with the Project is not be construed as publication in derogation of the Professional's reserved rights.

## 6. DISPUTE RESOLUTION.

6.1 Mediation. At Owner's sole election, any action, dispute, claim or controversy between the parties, whether sounding in contract, tort or otherwise, including all disputes arising out of or in connection with this Agreement and any related agreements or instruments and any transaction contemplated hereby ("Dispute" or "Disputes") shall be attempted to be settled in good faith by nonbinding mediation administered by the American Arbitration Association ("AAA") under its Construction Industry Mediation Rules before resorting to binding arbitration pursuant to Section 6.2 below. In the event of any inconsistency between such rules and these mediation provisions, these provisions shall supersede such rules. All statutes of limitations that would otherwise be applicable shall apply to any mediation proceeding under this Section. Except as otherwise provided, the mediator shall be selected in accordance with the Construction Industry Mediation Rules of the AAA. Any mediator selected under this Section shall be knowledgeable in the subject matter of the Dispute. Qualified retired judges with at least five (5) years mediation experience shall be selected through panels maintained by AAA, any court in which the Site is located or any private organization providing such services. The mediation shall be held within thirty (30) days of the date the demand for mediation is served on a party. The parties understand and agree that a representative from each side with full settlement authority will be present at the mediation conference. The mediation process is to be considered settlement negotiations for the purpose of all state and federal rules protecting disclosures made during such conferences from later discovery or use in evidence. The parties hereto agree that the provisions of California Evidence Code Section 1152 shall apply to any mediation conducted hereunder. All conduct, statements, promises, offers, view and opinions, oral or written, made during the mediation by any party or a party's agent, employee or attorney shall not be subject to discovery or admissible for any purpose, including impeachment, in any litigation, arbitration or other proceeding involving the parties. The mediator's fees and costs shall be divided equally among the parties.

6.2 Arbitration. If the Dispute cannot be resolved by mediation pursuant to Section 6.1 above, the Dispute shall be resolved by arbitration as set forth in this Section. Such disputes shall be resolved by binding arbitration in accordance with Title 9 of the U. S. Code and the Construction Industry Arbitration Rules of the AAA. In the event of any inconsistency between such rules and these arbitration provisions, these provisions shall supersede such rules. All statutes of limitation that would otherwise be applicable shall apply to any arbitration proceeding under this Section. In any arbitration proceeding subject to these provisions, the arbitrator is specifically empowered to decide (by documents only, or with a hearing, at the arbitrator's sole discretion) pre-hearing motions that are substantially similar to pre-hearing motions to dismiss and motions for summary adjudication. Judgment upon the award rendered may be entered in any court having jurisdiction. Except as otherwise provided, the arbitrator shall be selected in accordance with the Construction Industry Arbitration Rules of the AAA and shall not be the mediator previously appointed to hear the Dispute. Any arbitrator selected under this Section shall be knowledgeable in the subject matter of the Dispute. Qualified retired judges with at least five (5) years arbitration experience shall be selected through panels maintained by the AAA, any court in which the Site is located or any private organization providing such services. Initially, the fees and costs of the arbitrator shall be divided equally among the parties to the arbitration.

6.3 Survival; Applicability. The provisions of this Article shall survive any termination, amendment or expiration of this Agreement in which this section is contained, unless the parties otherwise expressly agree in writing. Should an action, Dispute, claim or controversy be brought against Owner and/or Professional by a third party who is not bound by a mediation or binding arbitration provision similar to the mediation and arbitration provisions contained herein, the terms of this Article shall not apply to such action, Dispute, claim or controversy.

6.4 Work During Disputes. Notwithstanding the fact that a Dispute, controversy, claim or question shall have arisen in the interpretation of any provision of this Agreement or the performance of the Services hereunder, Professional will not directly or indirectly stop or delay any of the Services.

## 7. MISCELLANEOUS.

7.1 Liens. Provided Owner has paid Professional the amounts owing hereunder when such sums are owed to Professional, should Professional or any subconsultant or employee of Professional make, record or file, or maintain any action on or respecting a claim of mechanic's or materialmen's lien, stop-notice, equitable lien, payment or performance bond or *lis pendens* (in each case, a "Lien"), Professional shall immediately and at its own expense procure, furnish and record appropriate statutory release bonds of bonding companies acceptable to Owner which will extinguish or expunge said claim, stop-notice or *lis pendens*. If Professional fails to do so within ten (10) days after receiving notice of the Lien, Owner will have the right to cause such lien to be removed and Professional shall indemnify, defend and hold harmless Owner against all liability, cost and expense incurred by Owner in causing such lien to be removed. Owner may retain out of any payment due Professional amounts sufficient to reimburse Owner for any such liability, cost and expense.

7.2 Professional Opinions. Professional shall, from time to time, provide opinions and statements to the Owner and to others as the Owner shall reasonably request provided that Professional determines that such opinions and statements are true and correct based upon the Services performed by Professional hereunder.

7.3 Personal Service Contract. This Agreement is entered into solely to provide for the design services set forth herein and to define the rights, obligations and liabilities of the parties hereto. This Agreement, and any document or agreement entered into in connection herewith, shall not be deemed to create any other relationship between Professional and Owner other than as expressly provided herein. Professional acknowledges that it is an independent contractor of Owner and not a partner or joint venturer of Owner or an employee or agent of Owner. Professional is free to pursue and accept other business opportunities so long as Professional's business ventures do not conflict with the provisions of this Agreement. Professional shall not at any time or in any manner represent that it or any of its agents or employees are agents or employees of Owner.

7.4 Prohibition on Assignment. The experience, knowledge, capability and reputation of Professional, its principals and employees were a substantial inducement for Owner to enter into this Agreement. Therefore, neither this Agreement nor any interest herein may be

transferred, assigned, conveyed, hypothecated or encumbered, voluntarily or by operation of law, by Professional, whether for the benefit of creditors or otherwise, without the prior written approval of Owner. Transfers restricted hereunder shall include the transfer to any person or group of persons acting in concert of more than twenty-five percent (25%) of the present ownership and/or control of Professional, taking all transfers into account on a cumulative basis. In the event of any such unapproved transfer, this Agreement shall be void. No approved transfer shall release Professional of any liability hereunder without the express consent of Owner. Owner may assign all of its right, title and interest in and to the Agreement or any portion thereof without the prior written consent of the Professional. Not by way of limitation of the foregoing, Professional acknowledges that Owner may assign all of its right, title and interest in and to this Agreement to any party including, without limitation, third party purchasers, its lender(s) and/or equity partner(s) for security purposes and agrees to execute consents to such assignment as may be required by such third party purchasers, lender(s) and/or equity partner(s). Upon any such assignment, Owner shall be relieved of any liabilities or obligations occurring under this Agreement from and after the date of such assignment.

7.5 Information. The Owner shall provide information regarding its requirements for the services to be provided by the Professional.

7.6 Owner's Approval. Whenever provision is made herein for the approval or consent of Owner, or that any matter be to Owner's satisfaction, unless specifically stated to the contrary, such approval or consent shall be made by Owner in its sole discretion and determination.

7.7 Notices. Any notice which either party may desire to give to the other party must be in writing and shall be effective (i) when personally delivered by the other party or messenger or courier thereof; (ii) three (3) business days after deposit in the United States mail, registered or certified; (iii) twenty-four (24) hours after deposit before the daily deadline time with a reputable overnight courier or service; or (iv) upon receipt of a telecopy or fax transmission, provided a hard copy of such transmission shall be thereafter delivered in one of the methods described in the foregoing (i) through (iii); in each case postage fully prepaid and addressed to the respective parties as set forth below or to such other address and to such other persons as the parties may hereafter designate by written notice to the other parties hereto:

To Owner:                   Dumbarton Area 2, LLC  
3 San Joaquin Plaza, Suite 100  
Newport Beach, CA 92660  
Attn: Evan Knapp and Caren Read  
Facsimile: 949-720-3613

To Professional:       Haley & Aldrich, Inc.  
2033 N. Main Street, Suite 309  
Walnut Creek, CA 94596  
Attn: James Schwartz  
Facsimile: 925-979-1456

7.8 Books and Records. Professional shall keep complete and detailed books and records relating to reimbursable expenses, Additional Services and services performed on the basis of a fixed rate on the basis of generally recognized accounting principles, consistently applied. These books and records shall be retained by the Professional at its head office for a period of at least three (3) years after the date of completion of the performance of this Agreement. The Owner shall have the right at all reasonable times to audit the books and records. If such audit discloses that Professional has charged and received more than it was entitled hereunder, Professional shall immediately reimburse to Owner the excess amount received together with interest thereon at ten percent (10%) per annum from the date such excess amount was received until repayment thereof.

7.9 Confidentiality. Professional, for itself and its employees and personnel, acknowledges, confirms and agrees that all information learned in the course of their employment and all data furnished by the Owner, all plans, drawings, computer programs, specifications, and other documents relating to the Site, Owner's business and the terms of this Agreement are and shall remain of a confidential nature. Any publicity or press releases with respect to the Site or the services hereunder shall be under the sole discretion and control of the Owner. Professional shall not divulge to any unauthorized person any confidential information concerning observations, conversations, discussions, correspondence, personnel records, business records, proprietary records. All matters concerning the Owner and its business operations, including, but not limited to, the identity of persons with whom it conducts business such as customers, vendors, manufacturers and suppliers, its research and development, its projects and contemplated projects, its financial affairs, its pricing structure and strategies and its procedures and practices shall be considered confidential. Such information remains the property of the Owner. Moreover, Professional shall not employ confidential business information in performing services for Owner that it has obtained by virtue of its relationship with any other company. These restrictions shall not apply to (a) information that is in the public domain through no wrongful act or omission of any of the Professional Parties, (b) was in Professional's lawful possession prior to the date of this Agreement and had not been first obtained by Professional either directly or indirectly from Owner or (c) information that is required to be disclosed by law or court order provided, however, that Professional first provides written notice to Owner prior to making any such disclosure.

7.10 Conflict of Interest. Professional shall not have any business or financial interest outside the Owner which in any way conflicts with the interests of the Owner or places Professional in a position where it can use the association with the Owner for direct or indirect gain to the possible detriment or embarrassment of the Owner. A conflict of interest may arise in a wide variety of circumstances and may be direct or indirect. A conflict of interest arises whenever the Professional's outside interests might affect or might reasonably be thought by others to affect the Professional's judgment or conduct in matters which involve the Owner. Professional agrees not to engage in such activity. Professional assumes any and all liability should any allegation of conflict of interest arise from the conduct of Professional, and Professional agrees to indemnify the Owner for any allegation of conflict of interest arising from the conduct of Professional.

7.11 Waiver. No waiver of any default hereunder shall be construed as a waiver of any subsequent breach.

7.12 Successors and Assigns. Subject to the restrictions in Section 7.4 above, the Owner and the Professional each binds himself, his partners, successors, permitted assigns and legal representatives to the other party to this Agreement and to the partners, successors, assigns and legal representatives of such other party with respect to all covenants of this Agreement.

7.13 Governing Law. This Agreement shall be construed in accordance with the laws of the state in which the Site is located.

7.14 Full Agreement. Each party acknowledges its full understanding of this Agreement and that there are no verbal promises, undertakings or agreements in connection herewith and that this Agreement may be modified only by a written agreement signed by all parties hereto. All previous negotiations and agreements between the parties hereto, with respect to the transaction set forth herein, are merged in this instrument which fully and completely express the parties' rights and obligations, and the covenants herein shall be binding upon and inure to the benefit of the parties hereto and their respective heirs, legal representatives, successors and assigns.

7.15 Partial Invalidity; Counterparts. If any term or provision of this Agreement shall be found to be illegal, unenforceable or in violation of the laws, statutes, ordinances or regulations of any public authority having jurisdiction thereof by a court of competent jurisdiction, then, notwithstanding such term or provision, this Agreement shall be and remain in full force and effect and such term shall be deemed stricken; provided, however, this Agreement shall be interpreted, when possible, so as to reflect the intentions of the parties as indicated by any such stricken term or provision. This Agreement may be executed in multiple counterparts, each of which shall be deemed an original and all of which together shall constitute one instrument. In order to facilitate the transaction contemplated herein, electronically mailed or facsimile signatures may be used in place of original signatures on this Agreement. Each party intends to be bound by the signatures on the electronically mailed or facsimiled document, are aware that the other party will rely on such signatures, and hereby waive any defenses to the enforcement of the terms of this Agreement based on the form of signature.

7.16 Survival. The terms, provisions, indemnities, representations and certifications contained in this Agreement, or inferable therefrom, shall survive the termination of this Agreement and the payment of the remuneration hereinabove provided.

7.17 Attorneys' Fees. In any action between the parties hereto seeking enforcement of any of the terms and provisions of this Agreement or in connection with the performance of the services hereunder, the prevailing party in such action shall be entitled to have and to recover from the other party its actual attorneys' fees, expert witness fees, arbitrator's fees, statutory costs, court costs and other expenses in connection with such action or proceeding.

7.18 Authority. Each individual executing this Agreement represents and warrants that he or she is duly authorized to execute and deliver this Agreement on behalf of the party to this Agreement.

7.19 Exhibits. Exhibits "A" and "B" attached hereto, are incorporated herein by this reference for the sole purposes of setting forth the scope of the Basic Services, the terms of

payment for Basic Services and Additional Services and any schedule of performance of the Services. All other terms and conditions set forth in Exhibits "A" and "B" shall not be incorporated into this Agreement. In the event of any conflict or inconsistency between the terms and conditions of the body of this Agreement and the Exhibits attached hereto, the terms and conditions contained in the body of this Agreement shall prevail.

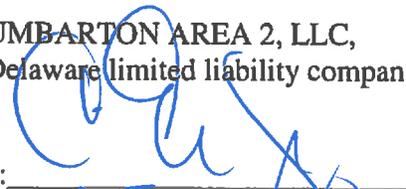
7.20 Waiver of Consequential Damages. Neither party, nor their parent, affiliated or subsidiary companies, nor the officers, directors, agents, employees or contractors of any of the foregoing, shall be liable to the other in any action or claim for incidental, indirect, special, collateral, consequential, exemplary or punitive damages arising out of or related to the Services or breach of this Agreement, whether the action in which recovery of damages is sought is based upon contract, tort (including, to the greatest extent permitted by law, the sole, concurrent or other negligence, whether active or passive, and strict liability of any protected individual or entity), statute or otherwise.

7.21 Limitation of Remedies. In recognition of the relative risks and benefits of the Project to both the Owner and the Professional, the risks have been allocated such that the Owner agrees, to the fullest extent permitted by law, to limit the liability of Professional in connection with this Agreement for any and all claims, losses, costs, damages of any nature whatsoever or expenses from any cause or causes, including attorneys' fees and costs and expert-witness fees and costs, so that the total aggregate liability of the Professional under this Agreement shall not exceed \$1,000,000.

*[signatures on following page]*

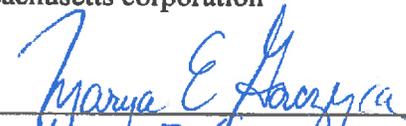
IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the day and year first above written.

DUMBARTON AREA 2, LLC,  
a Delaware limited liability company

By:   
Name: C. Evan Knapp  
Title: Authorized Signatory

“Owner”

HALEY & ALDRICH, INC.,  
a Massachusetts corporation

By:   
Name: Maria E. Goczynski  
Title: Senior Vice President

“Professional”

EXHIBIT "A"

SCOPE OF SERVICES

*[see attached proposal letter from Professional dated September 25, 2013,  
and Attachments A, B and C thereto, together consisting of 10 pages]*

EXHIBIT "A"

TO PROFESSIONAL SERVICES AGREEMENT

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Haley & Aldrich, Inc.  
2033 N. Main Street  
Suite 309  
Walnut Creek, CA 94596-7260

Tel 925 949 1012  
Fax 925 979 1436  
HaleyAldrich.com



25 September 2013  
File No. 40451-970

~~Integral Partners Funding, LLC~~ Dumbarton Area 2, LLC  
3 San Joaquin Plaza, Suite 100  
Newport Beach, California 92660

Attention: Glenn Brown, PE

Subject: Proposal for Phase I Environmental Site Assessment  
Cargill Property  
Newark, California

Dear Mr. Brown:

Haley & Aldrich, Inc. is pleased to submit this proposal to provide environmental consulting services. This proposal presents our scope of work to perform a Phase I environmental site assessment (Phase I assessment) at the subject site described below using methods consistent with the ASTM E 1527-05 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process (ASTM E 1527-05 Standard) as referenced in 40 CFR Part 312 (the All Appropriate Inquiries [AAI] Rule).

The completion of these Phase I assessments are only one component of the process required to satisfy the AAI Rule. In addition, the user must adhere to a set of user responsibilities as defined by the ASTM E 1527-05 Standard and the AAI Rule. User responsibilities are discussed below. A user seeking protection from Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) liability as an innocent landowner, bona fide prospective purchaser, or contiguous property owner must complete all components of the AAI process in addition to meeting ongoing obligations. AAI components, CERCLA liability relief, and ongoing obligations are discussed in the AAI Rule and in Appendix XI of the ASTM E 1527-05 Standard.

#### PROJECT UNDERSTANDING AND BACKGROUND

It is our understanding that Integral Partners Funding, LLC (Integral) is considering acquisition of the subject site, and in connection with this proposed transaction, desires a Phase I assessment of the subject site consistent with the ASTM E 1527-05 Standard practices.

Haley & Aldrich understands the subject site consists of consists of a portion of three former parcels (Assessor's Parcel Numbers [APNs] 537-0852-009, 537-0852-010 and 537-0852-011). We understand that the parcel boundaries have been revised and a new parcel map is being recorded with the County; the subject property now consists of a single 54.53-acre parcel. The approximate property boundaries are shown on the attached figure.

## EXHIBIT "A" TO PROFESSIONAL SERVICES AGREEMENT PAGE 2 OF 11 PAGES

## PROJECT OBJECTIVES

The objective of a Phase I assessment is to identify known and suspect "recognized environmental conditions" (RECs), historical RECs (HRECs), and *de minimis* conditions associated with the subject site by evaluating site history, existing observable conditions, current site use, and current and former uses of adjoining properties as well as potential releases at surrounding properties that may impact the subject site. RECs are defined in the ASTM E 1527-05 Standard as "the presence or likely presence of any hazardous substances or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, groundwater, or surface water at the property. The term includes hazardous substances or petroleum products even under conditions in compliance with laws. The term is not intended to include *de minimis* conditions that generally do not present a threat to human health or the environment and that generally would not be the subject of an enforcement action if brought to the attention of appropriate governmental agencies." A material threat is defined by the ASTM E 1527-05 Standard as "a physically observable or obvious threat which is reasonably likely to lead to a release that, in the opinion of the environmental professional, is threatening and might result in impact to public health or the environment."

Consistent with ASTM E 1527-05 Section 12.5 (Report Format), and for the purposes of this assessment, those RECs that have been identified as being present with respect to the subject site are referred to as Known Recognized Environmental Conditions (KRECs), and those RECs that have been identified as being likely present with respect to the subject site are referred to as Suspect Recognized Environmental Conditions (SRECs). The ASTM E 1527-05 Standard defines HRECs as environmental conditions "which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently."

The ASTM E 1527-05 Standard requires an environmental professional's opinion of the potential impacts of RECs, HRECs, and *de minimis* conditions identified on a site during a Phase I assessment. Our conclusions regarding the potential impact of RECs, HRECs, and *de minimis* on the subject site are intended to help the user evaluate the "business environmental risk" associated with the subject site, defined in the ASTM E 1527-05 Standard as "a risk which can have a material environmental or environmentally-driven impact on the business associated with the current or planned use of a parcel of commercial real estate, not necessarily limited to those environmental issues required to be investigated in this practice. Consideration of business environmental risk issues may involve addressing one or more non-scope considerations..." The non-scope considerations listed in the ASTM E 1527-05 Standard are discussed below in the Authorization section of this proposal.

The Phase I assessment work scope has been developed to be consistent with the ASTM E 1527-05 Standard, based on our current understanding of the subject site. The Phase I assessment consists of four components: Records Review, Site Reconnaissance, Interviews, and Report Preparation. The scope of work specific to this project is attached (Attachment A).

## USER RESPONSIBILITIES

The AAI Rule requires that the user of the report consider the following:

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ALDRICH**

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- Whether the user has specialized knowledge about previous ownership or uses of the subject site that may be material to identifying RECs;
- Whether the user has determined that the subject site's Title contains environmental liens or other information related to the environmental condition of the property, including engineering and institutional controls and Activity and Use Limitations (AULs), as defined by ASTM;
- Whether the user is aware of commonly known or reasonably ascertainable information about the subject site including whether or not the presence of contamination is likely on the subject site and to what degree it can be detected; and
- Whether the user has prior knowledge that the price of the subject site has been reduced for environmentally related reasons.

We request that you provide this information to us for inclusion in our report. Though it is not required by the AAI Rule or the ASTM E 1527-05 Standard that this information be provided to Haley & Aldrich, failure on the part of the user to obtain such information for their own records, should it be reasonably ascertainable, may invalidate the user's compliance with the AAI Rule for CERCLA liability protection in the future.

#### **ESTIMATED FEE**

Services described in this proposal will be conducted on a time-and-expense basis in accordance with the Professional Services Agreement and Standard Fee Schedule. We estimate the cost of consulting services related to the Phase I work scope under work items No. 1 through 5 in the Detailed Scope of Services Attachment to be approximately [REDACTED]

#### **SCHEDULE**

We will provide a verbal report on the property conditions and any environmental issues of note by 8 October 2013. A draft copy of the Phase I assessment report will be provided for your review by 11 October 2013.

Please note, however, that responses to agency records requests may not be received within the time frame allotted for this project. At your discretion, we can either wait for the response to the requests prior to finalizing our report, or we can supplement the report with the responses if they are received and contain information that would alter our conclusions.

#### **AUTHORIZATION**

Our work scope for this project will be performed in accordance with the standards and practices set forth in 40 CFR Part 312, and consistent with the ASTM E 1527-05 Standard for Phase I Environmental Site Assessments. Several organizations other than ASTM, such as the Federal Home Loan Bank Board, the Resolution Trust Corporation, and Professional Associations, have also developed "guidelines" or "standards" for environmental site assessments. The scope of work for the Phase I assessment outlined in Attachment I may vary from the specific guidelines or standards required by other organizations. If this project requires conformance with a specific guideline or standard other

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ALDRICH**

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Integral Partners Funding, LLC  
25 September 2013  
Page 4

than ASTM, we will be pleased to review our proposal considering the specific requirements, and we will revise and resubmit this proposal, if necessary. Unless specifically referenced in this proposal, the work scope and report will not address other guidelines or standards.

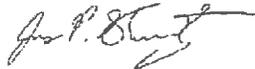
No subsurface explorations or chemical analysis of environmental media (e.g., soils or groundwater) will be performed during this assessment. Therefore, our conclusions regarding the evidence of RECs will be based on observations of existing visible conditions, and on our interpretation of subject site history and site usage information. Further, our conclusions regarding the presence of hazardous substances and petroleum products may not be applicable to areas beneath existing structures, unless specific subsurface exploration, sampling, and/or analytical information is available and reviewed by us for such areas.

The ASTM E 1527-05 Standard includes the following list of "additional issues" that are non-scope considerations outside of the scope of the ASTM Phase I practice: asbestos-containing materials, radon, lead-based paint, lead in drinking water, wetlands, regulatory compliance, cultural and historic resources, industrial hygiene, health and safety, ecological resources, endangered species, indoor air quality, bio-agents, and mold. Assessment of these items is not included in our proposed work scope. A limited assessment of the presence of PCBs is included in the ASTM work scope. Accordingly, our assessment of the presence of PCBs is limited to those potential sources specified in the ASTM E 1527-05 Standard as "electrical or hydraulic equipment known or likely to contain PCBs, to the extent visually and or physically observed or identified from the interview or records review."

Our report will be prepared solely for the purposes stated in this proposal. Any opinions rendered pursuant to this Agreement are for the sole and exclusive use of Client, and are for the use of, or reliance upon, by any clients, lenders, and potential future purchasers, or any third parties subject to the terms and conditions of Haley & Aldrich's standard reliance letter, a template of which is attached hereto, which reliance letters shall be issued without charge. Any other use of this report without written authorization of Haley & Aldrich shall be at such other person's or entity's sole risk, and shall be without legal exposure or liability to Haley & Aldrich.

Thank you again for the opportunity to submit this proposal. We greatly enjoy working with you and look forward to assisting you with this project. Please do not hesitate to contact me at 408-204-8551 if you have any questions, comments or concerns.

Sincerely yours,  
HALEY & ALDRICH, INC.



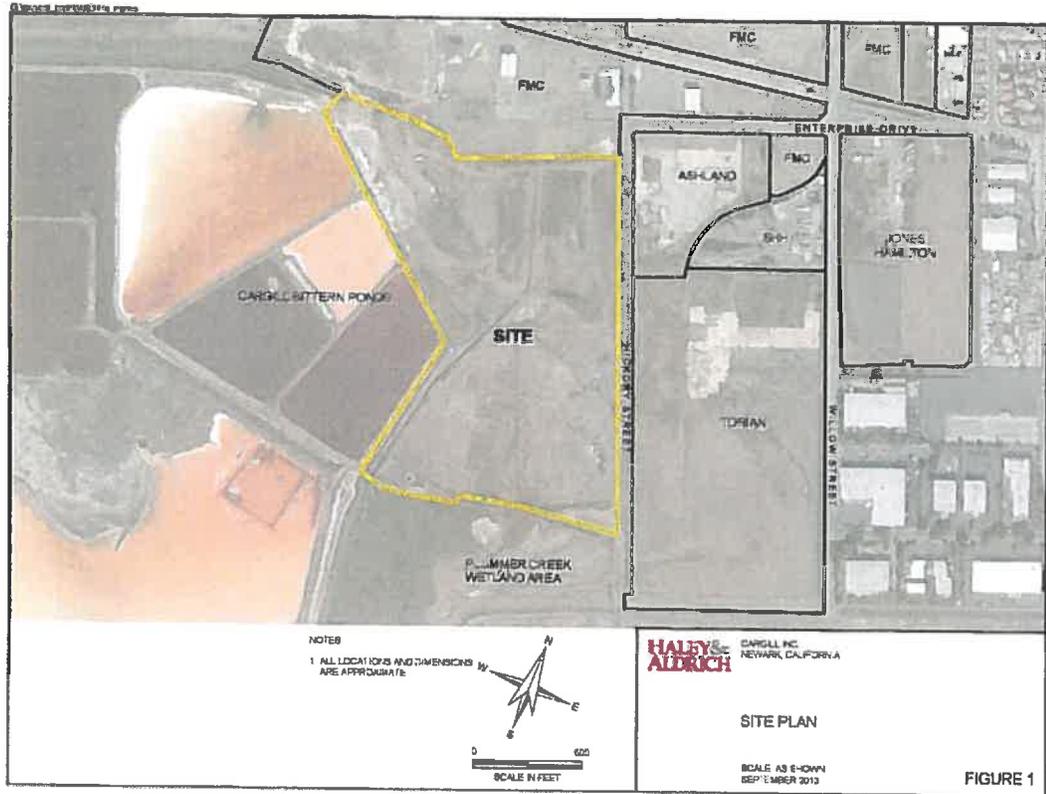
James P. Schwartz, P.G.  
Client Leader

Attachments:

Figure 1: Site Plan  
ASTM E 1527-05 Phase I Environmental Site Assessment, Detailed Scope of Services  
Standard Fee Schedule  
Reliance Letter Template

**HALEY &  
ALDRICH**

**EXHIBIT "A"**  
**TO PROFESSIONAL SERVICES AGREEMENT**  
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**EXHIBIT "A"**  
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## ATTACHMENT A

ATTACHMENT A  
24 September 2013  
Cargill Property, Newark, California

**ASTM E 1527-05  
PHASE I ENVIRONMENTAL SITE ASSESSMENT  
DETAILED SCOPE OF SERVICES**

1. Records Review - Haley & Aldrich will assemble and review readily available information on site history and usage as it relates to the presence of hazardous substances and petroleum products that would constitute RECs on the subject site. The ASTM E 1527-05 Standard lists standard and additional records for review.

We will review information from the mandatory databases within the ASTM-specified approximate minimum search distances. The mandatory databases include: NPL; Delisted NPL; CERCLIS; CERCLIS NFRAP; ERNS; RCRA non-CORRACTS TSD; RCRA CORRACTS TSD; RCRA Generators; Federal Institutional and Engineering Controls; State and Tribal Landfills and Solid Waste Disposal Sites; State and Tribal equivalent NPL and CERCLIS Sites; State and Tribal Registered Storage Tanks; State and Tribal Leaking Storage Tanks; State and Tribal Institutional and Engineering Controls; State and Tribal Voluntary Clean-up Sites; and State and Tribal Brownfields Sites. We intend to use an electronic database service to provide a report summarizing information from the required records, and will rely on the database service to conform to ASTM requirements for currency of the information. Should the database search report identify listed sites with the potential to impact the subject site, Haley & Aldrich may review the federal or state files pertaining to the listed sites, as reasonably ascertainable and practically reviewable. The budget presented below does not include costs for review of files at more than one agency's office.

As required by ASTM, a current 7.5-minute USGS topographic map or equivalent will be used to evaluate the physical setting in the subject site area, and will be supplemented by discretionary review of readily available information concerning surface topography, surface water, soil, bedrock, and groundwater conditions on and in the vicinity of the subject site.

To complete the ASTM records review, Haley & Aldrich may contact one or more of the following agencies concerning the subject site: Health Department, Fire Department, Water Department, Zoning Board, and Engineering Department. We will contact the agencies for information concerning records related to storage, use, or release of hazardous substances or petroleum products that may constitute RECs on the subject site, and will document our contacts in writing.

ASTM requires that "obvious uses" of the subject site be identified from the present back to the first developed use or back to 1940, whichever is earlier. In order to complete that task, Haley & Aldrich will review one or more of the following ASTM-listed standard historical sources: aerial photographs, fire insurance maps, property tax files, recorded land title records, USGS topographic maps, local street directories, building department records, and zoning/land use records. Haley & Aldrich may also review ASTM-listed "other historical sources" including newspaper archives, internet sites, and local libraries and historical societies.

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EXHIBIT "A"  
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Haley & Aldrich will review reports previously prepared for the subject site, if provided.

Pursuant to the ASTM E 1527-05 Standard, records identified by ASTM as "Additional" or "Other" will be reviewed when, in Haley & Aldrich's judgment, they are (1) reasonably ascertainable; (2) sufficiently useful, accurate, and complete; and (3) generally obtained pursuant to local good commercial or customary practice.

2. Site Reconnaissance - Haley & Aldrich will visit the subject site and view interior and exterior conditions to assess the nature and type of activities that have been conducted with respect to the potential for RECs to be present. Haley & Aldrich will observe and document visible evidence of current and past usage of the subject site, particularly related to potential filling, previous structures, sewage disposal systems, hazardous substances, petroleum products, storage tanks, and evidence of spills or releases of hazardous substances or petroleum products. Conditions of adjoining properties will also be observed from the subject site boundaries and/or public thoroughfares.

We understand that you will make all areas of the subject site accessible to our representative(s) for the site visit. For budgeting purposes, we have assumed that all areas of the subject site will be made accessible and that the site reconnaissance will be conducted in one site visit.

Our observations and conclusions related to the site reconnaissance may be limited by prevailing weather conditions or other conditions at the time of our site visit. Our report will include a discussion of factors limiting our site reconnaissance, if applicable.

3. Interviews with Owners and Occupants - The ASTM E 1527-05 Standard requires that interviews be performed with a "key site manager" (the owner or occupant of the subject site) and with representatives of building occupants. In accordance with ASTM, an interview will be conducted with a representative of each occupant if the building has five or fewer occupants. If the building contains more than five occupants, an interview will be conducted with those major occupants, as defined by ASTM, and those occupants whose operations could indicate RECs in connection with the subject site. We request that the current owner(s) or representative(s) be notified of our visit and asked to participate in an interview regarding subject site usage and history. If the subject site is abandoned, ASTM requires interviews with one or more owners or occupants of neighboring or nearby properties. Further, as required by the ASTM E 1527-05 Standard, we ask that you assemble and make available to Haley & Aldrich copies of previous environmental investigation reports and audits of the property, and other information related to storage, use, or release of hazardous substances or petroleum products at the site, such as environmental permits, registrations for tanks, material safety data sheets, or waste disposal records.
4. Interview with State and/or Local Government Officials - Haley & Aldrich may interview one or more state and/or local government officials in conjunction with the state and local government records review with the intention to obtain information indicating RECs in connection with the subject site.
5. Evaluation and Report - Haley & Aldrich will interpret the information and data assembled from work scope items No. 1 through No. 4 above, and will formulate conclusions regarding evidence of RECs at the subject site and their potential impact on the subject site. We will prepare two copies of a report summarizing the results of our assessment and discussing our

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EXHIBIT "A"  
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conclusions regarding the potential presence and impact of RECs in connection with the subject site, based on the work scope described above.

The report will be prepared in accordance with the standards and practices set forth in 40 CFR Part 312 (the AAI Rule), and consistent with the ASTM E 1527-05 Standard. Documentation supporting the conclusions presented will be appended to the report. As required by ASTM, our final report will include declarations that the Phase I assessment was conducted consistent with the scope and limitations of the ASTM E 1527-05 Standard, and the persons who signed the report meet the definition of environmental professional. In addition, the Phase I assessment report will indicate whether RECs were or were not identified in connection with the subject site, and whether there were data gaps. If data gaps were identified, Haley & Aldrich will indicate whether they are considered significant (i.e., affect our ability to identify conditions indicative of RECs).

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**EXHIBIT "A"**  
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## ATTACHMENT B



Haley & Aldrich, Inc.  
Modified 28 October 2011  
11-R5

### Standard Fee Schedule

#### Fees for Services

Fees for services will be based on the time worked on the project by staff personnel plus reimbursable expenses. The fee will be computed as follows:

1. Labor related fees will be computed based on personnel billing rates in effect at the time the services are performed. Personnel billing rates for Additional Services only are subject to revision on, or about, 1 January and 1 July each year. The hourly rates are fully inclusive of fringe benefits, burden and fee. Current rates are as follows:

| Classification                     | Hourly Rate(\$) |
|------------------------------------|-----------------|
| Office Support                     | 75.00           |
| Field/Lab Geol/Engr Tech (Gr. 1-3) | 81.00           |
| Field/Lab Geol/Engr Tech (Gr. 4-5) | 88.00           |
| Field/Lab Geol/Engr Tech (Gr. 6-8) | 97.00           |
| Graphics/GIS/Data Mgt              | 109.00          |
| Senior Graphics/GIS/Data Mgt       | 120.00          |
| Professional (Gr. 1)               | 96.00           |
| Professional (Gr. 2)               | 101.00          |
| Professional (Gr. 3)               | 114.00          |
| Staff Professional (Gr. 4)         | 120.00          |
| Staff Professional (Gr. 5)         | 138.00          |
| Senior Professional (Gr. 6)        | 150.00          |
| Senior Professional (Gr. 7)        | 164.00          |
| Senior Professional (Gr. 8)        | 177.00          |
| Vice President 1                   | 202.00          |
| Vice President 2                   | 219.00          |
| Senior Vice President              | 261.00          |

2. Overtime hours required by Owner will be charged at straight time rates. Fees for pretrial conferences, depositions and expert testimony will be billed at one and one-half (1.5) times the rates quoted above.
3. Direct non-salary expenses approved by Owner will be billed at our cost plus fifteen (15) percent or at H&A standard usage rates including:

- a) Transportation and subsistence expenses incurred for necessary travel, such as:
  - (1) Use of personal or company vehicle at IRS allowed mileage rates;

- (2) Use of public carriers, airplanes, rental cars, trucks, boats, or other means of transportation;

- b) Telephone usage, including facsimile and cellular phone, local and long distance, and teleconferencing; in-house reproduction and printing costs for reports, drawings, and other project records (excluding those for internal use); mail, including standard postage and overnight document delivery; will be billed as a general communication fee at a rate of 1% of the labor charges.

- c) Shipping charges for water, soil and rock samples, field testing equipment, etc.

- d) Disposal costs for soil, rock, waste and/or water samples at \$0.30 per ounce (fluid measure, sample container size). Rock core disposal will be at \$20.00 per box.

- e) Expendable personal protective equipment required for work on the project site.

- f) Purchase of specialized equipment and rental of equipment from outside vendors.

- g) Other project-related expenses approved by Owner.

4. Subcontractors engaged to perform test borings or other field explorations, analytical chemical laboratory services, or other services required by the project will be billed at our cost plus fifteen (15) percent.

5. Specialized geotechnical, geophysical and environmental instrumentation, geotechnical laboratory tests and field supplies required by the project scope will be billed at H&A standard usage rates.

**End of Standard Fee Schedule**

**EXHIBIT "A"**  
**TO PROFESSIONAL SERVICES AGREEMENT**  
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ATTACHMENT C

On [date], Haley & Aldrich submitted the subject Report to [Client] for [summary of purpose] pursuant to a Professional Services Agreement between [Client] and Haley & Aldrich. Since the submittal of the Report, Haley & Aldrich has not been requested to verify the information, findings, and/or opinions set forth in the Report and/or other instruments of service prepared in connection therewith, nor to evaluate the necessity and/or advisability of any such verification.

The Services performed by Haley & Aldrich are subject to the terms and conditions expressed in the Report and Professional Services Agreement. [Relying Party] is hereby authorized to use and rely on the Report, subject to the terms, conditions and limitations referenced herein, and contingent on receipt by Haley & Aldrich of a signed copy of this letter, within 30 days, by an authorized representative of [Relying Party], signifying its acceptance of the foregoing.

EXHIBIT "A"  
TO PROFESSIONAL SERVICES AGREEMENT  
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## EXHIBIT "B"

### SCHEDULE OF COMPENSATION

1. Basic Services Fee. Owner shall pay Professional on a time-and-materials basis in an amount not to exceed SIX THOUSAND FIVE HUNDRED AND NO/100 DOLLARS (\$6,500.00) as set forth in Exhibit "A" attached hereto.

a. The sums set forth in Exhibit "A" will be billed to Owner in accordance with the hourly rates set forth in the fee schedule included in Exhibit "A" attached hereto.

b. All flat rates referred to above and in Exhibit "A" shall be inclusive of all benefits, compensation costs and expenses unless specifically set forth to the contrary herein.

2. Additional Services Compensation. Except as otherwise agreed, compensation for Additional Services shall be on a time and materials basis based on the hourly rates included in Exhibit "A" attached hereto.

3. Reimbursable Expenses. Subject to Owner's prior written approval in each instance, Owner shall reimburse Professional for the actual cost of the out-of-pocket expenses incurred by Professional, as set forth in the fee schedule included in Exhibit "A" attached hereto.

4. Payment. Payments for Services and reimbursable expenses shall be made within thirty (30) days following presentation of Professional's statement of services rendered with sufficient supporting data acceptable to Owner.

## EXHIBIT "B"

### TO PROFESSIONAL SERVICES AGREEMENT PAGE 1 OF 1 PAGE

**APPENDIX B**

**Historical Research Documentation**

1 STATE OF CALIFORNIA  
2 HEALTH AND WELFARE AGENCY  
3 DEPARTMENT OF HEALTH SERVICES  
4 TOXIC SUBSTANCES CONTROL DIVISION

4 In the matter of: ) Docket # HSA 88/89-004  
5 )  
5 Leslie Salt Property ) REMEDIAL ACTION ORDER  
6 )  
6 A hazardous waste site ) Health and Safety Code  
7 ) Sections 205, 206, and  
7 ) 25355.5  
8 \_\_\_\_\_ )

9 TO: FMC Corporation, a Pennsylvania Corporation; and Leslie  
10 Salt Company, a California Corporation.

11 I. INTRODUCTION

12 The California Department of Health Services ("Department")  
13 issues this Remedial Action Order to the above named Respondents  
14 pursuant to California Health and Safety Code, Sections 25355.5,  
15 205, and 206. The Department has determined that releases or  
16 threatened releases of hazardous substances at the above named  
17 Site constitute a Public Nuisance as defined in Civil Code,  
18 Sections 3479 and 3480.

19 II. FINDINGS OF FACT

20 Location of the Site

21 1. The Hazardous Waste Site ("Site"), which is the  
22 subject of this Remedial Action Order, is the Leslie Salt  
23 Company (aka Magnesia Pile Site), a waste magnesia and dolomite  
24 pile, located on the Leslie Salt Property, at the west end of  
25 Enterprise Drive, in the city of Newark, Alameda County,  
26 California. It is in the NW quarter of T-5-S, R-2-W of the  
27 Newark Quadrangle, at longitude 122-3'-16" west and latitude

1 37-31'-11" north. The City of Newark-City of Fremont boundary  
2 runs approximately north-south through the center of the Site.  
3 The Site is bounded to the west by Leslie Salt Company's salt  
4 evaporation ponds and to the north by FMC Corporation's Newark  
5 operation and Design Building System's properties. Exhibit #1  
6 is a general map of the area and Exhibit #2 is a map of the Site  
7 in relation to the local features.

### 8 History of the Leslie Salt Company Site

9 2. a) The parcel of land which the Site now occupies was  
10 purchased from August and Agnes Schilling by The Arden Salt  
11 Company in 1926.

12 b) The Arden Salt Company leased the Site to Westvaco  
13 Chemicals in 1929.

14 c) Leslie Salt Company merged with Arden Salt Company  
15 in 1936.

16 d) FMC Corporation acquired Westvaco Chemicals in  
17 1950. The lease was extended in FMC Corporation's name until  
18 1968 when the lease was terminated.

19 3. Exhibit #3 is an excerpt from a January 1988 workplan  
20 by Environmental Solutions, Inc., commissioned by Leslie Salt  
21 Company and FMC Corporation, describing historical disposal of  
22 wastes at the Site. The wastes mentioned in the workplan are as  
23 follows:

24 a) Westvaco Chemicals and FMC Corporation after it had  
25 acquired Westvaco Chemical manufactured Ethylene Dibromide (EDB)  
26 at their facility north of the Site. This operation produced  
27 wastes described as biomass sludges (natural organic matter from

1 bitterns), Dolime (a mixture of magnesium oxide and calcium  
2 oxide), charcoal impregnated with phosphoric acids, and sulfuric  
3 sludges. Quantities of these wastes were disposed of at the  
4 Site between 1929 and 1968.

5           b) Westvaco Chemicals, and later FMC Corporation,  
6 manufactured magnesia and dolomitic lime at their facilities  
7 north of the Site between 1937 and 1968. Gypsum, off grade  
8 magnesia and lime products, and dolomite wastes were produced as  
9 a result of this operation. These wastes were dumped at the  
10 Site between 1937 and 1968.

11           c) Westvaco Chemical, and later FMC Corporation,  
12 manufactured Catalyst 1707 for the production of synthetic  
13 rubber from 1942 to 1944, 1956 to 1958, and 1969 to 1976 at  
14 their facilities north of the Site. Catalyst 1707 has a total  
15 copper content of 20,000 ppm and a soluble copper content of  
16 7,000 ppm. During the Second World War, surplus drums of  
17 catalyst 1707 were disposed of at the Site.

18           d) FMC Corporation uses their facilities north of the  
19 Site for the manufacture of phosphoric acid and sodium phosphate  
20 from 1950 to the present. The manufacture of these products  
21 creates phosphorous sludges. Four to eight barrels of these  
22 sludges may have been disposed of at the Site.

23           e) Building debris and other trash were disposed on  
24 the Site by FMC Corporation and other unknown individuals. A  
25 January 1988 report by Environmental Solutions, Inc., stated  
26 that this trash was observed to contain insulation which may  
27 contain asbestos.

1 f) Small quantities of other waste materials have been  
 2 disposed of at the Site, most notably fuel oil spills (Bunker  
 3 "C" Oils), empty paint cans, and bricks from a sodium  
 4 hexametaphosphate furnace.

5 History of Investigation for Hazardous Waste Contamination at  
 6 the Leslie Salt Company Site

7 4. a) FMC Corporation, Newark, is listed in the 1979  
 8 "Eckhardt Report" (by the Interstate and Foreign Commerce  
 9 Committee of the U.S. House of Representatives), as being  
 10 associated with the disposal of hazardous waste.

11 b) Based on this report, the Department began an  
 12 investigation into the possibility of hazardous waste contami-  
 13 nation at the Site. In March and April of 1981 the Department  
 14 took samples from the top 6" of soil at the Site. One of these  
 15 samples showed a pH in excess of 12.0, which at the time was the  
 16 upper limit in defining a hazardous waste. Two samples  
 17 collected on 3 March 1981 (HML #3181 and #3182) and one sample  
 18 collected on 7 April 1981 (HML #3352) showed copper levels  
 19 higher than the Total Threshold Limit Concentration (TTLIC),  
 20 and/or higher than the Soluble Threshold Limit Concentration  
 21 (STLC) as prescribed in Section 66699(b) of Title 22, California  
 22 Code of Regulations. The analytical results are as follows:

| 23 | <u>SAMPLE #</u> | <u>TOTAL COPPER (PPM)</u> | <u>SOLUBLE COPPER (PPM)</u> |
|----|-----------------|---------------------------|-----------------------------|
| 24 | 3181            | 10,920                    | 6130                        |
| 25 | 3182            | 52                        | 50                          |
| 26 | 3352            | 39                        | 77                          |

27 Note: For Cu; TTLIC = 2500 ppm, STLC = 25ppm

1 Copies of the certified laboratory reports of the chemical  
2 analysis from this sampling and a map showing the location of  
3 the soil samples is attached as Exhibit #4.

4 c) On June 25 1981, the Department took 11 additional  
5 soil samples up to a depth of 2'. Lab analysis on three of  
6 these samples (DBA 092, DBA 095, and DBA 097), taken from  
7 different parts of the Site, showed a pH value in excess of  
8 12.0. Results of pH analysis from a certified lab on the 11  
9 samples is also contained in Exhibit #4.

10 d) Due to the presence of material containing high pH  
11 or heavy metals at the Site, the Site was listed as a hazardous  
12 waste site with the State of California. A letter of 30 April  
13 1982 from the Department directed Leslie Salt Company to submit  
14 a plan of correction for the removal of hazardous wastes from  
15 the Site. Exhibit #5 is a copy of this letter.

16 5. a) Leslie Salt Company contracted Emcon Associates, of  
17 San Jose, California, to conduct sampling at the Site during the  
18 summer of 1983. The results from this sampling was presented to  
19 the Department in an Emcon Associates report date January 1984.  
20 Emcon Associates analytical lab results from this sampling and a  
21 map showing sample locations is attached as Exhibit #6.

22 b) In 1985 Leslie Salt Company and FMC Corporation  
23 used the results from the previously mentioned Emcon Associates  
24 report to developed a two phase plan for the remediation and  
25 ultimate delisting of the Site. Phase I was for the removal of  
26 the known hazardous wastes at the Site. Phase II was for fully  
27 characterizing the Site to insure no hazardous materials remain,

1 and the appropriate remediation if any hazardous wastes are  
2 encountered.

3 c) IT Corporation presented a workplan named "Plan for  
4 Removal and Disposal of Trash on the Leslie Salt Company  
5 Magnesia Pile, Newark, California" to Leslie Salt Company on 21  
6 June 1985. Leslie Salt Company subsequently submitted it to the  
7 RWCQB for approval. The RWQCB approved the plan in a letter  
8 dated 30 June 1985. Soon thereafter, IT began clean-up by:

9 1) Removal of the copper catalysts and the surrounding  
10 soils and disposal at their Class I dump facilities in Benica,  
11 California.

12 2) Removal of the trash and debris to a local Class  
13 III landfill, Oakland Scavenger Company in Fremont, California,  
14 after it had been screened and determined to be free of  
15 hazardous substances.

16 d) A letter from Leslie Salt Company to the  
17 Department, dated 14 November 1985, stated that the known  
18 hazardous wastes had been removed from the Site. This letter  
19 stated that the next step towards remediation was to "sift  
20 through" the remaining material to determine if any hazardous  
21 substances remain on the Site. A copy of this letter is  
22 attached as Exhibit #7.

23 e) On 27 January 1988 Leslie Salt Company presented a  
24 work plan for remedial sampling of the Site, by Environmental  
25 Solutions, Inc., to the Department. The Department approved the  
26 plan in a letter to Leslie Salt Company dated 25 April 1988. To  
27 date, the sampling described has not been initiated on the Site.

1           6. Complete sampling and characterization of the Site has  
2 not been done to date. As such, the quantities and distribution  
3 of hazardous materials remaining on this partially mitigated  
4 site are unknown. Large quantities of high pH material may  
5 still remain at the Site; four to eight drums of phosphorous  
6 sludges and some quantities of copper compounds also may still  
7 remain at the Site. EDB has been found in the soils on the FMC  
8 Corporation manufacturing facilities contiguous to the Site.  
9 The Department is concerned that the Site has not been  
10 sufficiently characterized to qualitatively state that there is  
11 no EDB present at the Site.

### 12                   III. IDENTIFICATION OF RESPONSIBLE PARTIES

13           7. The property on which the Magnesia Pile Site is  
14 located was purchased by Arden Salt Company in 1926. Leslie  
15 Salt Company merged with Arden Salt Company in 1936, thus  
16 obtaining title to the property on which the Site sits, and have  
17 continuously owned the property since then.

18           8. Westvaco Chemical leased the Site from Arden Salt  
19 Company in 1929. Westvaco Chemical used the Site for the  
20 disposal of some of the wastes and by-products from their  
21 various manufacturing processes. FMC Corporation acquired  
22 Westvaco Chemical in 1950. The lease was extended in the name  
23 of FMC Corporation until it expired in 1968. FMC Corporation  
24 also used the Site as a disposal site for some of their wastes  
25 from 1950 to 1968.  
26  
27

1                    IV. THREAT TO THE PUBLIC HEALTH AND THE ENVIRONMENT

2                    Threat to the Environment

3                    9.    The San Francisco Bay, San Francisco Bay National  
4 Wildlife Preserve, and Coyote Hills Regional Park are all in  
5 close proximity to the Site. Aeolian migration of high pH dusts  
6 from the Site would have the most profound effect on the  
7 organisms which inhabit the wildlife areas. Slight changes in  
8 the pH of the water in the marsh areas could destroy the more  
9 sensitive organisms and therefore cut that link in the food  
10 chain.

11                   Population at Risk

12                   10.   Approximately 500 people live and/or work within a one  
13 (10 mile radius of the Site. A grade school is located about a  
14 half mile away to the northeast. The area surrounding the site  
15 includes evaporation beds for the production of salt, various  
16 industrial facilities, and limited residential development.  
17 Design Building Systems manufactures modular homes on their  
18 property immediately adjacent to the north of the Site.  
19 Windborne dust from the Site may contaminate these homes and  
20 create residual problems for their future occupants.

21                   Exposure Pathways

22                   11.   Hazardous substances have been detected in the soils  
23 at the Site. These hazardous substances may migrate off-site  
24 and expose humans and/or animals through four possible exposure  
25 pathways. These pathways are described as follows:

26                   a) Direct Contact. Although there is a fence around the  
27

1 property on which the Site is located, there is still a  
2 possibility of direct contact with the people in the  
3 surrounding areas. The fenceline itself is the same one  
4 which surrounds the bittern ponds and in some places is  
5 more than a mile from the Site. The area is not patrolled  
6 during off hours and weekends. Given the wide variety of  
7 waterfowl in the area, the isolation of the Site, and that  
8 the magnesia pile itself has the highest topography in the  
9 area, there is a possibility that children, hunters, and/or  
10 wildlife enthusiasts may ignore the fence and thus gain  
11 access to the Site. Tracks from four-wheel drive vehicles  
12 and motorcycles have been observed on the Site. Not only  
13 do these activities create excess dusts, but accidents at  
14 the Site would lead to complications if hazardous soils are  
15 encountered. Contact with any of the hazardous soils at  
16 the Site by any of the groups of people mentioned above  
17 would lead to dermal and eye irritation and/or injury.

18 b) Ingestion. Children playing in soils have been known to  
19 ingest soils. If children gain access to the Site, there  
20 is a possibility that they may ingest contaminated or high  
21 pH soils.

22 c) Ambient Air. Release of hazardous substances from the  
23 Site to the air (via dust) may drift to the surrounding  
24 land and resources. Exposure to air contaminants could  
25 result if people breath the ambient air in and around the  
26 homes and workspaces where the contaminants are present.  
27 Accumulation of these dust in the homes, workspaces,

1 playgrounds, or open areas around the Site may be a source  
2 of direct contact to the individuals who move in and about  
3 these areas.

4 d) Surface Water. Surface water run off from the Site is  
5 generally directed towards the bittern ponds to the south  
6 and west and to a marshy area to the east. A ditch  
7 draining the adjacent FMC Corporation property runs from  
8 the east of the Site and eventually to the San Francisco  
9 Bay. This ditch may be a conduit moving contamination from  
10 the Site to the Bay. The main recipients of any  
11 contaminates in the runoff water would be the waterfowl and  
12 aquatic life which inhabit the areas surrounding the Site.

#### 13 V. DEFINITION OF TERMS

14 12. Hazardous Substance. A "Hazardous Substance" means any  
15 substance which is a hazard to the public health, public safety,  
16 or to the environment, as defined under Section 25316, of the  
17 California Health and Safety Code. A hazardous waste, extremely  
18 hazardous waste, and hazardous material are each included as  
19 hazardous substances under Health and Safety Code, Section  
20 25316, and are further defined under Health and Safety Code,  
21 Section 25117, Chapter 30, Title 22, of the California Code of  
22 Regulations. Elements, compounds, and hazardous wastes  
23 appearing in Section 302.4, Title 40, Code of Federal  
24 Regulations, are also hazardous substances under Health and  
25 Safety Code Section 25316.

26 13. TTLC. "TTLC" or "Total Threshold Limit Concentration"  
27 means the concentration of a solubilized, extractable, and

1 non-extractable bioaccumulative or persistent toxic substance  
2 which, if equaled or exceeded in a waste, renders the waste  
3 hazardous (Section 66206, Title 22, California Code of  
4 Regulations).

5 14. STLC. "STLC" or "Soluble Threshold Limit  
6 Concentration" means the concentration of a solubilized and  
7 extractable bioaccumulative or persistent toxic substance which,  
8 if equaled or exceeded in a waste or waste extract determined  
9 pursuant to Section 66700 (Title 22, California Code of  
10 Regulations), renders the waste hazardous (Section 66194, Title  
11 22, California Code of Regulations).

12 VI. HEALTH RISKS OF HAZARDOUS SUBSTANCES

13 FOUND IN THE SOILS AT OR NEAR THE SITE

14 15. Copper. Copper salts are irritants to the skin, eyes,  
15 and upper respiratory tract. Inhalation of copper dusts can  
16 cause hemolysis of red blood cells, injury to lung tissue, and  
17 gastric complications. Routes of entry are by inhalation,  
18 ingestion, and dermal contact. The U.S. EPA has listed copper  
19 and copper compounds as priority toxic pollutants. Copper  
20 compounds are listed as hazardous substance No. 221 in Section  
21 66680, Title 22, California Code of Regulations. Materials  
22 contaminated above 25 ppm of soluble copper (STLC) or 2500 mg/kg  
23 total copper (TTLC) are hazardous wastes as listed in Section  
24 66696, Title 22, California Code of Regulations. Total copper  
25 concentrations have been found at the Site as high as 20,000  
26 mg/kg (8-23-83 surface sample #13, done by Emcon Associates).  
27 Soluble copper concentrations have been found at the Site as

1 high as 7,000 ppm (8-23-83 surface sample #13, Emcon  
2 Associates).

3 11. Phosphorous. Phosphorous is extremely reactive when  
4 exposed to oxygen and oxidizers. Routes of exposure are by  
5 inhalation of fumes, ingestion, and skin or eye contact.  
6 Contact with skin and eyes will cause severe burns. Exposure to  
7 it's fumes causes irritation to the skin, eyes, and respiratory  
8 tract. Points of attack on the body include the respiratory  
9 system, liver, kidneys, jaw, teeth, bones, blood eyes, and skin.  
10 Phosphorous is listed as a hazardous material by the U.S. EPA in  
11 40 CFR 261 and is designated as a flammable solid and poison.  
12 It is also listed as hazardous material No. 514 in Section  
13 66680, Title 22, California Code of Regulations. A former  
14 employee of FMC Corporation has indicated that several drums of  
15 phosphorous sludges were buried at the Site (see Exhibit #3,  
16 page 2-9, para. 10).

17 12. pH. Materials with high pH values are corrosive.  
18 Contact with skin causes irritation, rashes, and caustic burns.  
19 Inhalation of high pH dust causes irritation to the upper  
20 respiratory tract and lung tissue. The introduction of high pH  
21 compounds to an aquatic ecosystem may result in an environment  
22 which is hostile to the organisms which inhabit it. An aqueous  
23 solution with pH greater than 12.5 is listed with the U.S. EPA,  
24 in 40 CFR 261.22(1), as a hazardous substance, and in Title 22,  
25 Section 66708(a)(1), California Code of Regulations. Analysis  
26 of samples taken on June 25 1981 show several samples with a pH  
27 between 12.0 and 12.4. Although these levels are below present

1 criteria for hazardous materials, they are close enough to 12.5  
2 to be of concern.

3 13. Ethylene Dibromide (EDB). Local contact to EDB  
4 solutions and vapors cause skin and eye irritation and can cause  
5 eye damage. Ingestion, inhalation of the vapors, or absorption  
6 through the skin may cause systemic EDB poisoning. EDB  
7 poisoning will result in damage to the respiratory system,  
8 central nervous system, severe vomiting, and/or kidneys and  
9 liver. EDB has been listed as a known carcinogen by both the  
10 U.S. EPA and California Department of Health Services. It is  
11 listed as hazardous substance #328 under Section 66680, Title  
12 22, California Code of Regulations. The U.S. EPA recommends  
13 concentrations of between 11 and 18 ppm in water for the  
14 preservation of aquatic life (both salt and fresh water).  
15 Concentrations of no more than 0.09 ppm present a public health  
16 hazard. No EDB has been detected at the Site, but previous  
17 sampling was not analyzed for the presence of EDB. EDB has been  
18 detected in the soils at the adjacent FMC Corporation's  
19 facilities to the north. The Department is concerned that given  
20 the long history of EDB production at the FMC Corporation  
21 facility, there may have been some inadvertent disposal of EDB  
22 contaminated material at the Site.

23 14. Each element, compound, or hazardous waste identified  
24 in paragraphs 16 through 18 above also appears in section 302.4,  
25 Title 40, Code of Federal Regulations.

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VII. CONCLUSIONS OF LAW

1. The substances, as described above and found on-site, are "hazardous substances" as defined by the California Health and Safety Code section 25316.

2. Respondents are responsible persons or parties as defined by the California Health and Safety Code, sections 25319, 25360, and 25385.1(g).

3. This Order complies with the requirements of the California Health and Safety Code, section 25355.5(a)(1).

4. The past, present, and potential future migration of hazardous substances from the Site into the soil and aquatic food chain constitutes an actual or threatened "release" as defined in the California Health and Safety Code, section 25320.

5. Conditions at the Site constitute a nuisance which is injurious to health and/or offensive to the senses. This nuisance is one which affect the entire neighborhood, a considerable number of people, and/or the inhabitants of the local watershed.

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VIII. DETERMINATION

Based on the foregoing Findings of Fact and Conclusions of Law, the Department has determined that:

1. Respondents are responsible parties who are required to take the actions ordered below to protect the public health and safety, and the environment.

2. The remedial actions set forth in the Order are necessary to respond to releases or threatened releases of hazardous substances from the Site.



1 e) Collect and evaluate the information necessary to  
2 prepare a Remedial Action Plan (RAP) in accordance with the  
3 requirements of Section 25356.1, California Health and  
4 Safety Codes.

5 2. RI/FS Workplan Implementation. Leslie Salt Company and  
6 FMC Corporation shall implement the RI/FS Workplan as approved  
7 by the Department in accordance with the approved schedule.

8 3. Community Relations Plan. Within [30] days of the  
9 effective date of this order, Leslie Salt Company and FMC  
10 Corporation shall prepare and submit for Department review and  
11 approval a community relations plan which describes how, under  
12 the order, the public and adjoining community will be kept  
13 informed of activities conducted at the Site and how Leslie Salt  
14 Company and FMC Corporation will be responding to inquiries from  
15 concerned citizens.

16 Remedial Action Plan (RAP)

17 1. Draft Remedial Action Plan. No later than [30] days  
18 after the Departments approval of the Feasibility Study Report,  
19 Leslie Salt Company and FMC Corporation shall prepare and submit  
20 to the Department for review and approval a draft Remedial  
21 Action Plan which is based on the approved Remedial  
22 Investigation and Feasibility Study Reports. The draft RAP  
23 shall set forth in detail appropriate steps to remedy air, soil,  
24 surface water, and groundwater contamination at the Site and  
25 adjacent areas. The RAP shall be prepared in accordance with  
26 the standards and requirements set forth in Section 25356.1,  
27 California Health and Safety Codes. In addition the RAP shall

1 contain a schedule for implementation of all proposed removal  
2 and remedial actions.

3 2. Implementation of Final Remedial Action Plan (RAP).

4 Within [90] days after Department approval of the final RAP in  
5 accordance with California Health and Safety Code Section  
6 25356.1, Respondents shall submit to the Department for review  
7 and approval a detailed Remedial Design and Implementation Plan  
8 (RD) containing technical and operational plans and engineering  
9 designs for implementation of the approved remedial or removal  
10 action alternative(s), and a schedule for implementation of the  
11 construction phase. The workplan shall also describe the nature  
12 and design of the construction equipment to be employed, a Site  
13 specific hazardous waste transportation plan (if necessary), the  
14 identity of any contractors, transporters, and other persons  
15 conducting the removal and remedial activities for the Site,  
16 post remedial sampling and monitoring procedures for air, soil,  
17 surface water and ground water, operation and maintenance  
18 procedures and schedules. The schedule submitted with the  
19 workplan shall provide that all approved removal or remedial  
20 actions excluding operation and maintenance shall be completed  
21 by April 1, 1989.

22 More specifically, the Respondents shall:

23 a) Submit for Departmental approval a description of the  
24 quality assurance and quality control measures to be taken.

25 b) Submit for Departmental approval all documents, data,  
26 and information used to develop and substantiate the proposed  
27 plans.

1 c) Prepare and submit for Departmental approval a Site  
2 health and Safety plan for the protection of the workers and  
3 surrounding community.

4 d) Implement, under Departmental direction, the approved  
5 Community Relations Plan.

6 e) Take all other actions required to mitigate the hazards  
7 of the Site to the public health, or public safety, or to the  
8 environment.

9 g) Provide to the Department all necessary documentation to  
10 certify that the Remedial Action Plan have been implemented.

11 3. Implementation of the Final RAP. Upon Department  
12 approval of the RD Plan and schedule, Respondents shall  
13 implement the final RAP as approved in accordance with the  
14 approved Remedial Design and Implementation Plan and schedule.

15 4. Operation and Maintenance. Respondents shall be  
16 responsible for all operation and maintenance requirements in  
17 accordance with the final RAP and approval Remedial Design  
18 Workplan.

19 5. Changes During Implementation of the Final RAP.  
20 During the implementation of the final RAP and Remedial Design  
21 Workplan the Department may specify such additions, modifica-  
22 tions and revisions to the Remedial Design Workplan as it deems  
23 necessary to protect public health and safety or the environment  
24 or to implement the RAP.

25 6. Discontinuation of Remedial Technology. Any remedial  
26 technology employed in implementation of the final RAP shall be  
27 left in place and operated by Respondent until and except to the

1 extent that the Department authorizes Respondents in writing to  
2 discontinue, move or modify some or all of the remedial  
3 technology because Respondent has met the criteria specified in  
4 the final RAP for its discontinuance or because the  
5 modifications would better achieve the goals of the final RAP.

6 7. Project Coordinator. Within [15] days of the  
7 effective date of this Order, Respondents shall submit to the  
8 Department in writing the name, address, and telephone number of  
9 a Project Coordinator whose responsibilities will be to receive  
10 all notices, comments, approvals and other communications from  
11 the Department to Respondent.

12 8. Project Engineer/Geologist. The work performed  
13 pursuant to this Order shall be under the direction and  
14 supervision of a person who has expertise in hazardous substance  
15 site remediation and who is a (1) qualified Professional  
16 Engineer registered in California or (2) geologist registered in  
17 California or (3) Engineering Geologist certified in California.  
18 The name, address, and telephone number of the project engineer  
19 or geologist chosen by Respondents shall be submitted to the  
20 Department within [20] days of the effective date of this Order.

21 9. Quarterly Summary Reports. Within 90 days of the  
22 effective date of this Order and quarterly thereafter,  
23 Respondents shall submit a Quarterly Summary Report of its  
24 activities under the provisions of this Order. The report shall  
25 describe:

26 a) Specific actions taken by or on behalf of Respondents  
27 during the previous calendar year.

1           b) Actions expected to be undertaken during the current  
2 calendar quarter.

3           c) All planned activities for the next quarter, any  
4 requirements under this Order that were not completed, and any  
5 problems or anticipated problems in complying with this Order.

6           d) All results of sample analyses, tests and other data  
7 generated or received by Respondents under this Order.

8 The Quarterly Summary Report shall be received by the Department  
9 by the 15th of the first month after each quarter ends.

10           10. Quality Control/Quality Assurance. All sampling and  
11 analysis conducted by Respondents under this Order shall be  
12 performed in accordance with quality control/quality assurance  
13 procedures submitted by Respondents and approved by the  
14 Department pursuant to this Order.

15           11. Submittals. All submittals and notifications from  
16 Respondents required by this Order shall be sent simultaneously  
17 to:

18                   Dwight R. Hoenig, Chief  
19                   Attention: Project Officer, Magnesia Pile Site  
20                   North Coast California Section  
21                   Toxic Substances Control Division  
22                   Department of Health Services  
23                   2151 Berkeley Way, Annex 7  
24                   Berkeley, CA 94704

25                   EPA, Region IX  
26                   Attention: Superfund Program Manager  
27                   215 Fremont Street  
                  San Francisco, CA 94105

                  Roger James, Executive Officer  
                  San Francisco Regional Water Quality Control Board  
                  1111 Jackson Street  
                  Oakland, CA 94607

1 Rafat Shahid, Chief of Hazardous Materials  
2 Alameda County Hazardous Waste Program  
3 470 27th Street, Room #325  
4 Oakland, CA 94612

4 All approvals and decisions of the Department made regarding  
5 such submittal and notifications shall be communicated to  
6 Respondents by the Section Chief or his designee in writing. No  
7 informal advice, guidance, suggestions, or comments by the  
8 Department regarding reports, plans, specifications, schedules,  
9 or any other writing submitted by Respondents shall be construed  
10 to relieve Respondents of its obligation to obtain such formal  
11 written approvals as may be required herein.

12 12. Exhibits. All exhibits attached hereto are  
13 incorporated herein by reference.

14 13. Communications. All approvals and decisions of the  
15 Department made regarding submittals and notifications will be  
16 communicated to Respondents in writing by a Section Chief, Toxic  
17 Substances Control Division, Department of Health Services or  
18 his/her designee. No informal advice, guidance, suggestions, or  
19 comments by the Department regarding reports, plans,  
20 specifications, schedules, or any other writings by Respondents  
21 shall be construed to relieve Respondents of the obligation to  
22 obtain such formal approvals as may be required.

23 14. Department Review and Approval. If the Department  
24 determines that any report, plan, schedule, or other document  
25 submitted for approval pursuant to this Order fails to comply  
26 with this Order or fails to protect the public health or safety  
27 or the environment, the Department may:

1 a) Modify the document as deemed necessary and approve the  
2 document as modified, or

3 b) Return the document to Respondent with recommended  
4 changes and a date by which Respondents must submit to the  
5 Department a revised document incorporating the recommended  
6 changes, or

7 c) In cases where the document fails to comply with this  
8 Order, make a determination of noncompliance pursuant to Health  
9 and Safety Code Section 25355.5(a)(2).

10 15. Compliance with Applicable Laws. Respondents shall  
11 carry out this Order in compliance with all applicable local,  
12 state and Federal requirements, but not limited to, including  
13 requirements to obtain permits and to assure worker safety.

14 16. Endangerment During Implementation. In the event that  
15 the Department determines that any circumstances or activity  
16 (whether or not pursued in compliance with this Order) are  
17 creating an imminent or substantial endangerment to the health  
18 or safety of people on the Site or in the surrounding area or to  
19 the environment, the Department may order Respondents to stop  
20 further implementation of this Order for such period of time as  
21 needed to abate the endangerment. Any deadline in this Order  
22 directly affected by a Stop Work Order under this section shall  
23 be extended for the term of the Stop Work Order.

24 17. Liability. Nothing in this Order shall constitute or  
25 be construed as a satisfaction or release from liability for any  
26 conditions or claims arising as a result of past, current, or  
27 future operations of Respondents. Nothing in this Order is

1 intended or shall be construed to limit the rights of any of the  
2 parties with respect to claims arising out of or relating to the  
3 deposit or disposal at any other location of substances removed  
4 from the Site. Nothing in this Order is intended or shall be  
5 construed to limit or preclude the Department from taking any  
6 action authorized by law to protect public health or safety or  
7 the environment and recovering cost thereof. Notwithstanding  
8 compliance with the terms of action as are necessary to protect  
9 public health and the environment.

10 18. Site Access. Access to the Site and laboratories used  
11 for analyses of samples under this Order shall be provided at  
12 all reasonable times to employees, contractors, and consultants  
13 of the Department. Nothing in this paragraph is intended or  
14 shall be construed to limit in any way the right of entry or  
15 inspection that the Department or any other agency may otherwise  
16 be entitled. The Department and its authorized representatives  
17 shall have the authority to enter and move freely about all  
18 property at the Site at all reasonable items for purposes  
19 including, but not limited: inspection records, operating logs,  
20 sampling and analytic data, and contracts relating to the Site;  
21 reviewing the progress of Respondents in carrying out the terms  
22 of this Order; conducting such tests as the Department may deem  
23 necessary; and verifying the data to the Department by  
24 respondents.

25 19. Sampling, Data, and Document Availability.  
26 Respondents shall permit the Department and its authorized  
27 representatives to inspect and copy all sampling, testing,

1 monitoring, or other data generated by Respondents or on  
2 Respondents behalf in any way pertaining to work undertaken  
3 pursuant to this Order. Respondents shall inform the Department  
4 at least [5] days in advance of all field sampling under this  
5 Order and shall allow the Department and its authorized  
6 representatives to take duplicates of any samples collected by  
7 Respondents pursuant to this Order. Respondents shall maintain  
8 a central repository of the data, reports, and other documents  
9 shall be preserved by Respondents for a minimum of six years  
10 after the conclusion of all activities under this Order. If the  
11 Department requests that some or all of these documents be  
12 preserved for a longer period of time, Respondents shall either  
13 comply with that request or deliver the documents to the  
14 Department, or permit the Department to copy the documents prior  
15 to destruction. Respondents shall notify the Department in  
16 writing at least six months prior to the destruction of any  
17 documents prepared pursuant to this Order.

18       20. Government Liabilities. The State of California shall  
19 not be liable for any injuries or damages to persons or property  
20 resulting from acts or omissions by Respondents, or related  
21 parties specified in paragraph 29 in carrying out activities  
22 pursuant to this Order, nor shall the State of California be  
23 held as party to any contract entered into by Respondents or its  
24 agents in carrying out activities pursuant to this Order.

25       21. Additional Enforcement Actions. By issuance of this  
26 Order, the Department does not waive the right to take any  
27 further enforcement actions.

1           22. Incorporation of Plans and Reports. All plans,  
2 schedules, reports, specifications, and other documents that  
3 require Departmental approval and are submitted by Respondents  
4 pursuant to this Order are incorporated in this Order upon  
5 approval by the Department and shall be implemented by  
6 Respondents as approved. Any noncompliance with such documents  
7 shall be noncompliance with this Order.

8           23. Extension Requests. If Respondents are unable to  
9 perform any activity or submit any document within the time  
10 required under this Order, Respondents may, prior to expiration  
11 of the time, request an extension of the time in writing. The  
12 extension request shall include a justification for the delay.  
13 All such requests shall be in advance of the date on which the  
14 activity or document is due.

15           24. Extension Approvals. If the Department determines  
16 that good cause exists for an extension it will grant the  
17 request and specify in writing a new schedule. Respondents  
18 shall comply with the new schedule.

19           25. Cost Recovery. Respondents are liable for any costs  
20 of oversight by the Department of Respondents activities under  
21 this Order. In addition, failure or refusal of Respondents to  
22 comply with this Order may make Respondents liable for any  
23 government costs incurred, including those payable from the  
24 Hazardous Substances Account or the Hazardous Substance Cleanup  
25 Fund for any response action at the Site, as provided in Section  
26 25360 of the Health and Safety Code and other applicable  
27 provisions of law. These costs include the Department's direct

1 costs and administrative overhead costs. Cost Recovery may also  
2 be pursued by the Department under CERCLA (42 USC9601 et.seq).

3 26. Severability. The requirements of this Order are  
4 severable, and Respondents shall comply with each and every  
5 provision hereof notwithstanding the effectiveness of any other  
6 provision.

7 27. Modifications. The Department reserves the right to  
8 unilaterally modify this Order. Any modification to this Order  
9 shall be effective upon issuance and deemed incorporated in this  
10 Order.

11 28. Time Periods. Unless otherwise specified, time  
12 periods begin from the effective date of this Order and "days "  
13 means calendar days. The effective date of this Order is the  
14 date of issuance by the Department.

15 29. Parties Bound. This Order applies to and is binding  
16 upon Respondents, and its officers, directors, agents,  
17 employees, contractors, consultants, receivers, trustees,  
18 successors, and assignees, including but not limited to,  
19 individuals, partners, and subsidiary and parent corporations  
20 and upon any successor agency of the State of California that  
21 may have responsibility for and jurisdiction over the subject  
22 matter of this Order.

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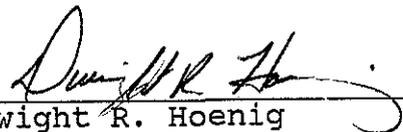
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VII. EFFECTIVE DATE

This Order is effective on the date noted below. All times for performances or response activities shall be calculated from the effective date.

It is so ordered this 19<sup>th</sup> day of July, 19 88.

  
\_\_\_\_\_  
Dwight R. Hoenig  
Section Chief  
North Coast California Section  
Toxic Substances Control Division

EXHIBITS FOR THE LESLIE SALT COMPANY SITE

REMEDIAL ACTION ORDER

Exhibit #

1. Location map of the Magnesia Pile Site.
2. Site map of the Magnesia Pile Site in relation to the land features and properties immediatly adjacent.
3. Excepts from the January 1988 workplan by Environmental Solutions, Incorporated. The workplan gives a general discription of historical dumping of hazardous wastes at the Site. Leslie Salt Company and FMC Corporation contracted Environmental Solutions, Incorporated.
4. Results from the March 3 1981, April 7 1981, and June 25 1981 sampling of the Site by the Department.
5. 30 April 1982 Order from the Department to Leslie Salt Company directing them to submit a Plan of Correction for the removal of all hazardous wastes from the Site.
6. Sampling locations and lab results of those samples from the January 1984 preliminary site investigatoion report from Emcon Associates. Leslie Salt Company hired Emcon Associates to write this report.
7. Letter from Leslie Salt Company to the Department, dated 18 November 1985, stating that all known hazardous wastes have been removed from the Site. Also contained in the letter is their intention to further characterize the Site to insure that there are no more hazardous wastes at the Site.

EXHIBIT #1

Map of Site Location

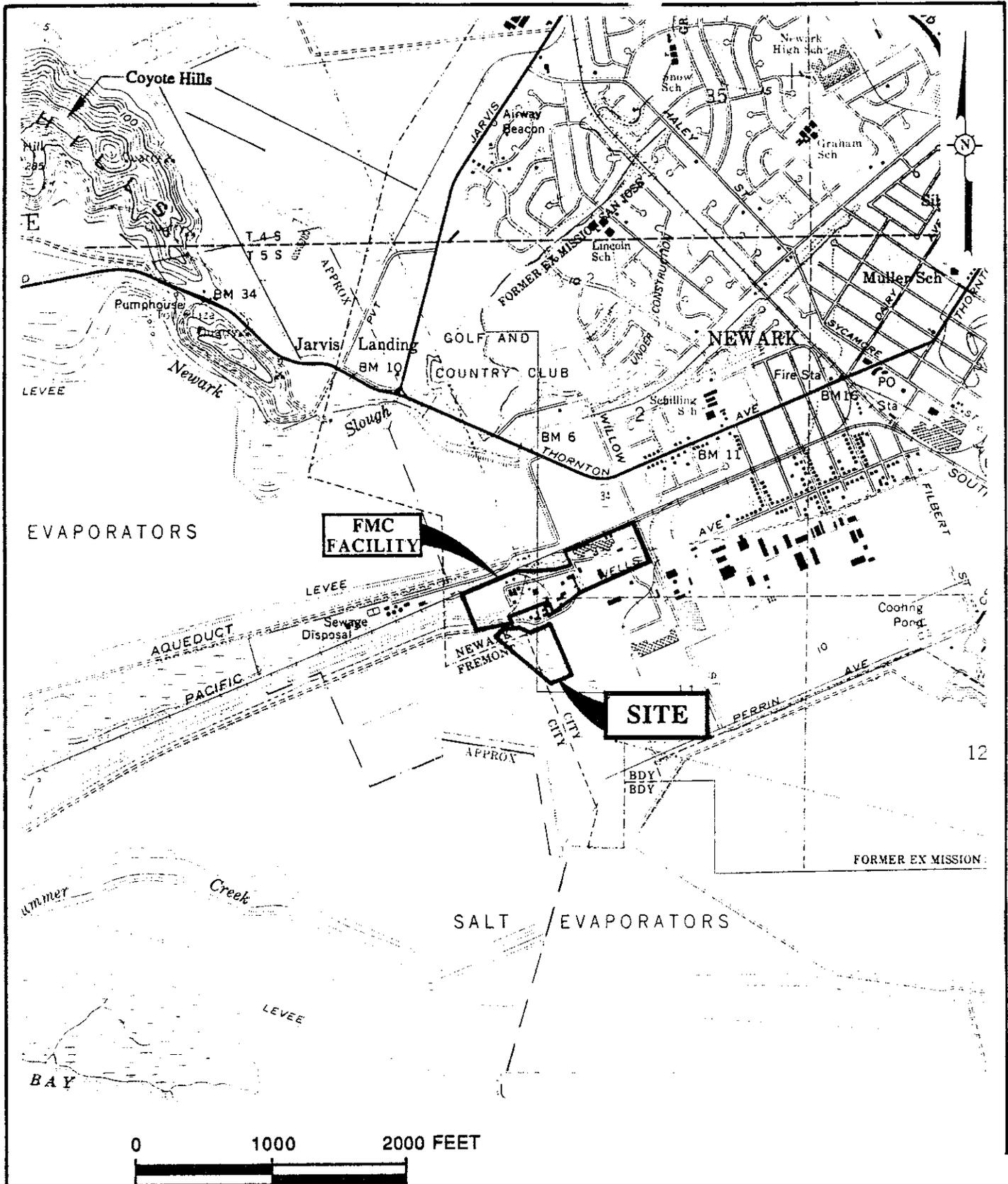


EXHIBIT #1

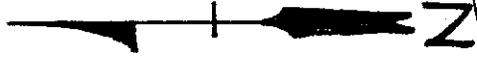
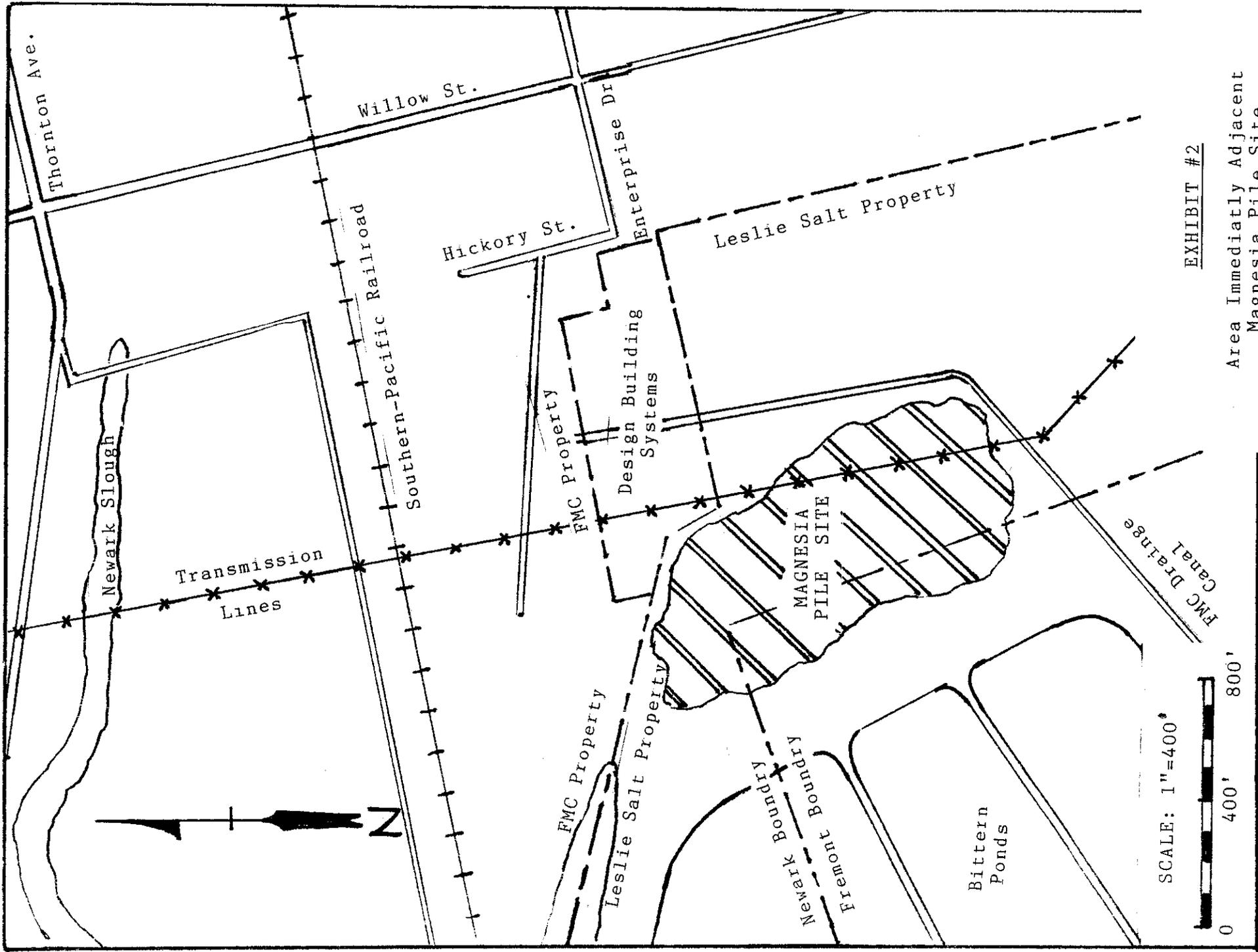
Map of Site Location

REFERENCE: 7.5 MINUTE U.S.G.S. TOPOGRAPHIC  
 MAP OF NEWARK, CALIFORNIA  
 QUADRANGLE DATED 1959,  
 PHOTOREVISED 1980.

**ENVIRONMENTAL SOLUTIONS, INC.**

EXHIBIT #2

Map of Area Immediatly Adjacent  
to the  
Magnesia Pile Site



SCALE: 1"=400'

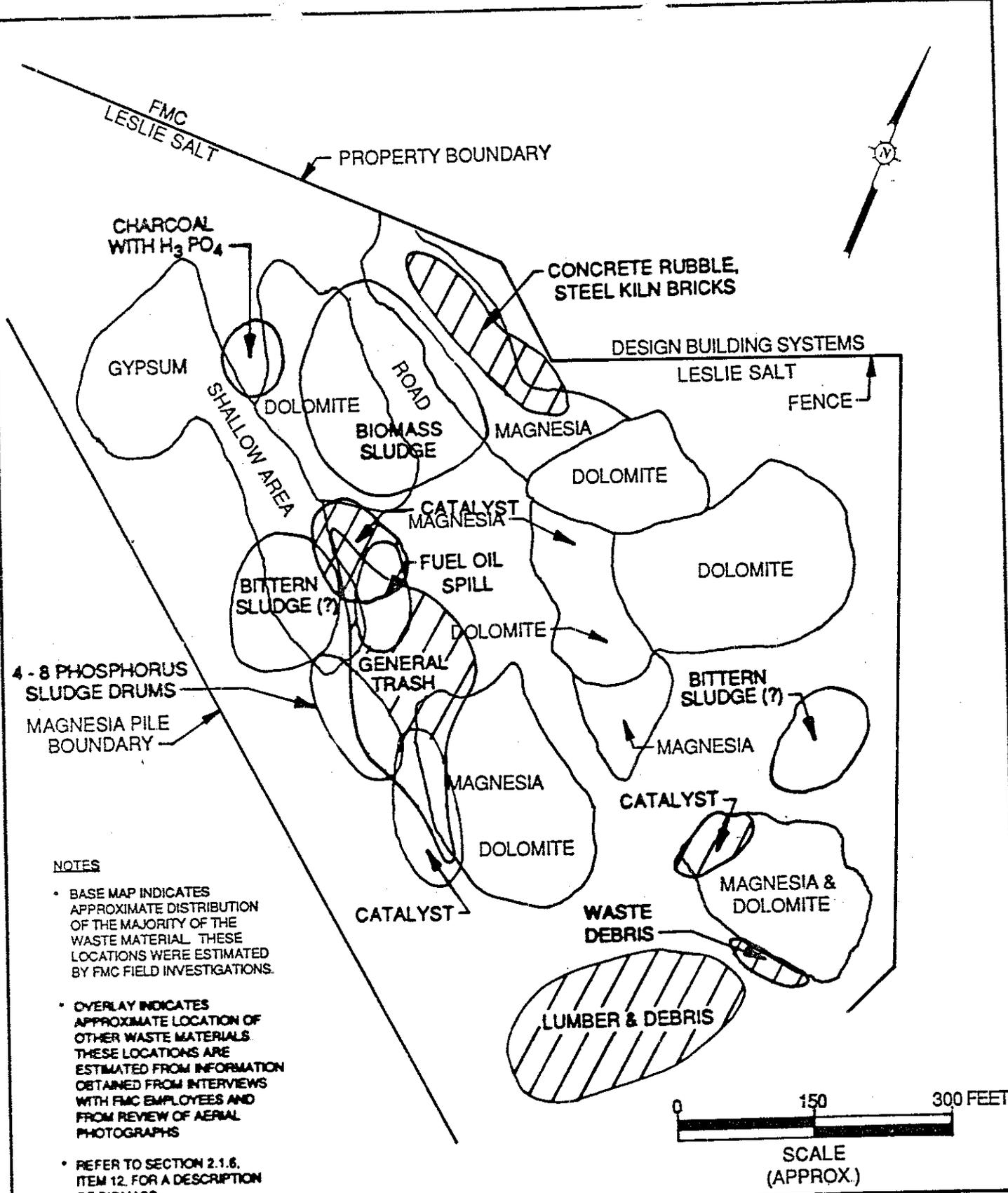


EXHIBIT #2

Area Immediately Adjacent  
Magnesia Pile Site

EXHIBIT #3

History of the Disposal  
of  
Hazardous Wastes at the Site



- NOTES**
- BASE MAP INDICATES APPROXIMATE DISTRIBUTION OF THE MAJORITY OF THE WASTE MATERIAL. THESE LOCATIONS WERE ESTIMATED BY FMC FIELD INVESTIGATIONS.
  - OVERLAY INDICATES APPROXIMATE LOCATION OF OTHER WASTE MATERIALS. THESE LOCATIONS ARE ESTIMATED FROM INFORMATION OBTAINED FROM INTERVIEWS WITH FMC EMPLOYEES AND FROM REVIEW OF AERIAL PHOTOGRAPHS.
  - REFER TO SECTION 2.1.6, ITEM 12, FOR A DESCRIPTION OF BIOMASS.

 MATERIALS REMOVED DURING THE SITE CLEANUP ACTIVITIES PERFORMED IN 1985.

# EXHIBIT # 3

HISTORY OF THE DISPOSAL OF HAZARDOUS WASTES AT THE SITE

FIGURE 23  
**APPROXIMATE LOCATIONS OF WASTE MATERIALS**  
 MAGNESIA PILE SITE  
 NEWARK, CALIFORNIA  
 ENVIRONMENTAL SOLUTIONS, INC.

TABLE 2.1

**CHRONOLOGIC SUMMARY OF ADJACENT LAND USE  
BY FMC CORPORATION**

| YEARS                 | OPERATION                | RAW MATERIALS  | BY-PRODUCTS AND WASTES  | PRODUCT   |
|-----------------------|--------------------------|--|---|---|
| 1929-1968             | EDB Plant                | Ethylene, Chlorine, Ethanol, Sulphuric Acid, Bromine, Raw Bittern  | Dolime, Biomass Sludge, <sup>(1)</sup> Charcoal Impregnated with Phosphoric Acid, Sulfuric Sludge | Ethylene Dibromide  |
| 1937-1968             | Magnesia Plant           | Oyster Shells, Sea Water, Bitterns, Dolomite, Ferro Phos, Silica   | Gypsum and Off Grade Magnesia Products and Off Grade Lime and Dolomite                            | Magnesia Periclase  |
| 1942-1944             | Catalyst 1707 Plant      | Ferric Sulphate, Copper Sulphate, 2665 Magnesia, Potassium Carbonate   | Copper Sulphate, Dust, Scrubber Waste   | Rubber Catalyst   |
| 1956-1958             | Catalyst 1707 Plant      | Same as above  | Same as above   | Rubber Catalyst   |
| 1969-1976             | Petro-Tex Catalyst Plant | Ferric Sulphate, Copper Sulphate, Potassium Carbonate, Magnesia, Nickel Oxide, Chromium Oxide, Titanium Oxide, Iron Oxide, Barium Oxide, Copper Oxide, Zinc Chloride, Zinc Oxide | By-products were recycled   | Rubber Catalyst   |
| Early 1950s - Present | Phosphate Plant          | Soda Ash, Elemental Phosphorus, Potassium Hydroxide, Sodium Hydroxide, Sodium Sulphate, Nitric Acid, Sodium Nitrate, Sodium Chlorate   | Phosphorus Sludges, Arsenic Sulphide  | Phosphoric Acid, Sodium and Potassium Phosphate, Sodium Tripolyphosphate, Sodium Hexameta Phosphate |

<sup>(1)</sup> Refer to Section 2.1.6, Item 12 for a description of biomass sludge.

2. Controlled burning of general paper trash occurred occasionally to reduce the quantity of trash material at the site. Burning of the paper debris ceased when air quality control regulations became effective.
3. In addition, small fires resulting in the ignition of charcoal impregnated with phosphoric acid are known to have occurred occasionally at isolated areas of the magnesia pile.
4. It should be noted that the site was periodically used by the general public as a disposal area for household refuse prior to the installation of the security fence.

#### 2.1.6 CHRONOLOGY OF SITE DEVELOPMENT

1. The site property is owned by Leslie Salt Company and was originally leased to Westvaco in 1929. In 1950 Westvaco was acquired by FMC Corporation, and the lease was continued until 1969. In this report, reference to FMC operations, also includes Westvaco activities.
2. From 1929 through 1969, the site was used for disposal of waste material. Most of the waste placed on the site was generated at FMC Corporation's Magnesia Plant and included:  
(1) unrecoverable magnesia dolomite, and dolime (a mixture of magnesium oxide and calcium oxide), and (2) gypsum by-product. To a much lesser extent waste materials produced by other FMC Operations at their Newark facility were also disposed at the Magnesia Pile.
3. Throughout the period that FMC Corporation used the property adjacent to the Magnesia Pile, a variety of products were manufactured. Table 2.1 presents a chronologic summary of these operations including: (1) raw materials used, (2) by-products and wastes generated and (3) final products produced.
4. During the earlier years, FMC operations consisted primarily of extracting magnesia and bromine from salt water bittern. The biterms were used as raw materials for many of their products (i.e., Magnesia and EDB). During World War II, FMC operations expanded to include the production of rubber catalysts. Catalyst production was reactivated in the late 1950s and again during the early 1970s. Presently, the Phosphate Plant is the only active operation at the FMC Newark facility. This plant has been operating since the early 1950s.

5. Interviews with FMC employees indicated that the majority of the waste material was disposed of at the site from the 1930s through 1968. The volume of material brought to the pile was greatly reduced in 1968 when the Magnesia Plant was closed. During the following years very small quantities of waste materials from the FMC operations were brought to the site and by the mid 1970s disposal activities had ceased.
6. FMC employees, who had knowledge of the disposal activities at the Magnesia Pile by physical involvement or personal observations, have indicated that the majority of the waste disposed of at the site included Magnesia Plant rejects, such as:

- magnesia
- "deadburn" - over calcined magnesia
- gypsum
- dolomite/dolime

Significantly smaller quantities of the following materials were also reported to be disposed of at the site:

- |  |   |
|--|---|
| • general trash (mostly paper waste)                 | • demolition rubbish (lumber, pallets, concrete, old machinery foundations, piping, galvanized roofing) |
| • catalyst pellets (in fiber drums)                  | • anhydrite filler rejects (anhydrite/celite)   |
| • kiln brick   | • residual sea shells   |
| • iron oxide   | • bittern sludge  |
| • biomass sludge (from bromine distillation)         | • residues from fuel oil spills (bunker C oil)  |
| • charcoal impregnated with phosphoric acid          | • empty 5-gallon paint cans   |
| • 4 to 8 drums (steel) of phosphorus sludge          | • brick from sodium hexameta phosphate furnace  |
| • empty metal drums which contained anhydrite filler |   |

7. Other by-products or wastes generated from FMC Operations are not known to be disposed of at the site. In particular, the arsenic sulfide, generated from the Phosphate Plant, was reported not to have been sent to the Magnesia Pile. The scrubber waste produced at the Catalyst Plant was generally recycled. In addition, EDB containing waste were reported not to have been sent to the Magnesia Pile.
8. A map of the site illustrating approximate locations of the different waste material is shown in Figure 2.3. The base map shows the approximate distribution of the bulk of the waste material as estimated by FMC. The overlay, indicating the approximate locations of other waste material, was prepared from information obtained during interviews. The cross-hatched areas indicate where trash was removed and properly disposed of during cleanup activities performed in 1985 (i.e., see Section 2.1.7 for more details).

9. Examination of old aerial photographs and topographic maps show that a relatively large area on the eastern side of the site was excavated about 1937. FMC employees indicated that the excavated area was filled in with mostly Magnesia Plant rejects (i.e., magnesia and dolomite). The western side of the pile received most of the miscellaneous waste materials.
10. A tractor operator who was responsible for disposing of waste material at the site indicated that four to eight drums of phosphorus sludge are buried adjacent to the western slope of the pile (Figure 2.3). In the late 1960s or early 1970s, these drums were buried in a hole excavated in the side and base of the Magnesia Pile. The excavation did not extend into native soil. These drums of phosphorus are the only ones that are expected to exist at the site.
11. There are two known locations and one possible area where surplus drums of catalyst pellets (i.e., catalyst 1707) were disposed of after World War II (Figure 2.3 and Table 2.1). Only a few weeks after their disposal, most of these drums were reclaimed for resale. The short period of time that the drums were present at the site suggests that they were not buried and were relatively accessible. The known remaining drums were removed in 1985 during site cleanup activities performed by IT Corporation (see Section 2.1.7 for more details).
12. Biomass sludge, originally from natural organic matter in the bitterns, was removed from the bottom of the bromine purification tower in the EDB plant and disposed of on the site at the approximate location shown in Figure 2.3. Since this material was in contact with liquid bromine it would be expected to contain bromine compounds. The amount of sludge disposed of is expected to be relatively small since the tower only required infrequent cleaning.
13. Sludge from the bottom of the FMC Magnesia Plant bittern holding ponds was also reported to have been disposed of at the site. Bitterns are the concentrated brine which remains after salt has been removed from sea water concentrated in solar ponds. Before pumping the bitterns to the Magnesia Plant, sulfate is removed by precipitating it as calcium sulfate. After sulfate removal, the bitterns are saturated with calcium sulfate (i.e., gypsum) which continues to deposit as a sludge on the bottom of the Magnesia Plant holding ponds. The ponds were desludged from time to time and the sludge was disposed of on the Magnesia Pile. The sludge is mainly gypsum and would not be expected to be hazardous.
14. Insulation materials disposed of with demolition rubble were observed at the site. These materials could contain asbestos.

15. The majority of the material disposed of at the site was nonhazardous solid waste. Solid materials were brought to the Magnesia Pile in bulk via a tractor truck and deposited. The top of the Magnesia Pile was frequently leveled using a tractor in order to make more area for additional waste material. The non-solid waste consisted primarily of gypsum and magnesia sludges. With the exception of the catalyst pellets and phosphorus sludge, most of the waste was not contained in drums.
16. Some records were maintained with respect to the waste materials deposited at the Magnesia Pile. However, due to the relatively long period of time which has passed since the site has been active, no records are presently available.
17. Chemical analysis of some of the waste materials were performed at the FMC laboratory to determine whether valuable material was being disposed of at the Magnesia Pile. Records of these analyses have not been maintained.
18. Some of the waste material disposed of at the site has been reported to have been excavated and removed from the site. During the early 1980s, Parsons Ag Minerals excavated and removed gypsum and dolomite from the low lying areas to the west of the Magnesia Pile, for resale as a soil amendment.

#### 2.1.6.1 Topographic Changes

1. This section describes the chronological development of the Magnesia Pile site, based on interpretations of sequential aerial photographs and available topographic maps. In general, this information indicates that: (1) most of the waste material deposition occurred between the 1940s and 1960s, and consisted of reject material from the Magnesia Plant (i.e., dolomite, magnesia and gypsum), and (2) miscellaneous waste materials were primarily disposed of in the vicinity of the western and southern slopes of the pile.
2. A 1937 aerial photo indicates that the site consisted of an extension of the Coyote Hills (Figure 2.1). The ridge does not appear to have been significantly modified by disposal activities and is partially covered by vegetation.

EXHIBIT #4  
March, April, and June 1981  
Sampling Results  
by  
The Department of Health Services

Leslie Salt Magnesite Pile  
Ft of Enterprise Drive  
Newark, CA 94560

Contact: James Walton, Vice President  
Leslie Salt Corp.  
7220 Central Ave.  
Newark, CA 94560  
(415) 797-1820

HISTORY:

Site was initially identified through the Eckhardt Survey. The site was originally leased to West Vego. When West Vego was acquired by FMC Corp., the lease was continued until 1969. From 1929-1968 these companies disposed of magnesium chloride and gypsum, in addition to some drummed waste, on the existing serpentine ridge. Since 1968 the property has been surplus land for Leslie Salt and at present there are no plans for use or development.

SITE LOCATION:

See attached map.

ASP ACTION:

3/3/81 Site interview and inspection at Leslie Salt. Met with James Walton (Vice President) and Linda Marshall (Public Affairs). Three samples were collected: HML 3181, 3182, and 3183.

4/7/81 Follow up site visit by ASP staff. Four Samples were collected: HML 3351, 3352, 3353, and 3354.

6/25/81 On recommendation of Howard Hatayama, 11 samples were collected to gather data for possible recycling: HML 3918-3928.

9/5/81 Bill Quan found a recycler who is interested in using the white material but is unable to use it at this time. Recycler would appreciate the State leaving the material available for future recycling.

10/22/81 Bill Quan <sup>requested</sup> James Walton to contact Veale Tract Farms, 415-684-2193, about recycling the above white material.

LAB RESULTS: The lab results show that the white material, which constitutes 95% of the material in the pile, does not have heavy metal contamination, but does have a pH over 12. Rusted barrels of red pellets cover one area. The pellets contain soluble heavy metal concentrations in excess of the CAM limits for copper and zinc.

STATUS OF SITE:

Company Operational Status : Active

Disposal Site Status: Inactive

\* Superfund Notification: Notified (FMC Corporation)

RCRA Status: None

2370 Site Status: None

10/15/81 NG

EXHIBIT #4

March, April, and June 1981

Sampling Results

by

The Department of Health Services

To Be Completed By Supervisor

DESIGNATION CATEGORY

Complex

Routine

Minor

DEPARTMENT OF HEALTH SERVICES  
HAZARDOUS MATERIALS  
MANAGEMENT SECTION

ABANDONED SITE PROJECT  
AUGUST 1981

## SITE INFORMATION SUMMARY

Leslie Salt Company  
End of Enterprise Drive  
Newark, CA.

### HISTORY:

From 1929 to 1968, West Vego, later acquired by FMC, leased the site from Leslie Salt. During that time magnesium chloride and gypsum were dumped on the serpentine ridge. There were also drummed wastes and catalysts disposed of at the site. Since 1968 the property has not been used.

### DESCRIPTION OF PROBLEM:

During a site inspection by ASP staff, evidence of barreled waste was present and preliminary pH test samples appeared to be high.

### SAMPLING AND RESULTS:

Soil samples taken at the site have shown significant heavy metal contamination and high pH.

### CLEAN-UP AND MITIGATION MEASURES:

Preliminary clean-up measures call for further analysis to determine the composition of the soil, and the possibility of recycling of the material.

June 25, 1981 10-12am

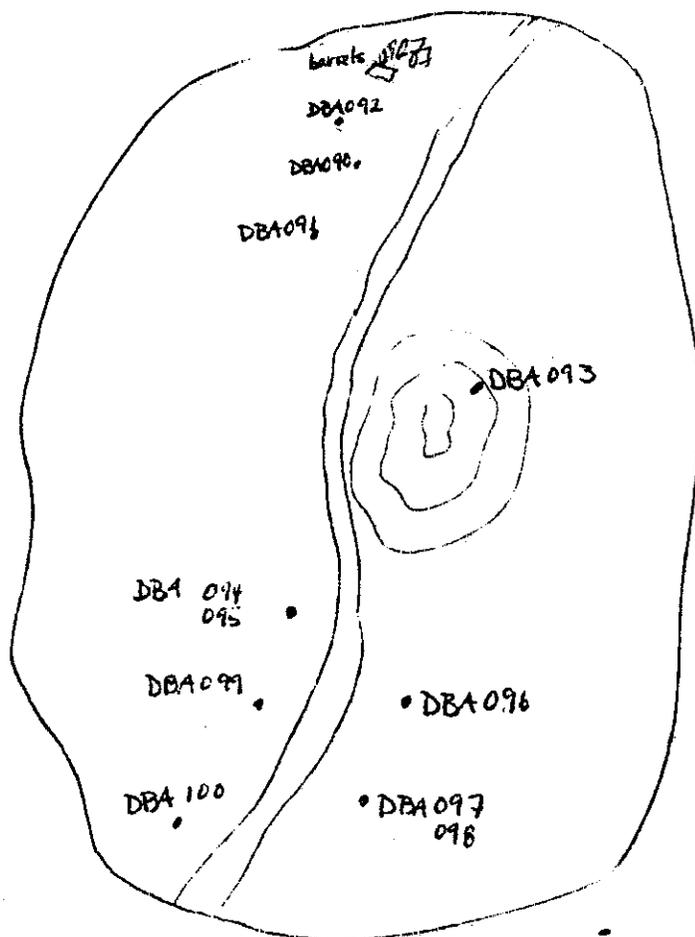
Sampling: Leslie Salt Magnesia Mountain

ASP staff: Dick Burgard, Nancy George, Jane Kerlinger

The ASP staff took 11 samples at the Leslie Salt Magnesia mountain. Samples were taken at regular intervals along the "road" traversing the magnesia pile. Sample depths ranged from surface to 2ft. and the pH ranged from 7 to 13.5. Generally, the magnesia pile is white to gray, but in some areas the soil can be brownish-red under the surface. Estimated height of pile; 60-70 ft. length--200 yds.

| Sample ID   | Depth             | Field pH       | Notes                   |
|-------------|-------------------|----------------|-------------------------|
| 1. DBA 090  | 2 ft sample depth | pH 12          |                         |
| 2. DBA 091  | 1 ft              | pH 11          |                         |
| 3. DBA 092  | 6-12"             | pH 13 @ 6"     |                         |
| 4. DBA 093  | 6-8"              | pH 11          | red-brown granular soil |
| 5. DBA 094  | 1 ft.             | pH 11          | white sample            |
| 6. DBA 095  | 0-6"              | pH 13          | grey surface            |
| 7. DBA 096  | 1 ft              | pH 10 @ 1'     | pH 13 @ 1.5' lt br/gray |
| 8. DBA 097  | surface           | pH 13          | white surface           |
| 9. DBA 098  | 6"                |                | brown                   |
| 10. DBA 099 | surface           | pH 7 @ surface |                         |
| 11. DBA 100 | 0-8"              |                | sandy-white             |

*Field pH using paper + distilled water on surface.*



~500-600 ft

report by Jane Kerlinger

LABORATORY REPORT

TO: Nancy George  
(name of person requesting analysis)

DATE OF REPORT: 5/22/81

COLLECTOR'S SAMPLE #: NG-017 to NG-020

DATE COLLECTED: 4/7/81

LOCATION OF SAMPLING:

NAME Leslie Salt TEL. NO. \_\_\_\_\_  
ADDRESS Near Exit, Mill St., Newark CA  
(number) (street) (city) (state) (zip)

ANALYTICAL PROCEDURES USED: HPLC, digest and 48-hour citrate buffer NET.  
Analysis of all filtrates by X-Ray fluorescence metal scan.  
Error: ±10% unless indicated.

REFERENCES: HML Methods

ANALYSIS RESULTS  
Metal analysis: PPM <sup>core</sup> <sup>res</sup> <sup>48-hr NET</sup> <sup>citrate Buffer Extractions</sup>

| HML #       | 3351    | 3352   | 3353   | 3354   | 3351  | 3352  | 3353  | Blank   |
|-------------|---------|--------|--------|--------|-------|-------|-------|---------|
| Insp. Sp# # | NG-017F | NG-018 | NG-019 | NG-020 |       |       |       |         |
| Ag          | —       | —      | —      | —      | —     | —     | —     | —       |
| As          | —       | —      | —      | —      | —     | —     | —     | —       |
| Ba          | —       | —      | —      | —      | —     | —     | —     | —       |
| Bi          | —       | —      | —      | —      | —     | —     | —     | —       |
| Cd          | —       | —      | —      | —      | —     | —     | —     | —       |
| Co          | —       | —      | —      | —      | —     | —     | —     | —       |
| Cr          | —       | —      | —      | —      | —     | 15±14 | —     | —       |
| Cu          | —       | 39±10  | —      | —      | —     | 77±10 | —     | —       |
| Fe          | 387     | 65900  | 250    | —      | —     | —     | —     | —       |
| Hg          | —       | —      | —      | —      | —     | —     | —     | —       |
| Mn          | 22±16   | —      | —      | —      | —     | —     | —     | —       |
| Mo          | —       | —      | —      | —      | —     | —     | —     | —       |
| Ni          | 26±8    | —      | —      | —      | 8±6   | —     | —     | 0.5±0.4 |
| Pb          | —       | 82±16  | —      | —      | —     | —     | —     | —       |
| Sb          | —       | —      | —      | —      | —     | —     | —     | —       |
| Se          | —       | —      | —      | —      | —     | —     | —     | —       |
| Sn          | —       | —      | —      | —      | —     | —     | —     | —       |
| Sr          | 42±6    | 71±8   | 11±4   | —      | 6±4   | 13±4  | 7±4   | —       |
| Tl          | —       | —      | —      | —      | —     | —     | —     | —       |
| V           | —       | —      | —      | —      | —     | 20±16 | 23±16 | —       |
| Zn          | —       | 100    | —      | —      | —     | 56±8  | —     | —       |
| U           | 29±22   | 30±24  | —      | —      | —     | —     | —     | —       |
| Br          | —       | 7±4    | 14±4   | 170    | 11±4  | 9±4   | 7±4   | 0.5±0.2 |
| Rb          | —       | 8±4    | —      | 14±6   | —     | —     | —     | —       |
| Rh          | —       | —      | —      | —      | 15±12 | —     | —     | —       |
| Cs          | —       | —      | —      | —      | 43±34 | —     | —     | —       |
| LA          | —       | —      | —      | —      | 64±50 | —     | —     | —       |

Note: (—): below detection limit of instrument  
(blank): not determined

Analyst: Suever A. Lang 5/22/81  
signature date

Supervising Chemist: P. ... 5-27-81  
signature date

HAZARDOUS MATERIALS LABORATORY

HML # 3181 to

LABORATORY REPORT

3183

TO: Nancy George  
(name of person requesting analysis)

DATE OF REPORT: 3/26/81

COLLECTOR'S SAMPLE #: NG 015 to NG 017

DATE COLLECTED: 3/3/81

LOCATION OF SAMPLING:

NAME Leslie Salt Property TEL. NO. \_\_\_\_\_  
ADDRESS Newark, near Gateway Dr. CA \_\_\_\_\_  
(number) (street) (city) (state) (zip)

ANALYTICAL PROCEDURES USED: HNO<sub>3</sub> digest / 48 hour citrate buffer WET extraction

Analysis: X-Ray Fluorescence metal scan

Error: ±10% unless indicated.

REFERENCES: HML methods

ANALYSIS RESULTS

red plk. yellow  
Metal analysis: PPM

white  
numbers

48-hr citrate buffer extractions

| HML #       | 3181   | 3182   | 3183   |  | 3181   | 3182   | 3183   |  |
|-------------|--------|--------|--------|--|--------|--------|--------|--|
| Insp. Spl # | NG 015 | NG 016 | NG 017 |  | NG 015 | NG 016 | NG 017 |  |
| Ag          | ---    | ---    | ---    |  | ---    | ---    | ---    |  |
| As          | 16±6   | ---    | 10±4   |  | 5±4    | ---    | ---    |  |
| Ba          | ---    | ---    | ---    |  | 60±48  | 86±48  | 68±48  |  |
| Bi          | ---    | ---    | ---    |  | ---    | ---    | ---    |  |
| Cd          | ---    | ---    | ---    |  | ---    | ---    | ---    |  |
| Co          | ---    | ---    | ---    |  | ---    | ---    | ---    |  |
| Cr          | ---    | ---    | ---    |  | ---    | ---    | ---    |  |
| Cu          | 10920  | 52±8   | ---    |  | 6136   | 50±8   | 8±6    |  |
| Fe          | 22984  | 76,000 | 532    |  | 1210   | 359    | 333    |  |
| Hg          | ---    | ---    | ---    |  | ---    | ---    | ---    |  |
| Mn          | ---    | ---    | ---    |  | 27±16  | ---    | 35±12  |  |
| Mo          | ---    | ---    | ---    |  | ---    | ---    | ---    |  |
| Ni          | ---    | ---    | ---    |  | ---    | 12±6   | 7±6    |  |
| Pb          | ---    | 78±14  | ---    |  | ---    | ---    | ---    |  |
| Sb          | ---    | ---    | ---    |  | ---    | ---    | ---    |  |
| Se          | ---    | 3±2    | ---    |  | ---    | ---    | ---    |  |
| Sn          | ---    | ---    | ---    |  | ---    | ---    | ---    |  |
| Sr          | 8±6    | ---    | 12±6   |  | 8±4    | ---    | ---    |  |
| Tl          | ---    | ---    | ---    |  | ---    | ---    | ---    |  |
| V           | ---    | ---    | ---    |  | ---    | ---    | ---    |  |
| Zn          | 1238   | 87±10  | ---    |  | 257    | 20±6   | ---    |  |
| Ti          | ---    | ---    | ---    |  | ---    | ---    | ---    |  |
| Ga          | ---    | ---    | ---    |  | 15±10  | ---    | ---    |  |
| Br          | ---    | 3±2    | ---    |  | 5±4    | 5±4    | 31±4   |  |
| Rb          | ---    | 8±4    | ---    |  | ---    | ---    | ---    |  |
| Y           | ---    | ---    | ---    |  | ---    | ---    | ---    |  |
| Zr          | ---    | ---    | ---    |  | ---    | ---    | 687    |  |
| In          | ---    | ---    | ---    |  | 21±16  | ---    | ---    |  |

Note: (—): below detection limit of instrument  
(blank): not determined

Supervising Chemist:

Analyst: [Signature] 3/26/81  
signature date

[Signature] 3/26/81  
signature date

HAZARDOUS MATERIALS LABORATORY

LABORATORY REPORT (Final Report)

TO: Dick Burgard  
(name of person requesting analysis)

HML # 3918-28

COPY TO \_\_\_\_\_

COLLECTOR'S SAMPLE # DBA-090 → 100

DATE OF REPORT 08/08/81

LOCATION OF SAMPLE COLLECTION:

DATE COLLECTED 062581  
mo day yr

NAME Leslie Salt Magnesia Pile

ADDRESS Near Enterprise Dr., Newark  
number street city state zip

ANALYTICAL PROCEDURES USED: pH of 50% dilution w/ Corning 125 pH meter. Ca + Mg by AAS of HNO<sub>3</sub> digests. digest of composite sample.

REFERENCE: \_\_\_\_\_

ANALYSIS RESULTS:

| HML # | inspector's # | pH   |
|-------|---------------|------|
| 3918  | DBA 090       | 12.3 |
| 3919  | " 091         | 9.2  |
| 3920  | " 092         | 12.2 |
| 3921  | " 093         | 12.3 |
| 3922  | " 094         | 11.6 |
| 3923  | " 095         | 12.2 |
| 3924  | " 096         | 12.3 |
| 3925  | " 097         | 12.4 |
| 3926  | " 098         | 12.3 |
| 3927  | " 099         | 9.3  |
| 3928  | " 100         | 8.9  |

composite concentration (µg/g): Ca  $238 \times 10^5 \mu\text{g/g}$   
Mg  $1.13 \times 10^4 \mu\text{g/g}$

ANALYSTS' SIGNATURES:

SIGNATURE OF SUPERVISING CHEMIST

1. J. Raymond 8/10/81  
date  
2. \_\_\_\_\_  
date

JNV Tom Hill 8-10-81  
date

LABORATORY REPORT

TO: Nancy George  
(name of person requesting analysis)

DATE OF REPORT: 5/22/81

COLLECTOR'S SAMPLE #: NG-017 to NG-020

DATE COLLECTED: 4/7/81

LOCATION OF SAMPLING:

NAME Leslie Salt TEL. NO. \_\_\_\_\_  
ADDRESS Near Enterprise Dr., Newark  
(number) (street) (city) (state) (zip)

ANALYTICAL PROCEDURES USED: all detns. on Corning #125 pH meter w/ Corning self-ref. electrode. All detns. made on 50% solutions (20 g. sample + 20 ml H<sub>2</sub>O) except H<sub>2</sub>O in which pH detn. directly from 20.0 g. aliquot of liquid sample.

REFERENCES: \_\_\_\_\_

ANALYSIS RESULTS

| <u>HML #</u> | <u>Insp #</u> | <u>pH</u> |
|--------------|---------------|-----------|
| 3351         | NG-017        | 12.2      |
| 3352         | NG-018        | 9.7       |
| 3353         | NG-019        | 8.6       |
| 3354         | NG-020        | 6.9       |

Analyst: Alexander Shved 5/22/81  
signature date

Supervising Chemist: Thomas H. Li 5-27-81  
signature date

EXHIBIT #5

Letter from the Department Directing  
Leslie Salt Company  
to Remove all Hazardous Wastes  
from the Site

Letter from the Department Directing  
Leslie Salt Company  
to Remove all Hazardous Wastes  
from the Site

415/540-2043

April 30, 1982

CERTIFIED NO. P26 4223250

Mr. James Walton, Vice President  
Leslie Salt Corp.  
7220 Central Avenue  
Newark, CA 94560

Dear Mr. Walton:

On March 3, 1981, April 7, 1981, and June 23, 1981 inspections were conducted and samples collected at property owned by Leslie Salt Corporation in Newark, CA., which was the site of the LSC Corporation Newark Magnesia Plant until 1968. This property was found to contain large (thousands of tons) piles of waste material sometimes referred to as the dolomite/magnesia piles. Field observations and historical information also indicate the presence of deteriorated dolomite waste material believed to be spent catalyst.

Analysis of samples collected from this site reveals that the dolomite/magnesia piles in many locations have a pH greater than 12.0, and that the catalyst material contains concentrations of copper and zinc that exceed the levels for hazardous waste, as described in the California Assessment Manual for Hazardous Waste. Copies of these laboratory reports are enclosed.

Compounds having a pH greater than 12.0 are hazardous wastes within the meaning of Sections 66088 and 66092, California Administrative Code. Compounds containing copper or zinc are listed as hazardous wastes in Section 66680 C.A.C. Section 25201, California Health & Safety Code, and Section 66370 C.A.C. require that a hazardous waste storage or disposal facility obtain a Hazardous Waste Facility Permit from the Department of Health Services. Leslie Salt Corporation does not hold such a permit for the Newark site.

You are hereby directed to remove all hazardous waste from the Newark site.

You are also directed, pursuant to Section 66328(d) C.A.C. to submit a Plan of Correction to this office, within 30 days of the date of this letter, which describes the steps you will take to remove all hazardous waste from the Newark site.

We are aware that during the past several months you have been exploring the possibilities for recycling portions of the dolomite/magnesia piles, including discussions with William Quan of this agency. Mr. Quan has provided you with information concerning acceptable levels of heavy metals in any material to be recycled by use as a soil amendment. We would like to commend you for your interest in recycling this material, and would certainly

Mr. James Walton, V.P.

-2-

support your endeavors in this area, in so far as they are compatible with the requirements of the California Hazardous Waste Control Act. At this time, however, we must be assured that:

- a) there exists a formal plan with specific milestones for the recycling of this material, consistent with the requirements of this Department;
- b) the catalyst material and contaminated dolomite/magnesia will be removed to an authorized disposal site in a timely manner;
- c) the dolomite/magnesia piles will be disposed of at an authorized disposal site if a suitable method of recycling cannot be found.

Please contact Dick Burgard of this office if you have any questions concerning this matter.

Sincerely,



John C. Blasco  
Acting Regional Administrator  
Hazardous Waste Management Branch

cc: Harold Singer  
SFWQCB

Kathleen Shimmis  
U.S. EPA Region IX

Gerald Winn  
Director of Env. Health  
Alameda County Health Care  
Services Agency

William Quan  
HWMB

bcc: JCB  
DB  
Tom Bailey - c/u & Emergency Response Section, Sacto

JCB/rl

| CONCURRENCES |         |         |  |  |  |
|--------------|---------|---------|--|--|--|
| Initials     | JCB     | DB      |  |  |  |
| Date         | 4/29/82 | 4/30/82 |  |  |  |

EXHIBIT #6

Sampling Locations and Results  
from  
the January 1984 Emcon Assoc. Report

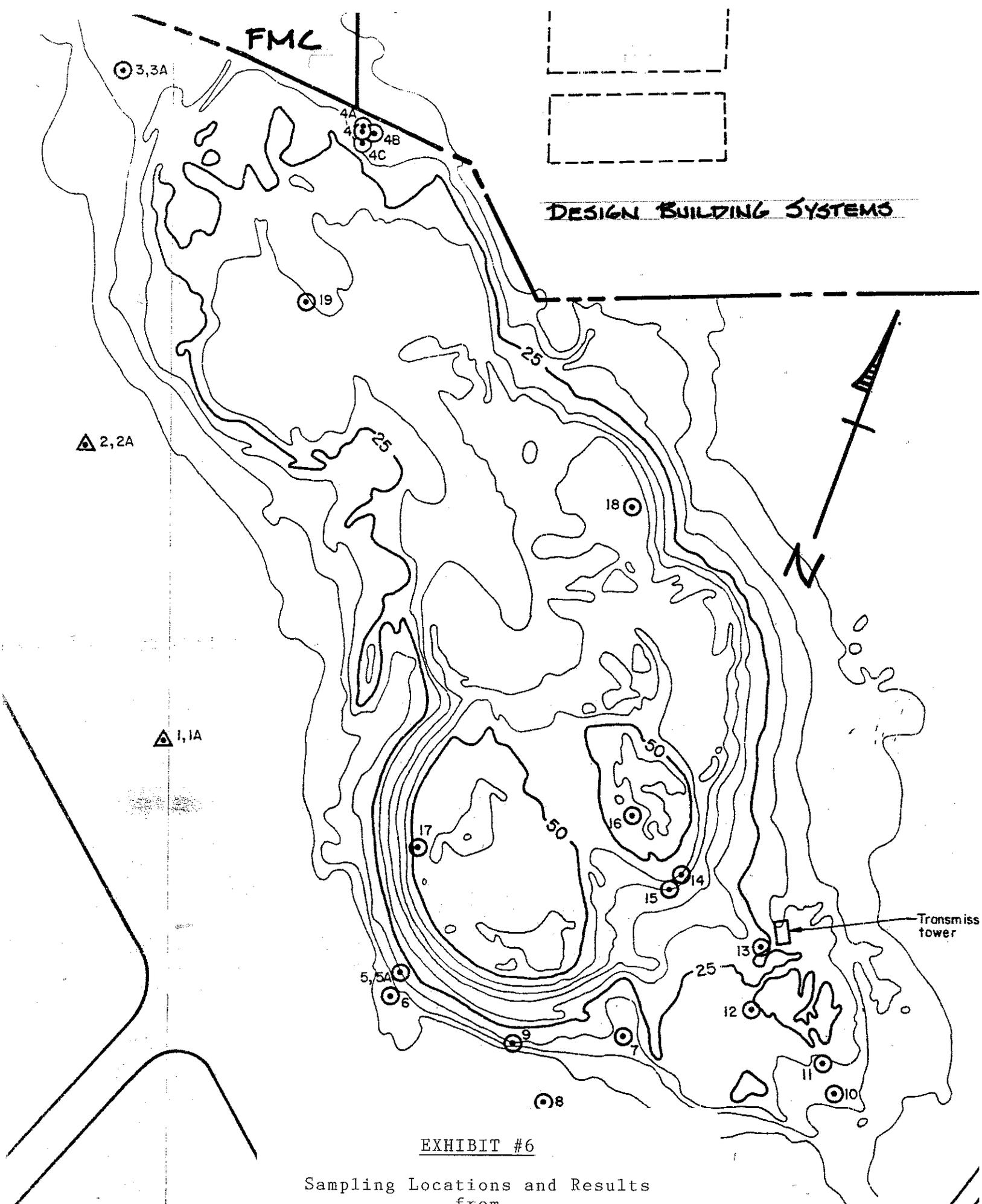


EXHIBIT #6

Sampling Locations and Results  
 from  
 the January 1984 Emcon Assoc. Report

magnesia pile. There are two contiguous "ponds" in this area. The sample was drawn from the west side of the southern pond. The pond was approximately 60 feet wide, 300 feet long and 1 to 2 feet deep at the time of collection.

2, 2A: Samples were collected from the northeast portion of the shallow area from the northern end of the smaller of the two ponds. The pond was approximately 40 feet wide, 150 feet long and 1 to 2 feet deep at the time of collection.

3, 3A: Samples were collected from a homogeneous vegetated area, northwest of the magnesia pile. The sample location was south of the property boundary near the railroad tracks.

4, 4A, 4B, 4C: Samples were collected from an area just north of the magnesia pile, near the junction of the old Leslie fence line and the new Design Building Systems' fence, approximately 400 to 450 feet east of the barge canal. Samples were taken near a conduit valve. Figure 1A identifies the sample locations in relation to the valve.

5, 5A: Samples were collected from the southwest slope of the magnesia pile. Area sampled was reddish/orange with a hard crusty surface. Material below the surface or material not previously exposed was white.

6: Sample was taken from an area adjacent to samples 5 and 5A. However, the sample was collected from a crushed barrel laying on the western slope of the magnesia pile. Material was a light reddish/white chunky powder that was easily crushed.

- 7: Sample was collected from the south end of the site, directly west of a mound of disposed wood rubble. Wood rubble was approximately 30 to 40 feet above the sample area. The sample was brownish or rust colored and was rock-like with a rough surface.
- 8: Sample was collected from the southern section of the site, between the two southern magnesia/dolomite piles, approximately 15 feet southwest of sample 7 location. Sample was drawn from a shallow area or old pond bed. Soil collected was light brown with a crusty layer of material on top.
- 9: Sample was collected from the southern slope of the magnesia pile, west of the road that climbs the pile, near sample 7 location. Material collected was white/gray, chunky powder.
- 10: Sample was taken from the south end of the site, on the east side of the road. Area had several rusted drums; sample was taken from the drum area. Material collected was white/gray with a hard crusty surface; seemed chalky after crushing.
- 11: Sample was taken from the south end of the site from the east side near sample 10 location. One sample was taken from an area where several rusted drums were deposited. Material was uniform, egg-shaped and white.
- 12: Sample was collected from the south portion of site, east of the road, slightly southeast of wood/pallet rubble near the steep section of the road. Sample was taken from a fairly homogeneous area which was primarily brownish/white with a crusty surface.

- 13: Sample was obtained from a flattened area west of the transmission tower. The area contained approximately 50 demolished drums which contained catalyst material. The pellets collected were cylindrical and a reddish/brown color.
- 14: Sample was obtained from the center of the site near the top of the pile on the east side of the access road. Material was collected near a demolished drum; the sample was very hard, broken in rectangular squares and a whitish-yellow color.
- 15: Sample was obtained near sample 14 near the top of the pile in a drum demolition area. Material collected was hard, rough surfaced and a brownish-yellow color. The side of the sloped area where the sample was taken was "stained" the same color.
- 16: Sample was obtained from the eastern side of the top of the pile. The area sample was a west-facing slope which was homogeneous. Material collected was whitish/gray, hard, with a rough surface that was not easily crushed.
- 17: Sample was obtained from the top western edge of the magnesia pile, directly west of sample 16. Material collected was gray/white, very hard with a rough surface, but was easily crushed.
- 18: Sample was collected from the northeastern portion of the site, directly above the Parsons' excavation. Material collected was white and easily crushed into a chalk-like substance.

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## CERTIFIED ANALYTICAL REPORT

Report to:

Date Received August 23, 1983

Leslie Salt Company  
 Post Office Box 364  
 Newark, California 94560

Sample Number E83-0847 & 0848

Project Number 436-01.02

Attention: Mr. John Pyles

Location Leslie Salt Co., Magnesia Pile

### SOIL

| PARAMETER                     | #3<br>8/23/83 | #4<br>8/23/83 | #5<br>8/23/83 | #6<br>8/23/83 |
|-------------------------------|---------------|---------------|---------------|---------------|
| Alkalinity, Total, ug/g       | 38,000.       | 110,000.      | 47,000.       | 100,000.      |
| Alkalinity, Bicarbonate, ug/g | 38,000.       | 98,000.       | 47,000.       | 230,000.      |
| Alkalinity, Carbonate, ug/g   | NA            | 14,000.       | 280.          | 170,000.      |
| Aluminum, Total, ug/g         | NR            | NR            | 160.          | 40.           |
| Arsenic, Total, ug/g          | < 2.0         | 3.0           | < 2.0         | NR            |
| Cadmium, Total, ug/g          | NR            | NR            | NR            | NR            |
| Calcium, Total, ug/g          | 138,000.      | 90,000.       | 100,000.      | 4,800.        |
| Chloride, ug/g                | NR            | NR            | 32,000.       | 25,000.       |
| Copper, Total, ug/g           | 200.          | 27.           | 18.           | 20.           |
| Iron, Total, ug/g             | 3,200.        | 5,200.        | 3,200.        | 21,000.       |
| Lead, Total, ug/g             | 40.           | 220.          | 50.           | 6.0           |
| Magnesium, Total, ug/g        | 60,000.       | 110,000.      | 90,000.       | 10,000.       |
| Manganese, Total, ug/g        | 80.           | 200.          | 57.           | 100.          |
| Nickel, Total, ug/g           | 64.           | 76.           | 56.           | 20.           |
| Phosphate (P), Total, ug/g    | 420.          | 600.          | 440.          | 23,000.       |
| Strontium, Total, ug/g        | 66.           | 52.           | 36.           | < 2.          |
| pH @ 50%, Dilution            | 8.0           | 9.6           | 9.2           | 10.2          |
| Zinc, Total, ug/g             | 28.           | 50.           | 40.           | 8.0           |
| Sulfate, ug/g                 | 170,000.      | 42,000.       | 14,000.       | 24,000.       |

NR = Not Requested

NA = Not Applicable due to low pH

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Revised T.B. Gullett Date Nov 11, 1983  
 Reported by: T.B. Gullett Date: Sept 16, 1983

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## CERTIFIED ANALYTICAL REPORT

Report to:

Leslie Salt Company  
Post Office Box 364  
Newark, California 94560

Attention: Mr. John Pyles

Date Received August 23, 1983

Sample Number E83-0847 & 0848

Project Number 436-01.02

Location Leslie Salt Co., Magnesite Pile

### SOIL

| PARAMETER                     | #11<br>8/23/83 | #12<br>8/23/83 | #13<br>8/23/83 | #14<br>8/23/83 |
|-------------------------------|----------------|----------------|----------------|----------------|
| Alkalinity, Total, ug/g       | 20,000.        | 38,000.        | 16,000.        | 14,000.        |
| Alkalinity, Bicarbonate, ug/g | 18,000.        | 38,000.        | 15,000.        | 11,000.        |
| Alkalinity, Carbonate, ug/g   | 1,800.         | 440.           | 1,100.         | 2,900.         |
| Aluminum, Total, ug/g         | NR             | NR             | NR             | NR             |
| Arsenic, Total, ug/g          | NR             | NR             | < 2.0          | < 2.0          |
| Cadmium, Total, ug/g          | NR             | NR             | NR             | NR             |
| Calcium, Total, ug/g          | 6,600.         | 59,000.        | 4,000.         | 4,200.         |
| Chloride, ug/g                | NR             | NR             | NR             | NR             |
| Copper, Total, ug/g           | 3.6            | 11.            | 20,000.        | 9.0            |
| Iron, Total, ug/g             | 400.           | 2,000.         | 92,000.        | 800.           |
| Lead, Total, ug/g             | 6.0            | 30.            | 20.            | 10.            |
| Magnesium, Total, ug/g        | 340,000.       | 90,000.        | 250,000.       | 340,000.       |
| Manganese, Total, ug/g        | 200.           | 40.            | 120.           | 200.           |
| Nickel, Total, ug/g           | 32.            | 64.            | 28.            | 16.            |
| Phosphate (P), Total, ug/g    | 220.           | NR             | NR             | NR             |
| Strontium, Total, ug/g        | 6.0            | 58.            | 12.            | 8.0            |
| pH @ 50%, Dilution            | 10.0           | 8.6            | 10.0           | 10.9           |
| Zinc, Total, ug/g             | 4.0            | 44.            | 14.            | 8.0            |
| Sulfate, ug/g                 | 5,000.         | 6,200.         | 63,000.        | NR             |

NR = Not Requested

NA = Not Applicable due to low pH

Page 3 of 4

Revised

T. B. Willott

Date

Nov 11, 1983

Reported by:

T. B. Willott

Date:

SEPT 16, 1983

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## CERTIFIED ANALYTICAL REPORT

Report to: Leslie Salt Company  
Post Office Box 364  
Newark, California 94560

Attention: Mr. John Pyles

Date Received August 23, 1983

Sample Number E83-0847 & 0848

Project Number 436-01.02

Location Leslie Salt Co., Magnesia Pile

### SOIL

| PARAMETER                     | #15<br>8/23/83 | #16<br>8/23/83 | #17<br>8/23/83 | #18<br>8/23/83 | #19<br>8/23/83 |
|-------------------------------|----------------|----------------|----------------|----------------|----------------|
| Alkalinity, Total, ug/g       | 21,000.        | 120,000.       | 59,000.        | 260,000.       | 300,000.       |
| Alkalinity, Bicarbonate, ug/g | 19,000.        | 110,000.       | 57,000.        | 180,000.       | 300,000.       |
| Alkalinity, Carbonate, ug/g   | 1,600.         | 9,000.         | 2,200.         | 78,000.        | 3,600.         |
| Aluminum, Total, ug/g         | 40.            | NR             | NR             | NR             | 500.           |
| Arsenic, Total, ug/g          | NR             | < 2.0          | 2.8            | 2.2            | < 2.0          |
| Cadmium, Total, ug/g          | NR             | NR             | NR             | NR             | 1.0            |
| Calcium, Total, ug/g          | 12,000.        | 14,000.        | 51,000.        | 59,000.        | 62,000.        |
| Chloride, ug/g                | 32,000.        | NR             | NR             | NR             | 25,000.        |
| Copper, Total, ug/g           | < 1.0          | 14.            | 7.0            | 5.8            | 9.6            |
| Iron, Total, ug/g             | 14,000.        | 5,200.         | 800.           | 800.           | 5,200.         |
| Lead, Total, ug/g             | 46.            | 50.            | 18.            | 17.            | 200.           |
| Magnesium, Total, ug/g        | 160,000.       | 160,000.       | 100,000.       | 110,000.       | 160,000.       |
| Manganese, Total, ug/g        | 200.           | 200.           | 200.           | 54.            | 120.           |
| Nickel, Total, ug/g           | 40.            | 40.            | 44.            | 28.            | 28.            |
| Phosphate (P), Total, ug/g    | NR             | 600.           | 100.           | NR             | 310.           |
| Strontium, Total, ug/g        | 12.            | 17.            | 52.            | 26.            | 20.            |
| pH @ 50%, Dilution            | 10.2           | 9.3            | 9.6            | 12.1           | 8.8            |
| Zinc, Total, ug/g             | 130.           | 64.            | 8.0            | < 4.0          | 80.            |
| Sulfate, ug/g                 | NR             | 700.           | 3,600.         | NR             | NR             |

NR = Not Requested

NR = Not Applicable due to low pH

Page 4 of 4

Revised T. B. W. Whit Date Nov 11, 1983  
Reported by: T. B. W. Whit

APPENDIX D

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## CERTIFIED ANALYTICAL REPORT

Report to: Leslie Salt  
 Post Office Box 364  
 Newark, California 94560  
 Attention: Mr. John Pyles

Date Received: August 23, 1983  
 Sample Number: E83-0847 & 0848  
 Project Number: 436-01.02  
 Location: Leslie Salt Co., Magnesia Pile

### SOIL

| PARAMETER <sup>1</sup>         | Sample #3 <sup>2</sup>  |                    | Sample #13 <sup>2</sup> |                    |
|--------------------------------|-------------------------|--------------------|-------------------------|--------------------|
|                                | Buffer Solution<br>pH=4 | Deionized<br>Water | Buffer Solution<br>pH=4 | Deionized<br>Water |
| Cadmium, Soluble               | < .5                    | < .5               | 1.0                     | < .5               |
| Calcium, Soluble               | 4,900.                  | 5,000.             | 1,800.                  | 90.                |
| Chromium, Soluble <sup>3</sup> | 7.0                     | < 1.0              | 6.0                     | 2.0                |
| Copper, Soluble                | 10.                     | 1.5                | 7,000.                  | < 1.0              |
| Iron, Soluble                  | 230.                    | < 5.0              | 1,000.                  | < 5.0              |
| Lead, Soluble                  | 3.0                     | < 2.0              | 4.0                     | < 2.0              |
| Magnesium, Soluble             | 55,000.                 | 700.               | 60,000.                 | 1,600.             |
| Manganese Soluble              | 32.                     | < .5               | 10.                     | < .5               |
| Nickel, Soluble                | 10.                     | 5.0                | 12.                     | < 5.0              |
| Strontium, Soluble             | 5.0                     | < 5.0              | < 5.0                   | < 5.0              |
| Zinc, Soluble                  | 8.0                     | 5.0                | 8.6                     | < 5.0              |

- All units are mg/kg wet mass basis.
- 48 Hr. Calif. Waste Extraction Test, Calif. Assessment Manual For Hazardous Wastes, DOHS, Aug., 1979.
- Total Chromium: Chromium III and Chromium VI.

Page 1 of 2

Revised T. B. G. [Signature] Date Nov 11, 1983

Reported by: T. B. G. [Signature] Date: Oct 4, 1983

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## CERTIFIED ANALYTICAL REPORT

Report to: \_\_\_\_\_ Date Received August 23, 1983  
 Leslie Salt \_\_\_\_\_ Sample Number E83-0847 & 0848  
 Post Office Box 364 \_\_\_\_\_ Project Number 436-01.02  
 Newark, California 94560 \_\_\_\_\_ Location (see page 1)  
 Attention: Mr. John Pyles \_\_\_\_\_

### SOIL

| PARAMETER <sup>1</sup>       | Sample #15 <sup>2</sup> |                    | Sample #17 <sup>2</sup> |                    |
|------------------------------|-------------------------|--------------------|-------------------------|--------------------|
|                              | Buffer Solution<br>pH=4 | Deionized<br>Water | Buffer Solution<br>pH=4 | Deionized<br>Water |
| Cadmium, Soluble             | 0.5                     | < .5               | < .5                    | < .5               |
| Calcium, Soluble             | 1,500.                  | 80.                | 3,900.                  | 70.                |
| Chromium, Soluble            | 4.0                     | < 1.0              | 2.0                     | < 1.0              |
| Copper, Soluble <sup>3</sup> | < 1.0                   | < 1.0              | 5.5                     | 1.5                |
| Iron, Soluble                | 80.                     | < 5.0              | 120.                    | < 5.0              |
| Lead, Soluble                | 3.0                     | < 2.0              | < 2.0                   | < 2.0              |
| Magnesium, Soluble           | 49,000.                 | 2,400.             | 21,000.                 | 400.               |
| Manganese Soluble            | 33.                     | < .5               | 31.                     | 0.5                |
| Nickel, Soluble              | 10.                     | < 5.0              | 5.0                     | < 5.0              |
| Strontium, Soluble           | < 5.0                   | < 5.0              | < 5.0                   | < 5.0              |
| Zinc, Soluble                | < 5.0                   | < 5.0              | < 5.0                   | < 5.0              |

- All units are mg/kg wet mass basis.
- 48 Hr. Calif. Waste Extraction Test, Calif. Assessment Manual For Hazardous Wastes, DOHS, Aug., 1979.
- Total Chromium: Chromium III and Chromium VI.

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Revised T. B. White Date Nov 11, 1983  
 Reported by: T. B. White Date: Oct 4, 1983

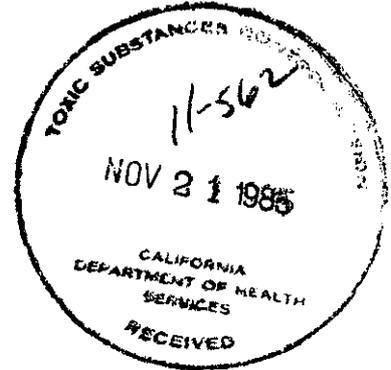
EXHIBIT #7

November 18, 1985 Letter  
Leslie Salt Company to the Department  
Indicating Responsibility for  
Further Chariterization of the Site

**Leslie Salt Co.**  
A CARGILL COMPANY

7200 CENTRAL AVENUE  
NEWARK CA 94560 / (415) 797-1820

November 18, 1985



Ms. Claudia Willen  
Department of Health Services  
2151 Berkeley Way  
Annex 7  
Berkeley, CA 94704

Dear Ms. Willen:

The last time we communicated, I had sent you a letter outlining Leslie Salt Co.'s intentions for cleanup of the magnesia waste pile. We have taken some action per that letter, and I would like to inform you of the results.

All known hazardous material has been removed. This was done by I.T. Corporation with the material going to their Class I dump facilities. The trash has also been removed by I.T. Corporation to a local Class III dump.

The next step in the process is to sift through the remaining material. We are working on a monitoring plan for the screening and are developing a screening plan. These plans will be sent to you as they are developed. As it is our goal to recycle the magnesia material, it is important that any hazardous material which may be buried be isolated and properly handled. We have not yet found a home for the magnesia material.

Please call me at 790-8160 if you have any questions.

Sincerely,

A handwritten signature in cursive script, appearing to read "John Pyles".

John Pyles  
Solar Salt Production Manager

JF11/26:bep

EXHIBIT #7

November 18 1985 Letter  
Leslie Salt Company to the Department  
Indicating Responsibility for  
Further Characterization of the Site

Leslie Salt/FMC Magnesia Waste Pile Site

REMEDIAL ACTION PLAN

(submitted pursuant to California Health and Safety Code Section  
25256.1)

October 1990

Submitted by:

Leslie Salt and FMC  
Leslie Salt/FMC Magnesia Waste Pile  
Newark, California

Prepared by:

Hydrologic Consultants, Inc.

HCI-524/T8

**HCI** HYDROLOGIC  
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12596 West Bayaud Avenue • Suite 290 • Lakewood, CO 80228  
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**LESLIE SALT/FMC MAGNESIA WASTE PILE SITE  
REMEDIAL ACTION PLAN**

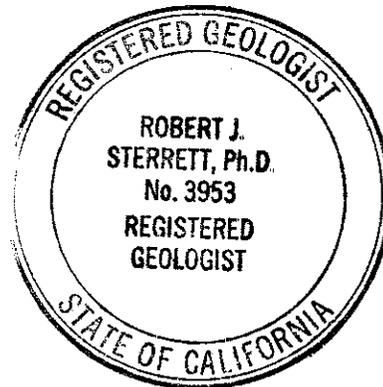
Leslie Salt and FMC  
Leslie Salt/FMC Magnesia Waste Pile  
Newark, California

HCI-524

October 1990

This report has been prepared by the staff of Hydrologic Consultants, Inc., under the professional supervision of the Officer whose seal and signature appears hereon.

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A handwritten signature in cursive script that reads "Robert J. Sterrett".

Robert J. Sterrett, Ph.D., R.G.  
Vice President

## 1.0 INTRODUCTION

This Remedial Action Plan (RAP) summarizes Remedial Investigation (RI), risk assessment, and Feasibility Study (FS) activities performed at and for the site of the Leslie Salt/FMC Magnesia Waste Pile in Newark, California. The RAP also describes the remedial alternative selected for the site and the schedule for its implementation.

The Leslie Salt/FMC Magnesia Waste Pile is currently entered on California's list of hazardous substance release sites. FMC and Leslie Salt have conducted site investigations at the request of the California Department of Health Services (DHS). FMC and Leslie Salt have also performed a site risk assessment and Feasibility Study. These activities are described in reports prepared for FMC and Leslie Salt (EMCON Associates, 1984; IT Corporation, 1985; S.S. Papadopoulos and Associates, 1988; TERRA Inc., 1989; Hydrologic Consultants, Inc., 1990), all of which have been submitted to the DHS and are on file at the DHS regional office. This RAP summarizes these activities and describes the selected site remedial alternative for review and approval by the DHS and the general public.

### 1.1 PURPOSE OF REMEDIAL ACTION PLAN

The purpose of the RAP is to briefly summarize site data gathered during the Remedial Investigation (RI), risk assessment and Feasibility Study (FS) process, and to identify and describe the remedial actions proposed for the Leslie Salt/FMC Magnesia Waste Pile in Newark, California. This RAP has been prepared pursuant to the requirements established in the California Health and Safety Code (H&SC) Section 25356(a - d). H&SC, Section 25356.1 specifies that a RAP shall be prepared, approved by the Department of Health Services (DHS), and released to the public for review and comment prior to commencing final remedial action at the site. The

requirements specify that the RAP shall be based on Section 25356 (H&SC), Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR, Section 300.61 et seq.) and on the following factors:

1. Health and safety risks posed by the conditions at the site.
2. The effects of contamination on present, future, and probable beneficial uses of contaminated or threatened resources.
3. The effects of alternative remedial action measures on the reasonable availability of ground-water resources for present, future, and probable beneficial uses.
4. Site-specific characteristics, including the potential for off-site migration of hazardous substances, the surface or subsurface soils, and the site hydrogeological conditions, as well as preexisting background contamination levels.

H&SC Section 25356.1(d) further specifies that the RAP shall include a statement of reasons describing the basis for the remedial actions selected, and a non-binding preliminary allocation of financial responsibility.

The RAP approval process is the means by which the public is provided an opportunity to be involved in the remedial action decision-making process. This public involvement process is formally initiated when a draft RAP is issued for public comment. California law requires a 30-day public comment period during the draft Remedial Action Plan review process. DHS posts notices near the site and in a local newspaper to announce that the draft RAP is available for review. A mailing list is developed that includes owners of property adjacent to the site, state and local agencies, and other interested parties. A description of the proposed actions is sent to all people on this mailing list. Comments on the cleanup recommendations can be sent to the DHS Site Officer. At least one public meeting is also held during the public review

period to receive comments. DHS must consider these public comments when deciding on the final cleanup plan for the site. The community is notified again before the cleanup begins.

The public comment period for this particular project ran from the beginning of June 4, 1990 through the end of July 3, 1990. The public hearing was held on the evening of June 13, 1990 at 7:00 p.m. at the Newark City library. The DHS has prepared a summary of the public comments received during the public comment period and their responses to them. The responses to the public comments are contained in a separate document titled "Public Responsiveness Survey," and this document can be found with the site documents in the public repository at the Newark City library and in the DHS offices which are located in Berkeley, California.

The RAP also provides a mechanism for setting out specific remedial action objectives and a timetable for completion of the action. By adopting the final RAP, DHS is making a commitment to the public and to Leslie Salt/FMC that, if the remedial action plan is fully implemented and completed, the site will be certified as adequately remediated.

The RAP is not intended to be a comprehensive document that contains all the information concerning a site, nor does it contain specific engineering design details. Rather, the RAP is a summary of the logical decision-making process that was carried out to select (and reject) remedial action alternatives. This document describes in a general manner the potential remedial alternatives and the recommended selected alternative to interested regulatory agencies and the public. Where appropriate, the RAP makes reference to other reports in which site conditions and technical data are more fully described.

## 1.2 IDENTIFICATION OF SITE

This RAP applies to the Leslie Salt/FMC Magnesia Waste Pile site, located on property owned by Leslie Salt, east of San Francisco Bay in Alameda County, California (Figure 1). The pile is located within Newark, California (Figure 2). The general magnesia material of which the pile is composed, contains materials that are hazardous as defined by Title 22 of the California Health and Safety Code. These hazardous materials resulted from disposal activities that occurred from the 1940s until 1969. A more detailed description of site activities and history are provided in Section 3.1.

## 1.3 SCOPE OF REMEDIAL ACTION PLAN

### 1.3.1 Requirements of RAP

Section 25356.1 of H&SC requires that a remedial action plan must be developed in draft form, circulated for public and responsible party comment, and issued as a final document prior to the remediation of a site. The RAP is also intended to be presented to all appropriate government agencies and to the affected community for comment. The purpose of a RAP is to assemble and present the analyses of all existing data in order to identify, prepare a preliminary design of, and develop a comprehensive schedule for implementing a remedial action. Because a RAP is a public document, it must comply with all statutory, regulatory, and policy requirements.

The RAP contains a concise summary of the site background data, a description of the nature and extent of contamination, an endangerment assessment, an evaluation of each proposed alternative as described in the feasibility study, and a statement of reasons presenting the bases for the selected remedial action.

The following are documented in the present RAP:

- health and safety risks posed by conditions at the site;
- likely effects of contamination on present, future, and probable beneficial uses of threatened resources;
- the effects of alternative remedial action measures on the reasonable availability of ground-water resources for present, future, and probable beneficial uses;
- site-specific characteristics, including the potential for off-site migration of potentially-hazardous substances, surface and subsurface soil conditions, hydrogeologic conditions, and pre-existing background contamination levels; and
- the cost-effectiveness of alternative remedial action measures.

The present RAP also describes the selected remedial alternative in some detail, including:

- the proposed cleanup levels;
- engineering considerations, site layout, and implementation schedule;
- maintenance and monitoring requirements;
- off-site disposal requirements;
- health and safety plans;
- transportation requirements; and
- environmental and public health problems that may be encountered during implementation of the selected remedial action, together with methods and associated costs for mitigating potential problems.

### 1.3.2 Final RAP Approval Record

Appropriate comments by the public and responsible parties regarding the draft RAP will be reviewed and incorporated into the final plan. A Final RAP Approval Record stating that the proposed remedial action is consistent with the Hazardous Substances Cleanup Bond Act of 1984, the California State Superfund law, the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), and the National Contingency Plan will then be prepared by the State. The signature of the designated representative of the State will document approval of the selected remedial alternative, and will serve to finalize the RAP.

## 2.0 EXECUTIVE SUMMARY

### 2.1 COMPLIANCE WITH APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

A primary requirement of a RAP is that the document must comply with applicable or relevant and appropriate statutory, regulatory, and policy requirements. While "applicable or relevant and appropriate requirements" (ARARs) are to be determined by the lead agency, a list was proposed and a discussion made in the FS, and has been accepted by DHS. This list is summarized in Table 1. An evaluation of how each remedial action alternative is consistent with the ARAR's is also presented in this table.

A Remedial Action Order was issued to FMC and Leslie Salt by DHS on July 22, 1988. The Order was issued pursuant to the applicable provisions of the California Health and Safety Code, Sections 25355.5, 205, and 206. Under the terms of the Order, DHS is the lead State agency assuming responsibility for oversight of site remediation. The State ARARs governing site investigations and remediation include the provisions of the Hazardous Waste Control Act (California Health and Safety Code, Sections 25100 - 25250.24), the Hazardous Substance Account Act (California Health and Safety Code, Sections 25300 - 25395), and the California Code of Regulations (Title 22, Chapter 30). These ARARs are concerned with the definition of hazardous material; the identification of responsible parties; the procedures to be followed in constructing and approving feasibility studies, remedial action plans, and community relations plans; and acceptable disposition of hazardous material. The provisions of the Porter-Cologne Water Quality Control Act (California Water Code, Sections 13000-13443) and regulations under that act (23 California Administrative Code, Sections 2050-2061), and the Safe Drinking Water and Toxics Enforcement Act (California Health and Safety Code, Sections

25249.5 - 25249.13) may constitute ARARs, especially with respect to activities conducted during the proposed remediation program.

In addition, possible ARARs include worker health and safety standards to be followed during remediation, and air standards (e.g., Part 6 of the Bay Area Air Quality Management District Regulations, dealing with particulates and visible emissions).

Because disposal of waste materials at the Magnesia Waste Pile was terminated prior to November 19, 1980, it is judged that the applicable Federal requirements are contained in the provisions of the Comprehensive Environmental Response, Compensation, and Liability Act, as amended (CERCLA and SARA, or "Superfund"; 42 USC, Sections 9601 et seq.). As with most other states, California has relied on the provisions of the Resource Conservation and Recovery Act (RCRA) for the definition of hazardous and nonhazardous materials; therefore, RCRA provisions are applicable insofar as they are used to classify the material at the site. The specific applicable provisions are contained in 40 CFR, Part 261.

However, because the California Hazardous Substance Account Act (California Health and Safety Code, Sections 25300 - 25395) is functionally parallel to CERCLA, and because DHS is the lead State agency assuming responsibility for oversight of site remediation under the terms of the Remedial Action Order issued on July 22, 1988, it is judged that the provisions of the California Health and Safety Code will take precedence during remedial activities at the site (California Health and Safety Code, Section 25159).

To the extent that California has not enacted regulations or has not been authorized under portions of the federal RCRA program, the following EPA regulations may be ARARs:

- 40 C.F.R. Part 260
- 40 C.F.R. Part 261 (Definitions)

- 40 C.F.R. Part 262 (Generator)
- 40 C.F.R. Part 264 (Permitted Facilities)
- 40 C.F.R. Part 268 (Land Disposal)
- 40 C.F.R. Part 271 (Permit Application)

In addition, EPA water and air regulations that may be ARARs include the following:

- 40 C.F.R. Sections 141.11 - 141.16 (maximum contaminant levels)
- 40 C.F.R. Sections 141.50 - 141.51 (maximum contaminant level goals)
- 40 C.F.R. Parts 122 and 125 (wastewater discharge)
- 40 C.F.R. Part 50 (National Ambient Air Quality Standards)
- 40 C.F.R. Part 61 (Emission Standards)

The following OSHA requirements may be ARARs with respect to remedial activities:

- 29 C.F.R. Part 1910 (General Industry Standards)
- 50 Fed. Reg. 45654 (Health & Safety Standards for Employees engaged in Hazardous Waste Operations)

Possible ARARs are presented in Table 1, together with an assessment of the degree of compliance with ARARs associated with each remedial alternative, including the selected alternative (Alternative A-6).

## **2.2 HISTORY OF THE MAGNESIA WASTE PILE**

The Magnesia Waste Pile is a former waste disposal site that is located on property owned by the Leslie Salt, in the southwestern part of Newark, California (Figure 2). It is visible

as a pile of white material, 40 to 50 feet high, 300 to 400 feet wide at its base, and approximately 1,200 feet in length. Over a period of approximately 50 years, parts of the Leslie Salt's Newark property have been leased for the placement of byproducts from various types of manufacturing activities.

Over the years, the Magnesia Waste Pile site was used by FMC to discard waste products. Most materials discarded at the Magnesia Waste Pile by FMC were nonhazardous as defined by Title 22 of the California Code of Regulations. The wastes consisted primarily of bulk quantities of off-grade or residual products resulting from manufacturing activities at the adjacent FMC facilities, and included magnesia (MgO), gypsum (CaSO<sub>4</sub>), dolomite (CaMg(CO<sub>3</sub>)<sub>2</sub>), lime (CaO) and limestone (CaCO<sub>3</sub>). Other reported waste products included four to eight drums of phosphorus-containing sludge, copper catalyst pellets used in synthetic rubber production, pockets of scrap lumber, kiln brick, general trash, and old concrete machinery foundations.

A general site cleanup was undertaken in 1985 and included the excavation and removal of about 450 cubic yards of copper catalyst pellets, and the removal of visible trash and debris. The copper catalyst material was disposed at the IT Corporation Class I landfill in Benicia, California, and the general trash was disposed in a municipal landfill.

The DHS issued a unilateral Remedial Action Order (RAO) to FMC and Leslie Salt in July 1988 to undertake a Remedial Investigation (RI) of the Magnesia Waste Pile, and to issue a Feasibility Study (FS) presenting the results of the investigation and assessing various remedial alternatives. The purpose of the FS was to identify a preferred remedial alternative(s) for contamination that was determined to present a threat to human health and the environment. Additional chemical analyses of air, surface water, ground water and waste samples were also presented in this

document. The results of these analyses were used to characterize the waste pile, to assess the possible effects of wastes in the pile on the surrounding water and air, and were also used to provide proposed technical cleanup standards for the site. The FS was issued as a final document in January 1990, and has been accepted by DHS.

The results of the RI demonstrated that the contaminants of primary concern within the pile are copper and mercury. Copper and mercury are considered to be hazardous because the concentrations of these chemicals in the magnesia exceed the appropriate Total Threshold Limit Concentration (TTLC) as defined by Title 22. The Magnesia Waste Pile contains approximately 65,000 cubic yards (cy) of general magnesia material, 9,600 cy of general construction debris (concrete, lumber, etc.), approximately 600 cy of copper catalyst pellets and approximately 2,500 cy of mercury-contaminated magnesia material. During RI site overview activities, DHS sampled a small waste area to the east of the pile. Magnesia/soil material in this area contained thallium in concentrations that exceeded appropriate TTLC. The volume of soil material located east of the site that contains thallium concentrations in excess of the TTLC is estimated to be 50 cy. The copper- and mercury-contaminated wastes are restricted to distinct areas of the pile, generally on the west side of the pile.

### **2.3 SELECTED REMEDIAL ALTERNATIVE**

Six remedial action alternatives were identified in the FS. Examination of these alternatives provides a review of the basic technologies that could be applied to reduce the concentrations of the hazardous constituents encountered within the Magnesia Waste Pile in its current state, and to address the concerns of the general public, DHS, FMC and Leslie Salt. The alternatives that were examined are:

- Alternative A-1 - No Action
- Alternative A-2 - Capping
- Alternative A-3 - Excavation and Off-site Landfill Disposal of All Materials
- Alternative A-4 - Excavation and On-site Treatment Using Soil Fixation With Off-site Disposal
- Alternative A-5 - Excavation and On-site Treatment Using Soil Washing
- Alternative A-6 - Excavation with Removal of Hazardous Materials from Site with Recycling

Alternative A-6 is the selected remedial alternative. Under this alternative, all hazardous materials will be removed from the site. Four different options for handling the general magnesia material were examined. The preferred option would involve the excavation of all the hazardous materials, segregation of the different hazardous materials and transportation to an off-site recycling facility or disposal at a Class I facility. The thallium-contaminated materials were removed under an Interim Removal Action, and they were disposed at a Class I hazardous waste facility.

Implementation of Alternative A-6 would present no long-term risks to human health or the environment in the vicinity of the Magnesia Waste Pile, because all the hazardous materials would be removed from the site, and none of the residual material would have levels of copper or mercury above the appropriate standards, i.e. the TTLC's. It is anticipated that hazardous materials would be delivered to an off-site end user, and wastes resulting from the recycling of this material would be incorporated into the waste stream of the end user, to be handled in an appropriate manner.

#### 2.4 PRELIMINARY ALLOCATION OF FINANCIAL RESPONSIBILITY

The California Department of Health has identified the following potentially responsible parties: FMC, operator when hazardous waste was placed at the facility and a generator of hazardous waste found at this facility; and Leslie Salt, owner of the property where the facility is located. FMC and Leslie Salt have proposed to remediate this site and have allocated the cost between themselves. Accordingly, the purpose for developing non-binding allocations of financial responsibility -- facilitating responsible party efforts to organize for purposes of conducting and financing remedial activities -- has been achieved.

### **3.0 CHARACTERISTICS OF THE MAGNESIA WASTE PILE**

#### **3.1 SITE HISTORY**

##### **3.1.1 Location and Description**

The Magnesia Waste Pile is a former waste disposal site that is located on property owned by Leslie Salt (Figure 1). The pile is located in the southwestern part of Newark, California. The site is located near San Francisco Bay (Figure 2); it is visible as a pile of white material, 40 to 50 feet high, 300 to 400 feet wide at its base, and approximately 1,200 feet long (Plate 1). Access to the pile is via Wells Avenue, through a series of gates, and across property owned by Leslie Salt; the entry gate to Leslie Salt property is approximately 2,000 feet southwest of the intersection of Wells Avenue and Willow Street in Newark, California (Figure 2). The land is not used at the present time; cattle are grazed to the south of the pile, while Leslie Salt operates solar evaporation ponds, located west of the pile, for the production of salt (Plate 1).

##### **3.1.2 Nature of Business and Duration of Operation**

The Magnesia Waste Pile site has never been used by Leslie Salt. However, over a period of approximately 50 years, parts of the Leslie Salt's Newark property have been leased for various types of manufacturing activities. The site was first leased to Westvaco Chemicals by Leslie Salt in 1929. In 1948 FMC Corporation re-negotiated the lease with Leslie Salt following FMC's acquisition of the Westvaco facility; FMC retained the lease until 1969. The primary industrial activities of Westvaco and FMC included the production of magnesia oxide ("magnesia"), phosphoric acid, ethylene dibromide (EDB), gypsum, and various catalysts (EMCON Associates, 1984). Magnesia is used as a fluxing agent, as a feedstock for the chemical industry and other industrial uses.

Gypsum is used primarily as the basis for plaster, and as an additive in fertilizer (it is a soil conditioner). Phosphoric acid is a common feedstock used by the fertilizer and chemical industries, while EDB is used as a soil fumigant, and is also a minor component of petroleum-based fuels (used as an octane-enhancer).

Manufacture of these materials used bittern (concentrated sea water) from the adjacent salt-production operations as a primary raw material. Magnesia was produced from 1937 - 1968; ethylene dibromide was produced from 1929 - 1968. During World War II, a catalyst used in the manufacture of synthetic rubber was produced. Catalyst production was reactivated twice, from 1956 - 1958, and 1969 - 1976. At the present time, FMC's phosphate plant, built in 1950, is the only active operation at the adjacent Newark Plant site (EMCON Associates, 1984).

During production periods, the Magnesia Waste Pile site was used by FMC to discard waste products. The primary wastes discarded at the site consist of unrecoverable magnesia and gypsum byproducts (EMCON Associates, 1984). Various other types of waste products, including catalytic pellets used in the production of synthetic rubber, have also been discarded at the site. Except for possible minor activities consisting of disposal of construction residue or general debris, disposal at the Magnesia Waste Pile site essentially ended in 1969. From that time until 1982, the site was not used by any of the associated manufacturers. In 1982, Parson's Ag Materials began excavating and removing dolomite for agricultural uses. Parson's removed approximately 5,000 tons of material per year over a period of several years. Removal of the waste dolomite was performed in response to a request by the California DHS (EMCON Associates, 1984).

### **3.1.3 Nature of Waste Materials**

Most materials discarded at the Magnesia Waste Pile by FMC were nonhazardous as defined by Title 22 of the California Code of Regulations (Title 22). The wastes consisted primarily of bulk quantities of off-grade or residual products resulting from manufacturing activities at the adjacent FMC manufacturing facilities, and included magnesia (MgO), gypsum (CaSO<sub>4</sub>), dolomite (CaMg(CO<sub>3</sub>)<sub>2</sub>), lime (CaO) and limestone (CaCO<sub>3</sub>). Other reported waste products included four to eight drums of phosphorus-containing sludge, copper catalyst pellets used in synthetic rubber production, pockets of scrap lumber, kiln brick, general trash, and old concrete machinery foundations.

### **3.1.4 Chronology of Site Investigations and Remedial Activities**

Because the site had been listed in the 1979 Waste Disposal Site Survey (Eckhardt report) by the Subcommittee on Oversight and Investigation, the California DHS visited the Magnesia Waste Pile three times in 1981 and collected waste material samples for chemical analysis. On the basis of the analytical results (i.e. high pH and copper contents), DHS identified the Magnesia Waste Pile as a hazardous waste site (Department of Health Services, 1981).

In 1983, EMCON Associates undertook a preliminary site investigation to assess the chemical and hydrogeological characteristics of the Magnesia Waste Pile (EMCON Associates, 1984). The EMCON Associates report concluded that except for copper catalyst material "the bulk of the material on the site does not constitute a hazard" and "the site does not pose a threat to human health or the environment through contamination of ground water and/or surface water resources" (EMCON Associates, 1984). That investigation was followed in 1985 by a general site cleanup that included the excavation and removal of about 450 cubic yards of copper

catalyst pellets, and the removal of visible trash and debris. The copper catalyst material was disposed at the IT Corporation Class I landfill in Benicia, California, and the general trash was disposed in a municipal landfill. At the same time, Leslie Salt fenced the site to prevent unauthorized access, and posted the site perimeter with signs indicating the presence of hazardous substances, in compliance with a DHS order.

In late 1987 and early 1988, Environmental Solutions, Inc., under contract to Leslie Salt and FMC Corporation, evaluated the site background data and prepared a detailed workplan. The workplan proposed a scope of work to characterize the chemical and physical properties of the Magnesia Waste Pile. The workplan was also intended to provide a basis for assessing remedial action options for the site. That workplan was submitted to DHS in January 1988 and was approved by them in April 1988.

S.S. Papadopoulos and Associates, Inc. (SSP&A) was contracted by Leslie Salt and FMC Corporation in 1988 to perform the site characterization investigation as it had been presented in the detailed workplan. The field and laboratory procedures were documented and the results of the site characterization investigation were presented in a report dated November 1988 (S.S. Papadopoulos and Associates, 1988). This work can be considered as a Remedial Investigation (RI) and has been referred to as a RI in several communications between Leslie Salt/FMC and DHS. The work involved the excavation of trenches (Figure 3) and the collection and analysis of waste samples. Field work was performed during parts of July and August 1988, and was completed in August 1988. The RI documenting this work was issued in November 1988 (SSP&A, 1988).

During the course of the field investigation, the DHS issued a unilateral Remedial Action Order (RAO) to FMC and Leslie Salt to undertake a Remedial Investigation (RI) of the Magnesia Waste Pile,

and to issue a Feasibility Study (FS) presenting the results of the investigation and assessing various remedial alternatives. The technical requirements of the RI, which are contained in the RAO, are different than those contained in the workplan approved by DHS in April 1988. The major differences are that the RI required in the RAO was to address the quality of ground water, surface water and air in the vicinity of the Magnesia Waste Pile, whereas the workplan approved by DHS in April 1988 focused strictly on the characterization of wastes and soils at the Magnesia Waste Pile. The additional issues that DHS requested to be addressed in the RAO were completed and the results and conclusions were reported in the FS, issued in January 1990 (Hydrologic Consultants, Inc., 1990).

In accordance with the provisions of the RAO, FMC and Leslie Salt were to undertake a FS for the Magnesia Waste Pile; they issued a contract to Hydrologic Consultants, Inc. (HCI) in April 1989 to perform the FS work. The purpose of the FS was to identify a preferred remedial alternative(s) for contamination that was determined to be hazardous. The results of supplemental chemical analyses of air, surface water, ground water and waste samples were also presented in this document. The results of these analyses were used to characterize the waste pile and to assess the possible effects of wastes in the pile on the surrounding water and air, and were also used in providing proposed technical cleanup standards for the site.

The remedial alternatives presented in the FS were developed by considering several treatment or disposal options. These alternatives were then evaluated against multiple criteria to assess effectiveness, implementability, cost, possible regulatory requirements, and end use of the property, for the purpose of identifying a preferred remedial action alternative.

### 3.1.5 Compilation of Previous Studies

Previous reports concerning the Magnesia Waste Pile site may be grouped into the general categories of site investigation studies, risk assessments, and RI/FS investigations. Site investigations have been directed towards the identification of possible conditions of environmental concern at the Magnesia Waste Pile; these studies have included:

- Preliminary Site Investigation for the Leslie Salt Company Magnesia Pile (EMCON Associates, 1984)
- Detailed Workplan, Magnesia Pile Site (Environmental Solutions, 1988)

Several risk assessments have been conducted to assess the potential health and environmental risks posed by constituents of concern in the Magnesia Waste pile. These studies have included:

- Health and Environmental Risk Assessment, FMC Corporation, Newark, California (IT Corporation, 1985)
- Supplement to Health and Environmental Risk Assessment, FMC Corporation, Newark, California (Arthur D. Little, Inc., 1986)
- Public Health/Environmental Assessment for Leslie Salt/FMC Magnesia Pile (TERRA, Inc., 1989)

RI/FS investigations have been conducted to assess the extent of contamination at the Magnesia Waste Pile site, in response to requests by DHS, and pursuant to the requirements of the Remedial Action Order issued by DHS. The results of these investigations are documented in the following:

- Remedial Investigation of the Magnesia Pile, Newark, California (S.S. Papadopoulos and Associates, 1988)

- Supplemental Investigation and Feasibility Study, FMC/Leslie Salt Company Magnesia Waste Pile, Newark, California (Hydrologic Consultants, Inc., 1990)

In response to the Remedial Action Order, issued July 22, 1988, and pursuant to the provisions of the Hazardous Substance Account Act (California Health and Safety Code, Section 25358.7), FMC and Leslie Salt instituted a Community Relations Plan to ensure that a program of community involvement was developed to inform the public about the site, and to facilitate public participation in the decision-making process. The purpose of the community relations program is to involve the community and other interested persons in the remedial action process by (1) establishing procedures for the accurate and timely release of information to interested citizens and public officials, (2) encouraging two-way communication between the community and DHS, and (3) encouraging two-way communication between the community and FMC and Leslie Salt. The community relations plan is presented in the following document:

- Community Relations Plan, Leslie Salt/FMC Magnesia Waste Pile Site, Newark, California (Woodward-Clyde Consultants, 1989)

Community concerns and interests related to the Magnesia Waste Pile, including the general level of acceptability by the community of remedial activities, as they are understood at present by FMC and Leslie Salt, are described in the Community Relations Plan. This plan is a public document, developed on behalf of FMC and Leslie Salt, and issued as a report in March 1989. This document is available at repositories in the Newark area, including the Newark library and the Newark offices of FMC and Leslie Salt. In addition, a copy of the report has been made available to the local offices of DHS.

These references are presented formally in Section 11.0 of this RAP.

### **3.1.6 Interim Removal Measures**

Thallium was among the contaminants of concern identified by the DHS in their comments to the Remedial Investigation (SSP&A, 1988). However, only one soil sample collected by DHS contained thallium in concentrations greater than 700 mg/kg (the TTLC). This sample was collected east of the pile (Figure 4). There was no known use of thallium by FMC or Leslie Salt, so it is not possible to correlate the presence of thallium with a specific use area or appearance of waste. However, based on the results of limited DHS sampling, it appears that elevated thallium concentrations in soil/waste are restricted to a small area east of the pile itself. Of the 35 waste pile samples analyzed during the RI, no sample contained thallium in concentrations greater than the TTLC. The results of analysis of samples collected during the RI indicate that the volume of thallium-contaminated materials is minor; thus, thallium-contaminated magnesia is not considered to be a problem within the pile. Therefore, thallium should not be a contaminant of concern in planning the overall remediation of the site. Because of the small volume of thallium-contaminated materials located east of the pile, it was decided by FMC to remove this material during an Interim Removal Action. The thallium wastes were removed from the site and disposed at a secure landfill.

## **3.2 SITE SETTING**

### **3.2.1 Topography & Drainage**

The Magnesia Waste Pile is situated on a linear serpentinite ridge adjacent to evaporation ponds along the southeastern part of the San Francisco Bay. The pile rises to an elevation of 50 feet above sea level and is approximately 400 feet in width and 1,200 feet in length; it is approximately 50 feet high (Plate 1). The surrounding land is flat with little topographic relief, and

consists primarily of undeveloped tracts and wetlands. A drainage ditch along the east side of the Magnesia Waste Pile discharges to Plummer Creek, a part of the San Francisco Bay National Wildlife Refuge, which occupies much of the bayfront land west and south of the pile. Plummer Creek, Newark Slough, and the surrounding wetlands are managed by the U.S. Fish and Wildlife Service.

### **3.2.2 Climatology**

The temperate Mediterranean climate at the site is typical of the San Francisco Bay region. Temperatures are mild, and seldom exceed 90 degrees Fahrenheit in the summer; in the winter, which is the rainy season, temperatures seldom fall below freezing. The mean temperature for January, the coolest month, is about 49 degrees Fahrenheit, while the mean temperature in the warmest month (August) is 68 degrees Fahrenheit (National Oceanic and Atmospheric Administration, 1987).

Precipitation generally occurs from November through April, with only occasional rain showers occurring during the summer months. Average annual precipitation is about 14 inches (National Oceanic and Atmospheric Administration, 1987).

### **3.2.3 Location and Extent of Contamination**

The contaminants of concern identified by the DHS in their comments to the Remedial Investigation (SSP&A, 1988) include: copper, EDB, thallium, mercury, and cyanide. The copper was a constituent of catalytic pellets used in the manufacture of synthetic rubber; EDB was produced by FMC at their adjacent facility. There was no known use of thallium by FMC or Leslie Salt; however, thallium is a constituent of rodenticide that may have been disposed at the Magnesia Waste Pile. The sources of mercury and cyanide are not known.

Ethylene dibromide (EDB) was detected at concentrations of less than 0.020 mg/kg in five samples out of 35 samples collected during the RI. Cyanide was also detected in the waste pile materials. The maximum concentration found was 11 mg/kg, detected in one sample. Cyanide was not detected in the majority of the soil/waste samples.

Because the risk assessment (Section 5.1) demonstrates that EDB and cyanide compounds, in their current concentrations, do not pose a significant risk to human health or the environment, these compounds were not considered for purposes of establishing baseline cleanup levels for the site. The remaining constituents of concern (thallium, copper, and mercury) are regulated under Title 22. If a concentration of one of these constituents in a solid waste exceeds a specified value under the regulations, the waste is classified as hazardous.

The constituents of concern in the vicinity of the Magnesia Waste Pile that were observed to exceed the appropriate concentration standards (here taken to be Total Threshold Limit Concentrations, or TTLCs) include thallium, copper, and mercury. Thirty-five of the soil/waste samples collected by SSP&A were analyzed for thallium; the concentrations in all samples were below the TTLC. A soil/waste sample collected by DHS on the east side of the Magnesia Waste Pile (Figure 4) contained thallium in concentrations of 998 mg/kg which is higher than the thallium TTLC of 700 mg/kg. However, as noted in Section 3.1.6, it appears that elevated thallium concentrations in soil/waste are restricted to a small isolated area east of the pile itself. The thallium-contaminated materials in this area will be removed during an Interim Remedial Action. Therefore, thallium-contaminated soil/waste was not considered in the evaluation of specific remedial alternatives.

Copper catalyst pellets are readily identified in the field; these pellets are classified as hazardous by the DHS because the concentration of copper in the pellets (Table 2) exceeds the TTLIC for copper, which is 2,500 milligrams per kilogram (mg/kg) or parts per million (ppm). The distribution of the copper pellets in the pile is shown in Figure 5. In addition to the copper pellets, four of the soil/waste samples that were analyzed contained copper in concentrations that exceeded the copper TTLIC.

The copper pellets, as well as the soil/waste samples that contained copper in concentrations exceeding the TTLIC for copper are generally confined to the west side of the Magnesia Waste Pile (Figure 5).

Three soil/waste samples contained mercury in concentrations that exceeded the mercury TTLIC value of 20 mg/kg (Table 3). Two of the samples were taken from the same trench located at the top of the Magnesia Waste Pile (Figure 6). The other sample was taken from a trench on the west side of the pile (Figure 6). The mercury does not appear to be associated with any one particular waste unit; however, it was assumed in the FS that the mercury was contained in the light gray waste material on the west side of the pile.

The findings of the field investigation will be presented in greater detail in Section 4.1.5 of this report, while the significance of concentrations of all the materials of concern will be addressed under the baseline public health assessment section (Section 5.1).

### **3.2.4 Current Use of the Property**

The site is located in the bayside flatlands approximately 2,000 feet south of Thornton Avenue at the edge of Newark's residential area (Figure 2). The land is not used at the present time, nor was it ever used as an industrial site by any of the manufacturers in the area.

### **3.2.5 Description of Outlying Area and Surrounding Land Uses**

The Magnesia Waste Pile site is located in a partially-industrialized area of Newark. Land east and north of the site is best characterized as light industrial. The site itself, as well as property to the east, west, and south, is owned by Leslie Salt. FMC Corporation owns the property immediately north of the site (Plate 1). Nearby industrial facilities are owned by Ashland Chemical Company and Mobility Industries. The City of Newark leases land to the southeast from Leslie Salt for a police shooting range, and another parcel to the southeast is leased from Leslie by the Newark Sportsmen's Club. The nearest residences are more than 2,000 feet from the site boundary.

The lands surrounding the site to the south and southeast are low-lying and sparsely vegetated with grasses. Several sloughs and creeks are encountered southeast, south, and west of the site, between the Magnesia Waste Pile and the bay. Evaporation ponds west of the site are used by Leslie Salt for the production of salt. Some of these ponds and a larger adjacent pond area are managed by the U.S. Fish and Wildlife Service, as part of the San Francisco Bay National Wildlife Refuge.

### 3.2.6 Demography

The demographics of Newark, California were characterized in a report prepared for FMC Corporation (IT Corporation, 1985). Estimates of the population at that time were based on the 1980 census. These estimates were revised in a later report (TERRA, Inc., 1989) to allow for a 10% increase in population over the past ten years. Using estimates from the IT report and allowing for population increase, approximately 28,000 persons are estimated to live within a 2-mile radius of the Magnesia Waste Pile (Table 4). Fewer than 600 persons are estimated to live within a 0.5-mile radius of the pile (TERRA Inc., 1989).

Essentially all residential areas are located to the northeast of the site.

### 3.2.7 Location and Distance to Potential Receptors

The young and the elderly are typically considered to be among the most sensitive persons in any population potentially exposed to hazardous chemicals. Although the numbers of children less than six years old and persons 65 years and older are not known, IT estimated that these two groups comprised 11 to 13 % and 3 to 4% of the total population, respectively. Under these assumptions, the cumulative population of children under six living within a 2-mile radius of the site was estimated to be 3,300 (Table 4). The estimated number of children under six living within a 0.5-mile radius of the site is estimated to be approximately 70 (TERRA, Inc., 1989). For persons 65 years and older, the cumulative number of people living within 0.5 miles or within 2 miles of the Magnesia Waste Pile is estimated to be 20 and 960, respectively (TERRA Inc., 1989).

Two schools are located within one mile of the Magnesia Waste Pile. Schilling School is located approximately 2/3 mile from the site. Lincoln School is located approximately one mile from the site (TERRA Inc., 1989).

A drainage ditch on the east site of the waste pile discharges to Plummer Creek, which flows through the wildlife refuge west of the pile. The ditch runs south from the FMC plant about 1/2 mile to the point at which it enters Plummer Creek. Just below the outfall of the drainage ditch, Plummer Creek enters the San Francisco Bay National Wildlife Refuge. During low tides the creek discharges into the bay; this discharge is about two miles south and west of the site.

### **3.2.8 Location of Nearest Water Well**

The Magnesia Waste Pile site is underlain by several water-bearing zones. The two uppermost water-bearing zones are the "shallow zone" and the Newark aquifer (Section 4.2.1). The Alameda County Water District (ACWD) is currently engaged in the operation of a salt-water intrusion barrier (SWB), intended to limit the migration of sea water from San Francisco Bay into the Newark aquifer in the Fremont area. The barrier consists of a series of extraction wells, located in a line approximately 1,700 feet northeast of the site (California DWR, 1975); the Magnesia Waste Pile is located on the seaward side of this intrusion barrier. The nearest wells to the site are SWB wells T-11 and T-27 (IT Corporation, 1985). These wells are part of the SWB extraction system, and discharge directly to San Francisco Bay. No other downgradient wells that are completed in the Newark aquifer have been identified. The production wells nearest to the Magnesia Waste Pile are located from 0.5 to 1 mile east (upgradient) of the site boundary (IT Corporation, 1985). These wells (1N1, 1P1, 12B1, 12B4, 12B5, and 12B8) are part of the Water District system. These wells have been completed in deeper water-bearing zones (the

Centerville-Fremont and Lower aquifers), and support agricultural and industrial uses (IT Corporation, 1985).

Shallow ground water beneath the site is of poor quality and is considered to be unusable due to the natural brackish environment of the bayshore hydrologic system (EMCON Associates, 1984). There are no domestic wells within 1/4 mile of the site (Woodward-Clyde Consultants, 1989); no wells supporting any beneficial use are completed in the shallow zone downgradient of the site (IT Corporation, 1985).

#### 4.0 SUMMARY OF FINDINGS OF THE REMEDIAL INVESTIGATION

In late 1987 and early 1988, Environmental Solutions, Inc., under contract to Leslie Salt and FMC Corporation, evaluated the site background data and prepared a detailed workplan. The workplan proposed a scope of work to characterize the chemical and physical properties of the Magnesia Waste Pile. The workplan was submitted to DHS in January 1988 and was approved by them in April 1988.

S.S. Papadopoulos and Associates, Inc. (SSP&A) was contracted by Leslie Salt and FMC Corporation in 1988 to perform the site characterization investigation as it had been presented in the detailed workplan. The field and laboratory procedures were documented and the results of the site characterization investigation were presented in a report dated November 1988 (SSP&A, 1988). The work involved the excavation of trenches and the collection and analysis of waste samples. Excavation work was performed during parts of July and August 1988 by Safety Specialists, Inc. of San Jose, California under the supervision of SSP&A representatives. Soil/waste samples were analyzed by Central Coast Analytical Services (CCAS) of San Luis Obispo, California. CCAS is a laboratory capable of performing analyses on air, water and hazardous waste samples, and is certified by the DHS (Certification No. 131). The field work was completed in August 1988 and the RI was issued in November 1988 (SSP&A, 1988).

The objectives of the RI were to assess the physical and chemical characteristics of the materials in the Magnesia Waste Pile, and to assess the potential for off-site transport of hazardous materials that may have been discarded in the pile. Specific objectives of the physical characterization of the Magnesia Waste Pile were (1) to describe the physical characteristics of the materials within the pile, including their thickness, distribution, and extent; and (2) to estimate the type

and extent of debris mixed with the general pile material. Specific objectives of the chemical characterization of the Magnesia Waste Pile were (1) to assess whether hazardous substances had been discarded at the site; (2) to identify hazardous substances that might be present; and (3) to estimate the distribution and concentrations of hazardous substances that might be present on the site.

During the course of the investigation, a magnetic survey was conducted to investigate the possibility that steel drums might be buried within the pile; 51 trenches were excavated to grade (Figure 3) to evaluate the distribution and extent of various materials within the pile; and 511 samples of waste material and natural-grade material were collected for testing in the field and/or for subsequent chemical analysis in the laboratory. ("Grade" and "natural grade" are used to designate the original natural land surface, developed on bedrock or on naturally-developed soils overlying bedrock).

#### **4.1 GEOLOGICAL INVESTIGATION**

##### **4.1.1 General Geology**

The Magnesia Waste Pile site is underlain by clays (the "younger Bay Mud") that surround the southern end of the Coyote Hills to the north, and by a low bedrock ridge (Plate 1), consisting of highly fractured serpentinite belonging to the Franciscan formation of Cretaceous age (EMCON Associates, 1984). The younger Bay Mud ranges from soft to stiff consistency and is generally poorly consolidated. The underlying older Bay Mud tends to be stiff, and is better consolidated. The younger Bay Mud clays are intercalated with thin lenses of silt to fine-grained sand.

The younger and older Bay Muds overlie a thick sequence of alluvial-fan and floodplain sediments that were deposited by streams originating in the highlands bordering San Francisco Bay. Logs of SWB Wells T-11 and T-27, located about 1,700 feet northeast of the site, confirm the general sequence of clays with interbedded sands and gravels (Arthur D. Little, Inc., 1986).

#### **4.1.2 Surface and Subsurface Soil Conditions**

The surficial material at the Magnesia Waste Pile site consists primarily of byproduct materials from the adjacent magnesia manufacturing facility (EMCON Associates, 1984). The majority of the waste material is magnesia, dolomite, gypsum, lime, and limestone. For the most part, wastes were deposited directly on the bedrock surface; thickness of waste materials exposed during trenching varied from less than one foot to 47 feet (SSP&A, 1988). An isopach map (Figure 7), showing thickness of waste material, was constructed using information collected during trenching. The volume of material was estimated using a planimeter; the total volume of waste material is estimated to be approximately 78,000 cy.

The waste materials in the Magnesia Waste Pile can be grouped into four principal units: general matrix material (primarily calcium and magnesium carbonates and oxides), visually anomalous material, copper catalyst pellets, and debris. The general matrix material was the most prevalent unit in the pile, comprising approximately 87% of the volume of the pile. This material forms a surface crust, one to two inches thick, that is well indurated and rough, and fractures into angular platy blocks. The hard surface tends to seal the pile and reduce dust.

The texture and consistency of the general matrix material varies from that of a loose, poorly-plastic clay to a poorly-indurated "rock". The material ranges in color from white, through

bluish- or greenish-white, to various shades of gray. Individual "depositional units" within the matrix are uniform in color, texture, and consistency, and tend to be massive and somewhat moist.

Visually anomalous material was distinguished from the general matrix material on the basis of appearance (generally color or texture); such material was present in 28 trenches. This material was distributed primarily in the central areas of the pile (Figure 8). Visually anomalous material occurred in thin layers and small pods; these lenses were too small and too discontinuous for the volume of this material to be estimated.

Copper catalyst pellets were readily identified in the field; about 200 cy were scattered on the surface and about 400 cy were located during trench excavation. Because the copper catalyst pellets are defined to be hazardous, their location and distribution will be presented in greater detail in Section 4.1.4.

A considerable amount of debris was encountered during the field work for the RI. Debris was present in almost all of the trenches. Much of the debris consisted of construction material such as lumber, bricks, concrete blocks, wire, screens, and metal. Tires, crushed metal drums, newspaper, plastic sheeting, PVC tubing, lab bottles, and backfill dirt were also encountered. Lumber was the most common type of debris found. Brick material was found on the west side and to a lesser extent on the top of the pile. Concrete foundations were present in trenches 1A, 2, 12, 27, and 31 (Figure 9). General trash materials such as bags, tires, PVC piping, scrap metal, bottles, and newspaper were found primarily on the west side of the pile and to a lesser extent at the top of the pile. The general distribution of debris, by type, is shown in Figure 9.

Debris was most prevalent on the west side and top of the Magnesia Waste Pile; however, it is scattered throughout the pile. The distribution of debris at five-foot-depth slices through the Magnesia Waste Pile is shown in Figure 10.

Specific details regarding the sampling locations, sampling protocols and analytical methods are presented in the RI report (SSP&A, 1988) to which the reader is referred if further questions concerning the sampling or analyses arise.

#### **4.1.3 Off-site Soil Sampling**

The RI field sampling included a survey to evaluate the pH of material surrounding the Magnesia Waste Pile (SSP&A, 1988). Five soil samples were collected from areas that receive precipitation runoff from the pile, and five samples were collected from locations downwind of the pile. Measurements of pH in these samples were in the normal range (greater than 8.0 and less than or equal to 9.5). These results indicated that significant levels of high-pH materials are not being transported by wind or surface runoff from the Magnesia Waste Pile to adjacent areas.

#### **4.1.4 Contamination Assessment**

Certain chemical properties or indicator parameters (specifically field pH and copper concentrations, and HNU readings) of the Magnesia Waste Pile were assessed during the RI by analyzing, in the field, over 500 soil and/or waste samples, which were collected from trenches distributed throughout the site (Figure 3). In addition, 63 individual samples were analyzed in a certified analytical laboratory. The analyses indicated that high-pH (11 to 11.7) solid waste materials were present within the Magnesia Waste Pile; however, most of these materials are restricted to the areas on top of the Magnesia Waste Pile. In all cases the pH of the material, when measured using EPA Method 9045, was less than 12.5.

Thus, the general matrix material is not classified as hazardous under Title 22 of the California Code of Regulations because it does not meet the criteria for corrosiveness. The alleged phosphorous drums were not located after a detailed magnetic and excavation program. It was concluded by SSP&A that the drums had decomposed to the point of no longer being magnetic, or were not buried in the reported area.

Three soil/waste samples out of 35 samples contained mercury in concentrations that exceeded the mercury TTLC value of 20 mg/kg (Table 3). Two of the samples were collected from the same trench located at the top of the Magnesia Waste Pile. The other sample was taken from a trench located on the west side of the pile (Figure 6).

A dry, yellow-gray granular material was encountered in Trench 27. This material was similar in color and physical characteristics to material encountered in Trench 26, which contained mercury in concentrations in excess of the mercury TTLC (20 mg/kg). DHS suggested that the yellow-gray material encountered in Trench 27 might also show an elevated mercury concentration and requested that samples from this trench be analyzed for mercury. Samples 27-5NW-5 and 27-26NW-10 were analyzed for mercury and the reported concentrations were 0.32 mg/kg and 16 mg/kg respectively. Both of these concentrations are less than the mercury TTLC of 20 mg/kg.

Elevated concentrations of mercury are not specifically associated with one particular waste unit. In Trench 26 the mercury appears to be associated with a dry, light gray material (Figure 11). This same material appears to extend to Trench 24 (Figure 12), while in Trench 31 the mercury appears to be associated with a black tarry material (Figure 13). For cost estimating purposes, it has been assumed that the mercury is predominantly associated with the light gray material found in Trenches 24 and 26. Using Figures 11 and 12 it is estimated that

there are approximately 2500 cy of the mercury-contaminated magnesia. The black tarry material in Trench 31 appears to be very limited in extent, and the volume of mercury-contaminated magnesia in this trench is included within the 2500 cy estimate.

Thirty-five of the soil/waste samples collected by SSP&A were analyzed for thallium; all concentrations were below the TTLC for thallium. However, a soil/waste sample collected by DHS on the east side of the Magnesia Waste Pile contained thallium in concentrations of 998 mg/kg, which is higher than the TTLC for thallium of 700 mg/kg. Figure 4, derived from a sketch map provided by the DHS, shows the location of the soil sample that contained the elevated thallium concentration. The results of analyses of samples collected during the RI indicated that the volume of thallium-contaminated materials was minor; thus, thallium-contaminated magnesia was not considered to be a problem within the pile. The thallium-contaminated wastes were therefore removed under an Interim Remedial Action.

Ethylene dibromide (EDB) was detected at concentrations of less than 0.020 mg/kg (the TTLC for ethylene dibromide) in five samples (Table 3) collected from four trenches (Figure 6). A total of 35 samples were analyzed for EDB. Cyanide was also detected in the waste pile materials. The maximum concentration of cyanide detected was 11 mg/kg, in one sample collected from Trench 7 (Table 3 and Figure 6). Cyanide was nondetectable in the majority of the soil/waste samples. Again, a total of 35 samples were analyzed.

The DHS, in comments to the RI (DHS comments January 19, 1989), requested that certain archived waste samples be analyzed for various constituents. DHS stated that sample 7-50W-15 (Trench 7; Figure 6), contained charcoal-like round pebbles, and that another sample of similar appearance, taken from this same trench, had a cyanide concentration of 11 mg/kg. The DHS was concerned that this charcoal-like material might be the source of cyanide.

Sample 7-50W-15 was analyzed for total cyanide and no cyanide was detected.

Copper catalyst pellets were identified at several locations in the field (Figure 5). The pellets are classified as hazardous by the DHS because their copper concentrations (Table 2) exceed the TTLC for copper. It was estimated by SSP&A (1988) that approximately 600 cy of pellets are present within the Magnesia Waste Pile. In addition to the copper pellets, four of the soil/waste samples contained copper in concentrations that exceeded the copper TTLC, which is 2,500 mg/kg or parts per million (ppm). The copper pellets, as well as the soil/waste samples that exceeded the TTLC copper concentrations are generally confined to the west side of the Magnesia Waste Pile.

About 200 cy of pellets were scattered near the surface and 400 cy were buried. The buried pellets are present in layers that vary in thickness from less than one foot to four feet. In trenches C, D, and DD (Figure 5), the copper pellets were scattered near the surface, while in trenches 1A, 2, 2A, 3, 3A, 5, 6, 7, 9, 10, 14, 15, and 30 they formed a layer near or directly above natural grade. One thick, continuous layer of copper pellets was found directly above the natural grade in the area of trenches 1, 2, and 3 (Figure 5). Additional trenches (1A, 2A, and 3A) were excavated between the main trenches in order to outline the extent of the deposit. Trench 1A contained a five-foot-long layer of pellets in the matrix material at a depth of five feet. An oxidized copper material was present on the eastern edge of the pellets in trenches 1A, 2, and 2A. Trenches 5, 6, and 7 also contained a continuous layer of copper pellets above natural grade, as did trenches 9, 10, 14, and 15. Trenches 1A, 7, and 10 also contained layers of copper pellets within the general matrix material. In trench 7, pellets formed two small layers in matrix material, each less than a foot thick, at a depth of about 10 feet. Trench 10 contained a two-foot thick layer of copper pellets at a depth of three feet.

Waste samples collected from Trench 8 contained elevated concentrations of copper, even though there were no obvious copper pellets in the trench. In their comments to the RI, DHS suggested that the copper could be leaching from deposits of copper catalyst pellets. A California W.E.T. analysis was performed on Samples 8-38NW-10 and 8-54NW-5. The soluble copper concentrations were 39 milligrams per liter (mg/l, equivalent to ppm) and 18 mg/l respectively. The analysis for sample 8-38NW-10 does exceed the Soluble Threshold Limit Concentration (STLC) of 25 mg/l, established by the State of California.

A field test on sample 30-OE-15 collected from Trench 30 indicated a copper concentration greater than 500 mg/kg. When this sample was analyzed in the laboratory, the copper concentration detected was 740 mg/kg. DHS expressed concern that copper might be leaching from copper pellets uncovered in Trench 5, and requested that a W.E.T. test be performed. Sample 30-OE-15 was analyzed using the W.E.T. procedure and the soluble copper concentration was 36 mg/l, which is above the STLC.

Trench E is near the location where EMCON (1984) reported a soluble copper concentration of 740 mg/l in a sample of standing water. DHS was concerned that the sources of this copper were wastes located in Trench E. Samples E-30N-S, E-60N-S and E-60N-0.5 were analyzed for total copper and soluble copper. The total copper concentrations were 7 mg/kg, 11 mg/kg and 8 mg/kg respectively, while the soluble copper concentrations on a composite of these three samples was 0.16 mg/l. These concentrations are below the TTLC and STLC concentrations.

The locations, estimated quantities, and regulatory standards for the various contaminants in the Magnesia Waste Pile are presented in Table 5. Because the risk assessment (Section 5.1) demonstrates that EDB and cyanide compounds, in their current concentrations, do not pose a significant risk to human health or

the environment, these compounds were not considered for purposes of establishing baseline cleanup levels for the site. The thallium-contaminated magnesia/soil that was located in a restricted area east of the pile, has been removed and disposed under an Interim Removal Action. Site remediation efforts described in this RAP will be directed towards copper and mercury. The appropriate regulatory standard to be used in assessing the compliance of final remediation will be the Total Threshold Limit Concentration (TTLC) values for copper and mercury.

The maximum concentrations of copper and mercury detected during the RI were 31,000 mg/kg and 78 mg/kg, respectively (Table 3). The mean concentrations of copper and mercury within the pile, calculated using the existing RI data, are 1204 mg/kg and 4.6 mg/kg, respectively. The results of the public health and risk assessment (Section 5.0) demonstrate that the mean concentrations of metals in the waste that would pose a significant risk to public health and the environment are 122,600 mg/kg of copper and 590 mg/kg of mercury. Removing the materials that contain these metals in concentrations that exceed the TTLC criteria will provide a meaningful health-based factor of safety.

#### **4.2 HYDROGEOLOGICAL INVESTIGATIONS**

The Magnesia Waste Pile site is located within the South Bay Ground-Water Basin, in the southern part of the Niles Subarea of the Fremont Ground-Water Area (DWR, 1967). The Niles Subarea consists primarily of alluvial sediments of the Niles Cone, which extends to the south and west beneath the bay plain and San Francisco Bay. The Newark aquifer, the shallowest of the Niles Subarea water-producing zones, underlies most of the ground-water subarea. The Newark aquifer is recharged in an area to the northeast of the site, near the base of the Diablo Range, where the thick clay sequence characteristic of the bay plain at the site is

absent, and where the permeable section of the Newark aquifer is in hydraulic continuity with surface waters.

The Centerville-Fremont aquifer and the Lower aquifer are productive saturated zones below the Newark aquifer. These zones are separated from the Newark aquifer by the Irvington aquitard, a thick clay unit that restricts hydraulic communication between the upper and lower saturated zones (IT Corporation, 1985).

In the vicinity of the Magnesia Waste Pile, the thick Bay Mud deposits that overlie the Newark aquifer act as a confining unit to retard the vertical movement of water. This results in a vertically-upward hydraulic gradient beneath the site; artesian flow is commonly encountered in wells that penetrate the Newark aquifer in the bay plain (EMCON Associates, 1984).

The quality of ground water in the vicinity of the site varies widely depending on the source of recharge. In the early 1900s, the elevated hydraulic potential of water in the Newark aquifer beneath the bay plain caused artesian discharge of fresh water to the bay and adjacent tidelands (EMCON Associates, 1984). Extensive use of ground water for irrigation had lowered water levels by the 1920s, however, and saline water originating in the bay had begun to intrude the Newark aquifer (DWR, 1960). As ground-water levels continued to decline as a result of pumping, ground-water quality continued to decrease. As a result of continued sea-water intrusion into the Newark aquifer, this zone has been abandoned as a source of water in an area extending at least four miles east and northeast of the Magnesia Waste Pile (IT Corporation, 1985). Wells that penetrate the Newark aquifer are not used for agricultural or domestic purposes within this area.

At the present time the Alameda County Water District is conducting a restoration program (Salt-water Intrusion Barrier Project; SWB) designed to return parts of the Newark aquifer to

beneficial uses (DWR, 1975). The restoration program includes the installation and operation of a system of extraction wells that are intended to create a flow barrier to restrict the intrusion of sea water. Fresh water is being simultaneously injected landward of the barrier. Ultimately, ground water that is landward (north and east) of the barrier will be restored to a usable condition.

Wells that are part of the SWB intrusion barrier are located approximately 1,700 feet northeast of the Magnesia Waste Pile site (Figure 14). The site is thus located on the seaward side of the intrusion barrier; water in the Newark aquifer beneath the Magnesia Waste Pile therefore will probably remain saline and unusable.

#### **4.2.1 Ground-Water Depth and Direction of Flow**

The results of exploratory drilling on adjacent property indicate that the Newark aquifer occurs at depths of about 45 to 60 feet below land surface in the vicinity of the Magnesia Waste Pile (EMCON Associates, 1984); however, the Newark aquifer beneath the site is only about 10 to 15 feet thick (Plate 1). Limited quantities of water occur in thin sand stringers within the Bay Mud below the site. Ground water in this shallow saturated zone is two to three feet below land surface; however, this water is of poor quality and is considered to be unusable due to the generally brackish nature of the shallow zone (EMCON Associates, 1984).

Flow directions in the Newark aquifer are generally west towards the bay from recharge areas located several miles east of the Magnesia Waste Pile (EMCON Associates, 1984). The shallow ground water beneath the site tends to flow in a northerly or northwesterly direction (IT Corporation, 1985).

Under the terms of an agreement with the California Regional Water Quality Control Board, FMC Corporation is currently monitoring a series of ground-water wells on FMC property for a

variety of water-quality parameters. A potentiometric-surface map constructed using monitoring data from these wells confirms the general flow directions in the shallow saturated zone (Figure 15). One of the wells routinely sampled by FMC is well W-19, which is located downgradient of the Magnesia Waste Pile (Figure 15), and is screened in the shallow water-bearing zone. As shown in Figure 15, the ground-water elevation for the shallow water-bearing zone (as measured in well W-19 in January 1989) was approximately nine feet above mean sea level. This is the highest ground-water elevation measured at the facility; well W-19 is thus upgradient of the western part of the FMC facility. The topographic height of the Magnesia Waste Pile may be the reason that water elevations measured in this well are higher. Under many hydrogeologic flow regimes, topographically-higher areas (e.g. hills) are ground-water recharge areas (Toth, 1963) and ground water would generally flow radially outward from the hill. As shown on Figure 15, the Magnesia Waste Pile is south of well W-19, and ground water would be expected to flow from the Magnesia Waste Pile towards W-19.

#### **4.2.2 Surface Water Conditions and Beneficial Uses**

A surface-water drainage ditch runs along the east side of the Magnesia Waste Pile (Plate 1); water from this ditch is discharged to Plummer Creek. Concern was expressed by the U.S. Fish & Wildlife Service that contaminants might be transported from the pile via overland flow and eventually discharge into Plummer Creek. Plummer Creek is part of the San Francisco Bay National Wildlife Refuge; discharge into the refuge is the only known beneficial use of the creek. Thus there was concern that contaminants originating in the pile could have adverse effects on the Plummer Creek ecosystem.

On March 8, 1989, six water samples were collected by FMC personnel at three separate locations within the ditch (Figure 16) during a rain event. These sample locations were judged to be

representative of upstream and downstream locations relative to the pile. Samples A-1 and A-2 were taken at the FMC NPDES effluent discharge point (upstream of pile) ; B-1 and B-2 were collected due south of the Magnesia Waste Pile (downstream of pile); and C-1 and C-2 were collected approximately one-quarter mile south of Point B (downstream of pile). The flow in the ditch at the time the samples were collected was primarily due to FMC's permitted discharge, which was approximately 60 gallons per minute at FMC's outfall (Point A). During the sampling, 0.27 inches of rain fell and this rainfall contributed to the flow in the ditch; however, discharge measurements were not made at Points B and C. The purpose of sampling during a rain event was to assess whether contaminants from the pile were being transported via overland flow to the ditch under the most probable of conditions. A DHS representative was present on-site during the sampling and took duplicate samples.

The ditch-water analyses for the samples collected by FMC are presented in Table 6. Copper was detected at the FMC out-fall (Point A on Figure 16) at a maximum concentration of 0.036 mg/l. At Point B, after the ditch water had passed the Magnesia Waste Pile, the concentration had declined to a maximum of 0.017 mg/l. At Point C, downstream of B, the copper concentration was unchanged at 0.017 mg/l. These data suggest that the Magnesia Waste Pile is not contributing significant amounts of copper to the drainage ditch. Mercury, thallium and cyanide were not detected in any of the surface-water samples. The field measurements of pH also show a decline from Point A to Point C: the pH measured at Point A was 8.3, and at Point C it was 8.0.

The surface-water samples were also analyzed for halogenated volatile organic compounds using EPA Method 8010. The only organic compound detected was chloroform, at maximum concentrations of 0.0024 mg/l at point A and 0.00055 mg/l at point B. Chloroform was

not detected at point C. Ethylene dibromide (EDB) was not detected in any of the samples.

The results of chemical analyses of the surface-water samples suggest that the Magnesia Waste Pile is not affecting either the water quality in the ditch or the ecosystem of Plummer Creek.

#### **4.2.3 Subsurface Water Conditions and Beneficial Uses**

Approximately 45 to 60 feet of relatively impermeable Bay Mud separates the shallow saturated zone beneath the Magnesia Waste Pile from the Newark aquifer (EMCON Associates, 1984). The hydraulic gradient is vertically-upward from the Newark aquifer into the shallow saturated zone. At the present time the Newark aquifer in the vicinity of the site is brackish (EMCON Associates, 1984); the site and areas downgradient of the site are located on the seaward side of the SWB pumping barrier and will remain saline. There are no anticipated beneficial uses of the Newark aquifer, and it is unlikely that the Magnesia Waste Pile will affect this saturated zone in any way.

The potential contaminants of concern have been present within the Magnesia Waste Pile for a number of years (e.g. the copper has been in the pile for almost 40 years). Thus, it is reasonable to expect that the pile would act as a steady source of a stream of potential contaminants rather than yielding a short-term release such as would be produced by a spill. Under the conditions of a continual release, it would be expected that a water sample collected downgradient of the pile should exhibit contamination if the contaminants within the pile were adversely affecting ground-water quality. It was concluded that well W-19 could be used to assess the effects of the pile on ground-water quality because this well is downgradient of the pile. A water sample was collected from this well on January 11, 1989 by McIntosh

Sampling Services of San Jose, California, and was delivered to Sequoia Analytical Laboratories in Redwood City, California, a state-registered laboratory. The water sample was analyzed for halogenated volatile organic compounds using EPA Method 8010. The primary purpose of the analysis was to detect EDB. No EDB or other organic compounds were detected. The water sample was also analyzed for copper, mercury and thallium by EPA 7000 Series methods. Copper was detected at a concentration of 0.21 mg/l which is below the EPA Secondary Drinking Water Criterion of 1 mg/l. The concentrations of mercury and thallium were below their respective detection limits of 0.001 mg/l and 0.5 mg/l. The pH of the sample was 7.6 which is only slightly alkaline (pH 7 is neutral). The specific conductance of 4300 micromhos/cm suggests that the shallow ground water is brackish (due to its proximity to San Francisco Bay) and thus is not a source of potable drinking water.

In response to California DHS comments dated July 25, 1989, a sample of ground water was obtained from monitoring well MW-2 on August 18, 1989. This sample was analyzed for thallium, copper, mercury, chlorides, and halogenated hydrocarbons. Analyses were performed by Sequoia Analytical Laboratory. The results of analyses are presented in Table 7. The chloride levels found in MW-2 confirm the brackish nature of the shallow saturated zone beneath the site. The regulatory standards for other constituents are California Applied Action Levels (AAL) or Maximum Contaminant Levels (MCL). The AAL for copper is the value for saltwater aquatic species. 1,2 dichloroethane (1,2 DCA) was the only volatile organic hydrocarbon detected; the regulatory standard for 1,2 DCA is the California MCL. The concentrations of all reported constituents except 1,2 DCA are below regulatory standards or the detection limit.

1,2 DCA is a parameter that has been found in ground water in the course of other on-going investigations in the area, and is being addressed through those efforts. There is no evidence that it is associated with the Magnesia Waste Pile in any way.

#### **4.2.4 Contamination Assessment**

Sampling of surface water in the drainage ditch which is adjacent to the Magnesia Waste Pile has demonstrated that the pile is not affecting surface waters (Section 4.2.2).

Because ground-water hydraulic gradients are generally upward and because of the low permeability of the overlying Bay Mud and because of the position of the site in the flow system, the Magnesia Waste Pile will not affect water quality in the Newark aquifer.

On the basis of chemical data for shallow ground waters, it can be concluded that the Magnesia Waste Pile is not adversely affecting ground-water quality in the shallow saturated zone. This conclusion is based on the assumption that the potential contaminants within the pile represent a possible continually-functioning source, and that samples collected from downgradient wells will detect the presence of contamination. This assumption should be valid given the length of time that the contaminants have been in the pile, and the estimated ground-water velocity (calculated to be between 50 and 100 feet per year). The pile is approximately 300 feet upgradient of the sampled wells; thus, unretarded ground-water flow is calculated to reach the wells in three to six years. For the purposes of the calculation, the hydraulic conductivity was assumed to be  $10^{-3}$  centimeters per second (cm/s), a reasonable value for the natural geologic materials adjacent to the pile (Freeze & Cherry, 1979). The hydraulic gradient is calculated from Figure 15 to be approximately 0.015

ft/ft, and the effective porosity was assumed to be 0.15, a reasonable value for a clayey sand.

Because neither the ground water nor the surface water in the vicinity of the pile has been adversely affected by contaminants within the pile, DHS action levels and U.S. EPA maximum contaminant levels (MCLs) are not appropriate standards for remediation of the pile. Action levels and MCLs are applicable to remediation of ground-water and surface-water resources, if these resources become contaminated; however, these standards cannot serve as the basis for cleanup of the Magnesia Waste Pile under the current status because ground and surface water do not appear to be affected by the pile.

#### **4.3 AIR INVESTIGATION**

##### **4.3.1 Description of Ambient Air Quality and Sampling Procedures**

An issue raised in the RAO as well as in the community relations interviews (WCC, 1989) centered on the potential for transport of contaminants by wind to off-site receptors. While air monitoring was not required by DHS, it was decided that a limited scope of air monitoring would be undertaken to address concerns regarding this potential mechanism for off-site transport of contaminants.

MED-TOX Associates, Inc. (MED-TOX) of Pleasant Hill, California, was contracted to conduct ambient air monitoring at the Magnesia Waste Pile. The scope of MED-TOX's work included the collection of air samples and analysis for specified potential ambient air contaminants. The constituents of concern identified by the DHS in their comments to the RI included: alkaline dust, copper, cyanide, EDB, mercury and thallium.

Air samples were collected on April 13 and 14, 1989. Air sampling locations were selected based on the anticipated prevailing wind direction. Three sample locations were used on each day of sampling, one upwind and two downwind of the Magnesia Waste Pile. The sample locations were positioned at the perimeter of the Magnesia Waste Pile (Figure 17). The locations were chosen to be as close as possible to the pile to minimize or eliminate possible off-site influences. Samples were collected approximately four to five feet from the pile surface.

Wind directions were assessed by MED-TOX personnel by observing the wind directions approximately every two hours during each day's eight-hour sampling period. On April 13, 1989, the winds were calm or slightly from the south; however, by late morning and into the early afternoon, the wind direction shifted to the northwest direction and winds were gusty. This shift in wind direction reversed the status of the upwind sampler, which then became a downwind sampler (and vice-versa). On April 14, 1989, the winds were generally from the northwest. The weather conditions on both days were dry and were judged to be normal for this time of year.

Measurements of wind speed and direction were obtained for both days from the Fremont Meteorologic Station and Hayward Air Traffic Control. The Hayward station is approximately ten miles north of the site, and the Fremont station is approximately four miles east-southeast from the site.

All air samples were analyzed by MED-TOX, an AIHA accredited laboratory in Pleasant Hill, California. Specific sampling procedures and laboratory data are contained in the MED-TOX report (MED-TOX Associates Inc., 1989).

#### **4.3.2 Contamination Assessment**

The analyses of the air samples showed non-detectable concentrations for the specific parameters of concern. The data collected during this investigation indicate that there is no off-site wind transport of the materials of concern.

Based on the information obtained, it has been concluded that contaminants of concern within the pile, under its current conditions, do not pose a threat to possible off-site receptors through wind transport.

#### **4.3.3 Subsurface Vapors**

Samples collected from trenches during the RI were screened in the field using an HNu meter (SSP&A, 1988). The field HNu measurements varied over a wide range (0 to 140 ppm). The samples that registered elevated HNu readings were selected for laboratory analysis.

Nine samples were selected for laboratory analysis to test for the possible presence of organic compounds. Five samples were analyzed on the basis of anomalous field-testing results (trenches 14, 23, and 26); one sample was tested because it had an unusual color (trench 26); one sample had an odd appearance (19/26-S); and one sample had a slight odor (trench 30). One sample was collected for analysis as a background sample (trench 13).

The samples were analyzed for volatile and semi-volatile organic compounds, for pesticides, and for PCBs. Eleven semi-volatile organic compounds and 10 volatile organic compounds were detected (Table 8). The concentrations of the compounds in the solid material are generally less than one (1) ppm. Because of the low concentrations, it was therefore concluded that volatile and semi-volatile organic compounds did not present a vapor hazard at

the Magnesia Waste Pile, and would not be considered during the evaluation of remedial alternatives.

#### **4.4 BIOLOGICAL INVESTIGATION**

##### **4.4.1 Description of Habitats and Species**

The nearshore areas and wetlands of San Francisco Bay in the vicinity of the Magnesia Waste Pile are part of the San Francisco Bay National Wildlife Refuge. While the Magnesia Waste Pile itself is barren and devoid of species, there are a number of areas of interest around the site (Arthur D. Little, Inc., 1986). These include the drainage ditch just east of the Magnesia Waste Pile, Plummer Creek, the salt evaporation ponds, and the surrounding mud flats and salt marshes, including the Newark Slough (Figure 2). The industrial drainage ditch runs south from the FMC facility about 1/2 mile to its junction with Plummer Creek. At this point, the ditch is 10 feet in width; it is vegetated with tules, and is bordered to the west by salt evaporation ponds. Plummer Creek (a slough) begins near the Leslie Salt's pond about one mile northeast of the ditch discharge point. Just below the outfall of the drainage ditch, Plummer Creek enters the San Francisco Bay National Wildlife Refuge, runs about two miles south and west between evaporation ponds, and finally discharges into the bay. The point at which Plummer Creek enters San Francisco Bay is also the mouth of Newark Slough; the open waters of the bay at that point are bordered by tidal mud flats and salt marsh.

The salt ponds provide habitat for wildlife. Algae in the ponds provide food for brine shrimp, which are in turn eaten by numerous resident and migratory waterfowl, such as black-necked stilts and Bonaparte's gulls. Birds also feed on such insects of the salt ponds as water boatmen, mosquitoes, and flies. Other birds use the salt ponds and their surrounding levees as temporary

resting places. In addition, Caspian terns, Forster's terns, and least terns nest on salt-pond dikes.

The surrounding mud flats and salt marshes in the San Francisco Bay National Wildlife Refuge contain an abundant variety of plant and animal life. The mud flats provide habitat for diatoms, sea lettuce, and other algae as well as numerous invertebrates, shrimp, clams, mussels, snails and worms. Plants of the salt marsh include cordgrass, pickleweed, salt grass, and alkali heath in the lower levels and several members of the saltbush family, together with other plants, in the higher marshes. Tules, cat-tails, and alkali bulrush grow in brackish standing water. Animals of the salt marsh include many invertebrates, small mammals and birds, in addition to the fish of the bay that swim in with the tide as it flows over the mud flats and the salt marsh.

Among the birds that live in the salt marsh is the clapper rail, an endangered species. The salt marsh harvest mouse, also an endangered species, is found only in salt marshes in the Bay area. Other endangered species that frequent the tidelands of the Bay area include the brown pelican, the least tern, and the peregrine falcon. Table 9 lists the species of plants and animals found in the San Francisco Bay area.

#### **4.4.2 Assessment of Potential Exposure**

The potential exposure of wildlife and plant species to hazards due to the Magnesia Waste Pile depends on the concentrations of constituents of concern in water in the drainage ditch which discharges to Plummer Creek and the contact with or consumption of this water by wildlife.

The results of the hydrogeological investigation (Section 4.2) demonstrate that the Magnesia Waste Pile is not affecting surface waters, nor does the Magnesia Waste Pile adversely affect

ground-water quality in the shallow saturated zone (the ground water that is potentially accessible to flora and fauna in the bay flats). The potential risk to wildlife and plant species in the vicinity of the site is therefore judged to be very low. This conclusion is confirmed by the results of an earlier risk assessment (Arthur D. Little, Inc., 1986).

## 5.0 RISK ASSESSMENT

As described in the Superfund Public Health Evaluation Manual (EPA, 1986) an exposure pathway consists of four necessary elements:

- a source and mechanism of chemical release to the environment;
- an environmental transport medium for the released chemical;
- a point of potential human contact with the contaminated medium; and
- a human exposure route at the point of exposure.

An exposure pathway is considered to be complete when all four elements are present, and is incomplete when elements are missing. Exposure estimates can only be calculated for complete pathways.

The Magnesia Waste Pile is the source under consideration that could be considered to release the chemicals of concern in the area. However, sampling of ground water, surface water, and air undertaken during the RI has demonstrated that the potential for transport of chemicals by these mechanisms is negligible.

The baseline public health and environmental assessment (referred to as the risk assessment) was undertaken by TERRA, Inc. (TERRA) of Little Rock, Arkansas. TERRA specializes in environmental toxicology as well as providing health-based risk assessments. The purpose of their work was to estimate the risks posed to humans and the environment by the Magnesia Waste Pile under current conditions. The following paragraphs are paraphrased from their report (TERRA, Inc., 1989).

Exposure scenarios were developed to assess the magnitude of chemical exposure for persons likely to have considerable contact with the chemicals in the pile. FMC and Leslie Salt workers, contractors working on the pile, or state regulatory agency personnel providing regulatory overview are various population groups that might be exposed to constituents of concern in the pile. FMC, Leslie Salt and California Department of Health Services' personnel have observed unauthorized personnel on the property; thus, trespassers are an additional human population that could be exposed to the pile. During the Community Relations interviews (WCC, 1989) conducted with nearby residents, concern was expressed that children might trespass on the property and play on the pile. Although access to the pile is restricted by a barbed-wire fence, the exposure assessment outlined here assumes that the barrier can be overcome or circumvented by a child trespasser. In addition, potential health effects that might occur during remediation of the pile were evaluated through an adult worker scenario. The exposure scenarios considered in this study are called the "trespassing child scenario" and the "adult worker scenario" and were chosen to represent conservative, but realistic, exposure scenarios. The assumptions used to assess potential child and adult exposures to the chemicals in the pile under the two scenarios are described below. A "conservative assumption", in the context of this exposure assessment, means that the exposed child or the worker will have contact with the pile more times per year and for longer lengths of time per visit than would normally be expected. Such assumptions provide overestimates of exposure and risk. In other words, there is a strong probability that the actual exposures and risks will be significantly less than those predicted in the exposure scenarios examined.

The thallium-contaminated materials located east of the pile were not considered in the present risk assessment because these materials have been removed from the site under an Interim Removal Action.

## 5.1 EXPOSURE SCENARIOS

### 5.1.1 Child Trespasser Scenario

Children six years of age and older tend to be the most likely group of persons to play on and around the Magnesia Waste Pile. Although younger children are also typically of concern in residential exposure scenarios, the pile is probably inaccessible to children under the age of six due to its remote location and distance from the nearest neighborhood (approximately 0.5 miles). This scenario assumes that several situations will occur which tend to maximize the exposure that a child may experience. It is assumed that the child could enter the property through a break in the fence. It is assumed that a child would begin to visit the pile at age 6 and continue through age 16 (10 years), and would visit 40 times per year. Further, it is assumed that the child visits and drives over the pile with a motorcycle or all-terrain vehicle (ATV). Such activity would tend to produce considerable dust and increase the amount of inhalation, dermal, and ingestion exposure.

Although physiological parameters such as body weight and surface area change considerably during childhood, physiological parameters for a 10 year-old child are assumed to represent the trespassing child and are therefore more conservative. Such an assumption avoids the complexity associated with calculating exposures for each year of activity without compromising the representative quality of the exposure assessment. The total intakes of each substance based on mean and maximum concentrations in the pile are summarized in Table 10.

### 5.1.2 Adult Worker Scenario

The only adults assumed to be directly exposed to the contents of the Magnesia Waste Pile are those associated with the

site investigation and any future remediation or use of the pile material. Occupational Safety and Health Administration (OSHA) requirements are likely to prevent toxicologically significant exposure to the chemicals present in the Magnesia Waste Pile for these personnel.

The calculated total intakes for each chemical compound of concern are presented in Table 11. The documentation for the calculation of these intakes is presented in TERRA's report (TERRA, Inc., 1989).

#### **5.1.3 Calculation of Daily Exposure to Pile Material and Associated Risks for Trespassing Child Scenario**

Potential exposures to the pile material were calculated for three different routes of exposure. These routes are:

- incidental ingestion of pile material;
- dermal exposure to pile material; and
- inhalation exposure to pile material.

The average daily intakes of copper, cyanide, EDB, mercury, and thallium for a trespassing child were calculated using the mean and maximum concentrations for each compound of concern within the pile. Assumptions associated with these calculations are provided by TERRA (TERRA, Inc., 1989). From these calculated daily intakes, a comparison can be made to Reference Doses (RfDs) to evaluate potential non-carcinogenic health risks that may be associated with exposure to the chemicals of concern.

The non-carcinogenic risks associated with hypothetical exposures to the mean and maximum concentrations of the chemicals of concern (specifically copper, cyanide, and mercury) were evaluated for the child trespasser scenario. Reference Doses (RfDs) verified by the U.S. EPA were used to assess the non-

**5.1.4 Calculation of Daily Exposure to Pile Material and Associated Risks for Adult Worker Scenario**

The average daily intakes of the chemicals of concern were calculated for the adult worker (Table 11). Owing to more frequent contact with the pile material, average daily intakes for the adult worker are somewhat higher than those calculated for the trespassing child. For the mean average daily intake, total intakes ranged from  $3.63 \times 10^{-4}$  mg/kg/day for copper to  $1.06 \times 10^{-8}$  mg/kg/day for EDB. The adult intake of cyanide and EDB were less than the calculated intakes for the child; this reflects the tendency of children to ingest more soil than adults.

The non-carcinogenic risks associated with the compounds of concern were calculated for the adult worker. The methodology used is identical to that used for the child trespasser. Average daily intakes for the adult worker were compared to RfDs, and no total intake/RfD ratio for any individual compound was greater than one (Table 11). When calculated using the maximum concentrations of the compounds, copper had the highest total intake/RfD ratio of  $2.53 \times 10^{-1}$ . The sum of the maximum total intake/RfD ratios for all compounds was  $4.52 \times 10^{-1}$ . Since no value of total intake/RfD was greater than one, no adverse non-carcinogenic effects would be expected from the compounds within the pile.

The lifetime cancer risks associated with EDB exposure were also calculated for the adult worker, and are slightly higher than those calculated for the trespassing child because the adult worker is exposed to the wastes more times than the child. The calculated risks for the average EDB concentration is  $6.4 \times 10^{-8}$  and for the maximum concentration it is  $1.2 \times 10^{-7}$ . These risks, however, are still less than or within the  $10^{-4}$  to  $10^{-7}$  risk range which is considered to be acceptable by the EPA.

## **5.2 DERMATOTOXICITY ASSOCIATED WITH HIGH PH MATERIAL**

Calcium oxide is the primary contributor to the relatively high pH of the Magnesia Waste Pile material. Analysis of samples collected from the pile in 1981 indicated that the calcium oxide content of the general matrix material ranged from less than 10% to 57%. The pH of the pile samples appears to vary with calcium oxide content. Calcium oxide (also known as lime, burnt lime, and quicklime) is a primary component of mortar and plaster. Chemical skin burns in cement workers have been attributed to the irritant properties of calcium oxide.

Except on relative terms, there is little information available that correlates skin injury with pH. It seems reasonable, however, to assume that higher concentrations of calcium oxide would have greater potential to cause skin irritation. The toxicity of pile material and dusts containing calcium oxide is dependent on the amount of moisture available to react with the oxide, on the amount of time the skin is in contact with the dust, and on the condition of the skin. For example, calcium oxide dusts wetted by perspiration may potentially irritate the skin. Thus, unprotected persons having considerable contact with the pile material during hot weather may be at risk for developing skin irritation.

## **5.3 ASSESSMENT OF POTENTIAL RISKS TO THE ENVIRONMENT**

The four necessary elements of the exposure pathway must be present, and the exposure pathway must be complete, before potential risks to the accessible environment can be calculated. An exposure assessment for the environment was not undertaken because the analytical data from the supplemental surface water, groundwater and air samples collected during this project suggest that the pile is not adversely affecting the environment through any of these transport mechanisms. Also, as described in Sections 4.2 and

4.4, the data suggest that the pile is not adversely affecting the wildlife refuge. This conclusion has been supported in two other studies (IT Corporation, 1985; Arthur D. Little, Inc., 1986). The only constituent of possible concern is the copper that was detected in the ditch water samples.

FMC does not use copper in any of their processes. The source of the copper appears to be the municipal water purchased by FMC. Analyses of municipal water by the City of San Francisco, indicated that copper concentrations in the municipal system can be as high as 0.015 mg/l (Table 12). The increase in copper concentration observed in the ditch may be a result of evaporative losses within the FMC operations.

**6.0 EFFECTS OF CONTAMINATION ON PRESENT, FUTURE, AND PROBABLE USES OF BENEFICIAL RESOURCES****6.1 PRESENT USES OF THE LAND AND WATER**

The results of the RI and risk assessment suggest that contaminants within the Magnesia Waste Pile have no effect on the land outside of the immediate bounds of the pile. Because the pile has been used in the past solely for the purpose of waste disposal, and a portion is leased to the Newark Police Department for a shooting range, the contaminants within the pile are not affecting the present use of the pile.

A surface-water drainage ditch runs along the east side of the Magnesia Waste Pile. Water from this ditch is discharged to Plummer Creek, and eventually into wetlands at the National Wildlife Refuge. The results of analyses performed during surface-water sampling (Section 4.2.3) suggest that the Magnesia Waste Pile is not affecting either the water quality in the ditch or the ecosystem of Plummer Creek.

Neither the shallow saturated zone nor the Newark aquifer in the vicinity of the Magnesia Waste Pile is considered to be a drinking-water resource (Section 4.2.3); the water from both zones is so brackish as to be unusable for most consumptive purposes. Furthermore, the results of chemical analyses performed during the ground-water assessment indicate that it is unlikely that the Magnesia Waste Pile is affecting water quality in either the shallow saturated zone or the Newark aquifer. Therefore, the contamination within the Magnesia Waste Pile has no apparent effect on the present beneficial uses of ground water in the vicinity of the site.

## **6.2 FUTURE POTENTIAL USES OF THE LAND AND WATER**

While no specific investigation of future development plans was undertaken for this RAP, the current expansive industrial real estate trends indicate that a form of industrial use is likely to occur to the east and south of the site. Additional development is anticipated on nearby parcels. One parcel consists of the south half of the area bounded by Hickory Street, Willow Street, Central Avenue, and Enterprise Drive. Industrial development of warehouses is underway on this parcel.

The results of the RI and risk assessment suggest that contaminants now within the Magnesia Waste Pile will have no effect on the land outside of the immediate bounds of the pile, nor does the pile affect ground water or surface water (Section 4.2.3). There is, in any case, no anticipated human exposure to ground water or surface water at the proposed developments. Additionally, because of salt-water intrusion coupled with the long-term effects of the SWB project (Section 4.2) it is anticipated that the Newark aquifer in the vicinity of the site will not be used as a ground-water resource.

Since there is only low potential for exposure resulting from future industrial development of land or water in the vicinity of the Magnesia Waste Pile, it is judged that future effects to human health or the environment resulting from contaminants within the pile are minimal. Both FMC and Leslie Salt are committed to the removal of hazardous materials from the site in the proposed remedial action; thus, there will be no impacts to the potential future uses of the land and water resources.

## **6.3 PROBABLE BENEFICIAL USES OF LAND AND WATER**

Probable beneficial uses for the land in the immediate vicinity of the Magnesia Waste Pile include both open space and

industrial development. The Magnesita Waste Pile site, unused at the present time, represents one of the larger undeveloped parcels in the Newark area; therefore, future development consistent with the City of Newark's general plan is likely.

No long-term effects to the environment associated with the general magnesita material are anticipated if the property is developed. Previous geotechnical work (Tejima-Atkinson, 1986), has demonstrated that soil strengths increase with increasing percentage of magnesita. Hence, the addition of magnesita from the pile to the native soil of the site would improve the engineering characteristics of the soils. This can be regarded as a benefit for possible future development. On the other hand, if grading activities occur and the pile material were to be widely distributed, the ultimate fate of the constituents of concern (copper and mercury) cannot be predicted with any accuracy. It is possible that the alkaline environment of the pile has reduced the mobility of these constituents.

The results of the RI and risk assessment suggest that contaminants now within the Magnesita Waste Pile do not affect ground water or surface water (Section 4.2.3). Additionally, because of salt-water intrusion coupled with the long-term effects of the SWB project (Section 4.2) it is anticipated that the Newark aquifer in the vicinity of the site will not be used as a ground-water resource for at least the duration of the SWB project. The timeframe for the SWB project is not known, but is anticipated to be at least 30 years.

## **7.0 SUMMARY OF REMEDIAL ACTION FEASIBILITY STUDY**

### **7.1 DISCUSSION OF ALTERNATIVE REMEDIAL ACTIONS**

The purpose of this section is to describe the remedial objectives, and to identify the potential remedial technologies that were considered for remediation of the Magnesia Waste Pile. Remedial objectives are site-specific goals for remediating the soil/waste, that are based on the protection of human health and the environment. Remedial technologies capable of achieving these goals are first screened on the basis of their applicability to the site. The remedial technologies are then assembled into a variety of remedial alternatives. An alternative may combine several technologies.

In general, remedial alternatives are designed to achieve one or more of the following objectives, depending on site-specific circumstances:

1. Eliminate the hazardous substances from the site.
2. Reduce the hazardous substances at the site to acceptable levels.
3. Prevent exposure to the hazardous substances.

The specific remedial objectives related to the Magnesia Waste Pile soil/waste materials are as follows:

- Prevent ingestion, inhalation, or dermal contact with the waste materials. The compounds of primary concern based on DHS regulations are copper and mercury, in concentrations that exceed the appropriate TTLC.
- Provide for long-term effectiveness and permanence in reducing risk to human health and the environment.
- Allow for the environmentally sound use of the property.

- Select remedial alternatives that can be implemented in an acceptable manner.
- Select the most cost-effective remedial alternative.

The first step in selecting remedial alternatives is to identify potential technologies that may have application to the site. These technologies are then described in general terms with respect to their general applicability, effectiveness and technical viability. Based on this information, a screening of the identified technologies can be completed to select the most promising technologies for further evaluation and incorporation into remedial alternatives; these alternatives are then evaluated against criteria that assess cost and effectiveness. The evaluation of remedial alternatives that were identified for the Magnesia Waste Pile are presented in this section.

Two major factors must be addressed during the development of remedial alternatives:

- estimating the areas and volumes of materials to which the remedial actions will be applied; and
- determining which technologies or combinations of technologies could be applicable and effective.

#### Location and Volume of Waste Materials

The waste materials in the Magnesia Waste Pile can be divided into five main units: general magnesia material; copper catalyst pellets and general magnesia material which contains elevated copper concentrations; mercury-contaminated magnesia; thallium-contaminated soil; and debris. The total volume of waste material is estimated to be approximately 78,000 cy.

Constituents that were observed in concentrations that exceeded the appropriate TTLC standards include thallium, copper and mercury. The thallium-contaminated materials located in an isolated area east of the pile were removed under an Interim Removal Action; therefore, those materials will not be considered further in this RAP.

The copper catalyst pellets were found only on the west side of the Magnesia Waste Pile (Figure 5). The volume of copper pellets present in the pile was estimated to be approximately 600 cy (Table 5). About 200 cy were scattered near the surface and 400 cy were buried. For the purpose of cost estimation, it was assumed that 1,200 cy of pellets and general matrix material which has a total copper concentration exceeding the TTLC will be remediated.

The mercury is not specifically associated with one particular waste unit. For cost estimating purposes, it was assumed that the mercury is predominantly associated with the light gray material found in Trenches 24 and 26, and that there are approximately 2,500 cy of the mercury-contaminated magnesia. The black tarry material within Trench 31 appears to be very limited in extent, and the volume of mercury-contaminated magnesia in this trench is included within the 2,500 cy estimate.

A considerable amount of debris was encountered during the RI. Debris was most prevalent on the west side and top of the Magnesia Waste Pile; however, it is scattered throughout the pile. The volume of debris was estimated to be approximately 9,600 cy, and was included in the 78,000 cy volume estimate of general waste material.

### Description of Remedial Technologies

Waste remediation technologies can generally be classified into the categories of removal and disposal, containment, or treatment.

#### **Removal and Land Disposal**

Excavation and off-site disposal of the waste materials would totally eliminate the hazardous material from the site. This procedure is easy to implement, requires no specialized equipment, and is a proven remediation technology. To implement this technology, the copper pellets and the general matrix material that contains copper or mercury in concentrations exceeding the TTLC for these constituents would be excavated, loaded directly into trucks, and shipped to a landfill certified to accept Class I waste. It is anticipated that the copper pellets and copper- or mercury-contaminated magnesia material would be shipped to the Chemical Waste Management's Kettleman Hills facility near Coalinga, California or other approved hazardous waste disposal facilities.

The debris and general matrix material can be treated as non-hazardous wastes because the only constituents that would classify them as hazardous are the copper pellets and general matrix material that contains copper or mercury in concentrations greater than the TTLC; these could be segregated. The general matrix and debris could be disposed in a municipal landfill. This technology is widely used and will be considered as a possible remedial alternative. The removal technology does not conform with the guidance of California's Health and Safety Code, which recommends the use of innovative remediation technologies; however, off-site disposal, as an alternative, may in some cases be the only technology available.

## **Capping or Containment**

The concept of capping a site entails the containment of wastes and the minimization of the potential for off-site transport. No materials would be removed from the site but the contaminants would merely be contained. While air, surface-water and ground-water data do not indicate that the hazardous materials within the pile are affecting the area surrounding the site, a cap would further reduce the possibility that copper, mercury or alkaline dust could be carried or leached from the pile. As a secondary benefit, a cap would prevent trespassers from coming in contact with the materials in the pile.

The existing pile would first be regraded; then clean soils added to the sides of the piles so that a stable slope could be achieved; and then a low permeability cap would be installed. The cap would consist of two feet of compacted low-permeability soil and 12 inches of topsoil that would be seeded with native grasses to minimize erosion. This remediation technology is not encouraged by California's Health and Safety Code. Capping or containment does not treat or reduce the waste, but rather isolates the material from human contact and minimizes leaching. For situations in which the mobility of the contaminants is low (e.g. the Magnesia Waste Pile contaminants), the containment/capping technology may be appropriate.

## **Treatment**

Several potential treatment technologies are available. These include:

- Soil Washing

- Chemical Fixation
- Recycling and/or Re-use

Soil washing is a general term, applied to a variety of techniques developed for extracting metals or organic chemicals from solid materials. The concept of soil washing has only recently been applied to extracting hazardous materials from soil or solid wastes. The chemical process generally involves the mobilization of metal constituents from solid materials, using a solvent. Potential solvents include acids, chelating agents and surfactants. The available processes for applying the solvent solutions range from spraying piles of material with spray showers (in-situ leaching), to washing the materials in mobile reactors or vats. Because the Magnesia Waste Pile consists primarily of fine-grained materials, in-situ soil leaching is probably not viable because the solvent solution cannot readily pass through the materials. A vat washing process is more feasible.

The solution used to dissolve the metals would have to be treated to remove the metal constituents. The collected metal cake would then be dewatered and the liquid recycled: spent acids are neutralized; spent chelants are destroyed; and the treated residual water is discharged to a publicly owned treatment works (POTW), a sanitary sewer. The sewer water generally contains elevated levels of dissolved solids and may require additional pre-treatment prior to discharge to the POTW.

Because soil washing is an innovative technology, limited data exist from which to estimate treatment effectiveness or costs. Effectiveness and costs can be assessed using bench treatability tests and pilot scale testing. However, it can be stated that soil washing, if it is applicable, would remove the hazardous constituents from the solid magnesia matrix and ultimately from the site. Because the technology was developed for removing metals

from ores, it has direct applicability to the metals found within the pile; further analysis of this technology as a remedial action alternative is warranted.

Chemical fixation refers to treatment methods that bind waste components into a stable matrix. The objective of chemical fixation is to reduce the solubility, toxicity or mobility of hazardous constituents within the waste matrix.

Fixation involves the excavation of soils, mixing the soil material with the binding or setting agents, and replacement of treated soil into the excavated area or off-site disposal of the wastes in a municipal landfill. The equipment utilized is often conventional cement-mixing machinery. The fixation agents in common use include Portland cement, fly ash, kiln dust, liquid silicates, thermoplastic agents, and organic polymer agents; magnesia oxide and lime are principal components of some soil fixatives. In many respects, the pile material itself could act as a fixative agent for copper and mercury, in that these metals are not as mobile in the alkaline environment of the pile as they would be in an acidic environment.

None of these chemical systems removes the contaminants; they simply serve to reduce the mobility of specific constituents. Additional treatment and laboratory tests on leachable contaminants would need to be performed to assess the effectiveness of this alternative. However, because the technology is capable of immobilizing metals, further consideration will be given to soil fixation during the evaluation of remedial alternatives.

Recycling or re-use involves the removal of the copper pellets and copper- and mercury-contaminated matrix material, and transporting to a facility that could recycle or otherwise use these materials. The copper pellets contain, at a minimum, 62% magnesium oxide (Table 2) which is an effective neutralizing agent.

The use of the copper pellets and associated copper- and mercury-contaminated matrix material as a substitute for lime as a neutralizing agent is currently being investigated. The copper and mercury could be recovered from the neutralized solutions and re-used. Samples of these materials have been submitted to recycling vendors and based upon their analysis, it appears that recycling is feasible.

The general non-hazardous matrix material, because of its elevated pH, may be used as a soil amendment to treat acidic soils, or to neutralize acidic waste streams in industrial applications. In addition, the magnesia material could be used in waste solidification processes at a hazardous waste facility. The concept of recycling is encouraged under California's Health and Safety Code, and additional investigation of recycling as a remedial alternative is warranted.

The general matrix material could also be used as fill on-site. Previous geotechnical work, performed under contract to Leslie Salt (Tejima-Atkinson, 1986), showed that soil strengths increase with increasing percentage of magnesia. Hence, the addition of magnesia to the native soil of the site would improve the soil strength. The technology of re-using the magnesia material on-site in combination with other technologies is also worth further consideration as a remedial alternative.

The potential applications of these technologies as they may be a part of a remedial action alternative will be explored in following sections.

#### **7.1.1 Alternative A-1 - No Action**

This alternative assumes that no action will be taken to treat or remove any of the materials within the pile. The analysis of data collected during the RI has demonstrated that the pile, in

its current state, has no effect on the environment surrounding the site. Thus, there may be no health- or environmental-based reason to remediate the site. This alternative does not reduce the toxicity, mobility or volume of the wastes.

Hazardous wastes, as defined by Title 22 of the California Code of Regulations, would remain on site if this alternative were selected. Monitoring of the site would probably be required so that possible adverse effects to air, surface water and ground water could be detected. It is assumed that a number of ground-water wells, air monitoring stations and surface-water sampling points would have to be installed and monitored on a quarterly basis for at least 30 years. The monitoring would be in accordance with appropriate DHS and California Regional Water Quality Control Board requirements. Despite the probable requirement for monitoring, no beneficial uses of ground water would be affected by Alternative A-1, because ground water in the shallow saturated zone and in the Newark aquifer is expected to remain brackish and unusable.

The alternative is easy to implement because only fencing and monitoring would be necessary. The perimeter fence would have to be maintained, and site access would have to be minimized. The costs for this option, covering 30 years of monitoring, are estimated to be \$1,132,000.

An issue that is not addressed in the cost estimate is that the No-Action Alternative would probably preclude other future uses of the land. Deed restrictions on future uses of the land would probably be required. The opportunity costs, arising from economic opportunities that are forgone because of these deed restrictions, cannot be estimated at this time.

This remedial alternative is rejected on the basis of present and future costs and the probable limitations on future uses of the land.

#### **7.1.2 Alternative A-2 - Capping**

This alternative would involve regrading the existing materials and placing fill so that the grade of the resulting slope is brought to a slope of four to one (horizontal to vertical). Once this is completed, a two-foot-thick layer of compacted silty clay material would be placed on the fill, and would be topped with a one-foot-thick topsoil cover. The topsoil would be seeded with native grasses to minimize erosion of the soils.

This alternative could be easily implemented because only standard construction technology and equipment would be involved. It is anticipated that implementation would require approximately four months, at an estimated cost of \$8,500,000. This cost appears excessive, primarily because of the costs associated with the transportation of fill from an off-site location. Because it is difficult in advance to estimate maintenance costs, the long-term costs for maintenance have not been included.

The cap would eliminate the potential for off-site transport of waste materials by wind and would also reduce the amount of precipitation that infiltrates the site. This remedial action would also prevent the general public from coming in contact with the high pH material as well as materials defined by Title 22 as being hazardous. The cap would have to be maintained over time in order to maintain its effectiveness. No beneficial uses of ground water would be affected by Alternative A-2, because ground water in the shallow saturated zone and in the Newark aquifer is expected to remain brackish and unusable.

This remedial alternative does not meet the goals of the California Health and Safety Code, which discourages isolating rather than treating the contaminants to permanently reduce the potential risks associated with possible future exposure. In addition, capping the site might restrict future uses of the property, and deed restrictions may be required.

Because of the anticipated high cost, the possibility of deed restrictions, and the fact that the contaminants are not removed, this alternative will not be considered further.

#### **7.1.3 Alternative A-3 - Excavation and Off-Site Landfill Disposal of All Materials**

This alternative would involve the excavation and removal of all of the Magnesite Waste Pile materials from the site. Materials that contain copper and mercury in concentrations that exceed the TLC will be disposed at a Class I landfill. The general magnesite material and debris are not hazardous, and would they be disposed at a municipal (Class III) landfill.

The exposure to dust created during the excavation and hauling of hazardous materials poses a potential risk to the public during implementation of this alternative. However, dust generated during excavation could be controlled using conventional dust-abatement procedures, such as application of water or other agents. In addition, all trucks used in hauling would be covered to minimize wind erosion of the materials being transported. Such efforts would decrease risks to the site workers and the general public. It is expected that the ambient air quality criteria for air-borne particulates will not be exceeded on-site during the excavation and hauling. Therefore, it is likely that no significant increased health risk to the general public will occur during excavation and hauling.

Alternative A-3 involves the use of standard construction technology such as excavators, dozers and trucks; there are no new or untried technologies associated with this alternative. The total capital requirement for excavation and off-site disposal is estimated to be \$3,000,000. It is anticipated that implementation would require approximately four months; because all the materials would be removed from the site, there are no long-term maintenance or monitoring costs associated with this alternative.

Because all of the materials would be removed from the site under this alternative, there should be no associated long-term risks to human health or the environment in the vicinity of the site. No beneficial uses of ground water would be affected by Alternative A-3, because ground water in the shallow saturated zone and in the Newark aquifer is expected to remain brackish and unusable.

There should be no restriction on possible beneficial uses of the land once the materials have been removed from the site. However, off-site disposal does not conform with the intent of the Federal Superfund program, or California's Health and Safety Code, which discourage off-site disposal in lieu of recycling, re-use or treatment. Possible recycling or contaminant destruction, where appropriate, are generally preferred by regulatory agencies.

While off-site disposal is certainly technically possible, it is not recommended because of its high cost, and because there are other possible innovative technologies that could probably be used. Alternative A-3 will not be considered further because it is not cost effective, nor does it conform to present regulations which encourage the use of alternatives that treat the wastes.

#### **7.1.4 Alternative A-4 - Excavation and On-Site Treatment Using Soil Fixation with Off-Site Disposal**

This alternative involves excavation of the copper pellets and contaminated magnesia that contains copper and mercury in concentrations that exceed the TTLC, followed by interim storage and chemical fixation of the hazardous materials.

The excavation process would proceed as described under Alternative A-3. The general debris would be segregated, transported by covered truck to a local landfill or other Class III facility, and disposed. The pellets and metals-contaminated magnesia would be excavated and mixed with the fixative agent. The fixated waste would then be transported off-site, and could be disposed in a municipal landfill because the material would not be leachable. It is uncertain at this time whether local landfills would accept the fixated wastes because the process does not remove the copper or mercury but instead immobilizes the contaminants.

Excavation of the contaminated waste materials would be performed using conventional construction equipment. The chemical fixation process has been used for other contaminated soils and wastes in the State of California; the equipment is readily available and is relatively easy to operate and maintain. This would facilitate on-site treatment. Minimal emissions would be released, thus only ambient air monitoring and fugitive dust controls would be required during remediation. The fixated soil would be tested for chemical stability to ensure that the contaminants would not leach.

Once bench-scale tests had been completed, approximately four months would be required for remediation. The total cost of Alternative A-4 is estimated to be \$1,340,000; there are no long-term operation or maintenance costs associated with this alternative. The high treatment cost is primarily due to the fixed costs

associated with mobilizing large equipment to treat a small quantity of waste material.

Alternative A-4 does meet regulatory goals (e.g. Title 22) in that the mobility of the hazardous constituents would be reduced. In addition, the hazardous materials would be removed from the site, so that there should be no associated long-term risks to human health or the environment in the vicinity of the site, nor should there be restrictions on possible beneficial uses of the land. No beneficial uses of ground water would be affected by Alternative A-4, because ground water in the shallow saturated zone and in the Newark aquifer is expected to remain brackish and unusable.

While soil fixation is a proven technology, its effectiveness and technical viability at the Magnesia Waste Pile are uncertain, and would have to be proven through bench-scale tests. Additionally, the costs associated with soil fixation are much higher than costs associated with other technologies. For these reasons, Alternative A-4 will not be considered further.

#### **7.1.5 Alternative A-5 - Excavation and On-Site Treatment Using Soil Washing**

This alternative involves excavating the copper pellets and the contaminated magnesia that contains copper and mercury in concentrations that exceed the TTLC, utilizing standard excavation technology and equipment as described under Alternative A-3. Debris would be segregated, loaded into trucks, and transported to a municipal landfill or other Class III facility. The copper- and mercury-contaminated waste material would be mixed with acid in vats after it had been thoroughly sieved and ground to a uniform size. The acid would serve to mobilize the copper and mercury. The waste slurry exiting the last vessel after acid rinsing would be settled in a thickener vessel and then dewatered through a

filter. Liquid from the thickener, and filtrate liquids containing the leached metals, would be further processed to extract the metals. Treated water would be recycled, primarily as mix water in the waste slurry tank. Excess process water would be neutralized or otherwise treated and discharged to the sanitary sewer system. The waste materials would be treated to reduce the concentrations of remaining copper and mercury to a value lower than the TTLC. The treated waste material would be mixed with the general magnesia, while the filter cake would be sold to a copper smelter for use in the production of copper; the mercury would be given away or sold.

This alternative could be implemented in a relatively short period of time (estimated to be six months); hence, operation and maintenance costs are not considered. The total estimated cost for this remedial alternative is \$1,500,000. The major cost item associated with this remedial alternative is estimated to be the mobilization of the equipment; because of the low volume of wastes, the fixed costs are large for the amount of material treated. In addition, the cost for acid is high because the waste material has such a high initial pH (estimated to be 11.5). Excessive amounts of acid would be needed to neutralize the alkaline magnesia material and to mobilize the metals.

Alternative A-5 would remove the hazardous materials from the property, and residual materials would meet appropriate standards for the site (TTLCs). Consequently, there should be no associated long-term risks to human health or the environment in the vicinity of the site, nor should there be restrictions on possible beneficial uses of the land. No beneficial uses of ground water would be affected by Alternative A-4, because ground water in the shallow saturated zone and in the Newark aquifer is expected to remain brackish and unusable. Also, this alternative should be acceptable to state agencies because it would permanently remove

the wastes from the site, and would be undertaken in such a manner that off-site disposal would not be an issue.

However, this remedial alternative has not undergone bench or pilot scale testing; thus, its technical viability, associated costs, and applicability to the Magnesia Waste Pile site are uncertain. In addition, the estimated costs associated with soil fixation are much higher than costs associated with other technologies. For these reasons, Alternative A-5 will not be considered further.

#### **7.1.6 Alternative A-6 - Excavation, with Removal of Hazardous Materials from Site with Recycling**

This alternative involves the removal of all hazardous materials from the site. These materials would be transported to an off-site user or recycler if possible, or would be disposed at a Class I landfill if these options are not available. Because all hazardous materials would be removed from the site, there are no long-term maintenance or monitoring costs associated with this alternative. This alternative is different from Alternative A-3 in that the goal is to recycle the hazardous materials (copper and mercury). The remaining non-hazardous materials can be handled in one of four ways which will be described in this section.

Under Alternative A-6, residual materials would meet appropriate standards for the site (TTLIC). Consequently, there should be no associated long-term risks to human health or the environment in the vicinity of the site, nor should there be restrictions on possible beneficial uses of the land. No beneficial uses of ground water would be affected by this alternative because ground water in the shallow saturated zone and in the Newark aquifer is expected to remain brackish and unusable. Recycling or re-use of waste material is in accordance with the directives of both federal and State agencies. The amendments to

the Federal Superfund legislation and California's Health and Safety Code prefer alternatives that reduce the volume, toxicity or hazardous nature of the waste.

Once the hazardous materials have been removed from the site, the site would no longer be considered hazardous. The remaining "clean" magnesia and debris could then be handled in several ways. Four options are discussed as variations of the excavation, off-site recycling alternative.

**7.1.6.1 Option A-6A - Off-Site Recycling of Hazardous Materials and General Magnesia, with Disposal of Debris**

This variation of the recycling remedial option of Alternative A-6 involves the excavation of all waste materials, segregation of the different types of material, and transportation to an off-site recycling facility for the hazardous materials and general magnesia with disposal of the debris at a municipal landfill or Class III facility. This option is different than Alternative A-3 in that only the debris would be disposed at a landfill.

Excavation, segregation, and transport of the matrix material, copper pellets, and general debris can be readily accomplished using standard technology. The copper and mercury wastes are generally located in discrete areas of the pile. These areas would be selectively excavated, and the copper pellets and copper-contaminated magnesia could be removed and separated on visual observation and sampling for laboratory analysis. It is anticipated that a zone of magnesia around the pellets would also be removed during excavation to ensure that all hazardous constituents are removed. Sampling and subsequent chemical analyses of the remaining adjacent general matrix material would be performed after excavation is complete to verify that hazardous concentrations of copper- or mercury-contaminated materials do not remain.

Once the copper- and mercury-contaminated materials had been segregated and removed from the pile, they would be shipped to an off-site recycler or other end-user. Potential uses for this material include incorporation into the production stream of a copper smelter, or use as flux control or acid neutralizing agent. As a secondary benefit, copper could be recovered from the waste. The mercury is present in such small quantities that it would not be economical to recover. Residual material would be handled in the smelter's waste stream. Samples of the materials have been submitted to potential recyclers for evaluation, and based upon their analysis, it appears that recycling is feasible.

The general magnesia material would be screened on-site to remove the debris and then possibly dried to reduce shipping weight and to further calcine the material. The prime possible uses for the material are:

- Soil amendment for sandy soils
- Stack-gas absorption of sulfur dioxide in power-plant scrubber systems
- Production of mortar and stucco
- Neutralizing agent for acidic wastes
- Fixing agent for the solidification of wastes at a landfill

The general debris, consisting of lumber, scrap metal and so forth, would be separated from the copper pellets and the magnesia material. Because the debris is not hazardous, it would be disposed at a municipal landfill or other Class III facility. It would not be practical to recycle the debris because of its extreme heterogeneity.

Dust abatement practices would be observed during excavation, to suppress fugitive dusts and minimize the exposure of the general public and site workers to potential contaminants. The

trucks used in transportation would be covered so that debris is not spilled and material is not lost during transit.

It is difficult to estimate the costs of recycling until a user(s) of the materials is (are) identified. For purposes of preliminary screening of alternatives, it is assumed that the hazardous materials will be provided to a end-user at no cost. Approximately four months would be required for implementation of this option. The total cost for this option is estimated to be \$680,000; because of the relatively short timeframe, no operational or maintenance costs are considered.

This option is recommended from a technical and economic perspective; however, finding a user for the general matrix material may take a longer time than is scheduled in the RAO. This will be handled outside the RAP process. Specific uses for the material will continue to be investigated. The hazardous materials would be segregated and stored on FMC property, which is part of the site, in separate piles until an end-user is identified.

#### **7.1.6.2 Option A-6B - On-Site Use of Magnesia**

This option is similar to Option A-6A except that the general magnesia material would be used on-site as a sub-base fill. The copper pellets and metals-contaminated magnesia material would be recycled off-site. The debris would be separated and disposed off-site in a municipal landfill or other Class III facility. Once the copper pellets and metals-contaminated magnesia materials had been removed, the general magnesia material could be used as backfill on the property because this material would not be classified as hazardous.

According to Tejima-Atkinson (1986), the addition of the magnesia material to the surrounding native soil at blends of up to 15% improves the characteristics of the soil for use as engineered

fill. However, because of the elevated pH of the mixture it would be necessary to protect metal or concrete structures placed in contact with the magnesia/soil mixture.

Approximately four months would be required for segregation of the hazardous materials during implementation of this option. The future use of the property has not been identified at the present time; therefore, it is not possible to estimate the time required for incorporating the general magnesia material into fill. Because the general magnesia material remaining on the site would not be classified as hazardous, this option should not entail operation and maintenance costs.

The costs for this option are difficult to estimate until a user for the copper pellets and metals-contaminated magnesia has been identified and the ultimate use of the property has been determined. While acknowledging these uncertainties, the estimated total cost is \$1,570,000.

One of the major disadvantages of this remedial option is the difficulty of using the entire quantity of matrix material on-site. The general matrix material should not be added to the native soil in proportions greater than 15%; this limitation would require the blending of the matrix material over a large area and with a large volume of soil. If the matrix material is blended with the top two feet of native soil, then an area of 2600 feet by 2600 feet would be required to use all of the "clean" magnesia. This would cover an area over 20 times larger than the area of the present pile. It is uncertain at this time whether such an area of land exists. Furthermore, the end use of the property on which the pile is located is uncertain at the present time. Therefore, it is not recommended that this option be pursued further because it would commit the land to a present use that may not be a prudent use in the future.

### 7.1.6.3 Option A-6C - Residuals Left in Place

The basis of this remedial option involves the removal of all materials that contain copper and mercury in concentrations that exceed the appropriate TTLC. This would include the copper pellets and the copper- and mercury-contaminated general matrix material. These materials would be excavated and transported to an off-site user as discussed in Option A-6A. If suitable markets could not be identified, off-site disposal in a Class I landfill would be the remaining technology available.

The excavation and recycling processes in this option are the same as Option A-6A. Excavated waste materials would be segregated and stored on adjacent FMC property (Plate 1) for a period of up to 90 days. The general debris encountered during the excavation would be separated from other materials, temporarily stockpiled, then loaded into trucks and transported to a municipal landfill or other Class III facility for disposal.

The "clean" general magnesia material would be returned to the excavations after the removal of the contaminated materials; the excavations would then be graded to eliminate holes so that direct precipitation would not pond. The excavated areas would be periodically wetted with water to minimize wind erosion and to promote the formation of a hardened crust. Based on field observations during the RI work, it is judged that such a crust should form within one month.

Once all of the hazardous materials have been removed, the pile should be judged to be non-hazardous according to Title 22 of the California Administrative Code. Access to the general matrix material would be limited by fencing the site.

Approximately four months would be required for excavation and segregation of the hazardous materials during implementation of this option. The estimated cost for this remedial option is \$360,000; this assumes that the hazardous material can be recycled at no net cost to FMC and Leslie Salt. If landfill disposal is required, this could add \$1,000,000 to the cost of this option. Costs have not been assigned to any future movement of the general magnesia material because it is assumed that the materials would be left on-site indefinitely. No long-term maintenance of the pile is anticipated once the crust has formed. The fence would have to be maintained, but the costs associated with this are assumed to be minor.

This option provides a cost-effective means to address regulatory concerns in that the hazardous constituents are removed from the site; additionally, because the option does not require any unusual equipment or technology, the alternative would be easy to implement. However, the final future use of the property has not been identified at the present time; it is anticipated that because site access will be limited after the magnesia has been replaced and graded, the potential uses of the property would be severely restricted.

**7.1.6.4 Option A-6D - Debris Removal and Disposal, and Stockpiling On-Site of all Magnesia Material**

This remedial option is similar to the previously-described option in that all materials that contain copper and mercury in concentrations that exceed the appropriate TTLC would be removed from the pile, segregated and transported off-site. This would include the copper pellets and the copper- and mercury-contaminated general matrix material. Additionally, all of the general magnesia material would be excavated, debris would be segregated and removed, and the magnesia material would be stockpiled on-site

until a suitable use is found for the material. No timeframe would be specified for removal of the non-hazardous materials.

The excavation and recycling techniques would be similar to those outlined in Alternative A-3 and Option A-6A. The excavated general magnesia material would be placed in a prepared area. In order to minimize overland flow of the higher pH material into adjacent lands or waterways, the stockpile area would have to be bermed. In addition, the sides of the pile would be graded to a slope of three to one (horizontal to vertical) to minimize erosion. Dust abatement techniques would be observed during excavation to control fugitive dusts. The stockpile areas would require future maintenance until a user is found. Site access would also be limited to minimize exposure to the higher pH materials.

The estimated cost for this option is \$1,660,000; costs for future handling have been included in this option because it is assumed that all the material in the pile would be moved. The future handling costs were calculated in 1989 dollars; these future costs should be increased for activities beyond 1989. It is important to note that a value has not been assigned to the general magnesia material. It is possible that the total sum spent for this remedial option could be offset by future revenue generated from sale of the magnesia.

It is the goal of FMC and Leslie Salt to secure an optimal use for the materials; because the material will be stockpiled on-site, the rate of removal and transport of material could be readily controlled, once an end user is identified. This option involves proven technology and would be easy to implement. However, because site access will be limited while material is stockpiled, the potential uses of the property would be severely restricted during this period of time. In addition, the estimated cost for this option (\$1,660,000) is significantly greater than the cost for Option A-6A, even though the end result is the same in

both options. The additional expense can be attributed to costs associated with materials handling and maintenance of the stock-pile.

## 7.2 RECOMMENDED FINAL REMEDIAL ACTION

### 7.2.1 Summary of Remedial Alternatives

Six remedial action alternatives have been identified. Although other variations of these alternatives could be developed, these alternatives provide a review of the basic technologies that can reduce the hazards presented by the Magnesia Waste Pile in its current state, and address the concerns of the general public, DHS, FMC and Leslie Salt.

Table 13 is a summary of the remedial action alternatives presented in the previous sections. Based on a review and evaluation of the remedial action alternatives presented, several alternatives have been eliminated from further consideration.

- Alternative A-1 - No Action

Alternative A-1 has been eliminated from further consideration because of the probable long-term monitoring costs, future restrictions on land use, the hazardous materials remain on-site, and because it is not cost-effective.

- Alternative A-2 - Capping

Alternative A-2 has been eliminated because waste materials are not removed or treated, long-term monitoring, some future uses of the land may be restricted, and because the alternative is not cost effective.

- Alternative A-3 - Excavation and Off-site Landfill Disposal of All Materials

Alternative A-3 can be implemented; however, landfill disposal is discouraged under California's Health and Safety Code unless no other alternative is appropriate.

A-3 costs less than some alternatives presented; however, it is not cost-effective. Long-term liabilities associated with the waste are not eliminated for FMC and Leslie Salt. For all these reasons, this alternative is eliminated from further consideration.

- Alternative A-4 - Excavation and On-site Treatment Using Soil Fixation With Off-site Disposal

Alternative A-4 is an innovative technology; however, the major disadvantage of this alternative centers on technical concerns regarding whether the alternative can be applied to the wastes in a cost-effective manner. The unit cost of this alternative is similar to the unit cost of the off-site disposal alternative; however, it is possible that the estimated costs for this technology could exceed those of off-site Class I disposal. Due to technical and cost considerations, this alternative has been eliminated from further consideration.

- Alternative A-5 - Excavation and On-site Treatment Using Soil Washing

Alternative A-5 is an innovative technology; however, the major disadvantage of this alternative centers on the technical concerns regarding whether this alternative can be applied to the wastes in a cost-effective manner. The unit cost of this alternative is similar to the unit cost of the off-site disposal alternative; however, it is possible that the estimated costs for the technology could exceed those of off-site Class I disposal. Due to technical and cost considerations, this alternative has been eliminated from further consideration.

- Alternative A-6 - Excavation with Removal of Hazardous Materials from Site with Recycling

This alternative would remove all hazardous materials from the site. There are four identified options that specify how the remaining non-hazardous magnesia and debris would be handled. These options are:

- Complete off-site recycling of hazardous materials and general magnesia with disposal of debris
- On-site use of magnesia
- Residuals remain in place
- Complete removal, disposal of debris, and stock-piling of the magnesia on site

This alternative offers a wide range of flexibility in how the non-hazardous materials are handled. The alternative is cost-effective and would meet all appropriate regulatory requirements.

### 7.2.2 Preferred Remedial Alternative

The alternative preferred by Leslie Salt and FMC for remediating the waste materials is:

- Alternative A-6: Excavation with Removal of Hazardous Materials from Site with Recycling

Alternative A-6 is the preferred alternative because under all the specified options, the hazardous materials would be removed from the site, thus minimizing the liabilities associated with the site and eliminating impacts to the environment. This alternative also attempts to use innovative recycling technology for the wastes; this is in contrast to landfill disposal which is Alternative A-3. Recycling and/or re-use of wastes are stated goals in California's Health and Safety Code.

It is recognized that the total cost of Alternative A-6 is variable at this time because a final user(s) has (have) not been identified. Potential users have been contacted and actual end-uses are still being identified. Final costs can be estimated and final regulatory issues addressed when the precise end uses of the hazardous materials has been identified. If an end-user(s) for the hazardous materials is (are) not found, then the hazardous materials will be disposed at a Class I hazardous waste facility. It must be emphasized that the hazardous constituents will be removed from the site. Thus, Alternative A-6 is the preferred remedial alternative.

This alternative has four identified options for handling the non-hazardous materials.

- The recycling of all of the materials (Option A-6A) is very attractive in that it can be cost-effective and it removes the wastes from the site. This option involves innovative possible uses of the wastes, and should be acceptable to regulatory agencies. However, it may be a difficult or lengthy process to find a user of the 65,000 cy of the general magnesia material within the time frame of the RAO.
- On-site use of magnesia (Option A-6B) would require an area over 20 times the size of the present Magnesia Waste Pile. The incorporation of magnesia into the soil would commit the land to a present use that might not be a prudent future use. Finally, if an adjacent parcel of land is not available for use, the transportation of the wastes to detached parcels could greatly increase the associated costs, thus making the option not cost-effective. For these reasons, on-site use of magnesia is eliminated from consideration.
- Leaving residuals on-site (Option A-6C) is a cost-effective option and would meet the appropriate regulatory requirements. At this time, there are no negative aspects to the option that would disqualify it from further consideration.
- On-site stockpiling (Option A-6D) would involve the excavation and screening of the materials. The debris would be disposed and the "clean" magnesia would be stockpiled on site. An optimal use for the magnesia would be identified in the future. There are no major technical or cost disadvantages with this option that would disqualify it from further consideration.

The recommended remedial action will utilize standard excavation technology. The hazardous materials will be removed from the pile with a track mounted excavator, e.g. a CAT-225. The excavated material would be loaded into 12 cy dump truck for transportation to the staging/stockpile area (Plate 1). There the material will be screened to remove the debris from the hazardous materials. In some cases, the larger pieces of debris will be removed by hand. After screening, the non-hazardous debris will be

When removed, the waste materials will be loaded into 20-yard trucks for transport. The waste materials will be wetted to minimize dust, and the trucks will be covered. Upon leaving the site, the trucks will follow routes that will avoid residential areas in Newark. Also, off-site truck movement will be minimized during rush-hour times.

### **7.2.3 Potential for Adverse Effects on Human Health and the Environment**

Implementation of this alternative would present no long-term risks to human health or the environment in the vicinity of the Magnesia Waste Pile, because under all the options discussed in the alternative, the hazardous materials would be removed from the site, and the residual materials would meet appropriate standards for the site (TTLC). It is anticipated that hazardous materials would be delivered to an off-site end user, and wastes resulting from the recycling of this material would be incorporated into the waste stream of the end user, to be handled in a appropriate manner. State law requires that the excavated hazardous materials can only be stockpiled at the proposed location for up to 90 days. If a recycler has not been identified and the materials shipped to such recycler within the 90-day time frame, then the materials will be disposed at an off-site hazardous waste landfill. Such disposal will not have adverse impacts on the human health or the environment in the vicinity of Newark.

FMC and Leslie Salt have requested that DHS conduct an initial study of CEQA impacts. It is anticipated that the initial study will recommend that a negative declaration be prepared for this project. Additional information for the CEQA requirements can be provided at that time, if necessary.

**7.2.4 Consistency of the Selected Alternative with Applicable Regulations**

Section 25356.1(c) of the California Health and Safety Code requires that

"All remedial action plans prepared or approved pursuant to this section shall be based upon Section 25350, Subpart F of the National Oil and Hazardous Substances Pollution Contingency Plan (40 CFR Sec. 300.61 et seq.), and any amendments thereto, and upon all of the following factors, to the extent that these factors are consistent with these federal regulations and do not require a less stringent of cleanup than these federal regulations.

1. Health and safety risks posed by the conditions at the site.
2. The effect of contamination or pollution levels upon present, future, and probable beneficial uses of contaminated, polluted, or threatened resources.
3. The effect of alternative remedial action measures on the reasonable availability of groundwater resources for present, future, and probable beneficial uses.
4. Site specific characteristics.
5. Cost effectiveness of alternative remedial action measures.
6. The potential environmental impacts of alternative remedial action measures."

All of these factors have been examined in the present RAP. The selected remedial alternative has addressed concerns regarding health and safety risks posed by conditions at the site; the effects of contamination levels on present, future, and probable

beneficial uses of contaminated or threatened resources; and site specific characteristics. In addition, the effect of alternative remedial action measures on the reasonable availability of groundwater resources for present, future, and probable beneficial uses, the cost effectiveness of alternative remedial action measures, and the potential environmental impacts of alternative remedial action measures have all been compared. Consequently, the selected remedial alternative is judged to be consistent with the specified regulations.

**7.2.5 Consistency of the Selected Alternative with the Requirements of CERCLA Section 101(24)**

The selected remedial alternative (Alternative A-6) involves the off-site transport and recycling or disposal of hazardous material. Therefore, the requirements of CERCLA Section 101(24) must be met, including:

- the proposed remedial action must be more cost effective than other alternatives;
- the proposed remedial action must create new capacity to manage hazardous substances in addition to those at the facility; or
- the proposed remedial action must be necessary to protect public health, the public welfare, or the environment from a present or potential risk.

It is recognized that the total cost of this alternative is uncertain at this time because a final user(s) has (have) not been identified; however, the cost analyses presented indicate that this alternative would be more cost-effective than the five other alternatives that were examined. Under all the specified options considered in this alternative, the hazardous materials would be removed from the site, thus minimizing the liabilities associated with the site and eliminating impacts to the environment. Alternative A-6 also attempts to use innovative recycling technology for

the wastes; this is in contrast to landfill disposal or capping. Recycling and/or re-use of wastes are stated goals in California's Health and Safety Code. If recycling cannot be undertaken, it is because all reasonable possibilities for recycling have been exhausted.

Implementation of this alternative would reduce potential risks to human health or the environment in the vicinity of the Magnesia Waste Pile, because all the hazardous materials would be removed from the site, and the residual materials would meet appropriate standards for the site (TTLC).

#### **7.2.6 Health and Safety Plan for Remedial Action**

##### **Scope**

This section will:

- identify the known hazards associated with the site
- specify personnel training requirements
- specify personal protective equipment to be worn by field personnel
- describe decontamination procedures to be used, if required, and
- list pertinent emergency information.

##### **Hazard Identification**

The primary threats to health associated with the Magnesia Waste Pile are associated with the presence of copper- and mercury-contaminated materials within the pile, and to the high-pH material that makes up the bulk of the pile. Exposure to these materials could occur via the following routes:

- incidental ingestion of pile material;

- dermal exposure to pile material; or
- inhalation exposure to pile material.

The selected alternative requires the moving and possible regrading of existing materials on the pile. These activities would be conducted using earthmoving equipment or other equipment that may produce dusts. The potential hazards associated with the introduction of fugitive dust into the air were evaluated in the Public Health/Environmental Assessment conducted by TERRA (TERRA, 1989). TERRA concluded that the concentrations of chemicals of potential concern in air over the pile during remediation would range from 1.42 to 3,300,000,000 times lower than respective regulatory levels for the workplace. Thus, for persons working near the pile, the levels of chemicals of potential concern would be well within workplace guidelines. Levels of the chemicals of potential concern in air downwind from the pile would be further reduced by settling and dispersion of dusts, resulting in ever-decreasing chemical concentrations in air with increasing distance from the pile.

The site is an open field with excellent natural ventilation. There are no major structures nearby to block natural air circulation. During the first three days of operations that may potentially involve the introduction of dust into the air (excavation, grading), three air monitors shall be installed around the site perimeter and a fourth, mobile monitor shall be placed at the site perimeter directly downwind of the site operation. Eight-hour samples shall be collected by particulate air filter monitors to assess the potential for exposure by workers and local residents to airborne dust. These samples will be analyzed on a daily basis for copper, mercury, and calcium oxide.

Fugitive dust emission will be reduced using dust suppression techniques during remedial activities. Such techniques include the regular application of water during earthmoving activities, as well as the temporary suspension of remedial

activities during times of high winds (in excess of 20 miles per hour). A water truck will be available on the site to suppress dust during all operations that may potentially introduce dust into the air. During remedial operations, all personnel at the site shall remain upwind of operations, if possible.

Heat stress occurrence will be minimized by using a work/-rest regime for work performed during summer months, and fluids would be available.

Removal of material from the site will be conducted using covered trucks, to minimize the potential for dispersion of fugitive dust during transport. To the extent that hazardous materials would be transported, there is some risk of exposure in the course of transport due to spillage or accident; however, truck routes would be selected to avoid residential areas.

The site is surrounded at present with a perimeter fence, to restrict access by children and other trespassers. At the time of commencement of remedial activities, it is anticipated that the Magnesia Waste Pile would be managed as any other heavy construction site: that is, the Contractor shall be required to maintain restricted access for the duration of remedial activities to minimize public access to the site.

#### Personnel Training Requirements

Because of the possibility of exposure to soil material containing copper or mercury, and to high-pH material, all personnel engaged in site excavating, grading, filling, or compacting activities will be required to have completed 40 hours of Health and Safety Training for Hazardous Waste Site Operations, as set forth in 29 CFR, Part 1910.120. All personnel at the site will be familiar with the Site Safety Plan. One or more supervisory personnel shall be designated as Site Safety Officer(s), and shall

be responsible for ensuring that all Site Safety specifications are observed. This person (these persons) shall be present at the site during the entire course of work.

The Site Safety Officer shall be required to post in a prominent location on the site a map showing the locations of nearby public telephones, and the closest emergency facilities. A copy of the Safety Plan shall be present on the site at all times.

Various other OSHA regulations will apply to the personnel working at the site.

#### Personal Protective Equipment

All personnel on the site during site excavation, grading, filling, or compacting activities, shall be required to wear:

- Hard hats
- Tyvek-type disposable coveralls
- Steel-toed rubber boots
- Nitrile gloves or an Approved Equivalent
- Neoprene undergloves
- Safety glasses
- Half-face respirators with High-Efficiency Particulate cartridges (HEPA)

This is essentially Level C personal protection.

All personnel on the site during any other site operations not specifically listed above shall be required to wear:

- Hard hats

**9.0 NON-BINDING PRELIMINARY ALLOCATION OF FINANCIAL RESPONSIBILITY**

The California Department of Health has identified the following potentially responsible parties: FMC, operator when hazardous waste was placed at the facility and a generator of hazardous waste found at this facility; and Leslie Salt, owner of the property where the facility is located. FMC and Leslie Salt have proposed to remediate this site and have allocated the cost between themselves. Accordingly, the purpose for developing non-binding allocations of financial responsibility -- facilitating responsible party efforts to organize for purposes of conducting and financing remedial activities -- has been achieved.

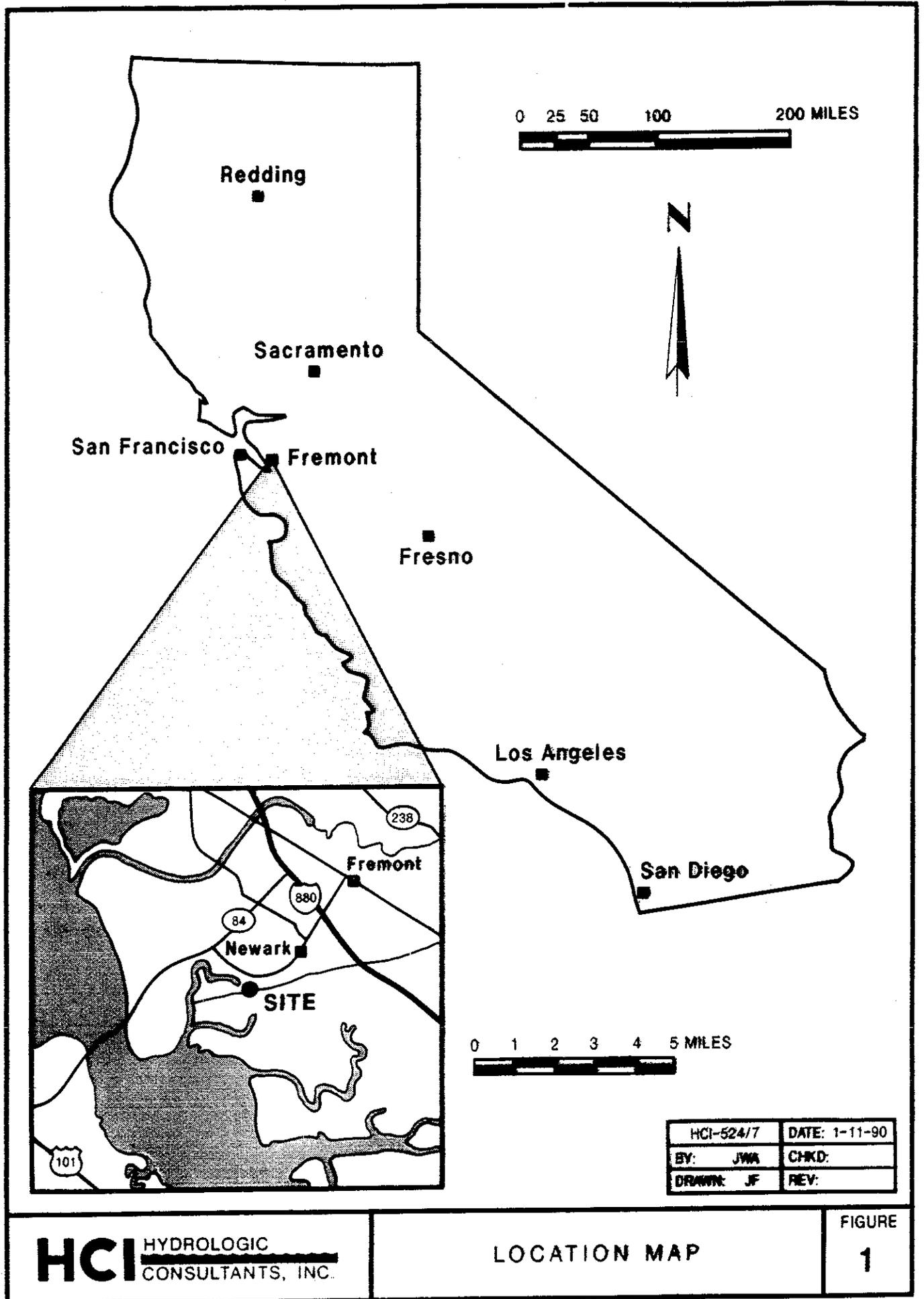
**10.0 ONGOING OPERATION AND MAINTENANCE (O&M) REQUIREMENTS**

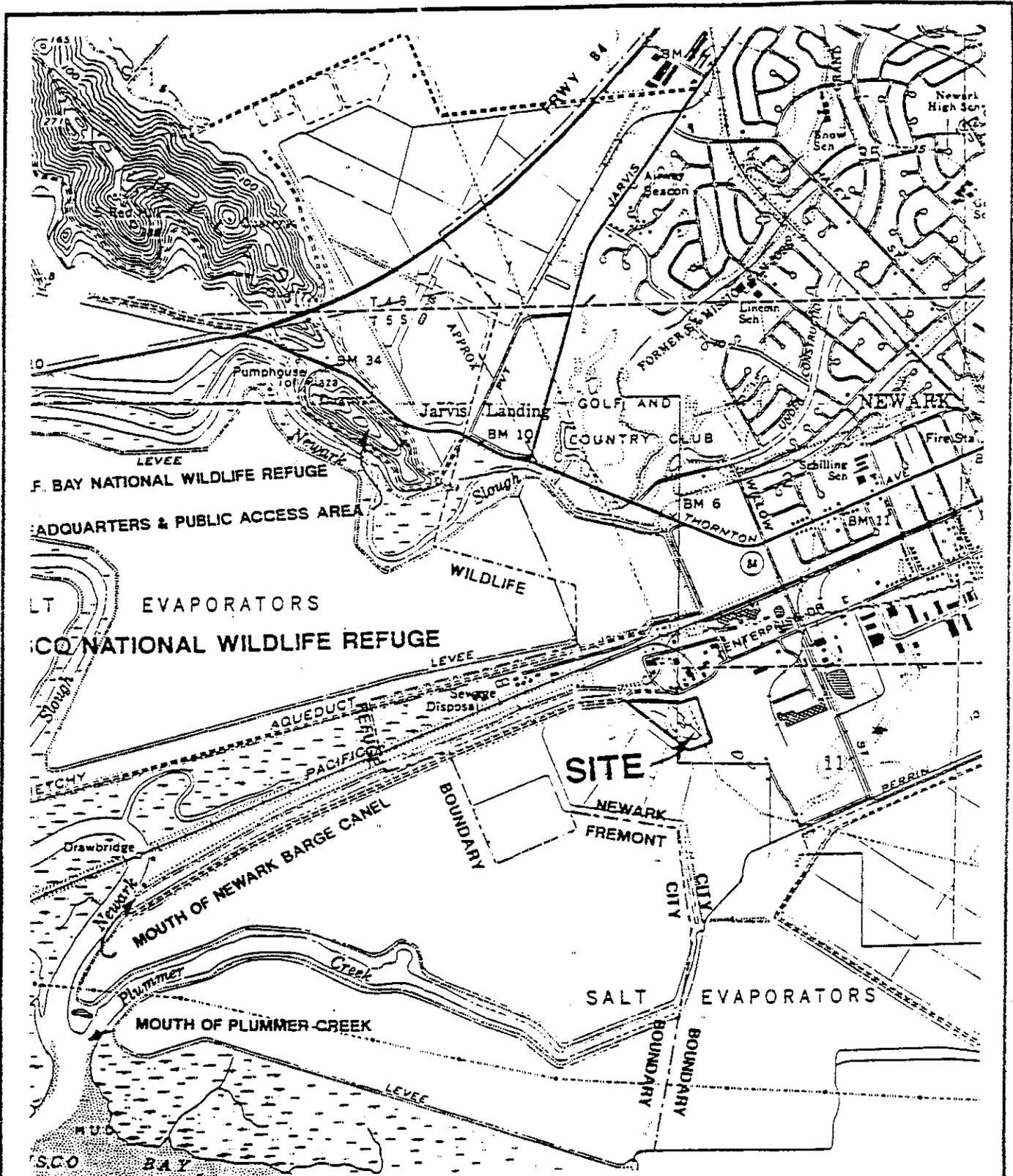
No operation and maintenance requirements are anticipated for any of the options discussed under the selected remedial alternative (Alternative A-6), as presented in Sections 7.1 and 7.2.

**11.0 REFERENCES**

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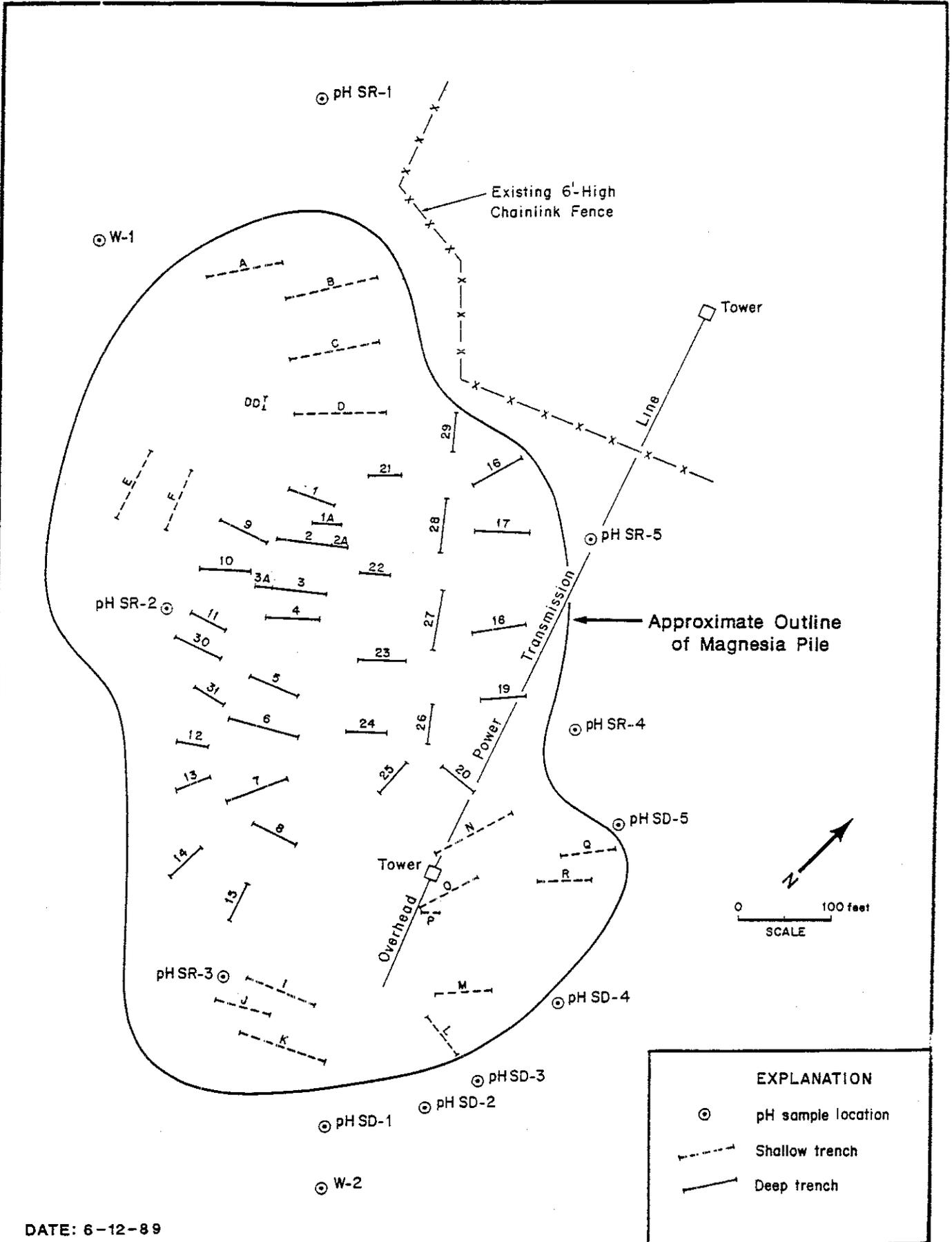
Base from 7.5 minute U.S.G.S. Topographic Map of Newark, California Quadrangle dated 1959, Photorevised 1980.

DATE: 6-12-89  
REV: 4-3-90

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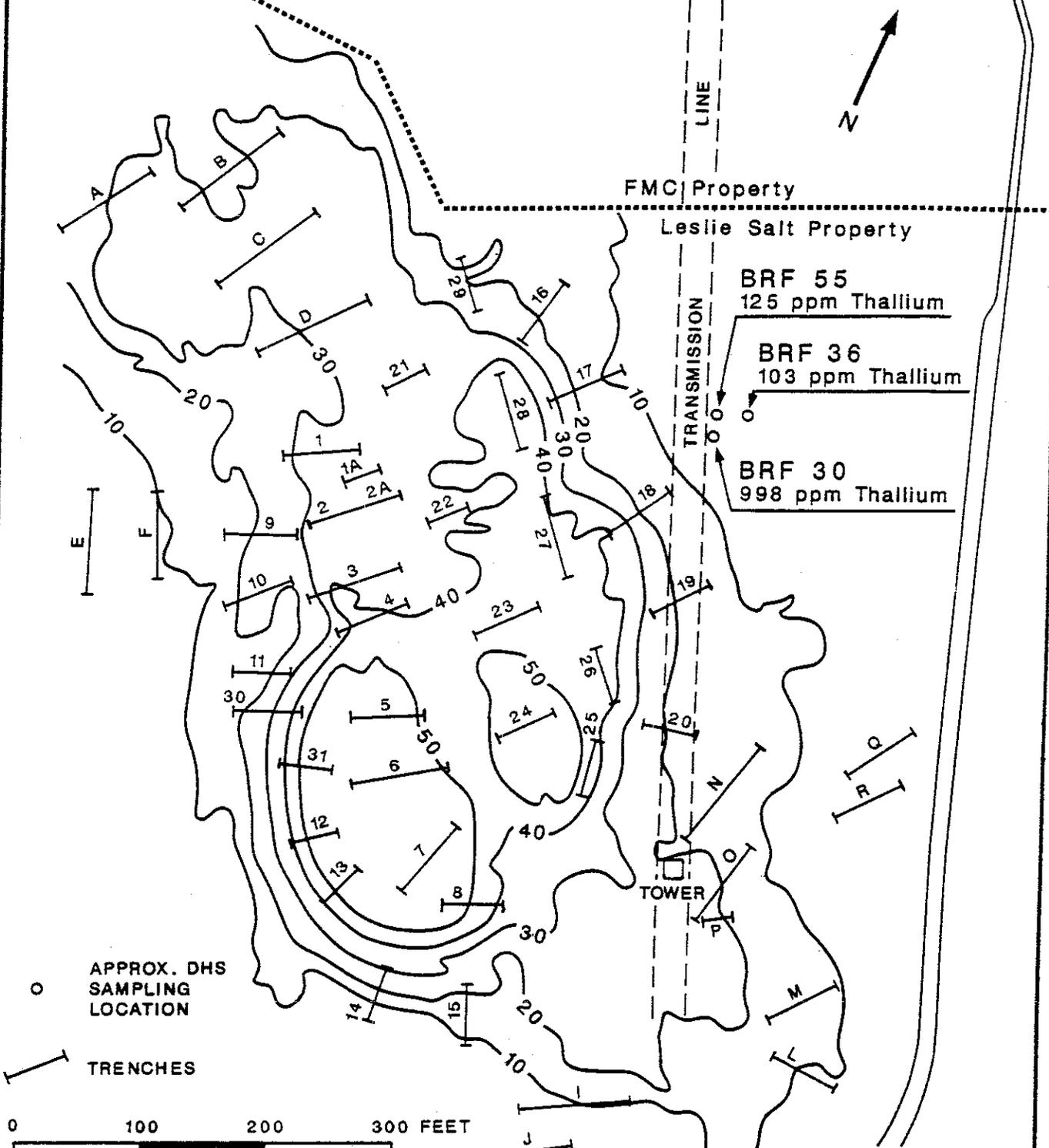
MAGNESIA WASTE PILE  
SITE LOCATION

FIGURE  
**2**



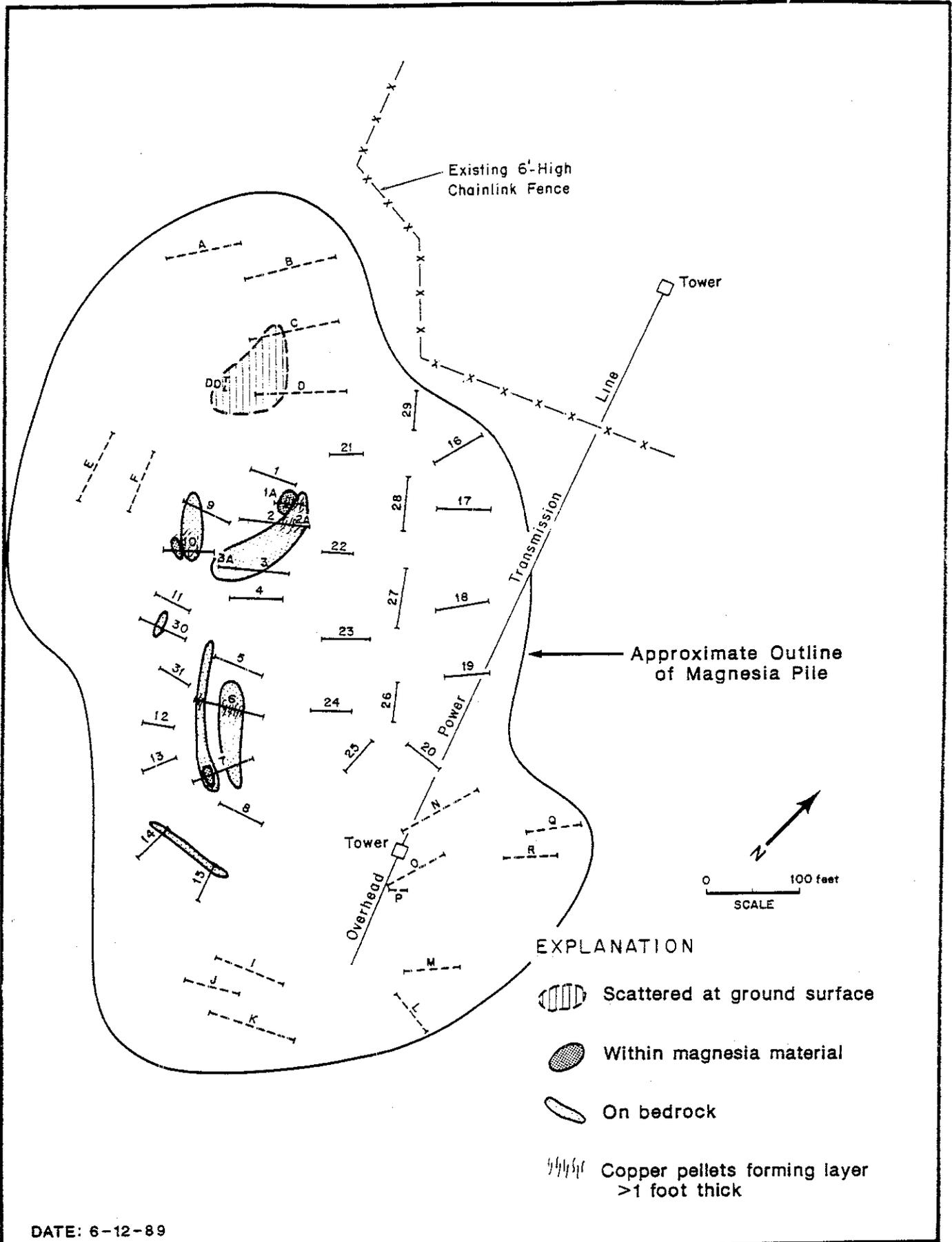
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Leslie Salt / FMC  
Magnesia Waste Pile

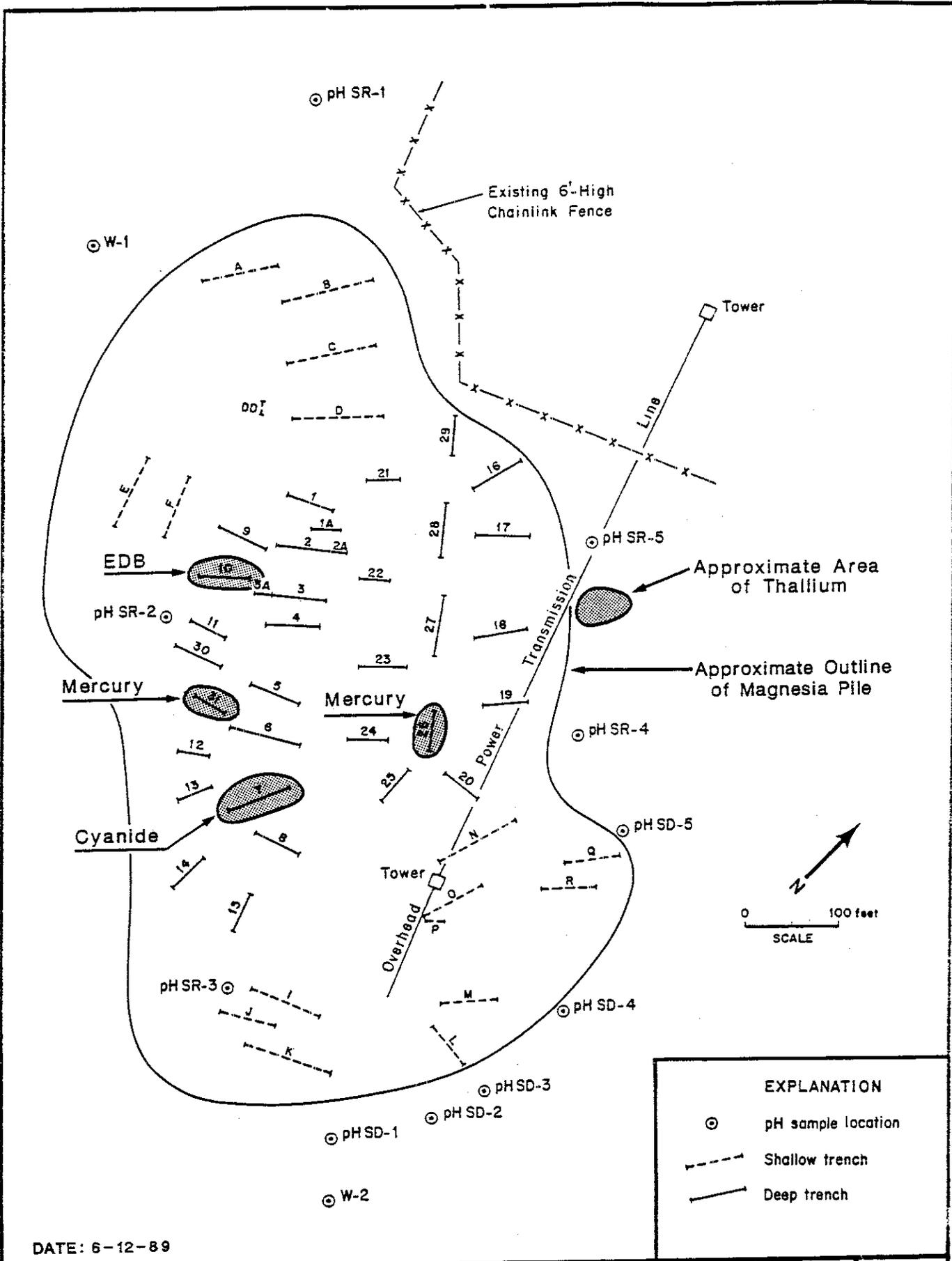


DATE: 6-12-89

MAP FROM:  
CALIF. DEPT. of  
HEALTH SERVICES

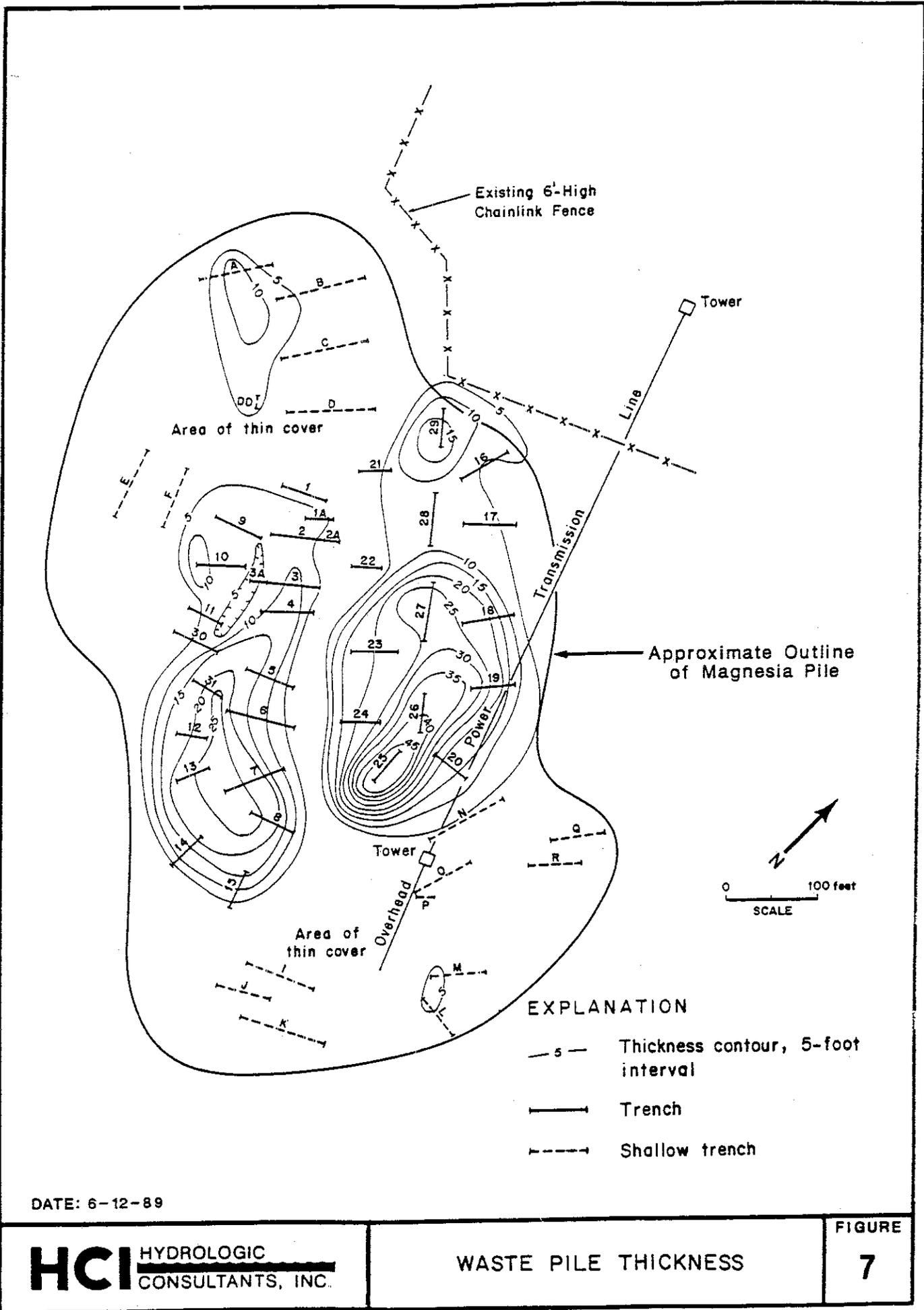


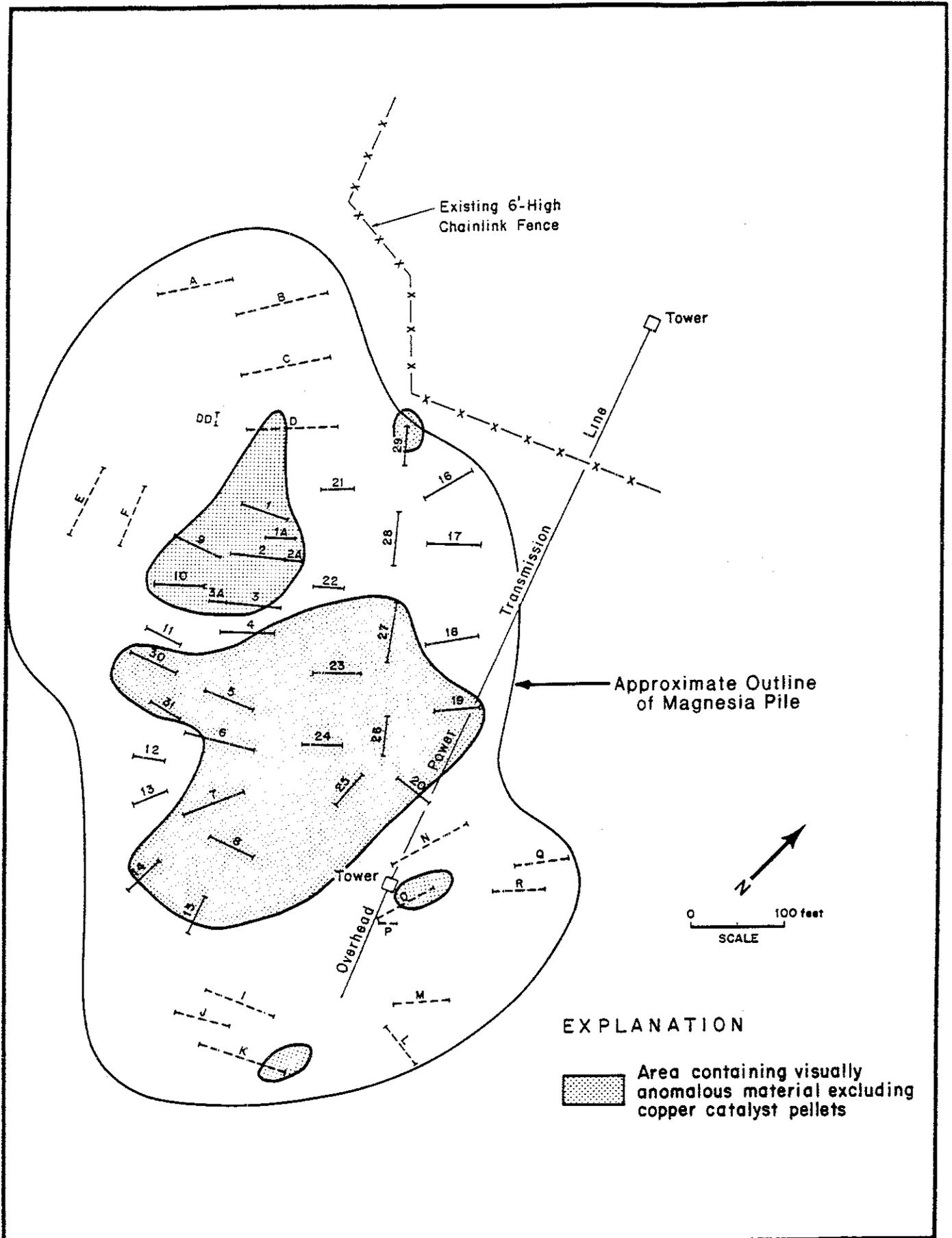
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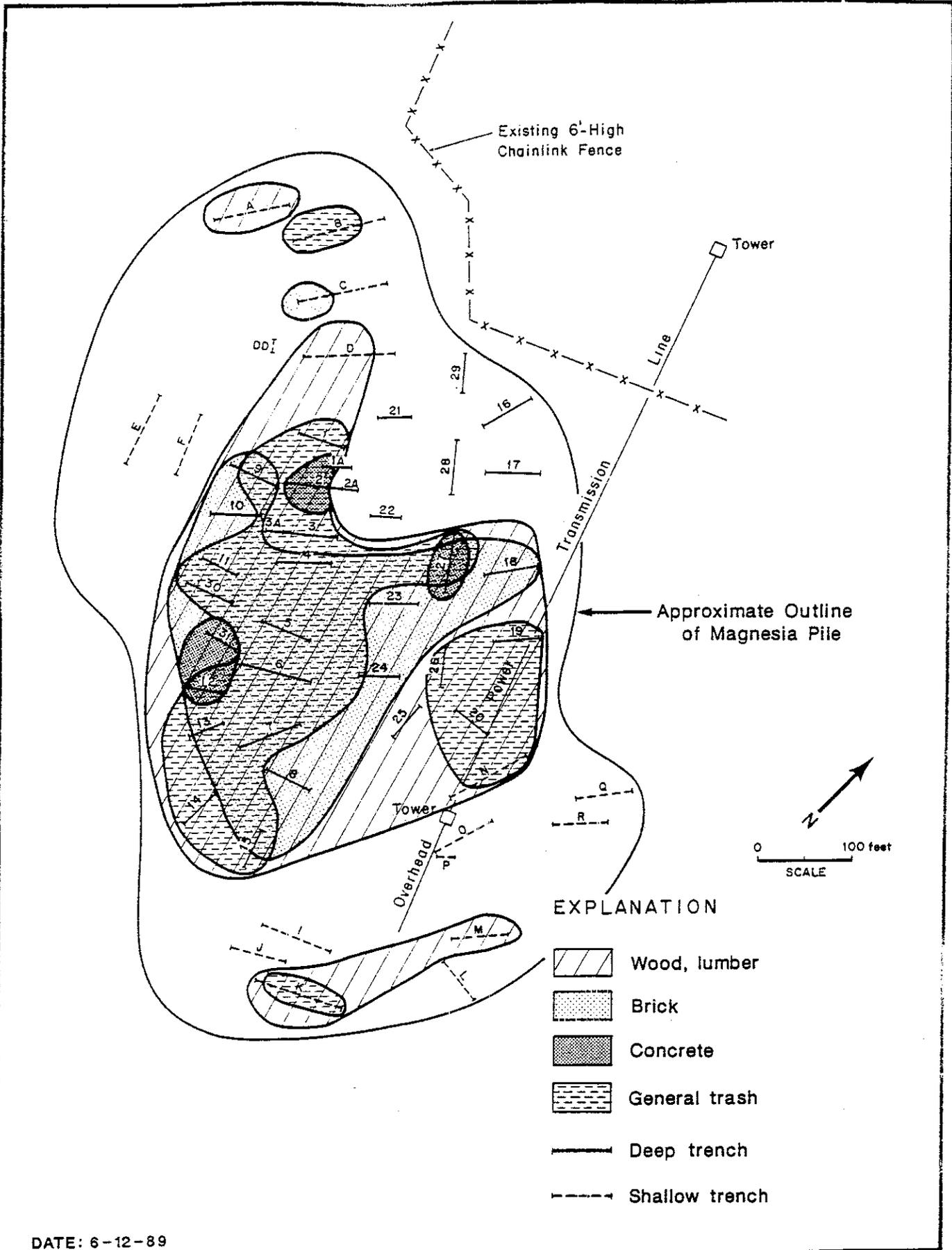


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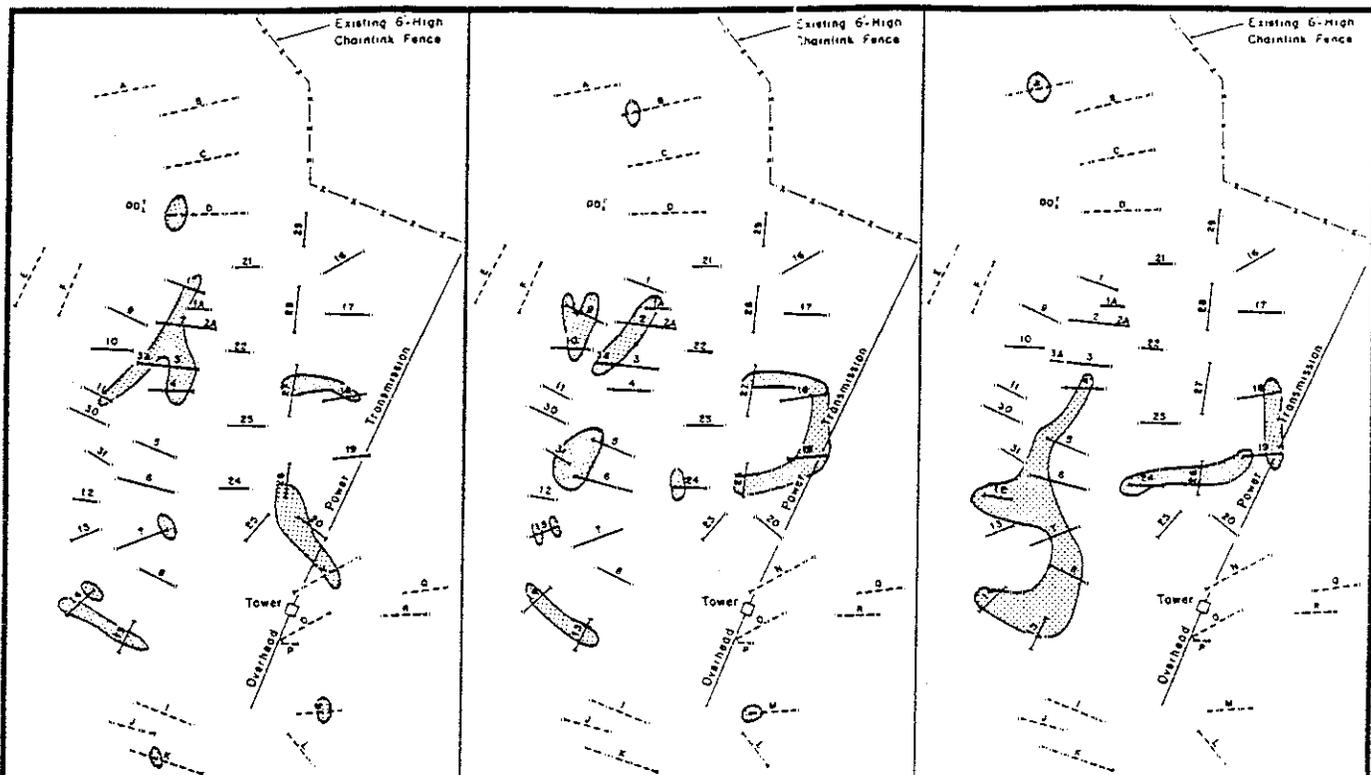
| EXPLANATION |                    |
|-------------|--------------------|
| ⊙           | pH sample location |
| ---         | Shallow trench     |
| —           | Deep trench        |







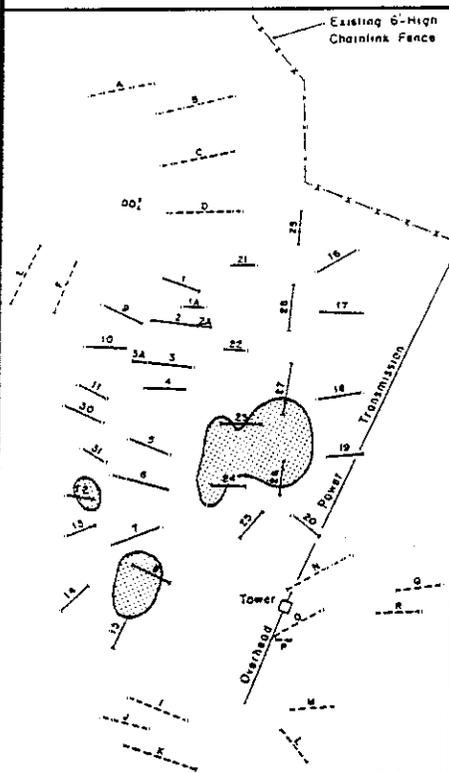
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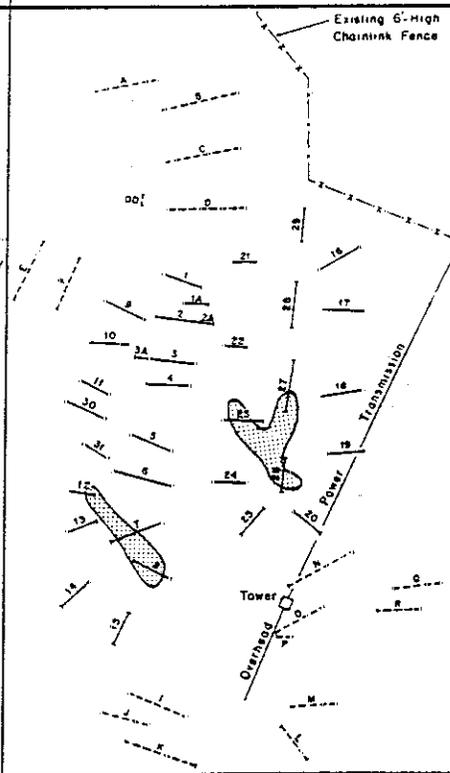
WITHIN 1-FOOT OF SURFACE

5-FOOT DEPTH

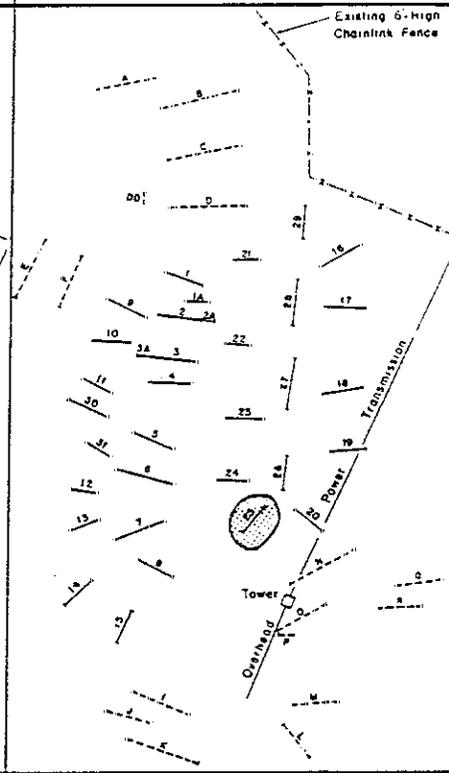
10-FOOT DEPTH



15-FOOT DEPTH



20-FOOT DEPTH



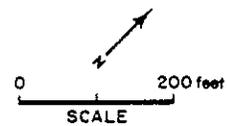
40-FOOT DEPTH

EXPLANATION

 All debris

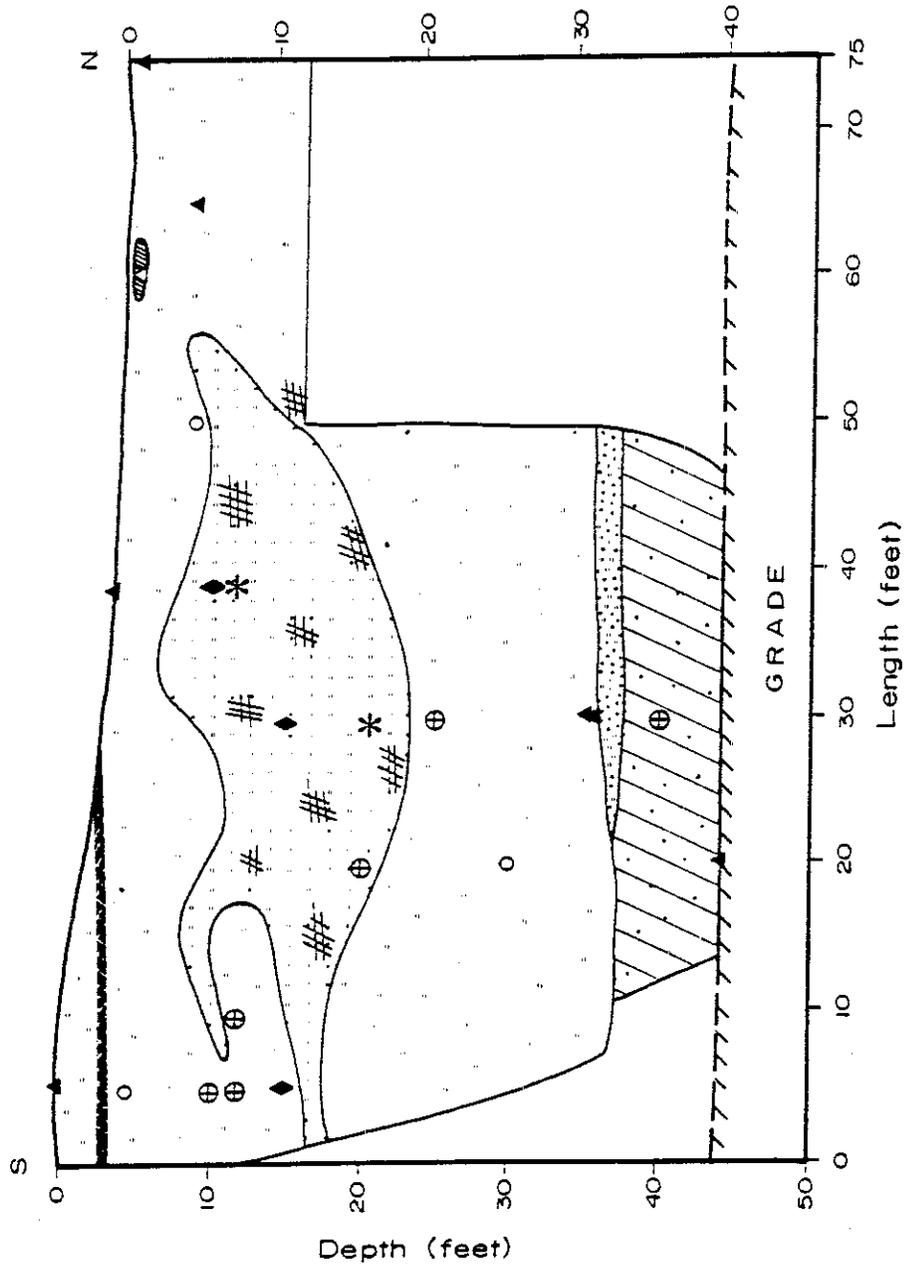
DATE: 6-12-89

Note:  
Depths shown only where debris was present



E X P L A N A T I O N

- ▲ Normal sample point
- Sample with  $\text{pH} \geq 12.5$
- ⊕ Sample with  $\text{pH} \geq 12.5$  and  $\text{HNU} \geq 5$
- ◆ Sample with  $\text{HNU} \geq 5$
- △ Visually different sample point
- \* Sample with high Hg
-  Dry, hard, medium gray material
-  Dry, light gray-dark gold material with debris mix
-  Moist, yellow gray material
-  Dry, very light gray granular material with gold stringers
-  Orange colored material
-  Dark brown dirt-like material
-  Debris



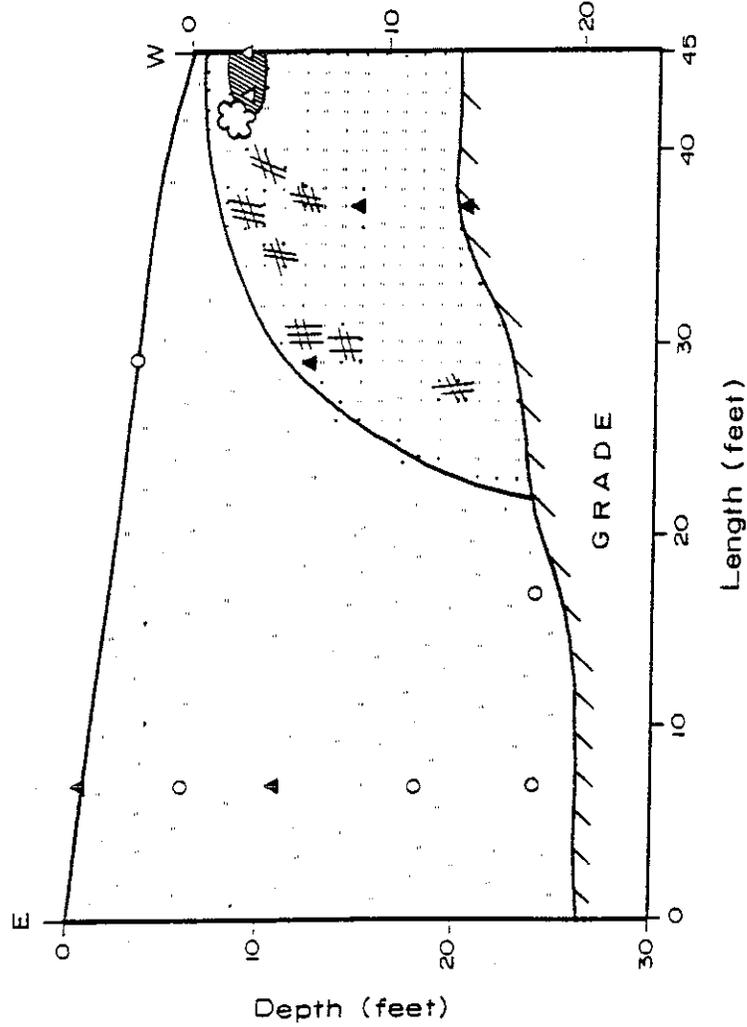
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MAGNESIA WASTE PILE  
TRENCH 26

E X P L A N A T I O N

- ▲ Normal sample point
- Sample with pH ≈ 12.5
- △ Visually different sample point
- [ ] Dry, very light gray, fine granular material
- [ ] Dry, gray sandy material with debris
- [ ] Gray material in bags
- [ ] Light green crystalline material
- [ ] Debris: metal, wood, bricks, cement, bags, backfill soil



NO VERTICAL EXAGGERATION

DATE: 6-12-89  
REV: 4-3-90

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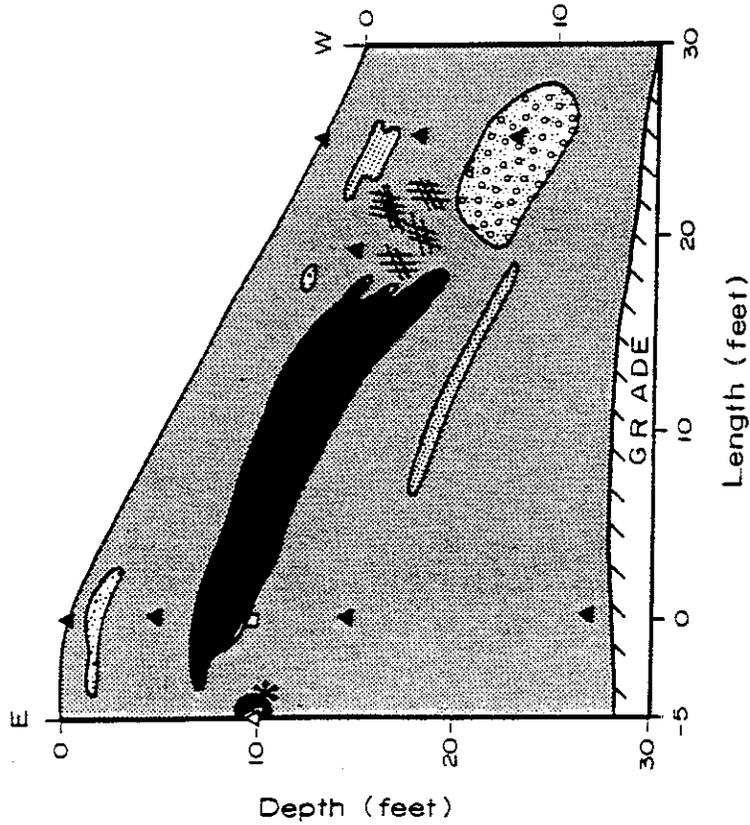
MAGNESIA WASTE PILE  
TRENCH 24

**EXPLANATION**

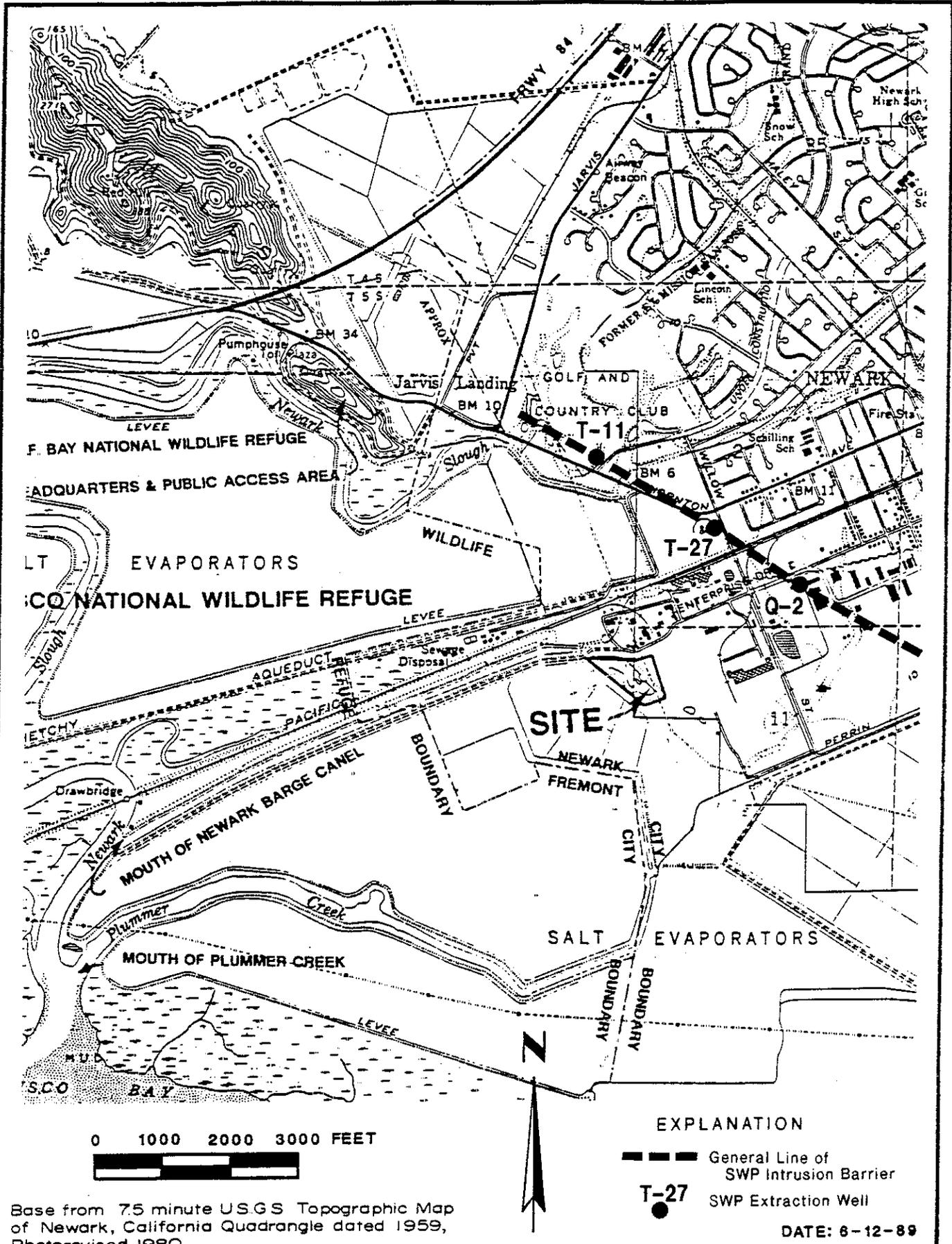
- ▲ Normal sample point
- Sample with Cu ≥ 500
- △ Visually different sample point
- \* Sample with high Mercury
- Light olive gray granular material
- Brown clayey and tan material mix with shells
- Pale yellow brown clayey material
- Very light tan material
- Yellowish to golden colored material
- Pinkish red material
- Black, tarry material
- Debris: concrete bricks, lumber

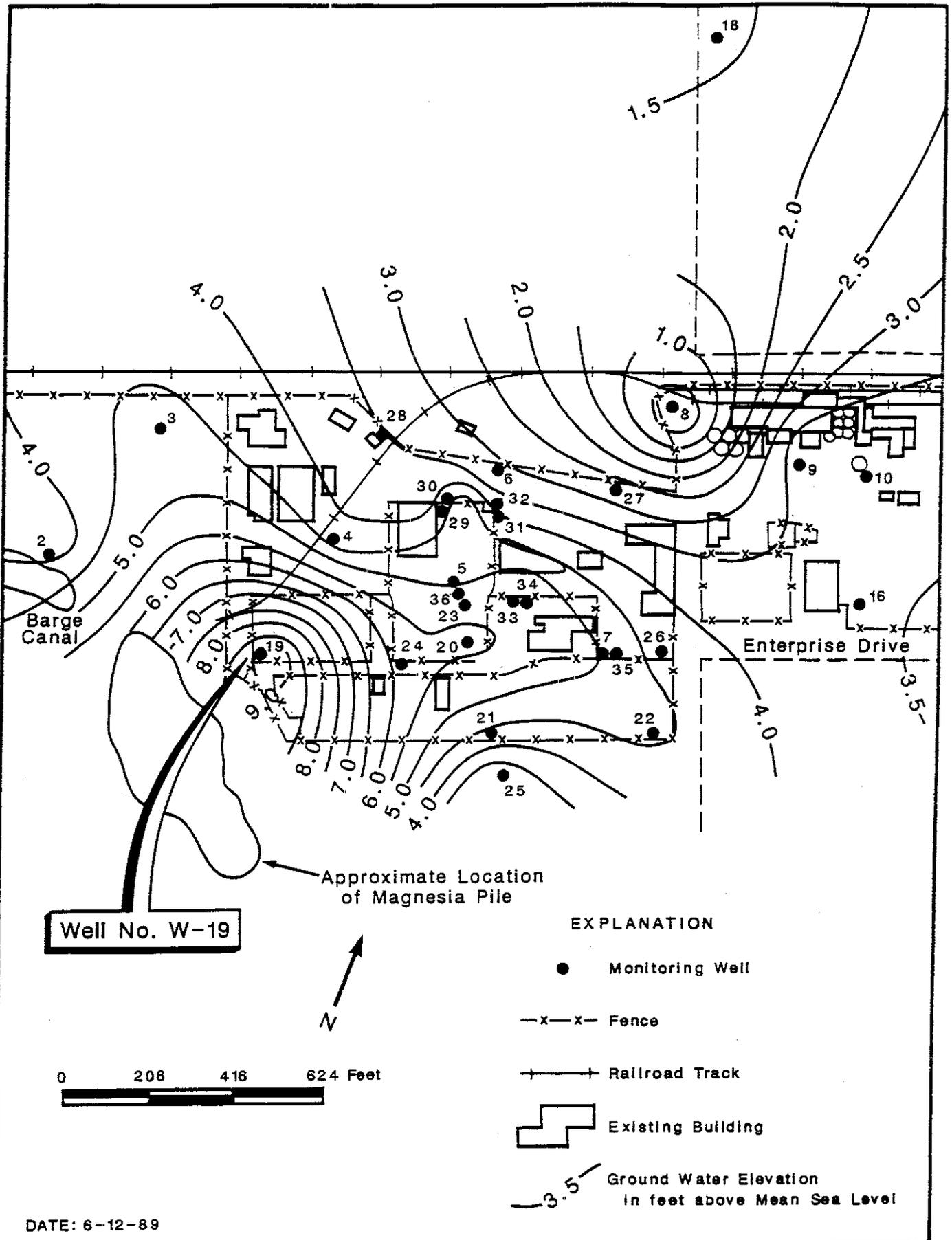


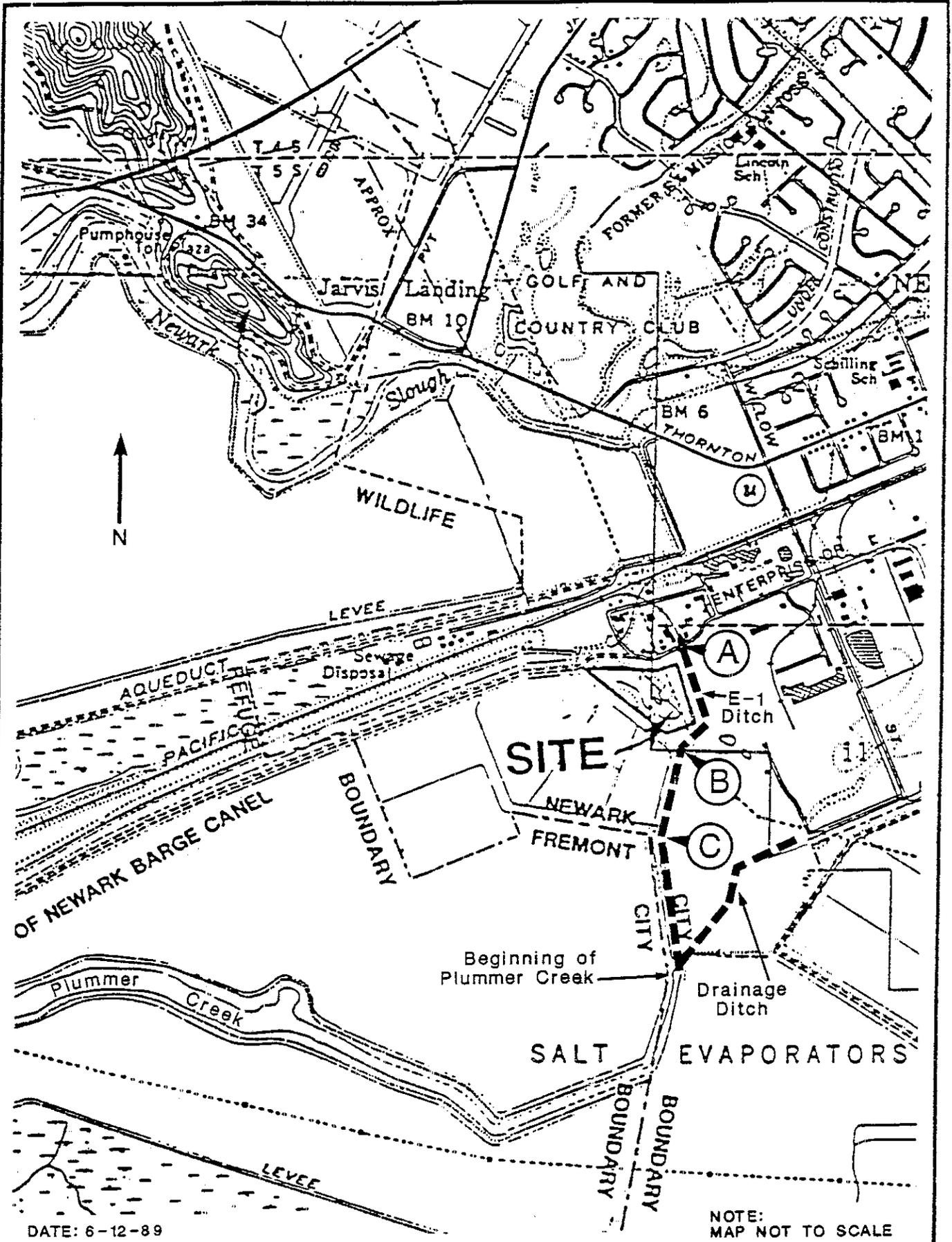
NO VERTICAL EXAGGERATION

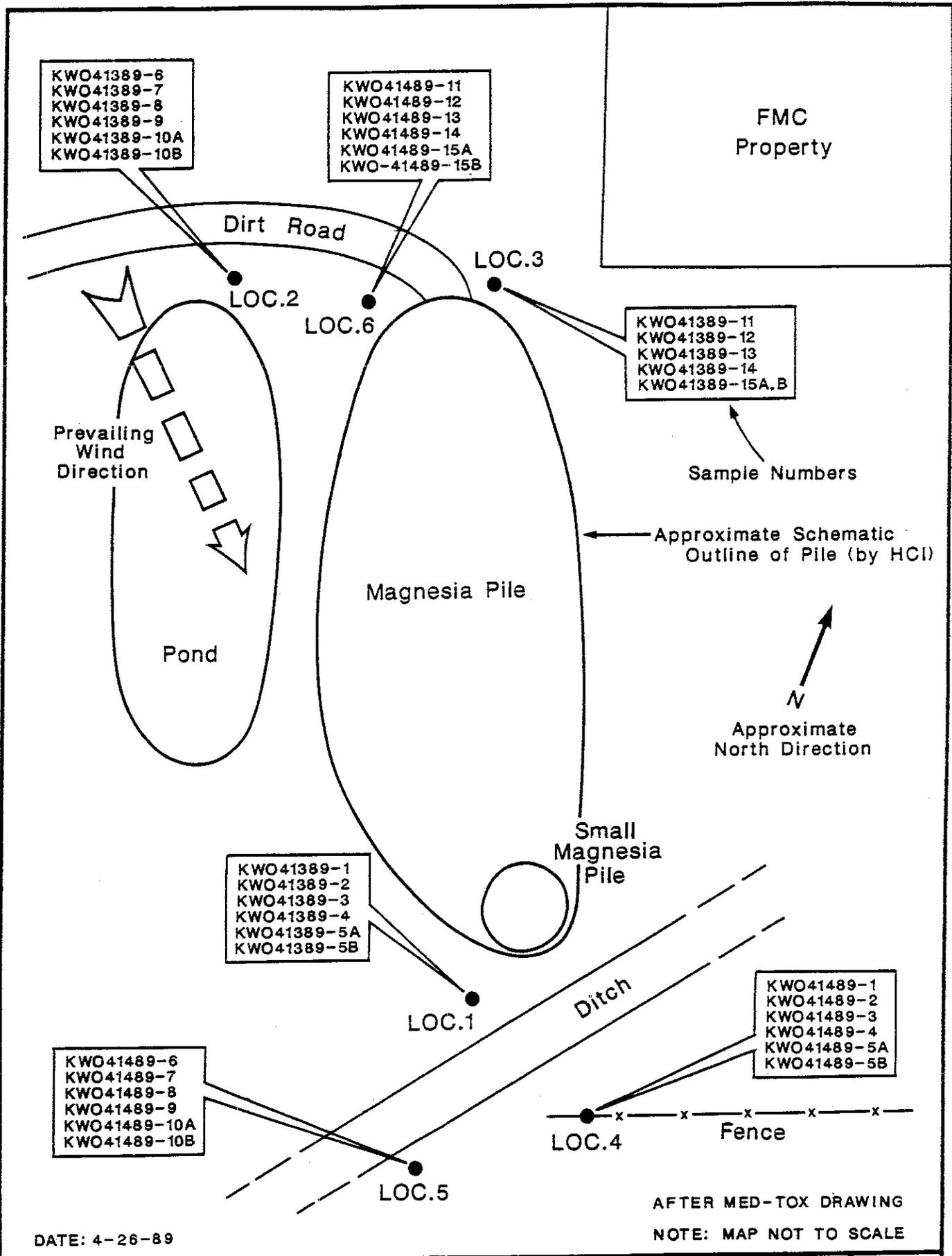


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**TABLE 2**  
**TECHNICAL DATA FOR COPPER CATALYST PELLETS<sup>1</sup>**

---

| <u>Properties</u>              |                     |
|--------------------------------|---------------------|
| Free Moisture                  | 2.0% max.           |
| On Ignited Basis               |                     |
| MgO                            | 62.0% min.          |
| Fe <sub>2</sub> O <sub>3</sub> | 16.0 - 19.0%        |
| CuO                            | 3.5 - 4.5%          |
| K <sub>2</sub> O               | 4.0 - 6.0%          |
| Bulk Density                   | 75 - 87 lbs/cu. ft. |

---

NOTES:

1. Source: Technical Data Sheet For Catalyst 1707 Westvaco Mineral Products Division

Report Date: Unknown

**TABLE 3**

**CONCENTRATIONS (MG/KG) OF EDB, MERCURY, THALLIUM,  
COPPER AND CYANIDE DETECTED IN SAMPLES COLLECTED  
IN THE MAGNESIA WASTE PILE AND THE VICINITY**

| Sample              | CONSTITUENT |         |          |        |         |
|---------------------|-------------|---------|----------|--------|---------|
|                     | EDB         | Mercury | Thallium | Copper | Cyanide |
| 2A-60SW-OC          | ---         | ---     | ---      | 6,700  | ---     |
| 2A-66SW-OC          | ---         | ---     | ---      | 6,900  | ---     |
| 7-40W-20V           | <0.0005     | 0.028   | <3       | 36     | 11.0    |
| 9-25NW-7            | ---         | ---     | ---      | 1,700  | ---     |
| 10-40NW-SV          | 0.018       | 1.3     | <3       | 100    | <0.5    |
| 10-45NW-S           | 0.011       | 2.6     | <3       | 100    | <0.5    |
| 11-30E-3            | ---         | ---     | ---      | 4,400  | ---     |
| 14-32S-5            | ---         | ---     | ---      | 31,000 | ---     |
| 26-30S-20           | <0.0005     | 20.0    | <3       | 63     | <0.5    |
| 26-39S-10           | <0.0005     | 78.0    | <3       | 44     | <0.5    |
| 31-(-5)E-10         | 0.0029      | 23.0    | <3       | 220    | <0.5    |
| DHS Sample (Fig. 3) | ---         | ---     | 998      | ---    | ---     |

**NOTES:**

1. (---) indicates that sample was not analyzed for specific compound.
2. < less than detection level

**TABLE 4**  
**POPULATION DISTRIBUTION WITHIN TWO MILES**  
**OF THE MAGNESIA WASTE PILE**

| Distance From<br>Magnesia Pile<br>(miles) | Cumulative Estimated<br>Population | Estimated<br>Population<br>6 Years &<br>Younger | Estimated<br>Population<br>65 Years &<br>Older |
|---|------------------------------------|---|--|
| 0.5                                       | 550                                | 61 - 72   | 17 - 22  |
| 1.0                                       | 12,100                             | 1,331 - 1,573                                   | 363 - 484                                      |
| 1.5                                       | 16,500                             | 1,815 - 2,145                                   | 495 - 660                                      |
| 2.0                                       | 27,500                             | 3,025 - 3,575                                   | 825 - 1,100                                    |

**NOTES:**

1. Adapted from IT Corporation 1985. To account for potential population increase from the 1980 census until 1989, 10% was added to each of the IT estimates.
2. Numbers from TERRA, Inc., 1989.
3. Population estimates for persons 6 years old & younger based on assumption that this group comprises 11 to 13% of total population.
4. Population estimates for persons 65 years old & older based on assumption that this group comprises 3 to 4% of total population.

TABLE 5

LOCATIONS, QUANTITIES AND REGULATORY STANDARDS  
FOR MATERIALS WITHIN THE MAGNESIA WASTE PILE

| CONSTITUENT                                     | LOCATION   | ESTIMATED<br>VOLUME<br>(cy) <sup>2</sup> | CONCENTRATION<br>(mg/kg) <sup>3</sup> | APPLICABLE<br>REGULATORY<br>STANDARD |
|---|--|--|---------------------------------------|--------------------------------------|
| General magnesia<br>debris                      | Pile matrix  | 65,000                                   | --                                    | pH < 12.5<br>(Title 22)              |
| Debris  | Lenses throughout the<br>pile, primarily on top<br>and west side | 9,600                                    | --                                    | --                                   |
| Copper pellets/copper-<br>contaminated magnesia | Lenses on west side of<br>pile                                   | 600                                      | 1,204 mean<br>31,000 max              | 2,500 mg/kg<br>(TTLC) <sup>4</sup>   |
| Mercury-contaminated<br>magnesia                | Isolated areas throughout<br>pile                                | 2,500                                    | 4.6 mean<br>78 max                    | 20 mg/kg<br>(TTLC)                   |
| Thallium-contaminated<br>soil                   | Restricted area east of<br>pile                                  | 10                                       | 6.7 mean<br>998 max                   | 700 mg/kg<br>(TTLC)                  |
| Cyanide   | Isolated areas throughout<br>pile                                | --                                       | 3.4 mean<br>11 max                    | --                                   |
| Ethylene Dibromide                              | Isolated areas throughout<br>pile                                | --                                       | 0.0094 mean<br>0.018 max              | --                                   |

## NOTES:

1. Estimates based on results of remedial investigation (SSP&A, 1988)
2. Cubic Yards
3. Milligrams Per Kilogram
4. Total Threshold Limit Concentration

**TABLE 6**  
**ANALYSES OF DITCH-WATER SAMPLES**

| STATION               | A-1                   | A-2    | B-1     | B-2   | C-1   | C-2   |
|-----------------------|-----------------------|--------|---------|-------|-------|-------|
| Chemical              | Concentrations (mg/l) |        |         |       |       |       |
| Copper                | 0.036                 | 0.32   | 0.015   | 0.017 | 0.017 | 0.017 |
| Mercury               | N.D. <sup>1</sup>     | N.D.   | N.D.    | N.D.  | N.D.  | N.D.  |
| Thallium              | N.D.                  | N.D.   | N.D.    | N.D.  | N.D.  | N.D.  |
| Cyanide               | N.D.                  | N.D.   | N.D.    | N.D.  | N.D.  | N.D.  |
| Chloroform            | 0.0022                | 0.0024 | 0.00055 | N.D.  | N.D.  | N.D.  |
| Ethylene<br>Dibromide | N.D.                  | N.D.   | N.D.    | N.D.  | N.D.  | N.D.  |
| pH                    | 8.3                   | 8.2    | 8.0     | 8.0   | 8.0   | 8.0   |

**NOTES:**

1. N.D. indicates that analyte was not detected

**TABLE 7**  
**CONCENTRATIONS OF METALS AND COMPOUNDS DETECTED AT MW-2**  
**SAMPLING OF AUGUST 18, 1989**

| CONSTITUENT        | SAMPLE RESULTS (mg/l) | DETECTION LIMIT (mg/l) | REGULATORY STANDARD (mg/l) |
|--------------------|-----------------------|------------------------|----------------------------|
| Chloride           | 2,300                 | 0.1                    | NA                         |
| Copper             | 0.0022                | 0.001                  | 0.006 (AAL) <sup>1</sup>   |
| Mercury            | N.D. <sup>2</sup>     | 0.5                    | 0.002 (AAL)                |
| Thallium           | N.D.                  | 0.01                   | 0.0138 (AAL)               |
| 1,2 Dichloroethane | 0.0018 <sup>4</sup>   | 0.0005                 | 0.0005 (MCL) <sup>3</sup>  |

NOTES:

1. AAL is the California Applied Action Level
2. N.D. indicates that analyte was not detected
3. MCL is the U.S. EPA Maximum Contaminant Level
4. Detection is not associated with magnesia pile

TABLE 8  
 CONCENTRATIONS OF ORGANIC COMPOUNDS DETECTED IN MATRIX SAMPLES  
 (Page 1 of 2)

| SAMPLE                 | SEMI-VOLATILE ORGANIC COMPOUNDS<br>(CONCENTRATIONS IN $\mu\text{g}/\text{kg}$ ) <sup>2</sup> |                         |          |                  |                          |                  |                         |              |             |              |        |
|------------------------|--|-------------------------|----------|------------------|--------------------------|------------------|-------------------------|--------------|-------------|--------------|--------|
|                        | ANTHRACENE   | BENZO (a)<br>ANTHRACENE | CHRYSENE | DIBUTYLPHthalATE | 1,2 DICHLORO-<br>BENZENE | DIETHYLPHthalATE | di-n-<br>OCTYLPHthalATE | FLUORANTHENE | NAPHTHALENE | PHENANTHRENE | PYRENE |
| 10-45NW-S              | --   | --                      | --       | --               | --                       | --               | --                      | --           | --          | --           | --     |
| 13-0E-20               | --   | 120                     | 170      | --               | --                       | --               | 200                     | 270          | --          | 330          | 60     |
| 14-30S-6               | --   | --                      | --       | --               | --                       | --               | --                      | --           | --          | --           | --     |
| 19/26-S                | --   | --                      | --       | --               | --                       | --               | --                      | --           | --          | 1500         | 1300   |
| 23-3E-10               | 180  | --                      | --       | --               | --                       | --               | 130                     | 60           | --          | --           | 110    |
| 26-30S-20              | --   | --                      | --       | --               | --                       | --               | --                      | --           | 720         | 220          | 120    |
| 26-39S-10              | --   | --                      | --       | 70               | --                       | 210              | 90                      | --           | 350         | 170          | --     |
| 26-39S-10<br>Duplicate | --   | --                      | --       | --               | 200                      | --               | --                      | --           | 280         | 240          | --     |
| 30-35E-3               | --   | --                      | --       | --               | --                       | --               | --                      | --           | --          | 70           | --     |

NOTES:

1. Samples collected from trenches during RI of July and August 1988 (SSP&A, 1988).
2. Concentrations are reported in micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ); 1  $\mu\text{g}/\text{kg}$  equals 1 part per billion (ppb).
3. A dash (--) indicates that compound was not detected.

TABLE 8  
 CONCENTRATIONS OF ORGANIC COMPOUNDS DETECTED IN MATRIX SAMPLES  
 (Page 2 of 2)

| SAMPLE                 | VOLATILE ORGANIC COMPOUNDS<br>(CONCENTRATIONS IN $\mu\text{G}/\text{KG}$ ) <sup>2</sup> |            |                     |                     |                    |              |                     |         |                       |               |
|------------------------|---|------------|---------------------|---------------------|--------------------|--------------|---------------------|---------|-----------------------|---------------|
|                        | BENZENE   | CHLOROFORM | 1,2 DICHLOROBENZENE | 1,4 DICHLOROBENZENE | 1,2 DICHLOROETHANE | ETHYLBENZENE | TETRACHLOROETHYLENE | TOLUENE | 1,1,1 TRICHLOROETHANE | TOTAL XYLENES |
| 10-45NW-S              | 19  | --         | --                  | --                  | --                 | 7            | --                  | 12      | --                    | 20            |
| 13-OE-20               | --  | --         | --                  | --                  | --                 | --           | --                  | --      | 6                     | --            |
| 14-30S-6               | --  | --         | --                  | --                  | --                 | --           | --                  | --      | --                    | 300           |
| 19/26-S                | 66  | 12         | 16                  | 180                 | --                 | 58           | 800                 | 330     | --                    | 420           |
| 23-3E-10               | 18  | --         | --                  | --                  | --                 | --           | 6                   | --      | --                    | --            |
| 23-3E-10<br>Duplicate  | 9   | --         | --                  | --                  | --                 | 8            | 8                   | 6       | --                    | 19            |
| 26-30S-20              | --  | --         | --                  | 270                 | --                 | 6            | --                  | 6       | --                    | 44            |
| 26-39S-10              | --  | --         | --                  | 85                  | --                 | --           | --                  | --      | --                    | 21            |
| 26-39S-10<br>Duplicate | 20  | --         | 130                 | 27                  | --                 | --           | --                  | --      | --                    | 10            |
| 26-60S-1               | --  | --         | --                  | --                  | --                 | --           | --                  | 11      | --                    | --            |
| 30-35E-3               | --  | --         | --                  | --                  | 30                 | --           | --                  | 10      | 860                   | 20            |

TABLE 9

SPECIES OF THE SAN FRANCISCO BAY AREA

(Page 1 of 6)

COMMON BAYLANDS PLANTS

- Cat-tail (*Typha spp.*)
- Salt grass (*Distichlis spicata*)
- Cordgrass (*Spartina foliosa*)
- Tule or bulrush (*Scirpus spp.*)
- Alkali bulrush (*S. robustus*)
- Curly dock (*Rumex crispus*)
- Pickleweed (*Salicornia pacifica*)
- Beet or Swiss chard (*Beta vulgaris*)
- Australian saltbush (*Atriplex semibaccata*)
- Fat hen (*Atriplex patula*)
- Russian thistle (*Salsola kali. S. soda*)
- Alkali heath (*Frankenia grandifolia*)
- Marsh rosemary, Sea statice or Sea Lavender, (*Limonium californicum*)
- Salt marsh dodder (*Cuscuta salina*)
- Gum plant (*Grindelia humilis*)
- Jaumea (*Jaumea carnososa*)
- Brass buttons (*Cotula coronopifolia*)
- Arrow-grass (*Triglochin spp.*)

COMMON BAYLANDS INVERTEBRATES

- |   |                |
|---|----------------|
| California horn snail ( <i>Cerithidea californica</i> ) | N <sup>1</sup> |
| Oyster drill ( <i>Urosalpinx cinerea</i> )              | I <sup>2</sup> |
| Mud snail ( <i>Nassarius obsoletus</i> )                | I              |
| Ribbed or Horse mussel ( <i>Ischadium demissum</i> )    | I              |
| Bay mussel ( <i>Mytilus edulis</i> )                    | N&I            |
| Olympia oyster ( <i>Ostrea lurida</i> )                 | N&I            |
| Atlantic oyster ( <i>Crassostrea virginica</i> )        | I              |
| Pacific oyster ( <i>Crassostrea gigas</i> )             | I              |
| Gem clam ( <i>Gemma gemma</i> )                         | I              |

**TABLE 9**

**SPECIES OF THE SAN FRANCISCO BAY AREA**

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|   |   |
|---|---|
| Japanese littleneck clam ( <i>Tapes japonica</i> )                  | I |
| Littleneck clam ( <i>Protothacca staminea</i> )                     | N |
| Soft-shell clam ( <i>Mya arenaria</i> )                             | I |
| Bent-nosed clam ( <i>Macoma nasuta</i> )                            | N |
| Baltic clam ( <i>Macoma balthica</i> )                              | N |
| Clam worm ( <i>Neanthes virens succinea</i> )                       | I |
| Giant clam worm ( <i>Neanthes brandti</i> )                         | N |
| Lugworm ( <i>Arenicola brasiliensis</i> )                           | N |
| Brine shrimp ( <i>Artemia salina</i> )                              | N |
| Burrowing pill bug ( <i>Sphaeroma quoyanum</i> )                    | I |
| Oriental shrimp ( <i>Palaemon macrodactylus</i> )                   | I |
| Bay shrimp ( <i>Crangon franciscorum</i> )                          | N |
| ( <i>C. nigricauda</i> )  | N |
| ( <i>C. nigromaculata</i> )   | N |
| Blue mud shrimp ( <i>Upogebia pugettensis</i> )                     | N |
| Ghost shrimp ( <i>Callinassa californiensis</i> )                   | N |
| Hermit crab ( <i>Pagurus hirsutiusculus</i> )                       | N |
| Mud crab ( <i>Hemigrapsus oregonensis</i> )                         | N |
| Salt marsh water boatman ( <i>Trichocorixa reticulata</i> )         | N |
| Salt marsh mosquito ( <i>Aedes squamiger</i> , <i>A. dorsalis</i> ) | N |
| Salt marsh flies (Family: <i>Ephydriidae</i> )                      | N |
| Brine fly ( <i>Ephydra riparia</i> )                                | N |
| Pigmy blue butterfly ( <i>Brephidium exilis</i> )                   | N |

**COMMON BAYLANDS VERTEBRATES**

- Bat Ray (*Miliobatus californicus*)
- White Sturgeon (*Acipenser transmontanus*)
- Green Sturgeon (*A. medirostris*)
- Northern anchovy (*Engraulis mordax*)
- Pacific herring (*Clupea harengus pallasi*)

**TABLE 9**

**SPECIES OF THE SAN FRANCISCO BAY AREA**

(Page 3 of 6)

King or Chinook salmon (*Oncorhynchus tshawytscha*)  
 Silver or Coho salmon (*O. kisutch*)  
 Bay pipefish (*Syngnathus griseolineatus*)  
 Shiner surfperch (*Cymatogaster aggregata*)  
 Staghorn sculpin (*Leptocottus armatus*)  
 Striped bass (*Morone saxatilis*)  
 Topsmelt (*Atherinopsis affinis*)  
 Starry flounder (*Platichthys stellatus*)  
 Gopher snake (*Pituophis catenifer*)  
 Fence lizard (*Sceloporus occidentalis*)  
 Opossum (*Didelphis marsupialis*)  
 Vagrant shrew (*Sorex vagrans*)  
 Raccoon (*Procyon lotor*)  
 Striped skunk (*Mephitis mephitis*)  
 Gray fox (*Urocyon cinereoargenteus*)  
 Harbor Seal (*Phoca vitulina*)  
 Beechey ground squirrel (*Spermophilus beecheyi*)  
 Western harvest mouse (*Reithrodontomys megalotis*)  
 Salt marsh harvest mouse (*Reithrodontomys raviventris*)  
     Suisan Bay subspecies (*R.r. halicoetes*)  
     San Francisco Bay subspecies (*R.r. raviventris*)  
     (Red-bellied harvest mouse)  
 California vole (Meadow mouse) (*Microtus californicus*)  
 Norway rat (*Rattus norvegicus*)  
 Black rat (*Rattus rattus*)  
 House mouse (*Mus musculus*)  
 Black-tailed hare (*Lepus californicus*)  
 Brush rabbit (*Sylvilagus bachmani*)

TABLE 9

SPECIES OF THE SAN FRANCISCO BAY AREA

(Page 4 of 6)

COMMON BAYLANDS BIRDS

(Including uplands marsh-grasslands species.)

Horned Grebe (*Podiceps auritus*)  
 Eared Grebe (*Podiceps nigricollis*)  
 Western Grebe (*Aechmophorus occidentalis*)  
 Pied-billed Grebe (*Podilymbus podiceps*)  
 White Pelican (*Pelecanus erythrorhynchos*)  
 Brown Pelican (*Pelecanus occidentalis*)  
 Double-crested Cormorant (*Phalacrocorax auritus*)  
 Brandt's Cormorant (*Phalacrocorax penicillatus*)  
 Great Blue Heron (*Ardea herodias*)  
 Great Egret or Common Egret (*Casmerodius albus*)  
 Snowy Egret (*Egretta thula*)  
 Black-crowned Night Heron (*Nycticorax nycticorax*)  
 American Bittern (*Botaurus lentiginosus*)  
 Mallard (*Anas platyrhynchos*)  
 Pintail (*Anas acuta*)  
 Green-winged Teal (*Anas crecca*)  
 Blue-winged Teal (*Anas discors*)  
 Cinnamon Teal (*Anas cyanoptera*)  
 Northern Shoveler (*Anas clypeata*)  
 Canvasback (*Aythya valisineria*)  
 Lesser Scaup (*Aythya affinis*)  
 White-winged Scoter (*Melanitta deglandi*)  
 Surf Scoter (*Melanitta perspicillata*)  
 Ruddy Duck (*Oxyura jamaicensis*)  
 White-tailed Kite (*Elanus leucurus*)  
 Marsh Hawk (*Circus cyaneus*)  
 Osprey (*Pandion haliaetus*)  
 Kestrel (Sparrow hawk) (*Falco sparverius*)

TABLE 9

SPECIES OF THE SAN FRANCISCO BAY AREA

(Page 5 of 6)

Clapper Rail (*Rallus longirostris*)  
 Virginia Rail (*Rallus limicola*)  
 Sora (*Porzana carolina*)  
 Black Rail (*Laterallus jamaicensis*)  
 American Coot or Mud Hen (*Fulica americana*)  
 Killdeer (*Charadrius vociferus*)  
 Black-bellied Plover (*Pluvialis squatarola*)  
 Long-billed Curlew (*Numenius americanus*)  
 Marbled Godwit (*Limosa fedoa*)  
 Greater Yellowlegs (*Tringa melanoleuca*)  
 Willet (*Catoptrophorus semipalmatus*)  
 Short-billed Dowitcher (*Limnodromus griseus*)  
 Long-billed Dowitcher (*Limnodromus scolopaceus*)  
 Western sandpiper (*Calidris mauri*)  
 Least Sandpiper (*Calidris minutilla*)  
 Dunlin (*Calidris alpina*)  
 Avocet (*Recurvirostra americana*)  
 Black-necked Stilt (*Himantopus mexicanus*)  
 Northern Phalarope (*Lobipes lobatus*)  
 Glaucous-winged Gull (*Larus glaucescens*)  
 Western Gull (*Larus occidentalis*)  
 Herring Gull (*Larus argentatus*)  
 California Gull (*Larus californicus*)  
 Ring-billed Gull (*Larus delawarensis*)  
 Bonaparte's Gull (*Larus philadelphia*)  
 Heermann's Gull (*Larus heermanni*)  
 Forster's Tern (*Sterna forsteri*)  
 Least Tern (*Sterna albifrons*)  
 Caspian Tern (*Sterna caspia*)  
 Burrowing Owl (*Athene cunicularia*)

TABLE 9

SPECIES OF THE SAN FRANCISCO BAY AREA

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Short-eared Owl (*Asio flammeus*)  
Barn Swallow (*Hirundo rustica*)  
Cliff Swallow (*Petrochelidon pyrrhonota*)  
Long-billed Marsh Wren (*Cistothorus palustris*)  
Starling (*Sturnus vulgaris*)  
Common Yellowthroat (*Geothlypis trichas*)  
House Sparrow (*Passer domesticus*)  
Western Meadowlark (*Sturnella neglecta*)  
Red-winged Blackbird (*Agelaius phoeniceus*)  
Brewer's Blackbird (*Euphagus cyanocephalus*)  
Salt Marsh Song Sparrow (*Melospiza melodia*)  
    San Francisco Bay race (*M.m. pusillula*)  
    San Pablo Bay race (*M.m. samuelis*)  
    Suisun Bay race (*M.m. maxillaris*)

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NOTES:

1. N = Native Species  
I = Introduced Species

**TABLE 10**  
**RISK ASSESSMENT RESULTS FOR A CHILD**

| Chemical                     | Concentration<br>(mg/kg) | Total <sup>1</sup><br>Intake<br>(mg/kg/day) | Mean <sup>2</sup><br>Total<br>Intake/RfD | Lifetime<br>Risk<br>For EDB |
|------------------------------|--------------------------|---|--|-----------------------------|
| <u>Mean Concentration</u>    |                          |   |  |                             |
| Copper                       | 1,204                    | $2.65 \times 10^{-4}$                       | $6.79 \times 10^{-3}$                    |                             |
| Cyanide                      | 3.4                      | $1.70 \times 10^{-6}$                       | $8.48 \times 10^{-3}$                    |                             |
| EDB                          | 0.0094                   | $4.69 \times 10^{-9}$                       | --- <sup>3</sup>                         | $5.4 \times 10^{-8}$        |
| Mercury                      | 4.6                      | $1.67 \times 10^{-6}$                       | $5.56 \times 10^{-3}$                    |                             |
| Thallium                     | 6.7                      | $2.43 \times 10^{-6}$                       | $3.47 \times 10^{-2}$                    |                             |
| Summary                      |                          |   | $4.72 \times 10^{-2}$                    |                             |
| <u>Maximum Concentration</u> |                          |   |  |                             |
| Copper                       | 31,000                   | $6.82 \times 10^{-3}$                       | $1.75 \times 10^{-1}$                    |                             |
| Cyanide                      | 11                       | $5.48 \times 10^{-6}$                       | $2.74 \times 10^{-4}$                    |                             |
| EDB                          | 0.018                    | $8.97 \times 10^{-9}$                       | --- <sup>3</sup>                         | $1.0 \times 10^{-7}$        |
| Mercury                      | 78                       | $2.83 \times 10^{-5}$                       | $9.43 \times 10^{-2}$                    |                             |
| Thallium                     | 9                        | $3.27 \times 10^{-6}$                       | $4.66 \times 10^{-2}$                    |                             |
| Summary                      |                          |   | $3.16 \times 10^1$                       |                             |

**NOTES:**

1. Average daily intake
2. Based on average daily intake
3. EDB has no EPA - derived RfD

Source: TERRA, Inc., June 1989.

**TABLE 11**  
**RISK ASSESSMENT RESULTS FOR AN ADULT WORKER**

| Chemical                     | Concentration<br>(mg/kg) | Total <sup>1</sup><br>Intake<br>(mg/kg/day) | Mean <sup>2</sup><br>Total<br>Intake/RfD | Lifetime<br>Risk<br>For EDB |
|------------------------------|--------------------------|---|--|-----------------------------|
| <u>Mean Concentration</u>    |                          |   |  |                             |
| Copper                       | 1,204                    | $3.63 \times 10^{-4}$                       | $9.82 \times 10^{-3}$                    |                             |
| Cyanide                      | 3.4                      | $3.83 \times 10^{-4}$                       | $1.91 \times 10^{-4}$                    |                             |
| EDB                          | 0.0094                   | $1.06 \times 10^{-8}$                       | ---(3)                                   | $6.4 \times 10^{-8}$        |
| Mercury                      | 4.6                      | $2.36 \times 10^{-6}$                       | $7.85 \times 10^{-3}$                    |                             |
| Thallium                     | 6.7                      | $3.43 \times 10^{-6}$                       | $4.90 \times 10^{-2}$                    |                             |
| Summary                      |                          |   | $6.69 \times 10^{-2}$                    |                             |
| <u>Maximum Concentration</u> |                          |   |  |                             |
| Copper                       | 31,000                   | $9.35 \times 10^{-6}$                       | $2.53 \times 10^{-1}$                    |                             |
| Cyanide                      | 11                       | $1.24 \times 10^{-5}$                       | $6.19 \times 10^{-4}$                    |                             |
| EDB                          | 0.018                    | $2.03 \times 10^{-8}$                       | ---(3)                                   | $1.2 \times 10^{-7}$        |
| Mercury                      | 78                       | $3.99 \times 10^{-5}$                       | $1.33 \times 10^{-1}$                    |                             |
| Thallium                     | 9                        | $4.61 \times 10^{-6}$                       | $6.58 \times 10^{-2}$                    |                             |
| Summary                      |                          |   | $4.52 \times 10^{-1}$                    |                             |

**NOTES:**

1. Average daily intake
2. Based on average daily intake
3. EDB has no EPA - derived RfD

Source: TERRA, Inc., June 1989.

**TABLE 12**  
**CONCENTRATIONS OF COPPER IN DRINKING WATER SUPPLIES<sup>1</sup>**

| Location                | Date Sampled      | Copper Concentration (mg/l) <sup>2</sup> |
|-------------------------|-------------------|--|
| San Andreas Reservoir   | September 7, 1988 | 0.015                                    |
| Pilarcitos Reservoir    | September 7, 1988 | 0.002                                    |
| Lake Merced Reservoir   | September 7, 1988 | 0.004                                    |
| Sunol Filters Galleries | September 6, 1988 | 0.002                                    |
| Pleasanton Well Field   | September 6, 1988 | 0.002                                    |
| Alameda East (Treated)  | September 6, 1988 | 0.002                                    |

**NOTES:**

1. Source: San Francisco Water Department  
Water Quality Division  
Mineral Analysis

Report Date: Unknown

2. Concentrations reported in milligrams per liter (mg/l)  
equivalent to parts per million (ppm)

TABLE 13  
 SUMMARY OF REMEDIAL ALTERNATIVES  
 (Page 1 of 2)

| <u>Alternative</u> | <u>Title</u>  | <u>Cost</u> | <u>Advantages</u>  | <u>Disadvantages</u>  |
|--------------------|---|-------------|--|---|
| A-1                | No Action   | \$1,132,000 | <ol style="list-style-type: none"> <li>1. Easy to implement</li> <li>2. Low maintenance</li> </ol>   | <ol style="list-style-type: none"> <li>1. Requires long-term monitoring</li> <li>2. Does not remove risks</li> <li>3. Potential future liability</li> <li>4. Lessens value of property</li> <li>5. Negates other future uses of property</li> <li>6. Not cost-effective</li> </ol>  |
| A-2                | Capping   | \$8,500,000 | <ol style="list-style-type: none"> <li>1. Easy to implement</li> <li>2. Low maintenance</li> <li>3. Simple technology</li> </ol>                       | <ol style="list-style-type: none"> <li>1. Does not remove or treat contaminants from site</li> <li>2. Limits future uses of property</li> <li>3. Requires maintenance</li> <li>4. May require monitoring</li> <li>5. Expensive</li> <li>6. Potential future liability</li> </ol>  |
| A-3                | Excavation and Off-site Landfill Disposal                                   | \$3,000,000 | <ol style="list-style-type: none"> <li>1. Proven technology</li> <li>2. Easy to implement</li> <li>3. Removes hazardous materials from site</li> </ol> | <ol style="list-style-type: none"> <li>1. Forgoes use of other technologies</li> <li>2. Does not follow regulatory guidelines which prefer treatment or recycling in lieu of off-site disposal</li> <li>3. Does not treat future liabilities of FMC or Leslie Salt</li> <li>4. Not cost-effective</li> </ol>                      |
| A-4                | Excavation and On-Site Treatment Using Soil Fixation with Off-Site Disposal | \$1,340,000 | <ol style="list-style-type: none"> <li>1. Innovative technology</li> <li>2. Reduces mobility</li> <li>3. Removes wastes from site</li> </ol>           | <ol style="list-style-type: none"> <li>1. Because it is innovative, its applicability to site is uncertain</li> <li>2. Would require bench and pilot scale testing</li> <li>3. Does not treat wastes</li> <li>4. Location of municipal landfill to accept waste is unknown at this time</li> <li>5. Not cost effective</li> </ol> |
| A-5                | Excavation, and On-Site Treatment Using Soil Washing                        | \$1,500,000 | <ol style="list-style-type: none"> <li>1. Permanently removes contaminants from site</li> <li>2. Innovative technology</li> </ol>                      | <ol style="list-style-type: none"> <li>1. Because it is innovative, its applicability to site is uncertain</li> <li>2. Would require bench and pilot scale testing</li> <li>3. Not cost-effective</li> </ol>  |
| A-6                | Excavation with Removal of Hazardous Materials from Site with Recycling     |             |  |   |

TABLE 13  
 SUMMARY OF REMEDIAL ALTERNATIVES  
 (Page 2 of 2)

| <u>Alternative</u> | <u>Title</u>   | <u>Cost</u> | <u>Advantages</u>  | <u>Disadvantages</u>  |
|--------------------|--|-------------|--|---|
| A-6 Options:       |  |             |  |   |
| A-6A               | Off-site Recycling of Hazardous Materials and General Magnesia with Disposal of Debris | \$ 680,000  | <ol style="list-style-type: none"> <li>1. Removes wastes from site</li> <li>2. Cost effective</li> <li>3. Can be implemented</li> </ol>  | <ol style="list-style-type: none"> <li>1. Recycling of general matrix material may not be possible within the timeframe of the RAO</li> <li>2. Recyclers an re-users not identified at this time</li> </ol> |
| A-6B               | On-Site Use of Magnesia  | \$1,570,000 | <ol style="list-style-type: none"> <li>1. Removes hazardous materials from site</li> <li>2. Eliminates need to move general mag-</li> <li>3. Proven Technology</li> <li>4. Can be implemented</li> </ol>         | <ol style="list-style-type: none"> <li>1. Land availability for implementation is not known</li> <li>2. May restrict future uses of land</li> </ol>   |
| A-6C               | Residuals Left in Place  | \$ 360,000  | <ol style="list-style-type: none"> <li>1. Removes hazardous materials from site</li> <li>2. Easy to implement</li> <li>3. Proven technology</li> <li>4. Cost effective</li> </ol>                                | <ol style="list-style-type: none"> <li>1. Does not address additional debris and matrix material</li> <li>2. Future handling costs could be significantly higher</li> </ol>                                 |
| A-6D               | Debris Removal and Disposal, and Stockpiling On-site of All Magnesia Material          | \$1,660,000 | <ol style="list-style-type: none"> <li>1. Removes hazardous materials from site</li> <li>2. Easy to implement</li> <li>3. Proven technology</li> <li>4. Cost effective</li> <li>5. Can be implemented</li> </ol> | <ol style="list-style-type: none"> <li>1. Requires an handling of magnesia material</li> <li>2. Maintenance of stockpiled magnesia materials required</li> </ol>  |

---

# Final Remediation Report Magnesia Waste Pile Newark, California

Prepared for:  
Leslie Salt Company/FMC Corporation



Prepared by:  
IT Corporation  
4575 Pacheco Boulevard  
Martinez, California

**PART 1 OF 2**

**CARGILL**  
**SALT DIVISION**

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November 12, 1991

Mr. Howard Hatayama, Chief  
ATTN: Project Officer, Leslie Salt/FMC Magnesia Waste Pile Site  
Region 2  
Department of Toxic Substances Control  
700 Heinz Avenue  
Suite 200  
Berkeley, CA 94710

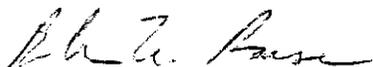
Dear Mr. Hatayama:

Please find attached "Final Remediation Report, Magnesia Pile, Newark, California" for the Leslie Salt/FMC Magnesia Waste Pile Site. This report details the actions completed in accordance with RAP and remedial design approval by the Toxic Substances Control Department and working under Remedial Order, Docket #HSA 88/89-004.

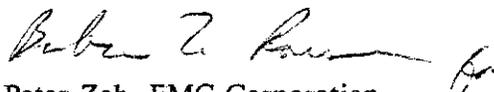
We have received the Department of Toxic Substances Control's Certification of Completion that the Leslie Salt/FMC Magnesia Waste Pile Site has been adequately remediated. We have made the editing corrections suggested in your letter of October 28, 1991.

This completes RAP process and certification by the Department of Toxic Substances Control of the Leslie Salt/FMC Magnesia Waste Pile Site.

Sincerely,



Barbara N. Ransom, Leslie Salt Co.  
Environmental Affairs Manager



Peter Zeh, FMC Corporation  
Technical Services Manager

BNR/tb

cc: Mr. Steve Ritchie, CRWQCB  
Mr. Rafat Shahid, Alameda Co. of Env. Health  
Dr. Polly Quick, ICF Engineers  
Dr. Robert Sterrett, HCI  
Mr. Karl Morthole, Attorney  
Environmental Protection Agency, Region IX  
Mr. Bernard R. Feather, Department of Toxic Substance Control  
Mr. Frank Gaunce, Department of Toxic Substance Control  
Ms. Shirley Buford, Department of Toxic Substance Control  
Mr. Peter Zeh, FMC Corp.

C:\WS2000\BNR\1112 DHS

**FINAL REMEDIATION REPORT  
MAGNESIA WASTE PILE  
NEWARK, CALIFORNIA**

**Prepared for:  
Leslie Salt Company/FMC Corporation  
Newark, California**

**Prepared by:  
IT Corporation  
4575 Pacheco Boulevard  
Martinez, California**

**October 1991**

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- E           Waste Manifests and Weight Tickets
- F           DHS Letter Regarding Mercury-Contaminated Magnesia Material Excavation and  
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## 1.0 INTRODUCTION

This submittal presents the final remediation report for the Leslie Salt/FMC Magnesia Waste Pile site. Section 1.0 provides a historical overview of the project including the previous Remedial Investigation (RI), Feasibility Study (FS), Risk Assessment, Remedial Action Plan (RAP), Interim Remedial Measure (IRM) and the Remedial Design (RD). The project site setting is also described in this section. Section 2.0 presents a description of the site remedial activities. Section 3.0 provides a description of the transportation and disposal of waste materials. Certification of the site remediation is provided in Section 4.0. The appendices provide supporting documentation for the site remediation and transportation activities. The site remediation was performed under the oversight of Ms. Valerie E. Crooks, P.E., a registered Civil Engineer in the State of California (No. 41974).

### 1.1 HISTORICAL OVERVIEW OF PROJECT

The magnesia waste pile located in Newark, California is a former magnesia waste disposal site and is currently owned by Leslie Salt Company. First leased to Westvaco Chemicals in 1929, FMC Corporation negotiated a lease with Leslie Salt Company in 1948 following its acquisition of Westvaco Chemicals, and retained the lease until 1969. Disposal at the magnesia waste pile essentially ended in 1969.

Several investigations of the magnesia waste pile materials have been performed. The dates and types of evaluations performed are as follows:

|                |  |
|----------------|--|
| <u>1969</u>    | Disposal at the magnesia waste pile terminated   |
| <u>1979</u>    | Magnesia waste pile property listed in the 1977 Waste Disposal Site Survey (Eckhardt Report).  |
| <u>1981</u>    | Analysis of the magnesia waste pile by the Department of Health Services (DHS) detected high pH levels and copper concentrations.  |
| <u>1983</u>    | Preliminary chemical and hydrogeological characterization prepared by Emcon Associates.  |
| <u>1985</u>    | Excavation of approximately 450 cubic yards of copper contaminated soil by Emcon Associates.   |
| <u>1987-88</u> | Evaluation of site background and preparation of work plan for the evaluation of physical and chemical properties of the Magnesia Waste Pile (Environmental Solutions). Report was submitted to DHS in January 1988 and approved April 1988. |
| <u>1988</u>    | Remedial Investigation (RI) performed by S.S. Papadopoulos and Associates (S.S.P.&A.). Unilateral Remedial Action Order (RAO) issued by DHS mandating a Remedial Investigation (RI) and Feasibility Study (FS).                              |
| <u>1988</u>    | Feasibility Study (FS) performed by Hydrologic Consultants Inc. for identification   |

of the preferred remedial alternatives and an air, surface water and groundwater impact evaluation.

January, 1990

RAP and FS report completed by Hydrologic Consultants, Inc. "Public Health Environmental Assessment for Leslie Salt/FMC Magnesia Pile" prepared by Terra Inc.

April 1990

HCI subcontracted US Pollution Control Inc. to conduct an Interim Removal Action to remove and dispose approximately 67,000 pounds of thallium contaminated magnesia material from the east side of the magnesia waste pile.

March 1991

Remedial Design (RD) prepared by IT Corporation which included the workplan and design for remediation of the magnesia pile. The RD provided construction and engineering plans for the removal(excavation and disposal) of copper and mercury contaminated magnesia.

The documents generated from the investigations conducted between 1981 and 1990 include:

- "Remedial Investigation Magnesia Pile - Newark, California." S.S. Papadopoulos and Associates, Inc. (S.S.P.&A.), November 28, 1988.
- "Supplemental Investigation and Feasibility Study, FMC and Leslie Salt Company, FMC/Leslie Salt Magnesia Waste Pile." Hydrologic Consultants Inc. (HCI): January 6, 1990.
- "Public Health/Environmental Assessment for Magnesia Pile." Terra Inc.: January 1990.
- "Leslie Salt/FMC Magnesia Waste Pile Interim Removal Action Closure Report." Hydrologic Consultants Inc. (HCI): July 1990.
- "Leslie Salt/FMC Magnesia Waste Pile Site Remedial Action Plan." Hydrologic Consultants Inc. (HCI): October 1990.
- "Final Remedial Design - Magnesia Waste Pile, Newark, California." IT Corporation, March 1991.

### **1.1.1 Remedial Investigation**

A remedial investigation (RI) was performed by S.S. Papadopoulos and Associates, Inc. in 1988. The RI included physical and chemical characterization of the magnesia waste pile, and a magnetic survey to assess whether reported drums containing phosphorus sludge were present. Soil samples were collected from 51 trenches excavated on the magnesia waste pile. The results of the RI indicated that the magnesia waste pile consists of approximately 87 percent (66,100 cubic yards) of general magnesia matrix, approximately 0.8 percent (600 cubic yards) of copper catalyst pellets and approximately 12.2 percent (9,300 cubic yards) of "general debris". Analytical results from several trench samples indicated that copper and mercury exceeded Total Threshold Limit Concentrations (TTLC). The reported drums of phosphorus sludge were not located by the survey, and the RI concluded that the drums had either

decomposed and could no longer be magnetically detected or had not been buried in the area.

### **1.1.2 Risk Assessment, Feasibility Study and Remedial Action Plan**

Supplemental analyses and a Feasibility Study (FS) were performed by Hydrologic Consultants, Inc. (HCI) in 1989. Air, surface water and groundwater samples were collected and analyzed for copper, thallium, mercury, cyanide, ethylene dibromide and pH. A public health and environmental assessment was also performed for this study, and analyzed the potential impacts of the mean and maximum concentrations of the contaminants of concern. The impacts were assessed for assumed exposures to a trespassing child or an adult worker.

The exposure assessment indicated that the maximum and mean contaminant concentrations do not represent significant carcinogenic or non-carcinogenic risks to human health. Based on the results of the RI and the public health assessment, it was concluded that the only materials that required remediation were the copper pellets and copper-, mercury-, and thallium- contaminated magnesia that exhibit concentrations above the appropriate TTLC.

The feasibility study considered six possible remedial alternatives, including:

- No action
- Capping
- Excavation and off-site disposal
- Excavation and on-site treatment with soil washing and off-site disposal and recycling
- Excavation, on-site treatment with soil fixation and off-site disposal and recycling
- Excavation and off-site recycling/disposal of hazardous materials

Each of these alternatives was evaluated for technical feasibility, implementability, ability to reduce the site hazards, regulatory compliance, and cost. The estimated cost of the remedial alternatives considered ranged from approximately \$360,000 to \$8,500,000. Based on the results of the feasibility study, the recommended remedial alternative was the excavation and off-site disposal of the hazardous materials. In this alternative, all materials having copper, mercury or thallium concentrations exceeding the appropriate TTLC would be excavated and disposed off-site. Once these hazardous materials are removed from the site, it will no longer be considered hazardous as defined by Title 22, California Code of Regulations.

### **1.1.3 Interim Removal Action Closure**

In response to concerns expressed by DHS (July 1988) on April 26, 1990, HCI conducted an "Interim Removal Action" for removal of approximately 67,000 pounds of thallium contaminated soil. The excavated soils were collected from the east side of the magnesia waste pile and DHS relied upon the earlier sample analysis which detected thallium levels of 998 mg/kg and cited the 700 mg/kg Total Threshold Limit Concentration (TTLC) as the reference by which to make its determination. The procedures used to excavate the thallium contaminated waste material are summarized in the "Leslie Salt/FMC Magnesia Waste Pile Interim Removal Action Closure Report", written by HCI in July, 1990.

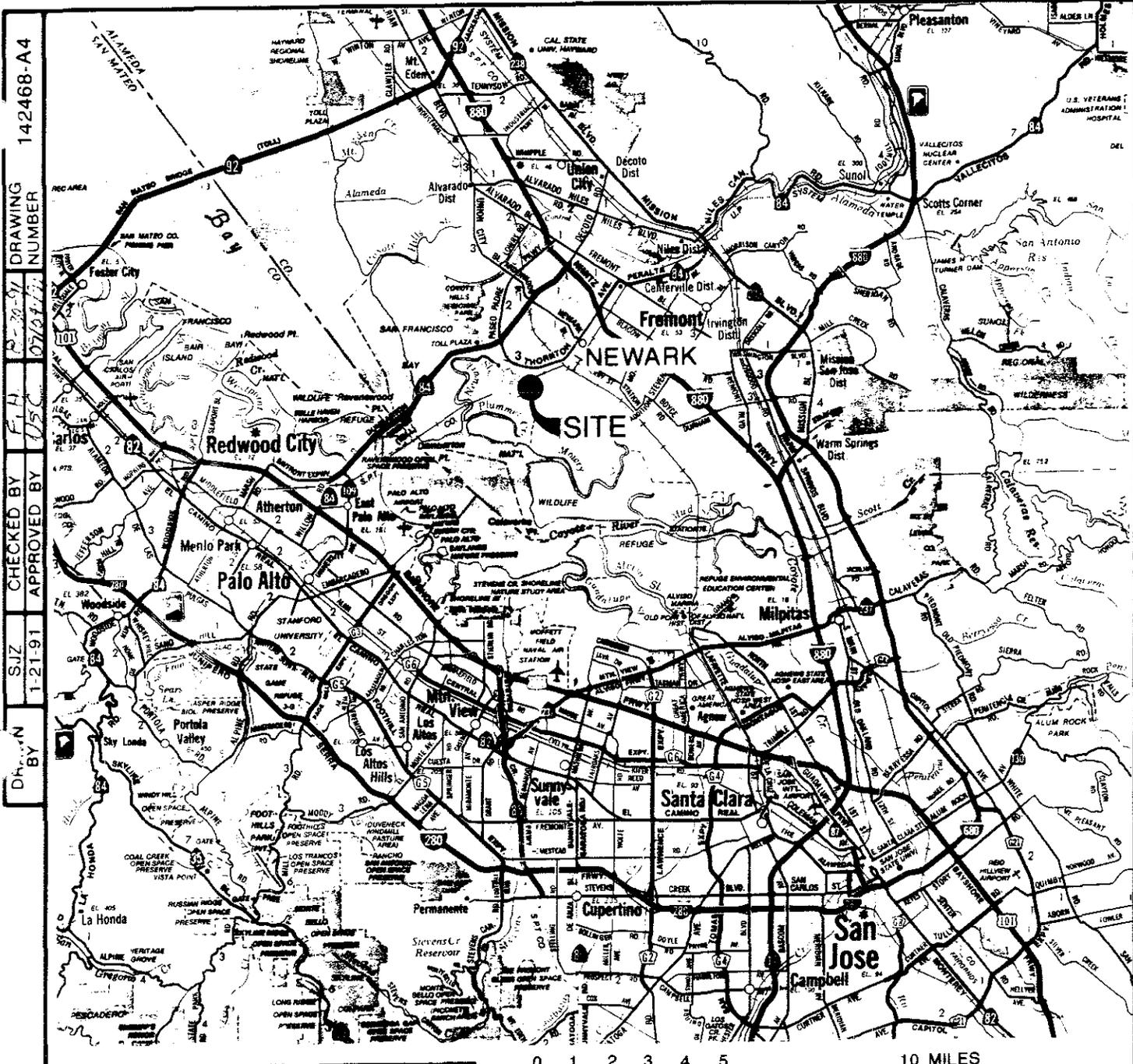
#### **1.1.4 Final Remedial Design**

IT Corporation(IT) submitted a final remedial design for the Leslie Salt/FMC magnesia waste pile in March 1991. This remedial design provided technical and operational plans and the engineering design for the implementation of the RAP approved and issued by DHS in 1990. The remedial design was approved by DHS on May 2, 1991 and site work began May 20, 1991. The site remediation was completed on August 8, 1991.

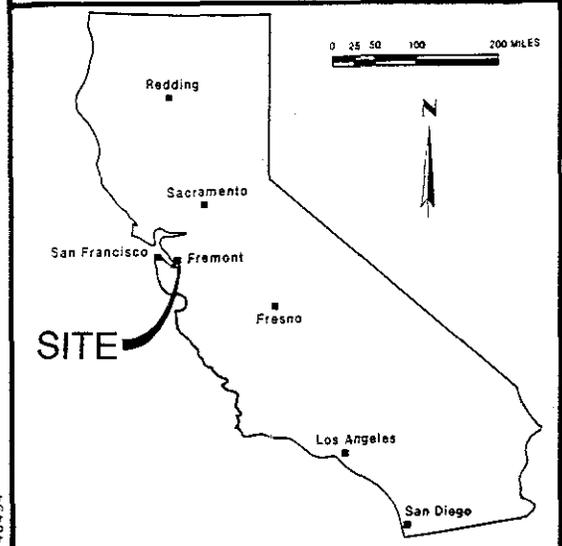
### **1.2 SITE LOCATION AND VICINITY DESCRIPTION**

The Leslie Salt/FMC magnesia waste pile site is located east of the San Francisco Bay in Newark, California (Alameda County). The Leslie Salt/FMC magnesia waste pile is approximately 300 to 400 feet wide, 1,200 feet long, 45 feet thick and extends to an elevation of approximately 50 feet above sea level. A site location map is provided in Figure 1. The magnesia waste pile is situated on an outcrop of a linear serpentine ridge adjacent to the Leslie Salt evaporation ponds along the southeastern portion of the San Francisco Bay.

Properties in the vicinity of the magnesia waste pile are occupied by light industrial facilities. The City of Newark police department shooting range and the Newark's Sportsman's Club are located southeast of the Leslie Salt/FMC site, and the nearest residential properties are located more than 2000 feet from the site boundaries. The site vicinity map is shown in Figure 2.



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 DRAWN BY S.J.Z. 1-21-91

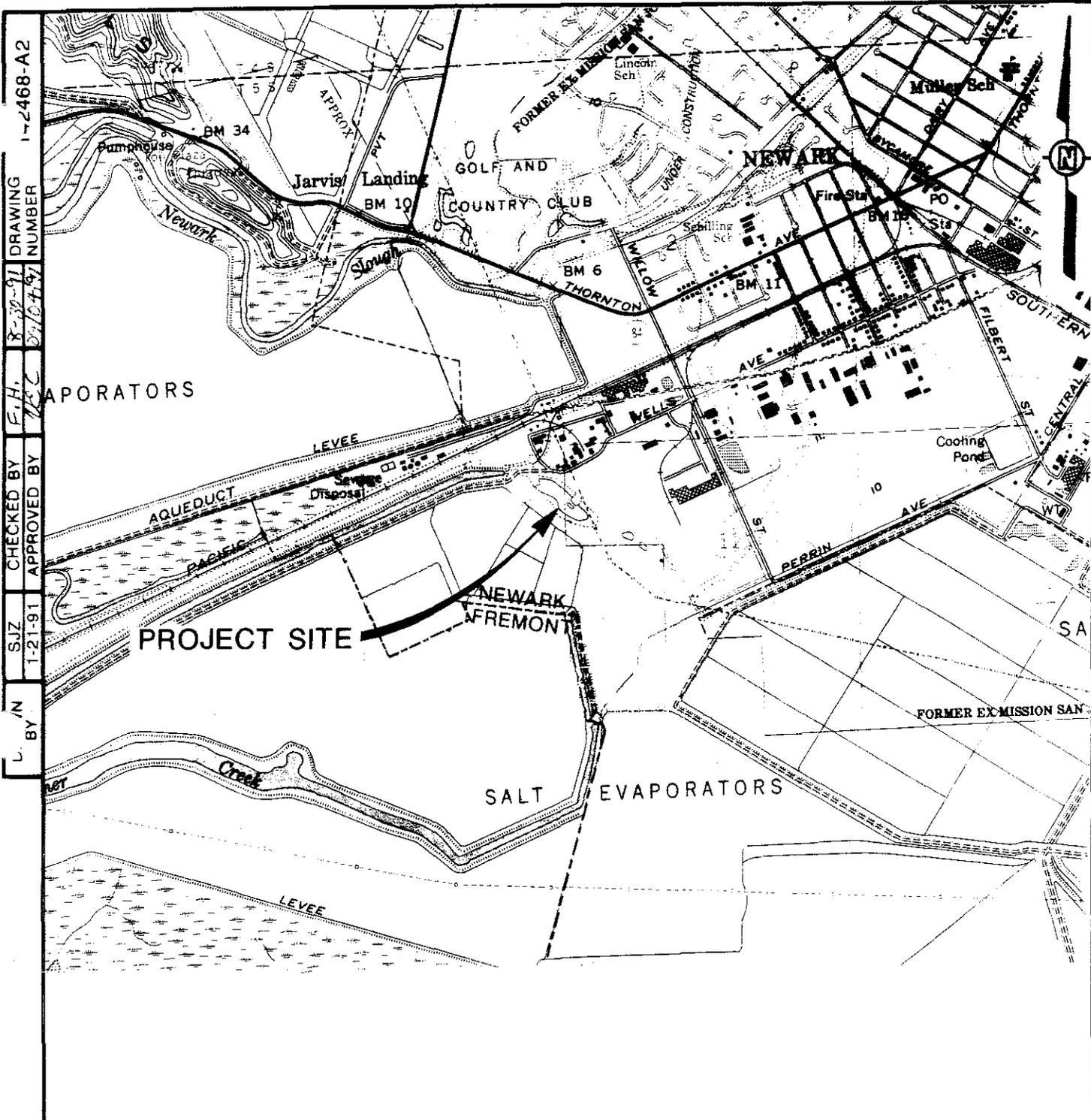


REFERENCE:  
 CSAA "BAY AND  
 RIVER AREA" 1979

FIGURE 1  
 SITE LOCATION MAP

PREPARED FOR  
 LESLIE SALT/FMC  
 NEWARK CALIFORNIA





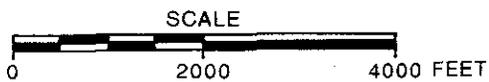
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FIGURE 2

SITE VICINITY MAP  
 MAGNESIA WASTE PILE SITE

PREPARED FOR

LESLIE SALT/FMC  
 NEWARK CALIFORNIA



REFERENCE  
 USGS 7 1/2' TOPOGRAPHIC QUADRANGE OF NEWARK CA  
 DATED: 1959 PHOTOREVISED 1980 SCALE: 1:24 000



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"Do Not Scale This Drawing"

## 2.0 SITE REMEDIAL ACTIVITIES

### 2.1 INTRODUCTION

The magnesia waste pile is located on Leslie Salt property just southwest of the FMC property and manufacturing facility. The generally rectangular pile is oriented with its longitudinal axis in a northwest-southeast direction. The pile is approximately 300 to 400 feet wide at the base, and about 1,200 feet long. The pile was originally contoured such that it rose to an elevation of about 50 feet above mean sea level in the southeasterly area.

The original pile surface sloped from the southeast to the northwest. The pile exhibited steep slopes (approximately 1 vertical to 2 horizontal) in the southwest area of the pile. The thickness of the magnesia waste pile varied, and ranged from about 5 feet to 45 feet.

Materials identified in the RI as present in the magnesia pile include general magnesia material, mercury-contaminated magnesia, debris, copper pellets, and copper-contaminated magnesia. The debris encountered during the RI consisted of construction materials such as lumber, bricks, concrete blocks, wire, screens, and metal. Exploratory trench work also encountered tires, newspapers, plastic sheeting, PVC tubing, laboratory bottles and backfill soil. Approximately 9,600 cubic yards of debris were estimated to be present. The copper catalyst pellets were used in synthetic rubber production, and are classified as hazardous by the DHS since copper pellet concentrations exceed the TTLC limits for copper. Table 1 provides estimated volumes for the waste pile materials as follows:

| <b>TABLE 1<br/>MAGNESIA MATERIAL AND WASTE VOLUME<br/>ESTIMATES PRIOR TO EXCAVATION</b> |   |
|---|---|
| <b>Material Type</b>  | <b>Estimated Volume<br/>(cubic yards)</b> |
| General Magnesia Material   | 65,000                                    |
| Miscellaneous Debris  | 9,600                                     |
| Mercury-contaminated Magnesia   | 2,500                                     |
| Copper-contaminated Magnesia  | 600                                       |
| Copper pellets  | 600                                       |

Reference: "Remedial Action Plan, Leslie Salt/FMC Magnesia Waste Pile Site," October 1990, prepared by Hydrologic Consultants, Inc.

It was estimated that about 600 cubic yards of copper pellets were present in the magnesia waste pile. Copper-contaminated magnesia material was also identified, which may result from decomposition of the

copper catalyst pellets. Approximately 600 cubic yards of copper-contaminated magnesia material was estimated to be present. About 2,500 cubic yards of mercury-contaminated magnesia was estimated to be present, which may have resulted from disposal of meters and other equipment.

The majority of the materials in the magnesia waste pile are nonhazardous as defined by Title 22 of the California Code of Regulations. The general magnesia waste material consists of magnesia (MgO), gypsum (CaSO<sub>4</sub>), dolomite (CaMg(CO<sub>3</sub>)<sub>2</sub>), lime (CaO), and limestone (CaCO<sub>3</sub>). The magnesia material tends to be hygroscopic (i.e. it absorbs and retains moisture). Trenching performed in the waste pile indicated the material is cohesive and will exhibit vertical or near vertical cut slopes. Little or no airborne dust was generated by the trenching activities and the previous thallium removal operation.

Previous remedial investigations described in Section 1.1.1 determined the presence of copper and mercury at concentrations that exceeded the regulatory guidelines. The Total Threshold Limit Concentration (TTLC) as provided in Title 22, Section 66699 of the California Code of Regulations, was used as the remedial guideline for this project, as presented in the RAP. The TTLC values for copper and mercury are 2,500 mg/kg and 20 mg/kg, respectively.

Figure 3 shows the exploratory trench locations on the magnesia pile and suspected areas of copper and mercury contamination defined by the remedial investigation. Previous characterization work determined that concentrations of copper in the matrix samples ranged from 5.2 mg/kg to 230 mg/kg. The matrix samples also exhibited mercury concentrations ranging from <0.002 mg/kg to 0.31 mg/kg. Measured concentrations of copper in the trench samples ranged from 6 mg/kg (Trench 30) to 31,000 mg/kg (Trench 14). Measured concentrations of mercury in the trench samples ranged from < 0.002 mg/kg (Trench 7) to 78 mg/kg (Trench 26). Trenching indicated the depth to the copper catalyst pellets varied; depths ranged between one to two feet and, in other areas, pellets extended to depths of 23 feet.

The remedial design (RD) provided construction plans and the engineering design for the implementation of the RAP. This report describes the implementation of the RD, results of the verification sampling, and documents the final disposition of the waste materials.

A summary of the remedial activities is provided in Section 2.2. Variances from the remedial design are also described. A description of the site layout is provided in Section 2.3. Section 2.4 provides a description of site construction and personnel work controls. Environmental monitoring which includes ambient and personnel air sampling is discussed in Section 2.5. Excavation sequence and documentation of activities is provided in Section 2.6. For each excavation, this section provides a description of the mobilization, visual observations, procedures, excavation and waste quantities, final grading and contouring, and demobilization. The verification sampling program and results are presented in Section 2.7. Final grading and contouring is discussed in Section 2.8 and demobilization activities are provided in Section 2.9. Loadout and transportation activities are described in Section 3.0. The site closure certification is provided in Section 4.0.

## **2.2 OVERVIEW OF REMEDIAL ACTIVITIES**

A summary of the final project schedule is provided in Table 2, and a detailed schedule is provided in Table 2A. During mobilization, the trench locations from the RI were surveyed by a California registered land surveyor (Kier and Wright) to verify their locations. The survey was performed based on the original survey notes for the RI provided to IT by FMC Corporation. The areas shown in the RI that contained

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*[Signature]*

CHECKED BY APPROVED BY

B.J. 9-30-91

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| WEEK                           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|--------------------------------|---|---|---|---|---|---|---|---|---|----|----|----|
| MOBILIZATION                   | █ |   |   |   |   |   |   |   |   |    |    |    |
| UTILITY HOOK UP                | █ |   |   |   |   |   |   |   |   |    |    |    |
| BUILD STOCKPILE AREA           | █ |   |   |   |   |   |   |   |   |    |    |    |
| SURVEY TRENCH LOCATIONS        | █ |   |   |   |   |   |   |   |   |    |    |    |
| PLACE AIR MONITORING EQUIPMENT | █ |   |   |   |   |   |   |   |   |    |    |    |
| EXCAVATION OF WASTE            |   |   |   |   |   |   |   |   |   |    |    |    |
| TRENCH 14 & 15                 |   |   |   |   | █ |   |   |   | █ | █  |    |    |
| TRENCH C & D                   |   | █ | █ | █ |   |   |   |   |   |    |    |    |
| TRENCH 7, 6 & 5                |   | █ | █ |   |   | █ |   | █ | █ | █  |    |    |
| TRENCH 11, 10 & 9              |   |   | █ | █ | █ | █ | █ |   |   |    |    |    |
| TRENCH 3, 2 & 1                |   |   |   |   |   |   |   | █ | █ |    |    |    |
| TRENCH 30                      |   | █ | █ |   |   | █ |   |   |   |    |    |    |
| TRENCH 31                      |   |   |   |   |   |   |   | █ | █ |    |    |    |
| TRENCH 26                      |   |   |   | █ | █ | █ | █ | █ |   |    |    |    |
| VERIFICATION SAMPLING          |   |   | █ | █ | █ | █ | █ | █ | █ | █  |    |    |
| SURFACE CONTOURING             |   |   | █ | █ | █ | █ | █ | █ | █ | █  |    |    |
| AIR MONITORING                 | █ | █ | █ | █ | █ | █ | █ | █ | █ | █  | █  | █  |
| DECON OF EQUIPMENT             |   |   |   |   |   |   |   |   | █ | █  | █  | █  |
| LOAD OUT OF WASTE              |   |   | █ |   | █ | █ | █ | █ | █ | █  | █  | █  |
| REMOVE STOCKPILE AREA          |   |   |   |   |   |   |   |   |   |    |    | █  |
| DEMOBILIZATION                 |   |   |   |   |   |   |   |   |   |    |    | █  |

TABLE 2

FINAL PROJECT SCHEDULE (SUMMARY)

PREPARED FOR

LESLIE SALT/FMC  
MAGNESIA PILE SITE REMEDIATION  
NEWARK, CALIFORNIA



INTERNATIONAL  
TECHNOLOGY  
CORPORATION







the materials to be excavated were delineated with spray paint and flags around the area perimeter. The stockpile area and the equipment decontamination pad were also constructed during mobilization; trailers were placed in the designated areas, and heavy equipment was brought on site. The perimeter ambient air sampling stations were installed and calibrated.

Two track-hoe excavators worked at opposite ends of the pile. Each track-hoe was supported by a dedicated dump truck which transported overburden and waste material. Uncontaminated overburden material was typically excavated and piled proximate to the excavation. Waste or suspected waste material was either hauled directly to the loadout stockpile or intermittently stockpiled on the site.

Engineering activities were performed concurrently with the excavation and movement of material. Ambient, perimeter air samples were collected daily for analysis. Intermittent surveys were conducted to determine excavation volumes and define the location of important features. Verification samples were collected immediately after excavation activities were completed within each trench area.

Waste segregation, loadout, and disposal occurred concurrently with the excavation activities. Copper-contaminated magnesia material was segregated and directly hauled to the stockpile. Potentially mercury-contaminated material was segregated, stockpiled, and sampled to determine the mercury concentrations and assess the need for disposal.

Three types of waste material were encountered at the site: 1) Copper pellet contaminated magnesia ; 2) Naphthalene contaminated magnesia; and, 3) Waste oil contaminated magnesia. The naphthalene and waste oil contaminated magnesia was encountered during excavation and was not previously identified in the RI. Potentially mercury-contaminated magnesia material was excavated, stockpiled, and analyzed. The measured mercury concentrations in this material were below the criteria set by DHS, and the material remained on site. Table 3 provides a summary of the quantity and type of waste encountered during excavation of each trench.

The presence of copper contamination was assessed by visual observation. Material determined to be contaminated based on the obvious presence of pellets was segregated of debris, loaded into a dump truck, and transported to the stockpile area. This material was placed in the appropriate stockpile and distributed with a bulldozer and/or front loader.

Magnesia material suspected of having mercury contamination was excavated and segregated based on visual comparison with samples collected during the RI. These samples had been archived and were provided by Leslie Salt. Samples which had been analyzed as having elevated levels of mercury were compared to the material as it was removed from the excavation. Magnesia material that exhibited a darker gray color similar to the archived material was stockpiled separately on the magnesia pile in a visqueen-lined area. Composite samples of this material were collected and submitted to the laboratory for analysis. The analytical results indicated that the excavated material did not contain mercury concentrations that exceeded the standard established by DHS for the composite samples; which was defined by the TTLC limit for mercury (20 mg/kg) divided by the number of samples forming the composite.

Perimeter ambient air monitoring was performed for the duration of the excavation and loadout activities. The air monitoring results generally indicated that the ambient dust particulate concentrations ranged from 1.5 ug/m<sup>3</sup> to 154.9 ug/m<sup>3</sup> over the duration of the project, which is below the established Threshold Limit Value of 2,000 ug/m<sup>3</sup>. Analytical results for copper in the ambient particulate matter ranged from non-

TABLE 3

TYPE OF WASTE AND VOLUME ENCOUNTERED DURING EXCAVATION

| Trench Area                                    | Suspected Waste Material (from the RI) | Waste Material Encountered during Excavation | Weight of Material Encountered <sup>1</sup> (tons) |
|--|--|--|--|
| 5,6,7  | Copper                                 | Copper                                       | 3,985  |
| 30   | Copper                                 | Copper                                       | 792  |
| C,D  | Copper                                 | Copper                                       | 751  |
| 9,10, 11                                       | Copper                                 | Copper                                       | 2,641  |
| 14,15  | Copper                                 | Copper                                       | 54   |
|  |  | Napthalene                                   | 65   |
|  |  | Waste Oil                                    | 54   |
| 26   | Mercury                                | none detected <sup>2</sup>                   | -  |
| 31   | Mercury                                | none detected <sup>2</sup>                   | -  |
| Surface near Trench Areas C-D, 30, 9,10 and 11 | Copper                                 | Copper                                       | 279  |
| 1,2,3  | Copper                                 | Copper                                       | 1,172  |
| TOTAL TONNAGE                                  |  |  | 9,793  |

<sup>1</sup> Weights of waste material are based on the transportation weights.

<sup>2</sup> Not detected above the applicable criteria provided by DHS; which consisted of the TTLIC limit for mercury (20 mg/kg) divided by the number of samples forming the composite sample. (See DHS letters dated July 1 and 16, 1991, Appendix F)

detected to 0.267 ug/m<sup>3</sup>; which is below the allowable limit of 1 ug/m<sup>3</sup>. Mercury was generally not detected, and the allowable limit for mercury is 50 ug/m<sup>3</sup>. The detection limits in the filter analyses were 3 ug for copper, 0.07 ug for mercury and 100 ug for alkaline dust.

Verification sampling was performed in excavated areas following removal of the contaminated material. In all cases, verification sampling indicated that the contaminated material had been removed and the underlying magnesia materials were classified as "clean" based on the TTLC criteria. All excavations were either backfilled and graded, or graded to provide a suitable drainage pattern on the magnesia pile to prevent ponding of water.

Initially, the contaminated material was transported by rail to the U.S. Pollution Control Incorporated (USPCI), Grassy Mountain Facility near Clive, Utah. During the latter stages of the project, waste material was transported via truck to Chemical Waste Management's Kettleman City, California facility. Both the rail cars and the trucks were loaded adjacent to the stockpile area and manifested for transport.

## 2.3 SITE LAYOUT

The remedial project layout is shown on Figure 3 and includes both FMC Corporation and Leslie Salt Company property. The magnesia waste pile is located on Leslie Salt Company property. Contaminated materials requiring off-site disposal were excavated from the magnesia pile, transported to a stockpile area on property owned by FMC, and loaded on rail cars and trucks for disposal. The following section describes the site layout for the remediation project. The site layout provided in the RD was modified slightly during the mobilization phase of the project.

### Magnesia Waste Pile

The nine areas originally identified in the RI as requiring remediation are shown on Figure 3. These nine areas collectively comprised an estimated area of about 20,150 square feet. Seven of the areas were identified as having copper catalyst and copper-contaminated magnesia materials to be excavated and removed. Two areas, which comprised a combined area of about 3,000 square feet, were expected to contain mercury-contaminated magnesia material. Contaminated areas identified for excavation were delineated using flags and spray paint.

### On-Site Transportation Routes

The existing, unpaved, on-site roads shown on Figure 3 were used for on-site transportation of equipment and materials. Off-road activity, immediately adjacent to the magnesia pile access road, was minimized to ensure safety and to minimize the spread of contamination and airborne dust. At the completion of the site excavation, the on-site roads were scraped to a depth of 6 inches and this material was placed in the stockpile area for disposal.

### Interim Mercury Stockpile Areas

Two stockpile areas, (Figure 17, Trench Area 26 interim stockpile, and Figure 18, Trench Area 31 interim stockpile) were established as interim stockpiles for suspected mercury contaminated magnesia material removed from Trenches 26 and 31. Trench 26 interim stockpile consisted of approximately twenty-nine, 50-cubic yard piles; and Trench 31 interim stockpile consisted of one 50-cubic yard stockpile. Potentially

mercury-contaminated magnesia material was excavated from each trench and hauled to the interim stockpile area. Following sampling, and review and approval of analytical results, the stockpile areas were graded and flattened. The final location of this material is shown on Figure 20. This excavated material either remained in the immediate stockpile area or was spread just adjacent to the stockpile areas.

### Stockpile Area

The stockpile area was a rectangular area approximately 200 feet by 165 feet in plan view, and was situated near the Leslie Salt/FMC property line on FMC's property (Figure 3). The stockpile area was placed just adjacent to the railroad tracks to facilitate loading contaminated material into rail cars for transportation to the disposal site.

Design specifications for the loadout stockpile area are shown on Figure 3. The area was prepared by grading the upper 3 to 6 inches of surficial material. The area was then graded and sloped to one end to promote positive drainage. A containment berm was constructed around the stockpile. The berms were constructed using clean fill from the site, and were approximately 3 feet high with a crest width of about 2 feet. The berm side slopes were constructed at a 1 (vertical) to 3 (horizontal) slope. Once the berms were constructed, a 40 millimeter thick polyvinyl chloride (PVC) liner was placed over the entire stockpile area. The liner extended over the berms and was covered with clean native fill to prevent uplift by the wind.

At the completion of the loadout, the stockpile area was dismantled and included in the final loads sent for disposal. The area beneath the stockpile was scraped to a depth of 6 inches and this material was also disposed.

### Equipment Decontamination Pad

The location of the equipment decontamination pad (EDP) in the RD was directly adjacent to the northwest corner of the stockpile area. The EDP was relocated just south of the stockpile area as shown on Figure 3. The EDP was approximately 15 feet by 40 feet in plan view. The EDP was constructed by excavating a 2-foot deep pit lined with PVC. The liner was covered with 3 inches of sand fill and one layer of railroad ties, as shown on Figure 3. The EDP was sloped to one corner to facilitate collection of liquid rinsate. Fluid collected from decontamination operations was used for dust control on the stockpile area for the duration of the project.

### Personnel Decontamination and Office Trailer Area

The personnel decontamination trailer was approximately 8 feet wide and 10 feet long, and contained two (2) showers and a locker/change room. The shower water was collected in a holding tank and used for dust control within the contaminated stockpile area. The personnel decontamination trailer was initially proposed to be situated in an open area north of the magnesia pile and southeast of the loadout stockpile. The trailer was relocated to an area adjacent to the primary access gate as shown on Figure 3. Two (2) emergency eye wash units were positioned in strategic areas near excavation activities on the magnesia waste pile.

The office trailer was situated to the north of the decontamination trailer to provide convenient access. The breakroom trailer was placed adjacent to the office trailer. Portable toilet facilities were placed near the decontamination, office, and breakroom trailer. Personnel exiting the exclusion work zone passed

through the decontamination trailer prior using the toilet facilities.

### Site Security

The existing site security was utilized for the project. A fence runs approximately east/west from the intersection of Enterprise Drive and Hickory Street (Figure 3). This fence constitutes the FMC/Leslie Salt property line just north of the magnesia pile. From the western end of this fence, an additional fence traverses the site area in an approximate north/south direction. The primary site exclusion zone access gate was installed just southeast of the stockpile area. This gate allowed access from the support zone to the magnesia waste pile.

### Air Monitoring Locations

Five (5) high-volume air samplers were placed on site to monitor ambient air quality. The samplers were manufactured by General Metal Works and were Model B/M-2000. The rationale for the placement of the monitoring stations is discussed in Section 2.5. Stations were placed in the following areas as shown on Figure 3:

- Station 1: Just northwest (upwind) of the stockpile.
- Station 2: Near FMC's analytical laboratory (north/northwest of the magnesia pile).
- Station 3: Approximately 1000 feet east of the work area at the Ashland Chemical Property.
- Station 4: East of the work area just outside the magnesia pile.
- Station 5: East/southeast of the work area on the flank of the magnesia pile.

## **2.4 SITE CONTROLS**

### **2.4.1 Site Access Controls**

During the mobilization phase, the site was delineated into an exclusion or work zone, a contamination reduction zone, and a support zone as shown on Figure 4. The exclusion zone included the entire magnesia waste pile area extending northwest to include the loadout stockpile area and equipment decontamination pad. The contamination reduction zone included the southern portion of the decontamination trailer and trailer entry area. The support zone consisted of the office trailer, break trailer, portable toilets, and the unloading/parking zone. The exclusion or contaminated zone was delineated primarily by fence lines and physical barriers. The exclusion zone perimeter was posted with the following warning signs at minimum intervals of 50 feet.

**HEAVY EQUIPMENT/  
CHEMICAL DECONTAMINATION  
WORK AREA  
NO UNAUTHORIZED ACCESS**

Only IT personnel and authorized visitors who had completed 40 hours OSHA training and were equipped with the required personnel protective equipment were allowed to enter this zone. Access to the exclusion zone was monitored and a log of all persons entering this area was maintained.

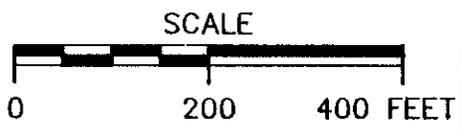
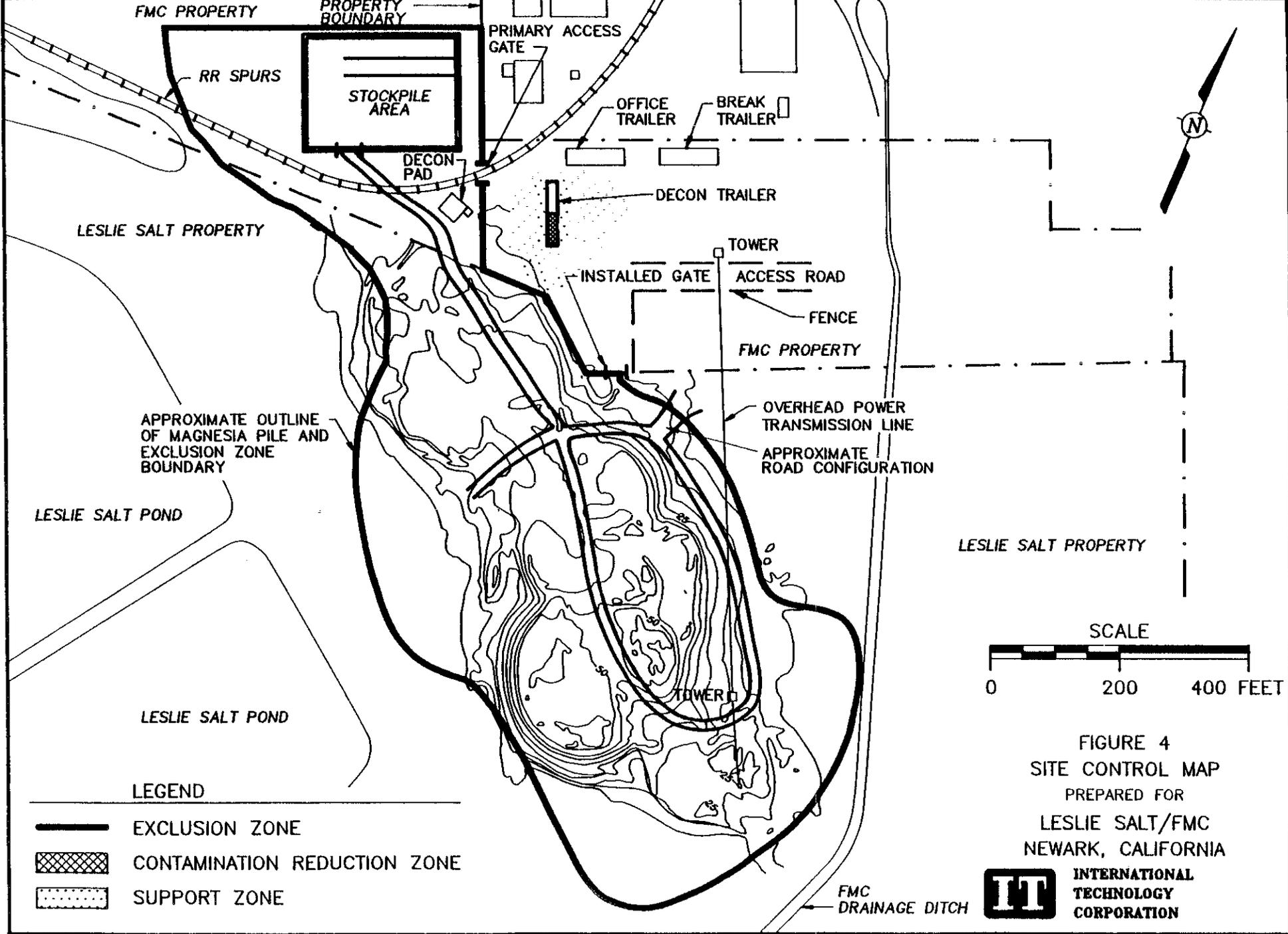


FIGURE 4  
 SITE CONTROL MAP  
 PREPARED FOR  
 LESLIE SALT/FMC  
 NEWARK, CALIFORNIA



The contamination reduction zone consisted of the personnel decontamination area and was delineated primarily by barrier tape. The perimeter of this area was posted at 50 foot minimum intervals with the following sign:

**WORK AREA  
NO UNAUTHORIZED ACCESS**

The remainder of the area utilized by IT for this project was designated as the support zone. This area was delineated by traffic cones and barrier tape. The following warning sign was posted in the support zone:

**CONSTRUCTION AREA  
ALL VISITORS  
CHECK-IN AT SITE OFFICE**

#### **2.4.2 Dust Control**

The air monitoring program is described in detail in Section 2.5.1. Visual monitoring of the site for dust generation was combined with the results of the air monitoring program to determine the effectiveness of the dust control measures and evaluate the need for additional measures.

Dust control was performed by spraying excavation areas and on-site transportation routes with water generally once every day or more often as needed. Water used in these areas was either potable water or clean recycled water. Due to the hygroscopic (water absorbing) nature of the material, limited amounts of dust were generated during excavation and transport activities. Light water spraying was effective in suppressing dust generation.

Dust suppression in the stockpile area was performed generally once every day or more often as needed. Decontamination water from the equipment decontamination pad was collected by a sump pump and hand sprayed onto the contaminated waste piles for dust suppression. Additional dust suppression in this area was occasionally performed by the water truck.

#### **2.4.3 Equipment Decontamination Procedures**

Three types of decontamination were implemented during this project:

- Ongoing equipment decontamination for vehicles that remained on-site.
- Decontamination of rail cars and trucks used to transport contaminated magnesia material.
- Final equipment decontamination before the equipment left the site once the project was completed.

#### **Ongoing Equipment Decontamination**

Ongoing equipment decontamination was employed to prevent the spread of contamination outside the exclusion zone and cross contamination of excavations.

Solid material from truck beds and other easily accessible surfaces was removed using a combination of brooms, wire brushes, and moist cloths. Equipment under carriages, tracks and tires was steam cleaned

and rinsate was collected at the low point of the EDP with a sump pump. This water was ultimately used for dust control in the stockpile.

### Railcar and Truck Decontamination

Both the railcars and the tandem dump trucks were lined with visqueen and excess visqueen was allowed to hang over the sides of the railcars and dump trucks to minimize spillage adhering to the sides. Following the loading of the material for disposal, both the railcars and trucks were inspected to determine whether contaminated material was present on the sides. If material was observed, it was brushed off and the affected area was hand wiped to decontaminate the surface.

### Final Equipment Decontamination

All excavation equipment and on-site dump trucks were thoroughly cleaned with a high pressure water sprayer at 1000 psi and 130°F before leaving the site upon completion of the project. Liquid rinsate was collected at the low point of the EDP with a sump pump and sprayed on the stockpile. Once the final loadout was completed, and the EDP was removed and sent for disposal; the remaining equipment was hand wiped for decontamination.

## **2.5 ENVIRONMENTAL MONITORING**

### **2.5.1 Perimeter Ambient Air Monitoring**

#### Perimeter Ambient Air Monitoring Program

Ambient air monitoring was performed continuously during excavation, on-site transportation and loadout. This monitoring was conducted to evaluate ambient concentrations of metals (mercury and copper) and alkaline dust particulate levels to ensure that levels did not exceed safe thresholds and thereby present a health or safety risk.

Five General Metal Works high-volume (Hi-Vol) ambient air samplers (Model B/M-2000) were operated continuously and sampled daily during the remediation work. The locations of the sampling stations are shown on Figure 3. A continuously recording anemometer was installed in the exclusion zone just northwest of the stockpile area to obtain wind speed and wind direction information. The on-site prevailing wind direction, particularly during late morning or early afternoon was primarily from the west/northwest. This equipment malfunctioned partially through the project; however, data is available for the initial part of the project. The average wind speed recorded was 17 miles per hour (mph), and ranged from 12 to 22 mph.

Air monitoring stations 1 and 2 were placed upwind (north and northwest) of the work zone. These upwind stations provided background levels of copper, mercury, and dust particulates approaching the work site. Stations 4 and 5 were located downwind east and southeast of the primary excavation areas. Station 3 was positioned approximately 1000 feet east of the magnesia pile and provided information on potential off-site concentrations of airborne contaminants.

The Hi-Vol air samplers used an electric-powered blower drawing air through a pre-weighed filter at the rate of approximately 45 cubic feet per minute (cfm). The air samplers were operated for a 24 hour period

prior to the start of any site remedial activities to obtain background readings. Perimeter air samples were collected from May 24 through July 25, 1991 at sampling Stations 1, 2, 3, 4, and 5 during remedial excavation activities. Samples were collected only from Station 1, northwest of the loadout stockpile, from July 26 through August 5, 1991. The air samplers were operated 24 hours a day, Monday through Thursday. Samples were retrieved every morning at 8:00 a.m. Tuesday through Friday. On Friday, the sample which was loaded Friday morning was retrieved at about 1:00 or 2:00 p.m., at which time the site remedial activities stopped for the week.

Once the filters were collected, they were labelled, entered into IT standard chain-of-custody procedures, and sent by overnight courier to the IT Analytical Services Laboratory in Cerritos, California. The filters were dessicated and weighed to obtain the total weight of particulate material retained (gravimetric analysis). The particulate matter retained was analyzed for copper and mercury using EPA Methods 6010 and 7471 respectively.

The analytical results obtained from the laboratory report the amounts of copper, mercury and dust collected on the filters as micrograms. The volume of air drawn through the filter over the sampling period is calculated for each sample using the air sampler flowmeter recorder chart. The total weight of material (i.e. copper, mercury or dust) retained on the filter was divided by the volume of air in the sample to obtain results expressed as micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ).

Table 4 summarizes ambient air monitoring data collected over the duration of the project. The certificates of analysis and chain-of-custody forms are provided in Appendix A. Copper concentrations ranged from non-detectable to  $0.267 \mu\text{g}/\text{m}^3$ . Mercury concentrations were generally less than  $0.001 \mu\text{g}/\text{m}^3$ . Total particulate concentrations ranged from  $1.5 \mu\text{g}/\text{m}^3$  to  $154.9 \mu\text{g}/\text{m}^3$ . The detection limit for particulates was 100  $\mu\text{g}$  and for copper and mercury was 3 and 0.07  $\mu\text{g}$  respectively.

The permissible exposure limits provided in 29 CFR 1910.1000 for copper and mercury are  $1 \mu\text{g}/\text{m}^3$  and  $50 \mu\text{g}/\text{m}^3$  respectively. The Threshold Limit Value (TLV) for total alkaline dust based on calcium oxide and established by the American Conference of Government Industrial Hygienists (ACGIH, Cincinnati, Ohio; 1989) is  $2 \text{ mg}/\text{m}^3$  ( $2,000 \mu\text{g}/\text{m}^3$ ). The ambient mercury concentrations measured are well below the permissible exposure limit for mercury. The highest measured copper concentration ( $0.3 \mu\text{g}/\text{m}^3$ ) was below the permissible exposure limit for copper. Total alkaline dust concentrations measured were below the ACGIH TLV values.

### 2.5.2 Personnel Air Monitoring

The personnel air monitoring program was designed to monitor project personnel exposure to copper dust, mercury vapor, and alkaline dust. Personnel samples for copper and mercury were collected and analyzed in accordance with NIOSH Methods 7300 and 6009 respectively. Alkaline and respirable alkaline dust samples were collected in accordance with modified NIOSH Method 0500.

The analytical results are reported in total weight of the material retained by the personnel air filter. On-site IT health and safety personnel determined the volume of air passed through the filter during the sampling period. Volumetric concentrations of the material (i.e. milligrams per cubic meter) were determined by dividing the total weight retained by the total air volume. The air samples were analyzed by the IT Analytical Services Laboratory in Cerritos, California, which is accredited by the American Industrial Hygiene Association (AIHA). The certificates of analysis and chain-of-custody forms for these results are provided in Appendix B.

TABLE 4 - PERIMETER AMBIENT AIR MONITORING RESULTS

| Sampling Information |           |                                | Analytical Results (µg/m³) |                      |                   | Sampling Information |           |                                | Analytical Results (µg/m³) |         |       | Sampling Information |           |                         | Analytical Results (µg/m³) |         |      |
|----------------------|-----------|--------------------------------|----------------------------|----------------------|-------------------|----------------------|-----------|--------------------------------|----------------------------|---------|-------|----------------------|-----------|-------------------------|----------------------------|---------|------|
| Date                 | Sta. I.D. | Sample I.D.                    | Copper <sup>1</sup>        | Mercury <sup>2</sup> | Dust <sup>2</sup> | Date                 | Sta. I.D. | Sample I.D.                    | Copper                     | Mercury | Dust  | Date                 | Sta. I.D. | Sample I.D.             | Copper                     | Mercury | Dust |
| 5/24/91              | 1         | 1,5831196                      | 0.009                      | ND                   | 5.3               | 5/25/91              | 1         | 1,5902722                      | 0.037                      | < 0.001 | 33.1  | 5/28/91              | 1         | 1,5902706               | 0.016                      | < 0.001 | 25.4 |
|                      | 2         | 2,5831197                      | 0.055                      | ND                   | 11.6              |                      | 2         | 2,5902720                      | 0.050                      | < 0.001 | 50.0  |                      | 2         | 2,5902745               | 0.037                      | < 0.001 | 31.6 |
|                      | 3         | 3,5831198                      | 0.005                      | ND                   | 9.1               |                      | 3         | 3,5902724                      | 0.021                      | < 0.001 | 41.3  |                      | 3         | 3,5902718               | 0.006                      | < 0.001 | 26.7 |
|                      | 4         | 4,5831199                      | 0.011                      | ND                   | 6.0               |                      | 4         | 4,5902721                      | 0.023                      | < 0.001 | 42.0  |                      | 4         | 4,5902707               | 0.012                      | < 0.001 | 27.4 |
|                      | 5         | 5,5831200                      | 0.010                      | ND                   | 5.3               |                      | 5         | 5,5902725                      | 0.015                      | < 0.001 | 37.1  |                      | 5         | 5,5902708               | 0.005                      | < 0.001 | 25.2 |
| 5/29/91              | 1         | 1,5902715                      | 0.015                      | < 0.001              | 11.7              | 5/30/91              | 1         | 1,5902743                      | 0.024                      | < 0.001 | 42.0  | 5/31/91              | 1         | 1,5902741               | 0.036                      | < 0.001 | 15   |
|                      | 2         | SAMPLE DAMAGED                 |                            |                      |                   |                      | 2         | 2,5902713                      | 0.061                      | < 0.001 | 66.4  |                      | 2         | 2,5902727               | 0.059                      | < 0.001 | 39.3 |
|                      | 3         | 3,5902717                      | 0.004                      | < 0.001              | 14.4              |                      | 3         | 3,5902744                      | 0.009                      | < 0.001 | 40.0  |                      | 3         | 3,5902726               | 0.01                       | < 0.001 | 28   |
|                      | 4         | 4,5902714                      | 0.014                      | < 0.001              | 18.6              |                      | 4         | 4,5902710                      | 0.015                      | < 0.001 | 56.0  |                      | 4         | 4,5902740               | 0.022                      | < 0.001 | 33.2 |
|                      | 5         | 5,5902709                      | 0.006                      | < 0.001              | 12.0              |                      | 5         | 5,5902711                      | 0.009                      | < 0.001 | 145.8 |                      | 5         | 5,5902742               | 0.013                      | < 0.001 | 36.5 |
| 6/03/91              | 1         | 1,5902738                      | 0.028                      | < 0.001              | 50.6              | 6/04/91              | 1         | 1,5902734                      | 0.021                      | < 0.001 | 72.3  | 6/05/91              | 1         | FILTER SUPPLY EXHAUSTED |                            |         |      |
|                      | 2         | 2,5902737                      | 0.027                      | < 0.001              | 27.5              |                      | 2         | 2,5902733                      | 0.048                      | < 0.001 | 83.0  |                      | 2         |                         |                            |         |      |
|                      | 3         | 3,5902728                      | 0.012                      | < 0.001              | 41.7              |                      | 3         | 3,5902736                      | 0.011                      | < 0.001 | 67.8  |                      | 3         |                         |                            |         |      |
|                      | 4         | 4,5902739                      | 0.011                      | < 0.001              | 46.7              |                      | 4         | 4,5902735                      | 0.019                      | < 0.001 | 55.8  |                      | 4         | 4,5902732               | 0.011                      | ND      | 44.7 |
|                      | 5         | SAMPLE DAMAGED                 |                            |                      |                   |                      | 5         | 5,5902730                      | 0.008                      | < 0.001 | 76.2  |                      | 5         | 5,5902731               | 0.007                      | < 0.001 | 60.0 |
| 6/07/91              | 1         | 1,5831008                      | 0.004                      | ND                   | 12.5              | 6/10/91              | 1         | 1,5902787                      | 0.024                      | < 0.001 | 41.4  | 6/18/91              | 1         | 1,5831001               | 0.007                      | ND      | 21.5 |
|                      | 2         | 2,5831010                      | 0.028                      | < 0.001              | 22.9              |                      | 2         | 2,5831021                      | 0.050                      | < 0.001 | 51.2  |                      | 2         | 2,5831002               | 0.035                      | ND      | 48.4 |
|                      | 3         | HI-VOL SAMPLER NON-OPERATIONAL |                            |                      |                   |                      | 3         | 3,5831020                      | 0.012                      | < 0.001 | 49.3  |                      | 3         | 3,5831003               | 0.002                      | ND      | 9.0  |
|                      | 4         | 4,5831007                      | 0.006                      | < 0.001              | 16.7              |                      | 4         | 4,5831011                      | 0.014                      | < 0.001 | 51.0  |                      | 4         | 4,5831004               | 0.017                      | < 0.001 | 70.4 |
|                      | 5         | 5,5831006                      | ND                         | < 0.001              | 5.4               |                      | 5         | 5,5902788                      | 0.006                      | < 0.001 | 43.1  |                      | 5         | 5,5831005               | 0.007                      | < 0.001 | 38.5 |
| 6/19/91              | 1         | 1,5831012                      | 0.019                      | ND                   | 19.7              | 6/20/91              | 1         | 1,5831017                      | 0.012                      | ND      | 18.5  | 6/21/91              | 1         | 1,5831182               | 0.018                      | ND      | 3.0  |
|                      | 2         | 2,5831013                      | 0.093                      | ND                   | 34.8              |                      | 2         | 2,5831048                      | 0.054                      | ND      | 37.5  |                      | 2         | 2,5831183               | 0.056                      | ND      | 47.5 |
|                      | 3         | 3,5831014                      | 0.008                      | < 0.001              | 24.4              |                      | 3         | 3,5831019                      | 0.007                      | ND      | 27.4  |                      | 3         | 3,5831184               | 0.031                      | ND      | 22.3 |
|                      | 4         | 4,5831015                      | 0.018                      | < 0.001              | 29.4              |                      | 4         | 4,5902794                      | 0.019                      | < 0.001 | 6.4   |                      | 4         | 4,5831185               | 0.020                      | ND      | 38.9 |
|                      | 5         | 5,5831016                      | 0.006                      | < 0.001              | 26.5              |                      | 5         | 5,5902795                      | 0.005                      | ND      | 27.4  |                      | 5         | 5,5831186               | ND                         | ND      | 9.8  |
| 6/24/91              | 1         | 1,5831196                      | 0.009                      | ND                   | 5.3               | 6/25/91              | 1         | 1,5831181                      | 0.011                      | ND      | 7.1   | 6/26/91              | 1         | 1,5831191               | 0.017                      | ND      | 20.9 |
|                      | 2         | 2,5831197                      | 0.055                      | ND                   | 11.6              |                      | 2         | HI-VOL SAMPLER NON-OPERATIONAL |                            |         |       |                      |           |                         |                            |         |      |
|                      | 3         | 3,5831198                      | 0.005                      | ND                   | 9.1               |                      | 3         | 3,5831188                      | 0.009                      | ND      | 13.0  |                      | 2         | 2,5831192               | 0.137                      | < 0.001 | 29.4 |
|                      | 4         | 4,5831199                      | 0.010                      | ND                   | 6.0               |                      | 4         | 4,5831189                      | 0.021                      | ND      | 17.8  |                      | 3         | 3,5831193               | 0.012                      | < 0.001 | 25.1 |
|                      | 5         | 5,5831200                      | ND                         | ND                   | 5.3               |                      | 5         | 5,5831190                      | 0.002                      | ND      | 7.8   |                      | 4         | 4,5831194               | 0.014                      | < 0.001 | 31.1 |
| 6/27/91              | 1         | ELECTRICAL POWER OUTAGE        |                            |                      |                   | 6/28/91              | 1         | ELECTRICAL POWER OUTAGE        |                            |         |       | 7/01/91              | 1         | 1,5831160               | 0.028                      | < 0.001 | 38.2 |
|                      | 2         |                                |                            |                      |                   |                      | 2         |                                |                            |         |       |                      | 2         | 2,5831161               | 0.105                      | < 0.001 | 53.2 |
|                      | 3         | 3,5831153                      | 0.013                      | < 0.001              | 34.0              |                      | 3         | 3,5831157                      | 0.048                      | ND      | 15.3  |                      | 3         | 3,5831162               | 0.015                      | < 0.001 | 4.2  |
|                      | 4         | 4,5831154                      | 0.013                      | ND                   | 50.0              |                      | 4         | 4,5831158                      | 0.019                      | ND      | 10.4  |                      | 4         | 4,5831163               | 0.017                      | < 0.001 | 47.4 |
|                      | 5         | 5,5831155                      | 0.005                      | < 0.001              | 31.3              |                      | 5         | 5,5831159                      | 0.009                      | ND      | 3.1   |                      | 5         | 5,5831164               | 0.005                      | < 0.001 | 33.4 |

1 The lower detection limits for copper, mercury, and total dust are 3.0 µg, 0.07 µg, and 100 µg respectively. Concentrations in µg/m³ are determined by dividing the total constituent weight retained in the sample filter by the volume of air transferred through the filter during the sampling interval.

**TABLE 4 - PERIMETER AMBIENT AIR MONITORING RESULTS**

| Sampling Information |           |                             | Analytical Results ( $\mu\text{g}/\text{m}^3$ ) |                      |                   | Sampling Information |           |                             | Analytical Results ( $\mu\text{g}/\text{m}^3$ ) |         |      | Sampling Information |           |                             | Analytical Results ( $\mu\text{g}/\text{m}^3$ ) |         |       |
|----------------------|-----------|-----------------------------|---|----------------------|-------------------|----------------------|-----------|-----------------------------|---|---------|------|----------------------|-----------|-----------------------------|---|---------|-------|
| Date                 | Sta. I.D. | Sample I.D.                 | Copper <sup>1</sup>                             | Mercury <sup>2</sup> | Dust <sup>3</sup> | Date                 | Sta. I.D. | Sample I.D.                 | Copper  | Mercury | Dust | Date                 | Sta. I.D. | Sample I.D.                 | Copper  | Mercury | Dust  |
| 7/02/91              | 1         | 1,5831165                   | 0.028   | < 0.001              | 42.2              | 7/03/91              | 1         | 1,5831170                   | 0.025   | ND      | 50.1 | 7/05/91              | 1         | 1,5831175                   | 0.032   | ND      | 33.8  |
|                      | 2         | 2,5831166                   | 0.126   | < 0.001              | 66.8              |                      | 2         | 2,5831171                   | 0.059   | ND      | 81.1 |                      | 2         | 2,5831176                   | 0.059   | ND      | 53.4  |
|                      | 3         | 3,5831167                   | 0.016   | < 0.001              | 48.7              |                      | 3         | 3,5831172                   | 0.015   | ND      | 66.4 |                      | 3         | 3,5831177                   | 0.025   | ND      | 50.3  |
|                      | 4         | 4,5831168                   | 0.017   | < 0.001              | 67.7              |                      | 4         | NO DATA AVAILABLE           |   |         | 4    |                      | 4,5831178 | 0.019                       | ND  | 107.8   |       |
|                      | 5         | 5,5831169                   | 0.007   | < 0.001              | 43.5              |                      | 5         | 5,5831174                   | 0.008   | ND      | 41.8 |                      | 5         | 5,5831179                   | 0.007   | < 0.001 | 36.6  |
| 7/08/91              | 1         | 1,5831145                   | 0.012   | ND                   | 13.7              | 7/09/91              | 1         | 1,5831140                   | 0.020   | < 0.001 | 30.1 | 7/10/91              | 1         | 1,5831135                   | 0.025   | < 0.001 | 40.5  |
|                      | 2         | 2,5831146                   | 0.066   | < 0.001              | 39.1              |                      | 2         | 2,5831136                   | 0.114   | < 0.001 | 62.6 |                      | 2         | 2,5831137                   | 0.074   | < 0.001 | 56.0  |
|                      | 3         | 3,5831147                   | 0.011   | < 0.001              | 22.9              |                      | 3         | 3,5831138                   | 0.005   | ND      | 15.9 |                      | 3         | 3,5831139                   | 0.050   | ND      | 82.0  |
|                      | 4         | 4,5831148                   | 0.011   | < 0.001              | 33.5              |                      | 4         | 4,5831141                   | 0.014   | ND      | 41.3 |                      | 4         | 4,5831143                   | 0.009   | ND      | 44.1  |
|                      | 5         | 5,5831149                   | 0.002   | < 0.001              | 22.0              |                      | 5         | 5,5831142                   | ND  | ND      | 2.2  |                      | 5         | HIGH-VOL SAMPLER UN-PLUGGED |   |         |       |
| 7/11/91              | 1         | 1,5831125                   | 0.032   | < 0.001              | 54.7              | 7/12/91              | 1         | 1,5831129                   | 0.267   | ND      | 20.6 | 7/15/91              | 1         | 1,5831134                   | 0.013   | ND      | 5.7   |
|                      | 2         | 2,5831126                   | 0.097   | < 0.001              | 66.9              |                      | 2         | 2,5831130                   | 0.068   | ND      | 48.2 |                      | 2         | 2,5831101                   | 0.081   | ND      | 24.1  |
|                      | 3         | 3,5831127                   | 0.011   | < 0.001              | 49.7              |                      | 3         | 3,5831131                   | 0.022   | ND      | 53.2 |                      | 3         | 3,5831102                   | 0.014   | ND      | 13.4  |
|                      | 4         | 4,5831128                   | 0.013   | < 0.001              | 51.4              |                      | 4         | 4,5831132                   | 0.019   | ND      | 25.4 |                      | 4         | 4,5831103                   | 0.014   | < 0.001 | 29.5  |
|                      | 5         | 5,5831144                   | 0.005   | < 0.001              | 46.4              |                      | 5         | 5,5831133                   | ND  | ND      | 15.5 |                      | 5         | 5,5831104                   | 0.003   | < 0.001 | 21.5  |
| 7/16/91              | 1         | 1,5831105                   | ND  | < 0.001              | 8.4               | 7/17/91              | 1         | 1,5831110                   | 0.019   | < 0.001 | 9.9  | 7/18/91              | 1         | 1,5831115                   | 0.025   | ND      | 26.4  |
|                      | 2         | 2,5831106                   | 0.069   | ND                   | 19.9              |                      | 2         | 2,5831111                   | 0.074   | < 0.001 | 20.5 |                      | 2         | 2,5831116                   | 0.071   | ND      | 47.9  |
|                      | 3         | HIGH-VOL SAMPLER UN-PLUGGED |   |                      |                   |                      | 3         | 3,5831112                   | 0.018   | < 0.001 | 29.6 |                      | 3         | 3,5831117                   | 0.016   | ND      | 35.0  |
|                      | 4         | 4,5831108                   | 0.011   | < 0.001              | 29.3              |                      | 4         | 4,5831113                   | 0.014   | < 0.001 | 40.6 |                      | 4         | 4,5831118                   | 0.004   | ND      | 17.7  |
|                      | 5         | 5,5831109                   | ND  | ND                   | 1.5               |                      | 5         | HIGH-VOL SAMPLER UN-PLUGGED |   |         |      |                      | 5         | 5,5831119                   | 0.002   | ND      | 20.5  |
| 7/19/91              | 1         | 1,5831120                   | 0.035   | < 0.001              | 83.2              | 7/22/91              | 1         | 1,5833823                   | 0.031   | < 0.001 | 28.0 | 7/23/91              | 1         | 1,5833828                   | 0.025   | ND      | 18.8  |
|                      | 2         | 2,5831121                   | 0.155   | < 0.001              | 46.6              |                      | 2         | 2,5833824                   | 0.092   | ND      | 50.2 |                      | 2         | 2,5833829                   | 0.076   | ND      | 35.5  |
|                      | 3         | 3,5831122                   | ND  | ND                   | 29.9              |                      | 3         | 3,5833825                   | 0.029   | ND      | 34.4 |                      | 3         | 3,5833830                   | 0.021   | ND      | 17.6  |
|                      | 4         | 4,5831123                   | ND  | ND                   | 21.8              |                      | 4         | 4,5833826                   | 0.011   | < 0.001 | 57.4 |                      | 4         | 4,5833831                   | 0.006   | ND      | 16.5  |
|                      | 5         | 5,5831124                   | ND  | ND                   | 1.5               |                      | 5         | 5,5833827                   | 0.005   | ND      | 27.0 |                      | 5         | 5,5833832                   | 0.003   | < 0.001 | 15.2  |
| 7/24/91              | 1         | 1,5833833                   | 0.017   | < 0.001              | 19.4              | 7/25/91              | 1         | 1,5833838                   | 0.025   | < 0.001 | 62.8 | 7/26/91              | 1         | 1,5833843                   | 0.057   | ND      | 154.9 |
|                      | 2         | 2,5833834                   | 0.106   | < 0.001              | 43.2              |                      | 2         | 2,5833839                   | 0.094   | < 0.001 | 60.9 | 7/29/91              | 1         | 1,5887356                   | 0.027   | < .001  | 30.1  |
|                      | 3         | 3,5833835                   | 0.023   | < 0.001              | 32.2              |                      | 3         | 3,5833840                   | 0.015   | < 0.001 | 54.5 | 7/30/91              | 1         | 1,5887353                   | 0.032   | < 0.001 | 32.7  |
|                      | 4         | 4,5833836                   | 0.013   | < 0.001              | 42.3              |                      | 4         | 4,5833841                   | 0.007   | < 0.001 | 45.6 | 7/31/91              | 1         | 1,5887361                   | 0.027   | ND      | 34.6  |
|                      | 5         | DAMAGED SAMPLE FILTER       |   |                      |                   |                      | 5         | 5,5833842                   | 0.002   | < 0.001 | 35.0 | 8/1/91               | 1         | 1,5887350                   | 0.024   | < .001  | 27.3  |
| 8/2/91               | 1         | SAMPLE DAMAGED              |   |                      |                   | 8/5/91               | 1         | 1,5887349                   | 0.021   | < 0.001 | 59.6 |                      |           |                             |   |         |       |

<sup>1</sup> The lower detection limits for copper, mercury, and total dust are 3.0  $\mu\text{g}$ , 0.07  $\mu\text{g}$ , and 100  $\mu\text{g}$  respectively. Concentrations in  $\mu\text{g}/\text{m}^3$  are determined by dividing the total constituent weight retained in the sample filter by the volume of air transferred through the filter during the sampling interval.

The results of the personnel air monitoring program are provided in Table 5. The actual personnel air monitoring program varied from the original program presented in the Site Health and Safety Plan provided in the RD. Personnel air monitoring was performed daily through June 19, 1991. At this point, the results of the personnel air monitoring were evaluated, and were determined to be well below the permissible limits. The respiratory protection was accordingly downgraded from half-face respirators to no respiratory protection unless ambient dust conditions, as monitored by the on-site health and safety officer, warranted the use of respiratory protection. Copper was not detected in the personnel air monitoring samples at a detection limit of 3 grams (g) for the filter analysis. Mercury concentrations ranged from non-detectable to less than 0.01 mg/m<sup>3</sup>. The detection limit for the mercury analysis was 0.5 g. Alkaline dust levels ranged from non-detectable to 0.8 mg/m<sup>3</sup>. The detection limit for alkaline dust was 0.2 mg.

The permissible exposure limit provided in 29 CFR 1910.1000 for copper and mercury are 1 ug/m<sup>3</sup> and 50 ug/m<sup>3</sup> respectively. The Threshold Limit Value (TLV) for total alkaline dust based on calcium oxide and established by the American Conference of Government Industrial Hygienists (Cincinnati, Ohio; 1989) is 2 mg/m<sup>3</sup>. The measured personnel exposure concentrations are below these permissible limits.

## **2.6 EXCAVATION ACTIVITIES**

### **2.6.1 Overview of Excavation Activities**

Two excavators worked concurrently for the duration of the project in separate areas of the magnesia pile. Uncontaminated overburden material was typically excavated and stockpiled proximate to the excavation. A ground technician was present at all times during excavation work to provide guidance for the equipment operator to locate and segregate the waste material. The trench areas were excavated in 6-inch lifts so that ground technicians could monitor any color or physical changes relevant to segregation of the magnesia material. Field personnel were briefed daily by the IT project manager and field superintendent regarding criteria for the segregation of overburden and waste material. Uncontaminated overburden in the copper trench areas was identified visually as light gray material, without obvious copper particle staining or conspicuous presence of copper pellets. Copper-contaminated material was obviously copper/brown stained and often contained discrete copper pellets. Samples of magnesia material from the RI, that had been analyzed as mercury contaminated and archived, were provided by Leslie Salt and were used as a reference by the ground technicians for segregating the suspected mercury-contaminated magnesia. Reference samples of copper-contaminated magnesia material were also prepared for use by the ground technicians.

Excavation was performed using a 6644 Koehring excavator and an Hitachi EX-200 excavator. Two, 10 cubic yard capacity dump trucks were used to transport contaminated material directly to the stockpile area. The excavations were sloped in accordance with 29 CFR 1926.652 (B1) which provides that unclassified soil will be sloped at 34 degrees or one (vertical) to one and one-half (horizontal). The cut slopes appeared to be stable throughout the field construction activities.

### **2.6.2 Excavation and Stockpiling**

Figure 5 shows the existing pre-excavation site topography, based on a topographic and volume survey performed on the fourth day of excavation activities. The volume survey was performed by Earl Gray, a California licensed surveyor. An estimate of the pre-existing grade (i.e. ground surface prior to

**TABLE 5**

**PERSONNEL AIR MONITORING RESULTS**

| Sampling Information |                   |                       | Concentration, mg/m <sup>3(1)</sup> |         |      |
|----------------------|-------------------|-----------------------|-------------------------------------|---------|------|
| Date                 | Trench Area       | Sample I.D.           | Copper                              | Mercury | Dust |
| 5/28/91              | 6,7               | FMC TD04              |                                     |         | 0.8  |
|                      | 5,8               | FMC Cu05              | ND                                  |         |      |
|                      | 5,8               | FMC Hg06              |                                     | < 0.01  |      |
| 5/29/91              | 6,7               | FMC TD07              |                                     |         | ND   |
|                      | 6,7               | FMC Cu08              | ND                                  |         |      |
|                      | C,D               | FMC Hg09              |                                     | < 0.01  |      |
| 5/30/91              | 8,3               | FMC TD10              |                                     |         | 0.6  |
|                      | 8,3               | FMC Cu11              | ND                                  |         |      |
|                      | 6,7               | FMC Hg12              |                                     | ND      |      |
| 6/5/91               | Decon Pad         | FMC TD16              |                                     |         | 0.4  |
|                      | 6,7               | FMC Cu17              | ND                                  |         |      |
|                      | 6,7               | FMC Hg18              |                                     | ND      |      |
| 6/6/91               | 30                | FMC TD22 <sup>2</sup> |                                     |         | 0.6  |
|                      | Stockpile         | FMC Cu23 <sup>2</sup> | ND                                  |         |      |
|                      | 30                | FMC Hg24 <sup>2</sup> |                                     | < 0.01  |      |
| 6/19/91              | 26, 30            | FMC Hg28 <sup>2</sup> |                                     | 0.01    |      |
|                      |                   | FMC Hg29 <sup>2</sup> |                                     | 0.01    |      |
| 6/28/91              | 26                | FMC Hg31              |                                     | ND      |      |
|                      | 9,10              | FMC Cu32              | ND                                  |         |      |
| 7/22/91              | 5,6,7 & Stockpile | FMC TD35              | filter lost                         |         |      |
|                      | 5,6,7 & Stockpile | FMC Cu36              | ND                                  |         |      |
|                      | Stockpile         | FMC Hg37              |                                     | ND      |      |
| 7/30/91              | Stockpile         | FMC Cu42              | ND                                  |         |      |
| 8/5/91               | Stockpile         | FMC Cu44              | ND                                  |         |      |

<sup>1</sup> The lower detection limits for copper, mercury, and total dust are 3.0 g, 0.5 g, and 0.2 mg respectively. Contaminant concentrations in mg/m<sup>3</sup> are determined by dividing the total constituent weight retained in the sample filter by the volume of air passed transferred through the filter during the sampling interval.

<sup>2</sup> Air sample collection logs are not on file, results have not been validated.

excavation) at Trench Areas 5, 6, and 7 and C and D was provided by the IT construction superintendent, and is expected to be accurate to within  $\pm 1$  foot. Figure 5 also shows for reference the trench areas delineated for removal in the RI.

The excavation sequence and use of a dedicated dump truck for each trench area ensured that the copper and potentially mercury contaminated material were kept separate. Each excavator worked on one excavation at a time. Two types of material were removed from each trench area: 1) overburden, or non-contaminated magnesia material, and; 2) obviously contaminated material and potentially contaminated material. Overburden material was placed proximate to the excavation by the excavator. Obviously copper-contaminated material was immediately placed in the dump truck and transported to the stockpile area. Potentially contaminated material in the mercury trench area was transported to on-site interim stockpiles pending receipt of analytical results.

Dump trucks entered the stockpile area from the west and backed into the stockpile zone. The load was dumped in this area and placed in the pile with a dedicated Fiat-Allis FR11 loader. The dump truck exited the stockpile area to the west and returned to the excavation area. The stockpile area was designed to hold 14,000 cubic yards of waste. The stockpile height was typically maintained at a maximum height of 10 feet. At the end of each day the stockpile was covered with visqueen and properly secured to prevent uplift by the wind. Operations in the stockpile area were conducted to avoid liner damage.

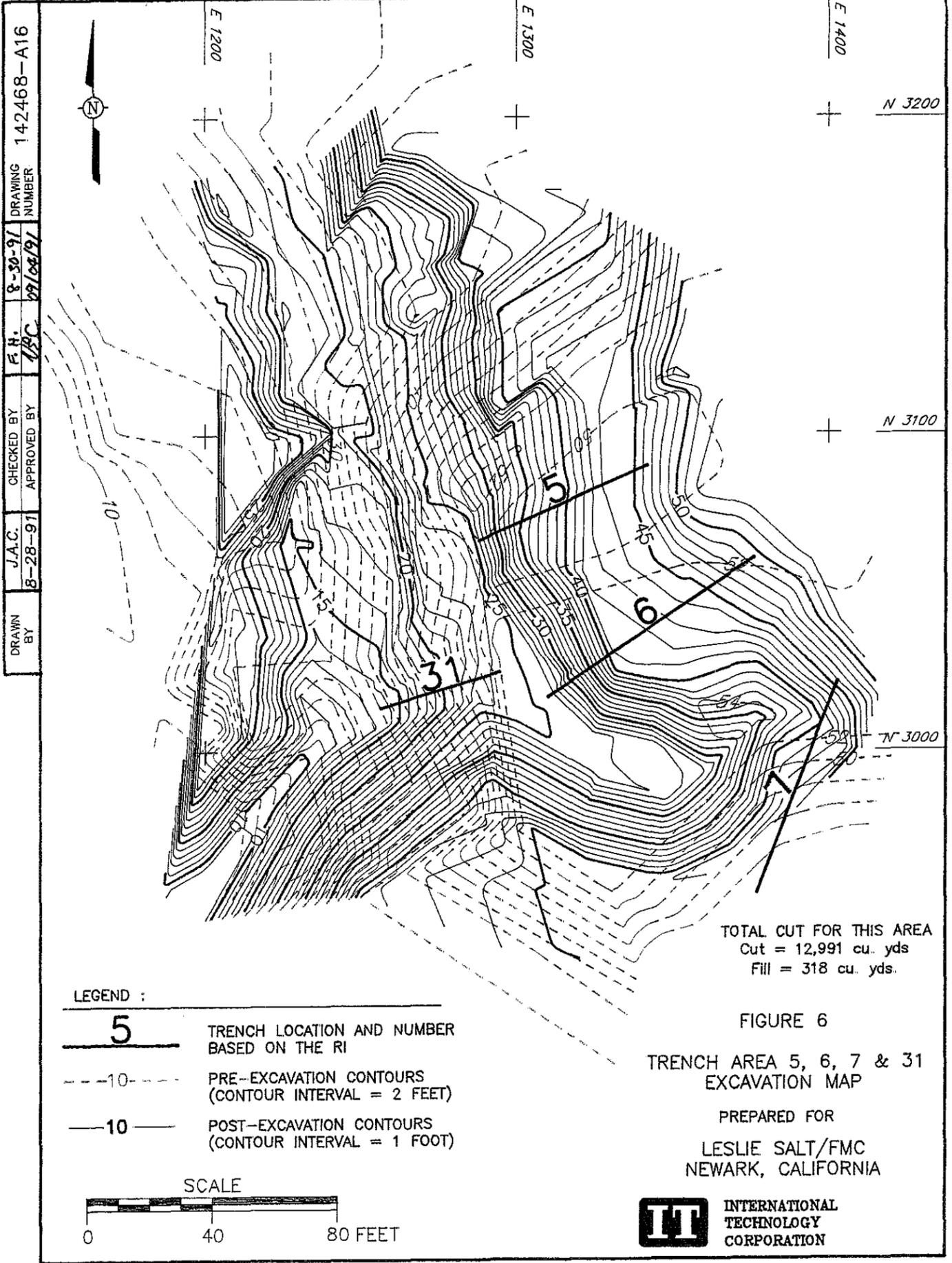
#### Trench Area 5, 6, and 7

Excavation of Trench Areas 5, 6, and 7 with the Koehring excavator began May 28, 1991. Construction began on the southeast corner of this trench area. Copper pellets were described in the RI to be present from a depth of about 2 feet to depths between 25 and 27 feet within this portion of the excavation. Copper pellets were first encountered on May 31 at approximately 13 feet below the pre-existing grade just southeast of Trench 7. Later this day, pellets were uncovered at the expected depth between 25 and 27 feet. These pellets were present between the south end of Trenches 6 and 7.

On June 5, the excavation and removal of copper pellets continued northward toward the southwest end of Trench 6. The zones of copper pellets extended outside the southwestern boundary of the copper contaminant zone specified in the remedial design. The Koehring completed excavation of the southeast portion of Trench Areas 5, 6, and 7 on June 7. The excavation for Trench Areas 5, 6 and 7 is shown on Figure 6.

The Koehring excavator moved to the northern portion of Trench Area 5, 6, and 7 on June 25. Excavation and pellet removal proceeded through the northwestern zone of Trench 5, 6, and 7 through July 9, 1991. The crew continued to locate pellets west of the end of Trenches 6 and 7 outside the contaminant zones specified in the RI. Pellet zones continued far west of Trench 6 onto the western slope of the magnesia pile and northward near the Trench 31 area. The last of the pellets were encountered just northwest of Trench 5 on July 22. The work crew performed final surficial scraping and clean-up of the excavation bottom on July 22. The Koehring crew was intermittently moved from Trench Area 5, 6, and 7 between June 25 and July 22 to conduct excavation activities in Trench Areas 26, and 14 and 15.

The Trench 5,6, and 7 volume survey indicated that 12,991 cubic yards of material were cut and moved from the area. The volume survey performed by ELG SURVEYING (Earl L. Gray, Licensed Surveyor) is provided in Appendix D. Approximately 3,293 tons of copper-contaminated magnesia material and pellets were removed from this area. This estimate is based on the total count of dump truck loads moved



from Trench 5, 6, and 7 and a fixed tonnage per truck load.

#### Trench Area C and D

Excavation of Trench Areas C and D began on May 28, 1991. Large copper pellet lenses, approximately 2 feet thick, were encountered between depths of 5 and 6 feet. These pellet layers were located somewhat deeper than the surface to 4 foot depth specified in the RI. These pellet zones were found in the middle of Trenches C and D and continued past the south ends of Trenches C and D. The excavation for Trench Areas C and D is shown in Figure 7.

The surveyor's volume estimate indicated that 525 cubic yards of material were cut from Trench areas C and D. Approximately 468 tons of copper pellet/magnesia mixture were transported from Trenches C and D.

#### Surface Area near Trench 30, and Trenches 9, 10 and 11

Shortly after excavation of the designated trench areas contained in the RI began; IT personnel observed copper pellets on the magnesia pile surface extending northwest and south of Trench Areas 11 and 30 as shown on Figure 8. The pellets were visible on the ground surface and appeared to extend approximately 6 inches deep during the initial field reconnaissance. The surficial contamination was estimated to cover an area of approximately 25,000 ft<sup>2</sup> and consisted of 500 cubic yards of material.

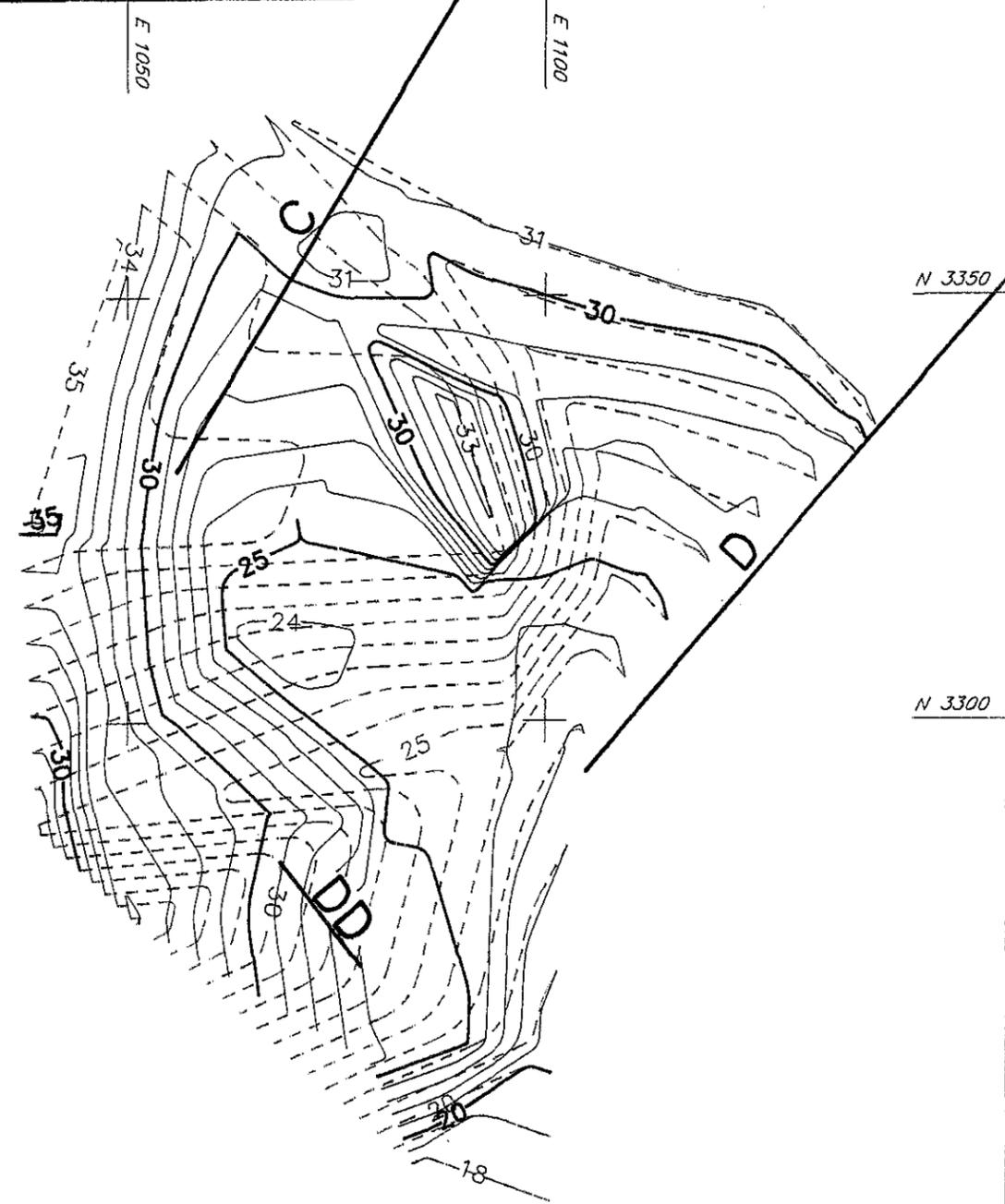
Removal of the surface material began on June 30 using the Hitachi excavator, and was completed June 10. The Koehring excavator and crew assisted the Hitachi crew on June 7 and 10 with surficial removal. A visual survey of this area once the removal operations were complete suggested that the majority of the obvious copper pellets were removed. The surface area in which copper pellets were removed is shown on Figure 8.

#### Trench Areas 1, 2, 3 and 4; 9, 10 and 11; and 30

Trench Areas 1, 2 and 3; 9, 10 and 11; and 30 were designated as separate trench areas for removal in the RD. During excavation, additional copper-contaminated material was encountered north and west of Trench Area 30. The copper pellets continued north through Trench 30 and into Trench Area 9 and 10. Pellets in Trench Area 9 and 10 continued further north to the access road just southeast of Trench Area C and D. Pellets also extended east of Trenches 9 and 10 and became contiguous with Trench Area 1, 2 and 3. The excavation performed in this area is shown on Figure 9.

The Hitachi excavator and work crew began excavating Trench Area 30 on May 28, 1991. During this initial excavation, surficial copper pellets in the vicinity of Trench Areas 11 and 30 were observed. On May 28, the Hitachi work crew was relocated to Trench Area C and D. Following completion of the excavation in Trench Area C and D, work on Trench 30 was re-initiated on June 5. During excavation on June 6, copper pellets were found to continue eastward into the magnesia pile side slope and west under a subsidiary site access route which flanks the southwest portion of the magnesia pile. By the end of the day on June 6, copper pellets could no longer be detected in the magnesia pile side slope west of Trench 30; however, pellets continued west and north beneath the access road. Continued excavation north and west of Trench 30 revealed the presence of thick copper pellet zones between depths of 4 to 6 feet and at 8 feet. These bands of pellets ranged from 4 inches to one foot in thickness. These zones of copper pellets were encountered between Trenches 11 and 30. Excavation in this area continued

DRAWN BY: j.A.C. 8-16-91  
 CHECKED BY: F.H. 8-30-91  
 APPROVED BY: J.S.C. 09/04/91  
 DRAWING NUMBER: 142468-A11



LEGEND :

- C** TRENCH LOCATION AND NUMBER BASED ON THE RI
- - - 10 - - - PRE-EXCAVATION CONTOURS (CONTOUR INTERVAL = 1 FOOT)
- 10 — POST-EXCAVATION CONTOURS (CONTOUR INTERVAL = 1 FOOT)

TOTAL CUT FOR THIS AREA  
 Cut = 525.3 cu. yds.  
 Fill = 0.7 cu. yds.

SCALE

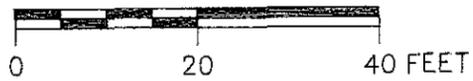


FIGURE 7

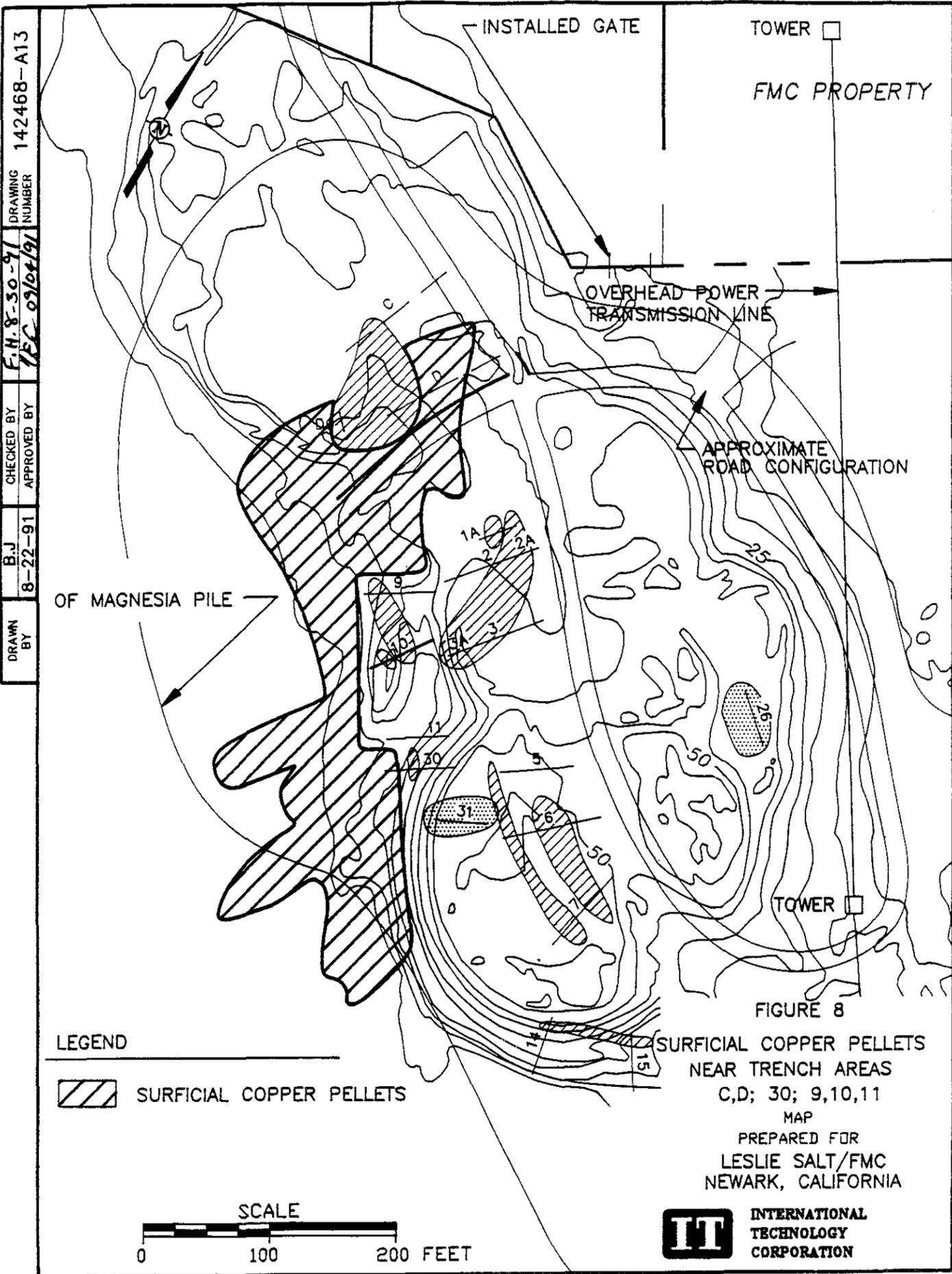
TRENCH AREA C, D  
EXCAVATION MAP

PREPARED FOR

LESLIE SALT/FMC  
NEWARK, CALIFORNIA



INTERNATIONAL  
TECHNOLOGY  
CORPORATION



142468-A13

DRAWING NUMBER

F.H. 8-30-91  
 REC 08/04/91

CHECKED BY  
 APPROVED BY

B.J.  
 8-22-91

DRAWN BY

TOWER □  
 FMC PROPERTY

OVERHEAD POWER TRANSMISSION LINE

APPROXIMATE ROAD CONFIGURATION

OF MAGNESIA PILE

TOWER □

FIGURE 8

SURFICIAL COPPER PELLETS  
 NEAR TRENCH AREAS  
 C,D; 30; 9,10,11

MAP

PREPARED FOR  
 LESLIE SALT/FMC  
 NEWARK, CALIFORNIA

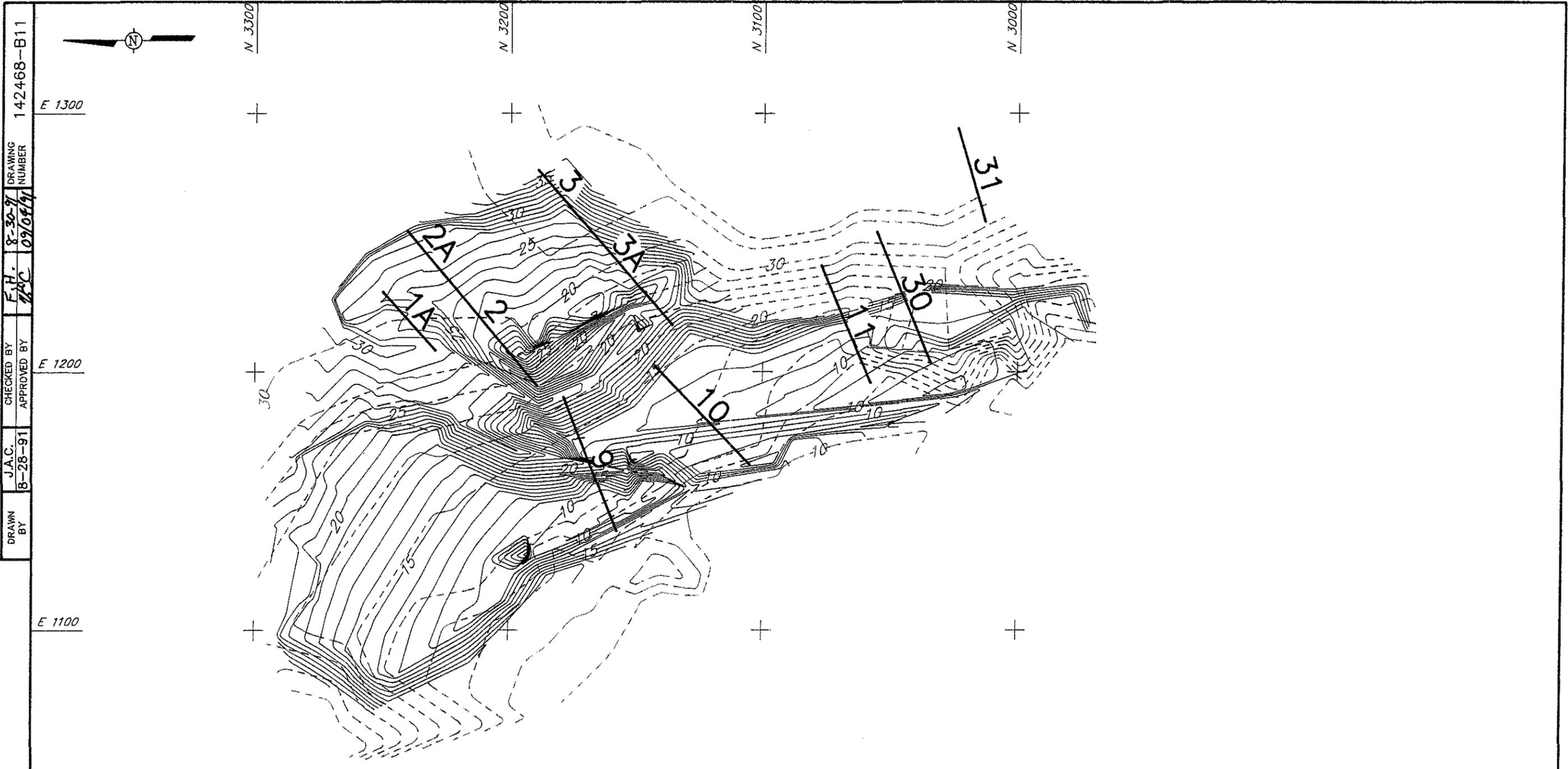
LEGEND

▨ SURFICIAL COPPER PELLETS

SCALE

0 100 200 FEET

**IT** INTERNATIONAL TECHNOLOGY CORPORATION



DRAWN BY: J.A.C. 8-28-91  
 CHECKED BY: F.H. 8-30-91  
 APPROVED BY: J.C. 09/04/91  
 DRAWING NUMBER: 142468-B11

LEGEND :

- TRENCH LOCATION AND NUMBER BASED ON THE RI
- PRE-EXCAVATION CONTOURS (CONTOUR INTERVAL = 2 FEET)
- POST-EXCAVATION CONTOURS (CONTOUR INTERVAL = 1 FOOT)

TOTAL CUT FOR THIS AREA  
 Cut = 5177.8 cu. yds  
 Fill = 92.9 cu. yds.

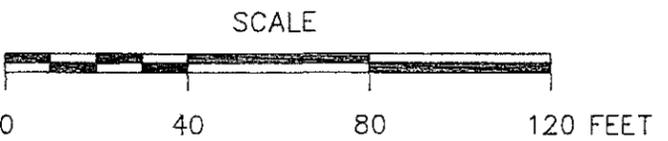
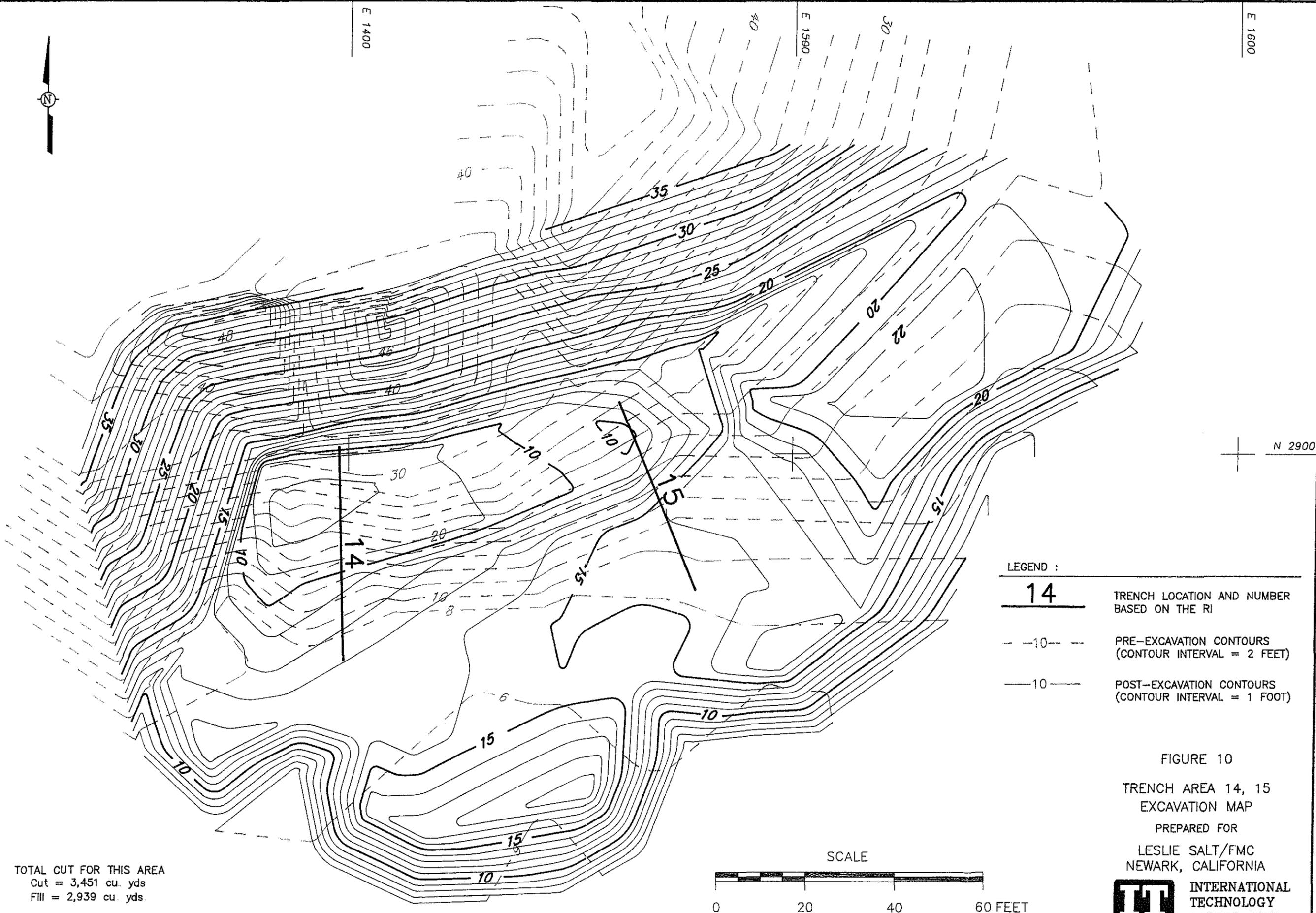


FIGURE 9  
 TRENCH AREA 1, 2, 3,  
 9, 10, 11; AND 30  
 EXCAVATION MAP  
 PREPARED FOR  
 LESLIE SALT/FMC  
 NEWARK, CALIFORNIA  
 INTERNATIONAL  
 TECHNOLOGY  
 CORPORATION

DRAWN BY J.A.C. 8-28-91 CHECKED BY F.M.C. 8-30-91 APPROVED BY F.M.C. 09/09/91  
 DRAWING NUMBER 142468-B9



TOTAL CUT FOR THIS AREA  
 Cut = 3,451 cu. yds  
 Fill = 2,939 cu. yds.

LEGEND :  
**14** TRENCH LOCATION AND NUMBER BASED ON THE RI  
 - - 10 - - PRE-EXCAVATION CONTOURS (CONTOUR INTERVAL = 2 FEET)  
 — 10 — POST-EXCAVATION CONTOURS (CONTOUR INTERVAL = 1 FOOT)

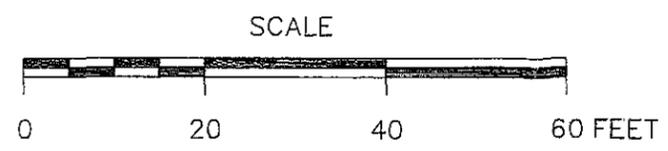


FIGURE 10  
 TRENCH AREA 14, 15  
 EXCAVATION MAP  
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### Trench Area 26

The Koehring excavator and work crew initially began excavation in Trench Area 26 on June 10, 1991. The entire project was shutdown between June 11 and June 17 due to contract negotiations between IT and FMC. Excavation resumed on June 18 in the Trench 26 area; however, the equipment operators were ordered to stop excavating on June 19 because a protocol for segregating the potentially-contaminated mercury magnesia material had not been established. The excavation was approximately 10 feet deep at this time.

Following joint discussions between IT, FMC and DHS; a protocol was established for segregating and evaluating the potentially mercury-contaminated magnesia material. This protocol was described in the DHS letters dated July 1 and July 16, 1991: provided in Appendix F. This protocol consisted of the following: 1) Utilize an archived sample from the RI previously analyzed as being mercury contaminated for comparison with the magnesia material in the trench area. Material which appeared to be discolored a darker gray could be considered potentially contaminated. 2) Transport the potentially mercury-contaminated material to an interim, visqueen-lined stockpile area on the magnesia pile; 3) Obtain composite samples from each stockpile in the area to characterize the segregated material; 4) Depending on the measured mercury concentrations, either transport the material to the loadout stockpile or leave the material on the magnesia pile and survey the final location of this material.

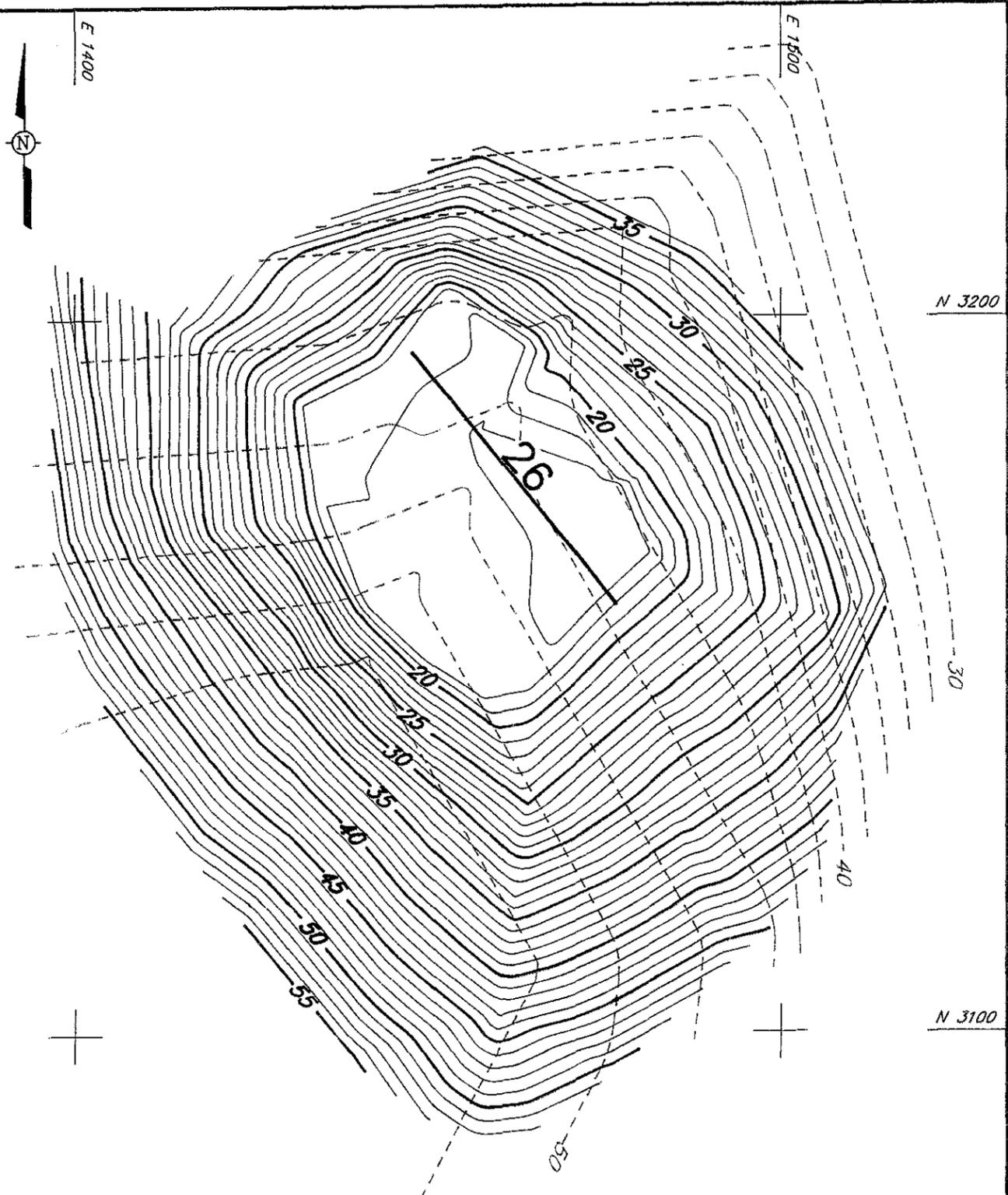
Excavation and stockpiling for Trench 26 began on June 26. The ground technician used a sample from the remedial investigation archive as a field control to separate apparent uncontaminated magnesia overburden from potentially mercury-contaminated magnesia. Overburden was placed adjacent to the excavation and magnesia material observed to be darker gray in color was segregated, loaded in a dedicated dump truck, and transported to the dedicated Trench 26 interim stockpile area just north of Trench Area C and D on the east side of the access road, as shown on Figure 17. The rate of excavation slowed on July 2 due to an increase in the amount of dark gray material. Excavation proceeded slowly to the completion depth of 25 feet, which was reached on July 8, 1991.

Approximately 1,450 cubic yards of potentially mercury-contaminated magnesia material were placed in the Trench 26 interim stockpile area (Section 2.7.3.2, Figure 17). A total of 29 stockpiles, each consisting of 50 cubic yards were placed in the interim stockpile area. One composite sample was submitted for analysis for every 50 cubic yards of material. Eight individual subsamples were randomly collected throughout each individual stockpile and composited for analysis. The measured mercury concentrations in the composite samples were below the criteria established for comparison by DHS, which consisted of the TTLC value for mercury (20 mg/kg) divided by the number of samples forming the composite sample. In the case where 8 samples formed the composite, the analytical results were compared to a criteria of 2.5 mg/kg. Details of the sampling protocol and analytical results are provided in Section 2.7.3. As agreed with DHS, excavated mercury material that did not exceed the established criteria could be left on site, as long as the final location of the material was surveyed and located. The interim stockpile was graded and contoured in place, and the location of this material is shown on Figure 20 in Section 2.8. The volume survey indicated that 6,484 cubic yards of material were excavated from Trench 26. The excavation for Trench Area 26 is shown on Figure 11.

### Trench Area 31

Excavation of Trench Area 31 began July 7 and was completed July 8. One dump truck load (approximately 50 cubic yards) of potentially mercury-contaminated magnesia material was segregated and

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LEGEND :

- 26** TRENCH LOCATION AND NUMBER BASED ON THE RI
- - - 10 - - - PRE-EXCAVATION CONTOURS (CONTOUR INTERVAL = 2 FEET)
- 10 — POST-EXCAVATION CONTOURS (CONTOUR INTERVAL = 1 FOOT)

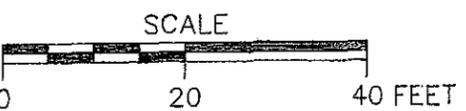


FIGURE 11

TRENCH AREA 26  
EXCAVATION MAP  
PREPARED FOR  
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placed in a designated interim stockpile located north of Trench 26, shown on Figure 18 in Section 2.7.3.2. Approximately 50 cubic yards of potentially mercury-contaminated magnesia material were removed from Trench 31. Excavation in the area of Trench 31 is shown on Figure 6.

## 2.7 VERIFICATION AND WASTE SAMPLING

### 2.7.1 Overview

Verification sampling for the removal of contaminated material was performed at the completion of contaminated material removal from each excavation. Samples of the magnesia material were obtained from the base and the sidewalls of the excavation, and were analyzed for either total copper or mercury, depending on the trench location. The sampling program described in the RD was designed to provide sufficient verification that the contaminated magnesia material had been removed. The remedial action guidelines for the removal of copper and mercury are the TTLC limits for copper and mercury of 2,500 mg/kg and 20 mg/kg, respectively.

Methods described in "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, U.S. EPA, September 1986 were used to estimate the number of samples needed to obtain a statistically valid determination that contaminated material having concentrations above the TTLC limits had been removed. Values for the sample mean value (concentration) and variance were assumed, and equations provided in SW-846 were used to estimate the required number of samples. This exercise indicated that two samples per discrete area (i.e. base of excavation) would be required. SW-846 suggests that more samples than the minimum number calculated be collected to ensure that re-sampling will not be required, and that the results will be statistically valid.

### 2.7.2 Verification Sampling

#### Verification Sampling Protocol

The sampling plan proposed in the remedial design specified that 16 samples (total) would be collected and analyzed for each excavation. A total of six random samples were to be collected from the base of each excavation. The RD also proposed that a total of 10 samples be collected from the sidewalls of each excavation. The 10 samples would each be composites of three discrete sub-samples. This sampling plan could potentially result in a relatively high sampling density in the smaller excavations and a relatively low sampling density in larger excavations. At the time the RD was prepared, it was anticipated that the excavations would all be approximately the same size, with the similar base and sidewall areas, based on the results of the RI and RAP.

However, the excavation performed in the field uncovered additional contaminated material and the excavations assumed differing sizes. As described in the RD, the nine copper and mercury trench areas had a combined surficial area of approximately 20,150 square feet. Assuming that 9 independent areas are excavated and that 16 samples per excavation are collected, one sample would be collected for about 118 square feet of excavation. Several weeks into the project, it became apparent that the excavations would have much different sizes, and the set number of samples per excavation would lead to a lack of samples in the very large excavations and more samples than required in the smaller ones. It was decided, with the concurrence of the supervising professional engineer, to be consistent with the intent of the RD

sampling program and maintain a sampling density of about one sample per 135 square feet. This change provided a consistent sampling density for all excavation areas.

The samples from the excavation base were randomly located and spaced so a representative sampling was obtained. Samples were obtained in areas in which pockets of contaminated material had been observed during excavation. Approximately one sub-sample was collected for every 8 feet of vertical excavation sidewall; these samples were then composited into one sample to represent a vertical sidewall section and submitted to the laboratory for analysis. The sub-samples were composited by the analytical laboratory.

Samples were collected from the base and sidewalls of the excavation using an impact driven California modified sampler containing stainless steel sample tubes. The sampler was always driven deep enough to fill the sample tube to a minimum of 70% full. After collection, the sample tubes were sealed at each end with teflon film, capped, and sealed with duct tape. The sampling tubes were labeled with the date and time of collection, project name/number, sampler's name, and sample identification. The samples were subsequently placed in ziploc storage bags and placed in a cooler on ice. Sample collection was documented on Sample Collection Logs and Daily Field Activity Logs. The samples were entered into IT standard chain-of-custody procedures. The samples were accompanied by chain-of-custody and request-for-analysis forms.

The samples were transported via courier to the Sequoia Analytical Laboratory (Sequoia) in Redwood City, California. Sequoia is certified by the California Department of Health Services. Samples were analyzed for either copper using EPA Method 6010, or mercury using EPA Method 7471. The sample holding times are six (6) months for copper and 28 days for mercury. Upon receipt of analytical results, the statistical validity was verified using the methods specified in SW-846.

Five gallon plastic buckets were used to contain the aquinox solution and the rinse water used for decontamination purposes. Decontamination of sampling tools consisted of an initial wash with an Aquinox and water solution, followed by two rinses with tap water. Sample tubes recently shipped from the factory were decontaminated prior to field use by washing in an Aquinox and water solution, rinsing with tap water and rinsing with distilled water. The tubes and caps were air dried and packed in new polyethylene bags for field use. The California modified sampler was decontaminated prior to collecting each sample. The decontamination water was collected in the buckets and transferred to the equipment decontamination pad sump and subsequently used for dust suppression on the contaminated material stockpiles.

#### Verification Sampling Results

Verification sampling for copper was conducted in Trench Areas C and D; 1, 2, 3, 9, 10, 11 and 30; 5, 6 and 7; and 14 and 15. Verification sampling for mercury was conducted in Trench Areas 26 and 31. Verification sampling for naphthalene and waste oil was conducted in the eastern portion of Trenches 14 and 15. The certificates of analysis and chain-of-custody forms for these samples are provided in Appendix C.

Table 6 provides a summary of the analytical results for the verification sampling in the trenches formerly containing copper-contaminated magnesia material. The results of the statistical analysis of these values are provided in Table 7. The number of samples in each excavation sidewall composite sample are also provided in Table 6. Analytical results for composite samples were compared to the TLC value for either copper or mercury, divided by the number of samples in the composite. This approach is based on

TABLE 6

VERIFICATION SAMPLING RESULTS FOR COPPER  
CONTAMINATED MAGNESIA AREAS

| Completed Excavation Area       | Sample I.D. | Number of Samples in Composite <sup>2</sup> | Copper mg/kg <sup>1</sup> | Sample I.D. | Number of Samples in Composite <sup>2</sup> | Copper mg/kg <sup>1</sup> |
|---------------------------------|-------------|---|---------------------------|-------------|---|---------------------------|
| Area 1-2-3-4,<br>9-10-11 and 30 | 123-1       |   | 35                        | 9/10-9      | 2   | 110                       |
|                                 | 123-2       |   | 31                        | 9/10/10     | 2   | 18                        |
|                                 | 123-3       |   | 35                        | 9/10-11     | 2   | 18                        |
|                                 | 123-4       |   | 26                        | 9/10-12     |   | 62                        |
|                                 | 123-5       |   | 30                        | 9/10-13     |   | 53                        |
|                                 | 123-6       |   | 35                        | 9/10-14     |   | 45                        |
|                                 | 123-7       |   | 41                        | 9/10-15     |   | 45                        |
|                                 | 123-8       |   | 30                        | 9/10-16     |   | 34                        |
|                                 | 123-9       |   | 25                        | 9/10-17     |   | 39                        |
|                                 | 123-10      |   | 28                        | 9/10-18     |   | 32                        |
|                                 | 123-11      |   | 26                        | 9/10-19     |   | 30                        |
|                                 | 123-12      |   | 28                        | 9/10-20     |   | 30                        |
|                                 | 123-13      |   | 26                        | 9/10-21     |   | 28                        |
|                                 | 123-14      |   | 24                        | 9/10-22     |   | 28                        |
|                                 | 123-15      |   | 22                        | 9/10-23     |   | 33                        |
|                                 | 123-16      |   | 25                        | 9/10-24     |   | 32                        |
|                                 | 9/10-1      |   | 43                        | 9/10-25     |   | 31                        |
|                                 | 9/10-2      |   | 40                        | 9/10-26     |   | 31                        |
|                                 | 9/10-3      |   | 30                        | 9/10-27     |   | 31                        |
|                                 | 9/10-4      |   | 34                        | 9/10-28     | 2   | 4                         |
|                                 | 9/10-5      |   | 31                        | 9/10-29     | 2   | (ND)                      |
|                                 | 9/10-6      |   | 32                        | 9/10-30     | 2   | 39                        |
|                                 | 9/10-7      |   | 32                        | 9/10-31     | 2   | 730                       |
|                                 | 9/10-8      |   | 30                        | 9/10-32     | 2   | 63                        |

TABLE 6

VERIFICATION SAMPLING RESULTS FOR COPPER  
CONTAMINATED MAGNESIA AREAS

| Completed Excavation Area       | Sample ID. | Number of Samples in Composite <sup>2</sup> | Copper mg/kg <sup>1</sup> | Sample ID. | Number of Samples in Composite <sup>2</sup> | Copper mg/kg <sup>1</sup> |
|---------------------------------|------------|---|---------------------------|------------|---|---------------------------|
| Area 1-2-3-4,<br>9-10-11 and 30 | 11-1       |   | 47                        | 30-5       |   | 260                       |
|                                 | 11-2       |   | 40                        | 30-6       |   | 15                        |
|                                 | 11-3       | 2   | 360                       | 30-7       | 2   | 20                        |
|                                 | 30-1       |   | 120                       | 30-8       | 2   | 27                        |
|                                 | 30-2       |   | 6.0                       | 30-9       | 2   | 17                        |
|                                 | 30-3       |   | 54                        | 30-10      | 2   | 79                        |
|                                 | 30-4       |   | 52                        |            |   |                           |
| Area 5-6-7                      | 567-1      |   | 81                        | 567-21     | 3   | 99                        |
|                                 | 567-2      |   | 74                        | 567-22     | 2   | 240                       |
|                                 | 567-3      |   | 16                        | 567-23     | 3   | 140                       |
|                                 | 567-4      |   | 10                        | 567-24     |   | 29                        |
|                                 | 567-5      |   | 9.6                       | 567-25     |   | 120                       |
|                                 | 567-6      |   | 44                        | 567-26     |   | ND                        |
|                                 | 567-7      |   | 60                        | 567-27     |   | 92                        |
|                                 | 567-8      |   | 55                        | 567-28     |   | 21                        |
|                                 | 567-9      |   | 250                       | 567-29     |   | 46                        |
|                                 | 567-10     |   | 86                        | 567-30     | 3   | 58                        |
|                                 | 567-11     | 3   | 33                        | 567-31     |   | 130                       |
|                                 | 567-12     | 2   | 34                        | 567-32     |   | 73                        |
|                                 | 567-13     | 3   | 34                        | 567-33     |   | 42                        |
|                                 | 567-14     | 3   | 17                        | 567-34     |   | 15                        |
|                                 | 567-15     |   | 80                        | 567-35     |   | 42                        |
|                                 | 567-16     |   | 87                        | 567-36     |   | 29                        |
|                                 | 567-17     |   | 86                        | 567-37     |   | 33                        |
|                                 | 567-18     |   | 19                        | 567-38     |   | 65                        |

TABLE 6

VERIFICATION SAMPLING RESULTS FOR COPPER  
CONTAMINATED MAGNESIA AREAS

| Completed Excavation Area | Sample I.D. | Number of Samples in Composite <sup>2</sup> | Copper mg/kg <sup>1</sup> | Sample I.D. | Number of Samples in Composite <sup>2</sup> | Copper mg/kg <sup>1</sup> |
|---------------------------|-------------|---|---------------------------|-------------|---|---------------------------|
|                           | 567-19      | 3   | 17                        | 567-39      |   | 57                        |
|                           | 567-20      | 3   | 20                        | 567-40      |   | 38                        |
| Area 5-6-7                | 567-41      |   | 91                        | 567-45      | 2   | 77                        |
|                           | 567-42      |   | 24                        | 567-46      | 2   | 18                        |
|                           | 567-43      |   | 42                        | 567-47      | 2   | 30                        |
|                           | 567-44      | 2   | 42                        | 567-48      | 3   | 80                        |
| Area 14-15                | 14/15-1     |   | 40                        | 14/15-5     | 3   | 55                        |
|                           | 14/15-2     |   | 15                        | 14/15-6     | 3   | 71                        |
|                           | 14/15-3     |   | 34                        | 14/15-7     |   | 63                        |
|                           | 14/15-4     | 3   | 32                        | 14/15-8     |   | 290                       |
|                           |             |   |                           | 14/15-9     | 3   | 520                       |
| Area C-D                  | CD-1        |   | 32                        | CD-6        | 2   | 43                        |
|                           | CD-2        |   | 31                        | CD-7        | 3   | 39                        |
|                           | CD-3        |   | 31                        | CD-8        | 2   | 9.8                       |
|                           | CD-4        |   | 29                        | CD-9        |   | 2.7                       |
|                           | CD-5        |   | 28                        | CD-10       |   | 5.1                       |

<sup>1</sup> Copper detection limit was 0.50 mg/kg

<sup>2</sup> This number represents the number of subsamples in the excavation sidewall composite sample

**Table 7**

**STATISTICAL ANALYSIS OF VERIFICATION SAMPLING  
RESULTS FOR COPPER-CONTAMINATED MAGNESIA AREAS**

| Completed<br>Excavation<br>Area | Excavation Base Samples      |  |  | Sidewall Samples             |  |  |
|---------------------------------|------------------------------|--|--|------------------------------|--|--|
|                                 | Mean <sup>1</sup><br>(mg/kg) | Confidence<br>Interval <sup>2</sup><br>(mg/kg) | Cleanup<br>Criterion <sup>3</sup><br>(mg/kg) | Mean <sup>1</sup><br>(mg/kg) | Confidence<br>Interval <sup>2</sup><br>(mg/kg) | Cleanup<br>Criterion <sup>4</sup><br>(mg/kg) |
| 5,6,7,31                        | 58                           | 58 ± 11  | 2500   | 66                           | 66 ± 21  | 833  |
| 14,15                           | 88                           | 88 ± 78  | 2500   | 170                          | 170 ± 192                                      | 833  |
| C,D                             | 23                           | 23 ± 7   | 2500   | 31                           | 31 ± 20  | 1250   |
| 1,2,3,4;<br>9,10,11; and 30     | 39                           | 39 ± 7   | 2500   | 133                          | 131 ± 91                                       | 1250   |

<sup>1</sup> Calculated as  $\bar{x} = (\sum_{i=1}^n x_i)/n$

<sup>2</sup> Confidence interval,  $CI = \bar{x} \pm (t_{0.20})(s_{\bar{x}})$ , where  $t_{0.20}$  is the tabulated value of Student's "t" for a two-tailed confidence interval and a probability of 0.20, and  $s_{\bar{x}}$  is the standard error calculated as  $s_{\bar{x}} = s/(n)^{0.5}$

<sup>3</sup> Cleanup criterion is the TTLC limit for copper (Title 22, Section 66699 of the California Code of Regulations)

<sup>4</sup> Cleanup criterion is the TTLC limit for copper divided by the number of subsamples in the composite sidewall samples

the guidance provided by DHS regarding criteria for the composite sampling performed for the potentially mercury-contaminated magnesite material.

The locations of the verification samples for trench areas formerly containing copper are shown on Figures 12 through 15. Figure 12 presents the sample locations for Trench Area 5, 6, 7 and 31. Verification sampling results for this area indicated that residual copper concentrations ranging from 10 to 250 mg/kg were present. Calculations indicated a mean value of 59 mg/kg for the base samples and 66 mg/kg for the sidewall samples. The statistical analysis for these results indicated a confidence interval of  $59 \pm 11$  mg/kg for the base samples and  $66 \pm 21$  mg/kg for the sidewall samples. These results are below the applicable criteria of 2,500 mg/kg for the base samples and 833 mg/kg for the sidewall samples.

Figure 13 presents the sample locations for Trench Area C and D. Verification sampling results in this area indicated that residual copper concentrations ranging from 2.7 to 43 mg/kg were present. Calculations indicated a mean value of 23 mg/kg for the base samples and 31 mg/kg for the sidewall samples. The statistical analysis for these results indicated a confidence interval of  $23 \pm 7$  mg/kg for the base samples and  $31 \pm 20$  mg/kg for the sidewall samples. These results are below the applicable criteria of 2,500 mg/kg for the base samples and 1250 mg/kg for the sidewall samples.

Figure 14 presents the sample locations for Trench Areas 1, 2, 3, 4; 9, 10, 11; and 30. Measured residual copper concentrations in this excavation ranged from non detected at a detection limit of 0.5 mg/kg to 730 mg/kg. Calculations indicated a mean value of 39 mg/kg for the base samples and 133 mg/kg for the sidewall samples. Statistical calculations indicated a confidence interval of  $39 \pm 7$  mg/kg for the base samples and  $133 \pm 91$  mg/kg for the sidewall samples. These results are below the applicable criteria of 2,500 mg/kg for the base samples and 1,250 mg/kg for the sidewall samples.

Figure 15 presents the sample locations for Trench Area 14 and 15. Verification sampling results in this area indicated residual copper concentrations ranging from 15 to 290 mg/kg were present. Calculations indicated a mean value of 88 mg/kg for the base samples and 170 mg/kg for the sidewall samples. The statistical analysis for these results indicated a confidence interval of  $88 \pm 78$  mg/kg for the base samples and  $170 \pm 192$  mg/kg for the sidewall samples. These results are below the applicable criterion of 2,500 mg/kg for the base samples and 833 mg/kg for the sidewall samples.

Table 8 provides a summary of the analytical results for the verification sampling performed for areas suspected of having mercury contamination. The statistical analysis of these results are presented in Table 9. Figure 16 presents the sample locations for the verification sampling for Trench 26. Measured mercury concentrations for Trench 26 ranged from non-detected less than 0.010 mg/kg to 0.720 mg/kg. Calculations indicated a mean value of 0.196 mg/kg for the base samples and 0.495 mg/kg for the sidewall samples. The statistical analysis provided a confidence interval of  $0.196 \pm 0.287$  mg/kg for the base samples and  $0.495 \pm 0.528$  mg/kg for the sidewall samples. These results are below the applicable criteria of 20 mg/kg for the base samples and 6.67 mg/kg for the sidewall samples. The measured mercury concentrations for Trench 31 ranged from 0.160 mg/kg to 1.6 mg/kg. Calculations indicated a mean value of 0.511 mg/kg for the base samples and 0.205 mg/kg for the sidewall samples. The statistical analysis provided a confidence interval of  $0.511 \pm 0.426$  mg/kg for the base samples and  $0.205 \pm 0.138$  mg/kg for the sidewall samples. These results are below the applicable criteria of 20 mg/kg for the base samples and 10 mg/kg for the sidewall samples.

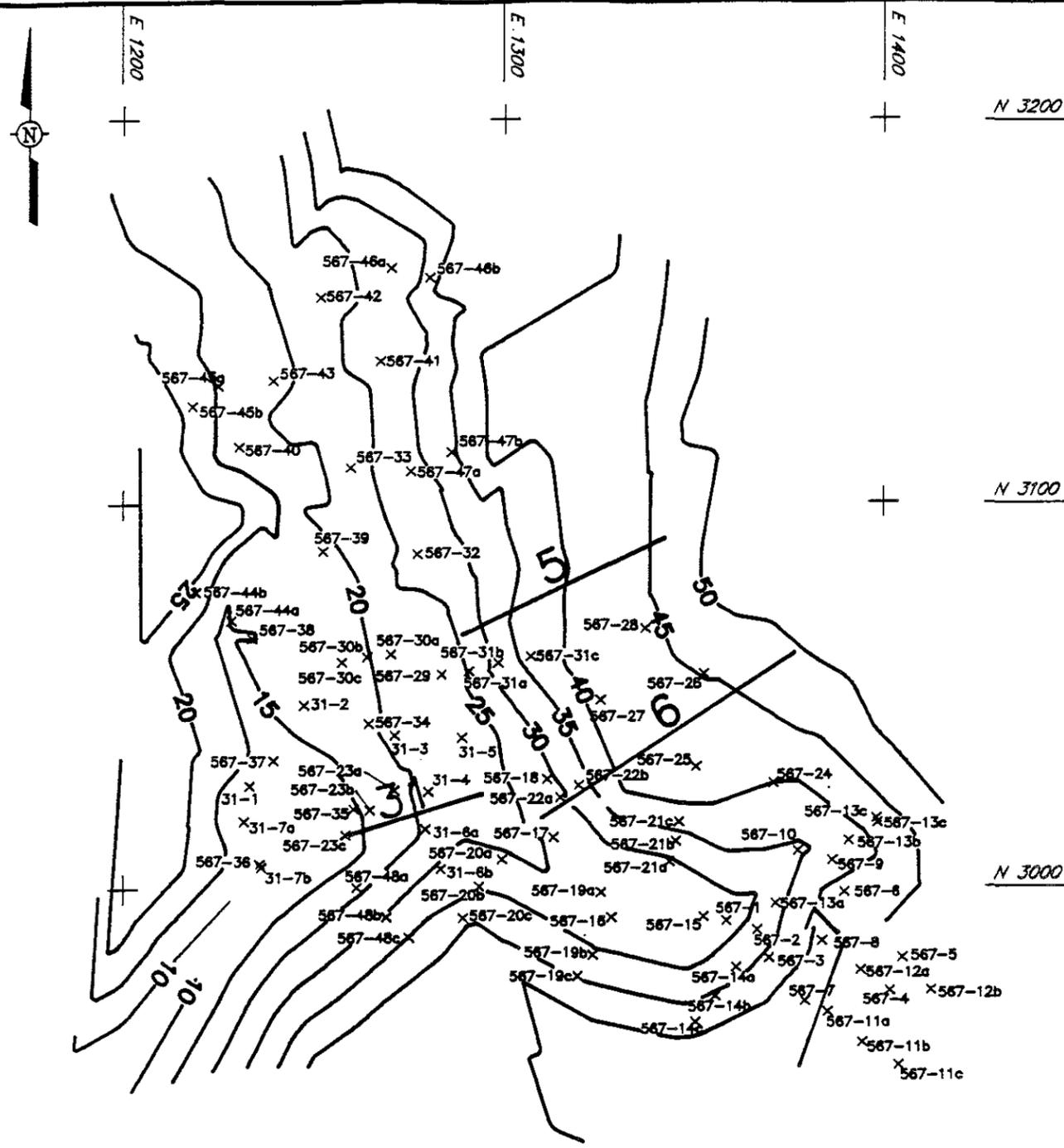
Verification samples for naphthalene (Sample ID 14/15-NAP1 and 14/15-NAP2) were collected near Trench 15. The sample locations are shown on Figure 15. Samples for naphthalene were analyzed

DRAWING NUMBER  
142468-A15

DRAWN BY  
J.A.C.  
8-28-9

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E.H. 8-30-91

APPROVED BY  
09/08/91



- LEGEND :
- 5** TRENCH LOCATION AND NUMBER BASED ON THE RI
  - x567-11c SAMPLE LOCATION AND IDENTIFICATION NUMBER
  - 10** POST-EXCAVATION CONTOURS (CONTOUR INTERVAL = 5 FEET)

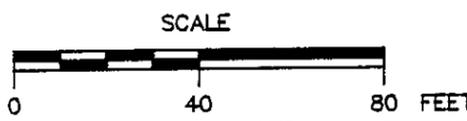


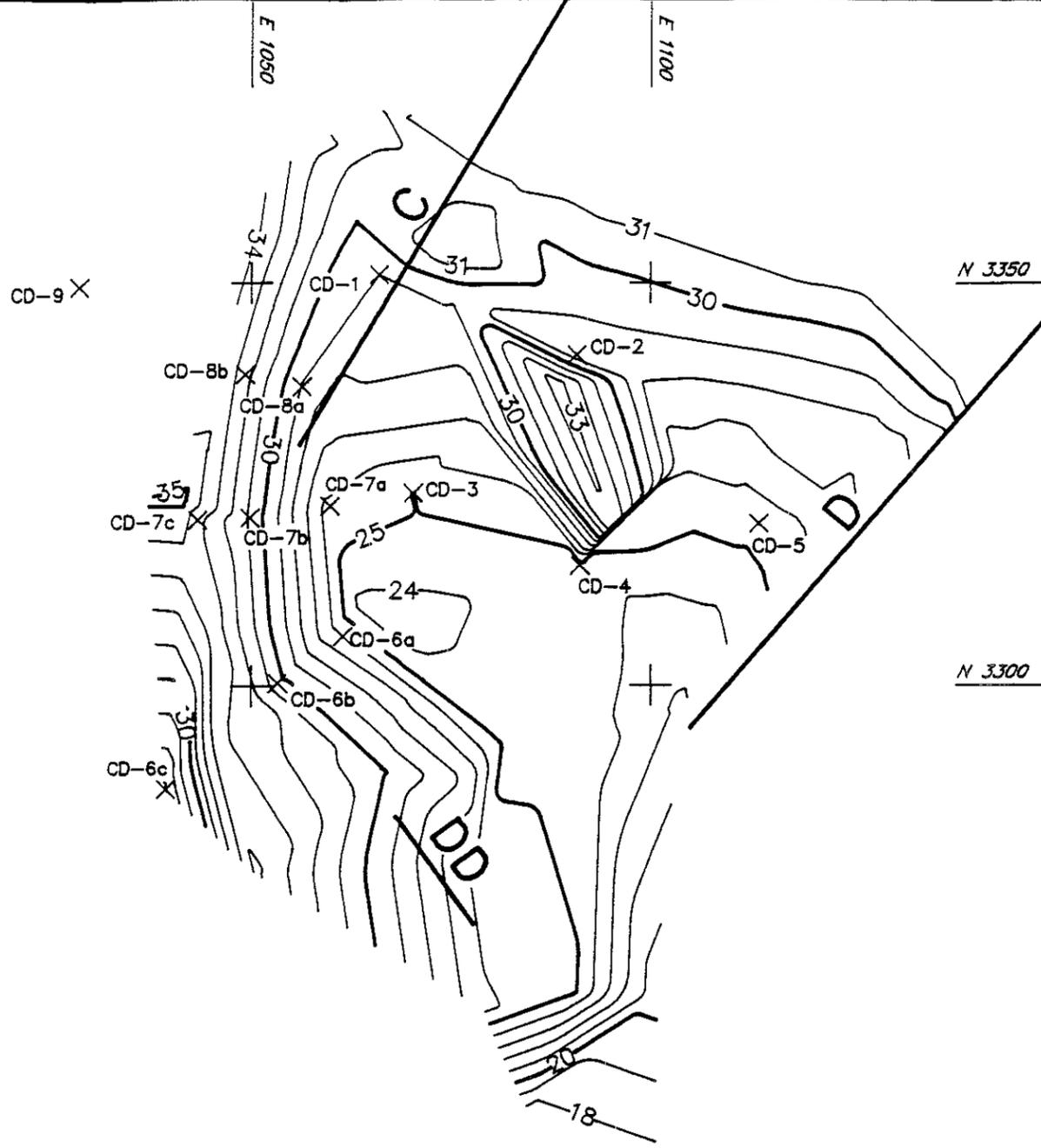
FIGURE 12  
TRENCH AREA 5, 6, 7 & 31  
VERIFICATION SAMPLING MAP  
PREPARED FOR  
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NEWARK, CALIFORNIA  
**IT** INTERNATIONAL  
TECHNOLOGY  
CORPORATION

DRAWN BY J.A.C. 8-28-91

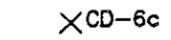
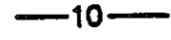
CHECKED BY E.H. 8-30-91

APPROVED BY [Signature]

DRAWING NUMBER 142468-A12



LEGEND :

-  TRENCH LOCATION AND NUMBER BASED ON THE RI
-  SAMPLE LOCATION AND IDENTIFICATION NUMBER
-  POST-EXCAVATION CONTOURS (CONTOUR INTERVAL = 1 FOOT)

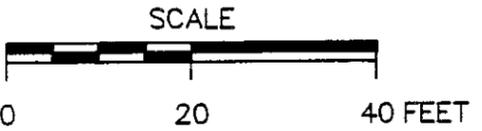
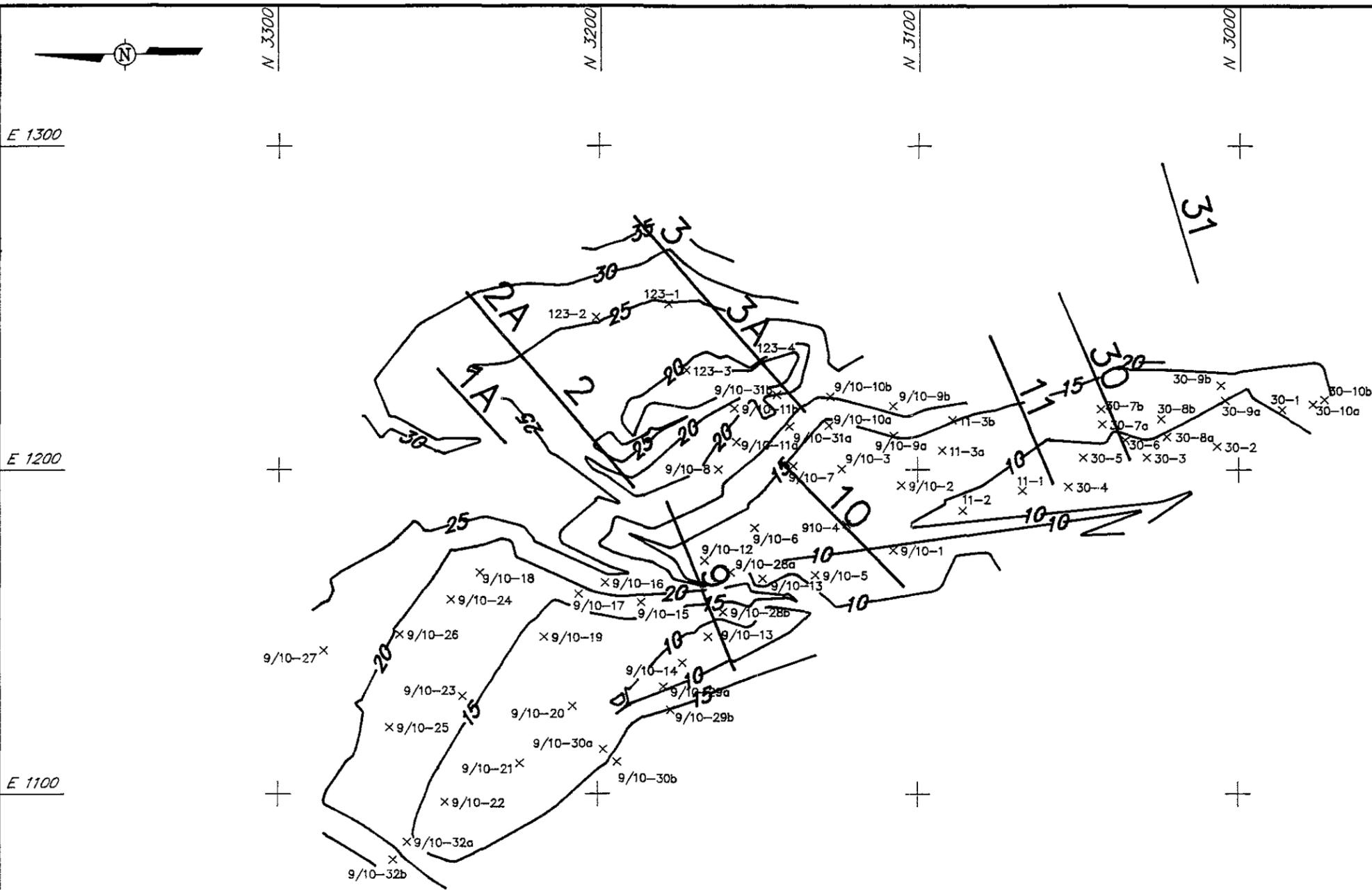


FIGURE 13  
TRENCH AREA C, D  
VERIFICATION SAMPLING MAP

PREPARED FOR  
LESLIE SALT/FMC  
NEWARK, CALIFORNIA



142468-B12  
 DRAWING NUMBER  
 8-30-91  
 DATE  
 F.H.  
 CHECKED BY  
 J.A.C.  
 APPROVED BY  
 8-28-91  
 DRAWN BY



LEGEND :

**30** TRENCH LOCATION AND NUMBER  
 BASED ON THE RI

x567-11c SAMPLE LOCATION AND  
 IDENTIFICATION NUMBER

**10** POST-EXCAVATION CONTOURS  
 (CONTOUR INTERVAL = 5 FEET)



FIGURE 14  
 TRENCH AREA 1, 2, 3, 4;  
 9, 10, 11; AND 30  
 VERIFICATION SAMPLING MAP  
 PREPARED FOR  
 LESLIE SALT/FMC  
 NEWARK, CALIFORNIA  
 INTERNATIONAL  
 TECHNOLOGY  
 CORPORATION

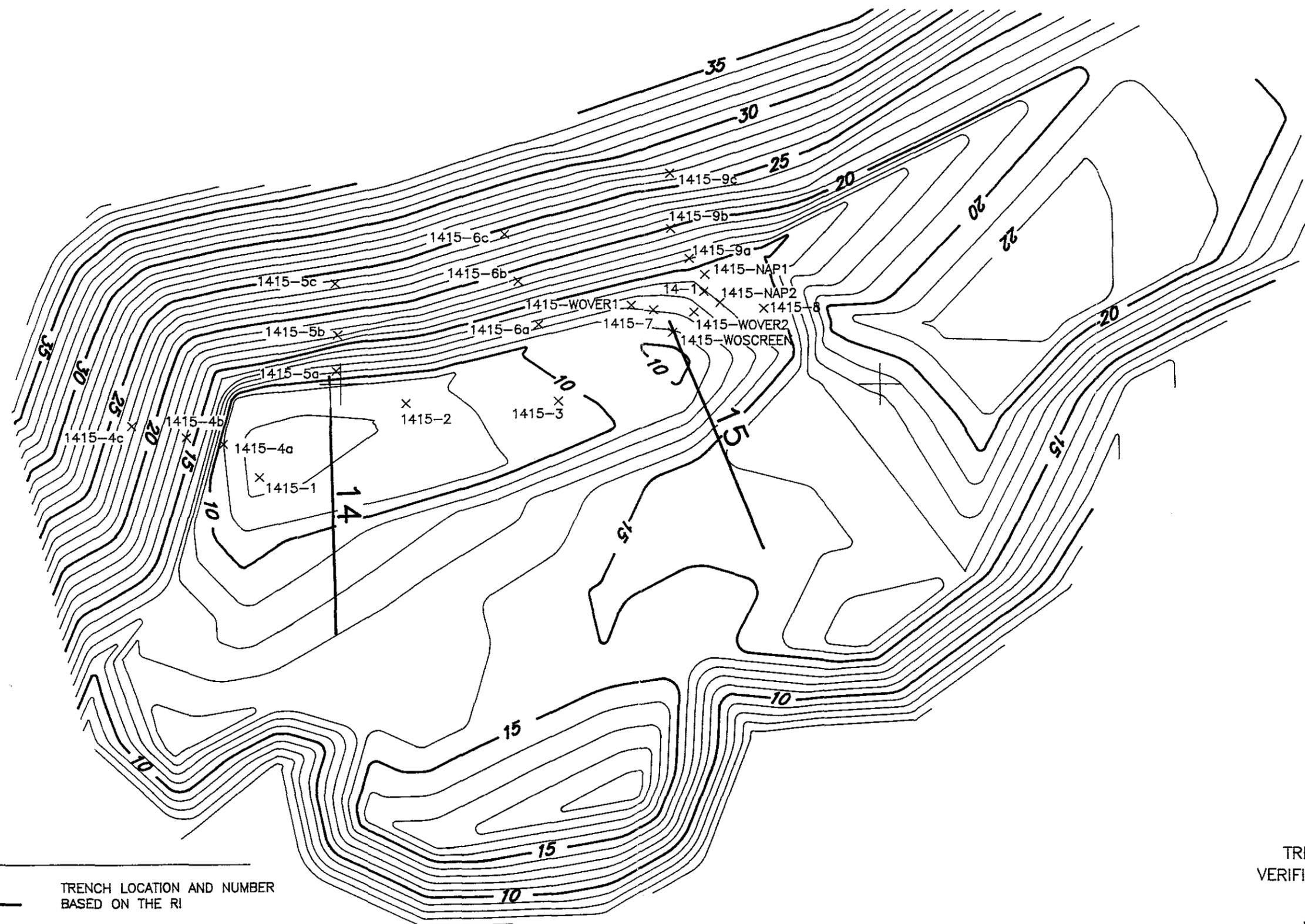
DRAWN BY: J.A.C. 8-28-91  
 CHECKED BY: F.H.C. 8-30-91  
 APPROVED BY: F.H.C. 09/05/91  
 DRAWING NUMBER: 142468-B10



E 1400

E 1500

E 1600



N 2900

- LEGEND :
- 14** TRENCH LOCATION AND NUMBER BASED ON THE RI
  - x567-11c SAMPLE LOCATION AND IDENTIFICATION NUMBER
  - 10** POST-EXCAVATION CONTOURS (CONTOUR INTERVAL = 1 FOOT)

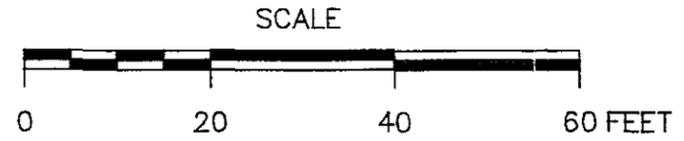


FIGURE 15  
 TRENCH AREA 14, 15  
 VERIFICATION SAMPLING MAP  
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 LESLIE SALT/FMC  
 NEWARK, CALIFORNIA  
 INTERNATIONAL  
 TECHNOLOGY  
 CORPORATION

| TABLE 8   |             |                                |  |
|---|-------------|--------------------------------|--|
| VERIFICATION SAMPLING RESULTS FOR SUSPECTED MERCURY-CONTAMINATED MAGNESIA AREAS |             |                                |  |
| Completed Excavation Area   | Sample I.D. | Number of samples in composite | Mercury Concentration <sup>1</sup> , (mg/kg) |
| AREA 26   | 26-1        |                                | 0.022  |
|   | 26-2        |                                | 0.720  |
|   | 26-3        |                                | ND   |
|   | 26-4        |                                | 0.041  |
|   | 26-5        | 3                              | 0.064  |
|   | 26-6        | 3                              | 0.028  |
|   | 26-7        | 3                              | ND   |
|   | 26-8        | 3                              | ND   |
|   | 26-9        | 3                              | 0.680  |
|   | 26-10       | 3                              | 2.200  |
| AREA 31   | 31-1        |                                | 0.400  |
|   | 31-2        |                                | 1.600  |
|   | 31-3        |                                | 0.310  |
|   | 31-4        |                                | 0.170  |
|   | 31-5        |                                | 0.077  |
|   | 31-6        | 2                              | 0.160  |
|   | 31-7        | 2                              | 0.250  |

<sup>1</sup> The detection limit for mercury is 0.010 mg/kg.

Table 9

STATISTICAL ANALYSIS OF VERIFICATION SAMPLING  
RESULTS FOR SUSPECTED MERCURY CONTAMINATED MAGNESIA AREAS

| Completed<br>Excavation Area | Excavation Base Samples      |   |  | Sidewall Samples             |   |  |
|------------------------------|------------------------------|---|--|------------------------------|---|--|
|                              | Mean <sup>1</sup><br>(mg/kg) | Confidence Interval <sup>2</sup><br>(mg/kg) | Cleanup<br>Criterion <sup>3</sup><br>(mg/kg) | Mean <sup>1</sup><br>(mg/kg) | Confidence<br>Interval <sup>2</sup> (mg/kg) | Cleanup<br>Criterion <sup>4</sup><br>(mg/kg) |
| 26                           | .196                         | .196 ± .287                                 | 20   | .495                         | .495 ± .528                                 | 6.67   |
| 31                           | .511                         | .511 ± .426                                 | 20   | .205                         | .205 ± .139                                 | 10   |

<sup>1</sup> Calculated as  $\bar{x} = (\sum_{i=1}^n x_i)/n$

<sup>2</sup> Confidence interval,  $CI = \bar{x} \pm (s_{\bar{x}})(t_{0.20})$ , where  $t_{0.20}$  is the tabulated value of Student's "t" for a two-tailed confidence interval and a probability of 0.20, and  $s_{\bar{x}}$  is the standard error calculated as  $s_{\bar{x}} = s/(n)^{0.5}$

<sup>3</sup> Cleanup criterion is the TTLC limit for copper (Title 22, Section 66699 of the California Code of Regulations).

<sup>4</sup> Cleanup criterion is the TTLC limit for copper divided by the number of subsamples in the composite sidewall samples.

142468-A10

DRAWING NUMBER

8-30-77

F.H.

CHECKED BY

APPROVED BY

J.A.C.

8-28-9

DRAWN BY

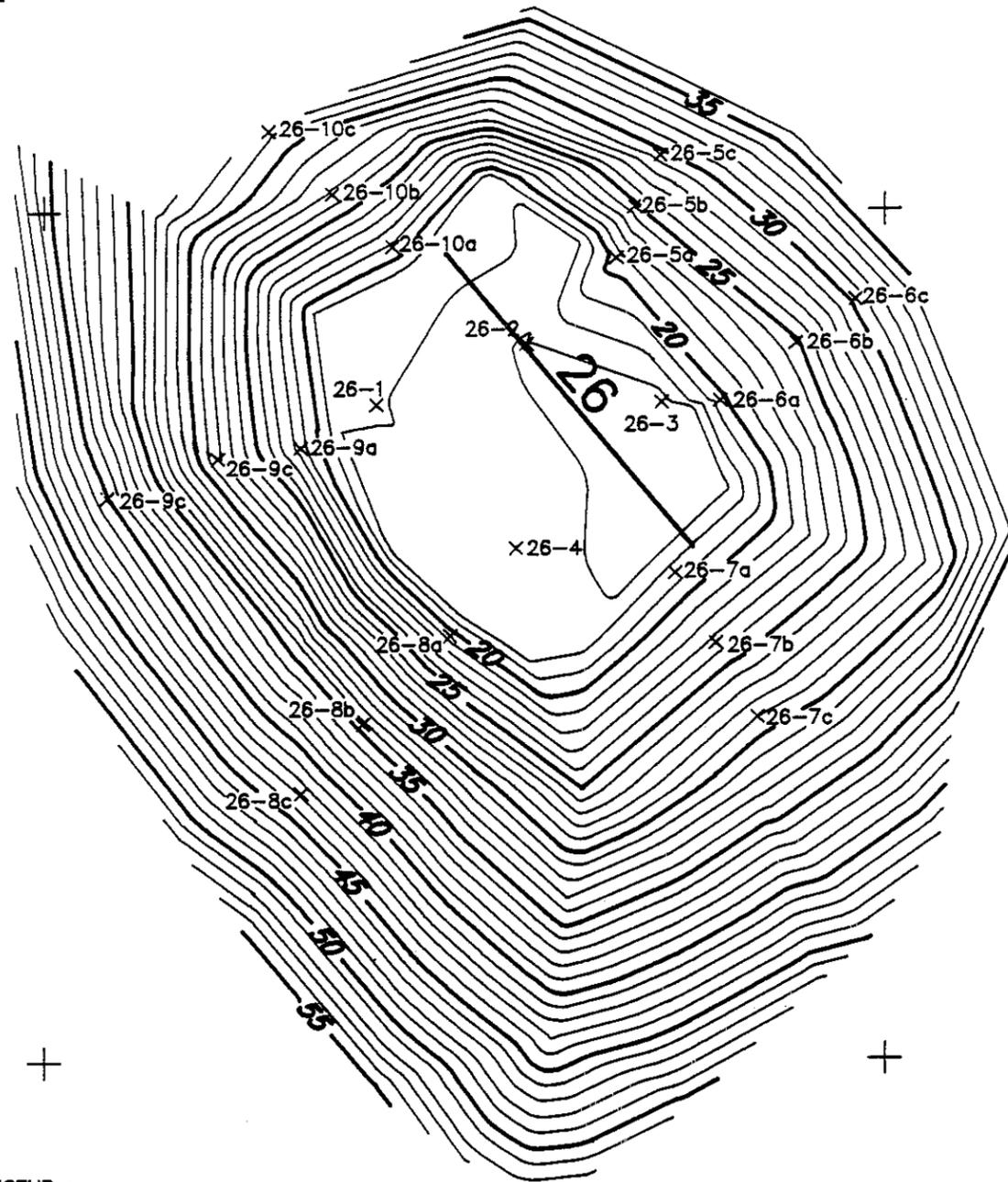


E 1400

E 1500

N 3200

N 3100



LEGEND :

- 26** TRENCH LOCATION AND NUMBER  
BASED ON THE RI
- x26-8b SAMPLE LOCATION AND  
IDENTIFICATION NUMBER
- 10** POST-EXCAVATION CONTOURS  
(CONTOUR INTERVAL = 5 FEET)

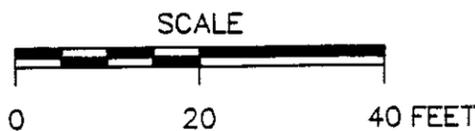


FIGURE 16  
TRENCH AREA 26  
VERIFICATION SAMPLING MAP

PREPARED FOR  
LESLIE SALT/FMC  
NEWARK, CALIFORNIA



according to methodology provided in EPA Method 502. The certificates of analysis and chain-of-custody forms are provided in Appendix C. The analytical results indicated that naphthalene was not detected in the two samples at a detection limit of 5.0 ug/kg.

Verification samples for waste oil (Sample ID 14/15 WOVER1 and 14/15 WOVER2) were collected near Trench 15 at the locations shown on Figure 15. The samples were analyzed for total recoverable hydrocarbons using EPA Method 418.1, halogenated volatile organics using EPA Method 8010, organochlorine pesticides and PCBs using EPA Method 8080 and metals (cadmium, total chromium, lead and zinc). This set of analyses was chosen to scan for the most common contaminants in waste oil. The results indicated that total recoverable hydrocarbons, halogenated hydrocarbons, and pesticides and PCBs were not detected in the samples at detection limits of 313 mg/kg; 5.0 to 20 mg/kg; and 20 to 80 mg/kg, respectively. Cadmium was not detected in the samples at a detection limit of 0.50 mg/kg. Chromium was detected in samples 14/15 WOVER1 at 150 mg/kg and at 160 mg/kg in sample 14/15 WOVER2, which is below the TTLC limit of 2,500 mg/kg. Lead was detected in sample 14/15 WOVER1 at 2.2 mg/kg and in sample 14/15 WOVER2 at 3.0 mg/kg, which is below the TTLC limit of 1,000 mg/kg. Zinc was detected in sample 14/15 WOVER1 at 64 mg/kg and in sample 14/15 WOVER2 at 720 mg/kg, which is below the TTLC limit of 5,000 mg/kg.

The results of the verification sampling indicated that the copper-contaminated magnesia material has been removed to levels well below the cleanup criteria of 2,500 mg/kg (TTLC value). Excavation and analysis of magnesia material in areas suspected of having mercury contamination indicated that material having mercury concentrations which exceeded the TTLC limit was not present. The analytical results indicated that the detected mercury concentrations in this material were below the DHS criteria for composite samples (2.5 mg/kg) and could be left on site. Verification sampling in the areas where naphthalene and waste oil contamination were found indicated that this material had been completely removed. The results of the verification sampling program indicated that the excavated areas meet the cleanup criteria described in the RAP and RD of 2,500 mg/kg for copper and 20 mg/kg for mercury.

### **2.7.3 Waste Sampling**

Three types of waste sampling were performed: 1) sampling from the stockpile prior to loadout for disposal; 2) sampling of potentially mercury-contaminated magnesia-material from both the Trench 26 and Trench 31 interim stockpile areas; 3) collection of characterization samples for contaminated materials discovered during the excavation of several trench locations. The copper-contaminated magnesia was placed in the loadout stockpile based on field segregation by the ground technician; this material was designated for loadout and off-site disposal. The Trench 26 and 31 stockpiles on the magnesia pile were designated as interim stockpiles where potentially mercury-contaminated magnesia was stored and sampled. Samples were collected from the east end of Trench areas 14 and 15 to characterize the contaminated material discovered.

A sample from the copper contaminated magnesia material was collected for every 300 cubic yards of loadout material and submitted for analysis. The samples were analyzed for both copper and mercury by EPA Methods 6010 and 7471 respectively.

### 2.7.3.1 Loadout Stockpile

One composite sample was submitted for laboratory analysis for every 300 cubic yards of material placed in the loadout stockpile. Each composite sample consisted of 5 sub-samples. The analytical results are summarized in Table 10, and the certificates of analysis and chain-of-custody forms are provided in Appendix C. Samples labelled SP-1 through SP-13 were collected from copper pellet/magnesia material being loaded into the railcars. Samples SP-14 through 25 were collected from material loaded into the disposal trucks. The analytical results for the samples from the loadout stockpile are summarized in Table 10, and ranged from 2 to 4,800 mg/kg copper, and 0.011 to 3.0 mg/kg mercury.

### 2.7.3.2 Trench Areas 26 and 31 Interim Stockpiles

Potentially mercury-contaminated magnesia material from Trenches 26 and 31 was segregated and stockpiled based on visual comparison to a known mercury-contaminated sample collected during the remedial investigation. Material similar to the field control sample was segregated and transported by dump truck to each designated stockpile area. The interim stockpile area for Trench 26 is shown on Figure 17, and the interim stockpile area for Trench 31 is shown on Figure 18. Each individual stockpile was composed of 8 dump truck loads, or approximately 50 cubic yards. Eight individual sub-samples were collected from each stockpile and composited into one sample for laboratory analysis.

The analytical results for the Trench 26 and 31 interim stockpile are summarized in Table 11 and the certificates of analysis and chain-of-custody forms are provided in Appendix C. The analytical results for the composite samples from Trench 26 ranged from 0.025 to 0.99 mg/kg mercury. The sample from the one stockpile for Trench 31 exhibited a concentration of 1.3 mg/kg mercury. These results were compared to the criteria established by DHS, which consisted of the TTLC value for mercury (20 mg/kg) divided by the number of samples forming the composite sample. In this case eight samples formed the composite, and the analytical results may be compared to a criteria of 2.5 mg/kg. The analytical results for this material did not exceed the criteria of 2.5 mg/kg, and this material was left on site, as agreed with DHS. The final location of this material was surveyed, and the location is shown on Figure 20.

### 2.7.3.3 Characterization Samples for Contaminated Material Discovered During Excavation

A waste material having a "mothball-like" odor was discovered on June 25 within the east end of Trench Area 14 and 15 near Trench 15. A sample of the magnesia material was collected and tested for halogenated volatile organics (EPA Method 8010), aromatic volatile organics (EPA Method 8020), and organochlorine pesticides and PCBs (EPA Method 8080) to characterize the waste sample. The analytical method for EPA Method 8010 was extended to detect naphthalene using an analytical procedure similar to that for EPA Method 502. The results indicated the presence of naphthalene at a concentration of 660,000 mg/kg. The remainder of the analyses did not detect the presence of any other compounds. The certificates of analysis and chain-of-custody forms are provided in Appendix C.

An apparent waste oil material was found at the east end of Trench Area 14 and 15 near Trench 15. A soil sample (14/15-WASEREEN) was subsequently collected and submitted for laboratory analysis. The sample was analyzed for total recoverable hydrocarbons (EPA Method 418.11), halogenated volatile organics (EPA Method 8010) and organochlorine pesticides and PCBs (EPA Method 8080). The analytical results indicated that petroleum hydrocarbons were present at a concentration of 24,000 mg/kg and freon 113 was detected at 3,600 mg/kg. Organochlorine pesticides and PCBs were not detected. The

**TABLE 10**

**LOADOUT STOCKPILE SAMPLING RESULTS**

| Sample I.D. | Number of samples in composite                       | Concentrations, mg/kg |                      |
|-------------|--|-----------------------|----------------------|
|             |  | Copper <sup>1</sup>   | Mercury <sup>2</sup> |
| SP-1        | 5  | 35                    | 0.011                |
| SP-2        | 5  | 54                    | 0.440                |
| SP-3        | 5  | 120                   | 0.400                |
| SP-4        | 5  | 630                   | 0.054                |
| SP-5        | 5  | 150                   | 3.000                |
| SP-6        | 5  | 50                    | 0.780                |
| SP-7        | 5  | 2200                  | 0.91/0.47            |
| SP-8        | 5  | 1100                  | 0.150                |
| SP-9        | 5  | 210                   | 0.330                |
| SP-10       | 5  | 350                   | 0.150                |
| SP-11       | 5  | 68                    | 1.0                  |
| SP-12       | 5  | 4800                  | 0.69                 |
| SP-13Cnap   | 5,200 mg/kg Napthalene by EPA Methods 5030/8010/8020 |                       |                      |
| SP-14       | 5  | 3000                  | 0.36                 |
| SP-15       | 5  | 72                    | 0.40                 |
| SP-16       | 5  | 3000                  | 0.29                 |
| SP-17       | 5  | 3700                  | 0.39                 |
| SP-18       | 5  | 2400                  | 0.42                 |
| SP-19       | 5  | 2400                  | 0.47                 |
| SP-20       | 5  | 1400                  | 0.45                 |
| SP-21       | 5  | 3100                  | 0.45                 |
| SP-22       | 5  | 1900                  | 0.40                 |
| SP-23       | 5  | 79                    | 0.37                 |
| SP-24       | 5  | 2.0                   | 0.29                 |
| SP-25       | 5  | 93                    | 0.33                 |

<sup>1</sup> The lower detection limit for copper is 0.50 mg/kg

<sup>2</sup> The lower detection limit for mercury is 0.010 mg/kg

DRAWING NUMBER 142468-A8

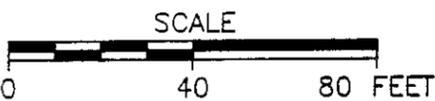
FILED 8-30-91  
M.C. 09/01/91

CHECKED BY  
APPROVED BY

B.J. 8-15-91

DRAWN BY

NOTE:  
ALL SAMPLES HAVE SP26  
PREFIX (e.g. 1-8 is reported  
as SP,1-8 in analytical reports).



185-192  
177-184  
181-176  
161-168  
153-160

137-144 145-152  
121-128 129-136  
113-120 89-98 97-104 65-72  
81-88 49-56 57-64  
105-112 73-80 41-48

DECON TRAILER

INSTALLED GATE

9-16  
(SHOWN IN  
DASHED LINES)

225-232  
217-224

209-216

201-208

193-200

1-8  
(SHOWN IN  
DASHED LINES)

DD

C

D

FIGURE 17  
TRENCH AREA 26 INTERIM STOCKPILE  
SAMPLING MAP  
PREPARED FOR  
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NEWARK, CALIFORNIA



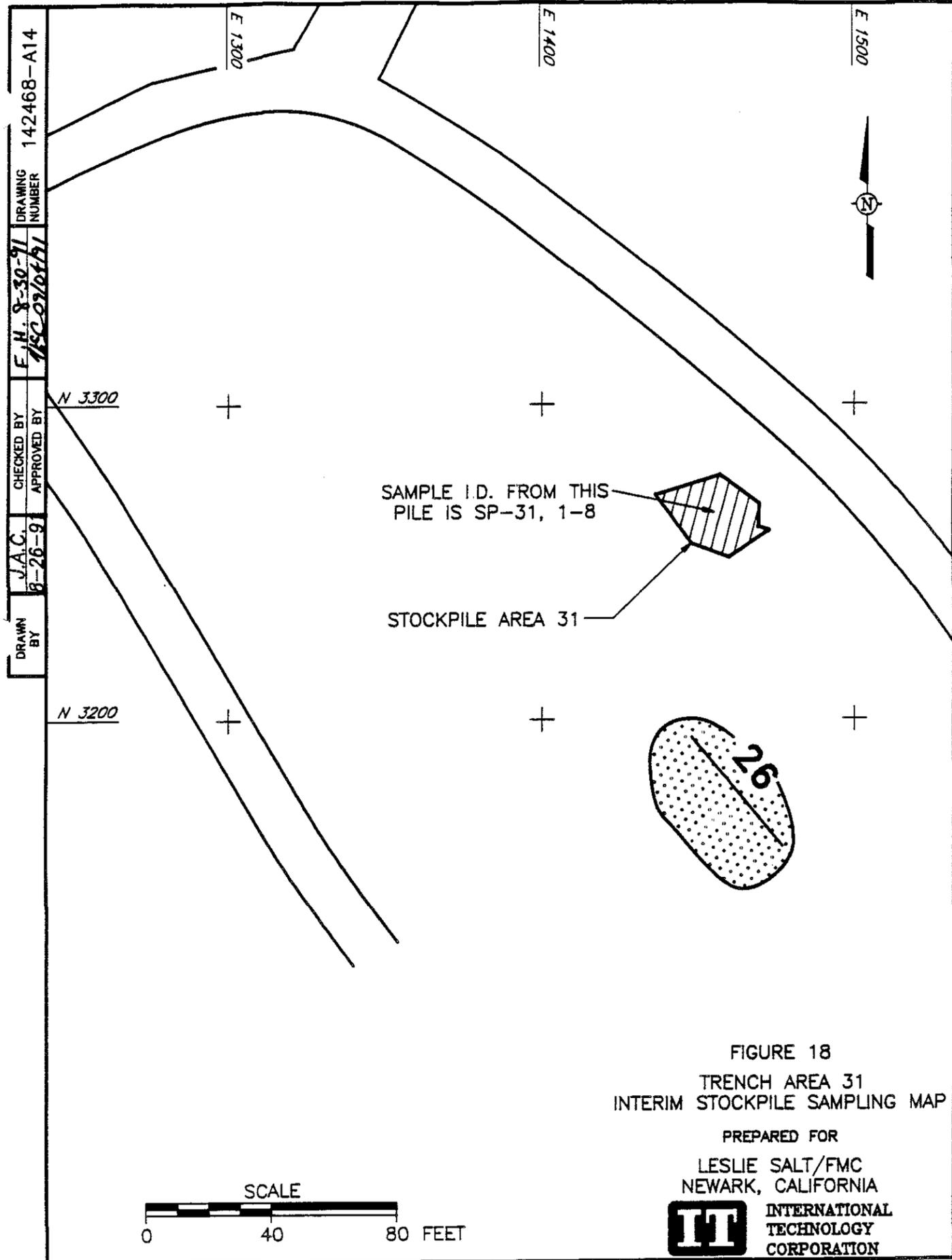


FIGURE 18  
 TRENCH AREA 31  
 INTERIM STOCKPILE SAMPLING MAP

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 NEWARK, CALIFORNIA



**TABLE 11**  
**ON-SITE MERCURY INTERIM STOCKPILE SAMPLING RESULTS**

| Stockpile Area | Sample I.D.   | Number of samples in composite | Mercury Concentrations <sup>1</sup> , mg/kg |
|----------------|---------------|--------------------------------|---|
| Trench 26      | SP26, 1-8     | 8                              | 0.260                                       |
|                | SP26, 9-16    | 8                              | 0.270                                       |
|                | SP26, 17-24   | 8                              | 0.054                                       |
|                | SP26, 25-32   | 8                              | 0.025                                       |
|                | SP26, 33-40   | 8                              | 0.097                                       |
|                | SP26, 41-48   | 8                              | 0.091                                       |
|                | SP26, 49-56   | 8                              | 0.560                                       |
|                | SP26, 57-64   | 8                              | 0.140                                       |
|                | SP26, 65-72   | 8                              | 0.030                                       |
|                | SP26, 73-80   | 8                              | 0.360                                       |
|                | SP26, 81-88   | 8                              | 0.630                                       |
|                | SP26, 89-96   | 8                              | 0.120                                       |
|                | SP26, 97-104  | 8                              | 0.320                                       |
|                | SP26, 105-112 | 8                              | 0.180                                       |
|                | SP26, 113-120 | 8                              | 0.980                                       |
|                | SP26, 121-128 | 8                              | 0.820                                       |
|                | SP26, 129-136 | 8                              | 0.860                                       |
|                | SP26, 137-144 | 8                              | 0.097                                       |
|                | SP26, 145-152 | 8                              | 0.840                                       |
|                | SP26, 153-160 | 8                              | 0.110                                       |
|                | SP26, 161-168 | 8                              | 0.040                                       |
|                | SP26, 169-176 | 8                              | 0.031                                       |
|                | SP26, 177-184 | 8                              | 0.040                                       |
|                | SP26, 185-192 | 8                              | 0.370                                       |
| SP26, 193-200  | 8             | 0.089                          |   |
| SP26, 201-208  | 8             | 0.130                          |   |
| SP26, 209-216  | 8             | 0.990                          |   |
| SP26, 217-224  | 8             | 0.950                          |   |
| SP26, 225-232  | 8             | 0.670                          |   |
| Trench 31      | SP31, 1-8     | 8                              | 1.300                                       |

<sup>1</sup> The lower detection limit for mercury is 0.010 mg/kg.

certificates of analysis and chain-of-custody forms are provided in Appendix C.

## **2.8 FINAL GRADING AND CONTOURING**

The final site excavation configuration is shown on Figure 19, prior to the final grading and contouring. Excavated, uncontaminated magnesite overburden material was used to backfill the excavations. The upper two to three feet of the backfill material was compacted by several passes of the dozer to minimize future settlement. The excavated areas were graded to optimize rainfall runoff. A large swath was cut through the western excavation wall of Trench Area 5, 6, and 7 to promote positive drainage. The final as-built topography is shown in Figure 20. Figure 20 also shows the final graded locations of the material excavated from Trenches 26 and 31.

DRAWN BY: J.A.C. 8-29-91  
 CHECKED BY: J.A.C. 8-29-91  
 APPROVED BY: F.H. 8-30-91  
 DRAWING NUMBER: 142468-B13  
 DATE: 09/10/91



**LEGEND :**  
 5 TRENCH LOCATION AND NUMBER BASED ON THE RI  
 EXCAVATION MAP  
 OUTLINE OF STOCKPILE AREAS

SCALE  
 0 60 120 FEET  
 CONTOUR INTERVAL = 2 FEET

FIGURE 19  
 FINAL SITE EXCAVATION MAP  
 PREPARED FOR  
 LESLIE SALT/FMC  
 NEWARK, CALIFORNIA  
 INTERNATIONAL TECHNOLOGY CORPORATION

REFERENCE: TOPOGRAPHIC SURVEY BY EARL GRAY

### 3.0 LOADOUT AND TRANSPORTATION

Stockpiled copper contaminated magnesia waste was transported by rail and truck to both the U.S. Pollution Control Incorporated (USPCI) Grassy Mountain Facility near Clive, Utah and to Chemical Waste Management's Kettleman City, California waste disposal facilities. The contaminated material was lifted from the loadout stockpile area with a front loader and placed in either the 100-ton capacity open gondola rail cars or tandem dump trucks. The railcars were staged on a rail spur adjacent to the loadout stockpile.

Standard dust control and air monitoring as described previously was performed throughout the loadout operation. The loaded rail cars were covered prior to transport to prevent release of airborne contaminants during transit. The cars were sealed with heavy duty plastic tarp liners which were secured with rope tie downs. The rail cars were properly manifested and rotated with empty cars until all contaminated magnesia waste and contaminated project debris were loaded. Loaded cars were transported by both the Southern Pacific Railroad and Union Pacific Railroad according to route responsibilities. The rail car route upon leaving the site is shown on Figure 21, and is described as follows:

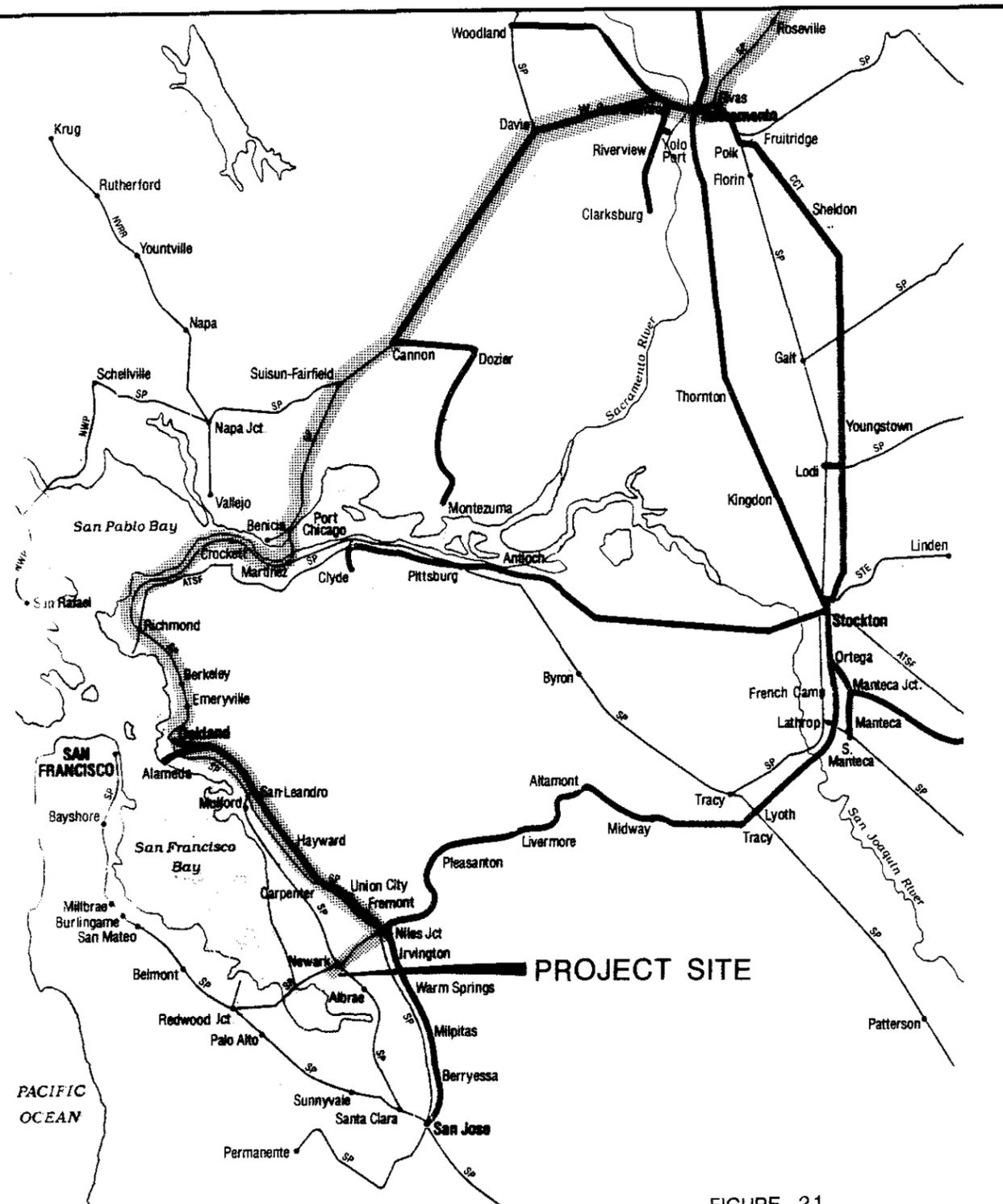
- The shipment traveled northeast to Fremont (Centerville Station), then northwest through Hayward and San Leandro to Oakland;
- The shipment then proceeded northeast from Oakland through Roseville and Reno, Nevada;
- The shipment then traveled east through Nevada and Ogden, Utah, to the Union Pacific rail siding in Clive, Utah.

The contaminated waste material was loaded into USPCI or subcontractor dump trucks and transported approximately ten (10) miles northwest to the Grassy Mountain disposal site.

Material for disposal at the Chemical Waste Management site was loaded directly into tandem dump trucks, tarped to prevent the release of airborne contaminants and transported to the disposal site following the route shown on Figure 22.

Copies of the waste manifests are provided in Appendix E.

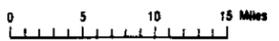
DRAWING NUMBER 142468-A3  
 CHECKED BY F.H.  
 APPROVED BY [Signature]  
 SUZ 1-21-91  
 DRAWN BY [Signature]



**PROJECT SITE**

FIGURE 21  
 RAIL ROUTE MAP  
 PREPARED FOR  
 LESLIE SALT/FMC  
 NEWARK CALIFORNIA

**SAN FRANCISCO BAY AREA**



DESIGNATED ROUTE



INTERNATIONAL  
 TECHNOLOGY  
 CORPORATION

DRAWING NUMBER 142468-A7  
CHECKED BY  
APPROVED BY  
BY  
8-9-91  
SJZ

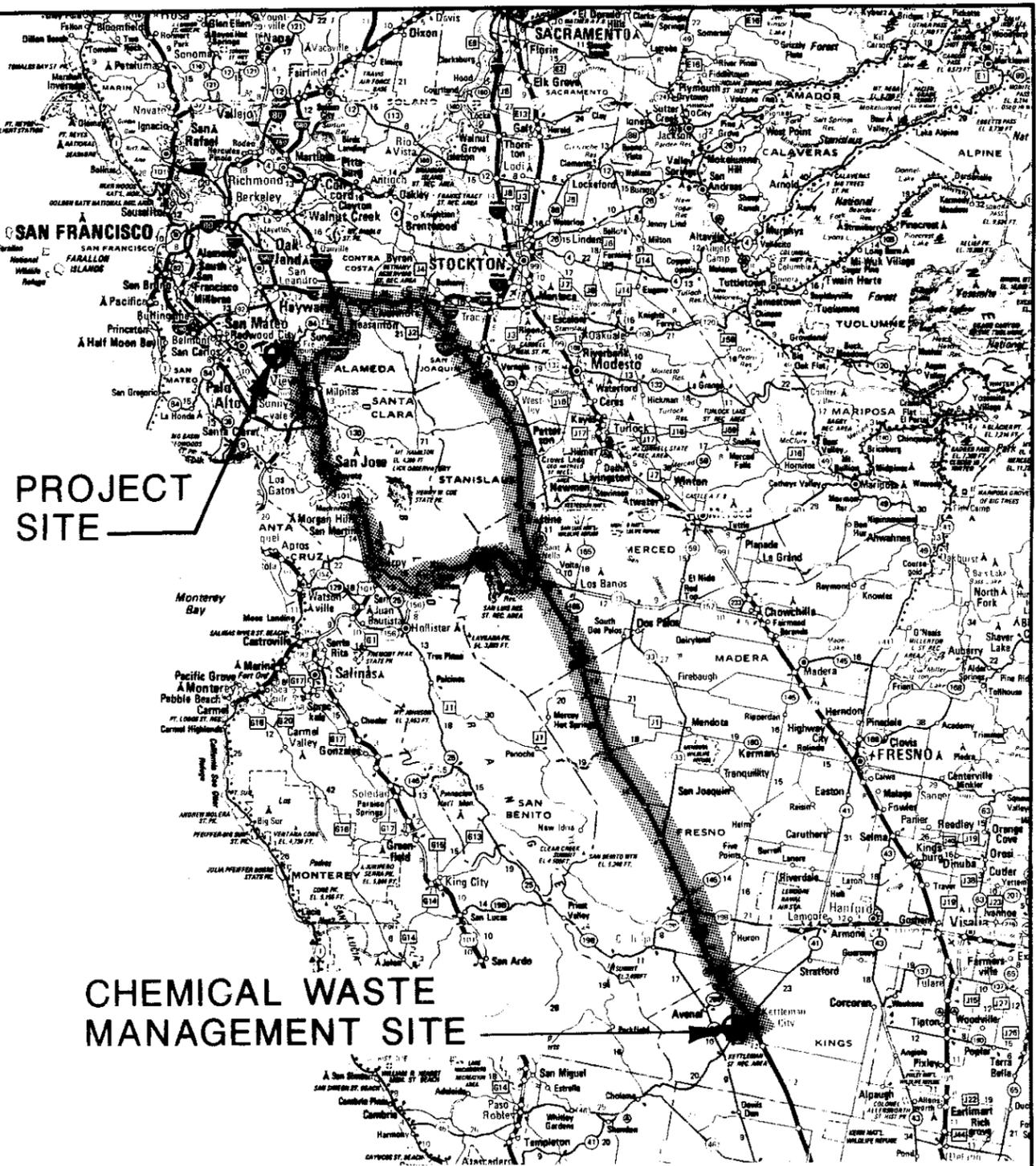
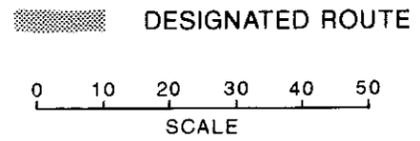


FIGURE 22  
TRUCK ROUTE MAP  
PREPARED FOR  
LESLIE SALT/FMC  
NEWARK CALIFORNIA



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

148494

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"Do Not Scale This Drawing"

#### 4.0 STATEMENT OF REMEDIATION CERTIFICATION

Data presented in this remediation report indicate that the copper-contaminated magnesia material, identified in the RI and RAP, having concentrations in excess of the applicable TTLC limit of 2,500 mg/kg has been removed from the site and properly disposed. Areas in which copper pellets were discovered on the surface were scraped to remove this material, and the copper pellets were disposed with the excavated material. Naphthalene and waste oil contaminated magnesia material discovered during the excavation was removed and disposed. Areas suspected of having mercury contamination based on the results of the RI were excavated, and samples obtained from the excavated material for analysis. The results of this testing indicated that the excavated magnesia material did not exhibit mercury concentrations that exceeded the criteria set by DHS for evaluating this material. The criteria was defined as the TTLC limit for mercury (20 mg/kg) divided by the number of subsamples forming a composite. Generally, this criteria gave an allowable limit of 2.5 mg/kg mercury, and all analytical results for the excavated material were below this limit. The remedial activities have accomplished the cleanup goals provided in the Remedial Action Plan for this site.

I hereby certify that the remedial activities for the Leslie Salt/FMC Magnesia Waste Pile site were conducted under my oversight, and were performed in accordance with the Remedial Design prepared by IT Corporation and approved by DHS on May 2, 1991. This remediation report has been prepared under my direction and supervision, and, to the best of my knowledge, is representative of the work performed on the site.



Valerie Crooks, P.E.

## 5.0 REFERENCES

1. "Remedial Investigation - Magnesia Pile - Newark, California", S.S. Papadopulos and Associates, Inc.; November 1988.
2. "Leslie Salt/FMC Magnesia Waste Pile Site - Final Remedial Action Plan", Hydrologic Consultants, Inc.; October 1990.
3. "Public Health/Environmental Assessment for Leslie Salt/FMC Magnesia Pile", Terra, Inc.; January 1990.
4. "Supplemental Investigation and Feasibility Study, Leslie Salt/FMC Magnesia Waste Pile", Hydrologic Consultants, Inc.; January 1990.
5. "Leslie Salt/FMC Magnesia Waste Pile Site: Remedial Action Plan", Hydrologic Consultants, Inc.; October 1990.
6. "Leslie Salt/FMC Magnesia Waste Pile Interim Removal Action Closure Report", Hydrologic Consultants, Inc.; July 1990.
7. "Leslie Salt/FMC Magnesia Waste Pile Site Fact Sheet", California Department of Health Services; June 1990
8. "Final Remedial Design - Magnesia Waste Pile, Newark, California", IT Corporation, March 1991.

**APPENDIX A**

**AMBIENT AIR MONITORING CERTIFICATES OF ANALYSIS  
AND CHAIN OF CUSTODY FORMS**

**CERTIFICATE OF ANALYSIS**

Date: 06/28/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-06-169

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 06/26/91

142468

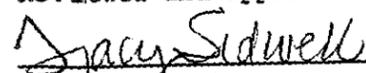
Number of Samples: 7

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831196                    | C1-06-169-01        |
| 2,5831197                    | C1-06-169-02        |
| 3,5831198                    | C1-06-169-03        |
| 4,5831199                    | C1-06-169-04        |
| 5,5831200                    | C1-06-169-05        |
| BLANK SPIKE                  | C1-06-169-06        |
| METHOD BLANK                 | C1-06-169-08        |

Reviewed and Approved:

  
\_\_\_\_\_  
Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION  
Date: 06/28/91  
Client Work ID: FMC 142468

142468

Work Order: C1-06-169

| CLIENT SAMPLE ID         | METHOD BLANK              |       |
|--------------------------|---------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-06-169-08              |       |
| TEST                     |                           | UNITS |
| MERCURY BY<br>CVAA       | ND<br>[ 0.07]<br>06/27/91 | ug    |
| COPPER by ICP            | ND<br>[ 3]<br>06/26/91    | ug    |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 06/28/91  
Client Work ID: FMC 142468

142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-169

---

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. **B 78125**  
C/C Control No. \_\_\_\_\_

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROJECT MANAGER Gene Lovett  
BILL TO ITT Corp  
4585 Pacheco Blvd.  
Martinez, CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 6-25-91  
LAB DESTINATION IT Corridors  
LABORATORY CONTACT Tracy Sidwell  
SEND LAB REPORT TO 415 JTD Bldg C/O FMC  
8891 Enterprise Dr  
Newark, CA  
DATE REPORT REQUIRED \_\_\_\_\_  
PROJECT CONTACT Sherril Williams  
PROJECT CONTACT PHONE NO. 415-795-4395

| Sample No. | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------|--------------|---------------------------|----------------------|
| 1, 5831196 | Air         | 175.6         |              | Upper EPA 1610            |                      |
| 2, 5831197 | ↓           | 130.9         |              | Mercury EPA 7471          |                      |
| 3, 5831198 |             | 196.2         |              | Particulate               |                      |
| 4, 5831199 |             | 171.1         |              | Perform all tests on      |                      |
| 5, 5831200 |             | 177.1         |              | all samples               |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |

COP

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
YELLOW - Copy



### CHAIN-OF-CUSTODY RECORD

R/A Control No. 15 10105

C/C Control No. **159672**

PROJECT NAME/NUMBER FMC / 140948

LAB DESTINATION Tennessee

SAMPLE TEAM MEMBERS Sue Williams

CARRIER/WAYBILL NO. 04937039105

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1, 5831176    | location 1 air                  | 6-24-91 0810            | Air         |                |                                      |                     |
| 2, 5831197    | 2 ↓                             | 0710                    |             |                |                                      |                     |
| 3, 5831198    | 3 ↓                             | 0700                    |             |                |                                      |                     |
| 4, 5831199    | 4 ↓                             | 0805                    |             |                |                                      |                     |
| 5, 5831110    | 5 ↓                             | 0700                    |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sue Williams, IT Corp, 6-25-91, 1215

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_

WHITE - To accompany samples  
YELLOW - Field copy



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

IT CORPORATION  
4585 PACHECO BLVD  
MARTINEZ CA 94553  
SHERRI WILLIAMS

Date: 06/14/91

Work Order: C1-06-011

Project/P.O.#: 2221  
FMC

This is the Certificate of Analysis for the following samples:

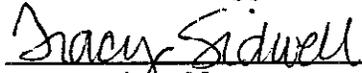
Client Work ID: FMC/LESLIE SALT 142468-04  
Date Received: 06/04/91  
Number of Samples: 7  
Sample Type: FILTERS

**\*CORRECTED REPORT\***

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 5902722                      | C1-06-011-01        |
| 5902720                      | C1-06-011-02        |
| 5902721                      | C1-06-011-03        |
| 5902725                      | C1-06-011-04        |
| BLANK SPIKE                  | C1-06-011-05        |
| BLANK SPIKE DUPLICATE        | C1-06-011-06        |
| METHOD BLANK                 | C1-06-011-08        |

Reviewed and Approved:

  
\_\_\_\_\_  
Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC/LESLIE SALT 142468-04

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-011

| CLIENT SAMPLE ID         | 5902725                           | BLANK SPIKE                      | BLANK SPIKE<br>DUPLICATE         | UNITS |
|--------------------------|-----------------------------------|----------------------------------|----------------------------------|-------|
| LAB SAMPLE ID            | C1-06-011-04                      | C1-06-011-05                     | C1-06-011-06                     |       |
| SAMPLED                  | 05/25/91                          |                                  |                                  |       |
| TEST                     |                                   |                                  |                                  |       |
| NUISANCE DUST(<br>TOTAL) | 77900<br>[ 100]<br>06/04/91       |                                  |                                  | ug    |
| MERCURY BY<br>CVAA       | 0.19<br>[ 0.07]<br>06/06/91<br>ug | 77<br>[ —]<br>06/06/91<br>% Rec. | 75<br>[ —]<br>06/06/91<br>% Rec. |       |
| COPPER by ICP            | 12<br>[ 3]<br>06/05/91<br>ug      | 86<br>[ —]<br>06/05/91<br>% Rec. | 90<br>[ —]<br>06/05/91<br>% Rec. |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 06/14/91  
 Client Work ID: FMC/LESLIE SALT 142468-04

IT ANALYTICAL SERVICES  
 CERRITOS, CA

Work Order: C1-06-011

| CLIENT SAMPLE ID     | 5902722                     | 5902720                     | 5902721                     |       |
|----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-06-011-01                | C1-06-011-02                | C1-06-011-03                |       |
| SAMPLED              | 05/25/91                    | 05/25/91                    | 05/25/91                    |       |
| TEST                 |                             |                             |                             | UNITS |
| NUISANCE DUST(TOTAL) | 61600<br>[ 100]<br>06/04/91 | 92600<br>[ 100]<br>06/04/91 | 77200<br>[ 100]<br>06/04/91 | ug    |
| MERCURY BY CVAA      | 0.14<br>[ 0.07]<br>06/06/91 | 0.15<br>[ 0.07]<br>06/06/91 | 0.10<br>[ 0.07]<br>06/06/91 | ug    |
| COPPER by ICP        | 69<br>[ 3]<br>06/05/91      | 93<br>[ 3]<br>06/05/91      | 43<br>[ 3]<br>06/05/91      | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 06/14/91  
Client Work ID: FMC/LESLIE SALT 142468-04

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-011

| CLIENT SAMPLE ID         | METHOD BLANK              |       |
|--------------------------|---------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-06-011-08              |       |
| TEST                     |                           | UNITS |
| MERCURY BY<br>CVAA       | ND<br>[ 0.07]<br>06/06/91 | ug    |
| COPPER by ICP            | ND<br>[ 3]<br>06/05/91    | ug    |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 06/14/91  
Client Work ID: FMC/LESLIE SALT 142468-04

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-011

---

TEST NAME COPPER by ICP                      TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA                      TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)                      TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 220408  
C/C Control No. 211808

PROJECT NAME FMC / LESLIE SALT  
PROJECT NUMBER 142468-04  
PROFIT CENTER NUMBER MARTINEZ, CA PC #  
PROJECT MANAGER Valerie Crook,  
BILL TO ACCTS PAYABLE IT MARTINEZ  
4585 PACHECO BLVD.  
MARTINEZ, CA.  
PURCHASE ORDER NO. MARTINEZ, CA PC #

DATE SAMPLES SHIPPED 5/25/91  
LAB DESTINATION (IT - KNOXVILLE) → (IT - CERRIT  
LABORATORY CONTACT KNOXVILLE - TOMY SIMPSON  
CERRITOS - TRACY SIDWELL  
SEND LAB REPORT TO FRANK HORATH  
1355 VANDER WAY  
SAN JOSE CA 95112  
DATE REPORT REQUIRED FAX A.S.A.P. TO (408) 283-2255  
PROJECT CONTACT FRANK HORATH  
PROJECT CONTACT PHONE NO. 408-283-2262

| Sample No.  | Sample Type  | Sample Volume | Preservative | Requested Testing Program             | Special Instructions |
|---|--------------|---------------|--------------|---------------------------------------|----------------------|
| 1, 5902722  | FILTER (AIR) | —             | —            | PARTICULATES                          |                      |
| 2, 5902720  | "            | ∫             | ∫            | MERCURY, EPA 7471<br>COPPER, EPA 6010 |                      |
| 2, 5902720  | FILTER (AIR) | —             | —            | "SAME AS ABOVE"                       |                      |
| 3, 5902724  | FILTER (AIR) | —             | —            | "SAME AS ABOVE"                       |                      |
| 4, 5902721  | FILTER (AIR) | —             | —            | "SAME AS ABOVE"                       |                      |
| 5, 5902725  | FILTER (AIR) | —             | —            | "SAME AS ABOVE"                       |                      |
| NOTE - RUSH CHARGE TO BE WAIVED AS PER HUMAN TRIVEDI / V. CROOK COMMUNICATION |              |               |              |                                       |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)  
Normal \_\_\_\_\_ Rush  48 HR (Subject to rush surcharge.)  
QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
Non-hazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_  
Other possible trace MERCURY, COPPER  
(Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)  
Return to Client \_\_\_\_\_ Disposal by Lab  Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY

Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
YELLOW - Field copy



**CHAIN-OF-CUSTODY RECORD**

R/A Control No. 228408

C/C Control No. 211808

PROJECT NAME/NUMBER EMCI LEJLIE SALT  
142468 - 04

LAB DESTINATION KNOXVILLE, KY → CERRITOS, CA

SAMPLE TEAM MEMBERS Carl Franc, F. HORATH

CARRIER/WAYBILL NO. \_\_\_\_\_

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1,5902722     | Location #1, AIR FILTER         | 5/25/91                 | AIR         | FILTER         |                                      |                     |
| ∫             | ∫                               | ∫                       | ∫           | ∫              |                                      |                     |
| 2,5902720     | Location #2, AIR FILTER         | 5/25/91                 | AIR         | FILTER         |                                      |                     |
| 3,5902724     | " #3, " "                       | 5/25/91                 | " "         | " "            |                                      |                     |
| 4,5902721     | " #4, " "                       | 5/25/91                 | " "         | " "            |                                      |                     |
| 5,            | " #5, " "                       | 5/25/91                 | " "         | " "            |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

APPENDIX

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: \_\_\_\_\_

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: \_\_\_\_\_

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

IT CORPORATION  
4585 PACHECO BLVD  
MARTINEZ CA 94553  
SHERRI WILLIAMS

Date: 06/14/91

Work Order: C1-06-012

Project/P.O.#: 2221

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/LESLIE SALT 142468-05

Date Received: 06/04/91

142468-005

Number of Samples: 9

Sample Type: FILTER

**\*CORRECTED REPORT\***

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 3,5902724                    | C1-06-012-01        |
| 2,5902745                    | C1-06-012-02        |
| 1,5902706                    | C1-06-012-03        |
| 3,5902718                    | C1-06-012-04        |
| 4,5902707                    | C1-06-012-05        |
| 5,5902708                    | C1-06-012-06        |
| BLANK SPIKE                  | C1-06-012-07        |
| BLANK SPIKE DUPLICATE        | C1-06-012-08        |
| METHOD BLANK                 | C1-06-012-10        |

Reviewed and Approved:

  
Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC/LESLIE SALT 142468-05 142468-005

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-012

| CLIENT SAMPLE ID      | <sup>1887</sup><br>3,5902724 | <sup>1674</sup><br>2,5902745 | <sup>1621</sup><br>1,5902706 |       |
|-----------------------|------------------------------|------------------------------|------------------------------|-------|
| LAB SAMPLE ID         | C1-06-012-01                 | C1-06-012-02                 | C1-06-012-03                 |       |
| SAMPLED               | 05/28/91                     | 05/29/91                     | 05/29/91                     |       |
| TEST                  |                              |                              |                              | UNITS |
| NUISANCE DUST (TOTAL) | 79300<br>[ 100]<br>06/04/91  | 53100<br>[ 100]<br>06/04/91  | 41200<br>[ 100]<br>06/04/91  | ug    |
| MERCURY BY CVAA       | 0.28<br>[ 0.07]<br>06/06/91  | 0.15<br>[ 0.07]<br>06/06/91  | 0.22<br>[ 0.07]<br>06/06/91  | ug    |
| COPPER by ICP         | 41<br>[ 3]<br>06/05/91       | 63<br>[ 3]<br>06/05/91       | 27<br>[ 3]<br>06/05/91       | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC/LESLIE SALT 142468-05

142468-005

Work Order: C1-06-012

| CLIENT SAMPLE ID | 1715<br>3,5902718 | 1721<br>4,5902707 | 1432<br>5,5902708 |       |
|------------------|-------------------|-------------------|-------------------|-------|
| LAB SAMPLE ID    | C1-06-012-04      | C1-06-012-05      | C1-06-012-06      |       |
| SAMPLED          | 05/29/91          | 05/29/91          | 05/29/91          |       |
| TEST             |                   |                   |                   | UNITS |
| NUISANCE DUST(   | 45800             | 44400             | 40800             | ug    |
| TOTAL)           | [ 100]            | [ 100]            | [ 100]            |       |
|                  | 06/04/91          | 06/04/91          | 06/04/91          |       |
| MERCURY BY       | 0.13              | 0.10              | 0.09              | ug    |
| CVAA             | [ 0.07]           | [ 0.07]           | [ 0.07]           |       |
|                  | 06/06/91          | 06/06/91          | 06/06/91          |       |
| COPPER by ICP    | 11                | 20                | 9                 | ug    |
|                  | [ 3]              | [ 3]              | [ 3]              |       |
|                  | 06/05/91          | 06/05/91          | 06/05/91          |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC/LESLIE SALT 142468-05

142468-005

Work Order: C1-06-012

| CLIENT SAMPLE ID         | BLANK SPIKE                       | BLANK SPIKE<br>DUPLICATE          | METHOD BLANK              |       |
|--------------------------|-----------------------------------|-----------------------------------|---------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-06-012-07                      | C1-06-012-08                      | C1-06-012-10              |       |
| TEST                     |                                   |                                   |                           | UNITS |
| MERCURY BY<br>CVAA       | 77<br>[ --]<br>06/06/91<br>% Rec. | 75<br>[ --]<br>06/06/91<br>% Rec. | ND<br>[ 0.07]<br>06/06/91 | ug    |
| COPPER by ICP            | 86<br>[ --]<br>06/05/91<br>% Rec. | 90<br>[ --]<br>06/05/91<br>% Rec. | ND<br>[ 3]<br>06/05/91    | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC/LESLIE SALT 142468-05

142468-005

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-012

---

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. 228409

C/C Control No. 22211809

PROJECT NAME FMC MAGNESIA PILE  
 PROJECT NUMBER 142468 - 05  
 PROFIT CENTER NUMBER 2221  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT CORP, A/P  
4585 PACIFIC BLVD  
MARTINEZ, CA 94553  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 5-29-91  
 LAB DESTINATION IT Knoxville, TN → ZTCerritos, CA  
 LABORATORY CONTACT TONY Simpson  
 SEND LAB REPORT TO Sheila Williams, IT CORP  
CO/ FMC CORP  
8787 ENTERPRISE DRIVE  
NEWARK, CA 94560  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sheila Williams  
 PROJECT CONTACT PHONE NO. 415-795-11319

| Sample No.  | Sample Type           | Sample Volume (A3)                    | Preservative | Requested Testing Program | Special Instructions |
|---|-----------------------|---------------------------------------|--------------|---------------------------|----------------------|
| <del>3,5902724</del>  | <del>AIR FILTER</del> | <del>35730</del><br><del>337450</del> | —            | PARTICULATES              |                      |
|   |                       | /                                     | /            | MERCURY, EPA 7471         |                      |
|   |                       |                                       |              | COPPER, EPA 6010          |                      |
| 2,5902745   | AIR FILTER            | 37800                                 | —            | SAME 3 A) ABOVE           |                      |
| 1,5902706   | "                     | 57400                                 | —            | "                         |                      |
| 3,5902718   | "                     | 31050                                 | —            | "                         |                      |
| 4,5902707   | "                     | 23175                                 | —            | "                         |                      |
| 5,5902708   | "                     | 24300                                 | —            | "                         |                      |
| not RUSH CHARGE TO BE MAINTAINED AS PER HUMAN TRUVEDEL O.K. |                       |                                       |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)  
 Normal \_\_\_\_\_ Rush 1/8 hr. (Subject to rush surcharge.)  
 QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
 I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
 Non-hazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY  
 Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - C \_\_\_\_\_, to accompany samples  
 YELLOW - Field \_\_\_\_\_

FMC MAGNESIA PILE  
PROJECT NO. 142468-05

AIR SAMPLE DATA TABLE

| LOCATION # | FILTER I.D. | FILTER<br>PRE-WEIGHT | FILTER<br>POST-WEIGHT | AIR VOLUME<br>SAMPLERS<br>(ft <sup>3</sup> ) |
|------------|-------------|----------------------|-----------------------|--|
| 1          | 5902706     | 4.3855               |                       | 57420  |
| 2          | 5902745     | 4.4209               |                       | 37800  |
| 3          | 5902718     | 4.4732               |                       | 31050  |
| 4          | 5902707     | 4.3472               |                       | 23175  |
| 5          | 5902708     | 4.3928               |                       | 24300  |
| 3          | 5902724     | 4.4219               |                       | 35730  |



CHAIN-OF-CUSTODY RECORD

R/A Control No. 228409

C/C Control No. 211809

PROJECT NAME/NUMBER FMC MAGNESIA PILE 142468-05

LAB DESTINATION IT KINGVILLE, TX - CERRITOS, CA

SAMPLE TEAM MEMBERS MORATH, FRANK, WILLIAM, SHERRY

CARRIER/WAYBILL NO.

Table with 7 columns: Sample Number, Sample Location and Description, Date and Time Collected, Sample Type, Container Type, Condition on Receipt, Disposal Record No. Includes handwritten entries for air filters and a large 'COPY' watermark.

Special Instructions:

Possible Sample Hazards: Copper, Mercury

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: [Signature] IT Corp, 5/29/91 1420 3. Relinquished By:

Received By:

2. Relinquished By: 4. Relinquished By:

Received By:



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

IT CORPORATION  
4585 PACHECO BLVD  
MARTINEZ CA 94553  
SHERRI WILLIAMS

Date: 06/17/91

Work Order: C1-06-026

Project/P.O.#: 2221  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/LESLIE SALT 142468-05

Date Received: 06/06/91

142468-005

Number of Samples: 6

Sample Type: FILTER

**\*CORRECTED REPORT\***

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5902715                    | C1-06-026-01        |
| 3,5902717                    | C1-06-026-02        |
| 4,5902714                    | C1-06-026-03        |
| 5,5902709                    | C1-06-026-04        |
| BLANK SPIKE                  | C1-06-026-05        |
| METHOD BLANK                 | C1-06-026-08        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 06/17/91

Client Work ID: FMC/LESLIE SALT 142468-05

142468-005

Work Order: C1-06-026

| CLIENT SAMPLE ID         | 37395<br>1,5902715          | 32850<br>3,5902717          | 33975<br>4,5902714          |       |
|--------------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID            | C1-06-026-01                | C1-06-026-02                | C1-06-026-03                |       |
| SAMPLED                  | 05/29/91                    | 05/29/91                    | 05/29/91                    |       |
| TEST                     |                             |                             |                             | UNITS |
| NUISANCE DUST(<br>TOTAL) | 22400<br>[ 100]<br>06/06/91 | 26300<br>[ 100]<br>06/06/91 | 35000<br>[ 100]<br>06/06/91 | ug    |
| MERCURY BY<br>CVAA       | 0.15<br>[ 0.07]<br>06/08/91 | 0.16<br>[ 0.07]<br>06/08/91 | 0.15<br>[ 0.07]<br>06/08/91 | ug    |
| COPPER by ICP            | 28<br>[ 3]<br>06/07/91      | 8<br>[ 3]<br>06/07/91       | 27<br>[ 3]<br>06/07/91      | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/17/91

Client Work ID: FMC/LESLIE SALT 142468-05

142468-005

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-026

| CLIENT SAMPLE ID | 5,5902709    | BLANK SPIKE  | METHOD BLANK |       |
|------------------|--------------|--------------|--------------|-------|
| LAB SAMPLE ID    | C1-06-026-04 | C1-06-026-05 | C1-06-026-08 |       |
| SAMPLED          | 05/29/91     |              |              |       |
| TEST             |              |              |              | UNITS |
| NUISANCE DUST(   | 21700        |              |              | ug    |
| TOTAL)           | [ 100]       |              |              |       |
|                  | 06/06/91     |              |              |       |
| MERCURY BY       | 0.14         | 91           | ND           |       |
| CVAA             | [ 0.07]      | [ —]         | [ 0.07]      |       |
|                  | 06/08/91     | 06/08/91     | 06/08/91     |       |
|                  | ug           | % Rec.       | ug           |       |
| COPPER by ICP    | 12           | 84           | ND           |       |
|                  | [ 3]         | [ —]         | [ 3]         |       |
|                  | 06/07/91     | 06/07/91     | 06/07/91     |       |
|                  | ug           | % Rec.       | ug           |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/17/91

Client Work ID: FMC/LESLIE SALT 142468-05 142468-005

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-026

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TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.

5/2 Samples



INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 203734

C/C Control No. 171249

PROJECT NAME FMC Magnesia Pile
PROJECT NUMBER 142468
PROFIT CENTER NUMBER 2221
PROJECT MANAGER Gene Lovett
BILL TO IT Corp.
4585 Pacheco Blvd
Martinez, CA 94553
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 5-30-91
LAB DESTINATION IT Knoxville -> IT Corrits
LABORATORY CONTACT Tony Simpson
SEND LAB REPORT TO Sherri Williams
IT Corp c/o FMC
8787 Enterprise, Newark, CA 94560
DATE REPORT REQUIRED
PROJECT CONTACT Sherri Williams
PROJECT CONTACT PHONE NO. 415-795-4359

Table with 6 columns: Sample No., Sample Type, Sample Volume (ft^3), Preservative, Requested Testing Program, Special Instructions. Contains handwritten entries for samples 1, 2, 3, 4, and 5.

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)
Normal Rush 48 hrs (Subject to rush surcharge.)
QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)
I II III Project Specific

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)
Non-hazard Flammable Skin Irritant Highly Toxic Other (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)
Return to Client Disposal by Lab Archive (Indicate number of months.)

FOR LAB USE ONLY
Received by Date/Time

WHITE - Original, to accompany samples
YELLOW - Field copy



# CHAIN-OF-CUSTODY RECORD

R/A Control No. 208734

C/C Control No. 171249

PROJECT NAME/NUMBER FMC Magnesia Pile / 142468

LAB DESTINATION ITT Knoxville, TN - Chem. Lab

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 0070187121

| Sample Number         | Sample Location and Description | Date and Time Collected | Sample Type       | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|-----------------------|---------------------------------|-------------------------|-------------------|----------------|--------------------------------------|---------------------|
| 1, 5902715            | Location #1, Air                | 5-29-91, 0851           | Filter            | -              |                                      |                     |
| <del>2, 5902716</del> | <del>Location #2, Air</del>     | <del>5-29-91,</del>     | <del>Filter</del> | <del>-</del>   |                                      |                     |
| 3, 5902717            | Location #3, Air                | 5-29-91, 0715           | Filter            | -              |                                      |                     |
| 4, 5902714            | Location #4, Air                | 5-29-91, 0915           | Filter            | -              |                                      |                     |
| 5, 5902709            | Location #5, Air                | 5-29-91, 0930           | Filter            | -              |                                      |                     |
|                       |                                 |                         |                   |                |                                      |                     |
|                       |                                 |                         |                   |                |                                      |                     |
|                       |                                 |                         |                   |                |                                      |                     |
|                       |                                 |                         |                   |                |                                      |                     |

Special Instructions: sample # 5902716 location 2 was lost!

Possible Sample Hazards: Copper, Mercury

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 5-29-91, 1715

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_

WHITE - To accompany any samples  
YELLOW - File



# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

IT CORPORATION  
4585 PACHECO BLVD  
MARTINEZ CA 94553  
COLIN BROWNLOW

Date: 06/17/91

Work order: C1-06-034

Project/P.O.#: 2221  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/MAGNESIA PILE 142468-05

Date Received: 06/07/91

142468-005

Number of Samples: 7

Sample Type: FILTERS

\*CORRECTED REPORT\*

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5902743                    | C1-06-034-01        |
| 2,5902713                    | C1-06-034-02        |
| 3,5902744                    | C1-06-034-03        |
| 4,5902710                    | C1-06-034-04        |
| 5,5902711                    | C1-06-034-05        |
| BLANK SPIKE                  | C1-06-034-06        |
| METHOD BLANK                 | C1-06-034-08        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

RECEIVED  
JUN 21 1991  
OPERATIONS

Page: 2

**IT ANALYTICAL SERVICES  
CERRITOS, CA**

Company: IT CORPORATION

Date: 06/17/91

Client Work ID: FMC/MAGNESIA PILE 142468-05 142468-005

Work Order: C1-06-034

| CLIENT SAMPLE ID | 1702<br>1,5902743 | 1778<br>2,5902713 | 1780<br>3,5902744 |       |
|------------------|-------------------|-------------------|-------------------|-------|
| LAB SAMPLE ID    | C1-06-034-01      | C1-06-034-02      | C1-06-034-03      |       |
| SAMPLED          | 05/30/91          | 05/30/91          | 05/30/91          |       |
| TEST             |                   |                   |                   | UNITS |
| NUISANCE DUST(   | 71400             | 118000            | 71200             | ug    |
| TOTAL)           | [ 100]            | [ 100]            | [ 100]            |       |
|                  | 06/10/91          | 06/10/91          | 06/10/91          |       |
| MERCURY BY       | 0.12              | 0.15              | 0.14              | ug    |
| CVAA             | [ 0.07]           | [ 0.07]           | [ 0.07]           |       |
|                  | 06/08/91          | 06/08/91          | 06/08/91          |       |
| COPPER by ICP    | 41                | 110               | 17                | ug    |
|                  | [ 3]              | [ 3]              | [ 3]              |       |
|                  | 06/07/91          | 06/07/91          | 06/07/91          |       |

RECEIVED  
JUN 21 1991  
OPERATIONS

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Page: 3

IT ANALYTICAL SERVICES  
CERRITOS, CA

Company: IT CORPORATION

Date: 06/17/91

Client Work ID: FMC/MAGNESIA PILE 142468-05 142468-005

Work Order: C1-06-034

| CLIENT SAMPLE ID     | 1784<br>4,5902710                 | 1721<br>5,5902711                 | BLANK SPIKE                      |       |
|----------------------|-----------------------------------|-----------------------------------|----------------------------------|-------|
| LAB SAMPLE ID        | C1-06-034-04                      | C1-06-034-05                      | C1-06-034-06                     |       |
| SAMPLED              | 05/30/91                          | 05/30/91                          |                                  |       |
| TEST                 |                                   |                                   |                                  | UNITS |
| NUISANCE DUST(TOTAL) | 99800<br>[ 100]<br>06/10/91       | 251000<br>[ 100]<br>06/10/91      |                                  | ug    |
| MERCURY BY CVAA      | 0.08<br>[ 0.07]<br>06/08/91<br>ug | 0.36<br>[ 0.07]<br>06/08/91<br>ug | 91<br>[ —]<br>06/08/91<br>% Rec. |       |
| COPPER by ICP        | 27<br>[ 3]<br>06/07/91<br>ug      | 16<br>[ 3]<br>06/07/91<br>ug      | 84<br>[ —]<br>06/07/91<br>% Rec. |       |

RECEIVED  
JUN 21 1991  
OPERATIONS

ND indicates the parameter was not detected.  
Detection limits are specified in [].  
NC indicates the parameter was not calculated.

Page: 4

IT ANALYTICAL SERVICES  
CERRITOS, CA

Company: IT CORPORATION

Date: 06/17/91

Client Work ID: FMC/MAGNESIA PILE 142468-05 142468-005

Work Order: C1-06-034

| CLIENT SAMPLE ID         | METHOD BLANK               |       |
|--------------------------|----------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-06-034-08               |       |
| TEST                     |                            | UNITS |
| MERCURY BY<br>CVAA       | ND<br>[ 0.07 ]<br>06/08/91 | ug    |
| COPPER by ICP            | ND<br>[ 3 ]<br>06/07/91    | ug    |

RECEIVED  
JUN 21 1991  
OPERATIONS

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Page: 5

Company: IT CORPORATION

Date: 06/17/91

Client Work ID: FMC/MAGNESIA FILE 142468-05 142468-005

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-034

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.

RECEIVED  
JUN 21 1991  
OPERATIONS



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. 208735

C/C Control No. 159852

PROJECT NAME FMC Magnesia Pile  
 PROJECT NUMBER 142468-05  
 PROFIT CENTER NUMBER 2221  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp.  
4585 Pacheco Blvd  
Martinez, CA 94553  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 5-31-91  
 LAB DESTINATION IT Knoxville → IT Cerritos, CA  
 LABORATORY CONTACT Tony Simpson  
 SEND LAB REPORT TO IT Corp C/O FMC  
8787 Enterprise, Dr  
Newark, CA 94560  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherri Williams  
 PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume (ft <sup>3</sup> ) | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|----------------------------------|--------------|---------------------------|----------------------|
| 1,5902743  | Ar          | 60300                            |              | Particulates              |                      |
| 2,5902713  | ↓           | 63000                            |              | Mercury EPA 7471          |                      |
| 3,5902744  |             | 63045                            |              | Copper EPA 6010           |                      |
| 4,5902710  |             | 63225                            |              | same 3 as above           |                      |
| 5,5902711  |             | 60975                            |              | " "                       |                      |
|            |             |                                  |              |                           |                      |

TURNAROUND TIME REQUIRED: *note! Rush charge to be waived per* (Rush must be approved by the Laboratory Project Manager.) QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge.) I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
 Non-hazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)

Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY

Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - C \_\_\_\_\_ al, to accompany samples  
 YELLOW - Field \_\_\_\_\_

5/30 sample



CHAIN-OF-CUSTODY RECORD

R/A Control No. 20-135

C/C Control No. 159852

PROJECT NAME/NUMBER FMC Magnessia ACo / 142468-05

LAB DESTINATION IT Knoxville -> IT Carrizos

SAMPLE TEAM MEMBERS Shern Williams

CARRIER/WAYBILL NO. 0070187106

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1,5902743     | Location #1, Air                | 5-30-91 1000            | Filter      |                |                                      |                     |
| 2,5902713     | " #2                            | 0745                    |             |                |                                      |                     |
| 3,5902744     | " #3                            | 0715                    |             |                |                                      |                     |
| 4,5902710     | " #4                            | 0910                    |             |                |                                      |                     |
| 5,5902711     | " #5                            | 0925                    |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions:

Possible Sample Hazards: Copper, Mercury

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Shern Williams, IT Corp, 5-31-91, 1045

3. Relinquished By:

Received By:

Received by:

2. Relinquished By:

4. Relinquished By:

Received By:

Received By:

WHITE - To accompany samples  
YELLOW - Field copy



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 06/14/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-06-060

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC MAGNESIA PILE 142468-05

Date Received: 06/11/91

142468-005

Number of Samples: 7

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5902741                    | C1-06-060-01        |
| 2,5902727                    | C1-06-060-02        |
| 3,5902726                    | C1-06-060-03        |
| 4,5902740                    | C1-06-060-04        |
| 5,5902742                    | C1-06-060-05        |
| BLANK SPIKE                  | C1-06-060-06        |
| METHOD BLANK                 | C1-06-060-07        |

Reviewed and Approved:

Tracy Sidwell  
Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC MAGNESIA FILE 142468-05 142468-005

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-060

| CLIENT SAMPLE ID         | 441<br>1,5902741            | 559<br>2,5902727            | 59,<br>3,5902726            |       |
|--------------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID            | C1-06-060-01                | C1-06-060-02                | C1-06-060-03                |       |
| SAMPLED                  | 05/31/91                    | 05/31/91                    | 05/31/91                    |       |
| TEST                     |                             |                             |                             | UNITS |
| NUISANCE DUST(<br>TOTAL) | 6600<br>[ 100]<br>06/12/91  | 22000<br>[ 100]<br>06/12/91 | 16500<br>[ 100]<br>06/12/91 | ug    |
| MERCURY BY<br>CVAA       | 0.12<br>[ 0.07]<br>06/13/91 | 0.14<br>[ 0.07]<br>06/13/91 | 0.11<br>[ 0.07]<br>06/13/91 | ug    |
| COPPER by ICP            | 16<br>[ 3]<br>06/11/91      | 33<br>[ 3]<br>06/11/91      | 6<br>[ 3]<br>06/11/91       | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC MAGNESIA PILE 142468-05 142468-005

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-060

| CLIENT SAMPLE ID     | 413<br>4,5902740                  | 457<br>5,5902742                  | BLANK SPIKE                       |       |
|----------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------|
| LAB SAMPLE ID        | C1-06-060-04                      | C1-06-060-05                      | C1-06-060-06                      |       |
| SAMPLED              | 05/31/91                          | 05/31/91                          |                                   |       |
| TEST                 |                                   |                                   |                                   | UNITS |
| NUISANCE DUST(TOTAL) | 13700<br>[ 100]<br>06/12/91       | 16700<br>[ 100]<br>06/12/91       |                                   | ug    |
| MERCURY BY CVAA      | 0.10<br>[ 0.07]<br>06/13/91<br>ug | 0.15<br>[ 0.07]<br>06/13/91<br>ug | 95<br>[ --]<br>06/13/91<br>% Rec. |       |
| COPPER by ICP        | 9<br>[ 3]<br>06/11/91<br>ug       | 6<br>[ 3]<br>06/11/91<br>ug       | 87<br>[ --]<br>06/11/91<br>% Rec. |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC MAGNESIA PILE 142468-05 142468-005

Work Order: C1-06-060

| CLIENT SAMPLE ID         | METHOD BLANK              | UNITS |
|--------------------------|---------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-06-060-07              |       |
| TEST                     |                           |       |
| MERCURY BY<br>CVAA       | ND<br>[ 0.07]<br>06/13/91 | ug    |
| COPPER by ICP            | ND<br>[ 3]<br>06/11/91    | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC MAGNESIA PILE 142468-05 142468-005

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-060

---

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



### REQUEST FOR ANALYSIS

R/A Control No. 208736  
 C/C Control No. 159849  
6-3-91

PROJECT NAME FMC Magnesite Pile  
 PROJECT NUMBER 142468-05  
 PROFIT CENTER NUMBER 2221  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA 94553  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED  
 LAB DESTINATION IT Knoxville → IT Perris  
 LABORATORY CONTACT Tony Simpson  
 SEND LAB REPORT TO IT Corp c/o FMC  
8787 Enterprise Dr  
Newark, CA 94560  
 DATE REPORT REQUIRED  
 PROJECT CONTACT Sherrill Williams  
 PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume (ft <sup>3</sup> ) | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|----------------------------------|--------------|---------------------------|----------------------|
| 1,5902741  | Air         | 15750                            |              | Particulates              |                      |
| 2,5902724  | ↓           | 19800                            |              | Mercury EPA 7471          |                      |
| 3,5902726  |             | 20925                            |              | Copper EPA 6010           |                      |
| 4,5902740  |             | 14625                            |              | same 3 as above for all   |                      |
| 5,590242   |             | 16200                            |              | "                         | "                    |
|            |             |                                  |              |                           |                      |
|            |             |                                  |              |                           |                      |
|            |             |                                  |              |                           |                      |
|            |             |                                  |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge.)  
 QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
 I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
 Non-hazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY  
 Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - Field copy

5-31 samples



INTERNATIONAL TECHNOLOGY CORPORATION

CHAIN-OF-CUSTODY RECORD

R/A Control No. 208736

C/C Control No. 159849

PROJECT NAME/NUMBER FMC Magnesia Pile / 142468-05

LAB DESTINATION IT Knoxville -> IT Cerntbs

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 0070187084

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1, 5902741    | location #1 Air                 | 5-31-91, 0825           | Filter      |                |                                      |                     |
| 2, 5902727    | " 2                             | 0715                    | COPY        |                |                                      |                     |
| 3, 5902726    | " 3                             | 0645                    |             |                |                                      |                     |
| 4, 5902740    | " 4                             | 0845                    |             |                |                                      |                     |
| 5, 5902742    | " 5                             | 0810                    |             |                |                                      |                     |
|               | 15750                           |                         |             |                |                                      |                     |
|               | 19600                           |                         |             |                |                                      |                     |
|               | 20125                           |                         |             |                |                                      |                     |
|               | 11625                           |                         |             |                |                                      |                     |
|               | 14210                           |                         |             |                |                                      |                     |

Special Instructions:

Possible Sample Hazards: Copper, Mercury

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 6-3-91, 0855

3. Relinquished By:

Received By:

Received by:

2. Relinquished By:

4. Relinquished By:

Received By:

Received By:



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 06/14/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-06-058

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC MAGNESIA PILE 142468

Date Received: 06/11/91

142468

Number of Samples: 6

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5902738                    | C1-06-058-01        |
| 2,5902737                    | C1-06-058-02        |
| 3,5902728                    | C1-06-058-03        |
| 4,5902739                    | C1-06-058-04        |
| BLANK SPIKE                  | C1-06-058-05        |
| METHOD BLANK                 | C1-06-058-06        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell

Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC MAGNESIA PILE 142468

142468

Work Order: C1-06-058

| CLIENT SAMPLE ID     | 1784<br>1,5902738           | 2006<br>2,5902737           | 1852<br>3,5902728           |       |
|----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-06-058-01                | C1-06-058-02                | C1-06-058-03                |       |
| SAMPLED              | 06/03/91                    | 06/03/91                    | 06/03/91                    |       |
| TEST                 |                             |                             |                             | UNITS |
| NUISANCE DUST(TOTAL) | 86100<br>[ 100]<br>06/12/91 | 55400<br>[ 100]<br>06/12/91 | 77500<br>[ 100]<br>06/12/91 | ug    |
| MERCURY BY CVAA      | 0.28<br>[ 0.07]<br>06/13/91 | 0.13<br>[ 0.07]<br>06/13/91 | 0.15<br>[ 0.07]<br>06/13/91 | ug    |
| COPPER by ICP        | 49<br>[ 3]<br>06/11/91      | 56<br>[ 3]<br>06/11/91      | 22<br>[ 3]<br>06/11/91      | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC MAGNESIA PILE 142468

142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-058

| CLIENT SAMPLE ID     | 4,5902739                         | BLANK SPIKE                      | METHOD BLANK                    |       |
|----------------------|-----------------------------------|----------------------------------|---------------------------------|-------|
| LAB SAMPLE ID        | C1-06-058-04                      | C1-06-058-05                     | C1-06-058-06                    |       |
| SAMPLED              | 06/03/91                          |                                  |                                 |       |
| TEST                 |                                   |                                  |                                 | UNITS |
| NUISANCE DUST(TOTAL) | 83600<br>[ 100]<br>06/12/91       |                                  |                                 | ug    |
| MERCURY BY CVAA      | 0.13<br>[ 0.07]<br>06/13/91<br>ug | 95<br>[ —]<br>06/13/91<br>% Rec. | ND<br>[ 0.07]<br>06/13/91<br>ug |       |
| COPPER by ICP        | 19<br>[ 3]<br>06/11/91<br>ug      | 87<br>[ —]<br>06/11/91<br>% Rec. | ND<br>[ 3]<br>06/11/91<br>ug    |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC MAGNESIA PILE 142468

142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-058

---

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. 200138  
C/C Control No. 159853  
10-4-91

PROJECT NAME FMC Magnesia Pile  
PROJECT NUMBER 142468  
PROFIT CENTER NUMBER 2221  
PROJECT MANAGER Gene Lovett  
BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA 94553  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED \_\_\_\_\_  
LAB DESTINATION IT Knoxville -> IT Cerritos  
LABORATORY CONTACT Tony Simpson  
SEND LAB REPORT TO IT Corp C/O FMC  
8787 Enterprise Dr  
Newark, CA 94360  
DATE REPORT REQUIRED 48 hrs  
PROJECT CONTACT Sherry Williams  
PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume (F+3) | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------------|--------------|---------------------------|----------------------|
| 1,5902738  | Ar          | 63225               |              |                           |                      |
| 2,5902737  | ↓           | 71100               |              |                           |                      |
| 3,5902728  | ↓           | 65610               |              |                           |                      |
| 4,5902739  | ↓           | 63225               |              |                           |                      |
|            |             |                     |              |                           |                      |
|            |             |                     |              |                           |                      |
|            |             |                     |              |                           |                      |
|            |             |                     |              |                           |                      |
|            |             |                     |              |                           |                      |
|            |             |                     |              |                           |                      |

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.) **QC LEVEL:** (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
 Normal \_\_\_\_\_ **Rush**  \_\_\_\_\_ (Subject to rush surcharge.) I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ **Project Specific** \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
 Non-hazard \_\_\_\_\_ **Flammable** \_\_\_\_\_ **Skin Irritant** \_\_\_\_\_ **Highly Toxic** \_\_\_\_\_ **Other** \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)  
 Return to Client \_\_\_\_\_ **Disposal by Lab** \_\_\_\_\_ **Archive** \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY

Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
YELLOW - Field copy

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. 208738

C/C Control No. **159853**

PROJECT NAME/NUMBER FMC Magnesia Pile / 142468

LAB DESTINATION IT Knoxville → IT Perritos

SAMPLE TEAM MEMBERS Sherril Williams

CARRIER/WAYBILL NO. 00701870735

6-3-91 samples

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1, 5902738    | Location # 1 Air                | 6-3-91 0815             | Filter      |                |                                      |                     |
| 2, 5902737    | 2 ↓                             | ↓ 0655                  | ↓           |                |                                      |                     |
| 3, 5902728    | 3 ↓                             | ↓ 0615                  | ↓           |                |                                      |                     |
| 4, 5902739    | 4 ↓                             | ↓ 0805                  | ↓           |                |                                      |                     |
| 5             | sample destroyed                |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Copper, Mercury

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherril Williams, IT Corp, 6-4-91, 1000

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 06/18/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-06-078

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 06/14/91

142468

Number of Samples: 9

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5902734                    | C1-06-078-01        |
| 2,5902733                    | C1-06-078-02        |
| 3,5902736                    | C1-06-078-03        |
| 4,5902735                    | C1-06-078-04        |
| 5,5902730                    | C1-06-078-05        |
| 4,5902732                    | C1-06-078-06        |
| 5,5902731                    | C1-06-078-07        |
| BLANK SPIKE                  | C1-06-078-08        |
| METHOD BLANK                 | C1-06-078-09        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 06/18/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-078

| CLIENT SAMPLE ID | 63000<br>1,5902734 | 63450<br>2,5902733 | 64125<br>3,5902736 |       |
|------------------|--------------------|--------------------|--------------------|-------|
| LAB SAMPLE ID    | C1-06-078-01       | C1-06-078-02       | C1-06-078-03       |       |
| SAMPLED          | 06/04/91           | 06/04/91           | 06/04/91           |       |
| TEST             |                    |                    |                    | UNITS |
| NUISANCE DUST(   | 129000             | 149000             | 123000             | ug    |
| TOTAL)           | [ 100]             | [ 100]             | [ 100]             |       |
|                  | 06/19/91           | 06/17/91           | 06/17/91           |       |
| MERCURY BY       | 0.16               | 0.16               | 0.20               | ug    |
| CVAA             | [ 0.07]            | [ 0.07]            | [ 0.07]            |       |
|                  | 06/15/91           | 06/15/91           | 06/15/91           |       |
| COPPER by ICP    | 39                 | 86                 | 20                 | ug    |
|                  | [ 3]               | [ 3]               | [ 3]               |       |
|                  | 06/17/91           | 06/17/91           | 06/17/91           |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/18/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-078

| CLIENT SAMPLE ID     | 63225<br>4,5902735          | 63000<br>5,5902730           | 1772<br>4,5902732           |       |
|----------------------|-----------------------------|------------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-06-078-04                | C1-06-078-05                 | C1-06-078-06                |       |
| SAMPLED              | 06/04/91                    | 06/04/91                     | 06/05/91                    |       |
| TEST                 |                             |                              |                             | UNITS |
| NUISANCE DUST(TOTAL) | 99800<br>[ 100]<br>06/17/91 | 136000<br>[ 100]<br>06/17/91 | 79200<br>[ 100]<br>06/17/91 | ug    |
| MERCURY BY CVAA      | 0.17<br>[ 0.07]<br>06/15/91 | 0.31<br>[ 0.07]<br>06/15/91  | ND<br>[ 0.07]<br>06/15/91   | ug    |
| COPPER by ICP        | 34<br>[ 3]<br>06/17/91      | 15<br>[ 3]<br>06/17/91       | 19<br>[ 3]<br>06/17/91      | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/18/91

Client Work ID: FMC 142468

142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-078

| CLIENT SAMPLE ID     | 5,5902731                         | BLANK SPIKE                       | METHOD BLANK                    |       |
|----------------------|-----------------------------------|-----------------------------------|---------------------------------|-------|
| LAB SAMPLE ID        | C1-06-078-07                      | C1-06-078-08                      | C1-06-078-09                    |       |
| SAMPLED              | 06/05/91                          |                                   |                                 |       |
| TEST                 |                                   |                                   |                                 | UNITS |
| NUISANCE DUST(TOTAL) | 107000<br>[ 100]<br>06/17/91      |                                   |                                 | ug    |
| MERCURY BY CVAA      | 0.16<br>[ 0.07]<br>06/15/91<br>ug | 89<br>[ --]<br>06/15/91<br>% Rec. | ND<br>[ 0.07]<br>06/15/91<br>ug |       |
| COPPER by ICP        | 12<br>[ 3]<br>06/17/91<br>ug      | 93<br>[ --]<br>06/17/91<br>% Rec. | ND<br>[ 3]<br>06/17/91<br>ug    |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Page: 5

Company: IT CORPORATION  
Date: 06/18/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-078

---

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.

6-4-91 samples



INTERNATIONAL TECHNOLOGY CORPORATION

REQUEST FOR ANALYSIS

R/A Control No. 208737  
C/C Control No. 159850

PROJECT NAME FMC Magnesia Pile  
PROJECT NUMBER 142468  
PROFIT CENTER NUMBER 2221  
PROJECT MANAGER Gene Lovett  
BILL TO IT Corp.  
4585 Pacheco Blvd.  
Martinez, CA 94553  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 6-5-91  
LAB DESTINATION IT Knoxville -> IT Cerritos  
LABORATORY CONTACT Tony Simpson  
SEND LAB REPORT TO IT Corp c/o FMC  
8787 Enterprise Dr.  
Newark, CA 94560  
DATE REPORT REQUIRED 48 hrs  
PROJECT CONTACT Sherri Williams  
PROJECT CONTACT PHONE NO. \_\_\_\_\_

| Sample No. | Sample Type | Sample Volume (ft <sup>3</sup> ) | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|----------------------------------|--------------|---------------------------|----------------------|
| 1,5902734  | Air         | 63000                            |              |                           |                      |
| 2,5902733  |             | 63450                            |              |                           |                      |
| 3,5902736  |             | 64125                            |              |                           |                      |
| 4,5902735  |             | 63225                            |              |                           |                      |
| 5,5902730  | ↓           | 63000                            |              |                           |                      |
|            |             |                                  |              |                           |                      |
|            |             |                                  |              |                           |                      |
|            |             |                                  |              |                           |                      |
|            |             |                                  |              |                           |                      |
|            |             |                                  |              |                           |                      |

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)  
Normal \_\_\_\_\_ Rush  (Subject to rush surcharge.)  
QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
Non-hazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
(Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)  
Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY  
Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - C \_\_\_\_\_, to accompany samples  
YELLOW - Field copy

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. 200137

C/C Control No. **159850**

PROJECT NAME/NUMBER EMC Magnesia Pile / 142468

LAB DESTINATION IT Knoxville -> IT Corvallis

SAMPLE TEAM MEMBERS Sherril Williams

CARRIER/WAYBILL NO. 0070187073

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1,5902734     | Location #1 Air                 | 6-4-91 0845             | Air         |                |                                      |                     |
| 2,5902733     | 2 ↓                             | 0925                    |             |                |                                      |                     |
| 3,5902732     | 3 ↓                             | 0705                    |             |                |                                      |                     |
| 4,5902735     | 4 ↓                             | 0830                    |             |                |                                      |                     |
| 5,5902730     | 5 ↓                             | 0825                    |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Copper, Mercury

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: S. Williams, ITCAP, 6-5-91, 0915

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_



6-6-91 samples  
**REQUEST FOR ANALYSIS**

R/A Control No. **B 78131**  
 C/C Control No. 159681

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROJECT MANAGER Gene Lovett  
 BILL TO 4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 6-7-91  
 LAB DESTINATION IT Knoxville -> ITCerritos  
 LABORATORY CONTACT Tony Simpson  
 SEND LAB REPORT TO IT Corp c/o FMC  
8787 Enterprise Dr  
Newark, CA  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherril Williams  
 PROJECT CONTACT PHONE NO. 415-795-4395

| Sample No. | Sample Type | Sample Volume (m <sup>3</sup> ) | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------------------------|--------------|---------------------------|----------------------|
| 4,59102732 | Air         | 1772                            |              | Copper EPA 6010           |                      |
| 5,59102731 | ↓           | 1784                            |              | Hg EPA 7471               |                      |
|            |             |                                 |              | Particulate for both      |                      |
|            |             |                                 |              | Samples                   |                      |
|            |             |                                 |              |                           |                      |
|            |             |                                 |              |                           |                      |
|            |             |                                 |              |                           |                      |
|            |             |                                 |              |                           |                      |
|            |             |                                 |              |                           |                      |
|            |             |                                 |              |                           |                      |
|            |             |                                 |              |                           |                      |

COPY

11000

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)  
 POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
 Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)  
 SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
 Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - 1 copy



**CHAIN-OF-CUSTODY RECORD**

R/A Control No. B 131

C/C Control No. **159681**

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION IT Knoxville -> IT Cerritos

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 6070187051

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 4,5902732     | Location #4 Air                 | 6-5-91                  | Air         |                |                                      |                     |
| 5,5902731     | ↓ 5 ↓                           | 6-5-91                  | ↓           |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 6-7-91, 1245      3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_      Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_      4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_      Received By: \_\_\_\_\_

WHITE - To accompany samples  
YELLOW - Field copy



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 06/14/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-06-061

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 06/11/91

142468

Number of Samples: 7

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831008                    | C1-06-061-01        |
| 2,5831010                    | C1-06-061-02        |
| 4,5831007                    | C1-06-061-03        |
| 5,5831006                    | C1-06-061-04        |
| 3,5831009                    | C1-06-061-05        |
| BLANK SPIKE                  | C1-06-061-06        |
| METHOD BLANK                 | C1-06-061-07        |

Reviewed and Approved:

Tracy Sidwell  
Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-061

| CLIENT SAMPLE ID     | 2254<br>1,5831008           | 2216<br>2,5831010           | 2218<br>4,5831007           |       |
|----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-06-061-01                | C1-06-061-02                | C1-06-061-03                |       |
| SAMPLED              | 06/07/91                    | 06/07/91                    | 06/07/91                    |       |
| TEST                 |                             |                             |                             | UNITS |
| NUISANCE DUST(TOTAL) | 28300<br>[ 100]<br>06/13/91 | 50900<br>[ 100]<br>06/13/91 | 37600<br>[ 100]<br>06/13/91 | ug    |
| MERCURY BY CVAA      | ND<br>[ 0.07]<br>06/13/91   | 0.11<br>[ 0.07]<br>06/13/91 | 0.11<br>[ 0.07]<br>06/13/91 | ug    |
| COPPER by ICP        | 9<br>[ 3]<br>06/11/91       | 64<br>[ 3]<br>06/11/91      | 15<br>[ 3]<br>06/11/91      | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 06/14/91  
 Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-06-061

| CLIENT SAMPLE ID     | 5,5831006                         | 3,5831009                         | BLANK SPIKE                       |       |
|----------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------|
| LAB SAMPLE ID        | C1-06-061-04                      | C1-06-061-05                      | C1-06-061-06                      |       |
| SAMPLED              | 06/07/91                          | 06/07/91                          |                                   |       |
| TEST                 |                                   |                                   |                                   | UNITS |
| NUISANCE DUST(TOTAL) | 12200<br>[ 100]<br>06/13/91       | 11800<br>[ 100]<br>06/13/91       |                                   | ug    |
| MERCURY BY CVAA      | 0.11<br>[ 0.07]<br>06/13/91<br>ug | 0.11<br>[ 0.07]<br>06/13/91<br>ug | 95<br>[ --]<br>06/13/91<br>% Rec. |       |
| COPPER by ICP        | ND<br>[ 3]<br>06/11/91<br>ug      | 4<br>[ 3]<br>06/11/91<br>ug       | 87<br>[ --]<br>06/11/91<br>% Rec. |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC 142468

142468

Work Order: C1-06-061

| CLIENT SAMPLE ID         | METHOD BLANK              | UNITS |
|--------------------------|---------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-06-061-07              |       |
| TEST                     |                           |       |
| MERCURY BY<br>CVAA       | ND<br>[ 0.07]<br>06/13/91 | ug    |
| COPPER by ICP            | ND<br>[ 3]<br>06/11/91    | ug    |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 06/14/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-061

---

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



REQUEST FOR ANALYSIS

R/A Control No. B 8129
C/C Control No. 159680
6-10-91
IT Cerriks
Tracy Squell
IT Corp C/O FMC
8787 Enterprise Dr
Newark, CA

PROJECT NAME FMC
PROJECT NUMBER 142468
PROJECT MANAGER Gene Lovett
BILL TO IT Corp
4585 Pichero Blvd
Marlton, CA
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED
LAB DESTINATION
LABORATORY CONTACT
SEND LAB REPORT TO
DATE REPORT REQUIRED
PROJECT CONTACT Sherri Williams
PROJECT CONTACT PHONE NO. 415-795-4395

Table with 6 columns: Sample No., Sample Type, Sample Volume, Preservative, Requested Testing Program, Special Instructions. Contains handwritten entries for samples 1-5 and a large 'COPY' watermark.

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)
Normal \_\_\_\_\_ Rush [X] (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)
Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)
Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY
Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples
YELLOW - Field copy

5



6-7-91 samples  
CHAIN-OF-CUSTODY RECORD

R/A Control No. B78129

C/C Control No. 159680

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION IT ~~Lab~~ Cerritos

SAMPLE TEAM MEMBERS Sherrill Williams

CARRIER/WAYBILL NO. 0070187036

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 15831008      | Location #1 Air                 | 6-7-91, 0705            | Air         |                |                                      |                     |
| 25831010      | 2 ↓                             | ↓, 0855                 | ↓           |                |                                      |                     |
| 35831009      | 3 ↓                             | ↓, 0845                 | ↓           |                |                                      |                     |
| 45831007      | 4 ↓                             | ↓, 0800                 | ↓           |                |                                      |                     |
| 55831006      | 5 ↓                             | ↓, 0755                 | ↓           |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherrill Williams, IT Corp, 6-10-91, 0845

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_

WHITE - To accompany samples  
YELLOW - File



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 06/14/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work order: C1-06-067

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 06/12/91

142468

Number of Samples: 7

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5902787                    | C1-06-067-01        |
| 2,5831021                    | C1-06-067-02        |
| 3,5831020                    | C1-06-067-03        |
| 4,5831011                    | C1-06-067-04        |
| 5,5902788                    | C1-06-067-05        |
| BLANK SPIKE                  | C1-06-067-06        |
| METHOD BLANK                 | C1-06-067-07        |

Reviewed and Approved:

  
\_\_\_\_\_  
Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-067

| CLIENT SAMPLE ID     | 1873<br>1,5902787           | 1880<br>2,5831021           | 1884<br>3,5831020           |       |
|----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-06-067-01                | C1-06-067-02                | C1-06-067-03                |       |
| SAMPLED              | 06/10/91                    | 06/10/91                    | 06/10/91                    |       |
| TEST                 |                             |                             |                             | UNITS |
| NUISANCE DUST(TOTAL) | 77600<br>[ 100]<br>06/13/91 | 96200<br>[ 100]<br>06/13/91 | 93000<br>[ 100]<br>06/13/91 | ug    |
| MERCURY BY CVAA      | 0.18<br>[ 0.07]<br>06/14/91 | 0.21<br>[ 0.07]<br>06/14/91 | 0.29<br>[ 0.07]<br>06/14/91 | ug    |
| COPPER by ICP        | 45<br>[ 3]<br>06/12/91      | 94<br>[ 3]<br>06/12/91      | 22<br>[ 3]<br>06/12/91      | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC 142468

142468

Work Order: C1-06-067

| CLIENT SAMPLE ID     | 4,5831011                         | 5,5902788                         | BLANK SPIKE                       |       |
|----------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------|
| LAB SAMPLE ID        | C1-06-067-04                      | C1-06-067-05                      | C1-06-067-06                      |       |
| SAMPLED              | 06/10/91                          | 06/10/91                          |                                   |       |
| TEST                 |                                   |                                   |                                   | UNITS |
| NUISANCE DUST(TOTAL) | 95900<br>[ 100]<br>06/13/91       | 81300<br>[ 100]<br>06/13/91       |                                   | ug    |
| MERCURY BY CVAA      | 0.15<br>[ 0.07]<br>06/14/91<br>ug | 0.29<br>[ 0.07]<br>06/14/91<br>ug | 93<br>[ --]<br>06/14/91<br>% Rec. |       |
| COPPER by ICP        | 26<br>[ 3]<br>06/12/91<br>ug      | 12<br>[ 3]<br>06/12/91<br>ug      | 90<br>[ --]<br>06/12/91<br>% Rec. |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/14/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-067

| CLIENT SAMPLE ID<br><br>LAB SAMPLE ID<br>SAMPLED<br>TEST | METHOD BLANK<br><br>C1-06-067-07 | UNITS |
|--|----------------------------------|-------|
| MERCURY BY<br>CVAA                                       | ND<br>[ 0.07]<br>06/14/91        | ug    |
| COPPER by ICP  | ND<br>[ 3]<br>06/12/91           | ug    |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 06/14/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-067

---

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



6-10-91 samples

REQUEST FOR ANALYSIS

R/A Control No. B 78128  
C/C Control No. \_\_\_\_\_

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROJECT MANAGER Gene Lovett  
BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 6-11-91  
LAB DESTINATION IT Cernitas  
LABORATORY CONTACT Tracy Sidwell  
SEND LAB REPORT TO IT Corp c/o FMC  
8787 Enterprise  
DATE REPORT REQUIRED \_\_\_\_\_  
PROJECT CONTACT Sherri Williams  
PROJECT CONTACT PHONE NO. 415-795-4395

| Sample No. | Sample Type | Sample Volume ml <sup>3</sup> | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|-------------------------------|--------------|---------------------------|----------------------|
| 1,5902787  | Air         | <del>1875</del> 1873          |              |                           |                      |
| 2,5831021  | ↓           | <del>1880</del> 1880          |              |                           |                      |
| 3,5831020  |             | <del>1885</del> 1886          |              |                           |                      |
| 4,5831011  |             | <del>1880</del> 1880          |              |                           |                      |
| 5,5902788  |             | 1886                          |              |                           |                      |
|            |             |                               |              |                           |                      |
|            |             |                               |              |                           |                      |
|            |             |                               |              |                           |                      |
|            |             |                               |              |                           |                      |
|            |             |                               |              |                           |                      |

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
YELLOW - Copy



**CHAIN-OF-CUSTODY RECORD**

R/A Control No. B, 8128

C/C Control No. **159679**

PROJECT NAME/NUMBER FMC / 1421168

LAB DESTINATION IT (Cecitas)

SAMPLE TEAM MEMBERS Sherrill Williams

CARRIER/WAYBILL NO. \_\_\_\_\_

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1, 5962787    | Location #1 Air                 | 6-11-91 0805            | Air         |                |                                      |                     |
| 2, 52831021   | 2 ↓                             | ↓ 0715                  | ↓           |                |                                      |                     |
| 3, 5831070    | 3 ↓                             | ↓ 0700                  | ↓           |                |                                      |                     |
| 4, 5631011    | 4 ↓                             | ↓ 0740                  | ↓           |                |                                      |                     |
| 5, 5102788    | 5 ↓                             | ↓ 0745                  | ↓           |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

**SIGNATURES: (Name, Company, Date and Time)**

1. Relinquished By: Sherrill Williams, ITCAP, 6-11-91, 0750  
Received By: \_\_\_\_\_

3. Relinquished By: \_\_\_\_\_  
Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_  
Received By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_  
Received By: \_\_\_\_\_

WHITE - To accompany samples  
YELLOW - Field copy



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 06/24/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-06-125

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 06/20/91

142468

Number of Samples: 8

Sample Type: AIR

samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831001                    | C1-06-125-01        |
| 2,5831002                    | C1-06-125-02        |
| 3,5831003                    | C1-06-125-03        |
| 4,5831004                    | C1-06-125-04        |
| 5,5831005                    | C1-06-125-05        |
| BLANK SPIKE                  | C1-06-125-06        |
| BLANK SPIKE DUPLICATE        | C1-06-125-07        |
| METHOD BLANK                 | C1-06-125-08        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 06/24/91

Client Work ID: FMC 142468

142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-125

| CLIENT SAMPLE ID      | 1892<br>1,5831001           | 1885<br>2,5831002           | 1879<br>3,5831003           |       |
|-----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID         | C1-06-125-01                | C1-06-125-02                | C1-06-125-03                |       |
| SAMPLED               | 06/18/91                    | 06/18/91                    | 06/18/91                    |       |
| TEST                  |                             |                             |                             | UNITS |
| NUISANCE DUST (TOTAL) | 40700<br>[ 100]<br>06/20/91 | 91200<br>[ 100]<br>06/20/91 | 17000<br>[ 100]<br>06/20/91 | ug    |
| MERCURY BY CVAA       | ND<br>[ 0.07]<br>06/21/91   | ND<br>[ 0.07]<br>06/21/91   | ND<br>[ 0.07]<br>06/21/91   | ug    |
| COPPER by ICP         | 14<br>[ 3]<br>06/20/91      | 67<br>[ 3]<br>06/20/91      | 4<br>[ 3]<br>06/20/91       | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 06/24/91  
 Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-06-125

| CLIENT SAMPLE ID     | 1980<br>4,5831004                 | 1973<br>5,5831005                 | BLANK SPIKE                      |       |
|----------------------|-----------------------------------|-----------------------------------|----------------------------------|-------|
| LAB SAMPLE ID        | C1-06-125-04                      | C1-06-125-05                      | C1-06-125-06                     |       |
| SAMPLED              | 06/18/91                          | 06/18/91                          |                                  |       |
| TEST                 |                                   |                                   |                                  | UNITS |
| NUISANCE DUST(TOTAL) | 131000<br>[ 100]<br>06/20/91      | 72100<br>[ 100]<br>06/20/91       |                                  | ug    |
| MERCURY BY CVAA      | 0.19<br>[ 0.07]<br>06/21/91<br>ug | 0.11<br>[ 0.07]<br>06/21/91<br>ug | 73<br>[ —]<br>06/21/91<br>% Rec. |       |
| COPPER by ICP        | 32<br>[ 3]<br>06/20/91<br>ug      | 14<br>[ 3]<br>06/20/91<br>ug      | 92<br>[ —]<br>06/20/91<br>% Rec. |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/24/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-125

| CLIENT SAMPLE ID         | BLANK SPIKE<br>DUPLICATE           | METHOD BLANK                  |       |
|--------------------------|------------------------------------|-------------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-06-125-07                       | C1-06-125-08                  |       |
| TEST                     |                                    |                               | UNITS |
| MERCURY BY<br>CVAA       |                                    | ND<br>[ 0.07 ]<br>06/21/91    | ug    |
| COPPER by ICP            | 92<br>[ -- ]<br>06/20/91<br>% Rec. | ND<br>[ 3 ]<br>06/20/91<br>ug | mg/L  |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 06/24/91  
Client Work ID: FMC 142468

142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-125

---

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. **B 78127**  
 C/C Control No. 154678  
June 19, 1997  
IT Cerritos  
Tracy Sidwell  
IT Corp c/o FMC  
8891 Enterprise  
Newark, CA

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED  
 LAB DESTINATION  
 LABORATORY CONTACT  
 SEND LAB REPORT TO  
 DATE REPORT REQUIRED  
 PROJECT CONTACT  
 PROJECT CONTACT PHONE NO. 415-795-4395

| Sample No. | Sample Type | Sample Volume (m <sup>3</sup> ) | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------------------------|--------------|---------------------------|----------------------|
| 1,5831001  | Air         | 189a                            |              | Copper EPA 6010           |                      |
| 2,5831002  | ↓           | 1885                            |              | Mercury EPA 7471          |                      |
| 3,5831003  |             | 1879                            |              | Particulate               |                      |
| 4,5831004  |             | 1860                            |              | Perform all 3 tests       |                      |
| 5,5831005  |             | 1873                            |              | on all samples            |                      |
|            |             |                                 |              |                           |                      |
|            |             |                                 |              |                           |                      |
|            |             |                                 |              |                           |                      |
|            |             |                                 |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - Field copy



CHAIN-OF-CUSTODY RECORD

6-18-91 samples

R/A Control No. 578107

C/C Control No. 159678

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION IT Cerritos

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 0493703991

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1,5831001     | Location #1                     | 6-18-91, 0845           | Air         |                |                                      |                     |
| 2,5831002     | 2                               | 0710                    |             |                |                                      |                     |
| 3,5831003     | 3                               | 0700                    |             |                |                                      |                     |
| 4,5831004     | 4                               | 0755                    |             |                |                                      |                     |
| 5,5831005     | 5                               | 0745                    |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

Special Instructions:

Possible Sample Hazards: Copper, Manganese, Mercury

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 6-19-91, 1230

3. Relinquished By:

Received By:

Received by:

2. Relinquished By:

4. Relinquished By:

Received By:

Received By:



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 06/25/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-06-137

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 06/21/91

142468

Number of Samples: 7

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831012                    | C1-06-137-01        |
| 2,5831013                    | C1-06-137-02        |
| 3,5831014                    | C1-06-137-03        |
| 4,5831015                    | C1-06-137-04        |
| 5,5831016                    | C1-06-137-05        |
| BLANK SPIKE                  | C1-06-137-06        |
| METHOD BLANK                 | C1-06-137-08        |

Reviewed and Approved:

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION  
 Date: 06/25/91  
 Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-06-137

| CLIENT SAMPLE ID | 1529<br>1,5831012 | 1529<br>2,5831013 | 1541<br>3,5831014 |       |
|------------------|-------------------|-------------------|-------------------|-------|
| LAB SAMPLE ID    | C1-06-137-01      | C1-06-137-02      | C1-06-137-03      |       |
| SAMPLED          | 06/19/91          | 06/19/91          | 06/19/91          |       |
| TEST             |                   |                   |                   | UNITS |
| NUISANCE DUST(   | 36100             | 63800             | 44900             | ug    |
| TOTAL)           | [ 100]            | [ 100]            | [ 100]            |       |
|                  | 06/21/91          | 06/21/91          | 06/21/91          |       |
| MERCURY BY       | ND                | ND                | 0.11              | ug    |
| CVAA             | [ 0.07]           | [ 0.07]           | [ 0.07]           |       |
|                  | 06/22/91          | 06/22/91          | 06/22/91          |       |
| COPPER by ICP    | 35                | 170               | 15                | ug    |
|                  | [ 3]              | [ 3]              | [ 3]              |       |
|                  | 06/21/91          | 06/21/91          | 06/21/91          |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/25/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-137

| CLIENT SAMPLE ID     | 1822<br>4,5831015                 | 1758<br>5,5831016                 | BLANK SPIKE                       |       |
|----------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------|
| LAB SAMPLE ID        | C1-06-137-04                      | C1-06-137-05                      | C1-06-137-06                      |       |
| SAMPLED              | 06/19/91                          | 06/19/91                          |                                   |       |
| TEST                 |                                   |                                   |                                   | UNITS |
| NUISANCE DUST(TOTAL) | 53700<br>[ 100]<br>06/21/91       | 46600<br>[ 100]<br>06/21/91       |                                   | ug    |
| MERCURY BY CVAA      | 0.11<br>[ 0.07]<br>06/22/91<br>ug | 0.16<br>[ 0.07]<br>06/22/91<br>ug | 77<br>[ --]<br>06/22/91<br>% Rec. |       |
| COPPER by ICP        | 33<br>[ 3]<br>06/21/91<br>ug      | 11<br>[ 3]<br>06/21/91<br>ug      | 89<br>[ --]<br>06/21/91<br>% Rec. |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 06/25/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-137

| CLIENT SAMPLE ID         | METHOD BLANK              | UNITS |
|--------------------------|---------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-06-137-08              |       |
| TEST                     |                           |       |
| MERCURY BY<br>CVAA       | ND<br>[ 0.07]<br>06/22/91 | ug    |
| COPPER by ICP            | ND<br>[ 3]<br>06/21/91    | ug    |

ND indicates the parameter was not detected.  
Detection limits are specified in [].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 06/25/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-137

---

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



6-824-71

### REQUEST FOR ANALYSIS

R/A Control No. **B 78124**  
C/C Control No. 159675

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Marhnez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED June 20, 1991  
 LAB DESTINATION IT Cerritos  
 LABORATORY CONTACT Tracy Sidwell  
 SEND LAB REPORT TO IT Corp c/o FMC  
8891 Enterprise  
Newark, CA  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherri Williams  
 PROJECT CONTACT PHONE NO. 415-795-4395

| Sample No. | Sample Type | Sample Volume (ml) | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|--------------------|--------------|---------------------------|----------------------|
| 1, 5831012 | Air         | 1829               |              | Copper EPA 610            |                      |
| 2, 5831013 | ↓           | 1829               |              | Mercury EPA 7171          |                      |
| 3, 5831014 |             | 1841               |              | Pesticide                 |                      |
| 4, 5831015 |             | 1822               |              | Perfluorinated            |                      |
| 5, 5831016 |             | 1756               |              | all samples               |                      |
|            |             |                    |              |                           |                      |

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
 Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
 Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - Copy



**CHAIN-OF-CUSTODY RECORD**

R/A Control No. B-1124

C/C Control No. **159675**

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION IT Corp

SAMPLE TEAM MEMBERS Sherrill Williams

CARRIER/WAYBILL NO. 0070186981 Fed X

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1, 5831012    | Location 1 Air                  | 6-19-98 0750            | Air         |                |                                      |                     |
| 2, 5831013    | ↓ 2 ↓                           | ↓ 0750 ↓                | ↓ ↓         |                |                                      |                     |
| 3, 5831014    | ↓ 3 ↓                           | ↓ 0735 ↓                | ↓ ↓         |                |                                      |                     |
| 4, 5831015    | ↓ 4 ↓                           | ↓ 0930 ↓                | ↓ ↓         |                |                                      |                     |
| 5, 5831016    | ↓ 5 ↓                           | ↓ 0940 ↓                | ↓ ↓         |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherrill Williams IT Corp, 6-20-98, 1240

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 06/27/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-06-150

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 06/24/91

142468

Number of Samples: 7

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831017                    | C1-06-150-01        |
| 2,5831018                    | C1-06-150-02        |
| 3,5831019                    | C1-06-150-03        |
| 4,5902794                    | C1-06-150-04        |
| 5,5902795                    | C1-06-150-05        |
| BLANK SPIKE                  | C1-06-150-06        |
| METHOD BLANK                 | C1-06-150-08        |

Reviewed and Approved:

*Tracy Sigwell*

Tracy Sigwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 06/27/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-150

| CLIENT SAMPLE ID     | 142468<br>1,5831017         | 2024<br>2,5831018           | 1019<br>3,5831019           |       |
|----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-06-150-01                | C1-06-150-02                | C1-06-150-03                |       |
| SAMPLED              | 06/20/91                    | 06/20/91                    | 06/20/91                    |       |
| TEST                 |                             |                             |                             | UNITS |
| NUISANCE DUST(TOTAL) | 34500<br>[ 100]<br>06/24/91 | 76000<br>[ 100]<br>06/24/91 | 55400<br>[ 100]<br>06/24/91 | ug    |
| MERCURY BY CVAA      | ND<br>[ 0.07]<br>06/25/91   | ND<br>[ 0.07]<br>06/25/91   | ND<br>[ 0.07]<br>06/25/91   | ug    |
| COPPER by ICP        | 22<br>[ 3]<br>06/24/91      | 110<br>[ 3]<br>06/24/91     | 14<br>[ 3]<br>06/24/91      | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 06/27/91  
 Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-06-150

| CLIENT SAMPLE ID     | 4,5902794                         | 5,5902795                       | BLANK SPIKE                      |       |
|----------------------|-----------------------------------|---------------------------------|----------------------------------|-------|
| LAB SAMPLE ID        | C1-06-150-04                      | C1-06-150-05                    | C1-06-150-06                     |       |
| SAMPLED              | 06/20/91                          | 06/20/91                        |                                  |       |
| TEST                 |                                   |                                 |                                  | UNITS |
| NUISANCE DUST(TOTAL) | 11900*<br>[ 100]<br>06/24/91      | 50500<br>[ 100]<br>06/24/91     |                                  | ug    |
| MERCURY BY CVAA      | 0.08<br>[ 0.07]<br>06/25/91<br>ug | ND<br>[ 0.07]<br>06/25/91<br>ug | 89<br>[ —]<br>06/25/91<br>% Rec. |       |
| COPPER by ICP        | 35<br>[ 3]<br>06/24/91<br>ug      | 10<br>[ 3]<br>06/24/91<br>ug    | 93<br>[ —]<br>06/24/91<br>% Rec. |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/27/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-150

| CLIENT SAMPLE ID         | METHOD BLANK              | UNITS |
|--------------------------|---------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-06-150-08              |       |
| TEST                     |                           |       |
| MERCURY BY<br>CVAA       | ND<br>[ 0.07]<br>06/25/91 | ug    |
| COPPER by ICP            | ND<br>[ 3]<br>06/24/91    | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Page: 5

Company: IT CORPORATION

Date: 06/27/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-150

---

#### Nonconformance Summary

\*Sample 4,5902794 was damaged upon receipt by the laboratory such that a piece of the filter was missing from the sample. The sample was reported as is but the data is uncertain.

Company: IT CORPORATION  
Date: 06/27/91  
Client Work ID: FMC 142468

142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-06-150

---

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. **B 78122**

C/C Control No. \_\_\_\_\_

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4874 4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 6-21-91  
 LAB DESTINATION IT Cerritos  
 LABORATORY CONTACT Tracy Sidwell  
 SEND LAB REPORT TO IT Corp c/o FMC  
8891 Enterprise Dr  
Newark, CA  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherri Williams  
 PROJECT CONTACT PHONE NO. 415-795-4395

| Sample No. | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------|--------------|---------------------------|----------------------|
| 1,5831017  | Air         | 1866          |              | Copper EPA 6010           |                      |
| 2,5831018  |             | 2026          |              | Mercury EPA 7471          |                      |
| 3,5831019  |             | 2019          |              | Particulate               |                      |
| 4,5902794  |             | 1866          |              | Per form all tests on all |                      |
| 5,5902795  | ↓           | 1841          |              | samples                   |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |

COP

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
 Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
 Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - Copy



6-20-91  
samples  
CHAIN-OF-CUSTODY RECORD

R/A Control No. \_\_\_\_\_

C/C Control No. 159E

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION IT Cerritos

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 0493703980 Fed-;

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disp Recor |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|------------|
| 1,5831017     | Location 1                      | 6-20-91 0930            | Air         |                |                                      |            |
| 2,5831018     | 2                               | 1015                    |             |                |                                      |            |
| 3,5831019     | 3                               | 1000                    |             |                |                                      |            |
| 4,5902794     | 4                               | 0945                    |             |                |                                      |            |
| 5,5902795     | 5                               | 0935                    |             |                |                                      |            |
|               |                                 |                         |             |                |                                      |            |
|               |                                 |                         |             |                |                                      |            |
|               |                                 |                         |             |                |                                      |            |
|               |                                 |                         |             |                |                                      |            |
|               |                                 |                         |             |                |                                      |            |

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp., 6-21-91, 1200

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 06/27/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-06-157

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 06/25/91

142468

Number of Samples: 7

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831182                    | C1-06-157-01        |
| 2,5831183                    | C1-06-157-02        |
| 3,5831184                    | C1-06-157-03        |
| 4,5831185                    | C1-06-157-04        |
| 5,5831186                    | C1-06-157-05        |
| BLANK SPIKE                  | C1-06-157-06        |
| METHOD BLANK                 | C1-06-157-08        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 06/27/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-157

| CLIENT SAMPLE ID     | 1,5831182                  | 2,5831183                   | 3,5831184                  |       |
|----------------------|----------------------------|-----------------------------|----------------------------|-------|
| LAB SAMPLE ID        | C1-06-157-01               | C1-06-157-02                | C1-06-157-03               |       |
| SAMPLED              | 06/21/91                   | 06/21/91                    | 06/21/91                   |       |
| TEST                 |                            |                             |                            | UNITS |
| NUISANCE DUST(TOTAL) | 1000<br>[ 100]<br>06/25/91 | 14200<br>[ 100]<br>06/25/91 | 6400<br>[ 100]<br>06/25/91 | ug    |
| MERCURY BY CVAA      | ND<br>[ 0.07]<br>06/26/91  | ND<br>[ 0.07]<br>06/26/91   | ND<br>[ 0.07]<br>06/26/91  | ug    |
| COPPER by ICP        | 6<br>[ 3]<br>06/25/91      | 17<br>[ 3]<br>06/25/91      | 9<br>[ 3]<br>06/25/91      | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 06/27/91  
 Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-06-157

| CLIENT SAMPLE ID     | 293<br>4,5831185                | 304<br>5,5831186                | BLANK SPIKE                      |       |
|----------------------|---------------------------------|---------------------------------|----------------------------------|-------|
| LAB SAMPLE ID        | C1-06-157-04                    | C1-06-157-05                    | C1-06-157-06                     |       |
| SAMPLED              | 06/21/91                        | 06/21/91                        |                                  |       |
| TEST                 |                                 |                                 |                                  | UNITS |
| NUISANCE DUST(TOTAL) | 11400<br>[ 100]<br>06/25/91     | 3000<br>[ 100]<br>06/25/91      |                                  | ug    |
| MERCURY BY CVAA      | ND<br>[ 0.07]<br>06/26/91<br>ug | ND<br>[ 0.07]<br>06/26/91<br>ug | 97<br>[ —]<br>06/26/91<br>% Rec. |       |
| COPPER by ICP        | 6<br>[ 3]<br>06/25/91<br>ug     | ND<br>[ 3]<br>06/25/91<br>ug    | 87<br>[ —]<br>06/25/91<br>% Rec. |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/27/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-157

| CLIENT SAMPLE ID         | METHOD BLANK              |       |
|--------------------------|---------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-06-157-08              |       |
| TEST                     |                           | UNITS |
| MERCURY BY<br>CVAA       | ND<br>[ 0.07]<br>06/26/91 | ug    |
| COPPER by ICP            | ND<br>[ 3]<br>06/25/91    | ug    |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 06/27/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-157

---

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

6-21-91  
**REQUEST, JR ANALYSIS**

R/A Control No. **B 8123**  
C/C Control No. 154673  
6-24-91

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROJECT MANAGER Gene Lovett  
BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
PURCHASE ORDER NO. 2221

**Samples**  
DATE SAMPLES SHIPPED  
LAB DESTINATION IT Corritus  
LABORATORY CONTACT Tracy Sidwell  
SEND LAB REPORT TO IT Corp C/O FMC  
8891 Enterprise Dr  
Newark, CA  
DATE REPORT REQUIRED  
PROJECT CONTACT Sheri Williams  
PROJECT CONTACT PHONE NO. 415-795-4395

| Sample No. | Sample Type | Sample Volume $\mu$ 3 | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|-----------------------|--------------|---------------------------|----------------------|
| 1,5831182  | Air         | 331                   |              | Copper EPA 6010           |                      |
| 2,5831183  | ↓           | 299                   |              | Mercury EPA 7471          |                      |
| 3,5831184  |             | 287                   |              | Particulate               |                      |
| 4,5831185  |             | 293                   |              | Perform all tests on      |                      |
| 5,5831186  |             | 306                   |              | all samples               |                      |
|            |             |                       |              |                           |                      |
|            |             |                       |              |                           |                      |
|            |             |                       |              |                           |                      |
|            |             |                       |              |                           |                      |
|            |             |                       |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)  
 POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
 Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)  
 SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
 Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - Field copy

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. B 78123

C/C Control No. 159673

PROJECT NAME/NUMBER FMC / 142468

LAB DESTINATION IT Certificates

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 0493703970

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1,5831182     | Location 1 Air                  | 6-21-91 0950            | Air         |                |                                      |                     |
| 2,5831183     | 2                               | ↓ 1010                  | ↓           |                |                                      |                     |
| 3,5831184     | 3                               | ↓ 1000                  | ↓           |                |                                      |                     |
| 4,5831185     | 4                               | ↓ 0940                  | ↓           |                |                                      |                     |
| 5,5831186     | 5                               | ↓ 0930                  | ↓           |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 6-24-91, 1700

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_

WHITE - To accompany samples  
YELLOW - File



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/01/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-06-184

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468  
Date Received: 06/27/91 142468  
Number of Samples: 6  
Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831181                    | C1-06-184-01        |
| 3,5831188                    | C1-06-184-02        |
| 4,5831189                    | C1-06-184-03        |
| 5,5831190                    | C1-06-184-04        |
| BLANK SPIKE                  | C1-06-184-06        |
| METHOD BLANK                 | C1-06-184-08        |

Reviewed and Approved:

  
\_\_\_\_\_  
Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 07/01/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-184

| CLIENT SAMPLE ID     | 15815<br>1,5831181          | 1777<br>3,5831188           | 1780<br>4,5831189           |       |
|----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-06-184-01                | C1-06-184-02                | C1-06-184-03                |       |
| SAMPLED              | 06/25/91                    | 06/25/91                    | 06/25/91                    |       |
| TEST                 |                             |                             |                             | UNITS |
| NUISANCE DUST(TOTAL) | 12900<br>[ 100]<br>06/27/91 | 23100<br>[ 100]<br>06/27/91 | 31700<br>[ 100]<br>06/27/91 | ug    |
| MERCURY BY CVAA      | ND<br>[ 0.07]<br>06/28/91   | ND<br>[ 0.07]<br>06/28/91   | ND<br>[ 0.07]<br>06/28/91   | ug    |
| COPPER by ICP        | 21<br>[ 3]<br>06/27/91      | 17<br>[ 3]<br>06/27/91      | 38<br>[ 3]<br>06/27/91      | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/01/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-184

| CLIENT SAMPLE ID     | 5,5831190                       | BLANK SPIKE                      | METHOD BLANK                    |       |
|----------------------|---------------------------------|----------------------------------|---------------------------------|-------|
| LAB SAMPLE ID        | C1-06-184-04                    | C1-06-184-06                     | C1-06-184-08                    |       |
| SAMPLED              | 06/25/91                        |                                  |                                 |       |
| TEST                 |                                 |                                  |                                 | UNITS |
| NUISANCE DUST(TOTAL) | 14100<br>[ 100]<br>06/27/91     |                                  |                                 | ug    |
| MERCURY BY CVAA      | ND<br>[ 0.07]<br>06/28/91<br>ug | 87<br>[ —]<br>06/28/91<br>% Rec. | ND<br>[ 0.07]<br>06/28/91<br>ug |       |
| COPPER by ICP        | 4<br>[ 3]<br>06/27/91<br>ug     | 94<br>[ —]<br>06/27/91<br>% Rec. | ND<br>[ 3]<br>06/27/91<br>ug    |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 07/01/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-184

---

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



### REQUEST FOR ANALYSIS

R/A Control No. 205476  
 C/C Control No. 159671  
6-26-91

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROFIT CENTER NUMBER 2221  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED  
 LAB DESTINATION IT Cerritos  
 LABORATORY CONTACT Tracy Sidwell  
 SEND LAB REPORT TO IT Corp c/o FMC  
8891 Enterprise Dr  
Newark, CA  
 DATE REPORT REQUIRED  
 PROJECT CONTACT Sherri Williams  
 PROJECT CONTACT PHONE NO. 415-795-4395

| Sample No. | Sample Type | Sample Volume       | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------------|--------------|---------------------------|----------------------|
| 1, 5831181 | AIR         | 1815                |              | Copper EPA 6010           |                      |
| 2, 5831187 | ↓           | — sample not tested |              | Mercury EPA 7471          |                      |
| 3, 5831188 |             | 1777                |              | Per mcdade                |                      |
| 4, 5831189 |             | 1780                |              | Perform all tests on all  |                      |
| 5, 5831190 |             | 1803                |              | samples                   |                      |
|            |             |                     |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge.)  
 QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
 I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
 Non-hazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY  
 Received by \_\_\_\_\_ Date/Time \_\_\_\_\_



CHAIN-OF-CUSTODY RECORD

R/A Control No. 208476

C/C Control No. 159671

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION IT Cerrojos

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 0493703954

Table with 7 columns: Sample Number, Sample Location and Description, Date and Time Collected, Sample Type, Container Type, Condition on Receipt (Name and Date), Disposal Record No. Includes handwritten entries for samples 1-5 and a large 'COP' watermark.

Special Instructions: Sample # 583187 not sent

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 6-26-91, 142468 3. Relinquished By:

Received By: Received by:

2. Relinquished By: 4. Relinquished By:

Received By: Received By:



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/03/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-001

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 07/01/91

142468

Number of Samples: 9

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831191                    | C1-07-001-01        |
| 2,5831192                    | C1-07-001-02        |
| 3,5831193                    | C1-07-001-03        |
| 4,5831194                    | C1-07-001-04        |
| 3,5831153                    | C1-07-001-05        |
| 4,5831154                    | C1-07-001-06        |
| 5,5831155                    | C1-07-001-07        |
| BLANK SPIKE                  | C1-07-001-08        |
| METHOD BLANK                 | C1-07-001-09        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION  
 Date: 07/03/91  
 Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-001

| CLIENT SAMPLE ID     | 1873<br>1,5831191           | 1892<br>2,5831192           | 1981<br>3,5831193           |       |
|----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-07-001-01                | C1-07-001-02                | C1-07-001-03                |       |
| SAMPLED              | 06/26/91                    | 06/26/91                    | 06/26/91                    |       |
| TEST                 |                             |                             |                             | UNITS |
| NUISANCE DUST(TOTAL) | 39100<br>[ 100]<br>07/01/91 | 55600<br>[ 100]<br>07/01/91 | 49800<br>[ 100]<br>07/01/91 | ug    |
| MERCURY BY CVAA      | ND<br>[ 0.07]<br>07/03/91   | 0.07<br>[ 0.07]<br>07/03/91 | 0.09<br>[ 0.07]<br>07/03/91 | ug    |
| COPPER by ICP        | 33<br>[ 3]<br>07/01/91      | 260<br>[ 3]<br>07/01/91     | 24<br>[ 3]<br>07/01/91      | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/03/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-001

| CLIENT SAMPLE ID     | 1854<br>4,5831194           | 1445<br>3,5831153           | 1784<br>4,5831154           |       |
|----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-07-001-04                | C1-07-001-05                | C1-07-001-06                |       |
| SAMPLED              | 06/26/91                    | 06/27/91                    | 06/27/91                    |       |
| TEST                 |                             |                             |                             | UNITS |
| NUISANCE DUST(TOTAL) | 57600<br>[ 100]<br>07/01/91 | 62200<br>[ 100]<br>07/01/91 | 88600<br>[ 100]<br>07/01/91 | ug    |
| MERCURY BY CVAA      | 0.08<br>[ 0.07]<br>07/03/91 | 0.07<br>[ 0.07]<br>07/03/91 | ND<br>[ 0.07]<br>07/03/91   | ug    |
| COPPER by ICP        | 26<br>[ 3]<br>07/01/91      | 25<br>[ 3]<br>07/01/91      | 24<br>[ 3]<br>07/01/91      | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/03/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-001

| CLIENT SAMPLE ID     | 5,5831155                         | BLANK SPIKE                       | METHOD BLANK                    |       |
|----------------------|-----------------------------------|-----------------------------------|---------------------------------|-------|
| LAB SAMPLE ID        | C1-07-001-07                      | C1-07-001-08                      | C1-07-001-09                    |       |
| SAMPLED              | 06/27/91                          |                                   |                                 |       |
| TEST                 |                                   |                                   |                                 | UNITS |
| NUISANCE DUST(TOTAL) | 55800<br>[ 100]<br>07/01/91       |                                   |                                 | ug    |
| MERCURY BY CVAA      | 0.07<br>[ 0.07]<br>07/03/91<br>ug | 79<br>[ --]<br>07/03/91<br>% Rec. | ND<br>[ 0.07]<br>07/03/91<br>ug |       |
| COPPER by ICP        | 9<br>[ 3]<br>07/01/91<br>ug       | 92<br>[ --]<br>07/01/91<br>% Rec. | ND<br>[ 3]<br>07/01/91<br>ug    |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/03/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-001

---

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. 203450  
C/C Control No. 171312

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROFIT CENTER NUMBER 2221  
PROJECT MANAGER Gene Lovett  
BILL TO IT Corp.  
4585 Pacheco Blvd  
Martinez, CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 6-28-91  
LAB DESTINATION IT Cerritos  
LABORATORY CONTACT Tracy Sidwell  
SEND LAB REPORT TO IT Corp. c/o FMC  
2891 Enterprise  
Newark, CA  
DATE REPORT REQUIRED \_\_\_\_\_  
PROJECT CONTACT Sherril Williams  
PROJECT CONTACT PHONE NO. 415-795-4395

| Sample No. | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------|--------------|---------------------------|----------------------|
| 1 5831191  | Air         | 1573          |              |                           |                      |
| 2 5831192  | ↓           | 1592          |              |                           |                      |
| 3 5831193  | ↓           | 1551          |              |                           |                      |
| 4 5831194  | ↓           | 1554          |              |                           |                      |
| 5          |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge.)  
 QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
 I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
 Non-hazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY  
 Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - O. to accompany samples  
 YELLOW - Field copy.

**CHAIN-OF-CUSTODY RECORD**

 R/A Control No. 26450

 C/C Control No. 171312

 PROJECT NAME/NUMBER FMC/ 112468

 LAB DESTINATION IT Corvitos

 SAMPLE TEAM MEMBERS Sherri Williams

 CARRIER/WAYBILL NO. 0493703932 Fed X

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1 583191      | Location 1 Air                  | 6-26-91 0705            | Air         |                |                                      |                     |
| 2 583192      | 2 ↓                             | ↓ 0815                  | ↓           |                |                                      |                     |
| 3 583193      | 3 ↓                             | ↓ 0805                  | ↓           |                |                                      |                     |
| 4 583194      | 4 ↓                             | ↓ 0745                  | ↓           |                |                                      |                     |
| 5             |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

 Special Instructions: sample # from pump # 5 not sent

 Possible Sample Hazards: Mercury, Copper
**SIGNATURES: (Name, Company, Date and Time)**

 1. Relinquished By: Sherri Williams, IT Corp., 6-28-91, 1240

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_

**REQUEST FOR ANALYSIS**

 R/A Control No. 018001  
 C/C Control No. 45452

 PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp.  
4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

 DATE SAMPLES SHIPPED 6-20-74  
 LAB DESTINATION IT Corp  
 LABORATORY CONTACT Tracy Sidwell  
 SEND LAB REPORT TO IT Corp P/O FMC  
8891 Enterprise  
Newark, CA  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherri Williams  
 PROJECT CONTACT PHONE NO. 415-795-4395

| Sample No.   | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|--|-------------|---------------|--------------|---------------------------|----------------------|
| 1, 5831151   | Air<br>↓    | _____         | _____        | _____                     | _____                |
| 2, 5831152   |             | _____         | _____        | _____                     | _____                |
| 3, 5831153   |             | _____         | _____        | _____                     | _____                |
| 4, 5831154   |             | 1784          | _____        | _____                     | _____                |
| 5, 5831155   |             | 1780          | _____        | _____                     | _____                |
| <b>COPY</b>  |             |               |              |                           |                      |
| Samples 5831151 + 5831152 Not to be analyzed   |             |               |              |                           |                      |
| Requested Testing Program:<br>Copper EPA 6010<br>Mercury EPA 7471<br>Particulate<br>Perform all tests on all samples |             |               |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal \_\_\_\_\_

 Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazardous \_\_\_\_\_

Flammable \_\_\_\_\_

Skin Irritant \_\_\_\_\_

Highly Toxic \_\_\_\_\_

Other \_\_\_\_\_

(Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client \_\_\_\_\_

Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY

Received By \_\_\_\_\_

Date/Time \_\_\_\_\_

 WHITE - Original, to accompany samples  
 YELLOW - Copy



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. 011001  
1453  
C/C Control No.

PROJECT NAME/NUMBER PMC 1012408

LAB DESTINATION ITT Corvallis

SAMPLE TEAM MEMBERS Sherry Williams

CARRIER/WAYBILL NO. 0493703932 Fedx

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1, 5831151    | 15000001 Air                    | 6-28-91                 | Air         |                |                                      |                     |
| 2, 5831152    | 2                               |                         |             |                |                                      |                     |
| 3, 5831153    | 3                               | 6-27-91 1100            |             |                |                                      |                     |
| 4, 5831154    | 4                               | 6-28-91 0630            |             |                |                                      |                     |
| 5, 5831155    | 5                               | 6-28-91 0855            |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

**COPY**

Special Instructions: Samples 5831151 + 5831152 not returned in

Possible Sample Hazards: Mercury, copper

**SIGNATURES: (Name, Company, Date and Time)**

1. Relinquished By: Sherry Williams 6-28-91, 1240  
Received By: \_\_\_\_\_

3. Relinquished By: \_\_\_\_\_  
Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_  
Received By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_  
Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/05/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-010

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 07/02/91

142468

Number of Samples: 5

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 3,5831157                    | C1-07-010-01        |
| 4,5831158                    | C1-07-010-02        |
| 5,5831159                    | C1-07-010-03        |
| BLANK SPIKE                  | C1-07-010-08        |
| METHOD BLANK                 | C1-07-010-09        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION  
 Date: 07/05/91  
 Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-010

| CLIENT SAMPLE ID      | 3,5831157                  | 4,5831158                  | 5,5831159                  |       |
|-----------------------|----------------------------|----------------------------|----------------------------|-------|
| LAB SAMPLE ID         | C1-07-010-01               | C1-07-010-02               | C1-07-010-03               |       |
| SAMPLED               | 06/28/91                   | 06/28/91                   | 06/28/91                   |       |
| TEST                  |                            |                            |                            | UNITS |
| NUISANCE DUST (TOTAL) | 4100<br>[ 100]<br>07/02/91 | 4300<br>[ 100]<br>07/02/91 | 1300<br>[ 100]<br>07/02/91 | ug    |
| MERCURY BY CVAA       | ND<br>[ 0.07]<br>07/03/91  | ND<br>[ 0.07]<br>07/03/91  | ND<br>[ 0.07]<br>07/03/91  | ug    |
| COPPER by ICP         | 13<br>[ 3]<br>07/02/91     | 8<br>[ 3]<br>07/02/91      | 4<br>[ 3]<br>07/02/91      | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/05/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-010

| CLIENT SAMPLE ID         | BLANK SPIKE                         | METHOD BLANK                     |       |
|--------------------------|-------------------------------------|----------------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-07-010-08                        | C1-07-010-09                     |       |
| TEST                     |                                     |                                  | UNITS |
| MERCURY BY<br>CVAA       | 81<br>[ --- ]<br>07/03/91<br>% Rec. | ND<br>[ 0.07 ]<br>07/03/91<br>ug | mg/L  |
| COPPER by ICP            | 93<br>[ --- ]<br>07/02/91<br>% Rec. | ND<br>[ 3 ]<br>07/02/91<br>ug    | mg/L  |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Page: 4

Company: IT CORPORATION

Date: 07/05/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-010

---

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



# REQUEST FOR ANALYSIS

R/A Control No. 018073  
 C/C Control No. 159615  
~~#~~ 7-1-91  
IT Cerritos  
Tracy Sidwell  
IT Corp C/O FMC  
8891 Enterprise Dr  
Newark, CA

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED \_\_\_\_\_  
 LAB DESTINATION \_\_\_\_\_  
 LABORATORY CONTACT \_\_\_\_\_  
 SEND LAB REPORT TO \_\_\_\_\_  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherrill Williams  
 PROJECT CONTACT PHONE NO. 415-795-4395

| Sample No. | Sample Type    | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|------------|----------------|---------------|--------------|---------------------------|----------------------|
| 3,5831157  | Wastewater Air | 268           |              | Copper EPA 6010           |                      |
| 4,5831158  | ↓              | 414           |              | Mercury EPA 7471          |                      |
| 5,5831159  | ↓              | 420           |              | Particulate               |                      |
|            |                |               |              | perform tests on all      |                      |
|            |                |               |              | samples                   |                      |
|            |                |               |              |                           |                      |
|            |                |               |              |                           |                      |
|            |                |               |              |                           |                      |
|            |                |               |              |                           |                      |
|            |                |               |              |                           |                      |

# COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)  
 POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
 Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)  
 SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
 Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - 1 copy

6-28-91

**CHAIN-OF-CUSTODY RECORD**  
Samples

R/A Control No. 02073

C/C Control No. **159615**

PROJECT NAME/NUMBER FMC/1421168

LAB DESTINATION IT Cerritos

SAMPLE TEAM MEMBERS Sherril Williams

CARRIER/WAYBILL NO. 0493703906

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 3, 5831157    | Location 3 Air                  | 6-28-91 1010            | Air         |                |                                      |                     |
| 4, 5831158    | 4 ↓                             | ↓ 0810                  | ↓           |                |                                      |                     |
| 5, 5831159    | 5 ↓                             | ↓ 0805                  | ↓           |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury + Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherril Williams, IT Corp, 7-1-91, 0920

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/09/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-014

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 07/03/91

142468

Number of Samples: 7

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831160                    | C1-07-014-01        |
| 2,5831161                    | C1-07-014-02        |
| 3,5831162                    | C1-07-014-03        |
| 4,5831163                    | C1-07-014-04        |
| 5,5831164                    | C1-07-014-05        |
| BLANK SPIKE                  | C1-07-014-06        |
| METHOD BLANK                 | C1-07-014-08        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 07/09/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-014

| CLIENT SAMPLE ID     | 1,5831160                   | 2,5831161                    | 3,5831162                   |       |
|----------------------|-----------------------------|------------------------------|-----------------------------|-------|
|                      | <i>1834</i>                 | <i>1898</i>                  | <i>1892</i>                 |       |
| LAB SAMPLE ID        | C1-07-014-01                | C1-07-014-02                 | C1-07-014-03                |       |
| SAMPLED              | 07/01/91                    | 07/01/91                     | 07/01/91                    |       |
| TEST                 |                             |                              |                             | UNITS |
| NUISANCE DUST(TOTAL) | 70100<br>[ 100]<br>07/03/91 | 101000<br>[ 100]<br>07/03/91 | 77900<br>[ 100]<br>07/03/91 | UG    |
| MERCURY              | 0.15<br>[ 0.07]<br>07/08/91 | 0.16<br>[ 0.07]<br>07/08/91  | 0.23<br>[ 0.07]<br>07/08/91 | UG    |
| COPPER               | 51<br>[ 3]<br>07/03/91      | 200<br>[ 3]<br>07/03/91      | 28<br>[ 3]<br>07/03/91      | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/09/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-014

| CLIENT SAMPLE ID     | 1784<br>4,5831163                 | 1790<br>5,5831164                 | BLANK SPIKE                       |       |
|----------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------|
| LAB SAMPLE ID        | C1-07-014-04                      | C1-07-014-05                      | C1-07-014-06                      |       |
| SAMPLED              | 07/01/91                          | 07/01/91                          | 07/01/91                          |       |
| TEST                 |                                   |                                   |                                   | UNITS |
| NUISANCE DUST(TOTAL) | 84600<br>[ 100]<br>07/03/91       | 59800<br>[ 100]<br>07/03/91       |                                   | UG    |
| MERCURY              | 0.18<br>[ 0.07]<br>07/08/91<br>UG | 0.15<br>[ 0.07]<br>07/08/91<br>UG | 97<br>[ --]<br>07/08/91<br>% REC. |       |
| COPPER               | 30<br>[ 3]<br>07/03/91<br>UG      | 10<br>[ 3]<br>07/03/91<br>UG      | 93<br>[ --]<br>07/03/91<br>% REC. |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/09/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-014

| CLIENT SAMPLE ID | METHOD BLANK |       |
|------------------|--------------|-------|
| LAB SAMPLE ID    | C1-07-014-08 |       |
| SAMPLED          | 07/01/91     |       |
| TEST             |              | UNITS |
| MERCURY          | ND           | UG    |
|                  | [ 0.07]      |       |
|                  | 07/08/91     |       |
| COPPER           | ND           | UG    |
|                  | [ 3]         |       |
|                  | 07/03/91     |       |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 07/09/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-014

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. 208744

C/C Control No. 171319

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROFIT CENTER NUMBER 2221  
 PROJECT MANAGER Gene ~~Macnamara~~ Lovett  
 BILL TO ITT Corp  
4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 7-2-91  
 LAB DESTINATION IT Cerritos  
 LABORATORY CONTACT Tracy Sidwell  
 SEND LAB REPORT TO IT Corp c/o FMC  
8891 Enterprise  
Newark, CA  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherril Williams  
 PROJECT CONTACT PHONE NO. 415-795-4345

| Sample No. | Sample Type | Sample Volume | Preservative | Requested Testing Program    | Special Instructions |
|------------|-------------|---------------|--------------|------------------------------|----------------------|
| 1, 5831160 | Air         | 1834          |              | Copper EPA 16010             |                      |
| 2, 5831161 | ↓           | 1898          |              | Mercury EPA 7471             |                      |
| 3, 5831162 |             | 1892          |              | Particulate                  |                      |
| 4, 5831163 |             | 1784          |              | Perform tests on all samples |                      |
| 5, 5831164 |             | 1790          |              |                              |                      |
|            |             |               |              |                              |                      |
|            |             |               |              |                              |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge.)  
 QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
 I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
 Non-hazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY  
 Received by \_\_\_\_\_ Date/Time \_\_\_\_\_



**CHAIN-OF-CUSTODY RECORD**

R/A Control No. 208744

C/C Control No. 171319

PROJECT NAME/NUMBER FMC 1143468

LAB DESTINATION ITC/1125

SAMPLE TEAM MEMBERS Merri Williams

CARRIER/WAYBILL NO. 0493763884 Fed-X

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1 5831160     | Location 1 Air                  | 7-1-91 0715             | Air         |                |                                      |                     |
| 2 5831161     | 2                               | 0900                    |             |                |                                      |                     |
| 3 5831162     | 3                               | 0650                    |             |                |                                      |                     |
| 4 5831163     | 4                               | 0655                    |             |                |                                      |                     |
| 5 5831164     | 5                               | 0655                    |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

*Handwritten signature and scribbles over the table.*

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

**SIGNATURES: (Name, Company, Date and Time)**

1. Relinquished By: Dr Williams IT Corp 7-2-91 1030 3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_ 4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/09/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work order: C1-07-031

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 07/04/91

142468

Number of Samples: 7

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831165                    | C1-07-031-01        |
| 2,5831166                    | C1-07-031-02        |
| 3,5831167                    | C1-07-031-03        |
| 4,5831168                    | C1-07-031-04        |
| 5,5831169                    | C1-07-031-05        |
| BLANK SPIKE                  | C1-07-031-06        |
| METHOD BLANK                 | C1-07-031-08        |

Reviewed and Approved:

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION  
 Date: 07/09/91  
 Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-031

| CLIENT SAMPLE ID     | 1724<br>1,5831165           | 1822<br>2,5831166            | 1835<br>3,5831167           |       |
|----------------------|-----------------------------|------------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-07-031-01                | C1-07-031-02                 | C1-07-031-03                |       |
| SAMPLED              | 07/02/91                    | 07/02/91                     | 07/02/91                    |       |
| TEST                 |                             |                              |                             | UNITS |
| NUISANCE DUST(TOTAL) | 81200<br>[ 100]<br>07/05/91 | 118000<br>[ 100]<br>07/05/91 | 89400<br>[ 100]<br>07/05/91 | UG    |
| MERCURY              | 0.14<br>[ 0.07]<br>07/08/91 | 0.17<br>[ 0.07]<br>07/08/91  | 0.08<br>[ 0.07]<br>07/08/91 | UG    |
| COPPER               | 55<br>[ 3]<br>07/08/91      | 230<br>[ 3]<br>07/08/91      | 30<br>[ 3]<br>07/08/91      | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/09/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-031

| CLIENT SAMPLE ID     | 1860<br>4,5831168                 | 1854<br>5,5831169                 | BLANK SPIKE                       |       |
|----------------------|-----------------------------------|-----------------------------------|-----------------------------------|-------|
| LAB SAMPLE ID        | C1-07-031-04                      | C1-07-031-05                      | C1-07-031-06                      |       |
| SAMPLED              | 07/02/91                          | 07/02/91                          |                                   |       |
| TEST                 |                                   |                                   |                                   | UNITS |
| NUISANCE DUST(TOTAL) | 126000<br>[ 100]<br>07/05/91      | 80700<br>[ 100]<br>07/05/91       |                                   | UG    |
| MERCURY              | 0.18<br>[ 0.07]<br>07/08/91<br>UG | 0.14<br>[ 0.07]<br>07/08/91<br>UG | 85<br>[ --]<br>07/08/91<br>% REC. |       |
| COPPER               | 33<br>[ 3]<br>07/08/91<br>UG      | 13<br>[ 3]<br>07/08/91<br>UG      | 91<br>[ --]<br>07/08/91<br>% REC. |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 07/09/91  
 Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-031

| CLIENT SAMPLE ID         | METHOD BLANK              | UNITS |
|--------------------------|---------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-07-031-08              |       |
| TEST                     |                           |       |
| MERCURY                  | ND<br>[ 0.07]<br>07/08/91 | UG    |
| COPPER                   | ND<br>[ 3]<br>07/08/91    | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Page: 5

Company: IT CORPORATION

Date: 07/09/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-031

---

#### Nonconformance Summary

The samples numbers listed on the Chain of Custody and Request for Analysis did not coincide with the sample numbers on the filter. As per the client the samples will be reported according to the sample number on the filter.

Company: IT CORPORATION  
Date: 07/09/91  
Client Work ID: FMC 142468

142468

IT ANALYTICAL SERVICES  
CERRITOS, CA  
Work Order: C1-07-031

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



# REQUEST FOR ANALYSIS

R/A Control No. 208751  
 C/C Control No. 159630  
7-10-91

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROFIT CENTER NUMBER 2221  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 ~~Alameda~~ Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED  
 LAB DESTINATION Cerritos  
 LABORATORY CONTACT Tracy Sidwell  
 SEND LAB REPORT TO IT Corp C/O FMC  
8891 Enterprise  
Newark, CA  
 DATE REPORT REQUIRED  
 PROJECT CONTACT Sherri Williams  
 PROJECT CONTACT PHONE NO. 415-795-4395

| Sample No. | Sample Type | Sample Volume (m <sup>3</sup> ) | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------------------------|--------------|---------------------------|----------------------|
| 1 5831165  | Air         | 1924                            |              | Copper EPA 6010           |                      |
| 2 5831166  | ↓           | 1822                            |              | Mercury EPA 7471          |                      |
| 3 5831167  |             | 1835                            |              | Perchlorate               |                      |
| 4 5831168  |             | 1860                            |              | * Perform test on         |                      |
| 5 5831169  |             | 1854                            |              | all samples               |                      |
|            |             |                                 |              |                           |                      |
|            |             |                                 |              |                           |                      |
|            |             |                                 |              |                           |                      |
|            |             |                                 |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge.)  
 QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
 I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
 Non-hazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY  
 Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

5

7-2-91 samples



CHAIN-OF-CUSTODY RECORD

R/A Control No. 208751

C/C Control No. 159630

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION Aerosols

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 0493703781 Red-X

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1 5831165     | Location 1 Air                  | 7-2-91 0650             | Air         |                |                                      |                     |
| 2 5831166     | 2 ↓                             | ↓ 0910                  | ↓           |                |                                      |                     |
| 3 5831167     | 3 ↓                             | ↓ 0855                  | ↓           |                |                                      |                     |
| 4 5831168     | 4 ↓                             | ↓ 0710                  | ↓           |                |                                      |                     |
| 5 5831169     | 5 ↓                             | ↓ 0705                  | ↓           |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: (Correct values for sample #5 5831165 - 5831169)

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 7-10-91 1330 3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_ 4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received By: \_\_\_\_\_

WHITE - To accompany samples  
YELLOW - For copy

IT Corp



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/10/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-039

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 07/08/91

142468

Number of Samples: 6

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831170                    | C1-07-039-01        |
| 2,5831171                    | C1-07-039-02        |
| 3,5831172                    | C1-07-039-03        |
| 5,5831174                    | C1-07-039-05        |
| BLANK SPIKE                  | C1-07-039-06        |
| METHOD BLANK                 | C1-07-039-08        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 07/10/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-039

| CLIENT SAMPLE ID     | 465<br>1,5831170            | 440<br>2,5831171            | 446<br>3,5831172            |       |
|----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-07-039-01                | C1-07-039-02                | C1-07-039-03                |       |
| SAMPLED              | 07/03/91                    | 07/03/91                    | 07/03/91                    |       |
| TEST                 |                             |                             |                             | UNITS |
| NUISANCE DUST(TOTAL) | 23300<br>[ 100]<br>07/08/91 | 35700<br>[ 100]<br>07/08/91 | 29600<br>[ 100]<br>07/08/91 | UG    |
| MERCURY              | ND<br>[ 0.07]<br>07/10/91   | ND<br>[ 0.07]<br>07/10/91   | ND<br>[ 0.07]<br>07/10/91   | UG    |
| COPPER               | 12<br>[ 3]<br>07/09/91      | 26<br>[ 3]<br>07/09/91      | 7<br>[ 3]<br>07/09/91       | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 07/10/91  
 Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-039

| CLIENT SAMPLE ID     | 5,5831174                       | BLANK SPIKE                        | METHOD BLANK                    | UNITS |
|----------------------|---------------------------------|------------------------------------|---------------------------------|-------|
| LAB SAMPLE ID        | C1-07-039-05                    | C1-07-039-06                       | C1-07-039-08                    |       |
| SAMPLED              | 07/03/91                        |                                    |                                 |       |
| TEST                 |                                 |                                    |                                 |       |
| NUISANCE DUST(TOTAL) | 20000<br>[ 100]<br>07/08/91     |                                    |                                 | UG    |
| MERCURY              | ND<br>[ 0.07]<br>07/10/91<br>UG | 77<br>[ ---]<br>07/10/91<br>% REC. | ND<br>[ 0.07]<br>07/10/91<br>UG |       |
| COPPER               | 4<br>[ 3]<br>07/09/91<br>UG     | 94<br>[ ---]<br>07/09/91<br>% REC. | ND<br>[ 3]<br>07/09/91<br>UG    |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 07/10/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-039

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



### REQUEST FOR ANALYSIS

R/A Control No. 208459  
 C/C Control No. 171316  
7-5-91  
Cerritos  
Tracy Sidwell  
IT Corp c/o FMC  
8891 Enterprise  
Newark, CA  
  
Sherri Williams  
415-795-4359

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROFIT CENTER NUMBER 2221  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED \_\_\_\_\_  
 LAB DESTINATION \_\_\_\_\_  
 LABORATORY CONTACT \_\_\_\_\_  
 SEND LAB REPORT TO \_\_\_\_\_  
  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT \_\_\_\_\_  
 PROJECT CONTACT PHONE NO. \_\_\_\_\_

| Sample No.                          | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|-------------------------------------|-------------|---------------|--------------|---------------------------|----------------------|
| 1 5831170                           | Air         | 465           |              | Mercury EPA 7471          |                      |
| 2 5831171                           | ↓           | 440           |              | Copper EPA 6010           |                      |
| 3 5831172                           |             | 446           |              | Panice Octe               |                      |
| 4                                   |             | —             |              | * Perform tests on all    |                      |
| 5 5831174                           |             | 478           |              | samples                   |                      |
| * sample from location #4 destroyed |             |               |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge.)  
 QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
 I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
 Non-hazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY  
 Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

7-3-91 samples

4



CHAIN-OF-CUSTODY RECORD

R/A Control No. 208459

C/C Control No. 171316

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION cerritos

SAMPLE TEAM MEMBERS Sherril Williams

CARRIER/WAYBILL NO. 0493703766 Fed-X

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1 583170      | location 1 Air                  | 7-3-91, 0805            | Air         |                |                                      |                     |
| 2 583171      | ↓ 2 ↓                           | ↓ , 0905                | ↓           |                |                                      |                     |
| 3 583172      | ↓ 3 ↓                           | ↓ , 0855                | ↓           |                |                                      |                     |
| 4             | ← sample destroyed →            |                         |             |                |                                      |                     |
| 5 583174      | location 5 Air                  | 7-3-91, 0730            | ↓           |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

Special Instructions:

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherril Williams, IT Corp 7-5-91, Received By:

3. Relinquished By: Received by:

2. Relinquished By: Received By:

4. Relinquished By: Received By:

CERTIFICATE OF ANALYSIS

Date: 07/12/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-055

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 07/10/91

142468

Number of Samples: 7

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831175                    | C1-07-055-01        |
| 2,5831176                    | C1-07-055-02        |
| 3,5831177                    | C1-07-055-03        |
| 4,5831178                    | C1-07-055-04        |
| 5,5831179                    | C1-07-055-05        |
| BLANK SPIKE                  | C1-07-055-06        |
| METHOD BLANK                 | C1-07-055-07        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

Company: IT CORPORATION

Date: 07/12/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-055

| CLIENT SAMPLE ID      | 1,5831175                   | 2,5831176                   | 3,5831177                   |       |
|-----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID         | C1-07-055-01                | C1-07-055-02                | C1-07-055-03                |       |
| SAMPLED               | 07/05/91                    | 07/05/91                    | 07/05/91                    |       |
| TEST                  |                             |                             |                             | UNITS |
| NUISANCE DUST (TOTAL) | 13800<br>[ 100]<br>07/10/91 | 30600<br>[ 100]<br>07/10/91 | 27600<br>[ 100]<br>07/10/91 | UG    |
| MERCURY               | ND<br>[ 0.07]<br>07/11/91   | ND<br>[ 0.07]<br>07/11/91   | ND<br>[ 0.07]<br>07/11/91   | UG    |
| COPPER                | 13<br>[ 3]<br>07/10/91      | 34<br>[ 3]<br>07/10/91      | 14<br>[ 3]<br>07/10/91      | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 07/12/91  
 Client Work ID: FMC 142468

142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

Work Order: C1-07-055

| CLIENT SAMPLE ID     | 4,5831178                       | 5,5831179                         | BLANK SPIKE                       |       |
|----------------------|---------------------------------|-----------------------------------|-----------------------------------|-------|
| LAB SAMPLE ID        | C1-07-055-04                    | C1-07-055-05                      | C1-07-055-06                      |       |
| SAMPLED              | 07/05/91                        | 07/05/91                          |                                   |       |
| TEST                 |                                 |                                   |                                   | UNITS |
| NUISANCE DUST(TOTAL) | 56300<br>[ 100]<br>07/10/91     | 21100<br>[ 100]<br>07/10/91       |                                   | UG    |
| MERCURY              | ND<br>[ 0.07]<br>07/11/91<br>UG | 0.09<br>[ 0.07]<br>07/11/91<br>UG | 92<br>[ --]<br>07/11/91<br>% REC. |       |
| COPPER               | 10<br>[ 3]<br>07/10/91<br>UG    | 4<br>[ 3]<br>07/10/91<br>UG       | 83<br>[ --]<br>07/10/91<br>% REC. |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 07/12/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-055

| CLIENT SAMPLE ID         | METHOD BLANK              | UNITS |
|--------------------------|---------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-07-055-07              |       |
| TEST                     |                           | UNITS |
| MERCURY                  | ND<br>[ 0.07]<br>07/11/91 | UG    |
| COPPER                   | ND<br>[ 3]<br>07/10/91    | UG    |

ND indicates the parameter was not detected.  
Detection limits are specified in [].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 07/12/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-055

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

07055

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. 018075

C/C Control No. 159616

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 0493703770 - Fed-X

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1 5831175     | Location 1 Air                  | 7-5-91 0755             | Air         |                | intact - room temp                   |                     |
| 2 5831176     | 2                               | ↓ 0635                  | ↓           |                | 7/10/91 - (PS)                       |                     |
| 3 5831177     | 3                               | ↓ 0645                  | ↓           |                | ↓                                    |                     |
| 4 5831178     | 4                               | ↓ 0735                  | ↓           |                | ↓                                    |                     |
| 5 5831179     | 5                               | ↓ 0730                  | ↓           |                | ↓                                    |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 7-9-91, 1030

3. Relinquished By: \_\_\_\_\_

Received By: Patty Snyper, ITAS, 7/10/91, 0900

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_



REQUEST FOR ANALYSIS

C107055

R/A Control No. 018075

C/C Control No. 15966e

PROJECT NAME FMC
PROJECT NUMBER 142468
PROJECT MANAGER Gene Lovett
BILL TO IT Corp
4585 Pacheco Blvd
Martinez, CA
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 7-8-91
LAB DESTINATION Cerritos
LABORATORY CONTACT Tracy Sidwell
SEND LAB REPORT TO IT Corp C/O FMC
8891 Enterprise
Newark, CA
DATE REPORT REQUIRED
PROJECT CONTACT Sherri Williams
PROJECT CONTACT PHONE NO. 415-795-4359

Table with 6 columns: Sample No., Sample Type, Sample Volume (m3), Preservative, Requested Testing Program, Special Instructions. Contains 5 rows of sample data including Air samples and testing programs like Mercury EPA 7471 and Copper EPA 6010.

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal

Rush X (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazardous, Flammable, Skin irritant, Highly Toxic, Other (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client, Disposal by Lab

FOR LAB USE ONLY

Received By [Signature]

Date/Time 7/10/91, 0900

WHITE - Original to accompany samples
YELLOW - Copy



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. 018075

C/C Control No. 159614

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 7-9-91  
 LAB DESTINATION Cerritos  
 LABORATORY CONTACT Tracy Sidwell  
 SEND LAB REPORT TO IT Corp c/o FMC  
8891 Enterprise  
Newark, CA  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherri Williams  
 PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume (ml) | Preservative | Requested Testing Program         | Special Instructions |
|------------|-------------|--------------------|--------------|-----------------------------------|----------------------|
| 1, 5831175 | Air         | 408                |              | Mercury EPA 7471                  |                      |
| 2, 5831176 | ↓           | 573                |              | Copper EPA 6010                   |                      |
| 3, 5831177 |             | 548                |              | Particulate                       |                      |
| 4, 5831178 |             | 522                |              | * perform tests on<br>all samples |                      |
| 5, 5831179 |             | 516                |              |                                   |                      |
|            |             |                    |              |                                   |                      |
|            |             |                    |              |                                   |                      |
|            |             |                    |              |                                   |                      |
|            |             |                    |              |                                   |                      |

**COPY**

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)  
 POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
 Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
 Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - copy

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. 018075

C/C Control No. 159616

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Sherril Williams

CARRIER/WAYBILL NO. 0493703770 - Fed-Ex

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1 5831175     | Location 1 Air                  | 7-5-91 0735             | Air         |                |                                      |                     |
| 2 5831176     | 2                               | ↓ 0635                  | ↓           |                |                                      |                     |
| 3 5831177     | 3                               | ↓ 0645                  | ↓           |                |                                      |                     |
| 4 5831178     | 4                               | ↓ 0735                  | ↓           |                |                                      |                     |
| 5 5831179     | 5                               | ↓ 0730                  | ↓           |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: S. Williams, IT Corp, 7-9-91, 1030

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_

**CERTIFICATE OF ANALYSIS**

Date: 07/15/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-063

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 07/11/91

142468

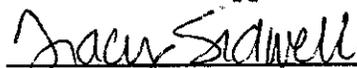
Number of Samples: 12

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831145                    | C1-07-063-01        |
| 2,5831146                    | C1-07-063-02        |
| 3,5831147                    | C1-07-063-03        |
| 4,5831148                    | C1-07-063-04        |
| 5,5831149                    | C1-07-063-05        |
| 1,5831140                    | C1-07-063-06        |
| 2,5831136                    | C1-07-063-07        |
| 3,5831138                    | C1-07-063-08        |
| 4,5831141                    | C1-07-063-09        |
| 5,5831142                    | C1-07-063-10        |
| BLANK SPIKE                  | C1-07-063-11        |
| METHOD BLANK                 | C1-07-063-12        |

Reviewed and Approved:



Tracy Sidwell  
Project Manager

Company: IT CORPORATION  
 Date: 07/15/91  
 Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-063

| CLIENT SAMPLE ID     | 1,5831145                   | 2,5831146                   | 3,5831147                   |       |
|----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
|                      | <i>1994m<sup>3</sup></i>    | <i>1968m<sup>3</sup></i>    | <i>1911</i>                 |       |
| LAB SAMPLE ID        | C1-07-063-01                | C1-07-063-02                | C1-07-063-03                |       |
| SAMPLED              | 07/08/91                    | 07/08/91                    | 07/08/91                    |       |
| TEST                 |                             |                             |                             | UNITS |
| NUISANCE DUST(TOTAL) | 27400<br>[ 100]<br>07/11/91 | 77000<br>[ 100]<br>07/11/91 | 43700<br>[ 100]<br>07/11/91 | UG    |
| MERCURY              | ND<br>[ 0.07]<br>07/13/91   | 0.14<br>[ 0.07]<br>07/13/91 | 0.07<br>[ 0.07]<br>07/13/91 | UG    |
| COPPER               | 24<br>[ 3]<br>07/11/91      | 130<br>[ 3]<br>07/11/91     | 22<br>[ 3]<br>07/11/91      | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/15/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-063

| CLIENT SAMPLE ID     | 4,5831148                   | 5,5831149                   | 1,5831140                   |       |
|----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-07-063-04                | C1-07-063-05                | C1-07-063-06                |       |
| SAMPLED              | 07/08/91                    | 07/08/91                    | 07/09/91                    |       |
| TEST                 |                             |                             |                             | UNITS |
| NUISANCE DUST(TOTAL) | 65500<br>[ 100]<br>07/11/91 | 43200<br>[ 100]<br>07/11/91 | 48400<br>[ 100]<br>07/11/91 | UG    |
| MERCURY              | 0.11<br>[ 0.07]<br>07/13/91 | 0.08<br>[ 0.07]<br>07/13/91 | 0.09<br>[ 0.07]<br>07/13/91 | UG    |
| COPPER               | 21<br>[ 3]<br>07/11/91      | 5<br>[ 3]<br>07/11/91       | 33<br>[ 3]<br>07/11/91      | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/15/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-063

| CLIENT SAMPLE ID     | 2013<br>2,5831136            | 1897<br>3,5831138           | 1663<br>4,5831141           |       |
|----------------------|------------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-07-063-07                 | C1-07-063-08                | C1-07-063-09                |       |
| SAMPLED              | 07/09/91                     | 07/09/91                    | 07/09/91                    |       |
| TEST                 |                              |                             |                             | UNITS |
| NUISANCE DUST(TOTAL) | 126000<br>[ 100]<br>07/11/91 | 30200<br>[ 100]<br>07/11/91 | 68700<br>[ 100]<br>07/11/91 | UG    |
| MERCURY              | 0.08<br>[ 0.07]<br>07/13/91  | ND<br>[ 0.07]<br>07/13/91   | ND<br>[ 0.07]<br>07/13/91   | UG    |
| COPPER               | 230<br>[ 3]<br>07/11/91      | 10<br>[ 3]<br>07/11/91      | 24<br>[ 3]<br>07/11/91      | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/15/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-063

| CLIENT SAMPLE ID     | 5,5831142                       | BLANK SPIKE                      | METHOD BLANK                    |       |
|----------------------|---------------------------------|----------------------------------|---------------------------------|-------|
| LAB SAMPLE ID        | C1-07-063-10                    | C1-07-063-11                     | C1-07-063-12                    |       |
| SAMPLED              | 07/09/91                        |                                  |                                 |       |
| TEST                 |                                 |                                  |                                 | UNITS |
| NUISANCE DUST(TOTAL) | 3700<br>[ 100]<br>07/11/91      |                                  |                                 | UG    |
| MERCURY              | ND<br>[ 0.07]<br>07/13/91<br>UG | 100<br>[ --]<br>07/13/91<br>%REC | ND<br>[ 0.07]<br>07/13/91<br>UG |       |
| COPPER               | ND<br>[ 3]<br>07/11/91<br>UG    | 100<br>[ --]<br>07/11/91<br>%REC | ND<br>[ 3]<br>07/11/91<br>UG    |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 07/15/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-063

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



### REQUEST FOR ANALYSIS

R/A Control No. 203750

C/C Control No. 159628

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROFIT CENTER NUMBER 2221  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Marinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 7-10-91  
 LAB DESTINATION Cerritos  
 LABORATORY CONTACT Tracy Schwell  
 SEND LAB REPORT TO IT Corp C/O FMC  
889 Enterprise  
Newark, CA  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherri Williams  
 PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume (A3) | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|--------------------|--------------|---------------------------|----------------------|
| 1 5831145  | Air         | 1994               |              | Mercury EPA 7471          |                      |
| 2 5831146  | ↓           | 1968               |              | Copper EPA 6010           |                      |
| 3 5831147  |             | 1911               |              | Particulate               |                      |
| 4 5831148  |             | 1956               |              | * Perform tests on        |                      |
| 5 5831149  |             | 1962               |              | all samples               |                      |
|            |             |                    |              |                           |                      |
|            |             |                    |              |                           |                      |
|            |             |                    |              |                           |                      |
|            |             |                    |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.) QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge.) I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
 Non-hazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY  
 Received by \_\_\_\_\_ Date/Time \_\_\_\_\_



7-9 91 samples

## CHAIN-OF-CUSTODY RECORD

R/A Control No. 200757D

C/C Control No. 159628

PROJECT NAME/NUMBER FMC /142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 0493703781 Fed-x

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1, 5831145    | Location 1 Air                  | 7-8-91 0725             | Air         |                |                                      |                     |
| 2, 5831146    | 2                               | ↓ 0645                  | ↓           |                |                                      |                     |
| 3, 5831147    | 3                               | ↓ 0725                  | ↓           |                |                                      |                     |
| 4, 5831148    | 4                               | ↓ 0720                  | ↓           |                |                                      |                     |
| 5, 5831149    | 5                               | ↓ 0715                  | ↓           |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 7-10-91, 1200

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_

WHITE - To accompany samples  
YELLOW - Field copy



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. 203752  
C/C Control No. 159629

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROFIT CENTER NUMBER 2221  
PROJECT MANAGER Gene Lavett  
BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 7-10-91  
LAB DESTINATION Cerritos  
LABORATORY CONTACT Tracy Schwel  
SEND LAB REPORT TO IT Corp c/o FMC  
8891 Enterprise  
Newark, CA  
DATE REPORT REQUIRED \_\_\_\_\_  
PROJECT CONTACT Sherril Williams  
PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume $\mu$ 3 | Preservative | Requested Testing Program         | Special Instructions |
|------------|-------------|-----------------------|--------------|-----------------------------------|----------------------|
| 1 5831140  | Air         | 1605                  |              | Mercury EPA 7471                  |                      |
| 2 5831136  | ↓           | 2013                  |              | Copper EPA 6010                   |                      |
| 3 5831138  |             | 1892                  |              | Particulate                       |                      |
| 4 5831141  |             | 1663                  |              | * Perform tests on<br>all samples |                      |
| 5 5831142  |             | 1675                  |              |                                   |                      |
|            |             |                       |              |                                   |                      |
|            |             |                       |              |                                   |                      |
|            |             |                       |              |                                   |                      |
|            |             |                       |              |                                   |                      |

COP

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge.)  
 QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
 I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
 Non-hazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY  
 Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - Field copy

5



791 samples  
CHAIN-OF-CUSTODY RECORD

R/A Control No. 200752

C/C Control No. 159629

PROJECT NAME/NUMBER FMC / 142468

LAB DESTINATION Perceps

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 0493703781 Fed-y

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1 5831110     | Location 1 Air                  | 7-9-91 0935             | Air         |                |                                      |                     |
| 2 5831130     | 2                               | ↓ 0835                  | ↓           |                |                                      |                     |
| 3 5831138     | 3                               | ↓ 0830                  | ↓           |                |                                      |                     |
| 4 5831141     | 4                               | ↓ 0905                  | ↓           |                |                                      |                     |
| 5 5831147     | 5                               | ↓ 0900                  | ↓           |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions:

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 7-10-91, 12:30

Received By:

Relinquished By:

Received by:

2. Relinquished By:

Received By:

4. Relinquished By:

Received By:

WHITE - To accompany samples  
YELLOW - Field copy



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/15/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-073

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468

Date Received: 07/12/91

142468-005

Number of Samples: 6

Sample Type: HI-VOLS

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 5831135                      | C1-07-073-01        |
| 5831137                      | C1-07-073-02        |
| 5831139                      | C1-07-073-03        |
| 5831143                      | C1-07-073-04        |
| BLANK SPIKE                  | C1-07-073-05        |
| METHOD BLANK                 | C1-07-073-08        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 07/15/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468-005

Work Order: C1-07-073

| CLIENT SAMPLE ID     | 1835<br>5831135             | 1745<br>5831137             | 1745<br>5831139              |       |
|----------------------|-----------------------------|-----------------------------|------------------------------|-------|
| LAB SAMPLE ID        | C1-07-073-01                | C1-07-073-02                | C1-07-073-03                 |       |
| SAMPLED              | 07/10/91                    | 07/10/91                    | 07/10/91                     |       |
| TEST                 |                             |                             |                              | UNITS |
| NUISANCE DUST(TOTAL) | 74400<br>[ 100]<br>07/12/91 | 97700<br>[ 100]<br>07/12/91 | 143000<br>[ 100]<br>07/12/91 | UG    |
| MERCURY              | 0.07<br>[ 0.07]<br>07/13/91 | 0.08<br>[ 0.07]<br>07/13/91 | ND<br>[ 0.07]<br>07/13/91    | UG    |
| COPPER               | 46<br>[ 3]<br>07/12/91      | 130<br>[ 3]<br>07/12/91     | 88<br>[ 3]<br>07/12/91       | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/15/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468-005

Work Order: C1-07-073

| CLIENT SAMPLE ID      | 5831143                         | BLANK SPIKE                     | METHOD BLANK                    |       |
|-----------------------|---------------------------------|---------------------------------|---------------------------------|-------|
| LAB SAMPLE ID         | C1-07-073-04                    | C1-07-073-05                    | C1-07-073-08                    |       |
| SAMPLED               | 07/10/91                        |                                 |                                 |       |
| TEST                  |                                 |                                 |                                 | UNITS |
| NUISANCE DUST( TOTAL) | 81700<br>[ 100]<br>07/12/91     |                                 |                                 | UG    |
| MERCURY               | ND<br>[ 0.07]<br>07/13/91<br>UG | 98<br>[ --]<br>07/13/91<br>%REC | ND<br>[ 0.07]<br>07/13/91<br>UG |       |
| COPPER                | 16<br>[ 3]<br>07/12/91<br>UG    | 90<br>[ --]<br>07/12/91<br>%REC | ND<br>[ 3]<br>07/12/91<br>UG    |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 07/15/91  
Client Work ID: FMC/ 142468

142468-005

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-07-073

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



### REQUEST FOR ANALYSIS

R/A Control No. 208753  
 C/C Control No. \_\_\_\_\_

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROFIT CENTER NUMBER 2221  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 7-11-91  
 LAB DESTINATION Cerritos  
 LABORATORY CONTACT Tracy Sidwell  
 SEND LAB REPORT TO IT Corp c/o FMC  
8891 Enterprise  
Newark, CA  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherril Williams  
 PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume mL <sup>3</sup> | Preservative | Requested Testing Program      | Special Instructions |
|------------|-------------|-------------------------------|--------------|--------------------------------|----------------------|
| 1,5831135  | Air         | 1835                          |              | Mercury EPA 7471               |                      |
| 2,5831137  | ↓           | 1745                          |              | Copper EPA 6010                |                      |
| 3,5831139  |             | 1745                          |              | Particulate                    |                      |
| 4,5831143  |             | 1854                          |              | * Perform tests on all samples |                      |
|            |             |                               |              |                                |                      |
|            |             |                               |              |                                |                      |
|            |             |                               |              |                                |                      |
|            |             |                               |              |                                |                      |
|            |             |                               |              |                                |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge.)  
 QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
 I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
 Non-hazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY

Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - C \_\_\_\_\_, to accompany samples  
 YELLOW - \_\_\_\_\_



**CHAIN-OF-CUSTODY RECORD**

R/A Control No. 200753

C/C Control No. **159631**

PROJECT NAME/NUMBER FMC 1142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 0493703803 Fed-X

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1 5831135     | Location 1 Air                  | 7-10-91 0640            | Air         |                |                                      |                     |
| 2 5831137     | 2 ↓                             | ↓ 0930                  | ↓           |                |                                      |                     |
| 3 5831139     | 3 ↓                             | ↓ 0920                  | ↓           |                |                                      |                     |
| 4 5831142     | 4 ↓                             | ↓ 0650                  | ↓           |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

**SIGNATURES: (Name, Company, Date and Time)**

1. Relinquished By: S. Williams ITCorp, 7-11-91, 0930  
 Received By: \_\_\_\_\_

3. Relinquished By: \_\_\_\_\_  
 Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_  
 Received By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_  
 Received By: \_\_\_\_\_

WHITE - To accompany samples  
 YELLOW - Field copy



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/17/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-088

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468  
Date Received: 07/15/91 142468  
Number of Samples: 7  
Sample Type: HI-VOLS

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831125                    | C1-07-088-01        |
| 2,5831126                    | C1-07-088-02        |
| 3,5831127                    | C1-07-088-03        |
| 4,5831128                    | C1-07-088-04        |
| 5,5831144                    | C1-07-088-05        |
| BLANK SPIKE                  | C1-07-088-06        |
| METHOD BLANK                 | C1-07-088-08        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 07/17/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-088

| CLIENT SAMPLE ID     | 1,5831125                   | 2,5831126                    | 3,5831127                   |       |
|----------------------|-----------------------------|------------------------------|-----------------------------|-------|
|                      | 1854                        | 1854                         | 1930                        |       |
| LAB SAMPLE ID        | C1-07-088-01                | C1-07-088-02                 | C1-07-088-03                |       |
| SAMPLED              | 07/11/91                    | 07/11/91                     | 07/11/91                    |       |
| TEST                 |                             |                              |                             | UNITS |
| NUISANCE DUST(TOTAL) | 79600<br>[ 100]<br>07/15/91 | 123000<br>[ 100]<br>07/15/91 | 84400<br>[ 100]<br>07/15/91 | UG    |
| MERCURY              | 0.10<br>[ 0.07]<br>07/17/91 | 0.10<br>[ 0.07]<br>07/17/91  | 0.09<br>[ 0.07]<br>07/17/91 | UG    |
| COPPER               | 47<br>[ 3]<br>07/15/91      | 180<br>[ 3]<br>07/15/91      | 21<br>[ 3]<br>07/15/91      | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/17/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-088

| CLIENT SAMPLE ID     | 1790<br>4,5831128                 | 1903<br>5,5831144                 | BLANK SPIKE                      |       |
|----------------------|-----------------------------------|-----------------------------------|----------------------------------|-------|
| LAB SAMPLE ID        | C1-07-088-04                      | C1-07-088-05                      | C1-07-088-06                     |       |
| SAMPLED              | 07/11/91                          | 07/11/91                          |                                  |       |
| TEST                 |                                   |                                   |                                  | UNITS |
| NUISANCE DUST(TOTAL) | 92100<br>[ 100]<br>07/15/91       | 83800<br>[ 100]<br>07/15/91       |                                  | UG    |
| MERCURY              | 0.12<br>[ 0.07]<br>07/17/91<br>UG | 0.11<br>[ 0.07]<br>07/17/91<br>UG | 110<br>[ --]<br>07/17/91<br>%REC |       |
| COPPER               | 23<br>[ 3]<br>07/15/91<br>UG      | 9<br>[ 3]<br>07/15/91<br>UG       | 91<br>[ --]<br>07/15/91<br>%REC  |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 07/17/91  
 Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-088

| CLIENT SAMPLE ID         | METHOD BLANK               | UNITS |
|--------------------------|----------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-07-088-08               |       |
| TEST                     |                            | UNITS |
| MERCURY                  | ND<br>[ 0.07 ]<br>07/17/91 | UG    |
| COPPER                   | ND<br>[ 3 ]<br>07/15/91    | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/17/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-088

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. 8007

C/C Control No. 129637

PROJECT NAME PMC

DATE SAMPLES SHIPPED 7-12-91

PROJECT NUMBER 142468

LAB DESTINATION Cerritos

PROJECT MANAGER Gene Lavett

LABORATORY CONTACT Tracy Sidwell

BILL TO IT Corp

SEND LAB REPORT TO IT Corp C/O PMC

4585 Pacheco Blvd

8891 Enterprise

Mountain View, CA

Newark, CA

PURCHASE ORDER NO. 2221

DATE REPORT REQUIRED \_\_\_\_\_

PROJECT CONTACT Sherri Williams

PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume $M^3$ | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------------|--------------|---------------------------|----------------------|
| 1 5831125  | Air         | 1854                |              | Mercury EPA 7471          |                      |
| 2 5831126  |             | 1854                |              | Copper EPA 8010           |                      |
| 3 5831127  |             | 1930                |              | Particulate               |                      |
| 4 5831128  |             | 1790                |              | Perform tests on          |                      |
| 5 5831144  | V           | 1803                |              | all samples               |                      |
|            |             |                     |              |                           |                      |
|            |             |                     |              |                           |                      |
|            |             |                     |              |                           |                      |
|            |             |                     |              |                           |                      |
|            |             |                     |              |                           |                      |

**COPY**

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal \_\_\_\_\_

Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard \_\_\_\_\_

Flammable \_\_\_\_\_

Skin Irritant \_\_\_\_\_

Highly Toxic \_\_\_\_\_

Other \_\_\_\_\_

(Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client \_\_\_\_\_

Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY

Received By \_\_\_\_\_

Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples

YELLOW - Field copy



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. 018007

C/C Control No. 159637

PROJECT NAME/NUMBER FMC / 142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 0193703702 Fed-X

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1 583125      | Location 1                      | 7-11-91                 | Air         |                |                                      |                     |
| 2 583126      | 2                               |                         |             |                |                                      |                     |
| 3 583127      | 3                               |                         |             |                |                                      |                     |
| 4 583128      | 4                               |                         |             |                |                                      |                     |
| 5 583144      | 5                               |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 7-12-91, 1350 3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_ 4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/17/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-092

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468  
Date Received: 07/16/91 142468  
Number of Samples: 7  
Sample Type: HI-VOLS

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831129                    | C1-07-092-01        |
| 2,5831130                    | C1-07-092-02        |
| 3,5831131                    | C1-07-092-03        |
| 4,5831132                    | C1-07-092-04        |
| 5,5831133                    | C1-07-092-05        |
| BLANK SPIKE                  | C1-07-092-06        |
| METHOD BLANK                 | C1-07-092-08        |

Reviewed and Approved:

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 07/17/91

Client Work ID: FMC/ 142468

142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-07-092

| CLIENT SAMPLE ID     | 1,5831129                   | 2,5831130                   | 3,5831131                   | UNITS |
|----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-07-092-01                | C1-07-092-02                | C1-07-092-03                |       |
| SAMPLED              | 07/12/91                    | 07/12/91                    | 07/12/91                    |       |
| TEST                 |                             |                             |                             |       |
| NUISANCE DUST(TOTAL) | 11600<br>[ 100]<br>07/16/91 | 19700<br>[ 100]<br>07/16/91 | 19000<br>[ 100]<br>07/16/91 | UG    |
| MERCURY              | ND<br>[ 0.07]<br>07/17/91   | ND<br>[ 0.07]<br>07/17/91   | ND<br>[ 0.07]<br>07/17/91   | UG    |
| COPPER               | 15<br>[ 3]<br>07/16/91      | 28<br>[ 3]<br>07/16/91      | 8<br>[ 3]<br>07/16/91       | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/17/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-092

| CLIENT SAMPLE ID     | 4,5831132                       | 5,5831133                       | BLANK SPIKE                     |       |
|----------------------|---------------------------------|---------------------------------|---------------------------------|-------|
| LAB SAMPLE ID        | C1-07-092-04                    | C1-07-092-05                    | C1-07-092-06                    |       |
| SAMPLED              | 07/12/91                        | 07/12/91                        |                                 |       |
| TEST                 |                                 |                                 |                                 | UNITS |
| NUISANCE DUST(TOTAL) | 14100<br>[ 100]<br>07/16/91     | 8900<br>[ 100]<br>07/16/91      |                                 | UG    |
| MERCURY              | ND<br>[ 0.07]<br>07/17/91<br>UG | ND<br>[ 0.07]<br>07/17/91<br>UG | 96<br>[ --]<br>07/17/91<br>%REC |       |
| COPPER               | 11<br>[ 3]<br>07/16/91<br>UG    | ND<br>[ 3]<br>07/16/91<br>UG    | 92<br>[ --]<br>07/16/91<br>%REC |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/17/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-092

| CLIENT SAMPLE ID         | METHOD BLANK              | UNITS |
|--------------------------|---------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-07-092-08              |       |
| TEST                     |                           |       |
| MERCURY                  | ND<br>[ 0.07]<br>07/17/91 | UG    |
| COPPER                   | ND<br>[ 3]<br>07/16/91    | UG    |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/17/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-092

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. 208754

C/C Control No. 159435

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROFIT CENTER NUMBER 2221  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 7-15-91  
 LAB DESTINATION Cerritos  
 LABORATORY CONTACT Tracy Sidwell  
 SEND LAB REPORT TO IT Corp c/o FMC  
8891 Enterprise  
Newark, CA  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherrill Williams  
 PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No.           | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|----------------------|-------------|---------------|--------------|---------------------------|----------------------|
| 1 <del>5831135</del> | Air         | 514           |              | Mercury EPA 7471          |                      |
| 2 5831130            | ↓           | 408           |              | Copper EPA 6010           |                      |
| 3 5831131            |             | 357           |              | Particulate               |                      |
| 4 5831132            |             | 554           |              | Perform tests on all      |                      |
| 5 5831133            |             | 573           |              | samples                   |                      |
|                      |             |               |              |                           |                      |
|                      |             |               |              |                           |                      |
|                      |             |               |              |                           |                      |
|                      |             |               |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge.)  
 QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
 I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
 Non-hazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)

Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY

Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - C \_\_\_\_\_ al, to accompany samples  
 YELLOW - Field copy



**CHAIN-OF-CUSTODY RECORD**

R/A Control No. 208,54

C/C Control No. **159635**

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Sherrill Williams

CARRIER/WAYBILL NO. \_\_\_\_\_

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1 583129      | Location 1 Air                  | 7-12-91 0740            | Air         |                |                                      |                     |
| 2 583130      | 2                               | ↓ 0845                  | ↓           |                |                                      |                     |
| 3 583131      | 3                               | ↓ 0825                  | ↓           |                |                                      |                     |
| 4 583132      | 4                               | ↓ 0705                  | ↓           |                |                                      |                     |
| 5 583133      | 5                               | ↓ 0650                  | ↓           |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

**SIGNATURES: (Name, Company, Date and Time)**

1. Relinquished By: Sherrill Williams, IT Corp, 7-15-91, 1330

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/22/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-106

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468

Date Received: 07/18/91

142468

Number of Samples: 12

Sample Type: HI-VOLS

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831134                    | C1-07-106-01        |
| 2,5831101                    | C1-07-106-02        |
| 3,5831102                    | C1-07-106-03        |
| 4,5831103                    | C1-07-106-04        |
| 5,5831104                    | C1-07-106-05        |
| 1,5831105                    | C1-07-106-06        |
| 2,5831106                    | C1-07-106-07        |
| 3,5831107                    | C1-07-106-08        |
| 4,5831108                    | C1-07-106-09        |
| 5,5831109                    | C1-07-106-10        |
| BLANK SPIKE                  | C1-07-106-11        |
| METHOD BLANK                 | C1-07-106-12        |

Reviewed and Approved:

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 07/22/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-106

| CLIENT SAMPLE ID      | 1,5831134                  | 2,5831101                   | 3,5831102                   |       |
|-----------------------|----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID         | C1-07-106-01               | C1-07-106-02                | C1-07-106-03                |       |
| SAMPLED               | 07/15/91                   | 07/15/91                    | 07/15/91                    |       |
| TEST                  |                            |                             |                             | UNITS |
| NUISANCE DUST (TOTAL) | 9700<br>[ 100]<br>07/18/91 | 47500<br>[ 100]<br>07/18/91 | 26700<br>[ 100]<br>07/18/91 | UG    |
| MERCURY               | ND<br>[ 0.07]<br>07/19/91  | ND<br>[ 0.07]<br>07/19/91   | ND<br>[ 0.07]<br>07/19/91   | UG    |
| COPPER                | 23<br>[ 3]<br>07/18/91     | 160<br>[ 3]<br>07/18/91     | 28<br>[ 3]<br>07/18/91      | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/22/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-106

| CLIENT SAMPLE ID     | 1753<br>4,5831103           | 1752<br>5,5831104           | 1586<br>1,5831105           |       |
|----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-07-106-04                | C1-07-106-05                | C1-07-106-06                |       |
| SAMPLED              | 07/15/91                    | 07/15/91                    | 07/16/91                    |       |
| TEST                 |                             |                             |                             | UNITS |
| NUISANCE DUST(TOTAL) | 51100<br>[ 100]<br>07/18/91 | 37700<br>[ 100]<br>07/18/91 | 13400<br>[ 100]<br>07/18/91 | UG    |
| MERCURY              | 0.10<br>[ 0.07]<br>07/19/91 | 0.10<br>[ 0.07]<br>07/19/91 | 0.08<br>[ 0.07]<br>07/19/91 | UG    |
| COPPER               | 24<br>[ 3]<br>07/18/91      | 5<br>[ 3]<br>07/18/91       | ND<br>[ 3]<br>07/18/91      | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 07/22/91  
 Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-106

| CLIENT SAMPLE ID     | 1440<br>2,5831106           | 1612<br>4,5831108           | 1599<br>5,5831109          |       |
|----------------------|-----------------------------|-----------------------------|----------------------------|-------|
| LAB SAMPLE ID        | C1-07-106-07                | C1-07-106-09                | C1-07-106-10               |       |
| SAMPLED              | 07/16/91                    | 07/16/91                    | 07/16/91                   |       |
| TEST                 |                             |                             |                            | UNITS |
| NUISANCE DUST(TOTAL) | 28700<br>[ 100]<br>07/18/91 | 47200<br>[ 100]<br>07/18/91 | 2400<br>[ 100]<br>07/18/91 | UG    |
| MERCURY              | ND<br>[ 0.07]<br>07/19/91   | 0.07<br>[ 0.07]<br>07/19/91 | ND<br>[ 0.07]<br>07/19/91  | UG    |
| COPPER               | 100<br>[ 3]<br>07/18/91     | 18<br>[ 3]<br>07/18/91      | ND<br>[ 3]<br>07/18/91     | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/22/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-106

| CLIENT SAMPLE ID         | BLANK SPIKE  | METHOD BLANK |       |
|--------------------------|--------------|--------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-07-106-11 | C1-07-106-12 |       |
| TEST                     |              |              | UNITS |
| MERCURY                  | 83           | ND           | MG/L  |
|                          | [ -- ]       | [ 0.07 ]     |       |
|                          | 07/19/91     | 07/19/91     |       |
|                          | %REC         | UG           |       |
| COPPER                   | 100          | ND           | MG/L  |
|                          | [ -- ]       | [ 3 ]        |       |
|                          | 07/18/91     | 07/18/91     |       |
|                          | %REC         | UG           |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Page: 6

Company: IT CORPORATION

Date: 07/22/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-106

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



# REQUEST FOR ANALYSIS

R/A Control No. 018076  
 C/C Control No. 151619  
7/17/91

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

7-15-91 DATE SAMPLES SHIPPED  
7-16-91  
5 samples LAB DESTINATION  
 LABORATORY CONTACT  
 SEND LAB REPORT TO  
 DATE REPORT REQUIRED  
 PROJECT CONTACT  
 PROJECT CONTACT PHONE NO.

Coronado  
Tracy Sidwell  
IT Corp c/o FMC  
8891 Enterprise  
Newark, CA  
Sherril Williams  
415-745-4359

| Sample No. | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------|--------------|---------------------------|----------------------|
| 1, 5831134 | Air         | 1701          |              | Mercury EPA 7471          |                      |
| 2, 5831101 | ↓           | 1968          |              | Copper EPA 6010           |                      |
| 3, 5831102 |             | 1994          |              | Particulate               |                      |
| 4, 5831103 |             | 1733          |              | Perform tests on all      |                      |
| 5, 5831104 |             | 1752          |              | samples                   |                      |
| 1 5831105  |             | Air           | 1526         |                           |                      |
| 2 5831106  | ↓           | 1440          |              |                           |                      |
| 4 5831108  |             | 1612          |              |                           |                      |
| 5 5831109  |             | 1599          |              |                           |                      |

# COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
 Normal \_\_\_\_\_ Rush X (Subject to rush surcharge)  
 POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
 Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)  
 SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
 Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - copy



**CHAIN-OF-CUSTODY RECORD**

R/A Control No. 018076

C/C Control No. **159619**

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION Permites

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 7881358273 Fed-X

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1 5831134     | Location 1 Air                  | 7-15-91 1225            | Air         |                |                                      |                     |
| 2 5831101     | 2 ↓                             | ↓ 1250                  | ↓           |                |                                      |                     |
| 3 5831102     | 3 ↓                             | ↓ 1245                  | ↓           |                |                                      |                     |
| 4 5831103     | 4 ↓                             | ↓ 1215                  | ↓           |                |                                      |                     |
| 5 5831104     | 5 ↓                             | ↓ 1210                  | ↓           |                |                                      |                     |
| 1 5831105     | Location 1 Air                  | 7-16-91 1040            | Air         |                |                                      |                     |
| 2 5831106     | 2 ↓                             | ↓ 1440                  | ↓           |                |                                      |                     |
| 4 5831108     | 4 ↓                             | ↓ 1055                  | ↓           |                |                                      |                     |
| 5 5831109     | 5 ↓                             | ↓ 1105                  | ↓           |                |                                      |                     |

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

**SIGNATURES: (Name, Company, Date and Time)**

1. Relinquished By: Sherri Williams, IT Corp, 7-17-91, 1200 3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_ 4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received By: \_\_\_\_\_

WHITE - To accompany samples  
YELLOW - Field copy



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/23/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-116

Project/P.O.#: 142468  
FMC

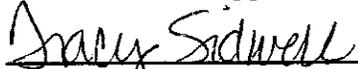
This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468  
Date Received: 07/19/91 142468  
Number of Samples: 7  
Sample Type: HI-VOLS

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831110                    | C1-07-116-01        |
| 2,5831111                    | C1-07-116-02        |
| 3,5831112                    | C1-07-116-03        |
| 4,5831113                    | C1-07-116-04        |
| 5,5831114                    | C1-07-116-05        |
| BLANK SPIKE                  | C1-07-116-06        |
| METHOD BLANK                 | C1-07-116-07        |

Reviewed and Approved:

  
\_\_\_\_\_  
Tracy Sigwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 07/23/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-116

| CLIENT SAMPLE ID     | 1790<br>1,5831110           | 1573<br>2,5831111           | 1560<br>3,5831112           |       |
|----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-07-116-01                | C1-07-116-02                | C1-07-116-03                |       |
| SAMPLED              | 07/17/91                    | 07/17/91                    | 07/17/91                    |       |
| TEST                 |                             |                             |                             | UNITS |
| NUISANCE DUST(TOTAL) | 17800<br>[ 100]<br>07/19/91 | 38500<br>[ 100]<br>07/19/91 | 55100<br>[ 100]<br>07/19/91 | UG    |
| MERCURY              | 0.11<br>[ 0.07]<br>07/22/91 | 0.10<br>[ 0.07]<br>07/22/91 | 0.14<br>[ 0.07]<br>07/22/91 | UG    |
| COPPER               | 34<br>[ 3]<br>07/19/91      | 140<br>[ 3]<br>07/19/91     | 34<br>[ 3]<br>07/19/91      | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 07/23/91  
 Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-116

| CLIENT SAMPLE ID | 4,5831113    | BLANK SPIKE  | METHOD BLANK |       |
|------------------|--------------|--------------|--------------|-------|
| LAB SAMPLE ID    | C1-07-116-04 | C1-07-116-06 | C1-07-116-07 |       |
| SAMPLED          | 07/17/91     |              |              |       |
| TEST             |              |              |              | UNITS |
| NUISANCE DUST(   | 61100        |              |              | UG    |
| TOTAL)           | [ 100]       |              |              |       |
|                  | 07/19/91     |              |              |       |
| MERCURY          | 0.15         | 93           | ND           |       |
|                  | [ 0.07]      | [ --]        | [ 0.07]      |       |
|                  | 07/22/91     | 07/22/91     | 07/22/91     |       |
|                  | UG           | %REC         | UG           |       |
| COPPER           | 21           | 98           | ND           |       |
|                  | [ 3]         | [ --]        | [ 3]         |       |
|                  | 07/19/91     | 07/19/91     | 07/19/91     |       |
|                  | UG           | %REC         | UG           |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Page: 4

Company: IT CORPORATION

Date: 07/23/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-116

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#### Nonconformance Summary

Sample 5,5831114 was received by the laboratory but was not listed on the Chain of Custody and Request for Analysis. The sample was not analyzed as per the client's request.

Company: IT CORPORATION  
Date: 07/23/91  
Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-116

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



# REQUEST FOR ANALYSIS

R/A Control No. 205746  
C/C Control No. 159641

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROFIT CENTER NUMBER 2221  
PROJECT MANAGER Gene Lewett  
BILL TO 4585 Pacheco Blvd  
Martinez, CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 7-18-91  
LAB DESTINATION Cerritos  
LABORATORY CONTACT Tracy Sidwell  
SEND LAB REPORT TO IT Corp c/o FMC  
8891 Enterprise  
Newark, CA  
DATE REPORT REQUIRED \_\_\_\_\_  
PROJECT CONTACT Sherri Williams  
PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------|--------------|---------------------------|----------------------|
| 1 5831110  | Air         | 1790          |              | Mercury EPA 7471          |                      |
| 2 5831111  | ↓           | 1873          |              | Copper-EPA 6010           |                      |
| 3 5831112  |             | 1860          |              | Particulate               |                      |
| 4 5831113  |             | 1503          |              | Perform tests on all      |                      |
| 5 5831114  |             |               |              | samples                   |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)  
Normal \_\_\_\_\_ Rush  (Subject to rush surcharge.)  
QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
Non-hazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
(Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)  
Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY  
Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. 208746

C/C Control No. **159641**

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Sherril Williams

CARRIER/WAYBILL NO. 0493703840

| Sample Number      | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|--------------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1583110            | Location 1 Air                  | 7-17-91 0930            | Air         |                |                                      |                     |
| 2583111            | 2                               | 0940                    |             |                |                                      |                     |
| 3583112            | 3                               | 0930                    |             |                |                                      |                     |
| 4583113            | 4                               | 1130                    |             |                |                                      |                     |
| <del>5583114</del> | <del>5</del>                    | <del>1130</del>         |             |                |                                      |                     |
|                    |                                 |                         |             |                |                                      |                     |
|                    |                                 |                         |             |                |                                      |                     |
|                    |                                 |                         |             |                |                                      |                     |
|                    |                                 |                         |             |                |                                      |                     |
|                    |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sh Williams, IT corp 7-18-91, 1235

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/23/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-133

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468

Date Received: 07/22/91

142468

Number of Samples: 7

Sample Type: HI-VOLS

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831115                    | C1-07-133-01        |
| 2,5831116                    | C1-07-133-02        |
| 3,5831117                    | C1-07-133-03        |
| 4,5831118                    | C1-07-133-04        |
| 5,5831119                    | C1-07-133-05        |
| BLANK SPIKE                  | C1-07-133-06        |
| METHOD BLANK                 | C1-07-133-07        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 07/23/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-133

| CLIENT SAMPLE ID     | 1796<br>1,5831115           | 1694<br>2,5831116           | 1682<br>3,5831117           |       |
|----------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID        | C1-07-133-01                | C1-07-133-02                | C1-07-133-03                |       |
| SAMPLED              | 07/18/91                    | 07/18/91                    | 07/18/91                    |       |
| TEST                 |                             |                             |                             | UNITS |
| NUISANCE DUST(TOTAL) | 47500<br>[ 100]<br>07/22/91 | 81200<br>[ 100]<br>07/22/91 | 58800<br>[ 100]<br>07/22/91 | UG    |
| MERCURY              | ND<br>[ 0.07]<br>07/23/91   | ND<br>[ 0.07]<br>07/23/91   | ND<br>[ 0.07]<br>07/23/91   | UG    |
| COPPER               | 46<br>[ 3]<br>07/22/91      | 120<br>[ 3]<br>07/22/91     | 28<br>[ 3]<br>07/22/91      | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/23/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-133

| CLIENT SAMPLE ID     | 1784<br>4,5831118               | 1794<br>5,5831119               | BLANK SPIKE                     |       |
|----------------------|---------------------------------|---------------------------------|---------------------------------|-------|
| LAB SAMPLE ID        | C1-07-133-04                    | C1-07-133-05                    | C1-07-133-06                    |       |
| SAMPLED              | 07/18/91                        | 07/18/91                        |                                 |       |
| TEST                 |                                 |                                 |                                 | UNITS |
| NUISANCE DUST(TOTAL) | 31600<br>[ 100]<br>07/22/91     | 36900<br>[ 100]<br>07/22/91     |                                 | UG    |
| MERCURY              | ND<br>[ 0.07]<br>07/23/91<br>UG | ND<br>[ 0.07]<br>07/23/91<br>UG | 87<br>[ --]<br>07/23/91<br>%REC |       |
| COPPER               | 7<br>[ 3]<br>07/22/91<br>UG     | 4<br>[ 3]<br>07/22/91<br>UG     | 85<br>[ --]<br>07/22/91<br>%REC |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 07/23/91  
 Client Work ID: FMC/ 142468

142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

Work Order: C1-07-133

| CLIENT SAMPLE ID         | METHOD BLANK              | UNITS |
|--------------------------|---------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-07-133-07              |       |
| TEST                     |                           |       |
| MERCURY                  | ND<br>[ 0.07]<br>07/23/91 | UG    |
| COPPER                   | ND<br>[ 3]<br>07/22/91    | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 07/23/91  
Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-133

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. B 78064  
C/C Control No. 159612

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROJECT MANAGER Gene Lovett  
BILL TO 4585 Pacheco Blvd  
Martinez, CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 7-19-91  
LAB DESTINATION Cerritos  
LABORATORY CONTACT Tracy Sidwell  
SEND LAB REPORT TO IT Corp C/O FMC  
8891 Enterprise  
Newark, CA  
DATE REPORT REQUIRED 415-795-4359  
PROJECT CONTACT Sherrill Williams  
PROJECT CONTACT PHONE NO. \_\_\_\_\_

| Sample No. | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------|--------------|---------------------------|----------------------|
| 1 5831115  | Air         | 1794          |              | Mercury EPA 7471          |                      |
| 2 5831116  | ↓           | 1694          |              | Copper EPA 6010           |                      |
| 3 5831117  | ↓           | 1682          |              | Particulate               |                      |
| 4 5831118  | ↓           | 1784          |              | Perform tests on all      |                      |
| 5 5831119  | ↓           | 1794          |              | Samples                   |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
(Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
YELLOW - Copy

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. B-1004  
 C/C Control No. 159612

PROJECT NAME/NUMBER FMC / 142468  
 SAMPLE TEAM MEMBERS Sherril Williams

LAB DESTINATION Cerritos  
 CARRIER/WAYBILL NO. 0493703851

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1 5831115     | Location 1 Air                  | 7/8-91                  | Air         |                |                                      |                     |
| 2 5831116     | 2                               |                         |             |                |                                      |                     |
| 3 5831117     | 3                               |                         |             |                |                                      |                     |
| 4 5831118     | 4                               |                         |             |                |                                      |                     |
| 5 5831119     | 5                               |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: S. Williams, ITCorp, 7-19, 1991, 12<sup>10</sup> Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_ 4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received By: \_\_\_\_\_

WHITE - To accompany samples  
 YELLOW - Field copy



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/25/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work order: C1-07-139

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468

Date Received: 07/23/91

142468

Number of Samples: 7

Sample Type: HI-VOLS

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5831120                    | C1-07-139-01        |
| 2,5831121                    | C1-07-139-02        |
| 3,5831122                    | C1-07-139-03        |
| 4,5831123                    | C1-07-139-04        |
| 5,5831124                    | C1-07-139-05        |
| BLANK SPIKE                  | C1-07-139-06        |
| METHOD BLANK                 | C1-07-139-07        |

Reviewed and Approved:

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION  
 Date: 07/25/91  
 Client Work ID: FMC/ 142468

142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

Work Order: C1-07-139

| CLIENT SAMPLE ID         | 1,5831120                   | 2,5831121                   | 3,5831122                   |       |
|--------------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID            | C1-07-139-01                | C1-07-139-02                | C1-07-139-03                |       |
| SAMPLED                  | 07/19/91                    | 07/19/91                    | 07/19/91                    |       |
| TEST                     |                             |                             |                             | UNITS |
| HI:VOL NUISANC<br>E DUST | 47200<br>[ 100]<br>07/23/91 | 21700<br>[ 100]<br>07/23/91 | 14300<br>[ 100]<br>07/23/91 | UG    |
| MERCURY                  | 0.07<br>[ 0.07]<br>07/24/91 | 0.08<br>[ 0.07]<br>07/24/91 | ND<br>[ 0.07]<br>07/24/91   | UG    |
| COPPER                   | 20<br>[ 3]<br>07/24/91      | 72<br>[ 3]<br>07/24/91      | ND<br>[ 3]<br>07/24/91      | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/25/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-139

| CLIENT SAMPLE ID | 554<br>4,5831123 | 541<br>5,5831124 | BLANK SPIKE  |       |
|------------------|------------------|------------------|--------------|-------|
| LAB SAMPLE ID    | C1-07-139-04     | C1-07-139-05     | C1-07-139-06 |       |
| SAMPLED          | 07/19/91         | 07/19/91         |              |       |
| TEST             |                  |                  |              | UNITS |
| HI:VOL NUISANC   | 12100            | 800              |              | UG    |
| E DUST           | [ 100]           | [ 100]           |              |       |
|                  | 07/23/91         | 07/23/91         |              |       |
| MERCURY          | ND               | ND               | 91           |       |
|                  | [ 0.07]          | [ 0.07]          | [ --]        |       |
|                  | 07/24/91         | 07/24/91         | 07/24/91     |       |
|                  | UG               | UG               | %REC         |       |
| COPPER           | ND               | ND               | 99           |       |
|                  | [ 3]             | [ 3]             | [ --]        |       |
|                  | 07/24/91         | 07/24/91         | 07/24/91     |       |
|                  | UG               | UG               | %REC         |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/25/91

Client Work ID: FMC/ 142468

142468

Work Order: C1-07-139

| CLIENT SAMPLE ID         | METHOD BLANK              |       |
|--------------------------|---------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-07-139-07              |       |
| TEST                     |                           | UNITS |
| MERCURY                  | ND<br>[ 0.07]<br>07/24/91 | UG    |
| COPPER                   | ND<br>[ 3]<br>07/24/91    | UG    |

ND indicates the parameter was not detected.  
Detection limits are specified in [].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 07/25/91  
Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-139

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME HI:VOL NUISANCE DUST

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. **B 8063**  
 C/C Control No. 159644  
7-27-91  
Cerritos  
Tracy Sidwell  
IT Corp/IO FMC  
8891 Enterprise  
Newark, CA

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROJECT MANAGER Gene Lovett  
 BILL TO 4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 7221

DATE SAMPLES SHIPPED \_\_\_\_\_  
 LAB DESTINATION \_\_\_\_\_  
 LABORATORY CONTACT \_\_\_\_\_  
 SEND LAB REPORT TO \_\_\_\_\_  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherri Williams  
 PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------|--------------|---------------------------|----------------------|
| 1 583120   | Air         | 567           |              | Mercury EPA 7471          |                      |
| 2 583121   | ↓           | 465           |              | Copper EPA 6010           |                      |
| 3 583122   |             | 478           |              | Particulate               |                      |
| 4 583123   |             | 554           |              | Perform tests on          |                      |
| 5 583124   |             | 541           |              | all samples               |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |

COP

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
 Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
 Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - Field copy

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. B-78063

C/C Control No. 159644

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 0493703862

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1583120       | Location 1 Air                  | 7-19-91 0635            | Air         |                |                                      |                     |
| 2583121       | 2 ↓                             | ↓ 0620                  | ↓           |                |                                      |                     |
| 3583122       | 3 ↓                             | ↓ 0605                  | ↓           |                |                                      |                     |
| 4583123       | 4 ↓                             | ↓ 0650                  | ↓           |                |                                      |                     |
| 5583124       | 5 ↓                             | ↓ 0700                  | ↓           |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 7-27-91, 1400 3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_ 4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/26/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-151

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468

Date Received: 07/24/91

142468

Number of Samples: 7

Sample Type: HI-VOLS

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5833823                    | C1-07-151-01        |
| 2,5833824                    | C1-07-151-02        |
| 3,5833825                    | C1-07-151-03        |
| 4,5833826                    | C1-07-151-04        |
| 5,5833827                    | C1-07-151-05        |
| BLANK SPIKE                  | C1-07-151-06        |
| METHOD BLANK                 | C1-07-151-07        |

Reviewed and Approved:

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION  
 Date: 07/26/91  
 Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-151

| CLIENT SAMPLE ID         | 1,5833823                   | 2,5833824                   | 3,5833825                    |       |
|--------------------------|-----------------------------|-----------------------------|------------------------------|-------|
| LAB SAMPLE ID            | C1-07-151-01                | C1-07-151-02                | C1-07-151-03                 |       |
| SAMPLED                  | 07/22/91                    | 07/22/91                    | 07/22/91                     |       |
| TEST                     |                             |                             |                              | UNITS |
| HI:VOL NUISANC<br>E DUST | 45400<br>[ 100]<br>07/24/91 | 86900<br>[ 100]<br>07/24/91 | 59400*<br>[ 100]<br>07/24/91 | UG    |
| MERCURY                  | 0.08<br>[ 0.07]<br>07/25/91 | ND<br>[ 0.07]<br>07/25/91   | ND<br>[ 0.07]<br>07/25/91    | UG    |
| COPPER                   | 50<br>[ 3]<br>07/24/91      | 160<br>[ 3]<br>07/24/91     | 50<br>[ 3]<br>07/24/91       | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 07/26/91  
 Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-151

| CLIENT SAMPLE ID | 1325<br>4,5833826 | 120<br>5,5833827 | BLANK SPIKE  |       |
|------------------|-------------------|------------------|--------------|-------|
| LAB SAMPLE ID    | C1-07-151-04      | C1-07-151-05     | C1-07-151-06 |       |
| SAMPLED          | 07/22/91          | 07/22/91         |              |       |
| TEST             |                   |                  |              | UNITS |
| HI:VOL NUISANC   | 89500             | 45300            |              | UG    |
| E DUST           | [ 100 ]           | [ 100 ]          |              |       |
|                  | 07/24/91          | 07/24/91         |              |       |
| MERCURY          | 0.08              | ND               | 99           |       |
|                  | [ 0.07 ]          | [ 0.07 ]         | [ — ]        |       |
|                  | 07/25/91          | 07/25/91         | 07/25/91     |       |
|                  | UG                | UG               | %REC         |       |
| COPPER           | 17                | 8                | 96           |       |
|                  | [ 3 ]             | [ 3 ]            | [ — ]        |       |
|                  | 07/24/91          | 07/24/91         | 07/24/91     |       |
|                  | UG                | UG               | %REC         |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IE CORPORATION  
 Date: 07/26/91  
 Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-151

| CLIENT SAMPLE ID         | METHOD BLANK               | UNITS |
|--------------------------|----------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-07-151-07               |       |
| TEST                     |                            | UNITS |
| MERCURY                  | ND<br>[ 0.07 ]<br>07/25/91 | UG    |
| COPPER                   | ND<br>[ 3 ]<br>07/24/91    | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Page: 5

Company: IT CORPORATION

Date: 07/26/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-151

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#### Nonconformance Summary

\*- Sample 3,5833825 was received by the laboratory damaged (a piece of the filter was missing). The sample amount reported is therefore only an estimated amount. The sample was analyzed and reported as is.

Page: 6

Company: IT CORPORATION  
Date: 07/26/91  
Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-151

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME HI:VOL NUISANCE DUST

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. B 8066  
C/C Control No. 159645

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROJECT MANAGER Gene Lalett  
BILL TO IT Corp Pacheco  
4585 ~~Pacheco~~ Blvd  
Martinez CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 7-23-91  
LAB DESTINATION Cerritos  
LABORATORY CONTACT Tracy Sidwell  
SEND LAB REPORT TO IT Corp C/O FMC  
8891 Enterprise  
Newark, CA  
DATE REPORT REQUIRED \_\_\_\_\_  
PROJECT CONTACT Sherri Williams  
PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume $\mu$ 3 | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|-----------------------|--------------|---------------------------|----------------------|
| 1 5833823  | Air         | 1624                  |              | Mercury EPA 7471          |                      |
| 2 5833824  | ↓           | 1733                  |              | Copper EPA 6010           |                      |
| 3 5833825  |             | 1726                  |              | Particulate               |                      |
| 4 5833826  |             | 1560                  |              | Perform tests on          |                      |
| 5 5833827  |             | 1573                  |              | all samples               |                      |
|            |             |                       |              |                           |                      |
|            |             |                       |              |                           |                      |
|            |             |                       |              |                           |                      |
|            |             |                       |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
(Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
YELLOW - Field copy

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. B-78066

C/C Control No. 159645

PROJECT NAME/NUMBER FMC / 142468

LAB DESTINATION accutec

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 7881358295

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1 5833823     | Location 1 Air                  | 7-22-91 1235            | Air         |                |                                      |                     |
| 2 5833824     | 2                               | ↓ 1320                  |             |                |                                      |                     |
| 3 5833825     | 3                               | ↓ 1310                  |             |                |                                      |                     |
| 4 5833826     | 4                               | ↓ 1225                  |             |                |                                      |                     |
| 5 5833827     | 5                               | ↓ 1220                  |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 7-23-91 1330 Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_ 4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/29/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-165

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468  
Date Received: 07/25/91 142468  
Number of Samples: 7  
Sample Type: HI-VOLS

samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5833828                    | C1-07-165-01        |
| 2,5833829                    | C1-07-165-02        |
| 3,5833830                    | C1-07-165-03        |
| 4,5833831                    | C1-07-165-04        |
| 5,5833832                    | C1-07-165-05        |
| BLANK SPIKE                  | C1-07-165-06        |
| METHOD BLANK                 | C1-07-165-07        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION  
 Date: 07/29/91  
 Client Work ID: FMC/ 142468

142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

Work Order: C1-07-165

| CLIENT SAMPLE ID         | 1,5833828                   | 2,5833829                   | 3,5833830                   |       |
|--------------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID            | C1-07-165-01                | C1-07-165-02                | C1-07-165-03                |       |
| SAMPLED                  | 07/23/91                    | 07/23/91                    | 07/23/91                    |       |
| TEST                     |                             |                             |                             | UNITS |
| HI:VOL NUISANC<br>E DUST | 31500<br>[ 100]<br>07/25/91 | 56100<br>[ 100]<br>07/25/91 | 27800<br>[ 100]<br>07/25/91 | UG    |
| MERCURY                  | ND<br>[ 0.07]<br>07/27/91   | ND<br>[ 0.07]<br>07/27/91   | ND<br>[ 0.07]<br>07/27/91   | UG    |
| COPPER                   | 42<br>[ 3]<br>07/25/91      | 120<br>[ 3]<br>07/25/91     | 33<br>[ 3]<br>07/25/91      | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 07/29/91  
 Client Work ID: FMC/ 142468

142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

Work Order: C1-07-165

| CLIENT SAMPLE ID     | 4,5833831                       | 5,5833832                         | BLANK SPIKE                     |       |
|----------------------|---------------------------------|-----------------------------------|---------------------------------|-------|
| LAB SAMPLE ID        | C1-07-165-04                    | C1-07-165-05                      | C1-07-165-06                    |       |
| SAMPLED              | 07/23/91                        | 07/23/91                          |                                 |       |
| TEST                 |                                 |                                   |                                 | UNITS |
| HI:VOL NUISANCE DUST | 27700<br>[ 100]<br>07/25/91     | 25600<br>[ 100]<br>07/25/91       |                                 | UG    |
| MERCURY              | ND<br>[ 0.07]<br>07/27/91<br>UG | 0.08<br>[ 0.07]<br>07/27/91<br>UG | 105<br>[ —]<br>07/27/91<br>%REC |       |
| COPPER               | 10<br>[ 3]<br>07/25/91<br>UG    | 6<br>[ 3]<br>07/25/91<br>UG       | 100<br>[ —]<br>07/25/91<br>%REC |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 07/29/91  
Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-165

| CLIENT SAMPLE ID         | METHOD BLANK              | UNITS |
|--------------------------|---------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-07-165-07              |       |
| TEST                     |                           | UNITS |
| MERCURY                  | ND<br>[ 0.07]<br>07/27/91 | UG    |
| COPPER                   | ND<br>[ 3]<br>07/25/91    | UG    |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 07/29/91  
Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-165

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME HI:VOL NUISANCE DUST

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



# REQUEST FOR ANALYSIS

R/A Control No. **B 78068**  
 C/C Control No. 159639

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 7-24-91  
 LAB DESTINATION Cerritos  
 LABORATORY CONTACT Tracy Sidwell  
 SEND LAB REPORT TO IT Corp c/o FMC  
8891 Enterprise Drive  
Newark, CA  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherri Williams  
 PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume M <sup>3</sup> | Preservative | Requested Testing Program       | Special Instructions |
|------------|-------------|------------------------------|--------------|---------------------------------|----------------------|
| 15833828   | AIR         | 1675                         |              | Mercury EPA 7471                |                      |
| 25833829   | ↓           | 1580                         |              | Copper EPA 6010                 |                      |
| 35833830   |             | 1573                         |              | Particulate                     |                      |
| 45833831   |             | 1673                         |              | <del>Perform</del> tests on all |                      |
| 55833832   |             | 1682                         |              | all samples                     |                      |
|            |             |                              |              |                                 |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - 1 copy



CHAIN-OF-CUSTODY RECORD

R/A Control No. B 18068

C/C Control No. 159639

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Linda Weaver / Sherri Williams

CARRIER/WAYBILL NO. 7881358306

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 15833828      | Location 1 AIR                  | 7-23-91 0955            | AIR         |                |                                      |                     |
| 25833829      | Location 2                      | 7-23-91 1205            |             |                |                                      |                     |
| 35833830      | 3                               | 7-23-91 1150            |             |                |                                      |                     |
| 45833831      | 4                               | 7-23-91 0920            |             |                |                                      |                     |
| 5583332       | 5                               | 7-23-91 0915            |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Linda Weaver, IT Corp.  
Received By: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_  
Received By: \_\_\_\_\_

3. Relinquished By: \_\_\_\_\_  
Received by: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_  
Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/30/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-182

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468

Date Received: 07/26/91

142468

Number of Samples: 7

Sample Type: HI-VOLS

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5833833                    | C1-07-182-01        |
| 2,5833834                    | C1-07-182-02        |
| 3,5833835                    | C1-07-182-03        |
| 4,5833836                    | C1-07-182-04        |
| 5,5833837                    | C1-07-182-05        |
| BLANK SPIKE                  | C1-07-182-06        |
| METHOD BLANK                 | C1-07-182-07        |

Reviewed and Approved:

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 07/30/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-182

| CLIENT SAMPLE ID         | 1791<br>1,5833833           | 1778<br>2,5833834           | 1784<br>3,5833835           |       |
|--------------------------|-----------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID            | C1-07-182-01                | C1-07-182-02                | C1-07-182-03                |       |
| SAMPLED                  | 07/24/91                    | 07/24/91                    | 07/24/91                    |       |
| TEST                     |                             |                             |                             | UNITS |
| HI:VOL NUISANC<br>E DUST | 36100<br>[ 100]<br>07/26/91 | 77000<br>[ 100]<br>07/26/91 | 58200<br>[ 100]<br>07/26/91 | UG    |
| MERCURY                  | 0.09<br>[ 0.07]<br>07/27/91 | 0.12<br>[ 0.07]<br>07/27/91 | 0.07<br>[ 0.07]<br>07/27/91 | UG    |
| COPPER                   | 31<br>[ 3]<br>07/26/91      | 190<br>[ 3]<br>07/26/91     | 43<br>[ 3]<br>07/26/91      | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 07/30/91  
 Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-182

| CLIENT SAMPLE ID         | 1810<br>4,5833836                 | BLANK SPIKE                     | METHOD BLANK                    | UNITS |
|--------------------------|-----------------------------------|---------------------------------|---------------------------------|-------|
| LAB SAMPLE ID            | C1-07-182-04                      | C1-07-182-06                    | C1-07-182-07                    |       |
| SAMPLED                  | 07/24/91                          |                                 |                                 |       |
| TEST                     |                                   |                                 |                                 |       |
| HI:VOL NUISANC<br>E DUST | 82700<br>[ 100]<br>07/26/91       |                                 |                                 | UG    |
| MERCURY                  | 0.11<br>[ 0.07]<br>07/27/91<br>UG | 92<br>[ --]<br>07/27/91<br>%REC | ND<br>[ 0.07]<br>07/27/91<br>UG |       |
| COPPER                   | 25<br>[ 3]<br>07/26/91<br>UG      | 95<br>[ --]<br>07/26/91<br>%REC | ND<br>[ 3]<br>07/26/91<br>UG    |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Page: 4

Company: IT CORPORATION

Date: 07/30/91

Client Work ID: FMC/ 142468

142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-07-182

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME HI:VOL NUISANCE DUST

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. **B 78046**  
C/C Control No. 159646  
7-25-91

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROJECT MANAGER Gene Lovett  
BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED \_\_\_\_\_  
LAB DESTINATION Cerritos  
LABORATORY CONTACT Tracy Sidwell  
SEND LAB REPORT TO IT Corp c/o FMC  
8891 Enterprise Drive  
Newark, CA  
DATE REPORT REQUIRED \_\_\_\_\_  
PROJECT CONTACT Sherri Williams  
PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume M <sup>3</sup> | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|------------------------------|--------------|---------------------------|----------------------|
| 1 5833833  | AIR         |                              |              | Mercury EPA 7471          |                      |
| 2 5833834  | ↓           |                              |              | Copper EPA 6010           |                      |
| 3 5833835  |             |                              |              | Particulate               |                      |
| 4 5833836  |             |                              |              | *Perform tests on all     |                      |
| 5          |             |                              |              | samples                   |                      |
|            |             |                              |              |                           |                      |
|            |             |                              |              |                           |                      |
|            |             |                              |              |                           |                      |
|            |             |                              |              |                           |                      |

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
(Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
YELLOW - copy



**CHAIN-OF-CUSTODY RECORD**

R/A Control No. B-7 16

C/C Control No. **159646**

PROJECT NAME/NUMBER FMC

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Linda Weaver

CARRIER/WAYBILL NO. 7881358376

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 15833833      | Location 1 AIR                  |                         | AIR         |                |                                      |                     |
| 25833834      | 2                               |                         |             |                |                                      |                     |
| 35833835      | 3                               |                         |             |                |                                      |                     |
| 45833836      | 4                               |                         |             |                |                                      |                     |
| 5             | 5                               |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

**SIGNATURES: (Name, Company, Date and Time)**

1. Relinquished By: Linda Weaver, IT Corp.  
*Linda Weaver IT Corp 7-25-91*  
 Received By: \_\_\_\_\_

3. Relinquished By: \_\_\_\_\_  
 Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_  
 Received By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_  
 Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/30/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-07-200

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468

Date Received: 07/29/91

142468

Number of Samples: 7

Sample Type: HI-VOLS

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5833838                    | C1-07-200-01        |
| 2,5833839                    | C1-07-200-02        |
| 3,5833840                    | C1-07-200-03        |
| 4,5833841                    | C1-07-200-04        |
| 5,5833842                    | C1-07-200-05        |
| BLANK SPIKE                  | C1-07-200-06        |
| METHOD BLANK                 | C1-07-200-07        |

Reviewed and Approved:

  
Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION  
 Date: 07/30/91  
 Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-200

| CLIENT SAMPLE ID         | 1,5833838                    | 2,5833839                    | 3,5833840                   |       |
|--------------------------|------------------------------|------------------------------|-----------------------------|-------|
| LAB SAMPLE ID            | C1-07-200-01                 | C1-07-200-02                 | C1-07-200-03                |       |
| SAMPLED                  | 07/25/91                     | 07/25/91                     | 07/25/91                    |       |
| TEST                     |                              |                              |                             | UNITS |
| HI:VOL NUISANC<br>E DUST | 118000<br>[ 100]<br>07/29/91 | 110000<br>[ 100]<br>07/29/91 | 97400<br>[ 100]<br>07/29/91 | UG    |
| MERCURY                  | 0.09<br>[ 0.07]<br>07/30/91  | 0.09<br>[ 0.07]<br>07/30/91  | 0.12<br>[ 0.07]<br>07/30/91 | UG    |
| COPPER                   | 48<br>[ 3]<br>07/29/91       | 170<br>[ 3]<br>07/29/91      | 27<br>[ 3]<br>07/29/91      | UG    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 07/30/91  
 Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-200

| CLIENT SAMPLE ID | 4,5833841    | 5,5833842    | BLANK SPIKE  |       |
|------------------|--------------|--------------|--------------|-------|
| LAB SAMPLE ID    | C1-07-200-04 | C1-07-200-05 | C1-07-200-06 |       |
| SAMPLED          | 07/25/91     | 07/25/91     |              |       |
| TEST             |              |              |              | UNITS |
| HI:VOL NUISANC   | 85500        | 66000        |              | UG    |
| E DUST           | [ 100]       | [ 100]       |              |       |
|                  | 07/29/91     | 07/29/91     |              |       |
| MERCURY          | 0.10         | 0.07         | 88           |       |
|                  | [ 0.07]      | [ 0.07]      | [ --]        |       |
|                  | 07/30/91     | 07/30/91     | 07/30/91     |       |
|                  | UG           | UG           | %REC         |       |
| COPPER           | 13           | 5            | 95           |       |
|                  | [ 3]         | [ 3]         | [ --]        |       |
|                  | 07/29/91     | 07/29/91     | 07/29/91     |       |
|                  | UG           | UG           | %REC         |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 07/30/91  
Client Work ID: FMC/ 142468

142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-07-200

| CLIENT SAMPLE ID         | METHOD BLANK              |       |
|--------------------------|---------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-07-200-07              |       |
| TEST                     |                           | UNITS |
| MERCURY                  | ND<br>[ 0.07]<br>07/30/91 | UG    |
| COPPER                   | ND<br>[ 3]<br>07/29/91    | UG    |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 07/30/91  
Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-200

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME HI:VOL NUISANCE DUST

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



# REQUEST FOR ANALYSIS

R/A Control No. **B 8044**  
 C/C Control No. 159647  
7-26-91

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED \_\_\_\_\_  
 LAB DESTINATION Cerritos  
 LABORATORY CONTACT Tracy Sidwell  
 SEND LAB REPORT TO IT Corp c/o FMC  
8891 Enterprise Drive  
Newark, CA  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherri Williams  
 PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume M <sup>3</sup> | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|------------------------------|--------------|---------------------------|----------------------|
| 15833838   | AIR         | 1878                         |              | Mercury EPA 7471          |                      |
| 25833839   |             | 1806                         |              | Copper EPA 6010           |                      |
| 35833840   |             | 1781                         |              | Particulate               |                      |
| 45833841   |             | 1873                         |              | *Perform tests on all     |                      |
| 55833842   | ↓           | 1885                         |              | samples                   |                      |
|            |             |                              |              |                           |                      |
|            |             |                              |              |                           |                      |
|            |             |                              |              |                           |                      |
|            |             |                              |              |                           |                      |

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - Field copy



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. B-78044

C/C Control No. **159647**

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Linda Weaver

CARRIER/WAYBILL NO. 7881358310

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 15833838      | Location 1 AIR                  | 7-25-91 0743            | AIR         |                |                                      |                     |
| 25833839      | 2                               | 7-25-91 0807            |             |                |                                      |                     |
| 35833840      | 3                               | 7-25-91 0817            |             |                |                                      |                     |
| 45833841      | 4                               | 7-25-91 0735            |             |                |                                      |                     |
| 55833842      | 5                               | 7-25-91 0725            |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Linda Weaver, IT Corp.  
*Linda Weaver* May 7-26-91  
 Received By: \_\_\_\_\_

3. Relinquished By: \_\_\_\_\_  
 Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_  
 Received By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_  
 Received By: \_\_\_\_\_

WHITE - To a company samples  
 YELLOW - For any



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

IT CORPORATION  
4585 PACHECO BLVD  
MARTINEZ CA 94553  
GENE LOVETT

Date: 08/01/91

Work Order: C1-07-209

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC\ 142468  
Date Received: 07/30/91 142468  
Number of Samples: 7  
Sample Type: HI-VOLS

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5833843                    | C1-07-209-01        |
| 2,5833844                    | C1-07-209-02        |
| 3,5833845                    | C1-07-209-03        |
| 4,5833846                    | C1-07-209-04        |
| 5,5833848                    | C1-07-209-05        |
| BLANK SPIKE                  | C1-07-209-06        |
| METHOD BLANK                 | C1-07-209-07        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 08/01/91

Client Work ID: FMC\ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-209

| CLIENT SAMPLE ID         | 1,5833843                       | BLANK SPIKE                     | METHOD BLANK                    | UNITS |
|--------------------------|---------------------------------|---------------------------------|---------------------------------|-------|
| LAB SAMPLE ID            | C1-07-209-01                    | C1-07-209-06                    | C1-07-209-07                    |       |
| SAMPLED                  | 07/26/91                        |                                 |                                 |       |
| TEST                     |                                 |                                 |                                 |       |
| HI:VOL NUISANC<br>E DUST | 51300<br>[ 100]<br>07/30/91     |                                 |                                 | UG    |
| MERCURY                  | ND<br>[ 0.07]<br>08/01/91<br>UG | 99<br>[ --]<br>08/01/91<br>%REC | ND<br>[ 0.07]<br>08/01/91<br>UG |       |
| COPPER                   | 19<br>[ 3]<br>07/30/91<br>UG    | 89<br>[ --]<br>07/30/91<br>%REC | ND<br>[ 3]<br>07/30/91<br>UG    |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Page: 3

Company: IT CORPORATION

Date: 08/01/91

Client Work ID: FMC\ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-209

---

Additional Information

Samples 2,5833844, 3,5833845, 4,5833846 and 5,5833848 were cancelled as per the client's request on July 30, 1991.

Company: IT CORPORATION  
Date: 08/01/91  
Client Work ID: FMC\ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-209

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME HI:VOL NUISANCE DUST

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**REQUEST FOR ANALYSIS**

R/A Control No. **B 8069**  
 C/C Control No. 159652  
7-28

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED \_\_\_\_\_  
 LAB DESTINATION Cerritos  
 LABORATORY CONTACT Tracy Sidwell  
 SEND LAB REPORT TO IT Corp c/o FMC  
8891 Enterprise Drive  
Newark, CA  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherri Williams  
 PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume M <sup>3</sup> | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|------------------------------|--------------|---------------------------|----------------------|
| 15833843   | AIR         | 331                          |              | Mercury EPA 7471          |                      |
| 25833844   | ↓           | 222                          |              | Copper EPA 6010           |                      |
| 35833845   |             | 318                          |              | Particulate               |                      |
| 45833846   |             | 329                          |              | *Perform tests on all     |                      |
| 55833848   |             | 331                          |              | samples                   |                      |
|            |             |                              |              |                           |                      |
|            |             |                              |              |                           |                      |
|            |             |                              |              |                           |                      |
|            |             |                              |              |                           |                      |

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
 Normal \_\_\_\_\_ Rush X \_\_\_\_\_ (Subject to rush surcharge)  
 POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
 Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)  
 SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
 Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - Field copy



**CHAIN-OF-CUSTODY RECORD**

R/A Control No. B-78069

C/C Control No. **159652**

PROJECT NAME/NUMBER FMC/ 142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Linda Weaver

CARRIER/WAYBILL NO. 7881358391

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 5833843       | Location 1 AIR                  | 7-26-91 0820            | AIR         |                |                                      |                     |
| 5833844       | 2                               | 7-26-91 0847            |             |                |                                      |                     |
| 5833845       | 3                               | 7-26-91 0840            |             |                |                                      |                     |
| 5833846       | 4                               | 7-26-91 0812            |             |                |                                      |                     |
| 5833848       | 5                               | 7-26-91 0810            |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

**SIGNATURES: (Name, Company, Date and Time)**

1. Relinquished By: Linda Weaver, IT Corp. 7-29-91  
 Received By: \_\_\_\_\_

3. Relinquished By: \_\_\_\_\_  
 Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_  
 Received By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_  
 Received By: \_\_\_\_\_

WHITE - To a company samples  
 YELLOW - F py



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

IT CORPORATION  
4585 PACHECO BLVD  
MARTINEZ CA 94553  
GENE LOVETT

Date: 08/01/91

Work Order: C1-07-230

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468  
Date Received: 07/31/91 142468  
Number of Samples: 3  
Sample Type: HI-VOLS

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5887356                    | C1-07-230-01        |
| BLANK SPIKE                  | C1-07-230-02        |
| METHOD BLANK                 | C1-07-230-03        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 08/01/91

Client Work ID: FMC/ 142468

142468

Work Order: C1-07-230

| CLIENT SAMPLE ID     | 1,5887356                          | BLANK SPIKE                      | METHOD BLANK                     | UNITS |
|----------------------|------------------------------------|----------------------------------|----------------------------------|-------|
| LAB SAMPLE ID        | C1-07-230-01                       | C1-07-230-02                     | C1-07-230-03                     |       |
| SAMPLED              | 07/30/91                           |                                  |                                  |       |
| TEST                 |                                    |                                  |                                  |       |
| HI:VOL NUISANCE DUST | 55100<br>[ 100 ]<br>07/31/91       |                                  |                                  | UG    |
| MERCURY              | 0.10<br>[ 0.07 ]<br>08/01/91<br>UG | 87<br>[ -- ]<br>08/01/91<br>%REC | ND<br>[ 0.07 ]<br>08/01/91<br>UG |       |
| COPPER               | 50<br>[ 3 ]<br>07/31/91<br>UG      | 88<br>[ -- ]<br>07/31/91<br>%REC | ND<br>[ 3 ]<br>07/31/91<br>UG    |       |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 08/01/91  
Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-230

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME HI:VOL NUISANCE DUST

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



REQUEST FOR ANALYSIS

R/A Control No. B 78049
C/C Control No. 171303

PROJECT NAME FMC
PROJECT NUMBER 142468
PROJECT MANAGER Gene Lovett
BILL TO IT Corp
4585 Pacheco Blvd
Martinez, CA
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 7-30-91
LAB DESTINATION Cerritos
LABORATORY CONTACT Tracy Sidwell
SEND LAB REPORT TO IT Corp
8891 Enterprise Dr
Newark, CA
DATE REPORT REQUIRED
PROJECT CONTACT Sherri Williams
PROJECT CONTACT PHONE NO. 415-795-4359

Table with 6 columns: Sample No., Sample Type, Sample Volume M3, Preservative, Requested Testing Program, Special Instructions. Row 1: 5807356, AIR, 1828, Mercury EPA 7471, Copper EPA 6010, Particulate, \*Perform tests on all Samples.

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)
Normal \_\_\_\_\_ Rush X \_\_\_\_\_ (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)
Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)
Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY
Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - O - 1, to accompany samples
YELLOW - copy



CHAIN-OF-CUSTODY RECORD

R/A Control No. B-1-49

C/C Control No. 171303

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Linda C. Weaver / Sherri Williams CARRIER/WAYBILL NO. 7881358365

Table with 7 columns: Sample Number, Sample Location and Description, Date and Time Collected, Sample Type, Container Type, Condition on Receipt (Name and Date), Disposal Record No. Row 1: 1588735, Location 1, AIR, 7-29-91, 0900, AIR. Includes a large 'COPY' watermark.

Special Instructions:

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, ITCorp, 7-29-91, 1300 3. Relinquished By:

Received By: Received by:

2. Relinquished By: 4. Relinquished By:

Received By: Received By:

WHITE - To accompany samples
YELLOW - Field copy



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

IT CORPORATION  
4585 PACHECO BLVD  
MARTINEZ CA 94553  
GENE LOVETT

Date: 08/08/91

Work Order: C1-08-026

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468

Date Received: 08/05/91

142468

Number of Samples: 3

Sample Type: HI-VOLS

Samples were labeled as follows:

SAMPLE IDENTIFICATION

LABORATORY #

1,5887350

C1-08-026-01

BLANK SPIKE

C1-08-026-02

METHOD BLANK

C1-08-026-03

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell

Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION  
 Date: 08/08/91  
 Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-08-026

| CLIENT SAMPLE ID         | 1,5887350                         | BLANK SPIKE                      | METHOD BLANK                    |       |
|--------------------------|-----------------------------------|----------------------------------|---------------------------------|-------|
| LAB SAMPLE ID            | C1-08-026-01                      | C1-08-026-02                     | C1-08-026-03                    |       |
| SAMPLED                  | 08/01/91                          |                                  |                                 |       |
| TEST                     |                                   |                                  |                                 | UNITS |
| HI:VOL NUISANC<br>E DUST | 50600<br>[ 100]<br>08/05/91       |                                  |                                 | UG    |
| MERCURY                  | 0.25<br>[ 0.07]<br>08/07/91<br>UG | 85<br>[ --]<br>08/07/91<br>%REC  | ND<br>[ 0.07]<br>08/07/91<br>UG |       |
| COPPER                   | 44<br>[ 3]<br>08/05/91<br>UG      | 102<br>[ --]<br>08/05/91<br>%REC | ND<br>[ 3]<br>08/05/91<br>UG    |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Page: 3

Company: IT CORPORATION

Date: 08/08/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-08-026

---

#### Nonconformance Summary

Sample 1,5887350 was received by the laboratory with the paperwork for sample 1,5887353. The client was notified and sample was analyzed and reported as 1,5887350.

Company: IT CORPORATION  
Date: 08/08/91  
Client Work ID: FMC/ 142468

142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-08-026

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME HI:VOL NUISANCE DUST

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. **B 78070**

C/C Control No. 159650

PROJECT NAME FMC

DATE SAMPLES SHIPPED \_\_\_\_\_

PROJECT NUMBER 142468

LAB DESTINATION \_\_\_\_\_

PROJECT MANAGER Gene Lovett

LABORATORY CONTACT \_\_\_\_\_

BILL TO IT Corp

SEND LAB REPORT TO \_\_\_\_\_

4585 Pacheco Blvd

Martinez, CA

PURCHASE ORDER NO. 2221

DATE REPORT REQUIRED \_\_\_\_\_

PROJECT CONTACT \_\_\_\_\_

PROJECT CONTACT PHONE NO. \_\_\_\_\_

8/2/91  
Cerritos

Tracy Sidwell

IT Corp c/o FMC

8891 Enterprise Drive

Newark, CA

Sherri Williams

415-795-4359

| Sample No.       | Sample Type | Sample Volume M <sup>3</sup> | Preservative | Requested Testing Program    | Special Instructions |
|------------------|-------------|------------------------------|--------------|------------------------------|----------------------|
| 1 <u>5887350</u> | <u>AIR</u>  | <u>1835</u>                  |              | <u>Mercury EPA 7471</u>      |                      |
| 2                |             |                              |              | <u>Copper EPA 6010</u>       |                      |
| 3                |             |                              |              | <u>Particulate</u>           |                      |
| 4                |             |                              |              | <u>*Perform tests on all</u> |                      |
| 5                |             |                              |              | <u>samples</u>               |                      |
|                  |             |                              |              |                              |                      |
|                  |             |                              |              |                              |                      |
|                  |             |                              |              |                              |                      |
|                  |             |                              |              |                              |                      |

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal \_\_\_\_\_ Rush X (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
(Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
YELLOW - 1 copy



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. B-78000

C/C Control No. **159650**

PROJECT NAME/NUMBER FMC/ 142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Linda Weaver

CARRIER/WAYBILL NO. 7881350 <sup>58110</sup> ~~58110~~

| Sample Number        | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|----------------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1 <del>5887350</del> | Location 1 AIR                  | 0801-91 / 1145          | AIR         |                |                                      |                     |
| 2                    | 2                               |                         |             |                |                                      |                     |
| 3                    | 3                               |                         |             |                |                                      |                     |
| 4                    | 4                               |                         |             |                |                                      |                     |
| 5                    | 5                               |                         |             |                |                                      |                     |
|                      |                                 |                         |             |                |                                      |                     |
|                      |                                 |                         |             |                |                                      |                     |
|                      |                                 |                         |             |                |                                      |                     |
|                      |                                 |                         |             |                |                                      |                     |
|                      |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Linda Weaver, IT Corp.  
Linda Weaver Corp 8-1-91  
 Received By: \_\_\_\_\_

3. Relinquished By: \_\_\_\_\_  
 Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_  
 Received By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_  
 Received By: \_\_\_\_\_

WHITE - To accompany samples  
 YELLOW - Field copy



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

IT CORPORATION  
4585 PACHECO BLVD  
MARTINEZ CA 94553  
GENE LOVETT

Date: 08/05/91

Work Order: C1-08-007

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468  
Date Received: 08/01/91  
Number of Samples: 3  
Sample Type: HI-VOLS

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5887353                    | C1-08-007-01        |
| BLANK SPIKE                  | C1-08-007-02        |
| METHOD BLANK                 | C1-08-007-03        |

Reviewed and Approved:

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 08/05/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-08-007

| CLIENT SAMPLE ID         | 1,5887353                         | BLANK SPIKE                     | METHOD BLANK                    |       |
|--------------------------|-----------------------------------|---------------------------------|---------------------------------|-------|
| LAB SAMPLE ID            | C1-08-007-01                      | C1-08-007-02                    | C1-08-007-03                    |       |
| SAMPLED                  | 07/31/91                          |                                 |                                 |       |
| TEST                     |                                   |                                 |                                 | UNITS |
| HI:VOL NUISANC<br>E DUST | 67500<br>[ 100]<br>08/01/91       |                                 |                                 | UG    |
| MERCURY                  | 0.14<br>[ 0.07]<br>08/02/91<br>UG | 97<br>[ --]<br>08/02/91<br>%REC | ND<br>[ 0.07]<br>08/02/91<br>UG |       |
| COPPER                   | 66<br>[ 3]<br>08/01/91<br>UG      | 96<br>08/01/91<br>%REC          | ND<br>[ 3]<br>08/01/91<br>UG    |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 08/05/91  
Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-08-007

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME HI:VOL NUISANCE DUST

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



REQUEST JR ANALYSIS

R/A Control No. B 78071  
C/C Control No. 1596.2  
7/31/91

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROJECT MANAGER Gene Lovett  
BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED  
LAB DESTINATION Cerritos  
LABORATORY CONTACT Tracy Sidwell  
SEND LAB REPORT TO IT Corp c/o FMC  
8891 Enterprise Dr  
Newark, CA  
DATE REPORT REQUIRED  
PROJECT CONTACT Sherri Williams  
PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No.                   | Sample Type | Sample Volume M <sup>3</sup> | Preservative | Requested Testing Program | Special Instructions |
|------------------------------|-------------|------------------------------|--------------|---------------------------|----------------------|
| 1 <del>10887353</del>        | AIR         |                              |              | Mercury EPA 7471          |                      |
| 2                            |             |                              |              | Copper EPA 6010           |                      |
| 3                            |             |                              |              | Particulate               |                      |
| 4                            |             |                              |              | *Perforam tests on all    |                      |
| 5                            |             |                              |              | samples                   |                      |
| Note: Discard samples # 2345 |             |                              |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
YELLOW - Field copy



CHAIN-OF-CUSTODY RECORD

R/A Control No. B-78071

C/C Control No. 159649

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Linda Weaver

CARRIER/WAYBILL NO. 7881358332

| Sample Number                       | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|-------------------------------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 15887353                            | Location 1 AIR                  | 7-30-91                 | AIR         |                |                                      |                     |
| 2                                   | 2                               |                         |             |                |                                      |                     |
| 3                                   | 3                               |                         |             |                |                                      |                     |
| 4                                   | 4                               |                         |             |                |                                      |                     |
| 5                                   | 5                               |                         |             |                |                                      |                     |
| NOTE: Discarded sample # 2, 3, 4, 5 |                                 |                         |             |                |                                      |                     |
|                                     |                                 |                         |             |                |                                      |                     |
|                                     |                                 |                         |             |                |                                      |                     |
|                                     |                                 |                         |             |                |                                      |                     |

Special Instructions:

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Linda Weaver, IT Corp. Received By: [Signature]

3. Relinquished By: Received by:

2. Relinquished By: Received By:

4. Relinquished By: Received By:

WHITE - To company samples YELLOW - To company



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

IT CORPORATION  
4585 PACHECO BLVD  
MARTINEZ CA 94553  
GENE LOVETT

Date: 08/05/91

Work Order: C1-08-012

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468  
Date Received: 08/02/91 142468  
Number of Samples: 3  
Sample Type: HI-VOLS

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5887361                    | C1-08-012-01        |
| BLANK SPIKE                  | C1-08-012-02        |
| METHOD BLANK                 | C1-08-012-03        |

Reviewed and Approved:

Tracy Sidwell  
Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 08/05/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-08-012

| CLIENT SAMPLE ID         | 1,5887361                       | BLANK SPIKE                      | METHOD BLANK                    |       |
|--------------------------|---------------------------------|----------------------------------|---------------------------------|-------|
| LAB SAMPLE ID            | C1-08-012-01                    | C1-08-012-02                     | C1-08-012-03                    |       |
| SAMPLED                  | 07/31/91                        |                                  |                                 |       |
| TEST                     |                                 |                                  |                                 | UNITS |
| HI:VOL NUISANC<br>E DUST | 63500<br>[ 100]<br>08/02/91     |                                  |                                 | UG    |
| MERCURY                  | ND<br>[ 0.07]<br>08/05/91<br>UG | 89<br>[ --]<br>08/05/91<br>%REC  | ND<br>[ 0.07]<br>08/05/91<br>UG |       |
| COPPER                   | 49<br>[ 3]<br>08/02/91<br>UG    | 101<br>[ --]<br>08/02/91<br>%REC | ND<br>[ 3]<br>08/02/91<br>UG    |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Page: 3

Company: IT CORPORATION

Date: 08/05/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-08-012

---

Nonconformance Summary

Sample 1.5887361 was received by the laboratory with the wrong paperwork. A FAX of the paperwork was sent prior to the actual paperwork.

Company: IT CORPORATION  
Date: 08/05/91  
Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-08-012

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME HI:VOL NUISANCE DUST

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. **B 8059**

C/C Control No. 159654

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 8/1/91  
 LAB DESTINATION Cerritos  
 LABORATORY CONTACT Tracy Sidwell  
 SEND LAB REPORT TO IT Corp c/o FMC  
8891 Enterprise Dr.  
Newark, CA  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherri Williams  
 PROJECT CONTACT PHONE NO. 4150795-4359

| Sample No. | Sample Type | Sample Volume <sup>M<sup>3</sup></sup> | Preservative | Requested Testing Program     | Special Instructions |
|------------|-------------|--|--------------|-------------------------------|----------------------|
| 1.5887361  | AIR         | 1.835                                  |              | Mercury EPA 7471              |                      |
|            |             |  |              | Copper EPA 6010               |                      |
|            |             |  |              | Particulate                   |                      |
|            |             |  |              | *Perform tests on all samples |                      |
|            |             |  |              |                               |                      |
|            |             |  |              |                               |                      |
|            |             |  |              |                               |                      |
|            |             |  |              |                               |                      |
|            |             |  |              |                               |                      |

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - Field copy



**CHAIN-OF-CUSTODY RECORD**

R/A Control No. B-78047

C/C Control No. **159654**

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Linda C. Weaver

CARRIER/WAYBILL NO: 7881358354 (sample sent 7/31)

~~0090~~ 186966 (paperwork sent 8/5)

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1.5887361     | Location 1 AIR                  | 7/31/91 1145            | AIR         |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Linda C. Weaver 7-31-91 3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_ 4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

IT CORPORATION  
4585 PACHECO BLVD  
MARTINEZ CA 94553  
GENE LOVETT

Date: 08/09/91

Work Order: C1-08-040

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468  
Date Received: 08/07/91 142468  
Number of Samples: 3  
Sample Type: HI-VOLS

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| 1,5887349                    | C1-08-040-01        |
| BLANK SPIKE                  | C1-08-040-02        |
| METHOD BLANK                 | C1-08-040-03        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 08/09/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-08-040

| CLIENT SAMPLE ID         | 1,5887349                         | BLANK SPIKE                      | METHOD BLANK                    |       |
|--------------------------|-----------------------------------|----------------------------------|---------------------------------|-------|
| LAB SAMPLE ID            | C1-08-040-01                      | C1-08-040-02                     | C1-08-040-03                    |       |
| SAMPLED                  | 08/05/91                          |                                  |                                 |       |
| TEST                     |                                   |                                  |                                 | UNITS |
| HI:VOL NUISANC<br>E DUST | 109000<br>[ 100]<br>08/07/91      |                                  |                                 | UG    |
| MERCURY                  | 0.18<br>[ 0.07]<br>08/09/91<br>UG | 84<br>[ --]<br>08/09/91<br>%REC  | ND<br>[ 0.07]<br>08/09/91<br>UG |       |
| COPPER                   | 38<br>[ 3]<br>08/07/91<br>UG      | 102<br>[ --]<br>08/07/91<br>%REC | ND<br>[ 3]<br>08/07/91<br>UG    |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 08/09/91  
Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-08-040

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to USEPA method 6010.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).

TEST NAME HI:VOL NUISANCE DUST

TEST CODE HI\_VOL

The filters are weighed after allowing to stabilize at room conditions for one hour. The relative humidity and temperature are recorded at the time of weighing. The difference in weight is reported in micrograms.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. **B 78060**

C/C Control No. 159653

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROJECT MANAGER Gene Lovett  
 BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 8/6/91  
 LAB DESTINATION Cerritos  
 LABORATORY CONTACT Tracy Sidwell  
 SEND LAB REPORT TO IT Corp c/o FMC  
4585 Pacheco Blvd  
Martinez  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherri Williams  
 PROJECT CONTACT PHONE NO. 415-795-4350

| Sample No. | Sample Type | Sample Volume M3 | Preservative | Requested Testing Program    | Special Instructions |
|------------|-------------|------------------|--------------|------------------------------|----------------------|
| 1.5887349  | AIR         | 18.28            |              | Mercury EPA 7471             |                      |
|            |             |                  |              | Copper EPA 6010              |                      |
|            |             |                  |              | Particulate                  |                      |
|            |             |                  |              | Perform tests on all samples |                      |
|            |             |                  |              |                              |                      |
|            |             |                  |              |                              |                      |
|            |             |                  |              |                              |                      |
|            |             |                  |              |                              |                      |
|            |             |                  |              |                              |                      |

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - 1 copy



CHAIN-OF-CUSTODY RECORD

R/A Control No. B-7. 0

C/C Control No. **159653**

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Linda C. Weaver

CARRIER/WAYBILL NO. 0070186970

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| 1.5887349     | Location 1 AIR                  | 8-5-91                  | AIR         |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sue Williams IT Corp, 8/6/91, 1150

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_

WHITE - To accompany samples  
YELLOW - Field copy

**APPENDIX B**

**PERSONNEL AIR MONITORING CERTIFICATES OF ANALYSIS  
AND CHAIN OF CUSTODY FORMS**



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

IT CORPORATION  
4585 PACHECO BLVD  
MARTINEZ CA 94553  
SHERRI WILLIAMS

Date: 06/03/91

Work Order: C1-05-232

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468  
Date Received: 05/30/91 142468  
Number of Samples: 5  
Sample Type: CASSETTE, TUBE

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| FMCTD04                      | C1-05-232-01        |
| FMCCU05                      | C1-05-232-02        |
| FMCHG06                      | C1-05-232-03        |
| BLANK SPIKE                  | C1-05-232-04        |
| METHOD BLANK                 | C1-05-232-06        |

Reviewed and Approved:

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION  
Date: 06/03/91  
Client Work ID: FMC 142468

142468

Work Order: C1-05-232

| CLIENT SAMPLE ID         | FMCTD04                   | FMCCU05                     | FMCHG06                    |       |
|--------------------------|---------------------------|-----------------------------|----------------------------|-------|
| LAB SAMPLE ID            | C1-05-232-01              | C1-05-232-02                | C1-05-232-03               |       |
| SAMPLED                  | 05/28/91                  | 05/28/91                    | 05/28/91                   |       |
| TEST                     |                           |                             |                            | UNITS |
| NUISANCE DUST(<br>TOTAL) | 0.8<br>[ 0.4]<br>06/01/91 |                             |                            | mg/m3 |
| MERCURY BY<br>CVAA       |                           |                             | ND<br>[ 0.002]<br>06/01/91 | mg/m3 |
| COPPER by ICP            |                           | ND<br>[ 0.0006]<br>05/31/91 |                            | mg/m3 |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/03/91

Client Work ID: FMC 142468

142468

Work Order: C1-05-232

| CLIENT SAMPLE ID         | BLANK SPIKE                        | METHOD BLANK                    |       |
|--------------------------|------------------------------------|---------------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-05-232-04                       | C1-05-232-06                    |       |
| TEST                     |                                    |                                 | UNITS |
| MERCURY BY<br>CVAA       | 103<br>[ --]<br>06/01/91<br>% Rec. | ND<br>[ 0.05]<br>06/01/91<br>ug | mg/L  |
| COPPER by ICP            | 109<br>[ --]<br>05/31/91<br>% Rec. | ND<br>[ 0.3]<br>05/31/91<br>ug  | mg/L  |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/03/91

Client Work ID: FMC 142468

142468

Work Order: C1-05-232

---

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE 500

Nuisance dust was analyzed using gravimetric technique according to a modified NIOSH method 0500. Matched weight filters were supplied to the laboratory and analyzed per client's request.

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to NIOSH method 7300.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to NIOSH method 6009.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. 208733  
C/C Control No. 154801

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROFIT CENTER NUMBER 2221  
PROJECT MANAGER Gene Lovett  
BILL TO 4585 Pacheco Blvd  
Marinez, CA  
Attn:  
PURCHASE ORDER NO. \_\_\_\_\_

DATE SAMPLES SHIPPED 5-29-91  
LAB DESTINATION Cerritos Lab  
LABORATORY CONTACT Tracy Ireland  
SEND LAB REPORT TO Sheri Williams  
IT Corp C/O FMC  
8927 Enterprise Dr,  
DATE REPORT REQUIRED 6-1-91  
PROJECT CONTACT Sheri Williams  
PROJECT CONTACT PHONE NO. 415-795-4395

| Sample No. | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------|--------------|---------------------------|----------------------|
| FMC TDO4   | Air         | 510L          |              | NIOSH 0500                |                      |
| FMC UUS    | Air         | 510L          |              | NIOSH 7029                |                      |
| FMC HgUp   | Air         | 36L           |              | NIOSH 6000                |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)      QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)

Normal \_\_\_\_\_ Rush X (Subject to rush surcharge.)      I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)

Non-hazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)

Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY  
Received by \_\_\_\_\_ Date/Time \_\_\_\_\_



CHAIN-OF-CUSTODY RECORD

5/28 samples

R/A Control No. 205733

C/C Control No. 159851

PROJECT NAME/NUMBER FMC / 142468

LAB DESTINATION Carrizosa

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. Fed-y

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type      | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|---------------------|--------------------------------------|---------------------|
| FMC ID04      | trench 6,7                      | 5/28/91                 | Air         | filter              |                                      |                     |
| FMC 0065      | trench 3,8                      | 5/28/91                 | Air         | filter              |                                      |                     |
| FMC Hgck      | trench 3,8                      | 5/28/91                 | Air         | Gold seal vent tube |                                      |                     |
|               |                                 |                         |             |                     |                                      |                     |
|               |                                 |                         |             |                     |                                      |                     |
|               |                                 |                         |             |                     |                                      |                     |
|               |                                 |                         |             |                     |                                      |                     |
|               |                                 |                         |             |                     |                                      |                     |
|               |                                 |                         |             |                     |                                      |                     |

COPY

Special Instructions:

Possible Sample Hazards: Copper, Mercury

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams 5/28/91, 1545

3. Relinquished By:

Received By: Valerie Cooks 5/28/91 1546

Received by:

2. Relinquished By:

4. Relinquished By:

Received By:

Received By:

WHITE - To analyze many samples
YELLOW - File



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

IT CORPORATION  
4585 PACHECO BLVD  
MARTINEZ CA 94553  
SHERRI WILLIAMS

Date: 06/03/91

Work Order: C1-05-240

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468  
Date Received: 05/31/91 142468  
Number of Samples: 11  
Sample Type: CASSETTE, TUBE

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| FMCTD07                      | C1-05-240-01        |
| FMCCU08                      | C1-05-240-02        |
| FMCHG09                      | C1-05-240-03        |
| FMCTD10                      | C1-05-240-04        |
| FMCCU11                      | C1-05-240-05        |
| FMCHG12                      | C1-05-240-06        |
| FMCB13-BLANK                 | C1-05-240-07        |
| FMCB14-BLANK                 | C1-05-240-08        |
| FMCB15-BLANK                 | C1-05-240-09        |
| BLANK SPIKE                  | C1-05-240-10        |
| METHOD BLANK                 | C1-05-240-12        |

Reviewed and Approved:

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 06/03/91

Client Work ID: FMC 142468

142468

Work Order: C1-05-240

| CLIENT SAMPLE ID         | FMCTD07                | FMCCU08                     | FMCHG09                           |       |
|--------------------------|------------------------|-----------------------------|-----------------------------------|-------|
| LAB SAMPLE ID            | C1-05-240-01           | C1-05-240-02                | C1-05-240-03                      |       |
| SAMPLED                  | 05/29/91               | 05/29/91                    | 05/29/91                          |       |
| TEST                     |                        |                             |                                   | UNITS |
| NUISANCE DUST(<br>TOTAL) | ND<br>[ 3]<br>06/01/91 |                             |                                   | mg/m3 |
| MERCURY BY<br>CVAA       |                        |                             | 0.00009<br>[ 0.00006]<br>06/01/91 | mg/m3 |
| COPPER by ICP            |                        | ND<br>[ 0.0004]<br>05/31/91 |                                   | mg/m3 |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/03/91

Client Work ID: FMC 142468

142468

Work Order: C1-05-240

| CLIENT SAMPLE ID         | FMCTD10                   | FMCCU11                     | FMCHG12                    |       |
|--------------------------|---------------------------|-----------------------------|----------------------------|-------|
| LAB SAMPLE ID            | C1-05-240-04              | C1-05-240-05                | C1-05-240-06               |       |
| SAMPLED                  | 05/30/91                  | 05/30/91                    | 05/30/91                   |       |
| TEST                     |                           |                             |                            | UNITS |
| NUISANCE DUST(<br>TOTAL) | 0.6<br>[ 0.5]<br>06/01/91 |                             |                            | mg/m3 |
| MERCURY BY<br>CVAA       |                           |                             | ND<br>[ 0.002]<br>06/01/91 | mg/m3 |
| COPPER by ICP            |                           | ND<br>[ 0.0009]<br>05/31/91 |                            | mg/m3 |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/03/91

Client Work ID: FMC 142468

142468

Work Order: C1-05-240

| CLIENT SAMPLE ID      | FMCB13-BLANK             | FMCB14-BLANK             | FMCB15-BLANK              |       |
|-----------------------|--------------------------|--------------------------|---------------------------|-------|
| LAB SAMPLE ID         | C1-05-240-07             | C1-05-240-08             | C1-05-240-09              |       |
| SAMPLED               | 05/30/91                 | 05/30/91                 | 05/30/91                  |       |
| TEST                  |                          |                          |                           | UNITS |
| NUISANCE DUST( TOTAL) | ND<br>[ 0.2]<br>06/01/91 |                          |                           | mg    |
| MERCURY BY CVAA       |                          |                          | ND<br>[ 0.05]<br>06/01/91 | ug    |
| COPPER by ICP         |                          | ND<br>[ 0.3]<br>05/31/91 |                           | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/03/91

Client Work ID: FMC 142468

142468

Work Order: C1-05-240

| CLIENT SAMPLE ID         | BLANK SPIKE                        | METHOD BLANK                    |       |
|--------------------------|------------------------------------|---------------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-05-240-10                       | C1-05-240-12                    |       |
| TEST                     |                                    |                                 | UNITS |
| MERCURY BY<br>CVAA       | 103<br>[ --]<br>06/01/91<br>% Rec. | ND<br>[ 0.05]<br>06/01/91<br>ug | mg/L  |
| COPPER by ICP            | 109<br>[ --]<br>05/31/91<br>% Rec. | ND<br>[ 0.3]<br>05/31/91<br>ug  | mg/L  |

ND indicates the parameter was not detected.  
Detection limits are specified in [].  
NC indicates the parameter was not calculated.

Page: 6

Company: IT CORPORATION

Date: 06/03/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-05-240

---

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE 500

Nuisance dust was analyzed using gravimetric technique according to a modified NIOSH method 0500. Matched weight filters were supplied to the laboratory and analyzed per client's request.

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to NIOSH method 7300.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to NIOSH method 6009.



**REQUEST FOR ANALYSIS**

R/A Control No. **B 133**  
C/C Control No. 43451

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROJECT MANAGER Gene Lovett  
BILL TO 4585 Pacheco Blvd  
Martinez CA  
PURCHASE ORDER NO. \_\_\_\_\_

DATE SAMPLES SHIPPED 5-30-91  
LAB DESTINATION IT Center  
LABORATORY CONTACT Tracy Adwell  
SEND LAB REPORT TO IT Corp. c/o FMC  
8157 Enterprise Dr  
Newark, CA  
DATE REPORT REQUIRED 6-3-91  
PROJECT CONTACT Jerry Williams  
PROJECT CONTACT PHONE NO. 415-745-4345

| Sample No. | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------|--------------|---------------------------|----------------------|
| FMC T007   | Air         | 68.25L        |              | NIOSH 0500                |                      |
| FMC L408   | Air         | 930L          |              | NIOSH 7029                |                      |
| FMC H909   | Air         | 920L          |              | NIOSH 1000                |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
Normal \_\_\_\_\_ Rush X (48 hours) Note: Rush charge to be waived per union time

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
Nonhazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

5/29 Samples



CHAIN-OF-CUSTODY RECORD

R/A Control No. 142468

451

C/C Control No.

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION IT - CERILUS

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 0070157143 - Fed X

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type   | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|------------------|--------------------------------------|---------------------|
| FMC T007      | Trench 6, 7, Air                | 5-29-91, 0635           | Air         | 1000 mL Filtered |                                      |                     |
| FMC C408      | Trench 6, 7, Air                | 5-29-91, 0630           | Air         | 1000 mL Filtered |                                      |                     |
| FMC Hg09      | Trench C, D, Air                | 5-29-91, 0640           | Air         | 1000 mL Filtered |                                      |                     |
|               |                                 |                         |             |                  |                                      |                     |
|               |                                 |                         |             |                  |                                      |                     |
|               |                                 |                         |             |                  |                                      |                     |
|               |                                 |                         |             |                  |                                      |                     |
|               |                                 |                         |             |                  |                                      |                     |
|               |                                 |                         |             |                  |                                      |                     |

COPY

Special Instructions:

Possible Sample Hazards: Copper, Mercury

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 5/29/91, 1620

3. Relinquished By:

Received By:

Received by:

2. Relinquished By:

4. Relinquished By:

Received By:

Received By:



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

0-30 Sample

**REQUEST FOR ANALYSIS**

R/A Control No. 071071  
C/C Control No. 11111

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROJECT MANAGER Gene Lovett  
BILL TO 4585 Pacheco Blvd  
Martinez, CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED \_\_\_\_\_  
LAB DESTINATION ITT Corp  
LABORATORY CONTACT Tracy Schmidt  
SEND LAB REPORT TO ITT Corp c/o FMC  
5787 Enterprise Dr  
Newark, CA  
DATE REPORT REQUIRED \_\_\_\_\_  
PROJECT CONTACT Ferris Williams  
PROJECT CONTACT PHONE NO. 115-115-4345

| Sample No. | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------|--------------|---------------------------|----------------------|
| FMC T010   | Air         | 470L          |              | NIOSH 0500                |                      |
| FMC C11    | ↓           | 460L          |              | NIOSH 7029                |                      |
| FMC H12    | ↓           | 35.25L        |              | NIOSH 6000                |                      |
| FMC B13    | Blank       | —             |              | NIOSH 0500                |                      |
| FMC B14    | ↓           | —             |              | NIOSH 7029                |                      |
| FMC B15    | ↓           | —             |              | NIOSH 6000                |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |

**COPY**

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.) Rush charged to be waived per Mark Perry  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)  
 POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
 Nonhazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)  
 SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
YELLOW - Field copy

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. 018071

C/C Control No. **171311**

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION IT Cerritos

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. ~~0070187132~~ 0070187132

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type           | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|--------------------------|--------------------------------------|---------------------|
| FMC D10       | Trench 8,3 - Air                | 5-30-91, 0635           | Air         | clear cassette           |                                      |                     |
| FMC C11       | Trench 8,3 - Air                | 5-30-91, 0640           | ↓           | clear cassette           |                                      |                     |
| FMC Hg12      | Trench 6,7 - Air                | 5-30-91, 0635           | ↓           | clear solid sorbent tube |                                      |                     |
| FMC B13       | Blank                           | 5-30,91 -               | Blank       | clear cassette           |                                      |                     |
| FMC B14       | —                               | 5-30,91 -               | ↓           | ↓                        |                                      |                     |
| FMC B15       | —                               | 5-30,91 -               | ↓           | clear solid sorbent tube |                                      |                     |
|               |                                 |                         |             |                          |                                      |                     |
|               |                                 |                         |             |                          |                                      |                     |
|               |                                 |                         |             |                          |                                      |                     |
|               |                                 |                         |             |                          |                                      |                     |

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Copper, Mercury

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 5-30-91, 1325

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 06/12/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work Order: C1-06-035

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468  
Date Received: 06/07/91 142468  
Number of Samples: 8  
Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| FMC TD16                     | C1-06-035-01        |
| FMC CU17                     | C1-06-035-02        |
| FMC HG18                     | C1-06-035-03        |
| FMC B19 - BLANK              | C1-06-035-04        |
| FMC B20 - BLANK              | C1-06-035-05        |
| FMC B21 - BLANK              | C1-06-035-06        |
| BLANK SPIKE                  | C1-06-035-10        |
| METHOD BLANK                 | C1-06-035-12        |

Reviewed and Approved:

*Tracy Sidwell*  
\_\_\_\_\_  
Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 06/12/91

Client Work ID: FMC 142468

142468

Work Order: C1-06-035

| CLIENT SAMPLE ID         | FMC TD16                  | FMC CU17                    | FMC HG18                    |       |
|--------------------------|---------------------------|-----------------------------|-----------------------------|-------|
| LAB SAMPLE ID            | C1-06-035-01              | C1-06-035-02                | C1-06-035-03                |       |
| SAMPLED                  | 06/05/91                  | 06/05/91                    | 06/05/91                    |       |
| TEST                     |                           |                             |                             | UNITS |
| NUISANCE DUST(<br>TOTAL) | 0.4<br>[ 0.3]<br>06/11/91 |                             |                             | mg/m3 |
| MERCURY BY<br>CVAA       |                           |                             | ND<br>[ 0.0007]<br>06/10/91 | mg/m3 |
| COPPER by ICP            |                           | ND<br>[ 0.0004]<br>06/07/91 |                             | mg/m3 |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/12/91

Client Work ID: FMC 142468

142468

Work Order: C1-06-035

| CLIENT SAMPLE ID      | FMC B19 - BLANK          | FMC B20 - BLANK          | FMC B21 - BLANK           |       |
|-----------------------|--------------------------|--------------------------|---------------------------|-------|
| LAB SAMPLE ID         | C1-06-035-04             | C1-06-035-05             | C1-06-035-06              |       |
| SAMPLED               | 06/05/91                 | 06/05/91                 | 06/05/91                  |       |
| TEST                  |                          |                          |                           | UNITS |
| NUISANCE DUST (TOTAL) | ND<br>[ 0.2]<br>06/11/91 |                          |                           | mg    |
| MERCURY BY CVAA       |                          |                          | ND<br>[ 0.05]<br>06/10/91 | ug    |
| COPPER by ICP         |                          | ND<br>[ 0.3]<br>06/07/91 |                           | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/12/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-035

| CLIENT SAMPLE ID         | BLANK SPIKE                        | METHOD BLANK                    |       |
|--------------------------|------------------------------------|---------------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-06-035-10                       | C1-06-035-12                    |       |
| TEST                     |                                    |                                 | UNITS |
| MERCURY BY<br>CVAA       | 102<br>[ --]<br>06/10/91<br>% Rec. | ND<br>[ 0.05]<br>06/10/91<br>ug | mg/L  |
| COPPER by ICP            | 121<br>[ --]<br>06/07/91<br>% Rec. | ND<br>[ 0.3]<br>06/07/91<br>ug  | mg/L  |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Page: 5

IT ANALYTICAL SERVICES  
CERRITOS, CA

Company: IT CORPORATION

Date: 06/12/91

Client Work ID: FMC 142468

142468

Work Order: C1-06-035

---

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE 500

Nuisance dust was analyzed using gravimetric technique according to a modified NIOSH method 0500. Matched weight filters were supplied to the laboratory and analyzed per client's request.

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to NIOSH method 7300.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to NIOSH method 6009.



### REQUEST FOR ANALYSIS

R/A Control No. 208739

C/C Control No. 159854

PROJECT NAME FMC  
 PROJECT NUMBER 142468  
 PROFIT CENTER NUMBER 2221  
 PROJECT MANAGER Gene Lovett  
 BILL TO 4585 Pacheco Blvd  
Martinez, CA  
IT Corp  
 PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 6-5-91  
 LAB DESTINATION IT Cerritos  
 LABORATORY CONTACT Tracy Sidwell  
 SEND LAB REPORT TO IT Corp C/O FMC  
8787 Enterprise Dr  
Newark, CA  
 DATE REPORT REQUIRED \_\_\_\_\_  
 PROJECT CONTACT Sherri Williams  
 PROJECT CONTACT PHONE NO. 415-795-4395

| Sample No. | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------|--------------|---------------------------|----------------------|
| FMC TD16   | Air         | 960L          |              | NIOSH 0500                |                      |
| FMC Cu 17  | ↓           | 960L          |              | NIOSH 7029                |                      |
| FMC Hg18   | ↓           | 970L 73L      |              | NIOSH 6000                |                      |
| FMC B19    | Blank       |               |              | NIOSH 0500                |                      |
| FMC B20    | ↓           |               |              | NIOSH 7029                |                      |
| FMC B21    | ↓           |               |              | NIOSH 6000                |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Laboratory Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge.)  
 QC LEVEL: (Levels II and III subject to surcharge; project-specific requirements must be submitted to lab before beginning work.)  
 I \_\_\_\_\_ II \_\_\_\_\_ III \_\_\_\_\_ Project Specific \_\_\_\_\_

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances.)  
 Non-hazard  Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, archive and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_ Archive \_\_\_\_\_ (Indicate number of months.)

FOR LAB USE ONLY

Received by \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - O. J. to accompany samples  
 YEL - Field



CHAIN-OF-CUSTODY RECORD

R/A Control No. 208134

C/C Control No. 159854

PROJECT NAME/NUMBER FMC / 142468

LAB DESTINATION IT Caracas

SAMPLE TEAM MEMBERS Sherrill Williams

CARRIER/WAYBILL NO. CO 1018 1002

Table with 7 columns: Sample Number, Sample Location and Description, Date and Time Collected, Sample Type, Container Type, Condition on Receipt (Name and Date), Disposal Record No. Rows include FMC TD16, FMC B17, FMC Hg18, FMC B19, FMC B20, FMC B21.

Special Instructions:

Possible Sample Hazards: Copper, Mercury

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By:

3. Relinquished By:

Received By:

Received by:

2. Relinquished By:

4. Relinquished By:

Received By:

Received By:

**CERTIFICATE OF ANALYSIS**

---

Date: 06/12/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

---

Work Order: C1-06-048

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 06/10/91

142468

Number of Samples: 8

Sample Type: AIR

---

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| FMC TD22                     | C1-06-048-01        |
| FMC CU23                     | C1-06-048-02        |
| FMC HG24                     | C1-06-048-03        |
| FMC B25 - BLANK              | C1-06-048-04        |
| FMC B26 - BLANK              | C1-06-048-05        |
| FMC B27 - BLANK              | C1-06-048-06        |
| BLANK SPIKE                  | C1-06-048-10        |
| METHOD BLANK                 | C1-06-048-12        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

---

Company: IT CORPORATION

Date: 06/12/91

Client Work ID: FMC 142468

142468

Work Order: C1-06-048

| CLIENT SAMPLE ID     | FMC TD22                  | FMC CU23                    | FMC HG24                        |       |
|----------------------|---------------------------|-----------------------------|---------------------------------|-------|
| LAB SAMPLE ID        | C1-06-048-01              | C1-06-048-02                | C1-06-048-03                    |       |
| SAMPLED              | 06/06/91                  | 06/06/91                    | 06/06/91                        |       |
| TEST                 |                           |                             |                                 | UNITS |
| NUISANCE DUST(TOTAL) | 0.6<br>[ 0.3]<br>06/11/91 |                             |                                 | mg/m3 |
| MERCURY BY CVAA      |                           |                             | 0.0008<br>[ 0.0008]<br>06/10/91 | mg/m3 |
| COPPER by ICP        |                           | ND<br>[ 0.0004]<br>06/10/91 |                                 | mg/m3 |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/12/91

Client Work ID: FMC 142468

142468

Work Order: C1-06-048

| CLIENT SAMPLE ID     | FMC B25 - BLANK          | FMC B26 - BLANK          | FMC B27 - BLANK           |       |
|----------------------|--------------------------|--------------------------|---------------------------|-------|
| LAB SAMPLE ID        | C1-06-048-04             | C1-06-048-05             | C1-06-048-06              |       |
| SAMPLED              | 06/06/91                 | 06/06/91                 | 06/06/91                  |       |
| TEST                 |                          |                          |                           | UNITS |
| NUISANCE DUST(TOTAL) | ND<br>[ 0.2]<br>06/11/91 |                          |                           | mg    |
| MERCURY BY CVAA      |                          |                          | ND<br>[ 0.05]<br>06/10/91 | ug    |
| COPPER by ICP        |                          | ND<br>[ 0.3]<br>06/10/91 |                           | ug    |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/12/91

Client Work ID: FMC 142468

142468

Work Order: C1-06-048

| CLIENT SAMPLE ID         | BLANK SPIKE                        | METHOD BLANK                    |       |
|--------------------------|------------------------------------|---------------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-06-048-10                       | C1-06-048-12                    |       |
| TEST                     |                                    |                                 | UNITS |
| MERCURY BY<br>CVAA       | 102<br>[ --]<br>06/10/91<br>% Rec. | ND<br>[ 0.05]<br>06/10/91<br>ug | mg/L  |
| COPPER by ICP            | 106<br>[ --]<br>06/10/91<br>% Rec. | ND<br>[ 0.3]<br>06/10/91<br>ug  | mg/L  |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 06/12/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-048

---

TEST NAME NUISANCE DUST(TOTAL)

TEST CODE 500

Nuisance dust was analyzed using gravimetric technique according to a modified NIOSH method 0500. Matched weight filters were supplied to the laboratory and analyzed per client's request.

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to NIOSH method 7300.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to NIOSH method 6009.



CHAIN-OF-CUSTODY RECORD

7-6-91 Samples

R/A Control No. B-10132

C/C Control No. 159682

PROJECT NAME/NUMBER FMC 1142468

LAB DESTINATION IT Centers

SAMPLE TEAM MEMBERS Sherril Williams

CARRIER/WAYBILL NO. 00 70187 040

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type     | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|--------------------|--------------------------------------|---------------------|
| FMC TD22      | Trench 30. Air                  | 6-6-91 0630             | Air         | clear cassette     |                                      |                     |
| FMC CU23      | loading pile                    | 0630                    |             | clear cassette     |                                      |                     |
| FMC Hg24      | Trench 30 ↓                     | 0630                    |             | clear solvent tube |                                      |                     |
| FMC B-25      |                                 |                         |             |                    |                                      |                     |
| FMC B-26      |                                 |                         |             |                    |                                      |                     |
| FMC B-27      |                                 |                         |             |                    |                                      |                     |
|               |                                 |                         |             |                    |                                      |                     |
|               |                                 |                         |             |                    |                                      |                     |
|               |                                 |                         |             |                    |                                      |                     |
|               |                                 |                         |             |                    |                                      |                     |
|               |                                 |                         |             |                    |                                      |                     |

Special Instructions:

Possible Sample Hazards: Mercury, Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: S. Williams, ITCorp, 6-7-91, 1300

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 06/24/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work order: C1-06-126

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 06/20/91

142468

Number of Samples: 5

Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| FMC HG28                     | C1-06-126-01        |
| FMC HG29                     | C1-06-126-02        |
| FMC B30                      | C1-06-126-03        |
| MATRIX SPIKE                 | C1-06-126-04        |
| METHOD BLANK                 | C1-06-126-06        |

Reviewed and Approved:

Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION

Date: 06/24/91

Client Work ID: FMC 142468

142468

Work Order: C1-06-126

| CLIENT SAMPLE ID | FMC HG28     | FMC HG29     | FMC B30      |       |
|------------------|--------------|--------------|--------------|-------|
| LAB SAMPLE ID    | C1-06-126-01 | C1-06-126-02 | C1-06-126-03 |       |
| SAMPLED          | 06/19/91     | 06/19/91     | 06/19/91     |       |
| TEST             |              |              |              | UNITS |
| MERCURY BY       | 0.012        | 0.007        | 0.12         |       |
| CVAA             | [ 0.002]     | [ 0.002]     | [ 0.05]      |       |
|                  | 06/21/91     | 06/21/91     | 06/21/91     |       |
|                  | mg/m3        | mg/m3        | ug           |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 06/24/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-126

| CLIENT SAMPLE ID         | MATRIX SPIKE                       | METHOD BLANK                     |       |
|--------------------------|------------------------------------|----------------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-06-126-04                       | C1-06-126-06                     |       |
| TEST                     |                                    |                                  | UNITS |
| MERCURY BY<br>CVAA       | 81<br>[ -- ]<br>06/21/91<br>% Rec. | ND<br>[ 0.05 ]<br>06/21/91<br>ug | mg/L  |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Page: 4

Company: IT CORPORATION  
Date: 06/24/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-06-126

---

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to USEPA method 7471 (solids) or method 7470 (liquids).



6-19-91

REQUEST FOR ANALYSIS

R/A Control No. B 78126  
C/C Control No. \_\_\_\_\_

PROJECT NAME BMC  
PROJECT NUMBER 142468  
PROJECT MANAGER Bene Lovett  
BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED \_\_\_\_\_  
LAB DESTINATION IT Cerritos  
LABORATORY CONTACT Tracy Schwell  
SEND LAB REPORT TO IT Corp C/O PNE  
Newark Enterprise Dr  
DATE REPORT REQUIRED \_\_\_\_\_  
PROJECT CONTACT Sherri Williams  
PROJECT CONTACT PHONE NO. 415 795-4395

| Sample No. | Sample Type | Sample Volume (L) | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|-------------------|--------------|---------------------------|----------------------|
| FMC Hg28   | Air         | 34.5              |              | MOSH 6000                 |                      |
| FMC Hg29   | ↓           | 4.5               |              | ↓                         |                      |
| FMC B30    | ↓           | —                 |              |                           |                      |
|            |             |                   |              |                           |                      |
|            |             |                   |              |                           |                      |
|            |             |                   |              |                           |                      |
|            |             |                   |              |                           |                      |
|            |             |                   |              |                           |                      |
|            |             |                   |              |                           |                      |

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)  
POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
Nonhazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY

Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - C \_\_\_\_\_  
YELLOW - \_\_\_\_\_  
il, to accompany samples  
copy



CHAIN-OF-CUSTODY RECORD

R/A Control No. B-10120

C/C Control No. 159676

PROJECT NAME/NUMBER FMC / 142468

LAB DESTINATION IT Corbis

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 0493703991

Table with 7 columns: Sample Number, Sample Location and Description, Date and Time Collected, Sample Type, Container Type, Condition on Receipt (Name and Date), Disposal Record No. Includes handwritten entries for FMC Hy 28, FMC Hy 29, and FMC B 30.

COPY

Special Instructions:

Possible Sample Hazards: Mercury

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Sherri Williams, IT Corp, 6/19/91, 1300

3. Relinquished By:

Received By:

Received by:

2. Relinquished By:

4. Relinquished By:

Received By:

Received By:

WHITE - To accompany samples
YELLOW - Field copy

CERTIFICATE OF ANALYSIS

---

Date: 07/05/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

---

Work Order: C1-07-011

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 07/02/91

142468

Number of Samples: 6

Sample Type: AIR

---

Samples were labeled as follows:

SAMPLE IDENTIFICATION

LABORATORY #

FMC HG31

C1-07-011-01

FMC B34

C1-07-011-02

FMC CU32

C1-07-011-03

FMC B33

C1-07-011-04

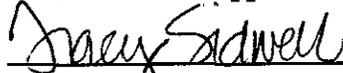
BLANK SPIKE

C1-07-011-05

METHOD BLANK

C1-07-011-06

Reviewed and Approved:



Tracy Sidwell

Project Manager

Company: IT CORPORATION  
 Date: 07/05/91  
 Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-011

| CLIENT SAMPLE ID   | FMC HG31                             | FMC B34                         | FMC CU32                    |       |
|--------------------|--------------------------------------|---------------------------------|-----------------------------|-------|
| LAB SAMPLE ID      | C1-07-011-01                         | C1-07-011-02                    | C1-07-011-03                |       |
| SAMPLED            | 06/28/91                             | 06/28/91                        | 06/28/91                    |       |
| TEST               |                                      |                                 |                             | UNITS |
| MERCURY BY<br>CVAA | ND<br>[ 0.0008]<br>07/03/91<br>mg/m3 | ND<br>[ 0.05]<br>07/03/91<br>ug |                             | mg/L  |
| COPPER by ICP      |                                      |                                 | ND<br>[ 0.0004]<br>07/03/91 | mg/m3 |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 07/05/91

Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-07-011

| CLIENT SAMPLE ID   | FMC B33                        | BLANK SPIKE                        | METHOD BLANK                   | UNITS |
|--------------------|--------------------------------|------------------------------------|--------------------------------|-------|
| LAB SAMPLE ID      | C1-07-011-04                   | C1-07-011-05                       | C1-07-011-06                   |       |
| SAMPLED            | 06/28/91                       |                                    |                                |       |
| TEST               |                                |                                    |                                |       |
| MERCURY BY<br>CVAA |                                | 121<br>[ --]<br>07/03/91<br>% Rec. | ND<br>[ 0.05]<br>07/03/91      | mg/L  |
| COPPER by ICP      | ND<br>[ 0.3]<br>07/03/91<br>ug | 102<br>[ --]<br>07/03/91<br>% Rec. | ND<br>[ 0.3]<br>07/03/91<br>ug |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Page: 4

Company: IT CORPORATION  
Date: 07/05/91  
Client Work ID: FMC 142468

142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-07-011

---

TEST NAME COPPER by ICP

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to NIOSH method 7300.

TEST NAME MERCURY BY CVAA

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to NIOSH method 6009.



# REQUEST FOR ANALYSIS

R/A Control No. 018074  
C/C Control No. \_\_\_\_\_

PROJECT NAME FMC  
PROJECT NUMBER 162466  
PROJECT MANAGER Gene Lovett  
BILL TO 4585 Pacheco Blvd  
Martinez, CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 7-1-91  
LAB DESTINATION IT Corridor  
LABORATORY CONTACT Tracy Redwell  
SEND LAB REPORT TO IT Corp c/o FMC  
3891 Enterprise Dr  
Newark, CA  
DATE REPORT REQUIRED \_\_\_\_\_  
PROJECT CONTACT Sherri Williams  
PROJECT CONTACT PHONE NO. 415-795-4395

| Sample No. | Sample Type | Sample Volume $\mu$ min | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|-------------------------|--------------|---------------------------|----------------------|
| FMC Hg 31  | Air         | 67.5                    |              | NIOSH 6000                |                      |
| FMC Cu 32  | ↓           | 900                     |              | NIOSH 7029                |                      |
| FMC B 33   | Blank       | —                       |              | ↓                         |                      |
| FMC B 31   | ↓           | —                       |              | NIOSH 6000                |                      |
|            |             |                         |              |                           |                      |
|            |             |                         |              |                           |                      |
|            |             |                         |              |                           |                      |
|            |             |                         |              |                           |                      |
|            |             |                         |              |                           |                      |
|            |             |                         |              |                           |                      |

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)  
POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)  
SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - 0  
YELLOW - 1, to accompany samples copy



# CHAIN-OF-CUSTODY RECORD

R/A Control No. 018074

C/C Control No. 171314

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION IT Cervatos

SAMPLE TEAM MEMBERS Sherril Williams

CARRIER/WAYBILL NO. 0493703906

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type           | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|--------------------------|--------------------------------------|---------------------|
| FMC 143       | Trench 26 Air                   | 6-28-91                 | Air         | clear solid sorbent tube |                                      |                     |
| FMC 143       | Trench 9+10                     | ↓                       | ↓           | clear cassette           |                                      |                     |
| FMC B33       |                                 | ↓                       | ↓           | ↓                        |                                      |                     |
| FMC B34       |                                 | ↓                       | ↓           | clear solid sorbent tube |                                      |                     |
|               |                                 |                         |             |                          |                                      |                     |
|               |                                 |                         |             |                          |                                      |                     |
|               |                                 |                         |             |                          |                                      |                     |
|               |                                 |                         |             |                          |                                      |                     |
|               |                                 |                         |             |                          |                                      |                     |

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury + Copper

### SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: S. Williams, IT Corp, 7-1-91, 0920

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_

WHITE - To accompany samples  
YELLOW - Field copy



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

Date: 07/26/91

IT CORPORATION C/O FMC  
8787 ENTERPRISE DR.  
NEWARK, CA 94560  
SHERRI WILLIAMS

Work order: C1-07-152

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468  
Date Received: 07/24/91 142468  
Number of Samples: 8  
Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| FMC TD 35                    | C1-07-152-01        |
| FMC CU 36                    | C1-07-152-02        |
| FMC HG 37                    | C1-07-152-03        |
| FMC BTD 38                   | C1-07-152-04        |
| FMC BCU 39                   | C1-07-152-05        |
| FMC BHG 40                   | C1-07-152-06        |
| BLANK SPIKE                  | C1-07-152-07        |
| METHOD BLANK                 | C1-07-152-08        |

Reviewed and Approved:

Tracy Sidwell  
Tracy Sidwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IT CORPORATION  
 Date: 07/26/91  
 Client Work ID: FMC 142468

142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

Work Order: C1-07-152

| CLIENT SAMPLE ID | FMC CU 36                            | FMC HG 37                   | FMC BCU 39                     |       |
|------------------|--------------------------------------|-----------------------------|--------------------------------|-------|
| LAB SAMPLE ID    | C1-07-152-02                         | C1-07-152-03                | C1-07-152-05                   |       |
| SAMPLED          | 07/22/91                             | 07/22/91                    | 07/22/91                       |       |
| TEST             |                                      |                             |                                | UNITS |
| MERCURY          |                                      | ND<br>[ 0.0007]<br>07/25/91 |                                | MG/M3 |
| COPPER           | ND<br>[ 0.0003]<br>07/24/91<br>MG/M3 |                             | ND<br>[ 0.3]<br>07/24/91<br>UG | MG/L  |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
 Date: 07/26/91  
 Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

142468

Work Order: C1-07-152

| CLIENT SAMPLE ID         | FMC BHG 40                      | BLANK SPIKE                      | METHOD BLANK                    | UNITS |
|--------------------------|---------------------------------|----------------------------------|---------------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-07-152-06<br>07/22/91        | C1-07-152-07                     | C1-07-152-08                    |       |
| TEST                     |                                 |                                  |                                 |       |
| MERCURY                  | ND<br>[ 0.05]<br>07/25/91<br>UG | 130<br>[ --]<br>07/25/91<br>%REC | ND<br>[ 0.05]<br>07/25/91<br>UG |       |
| COPPER                   |                                 | 95<br>[ --]<br>07/24/91<br>%REC  | ND<br>[ 0.3]<br>07/24/91<br>UG  | MG/L  |

ND indicates the parameter was not detected.  
 Detection limits are specified in [].  
 NC indicates the parameter was not calculated.

Page: 4

Company: IT CORPORATION  
Date: 07/26/91  
Client Work ID: FMC 142468

142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-07-152

---

#### Nonconformance Summary

The chain of Custody was not relinquished by the client. Samples were analyzed and reported as is.

Sample FMC TD 35 did not have a matched weight filter in the cassette which is necessary to analyze method 0500. Therefore, the sample was not analyzed along with sample FMC BTD 38 (sample blank) for nuisance dust.

Page: 5

Company: IT CORPORATION  
Date: 07/26/91  
Client Work ID: FMC 142468

142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-07-152

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to NIOSH method 7300.

TEST NAME MERCURY

TEST CODE HG\_AA

The sample was prepared and analyzed for mercury by cold-vapor atomic absorption (CVAA) spectroscopy according to NIOSH method 6009.



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. **B 067**  
C/C Control No. **159640**

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROJECT MANAGER Gene Lavett  
BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED \_\_\_\_\_  
LAB DESTINATION Cenatus  
LABORATORY CONTACT Tracy Sidwell  
SEND LAB REPORT TO IT Corp C/O FMC  
8891 Enterprise  
Newark, CA  
DATE REPORT REQUIRED \_\_\_\_\_  
PROJECT CONTACT Sherril Williams  
PROJECT CONTACT PHONE NO. 415-295-4357

| Sample No.  | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|-------------|-------------|---------------|--------------|---------------------------|----------------------|
| FMC ID 35   | Air         | 870L          |              | NIOSH 0500                |                      |
| FMC CU 36   | ↓           | 1070L         |              | NIOSH 7029                |                      |
| FMC Hg 37   | ↓           | 79.5L         |              | NIOSH 6000                |                      |
| FMC B ID 38 | Blank       |               |              | NIOSH 0500                |                      |
| FMC B Cu 39 | ↓           |               |              | NIOSH 7029                |                      |
| FMC B Hg 40 | ↓           |               |              | NIOSH 6000                |                      |
|             |             |               |              |                           |                      |
|             |             |               |              |                           |                      |
|             |             |               |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)

Normal \_\_\_\_\_

Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)

Nonhazardous \_\_\_\_\_

Flammable \_\_\_\_\_

Skin Irritant \_\_\_\_\_

Highly Toxic \_\_\_\_\_

Other \_\_\_\_\_  
(Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)

Return to Client \_\_\_\_\_

Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY

Received By \_\_\_\_\_

Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
YELLOW - Field copy

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. B-78067

C/C Control No. 159640

PROJECT NAME/NUMBER FMC / 142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Sherri Williams

CARRIER/WAYBILL NO. 7881358295

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type           | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|--------------------------|--------------------------------------|---------------------|
| FMC TD35      | Trench S, 6, 7 Air              | 7-22-91 0700            | Air         | clear cassette           |                                      |                     |
| FMC CU 36     | Trench S, 6, 7 + stockpile      | 0620                    |             | " "                      |                                      |                     |
| FMC Hg37      | Stock pile                      | 0625                    |             | clear solid sorbent tube |                                      |                     |
| FMC BTD 38    | ---                             | ---                     | Blank       | clear cassette           |                                      |                     |
| FMC B CU 39   | ---                             | ---                     | ↓           | " "                      |                                      |                     |
| FMC B Hg 40   | ---                             | ---                     | ↓           | clear solid sorbent tube |                                      |                     |
|               |                                 |                         |             |                          |                                      |                     |
|               |                                 |                         |             |                          |                                      |                     |
|               |                                 |                         |             |                          |                                      |                     |
|               |                                 |                         |             |                          |                                      |                     |

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Mercury, Copper, Particulate

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: \_\_\_\_\_

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_

CERTIFICATE OF ANALYSIS

---

IT CORPORATION  
4585 PACHECO BLVD  
MARTINEZ CA 94553  
GENE LOVETT

Date: 08/01/91

---

Work Order: C1-07-231

Project/P.O.#: 142468

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC 142468

Date Received: 07/31/91

Number of Samples: 4

Sample Type: AIR

---

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| FMC CU 42                    | C1-07-231-01        |
| FMC B 43                     | C1-07-231-02        |
| BLANK SPIKE                  | C1-07-231-03        |
| METHOD BLANK                 | C1-07-231-04        |

Reviewed and Approved:

*Tracy Sidwell*

Tracy Sidwell  
Project Manager

Company: IT CORPORATION  
 Date: 08/01/91  
 Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

Work Order: C1-07-231

| CLIENT SAMPLE ID | FMC CU 42                           | FMC B 43                       | BLANK SPIKE                     |       |
|------------------|-------------------------------------|--------------------------------|---------------------------------|-------|
| LAB SAMPLE ID    | C1-07-231-01                        | C1-07-231-02                   | C1-07-231-03                    |       |
| SAMPLED          | 07/30/91                            | 07/30/91                       |                                 |       |
| TEST             |                                     |                                |                                 | UNITS |
| COPPER           | ND<br>[ 0.002]<br>07/31/91<br>MG/M3 | ND<br>[ 0.3]<br>07/31/91<br>UG | 88<br>[ --]<br>07/31/91<br>%REC |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION  
Date: 08/01/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-07-231

| CLIENT SAMPLE ID         | METHOD BLANK             |       |
|--------------------------|--------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-07-231-04             |       |
| TEST                     |                          | UNITS |
| COPPER                   | ND<br>[ 0.3]<br>07/31/91 | UG    |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Page: 4

Company: IT CORPORATION  
Date: 08/01/91  
Client Work ID: FMC 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

Work Order: C1-07-231

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to NIOSH method 7029.



**REQUEST FOR ANALYSIS**

R/A Control No. **B 103**  
C/C Control No. 159657

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROJECT MANAGER Gene Lovett  
BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 7-30-91  
LAB DESTINATION Cerritos  
LABORATORY CONTACT Tracy Sidwell  
SEND LAB REPORT TO IT Corp  
8891 Enterprise Dr  
Newark, CA  
DATE REPORT REQUIRED \_\_\_\_\_  
PROJECT CONTACT Sherrin Williams  
PROJECT CONTACT PHONE NO. 415-795-4359

| Sample No. | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------|--------------|---------------------------|----------------------|
| FMC C42    | Air         | 240L          |              | NIOSH 7029                |                      |
| FMC B43    | ↓           | —             |              | ↓                         |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)  
 POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
 Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
 (Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
 Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - Field copy

**CHAIN-OF-CUSTODY RECORD**

R/A Control No. B-781023

C/C Control No. **159657**

PROJECT NAME/NUMBER FMC/142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Sherri Williams / Linda Weaver

CARRIER/WAYBILL NO. 7881358365

| Sample Number | Sample Location and Description | Date and Time Collected                  | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|--|-------------|----------------|--------------------------------------|---------------------|
| FMC C442      | Stockpile Air                   | 7-30-91, <sup>0900</sup> <del>1300</del> | Air         | Cassette       |                                      |                     |
| FMC B43       | Blank                           |  | ↓           | ↓              |                                      |                     |
|               |                                 |  |             |                |                                      |                     |
|               |                                 |  |             |                |                                      |                     |
|               |                                 |  |             |                |                                      |                     |
|               |                                 |  |             |                |                                      |                     |
|               |                                 |  |             |                |                                      |                     |
|               |                                 |  |             |                |                                      |                     |
|               |                                 |  |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: S. Williams, IT Corp, 7-30-91, 1300 3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_ 4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_ Received By: \_\_\_\_\_



# REQUEST FOR ANALYSIS

R/A Control No. B - 132  
C/C Control No. 159682

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROJECT MANAGER Gene Lovett  
TO 4585 Pacheco Blvd  
Martinez, CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED \_\_\_\_\_  
LAB DESTINATION IT Cerritos  
LABORATORY CONTACT Tracy Sidwell  
SEND LAB REPORT TO IT Corp. C/O FMC  
8787 Enterprise Dr  
Newark, CA  
DATE REPORT REQUIRED \_\_\_\_\_  
PROJECT CONTACT Sherri Williams  
PROJECT CONTACT PHONE NO. 415-795-4345

| Sample No. | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------|--------------|---------------------------|----------------------|
| FMC TD22   | Air         | 840L          |              | NIOSH 0500                |                      |
| FMC Cu23   | ↓           | 840L          | COP          | NIOSH 7029                |                      |
| FMC Hg24   |             | 63L           |              | NIOSH 6000                |                      |
| FMC B-25   |             | —             |              | NIOSH 0500                |                      |
| FMC B-26   |             | —             |              | NIOSH 7029                |                      |
| FMC B-27   |             | —             |              | NIOSH 6000                |                      |
|            |             |               |              |                           |                      |

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)

POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
Nonhazard \_\_\_\_\_ Flammable \_\_\_\_\_ Skin Irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_  
(Please Specify)

SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
YELLOW - Field copy



INTERNATIONAL  
TECHNOLOGY  
CORPORATION

# ANALYTICAL SERVICES

## CERTIFICATE OF ANALYSIS

IT CORPORATION  
4585 PACHECO BLVD  
MARTINEZ CA 94553  
GENE LOVETT

Date: 08/08/91

Work Order: C1-08-041

Project/P.O.#: 142468  
FMC

This is the Certificate of Analysis for the following samples:

Client Work ID: FMC/ 142468  
Date Received: 08/07/91 142468  
Number of Samples: 4  
Sample Type: AIR

Samples were labeled as follows:

| <u>SAMPLE IDENTIFICATION</u> | <u>LABORATORY #</u> |
|------------------------------|---------------------|
| FMC CU 44                    | C1-08-041-01        |
| FMC B 45                     | C1-08-041-02        |
| BLANK SPIKE                  | C1-08-041-03        |
| METHOD BLANK                 | C1-08-041-04        |

Reviewed and Approved:

*Tracy Sigwell*

Tracy Sigwell  
Project Manager

American Council of Independent Laboratories  
International Association of Environmental Testing Laboratories  
American Association for Laboratory Accreditation

Company: IF CORPORATION  
 Date: 08/08/91  
 Client Work ID: FMC/ 142468

142468

IT ANALYTICAL SERVICES  
 CERRITOS, CA

Work Order: C1-08-041

| CLIENT SAMPLE ID | FMC CU 44    | FMC B 45     | BLANK SPIKE  |       |
|------------------|--------------|--------------|--------------|-------|
| LAB SAMPLE ID    | C1-08-041-01 | C1-08-041-02 | C1-08-041-03 |       |
| SAMPLED          | 08/05/91     | 08/05/91     |              |       |
| TEST             |              |              |              | UNITS |
| COPPER           | ND           | ND           | 106          |       |
|                  | [ 0.0006]    | [ 0.5]       | [ --]        |       |
|                  | 08/07/91     | 08/07/91     | 08/07/91     |       |
|                  | MG/M3        | UG           | %REC         |       |

ND indicates the parameter was not detected.  
 Detection limits are specified in [ ].  
 NC indicates the parameter was not calculated.

Company: IT CORPORATION

Date: 08/08/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-08-041

| CLIENT SAMPLE ID         | METHOD BLANK             | UNITS |
|--------------------------|--------------------------|-------|
| LAB SAMPLE ID<br>SAMPLED | C1-08-041-04             |       |
| TEST                     |                          | UNITS |
| COPPER                   | ND<br>[ 0.5]<br>08/07/91 | UG    |

ND indicates the parameter was not detected.  
Detection limits are specified in [ ].  
NC indicates the parameter was not calculated.

Page: 4

Company: IT CORPORATION

Date: 08/08/91

Client Work ID: FMC/ 142468

IT ANALYTICAL SERVICES  
CERRITOS, CA

142468

Work Order: C1-08-041

---

TEST NAME COPPER

TEST CODE CU\_ICP

Copper was analyzed by inductively coupled argon plasma (ICP) spectroscopy according to NIOSH method 7029.



CHAIN-OF-CUSTODY RECORD

R/A Control No. 1578062

C/C Control No. 159655

PROJECT NAME/NUMBER FMC 142468

LAB DESTINATION Cerritos

SAMPLE TEAM MEMBERS Linda Weaver

CARRIER/WAYBILL NO. \_\_\_\_\_

| Sample Number | Sample Location and Description | Date and Time Collected | Sample Type | Container Type | Condition on Receipt (Name and Date) | Disposal Record No. |
|---------------|---------------------------------|-------------------------|-------------|----------------|--------------------------------------|---------------------|
| FMC 644       | Stockpile Air                   | 8-5-91, 0630            | Air         | Cassette       |                                      |                     |
| FMC B45       | ---                             |                         | Blank       | ↓              |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |
|               |                                 |                         |             |                |                                      |                     |

COPY

Special Instructions: \_\_\_\_\_

Possible Sample Hazards: Copper

SIGNATURES: (Name, Company, Date and Time)

1. Relinquished By: Shawn Williams, ITCOP, 8-6-91, 1135

3. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received by: \_\_\_\_\_

2. Relinquished By: \_\_\_\_\_

4. Relinquished By: \_\_\_\_\_

Received By: \_\_\_\_\_

Received By: \_\_\_\_\_



**INTERNATIONAL  
TECHNOLOGY  
CORPORATION**

**REQUEST FOR ANALYSIS**

R/A Control No. **B 062**  
C/C Control No. \_\_\_\_\_

PROJECT NAME FMC  
PROJECT NUMBER 142468  
PROJECT MANAGER Gene Lovett  
BILL TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
PURCHASE ORDER NO. 2221

DATE SAMPLES SHIPPED 8-6-91  
LAB DESTINATION Cerritos  
LABORATORY CONTACT Tracy Sidwell  
SEND LAB REPORT TO IT Corp  
4585 Pacheco Blvd  
Martinez, CA  
DATE REPORT REQUIRED \_\_\_\_\_  
PROJECT CONTACT Sherry Williams  
PROJECT CONTACT PHONE NO. 415-372-9100

| Sample No. | Sample Type | Sample Volume | Preservative | Requested Testing Program | Special Instructions |
|------------|-------------|---------------|--------------|---------------------------|----------------------|
| FMC A-44   | Air         | 840L          |              | NIOSH 7029                |                      |
| FMC B-45   | ↓           | —             |              | ↓                         |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |
|            |             |               |              |                           |                      |

COPY

TURNAROUND TIME REQUIRED: (Rush must be approved by the Project Manager.)  
 Normal \_\_\_\_\_ Rush  (Subject to rush surcharge)  
 POSSIBLE HAZARD IDENTIFICATION: (Please indicate if sample(s) are hazardous materials and/or suspected to contain high levels of hazardous substances)  
 Nonhazardous \_\_\_\_\_ Flammable \_\_\_\_\_ Skin irritant \_\_\_\_\_ Highly Toxic \_\_\_\_\_ Other \_\_\_\_\_ (Please Specify)  
 SAMPLE DISPOSAL: (Please indicate disposition of sample following analysis. Lab will charge for packing, shipping, and disposal.)  
 Return to Client \_\_\_\_\_ Disposal by Lab \_\_\_\_\_

FOR LAB USE ONLY  
 Received By \_\_\_\_\_ Date/Time \_\_\_\_\_

WHITE - Original, to accompany samples  
 YELLOW - Field copy

**APPENDIX C**

**VERIFICATION AND WASTE SAMPLING CERTIFICATES OF ANALYSIS  
AND CHAIN OF CUSTODY FORMS**

DEPARTMENT OF TOXIC SUBSTANCES CONTROL  
700 HEINZ AVENUE, SUITE 200  
BERKELEY, CALIFORNIA 94710



October 28, 1991

Ms. Barbara Ransom  
Environmental Project Manager  
The Leslie Salt Company  
P.O. Box 344  
Newark, California 94650

Dear Ms. Ransom:

**CERTIFICATION OF COMPLETION: REMEDIAL ACTION PLAN**

The Department has reviewed the final report for implementation of remedial actions at the Leslie Salt/FMC Magnesia Waste Pile Site. We find that the remedial actions, as detailed in the report, have addressed all the concerns expressed in the Remedial Action Plan. Therefore, the Department certifies that the Site has been adequately remediated. Enclosed with this letter is a copy of the certification form which have been filed.

There is one portion of the final report, however, that needs to be edited. In the title of the report and in several places in the text, you refer to the actions taken as "Final Closure". Please be aware that the actions taken did not achieve the standards as prescribed in 40 CFR 264.258, nor did they include the requirements of 40 CFR 264, Subpart G. Therefore, the Department cannot approve the "certification of site closure" or the "final closure report". Please remove all mention of "Closure" from the report.

If you have any questions or comments, you can contact Frank Gaunce at (510) 540-3834 or myself at (415) 540-3749.

Sincerely,

A handwritten signature in black ink, appearing to read "RF", with a long horizontal flourish extending to the right.

Robert Feather  
Waste Management Engineer  
Region 2

Enclosed

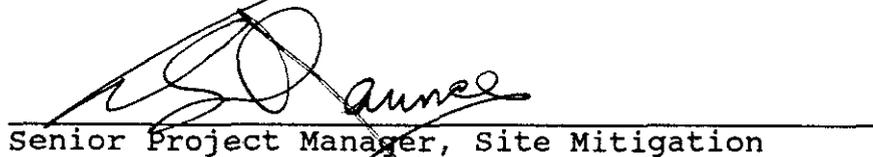
REMEDIAL ACTION CERTIFICATION FORM  
TRANSMITTAL SHEET

The Leslie Salt/FMC Magnesia Waste Pile Site  
Name of Hazardous Waste Site or RCRA facility



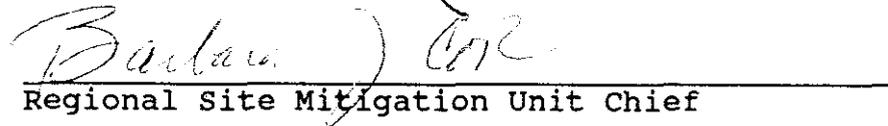
Regional Project Manager

October 18, 1991  
Date



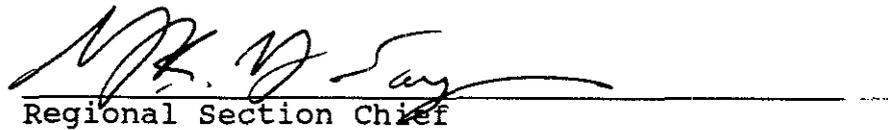
Senior Project Manager, Site Mitigation

Oct 21, 1991  
Date



Regional Site Mitigation Unit Chief

Oct 24, 1991  
Date



Regional Section Chief

10/25/91  
Date

Please return completed Certification Form to:

XXXXX Chief, HQ Site Mitigation Planning and Policy Unit

**REMEDIAL ACTION CERTIFICATION FORM**  
(Please type or print in black ink only)

---

1. Site Name and Location: (Street address, County, City and Assessor's parcel number):

Leslie Salt/FMC Magnesia Waste Pile  
West of Enterprise Drive in the City of Newark  
Alameda County, California (see attached map)

- A. List any other names that have been used to identify sites: Leslie Salt Company Site; Magnesia Pile Site
- B. Address of site if different from above: \_\_\_\_\_
- C. Assessor's Parcel Numbers: \_\_\_\_\_

2. Responsible Parties: (Use extra pages if necessary.)

|            |   |            |   |
|------------|---|------------|---|
| Name:      | Peter Olenkiewicz                             | Name:      | Barbara Ransom  |
| Title:     | Environ. Engineer                             | Title:     | Envir. Proj. Manager  |
| Firm:      | FMC Corporation                               | Firm:      | The Leslie Salt Co.   |
| Address:   | <sup>1735</sup> <del>2000</del> Market Street | Address:   | <sup>20</sup> <del>7200</del> Central Drive<br>P.O. Box 364 |
| City:      | Philadelphia, PA                              | City:      | Newark, CA  |
| Zip Code:  | 19103   | Zip Code:  | 94560   |
| Telephone: | (215) 299-6572                                | Telephone: | (510) 790-8182  |

Relationship to Site: (such as generator, hauler, etc.): FMC generated wastes which were disposed of on Leslie Salt prop.

Current Landowner/~~operator~~: The Leslie Salt Company

3. Brief Description and History of the Site: From 1929 to 1968 the Site was used for the disposal of process waste from the adjacent FMC facility. The wastes were mostly magnesium oxides and related by-products. Some copper and mercury contaminated material and trash was included in the wastes. Approximately 550 cubic yard of copper contaminated material was removed from the Site in 1985. Post removal sampling indicated the presence of additional copper and mercury contaminated material. Approximately 6600 cubic yards of contaminated material was removed from the Site in the spring and summer of 1991. Post removal sampling indicate that pre-determined clean-up standards have been met.

4. Type of Site:

Is the Site included in the Bond Expenditure Plan?

Yes XXXXX No \_\_\_\_\_

RCRA-Permitted Facility \_\_\_\_\_ Bond-funded \_\_\_\_\_

RCRA Facility Closure \_\_\_\_\_ RP-funded XXXXX

Federal Facility \_\_\_\_\_ NPL\* \_\_\_\_\_

Other (i.e., walk-in) \_\_\_\_\_ Explain Briefly: \_\_\_\_\_

5. Size of the Site:

Small \_\_\_\_\_ Medium XXXXX Large \_\_\_\_\_ Extra-Large \_\_\_\_\_

6. Dates of Remedial Action:

a. Initiated: Phase I: 6-85 b. Completed: Phase I: 10-85  
Phase II: 5-91 Phase II: 8-91

\* Per SARA, any NPL site that is not permanently cleaned must be scheduled for a follow-up visit after 5 years to verify that clean-up measures are still satisfactory.

7. Response Action Taken on Site: (check appropriate action)

- \_\_\_\_\_ Initial Removal or Remedial Action (site inspection/sampling)  
XXXXXX Final Remedial Action  
\_\_\_\_\_ RCRA enforcement/closure action  
\_\_\_\_\_ No action, further investigation verified that no clean-up action at the site was needed.

A. Type of Remedial Action (e.g. Excavation and redisposal, on-site treatment, etc.):

Excavation of material contaminated with copper, naphthalene and oily wastes; redisposal at the USPCI Class I landfill in Clive Utah.

B. Estimated quantity of waste associated with the site (i.e., tons/gallons/cubic yards) which was:

- |                                   |  |
|-----------------------------------|--|
| 1. _____ treated                  | Amount: _____                                |
| 2. _____ untreated (capped sites) | Amount: _____                                |
| 3. <u>XXXXXX</u> removed          | Amount: <u>6585 cubic yds</u><br>(9800 tons) |

8. Cleanup Levels/Standards:

a. What were the cleanup standards established by DHS pursuant to the final remedial action plan (RAP) or workplan (if cleanup occurred as the result of a removal action (RA) or interim remedial measures (IRM) prior to development of a RAP)?:

20 ppm total mercury; 2,500 ppm total copper (TFLCs)

b. Were the specified cleanup standards met? Yes XXX No \_\_\_\_\_

c. If "no", why not: \_\_\_\_\_

9. DHS Involvement in the Remedial Action:

A. Did the Department order the Remedial Action?

Yes XXXXXX No \_\_\_\_\_ Date of Order: July 25, 1988

B. Did the Department review and approve (check appropriate action and indicate date of review/approval, if done):

- |   |            |
|---|------------|
| <u>XXXXXX</u> Sampling Analysis Procedures      | Date: 5-88 |
| _____ <u>XXXXXX</u> Health & Safety Protections | Date: 3-91 |
| <u>XXXXXX</u> Removal/Disposal Procedures       | Date: 3-91 |
| <u>XXXXXX</u> Removal Action Plan               | Date: 3-91 |

- C. If site was abated by a responsible party, did the Department receive a signed statement from a licensed professional on all Remedial Actions?  
 Yes XXXXXX No \_\_\_\_\_ Dates (from): 4-91 to 10-91
- D. Did a registered engineer or geologist verify that acceptable engineering practices were implemented?  
 Yes XXXXXX No \_\_\_\_\_ Dates (from): 4-91 to 10-91
- E. Did the Department confirm completion of all Remedial Action?  
 Yes XXXXXX No \_\_\_\_\_ Dates (from): October 1991
- F. Did the Department (directly or through a contractor) actually perform the Remedial Action?  
 Yes \_\_\_\_\_ No XXXXXX Dates (from):
- G. Was there a community relations plan in place?  
 Yes XXXXXX No \_\_\_\_\_
- H. Was a remedial action plan developed for this site?  
 Yes XXXXXX No \_\_\_\_\_
- I. Did DHS hold a public meeting regarding the draft RAP?  
 Yes XXXXXX No \_\_\_\_\_
- J. Were public comments addressed? Yes XXXXXX No \_\_\_\_\_  
 Date of DHS analysis/response: 10-90
- K. Are all of the facts cited above adequately documented in the DHS files? Yes XXXXXX No \_\_\_\_\_
- If no, identify areas where documentation is lacking:

10. EPA Involvement in the Remedial Action:

- A. Was the EPA involved in the site cleanup?  
 Yes XXXXXX No \_\_\_\_\_
- B. If yes, did EPA concur with all remedial actions?  
 Yes \_\_\_\_\_ No \_\_\_\_\_
- C. EPA comments: \_\_\_\_\_

\_\_\_\_\_

EPA staff involved in cleanup: (name, title, address, and phone number): \_\_\_\_\_

\_\_\_\_\_

11. Other Regulatory Agency Involvement in the Cleanup Action:

|                    |  |
|--------------------|--|
| Agency:            | Activity:                                      |
| <u>XXXXX</u> RWQCB | <u>Concurrence</u>                             |
| _____ ARB          | _____  |
| _____ CHP          | _____  |
| _____ Caltrans     | _____  |
| <u>XXXXX</u> Other | <u>Concurrence from Alameda County; Newark</u> |

Name of contact persons and agency:

Rafat Shahid, Alameda County Health: (510) 271-4320  
Jacqueline Bretschneider, City of Newark: (510) 790-7254

12. Post Closure Activities:

A. Will there be post-closure activities at this site?  
(e.g. Operations and Maintenance) Yes \_\_\_\_\_ No XXXXX

If yes, describe: \_\_\_\_\_

B. Have post-closure plans been prepared and approved by  
the Department? Yes \_\_\_\_\_ No XXXXX

C. What is the estimated duration of post-closure  
(including Operations and Maintenance) activities?  
\_\_\_\_\_ years.

D. Are deed restrictions proposed or in place?  
Yes \_\_\_\_\_ No XXXXX

If "yes", have deed restrictions been recorded with the  
County recorder? Yes \_\_\_\_\_ No \_\_\_\_\_

If "no", who is responsible for assuring that the deed  
restrictions are recorded? \_\_\_\_\_

Who is the Division contact? \_\_\_\_\_  
name/phone number

E. Has cost recovery been initiated? Yes XXXXX No \_\_\_\_\_

If yes, amount received \$ \_\_\_\_\_; \_\_\_\_\_ % of DHS costs.

F. Were local planning agencies notified of the cleanup actions? Yes XXXXX No \_\_\_\_\_

If yes, the name and address of the agency:

Ken Buck, Director of Development Services  
Newark City Hall  
37101 Newark Boulevard  
Newark, California 94560  
(510) 790-7206

13. Expenditure of Funds and Sources: (Information to be supplied by Toxic Accounting Unit.)  
Funding Source and amount expended:

|                                     |                        |             |          |
|-------------------------------------|------------------------|-------------|----------|
| _____ HWCA                          | \$ _____               | _____ HSA   | \$ _____ |
| _____ HSCF                          | \$ _____               | _____ RCRA  | \$ _____ |
| <u>XXXXXRP</u>                      | \$ <u>3,000,000.00</u> | _____ Other | \$ _____ |
| _____ Federal Cooperative Agreement | \$ _____               |             |          |

14. Certification Statement: Based upon the information which is currently and actually known to the Department,

XXXXX The Department has determined that all appropriate response actions have been completed, that all acceptable engineering practices were implemented and that no further removal/remedial action is necessary.

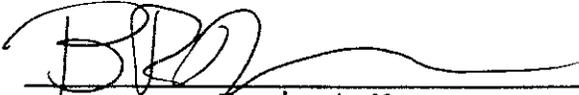
\_\_\_\_\_ The Department has determined, based upon a remedial investigation or site characterization that the site poses no significant threat to public health, welfare, or the environment and therefore implementation of removal/remedial measures is not necessary.

\_\_\_\_\_ The Department has determined that all appropriate removal/remedial actions have been completed and that all acceptable engineering practices were implemented; however, the site requires ongoing operation and maintenance (O&M) and monitoring efforts. The site will be deleted from the "active" site list following (1) a trial operation and maintenance period and (2) execution of a formal written settlement between the Department and the responsible parties, if appropriate. However, the site will be placed on the Department's list of sites undergoing O&M to ensure proper monitoring of long-term clean-up efforts.

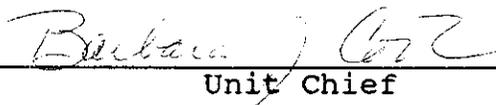
15. Additional Comments: \_\_\_\_\_  
\_\_\_\_\_

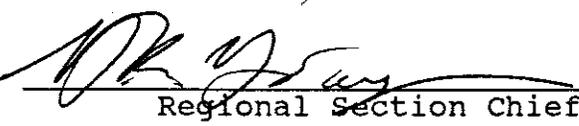
16. Certification of Remedial Action:

I hereby certify that the foregoing information is true and correct to the best of my knowledge.

1.  OCTOBER 18, 1991  
Project Manager Date

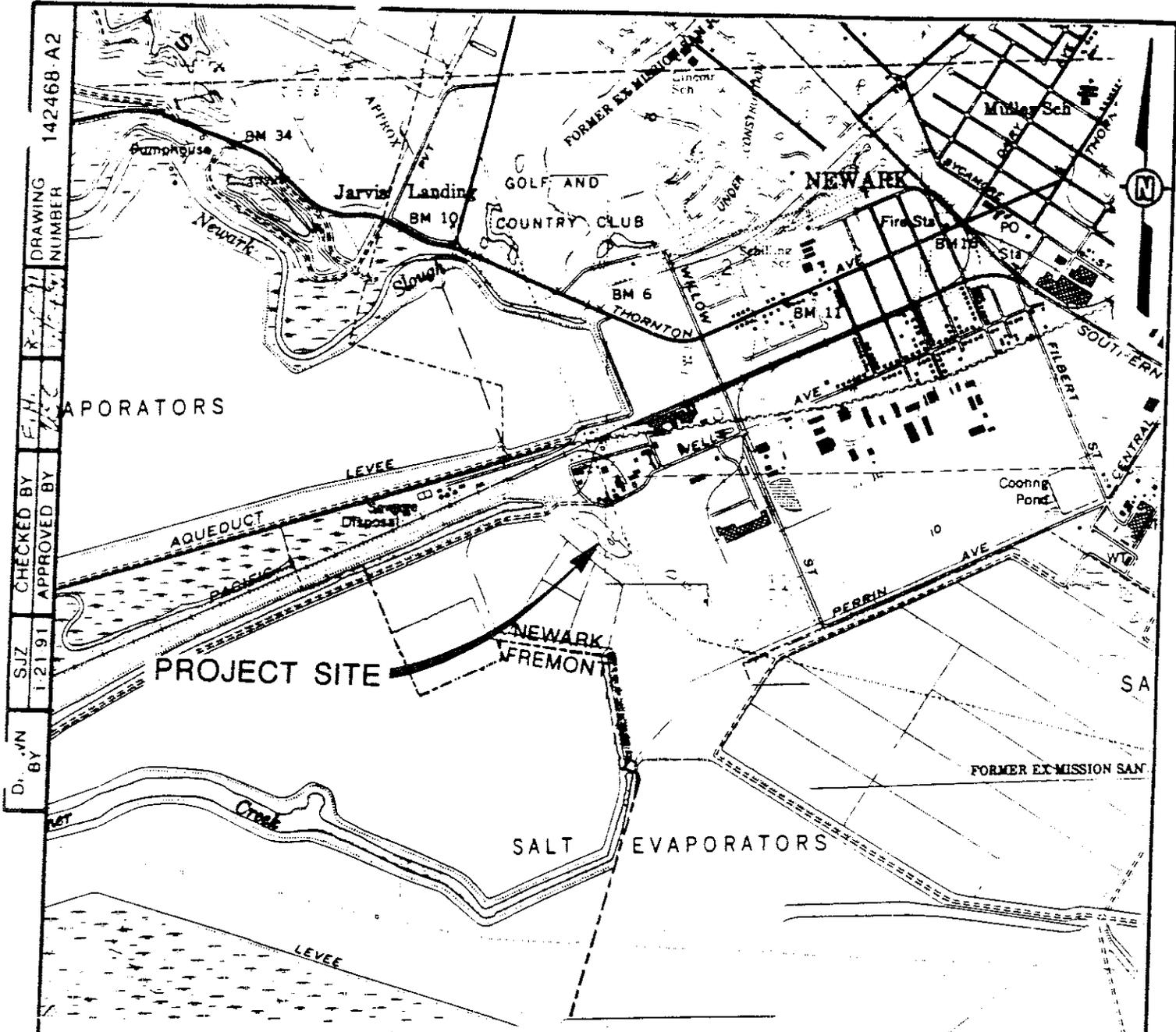
2.  OCT. 21/91  
Sr. Project Manager, Site Mitigation Date

3.  OCT 24, 1991  
Unit Chief Date

4.  10/25/91  
Regional Section Chief Date

5.  OCT 24, 1991  
Registered Engineer/Geologist Date

C40255



DRAWING NUMBER 142468-A2  
 CHECKED BY E.H.  
 APPROVED BY [Signature]  
 SJZ 1-21-91  
 D. VN BY



FIGURE 2  
 SITE VICINITY MAP  
 MAGNESIA WASTE PILE SITE

PREPARED FOR  
 LESLIE SALT/FMC  
 NEWARK CALIFORNIA

REFERENCE  
 USGS 7.5 TOPOGRAPHIC QUADRANGE OF NEWARK CA  
 DATED 1959 PHOTOREVISED 1980 SCALE: 1:24 000

Phase II  
Cargill Site  
June 19, 2001

Complete  
Copy

---

(based on Ph I dated Oct. 1998)

**PHASE II SOIL AND  
GROUNDWATER INVESTIGATION  
PROPOSED OHLONE COLLEGE CAMPUS  
AREA 2  
Newark, California**

**City of Newark  
Newark, California**

**19 June 2001  
Project No. 3085.01**

# Treadwell&Rollo

19 June 2001  
Project 3085.01

Mr. Jim Reese  
Community Development Director  
37101 Newark Boulevard  
Newark, California 94028-7592

Subject: Phase II Soil and Groundwater Investigation at Area 2  
Newark, California 94560-3796

Dear Mr. Reese:

Our Phase II Soil and Groundwater Investigation report for the Cargill Salt Area 2 property located in Newark, California is attached.

Our scope of services for this project included completing a Phase II Soil and Groundwater Investigation at the site in accordance with our proposal with the City of Newark, dated 7 December 2000, and our additional sampling proposal dated 9 May 2001. All proposed work was approved prior to execution. In performing this site investigation, we have endeavored to observe that degree of care and skill generally exercised by other consultants undertaking similar studies at the same time, under similar circumstances and conditions, and in the same geographical area.

We appreciate the opportunity of assisting you with this project.

If you have any questions, please contact us.

Sincerely yours,  
TREADWELL & ROLLO, INC.

  
David G. Dixon, R.G.  
Senior Project Manager



  
Philip G. Smith, REA II  
Principal Geologist

30850102.JDG

Attachment

---

**PHASE II SOIL AND  
GROUNDWATER INVESTIGATION  
PROPOSED OHLONE COLLEGE CAMPUS  
AREA 2  
Newark, California**

**City of Newark  
Newark, California**

**19 June 2001  
Project No. 3085.01**

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**PHASE II SOIL AND GROUNDWATER INVESTIGATION  
Proposed Ohlone College Campus  
Area 2  
Newark, California**

## **EXECUTIVE SUMMARY**

Treadwell & Rollo, Inc. (Treadwell & Rollo) completed a soil and groundwater investigation for the City of Newark at the proposed Ohlone Community College campus, in Area 2, Newark, California (Project Site). Treadwell & Rollo previously prepared an October 1998 report titled *Hazardous Materials and Geotechnical Evaluation* (Treadwell & Rollo, 1998) which identified potential and recognized environmental conditions at the site. The October 1998 report was prepared for the City of Newark as part of the Specific Plan study for the area. This investigation was designed to address hazardous materials identified in the October 1998 report. To assess the possible presence of hazardous materials at the site we completed the following tasks: 1) reviewed the site history and previous investigations conducted at the site, 2) collected grab groundwater samples from the site for chemical analysis, 3) collected surface soil samples, in the areas of the pistol range and the former skeet shooting range, for chemical analysis, 4) evaluated groundwater and soil chemical results, and 5) estimated potential impacted soil excavation volumes.

Results of our assessment indicate the following:

- Groundwater at the project site has been found in two distinct water-bearing zones, the shallow zone, extending from about 2 to 20 feet below ground surface (bgs), and the Newark aquifer, extending from approximately 50 to 70 feet bgs. The two water-bearing zones are separated by the approximately 30-foot thick Newark aquitard (FMC, 2001a).
- Groundwater at two sampling locations of the project site had detectable concentrations of volatile organic compounds (VOCs).

- Polycyclic aromatic hydrocarbons (PAHs) and total lead were found at concentrations exceeding industrial Preliminary Remedial Goals (PRGs), established by the Environmental Protection Agency (EPA), in shallow soil in the vicinity of the former skeet shooting range and in the soil and debris stockpiles. In some areas total and soluble concentrations of lead exceed state and federal hazardous waste criteria.
- Total lead concentrations exceeded industrial PRGs in shallow soil samples taken from the pistol range berm. Total lead concentrations in the berm area exceed state hazardous waste criteria.
- Because lead contamination is limited to the shallow soil at the skeet and pistol ranges, we recommend soil excavation and removal as the most economical and effective remedial method. Estimated soil excavation volumes are presented in this report.

## 1.0 INTRODUCTION AND BACKGROUND

This report presents the results of our Phase II Soil and Groundwater Investigation (investigation) for the proposed Ohlone Community College campus in Newark, California (Project Site) (Figure 1). The project site is comprised of a portion of Area 2, owned by Cargill Salt. The 63-acre project site is bounded by Hickory Street to the east, the former FMC Corporation (FMC) land to the north, brine retention ponds to the west and portions of the Don Edwards San Francisco Bay National Wildlife Refuge to the south (Figure 2). The City of Newark proposes to purchase the project site.

The following sections describe the significant environmental issues identified in the 1998 Treadwell & Rollo report.

### 1.1 Magnesite Pile

From 1929 to 1969, FMC disposed of waste materials, including unrecoverable magnesite, dolomite, and gypsum by-product at the magnesite waste pile located in the northern portion of the project site (Figure 2). The magnesite waste pile, reportedly comprised of up to several

hundred thousand cubic yards of magnesia waste material, is known to be corrosive, but has been classified as non-hazardous by the Department of Toxic Substances Control (Spangle Associates, 1998). FMC and Cargill began removing the material and disposing of it at a landfill in September 1998. The City of Newark Fire Department Hazardous Materials (NFD) coordinator reviewed the removal action and subsequent soil sampling and analyses to confirm that all hazardous materials were removed (Treadwell & Rollo, 2001).

According to FMC approximately 140,000 cubic yards of magnesia materials were removed in 1998 and 1999. The materials were reused at Waste Management Inc. at their Altamont and Tri-City landfills. On 16 November 2000 Miguel Trujillo, Hazardous Materials Specialist, of NFD issued a letter to FMC stating that removal actions at the magnesia pile were complete (Appendix A) (City of Newark, 2000).

## 1.2 Pistol and Former Skeet Shooting Ranges

The Newark Sportsman Club (club) leased a portion of the project site starting in 1969 and the lease was carried through May 1995. During this time the Newark Sportsman Club used a portion of the site, shown of Figure 2, as a skeet shooting range. In April 1994, the Regional Water Quality Control Board (RWQCB), San Francisco Bay Region issued order number 94-096 requiring the potential lead contamination be investigated by the club and a remedial action plan be developed and implemented. Due to lack of compliance with the RWQCB's letter the club's tenancy at the site expired on May 31, 1995. The extent of potential lead contamination around the former club location was not evaluated

The former club site was subsequently rented by the Witmer-Tyson Police Dog School and the Menlo Park Schutzhund Club, both German shepherd training facilities. Various Bay Area police departments as well as private dog trainers utilize the facility. According to long-time occupants of the dog training facility, surficial soil and debris (i.e. lead shot and clay pigeons) located west-southwest of the clubhouse had been excavated and stockpiled. Depth of this excavation was estimated to be approximately 0.5 feet bgs. Imported soil, comprised mostly of

clay, was imported from an adjacent area to the south and a pad was developed to train the dogs on. The surface of the imported pad lies approximately 0.5 feet above the original ground surface. The locations of the imported pad and the soil and debris stockpiles are shown in Figure 3.

The City of Newark has leased a portion of the project site north of the former skeet shooting range since July 1975. The City of Newark has and continues to use the property as a pistol firing range for local police departments. The pistol range consists of five firing areas and a soil berm with five target areas. The soil berm lies between two serpentinite rock outcrops and extends approximately 15 feet above ground surface. **No previous investigations have been conducted at the pistol range to evaluate potential lead contamination.**

### **1.3 4-Parties Groundwater Plume**

Several phases of soil and groundwater investigations and remediation have been completed by others at properties adjacent to the project site. A regional groundwater contamination plume, which has affected the shallow aquifer at properties to the north and west, has been identified by the RWQCB. Four offsite facilities (Ashland Chemical, FMC Corporation, Romic Chemical, and Jones-Hamilton) have been named by the RWQCB as the responsible parties and are referred to as the "4-Parties". The shallow aquifer at these facilities plus portions of the aquifer at the Cargill and Turian parcels (Figure 2) is affected predominantly with pentachlorophenol and 1,2-dichloroethane (1,2-DCA). Additionally, relatively low concentrations of 1,2-DCA have been found in some areas of the deeper Newark Aquifer. Each of the 4-Parties sites is currently operating a groundwater remediation system, and conducting quarterly groundwater monitoring. The western edge of the 4-Parties plume extends into the northern portion of the project site where it is monitored by seven groundwater wells (B-26, B-27, B-28, B-30, W-21, W-22, and W-25). Figure 2 shows the monitoring well locations and Table 1 summarizes the analytical results of recent samples collected from the wells.

## 1.4 Asbestos Containing Serpentine

Serpentine rock is present at the outcrops by the pistol range, and reportedly below the former magnesia pile location. Serpentine has naturally occurring concentrations of asbestos, and occasionally nickel and chromium, which can exceed hazardous waste criteria. These naturally occurring substances are not regulated as a hazard if left in place. If the proposed development requires that the serpentine outcrops be removed, the material could be managed as non-hazardous fill if left onsite and managed appropriately. Offsite disposal would require sampling and characterization as a potentially hazardous waste.

## 2.0 PURPOSE AND SCOPE OF SERVICES

The purpose of this investigation was to evaluate environmental issues identified in Treadwell & Rollo's October 1998 report for the project site (Treadwell & Rollo, 1998). These environmental issues include potential lead and PAH contamination at the pistol and skeet shooting ranges, contaminated groundwater from the 4-Parties plume, magnesia pile residue, and asbestos-containing serpentine bedrock outcrops near the shooting ranges and below the former magnesia pile location. In order to address these issues we established baseline groundwater quality levels at the project site and sampled and analyzed soil around the former shooting ranges. This investigation was performed to determine if remedial measures may be required at the project site, and to provide data to develop and implement appropriate soil and groundwater management procedures for potential site development. The scope of work for this assessment included:

- Reviewing soil and groundwater data collected by others
- Collecting groundwater samples from 5 borings for chemical analyses to evaluate water quality;
- Collecting 215 soil samples from 118 locations for chemical analyses to evaluate soil quality in the area of the former firing ranges.

- Reviewing soil and groundwater conditions and chemical analytical results to develop recommendations for soil remediation, evaluate soil and groundwater management procedures for potential site development, and make recommendations for additional work if required;
- Preparing this report.

### 3.0 GEOLOGY AND HYDROGEOLOGY

#### Geology

Ground surface elevations at the project site vary from about 4 to 10 feet above mean sea level (MSL) except at the serpentine outcrops at the former magnesia waste pile and pistol range which reach approximately 40 and 20 feet above MSL, respectively. According to investigations conducted in the vicinity of the project site, the native surface clay/silt is underlain by loose to medium dense silty sand/sand approximately 8 to 12 feet thick. The sand beneath some portions of the site is underlain by soft to medium stiff clay known as Bay Mud. The Bay Mud at the site is about 2 to 9 feet thick. Below the Bay Mud or sand are interbedded layers of medium stiff to hard silt and clay and medium dense to very dense sand with gravel. These soils extend to the maximum depths explored (about 51 feet).

The serpentine outcrops are southerly outliers of a north-south trending chain of outcrops known as the Coyote Hills (Geosystem, 1997). The alluvium in this area is reported to be up to 350 feet deep and rests atop Franciscan Formation bedrock.

#### Hydrogeology

Groundwater was reportedly encountered during previous geotechnical and environmental investigations at the site and vicinity at depths ranging from 3 to 9 feet bgs. Periodic fluctuations in groundwater elevations may occur because of natural processes such as the infiltration of rainfall and tidal influences within the Bay.

A shallow aquifer at the site vicinity has been reported to extend from approximately 3 to 20 feet bgs and consists of silty clay and clayey sand. The Newark Aquifer, comprised of interbedded sand and silt layers extends from approximately 50 to 70 feet bgs and is separated from the shallow aquifer by the 30 foot thick Newark Aquitard.

Based on previous investigations that we have reviewed and the regional topography, we estimate that groundwater flow direction over most of the site is likely west towards San Francisco Bay, and in the northern portion of the site likely shifts northwesterly towards the Newark Slough drainage area. There are local variations in the groundwater flow direction in the vicinity of the Jones Hamilton, Romic, Ashland, and FMC facilities (Figure 2) caused by the groundwater extraction systems operating at these facilities. These systems are designed to: (1) depress the groundwater elevation of the shallow aquifer at each facility to prevent offsite migration of contaminants; (2) to recapture some contaminants that have migrated just offsite, and; (3) to extract and treat contaminated groundwater in activated carbon filtration systems prior to discharge to the sanitary sewer (Treadwell & Rollo, 1998).

### Groundwater Usage

Other than the groundwater remediation operations described above, there is no evidence of groundwater use at the site or vicinity.

## **4.0 PHASE II SOIL AND GROUNDWATER INVESTIGATION**

The soil and groundwater sampling and analysis program was formulated to assess the potential presence of VOCs and petroleum hydrocarbons in groundwater and to characterize potential shallow soil contamination at the pistol and skeet shooting ranges.

The sampling program included the following tasks:

- Contacted Underground Services Alert (USA) to help establish the approximate location of subsurface utilities within the area to be explored;

- Performed a subsurface survey by California Utility Surveys, an underground utility locator, to clear each boring location for underground utilities;
- Collected hydropunch groundwater samples from five borings and submitted them to an analytical laboratory to be analyzed for Total Petroleum Hydrocarbons (TPH) as gasoline (TPHg), diesel (TPHd) and motor oil (TPHmo) by EPA Method 8015M and volatile organic compounds (VOCs) by EPA Method 8260, as detailed in Table 2; and
- Collected 215 soil samples from 118 sampling locations and submitted them to an analytical laboratory where selected samples were analyzed for total lead, total copper, and/or PAHs as detailed in Tables 3 and 4;

#### **4.1 Groundwater Investigation**

In order to establish baseline groundwater quality characteristics, five sample locations were selected by Treadwell & Rollo to provide spatial coverage of areas previously not investigated across the site. On March 15, 2001, Vironex Inc. (Vironex), of San Leandro, California, used a Geoprobe 5400 drill rig utilizing direct-push sampling technology to collect 5 grab groundwater samples from locations across the site (Figure 2). Groundwater samples at locations GW-1, GW-3, GW-4, and GW-5 were collected by pushing a solid two-inch casing to a depth of eight feet below ground surface (bgs) then placing a new, clean 1-inch diameter screened section of polyvinyl chloride (PVC) casing into the open borehole. Once the casing was in place new, disposable bailer was used to collect the sample volume to be analyzed for VOCs. Groundwater collected in the bailer was immediately transferred into appropriate laboratory-supplied containers for analysis. A peristaltic pump with new, clean polyethylene tubing was used to pump groundwater from the PVC casing directly into the appropriate laboratory-supplied containers for TPHg, TPHd and TPHmo analysis. The sample containers were sealed, labeled, and placed in a cooler with ice (water-based) and maintained at an EPA prescribed temperature of 4 degrees Celsius until delivery to McCampbell Analytical, Inc. (McCampbell), a California certified analytical laboratory, of Pacheco, California. Groundwater samples were labeled

according to the boring from which they were collected (i.e. groundwater sample GW-1 was collected from boring GW-1).

## 4.2 Soil Investigation

On 21-23 March 2001, Treadwell & Rollo collected surface and shallow soil samples at the pistol range and the skeet shooting range and its associated soil and debris stockpiles. On March 21, 2001, a surveyed sampling grid, consisting of rows A through F (Figure 3), was established with equidistant sampling points placed on 75-foot centers in the area of the former skeet shooting range. A second grid, on 50-foot centers, in the area of the pistol range was established and sampled on 23 March 2001. The sampling grids were set up to evaluate lead contamination up to 360 feet away from the historic firing areas. In addition to the sampling grids, five stockpile sampling locations were identified at four stockpiles located in the area of the former skeet shooting range (Figure 3). The stockpiles appeared to be a mixture of soil and clay pigeon debris.

Due to elevated levels of lead in the F row of samples, Treadwell & Rollo returned to the site on three additional occasions, 12 April, 7 May and 17 May 2001, to expand the sampling grid at the former skeet shooting range and collect additional samples. Additional rows were added to the sampling grid (i.e. rows G through N) and additional samples were collected in an effort to characterize lead contamination extending westward across the subject site. Lead shot and shotgun shells were observed in the H row area (Figure 3), which indicates skeet shooting may have been taking place up to 400 feet west of the historic shooting area.

One hundred and eighteen sampling locations were established in the areas of the former shooting ranges and debris and soil stockpiles. Two hundred and fifteen surface soil samples were collected using a hand auger, a slide hammer with a 2-inch sampling spoon or a sampling trowel. At the desired sampling location a clean hand auger was used to remove any surface vegetation from the sampling location. Once the sampling location was clear of vegetation, a decontaminated slide hammer or sampling trowel was used to sample surface soil within the

interval of 0 to 0.5 feet below ground surface (bgs). All deeper samples, 0.5 to 1.0 feet bgs, 1.0 to 1.5 feet bgs, and 1.5 to 2.0 feet bgs were collected with the slide hammer. When sampling with the slide hammer, soil samples were collected in 2-inch diameter by 6-inch long stainless, steel sampling tubes. Following collection, sample tubes were immediately covered with Teflon™ sheets, capped with tight-fitting plastic end caps, labeled, sealed in plastic bags, then placed in an ice-cooled chest until delivery to the analytical laboratory. When sampling with the sampling trowel, soil samples were transferred with a decontaminated sampling trowel directly into a laboratory-supplied 4-ounce glass-sampling jar with a Teflon lined cap. Glass sampling jars were immediately capped, labeled, sealed in plastic bags, then placed in an ice-cooled chest until delivery to the analytical laboratory. Soil samples were labeled according to their location and depth (i.e. soil collected from location A1 at the intervals 0 to 0.5 and 0.5 to 1.0 feet bgs were labeled A1-0.5 and A1-1.0, respectively). All soil sampling equipment was decontaminated by scrubbing with an Alconox™ detergent solution and triple-rinsing it with potable water prior to sampling.

#### **4.2.1 Skeet Shooting Range**

A surface soil sampling grid, comprised of 94 sample locations on 75 foot centers, was laid out to provide spatial coverage of the former skeet shooting range and delineate lead and PAH contamination associated with former skeet shooting activities. The surface soil grid was plotted using land-surveying equipment. Shallow soil was collected from each of the locations and selected samples were analyzed for total lead, soluble lead, total copper and/or PAHs.

#### **4.2.2 Pistol Range**

Nineteen surface soil sample locations were laid out to provide spatial coverage of the pistol range. Seven sampling locations were established within the pistol range berm (PR1 through PR7) and seven locations were placed within the firing area (PR8 through PR14). Due to the presence of lead bullets on the surface, only 1-foot samples were collected from the sample locations associated with the berm. The remaining five locations (D9, D10, E9, E10, and F11)

were selected to delineate lead contamination outside of the pistol range. The surface soil grid was plotted using land-surveying equipment. Surface soil was collected from each of the 19 locations and selected samples were analyzed for total lead and/or total copper.

### **4.2.3 Soil and Debris Stockpiles**

Five stockpile sampling locations were selected from the four soil and clay pigeon stockpiles located in the area of the former skeet shooting range during this investigation. The stockpile locations, contents and sampling locations are described in Figure 3. Sample depths of corresponding samples relate to depth from the surface of the pile at the sampling location (i.e. stockpile sample SP1-1.0 was taken from Stockpile 1 at a depth of 1.0 foot from the surface). The locations of soil and debris Stockpiles 1 and 3, as described in Figure 2, has changed since the sampling of these stockpiles took place in March 2001. Stockpiles 1 and 3 appear to have been graded together in the area of former Stockpile 3.

## **5.0 CHEMICAL ANALYTICAL PROGRAM AND RESULTS**

Following is a summary of soil and groundwater sample analytical results by types of compounds. Within each section is a data comparison with applicable regulatory action levels such as MCLs and residential PRGs, established by the United States EPA Region 9 as a conservative cleanup number for residential sites. The analytical laboratory reports are provided in Appendix B.

The groundwater samples were submitted to McCambell for chemical analysis on 16 March 2001 using chain of custody protocols. Table 2 summarizes the chemical analytical results for the five groundwater samples. The following analytical program was implemented to assess the presence of VOCs and petroleum hydrocarbons in the groundwater based on the site history and previous groundwater sampling results at the project site and adjacent sites.

Groundwater samples were analyzed for the following compounds:

- TPHg, TPHd, and TPHmo by EPA Method 8015M and;
- VOCs by EPA Method 8260; including benzene, toluene, ethylbenzene and xylenes (BTEX) compounds.

Soil samples were submitted to McCambell for chemical analysis on 26 March, 13 April, 8 May, and 18 May 2001. Tables 3 and 4 summarize the chemical analytical results for the 163 surface soil and stockpile samples analyzed. The following analytical program was implemented to assess the presence of hazardous materials in the soil based on the site history.

- PAHs by EPA Method 8270
- Total lead and total copper by EPA Method 6010
- Soluble lead by EPA Method 1311 using the Synthetic Precipitation Leachate Procedure (SPLP)
- Soluble lead by EPA Method 1310 using the Federal Toxicity Characteristic Leaching Potential (TCLP) analysis

## 5.1 Groundwater Analytical Results

Groundwater sample GW-1, located in the eastern central portion of the project site, did not contain detectable concentrations of petroleum hydrocarbons or VOCs. The following sections describe the petroleum hydrocarbons and VOC detected in the other samples. A complete list of groundwater analytical results can be found in Table 2.

### 5.1.1 Petroleum Hydrocarbons in Groundwater

TPHg was detected in groundwater samples GW-2 and GW-4 at concentrations of 63 and 50 micrograms per liter ( $\mu\text{g/L}$ ), respectively. TPHd concentrations were 93 and 1,800  $\mu\text{g/L}$  in

samples GW-4 and GW-5, respectively. TPHmo was detected at 330 µg/L in groundwater sample GW-3 and at 4,500 µg/L in sample GW-5.

Benzene, toluene, and total xylenes were detected in groundwater sample GW-4 at concentrations of 2.4, 1.9, and 0.68 µg/L, respectively. Benzene was detected above its MCL of 1.0 µg/L in groundwater sample GW-4. GW-2 contained 1.9 µg/L of ethylbenzene and 14 µg/L of xylenes. No other TPHg, TPHd, TPHmo or BTEX compounds were detected above laboratory reporting limits in other samples.

## 5.1.2 VOCs in Groundwater

Chlorinated solvents and related compounds were detected in samples GW-2 and GW-3. GW-3 contained carbon tetrachloride and chloroform concentrations of 1.9 µg/L and 5.1 µg/L respectively. The concentration of carbon tetrachloride in GW-3, 1.9 µg/L, exceeded its respective MCL of 0.5 µg/L. GW-3 is located in the northeastern portion of the site along the western edge of the 4-Parties Plume, and concentrations are similar to those detected in monitoring wells in this portion of the project site.

GW-2 contained concentrations of carbon tetrachloride, chloroform, 1,1-dichloroethane, 1,2-dichloroethane, and 1,1-dichloroethene, were detected in groundwater sample GW-2 at concentrations of 6.2, 17, 2.5, 18, and 1.1, µg/L, respectively. Detected concentrations of carbon tetrachloride exceeded its respective MCL of 0.5 µg/L. The detected concentration of 1,2-dichloroethane in GW-2, 18 µg/L, exceeded its respective MCL of 0.5 µg/L. GW-2 is located in the southeastern portion of the site in an area where no known use of chlorinated hydrocarbons have occurred.

## **5.2 Skeet Shooting Range Analytical Results**

### **5.2.1 Lead and Copper Analyses**

There are 94 sampling locations associated with the skeet shooting range and 184 samples were collected at these locations. The general analytical rationale was that all surface samples were initially analyzed, and deeper samples were analyzed if the corresponding surface sample contained total lead concentrations greater than the residential PRG of 400 milligrams per kilogram (mg/kg). Samples collected but not initially analyzed were submitted to the laboratory and placed on hold. Consequently, 139 samples were analyzed for lead and selected ones were also analyzed for total copper and/or PAHs. Table 3 summarizes the analytical results for lead and copper in soil.

Of the 134 samples analyzed for total lead, all of them had concentrations above laboratory detection limits. Twenty-seven of the samples analyzed had detected levels of total lead exceeding the EPA's November 2000 residential PRG of 400 mg/kg for lead. These samples had concentrations ranging from 460 mg/kg in sample H4-1.0 to 24,000 mg/kg in sample F4-0.5. The remaining 107 samples had total lead concentrations ranging from 4.7 to 390 mg/kg in samples.

Soil samples F1-0.5, F4-1.0, F5-1.0, and F6-1.0, were analyzed for soluble lead by the SPLP method to help evaluate lead leaching potential in soil. Samples F4-1.0, F5-1.0, and F6-1.0, which were collected directly below samples with high total lead concentrations, did not contain soluble lead above laboratory reporting limits. Sample F1-0.5, which contained a total lead concentration just below the residential PRG (390 mg/kg), had a soluble lead concentration of 1.6 mg/L.

Soil samples H2-0.5, H2-1.0, H3-0.5, and H3-1.0, with high total lead concentrations were analyzed for soluble lead by the TCLP method for waste characterization purposes.

Concentrations of TCLP soluble lead ranged from 0.36 to 58 mg/L in soil samples H3-1.0 and

H2-1.0, respectively. Soil samples H2-0.5 and H3-0.5 each had TCLP soluble lead concentrations of 3.9 mg/L.

Five samples, B2-0.5, B2-1.0, B4-0.5, B4-1.0, and B5-0.5, from the skeet shooting range were analyzed for total copper to evaluate possible soil contamination from copper shell casings. Total copper was detected in all samples at concentrations ranging from 24 to 33 mg/kg. Total copper did not exceed its residential PRG of 2,900 mg/kg in any of the skeet shooting range samples for which it was analyzed.

## 5.2.2 PAH Analyses

Twenty-one soil samples within the skeet shooting range were analyzed for PAHs. Three of these samples, E5-1.5, E6-1.5, and E7-0.5, had levels of PAHs above laboratory reporting limits. Sample locations E5, E6, and E7 are located in the area of Stockpile 4 (Figure 3).

Benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, benzo(a)pyrene, chrysene, fluoranthene, and ideno(1,2,3-cd)pyrene were detected in sample E5-1.5 at concentrations ranging from 52 to 100 mg/kg, and in sample E6-1.5 at concentrations ranging from 84 to 130 mg/kg. Pyrene was detected in samples E5-1.5, E6-1.5, and E7-0.5 at concentrations of 80, 130, and 40 mg/kg, respectively. All samples with detectable concentrations of PAHs had some PAHs which exceeded residential PRGs. No other PAHs were detected in any of the other samples analyzed. Table 4 summarizes analytical results for PAHs in soil.

## 5.3 Pistol Range Analytical Results

There are 19 sampling locations associated with the pistol range. The same rationale for selecting samples for analyses used at the skeet shooting range was used at the pistol range. The one exception is that visible lead bullets were present in the soil berm behind the target area, and only deeper samples were collected. Eighteen surface soil samples were analyzed for total lead and/or total copper (Figure 3). Samples collected but not analyzed were submitted to the laboratory and

placed on hold pending analytical results. Table 3 summarizes the analytical results for lead and copper in soil.

Total lead was detected in all 18 soil samples analyzed. Of the samples collected at 1-foot bgs in the berm (PR1 through PR7) all but two exceeded the residential PRG for lead of 400 mg/kg. Soil samples PR1-1.0 and PR3-1.0 each had lead concentrations of 2,200 mg/kg. Samples PR5-1.0, PR6-1.0, and PR7-1.0 had lead concentrations of 670, 11,000, and 5,900 mg/kg, respectively. Lead was detected below residential PRGs in samples PR2-1.0 and PR4-1.0 at concentrations of 370 and 290 mg/kg, respectively. Surface soil samples collected from the firing area had concentrations of lead ranging from 8 to 190 mg/kg in samples PR10-0.5 and PR8-0.5, respectively. The outlying soil samples, located west of the berm had lead concentrations ranging from 14 to 180 mg/kg in samples D9-0.5 and D10-0.5, respectively. No samples collected from the firing area or the outlying areas had lead concentrations in excess of the residential PRG.

All samples collected in the berm and firing areas were analyzed for total copper. Copper was detected in the berm at concentrations ranging from 20 to 270 mg/kg in samples PR4-1.0 and PR6-1.0, respectively. Total copper was detected in the firing area samples at concentrations ranging from 28 to 44 mg/kg in samples PR11-0.5 and PR14-0.5, respectively. Total copper did not exceed its residential PRG of 2,900 mg/kg in any of the pistol range samples for which it was analyzed.

#### **5.4 Stockpile Samples Analytical Results**

Five samples were collected from the four soil and clay pigeon debris stockpiles located in the area of the former skeet shooting range and analyzed for total lead and PAHs. (Figure 3). Total lead concentrations ranged from 13 to 360 mg/kg, below the residential PRG of 400 mg/kg. PAHs were not detected in samples SP3-1.0, SP4-0.5, EP-0.5 and EP-1.0 above the laboratory reporting limit. Table 4 summarizes analytical results for PAHs in soil.

Stockpile samples SP1-1.0 and SP2-0.5 contained PAH concentrations exceeding their respective residential PRGs. Seven PAHs, benzo(a)anthracene benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(g,h,i)perylene, fluoranthene Indeno(1,2,3-cd)pyrene and pyrene, were detected in both samples at concentrations ranging from 200 to 420 mg/kg.

Samples E5-1.5 and E6-1.5, located within the Stockpile 4 area, had detected levels of PAHs exceeding their respective PRGs. Concentrations of PAHs detected in samples E5-1.5 and E6-1.5 are detailed in Section 6.2 of this report.

## **6.0 FINDINGS AND RECOMMENDATIONS**

### **6.1 Magnesite Pile**

Remediation operations conducted by FMC included the removal and disposal of an estimated 140,000 cubic yards of magnesite waste materials. On 16 November 2000, the NFD issued a letter to FMC stating that removal actions at the magnesite pile were complete (Appendix A) (City of Newark, 2000). During our site visit we observed that small, scattered piles of the white magnesite waste were still present in some areas, amounting to approximately 500 to 1,000 cubic yards. This residual waste will likely need to be removed for site development.

### **6.2 Groundwater**

According to the RWQCB, groundwater cleanup concentrations for areas impacted by the 4-Parties Plume will be maximum contaminate levels (MCLs) for drinking water. Groundwater extraction and treatment is currently being performed at facilities adjacent to the project site to address groundwater contamination.

The quarterly groundwater monitoring being conducted for the 4-Parties groundwater plume, and our groundwater investigation, confirm that the western edge of the 4-Parties Plume extends on to the northeastern portion of the project site. During recent monitoring, VOC concentrations in the plume on the project site exceeded MCLs for 6 chemicals (Figure 2 and Tables 1 and 2). This

includes EDB along the northern edge of the site adjacent to the FMC facilities groundwater extraction system for EDB.

Chlorinated solvents and related compounds were detected in sample GW-2 located in the southeastern corner of the site. GW-2 contained carbon tetrachloride and 1,2-dichloroethane concentrations exceeding their respective MCLs. The contaminants detected at this location indicate that a release of chlorinated solvents has occurred east of the site in the upgradient direction. On the basis of sample GW-2's location and a review of monitoring reports for the 4-Parties Plume, the VOCs detected likely originate from a currently unidentified source to the east.

Relatively low concentrations of petroleum hydrocarbons have been detected in groundwater at three locations at the site (Figure 2 and Table 2). We do not believe that the concentrations are high enough to warrant further investigation.

### **6.3 Skeet and Pistol Range**

Significant concentrations of lead have been found around the former skeet and pistol range, with concentrations exceeding California and federal hazardous criteria in some areas (Figure 4 and Table 3). Because of the limited vertical extent of contamination, we recommend excavation and removal as the most economical and effective remedial method. This method can include limited onsite treatment such as sieving to remove lead bullets. We also recommend using the US EPA's residential PRG of 400 mg/kg for lead as the cleanup criteria for remedial actions at the former skeet and pistol range. This is a conservative cleanup criteria that should allow unrestricted use of these areas.

We have prepared volume estimates for soil with lead exceeding residential PRGs. Our assumptions and calculations are presented in Section 7.0, and our volume estimates are summarized below:

- Approximately 4,600 tons of soil in the area of the former skeet shooting range contain concentrations of lead exceeding residential PRGs (Figure 4 and Table 5).
- Approximately 405 tons of soil, contained in the pistol range berm is contaminated with concentrations of lead exceeding the residential PRG (Table 6).

Three soil and clay pigeon debris stockpiles are present at the skeet range. Stockpiles 1, 2 and 4 (Figure 3) contain PAHs exceeding residential PRGs. Because levels of PAHs were detected above residential PRGs in Stockpile 1 but not Stockpile 3, and Stockpile 1 and 3 were graded together after our sampling, additional sampling of the graded stockpiles should be conducted prior to determining final disposal volumes. In addition, Stockpile 4 had varying levels of PAHs detected throughout. Prior to excavation the four stockpiles should be segregated into like materials and composite samples collected and analyzed in an effort to reduce disposal volumes and costs. We have prepared volume estimates for soil with PAHs and/or lead exceeding residential PRGs. Our assumptions and calculations are presented in Section 7.0, and our volume estimate is summarized below:

- Approximately 1,665 tons of soil associated with the soil and clay pigeon debris stockpiles, Stockpiles 1, 2, and 4, contain PAHs exceeding their respective residential PRGs (Table 7).

A Soil Mitigation Plan (SMP) should be prepared prior to site development that details proper soil handling, characterization and disposal procedures. The SMP will also outline worker health and safety requirements for the excavation tasks. A detailed health and safety plan should be prepared by the site contractor to implement during excavation tasks.

## **6.4 Asbestos Containing Serpentinite**

Serpentinite rock is present at the outcrops by the pistol range, and reportedly below the former magnesia pile location. Serpentinite has naturally occurring concentrations of asbestos, and occasionally nickel and chromium, which can exceed hazardous waste criteria. These naturally occurring substances are not regulated as a hazard if left in place.

If the proposed development requires that the serpentinite outcrops be removed, the material could be managed as non-hazardous fill if left onsite. Generally, serpentinite derived fill material should be covered with other fill or pavement to prevent potential release of asbestos fibers. Since proposed development would involve raising the site 1 to 3 feet, this is a likely way to deal with this material. Offsite disposal would require sampling and characterization as a potentially hazardous waste.

The serpentinite derived fill handling requirements should be addressed in the SMP. We do not recommend that sampling and characterization be performed on the serpentine until the site development plans are known.

## **7.0 POTENTIAL SOIL EXCAVATION VOLUMES**

The following volume calculations are approximate and based on the results of our surface soil sampling and field observations. Confirmation sampling should be conducted after all the excavations have been completed, to determine the effectiveness of the removal action.

### **7.1 Skeet Shooting Range Excavation Volumes**

Using the surface soil sampling grid and the analytical results collected at the former skeet shooting range, potential excavation areas were plotted and volumes of soil determined (Figure 4). The surface soil sampling grid was broken into cells, 75 feet wide by 75 feet long, with each sample location situated in the center of the cell. Each cell takes the name of the sampling location from which it is centered on. Sample locations with concentrations of lead

exceeding the residential PRG of 400 mg/kg were grouped by depth of lead contamination and plotted on Figure 4. All cells are vertically defined by the deepest detection of lead above its residential PRGs. For example, sample location H4 had lead concentrations of 4,200, 460, and 200 mg/kg at 0.5, 1.0, and 2.0 feet bgs, respectively. Lead, at location H4, was detected above the residential PRG in the 0.5 and 1.0 samples; therefore, the cell H4 is 1 foot deep. The corresponding cell H4 is a 75-foot wide by 75-foot long square with a depth of 1.0 feet bgs. The corresponding cell volume and weight is described in Table 5.

Table 5 describes cell locations, depth of the cells, surface area of the cells, the volume and the total tons of soil associated with each cell. The totals of these calculations are summed at the bottom of Table 5. The weight of soils, exceeding residential PRGs, to be excavated from the former skeet shooting range is approximately 4,600 tons.

## **7.2 Pistol Range Excavation Volumes**

Based on analytical results and sample locations, the amount of contaminated soil, with concentrations exceeding residential PRGs, present within the berm to be excavated was calculated in Table 6. For calculating purposes, the depth of the berm to be excavated was estimated at 3 feet. The berm was estimated to be 150 feet long by 15 feet high. The weight of the berm, exceeding residential PRGs, to be removed is approximately 405 tons.

## **7.3 Stockpile Volumes**

Based on initial size observations regarding the four soil and debris stockpiles, excavation volumes and weights were calculated and are described in Table 7. Stockpile 1, prior to being regraded, was approximately 20 feet long by 15 feet wide by 5 feet high. The estimated tonnage for Stockpile 1 is approximately 90 tons. Stockpile 2 is approximately 25 feet long by 15 feet wide by 6 feet high. Stockpile 2 is approximately 135 tons in weight. Stockpile 3, prior to regrading, was approximately 40 feet long by 20 feet wide by 10 feet high. The former Stockpile 3 was approximately 296 cubic yards and 480 tons. Stockpile 4 extends up to 1 foot into the subsurface and rises 0.5 to 2.0 feet above ground surface. Stockpile 4 was estimated to be

160' long by 60' wide by 2.5' (average) high. Estimated tonnage for Stockpile 4 is approximately 1,440 tons.

Based on the initial stockpile analytical results Stockpiles 1, 2, and 4 contain levels of PAHs exceeding residential PRGs. Since, Stockpile 3 was graded with Stockpile 1, the weights and volumes of former Stockpiles 1 and 3 have been combined. The combined weight of Stockpiles 1, 2, 3, and 4 is approximately 2,150 tons.

## **8.0 LIMITATIONS**

Activities undertaken as part of this assessment were conducted on behalf of the City of Newark, involved in the development of the project site, and they are the only intended beneficiaries of our work. The work was performed to assess the possible presence of VOC and petroleum hydrocarbon contamination in groundwater and hazardous materials in soil at the subject site, based on the scope of services performed. No other party should rely on the information contained in this report without the written consent of Treadwell & Rollo, Inc. The findings and discussions presented in this report are professional opinions based on the specific activities conducted.

Opinions presented herein apply to site conditions existing at the time of our assessment, and cannot necessarily be taken to apply to site changes or conditions of which we are not aware and have not had the opportunity to evaluate.

The assessment did not include testing for the presence of naturally occurring environmental hazards (e.g., radon and asbestos). The assessment did not address non-chemical hazards, such as the potential for seismic hazards at the site.

## REFERENCES

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7. Spangle Associates and Jerry Haag, 1998. Draft Preliminary Reconnaissance Report, July.
8. Treadwell & Rollo Inc., 1998. Hazardous Material and Geotechnical Evaluation, Newark Specific Plan, July.
9. Treadwell & Rollo Inc., 2001. Hazardous Material and Geotechnical Evaluation, Newark Contingency Plan, April.

**TABLES**

**Table 1<sup>1</sup>**  
**Summary of Area 2 Monitoring Well Analytical Results**  
**Proposed Ohlone Community College Campus**  
**Newark, California**

| Analyte<br>Date of Sample | W-2     | W-19    | W-21    | W-22   | W-24    | W-25    | MCL     |
|---------------------------|---------|---------|---------|--------|---------|---------|---------|
|                           | 1/10/00 | 1/10/00 | 1/12/00 | 7/7/00 | 1/13/00 | 1/10/00 | 7/13/00 |
| Benzene                   | <0.5    | <0.5    | <0.5    | <0.5   | <0.5    | <0.5    | <0.5    |
| Carbon Tetrachloride      | <0.5    | <0.5    | <0.5    | <0.5   | <0.5    | <0.5    | 1       |
| Chloroform                | <0.5    | <0.5    | <0.5    | <0.5   | <0.5    | <0.5    | 0.5     |
| Ethylene Dibromide        | <0.5    | <0.5    | <0.5    | <0.5   | <0.5    | <0.5    | 80      |
| 1,1-Dichloroethane        | <0.5    | <0.5    | 1.6     | 4.4    | <0.5    | <0.5    | 0.05    |
| 1,2-Dichloroethane        | <0.5    | <0.5    | 15      | 0.79   | 40      | 45      | 5       |
| 1,1-Dichloroethene        | <0.5    | <0.5    | <0.5    | 3.1    | <0.5    | <0.5    | 0.5     |
| 1,2-Dichloropropane       | <0.5    | <0.5    | <0.5    | 1.8    | <0.5    | <0.5    | 6       |
| cis 1,2-Dichloroethene    | <0.5    | <0.5    | <0.5    | 8.4    | <0.5    | <0.5    | 5       |
| Trichloroethene           | <0.5    | <0.5    | <0.5    | 15     | 3.2     | <0.5    | 6       |
| Vinyl Chloride            | <0.5    | <0.5    | <0.5    | 11     | <0.5    | <0.5    | 5       |
|                           |         |         |         |        |         |         | 0.5     |

**Notes:**

All concentrations are in micrograms per liter (µg/L).  
MCL - Maximum Contaminant Level as specified by the US EPA.  
**Bold concentrations indicate detected levels exceeded respective MCLs.**  
ND - Not detected above laboratory limits  
<0.5 - Constituent not detected above specified laboratory limit

<sup>1</sup> - Groundwater data taken from "England Geosystem, 2001. Ground Water and Extraction Treatment System Monitoring, FMC Corporation. January."

**Table 2**  
**Summary of Groundwater Sample Analytical Results**  
**Proposed Ohlone Community College Campus**  
**Newark, California**

| Analyte                                | GW-1 | GW-2  | GW-3  | GW-4   | GW-5    | Trip Blank | MCL   |
|--|------|-------|-------|--------|---------|------------|-------|
| <b>TPH by EPA Method 8015 Modified</b> |      |       |       |        |         |            |       |
| TPH as gasoline                        | <50  | 63    | <50   | 50     | <50     | --         | NE    |
| TPH as diesel                          | <50  | <50 d | <50 g | 93 b,d | 1,800 g | --         | NE    |
| TPH as motor oil                       | <250 | <250  | 330   | <250   | 4,500   | --         | NE    |
| <b>VOCs by EPA Method 8260</b>         |      |       |       |        |         |            |       |
| Benzene                                | <0.5 | <0.5  | <0.5  | 2.4    | <0.5    | <1.0       | 1     |
| Carbon Tetrachloride                   | <1.0 | 6.2   | 1.9   | <1.0   | <1.0    | <1.0       | 0.5   |
| Chloroform                             | <1.0 | 17    | 5.1   | <1.0   | <1.0    | <1.0       | 80    |
| Ethylene Dibromide                     | <1.0 | <1.0  | <1.0  | <1.0   | <1.0    | <1.0       | 5     |
| 1,1-Dichloroethane                     | <1.0 | 2.5   | <1.0  | <1.0   | <1.0    | <1.0       | 0.5   |
| 1,2-Dichloroethane                     | <1.0 | 18    | <1.0  | <1.0   | <1.0    | <1.0       | 6     |
| 1,1-Dichloroethene                     | <1.0 | 1.1   | <1.0  | <1.0   | <1.0    | <1.0       | 300   |
| Ethylbenzene                           | <0.5 | 1.9   | <0.5  | <0.5   | <0.5    | <1.0       | 13    |
| MTBE                                   | <5.0 | <5.0  | <5.0  | <5.0   | <5.0    | --         | 150   |
| Toluene                                | <0.5 | <0.5  | <0.5  | 1.9    | <0.5    | <1.0       | 1,750 |
| Xylenes                                | <0.5 | 14    | <0.5  | 0.68   | <0.5    | <1.0       | --    |
| All other VOCs                         | ND   | ND    | ND    | ND     | ND      | ND         | --    |

**Notes:**

All concentrations are in micrograms per liter (µg/L).

MCL - Maximum Contaminant Level as specified by the US EPA.

**Bold** concentrations indicate detected levels exceeded respective MCLs.

ND - Not detected above laboratory limits

MTBE - Methyl tertiary-Butyl Ether

Laboratory notes are included in the analytical data reports.

b - diesel range compounds are significant; no recognizable pattern

d - gasoline range compounds are significant

g - oil range compounds are significant

<1.0 - Constituent not detected above specified laboratory limit

**Table 3**  
**Summary of Lead and Copper Analytical Results for Soil Samples**  
**Former Skeet Shooting Range**  
**Area 2, Newark, CA**

| Sample ID                                    | Sample Depth<br>(Feet) | Sample<br>Date | Lead<br>TTLIC Extraction<br>(mg/kg) | Lead<br>SPLP Extraction<br>(mg/L) | Lead<br>TCLP Extraction<br>(mg/L) | Total Copper<br>(mg/kg) |
|--|------------------------|----------------|-------------------------------------|-----------------------------------|-----------------------------------|-------------------------|
| <b>Shotgun Shooting Range Sample Results</b> |                        |                |                                     |                                   |                                   |                         |
| A1-0.5                                       | 0.5                    | 3/21/01        | 39                                  | NA                                | NA                                | NA                      |
| A2-0.5                                       | 0.5                    | 3/21/01        | 23                                  | NA                                | NA                                | NA                      |
| B1-0.5                                       | 0.5                    | 3/21/01        | 9.9                                 | NA                                | NA                                | NA                      |
| B1-1.0                                       | 1.0                    | 3/21/01        | 7.3                                 | NA                                | NA                                | NA                      |
| B2-0.5                                       | 0.5                    | 3/21/01        | NA                                  | NA                                | NA                                | 25                      |
| B2-1.0                                       | 1.0                    | 3/21/01        | NA                                  | NA                                | NA                                | 25                      |
| B4-0.5                                       | 0.5                    | 3/21/01        | 31                                  | NA                                | NA                                | 30                      |
| B4-1.0                                       | 1.0                    | 3/21/01        | 8.9                                 | NA                                | NA                                | 33                      |
| B5-0.5                                       | 0.5                    | 3/21/01        | NA                                  | NA                                | NA                                | 24                      |
| C1-0.5                                       | 0.5                    | 3/22/01        | 19                                  | NA                                | NA                                | NA                      |
| C1-1.0                                       | 1.0                    | 3/22/01        | 14                                  | NA                                | NA                                | NA                      |
| C3-0.5                                       | 0.5                    | 3/22/01        | 21                                  | NA                                | NA                                | NA                      |
| C3-1.0                                       | 1.0                    | 3/22/01        | 11                                  | NA                                | NA                                | NA                      |
| C5-0.5                                       | 0.5                    | 3/22/01        | 11                                  | NA                                | NA                                | NA                      |
| C5-1.0                                       | 1.0                    | 3/22/01        | 9.4                                 | NA                                | NA                                | NA                      |
| C6-0.5                                       | 0.5                    | 3/22/01        | 13                                  | NA                                | NA                                | NA                      |
| C7-0.5                                       | 0.5                    | 3/22/01        | 20                                  | NA                                | NA                                | NA                      |
| D1-0.5                                       | 0.5                    | 3/22/01        | 16                                  | NA                                | NA                                | NA                      |
| D1-1.0                                       | 1.0                    | 3/22/01        | 11                                  | NA                                | NA                                | NA                      |
| D3-0.5                                       | 0.5                    | 3/22/01        | 15                                  | NA                                | NA                                | NA                      |
| D3-1.0                                       | 1.0                    | 3/22/01        | 24                                  | NA                                | NA                                | NA                      |
| D5-0.5                                       | 0.5                    | 3/22/01        | 14                                  | NA                                | NA                                | NA                      |
| D5-1.0                                       | 1.0                    | 3/22/01        | 14                                  | NA                                | NA                                | NA                      |
| E1-0.5                                       | 0.5                    | 3/22/01        | 16                                  | NA                                | NA                                | NA                      |
| E2-0.5                                       | 0.5                    | 3/22/01        | 13                                  | NA                                | NA                                | NA                      |
| E3-0.5                                       | 0.5                    | 3/22/01        | 53                                  | NA                                | NA                                | NA                      |

**Table 3**  
**Summary of Lead and Copper Analytical Results for Soil Samples**  
**Former Skeet Shooting Range**  
**Area 2, Newark, CA**

| Sample ID | Sample Depth (Feet) | Sample Date | Lead<br>TTL Extraction<br>(mg/kg) | Lead<br>SPLP Extraction<br>(mg/L) | Lead<br>TCLP Extraction<br>(mg/L) | Total Copper<br>(mg/kg) |
|-----------|---------------------|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|
| E4-0.5    | 0.5                 | 3/22/01     | 210                               | NA                                | NA                                | NA                      |
| E4-1.0    | 1.0                 | 3/22/01     | 8.9                               | NA                                | NA                                | NA                      |
| E5-1.5    | 1.5                 | 3/22/01     | 78                                | NA                                | NA                                | NA                      |
| E6-1.5    | 1.5                 | 3/22/01     | 96                                | NA                                | NA                                | NA                      |
| E7-0.5    | 0.5                 | 3/22/01     | 83                                | NA                                | NA                                | NA                      |
| E8-0.5    | 0.5                 | 3/22/01     | 30                                | NA                                | NA                                | NA                      |
| F1-0.5    | 0.5                 | 3/22/01     | 390                               | 1.6                               | NA                                | NA                      |
| F1-1.0    | 1                   | 3/22/01     | 320                               | NA                                | NA                                | NA                      |
| F2-0.5    | 0.5                 | 3/22/01     | 80                                | NA                                | NA                                | NA                      |
| F3-0.5    | 0.5                 | 3/22/01     | 12                                | NA                                | NA                                | NA                      |
| F4-0.5    | 0.5                 | 3/22/01     | 24,000                            | NA                                | NA                                | NA                      |
| F4-1.0    | 1.0                 | 3/22/01     | 8.3                               | <0.2                              | NA                                | NA                      |
| F5-0.5    | 0.5                 | 3/22/01     | 1,000                             | NA                                | NA                                | NA                      |
| F5-1.0    | 1.0                 | 3/22/01     | 8.8                               | <0.2                              | NA                                | NA                      |
| F6-0.5    | 0.5                 | 3/22/01     | 1,200                             | NA                                | NA                                | NA                      |
| F6-1.0    | 1.0                 | 3/22/01     | 19                                | <0.2                              | NA                                | NA                      |
| F7-0.5    | 0.5                 | 3/22/01     | 360                               | NA                                | NA                                | NA                      |
| F8-0.5    | 0.5                 | 3/22/01     | 180                               | NA                                | NA                                | NA                      |
| F8-1.0    | 1.0                 | 3/22/01     | 250                               | NA                                | NA                                | NA                      |
| F9-0.5    | 0.5                 | 3/22/01     | 80                                | NA                                | NA                                | NA                      |
| F10-0.5   | 0.5                 | 3/22/01     | 24                                | NA                                | NA                                | NA                      |
| G0-0.5    | 0.5                 | 4/12/01     | 7.4                               | NA                                | NA                                | NA                      |
| G1A-0.5   | 0.5                 | 5/7/01      | 75                                | NA                                | NA                                | NA                      |
| G1-0.5    | 0.5                 | 4/12/01     | 4.7                               | NA                                | NA                                | NA                      |
| G2-0.5    | 0.5                 | 4/12/01     | 1100                              | NA                                | NA                                | NA                      |
| G2-1.0    | 1.0                 | 4/12/01     | 8.2                               | NA                                | NA                                | NA                      |

**Table 3**  
**Summary of Lead and Copper Analytical Results for Soil Samples**  
**Former Skeet Shooting Range**  
**Area 2, Newark, CA**

| Sample ID | Sample Depth (Feet) | Sample Date | Lead<br>TTL Extraction<br>(mg/kg) | Lead<br>SPLP Extraction<br>(mg/L) | Lead<br>TCLP Extraction<br>(mg/L) | Total Copper<br>(mg/kg) |
|-----------|---------------------|-------------|-----------------------------------|-----------------------------------|-----------------------------------|-------------------------|
| G3-0.5    | 0.5                 | 4/12/01     | 110                               | NA                                | NA                                | NA                      |
| G4-0.5    | 0.5                 | 4/12/01     | 1600                              | NA                                | NA                                | NA                      |
| G4-1.0    | 1.0                 | 4/12/01     | 7.7                               | NA                                | NA                                | NA                      |
| G5-0.5    | 0.5                 | 4/12/01     | 380                               | NA                                | NA                                | NA                      |
| G5-1.0    | 1.0                 | 4/12/01     | 11                                | NA                                | NA                                | NA                      |
| G6-0.5    | 0.5                 | 4/12/01     | 7.8                               | NA                                | NA                                | NA                      |
| G7-0.5    | 0.5                 | 5/7/01      | 11                                | NA                                | NA                                | NA                      |
| G8-0.5    | 0.5                 | 5/17/01     | 240                               | NA                                | NA                                | NA                      |
| H0A-0.5   | 0.5                 | 5/7/01      | 16                                | NA                                | NA                                | NA                      |
| H0-0.5    | 0.5                 | 4/12/01     | 510                               | NA                                | NA                                | NA                      |
| H0-1.0    | 1.0                 | 4/12/01     | 14                                | NA                                | NA                                | NA                      |
| H1A-0.5   | 0.5                 | 5/7/01      | 8.9                               | NA                                | NA                                | NA                      |
| H1B-0.5   | 0.5                 | 5/7/01      | 6.0                               | NA                                | NA                                | NA                      |
| H1-0.5    | 0.5                 | 4/12/01     | 190                               | NA                                | NA                                | NA                      |
| H2-0.5    | 0.5                 | 4/12/01     | 3300                              | NA                                | 3.9                               | NA                      |
| H2-1.0    | 1.0                 | 4/12/01     | 2800                              | NA                                | 58                                | NA                      |
| H2-1.5    | 1.5                 | 5/7/01      | 47                                | NA                                | NA                                | NA                      |
| H2-2.0    | 2.0                 | 5/7/01      | 54                                | NA                                | NA                                | NA                      |
| H3-0.5    | 0.5                 | 4/12/01     | 3400                              | NA                                | 3.9                               | NA                      |
| H3-1.0    | 1.0                 | 4/12/01     | 4000                              | NA                                | 0.36                              | NA                      |
| H3-2.0    | 2.0                 | 5/7/01      | 590                               | NA                                | NA                                | NA                      |
| H4-0.5    | 0.5                 | 4/12/01     | 4200                              | NA                                | NA                                | NA                      |
| H4-1.0    | 1.0                 | 4/12/01     | 460                               | NA                                | NA                                | NA                      |
| H4-2.0    | 2.0                 | 5/7/01      | 200                               | NA                                | NA                                | NA                      |
| H5-0.5    | 0.5                 | 5/7/01      | 660                               | NA                                | NA                                | NA                      |
| H5-1.5    | 1.5                 | 5/7/01      | 85                                | NA                                | NA                                | NA                      |
| H6-0.5    | 0.5                 | 5/7/01      | 1600                              | NA                                | NA                                | NA                      |
| H6-1.5    | 1.5                 | 5/7/01      | 3.9                               | NA                                | NA                                | NA                      |

**Table 3**  
**Summary of Lead and Copper Analytical Results for Soil Samples**  
**Former Skeet Shooting Range**  
**Area 2, Newark, CA**

| <b>Sample ID</b> | <b>Sample Depth<br/>(Feet)</b> | <b>Sample<br/>Date</b> | <b>Lead<br/>TTLIC Extraction<br/>(mg/kg)</b> | <b>Lead<br/>SPLP Extraction<br/>(mg/L)</b> | <b>Lead<br/>TCLP Extraction<br/>(mg/L)</b> | <b>Total Copper<br/>(mg/kg)</b> |
|------------------|--------------------------------|------------------------|--|--|--|---------------------------------|
| H7-0.5           | 0.5                            | 5/17/01                | 19,000                                       | NA   | NA   | NA                              |
| H8-0.5           | 0.5                            | 5/17/01                | 110  | NA   | NA   | NA                              |
| J0-0.5           | 0.5                            | 5/17/01                | 110  | NA   | NA   | NA                              |
| J1-0.5           | 0.5                            | 5/7/01                 | 580  | NA   | NA   | NA                              |
| J1-1.5           | 1.5                            | 5/7/01                 | 11   | NA   | NA   | NA                              |
| J2-0.5           | 0.5                            | 5/7/01                 | 1600   | NA   | NA   | NA                              |
| J2-1.5           | 1.5                            | 5/7/01                 | 11   | NA   | NA   | NA                              |
| J3-0.5           | 0.5                            | 5/7/01                 | 2200   | NA   | NA   | NA                              |
| J3-1.5           | 1.5                            | 5/7/01                 | 33   | NA   | NA   | NA                              |
| J4-0.5           | 0.5                            | 5/7/01                 | 2900   | NA   | NA   | NA                              |
| J4-1.0           | 1.0                            | 5/7/01                 | 17   | NA   | NA   | NA                              |
| J5-0.5           | 0.5                            | 5/7/01                 | 12   | NA   | NA   | NA                              |
| J5-1.0           | 1.0                            | 5/7/01                 | 13   | NA   | NA   | NA                              |
| J6-0.5           | 0.5                            | 5/7/01                 | 10   | NA   | NA   | NA                              |
| J6-1.0           | 1.0                            | 5/7/01                 | 14   | NA   | NA   | NA                              |
| J7-0.5           | 0.5                            | 5/7/01                 | 5.9  | NA   | NA   | NA                              |
| J7-1.0           | 1.0                            | 5/7/01                 | 360  | NA   | NA   | NA                              |
| J7-2.0           | 2.0                            | 5/7/01                 | 34   | NA   | NA   | NA                              |
| J8-0.5           | 0.5                            | 5/7/01                 | 7.9  | NA   | NA   | NA                              |
| J9-0.5           | 0.5                            | 5/17/01                | 500  | NA   | NA   | NA                              |
| J10-0.5          | 0.5                            | 5/17/01                | 850  | NA   | NA   | NA                              |
| K1-0.5           | 0.5                            | 5/17/01                | 59   | NA   | NA   | NA                              |
| K2-0.5           | 0.5                            | 5/17/01                | 30   | NA   | NA   | NA                              |
| K3-0.5           | 0.5                            | 5/7/01                 | 710  | NA   | NA   | NA                              |
| K3-1.5           | 1.5                            | 5/7/01                 | 72   | NA   | NA   | NA                              |
| K4-0.5           | 0.5                            | 5/7/01                 | 970  | NA   | NA   | NA                              |

**Table 3**  
**Summary of Lead and Copper Analytical Results for Soil Samples**  
**Former Skeet Shooting Range**  
**Area 2, Newark, CA**

| Sample ID | Sample Depth (Feet) | Sample Date | Lead<br>TTLIC Extraction<br>(mg/kg) | Lead<br>SPLP Extraction<br>(mg/L) | Lead<br>TCLP Extraction<br>(mg/L) | Total Copper<br>(mg/kg) |
|-----------|---------------------|-------------|-------------------------------------|-----------------------------------|-----------------------------------|-------------------------|
| K4-1.0    | 1.0                 | 5/7/01      | 5.7                                 | NA                                | NA                                | NA                      |
| K5-0.5    | 0.5                 | 5/7/01      | 1300                                | NA                                | NA                                | NA                      |
| K5-1.0    | 1.0                 | 5/7/01      | 29                                  | NA                                | NA                                | NA                      |
| K6-0.5    | 0.5                 | 5/7/01      | 8.8                                 | NA                                | NA                                | NA                      |
| K6-1.0    | 1.0                 | 5/7/01      | 78                                  | NA                                | NA                                | NA                      |
| K7-0.5    | 0.5                 | 5/7/01      | 8700                                | NA                                | NA                                | NA                      |
| K7-1.0    | 1.0                 | 5/7/01      | 9.6                                 | NA                                | NA                                | NA                      |
| K8-0.5    | 0.5                 | 5/7/01      | 380                                 | NA                                | NA                                | NA                      |
| K8-1.5    | 1.5                 | 5/7/01      | 15                                  | NA                                | NA                                | NA                      |
| K9-0.5    | 0.5                 | 5/17/01     | 83                                  | NA                                | NA                                | NA                      |
| L3-0.5    | 0.5                 | 5/17/01     | 10                                  | NA                                | NA                                | NA                      |
| L3-1.0    | 1.0                 | 5/17/01     | 8.6                                 | NA                                | NA                                | NA                      |
| L4-0.5    | 0.5                 | 5/17/01     | 20                                  | NA                                | NA                                | NA                      |
| L4-1.0    | 1.0                 | 5/17/01     | 6.2                                 | NA                                | NA                                | NA                      |
| L5-0.5    | 0.5                 | 5/17/01     | 140                                 | NA                                | NA                                | NA                      |
| L5-1.0    | 1.0                 | 5/17/01     | 11                                  | NA                                | NA                                | NA                      |
| L6-0.5    | 0.5                 | 5/17/01     | 11                                  | NA                                | NA                                | NA                      |
| L6-1.0    | 1.0                 | 5/17/01     | 7.3                                 | NA                                | NA                                | NA                      |
| L7-0.5    | 0.5                 | 5/17/01     | 19                                  | NA                                | NA                                | NA                      |
| L7-1.0    | 1.0                 | 5/17/01     | 7.4                                 | NA                                | NA                                | NA                      |
| L8-0.5    | 0.5                 | 5/17/01     | 8.2                                 | NA                                | NA                                | NA                      |
| L8-1.0    | 1.0                 | 5/17/01     | 14                                  | NA                                | NA                                | NA                      |
| L9-0.5    | 0.5                 | 5/17/01     | 1200                                | NA                                | NA                                | NA                      |
| M4-0.5    | 0.5                 | 5/17/01     | 19                                  | NA                                | NA                                | NA                      |
| M6-0.5    | 0.5                 | 5/17/01     | 55                                  | NA                                | NA                                | NA                      |
| M8-0.5    | 0.5                 | 5/17/01     | 36                                  | NA                                | NA                                | NA                      |
| N5-0.5    | 0.5                 | 5/17/01     | 51                                  | NA                                | NA                                | NA                      |
| N7-0.5    | 0.5                 | 5/17/01     | 16                                  | NA                                | NA                                | NA                      |

**Table 3**  
**Summary of Lead and Copper Analytical Results for Soil Samples**  
**Former Skeet Shooting Range**  
**Area 2, Newark, CA**

| Sample ID                                 | Sample Depth<br>(Feet) | Sample<br>Date | Lead<br>TTLC Extraction<br>(mg/kg) | Lead<br>SPLP Extraction<br>(mg/L) | Lead<br>TCLP Extraction<br>(mg/L) | Total Copper<br>(mg/kg) |
|---|------------------------|----------------|------------------------------------|-----------------------------------|-----------------------------------|-------------------------|
| <b><u>Pistol Range Sample Results</u></b> |                        |                |                                    |                                   |                                   |                         |
| D9-0.5                                    | 0.5                    | 3/22/01        | 14                                 | NA                                | NA                                | NA                      |
| D10-0.5                                   | 0.5                    | 3/22/01        | 180                                | NA                                | NA                                | NA                      |
| E9-0.5                                    | 0.5                    | 3/22/01        | 30                                 | NA                                | NA                                | NA                      |
| F11-0.5                                   | 0.5                    | 3/22/01        | 98                                 | NA                                | NA                                | NA                      |
| PR1-1.0                                   | 1.0                    | 3/23/01        | 2,200                              | NA                                | NA                                | 100                     |
| PR2-1.0                                   | 1.0                    | 3/23/01        | 370                                | NA                                | NA                                | 44                      |
| PR3-1.0                                   | 1.0                    | 3/23/01        | 2,200                              | NA                                | NA                                | 39                      |
| PR4-1.0                                   | 1.0                    | 3/23/01        | 290                                | NA                                | NA                                | 20                      |
| PR5-1.0                                   | 1.0                    | 3/23/01        | 670                                | NA                                | NA                                | 56                      |
| PR6-1.0                                   | 1.0                    | 3/23/01        | 11,000                             | NA                                | NA                                | 270                     |
| PR7-1.0                                   | 1.0                    | 3/23/01        | 5,900                              | NA                                | NA                                | 120                     |
| PR8-0.5                                   | 0.5                    | 3/23/01        | 190                                | NA                                | NA                                | 42                      |
| PR9-0.5                                   | 0.5                    | 3/23/01        | 40                                 | NA                                | NA                                | 43                      |
| PR10-0.5                                  | 0.5                    | 3/23/01        | 8                                  | NA                                | NA                                | 38                      |
| PR11-0.5                                  | 0.5                    | 3/23/01        | 11                                 | NA                                | NA                                | 28                      |
| PR12-0.5                                  | 0.5                    | 3/23/01        | 10                                 | NA                                | NA                                | 33                      |
| PR13-0.5                                  | 0.5                    | 3/23/01        | 110                                | NA                                | NA                                | 34                      |
| PR14-0.5                                  | 1.0                    | 3/23/01        | 33                                 | NA                                | NA                                | 44                      |
| <b><u>Stockpile Sample Results</u></b>    |                        |                |                                    |                                   |                                   |                         |
| EP-0.5                                    | 0.5                    | 3/23/01        | 18                                 | NA                                | NA                                | NA                      |
| EP-1.0                                    | 1.0                    | 3/23/01        | 13                                 | NA                                | NA                                | NA                      |
| SP1-1.0                                   | 1.0                    | 3/23/01        | 360                                | NA                                | NA                                | NA                      |
| SP2-1.0                                   | 1.0                    | 3/23/01        | 310                                | NA                                | NA                                | NA                      |

**Table 3**  
**Summary of Lead and Copper Analytical Results for Soil Samples**  
**Former Skeet Shooting Range**  
**Area 2, Newark, CA**

| Sample ID        | Sample Depth (Feet) | Sample Date | Lead TTLC Extraction (mg/kg) | Lead SPLP Extraction (mg/L) | Lead TCLP Extraction (mg/L) | Total Copper (mg/kg) |
|------------------|---------------------|-------------|------------------------------|-----------------------------|-----------------------------|----------------------|
| SP3-1.0          | 1.0                 | 3/23/01     | 110                          | NA                          | NA                          | NA                   |
| SP4-1.0          | 1.0                 | 3/23/01     | 60                           | NA                          | NA                          | NA                   |
| PRGs Residential |                     |             | 400                          |                             |                             | 2,900                |
| PRGs Industrial  |                     |             | 750                          |                             |                             | 76,000               |

**Notes:**

All concentrations are in milligrams per kilogram (mg/kg).

SPLP - Synthetic Precipitation Leachate Procedure by EPA Method 1311

TTLC - California Total Threshold Limit Concentration - State hazardous waste criterion

TCLP - Federal Toxicity Characteristic Leaching Potential Analysis - Federal hazardous waste criterion

PRG - EPA Preliminary Remedial Goals for residential soil (November 2000)

NA - Not Analyzed

**Bold** indicates a detected value that exceeds the PRG.

<0.2 - Not detected at or above laboratory reporting limits.

NA - Not Analyzed

**Sample Information**

| <i>Sample ID</i>                | <i>Sample Depth</i> | <i>Sample Date</i> | <i>Phenanthrene</i> | <i>Pyrene</i> |
|---------------------------------|---------------------|--------------------|---------------------|---------------|
| <b>Sample Grid Results</b>      |                     |                    |                     |               |
| D6-0.5                          | 0.5                 | 3/22/01            | <1.7                | <1.7          |
| D7-0.5                          | 0.5                 | 3/22/01            | <1.7                | <1.7          |
| D8-0.5                          | 0.5                 | 3/22/01            | <1.7                | <1.7          |
| E1-0.5                          | 0.5                 | 3/22/01            | <0.33               | <0.33         |
| E2-0.5                          | 0.5                 | 3/22/01            | <0.33               | <0.33         |
| E3-0.5                          | 0.5                 | 3/22/01            | <3.5                | <3.5          |
| E4-0.5                          | 1.0                 | 3/22/01            | <40                 | <40           |
| E5-1.5                          | 1.5                 | 3/22/01            | <40                 | 80            |
| E5-2.0                          | 2.0                 | 3/22/01            | <0.33               | <0.33         |
| E6-1.5                          | 1.5                 | 3/22/01            | <40                 | 130           |
| E7-0.5                          | 0.5                 | 3/22/01            | <40                 | 40            |
| E7-1.0                          | 1.0                 | 3/22/01            | <1.7                | <1.7          |
| E8-0.5                          | 1.0                 | 3/22/01            | <0.33               | <0.33         |
| F1-0.5                          | 0.5                 | 3/22/01            | <0.33               | <0.33         |
| F2-0.5                          | 0.5                 | 3/22/01            | <0.33               | <0.33         |
| F3-0.5                          | 0.5                 | 3/22/01            | <1                  | <1            |
| F4-0.5                          | 1.0                 | 3/22/01            | <1.0                | <1.0          |
| F5-0.5                          | 0.5                 | 3/22/01            | <1.0                | <1.0          |
| F6-0.5                          | 0.5                 | 3/22/01            | <1.0                | <1.0          |
| F7-0.5                          | 0.5                 | 3/22/01            | <0.33               | <0.33         |
| F8-0.5                          | 0.5                 | 3/22/01            | <0.33               | <0.33         |
| <b>Stockpile Sample Results</b> |                     |                    |                     |               |
| SP1-1.0                         | 1.0                 | 3/23/01            | <200                | 360           |
| SP2-0.5                         | 0.5                 | 3/23/01            | <200                | 300           |
| SP3-1.0                         | 1.0                 | 3/23/01            | <20                 | <20           |
| SP4-1.0                         | 1.0                 | 3/23/01            | <20                 | <20           |
| EP-0.5                          | 0.5                 | 3/23/01            | <0.33               | <0.33         |
| EP-1.0                          | 1.0                 | 3/23/01            | <0.33               | <0.33         |
| PRGs Residential                | --                  |                    | NE                  | 2,300         |

**Notes:**

All concentrations are in milligrams per  
 PAH - Polycyclic Aromatic Hydrocar  
 PRG - EPA Preliminary Remedial Go  
 NE - Not Established  
 Bold indicates a detected value that e  
 <0.33 - Not detected at or above labor

**Table 5**  
**Summary of Shotgun Shooting Range Soil Excavation Volumes**  
**Proposed Ohlone Community College Campus**  
**Newark, California**

| Cell Excavations <sup>1</sup> | Depth <sup>2</sup><br>(feet) | Surface Area<br>(square feet) | Volume<br>(cubic feet) | Volume<br>(cubic yards) | Tons <sup>4</sup><br>(pounds) |
|-------------------------------|------------------------------|-------------------------------|------------------------|-------------------------|-------------------------------|
| <b>Surface to 0.5 feet</b>    |                              |                               |                        |                         |                               |
| F4                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| F5                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| F6                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| G2                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| G4                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| H0                            | 0.5                          | 3563                          | 1,781                  | 65.97                   | 107                           |
| H5                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| H6                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| H7                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| J1                            | 0.5                          | 3563                          | 1,781                  | 65.97                   | 107                           |
| J2                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| J3                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| J4                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| J9                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| J10                           | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| K3                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| K4                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| K5                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| K7                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| L9                            | 0.5                          | 5625                          | 2,813                  | 104.17                  | 169                           |
| <b>Surface to 1.0 feet</b>    |                              |                               |                        |                         |                               |
| H2                            | 1.0                          | 5625                          | 5,625                  | 208.33                  | 338                           |
| H4                            | 1.0                          | 5625                          | 5,625                  | 208.33                  | 338                           |
| <b>Surface to 2.0 feet</b>    |                              |                               |                        |                         |                               |
| H3                            | 2.0                          | 5625                          | 11,250                 | 416.67                  | 675                           |
| <b>Totals <sup>3</sup></b>    |                              | 125250                        | 76687.5                | 2840.3                  | 4601.3                        |
| <b>Rounded Total</b>          |                              | 125,250                       | 76,688                 | 2,840                   | 4,600                         |

**Notes:**

- 1) Sample location, depicted as the cell midpoint on Figure 4, has lead concentrations exceeding 400 milligrams per kilogram (mg/kg).
- 2) Assumes excavating to depth of sample collection will effectively remove contamination to levels below 400 mg/kg.
- 3) Soil volumes and weights are approximate.
- 4) Assumes 1.62 tons per each cubic yard of soil.

**Table 6**  
**Summary of Pistol Range Excavation Volumes**  
**Proposed Ohlone Community College Campus**  
**Newark, California**

|                     | Berm Dimensions <sup>1</sup> | Volume<br>(cubic feet) | Volume<br>(cubic yards) | Tons <sup>3</sup><br>(pounds) |
|---------------------|------------------------------|------------------------|-------------------------|-------------------------------|
| Totals <sup>2</sup> | 150' X 3' X15'               | 6,750                  | 250                     | 405                           |

**Notes:**

- 1) Assumes lead contamination extends 3 feet into the berm from the surface.  
 Assumes the berm has not been resurfaced or reengineered since its inception.  
 Berm dimensions are approximate.
- 2) Soil volumes and weights are approximate.
- 3) Assumes 1.62 tons per each cubic yard of soil.

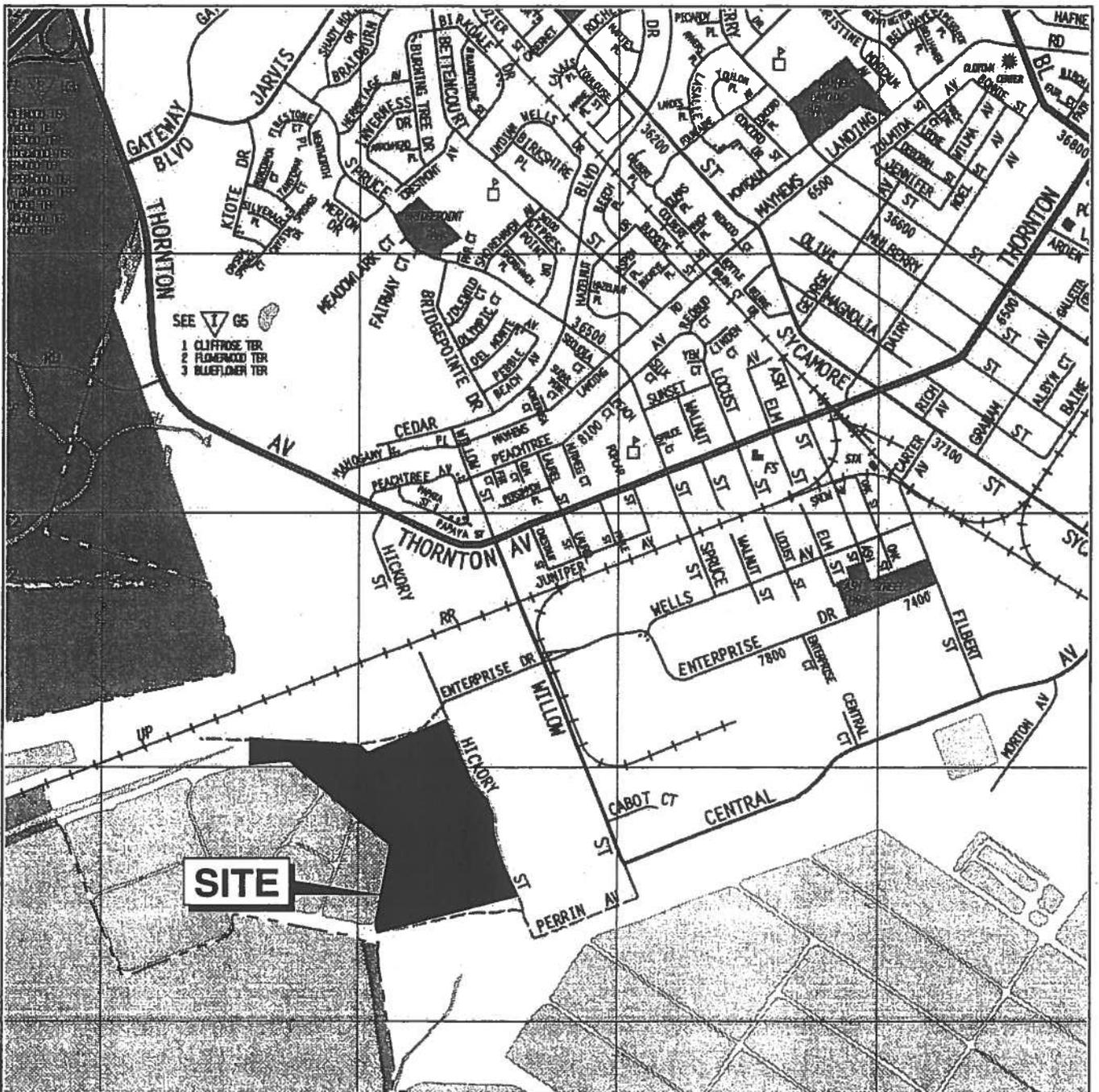
**Table 7**  
**Summary of Stockpile Volumes**  
**Proposed Ohlone Community College Campus**  
**Newark, California**

| Stockpile Name             | Approximate<br>Stockpile Dimensions <sup>1</sup> | Volume<br>(cubic feet) | Volume<br>(cubic yards) | Tons <sup>3</sup><br>(pounds) |
|----------------------------|--|------------------------|-------------------------|-------------------------------|
| Stockpile 1                | 20' X 15' X 5'                                   | 1,500                  | 55.56                   | 90                            |
| Stockpile 2                | 15' X 25' X 6'                                   | 2,250                  | 83.33                   | 135                           |
| Stockpile 3                | 40' X 20' X 10'                                  | 8,000                  | 296.30                  | 480                           |
| Stockpile 4                | 160' X 60' X 2.5'                                | 24,000                 | 888.89                  | 1,440                         |
| Totals <sup>2</sup>        |  | 35,750                 | 1324.07                 | 2,145                         |
| Rounded Total <sup>2</sup> |  |                        |                         | 2,150                         |

**Notes:**

- 1) Stockpile dimensions are approximate and based on field observations.
- 2) Soil volumes and weights are approximate.
- 3) Assumes 1.62 tons per each cubic yard of soil.

**FIGURES**



Base map: The Thomas Guide  
Alameda County  
1999



CITY OF NEWARK  
Alameda, California

**SITE LOCATION MAP**

**Treadwell & Rollo**

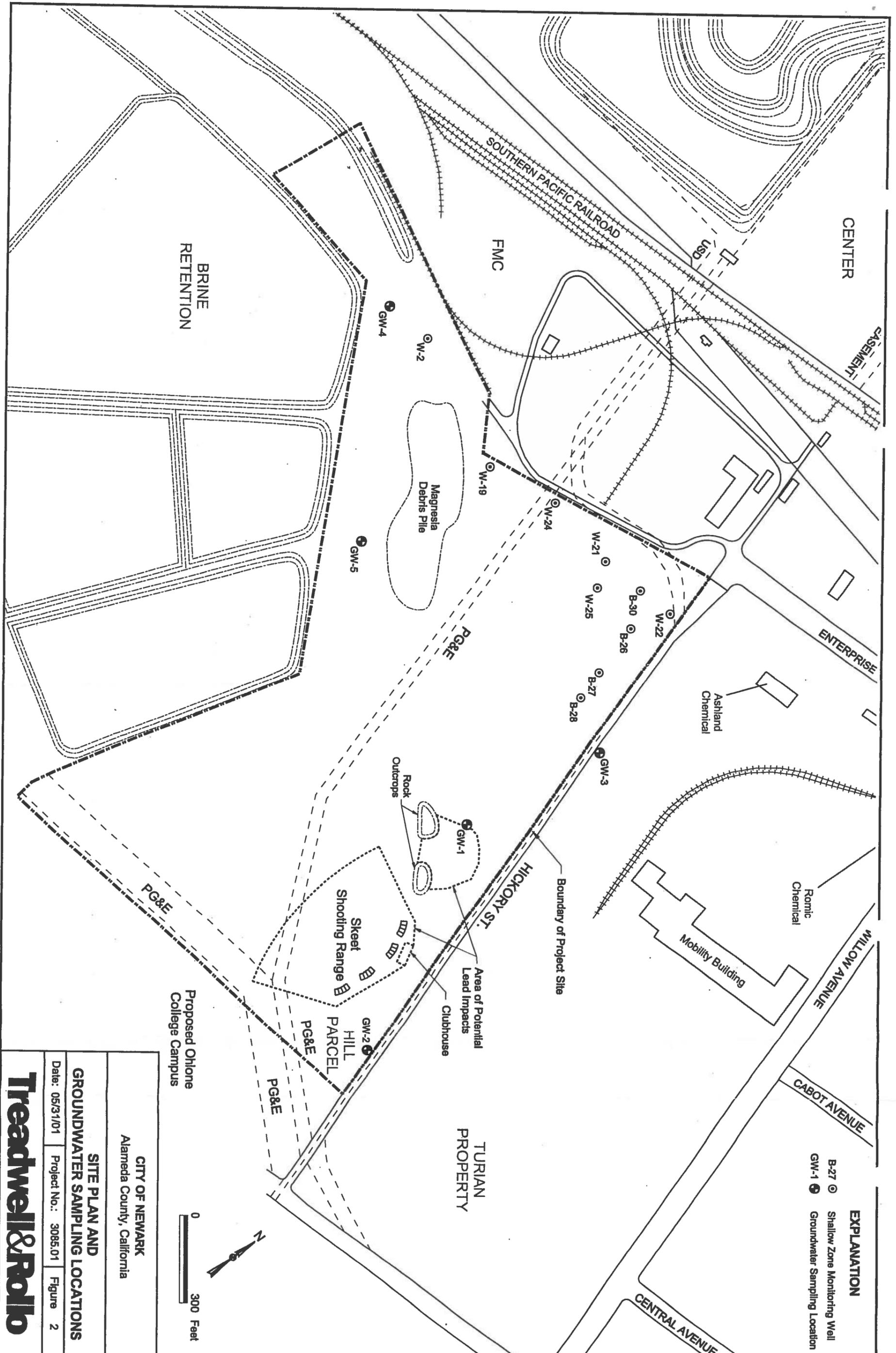
Date 03/16/01

Project No. 2335.02

Figure 1

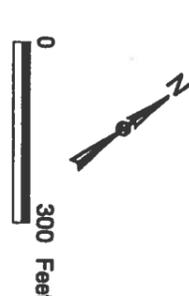
**APPENDIX B**  
**McCambell Analytical Laboratory Reports**

**APPENDIX A**  
**Previous Environmental Documents**



- EXPLANATION**
- B-27 ○ Shallow Zone Monitoring Well
  - GW-1 ● Groundwater Sampling Location

Proposed Ohlone  
College Campus

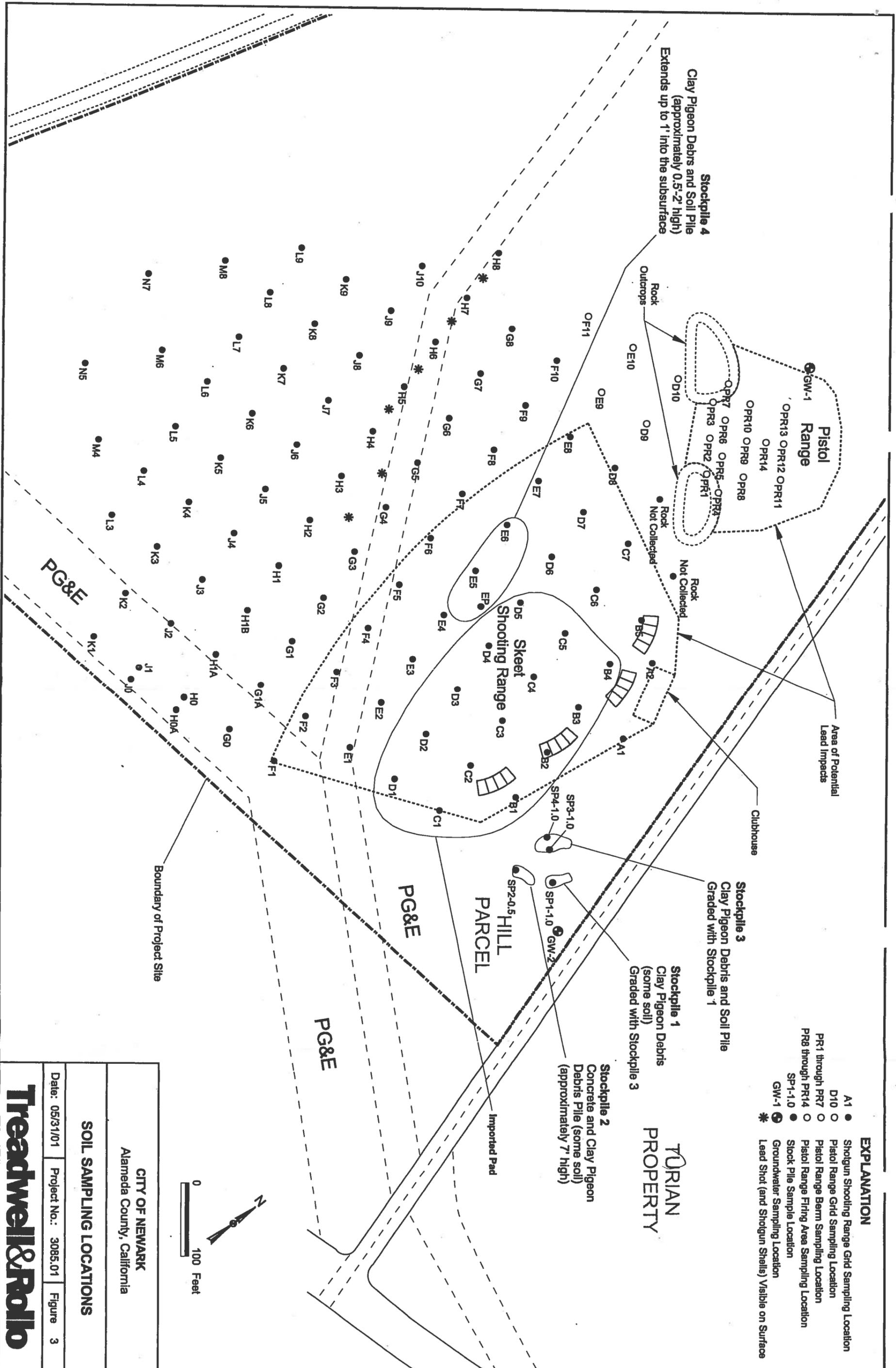


CITY OF NEWARK  
Alameda County, California

**SITE PLAN AND  
GROUNDWATER SAMPLING LOCATIONS**

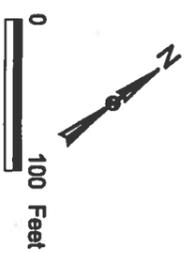
Date: 05/31/01 Project No.: 3085.01 Figure 2

**Treadwell & Rolfo**



**EXPLANATION**

- Shotgun Shooting Range Grid Sampling Location
- Pistol Range Grid Sampling Location
- Skeet Range Berm Sampling Location
- Pistol Range Firing Area Sampling Location
- Stock Pile Sample Location
- SP-1-1.0 Groundwater Sampling Location
- GW-1 Lead Shot (and Shotgun Shells) Visible on Surface
- \* Lead Shot (and Shotgun Shells) Visible on Surface

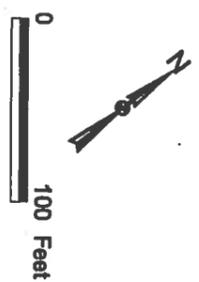
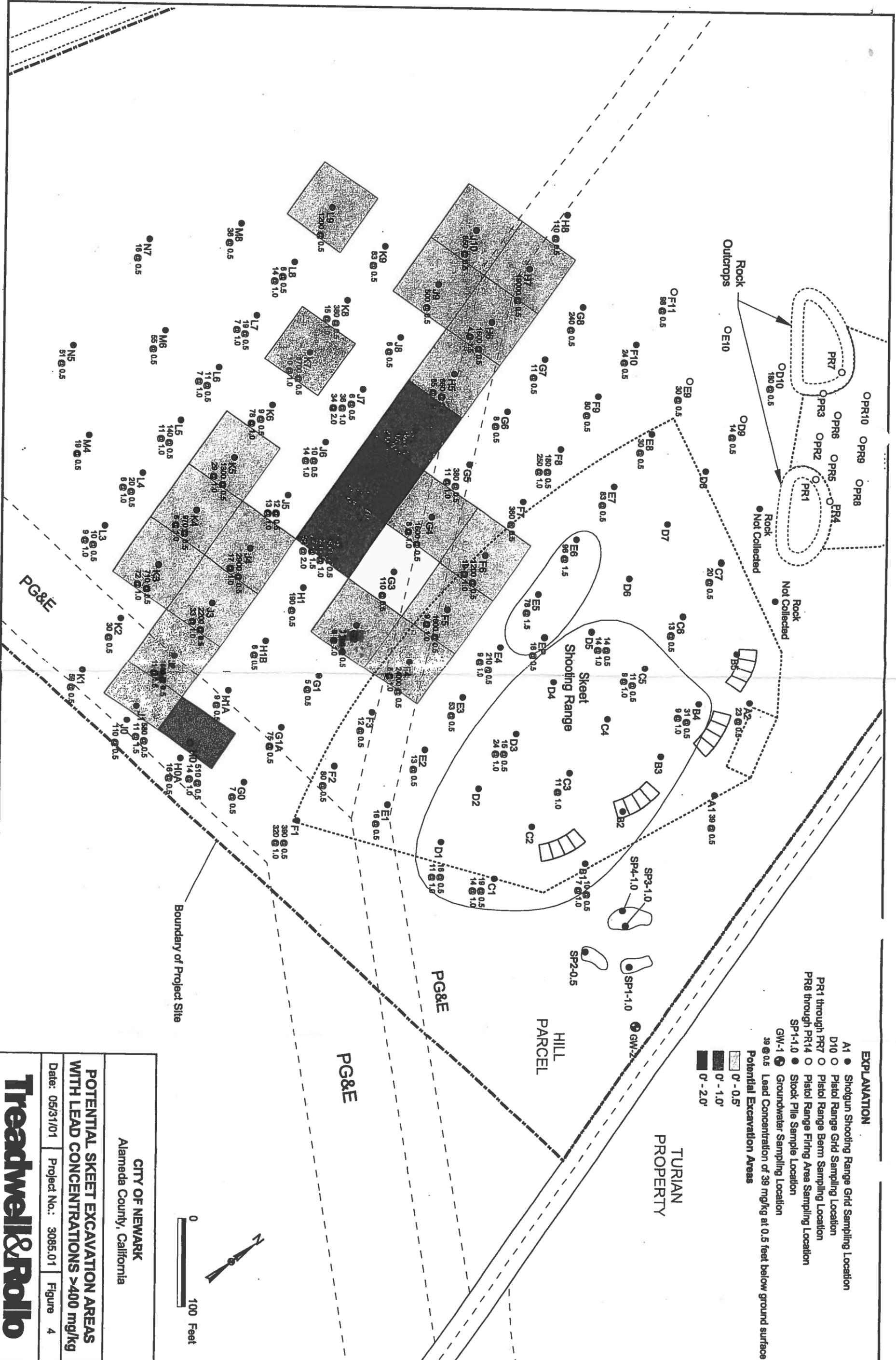


**SOIL SAMPLING LOCATIONS**

Date: 05/31/01 Project No.: 3085.01 Figure 3

**Treadwell & Rolfe**

- EXPLANATION**
- A1 ● Shotgun Shooting Range Grid Sampling Location
  - D10 ○ Pistol Range Grid Sampling Location
  - PR1 through PR7 ○ Pistol Range Berm Sampling Location
  - PR8 through PR14 ○ Pistol Range Firing Area Sampling Location
  - SP1-1.0 ● Stock Pile Sample Location
  - GW-1 ● Groundwater Sampling Location
  - 39 @ 0.5 Lead Concentration of 39 mg/kg at 0.5 feet below ground surface
- Potential Excavation Areas**
- 0' - 0.5'
  - 0' - 1.0'
  - 0' - 2.0'



CITY OF NEWARK  
Alameda County, California

**POTENTIAL SKEET EXCAVATION AREAS WITH LEAD CONCENTRATIONS >400 mg/kg**

Date: 05/31/01 Project No.: 3085.01 Figure 4

**Treadwell & Rolfo**

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**FINAL CHARACTERIZATION REPORT  
FORMER NEWARK SPORTSMAN'S CLUB  
Newark, California**

**Cargill Salt Company  
Newark, California**

**28 September 2001  
Project No. 3194.01**

# Treadwell&Rollo

28 September 2001  
Project 3194.01

Mr. Thomas Butler  
Regional Water Quality Control Board  
1515 Clay Street, Suite 1400  
Oakland, California 94612

Subject: File Number 2199.9303  
Final Characterization Report  
Former Newark Sportsman's Club  
Newark, California

Dear Mr. Butler:

Enclosed please find one copy of the referenced document. This document has been prepared on behalf of Cargill Salt Company in response to the 27 August 2001 letter from the Regional Water Quality Control Board (RWQCB) to Cargill Salt Company, requesting that a Final Characterization Report "...delineating the vertical and lateral distribution of lead and PAHs in soil and the identification of any local sensitive receptors..." be submitted by 28 September 2001.

Please call with any questions.

Sincerely yours,  
TREADWELL & ROLLO, INC.

  
David G. Dixon, R.G.  
Senior Project Manager



  
Philip G. Smith, REA II  
Principal

31940102.PGS

Attachment

cc: Ms. Teri Peterson – Cargill Salt Company

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**FINAL CHARACTERIZATION REPORT  
FORMER NEWARK SPORTSMAN'S CLUB  
Newark, California**

**Cargill Salt Company  
Newark, California**

**28 September 2001  
Project No. 3194.01**

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**Treadwell&Rollo**

Environmental and Geotechnical Consultants

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## 1.0 INTRODUCTION

This report presents the results of Treadwell & Rollo, Inc.'s final characterization of the Soil and Stockpile Areas (Site) used by the Former Newark Sportsman's Club (NSC) in Newark, California (Figure 1). Treadwell & Rollo, Inc. has prepared this report on behalf of Cargill Salt Company (Cargill) to meet the requirements of the San Francisco Bay Regional Water Quality Control Board (RWQCB) as documented in their letter of 27 August 2001. The purpose of this characterization was to determine the lateral and vertical distribution of residual lead and potential polynuclear aromatic hydrocarbons (PAH) compounds in soil at the Site and to characterize the soil stockpiles in anticipation of offsite disposal.

## 2.0 BACKGROUND

Between 1969 and May 1995, the NSC leased property at the Site from Cargill to operate a recreational outdoor shooting range (Figure 2). As a result of these activities, lead pellets from shotguns and PAH compounds from clay pigeon debris were scattered on the ground surface at the Site. It has been reported that the NSC periodically excavated the lead pellets and clay pigeon debris and placed them into stockpiles. The lead pellets were then separated from the clay pigeon debris and recycled.

The Witmer-Tyson Police Dog School and the Menlo Park Schutzhund Club, both German shepherd training facilities, subsequently rented the Site. Various Bay Area police departments as well as private dog trainers utilize the facility. According to long-time occupants of the dog training facility, surficial soil and debris (i.e. lead shot and clay pigeon fragments) located west-southwest of the clubhouse had been excavated and stockpiled. The depth of this excavation was estimated to be approximately 0.5 feet below ground surface (bgs). Imported soil, comprised mostly of silty clay and imported from an adjacent area to the south, was used to form a pad for the dog training ground. The surface of the imported pad lies approximately 0.5 to 1.0 foot above the original ground surface. The locations of the imported pad and the stockpiles are shown on Figure 3.

Between March and May 2001, Treadwell & Rollo conducted several sampling events at the Site. The results of these investigations were presented in the *Characterization Report and Additional Sampling Workplan* (July 2001 Workplan) (T&R, 2001) submitted to the RWQCB in July 2001. The report also presented a workplan for additional characterization at the site that was approved by the RWQCB in August 2001 (RWQCB, 2001b).

This report summarizes the results of the previous Treadwell & Rollo sampling, sampling conducted by Cargill in April 2001 and the sampling which was conducted by Treadwell & Rollo in August and September 2001.

## **3.0 GEOLOGY AND HYDROGEOLOGY**

### **3.1 Geology**

Ground surface elevations at the Site vary from approximately 4 to 10 feet above mean sea level (MSL). According to investigations conducted in the vicinity of the Site, the native surface clay/silt is underlain by loose to medium dense silty sand approximately 8 to 12 feet thick. The sand is likely underlain by soft to medium stiff clay known as Bay Mud. The Bay Mud at the Site may vary from 0 to 9 feet thick. Interbedded layers of medium stiff to hard silt and clay and medium dense to very dense sand with gravel underlay the Bay Mud or sand at adjacent sites. These soils extend to the maximum depths explored in the site vicinity (about 51 feet).

The serpentine outcrops are southerly outliers of a north-south trending chain of outcrops known as the Coyote Hills (Geosystem, 1997). The alluvium in this area is reported to be up to 350 feet deep and rests atop Franciscan Formation bedrock.

## 3.2 Hydrogeology

Groundwater was reportedly encountered during previous geotechnical and environmental investigations in the vicinity of the Site at depths ranging from 4 to 9 feet bgs. Periodic fluctuations in groundwater elevations may occur because of natural processes such as the infiltration of rainfall and tidal influences within the Bay.

A shallow aquifer in the Site vicinity has been reported to extend from approximately 4 to 20 feet bgs and consists of silty clay and clayey sand. The Newark Aquifer, comprised of interbedded sand and silt layers, extends from approximately 50 to 70 feet bgs and is separated from the shallow aquifer by the approximately 30-foot thick Newark Aquitard.

Based on the previous investigations that we reviewed and the regional topography, we estimate that groundwater flow direction over most of the Site is likely west towards San Francisco Bay. There are local variations in the groundwater flow direction in the vicinity of the Jones Hamilton, Romic, Ashland, and FMC facilities caused by the groundwater extraction systems operating at these facilities. These facilities are located just north of the Site and the owners of these facilities are the responsible parties mitigating the 4-Parties Plume under the RWQCB oversight. These groundwater extraction systems are designed to: (1) depress the groundwater elevation of the shallow aquifer at each facility to prevent offsite migration of contaminants; (2) recapture some contaminants that have migrated just offsite; and (3) extract and treat contaminated groundwater in activated carbon filtration systems prior to discharge to the sanitary sewer (Treadwell & Rollo, 1998).

## 3.3 Groundwater Usage

Other than the groundwater remediation operations described above, there is no evidence of groundwater use at the Site or vicinity.

## 4.0 WETLAND DELINEATION AND SENSITIVE RECEPTOR SURVEY

### 4.1 Wetland Delineation

Wetlands Research Associates, Inc., (WRA) was requested by Cargill, Incorporated to make an assessment for the presence of wetlands and waters that meet the criteria used in the 1987 U.S. Army Corps of Engineers Manual on the Newark Sportsman's Club site. A summary of the results of that assessment is included in this section.

#### 4.1.1 Wetland Delineation Criteria

The three criteria used to delineate wetlands are the presence of: (1) hydrophytic vegetation, (2) wetland hydrology, and (3) hydric soils. The methods used in this study to make an assessment of potential jurisdictional wetlands and waters of the U.S. are based on the *U.S. Army Corps of Engineers Wetland Delineation Manual* (Environmental Laboratory 1987). Data on vegetation, hydrology, and soil was recorded on standard forms used in Army Corps of Engineers delineations.

Portions of the Site had positive indicators of hydric soils, wetland hydrology, and wetland classified plants. Potential wetland areas are described in the following sections and shown in a figure prepared by WRA and attached in Appendix A.

#### 4.1.2 Vegetation

Portions of the Site are dominated by halophytic and ruderal species. In the western portion species such as alkali heath (*Frankenia salina*, FACW), sickle grass (*Parapholis incurva*, OBL), annual pickleweed (*Salicornia europaea*, OBL), perennial pickleweed (*Salicornia virginica*, OBL), and rabbit's foot grass (*Polypogon monspeliensis*, OBL) were the dominant plants. Italian ryegrass (*Lolium multiflorum*, FAC) and Mediterranean barley (*Hordeum marinum*, NL) were found in both wetland and upland areas. Rip-gut brome (*Bromus diandrus*, NL) was found only in upland portions of the site.

Within the eastern and east section of the northern portions of the Site, Italian ryegrass, a cool winter annual grass that has an indicator status of facultative (FAC), was dominant. For purposes of this study, the association of ryegrass with more FACW and OBL wetland species was used to indicate wetland conditions. In particular, rabbitsfoot grass (FACW), perennial pickleweed (OBL), and curly dock (FACW) were considered to be stronger indicators of wetland conditions in these portions of the site.

### 4.1.3 Hydrology

The primary differentiating characteristic of the Site that affects hydrology is elevation. Most of the site is level and drains poorly, especially the western portion and west section of the northern portion. Areas observed to be saturated and inundated by tidal flooding were determined to be a temporary construction related condition due to replacement of the tide gate associated with the Plummer Creek Wetland Mitigation site which is located south and east of the Site. Hydrology indicators in areas not affected by temporary tidal activity (slightly higher topographically) included sediment deposits<sup>1</sup> and matted vegetation<sup>2</sup>. Depressions in the eastern and northern portions that had wetland classified plants had wetland indicators that also included sediment deposits and matted vegetation.

### 4.1.4 Soils

Soils within the Site are representative of the mapped soil unit (Pescadero clay, drained). All of the soils on the site had low-chroma<sup>3</sup>, including areas determined to be uplands. This is because the berms and upland areas have been constructed with local soils. As noted in the soil survey,

- 
- <sup>1</sup> Sediment deposits are thin coatings of fine clay on surfaces (such as plant stems and leaves) that indicates that ponding occurred during the winter/spring such that suspended sediment settled on the growing vegetation.
- <sup>2</sup> Matted vegetation is dead plant leaves that are held together with algal and fungal filaments indicative of ponding that allowed for algal growth to occur.
- <sup>3</sup> Low chroma soils are those which lack color due to leaching of minerals from the soil under reducing conditions. Hue, value, and chroma describe the soil color notation of a soil which is determined from a standard Munsell color chart. Hydric soils also often are darker in color. The dark color is often due to the accumulation of organic matter which persist under hydric conditions.

the Soil Conservation Service maps this soil as a drained phase which indicates that it no longer has the same hydrologic conditions that formed this soil (USDA, 1981). However, if wetland hydrology reoccurs (due to subsidence or limited drainage), the soil will support wetland vegetation. Under these conditions, those portions with wetland hydrology and vegetation are considered to be wetlands under the "Atypical" condition section of the Corps Manual.

#### 4.1.5 Summary of Wetland Assessment

There are areas that meet the wetland criteria in the Corps Manual at the Newark Gun Club Study Area, and the total area covered by these wetlands is 8.97 acres. These wetlands are depicted on the figure in Appendix A and areas for each are given in the table below.

| Wetland Number on Map | Wetland Area (acres) |
|-----------------------|----------------------|
| 1                     | 0.09                 |
| 2                     | 8.74                 |
| 3                     | 0.14                 |
| Total                 | 8.97                 |

#### 4.2 Special Status Species Habitat Assessment

On 4 July 2001, WRA conducted a special status species habitat assessment of the Site to determine whether significant impacts to protected wildlife and plants (sensitive receptors) will result from the proposed removal of contaminated soils from the parcel. This section summarizes the conclusions of Wetlands Research Associates, Inc.

According to WRA no sensitive receptors were observed at the site, and based on existing habitat conditions and past and present disturbance, it is unlikely that any can occur on the site. The study area has a history of habitat disturbance and degradation that have resulted in conditions that are unsuitable for most special status plants and animals that occur in the region. In addition to being used as a shooting range, the site was also used as a decant area for the

adjacent Magnesia pile area, and is adjacent to a brine loading facility. Pickleweed cover is sparse over much of the site, suggesting that 1) hydrologic conditions on the site are marginal, or 2) pickleweed on the site was removed in the past due to human activity and is now slowly returning. Only three special status birds and three special status plants potentially could occur on the Site. Potential impacts to these species resulting from the proposed project can be avoided through project timing and pre-project surveys. The Federal- and State-listed salt marsh harvest mouse is of interest due to its documented occurrence in the region. Although this assessment found that conditions on the Site are not typical of habitat occupied by the species, its presence cannot be ruled out. Therefore, the implementation of measures to reduce potential impacts to the mouse and its habitat are recommended.

#### 4.2.1 Special Status Species

Several special status animal and plant species have been documented to occur, or potentially occur, in southern Alameda County. A search of the CDFG Natural Diversity Data Base found no documented occurrences of special status wildlife on the site. No special status wildlife or plants were observed during the July 4 assessment. Based on the habitat assessment, there is moderate to high potential for occurrence on the site for three special status wildlife and three plant species. These species and their potential for occurrence are discussed below.

**Burrowing Owl (*Athene cunicularia*), CDFG Species of Special Concern.** Burrowing owls depend largely on the excavations of California ground squirrels (*Spermophilus beecheyi*) for roosting and breeding habitat. Ground squirrel activity was observed on the site; however, evidence of burrowing owl presence was not observed. If burrowing owls were to use the site, the proposed project could result in temporary significant impacts to dispersing burrowing owls and their habitat. Pre-construction surveys (30 days prior to remediation activities) are normally required by CDFG to determine the status (breeding or wintering) of owls on a site.

**California Horned Lark (*Eremophila alpestris actia*), CDFG Species of Special Concern.**

This ground-nesting songbird prefers open, sparsely-vegetated grasslands. The California horned lark has not been observed on the Site, however, the site provides suitable foraging and breeding habitat for this species. Potential impacts to this species could result from implementation of the proposed soil removal. These temporary impacts could be avoided by conducting the work after the breeding season (April through August), or conducting breeding bird surveys to determine presence/absence on the site.

**Loggerhead Shrike (*Lanius ludovicianus*), CDFG Species of Special Concern).** Suitable loggerhead shrike nesting habitat includes trees and shrubs near open areas; foraging habitat includes grasslands and wetlands with perches. Although this species has not been observed on the Site, scattered shrubs in the area could provide suitable nest sites for the shrike. Noise and activity associated with soil removal could result in significant impacts during the breeding season. These temporary impacts could be avoided by conducting the work after the breeding season (April through August), or conducting breeding bird surveys to determine presence/absence on the site.

**Salt Marsh Harvest Mouse (*Reithrodontomys raviventris*), Federal Endangered Species, California Endangered Species.** Although the salt marsh harvest mouse has a low potential for occurrence, the presence of pickleweed on the site prompted a more detailed habitat assessment for this species (Habitat Suitability Index). The salt marsh harvest mouse is considered a “cover dependent species”; thick vegetation is necessary for their survival (Shellhammer 1998). The HSI considers the height of the plants, the amount of cover, and amount of pickleweed in the area. An HSI of 1.0 represents excellent habitat conditions. For example, at Coyote Hills Regional Park, an HSI value of 0.78 was calculated during the Fremont-Coyote study. Salt marsh harvest mouse habitat at Coyote Hills consisted of seasonal wetlands dominated by pickleweed. Plant cover ranged from 70 to 100 percent, average plant height was 20 inches, and percent cover of pickleweed ranged from 75 to 100 percent. The mouse has been documented to occur at Coyote Hills.

Calculated HSI values at NSC ranged from 0.012 to 0.040. The HSI is assumed to be high if the coverage and height of the vegetation are adequate to provide suitable structure, and if pickleweed cover is good. At the Site, average plant cover was less than 50 percent, and the average height of vegetation was less than 10 inches; these low variables result in low habitat suitability indices.

**Special Status Plants.** Three special status plant species typically associated with alkaline soils and grasslands could potentially occur on the Site. During the site inspection, they were not observed on the Site. The proposed removal of contaminated soils could result in significant impacts to the alkali milk-vetch (*Astragalus tener* var *tener*), San Joaquin spearscale (*Atriplex joaquiniana*), and Congdon's tarplant (*Hemizonia parryi* ssp. *congdonii*), if they were present. Such surveys would be conducted in April, and again between July and August.

#### 4.2.2 Summary of Special Status Species Habitat Assessment

It is likely that a few special status species are seasonally present on or adjacent to the Site parcel; however, no observations of sensitive receptors were made during the assessment. Potentially significant impacts to only three bird species and three plants were identified. Significant noise and human presence impacts to breeding birds associated with removal of contaminated soils could result in the abandonment of eggs and/or young. This potential impact can be reduced to a less than significant level by 1) conducting a breeding bird survey prior to breaking ground and avoiding nests, or 2) initiate soil removal after the breeding season (September through January). Potential impacts to special status plants can be reduced by conducting rare plant surveys during the appropriate season (typically spring and mid-summer).

The salt marsh harvest mouse is unlikely to occur on the Newark Gun Club site because 1) results of habitat suitability index analysis strongly suggest that the site does not provide suitable habitat for the species, 2) isolation from more suitable habitat reduces the probability of salt marsh harvest mouse dispersal to the site from the nearest known population approximately one mile north of the parcel (CDFG 2001), 3) surrounding areas, including an adjacent brine

loading facility, have a history of severe habitat conversion and disturbance, and 4) the Newark Gun Club site is a former decant area for the adjacent Mag pile.

Although the results of the assessment determined there is low potential for the salt marsh harvest mouse to occur on the property, it is possible that a remnant, isolated population exists within the densest stands of pickleweed. To reduce potential impacts to the mouse and its habitat, the following measures were recommended by WRA:

- Conduct initial soil removal from areas with little or no vegetative cover.
- A biologist will flag poor habitat areas (less than 40 percent pickleweed cover) prior to removing soils. Immediately prior to soil removal, the biologist will manually remove pickleweed in the flagged areas. It is anticipated that any mice in these low-cover areas will quickly disperse to more dense pickleweed stands.
- Moderate to dense pickleweed cover (40-100 percent cover) should be avoided if possible. If soil removal from areas of dense pickleweed is necessary, a qualified biologist should remove vegetation by hand and be present when any equipment is on the site.

## 5.0 SITE CHARACTERIZATION

The Site is divided into two areas: the Soil Area and the Stockpile Areas. The Soil Area is the “fan-shaped” area generally west of the shooting positions shown on Figure 2. Depending on the amount of gunpowder in the shotgun shell, the type of shot, the angle at which the shooter fires, the slope of the ground, the wind, and other factors, typical lead skeet loads fall roughly 375 to 600 feet from the shooter (National Shooting Sports Foundation, 1997). The furthestmost shot may land up to 780 feet from the shooter (Baldwin, 1994).

The Stockpile Areas consist of four soil stockpiles with lead shot and clay pigeon debris. These stockpiles were created as a result of periodic lead shot harvesting operations. Three of the stockpiles (Stockpiles 1, 2, and 3) reside south of the Soil Area. Since the original sampling event, Stockpiles 1 and 2 have been graded together. Stockpile 4 resides on top of the Soil Area west of the shooting positions.

## 5.1 Soil Area

In accordance with the approved July 2001 Workplan, additional soil samples were collected to delineate the lateral and vertical extent of lead and PAH impacted soil. For this report, impacted soil is defined as soil with lead or PAH concentrations exceeding the residential Preliminary Remedial Goals (PRGs) for the respective compounds (EPA, 2000). In addition, composite samples were prepared by the laboratory from discrete lead-impacted soil samples and analyzed for waste characterization purposes.

Two samples were collected from each of the 11 new sampling locations identified in the July 2001 Workplan to delineate the lateral extent of lead concentrations exceeding the residential PRG of 400 milligrams per kilogram (mg/kg). The new sample locations were added to the existing sample grid using a Garmin™ Global Positioning System 76 (GPS) unit. The GPS is a Wide Area Augmentation System (WAAS) enabled unit which provides accuracy of approximately  $\pm 10$  feet. Samples from the six innermost sample locations were initially analyzed for lead, while the outermost samples were placed on hold to be analyzed only if the lead concentration in one of the initial samples exceeded the residential PRG for lead.

Six existing locations were sampled to delineate the vertical extent of lead impacted soil. Five of these locations (H7, H8, J9, J10, and L9) were on the northwestern portion of the sampling grid while one location (K3) was on the southwestern side of the sampling grid. One sample collected from location E6 at 2.0 feet bgs was analyzed for PAH compounds because the sample from this location at 1.25 feet bgs had detectable concentrations of PAH compounds exceeding the residential PRGs.

## 5.2 Stockpile Areas

In April 2001, Cargill collected samples from the four stockpiles. The Treadwell & Rollo and Cargill sampling events were conducted independent of each other and stockpiles were labeled differently for both events. Cargill's samples CP-2S and CP-2D were collected from the stockpile Treadwell & Rollo labeled as Stockpile 1. Cargill's samples CP-1S and CP-1D were collected from the stockpile Treadwell & Rollo labeled as Stockpile 2. Samples from Stockpile 3 were labeled CP-3S and CP-3D and samples from Stockpile 4 were labeled CP-4S and CP-4D by Cargill. These samples were analyzed for CAM 17 metals and semi-volatile organic compounds. The samples were then composited by stockpile and analyzed for soluble antimony, arsenic, chromium, and lead using the Toxic Characteristic Leaching Procedure (TCLP).

Treadwell & Rollo collected 8 additional samples from the stockpiles in September 2001. These samples were grouped by stockpile, composited by the laboratory and analyzed for chromium and lead using the Soluble Threshold Limit Concentration (STLC).

## 5.3 Sample Collection

All soil samples were collected by Treadwell & Rollo using a hand auger, a slide hammer with a 2-inch sampling spoon, and/or a sampling trowel. At the desired sampling location, a clean hand trowel was used to remove any surficial vegetation from the sampling location. Once the sampling location was clear of vegetation, a decontaminated slide hammer or a sampling trowel was used to collect samples between the surface and 6-inches bgs. All deeper samples were collected with the slide hammer.

When sampling with the slide hammer, soil samples were collected in 2-inch diameter stainless steel sampling tubes. When sampling with the sampling trowel, soil samples were transferred with a clean sampling trowel directly into laboratory-supplied 4-ounce glass-sampling jars with Teflon-lined caps.

## 5.3.1 Site Characterization Soil Sampling

Soil samples collected by Treadwell & Rollo during the initial sampling events were collected over a 6-inch interval (i.e., 0 to 0.5 feet bgs, 0.5 to 1.0 feet bgs, 1.0 to 1.5 feet bgs, and 1.5 to 2.0 feet bgs). Soil samples collected from a depth of 0 to 0.5 feet bgs were collected in either a 6-inch sampling tube or a glass jar. All samples collected from depths greater than 6-inches bgs were collected in 6-inch sampling tubes. All the soil samples collected were labeled according to their location and bottom depth (i.e. soil collected from location A1 at the intervals 0 to 0.5 and 0.5 to 1.0 feet bgs were labeled A1-0.5 and A1-1.0, respectively). The laboratory was directed to analyze the soil from the middle of the sample tube; therefore, results from the sample collected from 0.5 to 1.0 feet bgs are indicative of soil at 0.75 feet bgs.

During the most recent sampling event, discrete and composite samples were collected using 3-inch long sampling tubes for greater depth control. Additional discrete sampling was conducted to determine the lateral and vertical distribution of lead and PAH compounds. These samples were collected at three different depth intervals: 0.125 to 0.375 feet bgs, 0.625 to 0.875 feet bgs, and 1.625 to 1.875 feet bgs. The laboratory was directed to analyze the soil from the middle of the sample tube; therefore, results from the samples collected are at 0.25 feet bgs, 0.75 feet bgs, and 1.75 feet bgs, respectively. These depths were selected to remain consistent with the previous discrete results sampled over a six-inch interval.

## 5.3.2 Waste Characterization Soil Sampling

During this sampling event, 12 composited samples were prepared from up to four discrete samples from locations where lead impacted soil was previously encountered. Discrete samples were chosen for composites based on the following factors:

- The locations being in close proximity to each other;
- The soil at equivalent depths was impacted with lead but below the State hazardous waste criteria of 1,000 ppm; and
- The soil at equivalent depths was above the state hazardous waste criteria of 1,000 ppm.

Where there were not at least three locations that met the above criteria that could be composited together, additional samples were collected from the locations to obtain a volumetrically significant sample. For example, two samples each were collected from H2 and H3 from the interval between 0.75 and 1.0 and the four samples were composited together. Likewise, four samples from location H3 were collected at the depth interval 1.75 to 2.0 and were composited together.

Surface soil samples were collected using a clean sampling trowel to remove the top 1-inch of soil and place it in a glass jar. Deeper samples were collected in 3-inch long, stainless steel tubes, using a slide hammer. The laboratory was directed to select the aliquot from the middle of the sample tubes and to composite specific aliquots together. The results of these samples are recorded at the midpoint of the sample interval. The composite aliquot was of a suitable size to perform all potential analyses from the one aliquot.

All soil sampling equipment was decontaminated by scrubbing with an Alconox™ detergent solution and triple-rinsing it with potable water prior to sampling. All samples collected in glass sampling jars were immediately capped, labeled, sealed in plastic bags, and then placed in an ice-cooled chest until delivery to the analytical laboratory. All samples collected in 3-inch sample tubes were immediately covered with Teflon™ sheets, capped with tight-fitting plastic end caps, labeled, sealed in plastic bags, then placed in an ice-cooled chest until delivery to the analytical laboratory.

## **6.0 ANALYTICAL RESULTS**

The results from previous Treadwell & Rollo sampling events are described in the July 2001 Workplan. This section will summarize the analytical results from the Treadwell & Rollo sampling events that were conducted in conformance with the July 2001 Workplan and the previous Cargill sampling event conducted in April 2001.

## **6.1 Soil Area Delineation**

### **6.1.1 Delineation of Lateral and Vertical Extents of Lead**

During the August 2001 sampling, 28 soil samples were collected from 17 locations to complete the lateral and vertical delineation of lead at the Site. Sixteen of the sample locations were in the northwest portion of the Site while one sample for vertical delineation (K3) was in the southwest portion of the Site. The analytical laboratory analyzed 18 samples from 12 locations and placed the remaining 10 contingency samples on hold. The contingency samples would be analyzed if an initial sample had a total lead concentration greater than the residential PRG. Total lead in the 18 samples ranged from 6.1 to 49 mg/kg. Based on these results, no contingency samples were analyzed. Total lead results from all the sampling events are presented on Figure 3 and summarized in Table 1.

### **6.1.2 Delineation of the Vertical Extents of PAH compounds**

Previous sampling results for PAH compounds delineated the lateral and vertical extent of PAH compounds exceeding the residential PRGs, with the exception of the vertical extent at location E6. One additional sample, E6-1.75, was collected approximately 0.5 feet beneath the previous sample location at E6. No PAH compounds were detected in sample E6-1.75. PAH results from all sampling events conducted at the Site are presented in Table 2.

## **6.2 Waste Characterization within the Lead Impacted Area**

In August 2001, 46 discrete samples were collected and composited into 12 samples for waste characterization. These samples were collected from lead impacted areas.

### **6.2.1 Total Lead**

Total lead results from the composite samples ranged from 6.4 mg/kg in the J2, J3, J4, J5 composite collected at 0.25 to 0.5 feet bgs (0.25-0.5) to 100,000 mg/kg in the G4, H2, H3, H4 (0) composite which was collected at the surface. Lead concentrations for several of the composite

samples were significantly below the lead concentrations detected in previous discrete samples in the same areas.

To help verify the composite results, samples used to form two of the composited samples were analyzed as discrete samples. The composite sample J2, J3, J4, J5 (0.25-0.5) had 6.4 mg/kg of total lead while the discrete samples comprising this sample had total lead ranging from 7.1 to 9.0 mg/kg. The sample H0, J1, K3, K4 (0.25-0.5) had a total lead result of 9.1 mg/kg in the composite sample while the discrete samples comprising this sample ranged from 5.4 to 9.1 mg/kg.

Total lead concentrations generally decrease rapidly with depth as evidenced by the 23 locations where soil in the upper 0.5 feet are lead impacted while only three of these locations had lead impacted soil at depths greater than 0.5 feet.

## **6.2.2 Soluble Lead**

All 12 composited samples were analyzed for soluble lead by the TCLP method for waste characterization. Concentrations of TCLP soluble lead were below detection limits in eight samples with the lowest detection of total lead. Concentrations of TCLP soluble lead in the other four samples ranged from 0.58 to 99 milligrams per liter (mg/L), with 3 of the samples exceeding the Resource Conservation and Recovery Act (RCRA) waste classification concentration of 5 mg/L.

All nine composited samples that had concentrations of TCLP soluble lead below the RCRA waste classification concentration were then analyzed for soluble lead by the STLC method for waste classification. Concentrations of STLC soluble lead were below detection limits in the same eight samples where TCLP concentrations were not detectable. The concentration of STLC soluble lead was 0.36 mg/L in sample H2, H3, H4, G4 (0.25-0.5), which had a TCLP soluble lead concentration at 0.58 mg/L.

## 6.3 Soil Stockpiles with Lead and Clay Pigeon Debris

Samples from the stockpiles collected by Cargill in April 2001 were analyzed for CAM 17 metals. Only one sample had concentrations exceeding the California hazardous criteria threshold for metals. Sample CP-4D exceeded the state total threshold for antimony with a concentration of 960 mg/kg and lead with a concentration of 85,000 mg/kg. Table 3 summarizes the stockpile analytical results for metals.

The discrete samples composited by stockpile were analyzed for soluble antimony, arsenic, chromium, and lead by the TCLP method for waste characterization. All TCLP concentrations were below detection limits with the exception of lead in samples CP-3S, 3D where a concentration of 2.1 mg/L was detected. TCLP results are presented on Table 4.

Additional samples were collected in September 2001 and analyzed for soluble chromium and lead using STLC extraction procedure. Detectable concentrations of STLC soluble lead were detected in stockpiles No. 1, No. 2, and No. 3 at concentrations of 12, 5.7, and 9.3 mg/L. Soluble chromium was not detected in any of the stockpile samples. STLC results are presented on Table 4.

Twelve PAH compounds have been detected in stockpile samples. None of the concentrations detected exceed California or Federal hazardous criteria. PAH results are presented on Table 5.

## 7.0 CONCLUSIONS

Based on the analytical results presented above and in previous reports, the delineation of lateral and vertical distribution of lead and PAH in the soil above the residential PRG has been completed. The majority of lead contamination resides in an area that fans out westward from the shooting positions with highest areas of shot falling within the band between 360 and 600 feet from the firing line. Within this band, lead shot is visible on the surface and high concentrations of lead were observed in the shallow soil.

Lead concentrations generally decrease rapidly with depth as evidenced by the 23 locations where soil in the upper 0.5 feet exceed the residential PRG for lead while only three of these locations exceeded the residential PRG at depths greater than 0.5 feet.

Discrete samples collected in areas where the previous lead concentrations were greater than the residential PRG were composited by the laboratory into 3:1 and 4:1 composites samples and analyzed for TCLP lead. Three of the 12 locations had TCLP concentrations that exceed the Federal hazardous waste criteria. The nine samples with TCLP concentrations below the Federal hazardous waste criteria were also analyzed for STLC lead concentration. All the STLC lead results were below the State hazardous waste criteria.

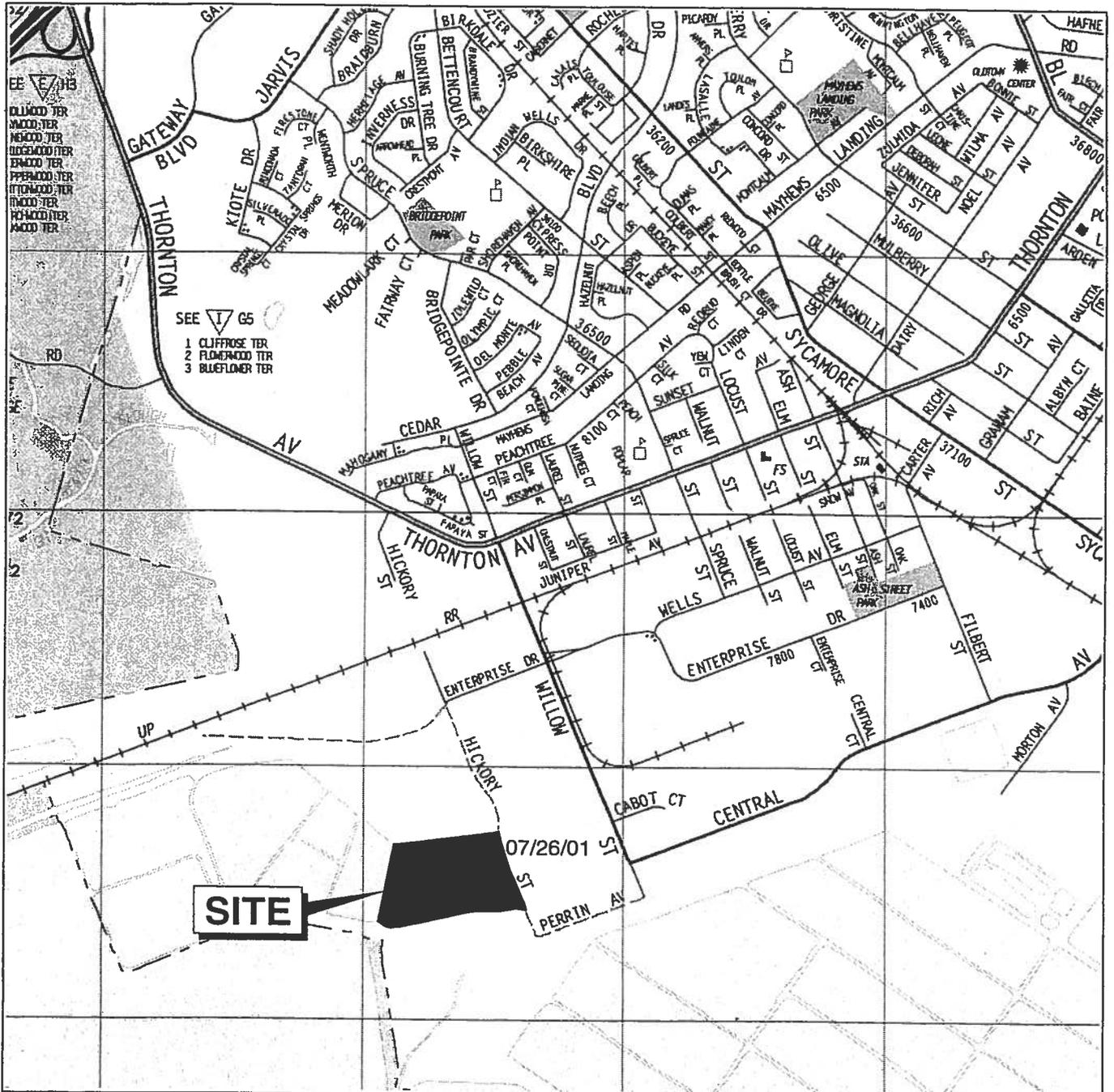
All 12 composite samples were also analyzed for total lead. The total lead results in the composite samples were considerably lower than the average concentrations of the previous samples with the same grouping and similar depths. This may be attributable to better depth control during the most recent sampling event. Composite samples of soil from the top one inch at the surface showed very high concentrations of total lead, likely due to the number of pieces of lead shot lying on the ground surface. Previous sampling events submitted this surface lead shot to the laboratory in the 6-inch sample container. The most recent sampling event separated the top 3-inches of soil from the bottom 3-inches in separate tubes. This separation may have kept lead shot from the surface from being analyzed with deeper samples during the most recent sampling event.

Recommended remedial actions and cleanup goals for the Site will be prepared and presented in a Remedial Action Workplan (RAW). The RAW will be submitted to the RWQCB by 31 December 2001.

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**FIGURES**



Base map: The Thomas Guide  
Alameda County  
1999

No scale

**FORMER NEWARK SPORTSMAN'S CLUB**  
Newark, California

**SITE LOCATION MAP**

**Treadwell & Rolb**

Date 09/28/01 Project No. 3194.01 Figure 1

**Treadwell&Rollo**

**TABLES**

**Table 1**  
**Summary of Lead and Copper Analytical Results for Soil Samples**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Sample Location                 | Sample Depth (Feet) | Sample Date | Lead TTLC Extraction (mg/kg) | Lead SPLP Extraction (mg/L) | Lead TCLP Extraction (mg/L) | Lead STLC Extraction (mg/L) |
|---------------------------------|---------------------|-------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|
| <b>Soil Area Sample Results</b> |                     |             |                              |                             |                             |                             |
| A1                              | 0.25                | 3/21/01     | 39                           | —                           | —                           | —                           |
| A2                              | 0.25                | 3/21/01     | 23                           | —                           | —                           | —                           |
| B1                              | 0.25                | 3/21/01     | 9.9                          | —                           | —                           | —                           |
| B1                              | 0.75                | 3/21/01     | 7.3                          | —                           | —                           | —                           |
| B2                              | 0.25                | 3/21/01     | —                            | —                           | —                           | —                           |
| B2                              | 0.75                | 3/21/01     | —                            | —                           | —                           | —                           |
| B4                              | 0.25                | 3/21/01     | 31                           | —                           | —                           | —                           |
| B4                              | 0.75                | 3/21/01     | 8.9                          | —                           | —                           | —                           |
| B5                              | 0.25                | 3/21/01     | —                            | —                           | —                           | —                           |
| C1                              | 0.25                | 3/22/01     | 19                           | —                           | —                           | —                           |
| C1                              | 0.75                | 3/22/01     | 14                           | —                           | —                           | —                           |
| C3                              | 0.25                | 3/22/01     | 21                           | —                           | —                           | —                           |
| C3                              | 0.75                | 3/22/01     | 11                           | —                           | —                           | —                           |
| C5                              | 0.25                | 3/22/01     | 11                           | —                           | —                           | —                           |
| C5                              | 0.75                | 3/22/01     | 9.4                          | —                           | —                           | —                           |
| C6                              | 0.25                | 3/22/01     | 13                           | —                           | —                           | —                           |
| C7                              | 0.25                | 3/22/01     | 20                           | —                           | —                           | —                           |
| D1                              | 0.25                | 3/22/01     | 16                           | —                           | —                           | —                           |
| D1                              | 0.75                | 3/22/01     | 11                           | —                           | —                           | —                           |
| D3                              | 0.25                | 3/22/01     | 15                           | —                           | —                           | —                           |
| D3                              | 0.75                | 3/22/01     | 24                           | —                           | —                           | —                           |
| D5                              | 0.25                | 3/22/01     | 14                           | —                           | —                           | —                           |
| D5                              | 0.75                | 3/22/01     | 14                           | —                           | —                           | —                           |
| E1                              | 0.25                | 3/22/01     | 16                           | —                           | —                           | —                           |
| E2                              | 0.25                | 3/22/01     | 13                           | —                           | —                           | —                           |
| E3                              | 0.25                | 3/22/01     | 53                           | —                           | —                           | —                           |
| E4                              | 0.25                | 3/22/01     | 210                          | —                           | —                           | —                           |
| E4                              | 0.75                | 3/22/01     | 8.9                          | —                           | —                           | —                           |
| E5                              | 1.25                | 3/22/01     | 78                           | —                           | —                           | —                           |
| E6                              | 1.25                | 3/22/01     | 96                           | —                           | —                           | —                           |
| E7                              | 0.25                | 3/22/01     | 83                           | —                           | —                           | —                           |
| E8                              | 0.25                | 3/22/01     | 30                           | —                           | —                           | —                           |

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**Former Newark Sportsman's Club**  
**Newark, California**

| Sample Location | Sample Depth (Feet) | Sample Date | Lead TTLC Extraction (mg/kg) | Lead SPLP Extraction (mg/L) | Lead TCLP Extraction (mg/L) | Lead STLC Extraction (mg/L) |
|-----------------|---------------------|-------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|
| F1              | 0.25                | 3/22/01     | 390                          | 1.6                         | —                           | —                           |
| F1              | 0.75                | 3/22/01     | 320                          | —                           | —                           | —                           |
| F2              | 0.25                | 3/22/01     | 80                           | —                           | —                           | —                           |
| F3              | 0.25                | 3/22/01     | 12                           | —                           | —                           | —                           |
| F4              | 0.25                | 3/22/01     | 24,000                       | —                           | —                           | —                           |
| F4              | 0.75                | 3/22/01     | 8.3                          | <0.2                        | —                           | —                           |
| F5              | 0.25                | 3/22/01     | 1,000                        | —                           | —                           | —                           |
| F5              | 0.75                | 3/22/01     | 8.8                          | <0.2                        | —                           | —                           |
| F6              | 0.25                | 3/22/01     | 1,200                        | —                           | —                           | —                           |
| F6              | 0.75                | 3/22/01     | 19                           | <0.2                        | —                           | —                           |
| F7              | 0.25                | 3/22/01     | 360                          | —                           | —                           | —                           |
| F8              | 0.25                | 3/22/01     | 180                          | —                           | —                           | —                           |
| F8              | 0.75                | 3/22/01     | 250                          | —                           | —                           | —                           |
| F9              | 0.25                | 3/22/01     | 80                           | —                           | —                           | —                           |
| F10             | 0.25                | 3/22/01     | 24                           | —                           | —                           | —                           |
| F11             | 0.25                | 3/22/01     | 98                           | —                           | —                           | —                           |
| G0              | 0.25                | 4/12/01     | 7.4                          | —                           | —                           | —                           |
| G1A             | 0.25                | 5/7/01      | 75                           | —                           | —                           | —                           |
| G1              | 0.25                | 4/12/01     | 4.7                          | —                           | —                           | —                           |
| G2              | 0.25                | 4/12/01     | 1,100                        | —                           | —                           | —                           |
| G2              | 0.75                | 4/12/01     | 8.2                          | —                           | —                           | —                           |
| G3              | 0.25                | 4/12/01     | 110                          | —                           | —                           | —                           |
| G3              | 0.75                | 4/12/01     | 12                           | —                           | —                           | —                           |
| G4              | 0.25                | 4/12/01     | 1,600                        | —                           | —                           | —                           |
| G4              | 0.75                | 4/12/01     | 7.7                          | —                           | —                           | —                           |
| G5              | 0.25                | 4/12/01     | 380                          | —                           | —                           | —                           |
| G5              | 0.75                | 4/12/01     | 11                           | —                           | —                           | —                           |
| G6              | 0.25                | 4/12/01     | 7.8                          | —                           | —                           | —                           |
| G7              | 0.25                | 5/7/01      | 11                           | —                           | —                           | —                           |
| G8              | 0.25                | 5/17/01     | 240                          | —                           | —                           | —                           |
| H0A             | 0.25                | 5/7/01      | 16                           | —                           | —                           | —                           |
| H0              | 0.25                | 4/12/01     | 510                          | —                           | —                           | —                           |
| H0              | 0.75                | 8/23/01     | 9.1                          | —                           | —                           | —                           |
| H0              | 0.75                | 4/12/01     | 14                           | —                           | —                           | —                           |

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**Newark, California**

| Sample Location | Sample Depth (Feet) | Sample Date | Lead TTLC Extraction (mg/kg) | Lead SPLP Extraction (mg/L) | Lead TCLP Extraction (mg/L) | Lead STLC Extraction (mg/L) |
|-----------------|---------------------|-------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|
| H1A             | 0.25                | 5/7/01      | 8.9                          | —                           | —                           | —                           |
| H1B             | 0.25                | 5/7/01      | 6.0                          | —                           | —                           | —                           |
| H1              | 0.25                | 4/12/01     | 190                          | —                           | —                           | —                           |
| H1              | 0.75                | 4/12/01     | 29                           | —                           | —                           | —                           |
| H2              | 0.25                | 4/12/01     | 3,300                        | —                           | 3.9                         | —                           |
| H2              | 0.75                | 4/12/01     | 2,800                        | —                           | 58                          | —                           |
| H2              | 1.25                | 5/7/01      | 47                           | —                           | —                           | —                           |
| H2              | 1.75                | 5/7/01      | 54                           | —                           | —                           | —                           |
| H3              | 0.25                | 4/12/01     | 3,400                        | —                           | 3.9                         | —                           |
| H3              | 0.75                | 4/12/01     | 4,000                        | —                           | 0.36                        | —                           |
| H3              | 1.75                | 5/7/01      | 590/100                      | —                           | —                           | —                           |
| H4              | 0.25                | 4/12/01     | 4,200                        | —                           | —                           | —                           |
| H4              | 0.75                | 4/12/01     | 460                          | —                           | —                           | —                           |
| H4              | 1.75                | 5/7/01      | 200                          | —                           | —                           | —                           |
| H5              | 0.25                | 5/7/01      | 660                          | —                           | —                           | —                           |
| H5              | 1.25                | 5/7/01      | 85                           | —                           | —                           | —                           |
| H6              | 0.25                | 5/7/01      | 1,600                        | —                           | —                           | —                           |
| H6              | 1.25                | 5/7/01      | 3.9                          | —                           | —                           | —                           |
| H7              | 0.25                | 5/17/01     | 19,000                       | —                           | —                           | —                           |
| H7              | 0.75                | 8/24/01     | 11                           | —                           | —                           | —                           |
| H8              | 0.25                | 5/17/01     | 110                          | —                           | —                           | —                           |
| H8              | 0.75                | 8/24/01     | 83                           | —                           | —                           | —                           |
| J0              | 0.25                | 5/17/01     | 110                          | —                           | —                           | —                           |
| J1              | 0.25                | 5/7/01      | 580                          | —                           | —                           | —                           |
| J1              | 0.75                | 8/23/01     | 73                           | —                           | —                           | —                           |
| J1              | 1.25                | 5/7/01      | 11                           | —                           | —                           | —                           |
| J2              | 0.25                | 5/7/01      | 1,600                        | —                           | —                           | —                           |
| J2              | 0.75                | 8/23/01     | 73                           | —                           | —                           | —                           |
| J2              | 1.25                | 5/7/01      | 11                           | —                           | —                           | —                           |
| J3              | 0.25                | 5/7/01      | 2,200                        | —                           | —                           | —                           |
| J3              | 0.75                | 8/23/01     | 90                           | —                           | —                           | —                           |
| J3              | 1.25                | 5/7/01      | 33                           | —                           | —                           | —                           |

**Table 1**  
**Summary of Lead and Copper Analytical Results for Soil Samples**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Sample Location | Sample Depth (Feet) | Sample Date | Lead TTLC Extraction (mg/kg) | Lead SPLP Extraction (mg/L) | Lead TCLP Extraction (mg/L) | Lead STLC Extraction (mg/L) |
|-----------------|---------------------|-------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|
| J4              | 0.25                | 5/7/01      | 2,900                        | —                           | —                           | —                           |
| J4              | 0.75                | 5/7/01      | 17                           | —                           | —                           | —                           |
| J4              | 0.375               | 8/23/01     | 7.7                          | —                           | —                           | —                           |
| J5              | 0.25                | 5/7/01      | 12                           | —                           | —                           | —                           |
| J5              | 0.75                | 5/7/01      | 13                           | —                           | —                           | —                           |
| J6              | 0.25                | 5/7/01      | 10                           | —                           | —                           | —                           |
| J6              | 0.75                | 5/7/01      | 14                           | —                           | —                           | —                           |
| J7              | 0.25                | 5/7/01      | 5.9                          | —                           | —                           | —                           |
| J7              | 0.75                | 5/7/01      | 360                          | —                           | —                           | —                           |
| J7              | 1.75                | 5/7/01      | 34                           | —                           | —                           | —                           |
| J8              | 0.25                | 5/7/01      | 7.9                          | —                           | —                           | —                           |
| J9              | 0.25                | 5/17/01     | 500                          | —                           | —                           | —                           |
| J9              | 0.75                | 8/24/01     | 8.4                          | —                           | —                           | —                           |
| J10             | 0.25                | 5/17/01     | 850                          | —                           | —                           | —                           |
| J10             | 0.75                | 8/24/01     | 11                           | —                           | —                           | —                           |
| J11             | 0.25                | 8/24/01     | 12                           | —                           | —                           | —                           |
| J11             | 0.75                | 8/24/01     | 11                           | —                           | —                           | —                           |
| K1              | 0.25                | 5/17/01     | 59                           | —                           | —                           | —                           |
| K2              | 0.25                | 5/17/01     | 30                           | —                           | —                           | —                           |
| K3              | 0.25                | 5/7/01      | 710                          | —                           | —                           | —                           |
| K3              | 0.375               | 8/23/01     | 8.6                          | —                           | —                           | —                           |
| K3              | 1.25                | 5/7/01      | 72 / 2,600                   | —                           | —                           | —                           |
| K3              | 1.75                | 8/24/01     | 9.5                          | —                           | 3.0                         | —                           |
| K4              | 0.25                | 5/7/01      | 970                          | —                           | —                           | —                           |
| K4              | 0.375               | 8/23/01     | 5.4                          | —                           | —                           | —                           |
| K4              | 0.75                | 5/7/01      | 5.7                          | —                           | —                           | —                           |
| K5              | 0.25                | 5/7/01      | 1,300                        | —                           | —                           | —                           |
| K5              | 0.375               | 8/23/01     | 8.3                          | —                           | —                           | —                           |
| K5              | 0.75                | 5/7/01      | 29                           | —                           | —                           | —                           |
| K6              | 0.25                | 5/7/01      | 8.8                          | —                           | —                           | —                           |
| K6              | 0.75                | 5/7/01      | 78                           | —                           | —                           | —                           |
| K6              | 1.75                | 5/7/01      | 27                           | —                           | —                           | —                           |

**Table 1**  
**Summary of Lead and Copper Analytical Results for Soil Samples**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Sample Location | Sample Depth (Feet) | Sample Date | Lead TTLC Extraction (mg/kg) | Lead SPLP Extraction (mg/L) | Lead TCLP Extraction (mg/L) | Lead STLC Extraction (mg/L) |
|-----------------|---------------------|-------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|
| K7              | 0.25                | 5/7/01      | 8,700                        | —                           | —                           | —                           |
| K7              | 0.75                | 5/7/01      | 9.6                          | —                           | —                           | —                           |
| K8              | 0.25                | 5/7/01      | 380                          | —                           | —                           | —                           |
| K8              | 1.25                | 5/7/01      | 15                           | —                           | —                           | —                           |
| K9              | 0.25                | 5/17/01     | 83                           | —                           | —                           | —                           |
| K10             | 0.25                | 8/24/01     | 22                           | —                           | —                           | —                           |
| K10             | 0.75                | 8/24/01     | 8                            | —                           | —                           | —                           |
| K11             | 0.25                | 8/24/01     | 16                           | —                           | —                           | —                           |
| K11             | 0.75                | 8/24/01     | 9.8                          | —                           | —                           | —                           |
| L3              | 0.25                | 5/17/01     | 10                           | —                           | —                           | —                           |
| L3              | 0.75                | 5/17/01     | 8.6                          | —                           | —                           | —                           |
| L4              | 0.25                | 5/17/01     | 20                           | —                           | —                           | —                           |
| L4              | 0.75                | 5/17/01     | 6.2                          | —                           | —                           | —                           |
| L5              | 0.25                | 5/17/01     | 140                          | —                           | —                           | —                           |
| L5              | 0.75                | 5/17/01     | 11                           | —                           | —                           | —                           |
| L6              | 0.25                | 5/17/01     | 11                           | —                           | —                           | —                           |
| L6              | 0.75                | 5/17/01     | 7.3                          | —                           | —                           | —                           |
| L7              | 0.25                | 5/17/01     | 19                           | —                           | —                           | —                           |
| L7              | 0.75                | 5/17/01     | 7.4                          | —                           | —                           | —                           |
| L8              | 0.25                | 5/17/01     | 8.2                          | —                           | —                           | —                           |
| L8              | 0.75                | 5/17/01     | 14                           | —                           | —                           | —                           |
| L9              | 0.25                | 5/17/01     | 1,200                        | —                           | —                           | —                           |
| L9              | 0.75                | 8/24/01     | 6.5                          | —                           | —                           | —                           |
| L10             | 0.25                | 8/24/01     | 25                           | —                           | —                           | —                           |
| L10             | 0.75                | 8/24/01     | 6.1                          | —                           | —                           | —                           |
| M4              | 0.25                | 5/17/01     | 19                           | —                           | —                           | —                           |
| M6              | 0.25                | 5/17/01     | 55                           | —                           | —                           | —                           |
| M8              | 0.25                | 5/17/01     | 36                           | —                           | —                           | —                           |
| M9              | 0.25                | 8/24/01     | 26                           | —                           | —                           | —                           |
| M9              | 0.75                | 8/24/01     | 8.5                          | —                           | —                           | —                           |
| M10             | 0.25                | 8/24/01     | 49                           | —                           | —                           | —                           |
| M10             | 0.75                | 8/24/01     | 16                           | —                           | —                           | —                           |
| N5              | 0.25                | 5/17/01     | 51                           | —                           | —                           | —                           |
| N7              | 0.25                | 5/17/01     | 16                           | —                           | —                           | —                           |

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**Former Newark Sportsman's Club**  
**Newark, California**

| Sample Location                 | Sample Depth (Feet) | Sample Date | Lead TTLC Extraction (mg/kg) | Lead SPLP Extraction (mg/L) | Lead TCLP Extraction (mg/L) | Lead STLC Extraction (mg/L) |
|---------------------------------|---------------------|-------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|
| <b>Composite Sample Results</b> |                     |             |                              |                             |                             |                             |
| F4, F5, F6, G2                  | 0.375               | 8/23/01     | 150                          | —                           | 13                          | —                           |
| G4, H2, H3, H4                  | Surface             | 8/23/01     | 100,000                      | —                           | 99                          | —                           |
| G4, H2, H3, H4                  | 0.375               | 8/23/01     | 840                          | —                           | 0.58                        | 0.36                        |
| H5, H6, H7                      | Surface             | 8/23/01     | 2,200                        | —                           | 48                          | —                           |
| H2, H3                          | 0.875               | 8/23/01     | 9.9                          | —                           | <0.2                        | <0.2                        |
| H4                              | 0.875               | 8/23/01     | 10                           | —                           | <0.2                        | <0.2                        |
| H3                              | 1.875               | 8/23/01     | 14                           | —                           | <0.2                        | <0.2                        |
| H6, H7                          | 0.375               | 8/23/01     | 18                           | —                           | <0.2                        | <0.2                        |
| H0, J1, K3, K4                  | 0.375               | 8/23/01     | 9.1                          | —                           | <0.2                        | <0.2                        |
| H5, J9, J10                     | 0.375               | 8/23/01     | 9.9                          | —                           | <0.2                        | <0.2                        |
| J2, J3, J4, K5                  | 0.375               | 8/23/01     | 6.4                          | —                           | <0.2                        | <0.2                        |
| K7, L9                          | 0.375               | 8/24/01     | 8.7                          | —                           | <0.2                        | <0.2                        |

|                                      |  |       |   |     |   |     |
|--------------------------------------|--|-------|---|-----|---|-----|
| <b>PRG</b>                           |  |       |   |     |   |     |
| Residential                          |  | 400   | — | —   | — | —   |
| Industrial                           |  | 750   | — | —   | — | —   |
| <b>California State</b>              |  |       |   |     |   |     |
| Title 22 TTLC                        |  | 1,000 | — | —   | — | —   |
| Title 22 STLC (mg/L)                 |  | —     | — | —   | — | 5.0 |
| <b>Federal</b>                       |  |       |   |     |   |     |
| TCLP Hazardous Waste Criteria (mg/L) |  | —     | — | 5.0 | — | —   |

**Notes:**

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

SPLP = Synthetic Precipitation Leachate Procedure by EPA Method 1311

TTLC = California Total Threshold Limit Concentration - State hazardous waste criterion

TCLP = Federal Toxicity Characteristic Leaching Potential Analysis - Federal hazardous waste criterion

STLC = Soluble Threshold Limit Concentration

PRG = EPA Preliminary Remedial Goals for residential soil (November 2000)

RCRA = Resource Conservation and Recovery Act

— = Not Analyzed

**Bold** indicates a detected value that exceeds the residential PRG, State waste criteria, or Federal waste criteria.

Shading indicates new analytical results added to the table for the August 2001 sampling event.

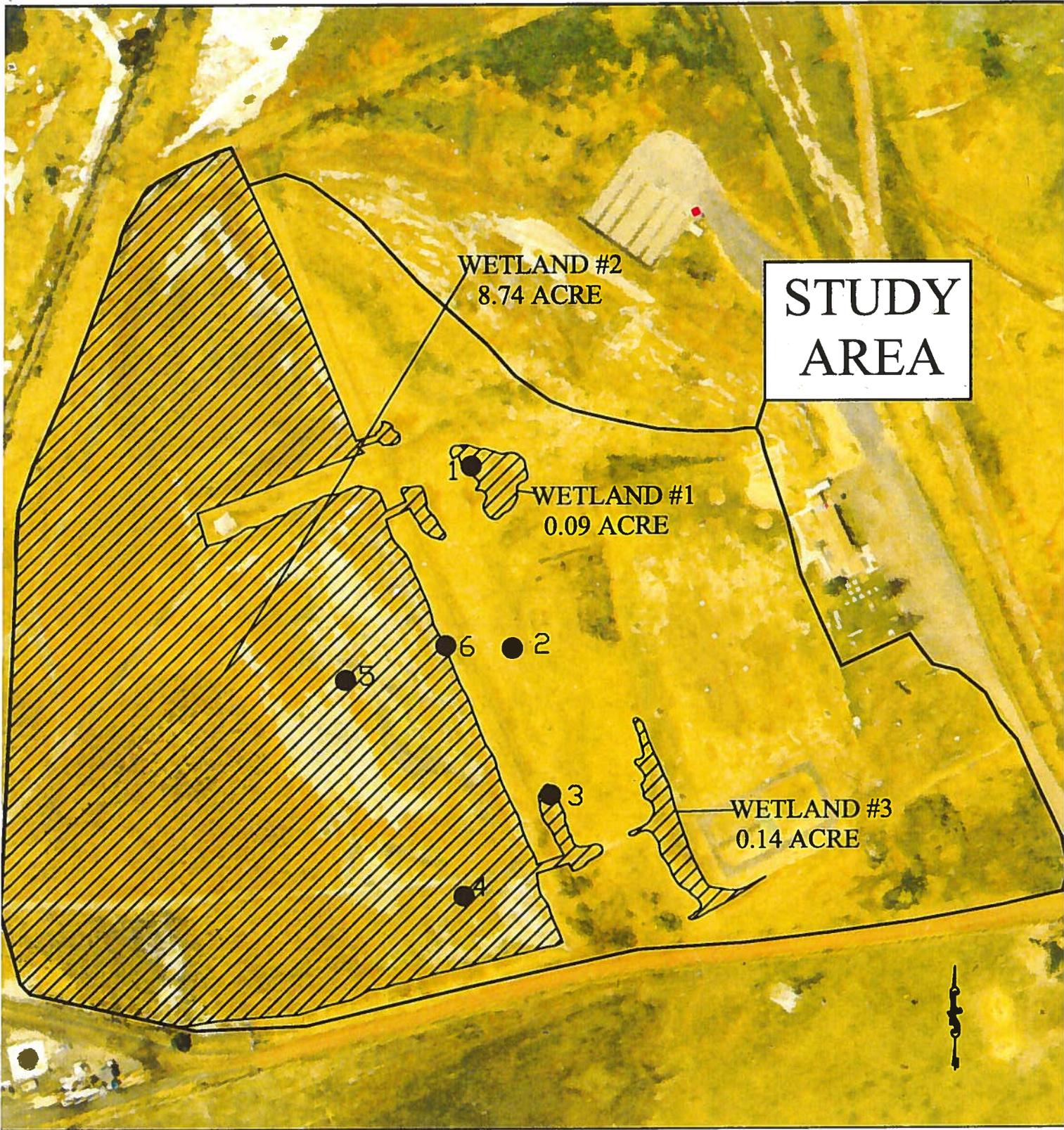
<0.2 = Not detected at or above laboratory reporting limits.

**Table 4**  
**Soil Stockpile Analytical Results - TCLP and STLIC Metals**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Stockpile Number               | Sample Number  | Sampling Date | TCLP  |       |       |       | STLIC |      |
|--------------------------------|----------------|---------------|-------|-------|-------|-------|-------|------|
|                                |                |               | Sb    | As    | Cr    | Pb    | Cr    | Pb   |
| Stockpiles #1 & #2             | CP-1S,1D,2S,2D | 4/24/01       | <0.50 | <0.50 | <0.50 | <0.50 | —     | —    |
|                                | SP-1A,B        | 9/12/01       | —     | —     | —     | —     | <0.5  | 12   |
|                                | SP-1C,D        | 9/12/01       | —     | —     | —     | —     | <0.5  | 5.7  |
| Stockpile #3                   | CP-3S,3D       | 4/24/01       | <0.50 | <0.50 | <0.50 | 2.1   | —     | —    |
|                                | SP-3A,B        | 9/12/01       | —     | —     | —     | —     | <0.5  | 9.3  |
| Stockpile #4                   | CP-4S,4D       | 4/24/01       | <0.05 | <0.05 | <0.05 | <0.05 | —     | —    |
|                                | SP-4A,B        | 9/12/01       | —     | —     | —     | —     | <0.5  | <0.5 |
| <b>California State</b>        |                |               |       |       |       |       |       |      |
| <b>Title 22 STLIC (mg/l)</b>   |                |               |       |       |       |       |       |      |
| Federal                        |                |               | —     | —     | —     | —     | 5.0   | 5.0  |
| TCLP Hazardous Criteria (mg/l) |                |               | 5.0   | 5.0   | 5.0   | 5.0   | —     | —    |

**Notes:**  
 <0.5 = Not detected at or above indicated method reporting limit.  
 As = Arsenic; Cr = Chromium; Pb = Lead; Sb = Antimony  
 TCLP = Toxicity Characteristic Leaching Potential  
 STLIC = Soluble Threshold Limit Concentration

**APPENDIX A  
Wetlands Delineation Figure**



75 0 75 150 FEET  
 SCALE: 1" = 150'

Figure 3

L:\wrs\_custom\graphics\wralogo\_black.tif

AREAS MEETING  
 1987 CORPS  
 MANUAL CRITERIA

Cargill Salt, Western Division  
 7220 Central Avenue  
 Newark, CA 94560  
 Contact: Mr. Robert Douglass  
 510/790-8156

Newark Gun Club Parcel

LOCATION: South of Thornton Avenue  
 and at the end of Perrin Avenue  
 Newark, CA  
 COUNTY: Alameda

DATE: June 2001  
 FILE: 2047\olddwg\figs\Newark\_Gun\_Club\_fig3

**APPENDIX B**  
**Analytical Results**



McCAMPBELL ANALYTICAL INC.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560  
Telephone : 925-798-1620 Fax : 925-798-1622  
<http://www.mccampbell.com> E-mail: [main@mccampbell.com](mailto:main@mccampbell.com)

|  |   |                                |
|--|---|--------------------------------|
| Treadwell & Rollo<br>555 Montgomery St., Suite 1300<br>San Francisco, CA 94111 | Client Project ID: #3194.01; Cargill Salt | Date Sampled: 08/23-08/24/01   |
|  |   | Date Received: 08/28/01        |
|  | Client Contact: David Dixon               | Date Extracted: 08/28-09/15/01 |
|  | Client P.O:                               | Date Analyzed: 08/28-09/16/01  |

09/20/01

Dear David:

Enclosed are:

- 1). the results of 31 samples from your #3194.01; Cargill Salt project,
- 2). a QC report for the above samples
- 3). a copy of the chain of custody, and
- 4). a bill for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits. If you have any questions please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Edward Hamilton, Lab Director



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|  |   |                              |
|--|---|------------------------------|
| Treadwell & Rollo<br>555 Montgomery St., Suite 1300<br>San Francisco, CA 94111 | Client Project ID: #3194.01; Cargill Salt | Date Sampled: 08/23-08/24/01 |
|  | Client Contact: David Dixon               | Date Received: 08/28/01      |
|  | Client P.O:                               | Date Extracted: 08/29/01     |
|  |   | Date Analyzed: 08/29/01      |

**Polynuclear Aromatic Hydrocarbons (PAH / PNA) by GC-MS**  
 EPA methods 625 (modified 610) and 3510 or 8270 (modified 8100) and 3550

| Lab ID                 | 76248          | Reporting Limit |                 |
|------------------------|----------------|-----------------|-----------------|
| Client ID              | E6-1.75        | S               | W, STLC<br>TCLP |
| Matrix                 | S              |                 |                 |
| Compound               | Concentration* | mg/kg           | ug/L            |
| Acenaphthene           | ND             | 0.062           | 10              |
| Acenaphthylene         | ND             | 0.062           | 10              |
| Anthracene             | ND             | 0.062           | 10              |
| Benzo(a)anthracene     | ND             | 0.062           | 10              |
| Benzo(b)fluoranthene   | ND             | 0.062           | 10              |
| Benzo(k)fluoranthene   | ND             | 0.062           | 10              |
| Benzo(g,h,i)perylene   | ND             | 0.062           | 10              |
| Benzo(a)pyrene         | ND             | 0.062           | 10              |
| Chrysene               | ND             | 0.062           | 10              |
| Dibenzo(a,h)anthracene | ND             | 0.062           | 10              |
| Fluoranthene           | ND             | 0.062           | 10              |
| Fluorene               | ND             | 0.062           | 10              |
| Indeno(1,2,3-cd)pyrene | ND             | 0.062           | 10              |
| Naphthalene            | ND             | 0.062           | 10              |
| Phenanthrene           | ND             | 0.062           | 10              |
| Pyrene                 | ND             | 0.062           | 10              |
| % Recovery Surrogate 1 | 105            |                 |                 |
| % Recovery Surrogate 2 | 108            |                 |                 |
| Comments               |                |                 |                 |

\* water and vapor samples are reported in ug/L, soil and sludge samples in mg/kg, wipes in ug/wipe and all TCLP / STLC / SPLP extracts in ug/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis

\* surrogate diluted out of range or surrogate coelutes with another peak

(h) a lighter than water immiscible sheen is present; (i) liquid sample that contains >~5 vol. % sediment; (j) sample diluted due to high organic content.

DHS Certification No. 1644

Edward Hamilton, Lab Director



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|  |   |                               |
|--|---|-------------------------------|
| Treadwell & Rollo<br>555 Montgomery St., Suite 1300<br>San Francisco, CA 94111 | Client Project ID: #3194.01; Cargill Salt | Date Sampled: 08/23-08/24/01  |
|  | Client Contact: David Dixon               | Date Received: 08/28/01       |
|  | Client P.O:                               | Date Analyzed: 08/29-08/30/01 |
|  |   | Date Extracted: 08/28/01      |

| Lead*  |                        |           |              |            |                      |
|--|------------------------|-----------|--------------|------------|----------------------|
| EPA analytical methods 6010/200.7  |                        |           |              |            |                      |
| Lab ID   | Client ID              | Matrix    | Extraction ° | Lead*      | % Recovery Surrogate |
| 76209  | HO,J1,K3,K4 (0.25-0.5) | S         | TTLC         | 9.1        | 111                  |
| 76210  | J2,J3,J4,K5 (0.25-0.5) | S         | TTLC         | 6.4        | 106                  |
| 76211  | H5,J9,J10 (0.25-0.5)   | S         | TTLC         | 9.9        | 104                  |
| 76212  | H5,H6,H7 (0.25-0.5)    | S         | TTLC         | 2200       | 102                  |
| 76213  | F4,F5,F6,G2 (0.25-0.5) | S         | TTLC         | 150        | 98                   |
| 76214  | H2,H3 (0.75-1.0A-B)    | S         | TTLC         | 9.9        | 102                  |
| 76215  | G4,H2,H3,H4 (0)        | S         | TTLC         | 100,000    | 100                  |
| 76216  | H2,H3,H4,G4 (0.25-0.5) | S         | TTLC         | 840        | 98                   |
| 76217  | H4 (0.75-1.0A-D)       | S         | TTLC         | 10         | 102                  |
| 76218  | H3 (1.75-2.0A-D)       | S         | TTLC         | 14         | 101                  |
| 76219  | H6,H7 (0.25-0.5A-D)    | S         | TTLC         | 18         | 97                   |
| 76220  | K7,L9 (0.25-0.5A-B)    | S         | TTLC         | 8.7        | 98                   |
| 76221  | L9-0.75                | S         | TTLC         | 6.5        | 98                   |
| 76222  | J9-075                 | S         | TTLC         | 8.4        | 105                  |
| 76223  | J10-0.75               | S         | TTLC         | 11         | 98                   |
| 76224  | H7-0.75                | S         | TTLC         | 11         | 99                   |
| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | S                      | TTLC      |              | 3.0 mg/kg  |                      |
|  | W                      | TTLC      |              | 0.005 mg/L |                      |
|  | ---                    | STLC,TCLP |              | 0.2 mg/L   |                      |

\* soil and sludge samples are reported in mg/kg, wipe samples in ug/wipe, and water samples and all STLC / SPLP / TCLP extracts in mg/L.  
 ° Lead is analysed using EPA method 6010 (ICP) for soils, sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples  
 @ DISTLC extractions are performed using STLC methodology except that deionized water is substituted for citric acid buffer as the extraction fluid. DISTLC results are not applicable to STLC regulatory limits.  
 ° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22  
 # surrogate diluted out of range; N/A means surrogate not applicable to this analysis  
 ^ reporting limit raised due matrix interference  
 i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.



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|  |   |                              |
|--|---|------------------------------|
| Treadwell & Rollo<br>555 Montgomery St., Suite 1300<br>San Francisco, CA 94111 | Client Project ID: #3194.01; Cargill Salt | Date Sampled: 08/23-08/24/01 |
|  | Client Contact: David Dixon               | Date Received: 08/28/01      |
|  | Client P.O:                               | Date Extracted: 08/28/01     |
|  |   | Date Analyzed: 08/28/01      |

**Lead\***

EPA analytical methods 6010/200.7, 239.2\*

| Lab ID   | Client ID | Matrix    | Extraction ° | Lead*      | % Recovery Surrogate |
|--|-----------|-----------|--------------|------------|----------------------|
| 76225  | H8-0.75   | S         | TTLC         | 8.3        | 96                   |
| 76226  | J11-0.25  | S         | TTLC         | 12         | 93                   |
| 76227  | J11-0.75  | S         | TTLC         | 11         | 98                   |
| 76234  | K11-0.25  | S         | TTLC         | 16         | 101                  |
| 76235  | K11-0.75  | S         | TTLC         | 9.8        | 96                   |
| 76240  | L10-0.25  | S         | TTLC         | 25         | 101                  |
| 76241  | L10-0.75  | S         | TTLC         | 6.1        | 98                   |
| 76242  | K10-0.25  | S         | TTLC         | 22         | 98                   |
| 76243  | K10-0.75  | S         | TTLC         | 8.0        | 97                   |
| 76244  | M10-0.25  | S         | TTLC         | 49         | 105                  |
| 76245  | M10-0.75  | S         | TTLC         | 16         | 104                  |
| 76246  | M9-0.25   | S         | TTLC         | 26         | 100                  |
| 76247  | M9-0.75   | S         | TTLC         | 8.5        | 97                   |
| 76249  | K3-1.75   | S         | TTLC         | 9.3        | 97                   |
| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | S         | TTLC      |              | 3.0 mg/kg  |                      |
|  | W         | TTLC      |              | 0.005 mg/L |                      |
|  | ---       | STLC,TCLP |              | 0.2 mg/L   |                      |

\* soil and sludge samples are reported in mg/kg, wipe samples in ug/wipe, and water samples and all STLC / SPLP / TCLP extracts in mg/L  
 \*Lead is analysed using EPA method 6010 (ICP)for soils, sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples  
 @ DISTLC extractions are performed using STLC methodology except that deionized water is substituted for citric acid buffer as the extraction fluid. DISTLC results are not applicable to STLC regulatory limits.  
 ° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22  
 \* surrogate diluted out of range; N/A means surrogate not applicable to this analysis  
 & reporting limit raised due matrix interference  
 i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.



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|  |   |                              |
|--|---|------------------------------|
| Treadwell & Rollo<br>555 Montgomery St., Suite 1300<br>San Francisco, CA 94111 | Client Project ID: #3194.01; Cargill Salt | Date Sampled: 08/23-08/24/01 |
|  | Client Contact: David Dixon               | Date Received: 08/28/01      |
|  | Client P.O:                               | Date Extracted: 09/13/01     |
|  |   | Date Analyzed: 09/14/01      |

**Lead\***

EPA analytical methods 6010/200.7, 239.2\*

| Lab ID   | Client ID   | Matrix    | Extraction ° | Lead* | % Recovery Surrogate |
|--|-------------|-----------|--------------|-------|----------------------|
| 76209A   | HO-0.33-0.5 | S         | TTLIC        | 9.1   | 102                  |
| 76209B   | J1-0.33-0.5 | S         | TTLIC        | 7.8   | 106                  |
| 76209C   | K3-0.33-0.5 | S         | TTLIC        | 8.6   | 101                  |
| 76209D   | K4-0.33-0.5 | S         | TTLIC        | 5.4   | 104                  |
| 76210A   | J2-0.33-0.5 | S         | TTLIC        | 7.1   | 106                  |
| 76210B   | J3-0.33-0.5 | S         | TTLIC        | 9.0   | 109                  |
| 76210C   | J4-0.33-0.5 | S         | TTLIC        | 7.7   | 104                  |
| 76210D   | K5-0.33-0.5 | S         | TTLIC        | 8.3   | 109                  |
|  |             |           |              |       |                      |
|  |             |           |              |       |                      |
|  |             |           |              |       |                      |
|  |             |           |              |       |                      |
|  |             |           |              |       |                      |
|  |             |           |              |       |                      |
|  |             |           |              |       |                      |
| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | S           | TTLIC     | 3.0 mg/kg    |       |                      |
|  | W           | TTLIC     | 0.005 mg/L   |       |                      |
|  | ---         | STLC,TCLP | 0.2 mg/L     |       |                      |

\* soil and sludge samples are reported in mg/kg, wipe samples in ug/wipe, and water samples and all STLC / SPL / TCLP extracts in mg/L  
 \*Lead is analysed using EPA method 6010 (ICP)for soils, sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples

° DISTLC extractions are performed using STLC methodology except that deionized water is substituted for citric acid buffer as the extraction fluid. DISTLC results are not applicable to STLC regulatory limits.

° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLIC), 3040(organic matrices,TTLIC), 3050(solids,TTLIC); STLC - CA Title 22

" surrogate diluted out of range; N/A means surrogate not applicable to this analysis

& reporting limit raised due matrix interference

i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.



McCAMPBELL ANALYTICAL INC.

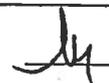
110 2nd Avenue South, #D7, Pacheco, CA 94553-5560  
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<http://www.mccampbell.com> E-mail: main@mccampbell.com

|  |   |                                |
|--|---|--------------------------------|
| Treadwell & Rollo<br>555 Montgomery St., Suite 1300<br>San Francisco, CA 94111 | Client Project ID: #3194.01; Cargill Salt | Date Sampled: 08/23-08/24/01   |
|  | Client Contact: David Dixon               | Date Received: 08/28/01        |
|  | Client P.O:                               | Date Extracted: 09/13-09/15/01 |
|  |   | Date Analyzed: 09/16/01        |

| Lead*  |                           |           |              |            |                      |
|--|---------------------------|-----------|--------------|------------|----------------------|
| EPA analytical methods 6010/200.7, 239.2*  |                           |           |              |            |                      |
| Lab ID   | Client ID                 | Matrix    | Extraction ° | Lead*      | % Recovery Surrogate |
| 76209  | HO,J1,K3,K4<br>(0.25-0.5) | S         | STLC         | ND         | N/A                  |
| 76210  | J2,J3,J4,K5<br>(0.25-0.5) | S         | STLC         | ND         | N/A                  |
| 76211  | H5,J9,J10<br>(0.25-0.5)   | S         | STLC         | ND         | N/A                  |
| 76214  | H2,H3<br>(0.75-1.0A-B)    | S         | STLC         | ND         | N/A                  |
| 76216  | H2,H3,H4,G4<br>(0.25-0.5) | S         | STLC         | 0.36       | N/A                  |
| 76217  | H4<br>(0.75-1.0A-D)       | S         | STLC         | ND         | N/A                  |
| 76218  | H3<br>(1.75-2.0A-D)       | S         | STLC         | ND         | N/A                  |
| 76219  | H6,H7<br>(0.25-0.5A-D)    | S         | STLC         | ND         | N/A                  |
| 76220  | K7,L9<br>(0.25-0.5A-B)    | S         | STLC         | ND         | N/A                  |
|  |                           |           |              |            |                      |
|  |                           |           |              |            |                      |
|  |                           |           |              |            |                      |
|  |                           |           |              |            |                      |
| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | S                         | TTLIC     |              | 3.0 mg/kg  |                      |
|  | W                         | TTLIC     |              | 0.005 mg/L |                      |
|  | ---                       | STLC,TCLP |              | 0.2 mg/L   |                      |

\* soil and sludge samples are reported in mg/kg, wipe samples in ug/wipe, and water samples and all STLC / SPLP / TCLP extracts in mg/L  
 ° Lead is analysed using EPA method 6010 (ICP) for soils, sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples  
 @ DISTLC extractions are performed using STLC methodology except that deionized water is substituted for citric acid buffer as the extraction fluid. DISTLC results are not applicable to STLC regulatory limits.  
 ° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLIC), 3040(organic matrices,TTLIC), 3050(solids,TTLIC); STLC - CA Title 22  
 # surrogate diluted out of range; N/A means surrogate not applicable to this analysis  
 \* reporting limit raised due matrix interference  
 i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

DHS Certification No. 1644

 Edward Hamilton, Lab Director



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| Treadwell & Rollo<br>555 Montgomery St., Suite 1300<br>San Francisco, CA 94111 | Client Project ID: #3194.01; Cargill Salt | Date Sampled: 08/23-08/24/01   |
|  | Client Contact: David Dixon               | Date Received: 08/28/01        |
|  | Client P.O:                               | Date Extracted: 08/28-08/29/01 |
|  |   | Date Analyzed: 08/30/01        |

Lead\*

EPA analytical methods 6010/200.7

| Lab ID | Client ID                 | Matrix | Extraction ° | Lead* | % Recovery Surrogate |
|--------|---------------------------|--------|--------------|-------|----------------------|
| 76209  | HO,J1,K3,K4<br>(0.25-0.5) | S      | TCLP         | ND    | N/A                  |
| 76210  | J2,J3,J4,K5<br>(0.25-0.5) | S      | TCLP         | ND    | N/A                  |
| 76211  | H5,J9,J10<br>(0.25-0.5)   | S      | TCLP         | ND    | N/A                  |
| 76212  | H5,H6,H7<br>(0.25-0.5)    | S      | TCLP         | 48    | N/A                  |
| 76213  | F4,F5,F6,G2<br>(0.25-0.5) | S      | TCLP         | 13    | N/A                  |
| 76214  | H2,H3<br>(0.75-1.0A-B)    | S      | TCLP         | ND    | N/A                  |
| 76215  | G4,H2,H3,H4<br>(0)        | S      | TCLP         | 99    | N/A                  |
| 76216  | H2,H3,H4,G4<br>(0.25-0.5) | S      | TCLP         | 0.58  | N/A                  |
| 76217  | H4<br>(0.75-1.0A-D)       | S      | TCLP         | ND    | N/A                  |
| 76218  | H3<br>(1.75-2.0A-D)       | S      | TCLP         | ND    | N/A                  |
| 76219  | H6,H7<br>(0.25-0.5A-D)    | S      | TCLP         | ND    | N/A                  |
| 76220  | K7,L9<br>(0.25-0.5A-B)    | S      | TCLP         | ND    | N/A                  |
|        |                           |        |              |       |                      |
|        |                           |        |              |       |                      |

|  |     |           |            |
|--|-----|-----------|------------|
| Reporting Limit unless otherwise stated; ND means not detected above the reporting limit | S   | TTLC      | 3.0 mg/kg  |
|  | W   | TTLC      | 0.005 mg/L |
|  | --- | STLC,TCLP | 0.2 mg/L   |

\* soil and sludge samples are reported in mg/kg, wipe samples in ug/wipe, and water samples and all STLC / SPLP / TCLP extracts in mg/L  
 °Lead is analysed using EPA method 6010 (ICP)for soils, sludges, STLC & TCLP extracts and method 239.2 (AA Furnace) for water samples  
 @ DISTLC extractions are performed using STLC methodology except that deionized water is substituted for citric acid buffer as the extraction fluid. DISTLC results are not applicable to STLC regulatory limits.  
 ° EPA extraction methods 1311(TCLP), 3010/3020(water,TTLC), 3040(organic matrices,TTLC), 3050(solids,TTLC); STLC - CA Title 22  
 # surrogate diluted out of range; N/A means surrogate not applicable to this analysis  
 ^ reporting limit raised due matrix interference  
 i) liquid sample that contains greater than ~2 vol. % sediment; this sediment is extracted with the liquid, in accordance with EPA methodologies and can significantly effect reported metal concentrations.

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## QC REPORT

### SVOCs (EPA 8270/625/525)

Date: 08/28/01-08/29/01

Extraction: N/A

Matrix: Soil

| Compound | Concentration: ug/kg |    |     | %Recovery |     | RPD |
|----------|----------------------|----|-----|-----------|-----|-----|
|          | Sample               | MS | MSD | MS        | MSD |     |

SampleID: 82801

Instrument: GC-8

|                         |    |        |        |         |     |     |     |
|-------------------------|----|--------|--------|---------|-----|-----|-----|
| Surrogate1              | ND | 1010.0 | 990.0  | 1000.00 | 101 | 99  | 2.0 |
| Pyrene                  | ND | 750.0  | 710.0  | 1000.00 | 75  | 71  | 5.5 |
| Pentachlorophenol       | ND | 1080.0 | 1050.0 | 2000.00 | 54  | 53  | 2.8 |
| 2,4-Dinitrotoluene      | ND | 920.0  | 900.0  | 1000.00 | 92  | 90  | 2.2 |
| 4-Nitrophenol           | ND | 1560.0 | 1600.0 | 2000.00 | 78  | 80  | 2.5 |
| Acenaphthene            | ND | 860.0  | 820.0  | 1000.00 | 86  | 82  | 4.8 |
| 4-Chloro-3-methylphenol | ND | 1990.0 | 1950.0 | 2000.00 | 100 | 98  | 2.0 |
| 1,2,4-trichlorobenzene  | ND | 950.0  | 900.0  | 1000.00 | 95  | 90  | 5.4 |
| N-nitroso-di-n-propyl   | ND | 1010.0 | 1040.0 | 1000.00 | 101 | 104 | 2.9 |
| 1,4-Dichlorobenzene     | ND | 940.0  | 910.0  | 1000.00 | 94  | 91  | 3.2 |
| 2-Chlorophenol          | ND | 1850.0 | 1810.0 | 2000.00 | 93  | 91  | 2.2 |
| Phenol                  | ND | 1500.0 | 1490.0 | 2000.00 | 75  | 75  | 0.7 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 100$$

RPD means Relative Percent Deviation



McCAMPBELL ANALYTICAL INC.

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Telephone : 925-798-1620 Fax : 925-798-1622  
<http://www.mccampbell.com> E-mail: [main@mccampbell.com](mailto:main@mccampbell.com)

### QC REPORT

Date: 08/30/01-08/31/01

Extraction: TTLC

Matrix: Soil

| Compound        | Concentration: mg/kg |     |                      | %Recovery     |     | RPD |     |
|-----------------|----------------------|-----|----------------------|---------------|-----|-----|-----|
|                 | Sample               | MS  | MSD                  | Amount Spiked | MS  |     | MSD |
| SampleID: 82701 |                      |     | Instrument: P-1   AA |               |     |     |     |
| Lead            | ND                   | 5.2 | 5.1                  | 5.00          | 105 | 102 | 2.2 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



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## QC REPORT

Date: 08/27/01-08/28/01

Extraction: TTLC

Matrix: Soil

| Compound        | Concentration: mg/kg |                      |     | %Recovery |     | RPD |     |
|-----------------|----------------------|----------------------|-----|-----------|-----|-----|-----|
|                 | Sample               | MS                   | MSD | MS        | MSD |     |     |
| SampleID: 82701 |                      | Instrument: P-1   AA |     |           |     |     |     |
| Lead            | ND                   | 4.9                  | 4.9 | 5.00      | 97  | 97  | 0.2 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$\text{RPD} = \frac{(MS - \text{MSD})}{(MS + \text{MSD})} \cdot 100$$

RPD means Relative Percent Deviation



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### QC REPORT

Date: 09/13/01-09/14/01

Extraction: TTLC

Matrix: Soil

| Compound               | Concentration: mg/kg |                             |     | %Recovery     |     | RPD |     |
|------------------------|----------------------|-----------------------------|-----|---------------|-----|-----|-----|
|                        | Sample               | MS                          | MSD | Amount Spiked | MS  |     | MSD |
| <u>SampleID:</u> 91301 |                      | <u>Instrument:</u> P-1   AA |     |               |     |     |     |
| Lead                   | ND                   | 5.1                         | 5.4 | 5.00          | 101 | 107 | 5.7 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 100$$

RPD means Relative Percent Deviation



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## QC REPORT

Date: 09/16/01-09/17/01

Extraction: STLC

Matrix: Soil

| Compound        | Concentration: ug/l |                      |     | %Recovery     |     | RPD |     |
|-----------------|---------------------|----------------------|-----|---------------|-----|-----|-----|
|                 | Sample              | MS                   | MSD | Amount Spiked | MS  |     | MSD |
| SampleID: 91701 |                     | Instrument: P-1   AA |     |               |     |     |     |
| Lead            | ND                  | 5.0                  | 5.0 | 5.00          | 100 | 99  | 1.3 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 100$$

RPD means Relative Percent Deviation



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### QC REPORT

Date: 08/30/01-08/31/01

Extraction: TCLP

Matrix: Soil

| Compound               | Concentration: ug/L |                             |     | %Recovery     |    | RPD |     |
|------------------------|---------------------|-----------------------------|-----|---------------|----|-----|-----|
|                        | Sample              | MS                          | MSD | Amount Spiked | MS |     | MSD |
| <u>SampleID:</u> 82701 |                     | <u>Instrument:</u> P-1   AA |     |               |    |     |     |
| Lead                   | ND                  | 4.9                         | 5.0 | 5.00          | 99 | 99  | 0.4 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 100$$

RPD means Relative Percent Deviation



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### QC REPORT

Date: 09/06/01-09/07/01

Extraction: TCLP

Matrix: Soil

| Compound               | Concentration: ug/L |     |     | %Recovery                   |    | RPD |     |
|------------------------|---------------------|-----|-----|-----------------------------|----|-----|-----|
|                        | Sample              | MS  | MSD | Amount Spiked               | MS |     | MSD |
| <u>SampleID:</u> 90501 |                     |     |     | <u>Instrument:</u> P-1   AA |    |     |     |
| Lead                   | ND                  | 4.9 | 4.9 | 5.00                        | 99 | 99  | 0.1 |

$$\% \text{ Recovery} = \frac{(MS - \text{Sample})}{\text{Amount Spiked}} \cdot 100$$

$$RPD = \frac{(MS - MSD)}{(MS + MSD)} \cdot 2 \cdot 100$$

RPD means Relative Percent Deviation



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 501 14th Street, 3rd Floor, Oakland, CA 94612 Ph: 510-874-4500 / Fax: 510-874-4507

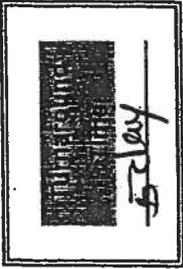
Site Name: Carraill Salt

Job Number: 3192101

Project Manager/Contact: D. Dixon

Samplers: S. Gaber

Recorder (Signature Required): [Signature]



| Field Sample ID  | Sample Description | Analyte |      |       |     |                                |                  |     |       |      |                     | Date | Time | Received by: (Signature) | Date | Time |  |  |
|--|--------------------|---------|------|-------|-----|--------------------------------|------------------|-----|-------|------|---------------------|------|------|--------------------------|------|------|--|--|
|  |                    | Water   | Soil | Other | HCL | H <sub>2</sub> SO <sub>4</sub> | HNO <sub>3</sub> | Ice | Other | Hold | Silica gel clean-up |      |      |                          |      |      |  |  |
| A1-033-0.5   | 813301             | X       | X    |       |     |                                |                  |     |       |      |                     |      |      |                          |      |      |  |  |
| F5-033-0.5   |                    | X       | X    |       |     |                                |                  |     |       |      |                     |      |      |                          |      |      |  |  |
| F6-033-0.5   |                    | X       | X    |       |     |                                |                  |     |       |      |                     |      |      |                          |      |      |  |  |
| G2-033-0.5   |                    | X       | X    |       |     |                                |                  |     |       |      |                     |      |      |                          |      |      |  |  |
| H2-066-1.0A  |                    | X       | X    |       |     |                                |                  |     |       |      |                     |      |      |                          |      |      |  |  |
| H2-066-1.0B  |                    | X       | X    |       |     |                                |                  |     |       |      |                     |      |      |                          |      |      |  |  |
| H3-066-1.0A  |                    | X       | X    |       |     |                                |                  |     |       |      |                     |      |      |                          |      |      |  |  |
| H3-066-1.0B  |                    | X       | X    |       |     |                                |                  |     |       |      |                     |      |      |                          |      |      |  |  |
| G4-0   |                    | X       | X    |       |     |                                |                  |     |       |      |                     |      |      |                          |      |      |  |  |
| H2-0   |                    | X       | X    |       |     |                                |                  |     |       |      |                     |      |      |                          |      |      |  |  |
| H3-0   |                    | X       | X    |       |     |                                |                  |     |       |      |                     |      |      |                          |      |      |  |  |
| H4-0   |                    | X       | X    |       |     |                                |                  |     |       |      |                     |      |      |                          |      |      |  |  |
| Relinquished by: (Signature) <u>[Signature]</u> Date <u>8/27/01</u> Time <u>1200</u><br>Received by: (Signature) <u>[Signature]</u> Date <u>8/28/01</u> Time <u>1155</u><br>Relinquished by: (Signature) <u>[Signature]</u> Date <u>8/22/01</u> Time <u>1535</u><br>Received by: (Signature) <u>[Signature]</u> Date <u>8/22/01</u> Time <u>1155</u> |                    |         |      |       |     |                                |                  |     |       |      |                     |      |      |                          |      |      |  |  |

76213  
Composite  
4.1

76214  
Composite  
4.1

76215  
Composite  
4.1

Method of Shipment:  Lab courier  Fed Ex  Airborne  UPS  
 Hand Carried  Private Courier (Co. Name)

Sent to Laboratory (Name): McCarbell  
 Laboratory Comments/Notes: Please change all 0.33 and 0.66 to 0.25 and 0.75, respectively.

COC Number: 001002

Pink Copy - Field

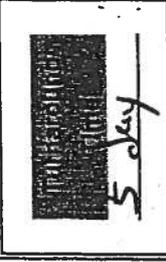
Yellow Copy - Laboratory

White Copy - Original

White Copy - Laboratory

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 501 14th Street, 3rd Floor, Oakland, CA 94612 Ph: 510-874-4500 / Fax: 510-874-4507

Site Name: Cargill Salt  
 Job Number: 3794.01  
 Project Manager/Contact: D. Dixon  
 Samplers: S. Graber  
 Recorder (Signature Required): [Signature]



| Field Sample Identification | Date    | Time | Analysis Requested |       |       |     |                                |                  |     |       |              |        | Remarks |  |  |       |
|-----------------------------|---------|------|--------------------|-------|-------|-----|--------------------------------|------------------|-----|-------|--------------|--------|---------|--|--|-------|
|                             |         |      | Soil               | Water | Other | HCL | H <sub>2</sub> SO <sub>4</sub> | HNO <sub>3</sub> | Ice | Other | Preservative | Matrix |         |  |  |       |
| H2-0.33-0.5                 | 8/23/01 |      | X                  |       |       |     |                                |                  |     |       |              |        |         |  |  | 76216 |
| H3-0.53-0.5                 |         |      | X                  |       |       |     |                                |                  |     |       |              |        |         |  |  |       |
| H4-0.33-0.5                 |         |      | X                  |       |       |     |                                |                  |     |       |              |        |         |  |  |       |
| H4-0.33-0.5                 |         |      | X                  |       |       |     |                                |                  |     |       |              |        |         |  |  |       |
| H4-0.66-1.0A                |         |      | X                  |       |       |     |                                |                  |     |       |              |        |         |  |  |       |
| H4-0.66-1.0B                |         |      | X                  |       |       |     |                                |                  |     |       |              |        |         |  |  |       |
| H4-0.66-1.0C                |         |      | X                  |       |       |     |                                |                  |     |       |              |        |         |  |  |       |
| H3-1.66-2.0A                |         |      | X                  |       |       |     |                                |                  |     |       |              |        |         |  |  |       |
| H3-1.66-2.0B                |         |      | X                  |       |       |     |                                |                  |     |       |              |        |         |  |  |       |
| H3-1.66-2.0C                |         |      | X                  |       |       |     |                                |                  |     |       |              |        |         |  |  |       |
| H3-1.66-2.0D                |         |      | X                  |       |       |     |                                |                  |     |       |              |        |         |  |  |       |

| Relinquished by: (Signature) | Date    | Time   | Received by: (Signature) | Date    | Time |
|------------------------------|---------|--------|--------------------------|---------|------|
| [Signature]                  | 8/27/01 | 1:00   | Storage                  | 8/27/01 | 1:00 |
| Storage [Signature]          | 8/28/01 | 1:55   | Storage                  | 8/28/01 | 1:55 |
| [Signature]                  | 8/28/01 | 1:5-35 | Anna Abutun              | 8/28/01 |      |

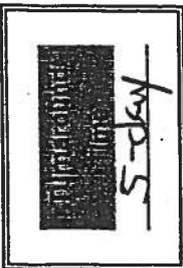
Sent to Laboratory (Name): McFarbell  
 Laboratory Comments/Notes: Please change all 0.33 and 0.66 to 0.25 and 0.75, respectively. (i.e. H2-0.33-0.5 becomes H2-0.25-0.5)

Method of Shipment:  Lab courier  Fed Ex  Airborne  UPS  
 Hand Carried  Private Courier (Co. Name)

**CHAIN OF CUSTODY RECORD**

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 501 14th Street, 3rd Floor, Oakland, CA 94612 Ph: 510-874-4500 / Fax: 510-874-4507

Site Name: Cerrill Salt  
 Job Number: 319401  
 Project Manager/Contact: D. Dixon / B.K. Moore  
 Samplers: John Gruber  
 Recorder (Signature Required): John Gruber



| Sample ID    | Sample No. | ANALYSIS REQUESTED |      |       |     |                                |                  |     |       |           |                     | Date    | Time  | Received by: (Signature) | Date    | Time  | Received by: (Signature) | Date    | Time  | Received by: (Signature) | Date    | Time  |       |
|--------------|------------|--------------------|------|-------|-----|--------------------------------|------------------|-----|-------|-----------|---------------------|---------|-------|--------------------------|---------|-------|--------------------------|---------|-------|--------------------------|---------|-------|-------|
|              |            | Water              | Soil | Other | HCL | H <sub>2</sub> SO <sub>4</sub> | HNO <sub>3</sub> | Ice | Other | TCLP Lead | SILICA gel clean-up |         |       |                          |         |       |                          |         |       |                          |         |       | Hold  |
| H6-0.33-0.5A | 812301     | X                  | X    | X     | X   | X                              | X                | X   | X     | X         | X                   | 8/27/01 | 12:00 | George                   | 8/27/01 | 12:00 | George                   | 8/27/01 | 12:00 | George                   | 8/27/01 | 12:00 | 76219 |
| H6-0.33-0.5B |            | X                  | X    | X     | X   | X                              | X                | X   | X     | X         | X                   |         |       |                          |         |       |                          |         |       |                          |         |       | 76220 |
| H7-0.33-0.5A |            | X                  | X    | X     | X   | X                              | X                | X   | X     | X         | X                   |         |       |                          |         |       |                          |         |       |                          |         |       | 76221 |
| H7-0.33-0.5B | 812419     | X                  | X    | X     | X   | X                              | X                | X   | X     | X         | X                   |         |       |                          |         |       |                          |         |       |                          |         |       | 76222 |
| K7-0.33-0.5A |            | X                  | X    | X     | X   | X                              | X                | X   | X     | X         | X                   |         |       |                          |         |       |                          |         |       |                          |         |       | 76223 |
| K7-0.33-0.5B |            | X                  | X    | X     | X   | X                              | X                | X   | X     | X         | X                   |         |       |                          |         |       |                          |         |       |                          |         |       | 76224 |
| L9-0.33-0.5A |            | X                  | X    | X     | X   | X                              | X                | X   | X     | X         | X                   |         |       |                          |         |       |                          |         |       |                          |         |       | 76225 |
| L9-0.33-0.5B |            | X                  | X    | X     | X   | X                              | X                | X   | X     | X         | X                   |         |       |                          |         |       |                          |         |       |                          |         |       | 76226 |
| L9-0.75      |            | X                  | X    | X     | X   | X                              | X                | X   | X     | X         | X                   |         |       |                          |         |       |                          |         |       |                          |         |       |       |
| J9-0.75      |            | X                  | X    | X     | X   | X                              | X                | X   | X     | X         | X                   |         |       |                          |         |       |                          |         |       |                          |         |       |       |
| J10-0.75     |            | X                  | X    | X     | X   | X                              | X                | X   | X     | X         | X                   |         |       |                          |         |       |                          |         |       |                          |         |       |       |
| H7-0.75      |            | X                  | X    | X     | X   | X                              | X                | X   | X     | X         | X                   |         |       |                          |         |       |                          |         |       |                          |         |       |       |
| H8-0.75      |            | X                  | X    | X     | X   | X                              | X                | X   | X     | X         | X                   |         |       |                          |         |       |                          |         |       |                          |         |       |       |
| J11-0.75     |            | X                  | X    | X     | X   | X                              | X                | X   | X     | X         | X                   |         |       |                          |         |       |                          |         |       |                          |         |       |       |

Received by: (Signature) George Date 8/27/01 Time 12:00  
 Received by: (Signature) George Date 8/28/01 Time 11:55  
 Received by: (Signature) John Gruber Date 8/28/01 Time 10:30

Method of Shipment:  Lab courier  Fed Ex  Airborne  UPS  
 Hand Carried  Private Courier (Co. Name)

Sent to Laboratory (Name): McCambell  
 Laboratory Comments/Notes: Please change all 0.33' to 0.25'

COC Number: 0011889 O&G METALS OTHER  
 PRESERVATION APPROPRIATE  
 GOOD CONDITION

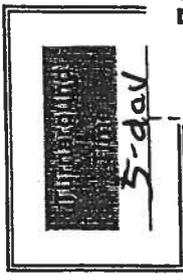
Yellow Copy - Laboratory  
 White Copy - Original  
 Pink Copy - Field



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 501 14th Street, 3rd Floor, Oakland, CA 94612 Ph: 510-874-4500 / Fax: 510-874-4507

Site Name: Carroll Salt  
 Job Number: 3194101  
 Project Manager/Contact: D. Dixon  
 Samplers: Josh Gaiser  
 Recorder (Signature Required): [Signature]



76240  
76241  
76242  
76243  
76244  
76245  
76246  
76247  
76248  
76249

| Sample ID | ANALYSIS REQUESTED |       |       |     |                                |                  |     |       |                    |      | Remarks |  |
|-----------|--------------------|-------|-------|-----|--------------------------------|------------------|-----|-------|--------------------|------|---------|--|
|           | Soil               | Water | Other | HCL | H <sub>2</sub> SO <sub>4</sub> | HNO <sub>3</sub> | Ice | Other | Analysis Requested | Hold |         |  |
| L10-0.25  | X                  |       |       |     |                                |                  | X   |       |                    |      |         |  |
| L10-0.75  | X                  |       |       |     |                                |                  |     |       |                    |      |         |  |
| K10-0.25  | X                  |       |       |     |                                |                  |     |       |                    |      |         |  |
| K10-0.75  | X                  |       |       |     |                                |                  |     |       |                    |      |         |  |
| M10-0.25  | X                  |       |       |     |                                |                  |     |       |                    |      |         |  |
| M10-0.75  | X                  |       |       |     |                                |                  |     |       |                    |      |         |  |
| M9-0.25   | X                  |       |       |     |                                |                  |     |       |                    |      |         |  |
| M9-0.75   | X                  |       |       |     |                                |                  |     |       |                    |      |         |  |
| E6-1.75   | X                  |       |       |     |                                |                  |     |       |                    |      |         |  |
| K5-1.75   | X                  |       |       |     |                                |                  |     |       |                    |      |         |  |
| K3-1.75   | X                  |       |       |     |                                |                  |     |       |                    |      |         |  |

| Relinquished by: (Signature) | Date    | Time | Received by: (Signature) | Date    | Time |
|------------------------------|---------|------|--------------------------|---------|------|
| <u>[Signature]</u>           | 8/27/01 | 1200 | <u>Storage</u>           | 8/27/01 | 1500 |
| <u>[Signature]</u>           | 8/28/01 | 1155 | <u>[Signature]</u>       | 8/28/01 | 1155 |
| <u>[Signature]</u>           | 8/29/01 | 1535 | <u>[Signature]</u>       | 8/29/01 | 1535 |

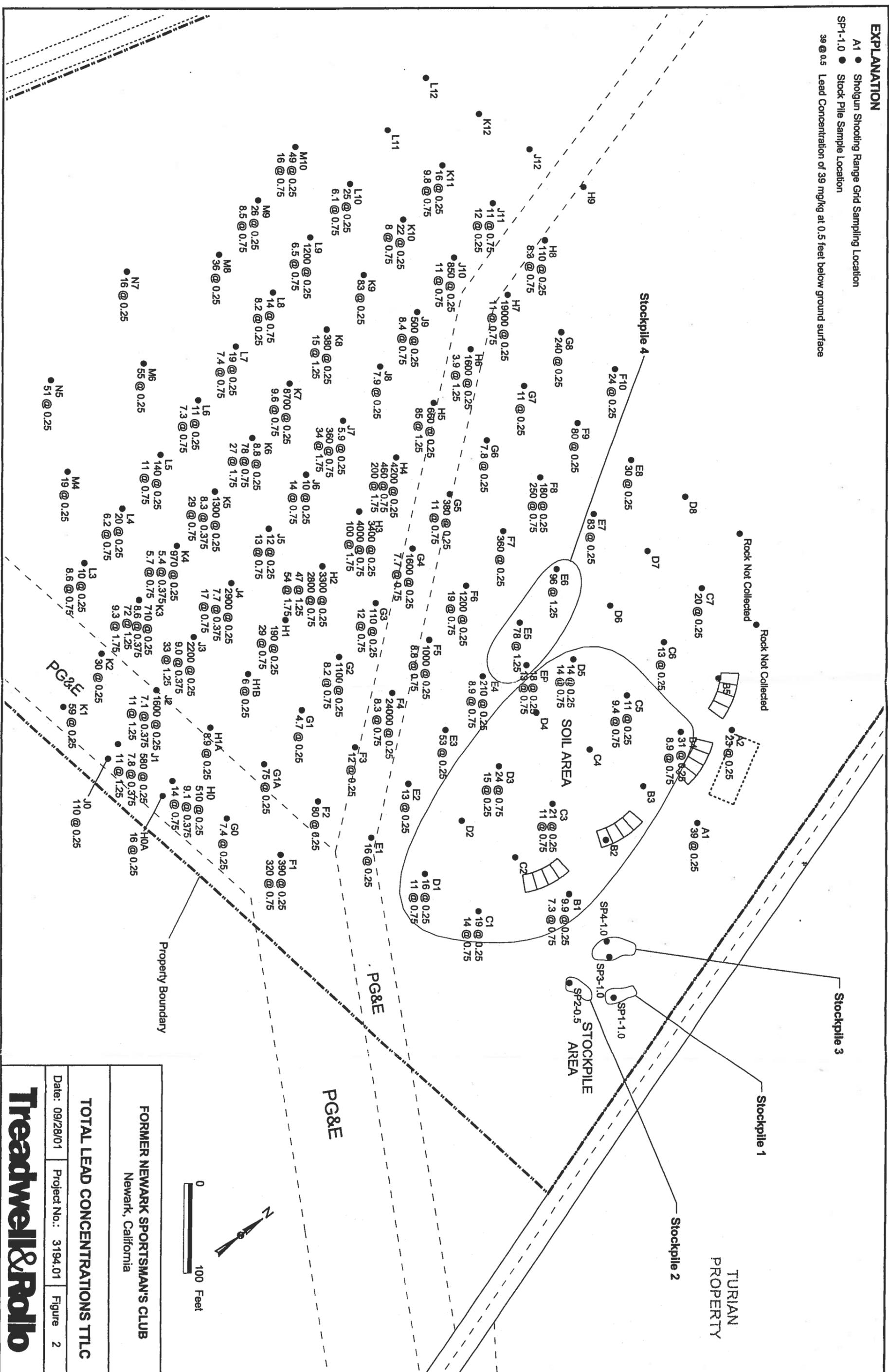
  

Method of Shipment:  Cab courier  Fed Ex  Airborne  UPS  
 Private Courier (Co. Name): \_\_\_\_\_

Sent to Laboratory (Name): McLambell  
 Laboratory Comments/Notes:

**EXPLANATION**

- A1 ● Shotgun Shooting Range Grid Sampling Location
- SP1-1.0 ● Stock Pile Sample Location
- 39 @ 0.5 Lead Concentration of 39 mg/kg at 0.5 feet below ground surface



FORMER NEWARK SPORTSMAN'S CLUB  
Newark, California

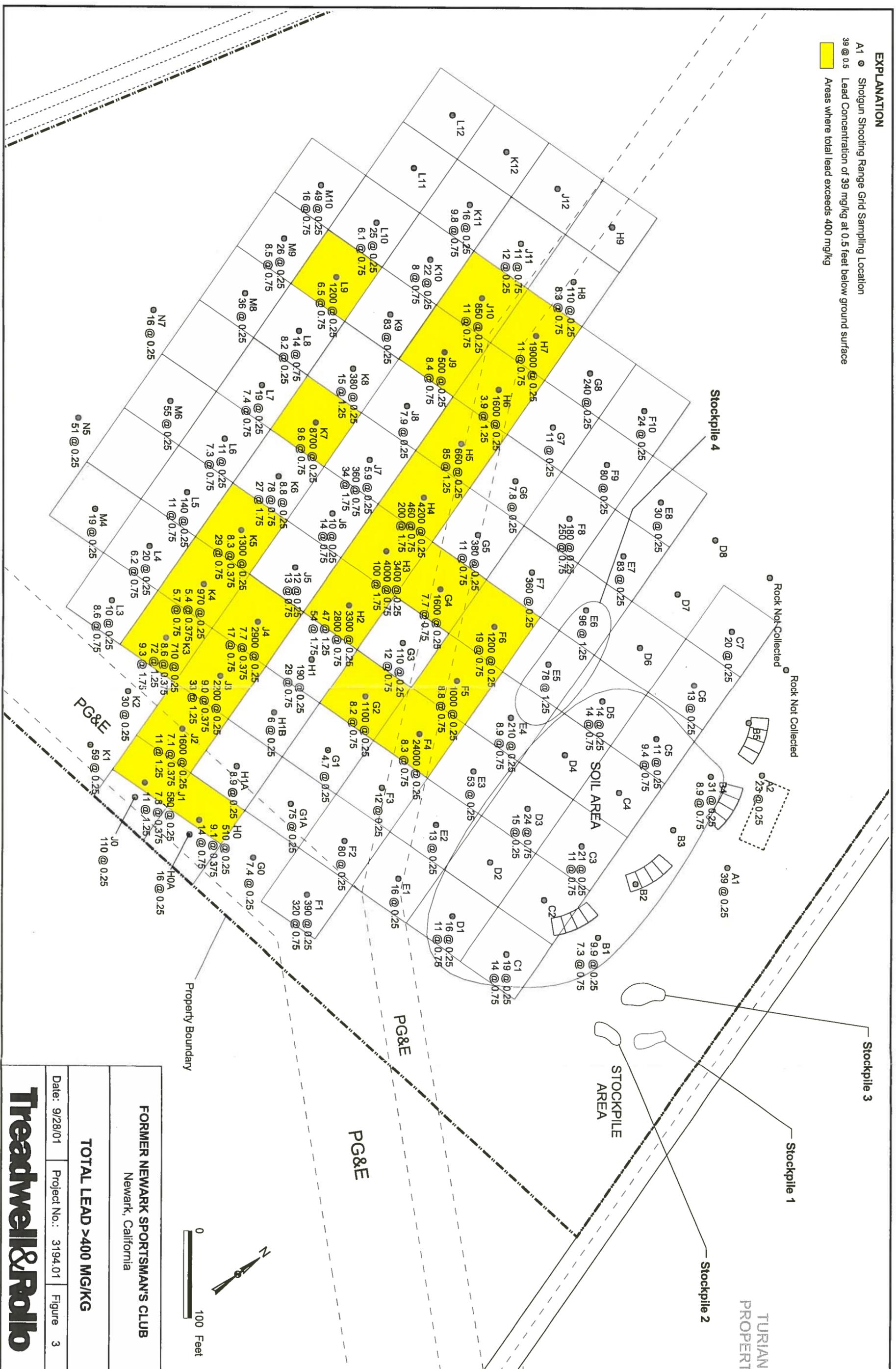
TOTAL LEAD CONCENTRATIONS TLIC

Date: 09/28/01 Project No.: 3194.01 Figure 2

**Treadwell & Rolfo**

**EXPLANATION**

- A1 ● Shotgun Shooting Range Grid Sampling Location
- 39 @ 0.5 ● Lead Concentration of 39 mg/kg at 0.5 feet below ground surface
- Areas where total lead exceeds 400 mg/kg



**FORMER NEWARK SPORTSMAN'S CLUB**  
Newark, California

**TOTAL LEAD >400 MG/KG**

Date: 9/28/01 Project No.: 3194.01 Figure 3

**Treadwell & Polio**

Table 2  
Summary of PAH Analytical Results for Soil Samples  
Former Newark Sportsman's Club  
Newark, California

| Sample Location | Sample Depth (ft) | Sample Date | Acenaphthene | Acenaphthylene | Anthracene | Benzo(a)anthracene | Benzo(b)fluoranthene | Benzo(k)fluoranthene | Benzo(g,h,i)perylene | Benzo(a)pyrene | Chrysene | Dibenzo(a,h)anthracene | Fluoranthene | Fluorene | Indeno(1,2,3-cd)pyrene | Naphthalene | Phenanthrene | Pyrene |
|-----------------|-------------------|-------------|--------------|----------------|------------|--------------------|----------------------|----------------------|----------------------|----------------|----------|------------------------|--------------|----------|------------------------|-------------|--------------|--------|
| D6              | 0.25              | 3/22/01     | <1.7         | <1.7           | <1.7       | <1.7               | <1.7                 | <1.7                 | <1.7                 | <1.7           | <1.7     | <1.7                   | <1.7         | <1.7     | <1.7                   | <1.7        | <1.7         | <1.7   |
| D7              | 0.25              | 3/22/01     | <1.7         | <1.7           | <1.7       | <1.7               | <1.7                 | <1.7                 | <1.7                 | <1.7           | <1.7     | <1.7                   | <1.7         | <1.7     | <1.7                   | <1.7        | <1.7         | <1.7   |
| D8              | 0.25              | 3/22/01     | <1.7         | <1.7           | <1.7       | <1.7               | <1.7                 | <1.7                 | <1.7                 | <1.7           | <1.7     | <1.7                   | <1.7         | <1.7     | <1.7                   | <1.7        | <1.7         | <1.7   |
| E1              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| E2              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| E3              | 0.25              | 3/22/01     | <3.5         | <3.5           | <3.5       | <3.5               | <3.5                 | <3.5                 | <3.5                 | <3.5           | <3.5     | <3.5                   | <3.5         | <3.5     | <3.5                   | <3.5        | <3.5         | <3.5   |
| E4              | 0.25              | 3/22/01     | <40          | <40            | <40        | <40                | <40                  | <40                  | <40                  | <40            | <40      | <40                    | <40          | <40      | <40                    | <40         | <40          | <40    |
| E5              | 1.25              | 3/22/01     | <40          | <40            | <40        | 68                 | 56                   | 68                   | 72                   | 100            | 84       | <40                    | 52           | <40      | 52                     | <40         | <40          | 80     |
| E5              | 1.75              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| E6              | 1.25              | 3/22/01     | <40          | <40            | <40        | 110                | 100                  | 130                  | 92                   | 130            | 130      | <40                    | 130          | <40      | 84                     | <40         | <40          | 130    |
| E6              | 1.75              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| E7              | 0.25              | 3/22/01     | <40          | <40            | <40        | <40                | <40                  | <40                  | <40                  | <40            | <40      | <40                    | <40          | <40      | <40                    | <40         | <40          | 40     |
| E7              | 0.75              | 3/22/01     | <1.7         | <1.7           | <1.7       | <1.7               | <1.7                 | <1.7                 | <1.7                 | <1.7           | <1.7     | <1.7                   | <1.7         | <1.7     | <1.7                   | <1.7        | <1.7         | <1.7   |
| E8              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| F1              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| F2              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| F3              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| F4              | 0.25              | 3/22/01     | <1.0         | <1.0           | <1.0       | <1.0               | <1.0                 | <1.0                 | <1.0                 | <1.0           | <1.0     | <1.0                   | <1.0         | <1.0     | <1.0                   | <1.0        | <1.0         | <1.0   |
| F5              | 0.25              | 3/22/01     | <1.0         | <1.0           | <1.0       | <1.0               | <1.0                 | <1.0                 | <1.0                 | <1.0           | <1.0     | <1.0                   | <1.0         | <1.0     | <1.0                   | <1.0        | <1.0         | <1.0   |
| F6              | 0.25              | 3/22/01     | <1.0         | <1.0           | <1.0       | <1.0               | <1.0                 | <1.0                 | <1.0                 | <1.0           | <1.0     | <1.0                   | <1.0         | <1.0     | <1.0                   | <1.0        | <1.0         | <1.0   |
| F7              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| F8              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| PRG Residential | -                 | -           | 3,450        | NE             | 22,000     | 0.62               | 0.62                 | 6.2                  | NE                   | 0.062          | 62       | 0.062                  | 2,300        | 2,600    | 0.62                   | 56          | NE           | 2,300  |

**Notes:**  
 All concentrations are in milligrams per kilogram (mg/kg).  
 PAH = Polynuclear Aromatic Hydrocarbons  
 PRG = EPA Preliminary Remedial Goals for residential soil (November 2000)  
 NE = Not Established  
 Bold indicates a detected value that exceeds the PRG.  
 Shading indicates new analytical results added to the table for the August 2001 sampling event.  
 <0.33 = Not detected at or above laboratory testing limits

**Table 3**  
**Soil Stockpile Analytical Results - Metals**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Stockpile Number               | Sample Number | Sampling Date | As   | Sb   | Ba      | Be   | Cd   | Cr     | Co     | Cu     | Pb     | Hg    | Mo     | Ni     | Se   | Ag   | Tl   | V      | Zn     |
|--------------------------------|---------------|---------------|------|------|---------|------|------|--------|--------|--------|--------|-------|--------|--------|------|------|------|--------|--------|
| Stockpile #1                   | SP1-1.0       | 3/23/01       | —    | —    | —       | —    | —    | —      | —      | —      | 360    | —     | —      | —      | —    | —    | —    | —      | —      |
|                                | CP-2S         | 4/16/01       | <1.0 | <2.0 | 110     | <0.5 | 1.6  | 130    | 19     | 26     | 170    | 0.085 | <1.0   | 250    | <2.0 | <1.0 | <1.0 | 27     | —      |
|                                | CP-2D         | 4/16/01       | <1.0 | <2.0 | 88      | <0.5 | 1.3  | 120    | 20     | 23     | 94     | 0.086 | <1.0   | 310    | <2.0 | <1.0 | <1.0 | 22     | 48     |
|                                | SP2-0.5       | 3/23/01       | —    | —    | —       | —    | —    | —      | —      | —      | 310    | —     | —      | —      | —    | —    | —    | —      | 31     |
|                                | CP-1S         | 4/17/01       | 1.3  | 4.8  | 84      | <0.5 | 1.4  | 130    | 16     | 22     | 640    | 0.32  | <1.0   | 230    | <2.0 | <1.0 | <1.0 | 20     | 44     |
| Stockpile #2                   | CP-1D         | 4/16/01       | 1.6  | 3.1  | 63      | <0.5 | 0.85 | 53     | 7.1    | 14     | 310    | 0.098 | <1.0   | 83     | <2.0 | <1.0 | <1.0 | 14     | 25     |
|                                | SP3-1.0       | 3/23/01       | —    | —    | —       | —    | —    | —      | —      | —      | 110    | —     | —      | —      | —    | —    | —    | —      | —      |
|                                | SP4-1.0       | 3/23/01       | —    | —    | —       | —    | —    | —      | —      | —      | 60     | —     | —      | —      | —    | —    | —    | —      | —      |
|                                | CP-3S         | 4/16/01       | <1.0 | <2.0 | 17      | <0.5 | <0.5 | 23     | 3.1    | 3.7    | 89     | 0.12  | <1.0   | 39     | <2.0 | <1.0 | <1.0 | 4.1    | 9.0    |
| Stockpile #4                   | CP-3D         | 4/16/01       | 2.1  | 2.0  | 140     | <0.5 | 1.7  | 100    | 18     | 35     | 230    | 0.080 | <1.0   | 160    | <2.0 | <1.0 | <1.0 | 35     | 54     |
|                                | EP-0.5        | 3/23/01       | —    | —    | —       | —    | —    | —      | —      | —      | 18     | —     | —      | —      | —    | —    | —    | —      | —      |
|                                | EP-1.0        | 3/23/01       | —    | —    | —       | —    | —    | —      | —      | —      | 13     | —     | —      | —      | —    | —    | —    | —      | —      |
|                                | CP-4S         | 4/16/01       | <1.0 | <2.0 | <1.0    | <0.5 | <0.5 | <1.0   | <1.0   | <1.0   | 1.7    | <0.05 | <1.0   | <1.0   | <2.0 | <1.0 | <1.0 | <1.0   | 2.1    |
| CP-4D                          | 4/16/01       | 240           | 960  | 5.5  | <0.5    | <0.5 | <0.5 | <1.0   | 5.4    | 85,000 | <0.05  | <1.0  | 6.1    | <2.0   | 1.1  | <1.0 | <1.0 | 1.2    | 5.1    |
| <b>California State</b>        |               |               |      |      |         |      |      |        |        |        |        |       |        |        |      |      |      |        |        |
| Title 22 TTLC                  |               |               | 500. | 500. | 10,000. | 75.  | 100. | 2,500. | 8,000. | 2,500. | 1,000. | 20.   | 3,500. | 2,000. | 100. | 500. | 700. | 2,400. | 5,000. |
| Title 22 STLC (mg/l)           |               |               | 5.0  | 15.  | 100.    | 0.75 | 1.0  | 5.0    | 80.    | 25.    | 5.0    | 0.2   | 350.   | 20.    | 1.0  | 5.0  | 7.0  | 24.    | 250.   |
| <b>Federal</b>                 |               |               |      |      |         |      |      |        |        |        |        |       |        |        |      |      |      |        |        |
| TCIP Hazardous Criteria (mg/l) |               |               | 5.0  | —    | 750.    | —    | 5.0  | 5.0    | —      | —      | 5.0    | 0.2   | —      | —      | 1.0  | 5.0  | —    | —      | —      |

**Notes:**

All results in mg/kg unless otherwise noted

— = Not analyzed

<0.5 = Not detected at or above indicated method reporting limit.

Ag = Silver; As = Arsenic; Ba = Barium; Be = Beryllium; Cd = Cadmium; Co = Cobalt; Cr = Chromium; Cu = Copper; Hg = Mercury  
 Mo = Molybdenum; Ni = Nickel; Pb = Lead; Sb = Antimony; Se = Selenium; Tl = Thallium; V = Vanadium; Zn = Zinc

TTLC = California Total Threshold Limit Concentration - State hazardous waste criterion

TCIP = Federal Toxicity Characteristic Leaching Potential Analysis - Federal hazardous waste criterion

STLC = Soluble Threshold Limit Concentration



- . Dames & Moore
- . Mag Pile
- . Post Removal Sampling Report
- . Dated Jan. 28, 2002

**MAGNESIA WASTE PILE POST-REMOVAL SAMPLING REPORT**

**PARCEL NO. 15-30-15 MAGNESIA WASTE PILE SITE  
NEWARK, CALIFORNIA**

**PREPARED FOR:  
FMC CORPORATION**

**PREPARED BY:  
URS  
(FORMERLY DAMES & MOORE GROUP COMPANY)  
55 SOUTH MARKET STREET  
SUITE 1650  
SAN JOSE, CALIFORNIA 95113**

**D&M JOB No. 41179003  
JANUARY 28, 2002**

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## 1.0 INTRODUCTION

This report presents results of soil sampling conducted in accordance with the Post-Removal Sampling Plan, submitted by Cargill Inc. (Cargill) and FMC Corporation (FMC) to the City of Newark by letter dated June 2, 2000. The sampling plan described the sampling of soil remaining after excavation and removal of the "Mag Pile" material at this site (parcel number 15-35-30, Newark, Alameda County) for the identified chemicals of concern, namely copper, mercury and thallium.

This site has been the location of extensive characterization and excavation activities relating to "Mag Pile" on the Cargill property located to the west of FMC Corporation's (FMC) former Magnesia plant in Newark California. The materials deposited at the site came primarily from the former Magnesia plant operated by FMC and included magnesia material, mercury contaminated magnesia, copper pellets, copper contaminated magnesia and debris. The debris portion included construction materials such as lumber, bricks, concrete blocks, wire, screens, tires, newspapers, plastic sheeting, PVC piping, and metal. The copper catalyst pellets were produced for use in the manufacture of synthetic rubber. FMC conducted a cleanup and removal of visible copper catalyst pellets and debris material in 1985. Following issuance by the California Department of Health Services (DOHS) of Remedial Action orders in 1987, Cargill and FMC undertook further investigation and completed and submitted a remedial investigation report and feasibility study. With DOHS approval, Cargill and FMC then proceeded to develop and submit a Remedial Action Plan to excavate copper and mercury contaminated areas that exceeded regulatory guidelines, and implemented this plan following DOHS approval. The work was documented in the Final Remediation Report, Magnesia Waste Pile (IT 1991).

In 1996, Alameda County Environmental Health Department, Hazardous Materials Division issued several directives to FMC for further investigation of the Mag Pile. Cargill and FMC responded by letter dated April 11, 1997, proposing as an option excavation and removal of the remaining "magnesia material". In the event of excavation, Cargill and FMC proposed to develop and submit a plan for post-removal sampling, to verify that no significant levels of copper, mercury or thallium

remained in the soil. By letter dated April 30, 1997, the City and County approved the program proposed by Cargill and FMC.

Cargill and FMC proceeded with the excavation and with notifications to the City.

## **2.0 PROJECT OBJECTIVES AND DESCRIPTION**

The objective of this sampling effort was to evaluate results of soil samples collected after the removal of approximately 120,000 cubic yards of magnesia material in 1998 and 1999 (Appendix B) to determine if there are any significant residual levels of chemicals of concern, namely copper, mercury and thallium in the remaining soil. The sampling protocol was provided in the Post-Removal Sampling Plan transmitted to the City by letter dated June 2, 2000 and was approved by the City.

In addition to the samples collected as mentioned above, five more soil samples were collected from a residual magnesia area located outside the southeast portion of the former magnesia waste pile. They were analyzed for pH values. The result is a pH range from 10.0 to 10.3 (Attachment No. 1). Also, fifteen samples were collected and analyzed for pH in an area known to have gypsum. The result is a pH range from 8.3 to 9.6 (Attachment No.2).

## **3.0 SOIL SAMPLING**

### **3.1 Sampling and Analysis Rationale**

In accordance with acceptance letters from the Alameda Environmental County Health Services dated October 14, 1996 and from the Newark Fire Department dated April 30, 1997, the target analytes for sampling were copper, mercury and thallium. Twenty samples were collected throughout the site after the 1998/1999 removal activities were completed. Figure 1 depicts the locations of the twenty soil sampling locations. A grid was laid out on the site to facilitate an

even distribution of sampling sites. Specific sampling site or sites were placed in each grid near or at the boundaries of the original Mag Waste Pile, in areas inside the Mag Waste Pile and in the areas used for stockpiling copper and mercury contaminated materials during the previous excavation.

Soil sampling was performed on November 3, 1999. Some or all of the twenty samples collected were analyzed for copper, mercury, and thallium using EPA method series 6010B or 7471. Because previous reports indicated copper contamination throughout the soil, sixteen of the twenty samples were analyzed for copper. Five of the twenty-one samples were analyzed for mercury at areas previously identified in the IT Final Remediation Report (October 1991) as containing mercury. Locations for samples 4-A-2-1, 7-C-2-1, 3-C-1-1, 8-A-3-2, 10-B-3-4, and 15-B-4-2 were selected based on areas used for stockpiling of mercury-contaminated waste. Approximately 67,000 pounds of thallium contaminated soil was removed from the east side of the Mag Pile in 1990 as an interim remedial measure under a work plan approved by DOHS. Post excavation soils sampling, and submittal of a closure report in July 1990 documents the removal and sampling activities of this material. Therefore, one sample (identified as 13-C-3-4) for thallium was collected to verify that the removal of thallium-contaminated soils at this area was complete.

### **3.2 Sample Collection**

Sampling locations, as shown in Figure 1, were marked and measured from readily available landmarks, including the existing fence line and overhead transmission line. A grid was laid out on the site with overall dimensions measuring 1500 x 600 feet (Figure 1). The grid is comprised of fifteen blocks identified with a letter/number combination. Each grid block measures approximately 300 x 200 feet. Each grid block is further divided into quadrants numbered one through four. Sample numbers identify a sample location based on the grid numbering system. A total of twenty sample locations were identified with flags. The grid allowed even distribution of sampling points over the entire site.

Prior to excavation and removal in 1998 and 1999, the thickness of this pile varied, and ranged from

5 feet to 45 feet. The pile surface sloped from the southeast to the northwest and exhibited steep slopes in the southwest area of the pile. Soil samples were taken at approximately one foot of depth below the surface of the soil using a hand auger. Some areas of the site have been recently graded and covered with new fill material. Field determinations were made in the event a sampling location appeared to be covered with fill material. In each case, the sample was collected as deep as deemed necessary to obtain native soil for analyses.

All soil samples were collected, handled and documented in accordance with the protocols described in the approved Post-Removal Sampling Plan.

Hand trowels, shovels, or other sampling equipment used to collect the samples were decontaminated before and after use by washing in an Alconox™ solution and rinsing in tap water followed by distilled water. The rinsate generated during decontamination were sampled for pH and copper prior to disposal.

#### **4.0 Laboratory Quality Assurance and Quality Control (QA/QC)**

Specific procedures for the collection and evaluation of both field and laboratory data were implemented, such as the use of internal quality control checks, data review and validation. All QA/QC objectives for data measurement were met and there were no rejected data.

#### **5.0 HEALTH AND SAFETY**

A Site-specific Health and Safety Plan was developed prior to initiation of field sampling activities in 1999. The plan was implemented during the field activities in order to meet the requirements of Section 1910.120(I)(2), Title 29, Code of Federal Regulations. The Health and Safety Plan assigned responsibilities, establish personal protection standards and mandatory safety procedures, and provide for contingencies that may arise while operations are being conducted at the Site. Trained personnel as required by Title 29, Code of Federal Regulations, performed field activities. A site safety briefing was conducted before commencement of work.

## **6.0 ANALYTICAL RESULTS**

The metals, namely copper and mercury were reported above the laboratory detection limits as summarized in Table 1. Thallium was not detected. Laboratory analytical results are included in Appendix A. The laboratory results with the maximum concentration of mercury at 0.189 mg/kg were compared against the US EPA Region IX Preliminary Remediation Goals (PRGs) of mercury for residential soil (23 mg/kg) and industrial soil (610 mg/kg), the EPA Region IX PRGs of copper for residential soil (2900 mg/kg) and industrial soil (76,000 mg/kg) were compared to the maximum detected copper concentration of 160 mg/kg at the site.

## **7.0 CONCLUSIONS**

The following conclusions are based on the results of the field investigation described above and our assessment of the data:

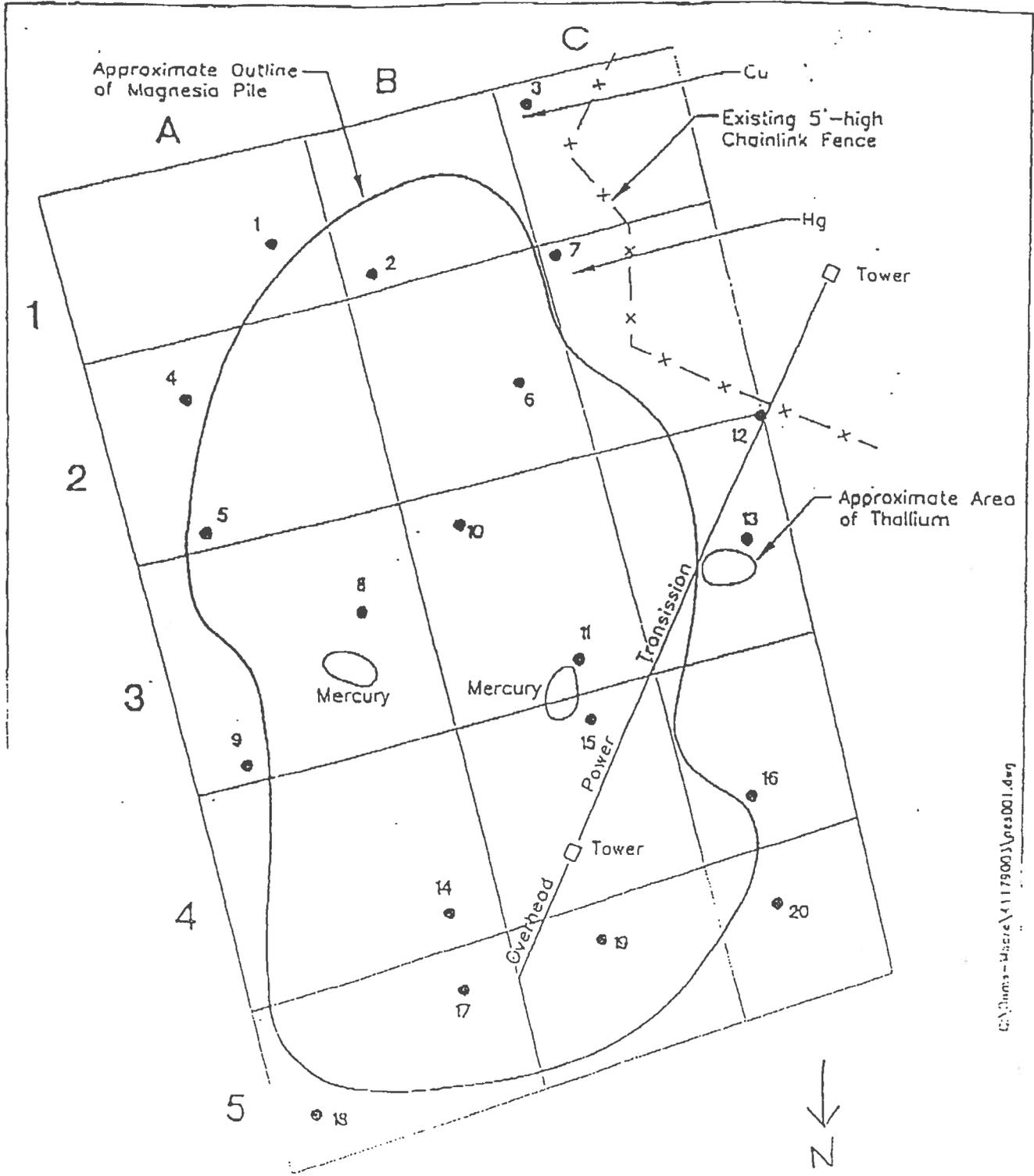
- Based on laboratory analytical data, the concentrations of metals in the soil samples submitted for analysis were all below the respective PRGs for mercury and copper.
- Thallium was not detected in the soil samples.

## **8.0 RECOMMENDATIONS**

The purpose of the sampling was to assess whether any significant residual levels of chemicals of concern, namely copper, mercury or thallium remain in the soil sampled. Based on the results documented in this report, no significant residual levels of chemicals of concern appear to be present.



**FIGURE 1**  
**Map of Sampling Sites**



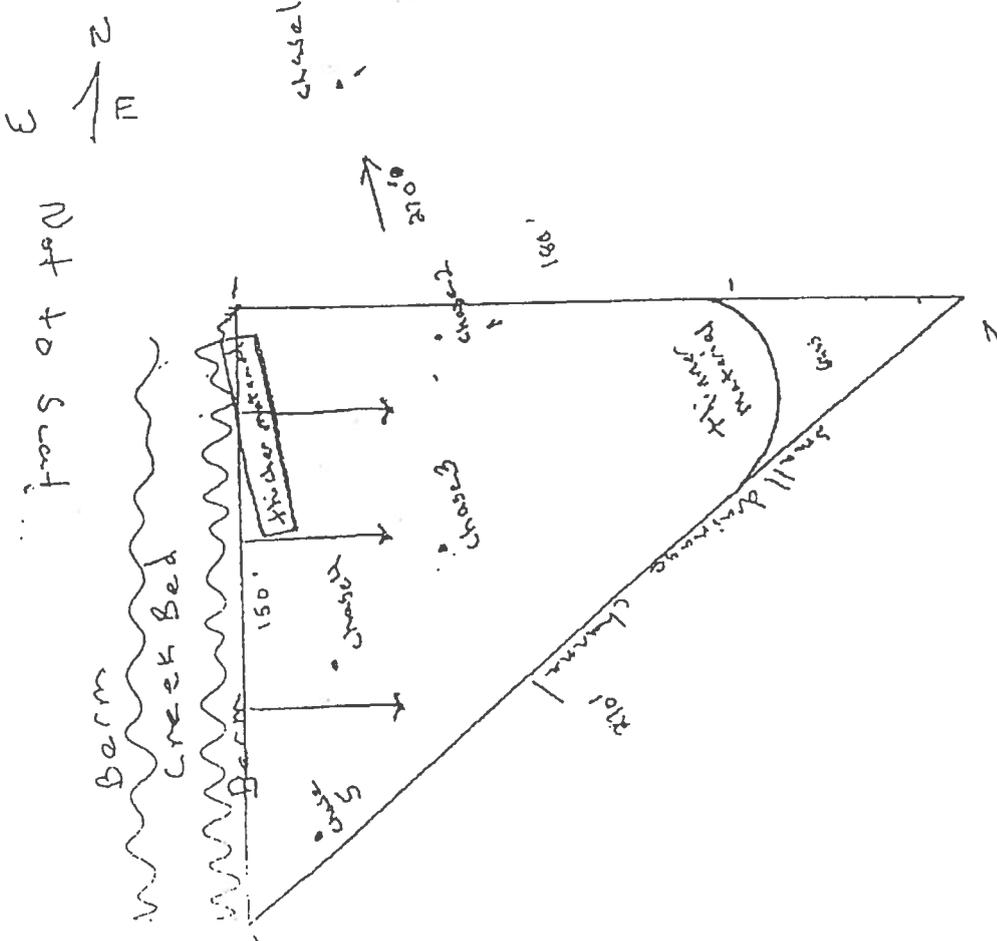
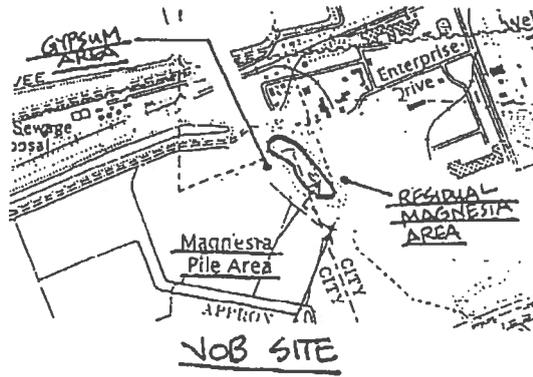
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Project No.  
41179003  
05/01/78

FMC Corporation  
Newark, California

Magnesia Waste Pile

Attachment No. 1  
Residual Magnesia Area



RESIDUAL MAGNESIA AREA

By Loose Date 6/26/79 Subject FMC Magnesia Facilities Project  
 Chkd By \_\_\_\_\_ Date \_\_\_\_\_ Proj No \_\_\_\_\_

07/01/1999 15:46

9259690751

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PAGE 02

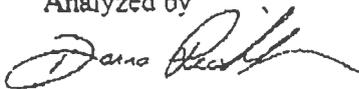
Wednesday, June 29, 1999

Attn: Rowan Tucker

pH Results for soil samples taken by Rowan Tucker

| <u>Sample ID</u> | <u>pH</u> |
|------------------|-----------|
| Chase 1          | 10.0      |
| Chase 2          | 10.2      |
| Chase 3          | 10.3      |
| Chase 4          | 10.2      |
| Chase 5          | 10.1      |

Analyzed by



Donna Richardson  
Sr. Lab Technician  
FMC Corp.

9259690751 48:01 FAX/TEL

ERRG

PAGE 03

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- 1455 McDowell Blvd North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342



Company Name: Fmc Newark Project Name: Fmc Newark east side of creek chase

Mailing Address: \_\_\_\_\_ Billing Address (if different): \_\_\_\_\_

City: Newark State: CA Zip Code: \_\_\_\_\_

Telephone: \_\_\_\_\_ P.O. #: \_\_\_\_\_

Report To: Ronan Tucker Sampler: R.T.

QC Data:  Level D (Standard)  Level C  Level B  Level A

Turnaround  10 Working Days  3 Working Days  2 - 8 Hours  Drinking Water

Time:  7 Working Days  2 Working Days  Waste Water

5 Working Days  24 Hours  Other

Analyses Requested: \_\_\_\_\_

| Client Sample I.D. | Date/Time Sampled | Matrix Desc. | # of Cont. | Cont. Type | Sequola's Sample # | Comments         |
|--------------------|-------------------|--------------|------------|------------|--------------------|------------------|
| 1. Chase 1         | 6/28/94           | Soil         | 1          | plastic    | N/A 4" X           | Composite depth  |
| 2. Chase 2         |                   |              | 1          |            | 8" 10.2            | used homogenizer |
| 3. Chase 3         |                   |              | 1          |            | 9" 0.3             | mixture for test |
| 4. Chase 4         |                   |              | 1          |            | 12" 10.2           |                  |
| 5. Chase 5         |                   |              | 1          |            | 6" 10.1            |                  |
| 6.                 |                   |              |            |            |                    | Notes 12" on     |
| 7.                 |                   |              |            |            |                    | berry wall       |
| 8.                 |                   |              |            |            |                    |                  |
| 9.                 |                   |              |            |            |                    |                  |
| 10.                |                   |              |            |            |                    |                  |

Relinquished By: Ronan Tucker Date: 6/28/94 Time: 15:20 Received By: Ronan Tucker Date: 6/28/94 Time: 15:25

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By Lab: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Pink - Client

Yellow - Sequoia

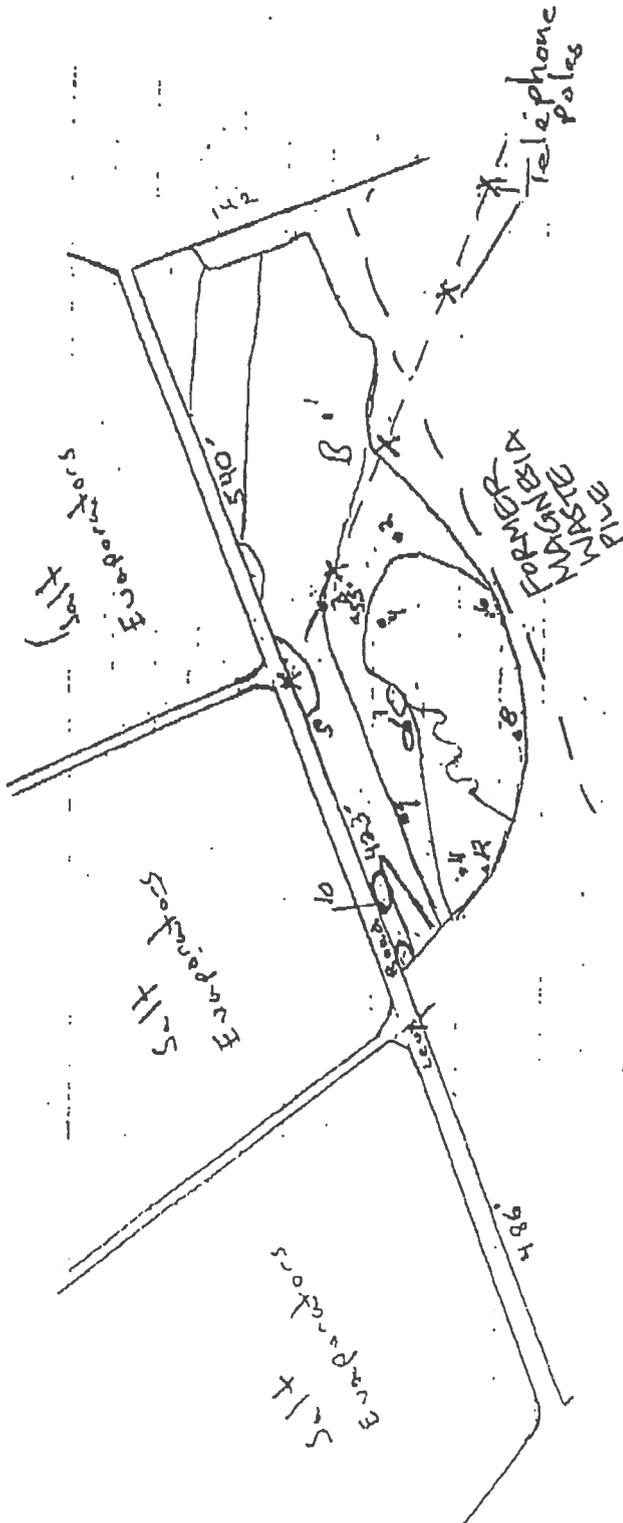
White - Sequoia

Attachment No. 2  
Gypsum Area

FMC CORPORATION

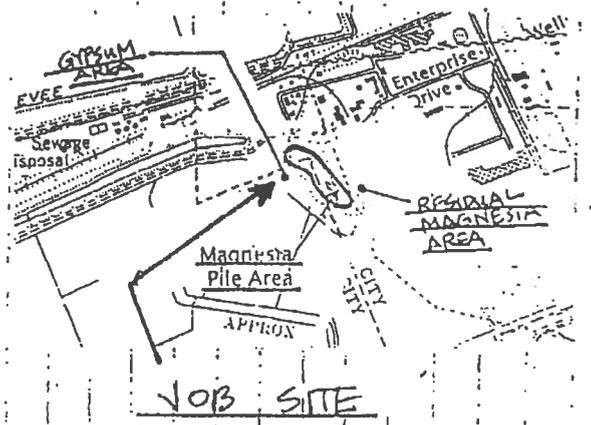
NO.381 P.4/4

By \_\_\_\_\_ Date \_\_\_\_\_ Subject \_\_\_\_\_ Sheet No. \_\_\_\_\_ of \_\_\_\_\_  
 Chkd. By \_\_\_\_\_ Date \_\_\_\_\_ Proj. No. \_\_\_\_\_



N

Not to scale



GYPSUM AREA

JUN 23 1999 10:32AM

FMC CORPORATION

NO.381

P.1/4

To: Peter W  
From: 60050

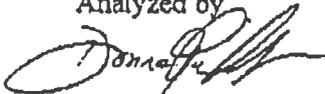
Wednesday, June 23, 1999

Attn: Rowan Tucker

pH Results for soil samples taken by Rowan Tucker

| <u>Sample ID</u> | <u>pH</u> |
|------------------|-----------|
| FMC 1            | 9.6       |
| FMC 2            | 8.6       |
| FMC 3            | 8.3       |
| FMC 4            | 9.2       |
| FMC 4A           | 8.2       |
| FMC 5            | 8.7       |
| FMC 6            | 8.6       |
| FMC 7            | 8.3       |
| FMC 8            | 8.3       |
| FMC 9            | 9.0       |
| FMC 10           | 9.2       |
| FMC 11           | 9.2       |
| FMC 12           | 9.3       |
| Crescent North   | 9.3       |
| Crescent South   | 8.6       |

Analyzed by



Donna Richardson  
Sr. Lab Technician  
FMC Corp.

- 680 Chesapeake Drive • Redwood City, CA 94063 • (650) 364-9600 FAX (650) 364-9233
- 819 Shinker Ave., Suite 8 • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100
- 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673
- 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342



Company Name: FMC Newark Project Name: FMC Newark Ph. Nas May ponds  
 Mailing Address: NA Billing Address (if different): NA

City: Newark State: CA Zip Code: \_\_\_\_\_  
 Telephone: \_\_\_\_\_ P.O. #: \_\_\_\_\_  
 Report To: Rouven Tucker Sampler: Rouven Tucker

Turnaround  10 Working Days  3 Working Days  2-8 Hours  Drinking Water  Level A  Level B  Level C  Level D (Standard)  
 Time:  7 Working Days  2 Working Days  Other \_\_\_\_\_  
 5 Working Days  24 Hours \_\_\_\_\_

| Client Sample I.D.      | Date/Time Sampled | Matrx Desc. | # of Cont. | Cont. Type | Sequoia's Sample # | Comments  |
|-------------------------|-------------------|-------------|------------|------------|--------------------|---|
| 1. FMC1 1/4" 3/4" depth | 6/22/99 11:55     | soil        | 1          | plastic    | comp. 364          | <div style="border: 1px solid black; padding: 5px; width: fit-content;">           PH<br/>           make sample Homogenized         </div> |
| 2. FMC2 "               | 11:50             | "           | "          | "          | "                  |   |
| 3. FMC3 "               | 12:00             | "           | "          | "          | "                  |   |
| 4. FMC4 / 4A "          | 12:10             | "           | "          | "          | 1 1/2 / 5/2        |   |
| 5. FMC5 "               | 12:23             | "           | "          | "          | 1"                 |   |
| 6. FMC6 "               | 13:45             | "           | "          | "          | 1/2"               |   |
| 7. FMC7 "               | 14:53             | "           | "          | "          | 5 1/2"             |   |
| 8. FMC8 "               | 15:00             | "           | "          | "          | 1"                 |   |
| 9. FMC9 "               | 14:25             | "           | "          | "          | 5 1/2"             |   |
| 10. FMC10 "             | 14:30             | "           | "          | "          | 1" 1/2<br>36.16    |   |

Relinquished By: Rouven Tucker Date: 6/22/99 Time: 15:25 Received By: James J. Fisher Date: 6/22/99 Time: 15:26  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

White - Sequoia Yellow - Sequoia Pink - Client



680 Chesapeake Drive • Redwood City, CA 94063 • (650) 364-9600 FAX (650) 364-9233  
 819 Sirkler Ave., Suite B • Sacramento, CA 95834 • (916) 921-9600 FAX (916) 921-0100  
 404 N. Wiget Lane • Walnut Creek, CA 94598 • (925) 988-9600 FAX (925) 988-9673  
 1455 McDowell Blvd. North, Suite D • Petaluma, CA 94954 • (707) 792-1865 FAX (707) 792-0342

**CHAIN OF CUSTODY**

Company Name: Fmc Newark  
 Mailing Address: NA  
 City: Newark State: CA Zip Code:  
 Telephone: FAX #:  
 Project Name: Fmc Newark th Nss Maglands  
 Billing Address (if different):

Report to: Rouven Tucker Sampler: Rouven Tucker  
 Turnaround:  10 Working Days  3 Working Days  2 - 8 Hours  
 Time:  7 Working Days  2 Working Days  
 5 Working Days  24 Hours

| Client Sample I.D.    | Date/Time Sampled | Matrix Desc. | # of Cont. | Cont. Type | Sequoia's Sample # | Analyses Requested                      |                                      |                                | Comments                     |
|-----------------------|-------------------|--------------|------------|------------|--------------------|---|--------------------------------------|--------------------------------|------------------------------|
|                       |                   |              |            |            |                    | <input type="checkbox"/> Drinking Water | <input type="checkbox"/> Waste Water | <input type="checkbox"/> Other |                              |
| 1. FMC 11             | 6/22/99 14:35     | Soil         | 1          | plastic    | 1 1/4 composite    | <input checked="" type="checkbox"/>     |                                      |                                | Make sample homogeneous<br>↓ |
| 2. FMC 12             | 14:45             |              | 1          |            | 1 1/4              | <input checked="" type="checkbox"/>     |                                      |                                |                              |
| 3. Crescent North FMC | 15:10             |              | 1          |            | 4"                 | <input checked="" type="checkbox"/>     |                                      |                                |                              |
| 4. Crescent South     | 15:15             |              | 1          |            | 8"                 | <input checked="" type="checkbox"/>     |                                      |                                |                              |
| 5.                    |                   |              |            |            |                    |   |                                      |                                |                              |
| 6.                    |                   |              |            |            |                    |   |                                      |                                |                              |
| 7.                    |                   |              |            |            |                    |   |                                      |                                |                              |
| 8.                    |                   |              |            |            |                    |   |                                      |                                |                              |
| 9.                    |                   |              |            |            |                    |   |                                      |                                |                              |
| 10.                   |                   |              |            |            |                    |   |                                      |                                |                              |

Relinquished By: Rouven Tucker Date: 6/22/99 Time: 15:25  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Relinquished By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Received By: Diana DeLeon Date: 6/22/99 Time: 13:26  
 Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_  
 Received By: \_\_\_\_\_ Date: \_\_\_\_\_ Time: \_\_\_\_\_

Yellow - Sequoia  
 White - Sequoia  
 Pink - Client

February 27, 2002

Miguel Trujillo  
Hazardous Materials Specialist  
City of Newark Fire Department  
37101 Newark Boulevard  
Newark, California 94560-3796

Re: Closure of Former Magnesia Pile  
Magnesia Waste Pile – Post Removal Sampling Report

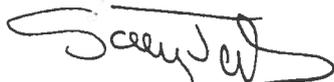
Dear Mr. Trujillo,

In accordance with the April 30, 1997 letter from the City of Newark to FMC Corporation (FMC) and Cargill Inc, the two companies have executed an excavation project to remove magnesia materials from Parcel No. 15-30-15 Newark, California (site). Based on pervious investigations under the oversight of the Department of Toxic Substances Control, the residual material left at the site was characterized as non-hazardous. The voluntary removal of approximately 120,000 cubic yard of this residual magnesia-related material was carried out in 1998 and 1999.

A post-removal sampling plan was submitted by letter transmittal dated June 2, 2000 and was approved by the City of Newark in a letter dated November 16, 2000. In response to our earlier meetings and the sampling plan, FMC is submitting the attached Magnesia Waste Pile-Post Removal Sampling Report. Based on the sampling results, no significant levels of chemical of concern were present. With the completion of this post removal sampling report, FMC believes that the requirements as stated in your letter have been met.

If you have any questions or comments, please feel free to call Peter Wan of my staff at 408-289-4285.

Sincerely,



Sally Jenks  
Manager, West Coast Remediation

Cc: Barbara Ransom – Cargill Inc.

Attached is  
Dames & Moore  
Mag Pile  
Post Removal  
Sampling Report  
dated  
Jan. 28, 2002

---

**REMEDIATION COMPLETION REPORT  
FORMER NEWARK SPORTSMAN'S CLUB  
Newark, California**

**Regional Water Quality Control Board  
Oakland, California**

**15 October 2002  
Project No. 3194.01**

# Treadwell&Rollo

15 October 2002  
Project 3194.01

Mr. Thomas Butler  
Regional Water Quality Control Board  
1515 Clay Street, Suite 1400  
Oakland, California 94612

Subject: File Number 2199.9303  
Remedial Action Workplan  
Former Newark Sportsman's Club  
Newark, CA

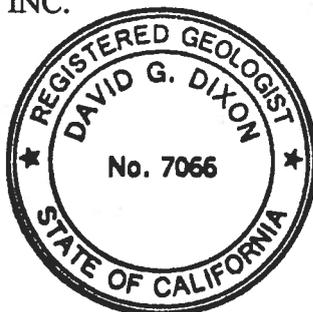
Dear Mr. Butler:

On behalf of Cargill Salt Company, Treadwell & Rollo, Inc., is pleased to submit two copies of the Remediation Completion Report for the former Newark Sportsmen's Club. This report is submitted in compliance with the Regional Water Quality Control Board's 27 August 2001 letter to Cargill Salt Company.

Please call with any questions.

Sincerely yours,  
TREADWELL & ROLLO, INC.

  
David G. Dixon, R.G.  
Senior Project Manager



  
Philip G. Smith, REA II  
Principal

31940105.PGS

Attachment

cc: Ms. Teri Peterson – Cargill Salt Company

---

**REMEDICATION COMPLETION REPORT  
FORMER NEWARK SPORTSMAN'S CLUB  
Newark, California**

**Regional Water Quality Control Board  
Oakland, California**

**15 October 2002  
Project No. 3194.01**

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## EXECUTIVE SUMMARY

This report documents that all of the previously identified lead and PAH impacted soil and debris exceeding approved cleanup criteria have been removed from the former Newark Sportsmen's Club (NSC) property (Site) and properly disposed of in accordance with the approved Remedial Action Workplan (RAW) and other applicable regulatory agency requirements. In addition to the remediation work, this report presents a site background, summarizes the previous characterization work, the RAW, and regulatory agency oversight and compliance work.

This Remediation Completion Report has been prepared for Cargill Salt Company (Cargill) to meet the requirements of the San Francisco Regional Water Quality Control Board's (RWQCB) letter of 27 August 2001, requesting that site remediation be completed at the Site by 15 October 2002. The NSC had leased the approximately 18-acre site from 1969 to 1995, using the Site as a recreational outdoor shooting range. This use of the Site resulted in surficial and shallow soil deposition of lead shot, residual total lead, and clay pigeon debris containing elevated levels of polycyclic aromatic hydrocarbons (PAHs).

The Site elevation varies from approximately 4 to 10 feet above mean sea level. The native surface soil is clay/silt, underlain by medium dense sand, which is in turn underlain by Bay Mud. Groundwater has reportedly been encountered in the vicinity of the Site at 4 to 9 feet below ground surface, and is not used as a drinking water resource. Groundwater flow is likely west towards San Francisco Bay. A jurisdictional wetland assessment and sensitive receptor study identified 3.42 acres of low habitat quality wetlands in the excavation areas proposed in the RAW. A Nationwide 38 Permit was obtained from the U.S. Army Corps of Engineers (ACOE) for the remediation work in the jurisdictional wetlands.

The lateral and vertical distribution of lead and PAHs had been established through several field investigations, involving the collection and analysis of 159 soil samples from 93 locations. Lead concentrations decrease rapidly with depth, with very little contamination was found deeper than

0.5 feet below ground surface. PAH contamination was limited to four stockpiles comprised of clay pigeon debris. With the exception of one sample collected from area E7, which was within the footprint Debris Stockpile 4, no soil samples contained PAHs. During the removal of Debris Stockpile 4, area E7 was excavated and confirmation samples were collected to ensure removal of all soil containing PAHs above the approved cleanup criteria.

The RAW selected cleanup criteria for total lead of 400 mg/kg and a lead shot count of 10 shot per square foot was determined to be protective of human health and the environment. The PAH cleanup criteria of 10 mg/kg total PAHs was similarly selected. The RAW and associated cleanup criteria were approved by the RWQCB in a 14 January 2002 letter. During site characterization work, a sampling grid was established covering the Site. Of the 90 grid sampling locations, 23 grid areas had sample results exceeding the total lead cleanup criteria, and 9 additional areas had visible lead shot likely exceeding the visual cleanup criteria. Additionally, the four clay pigeon debris stockpiles exceeded the cleanup criteria for PAHs.

Between July and October 2002, all of the identified lead and PAH impacted soil and debris exceeding the cleanup criteria were removed from the site and sent to appropriate landfills. A total of 5,910 tons were removed, approximately 1,121 tons of this soil, which exceeded federal hazardous (RCRA) criteria for lead, were treated onsite to stabilize it to non-RCRA concentrations. Confirmation samples were collected in the excavation areas, below former stockpile locations, and in the soil treatment areas. Laboratory analyses of the confirmation samples showed that these samples were all significantly below the cleanup criteria. All soil excavation areas passed the visual lead shot criteria.

## **REMEDICATION COMPLETION REPORT FORMER NEWARK SPORTSMAN'S CLUB Newark, California**

### **1.0 INTRODUCTION**

This Remediation Completion Report summarizes previous site characterization work and reporting, and presents results of the remedial work, soil disposal, and confirmation sampling at the Former Newark Sportsman's Club (NSC) in Newark, California (Figure 1).

Treadwell & Rollo, Inc. has prepared this report on behalf of Cargill Salt Company (Cargill) to meet the requirements of the San Francisco Bay Regional Water Quality Control Board (RWQCB) as documented in their letters of 27 August 2001 and 14 January 2002. Treadwell & Rollo previously prepared a characterization workplan (Treadwell & Rollo, 2001a), a final site characterization report (Treadwell & Rollo, 2001b), and a Remedial Action Workplan (RAW) (Treadwell & Rollo, 2001c).

### **2.0 SITE BACKGROUND**

The NSC site (Site) comprises approximately 18 acres of a much larger parcel owned by Cargill. Between 1969 and May 1995, the NSC leased the Site from Leslie Salt, and following Cargill's purchase of Leslie Salt in 1978 from Cargill to operate a recreational outdoor shooting range (Figure 2). As a result of these activities, lead pellets from shotgun shells and clay pigeon debris were scattered on the ground surface at the Site. It has been reported that the NSC periodically excavated the lead pellets and clay pigeon debris, separated the lead shot from the clay pigeon debris and recycled it, and placed the clay pigeon debris and dirt into stockpiles.

The Witmer-Tyson Police Dog School and the Menlo Park Schutzhund Club, both German shepherd training facilities, subsequently rented and continue to use the eastern portion of the Site. Various Bay Area police departments as well as private dog trainers utilize the facility. According to long-time occupants of the dog training facility, surficial soil and debris (i.e. lead

shot and clay pigeon fragments) located west-southwest of the clubhouse had been excavated and stockpiled. The depth of excavation was estimated to be approximately 0.5 feet below ground surface (bgs). Imported soil, comprised primarily of silty clay and imported from an adjacent area to the south, was used to form a pad for the dog training ground. The surface of the imported pad lies approximately 0.5 to 1.0 foot above the original ground surface. The locations of the imported pad and the stockpiles are shown on Figure 2.

Between March and September 2001, Treadwell & Rollo conducted several sampling events at the Site. The results of these investigations were presented in the *Characterization Report and Additional Sampling Workplan* (T&R, 2001a) and the *Final Characterization Report* (T&R, 2001b). These reports document the lateral and vertical distribution of residual lead and potential polycyclic aromatic hydrocarbon (PAH) compounds in soil at the Site and the characterization work performed at four existing clay pigeon debris stockpiles. The RAW for the NSC site was accepted, with conditions, by the RWQCB in a letter dated 14 January 2002 (Appendix A).

## 3.0 GEOLOGY AND HYDROLOGY

### 3.1 Geology

Ground surface elevations at the Site vary from approximately 4 to 10 feet above mean sea level (MSL). According to investigations conducted in the vicinity of the Site, the native surface clay/silt is underlain by loose to medium dense silty sand approximately 8 to 12 feet thick. The sand is likely underlain by soft to medium stiff clay known as Bay Mud. The Bay Mud at the Site may vary from 0 to 9 feet thick. Interbedded layers of medium stiff to hard silt and clay and medium dense to very dense sand with gravel underlay the Bay Mud or sand at adjacent sites. These soils extend to the maximum depths explored in the site vicinity (about 51 feet).

The serpentinite outcrops located just northeast of the Site are southerly outliers of a north-south trending chain of outcrops known as the Coyote Hills (Geosystem, 1997). The alluvium in this area is reported to be up to 350 feet deep and rests atop Franciscan Formation bedrock.

### 3.2 Hydrogeology

Groundwater was reportedly encountered during previous geotechnical and environmental investigations in the vicinity of the Site at depths ranging from 4 to 9 feet bgs. Periodic fluctuations in groundwater elevations may occur because of natural processes such as the infiltration of rainfall and tidal influences within the Bay.

A shallow aquifer in the Site vicinity has been reported to be present from approximately 4 to 20 feet bgs and consists of silty clay and clayey sand. The Newark Aquifer, comprised of interbedded sand and silt layers, extends from approximately 50 to 70 feet bgs and is separated from the shallow aquifer by the approximately 30-foot thick Newark Aquitard.

Based on the previous investigations that we reviewed and the regional topography, we estimate that groundwater flow direction over most of the Site is likely west towards San Francisco Bay. There are local variations in the groundwater flow direction in the vicinity of the Jones Hamilton, Romic, Ashland, and FMC facilities caused by the groundwater extraction systems operating at these facilities. These facilities are located approximately one-quarter to one-half mile north of the Site. The owners of these facilities are the responsible parties mitigating groundwater contamination referred to as the 4-Parties Plume, under the RWQCB oversight.

These groundwater extraction systems are designed to: (1) depress the groundwater elevation of the shallow aquifer at each facility to prevent offsite migration of contaminants; (2) recapture some contaminants that have migrated just offsite; and (3) extract and treat contaminated groundwater in activated carbon filtration systems prior to discharge to the sanitary sewer (Treadwell & Rollo, 1998).

### **3.3 Groundwater Usage**

Other than the groundwater remediation operations described above, there is no evidence of groundwater use at the Site or vicinity.

## **4.0 SUMMARY OF REMEDIAL INVESTIGATIONS**

Between March and September 2001, Treadwell & Rollo conducted several sampling events at the Site (T&R, 2001a, 2001b).

### **4.1 Soil Characterization Investigation Results**

The Site is divided into two areas, referred to as the Soil Area and the Stockpile Areas. The Soil Area is defined as the area west of the shooting positions where lead pellets and clay pigeon debris fell. The Stockpile Areas are the three locations southeast of the shooting positions and one area within the Soil Area where clay pigeon debris had been stockpiled as shown on Figure 2.

To determine the lateral and vertical extent of contamination within the Soil Area, a sampling grid was established at the Site that generally consisted of equidistant sampling locations on 75-foot centers. Soil samples were collected from various depths from the ground surface to two feet below ground surface (bgs) using either a hand auger, a slide hammer with a 2-inch sampling spoon, or a sampling trowel. A total of 159 samples were collected at 93 locations and submitted for laboratory analysis.

#### **4.1.1 Lead**

Previous investigations determined the lead-impacted soil area to be a “fan-shaped” area between 360 and 600 feet west of the shooting positions as shown on Figure 3. This is generally consistent with published studies documenting that typical lead skeet loads fall roughly 375 to 600 feet from the shooter depending on the amount of gunpowder in the shotgun shell, the type

of shot, the angle at which the shooter fires, the slope of the ground, the wind, and other factors (National Shooting Sports Foundation, 1997). Within this area, lead shot is visible on the surface and elevated concentrations of lead were observed in the shallow soil. The results of analytical testing for lead are presented in Table 1.

Lead concentrations in the soil decrease rapidly with depth. While residential Preliminary Remediation Goals (PRGs) for lead (400 mg/kg [EPA, 2000]) were exceeded within 0.4 feet bgs at 23 sampling locations, only 3 samples at 1 foot bgs exceeded residential PRGs.

#### **4.1.2 Polycyclic Aromatic Hydrocarbons**

##### Soil Samples

Twenty soil samples were collected and analyzed for PAH compounds (Figure 4). The samples were collected from 250 to 500 feet in front of the shooting positions within the area likely to be impacted by falling clay pigeon debris. With one exception, no PAH's were detected in any soil samples. One soil sample collected immediately adjacent to Stockpile 4, sample E7-0.5, contained one PAH compound at 40 mg/kg. Table 2 summarizes analytical results for PAHs in soil.

##### Debris Stockpile Samples

Four samples were collected from clay pigeon Debris Stockpiles 1, 2, and 3 located behind the shooting positions, and three samples from Debris Stockpile 4 located approximately 200 feet in front of the shooting positions.

Of the seven samples collected from the target debris stockpiles, four (E5-1.5, E6-1.5, SP1-1.0 and SP2-0.5) had PAH levels exceeding laboratory reporting limits. These represented samples from Debris Stockpiles 1, 2, and 4. Concentrations of total PAH compounds ranged from 632 mg/kg in sample E5-1.5 to 2,880 mg/kg in stockpile sample SP1-1.0.

No PAH compounds were detected in soil samples collected from Stockpile 3. During the remedial work additional sampling and characterization work was conducted for Stockpile 4, as described in section 7.0.

## **4.2 Sensitive Receptor Survey**

Wetlands Research Associates, Inc., (WRA) conducted a special status species habitat assessment of the Site to determine whether significant impacts to protected wildlife and plants (sensitive receptors) would possibly result from the proposed removal of contaminated soils from the parcel. According to WRA, no sensitive receptors were observed at the site, and based on existing habitat conditions and past and present disturbance, it is unlikely that any would occur at the site. A summary of WRA's findings are included in the Final Characterization Report (T&R, 2001b). In preparation of the Nationwide 38 permit for the proposed remedial work, the Army Corps of Engineers (ACOE) had the U.S. Fish & Wildlife Service (USFWS) visit and inspect the site. The USFWS concurred with the WRA findings in a 10 June 2002 letter attached in Appendix B.

## **4.3 Jurisdictional Wetland Areas**

WRA conducted an assessment for the presence of jurisdictional wetlands and waters that meet the criteria used in the 1987 ACOE Manual. A summary of this assessment is included in the Final Characterization Report (T&R, 2001b).

The study determined that there are two areas that meet the jurisdictional criteria at the NSC Site, encompassing 8.88 acres of the total approximate site area of 18 acres. These areas are depicted on Figure 5, and acreage for each are given in the table below.

| Jurisdictional Area Number | Area (acres) |
|----------------------------|--------------|
| 1                          | 8.74         |
| 2                          | 0.14         |
| Total                      | 8.88         |

Of the estimated 8.88 acres of jurisdictional areas, 3.42 acres at Jurisdictional Area 1 were identified as being in proposed soil excavation locations described in Section 6.0 of this report. Jurisdictional Area 2 was not in soil excavation locations.

## 5.0 REMEDIAL ACTION WORKPLAN

The RAW selected the cleanup criteria and cleanup method for the NSC Site. The selected remedial method was to excavate and remove from the site all material shown to exceed the cleanup criteria. The following is a summary of the cleanup criteria, excavation locations and remedial confirmation sampling procedures presented in the RAW. The RWQCB approved the RAW in a 14 January 2002 letter (attached in Appendix A) with two modifications described in section 5.1.

### 5.1 Cleanup Criteria and Confirmation Sampling Procedures

#### 5.1.1 Lead Cleanup Criteria

As described in section 4.2, site studies found that the site is a poor quality wildlife habitat, and sensitive receptors do not likely occur at the site. Due these conditions and the general low quality of the shallow groundwater, the RAW recommended using the residential Preliminary Remediation Goals (PRG) for lead of 400 mg/kg as the cleanup goal for the Site as being

protective of human health and the environment. The RWQCB approved this cleanup goal in their 14 January 2002 letter.

The RAW proposed collecting confirmation samples at all 23 excavation areas where lead concentrations exceeded the cleanup criteria (Figure 6). The confirmation sampling procedure selected included collecting 4 samples in each sampling grid area (one near each corner), from within three inches of the excavation floor. The four samples were to be sent to the analytical laboratory to be composited into a single sample and analyzed for total lead.

### **5.1.2 Polycyclic Aromatic Hydrocarbon Cleanup Criteria**

PAH compounds at the site were only detected in soil samples collected from three of the four clay pigeon debris stockpiles, and in one soil sample (E7) located adjacent to a debris stockpile as described in Section 4.1.2. The RAW proposed collecting at least one confirmation sample from beneath Debris Stockpiles 1, 2, and 3, and three samples from beneath Debris Stockpile 4 after removal from the Site. Based on discussions with the RWQCB, a cleanup goal of 10 mg/kg total PAHs was selected as protective of human health and the environment.

The RWQCB approved this cleanup goal in their 14 January 2002 letter, and added the requirement that confirmation sampling also be conducted in Grid E7 where there were detectable concentrations of PAHs, and E4 where PAHs were not detected, but the laboratory reporting limits for PAHs were greater than the cleanup criteria.

### **5.1.3 Visual Lead Shot Cleanup Criteria**

The RAW recommended using a visual cleanup criteria of 10 lead shots per square foot. The procedure described in the RAW was to select a random area in a sampling grid after excavation, and perform a visual inspection on a square foot area within the grid. In addition to the 23 grid locations recommended for excavation due to lead concentrations, nine grid locations were recommended in the RAW for excavation due to the likely presence of lead shot exceeding the

visual lead shot cleanup criteria. The visual lead shot criteria was proposed for use at all 32 of the excavation locations.

The RWQCB commented in their 14 January 2002 letter that a more quantitative sampling procedure than a visual criteria would be preferred. However, in subsequent discussions with Thomas Butler, the RWQCB case officer for the site, it was agreed that using the visual criteria presented in the RAW was appropriate. Mr. Butler was present to observe screening using the visual criteria after soil excavation.

## **5.2 Soil Excavation Areas**

Twenty-three grid sections that exceeded the total lead cleanup goal were identified in the RAW for excavation. Nine other grid sections, which were below the proposed total lead cleanup criterion but exceeded the 10 shot per square foot criterion, were also selected for excavation. Figure 6 shows the proposed remedial excavation areas and depths presented in the RAW.

A grid section is generally a 75 x 75-foot square area with the associated sampling location in approximately the center of the square. The areas, H0 and J1 were approximately half the size of the other areas (75 x 40 feet). Excavation depths were generally estimated to be half-way between the deepest sample exceeding the residential PRG for lead and the next deepest sample.

## **5.3 Selected Remedial and Laboratory Analytical Methods**

The remedial actions selected by the RAW were to dispose of the material from the four existing stockpiles and all excavated soil at offsite disposal facilities. New soil would be imported to the site to bring excavated areas up to previously existing grade. The RAW identified onsite treatment as an option, and this was performed at the site as described in Section 7.1.2.

Treadwell & Rollo issued a letter dated 18 June 2002 proposing analytical methods to be used for confirmation sampling at the site. It was proposed to use EPA Method 8270 for all PAH

analyses, and to use a mobile laboratory using an XRF method for lead analyses. During confirmation sampling, EPA Method 8310, which has a reporting limit approximately 10 times lower than EPA Method 8270, was also used for some analyses. Since the XRF method is not certified for use by the California Health Department of Health Services (DHS) it was proposed to send 10% of the samples analyzed by XRF to a fixed laboratory using EPA Method 6010 for confirmation. A mobile laboratory was not available during remediation however, and all confirmation samples were sent to a fixed laboratory for analyses by EPA Method 6010. Additionally, at the request of the RWQCB, analyses for total arsenic and antimony (by EPA Method 6010) were added for confirmation samples in excavation areas. No cleanup criteria were established for these two metals, and analytical results in the confirmation samples were typical of background concentrations for the area.

## **6.0 REMEDIAL ACTIVITIES**

Remedial activities at the site included the following:

- Obtaining a Nationwide 38 Permit for remedial work in jurisdictional wetland areas
- Surveying of remedial excavation areas
- Conducting remedial excavation of 32 areas
- Collecting soil confirmation samples for lead, arsenic and antimony at 23 excavation areas
- Collecting soil confirmation samples for PAHs at five areas
- Visual inspections of all 32 excavation areas for visible lead, and
- Collecting soil confirmation samples for lead at three areas at previous stockpile locations.

These activities are discussed in detail below.

## **6.1 Nationwide 38 Permit for Remedial Work**

An application for an ACOE Nationwide 38 Permit, to allow remedial actions in the jurisdictional wetland areas was submitted on 24 January 2002. The application was submitted by the ACOE to the USFWS for informal consultation. Approval from the USFWS was received on 10 June 2002. The Nationwide 38 Permit for remedial work was approved by the ACOE on 14 June 2002 and is attached in Appendix B. Special requirements in the ACOE permit included disposing of all material and debris generated by the Site remediation at an approved offsite location, and having a biologist inspect, flag and remove pickleweed in selected areas prior to excavation and be present during excavation at areas with greater than 40% pickleweed cover.

## **6.2 Site Surveying and Maintenance of Horizontal and Vertical Control**

On 8 July 2002, Martin Ron Associates, Inc., a California-licensed surveyor, staked and recorded locations of the previous soil characterization samples in areas proposed for excavation. The following day they staked the corners of each excavation area at locations that had been plotted based upon the characterization sampling locations.

Treadwell & Rollo, using a Trimble Geographical Positioning System (GPS), recorded the locations of all stakes, and kept the GPS on site to relocate stakes as needed during the remedial work. Pacific States Environmental (PSE), the remedial excavation contractor, set up a laser level at a reference point, and recorded elevations throughout the remediation areas. This was done to determine when the proposed depth of excavation had been achieved within each excavation area. During excavation PSE had a dedicated field technician maintaining elevation control to ensure that the appropriate amount of material was excavated.

## **6.3 Remedial Excavation**

Remedial excavation was conducted at the Site by PSE from 10 through 15 July 2002. Remedial excavation took place in each of the proposed 32 areas to depths discussed below. A road grader, capable of soil removal accuracy of less than 1-inch, was used by PSE to form windrows

of soil within the excavation footprint. A scraper followed behind the grader, picked up the windrows of soil and depositing the excavated soil on visqueen in a soil stockpile, located east of the remedial excavation area. Throughout the excavation activities a water truck was used to wet the remedial areas and soil stockpiles to reduce dust. The excavation was conducted in the westernmost areas first to avoid transporting excavated soil over areas where excavation had been completed.

A biologist from WRA was onsite prior to excavation to inspect, flag and remove pickleweed areas where required to comply with the ACOE Nationwide 38 Permit. A WRA biologist was also present during the excavation of areas with greater than 40% pickleweed cover, per the conditions of the Nationwide 38 Permit. WRA did not observe any salt harvest mice prior to or during excavation activities. WRA prepared a 12 July 2002 letter documenting their work, which is included in Appendix B.

PSE completed the soil remedial excavation activities on 15 July 2002. The table below shows the minimum excavation depths in each area. The actual excavation depths were determined on the basis of lead shot observations and associated confirmation sample results.

| Excavation Area                        | Excavation Depth (inches) |
|--|---------------------------|
| F4, F5, F6, G2, H7, J9, J10, K7 and L9 | 4                         |
| H5 and H6                              | 4                         |
| H3 and H4                              | 12                        |
| H1B, H1, J3, J4, J5, J6 and J7         | 6                         |

Excavation depths proposed in the RAW for each area were generally conservatively estimated to be halfway between the deepest sample exceeding the cleanup criteria for lead and the next deepest sample below the cleanup criteria.

Some excavation areas were not excavated to depths proposed in the RAW, because significant lead shot was not observed after removal of all soil greater than the cleanup criteria, and lead concentrations in confirmation samples collected at the base of these excavations were below the lead cleanup criteria. In these cases, care was taken to ensure that all the soil previously characterized as exceeding the cleanup criteria for lead was excavated. Some areas were excavated to deeper than proposed depths because visible lead shot was still present at the proposed excavation depth. Excavation continued at these areas until the lead shot removal criteria was met.

## **6.4 Soil Confirmation Sampling in Excavation Areas**

Between 11 and 15 July 2002, soil confirmation samples were collected in the excavation areas. Ninety-two soil confirmation samples were collected and composited by the laboratory into 23 soil confirmation samples as described below.

### **6.4.1 Soil Confirmation Sampling Methods and Locations**

Soil confirmation samples were collected from the 92 locations depicted on Figure 7. Prior to sampling, each excavation area was divided into four quadrants and confirmation samples were collected from the center of each quadrant (Figure 7) from the base of the excavation floor, extending three inches below the top of the excavation floor, for a total of four samples per excavated area. Depths of the soil confirmation samples are summarized in Table 6.

Soil confirmation samples were collected from the bottom of each excavation area proposed for confirmation sampling (Figure 7) using 2-inch diameter, 3-inch long stainless steel sampling tubes driven into the soil with a slide hammer. Following collection, each sample tube was capped using Teflontm tape and plastic end caps.

Soil confirmation samples were labeled according to which excavation area and which quadrant within that excavation area the sample was located. For example, the soil confirmation sample

collected from the northeast quadrant of excavation area H7 was labeled H7-NE. All four confirmation samples collected from H7 (H7-NE, H7-SE, H7-NW and H7-SW) were composited by the laboratory and identified as sample H7-(NE, SE, NW, SW) in the laboratory reports.

Soil confirmation samples were not proposed for excavation areas G3, G5, H1A, H1B, H1, J5, J6, J7 and J8, as these areas were below the cleanup criteria and only excavated due to the presence of lead shot at the surface. These areas were screened using the visual lead shot method as described in Section 6.5.

#### **6.4.2 Soil Confirmation Sample Results**

Soil confirmation samples were analyzed for California Total Threshold Limit Concentration (TTLC) antimony, arsenic and lead. All soil confirmation sample results were below the approved cleanup criteria for lead. Soil confirmation sample results and the depths from which the samples were collected are included in Table 6. Soil confirmation results for TTLC lead can also be found on Figure 7. Laboratory analytical reports for all remedial work are attached in Appendix C. While no cleanup criteria were established for arsenic or antimony, the concentrations detected are low, and likely represent background concentrations. Soil confirmation sample results are as follows.

- Antimony concentrations were detected in 15 of the 23 samples ranging from the reporting limit of 2.0 mg/kg to 8.5 mg/kg, with the average detected concentration being 4 mg/kg.
- Arsenic concentrations ranged from 5.5 to 9.0 mg/kg, with the average concentration being 7 mg/kg.
- Lead concentrations ranged from 6.6 to 270 mg/kg with the average concentration being 67 mg/kg.

During the site characterization, one soil sample collected immediately adjacent to Stockpile 4, sample E7-0.5, contained one PAH compound at 40 mg/kg, which exceeds the PAH cleanup criteria of 10 mg/kg. During remedial work, this sample location was found to be within stockpile 4 and was excavated during the removal of Debris Stockpile 4, as discussed in Section 7.0.

## **6.5 Visual Lead Shot Screening Results**

On 15 July 2002 excavation areas were screened using the visible lead shot cleanup criteria under the direction of the RWQCB. A random survey location was established in excavation areas by throwing a capped stainless steel sample tube into an excavation area. A visual inspection was then conducted by placing a one-foot square template on the ground and brushing the surface of the inspection area to help identify the number of lead shot present. After the visual inspection was performed, the survey location was recorded using a GPS unit. Visual inspection results are posted on Figure 8, and the results are summarized in Table 7.

## **6.6 Soil Import, Compaction and Backfill**

Clean soil was imported to the Site from the Dumbarton Quarry by PSE on 17 July 2002. This soil was used to bring excavations areas back up to their original grade. The imported soil consisted of dark reddish brown, poorly graded, gravelly clay to clayey gravel with silt.

## **7.0 SOIL AND DEBRIS STOCKPILE CHARACTERIZATION AND DISPOSAL**

Excavated soils were stockpiled on visqueen in an area located east of the excavation footprint. All soils excavated to 4-inches bgs were stockpiled together and identified as Soil Stockpile 1. Soils excavated deeper than 4 inches bgs were stockpiled together and identified as Soil Stockpile 2.

Four debris stockpiles (Debris Stockpiles 1, 2, 3 and 4) were present at the site prior to Treadwell & Rollo beginning work. The original estimated locations of the Debris Stockpiles are shown on Figure 2.

Debris Stockpiles 1, 2 and 3 were originally three individual stockpiles but had been previously characterized as California Hazardous waste and were subsequently combined into one stockpile (Treadwell & Rollo, 2001b). Following consolidation, former Debris Stockpiles 1, 2 and 3 were collectively referred to as Debris Stockpile 1, 2 and 3, which was composed of mostly clay pigeon debris with some soil and concrete debris.

Debris Stockpile 4 was located in sampling areas E5, E6 and E7 (Figure 7), and was comprised of mostly clay pigeon debris with some soil. The horizontal and vertical extent of Debris Stockpile #4 was consolidated into a stockpile by PSE at the location shown on Figure 7.

The following is a table of approximate tonnage of soil and debris off-hauled from the site and where the material was taken. The tons shown are based on the actual weight tags for trucks arriving at the landfills and the tonnage report provided by the landfill.

| Stockpile Name               | Date of Off-haul           | Tons  | Waste Type           | Disposal Landfill |
|------------------------------|----------------------------|-------|----------------------|-------------------|
| Soil Stockpile #1            | 9/4/02, 9/5/02 & 10/10/02  | 2,270 | California Hazardous | Kettleman Hills   |
| Soil Stockpile #1 (Treated)  | 10/4/02                    | 1,121 | California Hazardous | Kettleman Hills   |
| Soil Stockpile #2            | 8/30/02                    | 675   | Non-Hazardous        | Altamont          |
| Debris Stockpile #1, 2 and 3 | 9/5/02, 10/4/02 & 10/5/02  | 1,143 | California Hazardous | Kettleman Hills   |
| Debris Stockpile #4          | 9/4/02, 10/4/02 & 10/10/02 | 701   | California Hazardous | Kettleman Hills   |

## **7.1 Soil Stockpile 1 Characterization, Treatment and Disposal**

### **7.1.1 Soil Stockpile 1 Characterization Sampling and Results**

On 15 July 2002, Soil Stockpile 1 was divided into six equal parts (SS-1 through SS-6) and sampled for characterization. Characterization sampling consisted of collecting four soil samples in glass jars from each of the six approximately equal sections. Soil characterization samples collected from the section of Soil Stockpile 1 identified as SS-1 were labeled SS-1A, SS-1B, SS-1C and SS-1D, which were subsequently composited by the laboratory into a single sample identified as SS-1(A-D). The same compositing methodology was applied to the other five sections of the stockpile. The stockpile characterization samples were analyzed for total and TCLP lead. Analytical results for TCLP lead indicated that sections SS-1, SS-2, SS-3 and SS-6 had concentrations exceeding the federal hazardous waste criteria of 5 mg/L. Total and TCLP lead concentrations for samples SS-4(A-D) and SS-5(A-D) were below the federal and state hazardous waste criteria, so these samples were also analyzed for soluble lead using the STLC method. Selected samples were also analyzed for CAM 16 additional metals for landfill profiling purposes. Tables 3 and 4 summarize the analytical results for Soil Stockpile 1.

On 19 July 2002, sections SS-1, SS-2, SS-3 and SS-6 were divided into three subsections each, and a 4:1 composite characterization sample was collected in each subsection for TCLP lead analyses. The composite samples collected in section SS-1 were identified as soil characterization sample SS-1A(A-D), SS-1B(A-D), SS-1C(A-D). The same identification methodology was applied to the other three stockpile sections. Analytical results for additional subsections SS-1A(A-D), SS-2A(A-D), SS-2B(A-D) and SS-3B(A-D) indicated that these subsections exceeded federal hazardous criteria.

### **7.1.2 Soil Stockpile 1 Treatment and Disposal**

Between 16 and 19 September 2002, subsections SS-1A(A-D), SS-2A(A-D), SS-2B(A-D) and SS-3B(A-D), representing approximately 1,121 tons of soil were treated by PSE to below federal hazardous criteria.

The soil was treated by PSE using a pug mill permitted by the California Department of Toxic Substance Control as a portable treatment unit. The pug mill mixed the soil with a high phosphorous reagent. Approximately 1,121 tons of soil were treated and stockpiled in five adjacent piles.

The five treated soil stockpiles were sampled on 17 and 19 September 2002. Four samples were collected in glass jars from all the treated soil stockpiles. The four samples collected from Treated Soil Stockpile 1 were labeled TS-1A, TS-1B, TS-1C and TS-1D and were composited by the laboratory and identified as TS-1(A-D). The same sample labeling methodology was applied to the samples collected from the other four treated soil stockpiles. The composite samples collected from the five treated soil stockpiles were analyzed for total, TCLP and STLC lead.

All of the composite samples collected from the treated soil stockpiles were below federal hazardous criteria, but exceeded state hazardous criteria. Table 8 summarizes the analytical results for samples collected from the treated soil.. On 3 October 2002 all of the treated soil was disposed of at Kettleman Hills Landfill as a California hazardous waste.

### **7.1.3 Soil Stockpile 1 Confirmation Sampling**

On 4 October 2002 two four-to-one composite samples were collected from the area beneath former Soil Stockpile 1 to confirm that all of the stockpile had been removed from the site. The samples were collected from the northern and southern sections of the former stockpile and labeled C-SS1-1(A-D) and C-SS1-2(A-D), respectively. Sample C-SS1-1(A-D) contained 210 mg/kg and C-SS1-2(A-D) contained 560 mg/kg, indicating that additional soil removal was required in the southern half of the former Soil Stockpile 1 location . On 10 October 2002 approximately two inches of soil was removed in this area and sample C-SS1-3(A-D) was collected. Laboratory analyses showed that this sample contained 6.4 mg/kg of lead and that no additional work was required in this area. Table 3 summarizes the analytical results, and Figure 7 shows the approximate sampling locations.

## 7.2 Soil Stockpile 2 Characterization and Disposal

Soil Stockpile 2 was comprised of excavated soils taken from deeper than 4 inches bgs and comprised approximately 675 tons. Characterization samples were collected from Soil Stockpile 2 on 15 July 2002. Four glass jars were collected from each half of the stockpile and identified as SS2-1 and SS2-2. The four samples collected from SS2-1 were labeled SS2-1A, SS2-1B, SS2-1C and SS2-1D and were composited by the laboratory and identified as SS2-1(A-D). The same sampling and labeling methodology was applied to both halves of the stockpile. Both soil characterization samples were analyzed for total and TCLP lead.

Total lead was detected in composite samples SS2-1(A-D) and SS2-2(A-D) at concentrations of 26 and 16 mg/kg, respectively. Neither of the soil characterization samples collected from Soil Stockpile 2 contained detectable concentrations of TCLP lead. Table 4 summarizes the analytical results for Soil Stockpile 2. Based on these analytical results, Soil Stockpile 2 was accepted as a non-hazardous Class II waste by Altamont Landfill, and sent to Altamont on 30 August 2002.

## 7.3 Debris Stockpile Characterization and Disposal

Four clay pigeon debris stockpiles (Debris Stockpile 1, 2 and 3 and 4) were located onsite prior to Treadwell & Rollo beginning work at the site. Debris Stockpiles 1, 2 and 3 were sampled during 2001 and characterized as a California hazardous waste on the basis of their lead concentrations (Treadwell & Rollo, 2001b).

Debris Stockpile 4 was located near the E4, E5 and E6 characterization sampling areas (Figure 2) and was comprised of mostly clay pigeon debris with some soil. The horizontal and vertical extent of Debris Stockpile 4 was excavated and stockpiled by PSE, east of excavation area F6.

## 7.3.1 Debris Stockpile Characterization Sampling

Debris Stockpiles 1, 2 and 3 were sampled during the initial site characterization in 2001 and characterized as California hazardous waste on the basis of their lead concentrations (Treadwell & Rollo, 2001b). Tables 3, 4 and 5 summarize the analytical results for these stockpiles.

The lateral extent of Debris Stockpile 4 was not sufficiently characterized during the initial site work in 2001. In July 2002 the stockpile was consolidated by scraping several inches off the surface in areas E-4, E-5, E6 and E7, and in portions of adjacent areas with visible clay pigeon debris, and pushed into a single large pile. On 15 July 2002 the consolidated stockpile was divided into four equal parts and each was sampled. The characterization samples collected from Debris Stockpile 4 were analyzed for PAHs, and total, TCLP and STLC lead. On the basis of lead concentrations this stockpile was characterized as a California hazardous waste. Tables 3, 4 and 5 summarize the analytical results for these stockpiles.

## 7.3.2 Confirmation Sampling Below Debris Stockpiles

On 4 and 5 October, confirmation samples were collected from the area beneath former debris stockpiles to confirm that all of the stockpiled material had been removed from the site. The confirmation samples were collected using the same protocols described for the excavation areas and were submitted for PAH analyses using EPA Method 8270C. A four-to-one composite sample was collected below the former Stockpile 1, 2 and 3 removal area, and one each in Areas E4, E5, E6, and E7. The stockpile removal areas (Figure 7) were extended beyond the edges of the actual stockpiles to remove all visible debris.

PAH concentrations were not detected above the cleanup criteria of 10 mg/kg in any samples except for the sample collected in Area E5. This sample E5-(NE,SE,NW,SW) contained 49.5 mg/kg of total PAHs, indicating that additional soil removal was required in area E5. On 10 October 2002 approximately two inches of soil was removed in this area and sample E5-(NE,SE,NW,SW)-1 was collected. Laboratory analyses showed that this sample contained

0.84 mg/kg of total PAHs and that no additional work was required in this area. Table 10 summarizes the analytical results, and Figure 7 shows the approximate sampling locations.

### 7.3.3 Debris Stockpile Disposal

On 5 and 6 September 2002 all four debris stockpiles were hauled from the site to Kettleman Hills Landfill in Kettleman City, California, as a California hazardous waste. According to the weight tickets recorded at the landfill, Debris Stockpiles 1, 2 and 3 comprised approximately 1,143 tons and Debris Stockpile 4 comprised approximately 701 tons.

## 8.0 CONCLUSION

This report documents that all of the previously identified lead and PAH impacted soil and debris exceeding approved cleanup criteria have been removed from the Site and properly disposed of in accordance with the approved Remedial Action Workplan (RAW) and other applicable regulatory agency requirements.

The site was adequately characterized in 2001 under the oversight of the RWQCB as described in Section 4.0 of this report (T&R 2001a, T&R 2001) (RWQCB 2001a, 2001b). In December 2001 a Remedial Action Workplan (RAW) was prepared (T&R 2001a) which was accepted by the RWQCB with two comments as described in Section 5.0 of this report (T&R 2001c) (RWQCB 2002a). Between July and October 2002 the remedial work was performed at the site in accordance with the RAW. Remedial confirmation sampling and analyses, and visual screening indicate that all of the previously identified lead and PAH impacted soil and debris exceeding cleanup criteria have been removed from the site and properly disposed of, as described in Sections 6 and 7 of this report.

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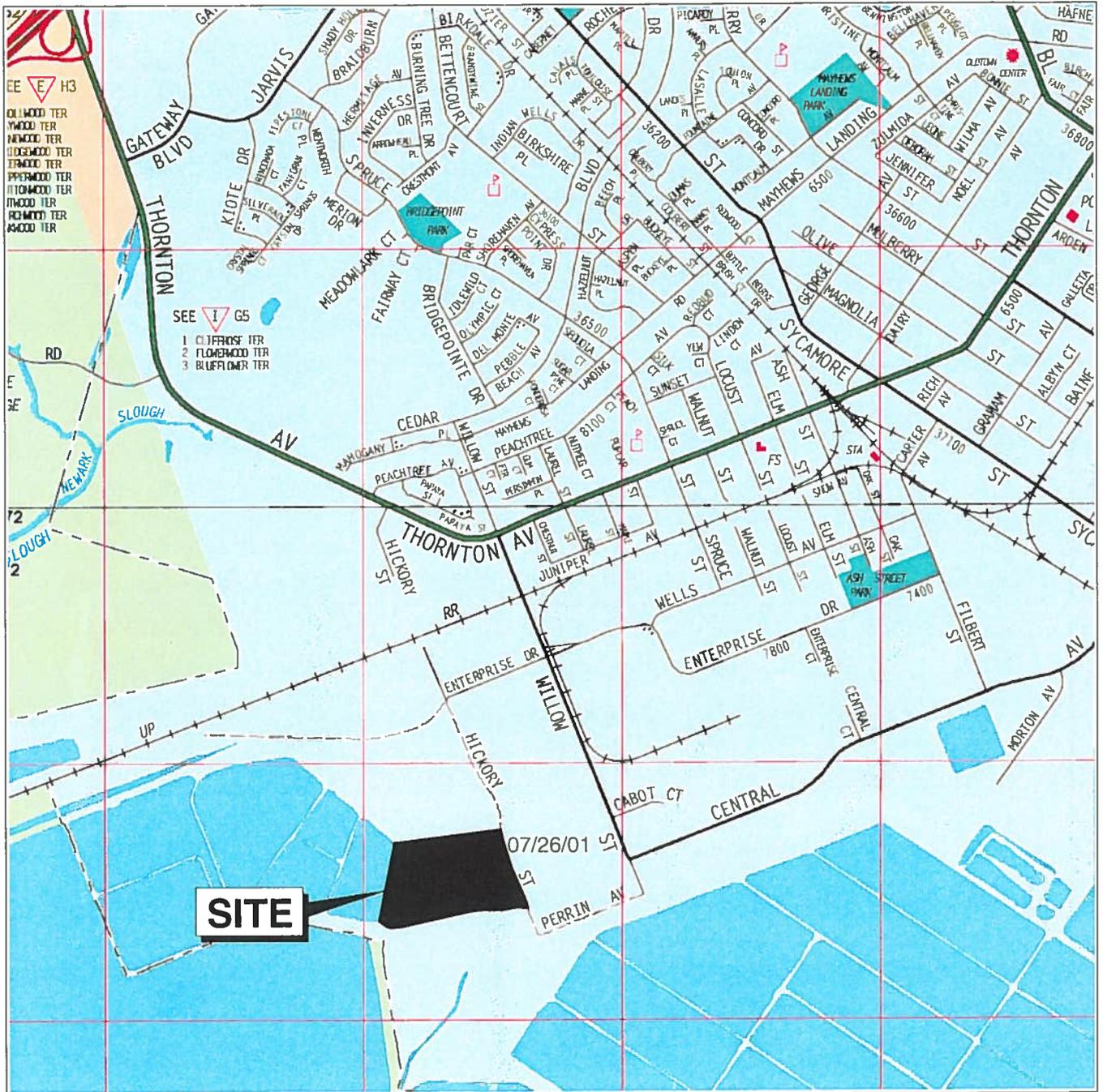
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**FIGURES**



Base map: The Thomas Guide  
 Alameda County  
 1999



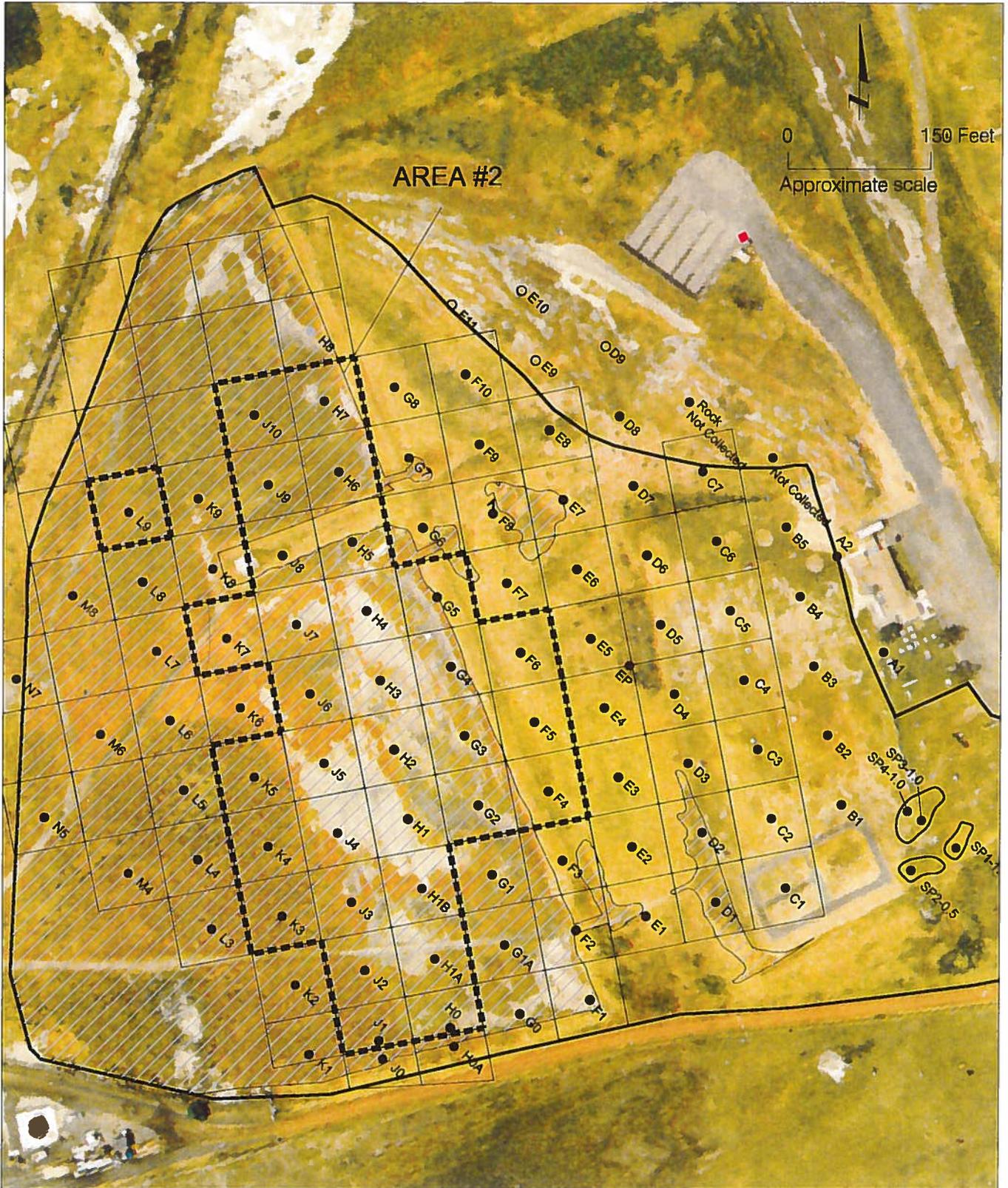
No scale

**FORMER NEWARK SPORTSMAN'S CLUB**  
 Newark, California

**SITE LOCATION MAP**

**Treadwell&Rollo**

Date 12/14/01 | Project No. 3194.01 | Figure 1



**EXPLANATION**



Areas meeting the Wetland definition in 1987 Corps of Engineers manual



Soil sample location



Excavation locations

Reference: Wetlands Research Associates, June 2001.

**FORMER NEWARK SPORTSMAN'S CLUB**  
Newark, California

**JURISDICTIONAL WETLANDS AND EXCAVATION AREAS**

Date 10/1/02 Project No. 3194.01 Figure 5

**Treadwell & Rollo**

# **Treadwell&Rollo**

## **TABLES**

**Table 1**  
**Lead and Copper Analytical Results for Site Characterization Soil Samples**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Sample Location                 | Sample Depth (Feet) | Sample Date | Lead TTLC Extraction (mg/kg) | Lead SPLP Extraction (mg/L) | Lead TCLP Extraction (mg/L) | Lead STLC Extraction (mg/L) | Total Copper (mg/kg) |
|---------------------------------|---------------------|-------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------|
| <b>Soil Area Sample Results</b> |                     |             |                              |                             |                             |                             |                      |
| A1                              | 0.25                | 3/21/01     | 39                           | —                           | —                           | —                           | —                    |
| A2                              | 0.25                | 3/21/01     | 23                           | —                           | —                           | —                           | —                    |
| B1                              | 0.25                | 3/21/01     | 9.9                          | —                           | —                           | —                           | —                    |
| B1                              | 0.75                | 3/21/01     | 7.3                          | —                           | —                           | —                           | —                    |
| B2                              | 0.25                | 3/21/01     | —                            | —                           | —                           | —                           | 25                   |
| B2                              | 0.75                | 3/21/01     | —                            | —                           | —                           | —                           | 25                   |
| B4                              | 0.25                | 3/21/01     | 31                           | —                           | —                           | —                           | 30                   |
| B4                              | 0.75                | 3/21/01     | 8.9                          | —                           | —                           | —                           | 33                   |
| B5                              | 0.25                | 3/21/01     | —                            | —                           | —                           | —                           | 24                   |
| C1                              | 0.25                | 3/22/01     | 19                           | —                           | —                           | —                           | —                    |
| C1                              | 0.75                | 3/22/01     | 14                           | —                           | —                           | —                           | —                    |
| C3                              | 0.25                | 3/22/01     | 21                           | —                           | —                           | —                           | —                    |
| C3                              | 0.75                | 3/22/01     | 11                           | —                           | —                           | —                           | —                    |
| C5                              | 0.25                | 3/22/01     | 11                           | —                           | —                           | —                           | —                    |
| C5                              | 0.75                | 3/22/01     | 9.4                          | —                           | —                           | —                           | —                    |
| C6                              | 0.25                | 3/22/01     | 13                           | —                           | —                           | —                           | —                    |
| C7                              | 0.25                | 3/22/01     | 20                           | —                           | —                           | —                           | —                    |
| D1                              | 0.25                | 3/22/01     | 16                           | —                           | —                           | —                           | —                    |
| D1                              | 0.75                | 3/22/01     | 11                           | —                           | —                           | —                           | —                    |
| D3                              | 0.25                | 3/22/01     | 15                           | —                           | —                           | —                           | —                    |
| D3                              | 0.75                | 3/22/01     | 24                           | —                           | —                           | —                           | —                    |
| D5                              | 0.25                | 3/22/01     | 14                           | —                           | —                           | —                           | —                    |
| D5                              | 0.75                | 3/22/01     | 14                           | —                           | —                           | —                           | —                    |
| E1                              | 0.25                | 3/22/01     | 16                           | —                           | —                           | —                           | —                    |
| E2                              | 0.25                | 3/22/01     | 13                           | —                           | —                           | —                           | —                    |
| E3                              | 0.25                | 3/22/01     | 53                           | —                           | —                           | —                           | —                    |
| E4                              | 0.25                | 3/22/01     | 210                          | —                           | —                           | —                           | —                    |
| E4                              | 0.75                | 3/22/01     | 8.9                          | —                           | —                           | —                           | —                    |
| E5                              | 1.25                | 3/22/01     | 78                           | —                           | —                           | —                           | —                    |
| E6                              | 1.25                | 3/22/01     | 96                           | —                           | —                           | —                           | —                    |
| E7                              | 0.25                | 3/22/01     | 83                           | —                           | —                           | —                           | —                    |
| E8                              | 0.25                | 3/22/01     | 30                           | —                           | —                           | —                           | —                    |
| F1                              | 0.25                | 3/22/01     | 390                          | 1.6                         | —                           | —                           | —                    |
| F1                              | 0.75                | 3/22/01     | 320                          | —                           | —                           | —                           | —                    |
| F2                              | 0.25                | 3/22/01     | 80                           | —                           | —                           | —                           | —                    |
| F3                              | 0.25                | 3/22/01     | 12                           | —                           | —                           | —                           | —                    |
| F4                              | 0.25                | 3/22/01     | 24,000                       | —                           | —                           | —                           | —                    |
| F4                              | 0.75                | 3/22/01     | 8.3                          | <0.2                        | —                           | —                           | —                    |

**Table 1**  
**Lead and Copper Analytical Results for Site Characterization Soil Samples**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Sample Location | Sample Depth (Feet) | Sample Date | Lead TTLC Extraction (mg/kg) | Lead SPLP Extraction (mg/L) | Lead TCLP Extraction (mg/L) | Lead STLC Extraction (mg/L) | Total Copper (mg/kg) |
|-----------------|---------------------|-------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------|
| F5              | 0.25                | 3/22/01     | 1,000                        | —                           | —                           | —                           | —                    |
| F5              | 0.75                | 3/22/01     | 8.8                          | <0.2                        | —                           | —                           | —                    |
| F6              | 0.25                | 3/22/01     | 1,200                        | —                           | —                           | —                           | —                    |
| F6              | 0.75                | 3/22/01     | 19                           | <0.2                        | —                           | —                           | —                    |
| F7              | 0.25                | 3/22/01     | 360                          | —                           | —                           | —                           | —                    |
| F8              | 0.25                | 3/22/01     | 180                          | —                           | —                           | —                           | —                    |
| F8              | 0.75                | 3/22/01     | 250                          | —                           | —                           | —                           | —                    |
| F9              | 0.25                | 3/22/01     | 80                           | —                           | —                           | —                           | —                    |
| F10             | 0.25                | 3/22/01     | 24                           | —                           | —                           | —                           | —                    |
| F11             | 0.25                | 3/22/01     | 98                           | —                           | —                           | —                           | —                    |
| G0              | 0.25                | 4/12/01     | 7.4                          | —                           | —                           | —                           | —                    |
| G1A             | 0.25                | 5/7/01      | 75                           | —                           | —                           | —                           | —                    |
| G1              | 0.25                | 4/12/01     | 4.7                          | —                           | —                           | —                           | —                    |
| G2              | 0.25                | 4/12/01     | 1,100                        | —                           | —                           | —                           | —                    |
| G2              | 0.75                | 4/12/01     | 8.2                          | —                           | —                           | —                           | —                    |
| G3              | 0.25                | 4/12/01     | 110                          | —                           | —                           | —                           | —                    |
| G3              | 0.75                | 4/12/01     | 12                           | —                           | —                           | —                           | —                    |
| G4              | 0.25                | 4/12/01     | 1,600                        | —                           | —                           | —                           | —                    |
| G4              | 0.75                | 4/12/01     | 7.7                          | —                           | —                           | —                           | —                    |
| G5              | 0.25                | 4/12/01     | 380                          | —                           | —                           | —                           | —                    |
| G5              | 0.75                | 4/12/01     | 11                           | —                           | —                           | —                           | —                    |
| G6              | 0.25                | 4/12/01     | 7.8                          | —                           | —                           | —                           | —                    |
| G7              | 0.25                | 5/7/01      | 11                           | —                           | —                           | —                           | —                    |
| G8              | 0.25                | 5/17/01     | 240                          | —                           | —                           | —                           | —                    |
| H0A             | 0.25                | 5/7/01      | 16                           | —                           | —                           | —                           | —                    |
| H0              | 0.25                | 4/12/01     | 510                          | —                           | —                           | —                           | —                    |
| H0              | 0.375               | 8/23/01     | 9.1                          | —                           | —                           | —                           | —                    |
| H0              | 0.75                | 4/12/01     | 14                           | —                           | —                           | —                           | —                    |
| H1A             | 0.25                | 5/7/01      | 8.9                          | —                           | —                           | —                           | —                    |
| H1B             | 0.25                | 5/7/01      | 6.0                          | —                           | —                           | —                           | —                    |
| H1              | 0.25                | 4/12/01     | 190                          | —                           | —                           | —                           | —                    |
| H1              | 0.75                | 4/12/01     | 29                           | —                           | —                           | —                           | —                    |
| H2              | 0.25                | 4/12/01     | 3,300                        | —                           | 3.9                         | —                           | —                    |
| H2              | 0.75                | 4/12/01     | 2,800                        | —                           | 58                          | —                           | —                    |
| H2              | 1.25                | 5/7/01      | 47                           | —                           | —                           | —                           | —                    |
| H2              | 1.75                | 5/7/01      | 54                           | —                           | —                           | —                           | —                    |
| H3              | 0.25                | 4/12/01     | 3,400                        | —                           | 3.9                         | —                           | —                    |
| H3              | 0.75                | 4/12/01     | 4,000                        | —                           | 0.36                        | —                           | —                    |
| H3              | 1.75                | 5/7/01      | 590/100                      | —                           | —                           | —                           | —                    |
| H4              | 0.25                | 4/12/01     | 4,200                        | —                           | —                           | —                           | —                    |
| H4              | 0.75                | 4/12/01     | 460                          | —                           | —                           | —                           | —                    |
| H4              | 1.75                | 5/7/01      | 200                          | —                           | —                           | —                           | —                    |
| H5              | 0.25                | 5/7/01      | 660                          | —                           | —                           | —                           | —                    |
| H5              | 1.25                | 5/7/01      | 85                           | —                           | —                           | —                           | —                    |

**Table 1  
Lead and Copper Analytical Results for Site Characterization Soil Samples  
Former Newark Sportsman's Club  
Newark, California**

| Sample Location | Sample Depth (Feet) | Sample Date | Lead TTLC Extraction (mg/kg) | Lead SPLP Extraction (mg/L) | Lead TCLP Extraction (mg/L) | Lead STLC Extraction (mg/L) | Total Copper (mg/kg) |
|-----------------|---------------------|-------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------|
| H6              | 0.25                | 5/7/01      | 1,600                        | —                           | —                           | —                           | —                    |
| H6              | 1.25                | 5/7/01      | 3.9                          | —                           | —                           | —                           | —                    |
| H7              | 0.25                | 5/17/01     | 19,000                       | —                           | —                           | —                           | —                    |
| H7              | 0.75                | 8/24/01     | 11                           | —                           | —                           | —                           | —                    |
| H8              | 0.25                | 5/17/01     | 110                          | —                           | —                           | —                           | —                    |
| H8              | 0.75                | 8/24/01     | 8.3                          | —                           | —                           | —                           | —                    |
| J0              | 0.25                | 5/17/01     | 110                          | —                           | —                           | —                           | —                    |
| J1              | 0.25                | 5/7/01      | 580                          | —                           | —                           | —                           | —                    |
| J1              | 0.375               | 8/23/01     | 7.8                          | —                           | —                           | —                           | —                    |
| J1              | 1.25                | 5/7/01      | 11                           | —                           | —                           | —                           | —                    |
| J2              | 0.25                | 5/7/01      | 1,600                        | —                           | —                           | —                           | —                    |
| J2              | 0.375               | 8/23/01     | 7.1                          | —                           | —                           | —                           | —                    |
| J2              | 1.25                | 5/7/01      | 11                           | —                           | —                           | —                           | —                    |
| J3              | 0.25                | 5/7/01      | 2,200                        | —                           | —                           | —                           | —                    |
| J3              | 0.375               | 8/23/01     | 9.0                          | —                           | —                           | —                           | —                    |
| J3              | 1.25                | 5/7/01      | 33                           | —                           | —                           | —                           | —                    |
| J4              | 0.25                | 5/7/01      | 2,900                        | —                           | —                           | —                           | —                    |
| J4              | 0.75                | 5/7/01      | 17                           | —                           | —                           | —                           | —                    |
| J4              | 0.375               | 8/23/01     | 7.7                          | —                           | —                           | —                           | —                    |
| J5              | 0.25                | 5/7/01      | 12                           | —                           | —                           | —                           | —                    |
| J5              | 0.75                | 5/7/01      | 13                           | —                           | —                           | —                           | —                    |
| J6              | 0.25                | 5/7/01      | 10                           | —                           | —                           | —                           | —                    |
| J6              | 0.75                | 5/7/01      | 14                           | —                           | —                           | —                           | —                    |
| J7              | 0.25                | 5/7/01      | 5.9                          | —                           | —                           | —                           | —                    |
| J7              | 0.75                | 5/7/01      | 360                          | —                           | —                           | —                           | —                    |
| J7              | 1.75                | 5/7/01      | 34                           | —                           | —                           | —                           | —                    |
| J8              | 0.25                | 5/7/01      | 7.9                          | —                           | —                           | —                           | —                    |
| J9              | 0.25                | 5/17/01     | 500                          | —                           | —                           | —                           | —                    |
| J9              | 0.75                | 8/24/01     | 8.4                          | —                           | —                           | —                           | —                    |
| J10             | 0.25                | 5/17/01     | 850                          | —                           | —                           | —                           | —                    |
| J10             | 0.75                | 8/24/01     | 11                           | —                           | —                           | —                           | —                    |
| J11             | 0.25                | 8/24/01     | 12                           | —                           | —                           | —                           | —                    |
| J11             | 0.75                | 8/24/01     | 11                           | —                           | —                           | —                           | —                    |
| K1              | 0.25                | 5/17/01     | 59                           | —                           | —                           | —                           | —                    |
| K2              | 0.25                | 5/17/01     | 30                           | —                           | —                           | —                           | —                    |
| K3              | 0.25                | 5/7/01      | 710                          | —                           | —                           | —                           | —                    |
| K3              | 0.375               | 8/23/01     | 8.6                          | —                           | —                           | —                           | —                    |
| K3              | 1.25                | 5/7/01      | 72 / 2,600                   | —                           | —                           | —                           | —                    |
| K3              | 1.75                | 8/24/01     | 9.3                          | —                           | <3.0                        | —                           | —                    |
| K4              | 0.25                | 5/7/01      | 970                          | —                           | —                           | —                           | —                    |
| K4              | 0.375               | 8/23/01     | 5.4                          | —                           | —                           | —                           | —                    |
| K4              | 0.75                | 5/7/01      | 5.7                          | —                           | —                           | —                           | —                    |

**Table 1**  
**Lead and Copper Analytical Results for Site Characterization Soil Samples**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Sample Location | Sample Depth (Feet) | Sample Date | Lead TTLC Extraction (mg/kg) | Lead SPLP Extraction (mg/L) | Lead TCLP Extraction (mg/L) | Lead STLC Extraction (mg/L) | Total Copper (mg/kg) |
|-----------------|---------------------|-------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------|
| K5              | 0.25                | 5/7/01      | 1,300                        | —                           | —                           | —                           | —                    |
| K5              | 0.375               | 8/23/01     | 8.3                          | —                           | —                           | —                           | —                    |
| K5              | 0.75                | 5/7/01      | 29                           | —                           | —                           | —                           | —                    |
| K6              | 0.25                | 5/7/01      | 8.8                          | —                           | —                           | —                           | —                    |
| K6              | 0.75                | 5/7/01      | 78                           | —                           | —                           | —                           | —                    |
| K6              | 1.75                | 5/7/01      | 27                           | —                           | —                           | —                           | —                    |
| K7              | 0.25                | 5/7/01      | 8,700                        | —                           | —                           | —                           | —                    |
| K7              | 0.75                | 5/7/01      | 9.6                          | —                           | —                           | —                           | —                    |
| K8              | 0.25                | 5/7/01      | 380                          | —                           | —                           | —                           | —                    |
| K8              | 1.25                | 5/7/01      | 15                           | —                           | —                           | —                           | —                    |
| K9              | 0.25                | 5/17/01     | 83                           | —                           | —                           | —                           | —                    |
| K10             | 0.25                | 8/24/01     | 22                           | —                           | —                           | —                           | —                    |
| K10             | 0.75                | 8/24/01     | 8                            | —                           | —                           | —                           | —                    |
| K11             | 0.25                | 8/24/01     | 16                           | —                           | —                           | —                           | —                    |
| K11             | 0.75                | 8/24/01     | 9.8                          | —                           | —                           | —                           | —                    |
| L3              | 0.25                | 5/17/01     | 10                           | —                           | —                           | —                           | —                    |
| L3              | 0.75                | 5/17/01     | 8.6                          | —                           | —                           | —                           | —                    |
| L4              | 0.25                | 5/17/01     | 20                           | —                           | —                           | —                           | —                    |
| L4              | 0.75                | 5/17/01     | 6.2                          | —                           | —                           | —                           | —                    |
| L5              | 0.25                | 5/17/01     | 140                          | —                           | —                           | —                           | —                    |
| L5              | 0.75                | 5/17/01     | 11                           | —                           | —                           | —                           | —                    |
| L6              | 0.25                | 5/17/01     | 11                           | —                           | —                           | —                           | —                    |
| L6              | 0.75                | 5/17/01     | 7.3                          | —                           | —                           | —                           | —                    |
| L7              | 0.25                | 5/17/01     | 19                           | —                           | —                           | —                           | —                    |
| L7              | 0.75                | 5/17/01     | 7.4                          | —                           | —                           | —                           | —                    |
| L8              | 0.25                | 5/17/01     | 8.2                          | —                           | —                           | —                           | —                    |
| L8              | 0.75                | 5/17/01     | 14                           | —                           | —                           | —                           | —                    |
| L9              | 0.25                | 5/17/01     | 1,200                        | —                           | —                           | —                           | —                    |
| L9              | 0.75                | 8/24/01     | 6.5                          | —                           | —                           | —                           | —                    |
| L10             | 0.25                | 8/24/01     | 25                           | —                           | —                           | —                           | —                    |
| L10             | 0.75                | 8/24/01     | 6.1                          | —                           | —                           | —                           | —                    |
| M4              | 0.25                | 5/17/01     | 19                           | —                           | —                           | —                           | —                    |
| M6              | 0.25                | 5/17/01     | 55                           | —                           | —                           | —                           | —                    |
| M8              | 0.25                | 5/17/01     | 36                           | —                           | —                           | —                           | —                    |
| M9              | 0.25                | 8/24/01     | 26                           | —                           | —                           | —                           | —                    |
| M9              | 0.75                | 8/24/01     | 8.5                          | —                           | —                           | —                           | —                    |
| M10             | 0.25                | 8/24/01     | 49                           | —                           | —                           | —                           | —                    |
| M10             | 0.75                | 8/24/01     | 16                           | —                           | —                           | —                           | —                    |
| N5              | 0.25                | 5/17/01     | 51                           | —                           | —                           | —                           | —                    |
| N7              | 0.25                | 5/17/01     | 16                           | —                           | —                           | —                           | —                    |

**Table 1**  
**Lead and Copper Analytical Results for Site Characterization Soil Samples**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Sample Location                 | Sample Depth (Feet) | Sample Date | Lead TTLC Extraction (mg/kg) | Lead SPLP Extraction (mg/L) | Lead TCLP Extraction (mg/L) | Lead STLC Extraction (mg/L) | Total Copper (mg/kg) |
|---------------------------------|---------------------|-------------|------------------------------|-----------------------------|-----------------------------|-----------------------------|----------------------|
| <b>Composite Sample Results</b> |                     |             |                              |                             |                             |                             |                      |
| F4, F5, F6, G2                  | 0.375               | 8/23/01     | 150                          | —                           | 13                          | —                           | —                    |
| G4, H2, H3, H4                  | Surface             | 8/23/01     | 100,000                      | —                           | 99                          | —                           | —                    |
| G4, H2, H3, H4                  | 0.375               | 8/23/01     | 840                          | —                           | 0.58                        | 0.36                        | —                    |
| H5, H6, H7                      | Surface             | 8/23/01     | 2,200                        | —                           | 48                          |                             | —                    |
| H2, H3                          | 0.875               | 8/23/01     | 9.9                          | —                           | <0.2                        | <0.2                        | —                    |
| H4                              | 0.875               | 8/23/01     | 10                           | —                           | <0.2                        | <0.2                        | —                    |
| H3                              | 1.875               | 8/23/01     | 14                           | —                           | <0.2                        | <0.2                        | —                    |
| H6, H7                          | 0.375               | 8/23/01     | 18                           | —                           | <0.2                        | <0.2                        | —                    |
| H0, J1, K3, K4                  | 0.375               | 8/23/01     | 9.1                          | —                           | <0.2                        | <0.2                        | —                    |
| H5, J9, J10                     | 0.375               | 8/23/01     | 9.9                          | —                           | <0.2                        | <0.2                        | —                    |
| J2, J3, J4, K5                  | 0.375               | 8/23/01     | 6.4                          | —                           | <0.2                        | <0.2                        | —                    |
| K7, L9                          | 0.375               | 8/24/01     | 8.7                          | —                           | <0.2                        | <0.2                        | —                    |

**Notes:**

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

SPLP = Synthetic Precipitation Leachate Procedure by EPA Method 1311

TTLC = California Total Threshold Limit Concentration - State hazardous waste criterion

TCLP = Federal Toxicity Characteristic Leaching Potential Analysis - Federal hazardous waste criterion

STLC = Soluble Threshold Limit Concentration

— = Not Analyzed

<0.2 = Not detected at or above laboratory reporting limits.

**Table 3**  
**Soil and Debris Stockpile Analytical Results for Metals**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Stockpile Number                           | Sample Number | Sampling Date | As   | Sb   | Ba     | Be   | Cd   | Cr    | Co    | Cu    | Pb    | Hg    | Mo    | Ni    | Se   | Ag   | Tl   | V     | Zn    |
|--|---------------|---------------|------|------|--------|------|------|-------|-------|-------|-------|-------|-------|-------|------|------|------|-------|-------|
| Debris Stockpile 1                         | CP-2S         | 4/16/01       | <1.0 | <2.0 | 110    | <0.5 | 1.6  | 130   | 19    | 26    | 170   | 0.085 | <1.0  | 250   | <2.0 | <1.0 | <1.0 | 27    | 48    |
|  | CP-2D         | 4/16/01       | <1.0 | <2.0 | 88     | <0.5 | 1.3  | 120   | 20    | 23    | 94    | 0.086 | <1.0  | 310   | <2.0 | <1.0 | <1.0 | 22    | 31    |
|  | CP-1S         | 4/17/01       | 1.3  | 4.8  | 84     | <0.5 | 1.4  | 130   | 16    | 22    | 640   | 0.32  | <1.0  | 230   | <2.0 | <1.0 | <1.0 | 20    | 44    |
| Debris Stockpile 2                         | CP-1D         | 4/16/01       | 1.6  | 3.1  | 63     | <0.5 | 0.85 | 53    | 7.1   | 14    | 310   | 0.098 | <1.0  | 83    | <2.0 | <1.0 | <1.0 | 14    | 25    |
|  | CP-3S         | 4/16/01       | <1.0 | <2.0 | 17     | <0.5 | <0.5 | 23    | 3.1   | 3.7   | 89    | 0.12  | <1.0  | 39    | <2.0 | <1.0 | <1.0 | 4.1   | 9.0   |
| Debris Stockpile 3                         | CP-3D         | 4/16/01       | 2.1  | 2.0  | 140    | <0.5 | 1.7  | 100   | 18    | 35    | 230   | 0.080 | <1.0  | 160   | <2.0 | <1.0 | <1.0 | 35    | 54    |
|  | SP4C-1(A-D)   | 7/15/02       | —    | —    | —      | —    | —    | —     | —     | —     | 470   | —     | —     | —     | —    | —    | —    | —     | —     |
| Debris Stockpile 4                         | SP4C-2(A-D)   | 7/15/02       | —    | —    | —      | —    | —    | —     | —     | —     | 670   | —     | —     | —     | —    | —    | —    | —     | —     |
|  | SP4C-3(A-D)   | 7/15/02       | —    | —    | —      | —    | —    | —     | —     | —     | 490   | —     | —     | —     | —    | —    | —    | —     | —     |
| Soil Stockpile 1                           | SP4C-4(A-D)   | 7/15/02       | —    | —    | —      | —    | —    | —     | —     | —     | 350   | —     | —     | —     | —    | —    | —    | —     | —     |
|  | SS-1(A-D)     | 7/15/02       | —    | —    | —      | —    | —    | —     | —     | —     | 880   | —     | —     | —     | —    | —    | —    | —     | —     |
|  | SS-2(A-D)     | 7/15/02       | 14   | 13   | 90     | <0.5 | 2.9  | 57    | 12    | 25    | 920   | 0.051 | <1    | 73    | <2   | <1   | <1   | 31    | 44    |
|  | SS-3A(A-D)    | 7/19/02       | —    | —    | —      | —    | —    | —     | —     | —     | 640   | —     | —     | —     | —    | —    | —    | —     | —     |
|  | SS-3B(A-D)    | 7/19/02       | —    | —    | —      | —    | —    | —     | —     | —     | —     | —     | —     | —     | —    | —    | —    | —     | —     |
|  | SS-3C(A-D)    | 7/19/02       | —    | —    | —      | —    | —    | —     | —     | —     | 2,000 | —     | —     | —     | —    | —    | —    | —     | —     |
| Soil Stockpile 2                           | SS-4(A-D)     | 7/15/02       | 11   | 7.6  | 96     | <0.5 | 2.9  | 54    | 11    | 24    | 580   | <0.05 | <1    | 68    | <2   | <1   | <1   | 30    | 40    |
|  | SS-5(A-D)     | 7/15/02       | —    | —    | —      | —    | —    | —     | —     | —     | 390   | —     | —     | —     | —    | —    | —    | —     | —     |
|  | SS-6(A-D)     | 7/15/02       | —    | —    | —      | —    | —    | —     | —     | —     | 740   | —     | —     | —     | —    | —    | —    | —     | —     |
|  | SS2-1(A-D)    | 7/15/02       | —    | —    | —      | —    | —    | —     | —     | —     | 26    | —     | —     | —     | —    | —    | —    | —     | —     |
|  | SS2-2(A-D)    | 7/15/02       | —    | —    | —      | —    | —    | —     | —     | 16    | —     | —     | —     | —     | —    | —    | —    | —     | —     |
| <b>California State Hazardous Criteria</b> |               |               | 500  | 500  | 10,000 | 75   | 100  | 2,500 | 8,000 | 2,500 | 1,000 | 20    | 3,500 | 2,000 | 100  | 500  | 700  | 2,400 | 5,000 |
| <b>Title 22 TTLC</b>                       |               |               | 500  | 500  | 10,000 | 75   | 100  | 2,500 | 8,000 | 2,500 | 1,000 | 20    | 3,500 | 2,000 | 100  | 500  | 700  | 2,400 | 5,000 |

**Notes:**  
All results in mg/kg unless otherwise noted  
— = Not analyzed  
<0.5 = Not detected at or above indicated method reporting limit.  
Ag = Silver; As = Arsenic; Ba = Barium; Be = Beryllium; Cd = Cadmium; Co = Cobalt; Cr = Chromium; Cu = Copper; Hg = Mercury  
Mo = Molybdenum; Ni = Nickel; Pb = Lead; Sb = Antimony; Se = Selenium; Tl = Thallium; V = Vanadium; Zn = Zinc  
TTLC = California Total Threshold Limit Concentration - State hazardous waste criterion

**Table 4**  
**Soil and Debris Stockpile Analytical Results for Soluble Metals**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Stockpile Number                           | Sample Number  | Sampling Date | TCLP  |       |       |       | STLC |     |
|--|----------------|---------------|-------|-------|-------|-------|------|-----|
|  |                |               | Sb    | As    | Cr    | Pb    | Cr   | Pb  |
| Debris Stockpiles 1 & 2                    | CP-1S,1D,2S,2D | 4/24/01       | <0.50 | <0.50 | <0.50 | <0.50 | —    | —   |
|  | SP-1A,B        | 9/12/01       | —     | —     | —     | —     | <0.5 | 12  |
|  | SP-1C,D        | 9/12/01       | —     | —     | —     | —     | <0.5 | 5.7 |
| Debris Stockpile 3                         | CP-3S,3D       | 4/24/01       | <0.50 | <0.50 | <0.50 | 2.1   | —    | —   |
|  | SP-3A,B        | 9/12/01       | —     | —     | —     | —     | <0.5 | 9.3 |
| Debris Stockpile 4                         | SP4C-1(A-D)    | 7/15/02       | —     | —     | —     | 3.5   | —    | 31  |
|  | SP4C-2(A-D)    | 7/15/02       | —     | —     | —     | 3.8   | —    | 430 |
|  | SP4C-3(A-D)    | 7/15/02       | —     | —     | —     | 1.9   | —    | 240 |
|  | SP4C-4(A-D)    | 7/15/02       | —     | —     | —     | 3.4   | —    | 58  |
| Soil Stockpile 1                           | SS-1(A-D)      | 7/15/02       | —     | —     | —     | 10    | —    | —   |
|  | SS1A-(A-D)     | 7/19/02       | —     | —     | —     | 9.5   | —    | —   |
|  | SS1B-(A-D)     | 7/19/02       | —     | —     | —     | 1.3   | —    | 210 |
|  | SS1C-(A-D)     | 7/19/02       | —     | —     | —     | 1.2   | —    | 160 |
|  | SS-2(A-D)      | 7/15/02       | —     | —     | —     | 5     | —    | —   |
|  | SS2A-(A-D)     | 7/19/02       | —     | —     | —     | 6.8   | —    | —   |
|  | SS2B-(A-D)     | 7/19/02       | —     | —     | —     | 10    | —    | —   |
|  | SS2C-(A-D)     | 7/19/02       | —     | —     | —     | 3.2   | —    | 500 |
|  | SS-3(A-D)      | 7/15/02       | —     | —     | —     | 6.1   | —    | —   |
|  | SS3A-(A-D)     | 7/19/02       | —     | —     | —     | 2.2   | —    | 180 |
|  | SS3B-(A-D)     | 7/19/02       | —     | —     | —     | 28    | —    | —   |
|  | SS3C-(A-D)     | 7/19/02       | —     | —     | —     | 1.5   | —    | 200 |
|  | SS-4(A-D)      | 7/15/02       | —     | —     | —     | 3.7   | —    | 290 |
|  | SS-5(A-D)      | 7/15/02       | —     | —     | —     | 2.7   | —    | 33  |
|  | SS-6(A-D)      | 7/15/02       | —     | —     | —     | 8.2   | —    | —   |
| Soil Stockpile 2                           | SS6A-(A-D)     | 7/19/02       | —     | —     | —     | 0.81  | —    | 200 |
|  | SS6B-(A-D)     | 7/19/02       | —     | —     | —     | 3.3   | —    | 310 |
|  | SS6C-(A-D)     | 7/19/02       | —     | —     | —     | 2.7   | —    | 49  |
| Soil Stockpile 2                           | SS2-1(A-D)     | 7/15/02       | —     | —     | —     | <0.50 | —    | —   |
|  | SS2-1(A-D)     | 7/15/02       | —     | —     | —     | <0.50 | —    | —   |
| <b>California State Hazardous Criteria</b> |                |               |       |       |       |       |      |     |
| Title 22 STLC                              |                |               | —     | —     | —     | —     | 5.0  | 5.0 |
| <b>Federal Hazardous Criteria</b>          |                |               |       |       |       |       |      |     |
| TCLP                                       |                |               | 5.0   | 5.0   | 5.0   | 5.0   | —    | —   |

**Notes:**

All concentrations are in milligrams per Liter (mg/L)  
 <0.5 = Not detected at or above indicated method reporting limit.  
 As = Arsenic; Cr = Chromium; Pb = Lead; Sb = Antimony  
 TCLP = Toxicity Characteristic Leaching Potential  
 STLC = Soluble Threshold Limit Concentration

**Table 6**  
**Confirmation Soil Sample Results**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Sample Location                                   | Sample Date       | Depth of Remedial Excavation <sup>1</sup> (Feet) | Sample Depth Bottom (Feet) | Totals Metals Analyses           |                                 |                              |
|---|-------------------|--|----------------------------|----------------------------------|---------------------------------|------------------------------|
|   |                   |  |                            | Antimony TTLC Extraction (mg/kg) | Arsenic TTLC Extraction (mg/kg) | Lead TTLC Extraction (mg/kg) |
| <b>Excavation Area Confirmation Samples</b>       |                   |  |                            |                                  |                                 |                              |
| F4-(NE, SE, NW, SW)                               | 7/12/02           | 0.33   | 0.58                       | < 2.0                            | 5.7                             | 10                           |
| F5-(NE, SE, NW, SW)                               | 7/12/02           | 0.33   | 0.58                       | 4.7                              | 5.9                             | 170                          |
| F6-(NE, SE, NW, SW)                               | 7/12/02           | 0.33   | 0.58                       | 8.5                              | 7.5                             | 270                          |
| G2-(NE, SE, NW, SW)                               | 7/12/02           | 0.33   | 0.58                       | 2.6                              | 6.6                             | 140                          |
| G4-(NE, SE, NW, SW)                               | 7/12/02           | 0.33   | 0.58                       | 2.9                              | 6.1                             | 64                           |
| H0-(NE, SE, NW, SW)                               | 7/12/02           | 0.33   | 0.58                       | 3.4                              | 6.5                             | 52                           |
| H2-(NE, SE, NW, SW)                               | 7/15/02           | 1.0  | 1.25                       | < 2.0                            | 5.7                             | 6.6                          |
| H3-(NE, SE, NW, SW)                               | 7/15/02           | 1.0  | 1.25                       | < 2.0                            | 6.3                             | 6.7                          |
| H4-(NE, SE, NW, SW)                               | 7/15/02           | 1.0  | 1.25                       | < 2.0                            | 6.0                             | 8.3                          |
| H5-(NE, SE, NW, SW)                               | 7/12/02           | 0.33   | 0.58                       | 6.6                              | 9.0                             | 260                          |
| H6-(NE, SE, NW, SW)                               | 7/12/02           | 0.33   | 0.58                       | 4.8                              | 7.9                             | 140                          |
| H7-(NE, SE, NW, SW)                               | 7/11/02           | 0.33   | 0.58                       | < 2.0                            | 6.9                             | 20                           |
| J1-(NE, SE, NW, SW)                               | 7/11/02           | 0.33   | 0.58                       | < 2.0                            | 5.9                             | 75                           |
| J2-(NE, SE, NW, SW)                               | 7/11/02           | 0.33   | 0.58                       | 6.0                              | 7.0                             | 120                          |
| J3-(NE, SE, NW, SW)                               | 7/11/02 & 7/12/02 | 0.5  | 0.75                       | 3.1                              | 6.0                             | 23                           |
| J4-(NE, SE, NW, SW)                               | 7/12/02           | 0.5  | 0.75                       | 2.7                              | 5.8                             | 24                           |
| J9-(NE, SE, NW, SW)                               | 7/11/02           | 0.33   | 0.58                       | 3.1                              | 6.8                             | 39                           |
| J10-(NE, SE, NW, SW)                              | 7/11/02           | 0.33   | 0.58                       | < 2.0                            | 6.6                             | 7.5                          |
| K3-(NE, SE, NW, SW)                               | 7/11/02           | 0.33   | 0.58                       | < 2.0                            | 5.5                             | 26                           |
| K4-(NE, SE, NW, SW)                               | 7/11/02           | 0.33   | 0.58                       | 4.9                              | 6.5                             | 36                           |
| K5-(NE, SE, NW, SW)                               | 7/11/02           | 0.33   | 0.58                       | 2.0                              | 7.7                             | 7.3                          |
| K7-(NE, SE, NW, SW)                               | 7/11/02           | 0.33   | 0.58                       | 4.4                              | 7.2                             | 18                           |
| L9-(NE, SE, NW, SW)                               | 7/11/02           | 0.33   | 0.58                       | 2.0                              | 7.3                             | 20                           |
| <b>Soil Stockpile 1 Confirmation Samples</b>      |                   |  |                            |                                  |                                 |                              |
| C-SS1-1(A-D)                                      | 10/4/02           | 0.17   | 0.42                       | NA                               | NA                              | 210                          |
| C-SS1-2(A-D) <sup>2</sup>                         | 10/4/02           | 0.17   | 0.42                       | NA                               | NA                              | 560                          |
| C-SS1-3(A-D) <sup>3</sup>                         | 10/10/02          | 0.17   | 0.42                       | NA                               | NA                              | 6.4                          |
| <b>Treated Soil Stockpile Confirmation Sample</b> |                   |  |                            |                                  |                                 |                              |
| C-TS-1(A-D)                                       | 10/4/02           | 0.17   | 0.42                       | NA                               | NA                              | 27                           |
| <b>Approved Cleanup Criteria</b>                  |                   |  |                            | none                             | none                            | 400                          |

**Notes:**

- 1 - Confirmation samples were collected from 0 to 3 inches below the floor of the remedial excavation.  
The floor of the remedial excavation is equal to the depth of the remedial excavation from the original grade.
  - 2 - The sample area associated with C-SS1-2(A-D) was re-excavated and resampled (C-SS1-3(A-D)) on 10 October 2002.
  - 3 - C-SS1-3(A-D) was collected in the same area as C-SS1-2(A-D), following further excavation.
- mg/kg - milligrams per kilogram  
TTLC - California Total Threshold Limit Concentration - State hazardous waste criterion  
NA - Not Analyzed  
< 2.0 - Not detected at or above laboratory reporting limits.

**Table 7**  
**Visual Lead Screening Results**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Excavation<br>Area<br>Identification     | Shots<br>Observed per<br>Square Foot |
|--|--------------------------------------|
| F4                                       | 6                                    |
| F5                                       | 8                                    |
| F6                                       | 5                                    |
| G2                                       | 6                                    |
| G3                                       | 2                                    |
| G4                                       | 2                                    |
| G5                                       | 2                                    |
| H1                                       | 1                                    |
| H1B                                      | 1                                    |
| H1A                                      | 1                                    |
| H0                                       | 1                                    |
| H2                                       | 0                                    |
| H3                                       | 0                                    |
| H4                                       | 0                                    |
| H5                                       | 9                                    |
| H6                                       | 3                                    |
| H7                                       | 2                                    |
| J1                                       | 3                                    |
| J2                                       | 3                                    |
| J3                                       | 0                                    |
| J4                                       | 0                                    |
| J5                                       | 0                                    |
| J6                                       | 0                                    |
| J7                                       | 1                                    |
| J8                                       | 0                                    |
| J9                                       | 0                                    |
| J10                                      | 0                                    |
| K3                                       | 0                                    |
| K4                                       | 0                                    |
| K5                                       | 0                                    |
| K7                                       | 0                                    |
| L9                                       | 0                                    |
| <b>Approved<br/>Cleanup<br/>Criteria</b> | <b>10</b>                            |

**Notes:**

None of the visual lead shot inspections failed the 10 shot per square foot Regional Water Quality Control Board (RWQCB) criteria. Visual lead count inspections were conducted by Treadwell & Rollo and under the supervision of Tom Butler of the RWQCB.

The visual lead count inspections were conducted by:

- 1) Arbitrarily throwing an unused sample tube into the appropriate cell
- 2) Placing a 1-foot square over the location where the sample tube came to rest
- 3) Outlining the area
- 4) Counting the number of lead shot on the surface within the 1-foot square.

Approximate locations of visual lead shot inspections are illustrated on Figure 8.

**Table 8**  
**Soil Stockpile Post Treatment Analytical Results**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Stockpile Number                           | Sample Number | Sampling Date | Total Lead | TCLP Lead | STLC Lead |
|--|---------------|---------------|------------|-----------|-----------|
|  |               | Units         | mg/kg      | mg/L      | mg/L      |
| TS-1                                       | TS1-(A-D)     | 9/17/02       | 1,000      | <0.50     | 28        |
| TS-2                                       | TS2-(A-D)     | 9/17/02       | 3,900      | <0.50     | 73        |
| TS-3                                       | TS3-(A-D)     | 9/19/02       | 770        | <0.50     | 310       |
| TS-4                                       | TS4-(A-D)     | 9/19/02       | 960        | 0.71      | 70        |
| TS-5                                       | TS5-(A-D)     | 9/19/02       | 1,400      | <0.50     | 63        |
| <b>California State Hazardous Criteria</b> |               |               |            |           |           |
| Total Lead                                 |               |               | 1,000      | —         | —         |
| Title 22 STLC (mg/l)                       |               |               | —          | —         | 5.0       |
| <b>Federal Hazardous Criteria</b>          |               |               |            |           |           |
| TCLP (mg/l)                                |               |               | —          | 5.0       | —         |

**Notes:**

mg/kg = milligrams per kilogram

mg/L = milligrams per liter

<0.5 = Not detected at or above indicated method reporting limit.

TCLP = Toxicity Characteristic Leaching Potential

STLC = Soluble Threshold Limit Concentration

**Table 9**  
**Summary of Soil Disposal Volumes**  
**Former Newark Sportsman's Club**  
**Newark, California**

| <b>Landfill Disposal Date</b>   | <b>Stockpile Identification</b> | <b>Total Tonnage <sup>1</sup></b> | <b>Waste Characterization</b> | <b>Disposal Facility</b> |
|---------------------------------|---------------------------------|-----------------------------------|-------------------------------|--------------------------|
| 30-Aug-02                       | Soil Stockpile 1                | 585                               | California Hazardous          | Kettleman Hills          |
|                                 | Soil Stockpile 2                | 675                               | Non-Hazardous                 | Altamont                 |
|                                 | <b>Total</b>                    | <b>1260</b>                       |                               |                          |
| 4-Sep-02                        | Soil Stockpile 1                | 903                               | California Hazardous          | Kettleman Hills          |
|                                 | Debris Stockpile 4              | 611                               | California Hazardous          | Kettleman Hills          |
|                                 | <b>Total</b>                    | <b>1514</b>                       |                               |                          |
| 5-Sep-02                        | Soil Stockpile 1                | 691                               | California Hazardous          | Kettleman Hills          |
|                                 | Debris Stockpile 1, 2, 3        | 609                               | California Hazardous          | Kettleman Hills          |
|                                 | <b>Total</b>                    | <b>1299</b>                       |                               |                          |
| 4-Oct-02                        | Treated Soil                    | 1121                              | California Hazardous          | Kettleman Hills          |
|                                 | Debris Stockpile 1, 2, 3        | 123                               | California Hazardous          | Kettleman Hills          |
|                                 | <b>Total</b>                    | <b>1244</b>                       |                               |                          |
| 7-Oct-02                        | Debris Stockpile 1, 2, 3        | 411                               | California Hazardous          | Kettleman Hills          |
|                                 | <b>Total</b>                    | <b>411</b>                        |                               |                          |
| 10-Oct-02                       | Soil Stockpile 1                | 91                                | California Hazardous          | Kettleman Hills          |
|                                 | Debris Stockpile 4              | 90                                | California Hazardous          | Kettleman Hills          |
|                                 | <b>Total</b>                    | <b>181</b>                        |                               |                          |
| <b>Totals</b>                   |                                 |                                   |                               |                          |
| <b>Stockpile Identification</b> |                                 | <b>Actual Total Tonnage</b>       |                               |                          |
| Soil Stockpile 1                |                                 | 2,270                             | California Hazardous          | Kettleman Hills          |
| Soil Stockpile 2                |                                 | 675                               | Non-Hazardous                 | Altamont                 |
| Treated Soil Stockpile          |                                 | 1,121                             | California Hazardous          | Kettleman Hills          |
| Debris Stockpile 1, 2, 3        |                                 | 1,143                             | California Hazardous          | Kettleman Hills          |
| Debris Stockpile 4              |                                 | 701                               | California Hazardous          | Kettleman Hills          |

**Notes:**

1 - Total tonnages were determined using weight tickets and tonnage reports provided by the landfills.









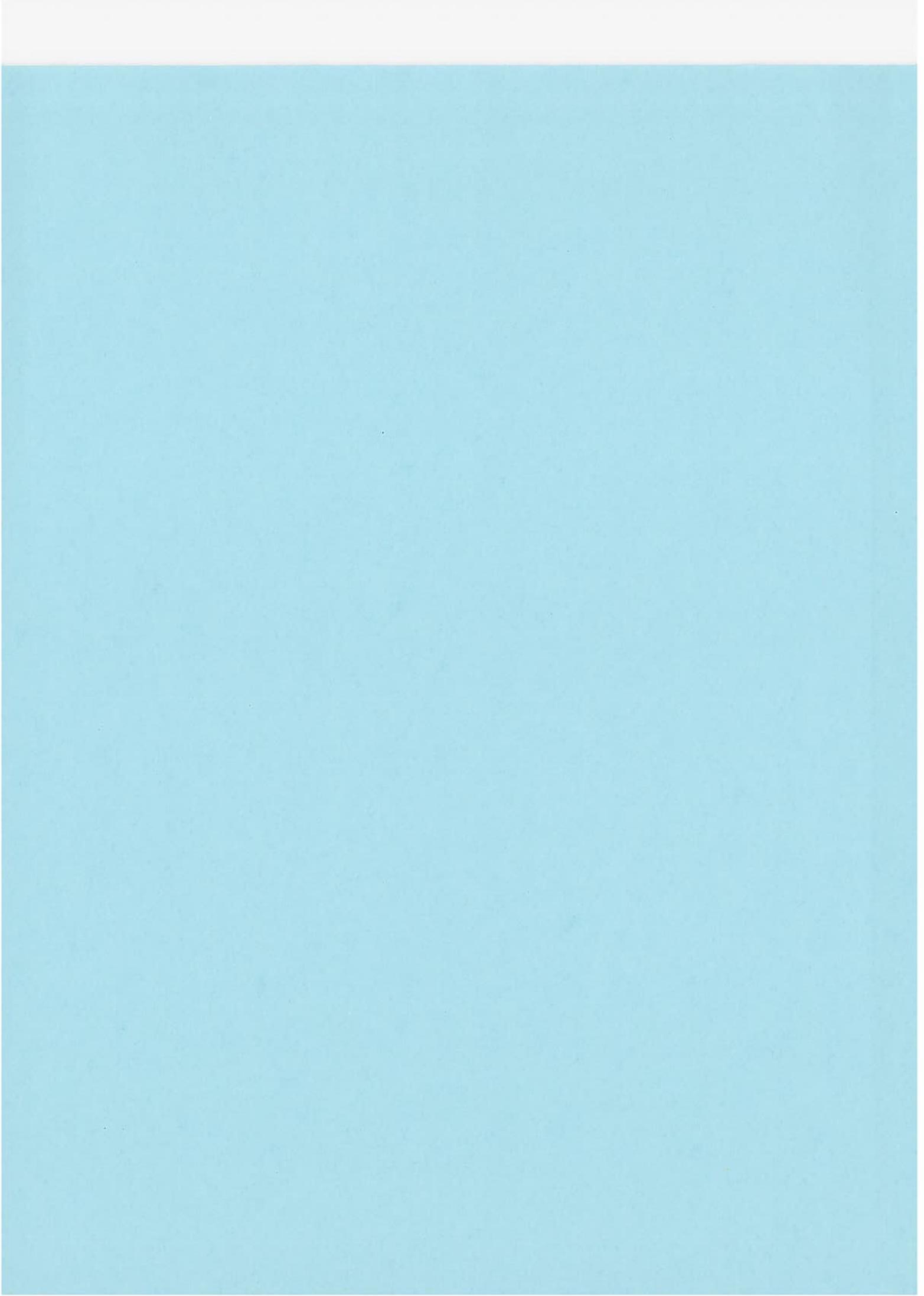








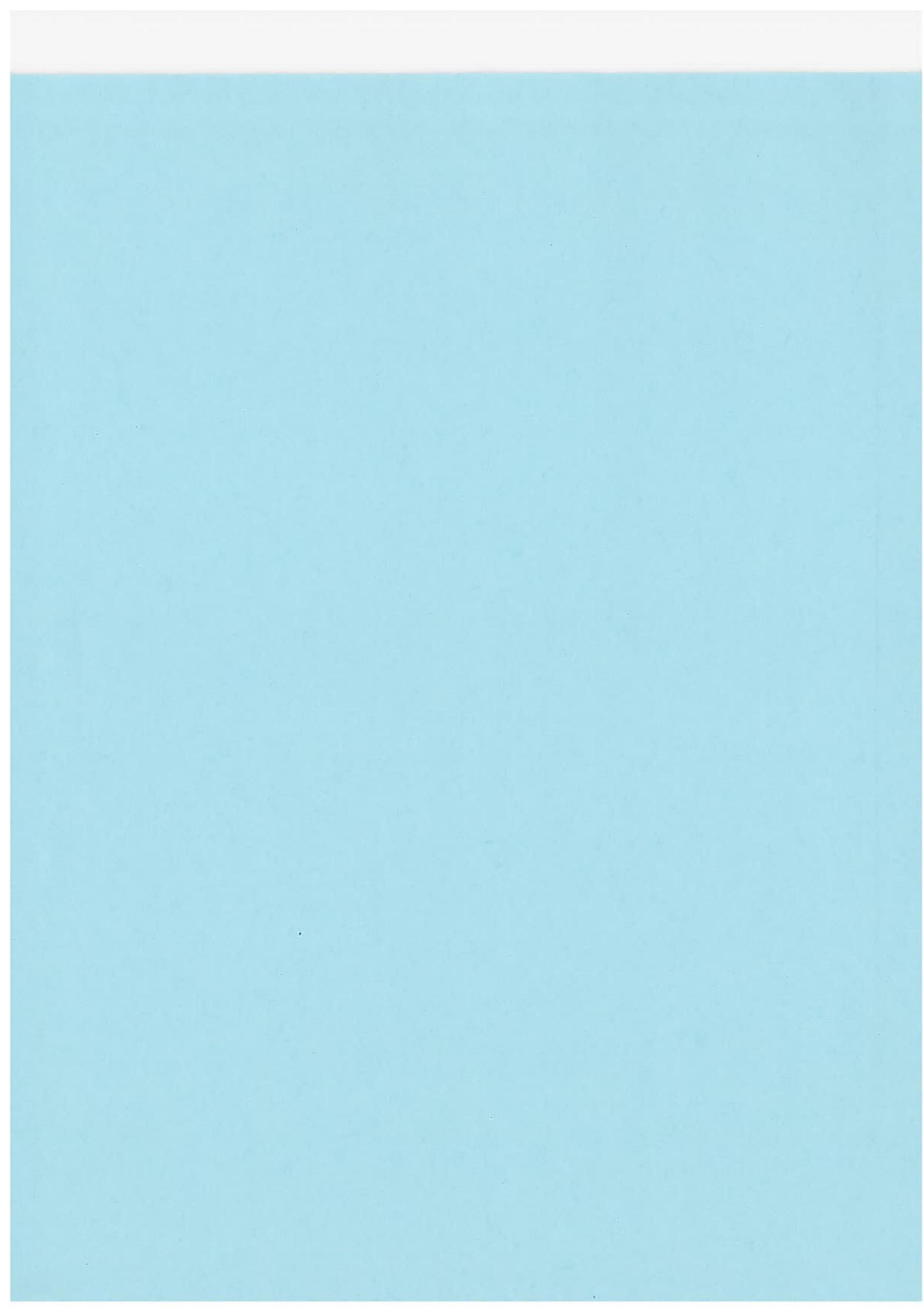


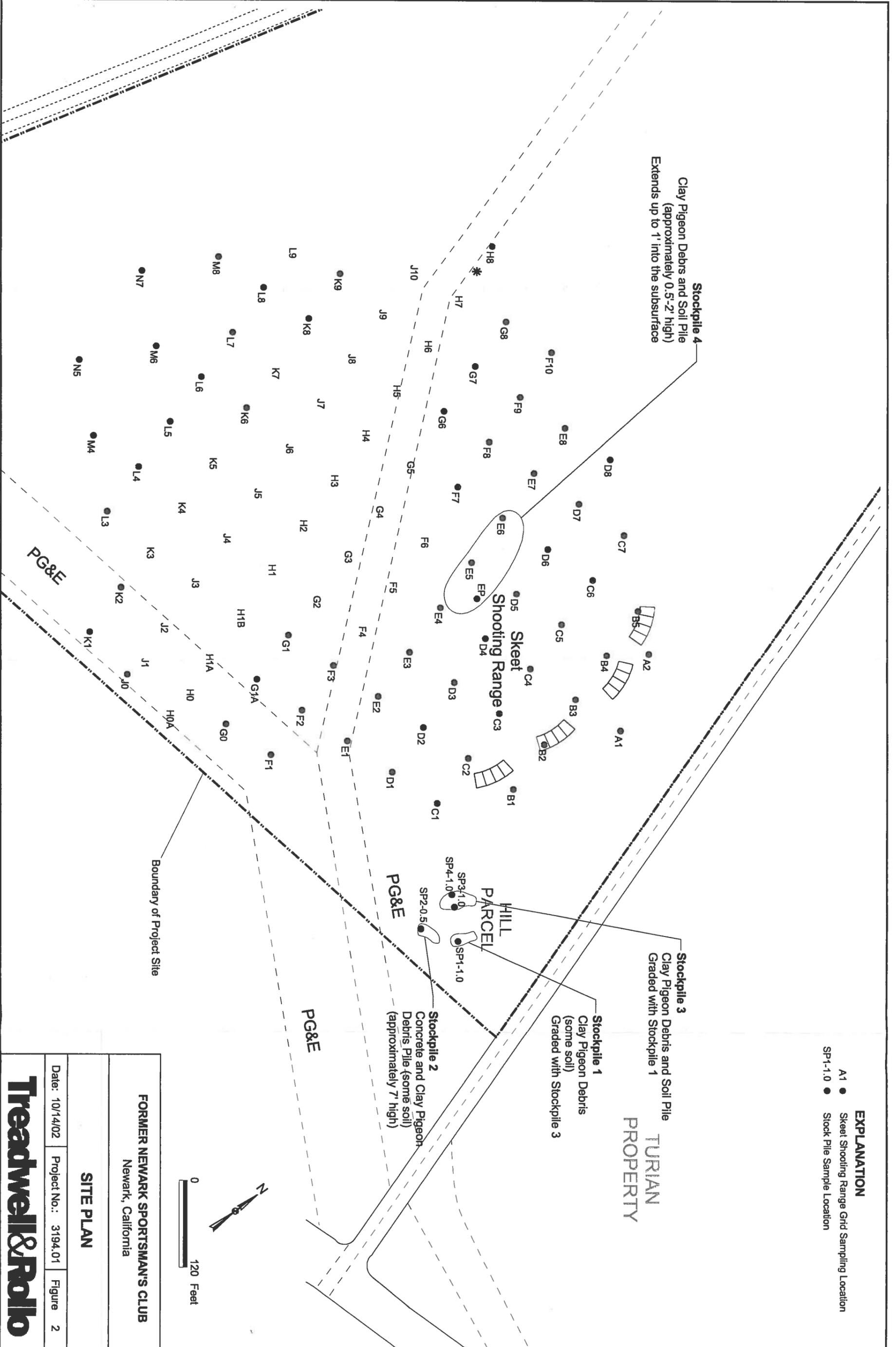












- EXPLANATION**
- A1 ● Skeet Shooting Range Grid Sampling Location
  - SP1-1.0 ● Stock Pile Sample Location

**FORMER NEWARK SPORTSMAN'S CLUB**  
Newark, California

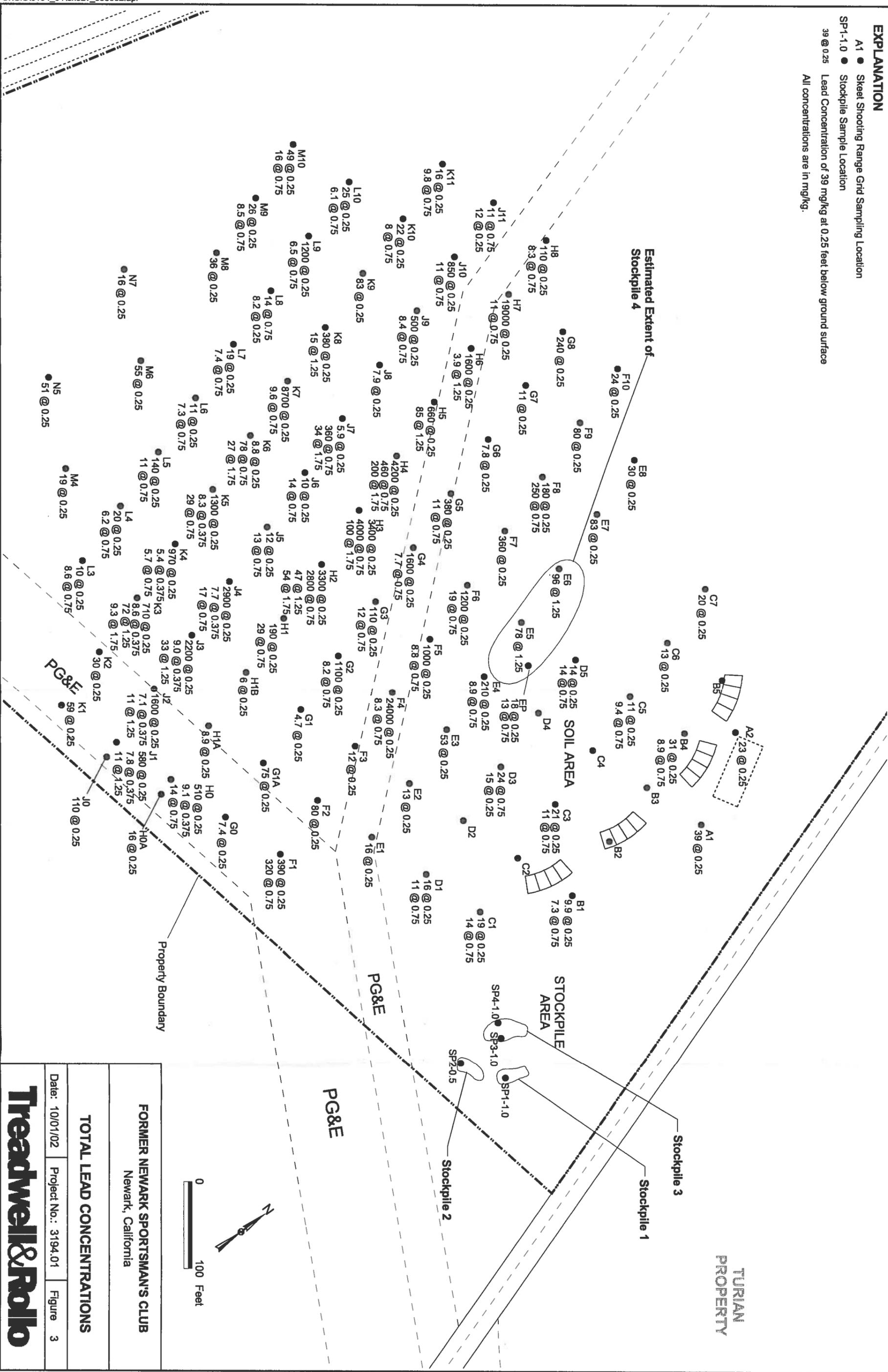
**SITE PLAN**

Date: 10/14/02 Project No.: 3194.01 Figure 2

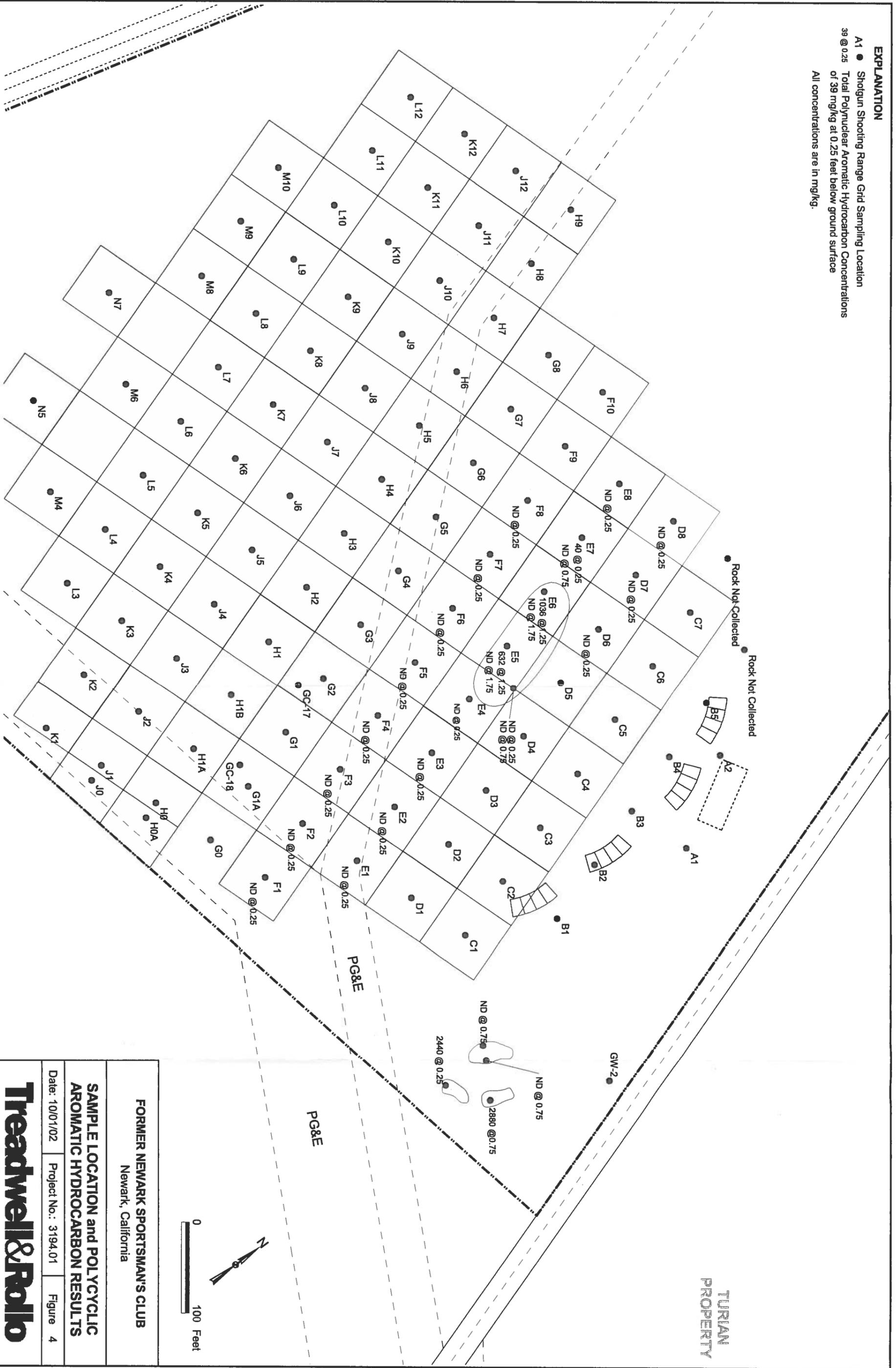
**Treadwell & Rolfo**

**EXPLANATION**

- A1 ● Skeet Shooting Range Grid Sampling Location
  - SP1-1.0 ● Stockpile Sample Location
  - 39 @ 0.25 ● Lead Concentration of 39 mg/kg at 0.25 feet below ground surface
- All concentrations are in mg/kg.



**EXPLANATION**  
 A1 ● Shotgun Shooting Range Grid Sampling Location  
 39 @ 0.25 Total Polynuclear Aromatic Hydrocarbon Concentrations  
 of 39 mg/kg at 0.25 feet below ground surface  
 All concentrations are in mg/kg.



**FORMER NEWARK SPORTSMAN'S CLUB**  
 Newark, California

**SAMPLE LOCATION and POLYCYCLIC AROMATIC HYDROCARBON RESULTS**

Date: 10/01/02 Project No.: 3194.01 Figure 4

**Treadwell & Rolfe**

**EXPLANATION**

- A1 ● Shotgun Shooting Range Grid Sampling Location
- 39 @ 0.5 Lead Concentration of 39 mg/kg at 0.5 feet below ground surface
- No Excavation
- Excavation depth 4 inches (Total lead is <400, however lead pellets are visible)
- Excavation depth 6 inches
- Excavation depth 9 inches
- Excavation depth 12 inches
- Excavation depth 16 inches



Estimated Extent of Stockpile 4

Estimated Extent of Stockpiles 1, 2, and 3

TURIAN PROPERTY

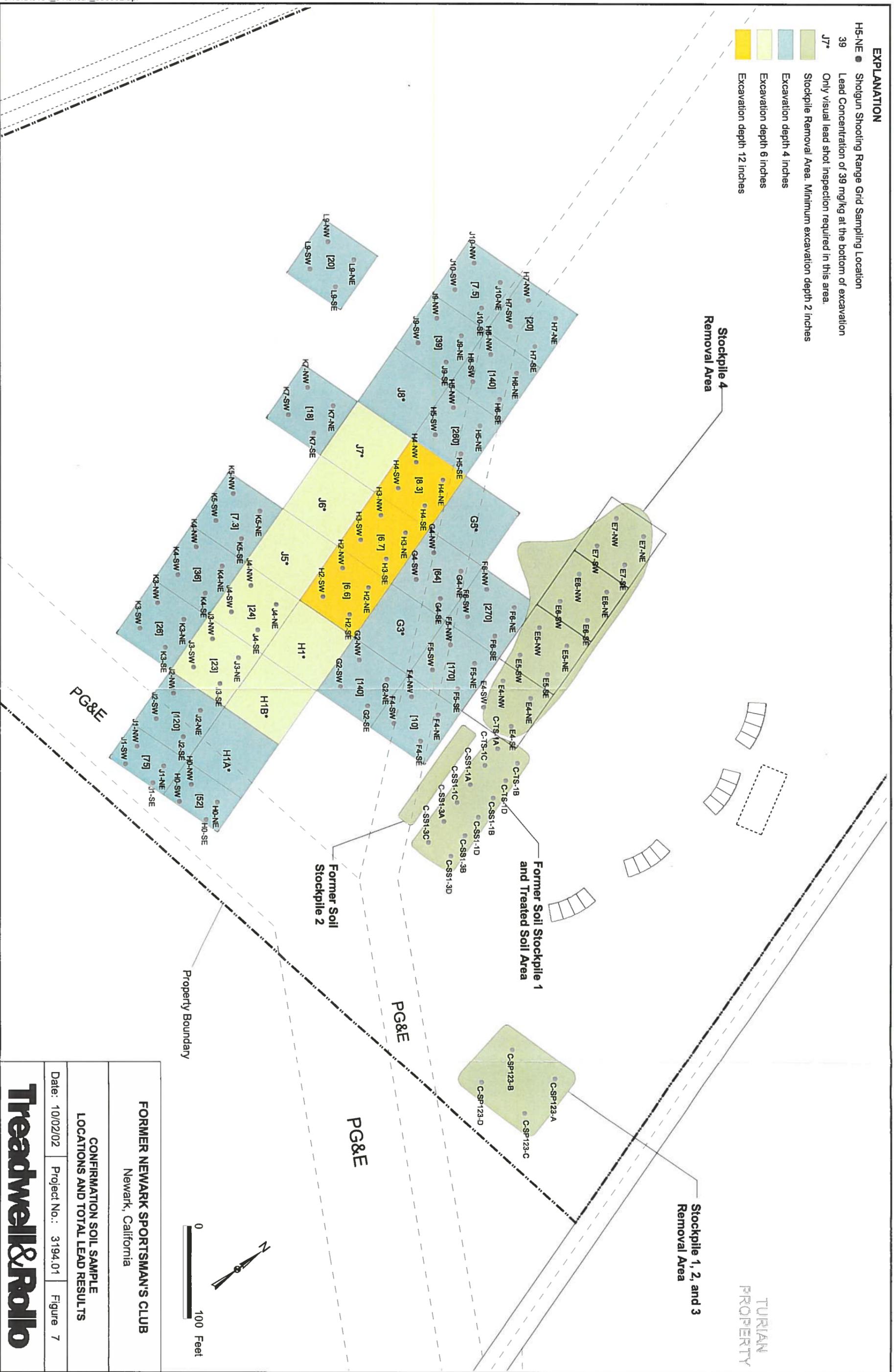
**FORMER NEWARK SPORTSMAN'S CLUB**  
Newark, California

**PROPOSED EXCAVATION LOCATION AND DEPTH FOR TOTAL LEAD >400 MG/KG AND AREAS WITH VISIBLE LEAD PELLETS**

Date: 10/02/02 Project No.: 3194.01 Figure 6

**Treadwell & Rolfo**

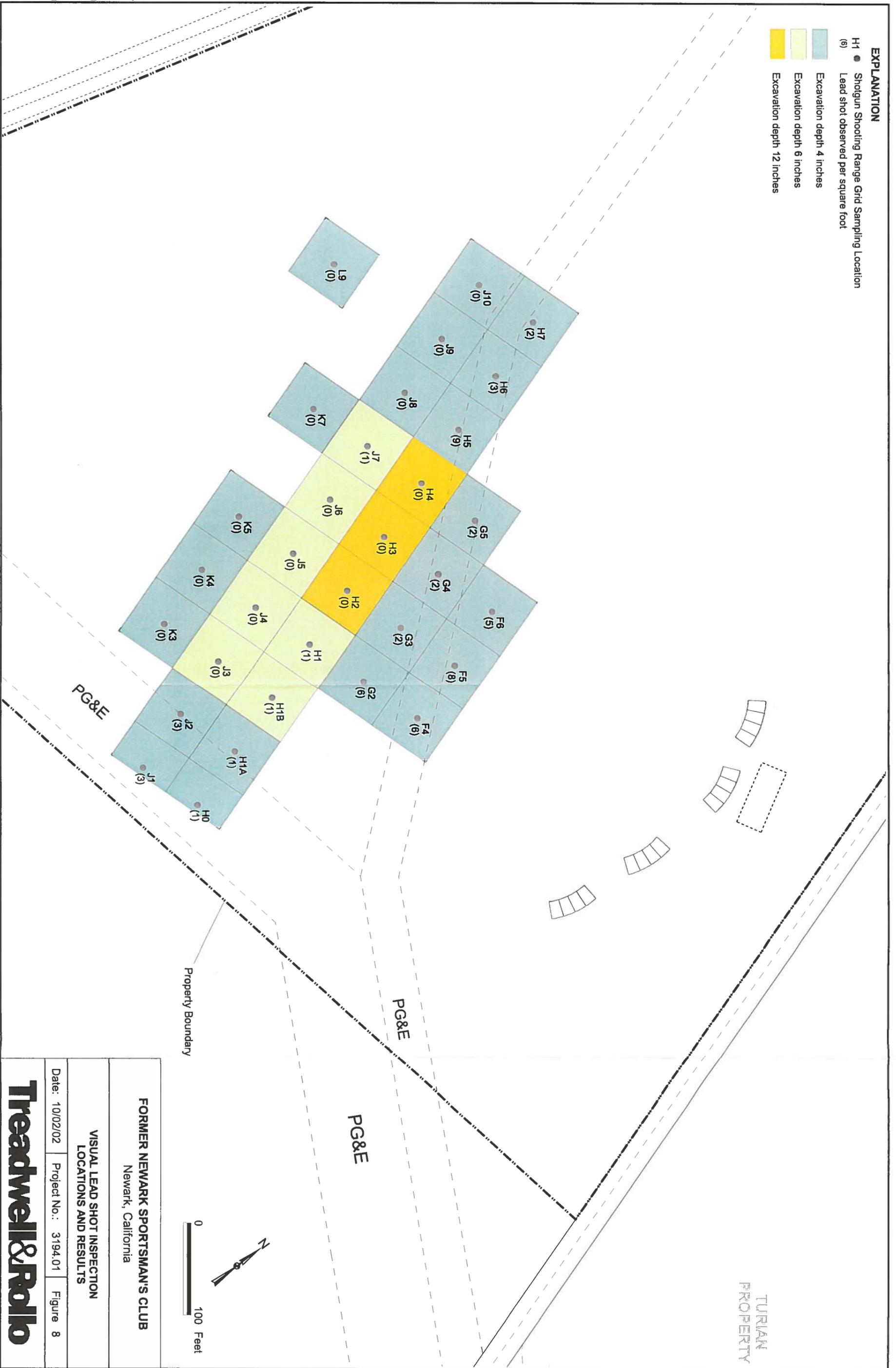
- EXPLANATION**
- H5-NE ● Shotgun Shooting Range Grid Sampling Location
  - 39 ● Lead Concentration of 39 mg/kg at the bottom of excavation
  - J7\* ● Only visual lead shot inspection required in this area.
  - Stockpile Removal Area. Minimum excavation depth 2 inches
  - Excavation depth 4 inches
  - Excavation depth 6 inches
  - Excavation depth 12 inches



|  |                      |          |
|--|----------------------|----------|
| <b>FORMER NEWARK SPORTSMAN'S CLUB</b>                            |                      |          |
| Newark, California   |                      |          |
| <b>CONFIRMATION SOIL SAMPLE LOCATIONS AND TOTAL LEAD RESULTS</b> |                      |          |
| Date: 10/02/02   | Project No.: 3194.01 | Figure 7 |

**Treadwell & Rolfo**

- EXPLANATION**
- H1 ● Shotgun Shooting Range Grid Sampling Location
  - (#) Lead shot observed per square foot
  - Excavation depth 4 inches
  - Excavation depth 6 inches
  - Excavation depth 12 inches



**FORMER NEWARK SPORTSMAN'S CLUB**  
 Newark, California

**VISUAL LEAD SHOT INSPECTION**  
 LOCATIONS AND RESULTS

Date: 10/02/02    Project No.: 3194.01    Figure 8



**Table 2**  
**PAH Analytical Results for Site Characterization Soil Samples**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Sample Location | Sample Depth (ft) | Sample Date | Acenaphthene | Acenaphthylene | Anthracene | Benzo(a)anthracene | Benzo(b)fluoranthene | Benzo(k)fluoranthene | Benzo(g,h,i)perylene | Benzo(a)pyrene | Chrysene | Dibenzo(a,h)anthracene | Fluoranthene | Fluorene | Indeno(1,2,3-cd)pyrene | Naphthalene | Phenanthrene | Pyrene |
|-----------------|-------------------|-------------|--------------|----------------|------------|--------------------|----------------------|----------------------|----------------------|----------------|----------|------------------------|--------------|----------|------------------------|-------------|--------------|--------|
| D6              | 0.25              | 3/22/01     | <1.7         | <1.7           | <1.7       | <1.7               | <1.7                 | <1.7                 | <1.7                 | <1.7           | <1.7     | <1.7                   | <1.7         | <1.7     | <1.7                   | <1.7        | <1.7         | <1.7   |
| D7              | 0.25              | 3/22/01     | <1.7         | <1.7           | <1.7       | <1.7               | <1.7                 | <1.7                 | <1.7                 | <1.7           | <1.7     | <1.7                   | <1.7         | <1.7     | <1.7                   | <1.7        | <1.7         | <1.7   |
| D8              | 0.25              | 3/22/01     | <1.7         | <1.7           | <1.7       | <1.7               | <1.7                 | <1.7                 | <1.7                 | <1.7           | <1.7     | <1.7                   | <1.7         | <1.7     | <1.7                   | <1.7        | <1.7         | <1.7   |
| E1              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| E2              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| E3              | 0.25              | 3/22/01     | <3.5         | <3.5           | <3.5       | <3.5               | <3.5                 | <3.5                 | <3.5                 | <3.5           | <3.5     | <3.5                   | <3.5         | <3.5     | <3.5                   | <3.5        | <3.5         | <3.5   |
| E4              | 0.25              | 3/22/01     | <40          | <40            | <40        | <40                | <40                  | <40                  | <40                  | <40            | <40      | <40                    | <40          | <40      | <40                    | <40         | <40          | <40    |
| E5              | 1.25              | 3/22/01     | <40          | <40            | <40        | 68                 | 56                   | 68                   | 72                   | 100            | 84       | <40                    | 52           | <40      | 52                     | <40         | <40          | 80     |
| E5              | 1.75              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| E6              | 1.25              | 3/22/01     | <40          | <40            | <40        | 110                | 100                  | 130                  | 92                   | 130            | 130      | <40                    | 130          | <40      | 84                     | <40         | <40          | 130    |
| E6              | 1.75              | 8/24/01     | <0.062       | <0.062         | <0.062     | <0.062             | <0.062               | <0.062               | <0.062               | <0.062         | <0.062   | <0.062                 | <0.062       | <0.062   | <0.062                 | <0.062      | <0.062       | <0.062 |
| E7              | 0.25              | 3/22/01     | <40          | <40            | <40        | <40                | <40                  | <40                  | <40                  | <40            | <40      | <40                    | <40          | <40      | <40                    | <40         | <40          | 40     |
| E7              | 0.75              | 3/22/01     | <1.7         | <1.7           | <1.7       | <1.7               | <1.7                 | <1.7                 | <1.7                 | <1.7           | <1.7     | <1.7                   | <1.7         | <1.7     | <1.7                   | <1.7        | <1.7         | <1.7   |
| E8              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| F1              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| F2              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| F3              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| F4              | 0.25              | 3/22/01     | <1.0         | <1.0           | <1.0       | <1.0               | <1.0                 | <1.0                 | <1.0                 | <1.0           | <1.0     | <1.0                   | <1.0         | <1.0     | <1.0                   | <1.0        | <1.0         | <1.0   |
| F5              | 0.25              | 3/22/01     | <1.0         | <1.0           | <1.0       | <1.0               | <1.0                 | <1.0                 | <1.0                 | <1.0           | <1.0     | <1.0                   | <1.0         | <1.0     | <1.0                   | <1.0        | <1.0         | <1.0   |
| F6              | 0.25              | 3/22/01     | <1.0         | <1.0           | <1.0       | <1.0               | <1.0                 | <1.0                 | <1.0                 | <1.0           | <1.0     | <1.0                   | <1.0         | <1.0     | <1.0                   | <1.0        | <1.0         | <1.0   |
| F7              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |
| F8              | 0.25              | 3/22/01     | <0.33        | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        | <0.33  |

**Notes:**  
All concentrations are in milligrams per kilogram (mg/kg).  
PAH = Polynuclear Aromatic Hydrocarbons  
<0.33 = Not detected at or above laboratory testing limits

**Table 5**  
**Debris Stockpile Analytical Results for PAHs**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Sample ID          | Sample Date | Concentration (mg/kg) |                |            |                    |                      |                      |                      |                |          |                        |              |          |                        |             |              |        |
|--------------------|-------------|-----------------------|----------------|------------|--------------------|----------------------|----------------------|----------------------|----------------|----------|------------------------|--------------|----------|------------------------|-------------|--------------|--------|
|                    |             | Acenaphthene          | Acenaphthylene | Anthracene | Benzo(a)anthracene | Benzo(b)fluoranthene | Benzo(k)fluoranthene | Benzo(g,h,i)perylene | Benzo(a)pyrene | Chrysene | Dibenzo(a,h)anthracene | Fluoranthene | Fluorene | Indeno(1,2,3-cd)pyrene | Naphthalene | Phenanthrene | Pyrene |
| Debris Stockpile 1 | SP1-1.0     | <200                  | <200           | <200       | 280                | 240                  | 360                  | 280                  | 420            | 380      | <200                   | 280          | 280      | <200                   | <200        | 360          |        |
|                    | CP-2S       | <250                  | <250           | <250       | 640                | 490                  | 710                  | 750                  | 990            | 990      | <500                   | 500          | <250     | 590                    | <250        | 650          |        |
|                    | CP-2D       | <5                    | <5             | <5         | 15                 | 22                   | 17                   | 22                   | 32             | 21       | <10                    | 12           | <5       | 19                     | <5          | 14           |        |
| Debris Stockpile 2 | SP2-0.5     | <200                  | <200           | <200       | 200                | 220                  | 320                  | 280                  | 380            | 320      | <200                   | 200          | <200     | 220                    | <200        | 300          |        |
|                    | CP-1S       | <250                  | <250           | <250       | 410                | 490                  | <500                 | 510                  | 690            | 600      | <500                   | 350          | <250     | <500                   | <250        | 440          |        |
|                    | CP-1D       | <250                  | <250           | <250       | 360                | 360                  | <500                 | <500                 | 610            | 530      | <500                   | 280          | <250     | <500                   | <250        | 360          |        |
| Debris Stockpile 3 | SP-3-1.0    | <20                   | <20            | <20        | <20                | <20                  | <20                  | <20                  | <20            | <20      | <20                    | <20          | <20      | <20                    | <20         | <20          |        |
|                    | SP-4-1.0    | <20                   | <20            | <20        | <20                | <20                  | <20                  | <20                  | <20            | <20      | <20                    | <20          | <20      | <20                    | <20         | <20          |        |
|                    | CP-3S       | <250                  | <250           | <250       | 550                | 420                  | 590                  | <500                 | 790            | 790      | <500                   | 450          | <250     | <500                   | <250        | 570          |        |
| Debris Stockpile 4 | CP-3D       | <50                   | <50            | <50        | 600                | 480                  | 700                  | 720                  | 1100           | 920      | 240                    | 460          | <50      | 600                    | <50         | 660          |        |
|                    | EP-0.5      | <0.33                 | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        |        |
|                    | EP-1.0      | <0.33                 | <0.33          | <0.33      | <0.33              | <0.33                | <0.33                | <0.33                | <0.33          | <0.33    | <0.33                  | <0.33        | <0.33    | <0.33                  | <0.33       | <0.33        |        |
|                    | SP4-A1-A4   | <170                  | <170           | <170       | 770                | 610                  | 390                  | 630                  | 970            | 680      | <170                   | 300          | <170     | 420                    | <170        | <170         | 560    |
|                    | SP4-B1-B4   | <170                  | <170           | <170       | 530                | 980                  | <170                 | 460                  | 740            | 460      | <170                   | 320          | <170     | 420                    | <170        | <170         | 410    |
|                    | SP4-C1-C4   | <170                  | <170           | <170       | 950                | 600                  | 580                  | 740                  | 1,100          | 890      | <170                   | 590          | <170     | 540                    | <170        | 280          | 790    |
|                    | SP4-D1-D4   | <170                  | <170           | <170       | 520                | 1,000                | <170                 | 490                  | 740            | 470      | <170                   | 340          | <170     | 440                    | <170        | <170         | 450    |
|                    | SP4C-1(A-D) | <2                    | <2             | 5.4        | 34                 | 16                   | 12                   | 6.9                  | 23             | 31       | 15                     | 50           | <1       | 9.8                    | <3          | 21           | 29     |
|                    | SP4C-2(A-D) | <0.2                  | <0.2           | 2.1        | 14                 | 5.6                  | 3.9                  | 2.7                  | 11             | 13       | 7.7                    | 15           | <0.1     | 4.1                    | 0.52        | 6.6          | 9.5    |
|                    | SP4C-3(A-D) | <2                    | <2             | 5.1        | 53                 | 25                   | 20                   | 18                   | 48             | 51       | 40                     | 54           | <1       | 21                     | <3          | 22           | 39     |
| SP4C-4(A-D)        | <4          | <4                    | 5.3            | 120        | <2                 | <2                   | 34                   | 100                  | 100            | 86       | 100                    | <2           | 42       | <6                     | 26          | 74           |        |

**Notes:**  
 All concentrations are in milligrams per kilogram (mg/kg).  
 PAH = Polycyclic Aromatic Hydrocarbons  
 <0.33 = Not detected at or above laboratory testing limits.

**Table 10**  
**Confirmation Soil Sample Results at Former Debris Stockpile Locations**  
**Former Newark Sportsman's Club**  
**Newark, California**

| Stockpile Area                   | Sample ID                        | Sampling Date | Acenaphthene | Acenaphthylene | Anthracene | Benzo(a)anthracene | Benzo(b)fluoranthene | Benzo(k)fluoranthene | Benzo(g,h,i)perylene | Benzo(a)pyrene | Chrysene | Dibenzo(a,h)anthracene | Fluoranthene | Fluorene | Indeno(1,2,3-cd)pyrene | Naphthalene | Phenanthrene | Pyrene  | Total PAHs |         |
|----------------------------------|----------------------------------|---------------|--------------|----------------|------------|--------------------|----------------------|----------------------|----------------------|----------------|----------|------------------------|--------------|----------|------------------------|-------------|--------------|---------|------------|---------|
| Debris Stockpiles 1, 2 and 3     | C-SP123-(A-D)                    | 10/5/02       | < 0.067      | < 0.067        | < 0.067    | < 0.067            | < 0.067              | < 0.067              | < 0.067              | < 0.067        | < 0.067  | < 0.067                | < 0.067      | < 0.067  | < 0.067                | < 0.067     | < 0.067      | < 0.067 | < 0.067    | < 0.067 |
|                                  | E4-(NE, SE, NW, SW)              | 10/5/02       | < 0.067      | < 0.067        | < 0.067    | 0.48               | 1.0                  | < 0.067              | 0.49                 | 0.79           | 0.47     | 0.24                   | 0.28         | < 0.067  | 0.46                   | < 0.067     | 0.09         | 0.38    | 4.68       |         |
|                                  | E5-(NE, SE, NW, SW) <sup>1</sup> | 10/5/02       | 0.57         | < 0.067        | 0.39       | 4.8                | 11                   | < 0.067              | 4.9                  | 8.2            | 4.8      | 1.3                    | 3.5          | 0.09     | 4.1                    | 0.1         | 1.3          | 4.4     | 49.45      |         |
|                                  | E5-(NE, SE, NW, SW)-1            | 10/10/02      | < 0.067      | < 0.067        | < 0.067    | 0.08               | 0.21                 | < 0.067              | 0.13                 | 0.16           | 0.09     | < 0.067                | < 0.067      | < 0.067  | 0.1                    | < 0.067     | < 0.067      | 0.07    | 0.84       |         |
| Debris Stockpile 4               | B6-(NE, SE, NW, SW)              | 10/5/02       | < 0.067      | < 0.067        | < 0.067    | 0.39               | 0.48                 | 0.38                 | 0.48                 | 0.73           | 0.42     | 0.15                   | 0.24         | < 0.067  | 0.39                   | < 0.067     | < 0.067      | 0.35    | 4.09       |         |
|                                  | E7-(NE, SE, NW, SW)              | 10/5/02       | < 0.067      | < 0.067        | < 0.067    | 0.24               | 0.31                 | 0.38                 | 0.35                 | 0.51           | 0.28     | 0.13                   | 0.19         | < 0.067  | 0.29                   | < 0.067     | < 0.067      | 0.23    | 2.91       |         |
| <b>Approved Cleanup Criteria</b> |                                  |               |              |                |            |                    |                      |                      |                      |                |          |                        |              |          |                        |             |              |         | <b>10</b>  |         |

**Notes:**

All concentrations are in milligrams per kilogram (mg/kg).

PAH = Polycyclic Aromatic Hydrocarbons

<0.33 = Not detected at or above laboratory testing limits.

1 - Additional remedial excavation was conducted in this area on 10 October 2002.

2 - Soil confirmation sample E5-(NE, SE, NW, SW)-1 was collected after additional excavation was conducted, it was collected from the same area as the original confirmation sample (E5-(NE, SE, NW, SW)).

FMC Corporation  
P.O. Box 58123  
Santa Clara, California 95052-8123

File # \_\_\_\_\_ : \_\_\_\_\_



Date: August 6, 2002

*Copy to Barbara ✓  
Teri P. ✓*

To: Barbara Ransom

Fr: Peter Wan

Subject: Magnesia Pile Case Closure

*Attached is:  
City of Newark -  
Mag Pile Closure  
Letter dated  
July 1  
2002*

Barbara, Attached is the letter from the Newark Fire Department. The Fire Department approved the post removal of the magnesia pile post removal sampling report.

FMC is preparing a request to the County to **"Withdraw the Order"**

If you have any questions call me.

Thank you,

Peter Wan

A handwritten signature in black ink, appearing to be 'Peter Wan', written over the printed name.



CITY OF NEWARK, CALIFORNIA

37101 Newark Boulevard • Newark, California 94560-3796 • (510) 793-1400 • FAX (510) 794-2306

• City of Newark  
• Mag Pile Closure  
Letter dated  
July 15, 2002

July 15, 2002

FMC Corporation  
Peter Wan  
P.O. Box 58123  
Santa Clara, CA 95052-8123

Subject: Magnesia Pile case closure. FMC, 8787 Enterprise Drive, CA

Dear Mr. Wan:

The magnesia pile post removal sampling report dated February 27, 2002 has been received and reviewed by this Department. All closure activities and pertinent inspections for closure of the magnesia pile have been completed as required. Newark Fire Department closure requirements have been satisfied pursuant to the California Health & Safety Code, Chapter 6.75 and Newark Municipal Code Section 17.26.390B. Closure requirements include:

- Minimize the need for further maintenance;
- Controls to the extent that a threat to public health or safety, or to the environment from residual hazardous materials in the storage facility is minimized or eliminated; and
- Demonstrates that the hazardous materials that were stored in the storage facility were removed, disposed of, neutralized or reused in an appropriate manner.

Be advised that this letter does not relieve this site of any liability under the California Health and Safety Code for past, present or future operations at this site. Nor does it relieve this site of the responsibility to clean up existing, additional or previously unidentified conditions at this site, which cause or threaten to cause pollution or nuisance or otherwise pose a threat to water quality or public health.

If you have any further questions, please call 510 790-7273.

Sincerely,

  
Miguel Trujillo  
Hazardous Materials Specialist

cc: Bill Lichtenberger, Fire Marshal

Attached:  
Dames + Moore  
April 20, 2000  
Mag Site Post Removal  
Sampling  
Report.  
**FMC**

June 2, 2000

Ms. Jacqueline Bretschneider  
Hazardous Materials Coordinator  
City of Newark Fire Department  
37101 Newark Boulevard  
Newark, California 94560-3796

Dear Ms. Bretschneider:

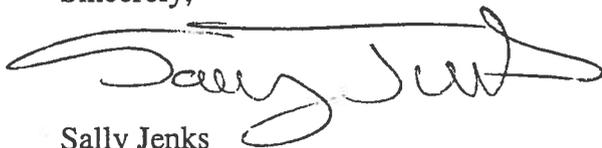
In accordance with the April 30, 1997 letter from the City of Newark to Cargill Inc. and FMC Corporation, the two companies have executed an excavation plan to remove magnesia materials at Parcel No. 15-30-15, Newark CA (Site). Detail of the excavation activities was provided to you in a letter dated August 28, 1998. The removal of magnesia materials has been successfully completed. Attached for your review is a Post-Removal Sampling Plan. This sampling plan describes the rationale and proposed sampling locations as well as targeted constituents to be analyzed to verify that no significant contaminants remain at the site.

For future correspondence, please send to:

FMC Corporation  
P.O. Box 58123  
Santa Clara, CA 95052-8123  
Attn: Sally Jenks, F-64

We are looking forward to receiving your approval of the sampling plan. In the meantime, if you have any questions or comments, please feel free to contact Mr. Peter Wan of my staff at 408-289-4285.

Sincerely,



Sally Jenks  
FMC Corporation  
Manager, West Coast Remediation Department

Cc: Barbara Ransom - Cargill Inc.  
Peter Wan - FMC Corporation

## ADDENDUM

Cargill letter  
to RWQCB



- \* Dated: Dec. 12, 2003
- \* Amended Remediation Completion Report

December 12, 2003

Mr. Thomas Butler  
Regional Water Quality Control Board  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, CA 94612

Subject: Remediation Completion Report, Newark Sportsman's Club  
Addendum - Additional Soil Excavation, September-November 2003

Dear Mr. Butler,

This letter serves as an addendum to the October 15, 2002 Remediation Completion Report for the Newark Sportsman's Club to detail the additional soil excavation conducted at the request of the Regional Water Quality Control Board. The additional soil excavation was conducted during two separate mobilization efforts in September and November of 2003 to remove additional soil impacted by clay pigeon debris.

Per your request during a site walk in November 2002, Cargill arranged for the removal of a small area of soil containing visible clay pigeon debris at the perimeter of the site, on the eastern border of the cell E7 (see attached site plan). Site conditions necessitated waiting until the end of the rainy season and for the site to dry out to mobilize equipment. In June 2003, a grading contractor excavated 96.4 tons of soil containing clay pigeon debris and stockpiled it on site for characterization. This material was characterized as California hazardous and was profiled for disposal at Kettleman Hills. In September 2003, Pacific States Environmental Contractors, Inc. was contracted to conduct additional excavation activities. On September 17, 18, and October 1, 2003, Pacific States loaded and transported the 96.4 tons of stockpiled soil to Kettleman Hills. On September 17 and 18, Pacific States also excavated an additional 201.16 tons of soil and placed it in a separate pile for characterization, based on visual evidence of fewer clay pigeon shards. The additional excavated soil was characterized as non-hazardous and profiled for disposal at Altamont. On October 1, 2003, Pacific States loaded and transported 201.16 tons of soil to Altamont. The attached table summarizes soil volumes and disposal facilities.

Following the October 1 excavation, confirmation samples were collected from the bottom of the excavation. The same confirmation sampling methodology was employed as for the original Newark Sportsman's Club confirmation sampling. Four samples were taken in each grid square and composited by the lab (for more information on confirmation sampling procedures, see the Remediation Completion Report). The samples were screened by the lab using a 1/8-inch screen prior to analysis and analyzed for PAHs by method 8270. The composite samples for both grid cells did not meet the 10 mg/kg criteria for total PAHs set by your office. The samples were then analyzed individually, and two of the eight samples met the criteria (D7-NW with a total of 3.27 mg/kg and C7-SE with a total of 6.77 mg/kg).

Letter to Tom Butler, RWQCB  
December 12, 2003  
Page 2 of 2

Additional sampling was then conducted in the remaining six areas to determine the proper depth for additional excavation. On October 31, 2003, deeper samples were collected in the same locations as the original confirmation samples. Using a slide hammer and 3" stainless steel tubes, samples were collected at 3"-6", 6"-9", and 9"-12". The sample tubes were covered with Teflon and plastic end caps and submitted to the lab for analysis. The lab was directed to screen the samples using a 1/8-inch screen prior to analysis, and to composite 3:1 the samples from each grid cell. The 3"-6" samples were run first, and as both grid cells met the cleanup criteria it was not necessary to analyze the deeper samples. The composite D7-SE, NE, SW at 0.25 feet had 3.26 mg/kg total PAHs, and composite C7-NE, NW, SW at 0.25 feet had no detectable levels of PAHs.

Based on these results, Pacific States was remobilized on November 18, 2003 to excavate the six areas within the two grid cells an additional 6 inches. An additional 185.29 tons of soil was removed, and transported to Altamont Landfill the same day. Following the excavation, confirmation samples were taken from the bottom of the excavation in approximately the same location as previous samples. Six confirmation samples were taken, and composited by the lab into 3:1 composites. Both confirmation samples (C7-NE, SW, NW and D7-NE, SE, SW) did not contain any detectable levels of PAHs.

From September to November 2003, 96.4 tons of California hazardous and 386.45 tons of non-hazardous soil were transported from the site for off-site disposal. Confirmation sampling shows no detectable levels of PAHs in samples taken at the bottom of the excavation, and the quantity of visible clay pigeon debris remaining in the area is negligible, as confirmed by your site visit on Monday, December 8.

Based on these results, in addition to the Remediation Completion Report, we request final closure of the Newark Sportsman's Club case with the Regional Water Quality Control Board. If you have any questions or comments, please feel free to call me at (510) 790-8625.

Sincerely,



Teri Peterson  
Environmental Engineer

Attachments:

Site Plan

Table -- Summary of Soil Disposal Volumes

October 1, 2003, Confirmation Sample Lab Reports (2003-10-0087 and 2003-10-0522)

October 31, 2003, Samples to Determine Excavation Depth Lab Report (2003-11-0067)

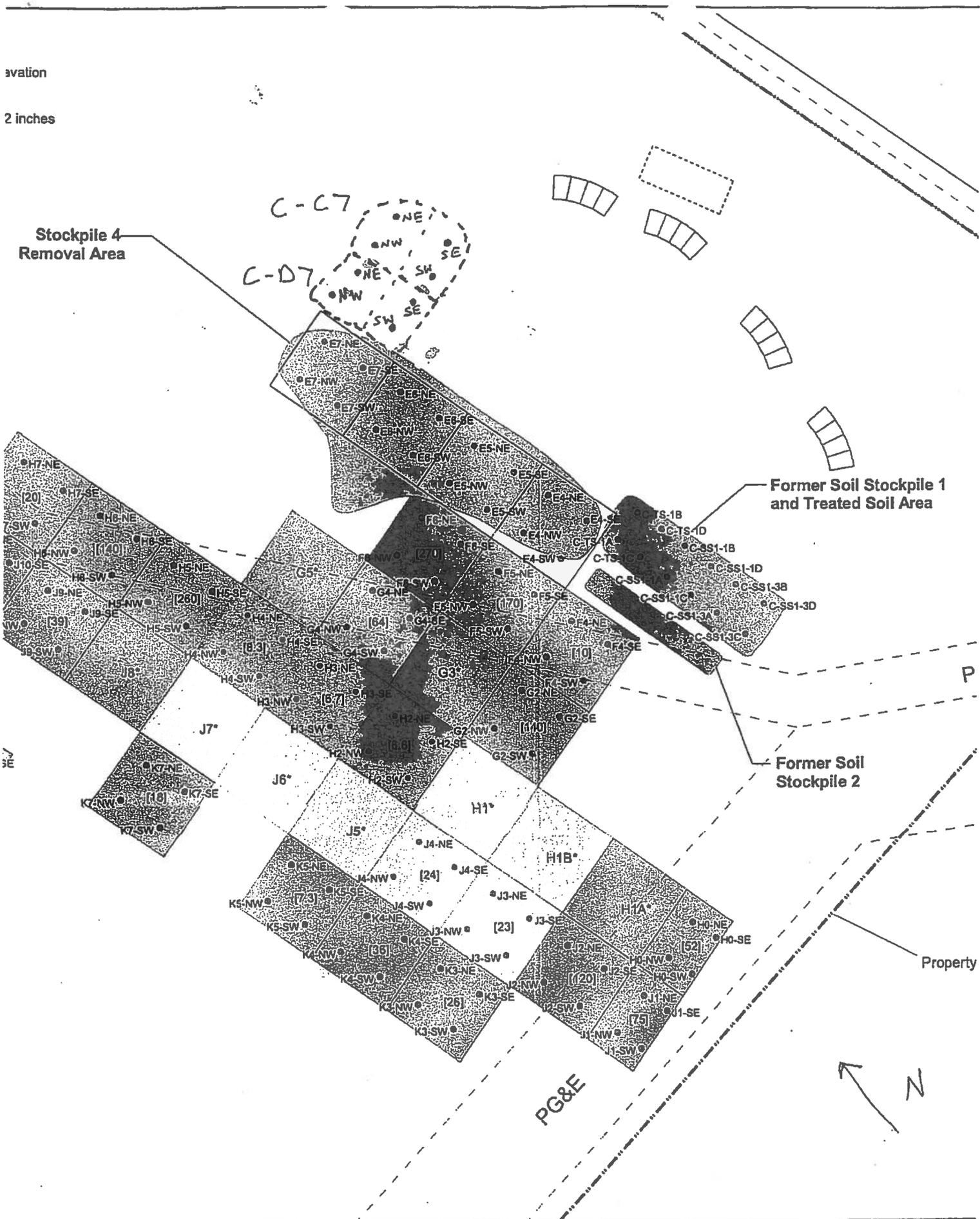
November 18, 2003, Confirmation Sample Lab Report (2003-11-0725)

96.4 ton Soil Stockpile Characterization Lab Report (2003-08-0440)

201.64 ton Soil Stockpile Characterization Lab Report (2003-09-0639)

avation

2 inches



**Additional Soil Excavation, September-November 2003**  
**Summary of Soil Disposal Volumes**  
**Former Newark Sportsman's Club**  
**Newark, California**

| <b>Stockpile ID or Area</b>                       | <b>Dates of Disposal</b> | <b>Tonnage</b>      | <b>Class of Waste</b>       | <b>Disposal Facility</b> |
|---|--------------------------|---------------------|-----------------------------|--------------------------|
| Soil Stockpile 5<br>(stockpiled by Cargill)       | 17-Sep-03                | 45.6 <sup>1</sup>   | California Hazardous        | Kettleman Hills          |
|   | 18-Sep-03                | 24.33 <sup>1</sup>  | California Hazardous        | Kettleman Hills          |
|   | 1-Oct-03                 | 26.47 <sup>1</sup>  | California Hazardous        | Kettleman Hills          |
| <b>Totals</b>                                     |                          | <b>96.40</b>        | <b>California Hazardous</b> | <b>Kettleman Hills</b>   |
| Additional Soil Excavated<br>from Areas C7 and D7 | 1-Oct-03                 | 201.16 <sup>2</sup> | Non-Hazardous               | Altamont                 |
|   | 19-Nov-03                | 185.29 <sup>3</sup> | Non-Hazardous               | Altamont                 |
| <b>Totals</b>                                     |                          | <b>386.45</b>       | <b>Non-Hazardous</b>        | <b>Altamont</b>          |

**Notes**

- 1 - Tonnages were determined using weight tickets provided by the Kettleman Hills Facility.
- 2 - Tonnages were determined using weight tickets provided by Altamont Landfill.
- 3 - Tonnages were based on totals supplied by Pacific States on 8 December 2003.



**California Regional Water Quality Control Board**  
**San Francisco Bay Region**



Terry Tamminen  
 Secretary for  
 Environmental  
 Protection

1515 Clay Street, Suite 1400, Oakland, California 94612  
 (510) 622-2300 • Fax (510) 622-2460  
<http://www.swrcb.ca.gov/rwqcb2>

Arnold Schwarzenegger  
 Governor

*Gun Club  
 No Further Action  
 Letter*

Cargill Salt Company  
 Attention: Ms. Teri Peterson  
 7220 Central Avenue  
 Newark, California 94560-4206

Date: **MAR 10 2004**  
 File Number: 2199.9303 (TWB)

*RWQCB  
 dated Mar 11  
 2004*

**Subject: Newark Gun Club, Alameda County – Certification of Remediation Completion Report**

Dear Ms. Peterson:

This letter certifies that soil remediation activities conducted at the former Newark Sportsmen's Club have been completed pursuant to the December 31, 2001 Remedial Action Workplan and that analytical results for all soil confirmation samples were below established cleanup objectives. The results of soil confirmation sampling conducted at the facility are summarized in the October 15, 2003 Remediation Completion Report, amended on December 12, 2003 and indicate that no additional remedial action is necessary.

*see attach*

Should you have any questions regarding this letter please contact Thomas Butler of my staff at 510-622-2309 or by email at [twb@rb2.swrcb.ca.gov](mailto:twb@rb2.swrcb.ca.gov).

Sincerely,

Curtis T. Scott  
 Division Chief  
 Groundwater Protection & Waste Containment

*Cargill-Serpentine*

3001-003715

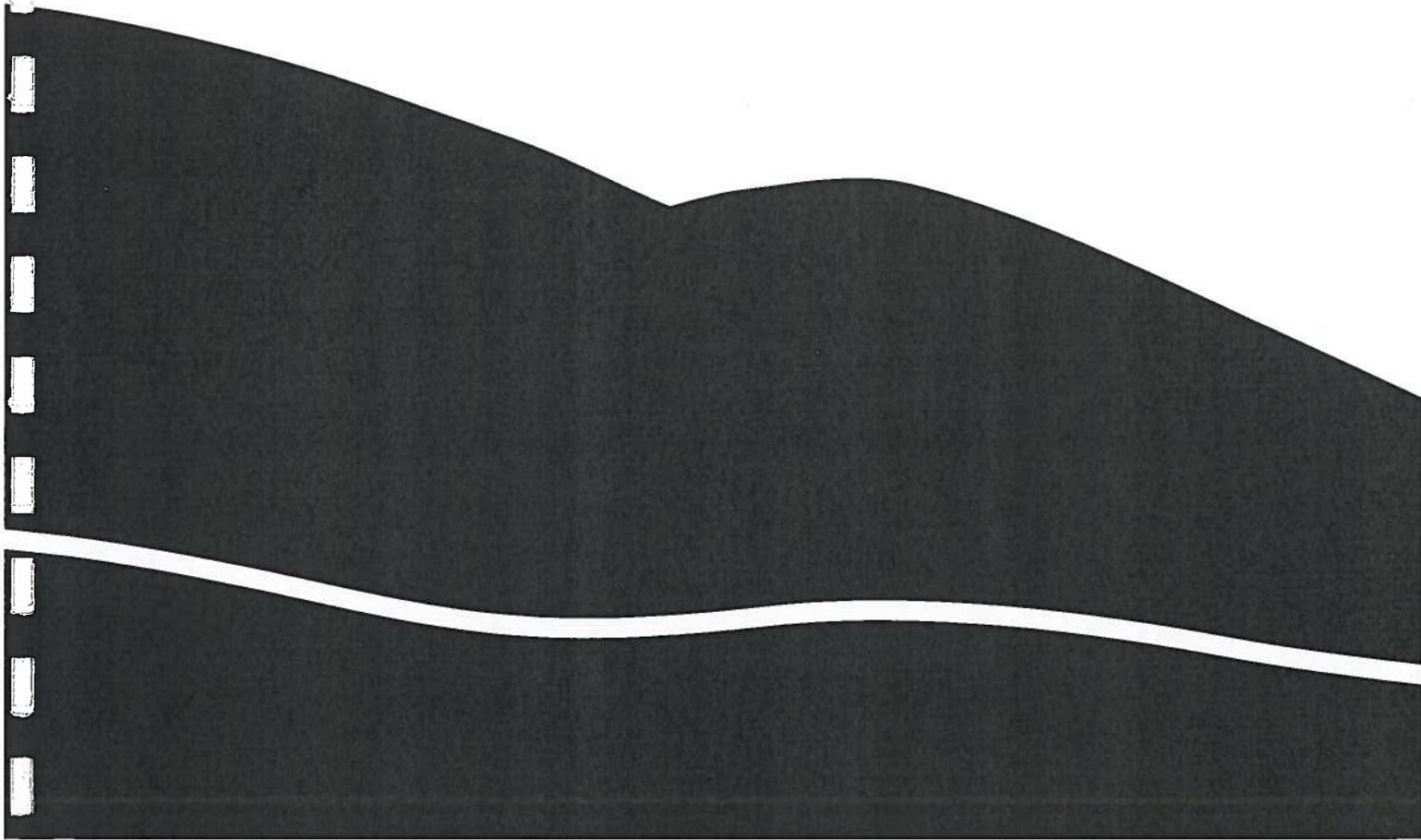
# BGC

**BERLOGAR  
GEOTECHNICAL  
CONSULTANTS**

SOIL ENGINEERS  
ENGINEERING GEOLOGISTS

NATURALLY OCCURRING  
ASBESTOS INVESTIGATION  
HILL PARCEL OF THE CARGILL SALT PROPERTY  
SOUTHWEST CORNER OF ENTERPRISE DRIVE  
AND HICKORY STREET  
NEWARK, CALIFORNIA

FOR  
CARGILL SALT  
October 12, 2007



NATURALLY OCCURRING  
ASBESTOS INVESTIGATION  
HILL PARCEL OF THE CARGILL SALT PROPERTY  
SOUTHWEST CORNER OF ENTERPRISE DRIVE  
AND HICKORY STREET  
NEWARK, CALIFORNIA

FOR  
CARGILL SALT  
October 12, 2007

Job No. 2914.101

October 12, 2007  
Job No. 2914.101



Ms. Penny Streff  
Cargill Salt  
7220 Central Avenue  
Newark, California 94560

Subject: Naturally Occurring Asbestos Investigation  
Hill Parcel of the Cargill Salt Property  
Southwest Corner of Enterprise Drive and Hickory Street  
Newark, California

Dear Ms. Streff:

This report presents the results of our investigation to determine the possible presence of naturally occurring asbestos (NOA) within and around near-surface bedrock outcrops at the subject site. The location of the site is shown with respect to existing cultural features on the Vicinity Map, Plate 1. The site is located in the southwest corner of Enterprise Drive and Hickory Street in Newark, California. This area is designated as the Hill Parcel, which contains 2 rock outcrops, called the north and south outcrops. This report is based on requirements as interpreted from verbal conversations with Cargill personnel.

### **PURPOSE AND SCOPE OF SERVICES**

The purpose of this investigation was to investigate the potential for naturally-occurring asbestos within possible shallow Serpentine bedrock at the site. Our study did not investigate the potential of encountering NOA deeper more than about 10 feet below the ground surface in the surrounding flatter portions of the site. Our scope of services included:

1. Review of published maps and literature pertinent to the site and vicinity,
2. Site reconnaissance,
3. Excavating and logging of 7 test pits and collection of 10 surface soil and bedrock samples,
4. Laboratory testing (Carb 435) of serpentinite bedrock and nearby soil samples by RJ Lee Group, Inc.,
5. Preparation of this report.

### **FIELD EXPLORATION AND LABORATORY TESTING**

Our field exploration was conducted on September 13 and 27, 2007. A reconnaissance was performed by a BGC geologist and engineer on the 13th, and field sampling and test pit excavations occurred on September 27. The test pit locations were determined by our geologist and engineer

during the site reconnaissance on the basis of possible locations of encountering serpentinite. Subsurface information from BGC studies conducted in 1998 and 2006 (Berlogar Geotechnical Consultants, Preliminary Geotechnical Investigation, Hill Parcel, Enterprise Drive and Hickory Street, Newark, California, December 12, 2006) were reviewed and the boring logs are contained in this report. The test pits were excavated with a backhoe, and representative near-surface soil and bedrock samples were obtained manually. The locations of the recent test pits and surface samples, and the borings performed in 1998 and 2006, are shown on the Site Plan, Plate 2. The test pits were located on the northern rock outcrop and were excavated to depths of about 7 to 14 feet below the existing ground surface. Materials encountered in the test pits were logged, and the logs are presented on Plates 3 and 4. The test pits were backfilled with no significant compactive effort at the end of logging.

Surface soil and bedrock samples were obtained from the southern rock outcrop and were transported to a State of California certified laboratory, RJ Lee Group, Inc., in San Leandro, California with proper Chain of Custody procedures to test for potential NOA. The results of the laboratory tests are contained in Appendix B. Serpentinite bedrock was not encountered in the northern rock outcrop area; as such, laboratory tests were not performed on soil and bedrock samples from this area.

## **REGIONAL GEOLOGY**

The site is located within the Coast Ranges geomorphic province of California. The Coast Ranges are characterized by a series of northwest-trending folded and faulted mountain chains and valleys. In the site vicinity, the Coyote Hills form a northwest-trending ridgeline of Cretaceous-aged Franciscan Complex bedrock that is surrounded by younger alluvium that was deposited around the flanks of the San Francisco Bay. The Franciscan Complex bedrock generally includes sandstone, shale, greenstone, and ultramafic rocks. The ultramafic rocks commonly alter to serpentine minerals through metamorphic conditions. The site is located to the south of the southern end of the Coyote Hills where two relatively small bedrock outcrops protrude out of the alluvium. The outcrops at the site are a southeastern extension of the Coyote Hills rocks and have been mapped as serpentinite by the U.S. Geological Survey (Helley and Miller 1992).

## **SITE CONDITIONS**

### **SURFACE CONDITIONS**

The northern rock outcrop study area is approximately 1,000 feet long in the north-south direction and 500 feet wide. Fill up to about 25 feet thick has been placed on the west side of the outcrop. The western side slopes down towards flatter ground and is a couple hundred feet from a salt pond. Rock outcrops are visible along the central and eastern sides of this area, as shown on Plate 2. The surrounding areas have been disturbed by past grading, but are essentially flat with elevations between 8 to 15 feet in elevation. The top of the rock outcrop and fill area is generally at about 30 feet mean sea level.

The southern study area contains a rock outcrop of serpentinite that is about 700 feet long in the north-south direction and about 200 feet wide. This rock outcrop contains 2 high points that are about 35 feet MSL. A shooting range is located on the east side of the rock outcrop, and a dog training facility is located on the south side. The central portion of the outcrop has been mass graded and a berm for the shooting range has been constructed. The surrounding areas are flat and at about 8 to 10 feet MSL.

## **SUBSURFACE CONDITIONS**

### **NORTH HILL**

The material encountered in the test pits was a mixture of clayey and silty gravel, silty clay, sandy clay, and clayey sand. Sandstone and claystone bedrock were encountered in 5 of the 7 test pits. Where bedrock was not encountered, the test pits extended to 14 feet in depth (2 feet and -5 feet MSL), without encountering serpentinite type material. Since serpentinite type material was not encountered in this area, samples of soil or rock were not obtained for laboratory testing for NOA.

### **SOUTH HILL**

The rock outcrop is composed of serpentinite, with silty sand material around the outcrop. The serpentinite extends to depths which are unknown. Ten surficial samples of soil and bedrock were obtained from this area as shown on the site plan. Samples were obtained from bedrock and from the surrounding soil areas. The samples were placed in plastic bags and sealed, and transported to RJ Lee for Carb 435 testing.

The Carb 435 test results by RJ Lee Group indicate that NOA is present in concentrations ranging between 0.25 to 6.25 percent. The source of the asbestos was determined to be chrysotile, which is a mineral variation of serpentine.

### **GROUNDWATER**

Groundwater was not encountered in the test pits except some minor seepage. BGC's previous studies indicate the groundwater level is at or near MSL. Groundwater is expected to be controlled by tidal influence in this area and weather conditions.

## **CONCLUSIONS AND RECOMMENDATIONS**

The results of our field and laboratory study indicate that the north hill does not contain serpentinite (and therefore should not contain naturally occurring asbestos). The south hill area is composed of serpentine bedrock that contains naturally occurring asbestos. The concentration of NOA was above the action limit of 0.25 percent in all 10 samples, including the nearby soil just downslope of the rock outcrop. As such, the area of the rock outcrop and extending at least 100 feet away from the rock outcrop in all directions should be considered to contain possible state-regulated concentrations of NOA. At such time as the site is to be modified or developed, all earthmoving and trenching should be performed in compliance with regulatory requirements then in effect.

**LIMITATIONS**

The conclusions and recommendations of this report are based upon the information provided to us, subsurface conditions encountered at the field exploration locations, our site reconnaissance, and professional judgment. This study has been conducted in accordance with current professional geotechnical engineering and engineering geologic standards; no other warranty is expressed or implied.

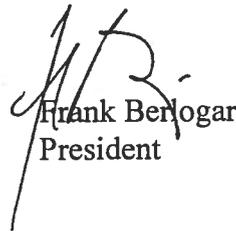
The locations of the field explorations were determined by field estimating from topographic and cultural features indicated on a topographic map supplied by Cargill Salt, and are to be considered approximate only. Site conditions are described in the text as they were observed during our field work in the fall of 2007, and are not necessarily representative of such conditions at other locations and times.

Respectfully submitted,

**BERLOGAR GEOTECHNICAL CONSULTANTS**



William R. Stevens  
Principal Geotechnical Engineer  
GE 2339, Exp. 3/31/08



Frank Berlogar  
President

WRS/KJR/FB:jmb

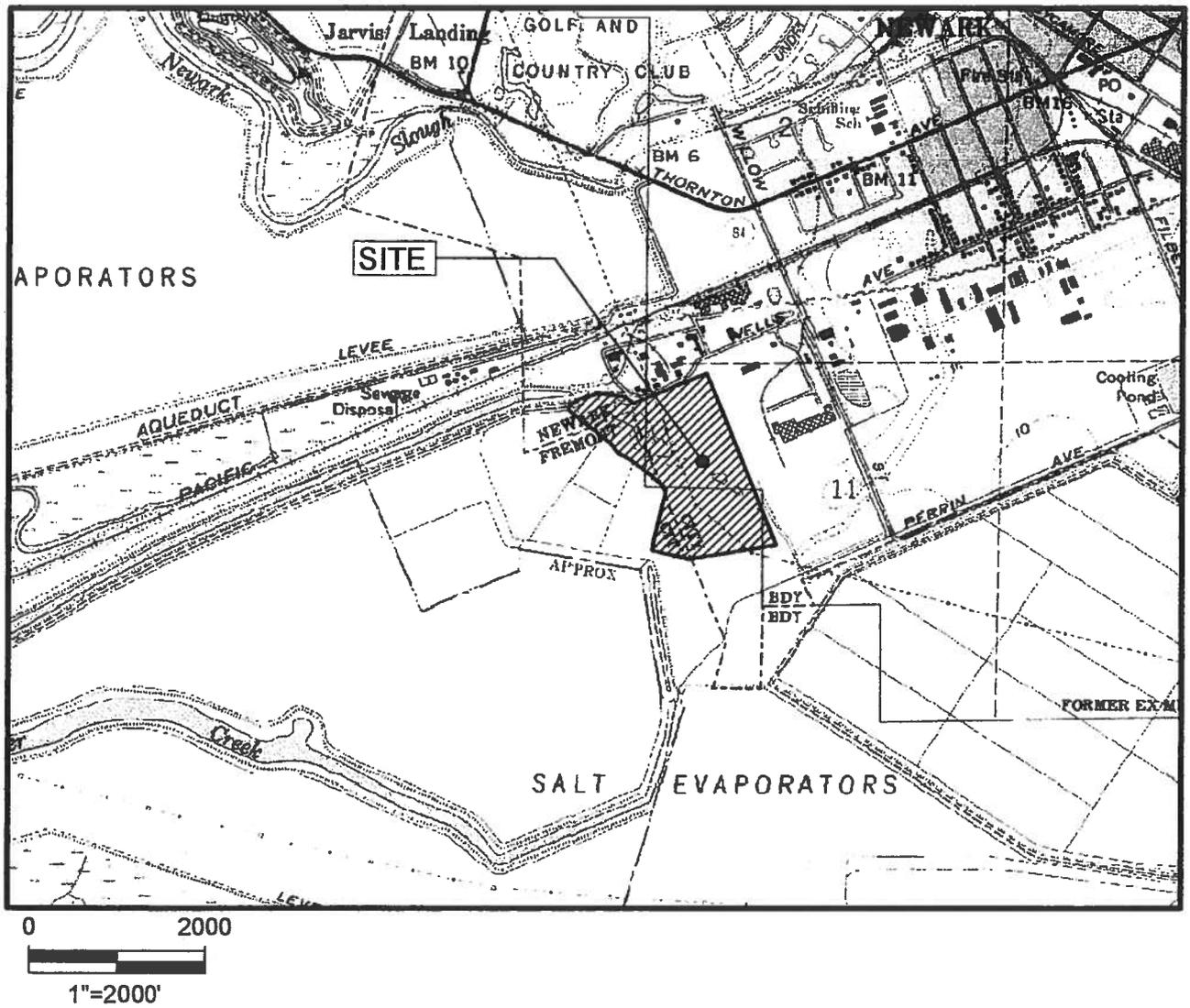
**Attachments:**

- Plate 1 – Vicinity Map
- Plate 2 – Site Plan
- Plates 3 and 4 – Test Pit Logs
- Appendix A – Borings B1 through B4, BGC 2006 and B1 through B16, 1998
- Appendix B – Laboratory Test Results

Copies: Addressee (6)

2914.101/20742.doc

JOB NUMBER: 2914.101 DATE: 10-1-07 BY: CC



**VICINITY MAP**  
HILL PARCEL NOA STUDY  
ENTERPRISE DRIVE AND HICKORY STREET  
NEWARK, CALIFORNIA  
FOR  
CARGILL SALT

BASE: PORTION OF U.S.G.S. 7.5 MINUTE TOPOGRAPHIC QUADRANGLE,  
NEWARK, CALIFORNIA, PHOTOREVISED 1983, AT A SCALE OF 1:24,000.

**TEST PIT LOGS – 9/27/07**

| <u>Test Pit Number</u> | <u>Depth (feet)</u> | <u>Description</u>  |
|------------------------|---------------------|---|
| TP-1<br>Elev. 23 feet  | 0 – 2               | Clayey Gravel, gray-brown, moist, medium dense, with sand, trace roots, concrete and brick fragments, well-graded sand and gravel (FILL).   |
|                        | 2 – 6               | Silty Clay, dark gray-brown, moist, very stiff.   |
|                        | 6 – 7               | SANDSTONE, fine-grained, reddish-brown, weathered, fractured, moderately strong to weak, some oxidation staining. Top of Sandstone at 17-foot elevation                                 |
|                        |                     | Total Depth 7 feet<br>No free groundwater encountered   |
| TP-2<br>Elev. 19 feet  | 0 – 1½              | Silty Gravel, gray-brown, dry, loose, trace brick fragments, some magnesium concretions (FILL).   |
|                        | 1½ – 3              | SANDSTONE, fine-grained, tan, weathered, slightly fractured, moderately strong, some oxidation staining. Top of Sandstone at 17-foot elevation.   |
|                        |                     | Total Depth 3 feet<br>No free groundwater encountered   |
| TP-3<br>Elev. 14 feet  | 0 – 8               | Silty Clay, dark gray, moist, stiff, some medium fine sand, trace gravel and asphalt concrete fragments, trace rootlets, sod, wood fragments and light brown and black mottling (FILL). |
|                        | 8 – 12              | Silty Clay, olive-brown, moist, stiff, slightly porous, trace oxidation, staining. No bedrock above 2-foot elevation.   |
|                        |                     | Total Depth 12 feet<br>No free groundwater encountered  |
| TP-4<br>Elev. 11 feet  | 0 – 2               | Clayey Gravel, tan, slightly moist to dry, dense, trace rootlets, wood fragments (FILL).  |
|                        | 2 – 10              | Sandy Clay, brown to reddish brown, moist, stiff, trace gravel.   |
|                        | 10 – 11             | CLAYSTONE, reddish-brown, highly weathered, weak, moist, some oxidation staining.   |
|                        | 11 – 12             | SANDSTONE, fine-grained, tan, highly weathered, friable, moist with some oxidation staining.  |
|                        |                     | Total Depth 12 feet<br>No free groundwater encountered  |

**TEST PIT LOGS – 9/27/07**

| <u>Test Pit Number</u>                                     | <u>Depth (feet)</u> | <u>Description</u>  |
|--|---------------------|---|
| TP-5<br>Elev. 12 feet                                      | 0 – 2               | Silty Gravel, tan, moist to dry, some sand and magnesium concretions.   |
|  | 2 – 6               | Silty Clay, dark gray-brown, moist, stiff.  |
|  | 6 – 7               | SANDSTONE, fine-grained, reddish brown, highly weathered, highly fractured, friable to weak, some oxidation staining. Top of sandstone at 6-foot elevation.             |
| Total Depth 7 feet<br>No free groundwater encountered      |                     |   |
| TP-6<br>Elev. 29 feet                                      | 0 – 2               | Silty Gravel, gray-brown, slightly moist to dry, dense, fine to medium gravel, trace concrete fragments (FILL).   |
|  | 2 – 12              | Sandy Clay, dark gray-brown, moist, stiff, some gravel, trace concrete fragments, wood and plastic (FILL).  |
|  | 12 – 14             | SANDSTONE, fine-grained, reddish-brown, highly weathered, friable to weak, highly fractured, oxidation staining along fractures. Top of sandstone at 17-foot elevation. |
| TP-7<br>Elev. 9 feet                                       | 0 – 1               | Sandy Clay, dark gray-brown, moist, medium stiff, trace magnesium concretions (FILL).   |
|  | 1 – 4               | Silty Clay, dark gray-brown, moist, stiff, trace fine sand.   |
|  | 4 – 8               | Clayey Silt, olive-brown, moist, medium stiff, trace oxidation staining, slightly porous.   |
|  | 8 – 12              | Clayey Sand, olive-brown, moist, medium dense, trace oxidation staining, fine sand.   |
|  | 12 – 14             | Sandy Clay, red-brown, very moist, stiff, fine-grained sand, trace oxidation staining. No bedrock above -5 feet elevation.  |
| Total Depth 14 feet<br>Trace groundwater seepage at 9 feet |                     |   |

## **APPENDIX A**

Boring Logs –

Borings B1 through B4, BGC 2006 and  
B1 through B16, BGC 1998

# BORING LOG B-1

**JOB NUMBER:** 2914.100 **DATE DRILLED:** 7-13-06

**JOB NAME:** Hill Parcel **SURFACE ELEVATION:** 8 feet

**DRILL RIG:** Rotary Wash **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30\*

\*Automatic Trip Hammer

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
|               |                    |                        |               | CL                  | SANDY CLAY with abundant GRAVEL, light gray-brown, dry to damp, stiff (fill)              |
|               |                    |                        |               | CL                  | SILTY CLAY, dark gray, damp, stiff, rootlets  |
| 20            | 18.7               | 106                    |               | CL                  | SILTY CLAY, yellow-brown, moist, stiff, gray rootlets                                     |
| 16            | 21.0               | 106                    | 5             |                     |   |
|               |                    |                        |               | CL                  | SANDY CLAY, yellow-brown, saturated, medium stiff, fine-grained sand                      |
| 6             | 24.3               | 101                    | 10            |                     |   |
|               |                    |                        |               | CL/ML               | SANDY CLAY/CLAYEY SILT, yellow-brown, moist to saturated, medium stiff, fine-grained sand |
| 7             | 26.8               | 95                     | 15            |                     |   |
|               |                    |                        |               | CL                  | SILTY CLAY, green-gray, moist, stiff  |
| 10            | 32.9               | 86                     | 20            |                     |   |

# BORING LOG

B-1

**JOB NUMBER:** 2914.100

**SHEET:** 2 **OF:** 2

**JOB NAME:** Hill Parcel

**DEPTH:** 20 feet **TO** 30-1/2 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 42            | 21.4               | 106                    | 25            | CL                  | SILTY CLAY, green-gray, moist, stiff<br><br>below 23 feet, hard                      |
| 21            | -                  | -                      | 30            | CL                  | SILTY CLAY, yellow-brown, moist, very stiff, minor carbonate                         |
|               |                    |                        | 35            |                     | Boring terminated at 30-1/2 feet<br>Groundwater obscured by rotary wash drill method |
|               |                    |                        | 40            |                     |  |

# BORING LOG

B-2

**JOB NUMBER:** 2914.100 **DATE DRILLED:** 7-14-06

**JOB NAME:** Hill Parcel **SURFACE ELEVATION:** 8 feet

**DRILL RIG:** Rotary Wash **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel **DRIVE WEIGHT - LB:** 140 **HEIGHT OF FALL - IN:** 30\*

\*Automatic Trip Hammer

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 20            | -                  | -                      | 0             | CL                  | SANDY CLAY, dark gray-brown, moist, stiff, fine-grained sand, rootlets                                     |
| 11            | 20.2               | 100                    | 5             | CL                  | SILTY CLAY, light gray-brown, wet, stiff, some fine-grained sand, trace fine gravel at 4 feet, clayey sand |
| 9             | 21.1               | 107                    | 10            | CL                  | SILTY CLAY/SANDY CLAY, brown, saturated, medium stiff to stiff, fine-grained sand                          |
| 24            | 20.6               | 101                    | 15            | CL/SC               | SANDY CLAY/CLAYEY SAND, brown, saturated, very stiff/medium dense, fine-grained sand, some silt            |
| 11            | -                  | -                      | 20            | CL                  | SILTY CLAY, light gray-brown, saturated, stiff   |
| 11            | -                  | -                      | 20            | SM                  | SILTY SAND, light gray-brown, saturated, loose, fine-grained sand, some clay                               |

# BORING LOG

B-2

**JOB NUMBER:** 2914.100

**SHEET:** 2 **OF:** 2

**JOB NAME:** Hill Parcel

**DEPTH:** 20 feet **TO** 34-1/2 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 27            | 31.8               | 91                     | 24            | SM                  | SILTY SAND, light gray-brown, saturated, loose, fine-grained sand, some clay         |
|               |                    |                        | 25            | CL                  | SILTY CLAY, light gray to dark gray, saturated, very stiff                           |
| 31            | 21.1               | 106                    | 26            | CL                  | SILTY CLAY, brown, saturated, very stiff to hard, trace fine-grained sand            |
|               |                    |                        | 29            | CL                  | SILTY CLAY/SANDY CLAY, brown, saturated, stiff, fine-grained sand, some silt         |
| 11            | 22.4               | 111                    | 34            |                     | Boring terminated at 34-1/2 feet<br>Groundwater obscured by rotary wash drill method |
|               |                    |                        | 40            |                     |  |

# BORING LOG B-3

**JOB NUMBER:** 2914.100 **DATE DRILLED:** 7-14-06

**JOB NAME:** Hill Parcel **SURFACE ELEVATION:** 7 feet

**DRILL RIG:** Rotary Wash **DATUM:** Mean Sea Level

|   |                          |                            |
|---|--------------------------|----------------------------|
| <b>SAMPLER TYPE:</b>  | <b>DRIVE WEIGHT - LB</b> | <b>HEIGHT OF FALL - IN</b> |
| <input type="checkbox"/> 2.5 inch I.D. Split Barrel           | 140                      | 30*                        |
| <input checked="" type="checkbox"/> Standard Penetration Test | 140                      | 30*                        |

\*Automatic Trip Hammer

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 24            | 14.8               | 112                    | 0             | CL                  | SANDY CLAY, dark gray to light gray-brown, moist, very stiff, fine-grained sand, trace rootlets |
| 15            | 22.5               | 104                    | 5             | CL                  | SILTY CLAY, light gray-brown, moist to wet, stiff   |
| 23            | 18.8               | 110                    | 10            |                     | below 9 feet, very stiff, trace coarse gravel   |
| 6             | -                  | -                      | 15            | CL/SC               | SANDY CLAY/CLAYEY SAND, brown, saturated, loose to medium stiff                                 |
| 17            | 23.9               | 99                     | 20            | SM/ML               | SILTY SAND/SANDY SILT, light gray-brown, saturated, loose to medium dense, fine-grained sand    |
|               |                    |                        | 20            | CL                  | SILTY CLAY, light gray-brown, saturated, stiff  |

# BORING LOG

B-3

**JOB NUMBER:** 2914.100

**SHEET:** 2 **OF:** 3

**JOB NAME:** Hill Parcel

**DEPTH:** 20 feet **TO** 40 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 17            | 23.9               | 99                     | 25            | CL                  | SILTY CLAY, light gray-brown, saturated, stiff  |
|               |                    |                        |               | CL                  | SILTY CLAY, gray, saturated, very stiff to hard                                       |
| 35            | 27.9               | 95                     | 30            | CL                  | SILTY CLAY, brown with light gray mottling, saturated, hard                           |
|               |                    |                        |               | CL                  | SILTY CLAY, light gray-brown, saturated, stiff, some fine-grained sand, trace caliche |
| 16            | 26.4               | 99                     | 35            |                     |   |
|               |                    |                        | 40            |                     | below 38 feet, very stiff   |
| 35            | 22.4               | 105                    |               |                     |   |

# BORING LOG

B-3

**JOB NUMBER:** 2914.100

**SHEET:** 3 **OF:** 3

**JOB NAME:** Hill Parcel

**DEPTH:** 40 feet **TO** 50-1/2 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 35            | 22.4               | 105                    | 44            | CL                  | SILTY CLAY, light gray-brown, saturated, very stiff, some fine-grained sand, trace caliche    |
| 27            | 29.0               | 93                     | 45            | CL                  | below 44 feet, trace black mottling   |
| 48            | -                  | -                      | 50            | SP/GP               | SAND/GRAVEL, gray-brown, saturated, dense, fine-to coarse-grained sand, fine to coarse gravel |
|               |                    |                        | 55            |                     | Boring terminated at 50-1/2 feet<br>Groundwater obscured by rotary wash drill method          |
|               |                    |                        | 60            |                     |   |

# BORING LOG B-4

**JOB NUMBER:** 2914.100 **DATE DRILLED:** 7-14-06

**JOB NAME:** Hill Parcel **SURFACE ELEVATION:** 7 feet

**DRILL RIG:** Rotary Wash **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel **DRIYE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30\*

\*Automatic Trip Hammer

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 26            | 20.2               | 101                    | 7.5           | CL                  | SANDY CLAY/SILTY CLAY, dark gray, moist, very stiff, fine-grained sand, trace caliche                       |
| 25            | 19.9               | 109                    | 5             | CL                  | SILTY CLAY, light gray-brown, moist, very stiff   |
| 12            | -                  | -                      | 10            | CL/SC               | SANDY CLAY/CLAYEY SAND, light gray-brown, saturated, medium stiff, loose to medium dense, fine-grained sand |
| 9             | -                  | -                      | 13            | SM/SC               | SILTY SAND/CLAYEY SAND, brown, saturated, loose, fine-grained sand  |
| 17            | 18.2               | 109                    | 17.5          | CL                  | SILTY CLAY, dark brown to light gray-brown, saturated, stiff, some fine-grained sand                        |
|               |                    |                        | 20            |                     |   |

# BORING LOG

B-4

**JOB NUMBER:** 2914.100

**SHEET:** 2 **OF:** 2

**JOB NAME:** Hill Parcel

**DEPTH:** 20 feet **TO** 30 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 56            | 27.1               | 98                     | 25            | CL                  | SILTY CLAY, dark brown to light gray-brown, saturated, stiff, some fine-grained sand |
|               |                    |                        | 25            | CL                  | SILTY CLAY, light gray-brown, saturated, hard, some bedrock structure                |
| 60            | 24.7               | 101                    | 30            | CL                  | SILTY CLAY with GRAVEL, saturated, hard, fine-gravel                                 |
|               |                    |                        | 35            |                     | Boring terminated at 30 feet<br>Groundwater obscured by rotary wash drill method     |
|               |                    |                        | 40            |                     |  |

# BORING LOG

B-1

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 49-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 24            | 21.8               | 83                     |               |                     | ALKALINE MATERIAL ( magnesia), mottled gray-white and gray, very stiff, some gypsum<br><br>at 5 feet, becomes dark gray<br>at 5-1/2 feet, rust veinlet  |
| 33            | 22.7               | 78                     |               |                     |   |
| 22            | 28.5               | 77                     | 5             |                     |   |
| 37            | 34.2               | 58                     | 10            | M L                 |   |
|               |                    |                        |               |                     |   |
| 11            | 35.2               | 71                     | 15            | S W                 | SANDY SILT, brown, moist, very stiff, yellow-white alkaline material<br><br>ALKALINE MATERIAL (magnesia), gray-white, moist, very stiff<br><br>SAND, light brown, moist, loose, medium grained<br><br>ALKALINE MATERIAL (megnesia), gray-white, moist |
| 35            | 23.5               | 85                     | 20            | M L                 | SANDY SILT, gray-brown, moist, medium stiff   |

# BORING LOG

B-1

**JOB NUMBER:** 1629.403

**SHEET:** 2 **OF:** 2

**JOB NAME:** FMC Site

**DEPTH:** 20 feet **TO** 25-1/2 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 35            | 23.5               | 85                     | 25            | M L                 | SANDY SILT, gray-brown, moist, medium stiff<br><br>ALKALINE MATERIAL (magnesia), gray-white and yellow-white, moist, medium stiff |
| 50/3"         | -                  | -                      | 25            |                     | SILTSTONE, red-brown, highly weathered, friable, highly fractured   |
|               |                    |                        | 30            |                     | Boring terminated at 25-1/2 feet.<br>No free water encountered.   |
|               |                    |                        | 35            |                     |   |
|               |                    |                        | 40            |                     |   |

# BORING LOG

B-2

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 44-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 50            | 21.8               | 81                     |               | M L                 | SANDY SILT, gray, moist, hard, alkaline material  |
| 50/3"         | 23.1               | 74                     |               |                     | ALKALINE MATERIAL (magnesia), mottled gray and white, moist, hard, trace sand           |
| 14            | 20.0               | 70                     | 5             |                     | at 5 feet, mottled white and orange-white, stiff<br>at 5-1/2 feet, white                |
| 19            | 19.7               | 75                     | 10            |                     |   |
| 38            | 17.1               | 74                     | 15            |                     | at 15 feet, siltstone fragments<br>at 15-1/2 feet, white, very stiff, trace fine gravel |
| 41            | 24.1               | 75                     | 20            |                     |   |

# BORING LOG

B-2

**JOB NUMBER:** 1629.403

**SHEET:** 2 **OF:** 2

**JOB NAME:** FMC Site

**DEPTH:** 20 feet **TO** 21-1/2 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 41            | 24.1               | 75                     |               |                     | ALKALINE MATERIAL (magnesia), white, moist, very stiff, trace fine gravel |
|               |                    |                        |               | CL                  | SILTY CLAY, dark brown, moist, very stiff                                 |
|               |                    |                        | 25            |                     | Boring terminated at 21-1/2 feet.<br>No free water encountered.           |
|               |                    |                        | 30            |                     |   |
|               |                    |                        | 35            |                     |   |
|               |                    |                        | 40            |                     |   |
|               |                    |                        |               |                     |   |

# BORING LOG B-3

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 40-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 21            | 23.7               | 76                     | 5             |                     | ALKALINE MATERIAL (magnesia), gray-white, moist, stiff<br><br>at 6 feet, gypsum<br><br>at 10 feet, becomes white<br><br>at 15 feet, becomes gray-white |
| 17            | 23.2               | 65                     | 6             |                     |  |
| 13            | 25.3               | 69                     | 7             |                     |  |
| 14            | 26.7               | 61                     | 10            |                     |  |
| 20            | 30.0               | 61                     | 15            |                     |  |
| 58            | 22.5               | 70                     | 20            |                     |  |

# BORING LOG

B-3

JOB NUMBER: 1629.403

SHEET: 2 OF: 2

JOB NAME: FMC Site

DEPTH: 20 feet TO 31 feet

NOTES:

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 58            | 22.5               | 70                     | 20            |                     | ALKALINE MATERIAL (magnesia), gray-white, moist, stiff<br><br>at 20 feet, becomes hard, wood debris and gypsum |
| 22            | 26.3               | 72                     | 25            |                     | at 25 feet, very stiff   |
| 32            | 53.3               | 59                     | 30            | CL                  | SILTY CLAY, dark brown, moist, very stiff  |
|               |                    |                        | 35            |                     | Boring terminated at 31 feet.<br>No free water encountered.  |
|               |                    |                        | 40            |                     |  |

# BORING LOG

B-4

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 52-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 50/5"         | 18.1               | 102                    | 0             | M L                 | SANDY SILT, gray-brown, dry to moist, hard   |
| 76            | 30.9               | 79                     | 5             | M L                 | ALKALINE MATERIAL (magnesia), gray-white, moist, hard,<br>some silt<br>CLAYEY SILT, dry red, moist |
| 76            | 21.6               | 85                     | 10            | C L                 | ALKALINE MATERIAL (magnesia), mottled gray-white, dark gray and red, moist, hard                   |
|               |                    |                        | 15            |                     |  |
|               |                    |                        | 20            |                     |  |
|               |                    |                        | 25            |                     |  |
|               |                    |                        | 30            |                     |  |
|               |                    |                        | 35            |                     |  |
|               |                    |                        | 40            |                     |  |
|               |                    |                        | 45            |                     |  |
|               |                    |                        | 50            |                     |  |
|               |                    |                        | 55            |                     |  |
|               |                    |                        | 60            |                     |  |
|               |                    |                        | 65            |                     |  |
|               |                    |                        | 70            |                     |  |
|               |                    |                        | 75            |                     |  |
|               |                    |                        | 80            |                     |  |
|               |                    |                        | 85            |                     |  |
|               |                    |                        | 90            |                     |  |
|               |                    |                        | 95            |                     |  |
|               |                    |                        | 100           |                     |  |
|               |                    |                        | 105           |                     |  |
|               |                    |                        | 110           |                     |  |
|               |                    |                        | 115           |                     |  |
|               |                    |                        | 120           |                     |  |
|               |                    |                        | 125           |                     |  |
|               |                    |                        | 130           |                     |  |
|               |                    |                        | 135           |                     |  |
|               |                    |                        | 140           |                     |  |
|               |                    |                        | 145           |                     |  |
|               |                    |                        | 150           |                     |  |
|               |                    |                        | 155           |                     |  |
|               |                    |                        | 160           |                     |  |
|               |                    |                        | 165           |                     |  |
|               |                    |                        | 170           |                     |  |
|               |                    |                        | 175           |                     |  |
|               |                    |                        | 180           |                     |  |
|               |                    |                        | 185           |                     |  |
|               |                    |                        | 190           |                     |  |
|               |                    |                        | 195           |                     |  |
|               |                    |                        | 200           |                     |  |
|               |                    |                        | 205           |                     |  |
|               |                    |                        | 210           |                     |  |
|               |                    |                        | 215           |                     |  |
|               |                    |                        | 220           |                     |  |
|               |                    |                        | 225           |                     |  |
|               |                    |                        | 230           |                     |  |
|               |                    |                        | 235           |                     |  |
|               |                    |                        | 240           |                     |  |
|               |                    |                        | 245           |                     |  |
|               |                    |                        | 250           |                     |  |
|               |                    |                        | 255           |                     |  |
|               |                    |                        | 260           |                     |  |
|               |                    |                        | 265           |                     |  |
|               |                    |                        | 270           |                     |  |
|               |                    |                        | 275           |                     |  |
|               |                    |                        | 280           |                     |  |
|               |                    |                        | 285           |                     |  |
|               |                    |                        | 290           |                     |  |
|               |                    |                        | 295           |                     |  |
|               |                    |                        | 300           |                     |  |
|               |                    |                        | 305           |                     |  |
|               |                    |                        | 310           |                     |  |
|               |                    |                        | 315           |                     |  |
|               |                    |                        | 320           |                     |  |
|               |                    |                        | 325           |                     |  |
|               |                    |                        | 330           |                     |  |
|               |                    |                        | 335           |                     |  |
|               |                    |                        | 340           |                     |  |
|               |                    |                        | 345           |                     |  |
|               |                    |                        | 350           |                     |  |
|               |                    |                        | 355           |                     |  |
|               |                    |                        | 360           |                     |  |
|               |                    |                        | 365           |                     |  |
|               |                    |                        | 370           |                     |  |
|               |                    |                        | 375           |                     |  |
|               |                    |                        | 380           |                     |  |
|               |                    |                        | 385           |                     |  |
|               |                    |                        | 390           |                     |  |
|               |                    |                        | 395           |                     |  |
|               |                    |                        | 400           |                     |  |
|               |                    |                        | 405           |                     |  |
|               |                    |                        | 410           |                     |  |
|               |                    |                        | 415           |                     |  |
|               |                    |                        | 420           |                     |  |
|               |                    |                        | 425           |                     |  |
|               |                    |                        | 430           |                     |  |
|               |                    |                        | 435           |                     |  |
|               |                    |                        | 440           |                     |  |
|               |                    |                        | 445           |                     |  |
|               |                    |                        | 450           |                     |  |
|               |                    |                        | 455           |                     |  |
|               |                    |                        | 460           |                     |  |
|               |                    |                        | 465           |                     |  |
|               |                    |                        | 470           |                     |  |
|               |                    |                        | 475           |                     |  |
|               |                    |                        | 480           |                     |  |
|               |                    |                        | 485           |                     |  |
|               |                    |                        | 490           |                     |  |
|               |                    |                        | 495           |                     |  |
|               |                    |                        | 500           |                     |  |
|               |                    |                        | 505           |                     |  |
|               |                    |                        | 510           |                     |  |
|               |                    |                        | 515           |                     |  |
|               |                    |                        | 520           |                     |  |
|               |                    |                        | 525           |                     |  |
|               |                    |                        | 530           |                     |  |
|               |                    |                        | 535           |                     |  |
|               |                    |                        | 540           |                     |  |
|               |                    |                        | 545           |                     |  |
|               |                    |                        | 550           |                     |  |
|               |                    |                        | 555           |                     |  |
|               |                    |                        | 560           |                     |  |
|               |                    |                        | 565           |                     |  |
|               |                    |                        | 570           |                     |  |
|               |                    |                        | 575           |                     |  |
|               |                    |                        | 580           |                     |  |
|               |                    |                        | 585           |                     |  |
|               |                    |                        | 590           |                     |  |
|               |                    |                        | 595           |                     |  |
|               |                    |                        | 600           |                     |  |
|               |                    |                        | 605           |                     |  |
|               |                    |                        | 610           |                     |  |
|               |                    |                        | 615           |                     |  |
|               |                    |                        | 620           |                     |  |
|               |                    |                        | 625           |                     |  |
|               |                    |                        | 630           |                     |  |
|               |                    |                        | 635           |                     |  |
|               |                    |                        | 640           |                     |  |
|               |                    |                        | 645           |                     |  |
|               |                    |                        | 650           |                     |  |
|               |                    |                        | 655           |                     |  |
|               |                    |                        | 660           |                     |  |
|               |                    |                        | 665           |                     |  |
|               |                    |                        | 670           |                     |  |
|               |                    |                        | 675           |                     |  |
|               |                    |                        | 680           |                     |  |
|               |                    |                        | 685           |                     |  |
|               |                    |                        | 690           |                     |  |
|               |                    |                        | 695           |                     |  |
|               |                    |                        | 700           |                     |  |
|               |                    |                        | 705           |                     |  |
|               |                    |                        | 710           |                     |  |
|               |                    |                        | 715           |                     |  |
|               |                    |                        | 720           |                     |  |
|               |                    |                        | 725           |                     |  |
|               |                    |                        | 730           |                     |  |
|               |                    |                        | 735           |                     |  |
|               |                    |                        | 740           |                     |  |
|               |                    |                        | 745           |                     |  |
|               |                    |                        | 750           |                     |  |
|               |                    |                        | 755           |                     |  |
|               |                    |                        | 760           |                     |  |
|               |                    |                        | 765           |                     |  |
|               |                    |                        | 770           |                     |  |
|               |                    |                        | 775           |                     |  |
|               |                    |                        | 780           |                     |  |
|               |                    |                        | 785           |                     |  |
|               |                    |                        | 790           |                     |  |
|               |                    |                        | 795           |                     |  |
|               |                    |                        | 800           |                     |  |
|               |                    |                        | 805           |                     |  |
|               |                    |                        | 810           |                     |  |
|               |                    |                        | 815           |                     |  |
|               |                    |                        | 820           |                     |  |
|               |                    |                        | 825           |                     |  |
|               |                    |                        | 830           |                     |  |
|               |                    |                        | 835           |                     |  |
|               |                    |                        | 840           |                     |  |
|               |                    |                        | 845           |                     |  |
|               |                    |                        | 850           |                     |  |
|               |                    |                        | 855           |                     |  |
|               |                    |                        | 860           |                     |  |
|               |                    |                        | 865           |                     |  |
|               |                    |                        | 870           |                     |  |
|               |                    |                        | 875           |                     |  |
|               |                    |                        | 880           |                     |  |
|               |                    |                        | 885           |                     |  |
|               |                    |                        | 890           |                     |  |
|               |                    |                        | 895           |                     |  |
|               |                    |                        | 900           |                     |  |
|               |                    |                        | 905           |                     |  |
|               |                    |                        | 910           |                     |  |
|               |                    |                        | 915           |                     |  |
|               |                    |                        | 920           |                     |  |
|               |                    |                        | 925           |                     |  |
|               |                    |                        | 930           |                     |  |
|               |                    |                        | 935           |                     |  |
|               |                    |                        | 940           |                     |  |
|               |                    |                        | 945           |                     |  |
|               |                    |                        | 950           |                     |  |
|               |                    |                        | 955           |                     |  |
|               |                    |                        | 960           |                     |  |
|               |                    |                        | 965           |                     |  |
|               |                    |                        | 970           |                     |  |
|               |                    |                        | 975           |                     |  |
|               |                    |                        | 980           |                     |  |
|               |                    |                        | 985           |                     |  |
|               |                    |                        | 990           |                     |  |
|               |                    |                        | 995           |                     |  |
|               |                    |                        | 1000          |                     |  |

# BORING LOG B-5

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 35 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIYE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 17            | 48.4               | 62                     | 0             |                     | ALKALINE MATERIAL (magnesia), white, moist to wet, stiff                           |
| 66            | 30.0               | 63                     | 2             |                     | at 2 feet, some silty sand, gray-brown   |
| 50/5"         | -                  | -                      | 5             |                     | SANDSTONE, red-orange and light brown, highly weathered, friable, highly fractured |
|               |                    |                        | 6             |                     | Boring terminated at 6 feet.<br>No free water encountered.                         |
|               |                    |                        | 10            |                     |  |
|               |                    |                        | 15            |                     |  |
|               |                    |                        | 20            |                     |  |

# BORING LOG B-6

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 23-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 25            | 33.4               | 75                     | 1/2           |                     | ALKALINE MATERIAL (magnesia), white, dry to moist, very stiff               |
| 24            | 39.                | 67                     | 1/2           |                     | at 1/2 foot, mottled gray-brown and white, moist, trace medium-grained sand |
| 13            | 30.                | 75                     | 5             |                     | at 5 feet, sandy silt, gray-brown, moist, stiff, white alkaline material    |
| 22            | 33.2               | 60                     | 10            |                     |   |
|               |                    |                        | 13-1/2        |                     | at 13-1/2 feet, more silt   |
|               |                    |                        | 15            |                     | from 15 to 15-1/2 feet, clayey silt   |
| 37            | 33.7               | 87                     | 17-1/2        |                     | from 17-1/2 to 18 feet, some gypsum   |
|               |                    |                        | 18            | CL                  | SILTY CLAY, dark brown, moist, very stiff                                   |
|               |                    |                        | 20            |                     | Boring terminated at 19 feet.<br>No free water encountered.                 |

# BORING LOG B-7

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 28-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 16            | 33.3               | 79                     | 1-1/2         |                     | ALKALINE MATERIAL (magnesia), gray-brown and white, moist, stiff, some gypsum |
| 28            | 25.4               | 83                     |               |                     | at 1-1/2 feet, more silt, trace fine to medium gravel                         |
|               |                    |                        | 2-1/2         |                     | at 2-1/2 feet, some sand  |
| 11            | 32.5               | 79                     |               |                     | 5   |
| 15            | 31.8               | 75                     | 10            |                     | at 10 feet, gray-white, stiff   |
| 21            | 26.6               | 85                     | 15            | CL                  | SILTY CLAY, dark brown, wet, stiff  |
|               |                    |                        |               |                     | ALKALINE MATERIAL (magnesia), gray-white, moist, stiff                        |
|               |                    |                        |               | CL                  | SILTY CLAY, dark brown  |
|               |                    |                        | 20            |                     | Boring terminated at 20 feet.<br>No free water encountered.                   |

# BORING LOG B-8

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 15 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 26            | 28.5               | 70                     | 0             | M L                 | SANDY SILT, tan, moist, very stiff with alkaline material                 |
| 65            | 41.1               | 68                     | 68            | M L                 | ALKALINE MATERIAL (magnesia), gray white                                  |
|               |                    |                        | 5             | M L                 | SANDY SILT, tan, moist, hard  |
| 14            | 76.9               | 48                     | 5             |                     | ALKALINE MATERIAL (magnesia), white, wet, stiff,                          |
|               |                    |                        | 6-1/2         | M L                 | SANDY SILT, brown, saturated, stiff                                       |
|               |                    |                        | 10            |                     | Boring terminated at 6-1/2 feet.<br>Free water encountered at 6-1/2 feet. |
|               |                    |                        | 15            |                     |   |
|               |                    |                        | 20            |                     |   |

# BORING LOG B-9

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-27-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 37 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 72            | 18.1               | 94                     | 94            |                     | ALKALINE MATERIAL (magnesia), mottled off-white and white, dry, hard                           |
| 29            | 31.0               | 78                     | 78            |                     |  |
|               |                    |                        | 70            | S M                 | SILTY SAND, light brown, dry, very stiff, fine to medium-grained,                              |
| 46            | 43.9               | 63                     | 5             |                     | ALKALINE MATERIAL (magnesia), off-white and white, dry to moist, hard,<br>gypsum at 5-1/2 feet |
| 28            | 51.8               | 59                     | 10            |                     |  |
| 50/5"         | -                  | -                      | 15            |                     | SILTSTONE, dry, highly weathered, friable, highly fractured                                    |
|               |                    |                        | 16-1/2        |                     | Boring terminated at 16-1/2 feet.<br>No free water encountered.                                |
|               |                    |                        | 20            |                     |  |

# BORING LOG B-10

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-27-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 33-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 20            | 31.8               | 76                     | 0             |                     | ALKALINE MATERIAL (magnesia), white, moist, stiff, below 1/2 foot, red-brown and white |
| 15            | 40.8               | 69                     | 1             |                     | below 2 feet, white  |
| 59/9"         | 35.0               | 76                     | 5             |                     | below 6 feet, white and tan, wet, gray, hard   |
|               |                    |                        | 7             | CL                  | SILTY CLAY, dark brown, moist with gravel  |
|               |                    |                        | 10            |                     | Boring terminated at 7 feet.<br>No free water encountered.                             |
|               |                    |                        | 15            |                     |  |
|               |                    |                        | 20            |                     |  |
|               |                    |                        | 25            |                     |  |

# BORING LOG

B-11

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-27-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 32-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB:** 140 **HEIGHT OF FALL - IN:** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 73            | 25.0               | 76                     |               | M L                 | ALKALINE MATERIAL (magnesia), gray-white, moist, hard,                                     |
| 25            | 27.0               | 76                     |               |                     | SANDY SILT, mottled brown and dark brown, dry, hard with siltstone fragments               |
|               |                    |                        |               |                     | ALKALINE MATERIAL (magnesia), gray-white, moist, hard below 1-1/2 feet, white, very stiff  |
| 25            | 26.7               | 81                     | 5             |                     | below 5 feet, mottled white and gray<br>below 5-1/2 feet, white<br>below 6 feet, dark gray |
| 14            | 25.1               | 78                     | 10            | M L                 | SANDY SILT, brown, moist, stiff, trace fine gravel   |
|               |                    |                        |               |                     | ALKALINE MATERIAL (magnesia), mottled white, tan and green, moist, stiff                   |
| 45            | 35.2               | 71                     | 15            |                     | below 15 feet, off-white and white   |
| 2             |                    |                        | 20            | M L                 | CLAYEY SILT, brown, wet, very soft   |

# BORING LOG

B-11

JOB NUMBER: 1629.403

SHEET: 2 OF: 2

JOB NAME: FMC Site

DEPTH: 20 TO 21-1/2 feet

NOTES:

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 2             |                    |                        | 21            | M L                 | CLAYEY SILT, brown, wet, very soft                              |
|               |                    |                        | 25            |                     | Boring terminated at 21-1/2 feet.<br>No free water encountered. |
|               |                    |                        | 30            |                     |   |
|               |                    |                        | 35            |                     |   |
|               |                    |                        | 40            |                     |   |

# BORING LOG B-12

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-27-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 19 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 50/3"         | 30.4               | 60                     | 5             |                     | ALKALINE MATERIAL (magnesia), gray-white, moist, hard<br>below 1/2 foot, gray-brown, some fine-grained gravel<br><br>between 1-1/2 feet and 3 feet, hard |
| 28            | 47.6               | 64                     |               | M L                 | CLAYEY SILT, dark brown, moist, very stiff   |
|               |                    |                        | 10            |                     | Boring terminated at 7-1/2 feet.<br>No free water encountered.   |
|               |                    |                        | 15            |                     |  |
|               |                    |                        | 20            |                     |  |

# BORING LOG B-13

**JOB NUMBER:** 1629.403      **DATE DRILLED:** 3-27-98  
**JOB NAME:** FMC Site      **SURFACE ELEVATION:** 12-1/2 feet  
**DRILL RIG:** Hollow Auger      **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample      **DRIVE WEIGHT - LB** 140      **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 8             | 31.5               | 60                     | 2-1/2         |                     | ALKALINE MATERIAL (magnesia), gray-white, dry<br><br>below 2-1/2 feet, white, medium stiff, some medium-grained sand |
| 36            | 35.9               | 80                     | 8-1/2         | CL                  | SILTY CLAY, black, moist to wet, very stiff  |
|               |                    |                        | 10            |                     | Boring terminated at 8-1/2 feet.<br>No free water encountered.   |
|               |                    |                        | 15            |                     |  |
|               |                    |                        | 20            |                     |  |

# BORING LOG B-14

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-27-98  
**JOB NAME:** FMC Site **SURFACE ELEVATION:** 25 feet  
**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 41            | 32.3               | 76                     | 1             |                     | ALKALINE MATERIAL (magnesia), light gray, moist, very stiff<br>below 1-1/2 feet, hard       |
| 77            | 33.6               | 80                     | 1.5           |                     |   |
| 95/<br>11"    | 37.4               | 74                     | 5             |                     |   |
| 81            | 37.9               | 76                     | 10            |                     | at 10 feet, orange veinlet<br>below 10-1/2 feet, light gray and white<br>below 11 feet, tan |
| 13            | 51.6               | 64                     | 15            |                     | below 15 feet, white, wet<br><br>below 16 feet, speckled black and white                    |
| 50/1"         | -                  | -                      | 20            |                     | SANDSTONE, brown, highly weathered, friable, highly fractured                               |

# BORING LOG

B-14

**JOB NUMBER:** 1629.403

**SHEET:** 2 **OF:** 2

**JOB NAME:** FMC Site

**DEPTH:** 20 **TO** 20-1/2 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 50/1"         | -                  | -                      | 0             |                     | SANDSTONE, brown, highly weathered, friable, highly fractured              |
|               |                    |                        | 25            |                     | Boring terminated at 20-1/2 feet.<br>No free water encountered at 18 feet. |
|               |                    |                        | 30            |                     |  |
|               |                    |                        | 35            |                     |  |
|               |                    |                        | 40            |                     |  |
|               |                    |                        |               |                     |  |
|               |                    |                        |               |                     |  |
|               |                    |                        |               |                     |  |
|               |                    |                        |               |                     |  |
|               |                    |                        |               |                     |  |
|               |                    |                        |               |                     |  |

# BORING LOG

B-15

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-27-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 20-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 21            | 35.5               | 66                     | 0             | ML                  | CLAYEY SILT, gray-brown  |
|               |                    |                        | 5             |                     | ALKALINE MATERIAL (magnesia), white, moist, stiff              |
| 48            | -                  |                        | 8             | CL                  | SILTY CLAY, orange-brown, moist to wet, very stiff             |
|               |                    |                        | 10            |                     | Boring terminated at 8-1/2 feet.<br>No free water encountered. |
|               |                    |                        | 15            |                     |  |
|               |                    |                        | 20            |                     |  |
|               |                    |                        | 25            |                     |  |

# BORING LOG

B-16

**JOB NUMBER:** 1629.403      **DATE DRILLED:** 3-27-98

**JOB NAME:** FMC Site      **SURFACE ELEVATION:** 32-1/2 feet

**DRILL RIG:** Hollow Auger      **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample      **DRIVE WEIGHT - LB** 140      **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
|               |                    |                        | 0             |                     | ALKALINE MATERIAL (magnesia), white, moist, stiff              |
| 16            | -                  | -                      | 3             | M L                 | SANDY SILT, dark brown, moist, stiff, siltstone fragments      |
|               |                    |                        | 5             |                     | Boring terminated at 3-1/2 feet.<br>No free water encountered. |
|               |                    |                        | 6             |                     |  |
|               |                    |                        | 7             |                     |  |
|               |                    |                        | 8             |                     |  |
|               |                    |                        | 9             |                     |  |
|               |                    |                        | 10            |                     |  |
|               |                    |                        | 11            |                     |  |
|               |                    |                        | 12            |                     |  |
|               |                    |                        | 13            |                     |  |
|               |                    |                        | 14            |                     |  |
|               |                    |                        | 15            |                     |  |
|               |                    |                        | 16            |                     |  |
|               |                    |                        | 17            |                     |  |
|               |                    |                        | 18            |                     |  |
|               |                    |                        | 19            |                     |  |
|               |                    |                        | 20            |                     |  |

# **APPENDIX B**

## **Laboratory Test Results**



**RJ Lee Group, Inc.**  
 530 McCormick Street, San Leandro, CA 94577  
 Tel: (510) 567-0480 | Fax: (510) 567-0488

# Laboratory Report

Report Date: 10/4/2007  
 Sample Receipt Date: 9/27/2007  
 RJ Lee Group Job No: AOC709243  
 Project location: Cargill / Newark CA  
 Authorization/P.O. No: 2914.101  
 Client Job No./Name: 2914.101

Berlogar Geotechnical Consultants  
 5587 Sunol Boulevard  
 Pleasanton, CA 94566  
 Attention: Mr. Bill Stevens  
 Telephone: 925-484-0220

Determination of Asbestos Content of Serpentine Aggregate

Method: CARB 435

| RJLG Sample Number | Client Sample Number | Description       | Asbestos Detected(%) | Non-Asbestos Fibers(%) | Non-Fibrous Materials(%) | Matrix Material           | Analyst - Analysis Date |
|--------------------|----------------------|-------------------|----------------------|------------------------|--------------------------|---------------------------|-------------------------|
| 2805369.HPL #1     |                      | Blue/Green Gravel | 0.25 CH              | 5.00 W                 | 94.75                    | Q, CL, B, G, MI, M        | TEM-10/4/2007           |
| 2805370.HPL #2     |                      | Gray Soil         | 3.00 CH              | -                      | 97.00                    | Q, CA, CL, B, G, M        | TEM-10/3/2007           |
| 2805371.HPL #3     |                      | Gray Soil         | 1.00 CH              | -                      | 99.00                    | Q, CA, CL, B, G, M        | TEM-10/3/2007           |
| 2805372.HPL #4     |                      | Beige Soil        | 0.75 CH              | -                      | 99.25                    | Q, CL, B, OP, M           | TEM-10/3/2007           |
| 2805373.HPL #5     |                      | Blue/Green Soil   | 1.25 CH              | -                      | 98.75                    | Q, CA, CL, B, F, OP, G, M | TEM-10/3/2007           |
| 2805374.HPL #6     |                      | Blue/Green Soil   | 6.25 CH              | -                      | 93.75                    | Q, CA, CL, B, OP, G, M    | TEM-10/3/2007           |
| 2805375.HPL #7     |                      | Gray/Brown Soil   | 1.75 CH              | -                      | 98.25                    | Q, CA, CL, B, F, OP, G, M | TEM-10/3/2007           |
| 2805376.HPL #8     |                      | Blue/Green Soil   | 0.50 CH              | -                      | 99.50                    | Q, CA, CL, B, F, OP, G, M | TEM-10/3/2007           |

**Laboratory Report (cont.)**

**RJ-Lee Group, Inc.**

RJ Lee Group Job No: AOC709243

Client Job No./Name: 2914.101

| RJLG Sample Number | Client Sample Number | Description     | Asbestos Detected(%) | Non-Asbestos Fibers(%) | Non-Fibrous Materials(%) | Matrix Material           | Analyst - Analysis Date |
|--------------------|----------------------|-----------------|----------------------|------------------------|--------------------------|---------------------------|-------------------------|
| 2805377.HPL #9     |                      | Blue/Green Soil | 0.75 CH              |                        | 99.25                    | Q, CA, Cl, B, F, OP, G, M | TEM-10/3/2007           |
| 2805378.HPL #10    |                      | Blue/Green Soil | 0.75 CH              | <1 CE                  | 99.25                    | CA, CL, B, F, OP, G, M    | TEM-10/3/2007           |

# RJ Lee Group, Inc.

Client Job No./Name: 2914.101

# Laboratory Report (cont.)

RJ Lee Group Job No: AOC709243

  
Tracy Mitchell, PLM Analyst

Authorized Signature

## ASBESTOS

AM = Amosite  
AC = Actinolite  
AN = Anthophyllite  
CH = Chrysotile  
CR = Crocidolite  
TR = Tremolite

## NON-ASBESTOS

CE = Cellulose  
MW = Mineral Wool  
FG = Fibrous Glass  
SF = Synthetic Fibers  
H = Hair  
W = Wollastonite  
OF = Other Fibers

## NON-FIBROUS MATERIALS

AM = Amphibole  
B = Binder  
CA = Carbonates  
CL = Clay  
F = Feldspar  
G = Gypsum  
HY = Hydromagnesite  
M = Miscellaneous  
MI = Mica  
OP = Opaque  
OR = Organic  
P = Perlite  
Q = Quartz  
T = Tar  
V = Vermiculite

## DISCLAIMER NOTES

- "ND" indicates no asbestos was detected in the sample portion analyzed; the method detection limit is 0.25%.
- "Trace" or "<0.25" indicates asbestos was identified in the sample portion analyzed, but at a concentration of less than the detection limit of 0.25%. PLM coefficients of variance range from approximately 1.8 at the detection limit of 0.25% to 0.1 at high fiber concentrations.
- Samples are archived for three months following analysis and are then properly discarded.
- These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which these results are used or interpreted.
- This test report relates to the items tested.
- This report is not valid unless it bears the name of a NVLAP-approved signatory.
- Any reproduction of this document must be in full in order for the report to be valid.
- This report may not be used to claim product endorsement by NVLAP, any agency of the U.S. Government or any other laboratory accrediting agency.
- Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar nonfriable or granitically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as "non-asbestos-containing."
- Sample(s) for this project were analyzed at our: San Leandro, CA (NVLAP #101208-2) facility.
- If RJ Lee Group, Inc. did not collect the samples analyzed, the verifiability of the laboratory's results are limited to the reported values.

# RJLeeGroup, Inc. Sample Transmittal Form

|   |                                  |   |
|---|----------------------------------|---|
| Company: <u>Berlogar Geotechnical</u><br>Address: <u>5587 Sunol Boulevard</u><br><u>Pleasanton CA 94566</u><br>Attn: <u>BILL STEVENS</u><br>Phone: <u>925-484-0220</u> Fax: <u>925-846-9645</u> | Analysis Type<br><br>PLM<br>BULK | Turn Around Time<br><input type="checkbox"/> 8 Hours<br><input type="checkbox"/> 24 Hours<br><input checked="" type="checkbox"/> 72 Hours<br><input checked="" type="checkbox"/> 3-5 Days |
| Special Instructions: <u>CARB 43</u>  |                                  |   |

|  |                             |
|--|-----------------------------|
| PO Number: _____                             | Job Number: <u>2914.101</u> |
| Project Name/Location: <u>CARGILL/NEWARK</u> | Date: <u>9/27/07</u>        |
| Sampled By: <u>BILL STEVENS</u>              |                             |

|                       |  |
|-----------------------|--|
| Date: <u>9/27/07</u>  | Description: <u>DARK BLUE GREEN GRAVEL</u>           |
| Sample ID: _____      | Location: <u>CARGILL</u>                             |
| Date: <u>9/27/07</u>  | Description: <u>BLUE GREEN WEATHERED GRAVEL</u>      |
| Sample ID: <u># 2</u> | Location: <u>CARGILL</u>                             |
| Date: <u>9/27/07</u>  | Description: <u>Blue Green weathered Gravel</u>      |
| Sample ID: <u># 3</u> | Location: <u>CARGILL</u>                             |
| Date: <u>9/27/07</u>  | Description: <u>GRAY BROWN GRAVEL w/ TRACE SILT</u>  |
| Sample ID: <u># 4</u> | Location: <u>CARGILL</u>                             |
| Date: <u>9/27/07</u>  | Description: <u>DARK BLUE GREEN WEATHERED GRAVEL</u> |
| Sample ID: <u># 5</u> | Location: <u>CARGILL</u>                             |
| Date: <u>9/27/07</u>  | Description: <u>BLUE GREEN GRAVEL</u>                |
| Sample ID: <u># 6</u> | Location: <u>CARGILL</u>                             |
| Date: <u>9/27/07</u>  | Description: <u>GRAY/BROWN GRAVEL/SILT MIXTURE</u>   |
| Sample ID: <u># 7</u> | Location: <u>CARGILL</u>                             |
| Date: <u>9/27/07</u>  | Description: <u>DARK BLUE GREEN WEATHERED GRAVEL</u> |
| Sample ID: <u># 8</u> | Location: <u>CARGILL</u>                             |

| Date | Time | Relinquished By | Company | Received By        | Company    | Date        | Time       |
|------|------|-----------------|---------|--------------------|------------|-------------|------------|
|      |      |                 |         | <u>[Signature]</u> | <u>RTI</u> | <u>9/27</u> | <u>245</u> |
|      |      |                 |         |                    |            |             |            |
|      |      |                 |         |                    |            |             |            |

Samples Accepted:  Yes  No

Reason Rejected: \_\_\_\_\_

10000 Normick Street, San Leandro, CA 94577 Phone: (510) 567-0488

ADD 104245

# RJLeeGroup, Inc. Sample Transmittal Form

|  |                 |  |
|--|-----------------|--|
| Company: <u>Berloger Geotechnical</u>                              | Analysis Type   | Turn Around Time                             |
| Address: <u>5587 Suroi Boulevard</u><br><u>Pleasanton CA 94506</u> | PLM<br>BULK     | <input type="checkbox"/> 8 Hours             |
| Attn: <u>BILL STEVENS</u>  |                 | <input type="checkbox"/> 24 Hours            |
| Phone: <u>925-484-0220</u> Fax: <u>925-846-9645</u>                |                 | <input checked="" type="checkbox"/> 72 Hours |
| Special Instructions: <u>925</u>                                   | <u>PARB 435</u> | <input checked="" type="checkbox"/> 3-5 Days |

PO Number: \_\_\_\_\_ Job Number: 2914.101

Project Name/Location: CARGILL / NEWARK

Sampled By: BILL STEVENS Date: 9/27/07

|                       |  |
|-----------------------|--|
| Date: <u>9/27/07</u>  | Description: <u>DARK BLUE GREEN GRAVEL</u> |
| Sample ID: <u>#9</u>  | Location: <u>CARGILL</u>                   |
| Date: <u>9/27/07</u>  | Description: <u>DARK BLUE GREEN GRAVEL</u> |
| Sample ID: <u>#10</u> | Location: <u>CARGILL</u>                   |
| Date:                 | Description:                               |
| Sample ID:            | Location:                                  |
| Date:                 | Description:                               |
| Sample ID:            | Location:                                  |
| Date:                 | Description:                               |
| Sample ID:            | Location:                                  |
| Date:                 | Description:                               |
| Sample ID:            | Location:                                  |
| Date:                 | Description:                               |
| Sample ID:            | Location:                                  |
| Date:                 | Description:                               |
| Sample ID:            | Location:                                  |

### Chain of Custody:

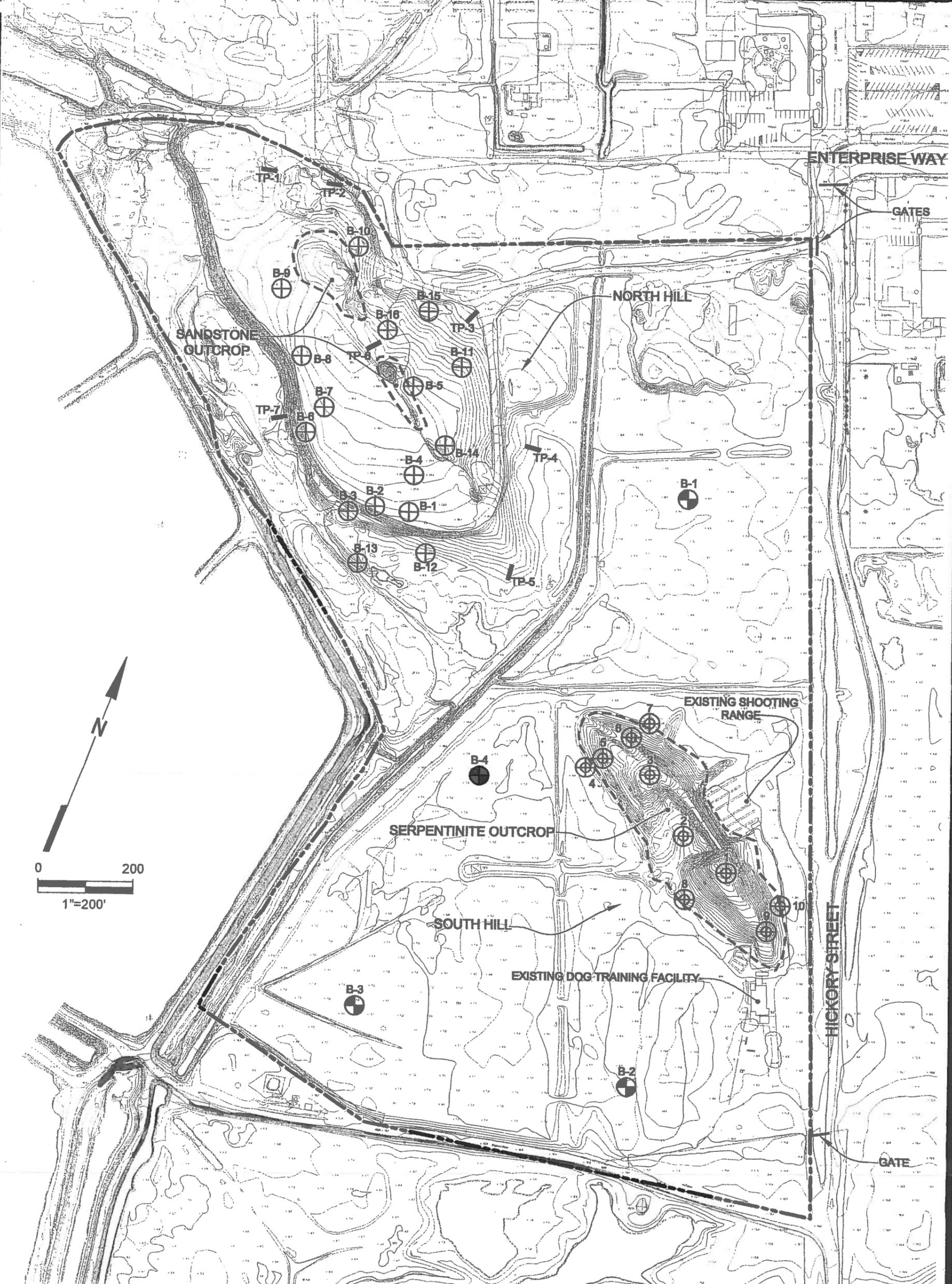
| Date | Time | Relinquished By | Company | Received By | Company      | Date        | Time        |
|------|------|-----------------|---------|-------------|--------------|-------------|-------------|
|      |      |                 |         |             | <u>RJLee</u> | <u>9/27</u> | <u>2:00</u> |
|      |      |                 |         |             |              |             |             |
|      |      |                 |         |             |              |             |             |

Samples Accepted:  Yes  No

Reason Rejected: \_\_\_\_\_

RJLee Group, Inc. 167-0488

JOB NUMBER: 2914.101 DATE: 10-1-07 DRAWN BY: CC CHECKED BY:



**EXPLANATION**

-  LIMITS OF HILL PARCEL
-  10 APPROXIMATE ROCK/SOIL BULK SAMPLE LOCATION (BGC, THIS STUDY)
-  TP-7 APPROXIMATE TEST PIT LOCATION (BGC, THIS STUDY)
-  B-4 APPROXIMATE BORING LOCATION (BGC, 2006)
-  B-15 APPROXIMATE BORING LOCATION (BGC, 1998)

**SITE PLAN**

HILL PARCEL NOA STUDY  
 ENTERPRISE DRIVE AND HICKORY STREET  
 NEWARK, CALIFORNIA  
 FOR  
 CARGILL SALT  
 Berlogar Geotechnical Consultants  
 SOIL ENGINEERS \* ENGINEERING GEOLOGISTS

Via E-Mail and Mail

Cargill Hill Parcel  
Serpentine

November 9, 2007

Job No. 2914.101

RECEIVED BY

NOV 13 2007

LAND DEPT.

**BGC**  
BERLOGAR  
GEOTECHNICAL  
CONSULTANTS



Ms. Penny Streff  
Cargill Salt  
7220 Central Avenue  
Newark, California 94560

Subject: Addendum to Naturally Occurring Asbestos Investigation  
Design and Construction Considerations  
Hill Parcel of the Cargill Salt Property  
Southwest Corner of Enterprise Drive and Hickory Street  
Newark, California

Dear Ms. Streff:

Berlogar Geotechnical Consultants prepared a Naturally Occurring Asbestos Investigation report dated October 12, 2007. The results of that study indicate that the north hill does not contain naturally occurring asbestos, whereas the south hill area is composed of serpentine bedrock that contains naturally occurring asbestos above the action limit of 0.25 percent. We are providing design and construction considerations for both the south and the north hill areas if this site were to be developed.

The following provides our recommended soil cover thickness for various structures constructed within about 100 feet of the serpentinite rock outcrop. The minimum soil cover thickness may need to be increased to extend deeper than a majority of the underground utilities in the building pad and footing bottoms. This would reduce the potential of having to handle NOA material during trenching.

1. Detached Single Family Residences – We recommend a minimum 3-foot soil cover in building pad areas, extending at least 5 feet beyond the building perimeter. Deed restrictions will be required (such as not allowing swimming pools) if there is less than 10-feet of soil cover over the serpentinite with NOA.
2. Podium Type Multi-Unit Residential Structures – We recommend a minimum 2-foot thick soil cover even though the regulations do not require a soil cover.
3. Other Commercial or Industrial Developments – A 2-foot thick soil cover is recommended though soil cover is not required.
4. Pavement and Concrete Hardscape – As long as the NOA material is covered to prevent airborne dust after construction, a soil cover is not required.
5. Landscape Areas – we recommend 2 feet of cover in landscape areas.

Prior to construction, an application from the Bay Area Air Quality Management District is required for projects over 1-acre in size. Dust control and an NOA air monitoring program will be required.

November 9, 2007

Job No. 2914.101

Page 2

In essence, the site should be maintained in a wet condition to prevent airborne dust. The soil must be wetted during grading and trenching operations.

Overexcavation and removal of NOA material is recommended for utility corridors. The overexcavation zone should extend at least 1 foot below the utility pipes.

The site is underlain by soil and hard bedrock. As such, different foundations for structures should be expected.

1. In areas underlain by soil, we anticipate shallow foundations with low allowable bearing pressures. Heavy structures may need to be supported on a deep foundation system, such as piers or piles.
2. In areas underlain by bedrock, including serpentinite, shallow foundations with higher allowable bearing capacities is expected.
3. For buildings straddling the contact between soil and bedrock, we recommend the foundations for the portion of the building on soil be extended to bedrock. Hence, these structures would be entirely supported in serpentinite. Depending on the size of the structure, deep foundations may be required to achieve this.

We hope this provides the necessary information. If you have any questions, please contact Frank Berlogar or Bill Stevens at (925) 484-0220. It has been a pleasure providing professional geotechnical services to Cargill Salt.

Respectfully submitted,

**BERLOGAR GEOTECHNICAL CONSULTANTS**

  
William R. Stevens  
Principal Geotechnical Engineer  
GE 2339, Exp. 3/31/08



  
Frank Berlogar

WRS/KJR/FB:jmb

Copies: Addressee (2)

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*Cargill-Serpentine*

3001-003175

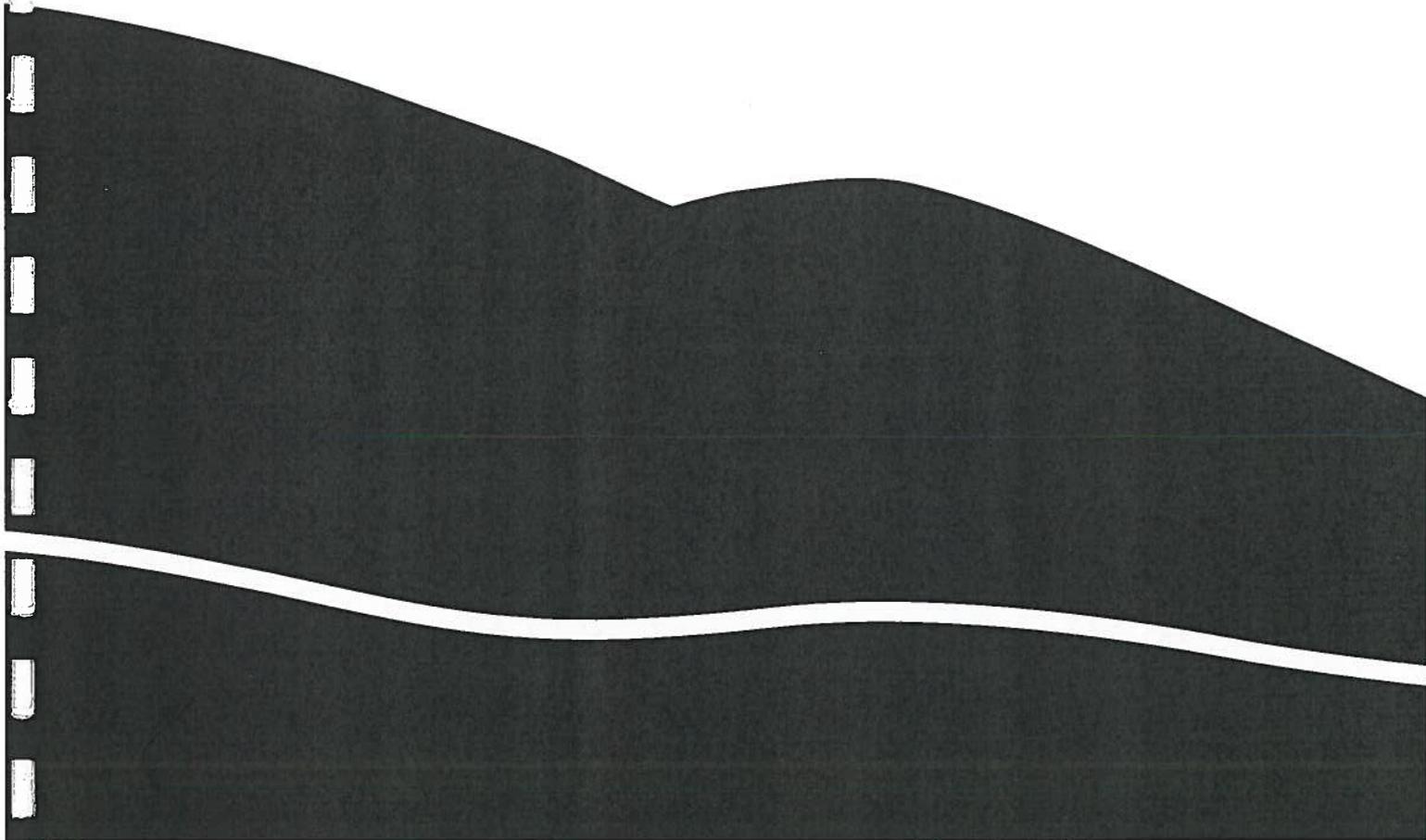
# BGC

**BERLOGAR  
GEOTECHNICAL  
CONSULTANTS**

SOIL ENGINEERS  
ENGINEERING GEOLOGISTS

NATURALLY OCCURRING  
ASBESTOS INVESTIGATION  
HILL PARCEL OF THE CARGILL SALT PROPERTY  
SOUTHWEST CORNER OF ENTERPRISE DRIVE  
AND HICKORY STREET  
NEWARK, CALIFORNIA

FOR  
CARGILL SALT  
October 12, 2007



NATURALLY OCCURRING  
ASBESTOS INVESTIGATION  
HILL PARCEL OF THE CARGILL SALT PROPERTY  
SOUTHWEST CORNER OF ENTERPRISE DRIVE  
AND HICKORY STREET  
NEWARK, CALIFORNIA

FOR  
CARGILL SALT  
October 12, 2007

Job No. 2914.101

October 12, 2007  
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**BGC**  
BERLOGAR  
GEOTECHNICAL  
CONSULTANTS



Ms. Penny Streff  
Cargill Salt  
7220 Central Avenue  
Newark, California 94560

Subject: Naturally Occurring Asbestos Investigation  
Hill Parcel of the Cargill Salt Property  
Southwest Corner of Enterprise Drive and Hickory Street  
Newark, California

Dear Ms. Streff:

This report presents the results of our investigation to determine the possible presence of naturally occurring asbestos (NOA) within and around near-surface bedrock outcrops at the subject site. The location of the site is shown with respect to existing cultural features on the Vicinity Map, Plate 1. The site is located in the southwest corner of Enterprise Drive and Hickory Street in Newark, California. This area is designated as the Hill Parcel, which contains 2 rock outcrops, called the north and south outcrops. This report is based on requirements as interpreted from verbal conversations with Cargill personnel.

### **PURPOSE AND SCOPE OF SERVICES**

The purpose of this investigation was to investigate the potential for naturally-occurring asbestos within possible shallow Serpentinite bedrock at the site. Our study did not investigate the potential of encountering NOA deeper more than about 10 feet below the ground surface in the surrounding flatter portions of the site. Our scope of services included:

1. Review of published maps and literature pertinent to the site and vicinity,
2. Site reconnaissance,
3. Excavating and logging of 7 test pits and collection of 10 surface soil and bedrock samples,
4. Laboratory testing (Carb 435) of serpentinite bedrock and nearby soil samples by RJ Lee Group, Inc.,
5. Preparation of this report.

### **FIELD EXPLORATION AND LABORATORY TESTING**

Our field exploration was conducted on September 13 and 27, 2007. A reconnaissance was performed by a BGC geologist and engineer on the 13th, and field sampling and test pit excavations occurred on September 27. The test pit locations were determined by our geologist and engineer

during the site reconnaissance on the basis of possible locations of encountering serpentinite. Subsurface information from BGC studies conducted in 1998 and 2006 (Berlogar Geotechnical Consultants, Preliminary Geotechnical Investigation, Hill Parcel, Enterprise Drive and Hickory Street, Newark, California, December 12, 2006) were reviewed and the boring logs are contained in this report. The test pits were excavated with a backhoe, and representative near-surface soil and bedrock samples were obtained manually. The locations of the recent test pits and surface samples, and the borings performed in 1998 and 2006, are shown on the Site Plan, Plate 2. The test pits were located on the northern rock outcrop and were excavated to depths of about 7 to 14 feet below the existing ground surface. Materials encountered in the test pits were logged, and the logs are presented on Plates 3 and 4. The test pits were backfilled with no significant compactive effort at the end of logging.

Surface soil and bedrock samples were obtained from the southern rock outcrop and were transported to a State of California certified laboratory, RJ Lee Group, Inc., in San Leandro, California with proper Chain of Custody procedures to test for potential NOA. The results of the laboratory tests are contained in Appendix B. Serpentinite bedrock was not encountered in the northern rock outcrop area; as such, laboratory tests were not performed on soil and bedrock samples from this area.

## **REGIONAL GEOLOGY**

The site is located within the Coast Ranges geomorphic province of California. The Coast Ranges are characterized by a series of northwest-trending folded and faulted mountain chains and valleys. In the site vicinity, the Coyote Hills form a northwest-trending ridgeline of Cretaceous-aged Franciscan Complex bedrock that is surrounded by younger alluvium that was deposited around the flanks of the San Francisco Bay. The Franciscan Complex bedrock generally includes sandstone, shale, greenstone, and ultramafic rocks. The ultramafic rocks commonly alter to serpentine minerals through metamorphic conditions. The site is located to the south of the southern end of the Coyote Hills where two relatively small bedrock outcrops protrude out of the alluvium. The outcrops at the site are a southeastern extension of the Coyote Hills rocks and have been mapped as serpentinite by the U.S. Geological Survey (Helley and Miller 1992).

## **SITE CONDITIONS**

### **SURFACE CONDITIONS**

The northern rock outcrop study area is approximately 1,000 feet long in the north-south direction and 500 feet wide. Fill up to about 25 feet thick has been placed on the west side of the outcrop. The western side slopes down towards flatter ground and is a couple hundred feet from a salt pond. Rock outcrops are visible along the central and eastern sides of this area, as shown on Plate 2. The surrounding areas have been disturbed by past grading, but are essentially flat with elevations between 8 to 15 feet in elevation. The top of the rock outcrop and fill area is generally at about 30 feet mean sea level.

The southern study area contains a rock outcrop of serpentinite that is about 700 feet long in the north-south direction and about 200 feet wide. This rock outcrop contains 2 high points that are about 35 feet MSL. A shooting range is located on the east side of the rock outcrop, and a dog training facility is located on the south side. The central portion of the outcrop has been mass graded and a berm for the shooting range has been constructed. The surrounding areas are flat and at about 8 to 10 feet MSL.

## **SUBSURFACE CONDITIONS**

### **NORTH HILL**

The material encountered in the test pits was a mixture of clayey and silty gravel, silty clay, sandy clay, and clayey sand. Sandstone and claystone bedrock were encountered in 5 of the 7 test pits. Where bedrock was not encountered, the test pits extended to 14 feet in depth (2 feet and -5 feet MSL), without encountering serpentinite type material. Since serpentinite type material was not encountered in this area, samples of soil or rock were not obtained for laboratory testing for NOA.

### **SOUTH HILL**

The rock outcrop is composed of serpentinite, with silty sand material around the outcrop. The serpentinite extends to depths which are unknown. Ten surficial samples of soil and bedrock were obtained from this area as shown on the site plan. Samples were obtained from bedrock and from the surrounding soil areas. The samples were placed in plastic bags and sealed, and transported to RJ Lee for Carb 435 testing.

The Carb 435 test results by RJ Lee Group indicate that NOA is present in concentrations ranging between 0.25 to 6.25 percent. The source of the asbestos was determined to be chrysotile, which is a mineral variation of serpentine.

### **GROUNDWATER**

Groundwater was not encountered in the test pits except some minor seepage. BGC's previous studies indicate the groundwater level is at or near MSL. Groundwater is expected to be controlled by tidal influence in this area and weather conditions.

## **CONCLUSIONS AND RECOMMENDATIONS**

The results of our field and laboratory study indicate that the north hill does not contain serpentinite (and therefore should not contain naturally occurring asbestos). The south hill area is composed of serpentine bedrock that contains naturally occurring asbestos. The concentration of NOA was above the action limit of 0.25 percent in all 10 samples, including the nearby soil just downslope of the rock outcrop. As such, the area of the rock outcrop and extending at least 100 feet away from the rock outcrop in all directions should be considered to contain possible state-regulated concentrations of NOA. At such time as the site is to be modified or developed, all earthmoving and trenching should be performed in compliance with regulatory requirements then in effect.

**LIMITATIONS**

The conclusions and recommendations of this report are based upon the information provided to us, subsurface conditions encountered at the field exploration locations, our site reconnaissance, and professional judgment. This study has been conducted in accordance with current professional geotechnical engineering and engineering geologic standards; no other warranty is expressed or implied.

The locations of the field explorations were determined by field estimating from topographic and cultural features indicated on a topographic map supplied by Cargill Salt, and are to be considered approximate only. Site conditions are described in the text as they were observed during our field work in the fall of 2007, and are not necessarily representative of such conditions at other locations and times.

Respectfully submitted,

**BERLOGAR GEOTECHNICAL CONSULTANTS**



William R. Stevens  
Principal Geotechnical Engineer  
GE 2339, Exp. 3/31/08



Frank Berlogar  
President

WRS/KJR/FB:jmb

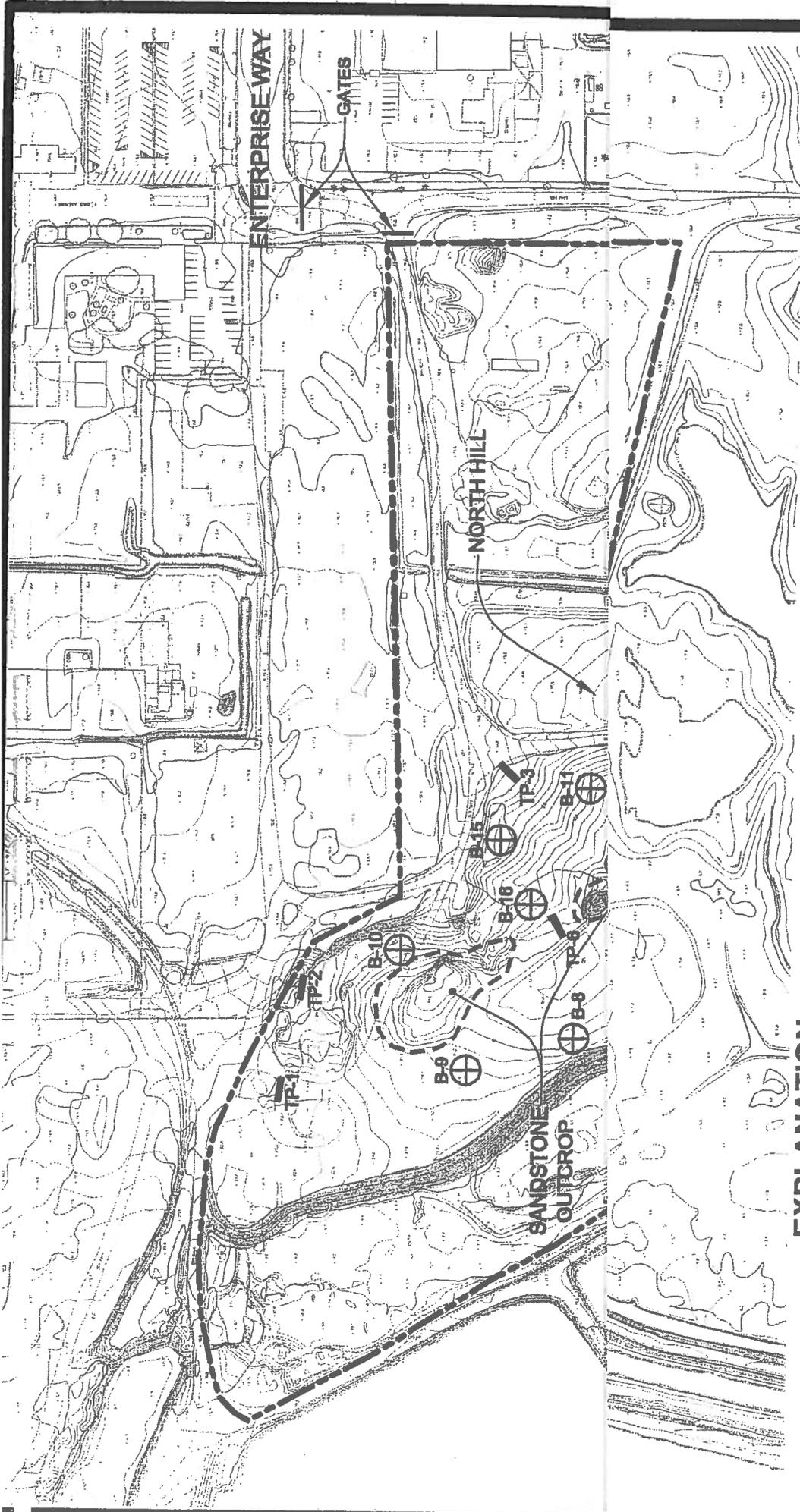
**Attachments:**

- Plate 1 – Vicinity Map
- Plate 2 – Site Plan
- Plates 3 and 4 – Test Pit Logs
- Appendix A – Borings B1 through B4, BGC 2006 and B1 through B16, 1998
- Appendix B – Laboratory Test Results

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**EXPLANATION**

- LIMITS OF HILL PARCEL
- 10 APPROXIMATE ROCK/SOIL BULK SAMPLE LOCATION (BGC, THIS STUDY)
- TP-7 APPROXIMATE TEST PIT LOCATION (BGC, THIS STUDY)
- B-4 APPROXIMATE BORING LOCATION (BGC, 2006)
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**SITE PLAN**

HILL PARCEL NOA STUDY  
 ENTERPRISE DRIVE AND HICKORY STREET  
 NEWARK, CALIFORNIA  
 FOR  
 CARGILL SALT

Berlogar Geotechnical Consultants  
 SOIL ENGINEERS \* ENGINEERING GEOLOGISTS

**TEST PIT LOGS – 9/27/07**

| <u>Test Pit Number</u> | <u>Depth (feet)</u> | <u>Description</u>  |
|------------------------|---------------------|---|
| TP-1<br>Elev. 23 feet  | 0 – 2               | Clayey Gravel, gray-brown, moist, medium dense, with sand, trace roots, concrete and brick fragments, well-graded sand and gravel (FILL).   |
|                        | 2 – 6               | Silty Clay, dark gray-brown, moist, very stiff.   |
|                        | 6 – 7               | SANDSTONE, fine-grained, reddish-brown, weathered, fractured, moderately strong to weak, some oxidation staining. Top of Sandstone at 17-feet elevation                                 |
|                        |                     | Total Depth 7 feet<br>No free groundwater encountered   |
| TP-2<br>Elev. 19 feet  | 0 – 1½              | Silty Gravel, gray-brown, dry, loose, trace brick fragments, some magnesium concretions (FILL).   |
|                        | 1½ – 3              | SANDSTONE, fine-grained, tan, weathered, slightly fractured, moderately strong, some oxidation staining. Top of Sandstone at 17-foot elevation.   |
|                        |                     | Total Depth 3 feet<br>No free groundwater encountered   |
| TP-3<br>Elev. 14 feet  | 0 – 8               | Silty Clay, dark gray, moist, stiff, some medium fine sand, trace gravel and asphalt concrete fragments, trace rootlets, sod, wood fragments and light brown and black mottling (FILL). |
|                        | 8 – 12              | Silty Clay, olive-brown, moist, stiff, slightly porous, trace oxidation, staining. No bedrock above 2-feet elevation.   |
|                        |                     | Total Depth 12 feet<br>No free groundwater encountered  |
| TP-4<br>Elev. 11 feet  | 0 – 2               | Clayey Gravel, tan, slightly moist to dry, dense, trace rootlets, wood fragments (FILL).  |
|                        | 2 – 10              | Sandy Clay, brown to reddish brown, moist, stiff, trace gravel.   |
|                        | 10 – 11             | CLAYSTONE, reddish-brown, highly weathered, weak, moist, some oxidation staining.   |
|                        | 11 – 12             | SANDSTONE, fine-grained, tan, highly weathered, friable, moist with some oxidation staining.  |
|                        |                     | Total Depth 12 feet<br>No free groundwater encountered  |

TEST PIT LOGS – 9/27/07

| <u>Test Pit Number</u> | <u>Depth (feet)</u>  | <u>Description</u>  |
|------------------------|--|---|
| TP-5<br>Elev. 12 feet  | 0 – 2  | Silty Gravel, tan, moist to dry, some sand and magnesium concretions.   |
|                        | 2 – 6  | Silty Clay, dark gray-brown, moist, stiff.  |
|                        | 6 – 7  | SANDSTONE, fine-grained, reddish brown, highly weathered, highly fractured, friable to weak, some oxidation staining. Top of sandstone at 6-foot elevation.             |
|                        |  | Total Depth 7 feet<br>No free groundwater encountered   |
| TP-6<br>Elev. 29 feet  | 0 – 2  | Silty Gravel, gray-brown, slightly moist to dry, dense, fine to medium gravel, trace concrete fragments (FILL).   |
|                        | 2 – 12   | Sandy Clay, dark gray-brown, moist, stiff, some gravel, trace concrete fragments, wood and plastic (FILL).  |
|                        | 12 – 14  | SANDSTONE, fine-grained, reddish-brown, highly weathered, friable to weak, highly fractured, oxidation staining along fractures. Top of sandstone at 17-foot elevation. |
| TP-7<br>Elev. 9 feet   | 0 – 1  | Sandy Clay, dark gray-brown, moist, medium stiff, trace magnesium concretions (FILL).   |
|                        | 1 – 4  | Silty Clay, dark gray-brown, moist, stiff, trace fine sand.   |
|                        | 4 – 8  | Clayey Silt, olive-brown, moist, medium stiff, trace oxidation staining, slightly porous.   |
|                        | 8 – 12   | Clayey Sand, olive-brown, moist, medium dense, trace oxidation staining, fine sand.   |
|                        | 12 – 14  | Sandy Clay, red-brown, very moist, stiff, fine-grained sand, trace oxidation staining. No bedrock above -5 feet elevation.  |
|                        | Total Depth 14 feet<br>Trace groundwater seepage at 9 feet |   |

# **APPENDIX A**

**Boring Logs –**

**Borings B1 through B4, BGC 2006 and  
B1 through B16, BGC 1998**

# BORING LOG B-1

**JOB NUMBER:** 2914.100 **DATE DRILLED:** 7-13-06

**JOB NAME:** Hill Parcel **SURFACE ELEVATION:** 8 feet

**DRILL RIG:** Rotary Wash **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel **DRIYE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30\*

\*Automatic Trip Hammer

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
|               |                    |                        |               | CL                  | SANDY CLAY with abundant GRAVEL, light gray-brown, dry to damp, stiff (fill)              |
| 20            | 18.7               | 106                    |               | CL                  | SILTY CLAY, dark gray, damp, stiff, rootlets  |
|               |                    |                        |               | CL                  | SILTY CLAY, yellow-brown, moist, stiff, gray rootlets                                     |
| 16            | 21.0               | 106                    | 5             |                     |   |
|               |                    |                        |               | CL                  | SANDY CLAY, yellow-brown, saturated, medium stiff, fine-grained sand                      |
| 6             | 24.3               | 101                    | 10            |                     |   |
|               |                    |                        |               | CL/ML               | SANDY CLAY/CLAYEY SILT, yellow-brown, moist to saturated, medium stiff, fine-grained sand |
| 7             | 26.8               | 95                     | 15            |                     |   |
|               |                    |                        |               | CL                  | SILTY CLAY, green-gray, moist, stiff  |
| 10            | 32.9               | 86                     | 20            |                     |   |

# BORING LOG

B-1

**JOB NUMBER:** 2914.100

**SHEET:** 2 **OF:** 2

**JOB NAME:** Hill Parcel

**DEPTH:** 20 feet **TO** 30-1/2 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 42            | 21.4               | 106                    | 25            | CL                  | SILTY CLAY, green-gray, moist, stiff<br><br>below 23 feet, hard                      |
| 21            | -                  | -                      | 30            | CL                  | SILTY CLAY, yellow-brown, moist, very stiff, minor carbonate                         |
|               |                    |                        | 35            |                     | Boring terminated at 30-1/2 feet<br>Groundwater obscured by rotary wash drill method |
|               |                    |                        | 40            |                     |  |

# BORING LOG

B-2

**JOB NUMBER:** 2914.100 **DATE DRILLED:** 7-14-06

**JOB NAME:** Hill Parcel **SURFACE ELEVATION:** 8 feet

**DRILL RIG:** Rotary Wash **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel **DRIVE WEIGHT - LB:** 140 **HEIGHT OF FALL - IN:** 30\*  
 \*Automatic Trip Hammer

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 20            | -                  | -                      | 0             | CL                  | SANDY CLAY, dark gray-brown, moist, stiff, fine-grained sand, rootlets                                     |
| 11            | 20.2               | 100                    | 5             | CL                  | SILTY CLAY, light gray-brown, wet, stiff, some fine-grained sand, trace fine gravel at 4 feet, clayey sand |
| 9             | 21.1               | 107                    | 10            | CL                  | SILTY CLAY/SANDY CLAY, brown, saturated, medium stiff to stiff, fine-grained sand                          |
| 24            | 20.6               | 101                    | 15            | CL/SC               | SANDY CLAY/CLAYEY SAND, brown, saturated, very stiff/medium dense, fine-grained sand, some silt            |
| 11            | -                  | -                      | 20            | CL                  | SILTY CLAY, light gray-brown, saturated, stiff   |
| 11            | -                  | -                      | 20            | SM                  | SILTY SAND, light gray-brown, saturated, loose, fine-grained sand, some clay                               |

# BORING LOG

B-2

**JOB NUMBER:** 2914.100

**SHEET:** 2 **OF:** 2

**JOB NAME:** Hill Parcel

**DEPTH:** 20 feet **TO** 34-1/2 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 27            | 31.8               | 91                     | 24            | SM                  | SILTY SAND, light gray-brown, saturated, loose, fine-grained sand, some clay         |
|               |                    |                        | 25            | CL                  | SILTY CLAY, light gray to dark gray, saturated, very stiff                           |
| 31            | 21.1               | 106                    | 26            | CL                  | SILTY CLAY, brown, saturated, very stiff to hard, trace fine-grained sand            |
|               |                    |                        | 29            | CL                  | SILTY CLAY/SANDY CLAY, brown, saturated, stiff, fine-grained sand, some silt         |
| 11            | 22.4               | 111                    | 34            |                     |  |
|               |                    |                        | 35            |                     | Boring terminated at 34-1/2 feet<br>Groundwater obscured by rotary wash drill method |
|               |                    |                        | 40            |                     |  |

# BORING LOG B-3

**JOB NUMBER:** 2914.100 **DATE DRILLED:** 7-14-06

**JOB NAME:** Hill Parcel **SURFACE ELEVATION:** 7 feet

**DRILL RIG:** Rotary Wash **DATUM:** Mean Sea Level

|   |                          |                            |
|---|--------------------------|----------------------------|
| <b>SAMPLER TYPE:</b>  | <b>DRIVE WEIGHT - LB</b> | <b>HEIGHT OF FALL - IN</b> |
| <input type="checkbox"/> 2.5 inch I.D. Split Barrel           | 140                      | 30*                        |
| <input checked="" type="checkbox"/> Standard Penetration Test | 140                      | 30*                        |
|   |                          | *Automatic Trip Hammer     |

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 24            | 14.8               | 112                    | 0             | CL                  | SANDY CLAY, dark gray to light gray-brown, moist, very stiff, fine-grained sand, trace rootlets |
| 15            | 22.5               | 104                    | 5             | CL                  | SILTY CLAY, light gray-brown, moist to wet, stiff   |
| 23            | 18.8               | 110                    | 10            |                     | below 9 feet, very stiff, trace coarse gravel   |
| 6             | -                  | -                      | 15            | CL/SC               | SANDY CLAY/CLAYEY SAND, brown, saturated, loose to medium stiff                                 |
| 17            | 23.9               | 99                     | 20            | SM/ML               | SILTY SAND/SANDY SILT, light gray-brown, saturated, loose to medium dense, fine-grained sand    |
|               |                    |                        | 20            | CL                  | SILTY CLAY, light gray-brown, saturated, stiff  |

# BORING LOG

B-3

**JOB NUMBER:** 2914.100

**SHEET:** 2 **OF:** 3

**JOB NAME:** Hill Parcel

**DEPTH:** 20 feet **TO** 40 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 17            | 23.9               | 99                     |               | CL                  | SILTY CLAY, light gray-brown, saturated, stiff  |
|               |                    |                        |               | CL                  | SILTY CLAY, gray, saturated, very stiff to hard                                       |
| 35            | 27.9               | 95                     | 25            |                     |   |
|               |                    |                        |               | CL                  | SILTY CLAY, brown with light gray mottling, saturated, hard                           |
| 54            | 19.0               | 109                    | 30            |                     |   |
|               |                    |                        |               | CL                  | SILTY CLAY, light gray-brown, saturated, stiff, some fine-grained sand, trace caliche |
| 16            | 26.4               | 99                     | 35            |                     |   |
|               |                    |                        |               |                     | below 38 feet, very stiff   |
| 35            | 22.4               | 105                    | 40            |                     |   |

# BORING LOG

B-3

**JOB NUMBER:** 2914.100

**SHEET:** 3 **OF:** 3

**JOB NAME:** Hill Parcel

**DEPTH:** 40 feet **TO** 50-1/2 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 35            | 22.4               | 105                    | 45            | CL                  | SILTY CLAY, light gray-brown, saturated, very stiff, some fine-grained sand, trace caliche    |
| 27            | 29.0               | 93                     |               | SP/GP               | below 44 feet, trace black mottling   |
| 48            | -                  | -                      | 50            | SP/GP               | SAND/GRAVEL, gray-brown, saturated, dense, fine-to coarse-grained sand, fine to coarse gravel |
|               |                    |                        | 55            |                     | Boring terminated at 50-1/2 feet<br>Groundwater obscured by rotary wash drill method          |
|               |                    |                        | 60            |                     |   |

# BORING LOG B-4

**JOB NUMBER:** 2914.100 **DATE DRILLED:** 7-14-06

**JOB NAME:** Hill Parcel **SURFACE ELEVATION:** 7 feet

**DRILL RIG:** Rotary Wash **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30\*

\*Automatic Trip Hammer

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 26            | 20.2               | 101                    | 4.5           | CL                  | SANDY CLAY/SILTY CLAY, dark gray, moist, very stiff, fine-grained sand, trace caliche                       |
| 25            | 19.9               | 109                    | 5.5           | CL                  | SILTY CLAY, light gray-brown, moist, very stiff   |
| 12            | -                  | -                      | 7.5           |                     | below 7 feet, stiff   |
|               |                    |                        | 10            | CL/SC               | SANDY CLAY/CLAYEY SAND, light gray-brown, saturated, medium stiff, loose to medium dense, fine-grained sand |
| 9             | -                  | -                      | 13            | SM/SC               | SILTY SAND/CLAYEY SAND, brown, saturated, loose, fine-grained sand  |
|               |                    |                        | 15            | CL/ML               | SANDY CLAY/SILTY CLAY/CLAYEY SILT, brown, saturated, medium stiff to stiff, fine-grained sand               |
| 17            | 18.2               | 109                    | 19.5          | CL                  | SILTY CLAY, dark brown to light gray-brown, saturated, stiff, some fine-grained sand                        |

# BORING LOG

B-4

**JOB NUMBER:** 2914.100

**SHEET:** 2 **OF:** 2

**JOB NAME:** Hill Parcel

**DEPTH:** 20 feet **TO** 30 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 56            | 27.1               | 98                     | 25            | CL                  | SILTY CLAY, dark brown to light gray-brown, saturated, stiff, some fine-grained sand |
|               |                    |                        |               | CL                  | SILTY CLAY, light gray-brown, saturated, hard, some bedrock structure                |
| 60            | 24.7               | 101                    | 30            | CL                  | SILTY CLAY with GRAVEL, saturated, hard, fine-gravel                                 |
|               |                    |                        | 35            |                     | Boring terminated at 30 feet<br>Groundwater obscured by rotary wash drill method     |
|               |                    |                        | 40            |                     |  |

# BORING LOG B-1

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 49-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:**  2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 24            | 21.8               | 83                     | 5             |                     | ALKALINE MATERIAL ( magnesia), mottled gray-white and gray, very stiff, some gypsum |
| 33            | 22.7               | 78                     |               |                     |   |
| 22            | 28.5               | 77                     |               |                     | at 5 feet, becomes dark gray<br>at 5-1/2 feet, rust veinlet                         |
| 37            | 34.2               | 58                     | 10            | ML                  | SANDY SILT, brown, moist, very stiff, yellow-white alkaline material                |
|               |                    |                        |               |                     | ALKALINE MATERIAL (magnesia), gray-white, moist, very stiff                         |
| 11            | 35.2               | 71                     | 15            | SW                  | SAND, light brown, moist, loose, medium grained                                     |
|               |                    |                        |               |                     | ALKALINE MATERIAL (megnesia), gray-white, moist                                     |
| 35            | 23.5               | 85                     | 20            | ML                  | SANDY SILT, gray-brown, moist, medium stiff   |

# BORING LOG

B-1

**JOB NUMBER:** 1629.403

**SHEET:** 2 **OF:** 2

**JOB NAME:** FMC Site

**DEPTH:** 20 feet **TO** 25-1/2 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 35            | 23.5               | 85                     | 25            | M L                 | SANDY SILT, gray-brown, moist, medium stiff                                    |
|               |                    |                        |               |                     | ALKALINE MATERIAL (magnesia), gray-white and yellow-white, moist, medium stiff |
| 50/3"         | -                  | -                      | 25            |                     | SILTSTONE, red-brown, highly weathered, friable, highly fractured              |
|               |                    |                        | 30            |                     | Boring terminated at 25-1/2 feet.<br>No free water encountered.                |
|               |                    |                        | 35            |                     |  |
|               |                    |                        | 40            |                     |  |
|               |                    |                        |               |                     |  |

# BORING LOG B-2

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 44-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:**  2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 50            | 21.8               | 81                     | 0             | M L                 | SANDY SILT, gray, moist, hard, alkaline material  |
| 50/3"         | 23.1               | 74                     | 1             |                     | ALKALINE MATERIAL (magnesia), mottled gray and white, moist, hard, trace sand           |
| 14            | 20.0               | 70                     | 5             |                     | at 5 feet, mottled white and orange-white, stiff<br>at 5-1/2 feet, white                |
| 19            | 19.7               | 75                     | 10            |                     |   |
| 38            | 17.1               | 74                     | 15            |                     | at 15 feet, siltstone fragments<br>at 15-1/2 feet, white, very stiff, trace fine gravel |
| 41            | 24.1               | 75                     | 20            |                     |   |

# BORING LOG

B-2

**JOB NUMBER:** 1629.403

**SHEET:** 2 **OF:** 2

**JOB NAME:** FMC Site

**DEPTH:** 20 feet **TO** 21-1/2 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 41            | 24.1               | 75                     |               |                     | ALKALINE MATERIAL (magnesia), white, moist, very stiff, trace fine gravel |
|               |                    |                        |               | CL                  | SILTY CLAY, dark brown, moist, very stiff                                 |
|               |                    |                        | 25            |                     | Boring terminated at 21-1/2 feet.<br>No free water encountered.           |
|               |                    |                        |               |                     |   |
|               |                    |                        |               |                     |   |
|               |                    |                        |               |                     |   |
|               |                    |                        | 30            |                     |   |
|               |                    |                        |               |                     |   |
|               |                    |                        |               |                     |   |
|               |                    |                        |               |                     |   |
|               |                    |                        | 35            |                     |   |
|               |                    |                        |               |                     |   |
|               |                    |                        |               |                     |   |
|               |                    |                        | 40            |                     |   |

# BORING LOG B-3

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 40-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 21            | 23.7               | 76                     | 0             |                     | ALKALINE MATERIAL (magnesia), gray-white, moist, stiff<br><br>at 6 feet, gypsum<br><br>at 10 feet, becomes white<br><br>at 15 feet, becomes gray-white |
| 17            | 23.2               | 65                     | 1             |                     |  |
| 13            | 25.3               | 69                     | 5             |                     |  |
| 14            | 26.7               | 61                     | 10            |                     |  |
| 20            | 30.0               | 61                     | 15            |                     |  |
| 58            | 22.5               | 70                     | 20            |                     |  |

# BORING LOG

B-3

**JOB NUMBER:** 1629.403

**SHEET:** 2 **OF:** 2

**JOB NAME:** FMC Site

**DEPTH:** 20 feet **TO** 31 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 58            | 22.5               | 70                     | 20            |                     | ALKALINE MATERIAL (magnesia), gray-white, moist, stiff<br><br>at 20 feet, becomes hard, wood debris and gypsum |
| 22            | 26.3               | 72                     | 25            |                     | at 25 feet, very stiff   |
| 32            | 53.3               | 59                     | 30            | CL                  | SILTY CLAY, dark brown, moist, very stiff  |
|               |                    |                        | 35            |                     | Boring terminated at 31 feet.<br>No free water encountered.  |
|               |                    |                        | 40            |                     |  |

# BORING LOG B-4

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 52-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 50/5"         | 18.1               | 102                    | 5             | ML                  | SANDY SILT, gray-brown, dry to moist, hard   |
| 76            | 30.9               | 79                     | 7             | ML                  | ALKALINE MATERIAL (magnesia), gray-white, moist, hard,<br>some silt<br>CLAYEY SILT, dry red, moist |
| 76            | 21.6               | 85                     | 5             | CL                  | ALKALINE MATERIAL (magnesia), mottled gray-white, dark gray and red, moist, hard                   |
|               |                    |                        | 5             | CL                  | SILTY CLAY, dark brown, moist  |
|               |                    |                        | 10            |                     | Boring terminated at 7 feet.<br>No free water encountered.   |
|               |                    |                        | 15            |                     |  |
|               |                    |                        | 20            |                     |  |
|               |                    |                        | 25            |                     |  |

# BORING LOG B-5

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 35 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 17            | 48.4               | 62                     | 0             |                     | ALKALINE MATERIAL (magnesia), white, moist to wet, stiff                           |
| 66            | 30.0               | 63                     | 2             |                     | at 2 feet, some silty sand, gray-brown   |
| 50/5"         | -                  | -                      | 5             |                     | SANDSTONE, red-orange and light brown, highly weathered, friable, highly fractured |
|               |                    |                        | 6             |                     | Boring terminated at 6 feet.<br>No free water encountered.                         |
|               |                    |                        | 10            |                     |  |
|               |                    |                        | 15            |                     |  |
|               |                    |                        | 20            |                     |  |

# BORING LOG

B-6

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 23-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 25            | 33.4               | 75                     |               |                     | ALKALINE MATERIAL (magnesia), white, dry to moist, very stiff<br><br>at 1/2 foot, mottled gray-brown and white, moist, trace medium-grained sand |
| 24            | 39.1               | 67                     |               |                     |  |
| 13            | 30.1               | 75                     | 5             |                     | at 5 feet, sandy silt, gray-brown, moist, stiff, white alkaline material   |
| 22            | 33.2               | 60                     | 10            |                     |  |
|               |                    |                        | 15            |                     | at 13-1/2 feet, more silt<br><br>from 15 to 15-1/2 feet, clayey silt   |
| 37            | 33.7               | 87                     |               |                     | from 17-1/2 to 18 feet, some gypsum  |
|               |                    |                        |               | CL                  | SILTY CLAY, dark brown, moist, very stiff  |
|               |                    |                        | 20            |                     | Boring terminated at 19 feet.<br>No free water encountered.  |

# BORING LOG B-7

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 28-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 16            | 33.3               | 79                     |               |                     | ALKALINE MATERIAL (magnesia), gray-brown and white, moist, stiff, some gypsum     |
| 28            | 25.4               | 83                     |               |                     | at 1-1/2 feet, more silt, trace fine to medium gravel<br>at 2-1/2 feet, some sand |
| 11            | 32.5               | 79                     | 5             |                     | at 5 feet, medium stiff   |
| 15            | 31.8               | 75                     | 10            |                     | at 10 feet, gray-white, stiff   |
| 21            | 26.6               | 85                     | 15            | CL                  | SILTY CLAY, dark brown, wet, stiff  |
|               |                    |                        |               |                     | ALKALINE MATERIAL (magnesia), gray-white, moist, stiff                            |
|               |                    |                        |               | CL                  | SILTY CLAY, dark brown  |
|               |                    |                        | 20            |                     | Boring terminated at 20 feet.<br>No free water encountered.                       |

# BORING LOG

B-8

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-26-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 15 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 26            | 28.5               | 70                     | 0             | M L                 | SANDY SILT, tan, moist, very stiff with alkaline material                 |
| 65            | 41.1               | 68                     | 2             | M L                 | ALKALINE MATERIAL (magnesia), gray white                                  |
|               |                    |                        | 3             | M L                 | SANDY SILT, tan, moist, hard  |
| 14            | 76.9               | 48                     | 5             |                     | ALKALINE MATERIAL (magnesia), white, wet, stiff,                          |
|               |                    |                        | 6             | M L                 | SANDY SILT, brown, saturated, stiff                                       |
|               |                    |                        | 6.5           |                     | Boring terminated at 6-1/2 feet.<br>Free water encountered at 6-1/2 feet. |
|               |                    |                        | 10            |                     |   |
|               |                    |                        | 15            |                     |   |
|               |                    |                        | 20            |                     |   |

# BORING LOG

B-9

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-27-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 37 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 72            | 18.1               | 94                     | 0             |                     | ALKALINE MATERIAL (magnesia), mottled off-white and white, dry, hard                           |
| 29            | 31.0               | 78                     | 5             | S M                 | SILTY SAND, light brown, dry, very stiff, fine to medium-grained,                              |
| 46            | 43.9               | 63                     | 5             |                     | ALKALINE MATERIAL (magnesia), off-white and white, dry to moist, hard,<br>gypsum at 5-1/2 feet |
| 28            | 51.8               | 59                     | 10            |                     |  |
| 50/5"         | -                  | -                      | 15            |                     | SILTSTONE, dry, highly weathered, friable, highly fractured                                    |
|               |                    |                        | 20            |                     | Boring terminated at 16-1/2 feet.<br>No free water encountered.                                |

# BORING LOG B-10

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-27-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 33-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 20            | 31.8               | 76                     | 0             |                     | ALKALINE MATERIAL (magnesia), white, moist, stiff, below 1/2 foot, red-brown and white |
| 15            | 40.8               | 69                     | 1             |                     |  |
| 59/9"         | 35.0               | 76                     | 5             |                     | below 2 feet, white  |
|               |                    |                        | 6             |                     | below 6 feet, white and tan, wet, gray, hard   |
|               |                    |                        | 7             | CL                  | SILTY CLAY, dark brown, moist with gravel  |
|               |                    |                        | 10            |                     | Boring terminated at 7 feet.<br>No free water encountered.                             |
|               |                    |                        | 15            |                     |  |
|               |                    |                        | 20            |                     |  |
|               |                    |                        | 25            |                     |  |

# BORING LOG B-11

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-27-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 32-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 73            | 25.0               | 76                     |               | ML                  | ALKALINE MATERIAL (magnesia), gray-white, moist, hard,  |
| 25            | 27.0               | 76                     |               |                     | SANDY SILT, mottled brown and dark brown, dry, hard with siltstone fragments  |
| 25            | 26.7               | 81                     | 5             |                     | ALKALINE MATERIAL (magnesia), gray-white, moist, hard below 1-1/2 feet, white, very stiff<br><br>below 5 feet, mottled white and gray<br>below 5-1/2 feet, white<br>below 6 feet, dark gray |
| 14            | 25.1               | 78                     | 10            | ML                  | SANDY SILT, brown, moist, stiff, trace fine gravel  |
| 45            | 35.2               | 71                     | 15            |                     | ALKALINE MATERIAL (magnesia), mottled white, tan and green, moist, stiff<br><br>below 15 feet, off-white and white  |
| 2             |                    |                        | 20            | ML                  | CLAYEY SILT, brown, wet, very soft  |

# BORING LOG

**JOB NUMBER:** 1629.403

B-11

**JOB NAME:** FMC Site

**SHEET:** 2 **OF:** 2

**NOTES:**

**DEPTH:** 20 **TO** 21-1/2 feet

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 2             |                    |                        | 20            | M L                 | CLAYEY SILT, brown, wet, very soft                              |
|               |                    |                        | 25            |                     | Boring terminated at 21-1/2 feet.<br>No free water encountered. |
|               |                    |                        | 30            |                     |   |
|               |                    |                        | 35            |                     |   |
|               |                    |                        | 40            |                     |   |
|               |                    |                        |               |                     |   |

# BORING LOG

B-12

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-27-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 19 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 50/3"         | 30.4               | 60                     | 5             |                     | ALKALINE MATERIAL (magnesia), gray-white, moist, hard<br>below 1/2 foot, gray-brown, some fine-grained gravel<br>between 1-1/2 feet and 3 feet, hard |
| 28            | 47.6               | 64                     |               | M L                 | CLAYEY SILT, dark brown, moist, very stiff   |
|               |                    |                        | 10            |                     | Boring terminated at 7-1/2 feet.<br>No free water encountered.   |
|               |                    |                        | 15            |                     |  |
|               |                    |                        | 20            |                     |  |

# BORING LOG

B-13

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-27-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 12-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:**  2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 8             | 31.5               | 60                     | 2-1/2         |                     | ALKALINE MATERIAL (magnesia), gray-white, dry<br><br>below 2-1/2 feet, white, medium stiff, some medium-grained sand |
| 36            | 35.9               | 80                     | 8-1/2         | CL                  | SILTY CLAY, black, moist to wet, very stiff  |
|               |                    |                        | 8-1/2         |                     | Boring terminated at 8-1/2 feet.<br>No free water encountered.   |

# BORING LOG B-14

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-27-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 25 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION   |
|---------------|--------------------|------------------------|---------------|---------------------|---|
| 41            | 32.3               | 76                     | 0             |                     | ALKALINE MATERIAL (magnesia), light gray, moist, very stiff<br>below 1-1/2 feet, hard       |
| 77            | 33.6               | 80                     | 1             |                     |   |
| 95/<br>11"    | 37.4               | 74                     | 5             |                     |   |
| 81            | 37.9               | 76                     | 10            |                     | at 10 feet, orange veinlet<br>below 10-1/2 feet, light gray and white<br>below 11 feet, tan |
| 13            | 51.6               | 64                     | 15            |                     | below 15 feet, white, wet<br><br>below 16 feet, speckled black and white                    |
| 50/1"         | -                  | -                      | 20            |                     | SANDSTONE, brown, highly weathered, friable, highly fractured                               |

# BORING LOG

B-14

**JOB NUMBER:** 1629.403

**SHEET:** 2 **OF:** 2

**JOB NAME:** FMC Site

**DEPTH:** 20 **TO** 20-1/2 feet

**NOTES:**

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 50/1"         | -                  | -                      | 0             |                     | SANDSTONE, brown, highly weathered, friable, highly fractured              |
|               |                    |                        | 25            |                     | Boring terminated at 20-1/2 feet.<br>No free water encountered at 18 feet. |
|               |                    |                        | 30            |                     |  |
|               |                    |                        | 35            |                     |  |
|               |                    |                        | 40            |                     |  |
|               |                    |                        |               |                     |  |
|               |                    |                        |               |                     |  |
|               |                    |                        |               |                     |  |
|               |                    |                        |               |                     |  |
|               |                    |                        |               |                     |  |
|               |                    |                        |               |                     |  |

# BORING LOG B-15

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-27-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 20-1/2 feet

**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
| 21            | 35.5               | 66                     | 5             | M L                 | CLAYEY SILT, gray-brown<br>ALKALINE MATERIAL (magnesia), white, moist, stiff |
| 48            | -                  |                        | 8-1/2         | C L                 | SILTY CLAY, orange-brown, moist to wet, very stiff                           |
|               |                    |                        | 10            |                     | Boring terminated at 8-1/2 feet.<br>No free water encountered.               |
|               |                    |                        | 15            |                     |  |
|               |                    |                        | 20            |                     |  |

# BORING LOG B-16

**JOB NUMBER:** 1629.403 **DATE DRILLED:** 3-27-98

**JOB NAME:** FMC Site **SURFACE ELEVATION:** 32-1/2 feet

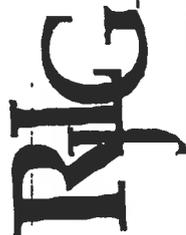
**DRILL RIG:** Hollow Auger **DATUM:** Mean Sea Level

**SAMPLER TYPE:** 2.5 inch I.D. Split Barrel Sample **DRIVE WEIGHT - LB** 140 **HEIGHT OF FALL - IN** 30

| BLOWS PER FT. | MOISTURE CONTENT % | DRY UNIT WEIGHT p.c.f. | DEPTH IN FEET | USCS CLASSIFICATION | DESCRIPTION  |
|---------------|--------------------|------------------------|---------------|---------------------|--|
|               |                    |                        | 5             |                     | ALKALINE MATERIAL (magnesia), white, moist, stiff              |
| 16            | -                  |                        | 3             | M L                 | SANDY SILT, dark brown, moist, stiff, siltstone fragments      |
|               |                    |                        | 10            |                     | Boring terminated at 3-1/2 feet.<br>No free water encountered. |
|               |                    |                        | 15            |                     |  |
|               |                    |                        | 20            |                     |  |
|               |                    |                        |               |                     |  |

## **APPENDIX B**

### **Laboratory Test Results**



Berlogar Geotechnical Consultants  
 5587 Sunol Boulevard  
 Pleasanton, CA 94566  
 Attention: Mr. Bill Stevens  
 Telephone: 925-484-0220

RJ Lee Group, Inc.  
 530 McCormick Street, San Leandro, CA 94577  
 Tel: (510) 567-0480 | Fax: (510) 567-0488

OCT. 4. 2007 8:26AM R J LEE GROUP INC

## Laboratory Report

Report Date 10/4/2007  
 Sample Receipt Date 9/27/2007  
 RJ Lee Group Job No AOC709243  
 Project location Cargill / Newark CA  
 Authorization/P.O. No. 2914.101  
 Client Job No./Name 2914.101

NO. 5692 P. 2

Determination of Asbestos Content of Serpentine Aggregate

Method: CARB 435

| RJLG Sample Number | Client Sample Number | Description       | Asbestos Detected(%) | Non-Asbestos Fibers(%) | Non-Fibrous Materials(%) | Matrix Material           | Analyst - Analysis Date |
|--------------------|----------------------|-------------------|----------------------|------------------------|--------------------------|---------------------------|-------------------------|
| 2805369.HPL #1     |                      | Blue/Green Gravel | 0.25 CH              | 5.00 W                 | 94.75                    | Q, CL, B, G, MI, M        | TEM-10/4/2007           |
| 2805370.HPL #2     |                      | Gray Soil         | 3.00 CH              | -                      | 97.00                    | Q, CA, CL, B, G, M        | TEM-10/3/2007           |
| 2805371.HPL #3     |                      | Gray Soil         | 1.00 CH              | -                      | 99.00                    | Q, CA, CL, B, G, M        | TEM-10/3/2007           |
| 2805372.HPL #4     |                      | Beige Soil        | 0.75 CH              | -                      | 99.25                    | Q, CL, B, OP, M           | TEM-10/3/2007           |
| 2805373.HPL #5     |                      | Blue/Green Soil   | 1.25 GH              | -                      | 98.75                    | Q, CA, CL, B, F, OP, G, M | TEM-10/3/2007           |
| 2805374.HPL #6     |                      | Blue/Green Soil   | 6.25 CH              | -                      | 93.75                    | Q, CA, CL, B, OP, G, M    | TEM-10/3/2007           |
| 2805375.HPL #7     |                      | Gray/Brown Soil   | 1.75 CH              | -                      | 98.25                    | Q, CA, CL, B, F, OP, G, M | TEM-10/3/2007           |
| 2805376.HPL #8     |                      | Blue/Green Soil   | 0.50 CH              | -                      | 99.50                    | Q, CA, CL, B, F, OP, G, M | TEM-10/3/2007           |

Laboratory report (cont.)

RJ Lee Group, Inc.

RJ Lee Group Job No: AOC709243

Client Job No./Name: 2914.101

OCT. 4. 2007 8:26AM R J LEE GROUP INC

NO. 5692 P. 3

| RJLG Sample Number | Client Sample Number | Description     | Asbestos Detected(%) | Non-Asbestos Fibers(%) | Non-Fibrous Materials(%) | Matrix Material           | Analyst - Analysis Date |
|--------------------|----------------------|-----------------|----------------------|------------------------|--------------------------|---------------------------|-------------------------|
| 2805377.HPL        | #9                   | Blue/Green Soil | 0.75 CH              |                        | 99.25                    | Q, CA, CL, B, F, OP, G, M | TEM-10/3/2007           |
| 2805378.HPL        | #10                  | Blue/Green Soil | 0.75 CH              | <1 CE                  | 99.25                    | CA, CL, B, F, OP, G, M    | TEM-10/3/2007           |

# RJ Lee Group, Inc.

Client Job No./Name: 2914.101

## Laboratory Report (cont.)

RJ Lee Group Job No: AOC709243

Authorized Signature  Tracy Mitchell, PLM Analyst

### ASBESTOS

AM = Amosite  
 AC = Actinolite  
 AN = Anthophyllite  
 CH = Chrysotile  
 CR = Crocidolite  
 TR = Tremolite

### NON-ASBESTOS

CE = Cellulose  
 MW = Mineral Wool  
 FG = Fibrous Glass  
 SF = Synthetic Fibers  
 H = Hair  
 W = Wollastonite  
 OF = Other Fibers

### NON-FIBROUS MATERIALS

AM = Amphibole  
 B = Binder  
 CA = Carbonates  
 CL = Clay  
 F = Feldspar  
 G = Gypsum

HV = Hydromagnesite  
 M = Miscellaneous  
 MI = Mica  
 OP = Opaque  
 OR = Organic  
 P = Perlite

Q = Quartz  
 T = Tar  
 V = Vermiculite

### DISCLAIMER NOTES

- "ND" indicates no asbestos was detected in the sample portion analyzed; the method detection limit is 0.25%.
- "Trace" or "<0.25" indicates asbestos was identified in the sample portion analyzed, but at a concentration of less than the detection limit of 0.25%. PLM coefficients of variance range from approximately 1.6 at the detection limit of 0.25% to 0.1 at high fiber concentrations.
- Samples are archived for three months following analysis and are then properly discarded.
- These results are submitted pursuant to RJ Lee Group's current terms and conditions of sale, including the company's standard warranty and limitation of liability provisions. No responsibility or liability is assumed for the manner in which these results are used or interpreted.
- This test report relates to the items tested.
- This report is not valid unless it bears the name of a NVLAP-approved signatory.
- Any reproduction of this document must be in full in order for the report to be valid.
- This report may not be used to claim product endorsement by NVLAP, any agency of the U.S. Government or any other laboratory accrediting agency.
- Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar nonfibrous organically bound materials. Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as "non-asbestos-containing."
- Sample(s) for this project were analyzed at our: San Leandro, CA (NVLAP #101208-2) facility.
- RJ Lee Group, Inc. did not collect the samples analyzed; the verifiability of the laboratory's results are limited to the reported values.

# RJLeeGroup, Inc. Sample Transmittal Form

|   |               |  |
|---|---------------|--|
| Company: <u>Barlogar Geotechnical</u>               | Analysis Type | Turn Around Time                             |
| Address: <u>5587 Sunol Boulevard</u>                | PLM<br>BULK   | <input type="checkbox"/> 8 Hours             |
| <u>Ducanston CA 94566</u>                           |               | <input type="checkbox"/> 24 Hours            |
| Attn: <u>BILL STEVENS</u>                           |               | <input checked="" type="checkbox"/> 72 Hours |
| Phone: <u>925-984-0226</u> Fax: <u>925-846-9641</u> |               | <input checked="" type="checkbox"/> 3-5 Days |
| Special Instructions: _____                         | CARB 435      |  |

|  |                             |
|--|-----------------------------|
| PO Number: _____                               | Job Number: <u>2914.101</u> |
| Project Name/Location: <u>CARGILL / NEWARK</u> | Date: <u>9/27/07</u>        |
| Sampled By: <u>BILL STEVENS</u>                |                             |

|                       |  |
|-----------------------|--|
| Date: <u>9/27/07</u>  | Description: <u>DARK BLUE GREEN GRAVEL</u>           |
| Sample ID: _____      | Location: <u>CARGILL</u>                             |
| Date: <u>9/27/07</u>  | Description: <u>BLUE GREEN WEATHERED GRAVEL</u>      |
| Sample ID: <u># 2</u> | Location: <u>CARGILL</u>                             |
| Date: <u>9/27/07</u>  | Description: <u>Blue Green weathered Gravel</u>      |
| Sample ID: <u># 3</u> | Location: <u>CARGILL</u>                             |
| Date: <u>9/27/07</u>  | Description: <u>GRAY BROWN GRAVEL w/ TRACE SILT</u>  |
| Sample ID: <u># 4</u> | Location: <u>CARGILL</u>                             |
| Date: <u>9/27/07</u>  | Description: <u>DARK BLUE GREEN WEATHERED GRAVEL</u> |
| Sample ID: <u># 5</u> | Location: <u>CARGILL</u>                             |
| Date: <u>9/27/07</u>  | Description: <u>BLUE GREEN GRAVEL</u>                |
| Sample ID: <u># 6</u> | Location: <u>CARGILL</u>                             |
| Date: <u>9/27/07</u>  | Description: <u>GRAY BROWN GRAVEL / SILT MIXTURE</u> |
| Sample ID: <u># 7</u> | Location: <u>CARGILL</u>                             |
| Date: <u>9/27/07</u>  | Description: <u>DARK BLUE GREEN WEATHERED GRAVEL</u> |
| Sample ID: <u># 8</u> | Location: <u>CARGILL</u>                             |

### Chain of Custody:

| Date | Time | Relinquished By | Company | Received By        | Company    | Date        | Time       |
|------|------|-----------------|---------|--------------------|------------|-------------|------------|
|      |      |                 |         | <u>[Signature]</u> | <u>RTI</u> | <u>9/27</u> | <u>240</u> |
|      |      |                 |         |                    |            |             |            |
|      |      |                 |         |                    |            |             |            |

Samples Accepted:  Yes  No

Reason Rejected: \_\_\_\_\_

R J L

RJLeeGroup, Inc. Sample Transmittal Form

|  |                |  |
|--|----------------|--|
| Company: <u>Berloger Geotechnical</u>                              | Analysis Type  | Turn Around Time                             |
| Address: <u>5587 Sando Boulevard</u><br><u>Pleasanton CA 94506</u> | PLM<br>BULK    | <input type="checkbox"/> 8 Hours             |
| Attn: <u>BILL STEVENS</u>  |                | <input type="checkbox"/> 24 Hours            |
| Phone: <u>925-484-0220</u> Fax: <u>925-846-9645</u>                |                | <input checked="" type="checkbox"/> 72 Hours |
| Special Instructions: <u>925</u>                                   | <u>ARB 435</u> | <input checked="" type="checkbox"/> 3-5 Days |

|  |                             |
|--|-----------------------------|
| PO Number: _____                               | Job Number: <u>2914.101</u> |
| Project Name/Location: <u>CARGILL / NEWARK</u> | Date: <u>9/27/07</u>        |
| Sampled By: <u>BILL STEVENS</u>                |                             |

|                       |  |
|-----------------------|--|
| Date: <u>9/27/07</u>  | Description: <u>DARK BLUE GREEN GRAVEL</u> |
| Sample ID: <u>#9</u>  | Location: <u>CARGILL</u>                   |
| Date: <u>9/27/07</u>  | Description: <u>DARK BLUE GREEN GRAVEL</u> |
| Sample ID: <u>#10</u> | Location: <u>CARGILL</u>                   |
| Date:                 | Description:                               |
| Sample ID:            | Location:                                  |
| Date:                 | Description:                               |
| Sample ID:            | Location:                                  |
| Date:                 | Description:                               |
| Sample ID:            | Location:                                  |
| Date:                 | Description:                               |
| Sample ID:            | Location:                                  |
| Date:                 | Description:                               |
| Sample ID:            | Location:                                  |
| Date:                 | Description:                               |
| Sample ID:            | Location:                                  |

Chain of Custody:

| Date | Time | Relinquished By | Company | Received By        | Company     | Date        | Time        |
|------|------|-----------------|---------|--------------------|-------------|-------------|-------------|
|      |      |                 |         | <u>[Signature]</u> | <u>PTCO</u> | <u>9/27</u> | <u>2400</u> |
|      |      |                 |         |                    |             |             |             |
|      |      |                 |         |                    |             |             |             |

Samples Accepted:  Yes  No  
 Reason Rejected: \_\_\_\_\_  
 11111 Normick Street, San Leandro, CA 94577 Phone: (510) 667-0488



**PHASE I  
ENVIRONMENTAL SITE ASSESSMENT**

**Cargill Parcel  
Newark, California**

This report has been prepared for:

**Dumbarton Area 2, LLC**  
3 San Joaquin Plaza, Suite 100  
Newport Beach, California 92660

August 30, 2011  
Project No. 186974

A handwritten signature in blue ink, appearing to read "Stason I. Foster".

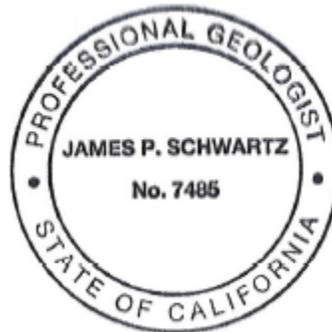
---

Stason I. Foster, P.E.  
Senior Project Engineer

A handwritten signature in blue ink, appearing to read "James P. Schwartz".

---

James P. Schwartz, P.G.  
Principal Geologist



*Expiration Date 4/30/12*



One Concord Center  
2300 Clayton Road, Suite 610  
Concord, CA 94520

925.688.1200 PHONE  
925.688.0388 FAX

www.TRCSolutions.com

August 30, 2011  
186974

Mr. Glenn Brown  
**DUMBARTON AREA 2, LLC**  
190 N. Wiget Lane, Suite 101  
Walnut Creek, California 94598

**RE: PHASE I ENVIRONMENTAL SITE  
ASSESSMENT  
CARGILL PARCEL  
NEWARK, CALIFORNIA  
UNION CITY, CALIFORNIA**

Dear Mr. Brown:

As requested, we have performed a Phase I Environmental Site Assessment (ESA) at the Cargill Parcel in Union City, California. We refer you to the text of the report for details regarding this study.

Thank you for choosing us to assist you. If you have any questions, please call and we will be glad to discuss them with you.

Very truly yours,

**TRC**

James P. Schwartz, P.G.  
Principal Geologist

SIF:JPS:jcm

Copies: Addressee (1 copy and CD)

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- Figure 2: Site Plan
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- Appendix A: Site Photographs
- Appendix B: ASTM Radius Report and Summary
- Appendix C: Historical Research Documentation
- Appendix D: Qualifications of the Environmental Professional

## **1.0 INTRODUCTION**

TRC Environmental Corporation (TRC) prepared this Phase I Environmental Site Assessment (ESA) for Integral Communities

### **1.1 Statement of Purpose**

This Phase I ESA was performed on a 54.53 acre property owned by Cargill located at the western terminus of Enterprise Drive in Newark, Alameda County, California (hereinafter the "subject property" or "site") A site location map is presented as Figure 1. This Phase I ESA has been prepared by TRC in general accordance with American Society for Testing and Materials (ASTM) E 1527-05 *Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process* and is intended for the sole use of Integral Communities (User or Client). The purpose of this assessment is to identify *Recognized Environmental Conditions* as defined in the ASTM E 1527-05 standard, in connection with the property.

### **1.2 Scope of Investigation/Services**

This Phase I ESA consisted of the following tasks:

- Site reconnaissance.
- Description of historical site conditions.
- Review of environmental database and regulatory agency records.
- Investigation of historical site conditions.
- Preparation of a report summarizing findings, opinions, and conclusions.

### **1.3 Limitations and Exceptions**

#### **1.3.1 Accuracy and Completeness**

TRC makes no guarantees as to the accuracy or completeness of information obtained from others. It is possible that information exists beyond the scope of this investigation or that was not provided to TRC. Additional data subsequently provided, discovered, or produced may alter findings or conclusions made in this Phase I ESA report. TRC is under no obligation to update this report to reflect such subsequent information. The findings presented in this report are based upon the information reasonably available and observed site conditions at the time of this

assessment. Conditions may have changed since that time and the findings, and conclusions of this report are not meant to be indicative of future conditions at the subject property. This report may not be relied on by any party other than the client with whom TRC has contracted to prepare this report.

### ***1.3.2 Warranties and Representations***

This report does not warrant against: (1) operations or conditions which were not in evidence from visual observations or historical information obtained; (2) conditions which could only be determined by physical sampling or other intrusive investigation techniques; or (3) locations other than the Client provided addresses and/or legal parcel description or information on off-site locations (with possible impact on the subject properties) not published in records reviewed.

### ***1.3.3 Continued Validity/User Reliance***

This report is presumed to be valid, in accordance with the limitations specified in ASTM E 1527-05, for a period of 180 days from its completion or until the Integral Communities obtains specific information that may materially alter a Finding, Opinion, or Conclusion in this report, or until Integral Communities is notified by TRC that it has obtained specific information that materially alter a Finding, Opinion, or Conclusion in this report.

If within the period, the assessment will be used by a different user than Integral Communities, subsequent users must also satisfy the User's Responsibilities specified in ASTM E 1527-05.

### ***1.3.4 Exceptions to the ASTM E 1527-05 Practice***

This assessment was conducted to obtain information on past or present environmental conditions or activities on the subject property that may present environmental risks or liabilities per the ASTM E1727-05 standard. No other Business Environmental Risks were evaluated. This assessment did not involve a detailed regulatory compliance audit or search for environmental liens. Deviations, deletions and data gaps are discussed in Section 8.0.

### ***1.3.5 Significant Assumptions***

During this Phase I ESA, TRC relied on database information, local and state records, and information provided by the User and the site owner (Cargill). TRC assumed that the information is true and accurate. If information to the contrary is discovered and/or if

additional previous reports exist that were not provided to TRC, then our conclusions may not be valid. Other assumptions include the following:

- Environmental records have been made available by the User.
- TRC was provided with known or reasonably ascertainable information by the User relative to valuation reduction issues (e.g. structural or environmental concerns that result in a price reduction); activity or land use restrictions; environmental liens; specialized knowledge of the site and surrounding properties (e.g. spills/releases, historical operations, chemicals utilized, environmental cleanups, etc.); and other information related to the likely presence of contamination at the site.
- Reliance on electronic database search reports is subject to the limitations set forth in those reports.
- Site boundaries are as shown on the attached figures. Based on discussions with Cargill, we understand that the service roads and brine pipeline located on the east and northeast sides of the adjacent bittern storage-ponds are not on the subject property.

## **2.0 SITE LOCATION**

### **2.1 Site Location and Legal Description**

The subject property is located near the western terminus of Enterprise Drive and west of Hickory Street in Newark, California. The subject property consists of a portion of three current parcels (APN 537-852-007, 008-1 and 008-2). We understand that the parcel boundaries have recently been revised and a new parcel map is being recorded with the County; the subject property will subsequently consist of a single 54.53-acre parcel. The approximate property boundaries are shown on Figure 2 and site specific features are shown on Figure 3.

### **2.2 Regional Geology and Hydrogeology**

Bedrock and unconsolidated sediments in the San Francisco Bay region are from Jurassic to Recent in age. The subject property lies in the Niles subarea of the Fremont Ground Water Area (California Department of Water Resources, 1975). The subject property also lies within the physiographic province known as the Niles Cone, which is an alluvial fan formed by Alameda Creek. The Niles subarea consists of a series of flat-lying gravel aquifers separated by extensive clay aquicludes. The gravel portion of the alluvium is thickest in the eastern portion of the Niles subarea and gradually thins out to the west. The subject property is likely underlain by

unconsolidated sand, silt, and clay deposits, which in turn is underlain at depth by a sequence of alluvial sand, gravel, silt, and clay deposits as in most areas of the City of Newark.

The alluvium deposited along the margins of San Francisco Bay appears to consist of a complex deposit of unconsolidated clay, silt, gravel, and sand. These deposits are reportedly between 300 and 500 feet thick. The sand and gravel units are buried stream channel and estuarine deposits which are interlayered with silt and clay deposits of estuarine, marine, and continental origins. Data interpreted by the California Department of Water Resources (1975) indicates that there are numerous buried channel deposits underlying the region. These ancient stream channels drained into San Francisco Bay from the highlands to the east to form a series of alluvial fans. These channels have since been buried due to tectonic events, sedimentation, and land subsidence. The surface water bodies in the immediate site vicinity that have contributed to deposition of alluvial sediments are Plummer Creek to the southeast and the Newark Slough located northwest of the subject property. In addition, serpentinite outcrops have been identified on-site (see Section 2.4.3). Based upon surface geologic features and groundwater data from nearby off-site facilities, the expected regional groundwater flow direction is to the northwest.

### **2.3 Site and Vicinity General Characteristics**

The subject property is located along the San Francisco Bay margin in an area referred to as "Area Two." In collaboration with Area Two landowners, the City of Newark began a planning effort in the fall of 2007 to explore potential development in Area Two around the planned Newark Station along the Dumbarton Rail Corridor. Area Two includes approximately 233 acres of land that has contained various industrial, manufacturing, chemical processing and salt production facilities since the early twentieth century. Industrial chemical operations were largely phased out by the 1990s, leaving area mostly vacant and underutilized; however, Cargill's salt production facilities remain active. The primary landowners within the area include Cargill Salt, FMC, Torian, Ashland and SHH.

Zoning for the area was updated in 1999 with the adoption of the Newark Area Two Specific Plan, which anticipated the construction of a Community College surrounded by multi-level office and R&D buildings. However, after adoption of that Plan, the Community College located elsewhere and the market for office space in South Alameda County diminished. The planned Dumbarton Rail Corridor presents an opportunity to create a vibrant new transit-oriented, mixed-use development in Newark. As part of the planned development, residential use of the subject property is currently being considered.

## **2.4 Previous Site Environmental Investigations**

Since the early 1980s, numerous on-site environmental investigations have been completed. On June 22, 2010, TRC staff met with Cargill representatives, Ms. Penny Streff, Land Project Manager, and Ms. Barbara Ransom, Environmental Manager. During our meeting, a cursory review of Cargill's records pertaining to the site was performed and copies of several prior reports were subsequently provided by Cargill.

Additional information regarding prior investigations at the site was obtained from:

**1)** regulatory agency files described in Section 4.2; **2)** from the state Geotracker database (<http://geotracker.swrcb.ca.gov>); and **3)** from the Envirostor database (<http://www.envirostor.dtsc.ca.gov>). The Geotracker and Envirostor databases are online search and Geographic Information System (GIS) tools for identifying sites with known or potential contamination, and sites where regulatory environmental oversight or review has been requested or required. The Geotracker database tracks regulatory data about leaking underground storage tank (LUST), Department of Defense, Site Cleanup Program and Landfill sites. Geotracker was developed pursuant to a mandate by the California State Legislature (AB 592, SB 1189) to investigate the feasibility of establishing a statewide GIS for LUST sites. The Envirostor database is maintained by the Department of Toxic Substances Control (DTSC) and contains information on investigation, cleanup, permitting, and/or corrective actions that are planned, being conducted or have been completed under DTSC's oversight.

Because of the site history, a very large volume of environmental documents pertaining to the site have been generated over the past 20 to 30 years. A detailed review of each document was not feasible within the time and budget constraints of this Phase I ESA. A portion of the existing documents, but not all, were obtained during this study. After a cursory review of the documents within Cargill files, those documents that appeared to be of greater relevance, based on our professional judgment, were selected for further evaluation. We additionally focused our review on those reports that contained a summary of prior investigations, such as final remediation/completion reports. Section 9 contains a listing of referenced reports.

A summary of previous environmental activities performed at the subject property is presented below.

### **2.4.1 Magnesia Waste Pile Area**

#### Site History (Magnesia Waste Pile Area)

Based on the documents reviewed, the subject property was purchased from August and Agnes Schilling by The Arden Salt Company in 1926 (DHS, 1988). The Arden Salt Company leased the site to Westvaco Chemicals in 1929. Leslie Salt Company merged with Arden Salt Company in 1936 and was subsequently acquired in 1979 by Cargill (the current site owner). FMC Corporation acquired Westvaco Chemicals in 1950 and the lease was extended in FMC Corporation's name until 1968 when the lease was terminated.

The primary industrial activities of Westvaco and FMC (on property located adjacent to the north of the site) included the production of magnesia oxide ("magnesia"), phosphoric acid, ethylene dibromide (EDB), gypsum, and various catalysts (HCI, 1990). Magnesia is used as a fluxing agent, as a feedstock for the chemical industry and other industrial uses. Gypsum is used primarily as the basis for plaster, and as an additive in fertilizer. Phosphoric acid is a common feedstock used by the fertilizer and chemical industries, while EDB is used as a soil fumigant, and is also a minor component of petroleum-based fuels (used as an octaneenhancer). Manufacture of these materials used bittern from the adjacent salt-production operations as a primary raw material. Bittern is the concentrated brine which remains after salt has been removed from sea water concentrated in evaporation ponds.

Over the years, the site was used by Westvaco and subsequently FMC to discard waste products. Most materials discarded on the subject property reportedly were non-hazardous (HCI, 1990) as defined by Title 22 of the California Code of Regulations. The wastes consisted primarily of bulk quantities of off-grade or residual products resulting from manufacturing activities at the adjacent FMC facilities, and included magnesia (MgO), gypsum (CaSO<sub>4</sub>), dolomite (CaMg(CO<sub>3</sub>)<sub>2</sub>), lime (CaO) and limestone (CaCO<sub>3</sub>). Other reported waste products included four to eight drums of phosphorus-containing sludge, copper catalyst pellets used in synthetic rubber production, scrap lumber, kiln brick, general trash, and old concrete machinery foundations. The waste pile reportedly was 40 to 50 feet high, 300 to 400 feet wide at its base, and approximately 1,200 feet in length. The waste pile was located primarily to the west of the currently present on-site drainage ditch that extends to the south from the northerly adjacent FMC property.

In 1982, Parson's Ag Materials began excavating and removing dolomite for agricultural uses. Parson's removed approximately 5,000 tons of material per year over a period of several years (HCI, 1990).

### Environmental Studies

During the 1980s, several studies of the site were conducted by the California Department of Health Services (DHS), EMCON Associates, Environmental Solutions, Inc. and S.S. Papadopulos and Associates. Based on these studies, the DHS issued a Remedial Action Order (RAO) to FMC and Leslie Salt dated July 19, 1988. The RAO required the preparation of a Remedial Investigation (RI) to further evaluate soil, groundwater, surface water and air in the vicinity of the magnesia waste pile and a Feasibility Study (FS) to assess various remedial alternatives.

The results of the RI demonstrated that the contaminants of primary concern within the pile were copper and mercury (HCI, 1990). Copper and mercury were considered to be hazardous because the concentrations of these chemicals in the magnesia exceed their respective Total Threshold Limit Concentrations (TTLCs) as defined by Title 22. Ethylene dibromide (EDB) was detected at concentrations of less than 0.020 milligrams per kilogram (mg/kg) in five samples out of 35 samples collected during the RI. Cyanide was also detected in the waste pile materials. The maximum concentration found was 11 mg/kg, detected in one sample. Cyanide was not detected in the majority of the soil/waste samples.

Analyses of samples taken in 1981 show several samples with a pH between 12.0 and 12.4 (DHS, 1988). Per Title 22 of the California Code of Regulations, an aqueous solution with pH greater than 12.5 is considered to be a hazardous substance. Although the detected pH levels are below the hazardous criteria, the RAO notes that they are close enough to 12.5 to be of concern.

Samples collected from trenches during the RI were screened in the field using an organic vapor meter; measurements reportedly varied between 0 and 140 parts per million (ppm). Based on the screening results, nine samples were selected for laboratory analysis to test for the possible presence of organic compounds. The samples were analyzed for volatile and semi-volatile organic compounds, for pesticides, and for polychlorinated biphenyls (PCBs). Eleven semi-volatile organic compounds and 10 volatile organic compounds were detected. The results are reported in Table 8 of the HCI Remedial Action Plan (1990). HCI indicated that the detected concentrations were low (generally less than 1 ppm) and it was therefore concluded that volatile and semi-volatile organic compounds did not present a vapor hazard at the Magnesia Waste Pile, and would not be considered during the evaluation of remedial alternatives.

The Magnesia Waste Pile reportedly contained approximately 65,000 cubic yards (cy) of general magnesia material, 9,600 cy of general construction debris (concrete, lumber, etc.), approximately 600 cy of copper catalyst pellets and approximately 2,500 cy of mercury-contaminated magnesia material (HCI, 1990). During RI site overview activities, DHS sampled

a small waste area to the east of the pile. Magnesia/soil material in this area contained thallium at concentrations that exceeded the TTLIC for thallium. The volume of soil material that contained thallium concentrations in excess of the TTLIC was estimated to be 50 cy. The copper and mercury contaminated wastes were reportedly restricted to distinct areas of the waste pile, generally on the west side of the pile.

#### Surface Water (E-1 Ditch)

To evaluate potential impacts to surface water, water within the on-site drainage ditch was sampled during a rain event in 1989 (HCI, 1990). The HCI report notes that FMC had a National Pollutant Discharge Elimination System (NPDES) permit that allowed effluent to be discharged to the ditch. A discharge rate of 60 gallons per minute was indicated. Copper was detected at the FMC out-fall at a maximum concentration of 0.036 mg/l. After the ditch water had passed the Magnesia Waste Pile, the concentration had declined to a maximum of 0.017 mg/l. HCI indicated that this data suggest that the Magnesia Waste Pile was not contributing significant amounts of copper to the drainage ditch. Mercury, thallium and cyanide were not detected in any of the surface-water samples. The only organic compound detected was chloroform, at maximum concentrations of 0.0024 milligrams per liter (mg/l).

To obtain additional information regarding effluent discharges to the on-site drainage ditch, a Remedial Investigation Report (McLaren Hart, 1999) for the adjacent FMC property was reviewed. The ditch is described as FMC's effluent (E-1) ditch. Prior to about 1972, the E-1 ditch began on FMC property at a pit used for disposal of filter cake. The filter cake reportedly contained dicalite (diatomaceous earth) and arsenic sulfide, generated during the production of food grade phosphoric acid. The pit, along with 700 to 800 feet of ditch on FMC property, was closed by excavation and off-site disposal in 1972, and the area was backfilled with clean fill and graded. The remaining portion of the ditch was used for discharge of effluent from a pond on FMC property (E-1 pond). The pond was clay lined and was operated from the mid-1970s to 1995 as part of the FMC plant's effluent management and treatment system under a NPDES permit. Effluent from the plant reportedly consisted of cooling tower blowdown, boiler blowdown, softener regeneration brines, and stormwater runoff, which were collected in the E-1 pond and adjusted for pH prior to discharge to the E-1 ditch. The effluent pond was taken out of service and backfilled with clean fill in mid-1996. In 1987 and 1988, effluent from a groundwater treatment system at FMC also was discharged to the ditch.

#### Groundwater

To assess the effects of the waste pile on groundwater quality, down gradient wells W-2 and W-19 were sampled in 1989. These wells appear to have been located on adjacent FMC property. The groundwater samples were analyzed for halogenated volatile organic compounds

(VOCs), copper, mercury and thallium (HCI, 1990). No mercury, or thallium, were detected. Copper was detected at up to 0.21 mg/l which is below the EPA Action Level of 1.3 mg/l for drinking water. The only VOC detected was 1,2 dichloroethane (DCA) at 0.0018 mg/l. HCI (1990) noted that DCA has been found in groundwater in the course of other on-going investigations in the site area, and that there is no evidence that it is associated with the Magnesia Waste Pile.

### Remedial Actions

A general site cleanup was undertaken in 1985 and included the excavation and removal of about 450 cubic yards of copper catalyst pellets, and the removal of visible trash and debris (HCI, 1990). The copper catalyst material was disposed at the IT Corporation Class I landfill in Benicia, California, and the general trash was disposed in a municipal landfill.

Thallium was among the contaminants of concern identified by the DHS; however, only one soil sample collected by DHS contained thallium in concentrations greater than 700 mg/kg (the TTLC). The elevated thallium concentrations in soil/waste were reportedly restricted to a small area east of the main pile. As an interim remedial measure, approximately 67,000 pounds of thallium contaminated soil was removed on April 26, 1990 (IT, 1991) and disposed at an off-site landfill. Thallium was not detected in six verification soils that were collected from the base of the excavation.

The selected remedial alternative for the main waste pile included excavation and off-site disposal of all hazardous materials (i.e., materials with contaminant concentrations exceeding their respective TTLCs [2,500 mg/kg for copper and 20 mg/kg for mercury]). Identified alternatives for management of magnesia and other materials that were considered non-hazardous included off-site recycling and leaving the material on-site.

Remediation work was performed in 1991 and documented in a Final Remediation Report (IT, 1991). Three types of waste material were encountered at the site: 1) Copper pellet contaminated magnesia; 2) Naphthalene contaminated magnesia; and 3) Waste oil contaminated magnesia. Approximately 5,620 tons of hazardous waste were transported by rail car to the United States Pollution Control Inc. (USPCI) Grassy Mountain facility in Utah and approximately 4,095 tons were transported to the Chemical Waste Management facility in Kettleman City, California (DTSC, 1992). The naphthalene and waste oil contaminated magnesia was encountered during excavation and was not previously identified in the RI. During remedial work, material suspected of being contaminated with mercury (based on prior sampling data) was placed into interim stockpiles for further sampling. Several 8-point composite samples were collected and analyzed. Mercury was detected at up to 1.3 mg/kg.

Because the detected concentrations did not exceed the TTLC for mercury (20 mg/kg divided by the number of samples forming the composite), this material was left on-site (IT, 1991).

Verification sampling was performed at the completion of contaminated material removal from each excavation (IT, 1991). Samples of the magnesia material were obtained from the base and the sidewalls of the excavation, and were analyzed for copper, mercury, naphthalene or waste oil, depending on the location. A sampling density of about one sample per 135 square feet of excavated area was utilized. The highest detected copper concentration was 730 mg/kg. The mean copper concentrations for each excavated area ranged from 23 mg/kg to 170 mg/kg. Mercury was detected in verification soil samples at up to 2.2 mg/kg. The mean mercury concentrations ranged from 0.196 mg/kg to 0.511 mg/kg. Naphthalene and waste oil were not detected in verification samples.

#### Certification of Completion

In an October 28, 1991 letter, the DTSC stated that the remedial actions have addressed the concerns expressed in the Remedial Action Plan. A certification form attached to the DTSC letter indicates that *The Department has determined that all appropriate response actions have been completed, that all acceptable engineering practices were implemented and that no further removal/remedial action is necessary.*

The letter also requested that the final report be revised to remove references to "final closure" and indicated that *the actions taken did not achieve the standards as prescribed in 40 CFR 264.258, nor did they include the requirements of 40 CFR 264, Subpart G. Therefore, the Department cannot approve the "certification of site closure" or the "final closure report."*

In a subsequent Fact Sheet (DTSC, 1992), the DTSC states that alkaline (high pH) materials are still present on-site at levels that can cause irritation to human tissue, but are not classified as hazardous waste. It is noted that some of the materials have a pH comparable to laundry soap.

#### Removal of Remaining Non-Hazardous Magnesia

In 1996 the Alameda County Environmental Health Department, Hazardous Materials Division reportedly required further investigation of the remaining magnesia material at the site (URS, 2002). Cargill and FMC subsequently proposed to excavate and remove the material and conduct post-removal sampling. Approximately 120,000 cubic yards (as reported by URS) of magnesia material reportedly was removed in 1998 and 1999. An annual progress report (FMC, 1999) indicates that 140,000 cubic yards were removed. The material reportedly was reused at the Waste Management Inc. Altamont and Tri-City landfills as fill for construction of new cells and operation layers. After the material was removed, soil samples were collected from 20

locations. Depending upon the location, the samples were analyzed for copper, mercury and/or thallium. Copper and mercury were detected at up to 160 and 0.189 mg/kg, respectively. Thallium was not detected. Analyses for pH were additionally performed (apparently by an FMC laboratory) on 15 samples collected from an area know to contain gypsum located on the west side of the former waste pile, and on five samples from an area described as a residual magnesia area located outside the southeast portion of the former waste pile; pH levels ranging from 8.3 to 10.3 were reported (URS, 2002).

In a July 15, 2002 letter, the City of Newark Fire Department indicated that they reviewed the post-removal sampling data and that all closure activities for the magnesia pile have been completed as required.

### **2.4.2 Former Newark Sportsman's Club**

#### Site History (Newark Sportsman's Club Area)

Between 1969 and 1995, the Newark Sportsman's Club (NSC) leased approximately 18-acres of the subject property and used the site as a recreational outdoor shooting range (Treadwell & Rollo, 2002). This use resulted in surficial and shallow soil deposition of lead shot, residual total lead, and clay pigeon debris containing elevated levels of PAH aromatic hydrocarbons (PAHs). In a 1994 cleanup order, the Regional Water Quality Control Board (RWQCB) noted that shooting ranges have existed at the site since before World War II.

The Witmer-Tyson Dog School and the Menlo Park Schutzhund Club (both dog training operations) are reported as the present users of the former NSC site area (Treadwell & Rollo, 2002). Treadwell & Rollo (2002) also noted that approximately ½ to 1 foot of soil was imported from an adjacent area to the south and used to form a pad at the dog training facility; details regarding the soil source area were not provided.

#### Soil Quality Evaluation and Remediation Activities

The lateral and vertical distribution of lead and PAH aromatic hydrocarbons (PAHs) was established through several field investigations, involving the collection and analysis of 159 soil samples from 93 locations (Treadwell & Rollo, 2002). Lead concentrations reportedly decrease rapidly with depth, with very little contamination deeper than 0.5 feet below ground surface. PAHs reportedly were detected only in soil samples collected from clay pigeon debris stockpiles, and in one soil sample collected adjacent to a debris stockpile.

A Remedial Action Workplan (RAW) and associated cleanup criteria were approved by the RWQCB in a January 14, 2002 letter. The RAW selected cleanup criteria for total residual lead of 400 mg/kg, a lead shot count of ten shot per square foot, and a total PAH concentration of 10 mg/kg.

During site characterization work, a sampling grid was established covering the site. Of the 90 grid sampling locations, 23 grid areas had sample results exceeding the total lead cleanup criteria, and nine additional areas had visible lead shot likely exceeding the visual cleanup criteria. Additionally, the four clay-pigeon debris stockpiles exceeded the cleanup criteria for PAHs (Treadwell & Rollo, 2002).

Between July and October 2002, the identified lead and PAH impacted soil and debris exceeding the cleanup criteria were removed from the site and sent to appropriate landfills (Treadwell & Rollo, 2002). A total of 5,910 tons were removed. Confirmation samples were collected in the excavation areas below former stockpile locations. Laboratory analyses of the confirmation samples showed that lead and PAH concentrations were below the cleanup criteria. Lead reportedly was detected at concentrations ranging from 6.6 to 270 mg/kg, with an average lead concentration of 67 mg/kg; twenty-six 4-point composite verification samples were analyzed for lead. Total PAHs were not detected above the cleanup goal of 10 mg/kg; five 4-point composite verification samples were analyzed for PAHs.

#### Additional Remedial Activities

Based on an a December 12, 2003, addendum letter prepared by Cargill and submitted to the RWQCB, approximately 483 tons of additional clay pigeon debris and soil were excavated in 2003 and disposed at off-site landfills. The additional material reportedly was identified during a site walk in November 2002 with the RWQCB. Analyses of final verification samples (consisting of two 3-point composites) reportedly did not detect PAHs.

#### Certification of Completion

In a March 10, 2004 letter, the RWQCB indicated that remedial actions at the former NSC area were completed pursuant to the RAW and that no additional remedial action is necessary.

### **2.4.3 Phase II Soil and Groundwater Investigation**

In 2001, the subject property was being considered as a possible location of a planned Ohlone College Campus. In association with the proposed development, a Phase II Soil and Groundwater Investigation of the site was performed by Treadwell & Rollo (2001). The report describes work completed at the Magnesia Waste Pile and NSC site areas, which were

summarized above in Section 2.4.1 and 2.4.2. Additionally, Treadwell & Rollo evaluated groundwater quality at the site and evaluated soil quality at an on-site pistol range; this work is summarized below.

#### Pistol Range Soil Quality Evaluation

The City of Newark has reportedly leased a portion of the subject property (located north of the NSC) since 1975, and continues to use the area as a pistol firing range for local police departments. The pistol range consists of an approximately 15-foot high soil berm located between two serpentinite rock outcrops. Eighteen soil samples were collected from the pistol range area and analyzed for total lead and/or copper (Treadwell & Rollo 2001). Lead was detected in soil within the berm at up to 11,000 mg/kg and up to 190 mg/kg in areas up- and down-range from the berm. Copper was detected at up to 270 mg/kg in soil from the berm and up to 44 mg/kg in other samples.

#### 4-Parties Groundwater Plume

Treadwell & Rollo (2001) noted that several phases of soil and groundwater investigations and remediation have been completed by others at properties adjacent to the subject property. A regional groundwater contamination plume, which has affected the shallow aquifer at properties to the north and west, has been identified by the RWQCB. Four off-site facilities (Ashland Chemical, FMC Corporation, Romac Chemical [currently SHH], and Jones-Hamilton) have reportedly been named by the RWQCB as the responsible parties and are referred to as the "4-Parties". The shallow groundwater below these facilities, as well as below a portion of the subject property has been impacted with VOCs. The western edge of the 4-Parties plume extends below the northern portion of the subject property, where four, on-site groundwater monitoring wells are present. Based on sampling data from the on-site and nearby wells, concentrations of several VOCs (predominantly DCA and EDB) exceed drinking water maximum contaminant levels (MCLs).

#### Groundwater Sampling

To further evaluate on-site groundwater quality, Treadwell & Rollo (2001) collected grab groundwater samples from five additional locations across the site. The samples were analyzed for VOCs and petroleum hydrocarbons. Groundwater at the site is reported to be present in two zones, shallow groundwater between depths of 2 and 20 feet, and within the deeper Newark Aquifer at depths between 50 and 70 feet.

VOCs including dichloroethane (DCA), carbon tetrachloride and benzene were detected in the grab samples at up to 18, 6.2 and 2.4 micrograms per liter (ug/l), respectively. Treadwell & Rollo stated that the VOCs appeared likely to originate from an off-site source. Total petroleum

hydrocarbons in the gasoline range (TPHg), TPHd (diesel) and TPHmo (motor oil) were detected at up to 63, 1,800 and 4,500 ug/l, respectively. The highest petroleum hydrocarbon levels were detected in a groundwater sample collected on the southwest side of the former magnesia waste pile. Treadwell & Rollo concluded that the TPH concentrations are not high enough to warrant further investigation.

#### **2.4.4 Naturally Occurring Asbestos**

In 2006 and 2007, Berlogar Geotechnical Consultants performed a geotechnical study of the site and evaluate the site for the presence of naturally-occurring asbestos (NOA). The reports describe the site as containing a partially buried ridgeline of Franciscan Assemblage bedrock trending northwest/southeast, with two exposed portions. The northwest portion (the location of the former magnesia waste pile) was determined by Berlogar to not contain NOA. Serpentinite, which can contain NOA, was identified within the southern area of exposed bedrock (near the pistol range). Analyses of samples collected from the southern hill area detected NOA at concentrations ranging from 0.25 to 6.25 percent.

#### **2.4.5 Cargill Preliminary Environmental Evaluation**

During our meeting with Cargill representatives, a Preliminary Environmental Evaluation (PEE) document was provided, which was described as an internal Cargill document that summarizes the environmental setting the subject property. The PEE reportedly was prepared on behalf of Cargill by Teri Peterson of Bureau Veritas (a former Cargill Employee). The following is a brief summary of the information presented in the October 27, 2008 PEE. Much of the information presented in the PEE is consistent with that described above in Sections 2.4.1 through 2.4.4; to avoid repetition, only information not previously summarized is presented below.

Current site uses include 1) bittern truck loading, 2) leased area to Southern Alameda County Radio Controllers (subleased to dog training schools), 3) leased area to City of Newark for use as a pistol range, 4) a license agreement allowing contractors to store equipment on-site, and 5) stockpiling of soil by Cargill.

##### **Bittern Truck Loading Overflow Ponds**

A bittern truck-loading area on the southwest corner of the site is noted to be unpaved, surrounded by an earth berm, and sloped such that storm water and excess bittern drains to a lined overflow pond. Evidence of bittern spills to the dirt area is reportedly apparent. The bittern is noted to be non-hazardous, but may result in elevated levels of salts in the soil or

groundwater. An empty out-of-service aboveground storage tank (AST) is noted to be present at the bittern truck-loading area, which formerly contained sodium citrate.

The current lined overflow pond was historically not lined, and a second nearby unlined pond was historically present. In about 1987, a liner was installed within the current pond and the other unlined pond was backfilled with soil. It is noted that the trucks used to haul bittern also may have been used to haul oil. There were reportedly several instances of trucks unloading residual oil into the overflow ponds prior to being loaded with bittern. At least once in 1987, Cargill required the trucking company to cleanup free floating oil from the overflow pond. There has been no sampling in the area of the current or former overflow ponds.

### Septic Tank

A septic tank is noted to be present on the north side of the dog training clubhouse.

### Wetlands

An evaluation of wetlands is not within the scope of this Phase I ESA; however, the PEE notes that several wetlands assessments have been conducted for various portions of the subject property and wetlands may exist on other portions of the property.

### Easements

Two easements reportedly exist on the subject property, one by Pacific Gas and Electric for high-tension power lines that bisect the site, and one by Union Sanitary District for sewer pipelines.

### Storm Water Management

The site reportedly is covered by a State General Industrial Storm Water Discharge Permit due to residual magnesia material remaining on-site. Information from the State Water Resources Control Board website indicates that the General Industrial Permit requires the implementation of management measures that will achieve the performance standard of best available technology economically achievable (BAT) and best conventional pollutant control technology (BCT). The General Industrial Permit also requires the development of a Storm Water Pollution Prevention Plan (SWPPP) and a monitoring plan. Through the SWPPP, sources of pollutants are to be identified and the means to manage the sources to reduce storm water pollution are described. The General Industrial Permit requires that an annual report be submitted each July 1.

Cargill reportedly conducts sampling of storm water discharge from the site, and maintains a SWPPP and monitoring plan. From January 2002 through February 2008, the pH has reportedly averaged 8.5, total suspended solids (TSS) has averaged 137 mg/l, and specific

conductance has averaged 26,830 micro-mhos per centimeter (umhos/cm). Iron has been detected at an average of 7.2 mg/l. The sampling results were compared by Cargill to EPA benchmark values. The benchmark for pH was exceeded in one sample, the benchmark for TSS was exceeded in five samples, the benchmark for iron was exceeded in four samples and the benchmark for specific conductance was exceeded in all samples. The PEE notes that elevated pH, TSS and specific conductance are consistent with small amounts of residual magnesia solids in the storm water. The benchmarks are not numeric storm-water effluent limits, are not related to or necessarily protective of any specific receiving water, and exceedances of the benchmarks are not automatically considered permit violations. When sample results exceed one or more of the benchmarks, the U.S. Environmental Protection Agency (EPA) recommends dischargers reevaluate the effectiveness of their Best business management practices (BMPs) and develop, when appropriate, additional BMPs.

### Imported Soil

Based on the PEE and discussions with Cargill representatives, soil has been imported to the site from multiple off-site sources. Some of the soil is subsequently used by Cargill on-site and at other Cargill properties during construction activities, such as levee maintenance. As shown on Figure 3, imported soil is present on several areas of the site. Prior to accepting soil at the site, Cargill requires that laboratory analyses be performed, which are reviewed by Cargill staff. Cargill provided a list of 45 properties from which soil has been imported, along with the laboratory analytical data for soil samples collected from the properties. The list included the import source property address/location and stated the current use of each property (i.e., the property use at the time the soil was exported). Based on hand written notes present on the records, the total volume of imported soil is approximately 110,000 cubic yards; the volume imported from individual properties appears to range between 150 cubic yards to 15,000 cubic yards (cy).

Based on TRCs review of the provided data, analyses for organochlorine pesticides, metals (17 CAM Metals); and gasoline, diesel and oil range petroleum hydrocarbons were typically performed. Many of the samples were additionally analyzed for VOCs, semi-volatile organic compounds (SVOCs), polychlorinated biphenyls (PCBs) and asbestos. The number of samples analyzed from each source property was variable, but commonly ranged from one to four. Based on a cursory review of the data, the reported analyte concentrations were generally well below residential screening levels (ESLs [RWQCB 2008] and California Human Health Screening Levels [CHHSLs] [CalEPA 2005 and 2009]). One noted exception was a sample from an 8,000 cy import source (2855 Story Road, San Jose) in which oil and grease was detected at 1,400 mg/kg in one of the soil samples. The ESL for oil range hydrocarbons (RWQCB 2008) is 370 mg/kg. Oil and grease was reported at 36.2 and 12.0 mg/kg in two other samples; no TPHg,

TPHd, benzene, toluene, ethylbenzene, xylenes (BTEX), organochlorine pesticides or PCBs were detected.

### **3.0 CURRENT AND HISTORICAL USES OF SUBJECT PROPERTY AND ADJOINING PROPERTIES**

#### **3.1 History of Ownership**

Based on the documents reviewed during this study, the subject property was purchased from August and Agnes Schilling by The Arden Salt Company in 1926. Leslie Salt Company merged with Arden Salt Company in 1936 and was subsequently acquired in 1979 by Cargill (the current site owner).

#### **3.2 Title Records and Environmental Liens**

A chain-of-title was not provided by the current owner and operator of the subject property. No information was reviewed during this study that indicates the presence of environmental liens against the subject property.

#### **3.3 Current and Historical Use**

##### ***3.3.1 Current and Historical Use of the Site***

Based on the documents reviewed, the northwestern portion of the site subject property was leased between 1929 and 1968 to Westvaco Chemicals and FMC. During that time, the site was used by Westvaco and FMC to discard waste products as described in Section 2.4.1. Between 1969 and 1995, the Newark Sportsman's Club (NSC) leased approximately 18-acres on the southern portion of the subject property and used the site as a recreational outdoor shooting range. The NSC area is currently leased to Southern Alameda County Radio Controllers and subleased to Witmer-Tyson Dog School and the Menlo Park Schutzhund Club (both dog training operations). The City of Newark has reportedly leased a portion of the subject property (located north of the NSC) since 1975, and continues to use the area as a pistol firing range for local police departments. Current and historic used by Cargill include bittern truck-loading operations and stockpiling/storage of soil from off-site sources. Cargill also currently leases the former waste pile area to contractors for the purpose of storing equipment.

### ***3.3.2 Current and Historical Uses of Adjoining and Nearby Properties***

Based on the information reviewed during this study, current and historic uses of adjacent and nearby properties are described below.

#### **Ashland Chemical**

The former Ashland Chemical Company operated between 1973 and 2000 on the 10.9 acre parcel located adjacent to the northeast of the subject property (across Hickory Street). Former Ashland activities included packaging, storage, and handling of chemicals including solvents, acids, and bases. Approximately 45 VOCs and SVOCs were first discovered in soil, shallow groundwater, and the Newark Aquifer at the facility in 1981. The highest contaminant concentrations were found between the warehouse and former AST farm in the center of the property, most likely originating from spills and leaks in this area. Remedial measures have included operating a shallow groundwater treatment system and excavation of approximately 1,600 cy of impacted soil in 2003 and 2004 followed by 16,300 cy in September of 2005. The groundwater extraction system was demolished in October and November of 2008 under regulatory oversight. Groundwater monitoring continues on a semiannual basis.

#### **Torian Parcel**

A property currently owned by Torian Holdings is located adjacent to the east of the subject property (across Hickory Street). The approximately 42-acre property (37555 Willow Street) is currently vacant except for a building foundation, several concrete pads, and the remains of an asphalt parking lot. Former business operations included brick manufacturing (E.J. Lavino and Co.), an automotive and van conversion company (Mobility Industries), and fiberglass manufacturer (J CAM Fiberglass). Prior studies have identified a variety of contaminants in soil and groundwater, including VOCs, SVOCs, PAHs, petroleum hydrocarbons and metals. Some of the contaminants have been attributed to off-site regional sources (4-parties plume), while others are reported to likely be associated with past industrial uses of the Torian property.

#### **FMC Corporation**

Between 1929 and 1995, FMC Corporation and predecessor companies manufactured chemicals on five parcels totaling approximately 39 acres adjacent to the north of the subject property. Environmental investigations have been taking place at the FMC parcels since 1980. The primary constituents of concern in groundwater are 1,2-DCA and EDB; however, several other VOCs and metals, including chromium and arsenic, have been detected at the site exceeding MCLs. Groundwater has been extracted from the site since 1989.

### Cargill Bittern Storage Ponds

Bittern storage ponds, owned and operated by Cargill, are located adjacent to the west of the subject property and are anticipated to remain in use for salt production activities. Bittern is the concentrated brine which remains after sodium chloride (common salt) has been removed from sea water concentrated in evaporation ponds. Bittern contains some residual sodium chloride as well as various other salts, including magnesium sulfate, magnesium chloride, potassium chloride and magnesium bromide (San Francisco Bay Conservation and Development Commission [SFBCDC], 2005). Bittern currently is pumped from the ponds to the bittern truck-loading facility located on the subject property. Following a purification process at an off-site Cargill facility, the bittern yields three products that are marketed under the names *Dust-Off* (used for dust control on unimproved roads), *Hydro Melt* (highway de-icing product), and *ClearLane* (an additive used to make the de-icing product). Bittern also is mixed with Bay water and sent back to salt crystallizers as part of salt production activities. Salinity in the bittern ponds can exceed 300 parts per trillion (ppt) (SFBCDC, 2005). Due to its potential toxicity, bittern cannot be discharged into the Bay without prior approval from the SFBCDC (SFBCDC, 2005). The discharge of bittern and brines into Bay waters is regulated pursuant to the federal Clean Water Act and the state Porter-Cologne Water Quality Control Act.

### Plummer Creek Wetland Area

Undeveloped property, which is part of the Plummer Creek wetlands mitigation area, is located to the south of the site.

### Foster Chemical Corporation

Between 1975 and 1987, the former Foster Chemical Corporation operated at 37445 Willow Street (now owned by SHH, L.L.C.) located approximately 400 feet to the northeast of the subject property. Activities included custom blending, production, handling, and storage of a variety of organic and inorganic chemicals, including chlorinated solvents. Chemicals were transported to and from the facility by rail cars and by tank trucks. Chemicals were stored in an aboveground tank farm and drum storage area west of a 6,000 square-foot warehouse. The SHH property is currently used for storage of reclaimed asphalt, concrete and gravel, and trailers. A 6,000 square-foot warehouse is used to store laboratory ventilation hoods. Shallow groundwater contamination was first discovered at the SHH property in 1982, which was attributed to Foster Chemical Company. Site investigations, remediation, and groundwater monitoring has been occurring since 1989.

### Jones-Hamilton Company

Between 1956 and 2001, Jones-Hamilton Company operated a chemical manufacturing, blending, packaging, and storage facility located on the east side of Willow Street, approximately

1,200 feet northeast of the subject property. In 1985, pentachlorophenol and 1,2-DCA were discovered in several monitoring wells that were installed in the shallow water-bearing zone; however, documentation of operations at the facility indicated that 1,2-DCA was never used at the facility. Remedial measures have included closure of a gasoline underground storage tank (UST), closure by encapsulation of two-former surface water impoundments, groundwater extraction and treatment between 1989 and 2001, and soil excavation in 1985, 2004, and 2006. Groundwater monitoring continues at the site to monitor natural attenuation of contaminants as the final remedy.

#### Baron & Blakeslee

Baron & Blakeslee, Inc. operated a facility at the intersection of Aleppo Drive and Enterprise Drive, approximately 1,700 feet northeast of the subject property. Historic activities at the facility included the storage and distribution of chemicals and recovery of chlorinated and fluorinated solvents. In 1993, Baron & Blakeslee ceased operations. Currently, the property is owned by Honeywell and Gallade Chemical Inc. which operates the chemical storage and distribution facility. Numerous environmental investigation have taken place since 1998, which have identified soil and groundwater impacted with VOCs; including trichloroethene (TCE), tetrachloroethene (PCE), methylene chloride, Freon 112, 1,1,1-trichloroethane, and DCA. Honeywell proposed to mitigate impacted soil and groundwater with in-situ thermal treatment, which was scheduled to begin fall of 2009.

### ***3.3.3 Historic Topographic Map Review***

Historic topographic maps depicting the site and surrounding properties were available from EDR for the years 1899, 1947, 1948, 1959, 1968, 1973, 1980, and 1993 (Appendix C). The 1899 topographic map depicts the site and adjacent properties as undeveloped land; no structures or other site features are depicted. The 1947 topographic map depicts the currently present E-1 drainage ditch that extends to the south from the adjacent FMC property and traverses the site. Additionally, what appear to be salt evaporation ponds are shown adjacent to the west of the site (i.e., the ponds currently used by Cargill for bittern storage), as well as on-site to the east of the drainage ditch. Several structures and circular features (likely aboveground tanks) are depicted on the adjacent FMC property, which is labeled as "chlorine works." The 1948 topographic map shows fewer site details, however, a symbol indicating a quarry or open pit mine is depicted on the site.

One the 1959 topographic map, the site appears similar to that shown on the 1947 map. A building complex on the adjacent Torian property is apparent on the 1959 topographic map. In addition, a building structure occupies the northern portion of the nearby Jones-Hamilton

property. Sewage disposal ponds and treatment facilities are also shown off-site to the northwest, between the Hetch Hetchy Aqueduct and a barge canal that extends west from the northwest corner of the site.

On subsequent topographic maps, no site details are depicted except for overhead electric power transmission lines and elevation contours representing the native rock outcrops that traverse the site. Additionally, a general increase in development in the general site vicinity is apparent. On the 1993 topographic map, the building structures on the Jones-Hamilton property and FMC property are no longer depicted.

### ***3.3.4 Aerial Photo Review***

Aerial photographs of the subject property and surrounding properties were available from EDR for the years 1939, 1946, 1958, 1965, 1974, 1982, 1993, 1999, and 2005 (Appendix C). The 1939 and 1946 aerial photographs show the currently present E-1 drainage ditch. What appears to be a detention basin is shown on-site at the location where the E-1 ditch intersects with the adjacent FMC property. Railroad track spurs are visible on the northwest portion of the site. Several on-site areas to the west and southwest of the drainage ditch appear to be white in color. The white material appears to possibly be associated with salt evaporation ponds, which are located adjacent to the west, and/or related to activities at the adjacent FMC property to the north. The remainder of the site appears to be undeveloped land. What appear to be several structures and industrial operations are present on the FMC property to the north. Adjacent property to the east and south appears to be undeveloped.

On the 1958 aerial photograph, the site appears similar to that shown on the prior photographs; however, a portion of the site located to the east of the drainage ditch is shown to be developed with salt evaporation ponds. What appears to be water is present within low-lying areas on the northwest corner of the site and the detention basin noted on the prior photograph appears to have been backfilled with soil, but the outline is still visible. Additionally, a portion of the on-site hill at the location of the current police shooting range appears to have been graded similar to its current appearance; an indication that it may have been in use as a shooting range. Only the eastern portion of the site is shown on the 1965 aerial photograph, which appears similar to that shown on the 1958 aerial photograph. Additionally, structures are shown on the southeast portion of the site that appear to be associated with the NSC shooting range. Development on adjacent properties shown on the 1958 and 1965 aerial photographs appears generally similar to the prior photographs, except that several buildings are additionally shown on adjacent property to the east (i.e., the Torian property).

On the 1974 and 1982 aerial photographs, an increase in white colored material is apparent on-site, mainly to the west and southwest of the E-1 ditch. Additionally, the on-site salt evaporation ponds to the east of the drainage ditch do not appear to be in use. Several structures on the northerly adjacent FMC property appear to have been removed; a general increase in development of off-site properties to the northeast is apparent.

On the 1993 and 1999 aerial photographs, the majority of white material noted on prior photographs appears to have been removed and the area appears to be recently disturbed soil. Light colored/white material and possibly water are still apparent in low-lying areas on the northwest corner of the site. Additionally, what appear to be structures and a detention basin appear to be present at the location of the current on-site bittern truck-loading facility. The site appears similar to the current conditions on the 2005 aerial photograph.

### ***3.3.5 City Directory Review***

A search of city directories dated between 1920 and 2006 was performed by EDR. No listings for the subject property were identified. A copy of the city directory search report is attached in Appendix C.

### ***3.3.6 Sanborn Map Review***

Historic EDR fire insurance maps were requested from EDR; however, no Sanborn maps were available.

## **4.0 RECORDS REVIEW**

### **4.1 Regulatory Agency Database Report**

A computerized radius search of pertinent Federal, State, and Local environmental records databases was performed to investigate sites with known adverse environmental conditions that have the potential to impact the site and surrounding vicinity. The search was performed pursuant to ASTM Standard E1527-05 using an electronic database maintained by an independent consultant, Environmental Data Resources, Inc. (EDR), and was based on the latitude and longitude of the subject property. A copy of the complete computer database search report is included in Appendix B.

Based on the EDR report, the subject property is listed on several databases, including, 1) as Cargill Hill Parcel on the National Pollutant Discharge Elimination System (NPDES) and CA

Waste Discharge System (WD) databases related to an industrial storm water discharge permit, 2) as Cargill Salt on the Hazardous Waste Information System (HAZNET) database noting off-site disposal of contaminated soil from site clean-ups, 3) as Leslie Salt Company Magnesia Pile Property on the CERCLIS-NFRAP (No Further Remedial Action Planned) database and on the ENVIROSTOR database with the status listed as "certified," 4) as Leslie Salt on the CA Bond Expenditure Plan database associated with the former magnesia waste pile, and 5) as Newark Sportsman's Club on the Cortese and SLIC databases. The spills, leaks, investigation and cleanup (SLIC) database lists the Newark Sportsman's Club twice, once under RWQCB oversight with the case status noted as "open-inactive," and a second listing under Alameda County Water District oversight with the case status listed as "open."

There are several off-site facilities within one mile of the subject property, which have been identified as spill incidents and are under active regulatory oversight for characterization, remediation and/or monitoring. These facilities are listed below.

1. Torrian Holdings: at 37555 Willow Street, listed on the SLIC database.
2. Foster Chemical Corporation and Romic Environmental Technologies: at 37445 Willow Street; both are listed on the ENVIROSTOR and SLIC database.
3. FMC Corporation: 8787 Enterprise Drive, listed on ENVIROSTOR, SLIC, Alameda County CS, among others.
4. S.P. Dumbarton Branch R.O.W.: 8785 Enterprise Drive, listed on the SLIC database.
5. Ashland Chemical Corporation: 8600 Enterprise Drive, listed on the ENVIROSTOR and SLIC, databases, among others.
6. Jones-Hamilton Company: 8400 Enterprise Drive, listed on ENVIROSTOR and SLIC, databases, among others.
7. Baron-Blakeslee: 8333 Enterprise Drive, listed on the SLIC database, among others.
8. Steffensen Property: 8140 Enterprise Drive and 8040 Wells Avenue, listed on the SLIC and LUST databases.
9. Consolidated Freightways Corporation: 8130 Enterprise Drive, listed on the SLIC and HIST CORTESE databases.
10. A. O. Smith Corporation: 37171 Sycamore Street, listed on the ENVIROSTOR database.
11. Lewis Property: 7969 Enterprise Drive, listed on the SLIC database.

## **4.2 Other Environmental Record Sources**

In accordance with ASTM E 1527-05 standards and All Appropriate Inquiry rules, TRC conducted record searches and file reviews of the following agencies: Alameda County Water

District (ACWD), City of Newark Building Department (NDB), the City of Newark Fire Department (NFD) and the Alameda County Department of Environmental Health (ACDEH).

The NBD files contained various building and electrical permits and plans dated between 1962 and 1967 indicating that the site was occupied by the Newark Sportsman's Club and used as a shooting range. The files also contained a letter from the County Health Department indicating that the site was unsatisfactory for a septic tank due to high groundwater and past use for waste disposal (former dumping site); an associated site plan shows what appears to be a septic tank (or proposed septic tank) located on the north side of the clubhouse building. The NBD files listed an address of 37701 Hickory Street for the Newark Sportsman's Club facility. The files additionally contained a grading permit and plan, dated in 2000 and listed under 37201 Hickory Street. The grading plan indicates that 33,700 cubic yards of soil were to be excavated from the Plummer Creek Wetlands Mitigation property (located south of the site) and shows that 900 cubic yards were to be placed on-site at the dog training facility and an additional 31,000 cubic yards of soil were to be placed on the northwest portion of the site (west of the E-1 drainage ditch).

The NFD files contained a copy of the RWQCB closure letter for the Newark Sportsman's Club facility (RWQCB, 2004) and various other agency correspondence and copies biological/ecological related studies. Similarly, a copy of the NFD letter dated July 15, 2002 was present, which indicates that closure activities for the magnesia pile have been completed as required. A copy of a related email, dated February 1, 2000, from Jackie Bretschneider of the NFD states that most of the magnesia material had been removed to native soil and that post-removal sampling would be performed. The email states that some magnesia material and gypsum remain at the site and that the remaining material is not considered a hazardous waste and is unlikely to create any environmental hazard. It is also noted that because the remaining material is somewhat caustic it may need to be removed or redistributed depending upon future development plans.

The files provided by ACDEH pertained mainly to the adjacent FMC property at 8787 Enterprise Drive and the nearby Cargill facility at 7220 Central Avenue. A copy of the February 1, 2000, email from Jackie Bretschneider (described above) was contained in the FMC file.

The files provided by the ACWD pertained mainly to the adjacent FMC property at 8787 Enterprise Drive. A few documents pertained to the Newark Sportsman's Club including a tentative RWQCB clean-up order and related correspondence; the information was consistent with that summarized above in Section 2.4.2.

## **5.0 SITE RECONNAISSANCE**

Stason Foster, P.E. conducted the site reconnaissance on June 22, 2010, and was accompanied by Mr. Terry Lewis, Project Forman of Cargill. Mr. Lewis indicated that he has been employed by Cargill and has been familiar with the site for the past 32 years. The reconnaissance was conducted by walking each representative area of the site, including the former waste pile area, the former NSC area and the areas currently used as a pistol range and for stockpiling of soil. The site also was viewed while driving perimeter roadways.

### Limiting Conditions

The interior of the NSC clubhouse was not accessible at the time of our visit, and storage containers adjacent to the clubhouse and adjacent to the pistol range were locked. Based on the current use of these areas, these limiting conditions are not considered to be significant; no evidence of significant hazardous material storage at the clubhouse or pistol range was readily apparent. Portions of the site were covered by tall grass and weeds; thus, limiting our ability to view those areas. No other limiting conditions were encountered during the site reconnaissance.

## **5.1 Current Use(s) of the Property**

### Former Waste Pile Area and Northern Portion of Site

The former waste pile area on the northwest portion of the site was observed to be used for storage of construction equipment, materials, and vehicles, along with a trailer mounted water tank. Mr. Lewis indicated that Cargill leases this area to a contractor. The area consisted of a northwest/southeast trending hill; portions of the hill had been graded to create relatively flat areas and dirt roadways. On the western side of the hill (between the hill and adjacent bittern ponds) was a relatively low lying area containing white colored material, which was reported to be gypsum in prior environmental reports discussed in Section 2.4.1. Several areas of what appeared to be residual magnesia (white in color) also were observed on-site in the vicinity of the hill (west of the E-1 drainage ditch). The magnesia material was observed on the ground surface mainly along the fence lines and perimeter road, and at the base of on-site towers and poles supporting electrical power lines. Residual magnesia material also was observed off-site on FMC and Cargill property near the former barge canal at the northwest corner of the site.

Three pole mounted electrical transformers were observed on the northwest portion of the site. No evidence of transformer oil leakage was readily apparent. Abandoned railroad tracks also were observed on the northwest portion of the site.

The E-1 drainage ditch was observed to the east of the hill. The northern portion of the ditch appeared relatively dry; standing water was observed in the southern portion of the ditch. Imported soil was observed to have been placed on several areas of the site. Based on our observations and discussions with Mr. Lewis, the soil placement areas are mainly located within the area between the E-1 ditch and the former waste pile hill (north, south and east sides of the hill), as well as on the northeast portion of the site (east of the E-1 ditch and north of the pistol range).

Mr. Lewis indicated that four groundwater monitoring wells are present on the northern portion of the site that are used for monitoring of the regional groundwater contamination plume. Two of the wells were observed during our visit.

#### Pistol Range Area

The pistol range area was observed to consist of a gravel-covered firing range area. An approximately 15-foot-tall earth berm located between two bedrock outcrops was located down-range, into which pistols were fired. Disturbed soil within the berm was observed to contain lead and copper bullets and fragments. Copper casings were observed to be distributed within the gravel surface of the range. A small partially enclosed seating area and a 4-room plywood structure used for munitions training were located at the range area, along with two locked storage containers.

A small, un-named drainage ditch was observed to the north of the pistol range. The ditch appeared to drain low lying areas of the site near Hickory Street and north of the pistol range, and discharge into the E-1 ditch near the center of the site.

#### Former NSC Area

The former NSC area was observed to consist of a single-story, wood framed clubhouse and adjacent storage containers. A gravel covered parking lot was present on the eastern side of the building. The surrounding area consisted of low-lying grass and weed covered land. Based on posted signs, the area appeared to be used for dog training and by Southern Alameda County Radio Controllers (a radio controlled model airplane flying club).

#### Bittern Truck Loading Area

A bittern truck loading area was observed on the southwest corner of the site. The facility consisted of below and above ground piping and control systems that conveyed bittern from the westerly adjacent storage ponds into tanker trucks. Two truck scales (with electronic load sensors), a control house structure and a geomembrane-lined overflow pond were observed. A

concrete structure that was formerly used to support a sodium citrate aboveground storage tank (AST) also was observed; the AST was not present.

The truck loading area was gravel covered and surrounded by a soil berm. The gravel generally appeared wet and stained, presumably with bittern. Spilled bittern was apparent on the gravel surface at the truck filling locations. The area appeared to slope generally towards the overflow pond. What appeared to be bittern (brown colored liquid) was present in the pond.

A storage container was present on the south side of the truck loading area that was used to store miscellaneous equipment. A small shed within the central loading area contained two 55-gallon drums located on a secondary containment pallet. The drums contained an anti-foaming agent (Foamtrol AF3561 manufactured by GE Water & Process Technologies). The labels indicated that the product was not hazardous, and contained water and a proprietary fatty alcohol. A small hazardous materials storage cabinet (yellow metal cabinet) was observed near the control house that contained several aerosol paint cans, three quarts of oil and three 5-gallon gasoline cans (one of the gasoline cans was labeled "bittern"). No evidence of significant spills or leaks from the cabinet was readily apparent.

## **5.2 Hazardous Substances and Petroleum Products in Connection with Identified Current Uses**

Except for lead and copper bullet debris at the pistol range, no significant quantities of hazardous materials associated with the current site uses were observed on-site at the time of our reconnaissance.

## **5.3 Storage Tanks**

No ASTs or USTs were observed, except for a trailer mounted, water tank stored along with other construction equipment on the northern portion of the site.

## **5.4 Odors**

No unusual odors were noted at the subject property during the site reconnaissance.

## **5.5 Pools of Liquid**

Pooled liquid, presumably water, was observed within the low-lying gypsum area located west of the former waste pile location. Bittern was observed within the lined overflow pond at the truck

loading facility. Water was observed within the southern portion of the on-site E-1 drainage ditch; algae growth was observed on portions of the water in the ditch.

## **5.6 Drums**

Two 55-gallon drums of non-hazardous anti-foaming agent were observed at the bittern truck loading area. No indications of significant spills were readily apparent.

## **5.7 Hazardous Substance and Petroleum Products Containers**

As noted above, a small hazardous-materials storage cabinet was observed at the bittern truck loading area that contained several aerosol paint cans, three quarts of oil and three 5-gallon gasoline cans (one of the gasoline cans was labeled "bittern"). No evidence of significant spills or leaks from the cabinet was readily apparent.

## **5.8 Polychlorinated Biphenyls (PCBs)**

TRC observed three pole-mounted transformers at the northwestern corner of the site. The transformers appeared to be in good condition and no oil leaks were observed. Although oil is typically not highly toxic or mobile in the environment, transformer oil may contain polychlorinated biphenyls (PCBs). If the transformers are to be removed or if leaks are observed, testing of the oil for PCBs should be performed. The manufacturer may also be able to provide information regarding the PCB content, if any.

## **5.9 Stained Soil or Pavement**

As noted above, the gravel within the bittern truck loading area appeared to be stained with bittern.

## **5.10 Stressed Vegetation**

Limited vegetation growth was observed in areas where residual gypsum and magnesia materials were present. Elevated pH and/or salinity levels may inhibit growth.

## **5.11 Fill Areas**

As previously noted, several areas of the site are used by Cargill for storage of imported soil. Approximately ½ to 1 foot of soil was also reportedly imported from an adjacent area to the

south and used to form a pad at the dog training facility. Additionally, a former bittern overflow pond reportedly was backfilled with fill during the late 1980s.

### **5.12 Solid Waste**

White material reported to be gypsum was observed on-site to the west of the former waste pile location. Additional residual white material, presumably from the prior magnesia waste pile, was observed on some portions of the site, mainly to the west of the E-1 drainage ditch. The material was generally white in color and observed on the ground surface mainly along the fence lines and perimeter road, and at the base of on-site towers and poles supporting electrical power lines.

### **5.13 Waste Water**

The current site uses do not generate waste water.

### **5.14 Wells**

Four groundwater monitoring wells are present on the northern portion of the site that are used for monitoring of the regional groundwater contamination plume.

## **6.0 INTERVIEWS**

On June 22, 2010, TRC staff met with Cargill representatives, Ms. Penny Streff, Land Project Manager, and Ms. Barbara Ransom, Environmental Manager. Ms. Ransom indicated that she has been familiar with the site for more than 20 years and was involved during remediation of the magnesia waste pile, as well as subsequent investigations and remedial actions on other portions of the property. During our meeting, Ms. Ransom discussed the history and general environmental setting of the site. The information provided was generally consistent with that described in the 2008 PEE document (see Section 2.4.5). She additionally noted that waste oil may historically have been applied to gravel roadways for dust control purposes.

## **7.0 FINDINGS AND OPINIONS**

TRC has performed a Phase I ESA in general conformance with the scope and limitations ASTM Practice E 1527-05 of the 54.53-acre subject property owned by Cargill located at the western terminus of Enterprise Drive in Newark, Alameda County, California.

Based on the documents reviewed, Westvaco Chemicals and subsequently FMC historically leased the site and discarded waste products on the northern portion of the site that consisted of magnesia and other materials. Newark Sportsman's Club historically leased a portion of the site for use as a recreational outdoor shooting range. Portions of the site historically were used as salt evaporation ponds. The City of Newark has historically and currently uses a portion of the site as a pistol range. Other current site uses include 1) bittern truck loading, 2) use by Southern Alameda County Radio Controllers and dog training schools, 3) storage of construction equipment and materials, and 4) stockpiling of soil by Cargill.

This Phase I ESA has revealed the following Recognized Environmental Conditions (RECs) in connection with the subject property.

1. **Former Magnesia Waste Pile Area:** As summarized in Section 2.4.2, remediation work performed in 1991 focused on removal of waste materials classified as hazardous waste (i.e., containing contaminant concentrations that exceeded TTLCs). Additional non-hazardous waste material was removed in 1998 and 1999. During the prior remediation work, residential use of the site was not anticipated and it does not appear that residential use was considered when establishing site clean-up goals. However, analyses of verification soil samples collected following both removal actions generally did not detect copper, mercury or thallium (the primary contaminants) above current residential screening levels (California Human Health Screening Levels [CHHSLs], CalEPA 2005). The sampling results appear to suggest that the site is suitable for residential use. However, regulatory agency concurrence would be required prior to proceeding with residential development. Obtaining such concurrence would likely involve, at a minimum, additional confirmation sampling.

Some residual waste material that is generally white in color remains at the site. The material reportedly is alkaline (high pH), which can cause irritation to human tissue. The DTSC noted that some of the materials have a pH comparable to laundry soap. The residual waste materials may not be suitable in a residential setting; thus, we recommend that they be removed or otherwise managed on-site to limit exposure to residential occupants.

In an October 28, 1991 letter, the DTSC stated that the remedial actions have addressed the concerns expressed in the Remedial Action Plan. The letter also requested that the final report be revised to remove references to "final closure" and indicated that *the actions taken did not achieve the standards as prescribed in 40 CFR 264.258, nor did they include the requirements of 40 CFR 264, Subpart G. Therefore, the Department*

cannot approve the "certification of site closure" or the "final closure report." The reason that the DTSC included the above quote in the certification letter is not clear. The DTSC is not currently requiring any further work at site. Consideration should be given to contacting the DTSC to obtain clarification.

2. **Impacted Groundwater:** Former investigations of groundwater at the site indicate that the regional plume of VOCs (predominantly DCA) has encroached onto the northern portion of the site; these VOCs appear to be from off-site sources. TPHg, TPHd, TPHmo and benzene also were detected in groundwater near the former-magnesia waste pile location; the source of these compounds is not known. Because of the planned residential development of the site, we recommend that soil vapor sampling be conducted in the vicinity of the former waste pile and areas overlying impacted groundwater to evaluate the potential for vapor intrusion into occupied structures and potential health risks, if any. We also recommend that the petroleum hydrocarbon and benzene sampling data be provided to the RWQCB and/or ACWD to evaluate if these agencies may require further actions associated with these contaminants.
3. **Bittern Truck Loading Area:** Spilled bittern was apparent on the gravel surface at the truck loading area. Bittern reportedly contains residual sodium chloride as well as various other salts, including magnesium sulfate, magnesium chloride, potassium chloride and magnesium bromide. It is reported by Cargill to be non-hazardous, but may result in elevated levels of salts in the soil or groundwater. Thus, bittern impacted soil may require special handling or disposal during site development. Additionally, oil reportedly was discharged to overflow ponds at the truck loading area. One lined pond is currently present; it was historically un-lined. A second un-lined pond also was historically present that was backfilled with soil. We recommend that soil and groundwater quality in the vicinity of the truck loading area and overflow ponds be evaluated.
4. **Former NSC Area:** During remedial activities in 2002 and 2003, identified lead and PAH impacted soil and clay pigeon debris exceeding the established clean-up criteria were removed from the Newark Sportsman's Club area. The clean-up goal for lead was set at the then current residential Preliminary Remediation Goal (PRG) (EPA Region 9, 2000) for lead of 400 milligrams per kilogram (mg/kg). The cleanup goal used for PAHs was a total PAH concentration of 10 mg/kg.

Lead reportedly was detected at concentrations ranging from 6.6 to 270 mg/kg, with an average lead concentration of 67 mg/kg; twenty-six 4-point composite verification

samples were analyzed for lead. Total PAHs were detected, but did not exceed the cleanup goal of 10 mg/kg; five 4-point composite verification samples were analyzed for PAHs.

CalEPA recently revised their screening level for lead; the revised residential CHHSL for lead is 80 mg/kg (CalEPA, 2009). The average lead level detected in verification soil samples does not exceed the current CHHSL of 80 mg/kg; however, lead concentrations in some of the individual samples are above this level. Additionally, some of the individual PAH concentrations detected in verification soil samples are above the current Environmental Screening Levels (ESLs) established by the RWQCB (2008).

In a March 10, 2004 letter, the RWQCB indicated that remedial actions at the former NSC area were completed pursuant to the RAW and that no additional remedial action is necessary. Prior to purchasing the site, we recommend that the RWQCB be informed that the site is now being considered for residential development and that confirmation be obtained that no further remedial action is necessary.

As noted in Section 4.1, the SLIC database contains two listings for the Newark Sportsman's Club (NSC), one under RWQCB oversight with the case status noted as "open-inactive," and a second listing under Alameda County Water District oversight with the case status listed as "open." We suspect that the duplicate listing is an administrative error and recommend that a request be submitted to both agencies to update the database listings so that the case status is shown as "closed."

5. **Pistol Range:** The City of Newark Police Department has used a portion of the site since 1975 as a pistol firing range. Lead and copper were detected in soil from the pistol range area at up to 11,000 mg/kg and 270 mg/kg, respectively. The lead concentrations exceed both the residential CHHSL (80 mg/kg) and the TTLC (1,000 mg/kg). Waste material with concentrations above the TTLC is classified as a hazardous waste. We recommend that a remedial action plan be developed for this area and that remediation be completed under regulatory agency oversight.
6. **Naturally-Occurring Asbestos:** Serpentine that contains Naturally-Occurring Asbestos (NOA) was identified within the southern area of exposed bedrock (near the pistol range). Analyses of samples collected from the southern hill area detected NOA at concentrations ranging from 0.25 to 6.25 percent. Mitigation measures to prevent the release of asbestos fibers from this material will be required during site development activities. Capping of the material below clean fill is often an approved mitigation

measure. Air monitoring likely will be required if the NOA is disturbed. The Bay Area Air Quality Management District enforces the California Airborne Toxic Control Measure (ATCM) which regulates the NOA.

- 7. E-1 Drainage Ditch:** The currently present E-1 drainage ditch bisects the site. As described in Section 2.4.1, historically, the ditch began on the adjacent FMC property and was used by FMC for various discharges. Although current water quality in the ditch is not likely to be impacted by historic discharges, sediment within the ditch could contain residual contaminants. We recommend that sediment quality in the ditch be evaluated prior to site development.
- 8. Evaporation Ponds and Detention Basin:** During the 1940s through at least the 1960s, portions of the site to the east of the E-1 drainage ditch appear to have been used as salt evaporation ponds. Additionally, what appears to be a detention basin is apparent on aerial photographs from the 1930s and 1940, located on the site at the location where the E-1 ditch intersects with adjacent FMC property. Because residual contaminant concentrations can accumulate in sediments within detention basins and evaporation ponds, we recommend that general soil quality in these areas be evaluated prior to purchasing the site for residential development.
- 9. Railroad Tracks and Roadways:** Abandoned railroad tracks were observed on the northwest portion of the site. Assorted chemicals were often historically used for dust suppression and weed control along rail lines. Consideration should be given to evaluating soil quality along the tracks. Also, the wooden rail ties typically contain toxic preservatives and should be removed and appropriately disposed prior to development. Cargill reported that waste oil may historically have been applied to on-site gravel roadways for dust control purposes. Soil quality along the roadways should be evaluated.
- 10. Site Management Plan:** Based on the long industrial history of the site, previously unidentified buried structures, debris or impacted soil may be encountered during site development activities; these materials may require special handling and disposal. To limit construction delays, we recommend that a Site Management Plan (SMP) be developed to establish management practices for handling these materials/structures if encountered. We also recommend consulting with an environmental attorney to develop a protective purchase/sales agreement and assist in evaluating potential liabilities associated with acquiring the site.

The following additional site features were identified during this Phase I ESA. These items are not considered Recognized Environmental Conditions; they are noted here only for informational purposes.

**Septic Tanks and Monitoring Wells:** A septic tank is reportedly present on the north side of the dog training facility clubhouse. The septic system should be properly abandoned in accordance with applicable regulations prior to site development. Additionally, four groundwater monitoring wells are present on-site. These wells should be protected during development or properly abandoned prior to development. This work should be coordinated with the RWQCB. Relocation of the wells may be necessary if their continued use is anticipated.

**Imported Soil:** Approximately ½ to 1 foot of soil was reportedly imported from an adjacent area to the south and used to form a pad at the dog training facility. Based on a grading plan contained in City of Newark Fire Department (NFD) files, this soil (noted as 900 cubic yards) appears to have been obtained from the southerly adjacent Plummer Creek Wetlands Mitigation property, along with an additional 31,000 cubic yards of soil that were to be placed on the northwest portion of the site (west of the E-1 drainage ditch). The source property for this soil does not appear to have historically been developed based on our review historic aerial photographs; thus, the potential for the soil to have been impacted appears low.

As described in Section 2.4.5, approximately 110,000 cubic yards of soil has been imported from an additional 45 off-site sources. Based on a cursory review of the provided laboratory data, the reported analyte concentrations were generally well below residential screening levels (ESLs [RWQCB 2008] and CHHSLs [CalEPA 2005 and 2009]). One noted exception was a sample from an 8,000-cubic yard import source (2855 Story Road, San Jose) in which oil and grease was detected at 1,400 mg/kg in one of the soil samples. The ESL for oil range hydrocarbons (RWQCB 2008) is 370 mg/kg. Oil and grease was reported at 36.2 and 12.0 mg/kg in two other samples; no TPHg, TPHd, BTEX, organochlorine pesticides or PCBs were detected. Because relatively low oil and grease levels were reported in two of the three samples and since no BTEX or other contaminants were detected, this soil does not appear likely to have a significant adverse impact on the planned residential use of the site.

The samples of imported soil from the 45 properties appear to have been analyzed for commonly encountered contaminants and the provided laboratory data suggests that the imported soil is suitable for use on residential property; however, there is a level of uncertainty that should be understood. Information regarding the historic uses of the soil source properties was not available. Similarly, information regarding sample collection and handling protocols, sampling depths and sampling locations was typically not available. We have assumed that 1) the samples

were properly collected, stored and transported, 2) the samples were collected from appropriate locations and depths (based on an understanding of potential contaminant sources), 3) a sufficient number of samples was collected so that the data is representative of the soil imported, and 4) the types analyses performed were appropriate based on the potential contaminant sources at the soil source property. If a higher degree of confidence regarding import soil quality is desired, additional soil samples could be collected.

## **8.0 DEVIATIONS, DELETIONS, AND DATA GAPS**

ASTM Standard Designation E 1527-05 requires the environmental professional to comment on significant data gaps that affect our ability to identify Recognized Environmental Conditions. A data gap is a lack of or inability to obtain information required by ASTM Standard Designation E 1527-05 despite good faith efforts by the environmental professional to gather such information. A data gap by itself is not inherently significant; it only becomes significant if it raises reasonable concerns. No significant data gaps were identified during this Phase I ESA. Additionally, this assessment was conducted without significant deviations from or deletions to ASTM E 1527-05.

## **9.0 REFERENCES**

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Regional Water Quality Control Board (RWQCB). March 10, 2004. Newark Gun Club, Alameda County – Certification of Remediation Completion Report.

San Francisco Bay Conservation and Development Commission (SFBCDC). October 2005. Staff Report: Salt Ponds.

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URS (Formerly Dames & Moore). January 28, 2002. Magnesia Waste Pile Post-Removal Sampling Report, Magnesia Waste Pile Site, Newark, California.

**APPENDIX A**

**Site Photographs**

## PHOTOGRAPHIC REPORTING DATA SHEET

**Client:** Integral Communities  
**Project:** Cargill Parcel Phase I  
**Location:** Newark, CA

**Date Taken:** June 22, 2010  
**Photographer(s):** S. Foster  
**Direction facing:** Southeast



**Photograph 1:** Top of hill (former waste pile area) on northwest portion of the site. Contractor equipment storage items shown at center.

## PHOTOGRAPHIC REPORTING DATA SHEET

**Client:** Integral Communities  
**Project:** Cargill Parcel Phase I  
**Location:** Newark, CA

**Date Taken:** June 22, 2010  
**Photographer(s):** S. Foster  
**Direction facing:** Northeast



**Photograph 2:** White material, reportedly gypsum, at northwest corner of the site (southwest side of hill). A Cargill brine pipeline, located off-site, is shown at bottom.

### PHOTOGRAPHIC REPORTING DATA SHEET

**Client:** Integral Communities  
**Project:** Cargill Parcel Phase I  
**Location:** Newark, CA

**Date Taken:** June 22, 2010  
**Photographer(s):** S. Foster  
**Direction facing:** North



**Photograph 3:** Residual white material, presumably magnesia, below PG&E tower.

## PHOTOGRAPHIC REPORTING DATA SHEET

**Client:** Integral Communities  
**Project:** Cargill Parcel Phase I  
**Location:** Newark, CA

**Date Taken:** June 22, 2010  
**Photographer(s):** S. Foster  
**Direction facing:** South



**Photograph 4:** E-1 drainage ditch (northern portion). Imported soil mounds are apparent on both sides the ditch.

## PHOTOGRAPHIC REPORTING DATA SHEET

**Client:** Integral Communities  
**Project:** Cargill Parcel Phase I  
**Location:** Newark, CA

**Date Taken:** June 22, 2010  
**Photographer(s):** S. Foster  
**Direction facing:** East



**Photograph 5:** Abandoned railroad track on northwest portion of site.

## PHOTOGRAPHIC REPORTING DATA SHEET

**Client:** Integral Communities  
**Project:** Cargill Parcel Phase I  
**Location:** Newark, CA

**Date Taken:** June 22, 2010  
**Photographer(s):** S. Foster  
**Direction facing:** Southeast



**Photograph 6:** Imported soil piles.

## PHOTOGRAPHIC REPORTING DATA SHEET

**Client:** Integral Communities  
**Project:** Cargill Parcel Phase I  
**Location:** Newark, CA

**Date Taken:** June 22, 2010  
**Photographer(s):** S. Foster  
**Direction facing:** Southwest



**Photograph 7:** Pistol Range. Serpentine outcrop hill shown at top.

### PHOTOGRAPHIC REPORTING DATA SHEET

**Client:** Integral Communities  
**Project:** Cargill Parcel Phase I  
**Location:** Newark, CA

**Date Taken:** June 22, 2010  
**Photographer(s):** S. Foster  
**Direction facing:** NA



**Photograph 8:** Lead and copper bullet casings in soil at pistol range.

### PHOTOGRAPHIC REPORTING DATA SHEET

**Client:** Integral Communities  
**Project:** Cargill Parcel Phase I  
**Location:** Newark, CA

**Date Taken:** June 22, 2010  
**Photographer(s):** S. Foster  
**Direction facing:** NA



**Photograph 9:** Copper bullet casings on gravel within pistol range area.

## PHOTOGRAPHIC REPORTING DATA SHEET

**Client:** Integral Communities  
**Project:** Cargill Parcel Phase I  
**Location:** Newark, CA

**Date Taken:** June 22, 2010  
**Photographer(s):** S. Foster  
**Direction facing:** Northwest



**Photograph 10:** Clubhouse at Former NSC (current dog training use)

## PHOTOGRAPHIC REPORTING DATA SHEET

**Client:** Integral Communities  
**Project:** Cargill Parcel Phase I  
**Location:** Newark, CA

**Date Taken:** June 22, 2010  
**Photographer(s):** S. Foster  
**Direction facing:** South



**Photograph 11:** Area used for dog training.

## PHOTOGRAPHIC REPORTING DATA SHEET

**Client:** Integral Communities  
**Project:** Cargill Parcel Phase I  
**Location:** Newark, CA

**Date Taken:** June 22, 2010  
**Photographer(s):** S. Foster  
**Direction facing:** East



**Photograph 12:** Bittern truck loading facility.

## PHOTOGRAPHIC REPORTING DATA SHEET

**Client:** Integral Communities  
**Project:** Cargill Parcel Phase I  
**Location:** Newark, CA

**Date Taken:** June 22, 2010  
**Photographer(s):** S. Foster  
**Direction facing:** North



**Photograph 1:** Truck filling location at bittern loading facility. Spilled bittern and stained gravel are apparent.

## PHOTOGRAPHIC REPORTING DATA SHEET

**Client:** Integral Communities  
**Project:** Cargill Parcel Phase I  
**Location:** Newark, CA

**Date Taken:** June 22, 2010  
**Photographer(s):** S. Foster  
**Direction facing:** Northeast



**Photograph 1:** Lined bittern overflow pond.

## PHOTOGRAPHIC REPORTING DATA SHEET

**Client:** Integral Communities  
**Project:** Cargill Parcel Phase I  
**Location:** Newark, CA

**Date Taken:** June 22, 2010  
**Photographer(s):** S. Foster  
**Direction facing:** North



**Photograph 1:** Southern portion of E-1 drainage ditch at southwest corner of the site. The fenced bittern truck loading area is present to the right.

**APPENDIX B**

**ASTM Radius Report and Summary**

## **APPENDIX C**

### **Historical Research Documentation**

## **APPENDIX D**

### **Qualifications of the Environmental Professional**

## ENVIRONMENTAL PROFESSIONAL STATEMENT

### DEFINITION OF ENVIRONMENTAL PROFESSIONAL AND RELEVANT EXPERIENCE THERE TO PURSUANT TO 40 CFR 312

(1) a person who possesses sufficient specific education, training, and experience necessary to exercise professional judgment to develop opinions and conclusions regarding conditions indicative of releases or threatened releases (see §312.1(c)) on, at, in, or to a property, sufficient to meet the objectives and performance factors in §312.20(e) and (f).

(2) Such a person must: (i) hold a current Professional Engineer's or Professional Geologist's license or registration from a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) and have the equivalent of three (3) years of full-time relevant experience; or (ii) be licensed or certified by the federal government, a state, tribe, or U.S. territory (or the Commonwealth of Puerto Rico) to perform environmental inquiries as defined in §312.21 and have the equivalent of three (3) years of full-time *relevant experience*; or (iii) have a Baccalaureate or higher degree from an accredited institution of higher education in a discipline of engineering or science and the equivalent of five (5) years of full-time relevant experience; or (iv) have the equivalent of ten (10) years of full-time relevant experience.

(3) An environmental professional should remain current in his or her field through participation in continuing education or other activities.

(4) The definition of environmental professional provided above does not preempt state professional licensing or registration requirements such as those for a professional geologist, engineer, or site remediation professional. Before commencing work, a person should determine the applicability of state professional licensing or registration laws to the activities to be undertaken as part of the inquiry identified in §312.21(b). (5) A person who does not qualify as an environmental professional under the foregoing definition may assist in the conduct of all appropriate inquiries in accordance with this part if such person is under the supervision or responsible charge of a person meeting the definition of an environmental professional provided above when conducting such activities.

*Relevant experience*, as used in the definition of environmental professional in this section, means: participation in the performance of all appropriate inquiries investigations, environmental site assessments, or other site investigations that may include environmental analyses, investigations, and remediation which involve the understanding of surface and subsurface environmental conditions and the processes used to evaluate these conditions and for which professional judgment was used to develop opinions regarding conditions indicative of releases or threatened releases (see §312.1(c)) to the subject property.

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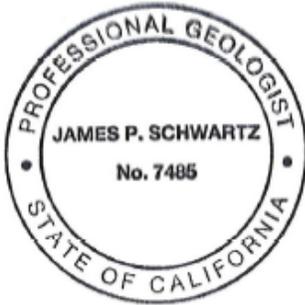
I declare that, to the best of my professional knowledge and belief, I meet the definition of Environmental professional as defined in §312.10 of 40 CFR 312.

I have the specific qualifications based on education, training, and experience to assess a property of the nature, history, and setting of the subject property. I have developed and performed the all appropriate inquiries in conformance with the standards and practices set forth in 40 CFR Part 312.

Signature of  
Environmental  
Professional:



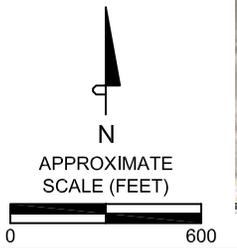
Date: 8/30/10



Expiration Date 4/30/12



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PLUMMER CREEK WETLANDS AREA

**SITE PLAN**  
 Cargill Inc.  
 Newark, California



**FIGURE 2**

SOURCE: Google Earth Aerial Photo, October 2009.

ACCESS AGREEMENT

**COPY**

**THIS AGREEMENT**, made and entered into this \_\_\_4 day of January, 2008, by and between **CARGILL, INCORPORATED**, a Delaware corporation, with offices and principal place of business at 15407 McGinty Road West, Wayzata, MN through it's Cargill Land Management Business Unit ("Cargill") and Ashland, Inc., a Kentucky Corporation, whose principal address is: 50 East River Center Blvd., Covington, KY 41012, and who owns the property located at 8600 Enterprise Drive, Newark, California, 94560. ("Ashland").

**WITNESSETH:**

**WHEREAS**, Ashland seeks access to property owned by Cargill referred to as Parcel 2 of Parcel Map 7505, APN: 537-852-07 & APN: 537-852-08, shown outlined in red on the attached Exhibit A, and located adjacent to Enterprise Drive and Hickory Street,

**WHEREAS**, Ashland seeks this access to performing quarterly ground water monitoring tests on property owned by Cargill. This data is being collected in compliance with Provision C.3., of the Site Cleanup Requirements Order 89-109 adopted by the Regional Water Quality Control Board (RWQCB) on June 21, 1989, and issued to Ashland on July 11, 1989.

**NOW, THEREFORE**, it is agreed by and between the parties as follows:

1. Cargill grants to Ashland the right to enter the Premises to collect groundwater samples from the existing groundwater monitoring wells, which shall be designated the "Work".
2. Ashland agrees that any samples, waste materials, soil cuttings, hazardous wastes, hazardous substances, pollutants, contaminants or free product ("Wastes") which results from the Work shall be the sole property of Ashland. Ashland shall handle, store, treat, transport, and dispose of the Wastes in accordance with all applicable government requirements and at Ashland's expense. In no event shall any Wastes be stored on the premises for more than ten days, or treated or disposed of at the Premises.
3. Ashland shall conduct its activities in a manner that does not interfere with Cargill's business activities at the Premises and in a manner that minimizes disturbance to the existing condition of the Premises. Any disturbance to the Premises resulting from the Work shall be repaired or corrected promptly. At its expense, Ashland shall restore the Premises to its original condition and remove all equipment, tools or other property brought onto the site in relation to the Work immediately after completing the Work.
4. Ashland agrees to analyze ground water samples it gathers from the Premises solely for the purpose of documenting and quantifying contamination as specified in Order 89-109 adopted by the RWQCB and to provide to Cargill with a copy of all analytical results and final reports submitted to the RWQCB which include the information gathered on Cargill's Premises.

5. Access shall be limited to Cargill's normal business hours at the Premises during which a Cargill manager is present. Ashland shall provide Cargill no less than seventy-two hours advance notice of its intent to seek access.

6. Ashland agrees that it, and its employees, agents, licensees, invitees, and contractors shall present proper credentials when seeking access to the Premises; shall comply with all applicable safety and environmental laws and regulations, including Cargill's safety requirements, when on or about the Premises; and as a condition of access to the Premises shall participate in any Cargill's required review of its safety requirements. Ashland further agrees that Cargill may, at the sole cost and risk of Ashland, stop work and deny future access to the Premises to any person or entity for failure to comply with applicable safety and environmental laws and regulations or Cargill's safety requirements.

7. Ashland shall conduct the Work at its sole risk and expense and in compliance with all applicable laws, rules, ordinances, codes and orders. Ashland shall be responsible for and pay all charges made, levied, or assessed by any third party in connection with the Work, including without limitation any taxes, charges, licensing fees, and the like, levied against Ashland or Cargill.

8. Prior to the execution of this Agreement and upon the renewal of any policy, Ashland and each permitted subcontractor shall furnish to Cargill copies of insurance certificates evidencing that it maintains the following coverages or any higher amounts as required by law or regulation:

| <u>Types of Insurance</u>   | <u>Limits</u>   |
|---|---|
| Workers' Compensation   | Statutory   |
| Employer's Liability  | \$1,000,000 each occurrence   |
| Commercial General Liability including Contractual Liability and Automobile Liability | Bodily injury and death:<br>\$2,000,000 combined single limit<br>Property damage: \$2,000,000 combined single limit |
| Professional Liability (for Ashland's contractors)                                    | \$2,000,000 each occurrence   |

The certificates of Commercial General Liability and Professional Liability insurance shall provide that Cargill shall be given not less than thirty (30) days written notice before cancellation or any material change in the insurance. The insurance coverage shall be written on an occurrence rather than on a claims made basis; shall be written by carriers satisfactory to Cargill; and shall remain in effect during the term of this Agreement.

9. Ashland shall release, hold harmless, defend and indemnify Cargill from and against all claims arising from the Work or the Wastes, including but not limited to claims

arising under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, the Resource Conservation and Recovery Act of 1976, and similar state laws.

10. This Agreement and any referenced exhibits (which are hereby incorporated by this reference) are the entire agreement between the parties with respect to the Work and shall not be modified in any manner except in writing executed by both parties.

11. This Agreement shall bind and inure to the benefit of the parties hereto and their respective heirs, successors and assigns. Neither party shall assign this Agreement without the prior written consent of the other.

12. In the event a dispute arises under this Agreement, such dispute shall be resolved in arbitration conducted in accordance with the Uniform Arbitration Act, and the Rules of the American Arbitration Association shall govern. Any award which might be rendered by an arbitrator shall be final and binding upon the parties.

13. The law of the State of California shall apply to the interpretation of this Agreement notwithstanding the conflicts of laws rules.

14. Cargill and Ashland agree that notices hereunder will be addressed in the first instance to the following contact people:

For Cargill:

Cargill, Incorporated  
7220 Central Avenue  
Newark, CA 94560-4206  
Phone: 510-790-8610  
Fax: 510-790-8180  
Attn: Patrick. D. Mapelli

For Ashland:

Mark Metcalf  
EH&S Department  
Ashland Inc.  
5200 Blazer Parkway  
Dublin, OH 43017

15. Except for the provisions of paragraph 9 which shall continue indefinitely, this Agreement shall terminate on December 31, 2012, and Ashland shall remove all waste from and complete all restoration at the Premises prior to that time. Either party may terminate this Agreement upon thirty (30) days written notice to the other.

16. Any provision of this Agreement which shall prove to be invalid, void or

illegal will in no way affect, impair or invalidate any other provision hereof and such remaining provisions shall remain in full force and effect. The failure of either of the parties hereto to exercise any of its rights or remedies under this Agreement shall not operate as a waiver of any such right or remedy on later occasions.

**IN WITNESS WHEREOF**, the parties hereto have hereunto set their hands and seals the day and year first above written.

**CARGILL, INCORPORATED**  
**Cargill Land Management**

By: \_\_\_\_\_

Its: \_\_\_\_\_

**ASHLAND INC.**

By: \_\_\_\_\_

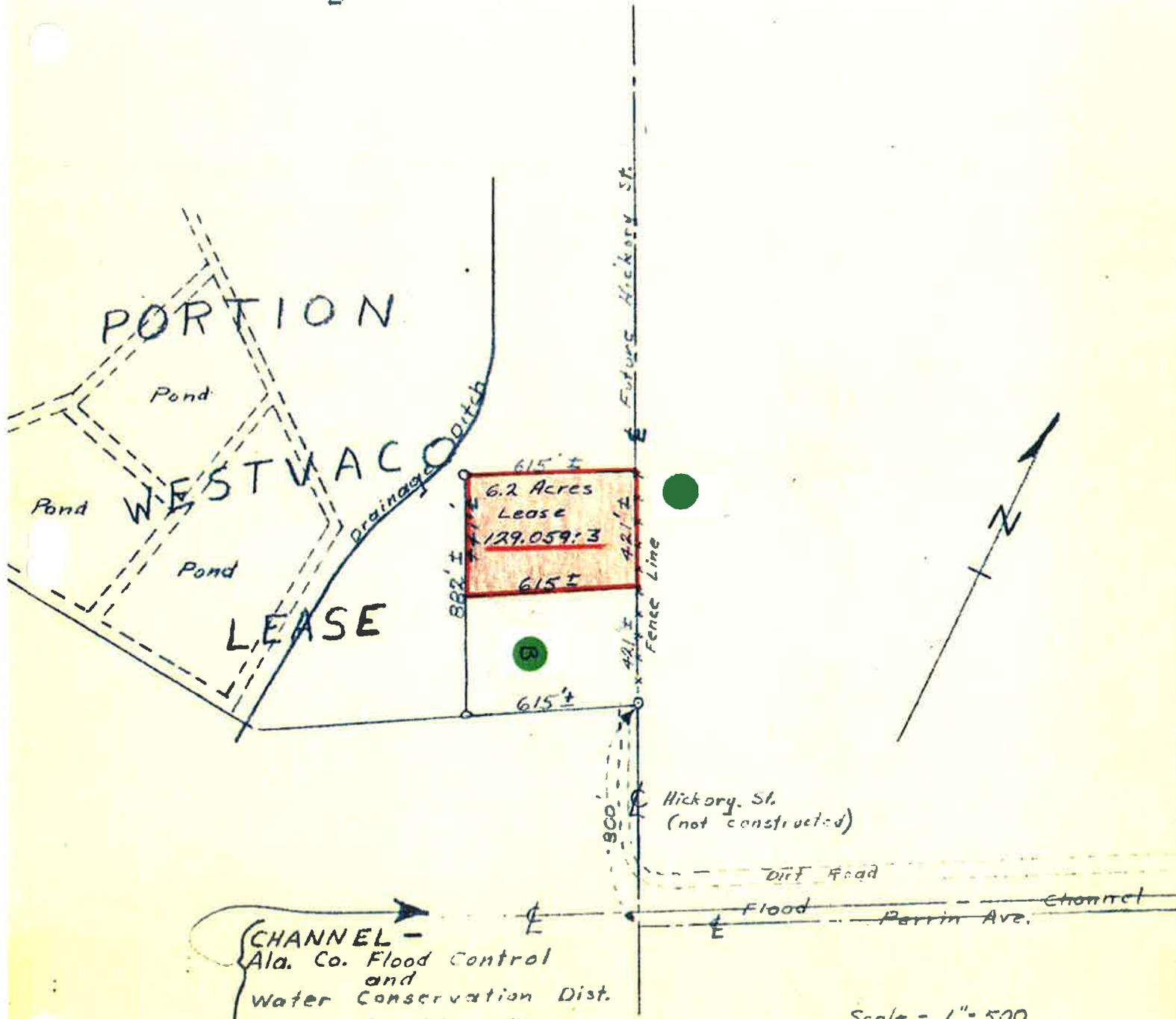
Its: \_\_\_\_\_



← to MENLO PARK

CENTRAL PACIFIC R.R.

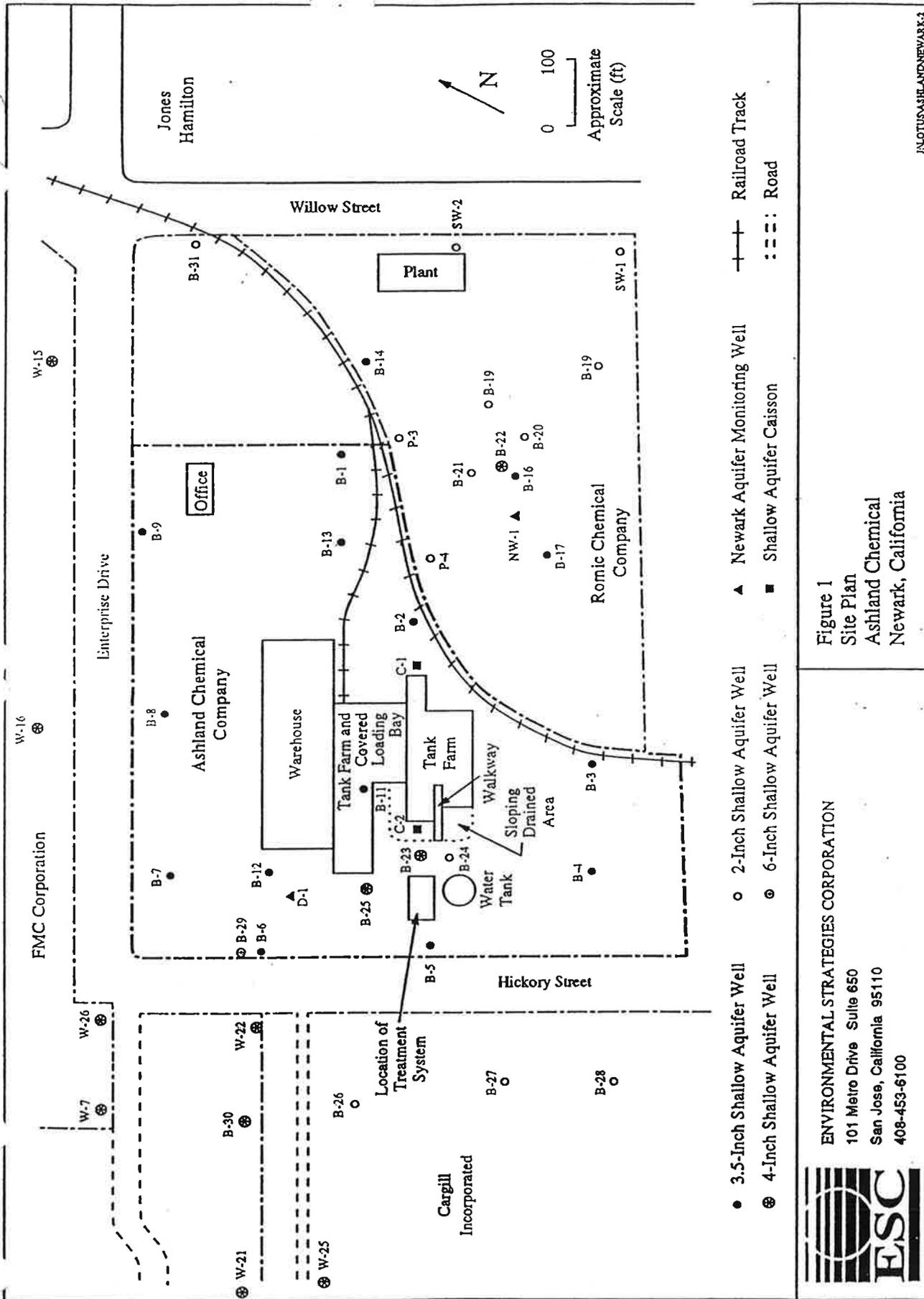
to NEWARK →



CHANNEL -  
 Ala. Co. Flood Control  
 and  
 Water Conservation Dist.  
 Zone 5, Line F-1

Scale - 1" = 500

EXHIBIT A  
Lease No. 129.059:3  
 City of Newark  
 Smallarm &  
 Rifle Range  
  
 6.2 Acres ±  
 February, 1961



ENVIRONMENTAL STRATEGIES CORPORATION  
 101 Metro Drive Suite 650  
 San Jose, California 95110  
 408-453-6100

Figure 1  
 Site Plan  
 Ashland Chemical  
 Newark, California

Legend:  
 ● 3.5-Inch Shallow Aquifer Well  
 ⊙ 4-Inch Shallow Aquifer Well  
 ○ 2-Inch Shallow Aquifer Well  
 ▲ Newark Aquifer Monitoring Well  
 ■ 6-Inch Shallow Aquifer Well  
 ⊕ Shallow Aquifer Caisson  
 —+— Railroad Track  
 ::::: Road

EXHIBIT B

**First Amendment to Property Access Agreement**

*Cargill File No. 2001.008:3*

This First Amendment Agreement ("First Amendment Agreement"), is made and entered into as of January 1, 2013, by and between **CARGILL, INCORPORATED**, a Delaware corporation, with offices and principal place of business at 15407 McGinty Road West, Wayzata, MN, through its Cargill Land Management Business Unit ("Cargill"), and **ASHLAND INC.**, a Kentucky Corporation, with offices and principal place of business at 50 East Rivercenter Boulevard, Covington, KY 41011 ("Ashland").

WHEREAS, Cargill and Ashland, entered into an Access Agreement ("Agreement") dated January 4, 2008, attached hereto as Exhibit A, wherein Cargill granted Ashland the temporary right to access property owned by Cargill referred to as Parcel 2 of Parcel Map 7505, APN: 537-852-07 & APN: 537-85208, shown outlined in Exhibit A to the Agreement, for the purpose of carrying out the work set forth in the Work Plan attached to the Agreement.

WHEREAS, Cargill and Ashland desire to amend the Agreement as follows:

1. Pursuant to Paragraph 6 of the Agreement the term shall be renewed for a one (1) year period, commencing January 1, 2013 and ending December 31, 2013, unless sooner revoked or terminated pursuant to said Access Agreement.
2. Except as amended by this First Amendment Agreement, the other terms and conditions of the Agreement shall remain the same in full force and effect.

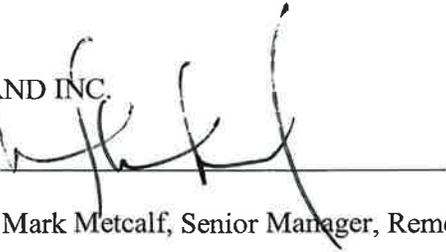
CARGILL, INCORPORATED

By: 

Its: Pat Mapelli, Manager, Real Property

Date: June 7, 2013

*MB*  
ASHLAND INC.

By: 

Its: Mark Metcalf, Senior Manager, Remediation, EH&S Department

Date: June 7, 2013

2001.008:36



# CERTIFICATE OF LIABILITY INSURANCE

OP ID: LS

DATE (MM/DD/YYYY)

09/14/12

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

|  |  |   |
|--|--|---|
| <b>PRODUCER</b><br><b>Insurance Solutions &amp; Services</b><br><b>619 Amboy Avenue</b><br><b>Edison, NJ 08837</b><br><b>Frank G. Jacobs</b> | <b>732-738-6080</b><br><b>732-738-6081</b>   | <b>CONTACT NAME:</b><br><b>PHONE (A/C, No, Ext):</b><br><b>FAX (A/C, No):</b><br><b>E-MAIL ADDRESS:</b><br><b>PRODUCER CUSTOMER ID #: <b>GES-011</b></b>  |
|  | <b>INSURED</b><br><b>Groundwater &amp; Environmental Services, Inc.</b><br><b>5046 Commercial Circle Suite F</b><br><b>Concord, CA 94520</b> | <b>INSURER(S) AFFORDING COVERAGE</b><br><b>INSURER A : <b>Zurich American Insurance Co.</b></b><br><b>INSURER B : <b>Nautilus Insurance Company</b></b><br><b>INSURER C :</b><br><b>INSURER D :</b><br><b>INSURER E :</b><br><b>INSURER F :</b> |

**COVERAGES**                      **CERTIFICATE NUMBER:**                      **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE   | ADDL INSR | SUBR WVD                             | POLICY NUMBER | POLICY EFF (MM/DD/YYYY) | POLICY EXP (MM/DD/YYYY) | LIMITS   |
|----------|---|-----------|--------------------------------------|---------------|-------------------------|-------------------------|--|
| A        | GENERAL LIABILITY   |           |                                      | GLO3671386    | 07/01/12                | 07/01/13                | EACH OCCURRENCE \$ 2,000,000   |
|          | <input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY  |           |                                      |               |                         |                         | DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 300,000   |
|          | <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR                            |           |                                      |               |                         |                         | MED EXP (Any one person) \$ 10,000   |
|          |   |           |                                      |               |                         |                         | PERSONAL & ADV INJURY \$ 2,000,000   |
|          |   |           |                                      |               |                         |                         | GENERAL AGGREGATE \$ 4,000,000   |
|          |   |           |                                      |               |                         |                         | PRODUCTS - COMP/OP AGG \$ 4,000,000  |
|          | GEN'L AGGREGATE LIMIT APPLIES PER:  |           |                                      |               |                         |                         | \$   |
|          | <input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC |           |                                      |               |                         |                         | \$   |
| A        | AUTOMOBILE LIABILITY  |           |                                      | BAP3671392    | 07/01/12                | 07/01/13                | COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000   |
|          | <input checked="" type="checkbox"/> ANY AUTO  |           |                                      |               |                         |                         | BODILY INJURY (Per person) \$  |
|          | <input type="checkbox"/> ALL OWNED AUTOS  |           |                                      |               |                         |                         | BODILY INJURY (Per accident) \$  |
|          | <input type="checkbox"/> SCHEDULED AUTOS  |           |                                      |               |                         |                         | PROPERTY DAMAGE (Per accident) \$  |
|          | <input checked="" type="checkbox"/> HIRED AUTOS   |           |                                      |               |                         |                         | \$   |
|          | <input checked="" type="checkbox"/> NON-OWNED AUTOS   |           |                                      |               |                         |                         | \$   |
|          |   |           |                                      |               |                         |                         | \$   |
|          | UMBRELLA LIAB   |           | <input type="checkbox"/> OCCUR       |               |                         |                         | EACH OCCURRENCE \$   |
|          | EXCESS LIAB   |           | <input type="checkbox"/> CLAIMS-MADE |               |                         |                         | AGGREGATE \$   |
|          | DEDUCTIBLE  |           |                                      |               |                         |                         | \$   |
|          | RETENTION \$  |           |                                      |               |                         |                         | \$   |
| A        | WORKERS COMPENSATION AND EMPLOYERS' LIABILITY   |           |                                      | WC3671385     | 07/01/12                | 07/01/13                | <input checked="" type="checkbox"/> WC STATU- TORY LIMITS   <input type="checkbox"/> OTH- ER |
|          | ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)                               | Y/N       | N/A                                  |               |                         |                         | E.L. EACH ACCIDENT \$ 1,000,000  |
|          | If yes, describe under DESCRIPTION OF OPERATIONS below  |           |                                      |               |                         |                         | E.L. DISEASE - EA EMPLOYEE \$ 1,000,000  |
|          |   |           |                                      |               |                         |                         | E.L. DISEASE - POLICY LIMIT \$ 1,000,000   |
| B        | Professional  |           |                                      | CCP2005634-10 | 07/01/12                | 07/01/13                | Limit 5,000,000  |
|          |   |           |                                      |               |                         |                         | Aggregate 10,000,000   |

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

\*10 days notice for nonpayment of premium.

|  |  |
|--|--|
| <b>CERTIFICATE HOLDER</b><br><br><b>GES1266</b><br><br><b>Cargill, Incorporated</b><br><b>Attn: Patrick D. Mapelli</b><br><b>7220 Central Avenue</b><br><b>Newark, CA 94560-4206</b> | <b>CANCELLATION</b><br><br>SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.<br><br>AUTHORIZED REPRESENTATIVE<br> |
|--|--|

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2701.008.3



# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)  
11/28/2012

**THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.**

**IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).**

| <b>PRODUCER</b><br>Marsh USA Inc.<br>1717 Arch Street<br>Philadelphia, PA 19103-2797<br>Attn: philadelphia.certs@marsh.com/866-966-4664<br><br>765400-ALL-CAS-12-13 | <b>CONTACT NAME:</b><br><b>PHONE (A/C, No, Ext):</b> <span style="float: right;"><b>FAX (A/C, No):</b></span><br><b>E-MAIL ADDRESS:</b><br><br><table style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 80%;">INSURER(S) AFFORDING COVERAGE</th> <th style="width: 20%;">NAIC #</th> </tr> <tr> <td><b>INSURER A:</b> ACE American Insurance Company</td> <td>22667</td> </tr> <tr> <td><b>INSURER B:</b> Indemnity Ins Co Of North America</td> <td>43575</td> </tr> <tr> <td><b>INSURER C:</b> N/A</td> <td>N/A</td> </tr> <tr> <td><b>INSURER D:</b></td> <td></td> </tr> <tr> <td><b>INSURER E:</b></td> <td></td> </tr> <tr> <td><b>INSURER F:</b></td> <td></td> </tr> </table> | INSURER(S) AFFORDING COVERAGE | NAIC # | <b>INSURER A:</b> ACE American Insurance Company | 22667 | <b>INSURER B:</b> Indemnity Ins Co Of North America | 43575 | <b>INSURER C:</b> N/A | N/A | <b>INSURER D:</b> |  | <b>INSURER E:</b> |  | <b>INSURER F:</b> |  |
|---|---|-------------------------------|--------|--|-------|---|-------|-----------------------|-----|-------------------|--|-------------------|--|-------------------|--|
| INSURER(S) AFFORDING COVERAGE   | NAIC #  |                               |        |  |       |   |       |                       |     |                   |  |                   |  |                   |  |
| <b>INSURER A:</b> ACE American Insurance Company  | 22667   |                               |        |  |       |   |       |                       |     |                   |  |                   |  |                   |  |
| <b>INSURER B:</b> Indemnity Ins Co Of North America   | 43575   |                               |        |  |       |   |       |                       |     |                   |  |                   |  |                   |  |
| <b>INSURER C:</b> N/A   | N/A   |                               |        |  |       |   |       |                       |     |                   |  |                   |  |                   |  |
| <b>INSURER D:</b>   |   |                               |        |  |       |   |       |                       |     |                   |  |                   |  |                   |  |
| <b>INSURER E:</b>   |   |                               |        |  |       |   |       |                       |     |                   |  |                   |  |                   |  |
| <b>INSURER F:</b>   |   |                               |        |  |       |   |       |                       |     |                   |  |                   |  |                   |  |

**COVERAGES** **CERTIFICATE NUMBER:** CLE-003431964-11 **REVISION NUMBER:** 2

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

| INSR LTR | TYPE OF INSURANCE   | ADDL INSR | SUBR WVD | POLICY NUMBER  | POLICY EFF (MM/DD/YYYY)                | POLICY EXP (MM/DD/YYYY)                | LIMITS   |
|----------|---|-----------|----------|--|--|--|--|
| A        | <b>GENERAL LIABILITY</b><br><input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY<br><input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR<br><br>GEN'L AGGREGATE LIMIT APPLIES PER:<br><input checked="" type="checkbox"/> POLICY <input type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC |           |          | HD0G27014768   | 12/01/2012                             | 12/01/2013                             | EACH OCCURRENCE \$ 1,000,000<br>DAMAGE TO RENTED PREMISES (Ea occurrence) \$ N/A<br>MED EXP (Any one person) \$ N/A<br>PERSONAL & ADV INJURY \$ 1,000,000<br>GENERAL AGGREGATE \$ 1,000,000<br>PRODUCTS - COMP/OP AGG \$ 1,000,000 |
| A        | <b>AUTOMOBILE LIABILITY</b><br><input checked="" type="checkbox"/> ANY AUTO<br><input type="checkbox"/> ALL OWNED AUTOS <input type="checkbox"/> SCHEDULED AUTOS<br><input type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS   |           |          | ISAH08712906   | 12/01/2012                             | 12/01/2013                             | COMBINED SINGLE LIMIT (Ea accident) \$ 6,000,000<br>BODILY INJURY (Per person) \$<br>BODILY INJURY (Per accident) \$<br>PROPERTY DAMAGE (Per accident) \$  |
|          | <b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR<br><b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE<br>DED \$ <input type="checkbox"/> RETENTION \$ <input type="checkbox"/>   |           |          |  |  |  | EACH OCCURRENCE \$<br>AGGREGATE \$   |
| B        | <b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b><br>ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)<br>If yes, describe under DESCRIPTION OF OPERATIONS below   |           |          | WLRC47127543 (AOS)<br>SCFC4712752A (WI)<br>WLRC47127531 (CA, MA) | 12/01/2012<br>12/01/2012<br>12/01/2012 | 12/01/2013<br>12/01/2013<br>12/01/2013 | <input checked="" type="checkbox"/> WC STATUTORY LIMITS <input type="checkbox"/> OTHER<br>E.L. EACH ACCIDENT \$ 1,000,000<br>E.L. DISEASE - EA EMPLOYEE \$ 1,000,000<br>E.L. DISEASE - POLICY LIMIT \$ 1,000,000                   |

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)**  
 Groundwater Monitoring on in Newark, CA.

|  |   |
|--|---|
| <b>CERTIFICATE HOLDER</b><br><br>Cargill, Incorporated<br>Attn: Deborah Brothers<br>7220 Central Avenue<br>Newark, CA 94560-4206 | <b>CANCELLATION</b><br><br>SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.<br><br>AUTHORIZED REPRESENTATIVE<br>of Marsh USA Inc.<br>Manashi Mukherjee <i>Manashi Mukherjee</i> |
|--|---|

Jan. 1, 2010 -  
May 31, 2010

**LICENSE AGREEMENT**

*(R.J. Gordon Construction - Hill Parcel)*

**2001.008:18**

THIS AGREEMENT, made this 1st day of January 2010, between CARGILL, INCORPORATED, a Delaware corporation (hereinafter called "Licensor"), and R.J. GORDON CONSTRUCTION, a California Corporation (hereinafter called "Licensee"), whose address is P.O. Box 23204, Pleasant Hill, CA 94523-3418.

**WITNESSETH**

Licensor hereby permits Licensee, its agents, contractors, and employees to enter certain portions of land owned by Licensor, commonly known as Parcel No.1 of Parcel Map No. 9837, located adjacent to intersection of Enterprise Drive and Hickory Street in Newark, California (hereinafter called "Property"), such Property as shown outlined in red on the attached Exhibit A, for the sole purpose of storing equipment and materials.

1. The foregoing permission is given subject to the following conditions:
  - (a) Licensee shall pay to Licensor as rental the sum of two hundred fifty dollars (\$250.00), lawful money of the United States, which Licensee agrees to pay to Licensor in advance the first day of each month, without deduction of offset, at Licensor's office in Newark, California, or such other place as Licensor may from time to time designate.
  - (b) Licensee agrees that it will not, during the term hereof, allow or permit any toxic or hazardous substance to be used on the Property, which causes the Property to become subject to the terms of Environmental Cleanup Responsibility Act ("ECRA"), or any environmental law or regulation, and that it will not allow or permit any hazardous use of occupancy of the Property which would cause the loss of fire insurance upon the Property. Licensee further agrees to indemnify and hold Licensor harmless from any and all liabilities, losses, claims, demands, costs, expenses, including attorney's fees and expenses, and judgments of any nature arising out of the obligations in this Section, including without limitation, the Comprehensive Environmental Response, Compensation and Liability Act of 1980 as amended (42 U.S.c. Sections 6901, et seq.). Additionally, upon the termination of this License, Licensee must deliver to Licensor any and all ECRA waivers, certificates, or other environmental certificates Licensee is either obligated to provide or able to obtain.
  - (c) Licensor by written notice may revoke this License at any time irrespective of expense incurred or labor expended by Licensee. Any such written notice of revocation, mailed and addressed to the Licensee at the address set forth above or delivered to the Licensee, shall be notice hereunder by the Licensor.
  - (d) In the event of revocation, Licensee shall not be entitled to obtain from Licensor any reimbursement for expenses of Licensee, or for any other purpose.
  - (e) In the event of revocation of this License, Licensee shall have thirty (30) days to evacuate Licensor's Property and remove all equipment and materials there from, and shall leave Licensor's Property in a condition equal to or better than its present condition.
  - (f) Licensee shall acquire no interest or estate in land of Licensor under this License.
  - (g) This License shall expire and be ended May 31, 2010, unless previously revoked

by Licensor.

- (h) Licensor does not warrant or represent that the Property are safe, healthful, or suitable for the purpose for which they are permitted to be used under the terms of the License, and Licensee agrees to conduct its own investigations and make its independent determination of such matters, and
- (i) Prior to entry upon said Property of licensor, Licensee shall, at its own expense, obtain from a reputable insurance company admitted to do business in California, a standard comprehensive general liability policy (including contractual liability on any written agreement) insuring Licensor against liability or loss (whether from personal injuries or Property damage, or both) arising from or connected with Licensee's entry upon and use of said Property pursuant to this Agreement. Said policy shall name Licensor as Additional Insured and shall have a limit of liability of not less than \$2,000,000 per occurrence (combined single limit), and shall be primary insurance.

2. Licensee hereby accepts this License subject to the conditions set forth in Section 2 above, and by acceptance of said License and in consideration thereof, Licensee:

- (a) Assumes any and all risks in connection with entry upon or use of Licensor's Property;
- (b) Waives any claim against Licensor, its employees and agents, for injuries that may be sustained by Licensee upon said Property and for damage to Property of Licensee; and
- (c) Agrees to indemnify Licensor against any loss and damage which shall be caused by the exercise of rights and privileges herein granted, or by any wrongful or negligent act or omission of Licensee or of its agents or employees in the course of their employment, provided, however, that this indemnity shall not extend to that portion of such loss or damage that shall have been caused by Licensor's comparative negligence or willful misconduct;
- (d) Agrees to pay reasonable compensation to Licensor for any damage that Licensee should inflict or allow upon the Property pursuant to the exercise of the rights and privileges herein granted.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the day and year first written above.

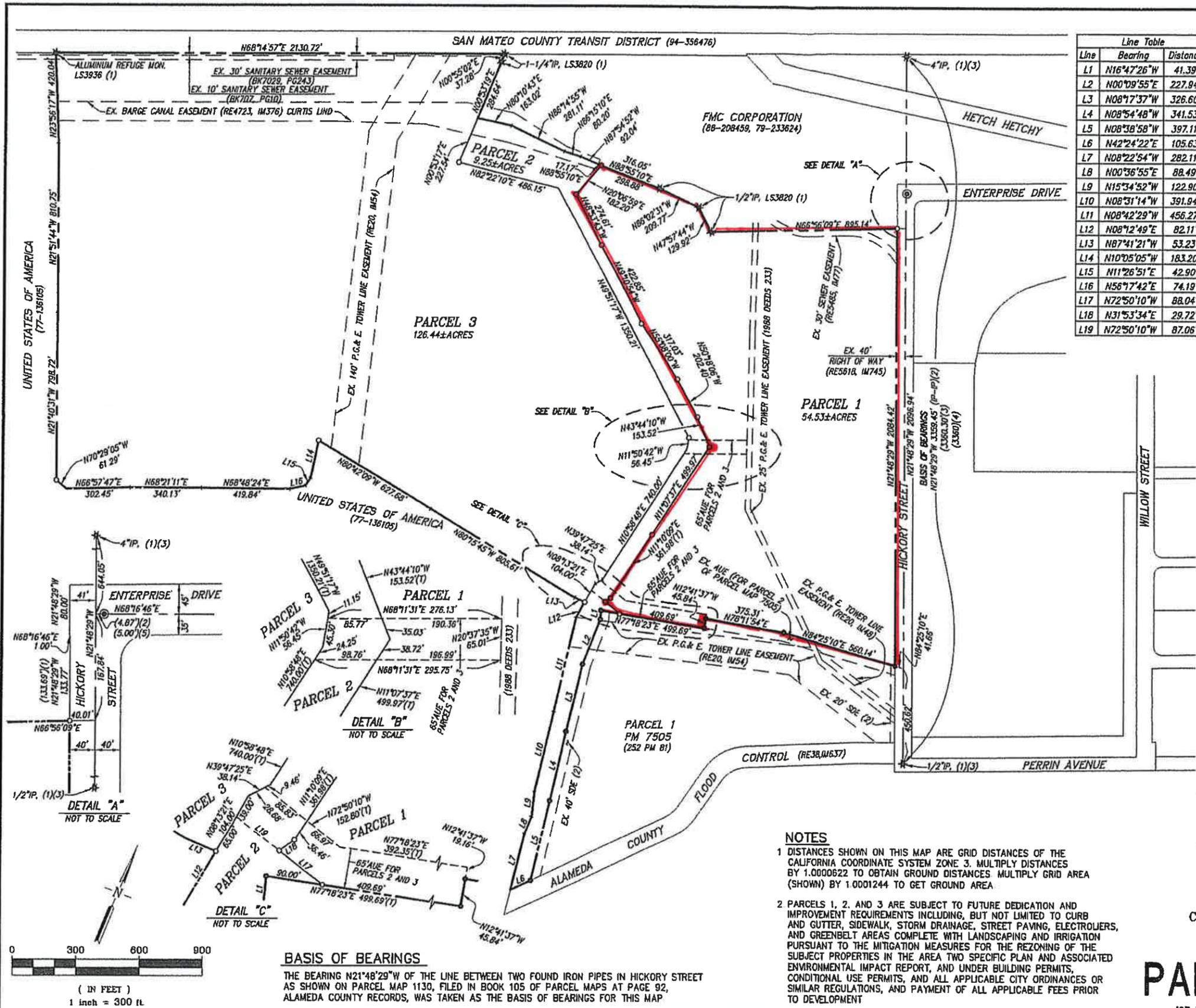
CARGILL INCORPORATED, a Delaware Corporation

  
By: Patrick D. Mapelli  
Its: Manager, Real Property

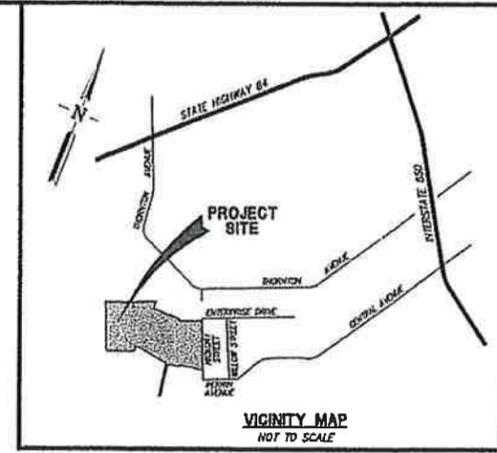
R.J. GORDON CONSTRUCTION, a California Corporation

  
By: John G. Johnson  
Its: President

EXHIBIT A



| Line | Bearing     | Distance |
|------|-------------|----------|
| L1   | N16°47'26"W | 41.39'   |
| L2   | N00°09'55"E | 227.94'  |
| L3   | N08°17'37"W | 326.60'  |
| L4   | N08°54'48"W | 341.53'  |
| L5   | N08°38'58"W | 397.11'  |
| L6   | N42°24'22"E | 105.63'  |
| L7   | N08°22'54"W | 282.11'  |
| L8   | N00°36'55"E | 88.49'   |
| L9   | N15°34'52"W | 122.90'  |
| L10  | N08°31'14"W | 391.04'  |
| L11  | N08°42'29"W | 456.27'  |
| L12  | N08°12'49"E | 82.11'   |
| L13  | N07°41'21"W | 53.23'   |
| L14  | N10°05'05"W | 183.20'  |
| L15  | N11°26'51"E | 42.90'   |
| L16  | N56°17'42"E | 74.19'   |
| L17  | N72°50'10"W | 88.04'   |
| L18  | N31°53'34"E | 29.72'   |
| L19  | N72°50'10"W | 87.06'   |



- REFERENCES:**
- (1) PARCEL MAP 1130 (105 PM 92)
  - (2) PARCEL MAP 7505 (252 PM 81)
  - (3) RECORD OF SURVEY NO. 551 (10 R/S 29)
  - (4) MAP OF THE TOWN OF NEWARK (17 M 10)
  - (5) CITY OF NEWARK A.I.D. 24A (90058)

- LEGEND**
- PARCEL MAP BOUNDARY
  - PARCEL LINE
  - MONUMENT LINE
  - MONUMENT TIE LINE
  - EXISTING EASEMENT LINE
  - NEW EASEMENT LINE
  - EXISTING LOT LINE
- \* EXISTING POINT PER REFERENCE AS NOTED
  - EXISTING 3/4" IRON PIPE W/CAP, RCE31917 (4)
  - ⊙ EXISTING CITY STANDARD MONUMENT
  - SET 3/4" IRON PIPE WITH PLASTIC PLUG, STAMPED RCE 25281
  - SDE STORM DRAIN EASEMENT
  - SSE SANITARY SEWER EASEMENT
  - P.G. & E. PACIFIC GAS AND ELECTRIC COMPANY
  - AUE ACCESS AND UTILITY EASEMENT
  - (M-M) MONUMENT TO MONUMENT
  - (R) RADIAL
  - (T) TOTAL
  - IP IRON PIPE
  - ( DATA )(1) RECORD DATA & REFERENCE
  - EX EXISTING

**PARCEL MAP 9837**

BEING A THREE (3) PARCEL SUBDIVISION OF PARCEL 2 AS SHOWN ON PARCEL MAP 7505. FILED IN BOOK 262 OF PARCEL MAPS AT PAGE 81 OFFICIAL RECORDS OF ALAMEDA COUNTY

CITY OF NEWARK  
ALAMEDA COUNTY, CALIFORNIA

RUGGERI-JENSEN-AZAR & ASSOCIATES  
CIVIL ENGINEERS, PLANNERS, SURVEYORS  
PLEASANTON, CALIFORNIA

OCTOBER 2008

**PARCEL MAP 9837**

JOB NO. 081007

SHEET 2 OF 2 SHEETS

Parcel Map 9837 Map Bk 315 pg. 85

C:\082008\081007\MAPPING\PI9837\FMS02.DWG 3/26/2010 12:36:49 PM JOHN KNEZOVICH

EXHIBIT A



**LICENSE AGREEMENT**  
**AMENDMENT NO. 5**

*(R.J. Gordon Construction – Hill Parcel, Newark, CA)*  
2001.008:18

This LICENSE AGREEMENT - AMENDMENT NO. 5, made and entered into as of December 1, 2012, shall amend said LICENSE AGREEMENT dated, January 1, 2010, between Cargill, Incorporated, a Delaware corporation, (hereinafter, "Licensor"), and R.J. Gordon Construction, Incorporated, a California corporation (hereinafter, "Licensee"), and, said LICENSE AGREEMENT-AMENDMENT NO. ~~5~~ <sup>(4)</sup> dated ~~September 1, 2010~~ <sup>December</sup>, between Licensor and Licensee.

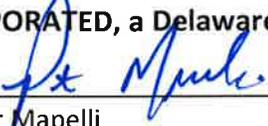
Whereas, Licensor desires to amend said LICENSE AGREEMENT, and, said LICENSE AGREEMENT AMENDMENT NO. ~~5~~ <sup>(4)</sup>

Licensor and Licensee hereby agree to the following:

1. Pursuant to Paragraph 1(g) of that LICENSE AGREEMENT, dated January 1, 2010, as amended under LICENSE AGREEMENT - AMENDMENT NO. ~~5~~ <sup>(4)</sup> the term of said agreement shall be extended for one (1), thirteen (13) month period, commencing **December 1, 2012**, and ending **December 31, 2013**, unless sooner revoked by Licensor.
2. All other terms, provisions, and conditions shall continue to remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this LICENSE AGREEMENT - AMENDMENT NO. 5, this 1st day of December, 2012.

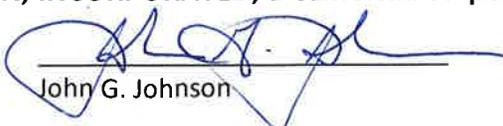
**CARGILL, INCORPORATED, a Delaware corporation**

By:   
Pat Mapelli

Its: Land Property Manager

Date: December 1, 2012

**R.J. GORDON, INCORPORATED, a California corporation**

By:   
John G. Johnson

Its: President

Date: December 1, 2012

**LICENSE AGREEMENT  
AMENDMENT NO. 4**

*(R.J. Gordon Construction – Hill Parcel, Newark, CA)*

2001.008:18

This LICENSE AGREEMENT - AMENDMENT NO. 4, made and entered into as of December 1, 2011, shall amend said LICENSE AGREEMENT dated, January 1, 2010, between Cargill, Incorporated, a Delaware corporation, (hereinafter, "Licensor"), and R.J. Gordon Construction, Incorporated, a California corporation (hereinafter, "Licensee"), and, said LICENSE AGREEMENT-AMENDMENT NO. ~~2~~<sup>3</sup>, dated ~~September 1~~<sup>December</sup>, 2010, between Licensor and Licensee.

Whereas, Licensor desires to amend said LICENSE AGREEMENT, and, said LICENSE AGREEMENT AMENDMENT NO. ~~2~~<sup>3</sup>,

Licensor and Licensee hereby agree to the following:

1. Pursuant to Paragraph 1(g) of that LICENSE AGREEMENT, dated January 1, 2010, as amended under LICENSE AGREEMENT - AMENDMENT NO. ~~4~~<sup>3</sup>, the term of said agreement shall be extended for one (1), thirteen (13) month period, commencing **December 1, 2011**, and ending **December 31, 2012**, unless sooner revoked by Licensor.
2. All other terms, provisions, and conditions shall continue to remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this LICENSE AGREEMENT - AMENDMENT NO. 4, this 1st day of December, 2011.

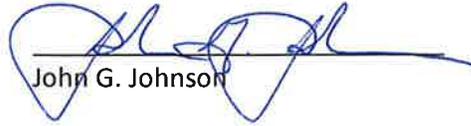
**CARGILL, INCORPORATED, a Delaware corporation**

By:   
Pat Mapelli

Its: Land Property Manager

Date: December 1, 2011

**R.J. GORDON, INCORPORATED, a California corporation**

By:   
John G. Johnson

Its: President

Date: December 1, 2011

**LICENSE AGREEMENT**  
**AMENDMENT NO. 3**

*(R.J. Gordon Construction – Hill Parcel, Newark, CA)*  
2001.008:18

This LICENSE AGREEMENT - AMENDMENT NO. 3, made and entered into as of December 1, 2010, shall amend said LICENSE AGREEMENT dated, January 1, 2010, between Cargill, Incorporated, a Delaware corporation, (hereinafter, "Licensor"), and R.J. Gordon Construction, Incorporated, a California corporation (hereinafter, "Licensee"), and, said LICENSE AGREEMENT-AMENDMENT NO. 2, dated September 1, 2010, between Licensor and Licensee.

Whereas, Licensor desires to amend said LICENSE AGREEMENT, and, said LICENSE AGREEMENT AMENDMENT NO. 2;

Licensor and Licensee hereby agree to the following:

1. Pursuant to Paragraph 1(g) of that LICENSE AGREEMENT, dated January 1, 2010, as amended under LICENSE AGREEMENT - AMENDMENT NO. 2, the term of said agreement shall be extended for one, thirteen (13) month period, commencing **December 1, 2010**, and ending **December 31, 2011**, unless sooner revoked by Licensor.
2. All other terms, provisions, and conditions shall continue to remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this LICENSE AGREEMENT - AMENDMENT NO. 3, this 1st day of December, 2010.

**CARGILL, INCORPORATED, a Delaware corporation**

By:

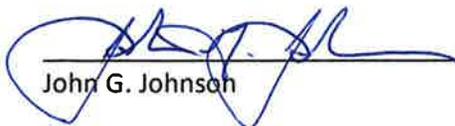
  
Penny Streff

Its: Land Project Manager

Date: December 1, 2010

**R.J. GORDON, INCORPORATED, a California corporation**

By:

  
John G. Johnson

Its: President

Date: December 1, 2010



Sept. 1, 2010 -  
Nov. 30, 2010

LICENSE AGREEMENT  
AMENDMENT NO. 2  
(R.J. GORDON - HILL PARCEL)  
2001.008:18

This **License Agreement Amendment No. 2** is hereby made this 1<sup>st</sup> day of September, 2010, between Cargill, Incorporated, a Delaware Corporation (hereafter called "Licensor"), and R.J. GORDON CONSTRUCTION, INCORPORATED, a California Corporation (hereafter called "LICENSEE").

Whereas, Licensor desires to amend said License Agreement dated the 1<sup>st</sup> of January, 2010, between Cargill, Incorporated, a Delaware Corporation (hereafter called "Licensor"), and R.J. GORDON CONSTRUCTION, INCORPORATED, a California Corporation (hereafter called "LICENSEE"):

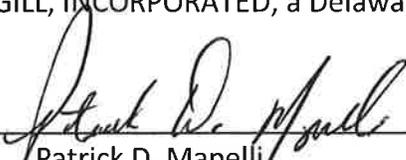
It is hereby agreed to as follows:

TERM: Pursuant to Paragraph 2(g) of that License Agreement dated January 1, 2010, term of said License Agreement shall be extended for three (3) months, commencing September 1, 2010, and ending November 30, 2010, unless sooner revoked by Licensor.

All other terms, provisions, and conditions of said License Agreement shall continue to remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement Amendment the date and year first written above.

CARGILL, INCORPORATED, a Delaware Corporation

  
By: Patrick D. Mapelli  
Its: Manager, Real Property

R.J. GORDON CONSTRUCTION, a California Corporation

  
By: John G. Johnson  
Its: President

June 1, 2010 -  
Aug 31, 2010

**LICENSE AGREEMENT**  
**AMENDMENT NO.1**  
(R.J. GORDON - HILL PARCEL)  
2001.008:18

This License Agreement Amendment No. 1 is hereby made this 1<sup>st</sup> day of June, 2010, between CARGILL, INCORPORATED, a Delaware Corporation (hereafter called "Licensor"), and R.J. GORDON CONSTRUCTION, INCORPORATED, a California Corporation (hereafter called "Licensee").

WHEREAS, Licensor desires to amend said License Agreement dated the 1<sup>st</sup> of January, 2010, between CARGILL, INCORPORATED, a Delaware Corporation, (hereafter called "Licensor"), and R.J. GORDON CONSTRUCTION, INCORPORATED, a California Corporation (hereafter called "Licensee"):

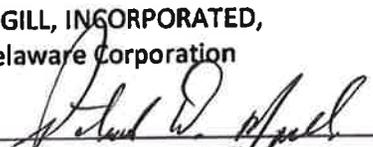
It is hereby agreed to as follows:

**Term:** Pursuant to Paragraph 2(g) of that License Agreement dated January 1, 2010, term of said License Agreement shall be extended for a sixty (60) day period, commencing June 1, 2010, and ending August 31, 2010, unless sooner revoked by Licensor.

All other terms, provisions, and conditions of said License Agreement shall continue to remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement the date and year first written above.

CARGILL, INCORPORATED,  
a Delaware Corporation

  
By: Patrick D. Mapelli  
Its: Manager, Real Property

R.J. GORDON CONSTRUCTION,  
a California Corporation

  
By: John G. Johnson  
Its: President

**LEASE AGREEMENT**

**AMENDMENT NO. 16**

*(Southern Alameda County Radio Controllers- Hill Parcel, Newark, CA)*

*2001.008:13 (supersedes 129.059:9)*

This LEASE AGREEMENT - AMENDMENT NO. 16, made and entered into as of December 30, 2011, shall amend said LEASE AGREEMENT dated July 1, 1995, between Cargill, Incorporated, a Delaware corporation, (hereinafter, "Lessor"), and Southern Alameda County Radio Controllers, Incorporated, a California corporation, (hereinafter, "Lessee"), and, said LEASE AGREEMENT-AMENDMENT NO. 14, dated December 14, 2009, between Lessor and Lessee.

Whereas, Lessor desires to amend said LEASE AGREEMENT, and, said LEASE AGREEMENT - AMENDMENT NO. 14;

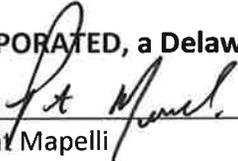
Lessor and Lessee hereby agree to the following:

1. Pursuant to Paragraph 1(g) of that LEASE AGREEMENT, dated July 1, 1995, as amended under LEASE AGREEMENT - AMENDMENT NO. 14, the term of said agreement shall be extended for one, twelve (12) month period, commencing **January 1, 2012**, and ending **December 31, 2012**, unless sooner terminated or revoked by Licensor.
2. All other terms, provisions, and conditions shall continue to remain in full force and effect. This shall include Lessor's sole right, pursuant to Paragraph 14 of LEASE AGREEMENT dated July 1, 1995, to terminate and revoke this LEASE AGREEMENT (and any AMENDMENTS thereto), by giving Lessee, a 30-day written notice to terminate.
3. Pursuant to Paragraph 9 - ASSIGNMENT AND SUBLETTING, of that LEASE AGREEMENT dated July 1, 1995, and, subject to Lessor's final review and written approval of any extensions or modifications to said Lease Agreement (Sub Lease), identified below, Lessor hereby agrees to and grants permission for Lessee to extend the term of that Lease Agreement (Sub Lease), dated January 1, 2010, by and between SOUTHERN ALAMEDA COUNTY RADIO CONTROLLERS, Inc. ("Sub-Lessor") and MENLO PARK SCHUTZHULND CLUB ("Sub-Lessee"), for one, twelve (12) month period, commencing **January 1, 2012**, and ending **December 31, 2012**, unless sooner terminated or revoked by Lessor, pursuant to Paragraph 14 of said LEASE AGREEMENT dated July 1, 1995, and as amended herein.
4. Any amendment to that Lease Agreement (Sub Lease), dated January 1, 2010, by and between Sub-Lessor and Sub-Lessee, shall be subject to the termination dates, and termination provisions, as provided in the LEASE AGREEMENT dated July 1, 1995, and, as amended pursuant to the provisions of this AMENDMENT NO. 16.

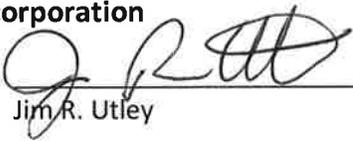
5. All other terms, provisions and conditions of that LEASE AGREEMENT(Sub Lease), dated January 1, 2011, by and between Sub Lessor and Sub Lessee, shall continue to remain in full force and effect.

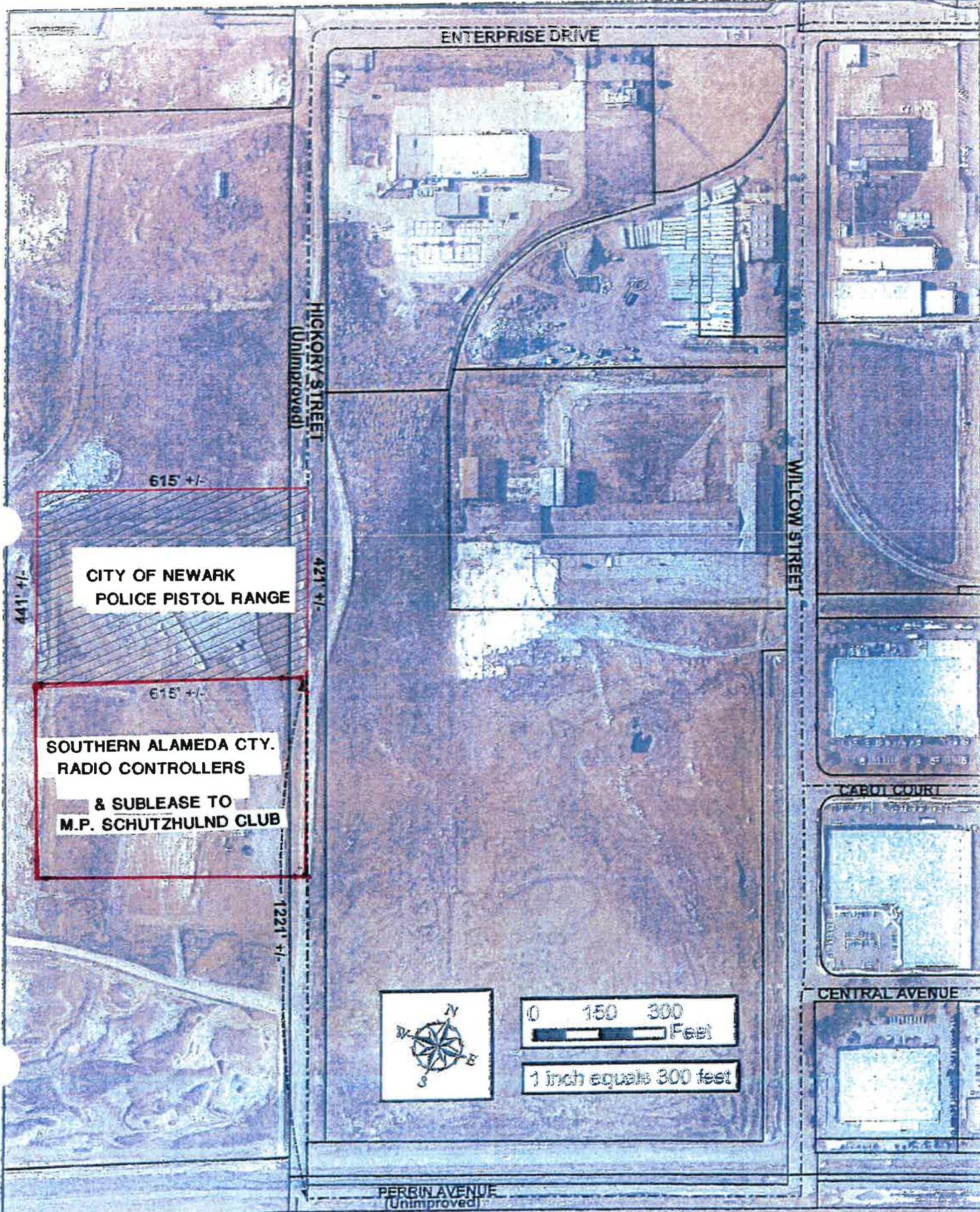
IN WITNESS WHEREOF, the parties hereto have executed this LICENSE AGREEMENT - AMENDMENT NO. 16, this 30th day of December, 2011.

**CARGILL, INCORPORATED, a Delaware corporation**

By:   
Pat Mapelli  
Its: Land Property Manager  
Date: December 30, 2011

**SOUTHERN ALAMEDA COUNTY RADIO CONTROLLERS, INCORPORATED,  
a California corporation**

By:   
Jim R. Utley  
Its: Treasurer  
Date: December 30, 2011



ENTERPRISE DRIVE

HICKORY STREET  
(Unimproved)

WILLOW STREET

CITY OF NEWARK  
POLICE PISTOL RANGE

SOUTHERN ALAMEDA CTY.  
RADIO CONTROLLERS  
& SUBLEASE TO  
M.P. SCHUTZHULND CLUB

CABOT COURT

CENTRAL AVENUE

PERRIN AVENUE  
(Unimproved)

0 150 300  
Feet

1 inch equals 300 feet



**LEASE AGREEMENT**

**AMENDMENT NO. 17**

(Southern Alameda County Radio Controllers- Hill Parcel, Newark, CA)  
2001.008:13 (supersedes 129.059:9)

This LEASE AGREEMENT - AMENDMENT NO. 16, made and entered into as of December 31, 2012, shall amend said LEASE AGREEMENT dated July 1, 1995, between Cargill, Incorporated, a Delaware corporation, (hereinafter, "Lessor"), and Southern Alameda County Radio Controllers, Incorporated, a California corporation, (hereinafter, "Lessee"), and, said LEASE AGREEMENT-AMENDMENT NO. 14, dated December 14, 2009, between Lessor and Lessee.

Whereas, Lessor desires to amend said LEASE AGREEMENT, and, said LEASE AGREEMENT - AMENDMENT NO. 16,

Lessor and Lessee hereby agree to the following:

1. Pursuant to Paragraph 1(g) of that LEASE AGREEMENT, dated July 1, 1995, as amended under LEASE AGREEMENT - AMENDMENT NO. 14, the term of said agreement shall be extended for one, twelve (12) month period, commencing **January 1, 2013**, and ending **December 31, 2013**, unless sooner terminated or revoked by Licensor.
2. All other terms, provisions, and conditions shall continue to remain in full force and effect. This shall include Lessor's sole right, pursuant to Paragraph 14 of LEASE AGREEMENT dated July 1, 1995, to terminate and revoke this LEASE AGREEMENT (and any AMENDMENTS thereto), by giving Lessee, a 30-day written notice to terminate.
3. Pursuant to Paragraph 9 - ASSIGNMENT AND SUBLETTING, of that LEASE AGREEMENT dated July 1, 1995, and, subject to Lessor's final review and written approval of any extensions or modifications to said Lease Agreement (Sub Lease), identified below, Lessor hereby agrees to and grants permission for Lessee to extend the term of that Lease Agreement (Sub Lease), dated January 1, 2010, by and between SOUTHERN ALAMEDA COUNTY RADIO CONTROLLERS, Inc. ("Sub-Lessor") and MENLO PARK SCHUTZHULND CLUB ("Sub-Lessee"), for one, twelve (12) month period, commencing **January 1, 2013**, and ending **December 31, 2013**, unless sooner terminated or revoked by Lessor, pursuant to Paragraph 14 of said LEASE AGREEMENT dated July 1, 1995, and as amended herein.
4. Any amendment to that Lease Agreement (Sub Lease), dated January 1, 2010, by and between Sub-Lessor and Sub-Lessee, shall be subject to the termination dates, and termination provisions, as provided in the LEASE AGREEMENT dated July 1, 1995, and, as amended pursuant to the provisions of this AMENDMENT NO. 16.

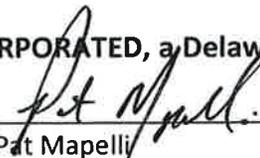
LEASE AGREEMENT - AMENDMENT NO. 17

Page 2

5. All other terms, provisions and conditions of that LEASE AGREEMENT (Sub Lease), dated January 1, 2012, by and between Sub Lessor and Sub Lessee, shall continue to remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this LICENSE AGREEMENT - AMENDMENT NO. 17, this 31th day of December, 2012.

**CARGILL, INCORPORATED, a Delaware corporation**

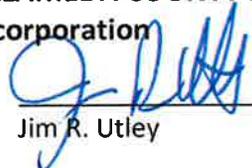
By: 

Pat Mapelli

Its: Land Property Manager

Date: December 31, 2012

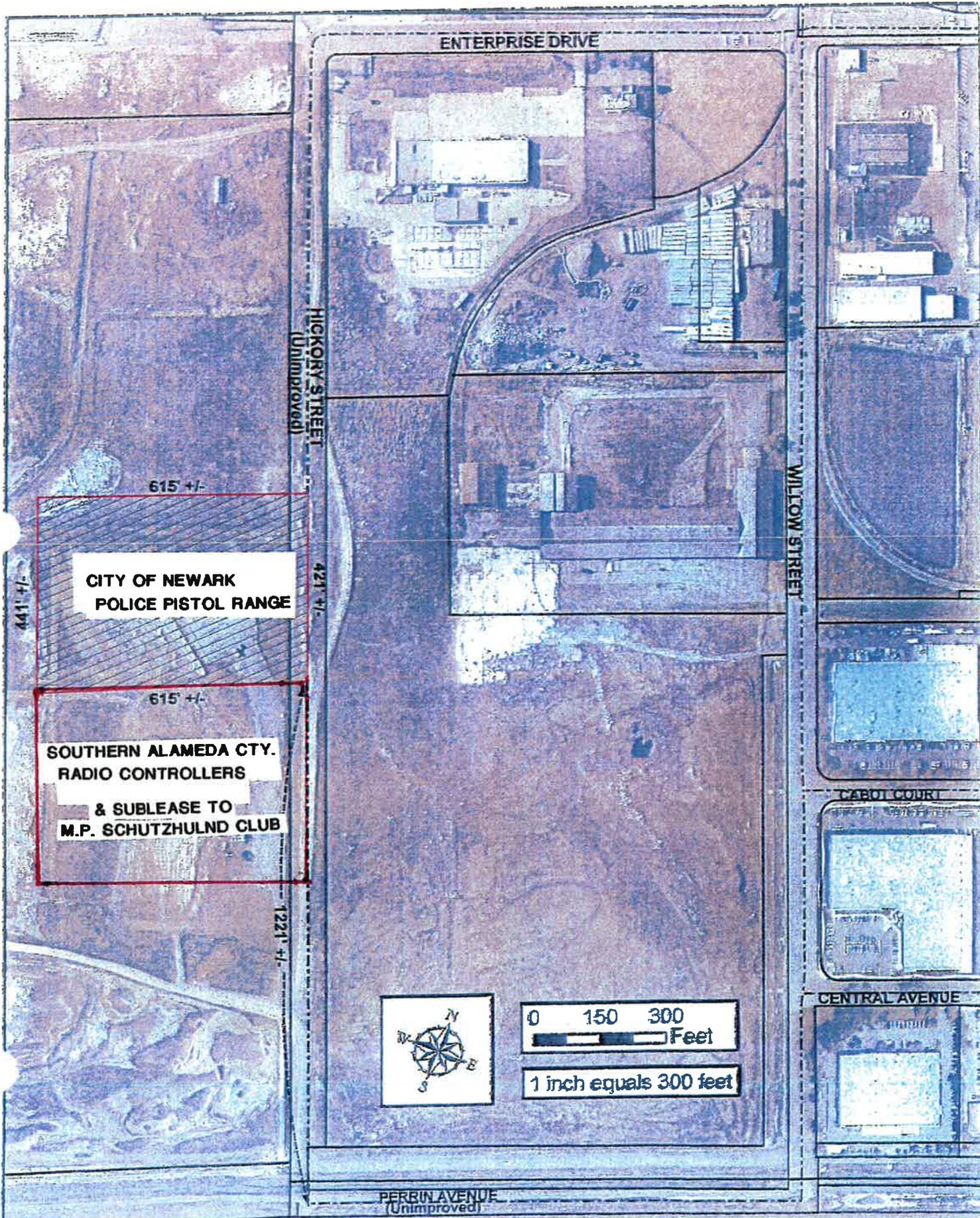
**SOUTHERN ALAMEDA COUNTY RADIO CONTROLLERS, INCORPORATED,  
a California corporation**

By: 

Jim R. Utley

Its: Treasurer

Date: December 31, 2012



ENTERPRISE DRIVE

HICKORY STREET  
(Unimproved)

WILLOW STREET

CABOT COURT

CENTRAL AVENUE



1 inch equals 300 feet

**CITY OF NEWARK  
POLICE PISTOL RANGE**

**SOUTHERN ALAMEDA CTY.  
RADIO CONTROLLERS  
& SUBLEASE TO  
M.P. SCHUTZHULND CLUB**

615' +/-

615' +/-

441' +/-

421' +/-

1221' +/-

PERRIN AVENUE  
(Unimproved)

## **LEASE AGREEMENT**

### **AMENDMENT NO. 15**

*(Southern Alameda County Radio Controllers- Hill Parcel, Newark, CA)*

*2001.008:13 (supersedes 129.059:9)*

This LEASE AGREEMENT - AMENDMENT NO. 15, made and entered into as of December 30, 2010, shall amend said LEASE AGREEMENT dated July 1, 1995, between Cargill, Incorporated, a Delaware corporation, (hereinafter, "Lessor"), and Southern Alameda County Radio Controllers, Incorporated, a California corporation, (hereinafter, "Lessee"), and, said LEASE AGREEMENT-AMENDMENT NO. 14, dated December 14, 2009, between Lessor and Lessee.

Whereas, Lessor desires to amend said LEASE AGREEMENT, and, said LEASE AGREEMENT - AMENDMENT NO. 14;

Lessor and Lessee hereby agree to the following:

1. Pursuant to Paragraph 1(g) of that LEASE AGREEMENT, dated July 1, 1995, as amended under LEASE AGREEMENT - AMENDMENT NO. 14, the term of said agreement shall be extended for one, twelve (12) month period, commencing **January 1, 2011**, and ending **December 31, 2011**, unless sooner terminated or revoked by Licensor.
2. All other terms, provisions, and conditions shall continue to remain in full force and effect. This shall include Lessor's sole right, pursuant to Paragraph 14 of LEASE AGREEMENT dated July 1, 1995, to terminate and revoke this LEASE AGREEMENT (and any AMENDMENTS thereto), by giving Lessee, a 30-day written notice to terminate.
3. Pursuant to Paragraph 9 - ASSIGNMENT AND SUBLETTING, of that LEASE AGREEMENT dated July 1, 1995, and, subject to Lessor's final review and written approval of any extensions or modifications to said Lease Agreement (Sub Lease), identified below, Lessor hereby agrees to and grants permission for Lessee to extend the term of that Lease Agreement (Sub Lease), dated January 1, 2010, by and between SOUTHERN ALAMEDA COUNTY RADIO CONTROLLERS, Inc. ("Sub-Lessor") and MENLO PARK SCHUTZHULND CLUB ("Sub-Lessee"), for one, twelve (12) month period, commencing **January 1, 2011**, and ending **December 31, 2011**, unless sooner terminated or revoked by Lessor, pursuant to Paragraph 14 of said LEASE AGREEMENT dated July 1, 1995, and as amended herein.
4. Any amendment to that Lease Agreement (Sub Lease), dated January 1, 2010, by and between Sub-Lessor and Sub-Lessee, shall be subject to the termination dates, and termination provisions, as provided in the LEASE AGREEMENT dated July 1, 1995, and, as amended pursuant to the provisions of this AMENDMENT NO. 15.

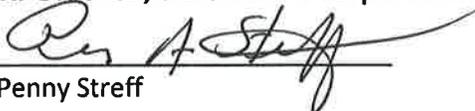
LEASE AGREEMENT - AMENDMENT NO. 15

Page 2

5. All other terms, provisions and conditions of that LEASE AGREEMENT(Sub Lease), dated January 1, 2010, by and between Sub Lessor and Sub Lessee, shall continue to remain in full force and effect.

IN WITNESS WHEREOF, the parties hereto have executed this LICENSE AGREEMENT - AMENDMENT NO. 15, this 30th day of December, 2010.

**CARGILL, INCORPORATED, a Delaware corporation**

By:   
Penny Streff

Its: Land Project Manager

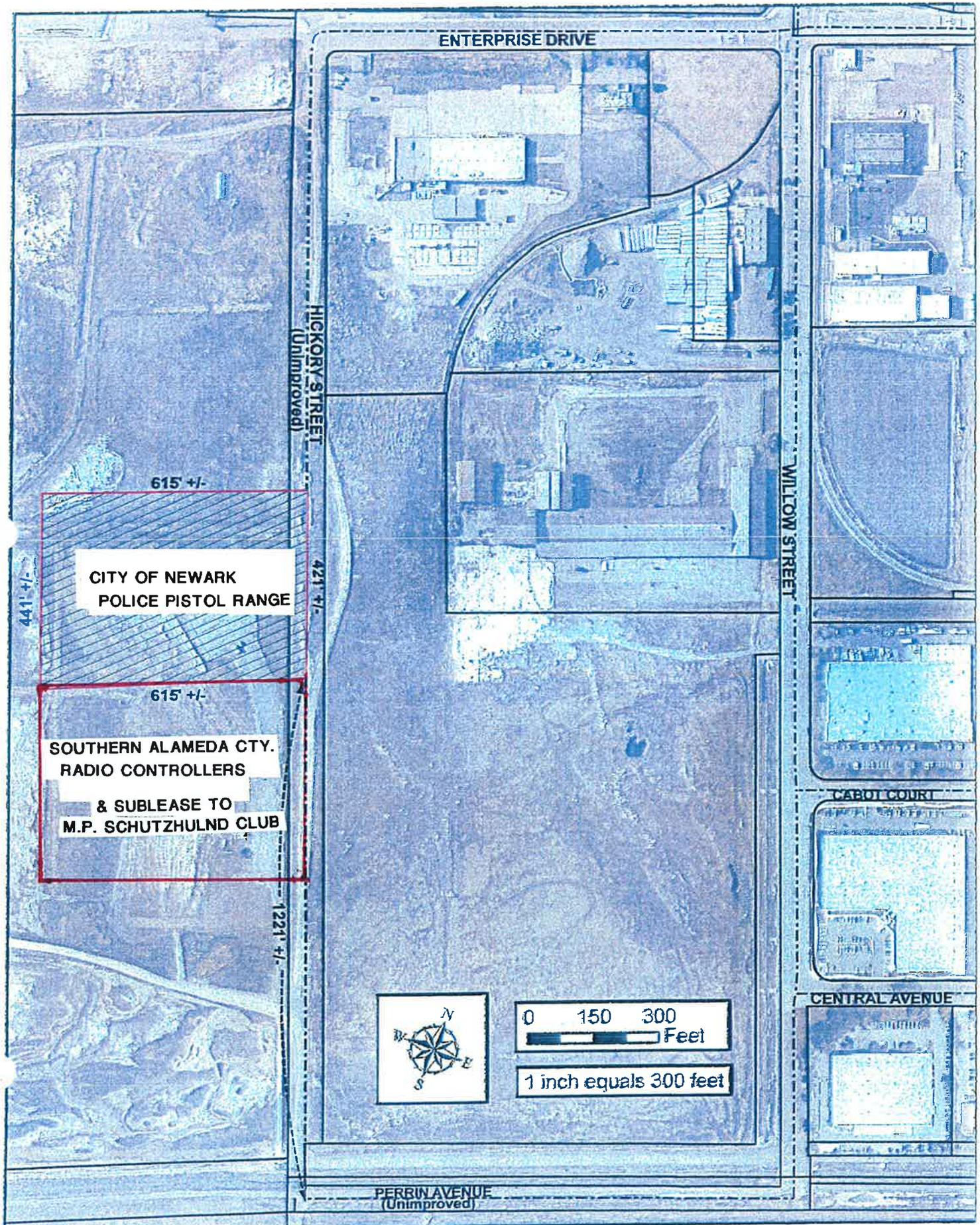
Date: December 30, 2010

**SOUTHERN ALAMEDA COUNTY RADIO CONTROLLERS, INCORPORATED,  
a California corporation**

By:   
Jim R. Utley

Its: Treasurer

Date: December 30, 2010



ENTERPRISE DRIVE

HICKORY STREET  
(Unimproved)

WILLOW STREET

CABOT COURT

CENTRAL AVENUE

PERRIN AVENUE  
(Unimproved)

615' +/-

CITY OF NEWARK  
POLICE PISTOL RANGE

441' +/-

421' +/-

615' +/-

SOUTHERN ALAMEDA CTY.  
RADIO CONTROLLERS  
& SUBLEASE TO  
M.P. SCHUTZHULND CLUB

1221' +/-



1 inch equals 300 feet

LEASE

129.059:9

This lease, made as of the 1st day of July, 1995, by and between CARGILL, INCORPORATED, a Delaware corporation (hereinafter called "Lessor"), and SOUTHERN ALAMEDA COUNTY RADIO CONTROLLERS, INC. (hereinafter called "Lessee"),

PREMISES

Lessor hereby leases to Lessee, and Lessee hires from Lessor, as is, upon the terms and conditions hereinafter set forth, those certain premises situated in the County of ALAMEDA, State of California, and known as A PORTION OF THE HILL PARCEL AS SHOWN ON EXHIBIT A, the same consisting of approximately 6.2 acres more or less, and being more particularly delineated on the map attached hereto, marked Exhibit "A" and incorporated herein.

USE

The said premises shall be used by Lessee for FLYING RADIO-CONTROLLED MODEL AIRPLANES AND MEETING FACILITY and related purposes, and for no other purpose without the written consent of Lessor.

TERM

The term of this lease shall be for the period commencing on the 1st day of JULY, 1995, and ending on the 30th day of JUNE, 1996, subject to the provisions of Paragraph 11 hereof.

RENTAL

Lessee shall pay to Lessor as rental the sum of FOUR HUNDRED AND 00/100 Dollars (\$400.00), lawful money of the United States, which Lessee agrees to pay to Lessor in advance, without deduction or offset, at Lessor's office in Newark, California, or such other place as Lessor may from time to time designate.

It is further mutually agreed between the parties as follows:

USES PROHIBITED

(1) Except as by Paragraph (7) provided, Lessee shall not use or permit the premises or any part thereof to be used for any purpose or purposes other than the purposes for which the said premises are hereby leased.

**WASTE**

(2) Lessee shall not commit, or suffer to be committed, any waste upon the premises, any nuisance, or any act which may interfere with, impair or impede the conduct of the operations of Lessor, its subsidiaries or affiliates, upon the premises, or upon Lessor's adjoining land, Lessor, its subsidiaries and affiliates having, at all times, the right to conduct such operations upon the premises or upon Lessor's adjoining land as they, or any of them, may elect.

**ALTERATIONS**

(3) Lessee shall not make, or permit to be made, any excavation, construction, alteration or improvement of or upon the premises or any part thereof, or erect any signs or advertisements thereon, without the written consent of Lessor first had and obtained. All additions, alterations and improvements--whether constructed by Lessee, Lessor, or by a third party--excepting Lessee's personal property and trade fixtures, shall become a part of the realty and belong to Lessor unless Lessor notifies Lessee to remove any such items.

**COMPLIANCE  
WITH LAW**

(4) Lessee at his sole cost shall comply or cause compliance with all requirements pertaining to the premises of all governmental authorities including all regulations, orders, rules, ordinances, and statutes now in force or which may hereafter be in force, foreseen or unforeseen.

**FREEDOM  
FROM LIENS**

(5) Lessee shall not suffer or permit any liens to be filed or asserted against the leased premises or against Lessor's property of which the premises are a part by reason of any work of improvement or any labor or materials furnished or supplied thereto or any obligation incurred by Lessee, and Lessee shall indemnify and hold Lessor and its property harmless from all liability and loss arising therefrom, together with reasonable attorneys' fees incurred by Lessor in disposing of any such lien claim.

**UTILITIES**

(6) At Lessor's option, Lessee shall either pay directly for all water, gas, heat, light, power, telephone service and any other utilities and services supplied to the premises, or shall reimburse Lessor for Lessee's reasonable share thereof. Lessor shall have no responsibility for the furnishing of any utilities or services to the premises. No utility facilities shall be installed or maintained on the premises except with the express written consent of Lessor and its approval of the location thereof and then only at Lessee's sole risk, cost and expense.

**ENTRY BY  
LESSOR**

(7) Lessor, any subsidiary or affiliated company of Lessor, or any person, firm or corporation licensed or permitted by Lessor, may enter upon the premises at any time for the purpose of conducting such operations thereon as it deems necessary or advisable, for the purpose of making any repairs, improvements or alterations or erecting any signs or advertisements which it may in its discretion undertake to perform or erect, or for the purpose of inspecting the premises.

**INDEMNIFICATION**

(8) Lessee hereby releases and waives all claims against Lessor, its employees, subsidiaries and affiliates for damage to property in, upon or about the premises and for injuries to persons on or about the premises from any cause arising at any time, and agrees to hold harmless, indemnify and protect Lessor, its employees and agents, from any claims, demands, liabilities, including reasonable attorneys' fees, or suits for bodily injuries, personal injuries, property damage, or for loss of life or property, whether based on tort, contract or otherwise, arising out of or connected with, the condition or use of the premises covered by this lease, or any means of ingress thereto or egress therefrom, occasioned, in whole or in part, by the sole negligence of Lessee, its agents, employees, or contractors, or any combination thereof, or by the sole negligence of Lessor, its agents, employees, or contractors, or any combination thereof.

**ASSIGNMENT  
AND  
SUBLETTING**

(9) Lessee shall not assign this lease, or any interest herein, and shall not sublet the premises, or any part thereof, without the written consent of Lessor first obtained. Any such purported assignment or subletting, whether voluntary, involuntary or by operation of law, without such consent, shall be invalid and void, and at the option of Lessor, shall terminate this lease. A consent to one assignment or subletting shall not be deemed to be a consent to any subsequent assignment or subletting.

**INSOLVENCY**

(10) The appointment of a receiver to take possession of property of Lessee, an assignment by Lessee for the benefit of creditors, or any action taken or suffered by Lessee under any insolvency or bankruptcy act shall constitute a breach of this lease.

**REMEDIES**

(11) In the event of any breach of this lease by Lessee, Lessor shall have, besides all rights and remedies of a landlord provided by California Civil Code Sections 1951.2 and 1951.4 plus all other rights and remedies conferred by law and equity, the immediate right of re-entry and may remove any and all persons and property from the premises.

**ATTORNEYS'  
FEES**

(12) Should Lessor refer this lease to an attorney for collection of rent or seek legal advice following a default hereunder or should suit be brought for any unlawful detainer of the premises, for the recovery of any rent due hereunder, or because of the breach hereof, Lessee shall pay to Lessor its reasonable attorneys' fees plus all costs and expenses incurred incident to such employment and such amounts shall be paid whether or not any such action is prosecuted to judgment.

**LESSOR'S  
RULES**

(13) Lessee shall keep and observe all rules and regulations of general applicability which Lessor has or may during the term of this lease adopt relating to the use of, entry upon and ingress and egress over and across its property or any part thereof, including, without limitation, such rules and regulations relating to levees and the issuance, maintenance or withdrawal of entry permits. Lessor expressly reserves the right to grant, withdraw and deny the issuance of entry permits to any person as it may in the exercise of its discretion so elect. Any violation of any of the rules and regulations shall be deemed a breach of this lease.

**TERMINATION**

(14) Lessor shall have the right to terminate this lease at any time upon giving Lessee thirty (30) days prior written notice of its election to do so. In the event that Lessor terminates this lease in accordance with this paragraph and at the time of such termination Lessee has complied with all of the terms, conditions and covenants to be kept and observed by it, Lessor shall refund to Lessee such proportion of the rental paid hereunder as the otherwise unexpired term of this lease would bear its total term.

**CONDEMNATION**

(15) Lessee agrees that if the said premises, or any part thereof, shall be taken, damaged, or condemned (including inverse condemnation) for public or quasi-public use or purpose by any appropriate authority, Lessee shall have no claim against Lessor and shall not have any claim or right to any portion of the amount that may be awarded as damages or paid as a result of any such condemnation; and all right of the Lessee to damages therefor, if any, are hereby assigned by the Lessee to the Lessor. This lease shall cease and terminate upon the earlier of (a) transfer of possession pursuant to the date of such taking or condemnation, or (b) the date the right to compensation and damages accrues, and Lessee shall have no claim against Lessor for the value of any unexpired term of lease.

**INSURANCE**

(16) Prior to entry upon property of Lessor, Lessee shall, at its own expense, obtain from a reputable insurance company admitted to do business in California, a standard comprehensive general liability policy (including contractual liability on any written agreement) insuring Lessor against liability or loss (whether from personal injuries or property damage or both) arising from or connected with Lessee's entry upon and use of said property pursuant to this agreement. Said policy shall name Lessor as

insured and shall have a limit of liability of not less than \$500,000.00 per occurrence (combined single limit). Lessee shall provide Lessor with either the original or a duplicate original of such policy or an original certificate thereof, but Lessor shall not be deemed to have waived the conditions of this section if entry is made before the policy or certificate is delivered to Lessor.

**WAIVER**

(17) The waiver by Lessor of any breach of any term, condition or covenant herein contained shall not be deemed to be a waiver of such term, condition or covenant, or any subsequent breach of the same, or any other term, condition or covenant herein contained. The subsequent acceptance of rent hereunder by Lessor shall not be deemed to be a waiver of any preceding breach of any term, condition or covenant of this lease, other than the failure of Lessee to pay the particular rental so accepted, regardless of Lessor's knowledge of such preceding breach at the time of acceptance of such rent.

**SUCCESSORS  
ASSIGNS**

(18) The terms, conditions and covenants herein contained, and subject to the provisions of Paragraph (9), shall apply to and bind the successors and assigns of the respective parties hereto.

**SURRENDER**

(19) On the last day of the term or earlier termination hereof, Lessee shall surrender the premises to Lessor in good order and repair, reasonable use thereof only excepted and shall, subject to the provisions of Paragraph (3), remove all of Lessee's property therefrom.

**NON-MERGER**

(20) Surrender of this lease by Lessee or mutual cancellation thereof shall not work a merger but shall, at Lessor's option, either terminate all subleases or operate as an assignment thereof to Lessor.

**NOTICES**

(21) All notices to be given or which may be given hereunder, shall be given in writing and shall be deemed to have been given when deposited in the United States mail, either certified or registered, with proper postage prepaid, addressed to the party to be notified at its following address:

**Lessor:** Cargill Incorporated  
Land Department  
7220 Central Avenue  
Newark, California 94560

**Lessee:** Southern Alameda County Radio Controllers Inc.  
c/o Don Laniewski  
30100 Mission Blvd.  
Heyward, CA 94544

Either party may change its address for the receipt of notice by giving to the other notice of such change in accordance with this paragraph.

**NO WARRANTIES**

(22) Lessor makes no warranty or representation respecting the possible flooding conditions or any other condition of the premises, or that the premises are safe or suitable for Lessee's intended uses, and Lessee agrees to make its own investigations and independent determinations upon such matters.

**TIME**

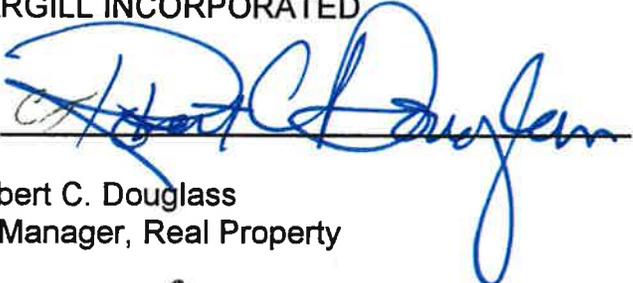
(23) Time is of the essence of this lease.

**MARGINAL CAPTIONS**

(24) The captions in the margins of this lease are for convenience only and are not a part of this lease. Those captions do not in any way limit or amplify the terms, conditions or covenants of this lease.

IN WITNESS WHEREOF, Lessor and Lessee have executed this lease, in duplicate, as of the day and year first above written.

Lessor: CARGILL INCORPORATED

By 

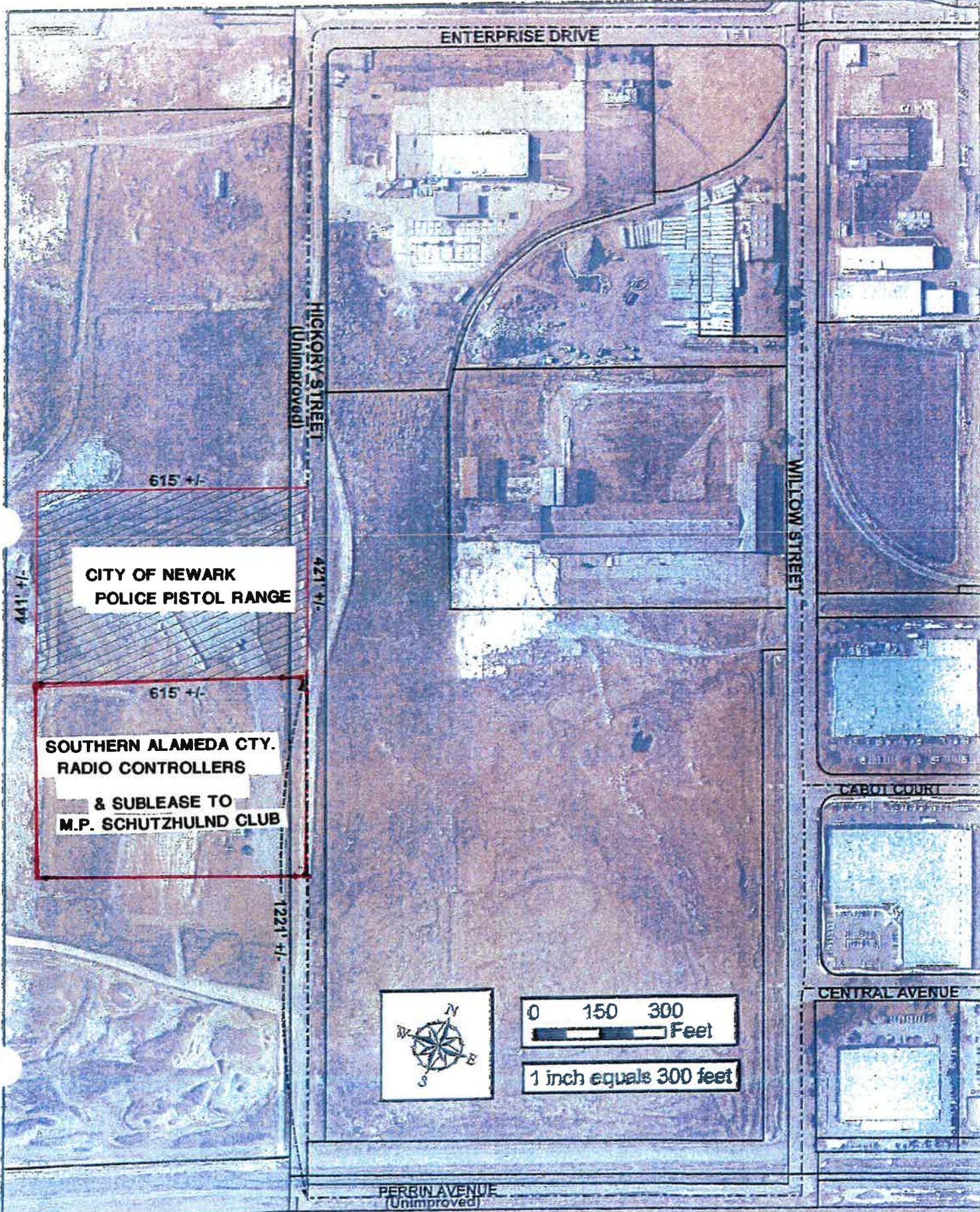
Robert C. Douglass  
Its Manager, Real Property

Lessee: 

Don Laniewski, President

Z:\WINWORD\CPT\DH\SACRAT

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**CITY OF NEWARK  
POLICE PISTOL RANGE**

**SOUTHERN ALAMEDA CTY.  
RADIO CONTROLLERS  
& SUBLEASE TO  
M.P. SCHUTZHULND CLUB**



0 150 300  
Feet

1 inch equals 300 feet

## LICENSE AGREEMENT

**THIS AGREEMENT**, made this 5th day of December, 2008, by CARGILL, INCORPORATED, a Delaware corporation (hereinafter called "Licensor"), whose address is 7220 Central Avenue, Newark, CA 94560-4206 and THE CITY OF NEWARK, CA (hereinafter called "Licensee"), whose address is 37101 Newark Boulevard, Newark, CA 94560 (the "License") (collectively, the "Parties").

### WITNESSETH

1. Licensor hereby permits Licensee, its agents, contractors, employees and equipment to enter certain lands of Licensor located in the County of Alameda, State of California and known as the Newark Police Practice Range, adjacent to Hickory Street in the City of Newark, consisting of 6.2 acres and further defined on Exhibit A attached hereto and made a part hereof (the "Premises).
2. Licensee and Licensor acknowledge that Licensee has leased and operated the Premises as a police training facility, including pistol shooting range, prior to the granting of this License under the terms of that lease between Licensor and Licensee dated July 14, 1975 (the "Lease") and said Lease has expired.
3. The foregoing License is given subject to the following conditions:
  - a. Rent. Licensee shall pay to Licensor as rental the sum of One Dollar (\$1.00), and other good and valuable consideration which Licensee agrees to pay to Licensor in advance, without deduction or offset, at Licensor's office in Newark, California or such other place as Licensor may from time to time designate.
  - b. Use. The Premises is to be used solely as a police training facility including pistol shooting and related purposes and for no other purposes without the written consent of the Licensor. Licensee shall have exclusive use of the Premises during the term of this License.
  - c. Environmental Condition. "Environmental Condition" means any adverse condition relating to any Hazardous Materials or the environment, including surface water, groundwater, drinking water supply, land, soil, surface or subsurface strata or the ambient air and includes air, land and water pollutants, noise, vibration, light and odors.
  - d. Environmental Law. "Environmental Law" means any and all federal, state and local environmental, health and/or safety-related laws, regulations, standards, decisions of courts, ordinances, rules, codes, orders, decrees, directives, guidelines, permits or permit conditions, currently existing and as amended, enacted, issued or adopted in the future, relating to the environment or to any Hazardous Material (including, without limitation, the Comprehensive

Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. §9601 et seq.)), which are or become applicable to Licensee or its use of the Premises.

- e. Hazardous Materials. “Hazardous Materials” means any chemical, substance, material, controlled substance, object, condition, waste, living organism or combination thereof which is or may be hazardous to human health or safety or to the environment (whether potentially injurious to persons and Premises and whether potentially injurious by themselves or in combination with other materials) due to its radioactivity, ignitability, corrosivity, reactivity, explosivity, toxicity, carcinogenicity, mutagenicity, phytotoxicity, infectiousness or other harmful or potentially harmful properties or effects, including, without limitation, petroleum and petroleum products, lead (including, without limitation, lead bullets and shot), asbestos, radon, polychlorinated biphenyls (PCBs) and all of those chemicals, substances, materials, controlled substances, objects, conditions, wastes, living organisms or combinations thereof which are now or become in the future listed in the United States Department of Transportation Hazardous Materials Table, 49 C.F.R. §172.101, as amended from time to time, or listed, defined or regulated in any manner by any Environmental Law.
- f. Environmental Compliance. Licensee and Licensee’s employees, agents, customers, visitors, invitees, licensees, contractors, assignees or sublicensees (collectively, “Licensee’s Parties”) shall comply with all Environmental Law. Licensee shall promptly notify Licensor in writing of (a) any notices of violation or potential or alleged violation of any Environmental Law which are received by Licensee from any governmental agency; (b) any and all inquiry, investigation, enforcement, clean-up, removal or other governmental or regulatory actions instituted or threatened relating to the Premises; and (c) all claims made or threatened by any third-party against Licensee related to the Premises and any Hazardous Materials. Licensor shall have the right, upon not less than forty-eight (48) hours written notice to Licensee, to enter upon and inspect the Premises and to conduct tests, monitoring and investigations, including the right to test for soil and groundwater contamination. If such tests indicate the presence of any Environmental Condition which occurred as a result of, or in connection with, Licensee’s use or occupancy of the Premises at any time, Licensee shall reimburse Licensor for the cost of conducting such tests.
- g. Condition of Premises and Prior Use. Licensee is familiar with the Premises due to its continuing occupancy and acknowledges and accepts the condition of the Premises. Licensee acknowledges that it has used and continues to use lead bullets at the Premises, lead is present on the Premises due to use of the Premises as a police training facility, and that lead is recognized as a Hazardous Material. Licensee further acknowledges that its continued use of the Premises as a practice range may result in the deposit of additional lead or related Environmental Condition. Licensee has reviewed the Phase II Soil and Groundwater Investigation, Proposed Ohlone College Campus Area 2 (19 June 2001) (“Phase II Assessment”), prepared by Treadwell & Rollo, and acknowledges that it includes

an accurate assessment of the Environmental Condition of the Premises and immediately surrounding area as of the date of the assessment. Licensee further acknowledges that the lead contamination at the Premises, as identified in the Phase II Assessment investigation of the Pistol Range, was caused by its prior use and occupancy of the Premises.

- h. Termination and Cleanup. No later than one hundred and twenty (120) days prior to the Expiration Date, or within sixty (60) days of receiving a notice of termination per section 3(m), whichever is earlier, Licensee shall complete a Phase II Environmental Assessment of the Premises, consistent with ASTM standards and reasonable commercial practice, and provide Licensor with a copy of same. In the event any Environmental Condition is identified in the Phase II Environmental Assessment or otherwise, then Licensee shall, within thirty (30) days after completion of the Phase II Environmental Assessment, meet with Licensor and, at Licensor's election which shall be reasonably exercised, shall, subject to subparagraph 3(j), herein below, either: a) promptly take any and all steps necessary to rectify those Environmental Conditions to Licensor's reasonable satisfaction (provided that if there shall be in effect any governmental order respecting the nature and scope of the rectification of such Environmental Condition the terms of such governmental order shall be controlling with respect to the nature and scope of such rectification but not as to any other matters such as non-environmental repair or restoration of the Premises) or b) reimburse Licensor, upon demand, for the reasonable cost to Licensor of performing said rectifying work. Notwithstanding the above, if Licensor determines that Licensee shall perform such work, Licensee shall receive prior written approval of Licensor for the scope of any and all proposed work or actions to be taken with regard to the Environmental Condition. Without limitation, all steps necessary to rectify any Environmental Condition shall include any remediation as required to obtain a certificate of completion from the relevant local, state and federal environmental agencies and shall allow for the future unrestricted use of the Premises. To allow for the future unrestricted use of the Premises, remediation of any Environmental Condition includes, but is not limited to, compliance with applicable residential cleanup standard(s) as specified by any relevant local, state and/or federal agencies or applicable Environmental Law. If Licensor performs the rectifying work, the reimbursement shall be paid to Licensor in advance of Licensor's performing such work, based upon Licensor's reasonable estimate of the cost thereof; and upon completion of such work by Licensor, Licensee shall pay to Licensor any shortfall within thirty (30) days after Licensor bills Licensee therefore or Licensor shall within thirty (30) days refund to Licensee any excess deposit, as the case may be. In addition, Licensee shall comply, at its sole cost and expense, with such recommendations contained in any environmental assessment as Licensor may reasonably require with respect to such Environmental Condition, provided that if there shall be in effect any governmental order respecting rectification of such Environmental Condition the terms of such governmental order shall be controlling (including, without limitation, any recommendations with respect to precautions which should be

taken with respect to activities on the Premises, and additional testing and studies to detect the presence of Hazardous Materials).

- i. Environmental Indemnification. Licensee shall indemnify, protect, defend by counsel acceptable to Licensor and hold harmless Licensor and its affiliates, subsidiaries, partners, directors, officers, employees, agents, shareholders, lenders, Premises managers and attorneys, and each of their respective successors and assigns, from and against any and all claims, judgments, causes of action, damages, penalties, fines, taxes, costs, liabilities, losses and expenses (including, without limitation, reasonable attorneys' fees, court costs, and experts' fees and costs) or death or injury to any person or damage to any premises or property whatsoever, arising from or in connection with, or caused in whole or in part, directly or indirectly, by (a) Licensee and/or any of Licensee's Parties' breach of any prohibition or provision of this License; (b) Licensee and/or any of Licensee's Parties breach of any Environmental Law; or (c) the presence of Hazardous Materials on, under or about the Premises or other properties as a result (directly or indirectly) of Licensee's and/or any of Licensee's Parties' use of, activities on, or failure to act in connection with, the Premises at any time. This indemnity shall include the cost of any required or necessary investigation, repair, response, removal, cleanup or detoxification, and the preparation and implementation of any closure, monitoring or other required plans, to address any Environmental Condition at, or originating from, the Premises, whether such action is required or necessary prior to or following the termination of this License. Specifically, this indemnification shall include, without limitation, the cost of any required or necessary repair, response, removal, cleanup or detoxification, and the preparation and implementation of any closure, monitoring or other required plans associated with use of lead bullets and/or shot at the Premises, at any time, by Licensee and/or Licensee's Parties. This indemnification is intended to constitute an indemnity agreement within the meaning of Section 9607(e)(i) of the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (42 U.S.C. §9607(e)(i)). Neither the written consent, nor knowledge, by Licensor of the presence of Hazardous Materials on, under or about the Premises, nor the strict compliance by Licensee with all Environmental Law, shall excuse Licensee from Licensee's obligation of indemnification pursuant hereto. Licensee's obligations pursuant to the foregoing indemnity shall survive the termination of this License.
  
- j. Limitation of Liability. If Licensee believes that an Environmental Condition identified in the Environmental Assessment did not occur as result of, or in connection with Licensee's use or occupancy of the Premises at any time, then Licensee shall engage a third party expert who shall submit reliable, responsible scientific and technical evidence to Licensor, no later than sixty (60) days after completion of the Phase II Environmental Assessment required by Paragraph 3 (h), in support of Licensee's position. Licensor shall have up to sixty (60) days to review such evidence. In the event that Licensor does not agree with the conclusions of said analysis, Licensor may obtain its own independent expert analysis. If the Licensee's and Licensor's third-party experts agree, the matter

shall be deemed resolved and Licensee shall not be required to perform any environmental remediation required to address that Environmental Condition as otherwise required by Paragraph 3(h), and or indemnify Licensor as otherwise required by Paragraph 3 (i) for costs and/or liability associated solely with that Environmental Condition. If they disagree, then the parties shall select a neutral arbitrator, with experience addressing environmental disputes, from JAMS San Francisco to arbitrate the cause(s) of the Environmental Condition, whose decision shall be final. The parties shall split the costs of the arbitrator equally. If the parties cannot agree on the selection of a neutral arbitrator, they shall request a list of available neutral arbitrators with experience addressing environmental disputes from JAMS San Francisco and select an arbitrator by alternating strikes, with Licensor making the first strike.

- k. No Interest. Licensee shall acquire no interest or estate in land of Licensor under this License.
- l. Term. This license shall expire on December 31, 2009 (“Expiration Date”). The Parties may extend the term of this License by mutual written agreement.
- m. Termination. Licensor shall have the option to terminate and revoke this license, irrespective of expense incurred or labor expended by Licensee, prior to the Expiration Date upon giving at least 30 days prior written notice to the Licensee. Any such written notice shall be mailed and addressed to the Licensee at the address set forth above. Termination of the License upon written notice shall not alter or eliminate any rights or obligations of the Parties specified by this License including, but not limited to, the Termination and Cleanup requirements specified in Paragraph 3(h) and Environmental Indemnification requirements specified in 3(i).
- n. Reimbursement. In the event of termination, pursuant to paragraph 3(m), Licensee shall not be entitled to obtain from Licensor any reimbursement for expenses of Licensee or for any other purpose.
- o. Evacuation. Upon the Expiration Date, or date of termination pursuant to Paragraph 3(m), whichever is earlier, Licensee shall evacuate the Premises and remove all equipment and materials therefrom, and shall leave the Premises in a condition equal to or better than its present condition subject to paragraph 3(h) above.
- p. Assignment. Licensor may assign all or part of its rights and obligations under this License upon 30 days written notice to Licensee.
- q. Warranties by Licensor. Licensor does not warrant or represent that the Premises are safe, healthful, or suitable for the purpose for which they are permitted to be used under the terms of this license, and Licensee agrees to conduct its own investigations and make its independent determination of such matters.

- r. Insurance. If insurance required by this Paragraph is not already held by Licensee, Licensee shall at its own expense, within seven (7) days of executing this License, either a) obtain from a reputable insurance company admitted to do business in California, a standard comprehensive general liability policy (including contractual liability on any written agreement) insuring Licensor against liability or loss (whether from personal injuries or property damage, or both) arising from or connected with Licensee's entry upon and use of the Premises pursuant to this Agreement, or b) provide Licensor evidence of coverage of a standard comprehensive general liability policy (including contractual liability on any written agreement) insuring Licensor against liability or loss (whether from personal injuries or property damage, or both) arising from or connected with Licensee's entry upon and use of the Premises pursuant to this Agreement, issued by the Association of Bay Area California Joint Powers Insurance Authority. Said policy shall name Licensor as an additional insured and shall have a limit of liability of not less than \$2,000,000 per occurrence (combined single limit) and shall be primary insurance.
  - s. Data Collection. Licensee shall notify Licensor, by telephone or letter, at least forty-eight (48) hours prior to any visit to assess any Environmental Condition at the Premises. Such notification shall identify the contractor and/or individuals collecting data and the areas to be studied. Within twenty-four hours following any such visit, Licensee shall furnish Licensor with copies of all data derived from the visit, including, but not limited to, field notes, photographs, etc. Within five (5) days of receipt, Licensee further agrees to furnish Licensor a copy of any reports evaluating any Environmental Condition at the Premises.
4. Licensee hereby accepts this License subject to all of the conditions set forth in this Agreement, and by acceptance of said License and in consideration thereof, Licensee:
- a. Assumes any and all risks in connection with its entry upon or use of the Premises;
  - b. Waives any claim against Licensor, and all of its employees and agents, for injuries that may be sustained by Licensee upon the Premises and for damage to property of Licensee;
  - c. Agrees to indemnify Licensor against any loss and damage which shall be caused by the exercise of rights and privileges herein granted, or by any wrongful or negligent act or omission of Licensee or its agents or employees in the course of their employment, provided, however, that this indemnity shall not extend to that portion of such loss or damage that shall have been caused by Licensor's comparative negligence or willful misconduct; and
  - d. Agrees to pay reasonable compensation to Licensor for any damage other than normal wear and tear that Licensee should inflict or allow upon the Premises pursuant to the exercise of the rights and privileges herein granted.

**IN WITNESS WHEREOF**, the Parties hereto have executed this agreement the day and year first above written.

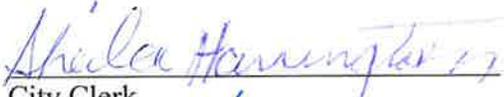
**CARGILL, INCORPORATED**

By: 

Its: VICE PRESIDENT

**CITY OF NEWARK, CALIFORNIA**

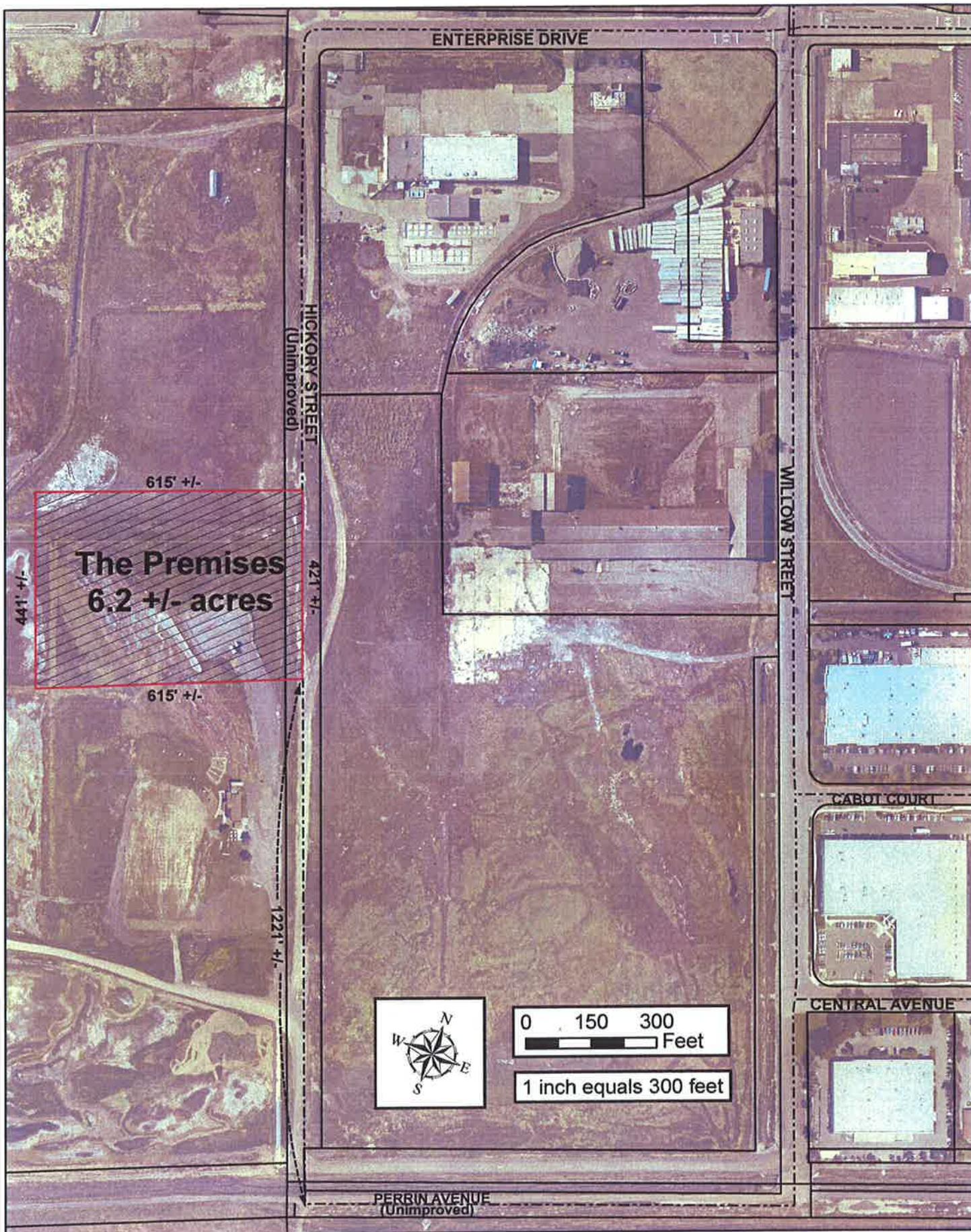
By:   
\_\_\_\_\_  
David Smith  
Mayor

Attest:   
\_\_\_\_\_  
Shilca Harrington  
City Clerk

Approved  
as to form:   
\_\_\_\_\_  
City Attorney

# EXHIBIT A "The Premises"

*WES*





**Cargill Site**

Hickory Street/Enterprise Drive  
Newark, CA 94560

Inquiry Number: 3738660.5

September 29, 2013

## The EDR Aerial Photo Decade Package

# EDR Aerial Photo Decade Package

Environmental Data Resources, Inc. (EDR) Aerial Photo Decade Package is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's professional researchers provide digitally reproduced historical aerial photographs, and when available, provide one photo per decade.

**When delivered electronically by EDR, the aerial photo images included with this report are for ONE TIME USE ONLY. Further reproduction of these aerial photo images is prohibited without permission from EDR. For more information contact your EDR Account Executive.**

***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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**Date EDR Searched Historical Sources:**

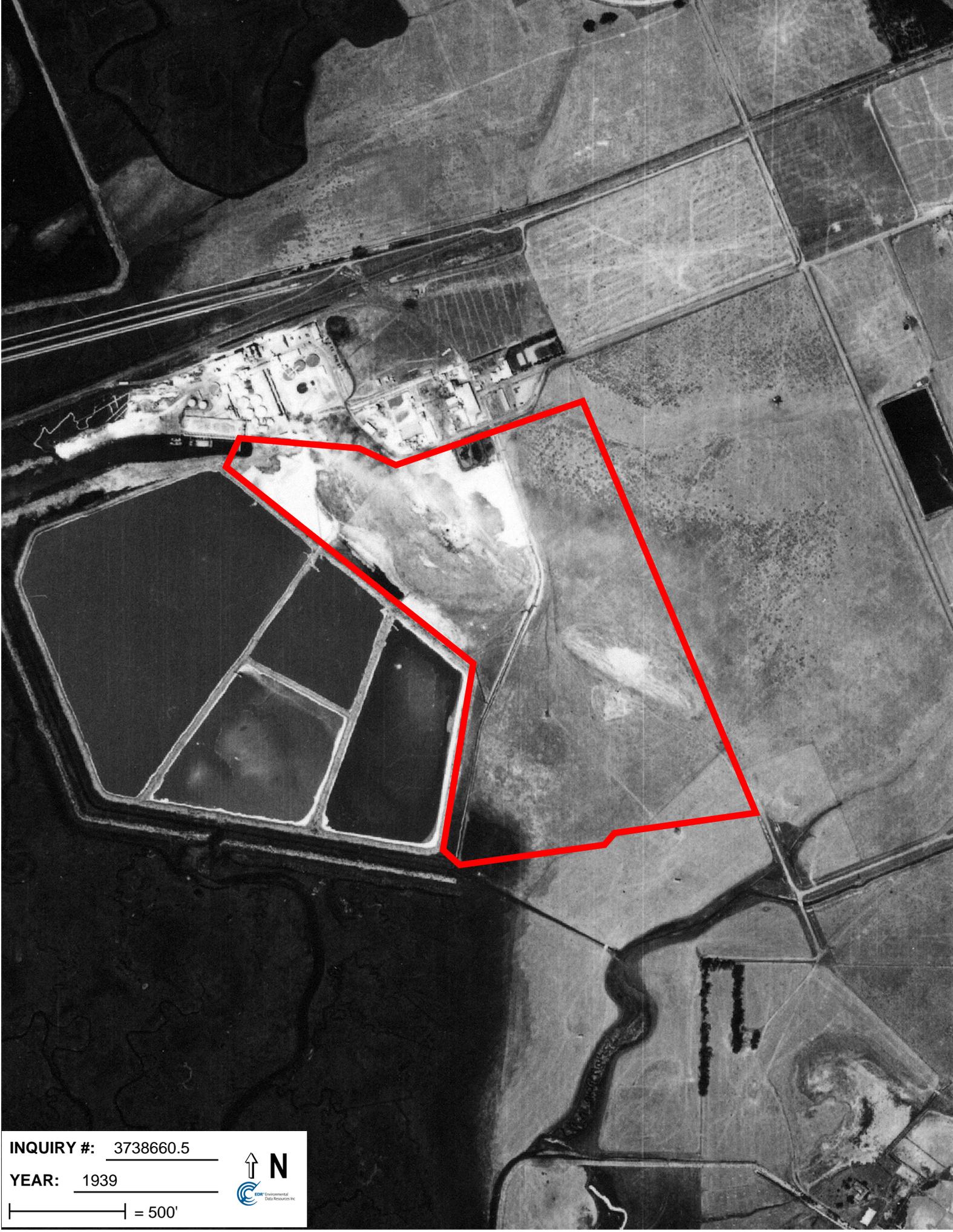
Aerial Photography September 29, 2013

**Target Property:**

Hickory Street/Enterprise Drive

Newark, CA 94560

| <u><i>Year</i></u> | <u><i>Scale</i></u>               | <u><i>Details</i></u>           | <u><i>Source</i></u> |
|--------------------|-----------------------------------|---------------------------------|----------------------|
| 1939               | Aerial Photograph. Scale: 1"=500' | Flight Year: 1939               | Fairchild            |
| 1946               | Aerial Photograph. Scale: 1"=500' | Flight Year: 1946               | Jack Ammann          |
| 1958               | Aerial Photograph. Scale: 1"=500' | Flight Year: 1958               | USGS                 |
| 1968               | Aerial Photograph. Scale: 1"=500' | Flight Year: 1968               | USGS                 |
| 1979               | Aerial Photograph. Scale: 1"=500' | Flight Year: 1979               | WAC                  |
| 1982               | Aerial Photograph. Scale: 1"=500' | Flight Year: 1982               | WSA                  |
| 1993               | Aerial Photograph. Scale: 1"=500' | /DOQQ - acquisition dates: 1993 | EDR                  |
| 1999               | Aerial Photograph. Scale: 1"=500' | Flight Year: 1999               | WAC                  |
| 2005               | Aerial Photograph. Scale: 1"=500' | Flight Year: 2005               | EDR                  |
| 2006               | Aerial Photograph. Scale: 1"=500' | Flight Year: 2006               | EDR                  |
| 2009               | Aerial Photograph. Scale: 1"=500' | Flight Year: 2009               | EDR                  |
| 2010               | Aerial Photograph. Scale: 1"=500' | Flight Year: 2010               | EDR                  |
| 2012               | Aerial Photograph. Scale: 1"=500' | Flight Year: 2012               | EDR                  |



**INQUIRY #:** 3738660.5

**YEAR:** 1939

| = 500'





**INQUIRY #:** 3738660.5

**YEAR:** 1946

| = 500'





**INQUIRY #:** 3738660.5

**YEAR:** 1958

| = 500'





**INQUIRY #:** 3738660.5

**YEAR:** 1968

| = 500'





**INQUIRY #:** 3738660.5

**YEAR:** 1979

 = 500'





**INQUIRY #:** 3738660.5

**YEAR:** 1982

| = 500'





**INQUIRY #:** 3738660.5

**YEAR:** 1993

**|** = 500'





**INQUIRY #:** 3738660.5

**YEAR:** 1999

 = 500'





**INQUIRY #:** 3738660.5

**YEAR:** 2005

**|** = 500'





**INQUIRY #:** 3738660.5

**YEAR:** 2006

 = 500'





**INQUIRY #:** 3738660.5

**YEAR:** 2009

**|** = 500'





**INQUIRY #:** 3738660.5

**YEAR:** 2010

 = 500'





**INQUIRY #:** 3738660.5

**YEAR:** 2012

**|** = 500'





**Cargill Site**

Hickory Street/Enterprise Drive  
Newark, CA 94560

Inquiry Number: 3738660.4

September 24, 2013

# EDR Historical Topographic Map Report

# EDR Historical Topographic Map Report

Environmental Data Resources, Inc.s (EDR) Historical Topographic Map Report is designed to assist professionals in evaluating potential liability on a target property resulting from past activities. EDRs Historical Topographic Map Report includes a search of a collection of public and private color historical topographic maps, dating back to the early 1900s.

***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

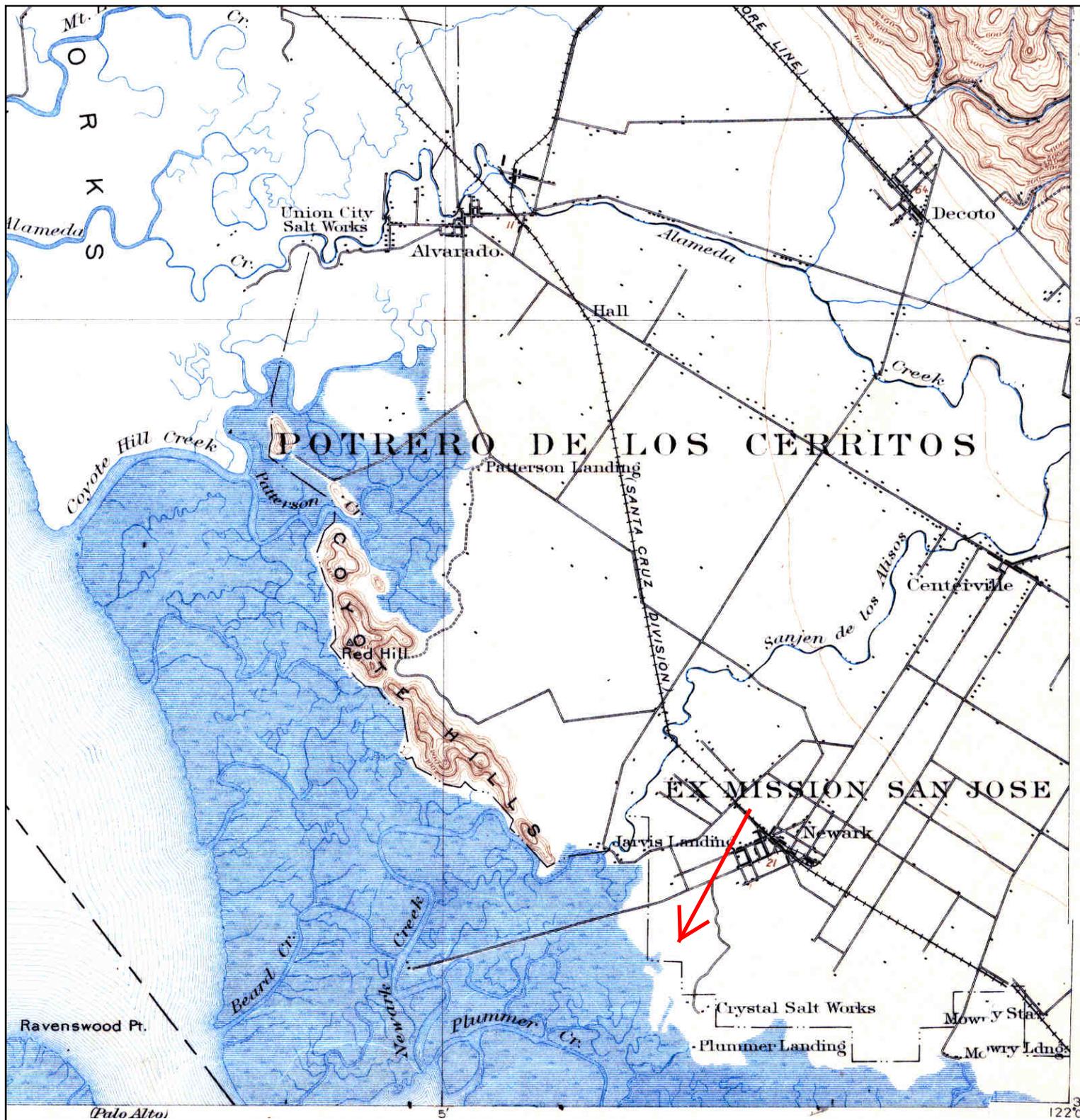
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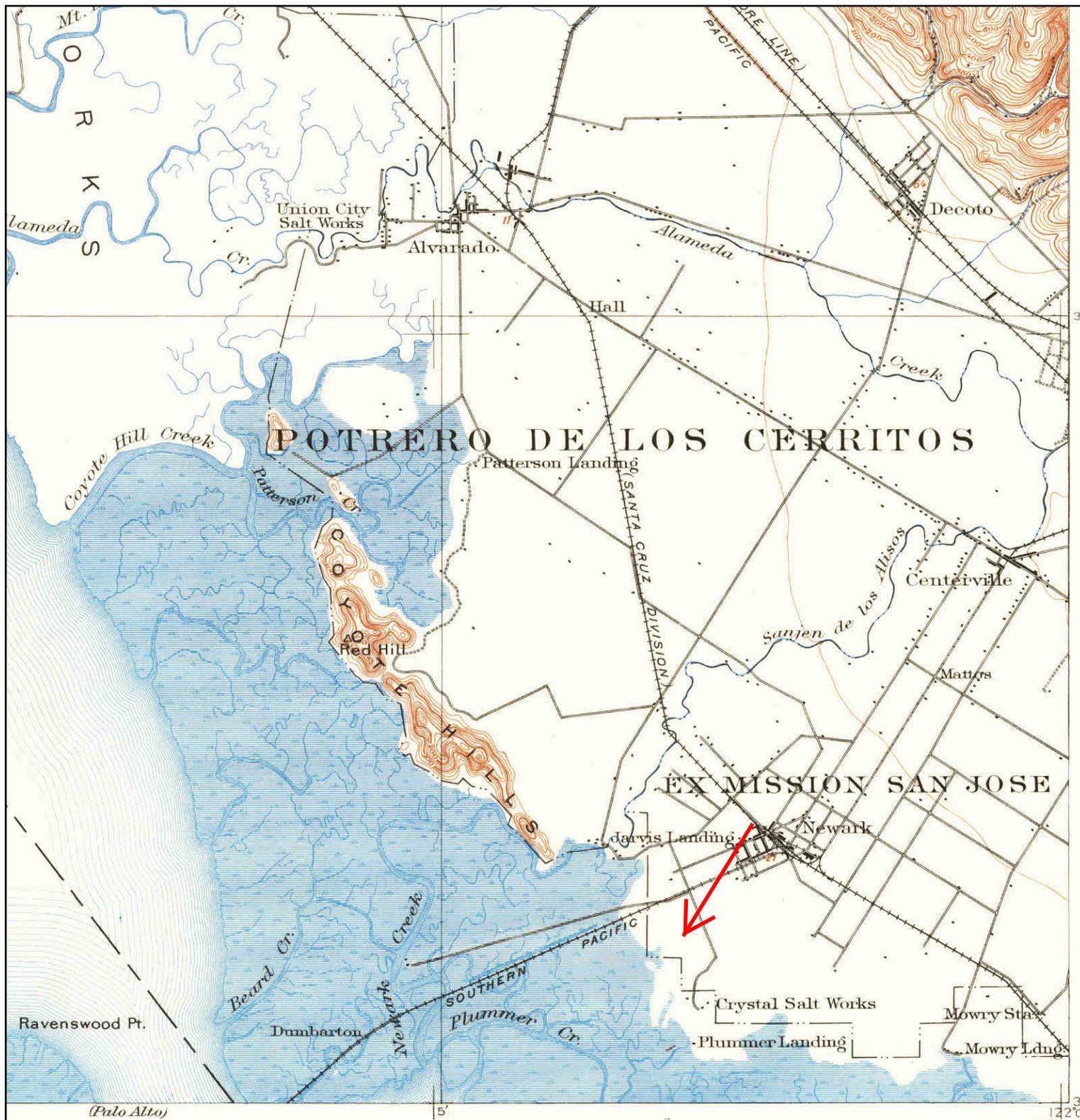
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# Historical Topographic Map



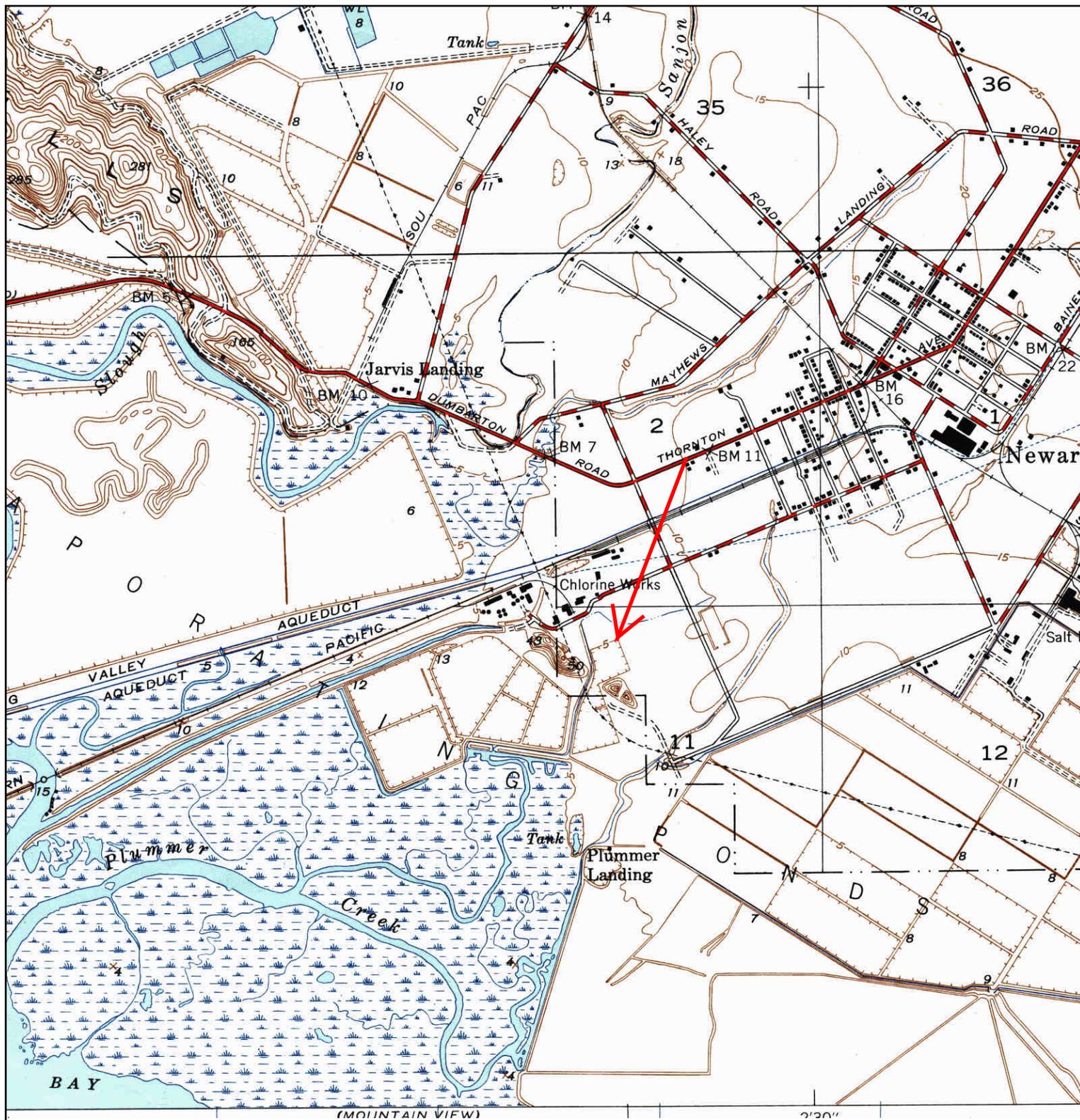
|  |  |  |   |
|--|--|--|---|
|  | <b>TARGET QUAD</b><br>NAME: HAYWARDS<br>MAP YEAR: 1899 | SITE NAME: Cargill Site<br>ADDRESS: Hickory Street/Enterprise Drive<br>Newark, CA 94560<br>LAT/LONG: 37.5177 / -122.0544 | CLIENT: Haley & Aldrich, Inc.<br>CONTACT: Marie Rose Javier<br>INQUIRY#: 3738660.4<br>RESEARCH DATE: 09/24/2013 |
|  | SERIES: 15<br>SCALE: 1:62500                           |  |   |

# Historical Topographic Map



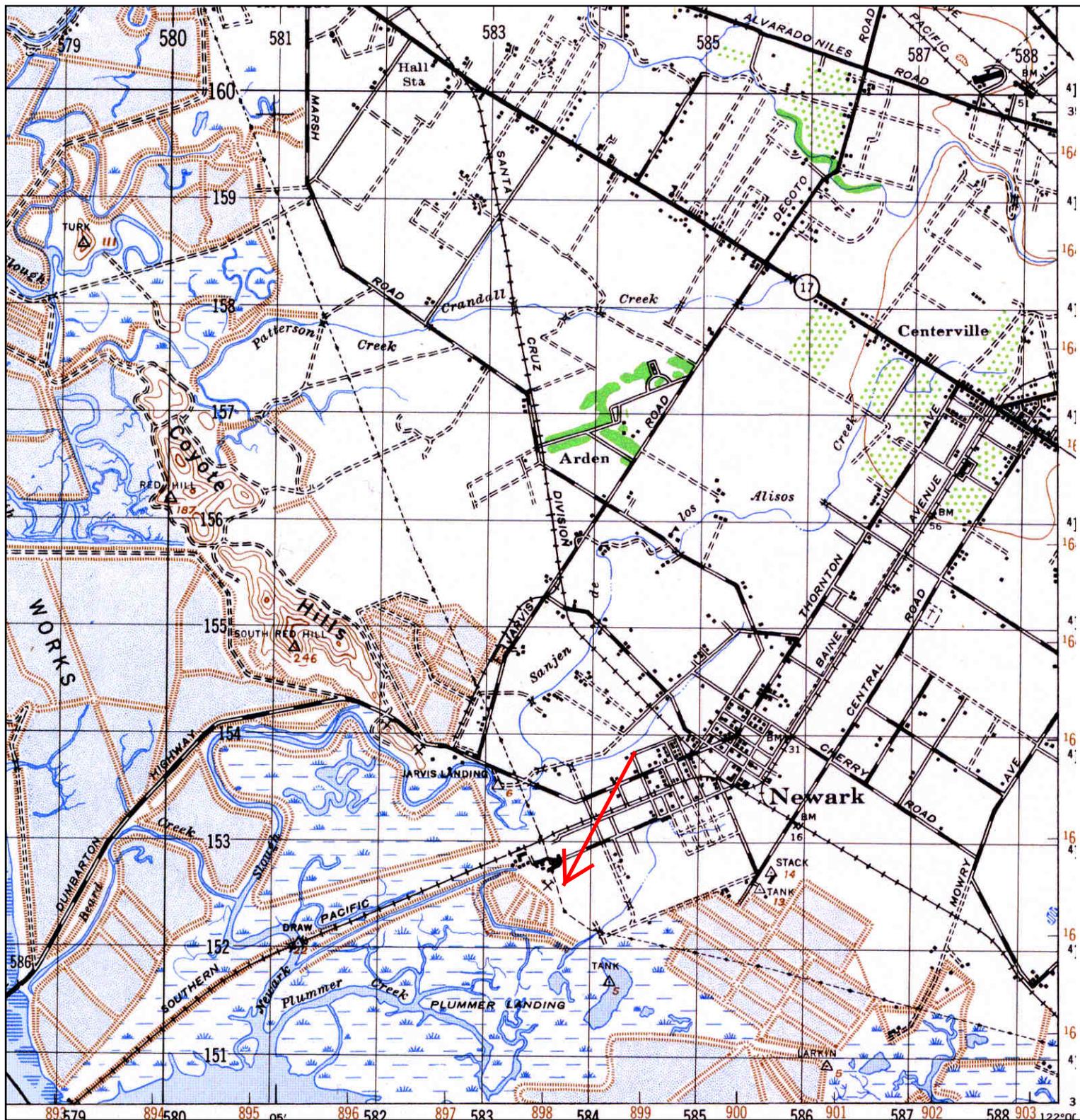
|  |   |  |   |
|--|---|--|---|
|  | <b>TARGET QUAD</b><br>NAME: HAYWARD<br>MAP YEAR: 1915 | SITE NAME: Cargill Site<br>ADDRESS: Hickory Street/Enterprise Drive<br>Newark, CA 94560<br>LAT/LONG: 37.5177 / -122.0544 | CLIENT: Haley & Aldrich, Inc.<br>CONTACT: Marie Rose Javier<br>INQUIRY#: 3738660.4<br>RESEARCH DATE: 09/24/2013 |
|  | SERIES: 15<br>SCALE: 1:62500                          |  |   |

# Historical Topographic Map



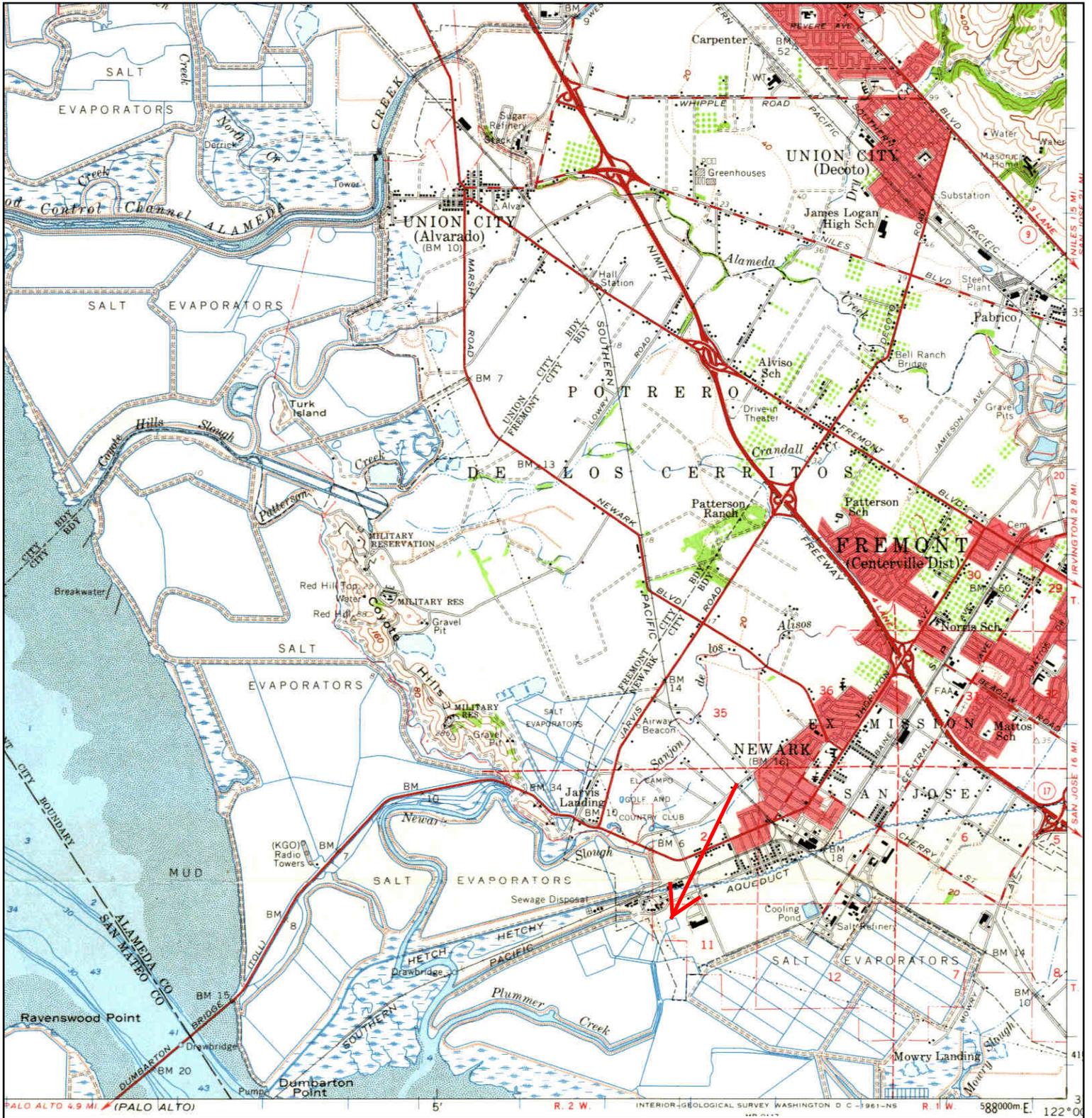
|          |   |  |  |
|----------|---|--|--|
| <p>N</p> | <p><b>TARGET QUAD</b></p> <p>NAME: NEWARK</p> <p>MAP YEAR: 1947</p> | <p>SITE NAME: Cargill Site</p> <p>ADDRESS: Hickory Street/Enterprise Drive<br/>Newark, CA 94560</p> <p>LAT/LONG: 37.5177 / -122.0544</p> | <p>CLIENT: Haley &amp; Aldrich, Inc.</p> <p>CONTACT: Marie Rose Javier</p> <p>INQUIRY#: 3738660.4</p> <p>RESEARCH DATE: 09/24/2013</p> |
|          | <p>SERIES: 7.5</p> <p>SCALE: 1:24000</p>                            |  |  |
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|          |   |  |  |
|          |   |  |  |

# Historical Topographic Map



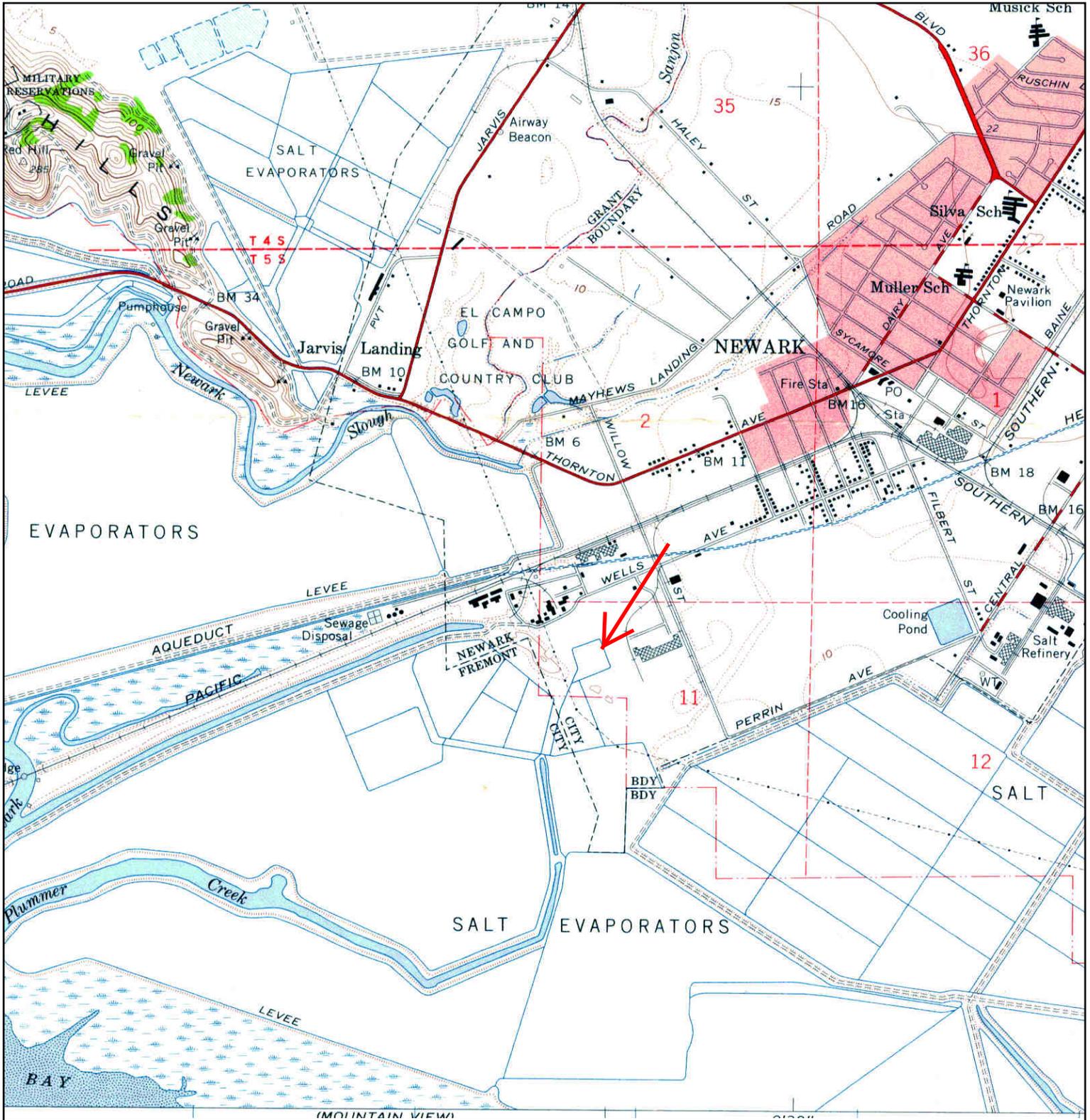
|   |                    |  |                                      |
|---|--------------------|--|--------------------------------------|
| <br>N | <b>TARGET QUAD</b> | <b>SITE NAME:</b> Cargill Site           | <b>CLIENT:</b> Haley & Aldrich, Inc. |
|   | NAME: HAYWARD      | ADDRESS: Hickory Street/Enterprise Drive | CONTACT: Marie Rose Javier           |
|   | MAP YEAR: 1948     | LAT/LONG: 37.5177 / -122.0544            | INQUIRY#: 3738660.4                  |
|   | SERIES: 15         |  | RESEARCH DATE: 09/24/2013            |
|   | SCALE: 1:50000     |  |                                      |

# Historical Topographic Map



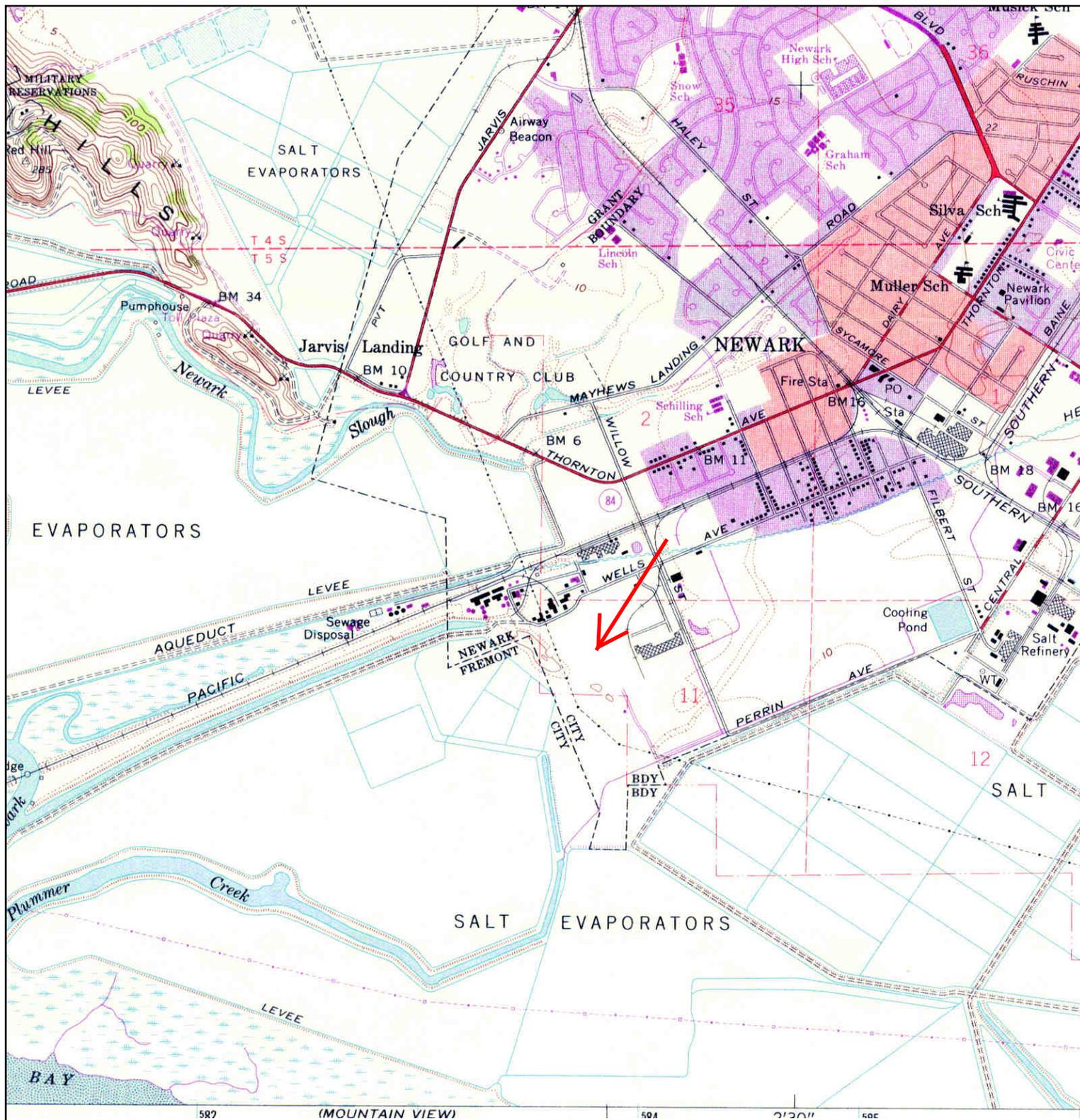
|  |                       |   |                                      |
|--|-----------------------|---|--------------------------------------|
|  | <b>TARGET QUAD</b>    | <b>SITE NAME:</b> Cargill Site                  | <b>CLIENT:</b> Haley & Aldrich, Inc. |
|  | <b>NAME:</b> HAYWARD  | <b>ADDRESS:</b> Hickory Street/Enterprise Drive | <b>CONTACT:</b> Marie Rose Javier    |
|  | <b>MAP YEAR:</b> 1959 | <b>LAT/LONG:</b> 37.5177 / -122.0544            | <b>INQUIRY#:</b> 3738660.4           |
|  | <b>SERIES:</b> 15     |   | <b>RESEARCH DATE:</b> 09/24/2013     |
|  | <b>SCALE:</b> 1:62500 |   |                                      |

# Historical Topographic Map



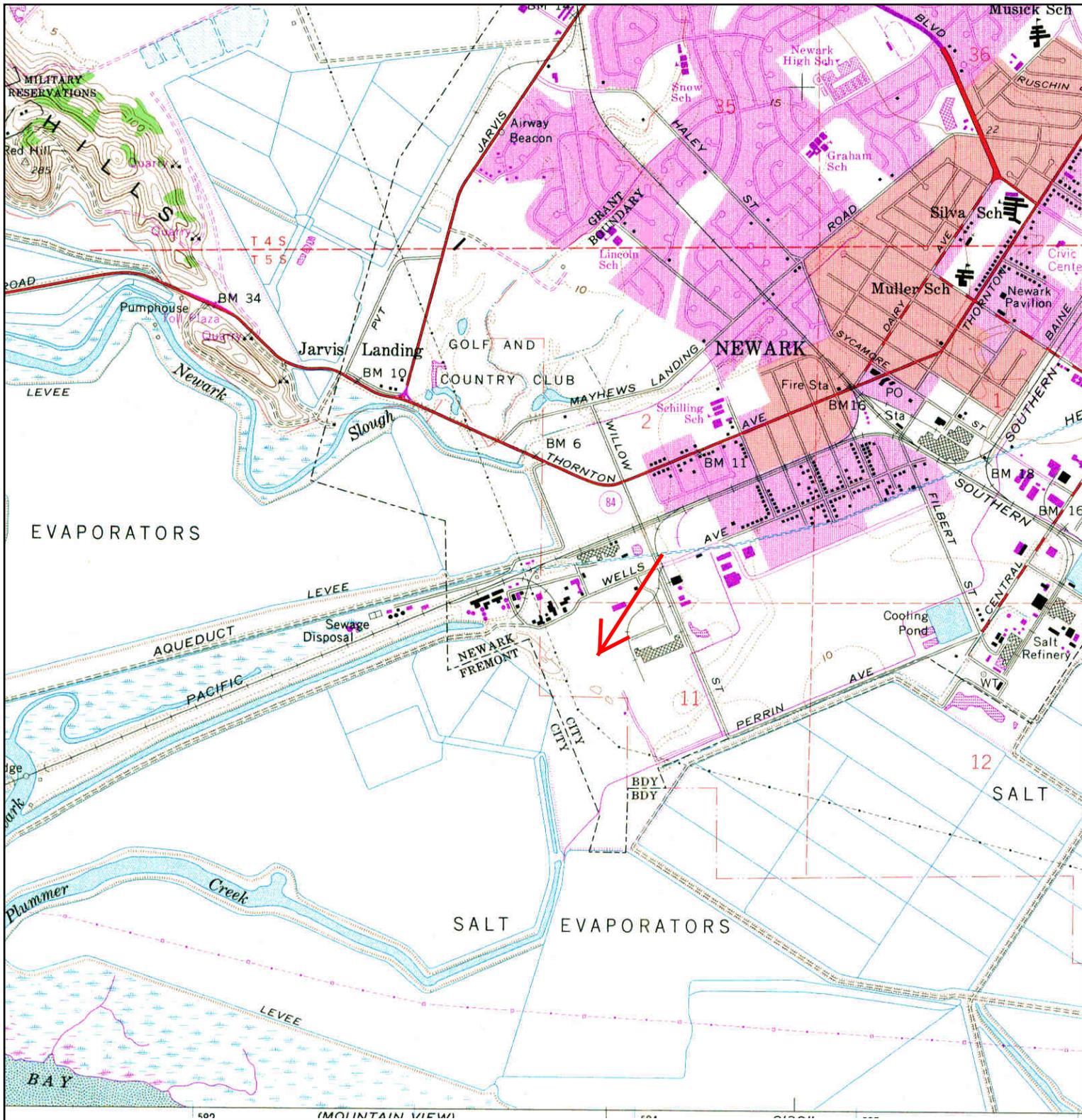
|  |                       |   |                                      |                                  |
|--|-----------------------|---|--------------------------------------|----------------------------------|
| <br><b>N</b> | <b>TARGET QUAD</b>    | <b>SITE NAME:</b> Cargill Site                  | <b>CLIENT:</b> Haley & Aldrich, Inc. |                                  |
|  | <b>NAME:</b> NEWARK   | <b>ADDRESS:</b> Hickory Street/Enterprise Drive | <b>CONTACT:</b> Marie Rose Javier    |                                  |
|  | <b>MAP YEAR:</b> 1959 | <b>LAT/LONG:</b> 37.5177 / -122.0544            | <b>INQUIRY#:</b> 3738660.4           | <b>RESEARCH DATE:</b> 09/24/2013 |
|  | <b>SERIES:</b> 7.5    |   |                                      |                                  |
|  | <b>SCALE:</b> 1:24000 |   |                                      |                                  |

# Historical Topographic Map



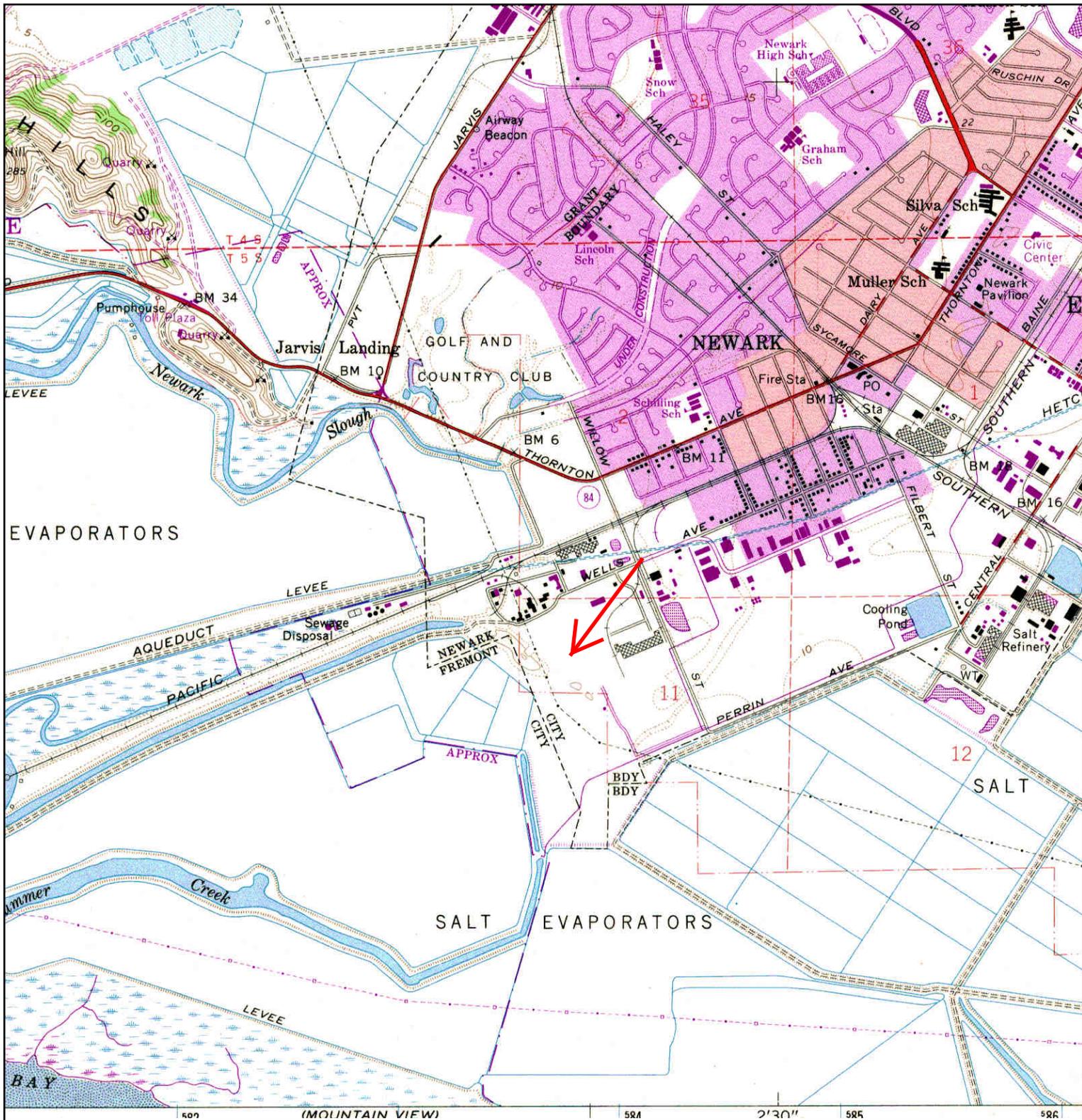
|  |                         |   |                                      |
|--|-------------------------|---|--------------------------------------|
|  | <b>TARGET QUAD</b>      | <b>SITE NAME:</b> Cargill Site                  | <b>CLIENT:</b> Haley & Aldrich, Inc. |
|  | NAME: NEWARK            | <b>ADDRESS:</b> Hickory Street/Enterprise Drive | <b>CONTACT:</b> Marie Rose Javier    |
|  | MAP YEAR: 1968          | Newark, CA 94560                                | <b>INQUIRY#:</b> 3738660.4           |
|  | PHOTOREVISED FROM :1959 | <b>LAT/LONG:</b> 37.5177 / -122.0544            | <b>RESEARCH DATE:</b> 09/24/2013     |
|  | SERIES: 7.5             |   |                                      |
|  | SCALE: 1:24000          |   |                                      |

# Historical Topographic Map



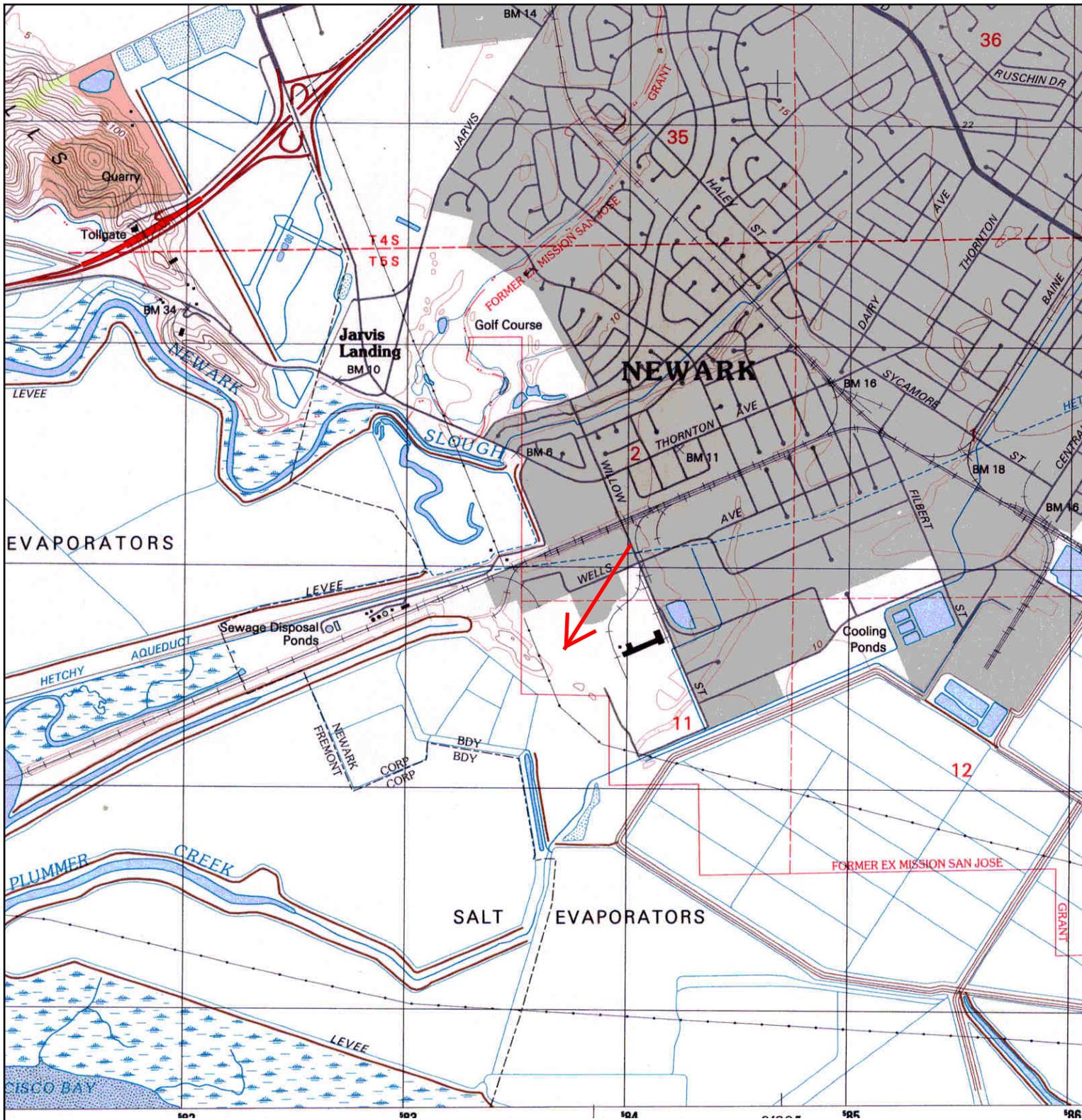
|   |                          |   |                                      |
|---|--------------------------|---|--------------------------------------|
|  | <b>TARGET QUAD</b>       | <b>SITE NAME:</b> Cargill Site                  | <b>CLIENT:</b> Haley & Aldrich, Inc. |
|   | NAME: NEWARK             | <b>ADDRESS:</b> Hickory Street/Enterprise Drive | <b>CONTACT:</b> Marie Rose Javier    |
|   | MAP YEAR: 1973           | Newark, CA 94560                                | <b>INQUIRY#:</b> 3738660.4           |
|   | PHOTOREVISIED FROM :1959 | <b>LAT/LONG:</b> 37.5177 / -122.0544            | <b>RESEARCH DATE:</b> 09/24/2013     |
|   | SERIES: 7.5              |   |                                      |
|   | SCALE: 1:24000           |   |                                      |

# Historical Topographic Map



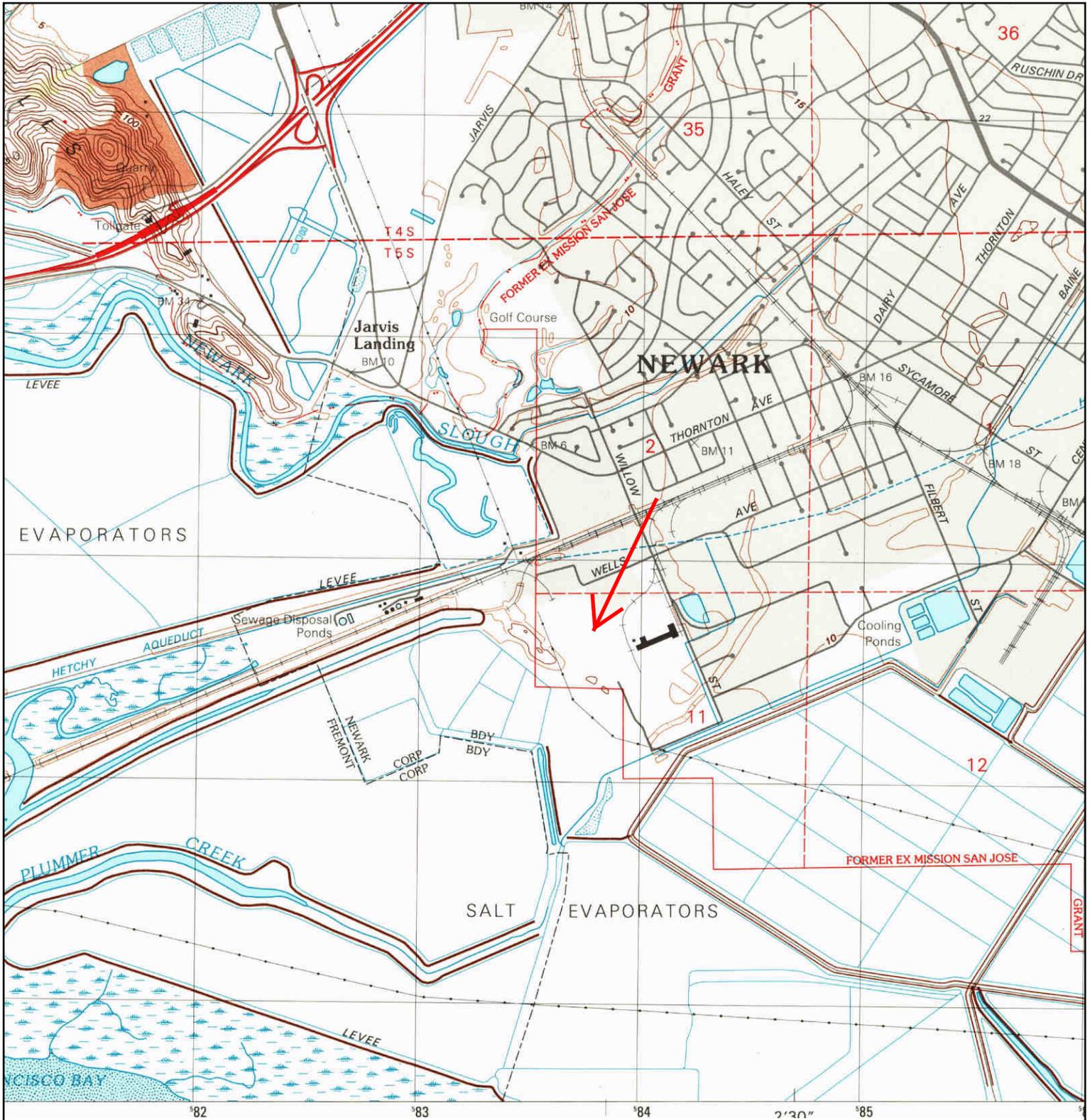
|  |                         |   |                                      |
|--|-------------------------|---|--------------------------------------|
|  | <b>TARGET QUAD</b>      | <b>SITE NAME:</b> Cargill Site                  | <b>CLIENT:</b> Haley & Aldrich, Inc. |
|  | NAME: NEWARK            | <b>ADDRESS:</b> Hickory Street/Enterprise Drive | <b>CONTACT:</b> Marie Rose Javier    |
|  | MAP YEAR: 1980          | Newark, CA 94560                                | <b>INQUIRY#:</b> 3738660.4           |
|  | PHOTOREVISED FROM :1959 | <b>LAT/LONG:</b> 37.5177 / -122.0544            | <b>RESEARCH DATE:</b> 09/24/2013     |
|  | SERIES: 7.5             |   |                                      |
|  | SCALE: 1:24000          |   |                                      |

# Historical Topographic Map



|  |                       |   |                                      |
|--|-----------------------|---|--------------------------------------|
|  | <b>TARGET QUAD</b>    | <b>SITE NAME:</b> Cargill Site                  | <b>CLIENT:</b> Haley & Aldrich, Inc. |
|  | <b>NAME:</b> NEWARK   | <b>ADDRESS:</b> Hickory Street/Enterprise Drive | <b>CONTACT:</b> Marie Rose Javier    |
|  | <b>MAP YEAR:</b> 1993 | <b>LAT/LONG:</b> 37.5177 / -122.0544            | <b>INQUIRY#:</b> 3738660.4           |
|  | <b>SERIES:</b> 7.5    |   | <b>RESEARCH DATE:</b> 09/24/2013     |
|  | <b>SCALE:</b> 1:24000 |   |                                      |

# Historical Topographic Map



|  |                       |   |                                      |
|--|-----------------------|---|--------------------------------------|
|  | <b>TARGET QUAD</b>    | <b>SITE NAME:</b> Cargill Site                  | <b>CLIENT:</b> Haley & Aldrich, Inc. |
|  | <b>NAME:</b> NEWARK   | <b>ADDRESS:</b> Hickory Street/Enterprise Drive | <b>CONTACT:</b> Marie Rose Javier    |
|  | <b>MAP YEAR:</b> 1997 | <b>LAT/LONG:</b> 37.5177 / -122.0544            | <b>INQUIRY#:</b> 3738660.4           |
|  | <b>SERIES:</b> 7.5    |   | <b>RESEARCH DATE:</b> 09/24/2013     |
|  | <b>SCALE:</b> 1:24000 |   |                                      |

**Cargill Site**

Hickory Street/Enterprise Drive  
Newark, CA 94560

Inquiry Number: 3738660.6  
September 24, 2013

# The EDR-City Directory Abstract

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City Directory Images

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## EXECUTIVE SUMMARY

### DESCRIPTION

Environmental Data Resources, Inc.'s (EDR) City Directory Abstract is a screening tool designed to assist environmental professionals in evaluating potential liability on a target property resulting from past activities. EDR's City Directory Abstract includes a search and abstract of available city directory data. For each address, the directory lists the name of the corresponding occupant at five year intervals.

Business directories including city, cross reference and telephone directories were reviewed, if available, at approximately five year intervals for the years spanning 1920 through 2012. This report compiles information gathered in this review by geocoding the latitude and longitude of properties identified and gathering information about properties within 660 feet of the target property.

A summary of the information obtained is provided in the text of this report.

### RESEARCH SUMMARY

The following research sources were consulted in the preparation of this report. An "X" indicates where information was identified in the source and provided in this report.

| <u>Year</u> | <u>Source</u>             | <u>TP</u> | <u>Adjoining</u> | <u>Text Abstract</u> | <u>Source Image</u> |
|-------------|---------------------------|-----------|------------------|----------------------|---------------------|
| 2012        | Cole Information Services | -         | -                | -                    | -                   |
| 2007        | Cole Information Services | -         | -                | -                    | -                   |
| 2006        | Haines Company, Inc.      | -         | -                | -                    | -                   |
| 2002        | Haines                    | -         | X                | X                    | -                   |
|             | R. L. Polk & Co.          | -         | X                | X                    | -                   |
| 2000        | Pacific Bell              | -         | -                | -                    | -                   |
| 1996        | PACIFIC BELL DIRECTORY    | -         | -                | -                    | -                   |
| 1993        | Pacific Bell              | -         | -                | -                    | -                   |
| 1992        | PACIFIC BELL DIRECTORY    | -         | -                | -                    | -                   |
| 1991        | PACIFIC BELL WHITE PAGES  | -         | -                | -                    | -                   |
| 1986        | Pacific Bell              | -         | -                | -                    | -                   |
| 1984        | Pacific Bell              | -         | -                | -                    | -                   |
| 1982        | Pacific Telephone         | -         | X                | X                    | -                   |
| 1980        | Pacific Telephone         | -         | X                | X                    | -                   |
| 1979        | Pacific Telephone         | -         | X                | X                    | -                   |
| 1976        | R. L. Polk & Co.          | -         | X                | X                    | -                   |
| 1975        | Pacific Telephone         | -         | X                | X                    | -                   |
| 1973        | Pacific Telephone         | -         | X                | X                    | -                   |
| 1970        | Pacific Telephone         | -         | -                | -                    | -                   |
| 1967        | R. L. Polk & Co.          | -         | -                | -                    | -                   |
| 1965        | Pacific Telephone         | -         | -                | -                    | -                   |
| 1962        | Pacific Telephone         | -         | -                | -                    | -                   |
| 1960        | Pacific Telephone         | -         | -                | -                    | -                   |
| 1959        | R. L. Polk & Co.          | -         | -                | -                    | -                   |
| 1956        | Pacific Telephone         | -         | -                | -                    | -                   |

## EXECUTIVE SUMMARY

| <u>Year</u> | <u>Source</u>                         | <u>TP</u> | <u>Adjoining</u> | <u>Text Abstract</u> | <u>Source Image</u> |
|-------------|---------------------------------------|-----------|------------------|----------------------|---------------------|
| 1955        | The Pacific Telephone & Telegraph Co. | -         | -                | -                    | -                   |
| 1954        | R. L. Polk & Co. of California        | -         | -                | -                    | -                   |
| 1951        | R. L. Polk & Co.                      | -         | -                | -                    | -                   |
| 1950        | The Pacific Telephone & Telegraph Co. | -         | -                | -                    | -                   |
| 1946        | R. L. Polk & Co.                      | -         | -                | -                    | -                   |
| 1945        | The Pacific Telephone & Telegraph Co. | -         | -                | -                    | -                   |
| 1943        | R. L. Polk & Co.                      | -         | -                | -                    | -                   |
| 1940        | R. L. Polk & Co.                      | -         | -                | -                    | -                   |
| 1938        | Pacific Telephone                     | -         | -                | -                    | -                   |
| 1933        | R. L. Polk & Co.                      | -         | -                | -                    | -                   |
| 1932        | R. L. Polk & Co. of California        | -         | -                | -                    | -                   |
| 1928        | R. L. Polk & Co. of California        | -         | -                | -                    | -                   |
| 1926        | R. L. Polk & Co.                      | -         | -                | -                    | -                   |
| 1925        | The Pacific Telephone & Telegraph Co. | -         | -                | -                    | -                   |
| 1920        | R. L. Polk & Co. of California        | -         | -                | -                    | -                   |

## FINDINGS

### TARGET PROPERTY INFORMATION

#### ADDRESS

Hickory Street/Enterprise Drive  
Newark, CA 94560

#### FINDINGS DETAIL

Target Property research detail.

## FINDINGS

### ADJOINING PROPERTY DETAIL

The following Adjoining Property addresses were researched for this report. Detailed findings are provided for each address.

### ENTERPRISE DR

#### 8787 ENTERPRISE DR

| <u>Year</u> | <u>Uses</u>                                | <u>Source</u>     |
|-------------|--|-------------------|
| 2002        | FMCCORP                                    | Haines            |
|             | FMCCORP                                    | R. L. Polk & Co.  |
| 1982        | INDUSTRIAL CHEMICAL DIV FMC<br>CORP NEWARK | Pacific Telephone |
|             | FMC CORPORATION                            | Pacific Telephone |
| 1979        | EZZELL JAMES K                             | Pacific Telephone |
| 1976        | MONTEREY MECHANICAL CO                     | R. L. Polk & Co.  |
|             | INDUSTRIAL CHEMICAL DIV FMC<br>CORP        | R. L. Polk & Co.  |
|             | EZY WAY SYSTEMS CO                         | R. L. Polk & Co.  |
| 1975        | FOOD PROCESSING MACHINERY DIV              | Pacific Telephone |
| 1973        | INORGANIC CHEMICALS DIV FMC<br>CORP        | Pacific Telephone |
|             | FMC CORPORATION INDUSTRIAL<br>CHEMICAL DIV | Pacific Telephone |

#### 8789 ENTERPRISE DR

| <u>Year</u> | <u>Uses</u> | <u>Source</u>    |
|-------------|-------------|------------------|
| 2002        | XXXX        | Haines           |
|             | XXXX        | R. L. Polk & Co. |

#### 8891 ENTERPRISE DR

| <u>Year</u> | <u>Uses</u>                         | <u>Source</u>     |
|-------------|-------------------------------------|-------------------|
| 2002        | XXXX                                | Haines            |
|             | XXXX                                | R. L. Polk & Co.  |
| 1982        | TOCO INC NEWARK                     | Pacific Telephone |
|             | FACILITIES LEASING CO NEWARK        | Pacific Telephone |
|             | DESIGNED BUILDING SYSTEMS<br>NEWARK | Pacific Telephone |
| 1980        | FACILITIES LEASING CO               | Pacific Telephone |
| 1979        | OLSEN HOMER J INC                   | Pacific Telephone |
|             | KENNEDY ENGINEERS                   | Pacific Telephone |
|             | KENNEDY ENGINEERS                   | Pacific Telephone |

## FINDINGS

| <u>Year</u> | <u>Uses</u>       | <u>Source</u>     |
|-------------|-------------------|-------------------|
| 1979        | EXECUTIVE OFFICES | Pacific Telephone |
|             | CAL EQUIPMENT     | Pacific Telephone |
|             | METAL CRAFT       | Pacific Telephone |

## FINDINGS

### TARGET PROPERTY: ADDRESS NOT IDENTIFIED IN RESEARCH SOURCE

The following Target Property addresses were researched for this report, and the addresses were not identified in the research source.

#### Address Researched

Hickory Street/Enterprise Drive

#### Address Not Identified in Research Source

2012, 2007, 2006, 2002, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

### ADJOINING PROPERTY: ADDRESSES NOT IDENTIFIED IN RESEARCH SOURCE

The following Adjoining Property addresses were researched for this report, and the addresses were not identified in research source.

#### Address Researched

8787 ENTERPRISE DR

#### Address Not Identified in Research Source

2012, 2007, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1980, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

8789 ENTERPRISE DR

2012, 2007, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1982, 1980, 1979, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920

8891 ENTERPRISE DR

2012, 2007, 2006, 2000, 1996, 1993, 1992, 1991, 1986, 1984, 1976, 1975, 1973, 1970, 1967, 1965, 1962, 1960, 1959, 1956, 1955, 1954, 1951, 1950, 1946, 1945, 1943, 1940, 1938, 1933, 1932, 1928, 1926, 1925, 1920



**Cargill Site**

Hickory Street/Enterprise Drive  
Newark, CA 94560

Inquiry Number: 3738660.3

September 24, 2013

# Certified Sanborn® Map Report

# Certified Sanborn® Map Report

9/24/13

**Site Name:**

Cargill Site  
Hickory Street/Enterprise Drive  
Newark, CA 94560

**Client Name:**

Haley & Aldrich, Inc.  
2033 N. Main Street  
Walnut Creek, CA 94596



EDR Inquiry # 3738660.3

Contact: Marie Rose Javier

The complete Sanborn Library collection has been searched by EDR, and fire insurance maps covering the target property location provided by Haley & Aldrich, Inc. were identified for the years listed below. The certified Sanborn Library search results in this report can be authenticated by visiting [www.edrnet.com/sanborn](http://www.edrnet.com/sanborn) and entering the certification number. Only Environmental Data Resources Inc. (EDR) is authorized to grant rights for commercial reproduction of maps by Sanborn Library LLC, the copyright holder for the collection.

## Certified Sanborn Results:

**Site Name:** Cargill Site  
**Address:** Hickory Street/Enterprise Drive  
**City, State, Zip:** Newark, CA 94560  
**Cross Street:**  
**P.O. #** NA  
**Project:** NA  
**Certification #** 9AF6-4109-9BFF



Sanborn® Library search results  
Certification # 9AF6-4109-9BFF

## UNMAPPED PROPERTY

This report certifies that the complete holdings of the Sanborn Library, LLC collection have been searched based on client supplied target property information, and fire insurance maps covering the target property were not found.

The Sanborn Library includes more than 1.2 million Sanborn fire insurance maps, which track historical property usage in approximately 12,000 American cities and towns. Collections searched:

- Library of Congress
- University Publications of America
- EDR Private Collection

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**USER RESPONSIBILITIES QUESTIONNAIRE**  
**All Appropriate Inquires under ASTM E1527-05**

Date: October 2, 2013  
Project: Cargill Property – Phase I ESA  
Address: 54.53-acre parcel (APNs 537-0852-009, 537-0852-010 and 537-0852-011), Newark, California  
Prepared By: James Schwartz, Haley & Aldrich, Inc.  
Completed By: Peter Lezak, Dumbarton Area 2, LLC

In order to qualify for one of the Landowner Liability Protections offered by the Small Business Liability Relief and Brownfields Revitalization Act of 2001 (the “Brownfields Amendments”), the user must conduct “All Appropriate Inquiry (AAI),” which includes consideration of the following information (if available). Though it is not required that this information be provided to the environmental professional for the completion of the ASTM E1527-05 Phase I Site Assessment, failure of the user to consider this information could result in a determination that “All Appropriate Inquiry” is not complete.

**(1.) Environmental cleanup liens that are filed or recorded against the site (40 CPA 31225).**

Are you aware of any environmental cleanup liens against the *property* that are filed or recorded under federal, tribal, state or local law? If yes, give a description and attach copies of the liens.

No.

**(2.) Activity and land use limitations that are in place on the site or that have been filed or recorded in a registry (40 CFR 312.26).**

Are you aware of any AULs, such as *engineering controls*, land use restrictions or *institutional controls* that are in place at the site or have been filed or recorded in a registry under federal, tribal, state or local law?

No.

**(3.) Specialized knowledge or experience of the person seeking to qualify for the LLP (40 CER 312.28).**

As the *user* of this *ESA* do you have any specialized knowledge or experience related to the *property* or nearby properties? For example, are you involved in the same line of business as the current or former *occupants* of the *property* or an adjoining *property* so that you would have specialized knowledge of the chemicals and processes used by this type of business?

No.

**(4.) Relationship of the purchase price to the fair market value of the property if it were not contaminated (40 CFR 312.29).**

Does the purchase price being paid for this *property* reasonably reflect the market value of the *property*? If you conclude that there is a difference, have you considered whether the lower purchase price is because contamination is known or believed to be present at the *property*?

No.

**(5.) Commonly known or reasonably ascertainable information about the property (40 CFR312.30).**

Are you aware of commonly known, or *reasonably ascertainable* information about the *property* that would help the *environmental professional* to identify conditions indicative of releases or threatened releases? For example, as *user*,

(a.) Do you know the past uses of the *property*?

No.

(b.) Do you know the specific chemicals that are present or once were present at the property?

No.

(c.) Do you know of spills or other chemical releases that have taken place at the property?

No.

(d.) Do you know of any environmental cleanups that have taken place at the property?

No.

**(6.) The degree of obviousness of the presence of likely presence of contamination at the *property*, and the ability to detect the contamination by appropriate investigation (40 CFR 312.311).**

As the *user* of this *ESA*, based on your knowledge and experience related to the *property* are there any *obvious* indicators that point to the presence or likely presence of contamination at the *property*?

No.

**APPENDIX C**

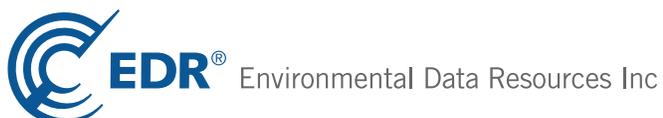
**Regulatory Records Documentation**

**Cargill Site**

Hickory Street/Enterprise Drive  
Newark, CA 94560

Inquiry Number: 3738660.2s  
September 24, 2013

**The EDR Radius Map™ Report with GeoCheck®**



440 Wheelers Farms Road  
Milford, CT 06461  
Toll Free: 800.352.0050  
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## EXECUTIVE SUMMARY

A search of available environmental records was conducted by Environmental Data Resources, Inc (EDR). The report was designed to assist parties seeking to meet the search requirements of EPA's Standards and Practices for All Appropriate Inquiries (40 CFR Part 312), the ASTM Standard Practice for Environmental Site Assessments (E 1527-05) or custom requirements developed for the evaluation of environmental risk associated with a parcel of real estate.

### TARGET PROPERTY INFORMATION

#### ADDRESS

HICKORY STREET/ENTERPRISE DRIVE  
NEWARK, CA 94560

#### COORDINATES

Latitude (North): 37.5177000 - 37° 31' 3.72"  
Longitude (West): 122.0544000 - 122° 3' 15.84"  
Universal Transverse Mercator: Zone 10  
UTM X (Meters): 583565.0  
UTM Y (Meters): 4152520.5  
Elevation: 13 ft. above sea level

### USGS TOPOGRAPHIC MAP ASSOCIATED WITH TARGET PROPERTY

Target Property Map: 37122-E1 NEWARK, CA  
Most Recent Revision: 1999

### AERIAL PHOTOGRAPHY IN THIS REPORT

Photo Year: 2012  
Source: USDA

### TARGET PROPERTY SEARCH RESULTS

The target property was not listed in any of the databases searched by EDR.

### DATABASES WITH NO MAPPED SITES

No mapped sites were found in EDR's search of available ("reasonably ascertainable ") government records either on the target property or within the search radius around the target property for the following databases:

### STANDARD ENVIRONMENTAL RECORDS

#### *Federal NPL site list*

NPL..... National Priority List

## EXECUTIVE SUMMARY

Proposed NPL..... Proposed National Priority List Sites  
NPL LIENS..... Federal Superfund Liens

### ***Federal Delisted NPL site list***

Delisted NPL..... National Priority List Deletions

### ***Federal CERCLIS list***

CERCLIS..... Comprehensive Environmental Response, Compensation, and Liability Information System  
FEDERAL FACILITY..... Federal Facility Site Information listing

### ***Federal RCRA generators list***

RCRA-CESQG..... RCRA - Conditionally Exempt Small Quantity Generator

### ***Federal institutional controls / engineering controls registries***

US ENG CONTROLS..... Engineering Controls Sites List  
US INST CONTROL..... Sites with Institutional Controls  
LUCIS..... Land Use Control Information System

### ***Federal ERNS list***

ERNS..... Emergency Response Notification System

### ***State and tribal landfill and/or solid waste disposal site lists***

CA SWF/LF..... Solid Waste Information System

### ***State and tribal leaking storage tank lists***

INDIAN LUST..... Leaking Underground Storage Tanks on Indian Land

### ***State and tribal registered storage tank lists***

CA UST..... Active UST Facilities  
CA AST..... Aboveground Petroleum Storage Tank Facilities  
INDIAN UST..... Underground Storage Tanks on Indian Land  
FEMA UST..... Underground Storage Tank Listing

### ***State and tribal voluntary cleanup sites***

CA VCP..... Voluntary Cleanup Program Properties  
INDIAN VCP..... Voluntary Cleanup Priority Listing

## **ADDITIONAL ENVIRONMENTAL RECORDS**

### ***Local Brownfield lists***

US BROWNFIELDS..... A Listing of Brownfields Sites

### ***Local Lists of Landfill / Solid Waste Disposal Sites***

ODI..... Open Dump Inventory

## EXECUTIVE SUMMARY

DEBRIS REGION 9..... Torres Martinez Reservation Illegal Dump Site Locations  
CA SWRCY..... Recycler Database  
CA HAULERS..... Registered Waste Tire Haulers Listing  
INDIAN ODI..... Report on the Status of Open Dumps on Indian Lands

### **Local Lists of Hazardous waste / Contaminated Sites**

US CDL..... Clandestine Drug Labs  
CA SCH..... School Property Evaluation Program  
CA CDL..... Clandestine Drug Labs  
US HIST CDL..... National Clandestine Laboratory Register

### **Local Lists of Registered Storage Tanks**

CA FID UST..... Facility Inventory Database

### **Local Land Records**

LIENS 2..... CERCLA Lien Information  
CA LIENS..... Environmental Liens Listing

### **Records of Emergency Release Reports**

HMIRS..... Hazardous Materials Information Reporting System  
CA LDS..... Land Disposal Sites Listing  
CA MCS..... Military Cleanup Sites Listing  
CA SPILLS 90..... SPILLS 90 data from FirstSearch

### **Other Ascertainable Records**

DOT OPS..... Incident and Accident Data  
DOD..... Department of Defense Sites  
FUDS..... Formerly Used Defense Sites  
CONSENT..... Superfund (CERCLA) Consent Decrees  
ROD..... Records Of Decision  
UMTRA..... Uranium Mill Tailings Sites  
US MINES..... Mines Master Index File  
TRIS..... Toxic Chemical Release Inventory System  
TSCA..... Toxic Substances Control Act  
FTTS..... FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)  
HIST FTTS..... FIFRA/TSCA Tracking System Administrative Case Listing  
ICIS..... Integrated Compliance Information System  
PADS..... PCB Activity Database System  
MLTS..... Material Licensing Tracking System  
RADINFO..... Radiation Information Database  
RAATS..... RCRA Administrative Action Tracking System  
RMP..... Risk Management Plans  
CA BOND EXP. PLAN..... Bond Expenditure Plan  
CA UIC..... UIC Listing  
CA CUPA Listings..... CUPA Resources List  
CA DRYCLEANERS..... Cleaner Facilities  
CA WIP..... Well Investigation Program Case List  
INDIAN RESERV..... Indian Reservations  
SCRD DRYCLEANERS..... State Coalition for Remediation of Drycleaners Listing

## EXECUTIVE SUMMARY

|                      |  |
|----------------------|--|
| CA HWT.....          | Registered Hazardous Waste Transporter Database            |
| CA PROC.....         | Certified Processors Database                              |
| CA MWMP.....         | Medical Waste Management Program Listing                   |
| COAL ASH DOE.....    | Steam-Electric Plant Operation Data                        |
| COAL ASH EPA.....    | Coal Combustion Residues Surface Impoundments List         |
| LEAD SMELTERS.....   | Lead Smelter Sites   |
| PCB TRANSFORMER..... | PCB Transformer Registration Database                      |
| US AIRS.....         | Aerometric Information Retrieval System Facility Subsystem |
| PRP.....             | Potentially Responsible Parties                            |
| EPA WATCH LIST.....  | EPA WATCH LIST   |

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

|                           |   |
|---------------------------|---|
| EDR MGP.....              | EDR Proprietary Manufactured Gas Plants |
| EDR US Hist Cleaners..... | EDR Exclusive Historic Dry Cleaners     |

### SURROUNDING SITES: SEARCH RESULTS

Surrounding sites were identified in the following databases.

Elevations have been determined from the USGS Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified. Sites with an elevation equal to or higher than the target property have been differentiated below from sites with an elevation lower than the target property.

Page numbers and map identification numbers refer to the EDR Radius Map report where detailed data on individual sites can be reviewed.

Sites listed in ***bold italics*** are in multiple databases.

Unmappable (orphan) sites are not considered in the foregoing analysis.

### STANDARD ENVIRONMENTAL RECORDS

#### ***Federal CERCLIS NFRAP site List***

CERC-NFRAP: Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

A review of the CERC-NFRAP list, as provided by EDR, and dated 04/26/2013 has revealed that there are 6 CERC-NFRAP sites within approximately 0.5 miles of the target property.

| <u>Equal/Higher Elevation</u>                | <u>Address</u>                      | <u>Direction / Distance</u>             | <u>Map ID</u>     | <u>Page</u>       |
|--|-------------------------------------|---|-------------------|-------------------|
| <b><i>FMC CORP NEWARK</i></b>                | <b><i>8787 ENTERPRISE DR</i></b>    | <b><i>NNE 0 - 1/8 (0.085 mi.)</i></b>   | <b><i>B5</i></b>  | <b><i>12</i></b>  |
| <b><i>ASHLAND CHEMICAL CO</i></b>            | <b><i>8610 ENTERPRISE DRIVE</i></b> | <b><i>NE 1/8 - 1/4 (0.212 mi.)</i></b>  | <b><i>C11</i></b> | <b><i>42</i></b>  |
| <b><i>ROMIC ENVIRONMENTAL TECHNOLOGI</i></b> | <b><i>37445 WILLOW ST</i></b>       | <b><i>E 1/8 - 1/4 (0.217 mi.)</i></b>   | <b><i>E17</i></b> | <b><i>82</i></b>  |
| <b><i>JONES HAMILTON CO</i></b>              | <b><i>8400 ENTERPRISE DR</i></b>    | <b><i>NE 1/8 - 1/4 (0.245 mi.)</i></b>  | <b><i>D24</i></b> | <b><i>109</i></b> |
| <b><i>BARON BLAKESLEE INC</i></b>            | <b><i>8333 ENTERPRISE DR</i></b>    | <b><i>NE 1/4 - 1/2 (0.357 mi.)</i></b>  | <b><i>G27</i></b> | <b><i>134</i></b> |
| <b><i>ABE OIL INC</i></b>                    | <b><i>8130 ENTERPRISE DR</i></b>    | <b><i>ENE 1/4 - 1/2 (0.436 mi.)</i></b> | <b><i>I35</i></b> | <b><i>183</i></b> |

## EXECUTIVE SUMMARY

### ***Federal RCRA CORRACTS facilities list***

CORRACTS: CORRACTS is a list of handlers with RCRA Corrective Action Activity. This report shows which nationally-defined corrective action core events have occurred for every handler that has had corrective action activity.

A review of the CORRACTS list, as provided by EDR, and dated 07/11/2013 has revealed that there are 4 CORRACTS sites within approximately 1 mile of the target property.

| <u>Equal/Higher Elevation</u>         | <u>Address</u>               | <u>Direction / Distance</u>     | <u>Map ID</u> | <u>Page</u> |
|---------------------------------------|------------------------------|---------------------------------|---------------|-------------|
| <b>FMC CORP NEWARK</b>                | <b>8787 ENTERPRISE DR</b>    | <b>NNE 0 - 1/8 (0.085 mi.)</b>  | <b>B5</b>     | <b>12</b>   |
| <b>ASHLAND CHEMICAL CO</b>            | <b>8610 ENTERPRISE DRIVE</b> | <b>NE 1/8 - 1/4 (0.212 mi.)</b> | <b>C11</b>    | <b>42</b>   |
| <b>ROMIC ENVIRONMENTAL TECHNOLOGI</b> | <b>37445 WILLOW ST</b>       | <b>E 1/8 - 1/4 (0.217 mi.)</b>  | <b>E17</b>    | <b>82</b>   |
| <b>BARON BLAKESLEE INC</b>            | <b>8333 ENTERPRISE DR</b>    | <b>NE 1/4 - 1/2 (0.357 mi.)</b> | <b>G27</b>    | <b>134</b>  |

### ***Federal RCRA non-CORRACTS TSD facilities list***

RCRA-TSDF: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

A review of the RCRA-TSDF list, as provided by EDR, and dated 07/11/2013 has revealed that there are 4 RCRA-TSDF sites within approximately 0.5 miles of the target property.

| <u>Equal/Higher Elevation</u>         | <u>Address</u>               | <u>Direction / Distance</u>     | <u>Map ID</u> | <u>Page</u> |
|---------------------------------------|------------------------------|---------------------------------|---------------|-------------|
| <b>FMC CORP NEWARK</b>                | <b>8787 ENTERPRISE DR</b>    | <b>NNE 0 - 1/8 (0.085 mi.)</b>  | <b>B5</b>     | <b>12</b>   |
| <b>ASHLAND CHEMICAL CO</b>            | <b>8610 ENTERPRISE DRIVE</b> | <b>NE 1/8 - 1/4 (0.212 mi.)</b> | <b>C11</b>    | <b>42</b>   |
| <b>ROMIC ENVIRONMENTAL TECHNOLOGI</b> | <b>37445 WILLOW ST</b>       | <b>E 1/8 - 1/4 (0.217 mi.)</b>  | <b>E17</b>    | <b>82</b>   |
| <b>BARON BLAKESLEE INC</b>            | <b>8333 ENTERPRISE DR</b>    | <b>NE 1/4 - 1/2 (0.357 mi.)</b> | <b>G27</b>    | <b>134</b>  |

### ***Federal RCRA generators list***

RCRA-LQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

A review of the RCRA-LQG list, as provided by EDR, and dated 07/11/2013 has revealed that there is 1 RCRA-LQG site within approximately 0.25 miles of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u>            | <u>Direction / Distance</u>    | <u>Map ID</u> | <u>Page</u> |
|-------------------------------|---------------------------|--------------------------------|---------------|-------------|
| <b>FMC CORP NEWARK</b>        | <b>8787 ENTERPRISE DR</b> | <b>NNE 0 - 1/8 (0.085 mi.)</b> | <b>B5</b>     | <b>12</b>   |

## EXECUTIVE SUMMARY

RCRA-SQG: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

A review of the RCRA-SQG list, as provided by EDR, and dated 07/11/2013 has revealed that there are 4 RCRA-SQG sites within approximately 0.25 miles of the target property.

| <u>Equal/Higher Elevation</u>         | <u>Address</u>               | <u>Direction / Distance</u>      | <u>Map ID</u> | <u>Page</u> |
|---------------------------------------|------------------------------|----------------------------------|---------------|-------------|
| <b>ASHLAND CHEMICAL CO</b>            | <b>8610 ENTERPRISE DRIVE</b> | <b>NE 1/8 - 1/4 (0.212 mi.)</b>  | <b>C11</b>    | <b>42</b>   |
| <b>ROMIC ENVIRONMENTAL TECHNOLOGI</b> | <b>37445 WILLOW ST</b>       | <b>E 1/8 - 1/4 (0.217 mi.)</b>   | <b>E17</b>    | <b>82</b>   |
| <b>JONES HAMILTON CO</b>              | <b>8400 ENTERPRISE DR</b>    | <b>NE 1/8 - 1/4 (0.245 mi.)</b>  | <b>D24</b>    | <b>109</b>  |
| <u>Lower Elevation</u>                | <u>Address</u>               | <u>Direction / Distance</u>      | <u>Map ID</u> | <u>Page</u> |
| <b>MOBILITY INDUSTRIES INC</b>        | <b>3755 WILLOW ST</b>        | <b>ESE 1/8 - 1/4 (0.240 mi.)</b> | <b>F19</b>    | <b>95</b>   |

### **State- and tribal - equivalent NPL**

CA RESPONSE: Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

A review of the CA RESPONSE list, as provided by EDR, and dated 08/05/2013 has revealed that there are 3 CA RESPONSE sites within approximately 1 mile of the target property.

| <u>Equal/Higher Elevation</u>         | <u>Address</u>                 | <u>Direction / Distance</u>      | <u>Map ID</u> | <u>Page</u> |
|---------------------------------------|--------------------------------|----------------------------------|---------------|-------------|
| <b>ASHLAND CHEMICAL CO</b>            | <b>8610 ENTERPRISE DRIVE</b>   | <b>NE 1/8 - 1/4 (0.212 mi.)</b>  | <b>C11</b>    | <b>42</b>   |
| <b>LESLIE SALT/FMC MAGNESIA WASTE</b> | <b>WEST OF ENTERPRISE DRIV</b> | <b>NE 1/4 - 1/2 (0.350 mi.)</b>  | <b>G26</b>    | <b>124</b>  |
| <b>POZAS BROTHERS TRUCKING</b>        | <b>8130 ENTERPRISE DR</b>      | <b>ENE 1/4 - 1/2 (0.436 mi.)</b> | <b>I36</b>    | <b>186</b>  |

### **State- and tribal - equivalent CERCLIS**

CA ENVIROSTOR: The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

A review of the CA ENVIROSTOR list, as provided by EDR, and dated 08/05/2013 has revealed that there are 9 CA ENVIROSTOR sites within approximately 1 mile of the target property.

| <u>Equal/Higher Elevation</u>                      | <u>Address</u>               | <u>Direction / Distance</u>     | <u>Map ID</u> | <u>Page</u> |
|--|------------------------------|---------------------------------|---------------|-------------|
| <b>FMC CORP NEWARK</b><br>Status: Refer: RWQCB     | <b>8787 ENTERPRISE DR</b>    | <b>NNE 0 - 1/8 (0.085 mi.)</b>  | <b>B5</b>     | <b>12</b>   |
| <b>ASHLAND CHEMICAL CO</b><br>Status: Refer: RWQCB | <b>8610 ENTERPRISE DRIVE</b> | <b>NE 1/8 - 1/4 (0.212 mi.)</b> | <b>C11</b>    | <b>42</b>   |

## EXECUTIVE SUMMARY

| <u>Equal/Higher Elevation</u>                                 | <u>Address</u>                 | <u>Direction / Distance</u>      | <u>Map ID</u> | <u>Page</u> |
|---|--------------------------------|----------------------------------|---------------|-------------|
| <b>ROMIC ENVIRONMENTAL TECHNOLOGI</b><br>Status: Refer: RWQCB | <b>37445 WILLOW ST</b>         | <b>E 1/8 - 1/4 (0.217 mi.)</b>   | <b>E15</b>    | <b>77</b>   |
| <b>JONES-HAMILTON</b><br>Status: Refer: RWQCB                 | <b>8400 ENTERPRISE</b>         | <b>NE 1/8 - 1/4 (0.245 mi.)</b>  | <b>D21</b>    | <b>98</b>   |
| <b>LESLIE SALT/FMC MAGNESIA WASTE</b><br>Status: Certified    | <b>WEST OF ENTERPRISE DRIV</b> | <b>NE 1/4 - 1/2 (0.350 mi.)</b>  | <b>G26</b>    | <b>124</b>  |
| <b>BARON BLAKESLEE FACILITY</b><br>Status: * Completed        | <b>8333 ENTERPRISE</b>         | <b>NE 1/4 - 1/2 (0.357 mi.)</b>  | <b>G28</b>    | <b>156</b>  |
| <b>POZAS BROTHERS TRUCKING</b><br>Status: Certified           | <b>8130 ENTERPRISE DR</b>      | <b>ENE 1/4 - 1/2 (0.436 mi.)</b> | <b>I36</b>    | <b>186</b>  |
| <u>Lower Elevation</u>  | <u>Address</u>                 | <u>Direction / Distance</u>      | <u>Map ID</u> | <u>Page</u> |
| <b>FORMER ASHLAND CHEMICAL SITE</b><br>Status: Refer: RWQCB   | <b>8610 ENTERPRISE DRIVE</b>   | <b>NNE 0 - 1/8 (0.073 mi.)</b>   | <b>B3</b>     | <b>8</b>    |
| LTD CERAMICS, INC.<br>Status: Inactive - Needs Evaluation     | 7411 CENTRAL AVENUE            | ENE 1/2 - 1 (0.950 mi.)          | 43            | 204         |

### **State and tribal leaking storage tank lists**

CA LUST: The Leaking Underground Storage Tank Incident Reports contain an inventory of reported leaking underground storage tank incidents. The data come from the State Water Resources Control Board Leaking Underground Storage Tank Information System.

A review of the CA LUST list, as provided by EDR, and dated 07/26/2013 has revealed that there are 5 CA LUST sites within approximately 0.5 miles of the target property.

| <u>Equal/Higher Elevation</u>  | <u>Address</u>                                   | <u>Direction / Distance</u>                                      | <u>Map ID</u>            | <u>Page</u>              |
|--|--|--|--------------------------|--------------------------|
| SILVEY-- LIQUID AIR PROPERTY<br><b>SILVEY TRANSPORTATION, INC.</b><br>Status: Completed - Case Closed      | 8175 WELLS AVENUE<br><b>8175 WELLS AVE</b>       | NE 1/4 - 1/2 (0.483 mi.)<br><b>NE 1/4 - 1/2 (0.483 mi.)</b>      | J41<br><b>J42</b>        | 198<br><b>198</b>        |
| <u>Lower Elevation</u>   | <u>Address</u>                                   | <u>Direction / Distance</u>                                      | <u>Map ID</u>            | <u>Page</u>              |
| <b>UNION SANITARY DISTRICT-NEWARK</b><br><b>MILITARY FAMILY HOUSING</b><br>Status: Completed - Case Closed | <b>8700 THORNTON AVE</b><br><b>8700 THORNTON</b> | <b>N 1/4 - 1/2 (0.427 mi.)</b><br><b>N 1/4 - 1/2 (0.427 mi.)</b> | <b>H31</b><br><b>H32</b> | <b>170</b><br><b>179</b> |
| <b>THORNTON BUSINESS CENTER</b><br>Status: Completed - Case Closed   | <b>8500 THORNTON &amp; WILLOW</b>                | <b>N 1/4 - 1/2 (0.442 mi.)</b>                                   | <b>H38</b>               | <b>195</b>               |

CA SLIC: SLIC Region comes from the California Regional Water Quality Control Board.

A review of the CA SLIC list, as provided by EDR, and dated 07/26/2013 has revealed that there are 19 CA SLIC sites within approximately 0.5 miles of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u>        | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|-------------------------------|-----------------------|-----------------------------|---------------|-------------|
| FMC CORP. - NEWARK            | 8787 ENTERPRISE DRIVE | NNE 0 - 1/8 (0.085 mi.)     | B4            | 12          |

## EXECUTIVE SUMMARY

| <u>Equal/Higher Elevation</u>  | <u>Address</u>                                   | <u>Direction / Distance</u>                                 | <u>Map ID</u>     | <u>Page</u>       |
|--|--|---|-------------------|-------------------|
| <b>FMC CORP NEWARK</b><br>Facility Status: Open - Remediation  | <b>8787 ENTERPRISE DR</b>                        | <b>NNE 0 - 1/8 (0.085 mi.)</b>                              | <b>B5</b>         | <b>12</b>         |
| S.P. DUMBARTON BRANCH R.O.W.<br>Facility Status: Open - Verification Monitoring                            | 8785 ENTERPRISE DRIVE                            | NNE 0 - 1/8 (0.086 mi.)                                     | B7                | 39                |
| NEWARK SPORTSMAN CLUB<br>Facility Status: Open - Inactive  |  | NE 1/8 - 1/4 (0.211 mi.)                                    | D9                | 41                |
| <b>ASHLAND CHEMICAL CO</b><br>NEWARK SPORTSMAN'S CLUB<br>Facility Status: Open - Site Assessment           | <b>8600 ENTERPRISE DR</b><br>37447 WILLOW STREET | <b>NE 1/8 - 1/4 (0.212 mi.)</b><br>E 1/8 - 1/4 (0.215 mi.)  | <b>C10</b><br>E12 | <b>42</b><br>75   |
| <b>ROMIC ENVIRONMENTAL TECHNOLOGI</b><br>Facility Status: Open - Remediation                               | <b>37445 WILLOW ST</b>                           | <b>E 1/8 - 1/4 (0.217 mi.)</b>                              | <b>E15</b>        | <b>77</b>         |
| ROMIC<br><b>JONES-HAMILTON</b><br>Facility Status: Open - Site Assessment                                  | 37445 WILLOW STREET<br><b>8400 ENTERPRISE</b>    | E 1/8 - 1/4 (0.217 mi.)<br><b>NE 1/8 - 1/4 (0.245 mi.)</b>  | E16<br><b>D21</b> | 82<br><b>98</b>   |
| JONES-HAMILTON<br><b>EDWARDS ENTERPRISES</b><br>Facility Status: Completed - Case Closed                   | 8400 ENTERPRISE DRIVE<br><b>8455 CABOT COURT</b> | NE 1/8 - 1/4 (0.245 mi.)<br><b>E 1/4 - 1/2 (0.274 mi.)</b>  | D22<br><b>25</b>  | 106<br><b>116</b> |
| <b>BARON BLAKESLEE FACILITY</b><br>Facility Status: Open - Remediation                                     | <b>8333 ENTERPRISE</b>                           | <b>NE 1/4 - 1/2 (0.357 mi.)</b>                             | <b>G28</b>        | <b>156</b>        |
| STEFFENSEN PROPERTY-ENTERPRISE<br>Facility Status: Open - Verification Monitoring                          | 8140 ENTERPRISE DRIVE                            | ENE 1/4 - 1/2 (0.432 mi.)                                   | I33               | 181               |
| <b>POZAS BROTHERS TRUCKING</b><br>Facility Status: Open - Remediation                                      | <b>8130 ENTERPRISE DR</b>                        | <b>ENE 1/4 - 1/2 (0.436 mi.)</b>                            | <b>I36</b>        | <b>186</b>        |
| DUTRA ART STONE FACILITY<br><b>SILVEY TRANSPORTATION, INC.</b><br>Facility Status: Completed - Case Closed | 8175 WELLS AVE<br><b>8175 WELLS AVE</b>          | NE 1/4 - 1/2 (0.483 mi.)<br><b>NE 1/4 - 1/2 (0.483 mi.)</b> | J40<br><b>J42</b> | 197<br><b>198</b> |
| <u>Lower Elevation</u>   | <u>Address</u>                                   | <u>Direction / Distance</u>                                 | <u>Map ID</u>     | <u>Page</u>       |
| <b>FORMER ASHLAND CHEMICAL SITE</b><br>Facility Status: Open - Verification Monitoring                     | <b>8610 ENTERPRISE DRIVE</b>                     | <b>NNE 0 - 1/8 (0.073 mi.)</b>                              | <b>B3</b>         | <b>8</b>          |
| TORIAN HOLDINGS<br>Facility Status: Open - Site Assessment   | 37555 WILLOW STREET                              | ESE 1/8 - 1/4 (0.216 mi.)                                   | F13               | 75                |
| FORMER NEWARK SPORTSMEN'S CLUB<br>Facility Status: Open - Inactive   | HICKORY STREET AND PERR N                        | 1/4 - 1/2 (0.478 mi.)                                       | 39                | 197               |

CA Alameda County CS: A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

A review of the CA Alameda County CS list, as provided by EDR, and dated 07/25/2013 has revealed that there is 1 CA Alameda County CS site within approximately 0.5 miles of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u>            | <u>Direction / Distance</u>    | <u>Map ID</u> | <u>Page</u> |
|-------------------------------|---------------------------|--------------------------------|---------------|-------------|
| <b>FMC CORP NEWARK</b>        | <b>8787 ENTERPRISE DR</b> | <b>NNE 0 - 1/8 (0.085 mi.)</b> | <b>B5</b>     | <b>12</b>   |

## EXECUTIVE SUMMARY

### ADDITIONAL ENVIRONMENTAL RECORDS

#### ***Local Lists of Landfill / Solid Waste Disposal Sites***

CA WMUDS/SWAT: The Waste Management Unit Database System is used for program tracking and inventory of waste management units. The source is the State Water Resources Control Board.

A review of the CA WMUDS/SWAT list, as provided by EDR, and dated 04/01/2000 has revealed that there are 2 CA WMUDS/SWAT sites within approximately 0.5 miles of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u>                    | <u>Direction / Distance</u>            | <u>Map ID</u>     | <u>Page</u>       |
|-------------------------------|-----------------------------------|--|-------------------|-------------------|
| FMC NEWARK                    |                                   | NE 1/8 - 1/4 (0.197 mi.)               | C8                | 40                |
| <b><i>Not reported</i></b>    | <b><i>8400 ENTERPRISE DR.</i></b> | <b><i>NE 1/8 - 1/4 (0.245 mi.)</i></b> | <b><i>D23</i></b> | <b><i>106</i></b> |

#### ***Local Lists of Hazardous waste / Contaminated Sites***

CA HIST Cal-Sites: Formerly known as ASPIS, this database contains both known and potential hazardous substance sites. The source is the California Department of Toxic Substance Control. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

A review of the CA HIST Cal-Sites list, as provided by EDR, and dated 08/08/2005 has revealed that there are 2 CA HIST Cal-Sites sites within approximately 1 mile of the target property.

| <u>Equal/Higher Elevation</u>                | <u>Address</u>                        | <u>Direction / Distance</u>            | <u>Map ID</u>     | <u>Page</u>       |
|--|---------------------------------------|--|-------------------|-------------------|
| <b><i>LESLIE SALT/FMC MAGNESIA WASTE</i></b> | <b><i>WEST OF ENTERPRISE DRIV</i></b> | <b><i>NE 1/4 - 1/2 (0.350 mi.)</i></b> | <b><i>G26</i></b> | <b><i>124</i></b> |
| HOLLAND OIL                                  | 8130 ENTERPRISE DRIVE                 | ENE 1/4 - 1/2 (0.436 mi.)              | I37               | 192               |

CA Toxic Pits: The Toxic Pits Cleanup Act Sites database identifies sites suspected of containing hazardous substances where cleanup has not yet been completed. The data come from the State Water Resources Control Board.

A review of the CA Toxic Pits list, as provided by EDR, and dated 07/01/1995 has revealed that there is 1 CA Toxic Pits site within approximately 1 mile of the target property.

| <u>Equal/Higher Elevation</u> | <u>Address</u>                      | <u>Direction / Distance</u>            | <u>Map ID</u>     | <u>Page</u>      |
|-------------------------------|-------------------------------------|--|-------------------|------------------|
| <b><i>Not reported</i></b>    | <b><i>8400 ENTERPRISE DRIVE</i></b> | <b><i>NE 1/8 - 1/4 (0.245 mi.)</i></b> | <b><i>D20</i></b> | <b><i>97</i></b> |
| Closure Date: 06/01/89        |                                     |  |                   |                  |

#### ***Local Lists of Registered Storage Tanks***

CA HIST UST: Historical UST Registered Database.

A review of the CA HIST UST list, as provided by EDR, and dated 10/15/1990 has revealed that there are 3 CA HIST UST sites within approximately 0.25 miles of the target property.

| <u>Equal/Higher Elevation</u>     | <u>Address</u>                      | <u>Direction / Distance</u>            | <u>Map ID</u>     | <u>Page</u>      |
|-----------------------------------|-------------------------------------|--|-------------------|------------------|
| <b><i>FMC CORP NEWARK</i></b>     | <b><i>8787 ENTERPRISE DR</i></b>    | <b><i>NNE 0 - 1/8 (0.085 mi.)</i></b>  | <b><i>B5</i></b>  | <b><i>12</i></b> |
| <b><i>ASHLAND CHEMICAL CO</i></b> | <b><i>8610 ENTERPRISE DRIVE</i></b> | <b><i>NE 1/8 - 1/4 (0.212 mi.)</i></b> | <b><i>C11</i></b> | <b><i>42</i></b> |

## EXECUTIVE SUMMARY

| <u>Equal/Higher Elevation</u> | <u>Address</u>            | <u>Direction / Distance</u>     | <u>Map ID</u> | <u>Page</u> |
|-------------------------------|---------------------------|---------------------------------|---------------|-------------|
| <i>JONES HAMILTON CO</i>      | <i>8400 ENTERPRISE DR</i> | <i>NE 1/8 - 1/4 (0.245 mi.)</i> | <i>D24</i>    | <i>109</i>  |

### **Local Land Records**

CA DEED: The use of recorded land use restrictions is one of the methods the DTSC uses to protect the public from unsafe exposures to hazardous substances and wastes .

A review of the CA DEED list, as provided by EDR, and dated 06/10/2013 has revealed that there is 1 CA DEED site within approximately 0.5 miles of the target property.

| <u>Equal/Higher Elevation</u>   | <u>Address</u>         | <u>Direction / Distance</u>     | <u>Map ID</u> | <u>Page</u> |
|---------------------------------|------------------------|---------------------------------|---------------|-------------|
| <i>BARON BLAKESLEE FACILITY</i> | <i>8333 ENTERPRISE</i> | <i>NE 1/4 - 1/2 (0.357 mi.)</i> | <i>G28</i>    | <i>156</i>  |

### **Other Ascertainable Records**

RCRA NonGen / NLR: RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

A review of the RCRA NonGen / NLR list, as provided by EDR, and dated 07/11/2013 has revealed that there is 1 RCRA NonGen / NLR site within approximately 0.25 miles of the target property.

| <u>Lower Elevation</u>  | <u>Address</u>         | <u>Direction / Distance</u>    | <u>Map ID</u> | <u>Page</u> |
|-------------------------|------------------------|--------------------------------|---------------|-------------|
| <i>OMEGA CHEM NORTH</i> | <i>37521 WILLOW ST</i> | <i>E 1/8 - 1/4 (0.216 mi.)</i> | <i>F14</i>    | <i>76</i>   |

CA Cortese: The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

A review of the CA Cortese list, as provided by EDR, and dated 07/05/2013 has revealed that there are 4 CA Cortese sites within approximately 0.5 miles of the target property.

| <u>Equal/Higher Elevation</u>   | <u>Address</u>               | <u>Direction / Distance</u>     | <u>Map ID</u> | <u>Page</u> |
|---------------------------------|------------------------------|---------------------------------|---------------|-------------|
| <i>FMC CORP NEWARK</i>          | <i>8787 ENTERPRISE DR</i>    | <i>NNE 0 - 1/8 (0.085 mi.)</i>  | <i>B5</i>     | <i>12</i>   |
| <i>ASHLAND CHEMICAL CO</i>      | <i>8610 ENTERPRISE DRIVE</i> | <i>NE 1/8 - 1/4 (0.212 mi.)</i> | <i>C11</i>    | <i>42</i>   |
| <i>JONES-HAMILTON</i>           | <i>8400 ENTERPRISE</i>       | <i>NE 1/8 - 1/4 (0.245 mi.)</i> | <i>D21</i>    | <i>98</i>   |
| <i>BARON BLAKESLEE FACILITY</i> | <i>8333 ENTERPRISE</i>       | <i>NE 1/4 - 1/2 (0.357 mi.)</i> | <i>G28</i>    | <i>156</i>  |

CA HIST CORTESE: The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CAL SITES]. This listing is no longer updated by the state agency.

A review of the CA HIST CORTESE list, as provided by EDR, and dated 04/01/2001 has revealed that

## EXECUTIVE SUMMARY

there are 9 CA HIST CORTESE sites within approximately 0.5 miles of the target property.

| <u>Equal/Higher Elevation</u>      | <u>Address</u>                    | <u>Direction / Distance</u>      | <u>Map ID</u> | <u>Page</u> |
|------------------------------------|-----------------------------------|----------------------------------|---------------|-------------|
| <i>FMC CORP NEWARK</i>             | <i>8787 ENTERPRISE DR</i>         | <i>NNE 0 - 1/8 (0.085 mi.)</i>   | <i>B5</i>     | <i>12</i>   |
| <i>ASHLAND CHEMICAL CO</i>         | <i>8610 ENTERPRISE DRIVE</i>      | <i>NE 1/8 - 1/4 (0.212 mi.)</i>  | <i>C11</i>    | <i>42</i>   |
| <i>JONES-HAMILTON</i>              | <i>8400 ENTERPRISE</i>            | <i>NE 1/8 - 1/4 (0.245 mi.)</i>  | <i>D21</i>    | <i>98</i>   |
| <i>BARON BLAKESLEE FACILITY</i>    | <i>8333 ENTERPRISE</i>            | <i>NE 1/4 - 1/2 (0.357 mi.)</i>  | <i>G28</i>    | <i>156</i>  |
| UNKNOWN                            | 8240 ENTERPRISE                   | NE 1/4 - 1/2 (0.424 mi.)         | 30            | 170         |
| <i>POZAS BROTHERS TRUCKING</i>     | <i>8130 ENTERPRISE DR</i>         | <i>ENE 1/4 - 1/2 (0.436 mi.)</i> | <i>I36</i>    | <i>186</i>  |
| <i>SILVEY TRANSPORTATION, INC.</i> | <i>8175 WELLS AVE</i>             | <i>NE 1/4 - 1/2 (0.483 mi.)</i>  | <i>J42</i>    | <i>198</i>  |
| <u>Lower Elevation</u>             | <u>Address</u>                    | <u>Direction / Distance</u>      | <u>Map ID</u> | <u>Page</u> |
| <i>MILITARY FAMILY HOUSING</i>     | <i>8700 THORNTON</i>              | <i>N 1/4 - 1/2 (0.427 mi.)</i>   | <i>H32</i>    | <i>179</i>  |
| <i>THORNTON BUSINESS CENTER</i>    | <i>8500 THORNTON &amp; WILLOW</i> | <i>N 1/4 - 1/2 (0.442 mi.)</i>   | <i>H38</i>    | <i>195</i>  |

CA Notify 65: Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

A review of the CA Notify 65 list, as provided by EDR, and dated 10/21/1993 has revealed that there is 1 CA Notify 65 site within approximately 1 mile of the target property.

| <u>Equal/Higher Elevation</u>  | <u>Address</u>        | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|--------------------------------|-----------------------|-----------------------------|---------------|-------------|
| FMC, PHOSPHORUS CHEMICALS DIV. | 8787 ENTERPRISE DRIVE | NNE 0 - 1/8 (0.085 mi.)     | B6            | 39          |

CA HAZNET: The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000-1,000,000 annually, representing approximately 350,000-500,000 shipments. Data from non-California manifests & continuation sheets are not included at the present time. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, & disposal method. The source is the Department of Toxic Substance Control is the agency

A review of the CA HAZNET list, as provided by EDR, and dated 12/31/2012 has revealed that there are 2 CA HAZNET sites within approximately 0.001 miles of the target property.

| <u>Equal/Higher Elevation</u>  | <u>Address</u>   | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|--------------------------------|------------------|-----------------------------|---------------|-------------|
| UNION SANITARY DISTRICT        | 37159 HICKORY ST | 0 - 1/8 (0.000 mi.)         | A1            | 8           |
| UNION SANITARY DISTRICT NEWARK | 37159 HICKORY ST | 0 - 1/8 (0.000 mi.)         | A2            | 8           |

CA HWP: Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

A review of the CA HWP list, as provided by EDR, and dated 05/28/2013 has revealed that there are 5 CA HWP sites within approximately 1 mile of the target property.

| <u>Equal/Higher Elevation</u>         | <u>Address</u>               | <u>Direction / Distance</u>      | <u>Map ID</u> | <u>Page</u> |
|---------------------------------------|------------------------------|----------------------------------|---------------|-------------|
| <i>FMC CORP NEWARK</i>                | <i>8787 ENTERPRISE DR</i>    | <i>NNE 0 - 1/8 (0.085 mi.)</i>   | <i>B5</i>     | <i>12</i>   |
| <i>ASHLAND CHEMICAL CO</i>            | <i>8610 ENTERPRISE DRIVE</i> | <i>NE 1/8 - 1/4 (0.212 mi.)</i>  | <i>C11</i>    | <i>42</i>   |
| <i>ROMIC ENVIRONMENTAL TECHNOLOGI</i> | <i>37445 WILLOW ST</i>       | <i>E 1/8 - 1/4 (0.217 mi.)</i>   | <i>E15</i>    | <i>77</i>   |
| HONEYWELL INTERNATIONAL INC           | 8333 ENTERPRISE DR           | NE 1/4 - 1/2 (0.357 mi.)         | G29           | 164         |
| <i>CONSOLIDATED FREIGHTWAYS</i>       | <i>8130 ENTERPRISE DR</i>    | <i>ENE 1/4 - 1/2 (0.436 mi.)</i> | <i>I34</i>    | <i>181</i>  |

## EXECUTIVE SUMMARY

2020 COR ACTION: The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

A review of the 2020 COR ACTION list, as provided by EDR, and dated 11/11/2011 has revealed that there are 3 2020 COR ACTION sites within approximately 0.25 miles of the target property.

| <u>Equal/Higher Elevation</u>         | <u>Address</u>               | <u>Direction / Distance</u>     | <u>Map ID</u> | <u>Page</u> |
|---------------------------------------|------------------------------|---------------------------------|---------------|-------------|
| <i>FMC CORP NEWARK</i>                | <i>8787 ENTERPRISE DR</i>    | <i>NNE 0 - 1/8 (0.085 mi.)</i>  | <i>B5</i>     | <i>12</i>   |
| <i>ASHLAND CHEMICAL CO</i>            | <i>8610 ENTERPRISE DRIVE</i> | <i>NE 1/8 - 1/4 (0.212 mi.)</i> | <i>C11</i>    | <i>42</i>   |
| <i>ROMIC ENVIRONMENTAL TECHNOLOGI</i> | <i>37445 WILLOW ST</i>       | <i>E 1/8 - 1/4 (0.217 mi.)</i>  | <i>E17</i>    | <i>82</i>   |

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

EDR US Hist Auto Stat: EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

A review of the EDR US Hist Auto Stat list, as provided by EDR, has revealed that there is 1 EDR US Hist Auto Stat site within approximately 0.25 miles of the target property.

| <u>Lower Elevation</u> | <u>Address</u>   | <u>Direction / Distance</u> | <u>Map ID</u> | <u>Page</u> |
|------------------------|------------------|-----------------------------|---------------|-------------|
| Not reported           | 8484 CENTRAL AVE | ESE 1/8 - 1/4 (0.238 mi.)   | F18           | 95          |

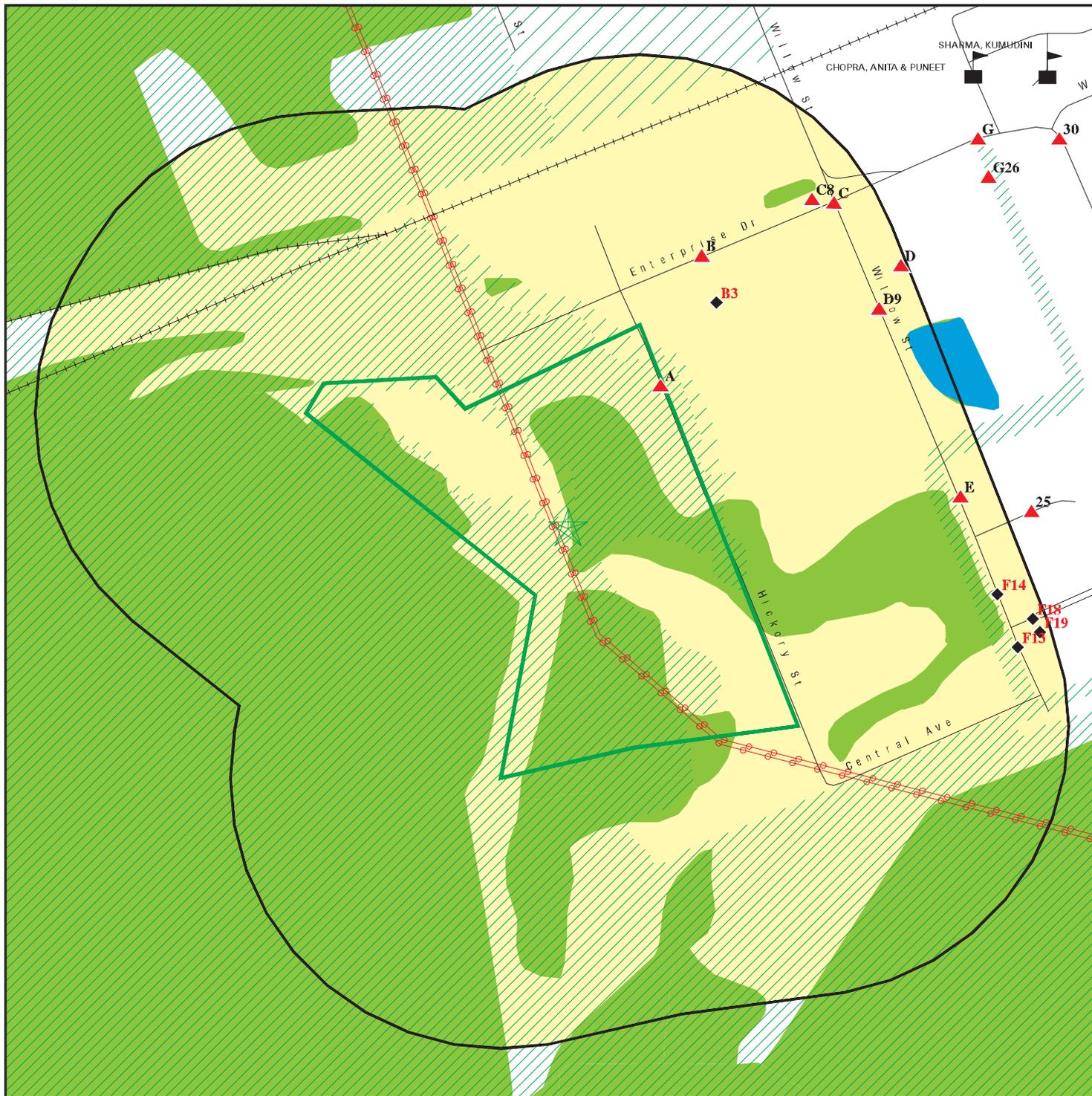
## EXECUTIVE SUMMARY

Due to poor or inadequate address information, the following sites were not mapped. Count: 15 records.

| <u>Site Name</u>                   | <u>Database(s)</u> |
|------------------------------------|--------------------|
| CARGILL INC HILL PARCEL AREA       | CA NPDES, CA WDS   |
| SUN MICROSYSTEMS, NEWARK           | CA CDL             |
| LESLIE SALT CO MAGNESIA PILE PROPE | CERCLIS, FINDS     |
| TOSCO CORPORATION SITE NO. 257003  | CERC-NFRAP         |
| AMERICAN METAL & IRON INC          | CA UST             |
| CARGILL SALT                       | CA HAZNET          |
| CARGILL SALT                       | CA HAZNET          |
| OHLONE COMMUNITY COLLEGE DISTRICT  | CA HAZNET          |
| CARGILL INC.                       | FINDS              |
| LESLIE SALT                        | FINDS              |
| CAL DEPT OF TRANS- STATE RTE 4     | CA BOND EXP. PLAN  |
| CARGILL INC/LESLIE SALT            | CA WDS             |
| CARGILL INC.                       | US MINES           |
| KIRKS BODY SHOP                    | ICIS               |
|                                    | CA EMI             |



# DETAIL MAP - 3738660.2s



-  Target Property
-  Sites at elevations higher than or equal to the target property
-  Sites at elevations lower than the target property
-  Manufactured Gas Plants
-  Sensitive Receptors
-  National Priority List Sites
-  Dept. Defense Sites
-  Indian Reservations BIA
-  Power transmission lines
-  Oil & Gas pipelines from USGS
-  100-year flood zone
-  500-year flood zone
-  National Wetland Inventory
-  Areas of Concern

This report includes Interactive Map Layers to display and/or hide map information. The legend includes only those icons for the default map view.

SITE NAME: Cargill Site  
 ADDRESS: Hickory Street/Enterprise Drive  
 Newark CA 94560  
 LAT/LONG: 37.5177 / 122.0544

CLIENT: Haley & Aldrich, Inc.  
 CONTACT: Marie Rose Javier  
 INQUIRY #: 3738660.2s  
 DATE: September 24, 2013 5:10 pm

## MAP FINDINGS SUMMARY

| Database   | Search<br>Distance<br>(Miles) | Target<br>Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total<br>Plotted |
|--|-------------------------------|--------------------|-------|-----------|-----------|---------|-----|------------------|
| <b>STANDARD ENVIRONMENTAL RECORDS</b>  |                               |                    |       |           |           |         |     |                  |
| <b><i>Federal NPL site list</i></b>  |                               |                    |       |           |           |         |     |                  |
| NPL  | 1.000                         |                    | 0     | 0         | 0         | 0       | NR  | 0                |
| Proposed NPL   | 1.000                         |                    | 0     | 0         | 0         | 0       | NR  | 0                |
| NPL LIENS  | 0.001                         |                    | 0     | NR        | NR        | NR      | NR  | 0                |
| <b><i>Federal Delisted NPL site list</i></b>                                       |                               |                    |       |           |           |         |     |                  |
| Delisted NPL   | 1.000                         |                    | 0     | 0         | 0         | 0       | NR  | 0                |
| <b><i>Federal CERCLIS list</i></b>   |                               |                    |       |           |           |         |     |                  |
| CERCLIS  | 0.500                         |                    | 0     | 0         | 0         | NR      | NR  | 0                |
| FEDERAL FACILITY   | 0.500                         |                    | 0     | 0         | 0         | NR      | NR  | 0                |
| <b><i>Federal CERCLIS NFRAP site List</i></b>                                      |                               |                    |       |           |           |         |     |                  |
| CERC-NFRAP   | 0.500                         |                    | 1     | 3         | 2         | NR      | NR  | 6                |
| <b><i>Federal RCRA CORRACTS facilities list</i></b>                                |                               |                    |       |           |           |         |     |                  |
| CORRACTS   | 1.000                         |                    | 1     | 2         | 1         | 0       | NR  | 4                |
| <b><i>Federal RCRA non-CORRACTS TSD facilities list</i></b>                        |                               |                    |       |           |           |         |     |                  |
| RCRA-TSDF  | 0.500                         |                    | 1     | 2         | 1         | NR      | NR  | 4                |
| <b><i>Federal RCRA generators list</i></b>   |                               |                    |       |           |           |         |     |                  |
| RCRA-LQG   | 0.250                         |                    | 1     | 0         | NR        | NR      | NR  | 1                |
| RCRA-SQG   | 0.250                         |                    | 0     | 4         | NR        | NR      | NR  | 4                |
| RCRA-CESQG   | 0.250                         |                    | 0     | 0         | NR        | NR      | NR  | 0                |
| <b><i>Federal institutional controls /<br/>engineering controls registries</i></b> |                               |                    |       |           |           |         |     |                  |
| US ENG CONTROLS  | 0.500                         |                    | 0     | 0         | 0         | NR      | NR  | 0                |
| US INST CONTROL  | 0.500                         |                    | 0     | 0         | 0         | NR      | NR  | 0                |
| LUCIS  | 0.500                         |                    | 0     | 0         | 0         | NR      | NR  | 0                |
| <b><i>Federal ERNS list</i></b>  |                               |                    |       |           |           |         |     |                  |
| ERNS   | 0.001                         |                    | 0     | NR        | NR        | NR      | NR  | 0                |
| <b><i>State- and tribal - equivalent NPL</i></b>                                   |                               |                    |       |           |           |         |     |                  |
| CA RESPONSE  | 1.000                         |                    | 0     | 1         | 2         | 0       | NR  | 3                |
| <b><i>State- and tribal - equivalent CERCLIS</i></b>                               |                               |                    |       |           |           |         |     |                  |
| CA ENVIROSTOR  | 1.000                         |                    | 2     | 3         | 3         | 1       | NR  | 9                |
| <b><i>State and tribal landfill and/or<br/>solid waste disposal site lists</i></b> |                               |                    |       |           |           |         |     |                  |
| CA SWF/LF  | 0.500                         |                    | 0     | 0         | 0         | NR      | NR  | 0                |
| <b><i>State and tribal leaking storage tank lists</i></b>                          |                               |                    |       |           |           |         |     |                  |
| CA LUST  | 0.500                         |                    | 0     | 0         | 5         | NR      | NR  | 5                |

## MAP FINDINGS SUMMARY

| Database  | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|---|-------------------------|-----------------|-------|-----------|-----------|---------|-----|---------------|
| CA SLIC   | 0.500                   |                 | 4     | 8         | 7         | NR      | NR  | 19            |
| CA Alameda County CS  | 0.500                   |                 | 1     | 0         | 0         | NR      | NR  | 1             |
| INDIAN LUST   | 0.500                   |                 | 0     | 0         | 0         | NR      | NR  | 0             |
| <b>State and tribal registered storage tank lists</b>       |                         |                 |       |           |           |         |     |               |
| CA UST  | 0.250                   |                 | 0     | 0         | NR        | NR      | NR  | 0             |
| CA AST  | 0.250                   |                 | 0     | 0         | NR        | NR      | NR  | 0             |
| INDIAN UST  | 0.250                   |                 | 0     | 0         | NR        | NR      | NR  | 0             |
| FEMA UST  | 0.250                   |                 | 0     | 0         | NR        | NR      | NR  | 0             |
| <b>State and tribal voluntary cleanup sites</b>             |                         |                 |       |           |           |         |     |               |
| CA VCP  | 0.500                   |                 | 0     | 0         | 0         | NR      | NR  | 0             |
| INDIAN VCP  | 0.500                   |                 | 0     | 0         | 0         | NR      | NR  | 0             |
| <b>ADDITIONAL ENVIRONMENTAL RECORDS</b>                     |                         |                 |       |           |           |         |     |               |
| <b>Local Brownfield lists</b>                               |                         |                 |       |           |           |         |     |               |
| US BROWNFIELDS  | 0.500                   |                 | 0     | 0         | 0         | NR      | NR  | 0             |
| <b>Local Lists of Landfill / Solid Waste Disposal Sites</b> |                         |                 |       |           |           |         |     |               |
| ODI   | 0.500                   |                 | 0     | 0         | 0         | NR      | NR  | 0             |
| DEBRIS REGION 9   | 0.500                   |                 | 0     | 0         | 0         | NR      | NR  | 0             |
| CA WMUDS/SWAT   | 0.500                   |                 | 0     | 2         | 0         | NR      | NR  | 2             |
| CA SWRCY  | 0.500                   |                 | 0     | 0         | 0         | NR      | NR  | 0             |
| CA HAULERS  | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| INDIAN ODI  | 0.500                   |                 | 0     | 0         | 0         | NR      | NR  | 0             |
| <b>Local Lists of Hazardous waste / Contaminated Sites</b>  |                         |                 |       |           |           |         |     |               |
| US CDL  | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| CA HIST Cal-Sites   | 1.000                   |                 | 0     | 0         | 2         | 0       | NR  | 2             |
| CA SCH  | 0.250                   |                 | 0     | 0         | NR        | NR      | NR  | 0             |
| CA Toxic Pits   | 1.000                   |                 | 0     | 1         | 0         | 0       | NR  | 1             |
| CA CDL  | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| US HIST CDL   | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| <b>Local Lists of Registered Storage Tanks</b>              |                         |                 |       |           |           |         |     |               |
| CA FID UST  | 0.250                   |                 | 0     | 0         | NR        | NR      | NR  | 0             |
| CA HIST UST   | 0.250                   |                 | 1     | 2         | NR        | NR      | NR  | 3             |
| CA SWEEPS UST   | 0.250                   |                 | 0     | 0         | NR        | NR      | NR  | 0             |
| <b>Local Land Records</b>                                   |                         |                 |       |           |           |         |     |               |
| LIENS 2   | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| CA LIENS  | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| CA DEED   | 0.500                   |                 | 0     | 0         | 1         | NR      | NR  | 1             |
| <b>Records of Emergency Release Reports</b>                 |                         |                 |       |           |           |         |     |               |
| HMIRS   | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| CA CHMIRS   | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |

## MAP FINDINGS SUMMARY

| Database                           | Search Distance (Miles) | Target Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total Plotted |
|------------------------------------|-------------------------|-----------------|-------|-----------|-----------|---------|-----|---------------|
| CA LDS                             | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| CA MCS                             | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| CA SPILLS 90                       | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| <b>Other Ascertainable Records</b> |                         |                 |       |           |           |         |     |               |
| RCRA NonGen / NLR                  | 0.250                   |                 | 0     | 1         | NR        | NR      | NR  | 1             |
| DOT OPS                            | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| DOD                                | 1.000                   |                 | 0     | 0         | 0         | 0       | NR  | 0             |
| FUDS                               | 1.000                   |                 | 0     | 0         | 0         | 0       | NR  | 0             |
| CONSENT                            | 1.000                   |                 | 0     | 0         | 0         | 0       | NR  | 0             |
| ROD                                | 1.000                   |                 | 0     | 0         | 0         | 0       | NR  | 0             |
| UMTRA                              | 0.500                   |                 | 0     | 0         | 0         | NR      | NR  | 0             |
| US MINES                           | 0.250                   |                 | 0     | 0         | NR        | NR      | NR  | 0             |
| TRIS                               | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| TSCA                               | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| FTTS                               | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| HIST FTTS                          | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| SSTS                               | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| ICIS                               | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| PADS                               | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| MLTS                               | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| RADINFO                            | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| FINDS                              | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| RAATS                              | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| RMP                                | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| CA BOND EXP. PLAN                  | 1.000                   |                 | 0     | 0         | 0         | 0       | NR  | 0             |
| CA UIC                             | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| CA NPDES                           | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| CA Cortese                         | 0.500                   |                 | 1     | 2         | 1         | NR      | NR  | 4             |
| CA HIST CORTESE                    | 0.500                   |                 | 1     | 2         | 6         | NR      | NR  | 9             |
| CA CUPA Listings                   | 0.250                   |                 | 0     | 0         | NR        | NR      | NR  | 0             |
| NY MANIFEST                        | 0.250                   |                 | 0     | 0         | NR        | NR      | NR  | 0             |
| CA Notify 65                       | 1.000                   |                 | 1     | 0         | 0         | 0       | NR  | 1             |
| CA DRYCLEANERS                     | 0.250                   |                 | 0     | 0         | NR        | NR      | NR  | 0             |
| CA WIP                             | 0.250                   |                 | 0     | 0         | NR        | NR      | NR  | 0             |
| CA ENF                             | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| CA HAZNET                          | 0.001                   |                 | 2     | NR        | NR        | NR      | NR  | 2             |
| CA EMI                             | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| INDIAN RESERV                      | 1.000                   |                 | 0     | 0         | 0         | 0       | NR  | 0             |
| SCRD DRYCLEANERS                   | 0.500                   |                 | 0     | 0         | 0         | NR      | NR  | 0             |
| CA HWT                             | 0.250                   |                 | 0     | 0         | NR        | NR      | NR  | 0             |
| CA HWP                             | 1.000                   |                 | 1     | 2         | 2         | 0       | NR  | 5             |
| CA Financial Assurance             | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| CA WDS                             | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| CA PROC                            | 0.500                   |                 | 0     | 0         | 0         | NR      | NR  | 0             |
| CA MWMP                            | 0.250                   |                 | 0     | 0         | NR        | NR      | NR  | 0             |
| COAL ASH DOE                       | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| COAL ASH EPA                       | 0.500                   |                 | 0     | 0         | 0         | NR      | NR  | 0             |
| LEAD SMELTERS                      | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |
| 2020 COR ACTION                    | 0.250                   |                 | 1     | 2         | NR        | NR      | NR  | 3             |
| PCB TRANSFORMER                    | 0.001                   |                 | 0     | NR        | NR        | NR      | NR  | 0             |

## MAP FINDINGS SUMMARY

| Database       | Search<br>Distance<br>(Miles) | Target<br>Property | < 1/8 | 1/8 - 1/4 | 1/4 - 1/2 | 1/2 - 1 | > 1 | Total<br>Plotted |
|----------------|-------------------------------|--------------------|-------|-----------|-----------|---------|-----|------------------|
| US AIRS        | 0.001                         |                    | 0     | NR        | NR        | NR      | NR  | 0                |
| PRP            | 0.001                         |                    | 0     | NR        | NR        | NR      | NR  | 0                |
| EPA WATCH LIST | 0.001                         |                    | 0     | NR        | NR        | NR      | NR  | 0                |
| US FIN ASSUR   | 0.001                         |                    | 0     | NR        | NR        | NR      | NR  | 0                |

### EDR HIGH RISK HISTORICAL RECORDS

#### ***EDR Exclusive Records***

|                       |       |  |   |   |    |    |    |   |
|-----------------------|-------|--|---|---|----|----|----|---|
| EDR MGP               | 1.000 |  | 0 | 0 | 0  | 0  | NR | 0 |
| EDR US Hist Auto Stat | 0.250 |  | 0 | 1 | NR | NR | NR | 1 |
| EDR US Hist Cleaners  | 0.250 |  | 0 | 0 | NR | NR | NR | 0 |

#### NOTES:

TP = Target Property

NR = Not Requested at this Search Distance

Sites may be listed in more than one database

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**A1**      **UNION SANITARY DISTRICT**      **CA HAZNET**      **S112970686**  
**37159 HICKORY ST**      **N/A**  
**< 1/8**      **NEWARK, CA 94560**

**1 ft.**

**Site 1 of 2 in cluster A**

**Relative:  
Higher**

HAZNET:

Year: 2008

Gepaid: CAC002631089

**Actual:  
14 ft.**

Contact: RAYMOND CHOU

Telephone: 5104777606

Mailing Name: Not reported

Mailing Address: 5072 BENSON RD

Mailing City,St,Zip: UNION CITY, CA 945870000

Gen County: Not reported

TSD EPA ID: CAD088504881

TSD County: Not reported

Waste Category: Other inorganic solid waste

Disposal Method: Storage, Bulking, And/Or Transfer Off Site--No Treatment/Reovery  
(H010-H129) Or (H131-H135)

Tons: 0.1075

Facility County: Alameda

**A2**      **UNION SANITARY DISTRICT NEWARK PUMP STATION**      **CA HAZNET**      **S113162360**  
**37159 HICKORY ST**      **N/A**  
**< 1/8**      **NEWARK, CA 94560**

**1 ft.**

**Site 2 of 2 in cluster A**

**Relative:  
Higher**

HAZNET:

Year: 2011

Gepaid: CAL000367249

**Actual:  
14 ft.**

Contact: MIKE MARZANO

Telephone: 5103715082

Mailing Name: Not reported

Mailing Address: 5072 BENSON RD

Mailing City,St,Zip: UNION CITY, CA 945870000

Gen County: Not reported

TSD EPA ID: CAD980887418

TSD County: Not reported

Waste Category: Waste oil and mixed oil

Disposal Method: Other Recovery Of Reclamation For Reuse Including Acid Regeneration,  
Organics Recovery Ect

Tons: 0.209

Facility County: Alameda

**B3**      **FORMER ASHLAND CHEMICAL SITE**      **CA NPDES**      **S105646276**  
**NNE**      **8610 ENTERPRISE DRIVE**      **CA SLIC**      **N/A**  
**< 1/8**      **NEWARK, CA 92801**      **CA CHMIRS**

**0.073 mi.**

**388 ft.**

**Site 1 of 5 in cluster B**

**Relative:  
Lower**

NPDES:

Npdes Number: CAS000002

Facility Status: Terminated

**Actual:  
12 ft.**

Agency Id: 0

Region: 2

Regulatory Measure Id: 273912

**CA ENVIROSTOR**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER ASHLAND CHEMICAL SITE (Continued)**

**S105646276**

Order No: 2009-0009-DWQ  
Regulatory Measure Type: Enrollee  
Place Id: Not reported  
WDID: 2 01C336342  
Program Type: Construction  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: 09/01/2005  
Expiration Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: 06/30/2010  
Discharge Name: Ashland Chemical Co  
Discharge Address: 5200 Blazer Pkwy  
Discharge City: Dublin  
Discharge State: Ohio  
Discharge Zip: 43017

**SLIC:**

Region: STATE  
**Facility Status: Open - Verification Monitoring**  
Status Date: 04/06/2009  
Global Id: SL20225843  
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)  
Lead Agency Case Number: 0018  
Latitude: 37.5205846412336  
Longitude: -122.052183151245  
Case Type: Cleanup Program Site  
Case Worker: CCM  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01S0024  
File Location: Regional Board  
Potential Media Affected: Other Groundwater (uses other than drinking water)  
Potential Contaminants of Concern: 1,1,1-Trichloroethane (TCA), Acetone, Benzene, Other Chlorinated Hydrocarbons, Other Solvent or Non-Petroleum Hydrocarbon, Tetrachloroethylene (PCE), Toluene, Trichloroethylene (TCE), Vinyl chloride, Xylene, \* Semi-Volatile Organic Compounds  
Site History: Ashland operated a shallow groundwater pump and treatment system from 1982 to 2005. 22,700 cubic yards of VOC impacted soil was excavated in 2005-2006 in the tank farm area and former warehouse area. In Dec. 2008, Ashland conducted a soils investigation in the former excavation areas to determine if the backfilled soils are a protective cap, and to evaluate soil gas concentrations outside of the excavation areas, and to update the risk assessment. In 2003, a deed restriction was filed and recorded with Alameda County. All buildings and structures have been razed and the property is presently vacant. It likely be redeveloped in accordance with the City of Newark.'s AREA 2 Specific Plan.

[Click here to access the California GeoTracker records for this facility:](#)

**CHMIRS:**

OES Incident Number: 013314  
OES notification: Not reported  
OES Date: 4/17/1996  
OES Time: 12:02:06 PM  
Incident Date: Not reported  
**Date Completed: Not reported**  
Property Use: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER ASHLAND CHEMICAL SITE (Continued)**

**S105646276**

|   |                   |
|---|-------------------|
| Agency Id Number:                           | Not reported      |
| Agency Incident Number:                     | Not reported      |
| Time Notified:                              | Not reported      |
| Time Completed:                             | Not reported      |
| Surrounding Area:                           | Not reported      |
| Estimated Temperature:                      | Not reported      |
| Property Management:                        | Not reported      |
| Special Studies 1:                          | Not reported      |
| Special Studies 2:                          | Not reported      |
| Special Studies 3:                          | Not reported      |
| Special Studies 4:                          | Not reported      |
| Special Studies 5:                          | Not reported      |
| Special Studies 6:                          | Not reported      |
| More Than Two Substances Involved?:         | Not reported      |
| Resp Agncy Personel # Of Decontaminated:    | Not reported      |
| Responding Agency Personel # Of Injuries:   | Not reported      |
| Responding Agency Personel # Of Fatalities: | Not reported      |
| Others Number Of Decontaminated:            | Not reported      |
| Others Number Of Injuries:                  | Not reported      |
| Others Number Of Fatalities:                | Not reported      |
| Vehicle Make/year:                          | Not reported      |
| Vehicle License Number:                     | Not reported      |
| Vehicle State:                              | Not reported      |
| Vehicle Id Number:                          | Not reported      |
| CA/DOT/PUC/ICC Number:                      | Not reported      |
| Company Name:                               | Not reported      |
| Reporting Officer Name/ID:                  | Not reported      |
| Report Date:                                | Not reported      |
| Comments:                                   | Not reported      |
| Facility Telephone:                         | Not reported      |
| Waterway Involved:                          | YES               |
| Waterway:                                   | Not reported      |
| Spill Site:                                 | Not reported      |
| Cleanup By:                                 | ASHLAND PERSONNEL |
| Containment:                                | Not reported      |
| What Happened:                              | Not reported      |
| Type:                                       | CHEMICAL          |
| Measure:                                    | Not reported      |
| Other:                                      | Not reported      |
| Date/Time:                                  | Not reported      |
| Year:                                       | 1996              |
| Agency:                                     | NEWARK FD         |
| Incident Date:                              | 1000 17APR96      |
| Admin Agency:                               | Not reported      |
| Amount:                                     | 1000 LBS          |
| Contained:                                  | NO                |
| Site Type:                                  | OTHER             |
| E Date:                                     | Not reported      |
| Substance:                                  | HF 49%            |
| Quantity Released:                          | Not reported      |
| BBLs:                                       | Not reported      |
| Cups:                                       | Not reported      |
| CUFT:                                       | Not reported      |
| Gallons:                                    | Not reported      |
| Grams:                                      | Not reported      |
| Pounds:                                     | Not reported      |
| Liters:                                     | Not reported      |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER ASHLAND CHEMICAL SITE (Continued)**

**S105646276**

Ounces: Not reported  
Pints: Not reported  
Quarts: Not reported  
Sheen: Not reported  
Tons: Not reported  
Unknown: Not reported  
Evacuations: NO  
Number of Injuries: NO  
Number of Fatalities: NO  
Description: DURING TRANSFER OF PRODUCT FROM TANK TO DRUM THE SPILL OCCURRED.  
STILL UNDER INVESTIGATION. REMAINS IN SECONDARY CONTAINMENT.

**ENVIROSTOR:**

Site Type: Tiered Permit  
Site Type Detailed: Tiered Permit  
Acres: 0  
NPL: NO  
Regulatory Agencies: NONE SPECIFIED  
Lead Agency: NONE SPECIFIED  
Program Manager: Not reported  
Supervisor: Referred - Not Assigned  
Division Branch: Cleanup Berkeley  
Facility ID: 71002530  
Site Code: Not reported  
Assembly: 25  
Senate: 10  
Special Program: Not reported  
Status: Refer: RWQCB  
Status Date: 01/01/2008  
Restricted Use: NO  
Site Mgmt. Req.: NONE SPECIFIED  
Funding: Not reported  
Latitude: 37.52009  
Longitude: -122.0519  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED  
Potential COC: NONE SPECIFIED  
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: CAD066562521  
Alias Type: EPA Identification Number  
Alias Name: 71002530  
Alias Type: Envirostor ID Number

**Completed Info:**

Completed Area Name: Not reported  
Completed Sub Area Name: Not reported  
Completed Document Type: Not reported  
Completed Date: Not reported  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FORMER ASHLAND CHEMICAL SITE (Continued)**

**S105646276**

Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

**B4**  
**NNE**  
**< 1/8**  
**0.085 mi.**  
**448 ft.**

**FMC CORP. - NEWARK**  
**8787 ENTERPRISE DRIVE**  
**NEWARK, CA 94560**

**CA SLIC** **S106234866**  
**N/A**

**Site 2 of 5 in cluster B**

**Relative:**  
**Higher**

SLIC REG 2:

Region: 2

Facility ID: 01S0131

**Actual:**  
**13 ft.**

Facility Status: Remedial action (cleanup) Underway

Date Closed: Not reported

Local Case #: Not reported

How Discovered: Not reported

Leak Cause: Not reported

Leak Source: Not reported

Date Confirmed: Not reported

Date Prelim Site Assmnt Workplan Submitted: Not reported

Date Preliminary Site Assessment Began: Not reported

Date Pollution Characterization Began: Not reported

Date Remediation Plan Submitted: Not reported

Date Remedial Action Underway: Not reported

Date Post Remedial Action Monitoring Began: Not reported

**B5**  
**NNE**  
**< 1/8**  
**0.085 mi.**  
**448 ft.**

**FMC CORP NEWARK**  
**8787 ENTERPRISE DR**  
**NEWARK, CA 94560**

**RCRA-TSDF** **1000109341**  
**CERC-NFRAP** **CAD009147000**  
**CORRACTS**  
**RCRA-LQG**  
**FINDS**  
**CA Cortese**  
**CA HIST CORTESE**  
**CA SLIC**  
**CA Alameda County CS**  
**CA HIST UST**  
**CA CHMIRS**  
**CA ENF**  
**CA EMI**  
**CA ENVIROSTOR**  
**CA HWP**  
**2020 COR ACTION**

**Site 3 of 5 in cluster B**

**Relative:**  
**Higher**

**Actual:**  
**13 ft.**

RCRA-TSDF:

Date form received by agency: 03/08/2013

Facility name: FMC CORPORATION

Facility address: 8787 ENTERPRISE DRIVE  
NEWARK, CA 94560

EPA ID: CAD009147000

Mailing address: MARKET STREET  
MARKET STREET  
PHILADELPHIA, PA 19103

Contact: BRIAN M MCGINNIS

Contact address: MARKET STREET  
PHILADELPHIA, PA 19103

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

Contact country: Not reported  
Contact telephone: (215) 299-6047  
Contact email: BRIAN.MCGINNIS@FMC.COM  
EPA Region: 09  
Land type: Private  
Classification: TSDF  
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste  
  
Classification: Large Quantity Generator  
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

**Owner/Operator Summary:**

Owner/operator name: FMC CORPORATION  
Owner/operator address: MARKET STREET  
PHILADELPHIA, PA 19103  
  
Owner/operator country: Not reported  
Owner/operator telephone: (215) 299-6047  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 01/01/1948  
Owner/Op end date: Not reported

Owner/operator name: FMC CORPORATION  
Owner/operator address: Not reported  
Not reported  
  
Owner/operator country: Not reported  
Owner/operator telephone: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: 01/01/1948  
Owner/Op end date: Not reported

**Handler Activities Summary:**

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
Used oil refiner: No  
Used oil fuel marketer to burner: No

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 02/04/2010  
Facility name: FMC CORPORATION  
Classification: Large Quantity Generator

Date form received by agency: 02/22/2008  
Facility name: FMC CORPORATION  
Classification: Large Quantity Generator

Date form received by agency: 02/17/2006  
Facility name: FMC CORPORATION  
Classification: Large Quantity Generator

Date form received by agency: 02/18/2004  
Facility name: FMC CORPORATION  
Classification: Large Quantity Generator

Date form received by agency: 02/05/2002  
Facility name: FMC CORPORATION  
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000  
Facility name: FMC CORPORATION  
Site name: FMC CORP NEWARK DISTRIBUTION CENTER  
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999  
Facility name: FMC CORPORATION  
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996  
Facility name: FMC CORPORATION  
Site name: F M C CORP  
Classification: Large Quantity Generator

Date form received by agency: 03/13/1996  
Facility name: FMC CORPORATION  
Classification: Large Quantity Generator

Date form received by agency: 03/10/1994  
Facility name: FMC CORPORATION  
Classification: Large Quantity Generator

Date form received by agency: 01/26/1993  
Facility name: FMC CORPORATION  
Site name: F M C CORP  
Classification: Large Quantity Generator

Date form received by agency: 02/24/1992  
Facility name: FMC CORPORATION  
Site name: FMC CORP  
Classification: Large Quantity Generator

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

Date form received by agency: 04/03/1991  
Facility name: FMC CORPORATION  
Site name: FMC CORP  
Classification: Large Quantity Generator

**Hazardous Waste Summary:**

Waste code: 351  
Waste name: 351

Waste code: D028  
Waste name: 1,2-DICHLOROETHANE

**Corrective Action Summary:**

Event date: 06/05/2001  
Event: RFA Completed

Event date: 12/20/2007  
Event: CA029

Event date: 03/04/2010  
Event: Igration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

Event date: 03/04/2010  
Event: CA800YE

Event date: 03/04/2010  
Event: Igration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

Event date: 03/04/2010  
Event: CA550RC

Event date: 03/04/2010  
Event: CA550RC

Event date: 03/04/2010  
Event: Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are

Map ID  
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MAP FINDINGS

Site

Database(s)

EDR ID Number  
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**FMC CORP NEWARK (Continued)**

**1000109341**

expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

Event date: 03/04/2010  
Event: Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

Facility Has Received Notices of Violations:

Regulation violated: Not reported  
Area of violation: Generators - General  
Date violation determined: 01/16/1984  
Date achieved compliance: 06/24/1985  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 01/16/1984  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 10/10/2006  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 12/21/2004  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 12/13/2001  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 04/01/1991  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/16/1986  
Evaluation: FOCUSED COMPLIANCE INSPECTION

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MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 06/24/1985  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 04/17/1985  
Evaluation: GROUNDWATER MONITORING EVALUATION  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 01/16/1984  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Generators - General  
Date achieved compliance: 06/24/1985  
Evaluation lead agency: State

Evaluation date: 12/03/1980  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: EPA

**CERC-NFRAP:**

Site ID: 0901167  
Federal Facility: Not a Federal Facility  
NPL Status: Not on the NPL  
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

**CERCLIS-NFRAP Site Contact Details:**

Contact Sequence ID: 13051971.00000  
Person ID: 9271184.00000

Contact Sequence ID: 13290004.00000  
Person ID: 13003854.00000

Contact Sequence ID: 13295599.00000  
Person ID: 13003858.00000

Contact Sequence ID: 13301457.00000  
Person ID: 13004003.00000

**CERCLIS-NFRAP Site Alias Name(s):**

Alias Name: FMC CORP-MAGNESIA PILE  
Alias Address: FOOT OF ENTERPRISE DR  
NEWARK, CA 94560

**CERCLIS-NFRAP Assessment History:**

Action: PRELIMINARY ASSESSMENT  
Date Started: 05/01/84  
Date Completed: 03/01/85

Map ID  
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Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

Priority Level: Low priority for further assessment

Action: ARCHIVE SITE  
Date Started: / /  
Date Completed: 03/01/85  
Priority Level: Not reported

Action: SITE INSPECTION  
Date Started: / /  
Date Completed: 03/01/85  
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

Action: DISCOVERY  
Date Started: / /  
Date Completed: 11/01/79  
Priority Level: Not reported

**CORRACTS:**

EPA ID: CAD009147000  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20100304  
Action: CA550RC  
NAICS Code(s): 56291  
Remediation Services  
Original schedule date: 20100304  
Schedule end date: Not reported

EPA ID: CAD009147000  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20100304  
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes,  
Migration of Contaminated Groundwater Under Control has been verified  
NAICS Code(s): 56291  
Remediation Services  
Original schedule date: 20100304  
Schedule end date: Not reported

EPA ID: CAD009147000  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20100304  
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human  
Exposures Under Control has been verified  
NAICS Code(s): 56291  
Remediation Services  
Original schedule date: 20100304  
Schedule end date: Not reported

EPA ID: CAD009147000  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20100304  
Action: CA800YE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

NAICS Code(s): 56291  
Remediation Services  
Original schedule date: 20100304  
Schedule end date: Not reported

EPA ID: CAD009147000  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20010605  
Action: CA050 - RFA Completed  
NAICS Code(s): 56291  
Remediation Services  
Original schedule date: 20010605  
Schedule end date: Not reported

EPA ID: CAD009147000  
EPA Region: 09  
Area Name: ENTIER FACILITY  
Actual Date: 20010605  
Action: CA050 - RFA Completed  
NAICS Code(s): 56291  
Remediation Services  
Original schedule date: 20010605  
Schedule end date: Not reported

EPA ID: CAD009147000  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20071220  
Action: CA029  
NAICS Code(s): 56291  
Remediation Services  
Original schedule date: Not reported  
Schedule end date: Not reported

**FINDS:**

Registry ID: 110000748228

**Environmental Interest/Information System**

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport,

Map ID  
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MAP FINDINGS

Site

Database(s)

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**FMC CORP NEWARK (Continued)**

**1000109341**

and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

HAZARDOUS WASTE BIENNIAL REPORTER

CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY

**CORTESE:**

|                            |              |
|----------------------------|--------------|
| Region:                    | CORTESE      |
| Envirostor Id:             | Not reported |
| Site/Facility Type:        | Not reported |
| Cleanup Status:            | Not reported |
| Status Date:               | Not reported |
| Site Code:                 | Not reported |
| Latitude:                  | Not reported |
| Longitude:                 | Not reported |
| Owner:                     | Not reported |
| Enf Type:                  | Not reported |
| Swat R:                    | Not reported |
| Flag:                      | CORTESE      |
| Order No:                  | Not reported |
| Waste Discharge System No: | Not reported |
| Effective Date:            | Not reported |
| Region 2:                  | Not reported |
| WID Id:                    | Not reported |
| Solid Waste Id No:         | Not reported |
| Waste Management Uit Name: | Not reported |

|                            |              |
|----------------------------|--------------|
| Region:                    | CORTESE      |
| Envirostor Id:             | Not reported |
| Site/Facility Type:        | Not reported |
| Cleanup Status:            | Not reported |
| Status Date:               | Not reported |
| Site Code:                 | Not reported |
| Latitude:                  | Not reported |
| Longitude:                 | Not reported |
| Owner:                     | Not reported |
| Enf Type:                  | Not reported |
| Swat R:                    | Not reported |
| Flag:                      | CORTESE      |
| Order No:                  | Not reported |
| Waste Discharge System No: | Not reported |
| Effective Date:            | Not reported |
| Region 2:                  | Not reported |
| WID Id:                    | Not reported |
| Solid Waste Id No:         | Not reported |
| Waste Management Uit Name: | Not reported |

|                     |              |
|---------------------|--------------|
| Region:             | CORTESE      |
| Envirostor Id:      | Not reported |
| Site/Facility Type: | Not reported |
| Cleanup Status:     | Not reported |
| Status Date:        | Not reported |
| Site Code:          | Not reported |
| Latitude:           | Not reported |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

1000109341

Longitude: Not reported  
Owner: Not reported  
Enf Type: Not reported  
Swat R: Not reported  
Flag: CORTESE  
Order No: Not reported  
Waste Discharge System No: Not reported  
Effective Date: Not reported  
Region 2: Not reported  
WID Id: Not reported  
Solid Waste Id No: Not reported  
Waste Management Uit Name: Not reported

**CORTESE:**

Region: CORTESE  
Facility County Code: 1  
Reg By: WBC&D  
Reg Id: 2 019064N02

**SLIC:**

Region: STATE  
**Facility Status: Open - Remediation**  
Status Date: 06/10/2009  
Global Id: SL20240858  
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)  
Lead Agency Case Number: 0049  
Latitude: 37.5209590543727  
Longitude: -122.054543495178  
Case Type: Cleanup Program Site  
Case Worker: CCM  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01S0131  
File Location: Regional Board  
Potential Media Affected: Other Groundwater (uses other than drinking water)  
Potential Contaminants of Concern: 1,1,1-Trichloroethane (TCA), Other Chlorinated Hydrocarbons, Other Solvent or Non-Petroleum Hydrocarbon, Tetrachloroethylene (PCE), Trichloroethylene (TCE), Vinyl chloride, Xylene, Arsenic, Chromium, Lead, Nickel, Other Metal, Kerosene, \* \* ETHYLENE DIBROMIDE (EDB), \* \* PHOSPHATE  
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

**Alameda County CS:**

Status: 11  
Record Id: RO0002806  
PE: 5502

**HIST UST:**

Region: STATE  
Facility ID: 00000019552  
Facility Type: Other  
Other Type: MANUFACTURING  
Total Tanks: 0004  
Contact Name: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

Telephone: 4157931230  
Owner Name: FMC CORPORATION  
Owner Address: 200 E. RANDOLPH DRIVE  
Owner City,St,Zip: CHICAGO, IL 60601

Tank Num: 001  
Container Num: B54  
Year Installed: 1956  
Tank Capacity: 00001000  
Tank Used for: PRODUCT  
Type of Fuel: UNLEADED  
Tank Construction: Not reported  
Leak Detection: Stock Inventor

Tank Num: 002  
Container Num: 3894  
Year Installed: 1978  
Tank Capacity: 00300000  
Tank Used for: WASTE  
Type of Fuel: Not reported  
Tank Construction: Not reported  
Leak Detection: Visual, Groundwater Monitoring Well

Tank Num: 003  
Container Num: 3548  
Year Installed: 1968  
Tank Capacity: 00200000  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Tank Construction: 12 inches  
Leak Detection: Stock Inventor, Groundwater Monitoring Well

Tank Num: 004  
Container Num: 3206  
Year Installed: 1964  
Tank Capacity: 00140000  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Tank Construction: 12 inches  
Leak Detection: Stock Inventor, Groundwater Monitoring Well

**CHMIRS:**

OES Incident Number: 9990662  
OES notification: Not reported  
OES Date: Not reported  
OES Time: Not reported  
Incident Date: 02-DEC-88  
**Date Completed: 02-DEC-88**  
Property Use: 762  
Agency Id Number: 1070  
Agency Incident Number: 80487  
Time Notified: 1444  
Time Completed: 1509  
Surrounding Area: 600  
Estimated Temperature: 65  
Property Management: P  
Special Studies 1: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

Special Studies 2: Not reported  
Special Studies 3: Not reported  
Special Studies 4: Not reported  
Special Studies 5: Not reported  
Special Studies 6: Not reported  
More Than Two Substances Involved?: N  
Resp Agency Personnel # Of Decontaminated: Not reported  
Responding Agency Personnel # Of Injuries: Not reported  
Responding Agency Personnel # Of Fatalities: Not reported  
Others Number Of Decontaminated: Not reported  
Others Number Of Injuries: Not reported  
Others Number Of Fatalities: Not reported  
Vehicle Make/year: Not reported  
Vehicle License Number: Not reported  
Vehicle State: Not reported  
Vehicle Id Number: Not reported  
CA/DOT/PUC/ICC Number: Not reported  
Company Name: Not reported  
Reporting Officer Name/ID: CAPT. SILVA  
Report Date: 02-DEC-88  
Comments: N  
Facility Telephone: 415 790-7247  
Waterway Involved: Not reported  
Waterway: Not reported  
Spill Site: Not reported  
Cleanup By: Not reported  
Containment: Not reported  
What Happened: Not reported  
Type: Not reported  
Measure: Not reported  
Other: Not reported  
Date/Time: Not reported  
Year: 88-92  
Agency: Not reported  
Incident Date: Not reported  
Admin Agency: Not reported  
Amount: Not reported  
Contained: Not reported  
Site Type: Not reported  
E Date: 14-FEB-89  
Substance: Not reported  
Quantity Released: Not reported  
BBLs: Not reported  
Cups: Not reported  
CUFT: Not reported  
Gallons: Not reported  
Grams: Not reported  
Pounds: Not reported  
Liters: Not reported  
Ounces: Not reported  
Pints: Not reported  
Quarts: Not reported  
Sheen: Not reported  
Tons: Not reported  
Unknown: Not reported  
Evacuations: Not reported  
Number of Injuries: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

1000109341

Number of Fatalities: Not reported  
Description: Not reported  
  
OES Incident Number: 9014328  
OES notification: Not reported  
OES Date: Not reported  
OES Time: Not reported  
Incident Date: 09-DEC-90  
**Date Completed: 09-DEC-90**  
Property Use: 762  
Agency Id Number: 1070  
Agency Incident Number: H00093  
Time Notified: 1102  
Time Completed: 0  
Surrounding Area: 762  
Estimated Temperature: 62  
Property Management: P  
Special Studies 1: Not reported  
Special Studies 2: Not reported  
Special Studies 3: Not reported  
Special Studies 4: Not reported  
Special Studies 5: Not reported  
Special Studies 6: Not reported  
More Than Two Substances Involved?: N  
Resp Agncy Personel # Of Decontaminated: 0  
Responding Agency Personel # Of Injuries: 0  
Responding Agency Personel # Of Fatalities: 0  
Others Number Of Decontaminated: 0  
Others Number Of Injuries: 0  
Others Number Of Fatalities: 0  
Vehicle Make/year: Not reported  
Vehicle License Number: Not reported  
Vehicle State: Not reported  
Vehicle Id Number: Not reported  
CA/DOT/PUC/ICC Number: Not reported  
Company Name: Not reported  
Reporting Officer Name/ID: CAPT. RAY W. PERRY  
Report Date: 09-DEC-90  
Comments: N  
Facility Telephone: 415 790-7218  
Waterway Involved: Not reported  
Waterway: Not reported  
Spill Site: Not reported  
Cleanup By: Not reported  
Containment: Not reported  
What Happened: Not reported  
Type: Not reported  
Measure: Not reported  
Other: Not reported  
Date/Time: Not reported  
Year: 88-92  
Agency: Not reported  
Incident Date: Not reported  
Admin Agency: Not reported  
Amount: Not reported  
Contained: Not reported  
Site Type: Not reported

Map ID  
Direction  
Distance  
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MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

1000109341

E Date: 21-JUN-91  
Substance: Not reported  
Quantity Released: Not reported  
BBLS: Not reported  
Cups: Not reported  
CUFT: Not reported  
Gallons: Not reported  
Grams: Not reported  
Pounds: Not reported  
Liters: Not reported  
Ounces: Not reported  
Pints: Not reported  
Quarts: Not reported  
Sheen: Not reported  
Tons: Not reported  
Unknown: Not reported  
Evacuations: Not reported  
Number of Injuries: Not reported  
Number of Fatalities: Not reported  
Description: Not reported

OES Incident Number: 9990660  
OES notification: Not reported  
OES Date: Not reported  
OES Time: Not reported  
Incident Date: 23-NOV-88  
**Date Completed: 23-NOV-88**  
Property Use: 762  
Agency Id Number: 1070  
Agency Incident Number: 80474  
Time Notified: 855  
Time Completed: 1127  
Surrounding Area: 950  
Estimated Temperature: 60  
Property Management: P  
Special Studies 1: Not reported  
Special Studies 2: Not reported  
Special Studies 3: Not reported  
Special Studies 4: Not reported  
Special Studies 5: Not reported  
Special Studies 6: Not reported  
More Than Two Substances Involved?: N  
Resp Agncy Personel # Of Decontaminated: Not reported  
Responding Agency Personel # Of Injuries: Not reported  
Responding Agency Personel # Of Fatalities: Not reported  
Others Number Of Decontaminated: Not reported  
Others Number Of Injuries: Not reported  
Others Number Of Fatalities: Not reported  
Vehicle Make/year: Not reported  
Vehicle License Number: Not reported  
Vehicle State: Not reported  
Vehicle Id Number: Not reported  
CA/DOT/PUC/ICC Number: Not reported  
Company Name: Not reported  
Reporting Officer Name/ID: CAPT. R. MARSHALL  
Report Date: 23-NOV-88  
Comments: N

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

1000109341

Facility Telephone: 415 790-7247  
Waterway Involved: Not reported  
Waterway: Not reported  
Spill Site: Not reported  
Cleanup By: Not reported  
Containment: Not reported  
What Happened: Not reported  
Type: Not reported  
Measure: Not reported  
Other: Not reported  
Date/Time: Not reported  
Year: 88-92  
Agency: Not reported  
Incident Date: Not reported  
Admin Agency: Not reported  
Amount: Not reported  
Contained: Not reported  
Site Type: Not reported  
E Date: 14-FEB-89  
Substance: Not reported  
Quantity Released: Not reported  
BBLs: Not reported  
Cups: Not reported  
CUFT: Not reported  
Gallons: Not reported  
Grams: Not reported  
Pounds: Not reported  
Liters: Not reported  
Ounces: Not reported  
Pints: Not reported  
Quarts: Not reported  
Sheen: Not reported  
Tons: Not reported  
Unknown: Not reported  
Evacuations: Not reported  
Number of Injuries: Not reported  
Number of Fatalities: Not reported  
Description: Not reported  
  
OES Incident Number: 9098112  
OES notification: Not reported  
OES Date: Not reported  
OES Time: Not reported  
Incident Date: 02-FEB-90  
**Date Completed: 02-FEB-90**  
Property Use: 762  
Agency Id Number: 1070  
Agency Incident Number: 00044  
Time Notified: 923  
Time Completed: 953  
Surrounding Area: 600  
Estimated Temperature: 65  
Property Management: P  
Special Studies 1: Not reported  
Special Studies 2: Not reported  
Special Studies 3: Not reported  
Special Studies 4: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

Special Studies 5: Not reported  
Special Studies 6: Not reported  
More Than Two Substances Involved?: N  
Resp Agency Personnel # Of Decontaminated: 0  
Responding Agency Personnel # Of Injuries: 0  
Responding Agency Personnel # Of Fatalities: 0  
Others Number Of Decontaminated: 0  
Others Number Of Injuries: 0  
Others Number Of Fatalities: 0  
Vehicle Make/year: Not reported  
Vehicle License Number: Not reported  
Vehicle State: Not reported  
Vehicle Id Number: Not reported  
CA/DOT/PUC/ICC Number: Not reported  
Company Name: Not reported  
Reporting Officer Name/ID: CAPT. G. MUTO #5  
Report Date: 02-FEB-90  
Comments: N  
Facility Telephone: 415 790-7218  
Waterway Involved: Not reported  
Waterway: Not reported  
Spill Site: Not reported  
Cleanup By: Not reported  
Containment: Not reported  
What Happened: Not reported  
Type: Not reported  
Measure: Not reported  
Other: Not reported  
Date/Time: Not reported  
Year: 88-92  
Agency: Not reported  
Incident Date: Not reported  
Admin Agency: Not reported  
Amount: Not reported  
Contained: Not reported  
Site Type: Not reported  
E Date: 26-JUN-91  
Substance: Not reported  
Quantity Released: Not reported  
BBLs: Not reported  
Cups: Not reported  
CUFT: Not reported  
Gallons: Not reported  
Grams: Not reported  
Pounds: Not reported  
Liters: Not reported  
Ounces: Not reported  
Pints: Not reported  
Quarts: Not reported  
Sheen: Not reported  
Tons: Not reported  
Unknown: Not reported  
Evacuations: Not reported  
Number of Injuries: Not reported  
Number of Fatalities: Not reported  
Description: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

OES Incident Number: 9990657  
OES notification: Not reported  
OES Date: Not reported  
OES Time: Not reported  
Incident Date: 30-NOV-88  
**Date Completed: 30-NOV-88**  
Property Use: 762  
Agency Id Number: 1070  
Agency Incident Number: 80484  
Time Notified: 249  
Time Completed: 405  
Surrounding Area: 600  
Estimated Temperature: 55  
Property Management: P  
Special Studies 1: Not reported  
Special Studies 2: Not reported  
Special Studies 3: Not reported  
Special Studies 4: Not reported  
Special Studies 5: Not reported  
Special Studies 6: Not reported  
More Than Two Substances Involved?: N  
Resp Agncy Personel # Of Decontaminated: Not reported  
Responding Agency Personel # Of Injuries: Not reported  
Responding Agency Personel # Of Fatalities: Not reported  
Others Number Of Decontaminated: Not reported  
Others Number Of Injuries: Not reported  
Others Number Of Fatalities: Not reported  
Vehicle Make/year: Not reported  
Vehicle License Number: Not reported  
Vehicle State: Not reported  
Vehicle Id Number: Not reported  
CA/DOT/PUC/ICC Number: Not reported  
Company Name: Not reported  
Reporting Officer Name/ID: CAPT. COMFORT  
Report Date: 30-NOV-88  
Comments: N  
Facility Telephone: 415 790-7247  
Waterway Involved: Not reported  
Waterway: Not reported  
Spill Site: Not reported  
Cleanup By: Not reported  
Containment: Not reported  
What Happened: Not reported  
Type: Not reported  
Measure: Not reported  
Other: Not reported  
Date/Time: Not reported  
Year: 88-92  
Agency: Not reported  
Incident Date: Not reported  
Admin Agency: Not reported  
Amount: Not reported  
Contained: Not reported  
Site Type: Not reported  
E Date: 14-FEB-89  
Substance: Not reported  
Quantity Released: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

|                       |              |
|-----------------------|--------------|
| BBLS:                 | Not reported |
| Cups:                 | Not reported |
| CUFT:                 | Not reported |
| Gallons:              | Not reported |
| Grams:                | Not reported |
| Pounds:               | Not reported |
| Liters:               | Not reported |
| Ounces:               | Not reported |
| Pints:                | Not reported |
| Quarts:               | Not reported |
| Sheen:                | Not reported |
| Tons:                 | Not reported |
| Unknown:              | Not reported |
| Evacuations:          | Not reported |
| Number of Injuries:   | Not reported |
| Number of Fatalities: | Not reported |
| Description:          | Not reported |

**ENF:**

|                          |                        |
|--------------------------|------------------------|
| Region:                  | 2                      |
| Facility Id:             | 248289                 |
| Agency Name:             | Not reported           |
| Place Type:              | Facility               |
| Place Subtype:           | Not reported           |
| Facility Type:           | Industrial             |
| Agency Type:             | Not reported           |
| # Of Agencies:           | Not reported           |
| Place Latitude:          | 37.5215219             |
| Place Longitude:         | -122.05149             |
| SIC Code 1:              | 2874                   |
| SIC Desc 1:              | Phosphatic Fertilizers |
| SIC Code 2:              | Not reported           |
| SIC Desc 2:              | Not reported           |
| SIC Code 3:              | Not reported           |
| SIC Desc 3:              | Not reported           |
| NAICS Code 1:            | Not reported           |
| NAICS Desc 1:            | Not reported           |
| NAICS Code 2:            | Not reported           |
| NAICS Desc 2:            | Not reported           |
| NAICS Code 3:            | Not reported           |
| NAICS Desc 3:            | Not reported           |
| # Of Places:             | 1                      |
| Source Of Facility:      | Enf Action             |
| Design Flow:             | Not reported           |
| Threat To Water Quality: | Not reported           |
| Complexity:              | Not reported           |
| Pretreatment:            | Not reported           |
| Facility Waste Type:     | Not reported           |
| Facility Waste Type 2:   | Not reported           |
| Facility Waste Type 3:   | Not reported           |
| Facility Waste Type 4:   | Not reported           |
| Program:                 | UNREGS                 |
| # Of Programs:           | 1                      |
| WDID:                    | Not reported           |
| Reg Measure Id:          | Not reported           |
| Reg Measure Type:        | Not reported           |
| Region:                  | Not reported           |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

|                                   |  |
|-----------------------------------|--|
| Order #:                          | Not reported   |
| Npdes# CA#:                       | Not reported   |
| Major-Minor:                      | Not reported   |
| Npdes Type:                       | Not reported   |
| Reclamation:                      | Not reported   |
| Dredge Fill Fee:                  | Not reported   |
| 301H:                             | Not reported   |
| Application Fee Amt Received:     | Not reported   |
| Status:                           | Not reported   |
| Status Date:                      | Not reported   |
| Effective Date:                   | Not reported   |
| Expiration/Review Date:           | Not reported   |
| Termination Date:                 | Not reported   |
| WDR Review - Amend:               | Not reported   |
| WDR Review - Revise/Renew:        | Not reported   |
| WDR Review - Rescind:             | Not reported   |
| WDR Review - No Action Required:  | Not reported   |
| WDR Review - Pending:             | Not reported   |
| WDR Review - Planned:             | Not reported   |
| Status Enrollee:                  | Not reported   |
| Individual/General:               | Not reported   |
| Fee Code:                         | Not reported   |
| Direction/Voice:                  | Not reported   |
| Enforcement Id(EID):              | 241348   |
| Region:                           | 2  |
| Order / Resolution Number:        | R2-2002-0060   |
| Enforcement Action Type:          | Clean-up and Abatement Order                             |
| Effective Date:                   | 05/22/2002   |
| Adoption/Issuance Date:           | Not reported   |
| Achieve Date:                     | Not reported   |
| Termination Date:                 | Not reported   |
| ACL Issuance Date:                | Not reported   |
| EPL Issuance Date:                | Not reported   |
| Status:                           | Active   |
| Title:                            | Enforcement - 2 019064N02                                |
| Description:                      | Soil and Groundwater impacted by chemical manufacturing. |
| Program:                          | UNREGS   |
| Latest Milestone Completion Date: | Not reported   |
| # Of Programs1:                   | 1  |
| Total Assessment Amount:          | 0  |
| Initial Assessed Amount:          | 0  |
| Liability \$ Amount:              | 0  |
| Project \$ Amount:                | 0  |
| Liability \$ Paid:                | 0  |
| Project \$ Completed:             | 0  |
| Total \$ Paid/Completed Amount:   | 0  |
| Region:                           | 2  |
| Facility Id:                      | 248289   |
| Agency Name:                      | Not reported   |
| Place Type:                       | Facility   |
| Place Subtype:                    | Not reported   |
| Facility Type:                    | Industrial   |
| Agency Type:                      | Not reported   |
| # Of Agencies:                    | Not reported   |
| Place Latitude:                   | 37.5215219   |
| Place Longitude:                  | -122.05149   |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

|                                  |                              |
|----------------------------------|------------------------------|
| SIC Code 1:                      | 2874                         |
| SIC Desc 1:                      | Phosphatic Fertilizers       |
| SIC Code 2:                      | Not reported                 |
| SIC Desc 2:                      | Not reported                 |
| SIC Code 3:                      | Not reported                 |
| SIC Desc 3:                      | Not reported                 |
| NAICS Code 1:                    | Not reported                 |
| NAICS Desc 1:                    | Not reported                 |
| NAICS Code 2:                    | Not reported                 |
| NAICS Desc 2:                    | Not reported                 |
| NAICS Code 3:                    | Not reported                 |
| NAICS Desc 3:                    | Not reported                 |
| # Of Places:                     | 1                            |
| Source Of Facility:              | Enf Action                   |
| Design Flow:                     | Not reported                 |
| Threat To Water Quality:         | Not reported                 |
| Complexity:                      | Not reported                 |
| Pretreatment:                    | Not reported                 |
| Facility Waste Type:             | Not reported                 |
| Facility Waste Type 2:           | Not reported                 |
| Facility Waste Type 3:           | Not reported                 |
| Facility Waste Type 4:           | Not reported                 |
| Program:                         | UNREGS                       |
| # Of Programs:                   | 1                            |
| WDID:                            | Not reported                 |
| Reg Measure Id:                  | Not reported                 |
| Reg Measure Type:                | Not reported                 |
| Region:                          | Not reported                 |
| Order #:                         | Not reported                 |
| Npdes# CA#:                      | Not reported                 |
| Major-Minor:                     | Not reported                 |
| Npdes Type:                      | Not reported                 |
| Reclamation:                     | Not reported                 |
| Dredge Fill Fee:                 | Not reported                 |
| 301H:                            | Not reported                 |
| Application Fee Amt Received:    | Not reported                 |
| Status:                          | Not reported                 |
| Status Date:                     | Not reported                 |
| Effective Date:                  | Not reported                 |
| Expiration/Review Date:          | Not reported                 |
| Termination Date:                | Not reported                 |
| WDR Review - Amend:              | Not reported                 |
| WDR Review - Revise/Renew:       | Not reported                 |
| WDR Review - Rescind:            | Not reported                 |
| WDR Review - No Action Required: | Not reported                 |
| WDR Review - Pending:            | Not reported                 |
| WDR Review - Planned:            | Not reported                 |
| Status Enrollee:                 | Not reported                 |
| Individual/General:              | Not reported                 |
| Fee Code:                        | Not reported                 |
| Direction/Voice:                 | Not reported                 |
| Enforcement Id(EID):             | 221946                       |
| Region:                          | 2                            |
| Order / Resolution Number:       | R2-1998-0066                 |
| Enforcement Action Type:         | Clean-up and Abatement Order |
| Effective Date:                  | 07/15/1998                   |
| Adoption/Issuance Date:          | Not reported                 |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

|                                   |                           |
|-----------------------------------|---------------------------|
| Achieve Date:                     | Not reported              |
| Termination Date:                 | Not reported              |
| ACL Issuance Date:                | Not reported              |
| EPL Issuance Date:                | Not reported              |
| Status:                           | Active                    |
| Title:                            | Enforcement - 2 019064N02 |
| Description:                      | CAO-                      |
| Program:                          | UNREGS                    |
| Latest Milestone Completion Date: | Not reported              |
| # Of Programs1:                   | 1                         |
| Total Assessment Amount:          | 0                         |
| Initial Assessed Amount:          | 0                         |
| Liability \$ Amount:              | 0                         |
| Project \$ Amount:                | 0                         |
| Liability \$ Paid:                | 0                         |
| Project \$ Completed:             | 0                         |
| Total \$ Paid/Completed Amount:   | 0                         |
| Region:                           | 2                         |
| Facility Id:                      | 248289                    |
| Agency Name:                      | Not reported              |
| Place Type:                       | Facility                  |
| Place Subtype:                    | Not reported              |
| Facility Type:                    | Industrial                |
| Agency Type:                      | Not reported              |
| # Of Agencies:                    | Not reported              |
| Place Latitude:                   | 37.5215219                |
| Place Longitude:                  | -122.05149                |
| SIC Code 1:                       | 2874                      |
| SIC Desc 1:                       | Phosphatic Fertilizers    |
| SIC Code 2:                       | Not reported              |
| SIC Desc 2:                       | Not reported              |
| SIC Code 3:                       | Not reported              |
| SIC Desc 3:                       | Not reported              |
| NAICS Code 1:                     | Not reported              |
| NAICS Desc 1:                     | Not reported              |
| NAICS Code 2:                     | Not reported              |
| NAICS Desc 2:                     | Not reported              |
| NAICS Code 3:                     | Not reported              |
| NAICS Desc 3:                     | Not reported              |
| # Of Places:                      | 1                         |
| Source Of Facility:               | Enf Action                |
| Design Flow:                      | Not reported              |
| Threat To Water Quality:          | Not reported              |
| Complexity:                       | Not reported              |
| Pretreatment:                     | Not reported              |
| Facility Waste Type:              | Not reported              |
| Facility Waste Type 2:            | Not reported              |
| Facility Waste Type 3:            | Not reported              |
| Facility Waste Type 4:            | Not reported              |
| Program:                          | UNREGS                    |
| # Of Programs:                    | 1                         |
| WDID:                             | Not reported              |
| Reg Measure Id:                   | Not reported              |
| Reg Measure Type:                 | Not reported              |
| Region:                           | Not reported              |
| Order #:                          | Not reported              |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

|                                   |                              |
|-----------------------------------|------------------------------|
| Npdes# CA#:                       | Not reported                 |
| Major-Minor:                      | Not reported                 |
| Npdes Type:                       | Not reported                 |
| Reclamation:                      | Not reported                 |
| Dredge Fill Fee:                  | Not reported                 |
| 301H:                             | Not reported                 |
| Application Fee Amt Received:     | Not reported                 |
| Status:                           | Not reported                 |
| Status Date:                      | Not reported                 |
| Effective Date:                   | Not reported                 |
| Expiration/Review Date:           | Not reported                 |
| Termination Date:                 | Not reported                 |
| WDR Review - Amend:               | Not reported                 |
| WDR Review - Revise/Renew:        | Not reported                 |
| WDR Review - Rescind:             | Not reported                 |
| WDR Review - No Action Required:  | Not reported                 |
| WDR Review - Pending:             | Not reported                 |
| WDR Review - Planned:             | Not reported                 |
| Status Enrollee:                  | Not reported                 |
| Individual/General:               | Not reported                 |
| Fee Code:                         | Not reported                 |
| Direction/Voice:                  | Not reported                 |
| Enforcement Id(EID):              | 222750                       |
| Region:                           | 2                            |
| Order / Resolution Number:        | 89-05501                     |
| Enforcement Action Type:          | Clean-up and Abatement Order |
| Effective Date:                   | 04/19/1989                   |
| Adoption/Issuance Date:           | Not reported                 |
| Achieve Date:                     | Not reported                 |
| Termination Date:                 | Not reported                 |
| ACL Issuance Date:                | Not reported                 |
| EPL Issuance Date:                | Not reported                 |
| Status:                           | Active                       |
| Title:                            | Enforcement - 2 019064N02    |
| Description:                      | ENF ORDER                    |
| Program:                          | UNREGS                       |
| Latest Milestone Completion Date: | Not reported                 |
| # Of Programs1:                   | 1                            |
| Total Assessment Amount:          | 0                            |
| Initial Assessed Amount:          | 0                            |
| Liability \$ Amount:              | 0                            |
| Project \$ Amount:                | 0                            |
| Liability \$ Paid:                | 0                            |
| Project \$ Completed:             | 0                            |
| Total \$ Paid/Completed Amount:   | 0                            |

**EMI:**

|   |               |
|---|---------------|
| Year:                                       | 1987          |
| County Code:                                | 1             |
| Air Basin:                                  | SF            |
| Facility ID:                                | 71            |
| Air District Name:                          | BA            |
| SIC Code:                                   | 2819          |
| Air District Name:                          | BAY AREA AQMD |
| Community Health Air Pollution Info System: | Not reported  |
| Consolidated Emission Reporting Rule:       | Not reported  |
| Total Organic Hydrocarbon Gases Tons/Yr:    | 1             |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

|   |               |
|---|---------------|
| Reactive Organic Gases Tons/Yr:             | 0             |
| Carbon Monoxide Emissions Tons/Yr:          | 7             |
| NOX - Oxides of Nitrogen Tons/Yr:           | 28            |
| SOX - Oxides of Sulphur Tons/Yr:            | 0             |
| Particulate Matter Tons/Yr:                 | 9             |
| Part. Matter 10 Micrometers & Smlr Tons/Yr: | 8             |
| Year:                                       | 1990          |
| County Code:                                | 1             |
| Air Basin:                                  | SF            |
| Facility ID:                                | 71            |
| Air District Name:                          | BA            |
| SIC Code:                                   | 2819          |
| Air District Name:                          | BAY AREA AQMD |
| Community Health Air Pollution Info System: | Not reported  |
| Consolidated Emission Reporting Rule:       | Not reported  |
| Total Organic Hydrocarbon Gases Tons/Yr:    | 3             |
| Reactive Organic Gases Tons/Yr:             | 1             |
| Carbon Monoxide Emissions Tons/Yr:          | 2             |
| NOX - Oxides of Nitrogen Tons/Yr:           | 7             |
| SOX - Oxides of Sulphur Tons/Yr:            | 0             |
| Particulate Matter Tons/Yr:                 | 4             |
| Part. Matter 10 Micrometers & Smlr Tons/Yr: | 3             |
| Year:                                       | 1993          |
| County Code:                                | 1             |
| Air Basin:                                  | SF            |
| Facility ID:                                | 71            |
| Air District Name:                          | BA            |
| SIC Code:                                   | 2819          |
| Air District Name:                          | BAY AREA AQMD |
| Community Health Air Pollution Info System: | Not reported  |
| Consolidated Emission Reporting Rule:       | Not reported  |
| Total Organic Hydrocarbon Gases Tons/Yr:    | 1             |
| Reactive Organic Gases Tons/Yr:             | 0             |
| Carbon Monoxide Emissions Tons/Yr:          | 1             |
| NOX - Oxides of Nitrogen Tons/Yr:           | 4             |
| SOX - Oxides of Sulphur Tons/Yr:            | 0             |
| Particulate Matter Tons/Yr:                 | 1             |
| Part. Matter 10 Micrometers & Smlr Tons/Yr: | 1             |
| Year:                                       | 2003          |
| County Code:                                | 1             |
| Air Basin:                                  | SF            |
| Facility ID:                                | 71            |
| Air District Name:                          | BA            |
| SIC Code:                                   | 5088          |
| Air District Name:                          | BAY AREA AQMD |
| Community Health Air Pollution Info System: | Not reported  |
| Consolidated Emission Reporting Rule:       | Not reported  |
| Total Organic Hydrocarbon Gases Tons/Yr:    | 0             |
| Reactive Organic Gases Tons/Yr:             | 0             |
| Carbon Monoxide Emissions Tons/Yr:          | 0             |
| NOX - Oxides of Nitrogen Tons/Yr:           | 0             |
| SOX - Oxides of Sulphur Tons/Yr:            | 0             |
| Particulate Matter Tons/Yr:                 | 0             |
| Part. Matter 10 Micrometers & Smlr Tons/Yr: | 0             |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

Year: 2005  
County Code: 1  
Air Basin: SF  
Facility ID: 71  
Air District Name: BA  
SIC Code: 5088  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: .002  
Reactive Organic Gases Tons/Yr: .0013972  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

**ENVIROSTOR:**

Site Type: Corrective Action  
Site Type Detailed: Corrective Action  
Acres: 0  
NPL: NO  
Regulatory Agencies: RWQCB 2 - San Francisco Bay  
Lead Agency: RWQCB 2 - San Francisco Bay  
Program Manager: Not reported  
Supervisor: \* Wei Wei Chui  
Division Branch: Cleanup Berkeley  
Facility ID: 80001608  
Site Code: Not reported  
Assembly: 25  
Senate: 10  
Special Program: Not reported  
Status: Refer: RWQCB  
Status Date: 01/01/2008  
Restricted Use: NO  
Site Mgmt. Req.: NONE SPECIFIED  
Funding: Not reported  
Latitude: 37.52203  
Longitude: -122.0499  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED  
Potential COC: NONE SPECIFIED  
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: CAD009147000  
Alias Type: EPA Identification Number  
Alias Name: 110000748228  
Alias Type: EPA (FRS #)  
Alias Name: SL20240858  
Alias Type: GeoTracker Global ID  
Alias Name: 01280012  
Alias Type: Envirostor ID Number  
Alias Name: 80001608  
Alias Type: Envirostor ID Number

**Completed Info:**

Completed Area Name: Sites With No Operable Unit

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

Completed Sub Area Name: Entier facility  
Completed Document Type: RCRA Facility Assessment Report  
Completed Date: 06/05/2001  
Comments: Analogous RCRA Facility Assessment Completed

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Amendment - Order/Agreement  
Completed Date: 12/20/2007  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedy Constructed  
Completed Date: 03/04/2010  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Groundwater Migration Controlled  
Completed Date: 03/04/2010  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Human Exposure Controlled  
Completed Date: 03/04/2010  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

Site Type: Historical  
Site Type Detailed: \* Historical  
Acres: Not reported  
NPL: NO  
Regulatory Agencies: NONE SPECIFIED  
Lead Agency: NONE SPECIFIED  
Program Manager: Not reported  
Supervisor: Referred - Not Assigned  
Division Branch: Cleanup Berkeley  
Facility ID: 01280012  
Site Code: Not reported  
Assembly: 25  
Senate: 10  
Special Program: \* RCRA 3012 - Past Haz Waste Disp Inven Site  
Status: Refer: RWQCB  
Status Date: 01/01/1989  
Restricted Use: NO  
Site Mgmt. Req.: NONE SPECIFIED

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

Funding: Not reported  
Latitude: 37.52135  
Longitude: -122.0546  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED  
Potential COC: NONE SPECIFIED, NONE SPECIFIED, \* HALOGENATED ORGANIC COMPOUNDS, \* OTHER ORGANIC SOLIDS, \* OXYGENATED SOLVENTS, \* ACID SOLUTION 2>PH WITH METALS, Asbestos Containing Materials (ACM, \* UNSPECIFIED ACID SOLUTION, \* WASTE OIL & MIXED OIL, \* OTHER INORGANIC SOLID WASTE, \* SULFUR SLUDGE, Arsenic  
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED, \* HALOGENATED ORGANIC COMPOUNDS, \* OTHER ORGANIC SOLIDS, \* OXYGENATED SOLVENTS, \* ACID SOLUTION 2>PH WITH METALS, Asbestos Containing Materials (ACM, \* UNSPECIFIED ACID SOLUTION, \* WASTE OIL & MIXED OIL, \* OTHER INORGANIC SOLID WASTE, \* SULFUR SLUDGE, Arsenic, NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: FOOD MACHINERY & CHEMICAL  
Alias Type: Alternate Name  
Alias Name: CAD009147000  
Alias Type: EPA Identification Number  
Alias Name: 110000748228  
Alias Type: EPA (FRS #)  
Alias Name: SL20240858  
Alias Type: GeoTracker Global ID  
Alias Name: CAD009147000  
Alias Type: HWTS Identification Code  
Alias Name: 01280012  
Alias Type: Envirostor ID Number  
Completed Info:  
Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Removal Action Completion Report  
Completed Date: 10/05/1989  
Comments: Not reported  
Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Assessment Report  
Completed Date: 03/21/1984  
Comments: Not reported  
Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \* Discovery  
Completed Date: 09/24/1983  
Comments: Not reported  
Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

HWP:

EPA Id: CAD009147000  
Cleanup Status: CLOSED  
Latitude: 37.52203  
Longitude: -122.0499  
Facility Type: Historical - Non-Operating  
Facility Size: Not reported  
Team: Not reported  
Supervisor: Not reported  
Site Code: Not reported  
Assembly District: 25  
Senate District: 10  
Public Information Officer: Not reported

Activities:

EPA Id: CAD009147000  
Facility Type: Historical - Non-Operating  
Unit Names: SURFIMP1 (GPRA Unit)  
Event Description: New Operating Permit - APPLICATION PART A RECEIVED  
Actual Date: 11/19/1980

EPA Id: CAD009147000  
Facility Type: Historical - Non-Operating  
Unit Names: SURFIMP1 (GPRA Unit)  
Event Description: New Operating Permit - CALL-IN LETTER ISSUED  
Actual Date: 05/08/1985

EPA Id: CAD009147000  
Facility Type: Historical - Non-Operating  
Unit Names: SURFIMP1 (GPRA Unit)  
Event Description: New Operating Permit - FINAL PERMIT - WITHDRAWAL REQUEST ACKNOWLEDGED  
Actual Date: 01/29/1987

EPA Id: CAD009147000  
Facility Type: Historical - Non-Operating  
Unit Names: SURFIMP1 (GPRA Unit)  
Event Description: New Operating Permit - FINAL PERMIT - WITHDRAWAL REQUEST RECEIVED  
Actual Date: 01/02/1986

Closure:

EPA Id: CAD009147000  
Facility Type: Historical - Non-Operating  
Unit Names: SURFIMP1 (GPRA Unit)  
Event Description: Closure Final - ISSUE CLOSURE VERIFICATION  
Actual Date: 06/25/1985

Alias:

EPA Id: CAD009147000  
Facility Type: Historical - Non-Operating  
Alias Type: Envirostor ID Number  
Alias: 01280012

EPA Id: CAD009147000  
Facility Type: Historical - Non-Operating  
Alias Type: FRS  
Alias: 110000748228

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**FMC CORP NEWARK (Continued)**

**1000109341**

2020 COR ACTION:  
 EPA ID: CAD009147000  
 Region: 9  
 Action: Not reported

**B6**  
**NNE**  
 < 1/8  
 0.085 mi.  
 448 ft.

**FMC, PHOSPHORUS CHEMICALS DIV.**  
**8787 ENTERPRISE DRIVE**  
**NEWARK, CA 92545**

**CA Notify 65** **S100179169**  
**N/A**

**Site 4 of 5 in cluster B**

**Relative:** Notify 65:  
**Higher** Date Reported: Not reported  
 Staff Initials: Not reported  
**Actual:** Board File Number: Not reported  
**13 ft.** Facility Type: Not reported  
 Discharge Date: Not reported  
 Incident Description: 92545

**B7**  
**NNE**  
 < 1/8  
 0.086 mi.  
 455 ft.

**S.P. DUMBARTON BRANCH R.O.W.**  
**8785 ENTERPRISE DRIVE**  
**NEWARK, CA 94560**

**CA SLIC** **S106234841**  
**N/A**

**Site 5 of 5 in cluster B**

**Relative:** SLIC:  
**Higher** Region: STATE  
**Actual:** **Facility Status:** **Open - Verification Monitoring**  
**13 ft.** Status Date: 08/07/2003  
 Global Id: SL0600178227  
 Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
 Lead Agency Case Number: 0407  
 Latitude: 37.521463  
 Longitude: -122.05167  
 Case Type: Cleanup Program Site  
 Case Worker: TB  
 Local Agency: ALAMEDA COUNTY WATER DISTRICT  
 RB Case Number: 01S0465  
 File Location: Not reported  
 Potential Media Affected: Other Groundwater (uses other than drinking water), Soil  
 Potential Contaminants of Concern: Not reported  
 Site History: Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 2:  
 Region: 2  
 Facility ID: Not reported  
 Facility Status: Not reported  
 Date Closed: Not reported  
 Local Case #: Not reported  
 How Discovered: Not reported  
 Leak Cause: Not reported  
 Leak Source: Not reported  
 Date Confirmed: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**S.P. DUMBARTON BRANCH R.O.W. (Continued)**

**S106234841**

Date Prelim Site Assmnt Workplan Submitted: Not reported  
 Date Preliminary Site Assessment Began: Not reported  
 Date Pollution Characterization Began: Not reported  
 Date Remediation Plan Submitted: Not reported  
 Date Remedial Action Underway: Not reported  
 Date Post Remedial Action Monitoring Began: Not reported

**C8  
 NE  
 1/8-1/4  
 0.197 mi.  
 1041 ft.**

**FMC NEWARK**

**CA WMUDS/SWAT**

**S103440995**

**NEWARK, CA**

**N/A**

**Site 1 of 3 in cluster C**

**Relative:  
 Higher**

WMUDS/SWAT:

**Actual:  
 13 ft.**

Edit Date: Not reported  
 Complexity: Not reported  
 Primary Waste: Not reported  
 Primary Waste Type: Not reported  
 Secondary Waste: Not reported  
 Secondary Waste Type: Not reported  
 Base Meridian: Not reported  
 NPID: Not reported  
 Tonnage: 0  
 Regional Board ID: Not reported  
 Municipal Solid Waste: False  
 Superorder: False  
 Open To Public: False  
 Waste List: False  
 Agency Type: Not reported  
 Agency Name: Not reported  
 Agency Department: Not reported  
 Agency Address: Not reported  
 Agency City,St,Zip: Not reported  
 Agency Contact: Not reported  
 Agency Telephone: Not reported  
 Land Owner Name: Not reported  
 Land Owner Address: Not reported  
 Land Owner City,St,Zip: CA  
 Land Owner Contact: Not reported  
 Land Owner Phone: Not reported  
 Region: 2  
 Facility Type: Not reported  
 Facility Description: Not reported  
 Facility Telephone: Not reported  
 SWAT Facility Name: Not reported  
 Primary SIC: Not reported  
 Secondary SIC: Not reported  
 Comments: Not reported  
 Last Facility Editors: Not reported  
 Waste Discharge System: False  
 Solid Waste Assessment Test Program: True  
 Toxic Pits Cleanup Act Program: False  
 Resource Conservation Recovery Act: False  
 Department of Defence: False  
 Solid Waste Assessment Test Program: Not reported  
 Threat to Water Quality: Not reported  
 Sub Chapter 15: False  
 Regional Board Project Officer: LF

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**FMC NEWARK (Continued)**

**S103440995**

Number of WMUDS at Facility: 1  
Section Range: Not reported  
RCRA Facility: Not reported  
Waste Discharge Requirements: Not reported  
Self-Monitoring Rept. Frequency: Not reported  
Waste Discharge System ID: 2 019064002  
Solid Waste Information ID: Not reported

**D9**  
**NE**  
**1/8-1/4**  
**0.211 mi.**  
**1115 ft.**

**NEWARK SPORTSMAN CLUB**

**CA SLIC S106235308**  
**N/A**

**NEWARK, CA**

**Site 1 of 6 in cluster D**

**Relative:**  
**Higher**

**SLIC:**

**Actual:**  
**13 ft.**

Region: STATE  
**Facility Status: Open - Inactive**  
Status Date: 06/02/2009  
Global Id: SLT2O38111  
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)  
Lead Agency Case Number: Not reported  
Latitude: 37.520619  
Longitude: -122.049168  
Case Type: Cleanup Program Site  
Case Worker: UUU  
Local Agency: Not reported  
RB Case Number: SLT2O38111  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

**SLIC REG 2:**

Region: 2  
Facility ID: SLT2O38111  
Facility Status: Leak being confirmed  
Date Closed: Not reported  
Local Case #: Not reported  
How Discovered: Not reported  
Leak Cause: Not reported  
Leak Source: Not reported  
Date Confirmed: Not reported  
Date Prelim Site Assmnt Workplan Submitted: Not reported  
Date Preliminary Site Assessment Began: Not reported  
Date Pollution Characterization Began: Not reported  
Date Remediation Plan Submitted: Not reported  
Date Remedial Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**C10**  
**NE**  
**1/8-1/4**  
**0.212 mi.**  
**1120 ft.**

**ASHLAND CHEMICAL CO**  
**8600 ENTERPRISE DR**  
**NEWARK, CA 94560**

**Site 2 of 3 in cluster C**

**SSTS 1005424681**  
**CA SLIC N/A**

**Relative:**  
**Higher**

SSTS:

Product: PINE OIL  
 Contact: Not reported  
 Status: Active  
 Registration Number: 018533CA 002  
 Report Year: 1996  
 Permit: Registered  
 Product Number: 01853300015  
 Product Type: End-use blend, formulation, or concentrate  
 Product Class: Not reported  
 Product Use: Not reported  
 UOM: G  
 Market: Marketed in the United States  
 Region: Not reported  
 Zero product: Not reported  
 Pesticide RUP report: Not reported

**Actual:**  
**13 ft.**

SLIC REG 2:

Region: 2  
 Facility ID: 01S0024  
 Facility Status: Remedial action (cleanup) Underway  
 Date Closed: Not reported  
 Local Case #: Not reported  
 How Discovered: RBD  
 Leak Cause: Not reported  
 Leak Source: Not reported  
 Date Confirmed: Not reported  
 Date Prelim Site Assmnt Workplan Submitted: Not reported  
 Date Preliminary Site Assessment Began: Not reported  
 Date Pollution Characterization Began: Not reported  
 Date Remediation Plan Submitted: Not reported  
 Date Remedial Action Underway: Not reported  
 Date Post Remedial Action Monitoring Began: Not reported

**C11**  
**NE**  
**1/8-1/4**  
**0.212 mi.**  
**1120 ft.**

**ASHLAND CHEMICAL CO**  
**8610 ENTERPRISE DRIVE**  
**NEWARK, CA 94560**

**Site 3 of 3 in cluster C**

**RCRA-TSDF 1000277301**  
**CERC-NFRAP CAD066562521**  
**CORRACTS**  
**RCRA-SQG**  
**CA Cortese**  
**CA HIST CORTESE**  
**CA HIST UST**  
**CA ENF**  
**CA RESPONSE**  
**CA ENVIROSTOR**  
**CA Financial Assurance**  
**US FIN ASSUR**  
**CA HWP**  
**2020 COR ACTION**

**Relative:**  
**Higher**

**Actual:**  
**13 ft.**

RCRA-TSDF:

Date form received by agency: 10/12/2000  
 Facility name: ASHLAND CHEMICAL CO  
 Site name: ASHLAND SPECIALTY CHEMICAL

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Facility address: 8610 ENTERPRISE DRIVE  
NEWARK, CA 94560  
EPA ID: CAD066562521  
Mailing address: 250 WILLIAM WHITE BLVD.  
PUEBLO, CO 81001  
Contact: CHRISTIAN COHOON  
Contact address: Not reported  
Not reported  
Contact country: Not reported  
Contact telephone: (719) 948-5031  
Contact email: Not reported  
EPA Region: 09  
Land type: Private  
Classification: TSD  
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 04/15/1999  
Facility name: ASHLAND CHEMICAL CO  
Site name: ASHLAND CHEMICAL CO.  
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996  
Facility name: ASHLAND CHEMICAL CO  
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996  
Facility name: ASHLAND CHEMICAL CO  
Classification: Small Quantity Generator

Date form received by agency: 06/06/1996  
Facility name: ASHLAND CHEMICAL CO  
Classification: Small Quantity Generator

Date form received by agency: 03/29/1996  
Facility name: ASHLAND CHEMICAL CO  
Site name: ASHLAND CHEMICAL CO.  
Classification: Large Quantity Generator

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Date form received by agency: 03/08/1994  
Facility name: ASHLAND CHEMICAL CO  
Site name: ASHLAND CHEMICAL COMPANY  
Classification: Large Quantity Generator

Date form received by agency: 02/10/1992  
Facility name: ASHLAND CHEMICAL CO  
Site name: ASHLAND CHEMICAL, INC.  
Classification: Large Quantity Generator

Corrective Action Summary:

Event date: 11/15/1985  
Event: Stabilization Measures Implemented, Primary measure is source removal and/or treatment (e.g., soil or waste excavation, in-situ soil treatment, off-site treatment).

Event date: 12/28/1987  
Event: CA Prioritization, Facility or area was assigned a high corrective action priority.

Event date: 12/28/1987  
Event: CA074HI

Event date: 12/28/1987  
Event: RFA Completed

Event date: 12/28/1987  
Event: CA029WQ

Event date: 12/28/1987  
Event: CA049PA

Event date: 06/21/1989  
Event: CMS Imposition

Event date: 06/21/1989  
Event: RFI Workplan Approved

Event date: 06/21/1989  
Event: RFI Imposition

Event date: 01/01/1990  
Event: Stabilization Measures Implemented, Groundwater extraction and treatment (e.g., to achieve groundwater containment, to achieve MCL).

Event date: 06/01/1990  
Event: Stabilization Construction Completed

Event date: 08/11/1994  
Event: CA Prioritization, Facility or area was assigned a medium corrective action priority.

Event date: 08/11/1994  
Event: Stabilization Measures Evaluation, This facility is not amenable to stabilization activity at the present time for reasons other than 1- it appears to be technically infeasible or inappropriate (NF) or 2- there is a lack of technical information (IN). Reasons for this

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

conclusion may be the status of closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other administrative considerations.

Event date: 08/11/1994

Event: Stabilization Measures Evaluation, This facility is not amenable to stabilization activity at the present time for reasons other than 1- it appears to be technically infeasible or inappropriate (NF) or 2- there is a lack of technical information (IN). Reasons for this conclusion may be the status of closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other administrative considerations.

Event date: 09/22/1997

Event: Current Human Exposures under Control, Current human exposures are NOT under control.

Event date: 09/22/1997

Event: Migration of Contaminated Groundwater under Control, Unacceptable migration of contaminated groundwater is observed or expected.

Event date: 09/22/1997

Event: CA Responsibility Referred To A Non-RCRA Federal Authority

Event date: 12/28/2000

Event: Current Human Exposures under Control, Current human exposures are NOT under control.

Event date: 12/28/2000

Event: Migration of Contaminated Groundwater under Control, Unacceptable migration of contaminated groundwater is observed or expected.

Event date: 12/28/2000

Event: Current Human Exposures under Control, Current human exposures are NOT under control.

Event date: 12/28/2000

Event: Migration of Contaminated Groundwater under Control, Unacceptable migration of contaminated groundwater is observed or expected.

Event date: 09/19/2002

Event: Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

Event date: 09/19/2002

Event: Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

Event date: 09/19/2002  
Event: Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

Event date: 09/19/2002  
Event: Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

Event date: Not reported  
Event: CA03193

Facility Has Received Notices of Violations:

Regulation violated: F - 262.50-60  
Area of violation: Generators - General  
Date violation determined: 03/11/1996  
Date achieved compliance: 12/02/1997  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 03/11/1996  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: F - 262.40-43.D  
Area of violation: Generators - General  
Date violation determined: 03/11/1996  
Date achieved compliance: 12/02/1997  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 03/11/1996  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Regulation violated: F - 264.140-150.H  
Area of violation: TSD - Financial Requirements  
Date violation determined: 08/02/1993  
Date achieved compliance: 08/16/1993  
Violation lead agency: EPA  
Enforcement action: Not reported  
Enforcement action date: Not reported  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: Not reported  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 262.50-60  
Area of violation: Generators - General  
Date violation determined: 10/28/1992  
Date achieved compliance: 08/24/1993  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 11/23/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 268.7  
Area of violation: LDR - General  
Date violation determined: 10/28/1992  
Date achieved compliance: 08/24/1993  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 11/23/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E  
Area of violation: TSD - General  
Date violation determined: 03/30/1991  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: 45000

Regulation violated: FR - 264.70-77.E

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Area of violation: TSD - General  
Date violation determined: 03/30/1991  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: INITIAL 3008(A) COMPLIANCE  
Enforcement action date: 07/12/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 270  
Area of violation: TSD - General  
Date violation determined: 03/30/1991  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 05/29/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL  
Area of violation: LDR - General  
Date violation determined: 03/30/1991  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 05/29/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL  
Area of violation: LDR - General  
Date violation determined: 03/30/1991  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: INITIAL 3008(A) COMPLIANCE  
Enforcement action date: 07/12/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E  
Area of violation: TSD - General

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Date violation determined: 03/30/1991  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 05/29/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E  
Area of violation: TSD - General  
Date violation determined: 03/30/1991  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 08/31/1989  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 268.7  
Area of violation: LDR - General  
Date violation determined: 03/30/1991  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: 45000

Regulation violated: FR - 270  
Area of violation: TSD - General  
Date violation determined: 03/30/1991  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: INITIAL 3008(A) COMPLIANCE  
Enforcement action date: 07/12/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 268.7  
Area of violation: LDR - General  
Date violation determined: 03/30/1991

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 05/29/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL  
Area of violation: LDR - General  
Date violation determined: 03/30/1991  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: 45000

Regulation violated: FR - 268 ALL  
Area of violation: LDR - General  
Date violation determined: 03/30/1991  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 08/31/1989  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 270  
Area of violation: TSD - General  
Date violation determined: 03/30/1991  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: 45000

Regulation violated: FR - 268.7  
Area of violation: LDR - General  
Date violation determined: 03/30/1991  
Date achieved compliance: 07/01/1992

Map ID  
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Distance  
Elevation

MAP FINDINGS

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Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Violation lead agency: State  
Enforcement action: INITIAL 3008(A) COMPLIANCE  
Enforcement action date: 07/12/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 268.7  
Area of violation: LDR - General  
Date violation determined: 03/30/1991  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 08/31/1989  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 270  
Area of violation: TSD - General  
Date violation determined: 03/30/1991  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 08/31/1989  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 270  
Area of violation: TSD - General  
Date violation determined: 08/31/1989  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: 45000

Regulation violated: FR - 264.110-120.G  
Area of violation: TSD - Closure/Post-Closure  
Date violation determined: 08/31/1989  
Date achieved compliance: 07/01/1992  
Violation lead agency: State

Map ID  
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EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 08/31/1989  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 270  
Area of violation: TSD - General  
Date violation determined: 08/31/1989  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: Not reported  
Enforcement action date: Not reported  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: Not reported  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 268.7  
Area of violation: LDR - General  
Date violation determined: 08/31/1989  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: 45000

Regulation violated: FR - 268 ALL  
Area of violation: LDR - General  
Date violation determined: 08/31/1989  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: Not reported  
Enforcement action date: Not reported  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: Not reported  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 268.7  
Area of violation: LDR - General  
Date violation determined: 08/31/1989  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY

Map ID  
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Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Enforcement action date: 08/31/1989  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 268.7  
Area of violation: LDR - General  
Date violation determined: 08/31/1989  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: Not reported  
Enforcement action date: Not reported  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: Not reported  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E  
Area of violation: TSD - General  
Date violation determined: 08/31/1989  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: 45000

Regulation violated: FR - 264.70-77.E  
Area of violation: TSD - General  
Date violation determined: 08/31/1989  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: Not reported  
Enforcement action date: Not reported  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: Not reported  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 270  
Area of violation: TSD - General  
Date violation determined: 08/31/1989  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 08/31/1989

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Database(s)

EDR ID Number  
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**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 268 ALL  
Area of violation: LDR - General  
Date violation determined: 08/31/1989  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 08/31/1989  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E  
Area of violation: TSD - General  
Date violation determined: 08/31/1989  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 08/31/1989  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G  
Area of violation: TSD - Closure/Post-Closure  
Date violation determined: 08/31/1989  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: 45000

Regulation violated: FR - 268 ALL  
Area of violation: LDR - General  
Date violation determined: 08/31/1989  
Date achieved compliance: 07/01/1992  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR COMPLIANCE AND/OR MONETARY PENALTY  
Enforcement action date: 07/01/1992  
Enf. disposition status: Not reported

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EDR ID Number  
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**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 45000  
Paid penalty amount: 45000

Evaluation Action Summary:

Evaluation date: 03/11/1996  
Evaluation: FOCUSED COMPLIANCE INSPECTION  
Area of violation: Generators - General  
Date achieved compliance: 12/02/1997  
Evaluation lead agency: State

Evaluation date: 02/11/1996  
Evaluation: FOLLOW-UP INSPECTION  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 11/05/1993  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 07/01/1992  
Evaluation: NOT A SIGNIFICANT NON-COMPLIER  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 06/18/1992  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: LDR - General  
Date achieved compliance: 08/24/1993  
Evaluation lead agency: State

Evaluation date: 06/18/1992  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Generators - General  
Date achieved compliance: 08/24/1993  
Evaluation lead agency: State

Evaluation date: 05/15/1992  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: TSD - Financial Requirements  
Date achieved compliance: 08/16/1993  
Evaluation lead agency: EPA Contractor/Grantee

Evaluation date: 03/30/1991  
Evaluation: SIGNIFICANT NON-COMPLIER  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 02/28/1991  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Map ID  
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MAP FINDINGS

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Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Area of violation: TSD - General  
Date achieved compliance: 07/01/1992  
Evaluation lead agency: State

Evaluation date: 02/28/1991  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: LDR - General  
Date achieved compliance: 07/01/1992  
Evaluation lead agency: State

Evaluation date: 02/07/1991  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 09/11/1989  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 06/30/1989  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - General  
Date achieved compliance: 07/01/1992  
Evaluation lead agency: State

Evaluation date: 06/30/1989  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: LDR - General  
Date achieved compliance: 07/01/1992  
Evaluation lead agency: State

Evaluation date: 06/30/1989  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - Closure/Post-Closure  
Date achieved compliance: 07/01/1992  
Evaluation lead agency: State

**CERC-NFRAP:**

Site ID: 0901520  
Federal Facility: Not a Federal Facility  
NPL Status: Not on the NPL  
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

**CERCLIS-NFRAP Site Contact Details:**

Contact Sequence ID: 13054722.00000  
Person ID: 9271184.00000

Contact Sequence ID: 13285851.00000  
Person ID: 13003854.00000

Contact Sequence ID: 13291446.00000  
Person ID: 13003858.00000

Contact Sequence ID: 13297304.00000

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MAP FINDINGS

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Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Person ID: 13004003.00000

CERCLIS-NFRAP Assessment History:

Action: ARCHIVE SITE  
Date Started: / /  
Date Completed: 06/24/91  
Priority Level: Not reported

Action: SITE INSPECTION  
Date Started: / /  
Date Completed: 06/24/91  
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

Action: DISCOVERY  
Date Started: / /  
Date Completed: 08/01/80  
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT  
Date Started: 01/01/84  
Date Completed: 12/01/87  
Priority Level: Low priority for further assessment

CORRACTS:

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19900101  
Action: CA600GW - Stabilization Measures Implemented, Groundwater extraction and treatment  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19900601  
Action: CA650 - Stabilization Construction Completed  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19890621  
Action: CA250 - CMS Imposition  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

Map ID  
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MAP FINDINGS

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Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19890621  
Action: CA150 - RFI Workplan Approved  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19890621  
Action: CA100 - RFI Imposition  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19940811  
Action: CA225NR - Stabilization Measures Evaluation, This facility is, not amenable to stabilization activity at the, present time for reasons other than (1) it appears to be technically, infeasible or inappropriate (NF) or (2) there is a lack of technical, information (IN). Reasons for this conclusion may be the status of, closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other, administrative considerations  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: 19940811  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19940811  
Action: CA225NR - Stabilization Measures Evaluation, This facility is, not amenable to stabilization activity at the, present time for reasons other than (1) it appears to be technically, infeasible or inappropriate (NF) or (2) there is a lack of technical, information (IN). Reasons for this conclusion may be the status of, closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other, administrative considerations  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY

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MAP FINDINGS

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Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Actual Date: 19940811  
Action: CA075ME - CA Prioritization, Facility or area was assigned a medium corrective action priority  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20020919  
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20020919  
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: 20020919  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20020919  
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: 20020919  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20020919  
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19970922  
Action: CA725NO - Current Human Exposures Under Control, Current human

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**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

exposures are NOT under control  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19970922  
Action: CA210 - CA Responsibility Referred To A Non-RCRA Federal Authority  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19970922  
Action: CA750NO - Migration of Contaminated Groundwater under Control, Unacceptable migration of contaminated groundwater is observed or expected  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19851115  
Action: CA600SR - Stabilization Measures Implemented, Primary measure is source removal and/or treatment  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19871228  
Action: CA029WQ  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19871228  
Action: CA049PA  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported

Map ID  
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Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19871228  
Action: CA075HI - CA Prioritization, Facility or area was assigned a high corrective action priority

NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19871228  
Action: CA050 - RFA Completed

NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19871228  
Action: CA074HI

NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20001228  
Action: CA750NO - Migration of Contaminated Groundwater under Control, Unacceptable migration of contaminated groundwater is observed or expected

NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing

Original schedule date: 20001228  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20001228  
Action: CA750NO - Migration of Contaminated Groundwater under Control, Unacceptable migration of contaminated groundwater is observed or expected

NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing

Original schedule date: Not reported  
Schedule end date: Not reported

Map ID  
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EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20001228  
Action: CA725NO - Current Human Exposures Under Control, Current human exposures are NOT under control  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20001228  
Action: CA725NO - Current Human Exposures Under Control, Current human exposures are NOT under control  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: 20001228  
Schedule end date: Not reported

EPA ID: CAD066562521  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: Not reported  
Action: CA03193  
NAICS Code(s): 325188 42269 42272  
All Other Basic Inorganic Chemical Manufacturing  
Original schedule date: 19931001  
Schedule end date: Not reported

**CORTESE:**

Region: CORTESE  
Envirostor Id: Not reported  
Site/Facility Type: Not reported  
Cleanup Status: Not reported  
Status Date: Not reported  
Site Code: Not reported  
Latitude: Not reported  
Longitude: Not reported  
Owner: Not reported  
Enf Type: Not reported  
Swat R: Not reported  
Flag: CORTESE  
Order No: Not reported  
Waste Discharge System No: Not reported  
Effective Date: Not reported  
Region 2: 2  
WID Id: 2 019124N02  
Solid Waste Id No: Not reported  
Waste Management Uit Name: Not reported

**CORTESE:**

Region: CORTESE  
Facility County Code: 1

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Reg By: WBC&D  
Reg Id: 2 019124N02

HIST UST:

Region: STATE  
Facility ID: 00000006132  
Facility Type: Other  
Other Type: CHEMICAL DISTRIBUTOR  
Total Tanks: 0005  
Contact Name: GREG WRIGHT  
Telephone: 4157969333  
Owner Name: ASHLAND CHEMICAL COMPANY, DIVI  
Owner Address: 5200 BLAZER PARKWAY  
Owner City,St,Zip: DUBLIN, OH 43017

Tank Num: 001  
Container Num: UG2  
Year Installed: 1981  
Tank Capacity: 00002000  
Tank Used for: WASTE  
Type of Fuel: Not reported  
Tank Construction: 1/4 inches  
Leak Detection: Groundwater Monitoring Well

Tank Num: 002  
Container Num: UG 1  
Year Installed: 1981  
Tank Capacity: 00002000  
Tank Used for: WASTE  
Type of Fuel: Not reported  
Tank Construction: 1/4 inches  
Leak Detection: Groundwater Monitoring Well

Tank Num: 003  
Container Num: N2  
Year Installed: Not reported  
Tank Capacity: 00000700  
Tank Used for: WASTE  
Type of Fuel: Not reported  
Tank Construction: Not reported  
Leak Detection: Visual

Tank Num: 004  
Container Num: N1  
Year Installed: Not reported  
Tank Capacity: 00011300  
Tank Used for: WASTE  
Type of Fuel: Not reported  
Tank Construction: Not reported  
Leak Detection: Visual

Tank Num: 005  
Container Num: UG3  
Year Installed: 1981  
Tank Capacity: 00001000  
Tank Used for: WASTE  
Type of Fuel: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Tank Construction: 1/4 inches  
Leak Detection: Groundwater Monitoring Well

ENF:

Region: 2  
Facility Id: 206542  
Agency Name: Ashland Chemical Company  
Place Type: Facility  
Place Subtype: Not reported  
Facility Type: Industrial  
Agency Type: Privately-Owned Business  
# Of Agencies: 1  
Place Latitude: 37.5220770  
Place Longitude: -122.04987  
SIC Code 1: Not reported  
SIC Desc 1: Not reported  
SIC Code 2: Not reported  
SIC Desc 2: Not reported  
SIC Code 3: Not reported  
SIC Desc 3: Not reported  
NAICS Code 1: Not reported  
NAICS Desc 1: Not reported  
NAICS Code 2: Not reported  
NAICS Desc 2: Not reported  
NAICS Code 3: Not reported  
NAICS Desc 3: Not reported  
# Of Places: 1  
Source Of Facility: Reg Meas  
Design Flow: Not reported  
Threat To Water Quality: Not reported  
Complexity: Not reported  
Pretreatment: Not reported  
Facility Waste Type: Not reported  
Facility Waste Type 2: Not reported  
Facility Waste Type 3: Not reported  
Facility Waste Type 4: Not reported  
Program: UNREGS  
# Of Programs: 1  
WDID: 2 019124N02  
Reg Measure Id: 163162  
Reg Measure Type: Unregulated  
Region: 2  
Order #: Not reported  
Npdes# CA#: Not reported  
Major-Minor: Not reported  
Npdes Type: Not reported  
Reclamation: Not reported  
Dredge Fill Fee: Not reported  
301H: Not reported  
Application Fee Amt Received: Not reported  
Status: Never Active  
Status Date: 02/21/2013  
Effective Date: Not reported  
Expiration/Review Date: Not reported  
Termination Date: Not reported  
WDR Review - Amend: Not reported  
WDR Review - Revise/Renew: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

|                                   |                              |
|-----------------------------------|------------------------------|
| WDR Review - Rescind:             | Not reported                 |
| WDR Review - No Action Required:  | Not reported                 |
| WDR Review - Pending:             | Not reported                 |
| WDR Review - Planned:             | Not reported                 |
| Status Enrollee:                  | N                            |
| Individual/General:               | I                            |
| Fee Code:                         | Not reported                 |
| Direction/Voice:                  | Passive                      |
| Enforcement Id(EID):              | 221942                       |
| Region:                           | 2                            |
| Order / Resolution Number:        | R2-1998-0080                 |
| Enforcement Action Type:          | Clean-up and Abatement Order |
| Effective Date:                   | 08/19/1998                   |
| Adoption/Issuance Date:           | Not reported                 |
| Achieve Date:                     | Not reported                 |
| Termination Date:                 | Not reported                 |
| ACL Issuance Date:                | Not reported                 |
| EPL Issuance Date:                | Not reported                 |
| Status:                           | Active                       |
| Title:                            | Enforcement - 2 019124N02    |
| Description:                      | CAO-                         |
| Program:                          | UNREGS                       |
| Latest Milestone Completion Date: | Not reported                 |
| # Of Programs1:                   | 1                            |
| Total Assessment Amount:          | 0                            |
| Initial Assessed Amount:          | 0                            |
| Liability \$ Amount:              | 0                            |
| Project \$ Amount:                | 0                            |
| Liability \$ Paid:                | 0                            |
| Project \$ Completed:             | 0                            |
| Total \$ Paid/Completed Amount:   | 0                            |
| Region:                           | 2                            |
| Facility Id:                      | 206542                       |
| Agency Name:                      | Ashland Chemical Company     |
| Place Type:                       | Facility                     |
| Place Subtype:                    | Not reported                 |
| Facility Type:                    | Industrial                   |
| Agency Type:                      | Privately-Owned Business     |
| # Of Agencies:                    | 1                            |
| Place Latitude:                   | 37.5220770                   |
| Place Longitude:                  | -122.04987                   |
| SIC Code 1:                       | Not reported                 |
| SIC Desc 1:                       | Not reported                 |
| SIC Code 2:                       | Not reported                 |
| SIC Desc 2:                       | Not reported                 |
| SIC Code 3:                       | Not reported                 |
| SIC Desc 3:                       | Not reported                 |
| NAICS Code 1:                     | Not reported                 |
| NAICS Desc 1:                     | Not reported                 |
| NAICS Code 2:                     | Not reported                 |
| NAICS Desc 2:                     | Not reported                 |
| NAICS Code 3:                     | Not reported                 |
| NAICS Desc 3:                     | Not reported                 |
| # Of Places:                      | 1                            |
| Source Of Facility:               | Reg Meas                     |
| Design Flow:                      | Not reported                 |

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

|                                   |                              |
|-----------------------------------|------------------------------|
| Threat To Water Quality:          | Not reported                 |
| Complexity:                       | Not reported                 |
| Pretreatment:                     | Not reported                 |
| Facility Waste Type:              | Not reported                 |
| Facility Waste Type 2:            | Not reported                 |
| Facility Waste Type 3:            | Not reported                 |
| Facility Waste Type 4:            | Not reported                 |
| Program:                          | UNREGS                       |
| # Of Programs:                    | 1                            |
| WDID:                             | 2 019124N02                  |
| Reg Measure Id:                   | 163162                       |
| Reg Measure Type:                 | Unregulated                  |
| Region:                           | 2                            |
| Order #:                          | Not reported                 |
| Npdes# CA#:                       | Not reported                 |
| Major-Minor:                      | Not reported                 |
| Npdes Type:                       | Not reported                 |
| Reclamation:                      | Not reported                 |
| Dredge Fill Fee:                  | Not reported                 |
| 301H:                             | Not reported                 |
| Application Fee Amt Received:     | Not reported                 |
| Status:                           | Never Active                 |
| Status Date:                      | 02/21/2013                   |
| Effective Date:                   | Not reported                 |
| Expiration/Review Date:           | Not reported                 |
| Termination Date:                 | Not reported                 |
| WDR Review - Amend:               | Not reported                 |
| WDR Review - Revise/Renew:        | Not reported                 |
| WDR Review - Rescind:             | Not reported                 |
| WDR Review - No Action Required:  | Not reported                 |
| WDR Review - Pending:             | Not reported                 |
| WDR Review - Planned:             | Not reported                 |
| Status Enrollee:                  | N                            |
| Individual/General:               | I                            |
| Fee Code:                         | Not reported                 |
| Direction/Voice:                  | Passive                      |
| Enforcement Id(EID):              | 222752                       |
| Region:                           | 2                            |
| Order / Resolution Number:        | 89-109                       |
| Enforcement Action Type:          | Clean-up and Abatement Order |
| Effective Date:                   | 06/21/1989                   |
| Adoption/Issuance Date:           | Not reported                 |
| Achieve Date:                     | Not reported                 |
| Termination Date:                 | Not reported                 |
| ACL Issuance Date:                | Not reported                 |
| EPL Issuance Date:                | Not reported                 |
| Status:                           | Historical                   |
| Title:                            | Enforcement - 2 019124N02    |
| Description:                      | ENF ORDER                    |
| Program:                          | UNREGS                       |
| Latest Milestone Completion Date: | Not reported                 |
| # Of Programs1:                   | 1                            |
| Total Assessment Amount:          | 0                            |
| Initial Assessed Amount:          | 0                            |
| Liability \$ Amount:              | 0                            |
| Project \$ Amount:                | 0                            |
| Liability \$ Paid:                | 0                            |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

|                                 |   |
|---------------------------------|---|
| Project \$ Completed:           | 0   |
| Total \$ Paid/Completed Amount: | 0   |
| Region:                         | 2   |
| Facility Id:                    | 206543                                    |
| Agency Name:                    | Not reported                              |
| Place Type:                     | Manufacturing                             |
| Place Subtype:                  | Manufacturing NEC                         |
| Facility Type:                  | Industrial                                |
| Agency Type:                    | Not reported                              |
| # Of Agencies:                  | Not reported                              |
| Place Latitude:                 | 37.5220770                                |
| Place Longitude:                | -122.04987                                |
| SIC Code 1:                     | 2824                                      |
| SIC Desc 1:                     | Manmade Organic Fibers, Except Cellulosic |
| SIC Code 2:                     | Not reported                              |
| SIC Desc 2:                     | Not reported                              |
| SIC Code 3:                     | Not reported                              |
| SIC Desc 3:                     | Not reported                              |
| NAICS Code 1:                   | Not reported                              |
| NAICS Desc 1:                   | Not reported                              |
| NAICS Code 2:                   | Not reported                              |
| NAICS Desc 2:                   | Not reported                              |
| NAICS Code 3:                   | Not reported                              |
| NAICS Desc 3:                   | Not reported                              |
| # Of Places:                    | 1   |
| Source Of Facility:             | Enf Action                                |
| Design Flow:                    | Not reported                              |
| Threat To Water Quality:        | Not reported                              |
| Complexity:                     | Not reported                              |
| Pretreatment:                   | Not reported                              |
| Facility Waste Type:            | Not reported                              |
| Facility Waste Type 2:          | Not reported                              |
| Facility Waste Type 3:          | Not reported                              |
| Facility Waste Type 4:          | Not reported                              |
| Program:                        | NPDES                                     |
| # Of Programs:                  | 1   |
| WDID:                           | Not reported                              |
| Reg Measure Id:                 | Not reported                              |
| Reg Measure Type:               | Not reported                              |
| Region:                         | Not reported                              |
| Order #:                        | Not reported                              |
| Npdes# CA#:                     | Not reported                              |
| Major-Minor:                    | Not reported                              |
| Npdes Type:                     | Not reported                              |
| Reclamation:                    | Not reported                              |
| Dredge Fill Fee:                | Not reported                              |
| 301H:                           | Not reported                              |
| Application Fee Amt Received:   | Not reported                              |
| Status:                         | Not reported                              |
| Status Date:                    | Not reported                              |
| Effective Date:                 | Not reported                              |
| Expiration/Review Date:         | Not reported                              |
| Termination Date:               | Not reported                              |
| WDR Review - Amend:             | Not reported                              |
| WDR Review - Revise/Renew:      | Not reported                              |
| WDR Review - Rescind:           | Not reported                              |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

WDR Review - No Action Required: Not reported  
WDR Review - Pending: Not reported  
WDR Review - Planned: Not reported  
Status Enrollee: Not reported  
Individual/General: Not reported  
Fee Code: Not reported  
Direction/Voice: Not reported  
Enforcement Id(EID): 222984  
Region: 2  
Order / Resolution Number: 88-020  
Enforcement Action Type: Admin Civil Liability  
Effective Date: 03/16/1988  
Adoption/Issuance Date: Not reported  
Achieve Date: 4/15/1988  
Termination Date: Not reported  
ACL Issuance Date: Not reported  
EPL Issuance Date: Not reported  
Status: Historical  
Title: Enforcement - 2 019124001  
Description: SPILL OF APPROX 3300 GALLONS OF PAINT THINNERS & SOLVENTS  
TO THE SOIL & G DWTR - VIOL OF BASIN PLAN  
Program: NPDES  
Latest Milestone Completion Date: Not reported  
# Of Programs1: 1  
Total Assessment Amount: 0  
Initial Assessed Amount: 0  
Liability \$ Amount: 0  
Project \$ Amount: 0  
Liability \$ Paid: 0  
Project \$ Completed: 0  
Total \$ Paid/Completed Amount: 0

**RESPONSE:**

Facility ID: 01280046  
Site Type: State Response  
Site Type Detail: State Response or NPL  
Acres: 0  
National Priorities List: NO  
Cleanup Oversight Agencies: RWQCB 2 - San Francisco Bay  
Lead Agency: RWQCB 2 - San Francisco Bay  
Lead Agency Description: RWQCB 2 - San Francisco Bay  
Project Manager: Not reported  
Supervisor: Referred - Not Assigned  
Division Branch: Cleanup Berkeley  
Site Code: Not reported  
Site Mgmt. Req.: NONE SPECIFIED  
Assembly: 25  
Senate: 10  
Special Program Status: \* RCRA 3012 - Past Haz Waste Disp Inven Site  
Status: Refer: RWQCB  
Status Date: 02/02/1984  
Restricted Use: NO  
Funding: Responsible Party  
Latitude: 37.52194  
Longitude: -122.05  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Potential COC: \* OTHER ORGANIC SOLIDS, \* UNSPECIFIED ORGANIC LIQUID MIXTURE  
Confirmed COC: \* OTHER ORGANIC SOLIDS, \* UNSPECIFIED ORGANIC LIQUID MIXTURE, NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: CAD066562521  
Alias Type: EPA Identification Number  
Alias Name: 110033616102  
Alias Type: EPA (FRS #)  
Alias Name: CAD066562521  
Alias Type: HWTS Identification Code  
Alias Name: 01280046  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \* Discovery  
Completed Date: 09/24/1983  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \* Discovery  
Completed Date: 09/14/1981  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Assessment Report  
Completed Date: 02/02/1984  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

ENVIROSTOR:

Site Type: Corrective Action  
Site Type Detailed: Corrective Action  
Acres: 0  
NPL: NO  
Regulatory Agencies: RWQCB  
Lead Agency: WQC  
Program Manager: Not reported  
Supervisor: \* Wei Wei Chui  
Division Branch: Cleanup Berkeley  
Facility ID: 80001455  
Site Code: Not reported  
Assembly: 25  
Senate: 10  
Special Program: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Status: Refer: RWQCB  
Status Date: 01/01/2008  
Restricted Use: NO  
Site Mgmt. Req.: NONE SPECIFIED  
Funding: Not reported  
Latitude: 37.52217  
Longitude: -122.0498  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED  
Potential COC: NONE SPECIFIED  
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: CAD066562521  
Alias Type: EPA Identification Number  
Alias Name: 01280046  
Alias Type: Envirostor ID Number  
Alias Name: 80001455  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Interim Measures Questionnaire  
Completed Date: 08/11/1994  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RCRA Facility Assessment Report  
Completed Date: 12/28/1987  
Comments: Preliminary Endangerment Assessment (PEA) completed 2-2-84

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Consent Agreement  
Completed Date: 06/21/1989  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RCRA Facility Assessment Report  
Completed Date: 12/28/1987  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Groundwater Migration Controlled  
Completed Date: 12/28/2000  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Groundwater Migration Controlled  
Completed Date: 09/19/2002  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Completed Document Type: Human Exposure Controlled  
Completed Date: 12/28/2000  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Human Exposure Controlled  
Completed Date: 09/19/2002  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Interim Measures Workplan  
Completed Date: 11/15/1985  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RFI Workplan  
Completed Date: 06/21/1989  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Assessment Report  
Completed Date: 12/28/1987  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Interim Measures Implementation Report  
Completed Date: 06/01/1990  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Interim Measures Workplan  
Completed Date: 01/01/1990  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

Site Type: State Response  
Site Type Detailed: State Response or NPL  
Acres: 0  
NPL: NO  
Regulatory Agencies: RWQCB 2 - San Francisco Bay  
Lead Agency: RWQCB 2 - San Francisco Bay  
Program Manager: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Supervisor: Referred - Not Assigned  
Division Branch: Cleanup Berkeley  
Facility ID: 01280046  
Site Code: Not reported  
Assembly: 25  
Senate: 10  
Special Program: \* RCRA 3012 - Past Haz Waste Disp Inven Site  
Status: Refer: RWQCB  
Status Date: 02/02/1984  
Restricted Use: NO  
Site Mgmt. Req.: NONE SPECIFIED  
Funding: Responsible Party  
Latitude: 37.52194  
Longitude: -122.05  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED  
Potential COC: NONE SPECIFIED, NONE SPECIFIED, \* OTHER ORGANIC SOLIDS, \*  
UNSPECIFIED ORGANIC LIQUID MIXTURE  
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED, \* OTHER ORGANIC SOLIDS, \*  
UNSPECIFIED ORGANIC LIQUID MIXTURE, NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: CAD066562521  
Alias Type: EPA Identification Number  
Alias Name: 110033616102  
Alias Type: EPA (FRS #)  
Alias Name: CAD066562521  
Alias Type: HWTS Identification Code  
Alias Name: 01280046  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \* Discovery  
Completed Date: 09/24/1983  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \* Discovery  
Completed Date: 09/14/1981  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Assessment Report  
Completed Date: 02/02/1984  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

CA Financial Assurance 1:

EPA ID Number: CAD066562521  
Sudden Amount1: Not reported  
Non Sudden Amount1: Not reported  
Closure Mechanism: Not reported  
Closure Amount: Not reported  
Post Closure Mechanism: Not reported  
Post Closure Amount: Not reported  
Corrective Action Mechanism: Bond Rider  
Corrective Action Amount: 1370186  
Sudden Mechanism Type: Not reported  
Sudden Mechanism Amount: Not reported  
Non Sudden Mechanism Type: Not reported  
Non Sudden Mechanism Amount: Not reported  
O&M Mechanism Type: Not reported  
O&M Amount: Not reported

US FIN ASSUR:

EPA ID: CAD066562521  
Provider: INDIAN HARBOR INSURANCE CO.  
EPA region: 9  
County: ALAMEDA  
Mechanism type: INSURANCE  
Mechanism ID: PEC002835502  
Cost estimate: 1317000  
Face value: 1317000  
Effective date: 4/10/2011

HWP:

EPA Id: CAD066562521  
Cleanup Status: CLOSED  
Latitude: 37.52217  
Longitude: -122.0498  
Facility Type: Historical - Non-Operating  
Facility Size: Not reported  
Team: Not reported  
Supervisor: Not reported  
Site Code: Not reported  
Assembly District: 25  
Senate District: 10  
Public Information Officer: Not reported

Activities:

EPA Id: CAD066562521  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1  
Event Description: New Operating Permit - FINAL PERMIT (EFFECTIVE)  
Actual Date: 06/24/1985

EPA Id: CAD066562521  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1  
Event Description: New Operating Permit - FINAL PERMIT  
Actual Date: 06/24/1985

EPA Id: CAD066562521

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ASHLAND CHEMICAL CO (Continued)**

**1000277301**

Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1  
Event Description: New Operating Permit - CALL-IN LETTER ISSUED  
Actual Date: 02/09/1983

EPA Id: CAD066562521  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1  
Event Description: New Operating Permit - PUBLIC COMMENT (BEGIN)  
Actual Date: 05/02/1985

EPA Id: CAD066562521  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1  
Event Description: New Operating Permit - TECHNICAL COMPLETE LETTER  
Actual Date: 02/01/1985

EPA Id: CAD066562521  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1  
Event Description: New Operating Permit - FINAL PERMIT (EXPIRES)  
Actual Date: 06/24/1990

EPA Id: CAD066562521  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1  
Event Description: New Operating Permit - APPLICATION PART B RECEIVED  
Actual Date: 03/31/1983

Closure:  
EPA Id: CAD066562521  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1, SURFTRT1, TANKTRT1 (GPRA Unit)  
Event Description: Closure - RECEIVE CLOSURE CERTIFICATION  
Actual Date: 06/08/1993

EPA Id: CAD066562521  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1, SURFTRT1, TANKTRT1 (GPRA Unit)  
Event Description: Closure - ISSUE CLOSURE VERIFICATION  
Actual Date: 06/30/1993

Alias:  
EPA Id: CAD066562521  
Facility Type: Historical - Non-Operating  
Alias Type: Envirostor ID Number  
Alias: 01280046

2020 COR ACTION:  
EPA ID: CAD066562521  
Region: 9  
Action: Not reported

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**E12**      **NEWARK SPORTSMAN'S CLUB**  
**East**      **37447 WILLOW STREET**  
**1/8-1/4**      **NEWARK, CA 94560**  
**0.215 mi.**  
**1133 ft.**

**CA SLIC**      **S102405641**  
                    **N/A**

**Site 1 of 4 in cluster E**

**Relative:**  
**Higher**

SLIC:

Region: STATE  
**Facility Status: Open - Site Assessment**  
Status Date: 08/11/1994  
Global Id: SL0600112387  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Lead Agency Case Number: 0402  
Latitude: 37.517951  
Longitude: -122.047758  
Case Type: Cleanup Program Site  
Case Worker: MH  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01S0464  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

**Actual:**  
**13 ft.**

[Click here to access the California GeoTracker records for this facility:](#)

SLIC REG 2:

Region: 2  
Facility ID: Not reported  
Facility Status: Not reported  
Date Closed: Not reported  
Local Case #: Not reported  
How Discovered: Not reported  
Leak Cause: Not reported  
Leak Source: Not reported  
Date Confirmed: Not reported  
Date Prelim Site Assmnt Workplan Submitted: Not reported  
Date Preliminary Site Assessment Began: Not reported  
Date Pollution Characterization Began: Not reported  
Date Remediation Plan Submitted: Not reported  
Date Remedial Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

**F13**      **TORIAN HOLDINGS**  
**ESE**      **37555 WILLOW STREET**  
**1/8-1/4**      **NEWARK, CA 94560**  
**0.216 mi.**  
**1139 ft.**

**CA SLIC**      **S108222969**  
                    **N/A**

**Site 1 of 4 in cluster F**

**Relative:**  
**Lower**

SLIC:

Region: STATE  
**Facility Status: Open - Site Assessment**  
Status Date: 10/06/2009  
Global Id: T10000001574  
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)  
Lead Agency Case Number: 0742  
Latitude: 37.518899758857  
Longitude: -122.04980134964  
Case Type: Cleanup Program Site

**Actual:**  
**9 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**TORIAN HOLDINGS (Continued)**

**S108222969**

Case Worker: CCM  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01S0707  
File Location: Local Agency  
Potential Media Affected: Other Groundwater (uses other than drinking water), Soil  
Potential Contaminants of Concern: Asbestos - Naturally Occurring Asbestos (NOA), Other Solvent or Non-Petroleum Hydrocarbon, Chromium, Lead, Nickel  
Site History: Parcel A (APN 92-115-8) - 37555 Willow Street, former location of E.J. Lavino and Co., Mobility Industries, J CAM fiberglass, and other businesses. Buildings at the property were demolished in 2004. Building foundations., concrete pads, and asphalt surfaces remain. The Parcel A property is approximately 10 acres in size. P Parcel B - no known street address, located immediately south of Parcel A, and bounded by Willow Street on the east, an Alameda County flood control channel on the south, and Hickory Street (undeveloped) on the west. There are no buildings or known former buildings at the property. The property is approximately 32 acres in size.

[Click here to access the California GeoTracker records for this facility:](#)

**F14**  
**East**  
**1/8-1/4**  
**0.216 mi.**  
**1141 ft.**

**OMEGA CHEM NORTH**  
**37521 WILLOW ST**  
**NEWARK, CA 94560**

**RCRA NonGen / NLR** **1000232424**  
**FINDS** **CAD980880645**

**Site 2 of 4 in cluster F**

**Relative:**  
**Lower**

RCRA NonGen / NLR:

Date form received by agency: 11/14/1983  
Facility name: OMEGA CHEM NORTH  
Facility address: 37521 WILLOW ST  
NEWARK, CA 94560  
EPA ID: CAD980880645  
Mailing address: PO BOX 152  
WHITTIER, CA 90608  
Contact: ENVIRONMENTAL MANAGER  
Contact address: 37521 WILLOW ST  
NEWARK, CA 94560  
Contact country: US  
Contact telephone: (213) 698-0991  
Contact email: Not reported  
EPA Region: 09  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

**Actual:**  
**11 ft.**

**Owner/Operator Summary:**

Owner/operator name: FOSTER CHEM CORP  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999  
Owner/operator country: Not reported  
Owner/operator telephone: (415) 555-1212  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED  
Owner/operator address: NOT REQUIRED

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**OMEGA CHEM NORTH (Continued)**

1000232424

NOT REQUIRED, ME 99999  
Owner/operator country: Not reported  
Owner/operator telephone: (415) 555-1212  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Violation Status: No violations found

FINDS:

Registry ID: 110002672705

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

E15  
East  
1/8-1/4  
0.217 mi.  
1148 ft.

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP**  
**37445 WILLOW ST**  
**NEWARK, CA 94560**  
**Site 2 of 4 in cluster E**

CA SLIC S104573911  
CA ENVIROSTOR N/A  
CA HWP

Relative:  
Higher

SLIC:

Region: STATE  
**Facility Status: Open - Remediation**  
Status Date: 03/28/2006  
Global Id: SL20227845  
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)  
Lead Agency Case Number: 0050  
Latitude: 37.5201932073065  
Longitude: -122.05010175705  
Case Type: Cleanup Program Site  
Case Worker: ES  
Local Agency: ALAMEDA COUNTY WATER DISTRICT

Actual:  
13 ft.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**S104573911**

RB Case Number: 01S0038  
File Location: Regional Board  
Potential Media Affected: Other Groundwater (uses other than drinking water)  
Potential Contaminants of Concern: \* Volatile Organic Compounds (VOC)  
Site History: Site is formerly Foster Chemical Corporation, operated at the Site from 1975 to 1985, and released solvents to the subsurface soil and groundwater. A Final Site Cleanup Plan was adopted by the Water Board 9/12/2008, which is currently uderway. Data Gap and Pre-Remediation Investigation Work Plan submitted Feb. 1, 2009.

[Click here to access the California GeoTracker records for this facility:](#)

**ENVIROSTOR:**

Site Type: Corrective Action  
Site Type Detailed: Corrective Action  
Acres: 0  
NPL: NO  
Regulatory Agencies: RWQCB 2 - San Francisco Bay  
Lead Agency: RWQCB 2 - San Francisco Bay  
Program Manager: Not reported  
Supervisor: Referred - Not Assigned  
Division Branch: Cleanup Berkeley  
Facility ID: 80001425  
Site Code: Not reported  
Assembly: 25  
Senate: 10  
Special Program: Not reported  
Status: Refer: RWQCB  
Status Date: 01/01/2008  
Restricted Use: NO  
Site Mgmt. Req.: NONE SPECIFIED  
Funding: Not reported  
Latitude: 37.51788  
Longitude: -122.0475  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED  
Potential COC: NONE SPECIFIED  
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: FOSTER CHEMICAL CORPORATION  
Alias Type: Alternate Name  
Alias Name: CAD056197601  
Alias Type: EPA Identification Number  
Alias Name: 110000609645  
Alias Type: EPA (FRS #)  
Alias Name: SL20227845  
Alias Type: GeoTracker Global ID  
Alias Name: 01340016  
Alias Type: Envirostor ID Number  
Alias Name: 80001425  
Alias Type: Envirostor ID Number

**Completed Info:**

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Consent Agreement  
Completed Date: 06/21/1989

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**S104573911**

Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Interim Measures Questionnaire  
Completed Date: 08/15/1994  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RCRA Facility Assessment Report  
Completed Date: 04/28/1989  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RCRA Facility Assessment Report  
Completed Date: 04/28/1989  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Groundwater Migration Controlled  
Completed Date: 09/24/1997  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Human Exposure Controlled  
Completed Date: 09/24/1997  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Interim Measures Implementation Report  
Completed Date: 08/19/1994  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Interim Measures Workplan  
Completed Date: 06/21/1989  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RFI Report  
Completed Date: 01/01/1993  
Comments: THERE IS NO SINGLE RFI DOCUMENT - INVESTIGATIONS WERE CARRIED OUT BETWEEN 1988 AND 1992 FOR SOILS AND GW. WE SELECTED 1/1/93 AS A DATE BY WHICH THE RWQCB WAS SATISFIED THAT INVESTIGATIONS WERE COMPLETE. RSARACINO 19970924.15:47S

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Assessment Report  
Completed Date: 04/28/1989

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**S104573911**

Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Interim Measures Workplan  
Completed Date: 06/21/1989  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: PROJECT WIDE  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Remedy Constructed  
Schedule Due Date: 09/30/2012  
Schedule Revised Date: Not reported

Site Type: Historical  
Site Type Detailed: \* Historical  
Acres: Not reported  
NPL: NO  
Regulatory Agencies: RWQCB 2 - San Francisco Bay  
Lead Agency: RWQCB 2 - San Francisco Bay  
Program Manager: Not reported  
Supervisor: Referred - Not Assigned  
Division Branch: Cleanup Berkeley  
Facility ID: 01340016  
Site Code: Not reported  
Assembly: 25  
Senate: 10  
Special Program: Not reported  
Status: Refer: RWQCB  
Status Date: 05/23/2003  
Restricted Use: NO  
Site Mgmt. Req.: NONE SPECIFIED  
Funding: Not reported  
Latitude: 37.52066  
Longitude: -122.0496  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED  
Potential COC: NONE SPECIFIED, NONE SPECIFIED, NONE SPECIFIED  
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED, NONE SPECIFIED, NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: ROMIC CHEMICAL CORPORATION  
Alias Type: Alternate Name  
Alias Name: ROMIC ENVIRONMENTAL TECHNOLOGIES CORP  
Alias Type: Alternate Name  
Alias Name: CAD056197601  
Alias Type: EPA Identification Number  
Alias Name: 110000609645  
Alias Type: EPA (FRS #)  
Alias Name: SL20227845  
Alias Type: GeoTracker Global ID  
Alias Name: 01340016  
Alias Type: Envirostor ID Number

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**S104573911**

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Screening  
Completed Date: 04/21/1980  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

HWP:

EPA Id: CAD056197601  
Cleanup Status: CLOSED  
Latitude: 37.51788  
Longitude: -122.0475  
Facility Type: Historical - Non-Operating  
Facility Size: Not reported  
Team: Not reported  
Supervisor: Not reported  
Site Code: Not reported  
Assembly District: 25  
Senate District: 10  
Public Information Officer: Not reported

Closure:

EPA Id: CAD056197601  
Facility Type: Historical - Non-Operating  
Unit Names: CONTAIN1  
Event Description: Closure Final - ISSUE CLOSURE VERIFICATION  
Actual Date: 03/13/1996

Alias:

EPA Id: CAD056197601  
Facility Type: Historical - Non-Operating  
Alias Type: Alternate Name  
Alias: FOSTER CHEMICAL CORPORATION

EPA Id: CAD056197601  
Facility Type: Historical - Non-Operating  
Alias Type: Envirostor ID Number  
Alias: 01340016

EPA Id: CAD056197601  
Facility Type: Historical - Non-Operating  
Alias Type: FRS  
Alias: 110000609645



Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**1000401575**

Owner/Op end date: Not reported  
  
Owner/operator name: ROMIC CHEMICAL CORP  
Owner/operator address: 2081 BAY RD  
E PALO ALTO, CA 94303  
  
Owner/operator country: Not reported  
Owner/operator telephone: (415) 324-1638  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: Yes  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 06/02/1992  
Facility name: ROMIC ENVIRONMENTAL TECHNOLOGIES CORP  
Classification: Large Quantity Generator

Corrective Action Summary:

Event date: 04/28/1989  
Event: CA029WQ  
  
Event date: 04/28/1989  
Event: CA Prioritization, Facility or area was assigned a medium corrective action priority.  
  
Event date: 04/28/1989  
Event: RFA Completed  
  
Event date: 04/28/1989  
Event: CA049PA  
  
Event date: 06/21/1989  
Event: RFI Imposition  
  
Event date: 06/21/1989  
Event: Stabilization Measures Implemented, Primary measure is source removal and/or treatment (e.g., soil or waste excavation, in-situ soil treatment, off-site treatment).

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**1000401575**

Event date: 06/21/1989  
Event: Stabilization Measures Implemented, Groundwater extraction and treatment (e.g., to achieve groundwater containment, to achieve MCL).

Event date: 06/21/1989  
Event: CMS Imposition

Event date: 04/30/1990  
Event: CA036WQ

Event date: 04/20/1991  
Event: CA Prioritization, Facility or area was assigned a low corrective action priority.

Event date: 01/01/1993  
Event: RFI Approved

Event date: 08/15/1994  
Event: Stabilization Measures Evaluation, This facility is not amenable to stabilization activity at the present time for reasons other than 1- it appears to be technically infeasible or inappropriate (NF) or 2- there is a lack of technical information (IN). Reasons for this conclusion may be the status of closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other administrative considerations.

Event date: 08/19/1994  
Event: Stabilization Construction Completed

Event date: 09/24/1997  
Event: Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

Event date: 09/24/1997  
Event: Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

Event date: 09/24/1997  
Event: Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**1000401575**

changes at the facility.

Event date: 09/24/1997  
Event: CA Responsibility Referred To A Non-RCRA Federal Authority

Event date: 09/24/1997  
Event: Igration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

Event date: Not reported  
Event: CA03191

Facility Has Received Notices of Violations:

Regulation violated: FR - 264.140-150.H  
Area of violation: TSD - Financial Requirements  
Date violation determined: 02/05/1992  
Date achieved compliance: 06/18/1993  
Violation lead agency: State  
Enforcement action: Not reported  
Enforcement action date: Not reported  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: Not reported  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G  
Area of violation: TSD - Closure/Post-Closure  
Date violation determined: 02/27/1989  
Date achieved compliance: 05/14/1990  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 04/05/1989  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 270  
Area of violation: TSD - General  
Date violation determined: 02/27/1989  
Date achieved compliance: 05/14/1990  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 04/05/1989  
Enf. disposition status: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**1000401575**

Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G  
Area of violation: TSD - Closure/Post-Closure  
Date violation determined: 02/27/1989  
Date achieved compliance: 05/14/1990  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT  
Enforcement action date: 12/17/1990  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 25000  
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G  
Area of violation: TSD - Closure/Post-Closure  
Date violation determined: 02/27/1989  
Date achieved compliance: 05/14/1990  
Violation lead agency: State  
Enforcement action: INITIAL 3008(A) COMPLIANCE  
Enforcement action date: 09/07/1989  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: 56000  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 270  
Area of violation: TSD - General  
Date violation determined: 02/27/1989  
Date achieved compliance: 05/14/1990  
Violation lead agency: State  
Enforcement action: FINAL CIVIL JUDICIAL ACTION FOR IMMINENT AND SUBSTANTIAL ENDANGERMENT  
Enforcement action date: 12/17/1990  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: 25000  
Paid penalty amount: Not reported

Regulation violated: FR - 270  
Area of violation: TSD - General  
Date violation determined: 02/27/1989  
Date achieved compliance: 05/14/1990  
Violation lead agency: State  
Enforcement action: INITIAL 3008(A) COMPLIANCE  
Enforcement action date: 09/07/1989  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**1000401575**

Enforcement lead agency: State  
Proposed penalty amount: 56000  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H  
Area of violation: TSD - Financial Requirements  
Date violation determined: 02/02/1989  
Date achieved compliance: 05/14/1990  
Violation lead agency: State  
Enforcement action: INITIAL 3008(A) COMPLIANCE  
Enforcement action date: 09/07/1989  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: 56000  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.140-150.H  
Area of violation: TSD - Financial Requirements  
Date violation determined: 02/02/1989  
Date achieved compliance: 05/14/1990  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 02/14/1989  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.70-77.E  
Area of violation: TSD - General  
Date violation determined: 03/25/1987  
Date achieved compliance: 02/27/1989  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 12/02/1987  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 264.110-120.G  
Area of violation: TSD - Closure/Post-Closure  
Date violation determined: 03/25/1987  
Date achieved compliance: 05/14/1990  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 12/02/1987  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**1000401575**

Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: FR - 270  
Area of violation: TSD - General  
Date violation determined: 03/25/1987  
Date achieved compliance: 05/14/1990  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 12/02/1987  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 02/06/1992  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 02/05/1992  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: TSD - Financial Requirements  
Date achieved compliance: 06/18/1993  
Evaluation lead agency: EPA Contractor/Grantee

Evaluation date: 11/22/1991  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 05/17/1990  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 05/14/1990  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 02/27/1989  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - Closure/Post-Closure  
Date achieved compliance: 05/14/1990  
Evaluation lead agency: State

Evaluation date: 02/27/1989  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**1000401575**

Area of violation: TSD - General  
Date achieved compliance: 05/14/1990  
Evaluation lead agency: State

Evaluation date: 02/02/1989  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: TSD - Financial Requirements  
Date achieved compliance: 05/14/1990  
Evaluation lead agency: State

Evaluation date: 03/25/1987  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - General  
Date achieved compliance: 05/14/1990  
Evaluation lead agency: State

Evaluation date: 03/25/1987  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - General  
Date achieved compliance: 02/27/1989  
Evaluation lead agency: State

Evaluation date: 03/25/1987  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - Closure/Post-Closure  
Date achieved compliance: 05/14/1990  
Evaluation lead agency: State

**CERC-NFRAP:**

Site ID: 0900060  
Federal Facility: Not a Federal Facility  
NPL Status: Not on the NPL  
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

**CERCLIS-NFRAP Site Contact Details:**

Contact Sequence ID: 13050647.00000  
Person ID: 9271184.00000

Contact Sequence ID: 13289726.00000  
Person ID: 13003854.00000

Contact Sequence ID: 13295321.00000  
Person ID: 13003858.00000

Contact Sequence ID: 13301179.00000  
Person ID: 13004003.00000

**CERCLIS-NFRAP Assessment History:**

Action: DISCOVERY  
Date Started: / /  
Date Completed: 01/01/88  
Priority Level: Not reported

Action: ARCHIVE SITE  
Date Started: / /  
Date Completed: 04/28/89  
Priority Level: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**1000401575**

Action: PRELIMINARY ASSESSMENT  
Date Started: / /  
Date Completed: 04/28/89  
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

**CORRACTS:**

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19930101  
Action: CA200 - RFI Approved  
NAICS Code(s): 42272 561499  
All Other Business Support Services  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19910420  
Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority  
NAICS Code(s): 42272 561499  
All Other Business Support Services  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19890428  
Action: CA075ME - CA Prioritization, Facility or area was assigned a medium corrective action priority  
NAICS Code(s): 42272 561499  
All Other Business Support Services  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19890428  
Action: CA029WQ  
NAICS Code(s): 42272 561499  
All Other Business Support Services  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19890428  
Action: CA050 - RFA Completed  
NAICS Code(s): 42272 561499  
All Other Business Support Services

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**1000401575**

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19890428  
Action: CA049PA  
NAICS Code(s): 42272 561499  
All Other Business Support Services

Original schedule date: 19901017  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19900430  
Action: CA036WQ  
NAICS Code(s): 42272 561499  
All Other Business Support Services

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19890621  
Action: CA600GW - Stabilization Measures Implemented, Groundwater extraction and treatment  
NAICS Code(s): 42272 561499  
All Other Business Support Services

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19890621  
Action: CA100 - RFI Imposition  
NAICS Code(s): 42272 561499  
All Other Business Support Services

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19890621  
Action: CA600SR - Stabilization Measures Implemented, Primary measure is source removal and/or treatment  
NAICS Code(s): 42272 561499  
All Other Business Support Services

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**1000401575**

Area Name: ENTIRE FACILITY  
Actual Date: 19890621  
Action: CA250 - CMS Imposition  
NAICS Code(s): 42272 561499  
All Other Business Support Services  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19940815  
Action: CA225NR - Stabilization Measures Evaluation, This facility is, not amenable to stabilization activity at the, present time for reasons other than (1) it appears to be technically, infeasible or inappropriate (NF) or (2) there is a lack of technical, information (IN). Reasons for this conclusion may be the status of, closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other, administrative considerations  
NAICS Code(s): 42272 561499  
All Other Business Support Services  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19940819  
Action: CA650 - Stabilization Construction Completed  
NAICS Code(s): 42272 561499  
All Other Business Support Services  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19970924  
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified  
NAICS Code(s): 42272 561499  
All Other Business Support Services  
Original schedule date: 19970924  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19970924  
Action: CA210 - CA Responsibility Referred To A Non-RCRA Federal Authority  
NAICS Code(s): 42272 561499  
All Other Business Support Services  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD056197601

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**1000401575**

EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19970924  
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified  
NAICS Code(s): 42272 561499  
All Other Business Support Services  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19970924  
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified  
NAICS Code(s): 42272 561499  
All Other Business Support Services  
Original schedule date: 19970924  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19970924  
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified  
NAICS Code(s): 42272 561499  
All Other Business Support Services  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD056197601  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: Not reported  
Action: CA03191  
NAICS Code(s): 42272 561499  
All Other Business Support Services  
Original schedule date: 19911001  
Schedule end date: Not reported

**HAZNET:**

Year: 1999  
Gepaid: CAD056197601  
Contact: ROMIC ENV TECH CORP  
Telephone: 0000000000  
Mailing Name: Not reported  
Mailing Address: 37445 WILLOW ST  
Mailing City,St,Zip: NEWARK, CA 945600000  
Gen County: Not reported  
TSD EPA ID: CAD009452657  
TSD County: Not reported  
Waste Category: Aqueous solution with total organic residues less than 10 percent  
Disposal Method: Recycler  
Tons: .3500  
Facility County: 1

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**1000401575**

Year: 1998  
Gepaid: CAD056197601  
Contact: ROMIC ENV TECH CORP  
Telephone: 0000000000  
Mailing Name: Not reported  
Mailing Address: 37445 WILLOW ST  
Mailing City,St,Zip: NEWARK, CA 945600000  
Gen County: Not reported  
TSD EPA ID: CAD009452657  
TSD County: Not reported  
Waste Category: Aqueous solution with total organic residues 10 percent or more  
Disposal Method: Recycler  
Tons: 2.0641  
Facility County: 1

Year: 1998  
Gepaid: CAD056197601  
Contact: ROMIC ENV TECH CORP  
Telephone: 0000000000  
Mailing Name: Not reported  
Mailing Address: 37445 WILLOW ST  
Mailing City,St,Zip: NEWARK, CA 945600000  
Gen County: Not reported  
TSD EPA ID: CAD009452657  
TSD County: Not reported  
Waste Category: Unspecified organic liquid mixture  
Disposal Method: Recycler  
Tons: .3544  
Facility County: 1

Year: 1998  
Gepaid: CAD056197601  
Contact: ROMIC ENV TECH CORP  
Telephone: 0000000000  
Mailing Name: Not reported  
Mailing Address: 37445 WILLOW ST  
Mailing City,St,Zip: NEWARK, CA 945600000  
Gen County: Not reported  
TSD EPA ID: CAD009452657  
TSD County: Not reported  
Waste Category: Laboratory waste chemicals  
Disposal Method: Treatment, Incineration  
Tons: .2075  
Facility County: 1

Year: 1998  
Gepaid: CAD056197601  
Contact: ROMIC ENV TECH CORP  
Telephone: 0000000000  
Mailing Name: Not reported  
Mailing Address: 37445 WILLOW ST  
Mailing City,St,Zip: NEWARK, CA 945600000  
Gen County: Not reported  
TSD EPA ID: CAD009452657  
TSD County: Not reported  
Waste Category: Aqueous solution with total organic residues less than 10 percent  
Disposal Method: Recycler

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ROMIC ENVIRONMENTAL TECHNOLOGIES CORP (Continued)**

**1000401575**

Tons: 3.4985  
Facility County: 1

[Click this hyperlink](#) while viewing on your computer to access 12 additional CA\_HAZNET: record(s) in the EDR Site Report.

2020 COR ACTION:

EPA ID: CAD056197601  
Region: 9  
Action: Not reported

**F18**  
**ESE**  
**1/8-1/4**  
**0.238 mi.**  
**1258 ft.**

**8484 CENTRAL AVE**  
**NEWARK, CA 94560**  
**Site 3 of 4 in cluster F**

**EDR US Hist Auto Stat 1015654901**  
**N/A**

**Relative:**  
**Lower**  
**Actual:**  
**12 ft.**

EDR Historical Auto Stations:

Name: GOULD MFG ENGINEERING INC  
Year: 2005  
Address: 8484 CENTRAL AVE

Name: STAR TOOL & ENGINEERING CO  
Year: 2006  
Address: 8484 CENTRAL AVE

**F19**  
**ESE**  
**1/8-1/4**  
**0.240 mi.**  
**1266 ft.**

**MOBILITY INDUSTRIES INC**  
**3755 WILLOW ST**  
**NEWARK, CA 94560**  
**Site 4 of 4 in cluster F**

**RCRA-SQG 1000254321**  
**FINDS CAD073930869**

**Relative:**  
**Lower**  
**Actual:**  
**11 ft.**

RCRA-SQG:

Date form received by agency: 09/01/1996  
Facility name: MOBILITY INDUSTRIES INC  
Facility address: 3755 WILLOW ST  
NEWARK, CA 94560

EPA ID: CAD073930869  
Mailing address: 37555 WILLOW ST  
NEWARK, CA 94560

Contact: Not reported  
Contact address: Not reported  
Not reported

Contact country: Not reported  
Contact telephone: Not reported  
Contact email: Not reported

EPA Region: 09  
Classification: Small Small Quantity Generator  
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MOBILITY INDUSTRIES INC (Continued)**

**1000254321**

Owner/operator name: TASHA CORP  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999  
Owner/operator country: Not reported  
Owner/operator telephone: (415) 555-1212  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Owner/operator name: NOT REQUIRED  
Owner/operator address: NOT REQUIRED  
NOT REQUIRED, ME 99999  
Owner/operator country: Not reported  
Owner/operator telephone: (415) 555-1212  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 10/21/1985  
Facility name: MOBILITY INDUSTRIES INC  
Classification: Large Quantity Generator

Violation Status: No violations found

FINDS:

Registry ID: 110002657447

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

D20  
NE  
1/8-1/4  
0.245 mi.  
1292 ft.

8400 ENTERPRISE DRIVE  
NEWARK, CA 94560

Site 2 of 6 in cluster D

CA Toxic Pits S100676230  
CA CHMIRS N/A

Relative:  
Higher

Toxic Pits:

Region: 02  
Task #: 82019  
Owner: JONES-HAMILTON COMPANY  
1/2 Mi Limit: N  
Num. of Pits: 2  
Cease Discharge Due: 06/30/88  
Cease Discharge Complete: 01/16/87  
Closure Due: 06/30/89  
**Closure Completed: 06/01/89**  
Status: CLOSED

Actual:  
13 ft.

Hydro Geological Assessment Report Due: / /  
Final Hydro Geological Assessment Review Completed: 12/12/89

CHMIRS:

OES Incident Number: 015905  
OES notification: Not reported  
OES Date: 10/8/1996  
OES Time: 04:52:03 PM  
Incident Date: Not reported  
**Date Completed: Not reported**  
Property Use: Not reported  
Agency Id Number: Not reported  
Agency Incident Number: Not reported  
Time Notified: Not reported  
Time Completed: Not reported  
Surrounding Area: Not reported  
Estimated Temperature: Not reported  
Property Management: Not reported  
Special Studies 1: Not reported  
Special Studies 2: Not reported  
Special Studies 3: Not reported  
Special Studies 4: Not reported  
Special Studies 5: Not reported  
Special Studies 6: Not reported  
More Than Two Substances Involved?: Not reported  
Resp Agency Personel # Of Decontaminated: Not reported  
Responding Agency Personel # Of Injuries: Not reported  
Responding Agency Personel # Of Fatalities: Not reported  
Others Number Of Decontaminated: Not reported  
Others Number Of Injuries: Not reported  
Others Number Of Fatalities: Not reported  
Vehicle Make/year: Not reported  
Vehicle License Number: Not reported  
Vehicle State: Not reported  
Vehicle Id Number: Not reported  
CA/DOT/PUC/ICC Number: Not reported  
Company Name: Not reported  
Reporting Officer Name/ID: Not reported  
Report Date: Not reported  
Comments: Not reported  
Facility Telephone: Not reported  
Waterway Involved: YES

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**(Continued)**

**S100676230**

Waterway: Not reported  
 Spill Site: Not reported  
 Cleanup By: dissipates  
 Containment: Not reported  
 What Happened: Not reported  
 Type: VAPOR  
 Measure: Not reported  
 Other: Not reported  
 Date/Time: Not reported  
 Year: 1996  
 Agency: jones hamilton company  
 Incident Date: 1600/8 Oct. 96  
 Admin Agency: Not reported  
 Amount: 5 lbs.  
 Contained: NO  
 Site Type: OTHER  
 E Date: Not reported  
 Substance: water and sulfuric acid  
 Quantity Released: Not reported  
 BBLs: Not reported  
 Cups: Not reported  
 CUFT: Not reported  
 Gallons: Not reported  
 Grams: Not reported  
 Pounds: Not reported  
 Liters: Not reported  
 Ounces: Not reported  
 Pints: Not reported  
 Quarts: Not reported  
 Sheen: Not reported  
 Tons: Not reported  
 Unknown: Not reported  
 Evacuations: NO  
 Number of Injuries: NO  
 Number of Fatalities: NO  
 Description: during transfer of acid into storage tank, hot acid caused a vapor release when mixed with water. newark fire dept. responded.

**D21**      **JONES-HAMILTON**  
**NE**      **8400 ENTERPRISE**  
**1/8-1/4**      **NEWARK, CA 94560**  
**0.245 mi.**  
**1292 ft.**      **Site 3 of 6 in cluster D**

**CA Cortese**      **S100223564**  
**CA HIST CORTESE**      **N/A**  
**CA SLIC**  
**CA CHMIRS**  
**CA ENF**  
**CA ENVIROSTOR**

**Relative:**  
**Higher**

**CORTESE:**  
 Region: CORTESE  
 Envirostor Id: Not reported  
 Site/Facility Type: Not reported  
 Cleanup Status: Not reported  
 Status Date: Not reported  
 Site Code: Not reported  
 Latitude: Not reported  
 Longitude: Not reported  
 Owner: Not reported  
 Enf Type: Not reported  
 Swat R: Not reported  
 Flag: CORTESE

**Actual:**  
**13 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**JONES-HAMILTON (Continued)**

**S100223564**

Order No: Not reported  
Waste Discharge System No: Not reported  
Effective Date: Not reported  
Region 2: 2  
WID Id: 2 019109N02  
Solid Waste Id No: Not reported  
Waste Management Uit Name: Not reported

Region: CORTESE  
Envirostor Id: Not reported  
Site/Facility Type: Not reported  
Cleanup Status: Not reported  
Status Date: Not reported  
Site Code: Not reported  
Latitude: Not reported  
Longitude: Not reported  
Owner: Not reported  
Enf Type: Not reported  
Swat R: Not reported  
Flag: CORTESE  
Order No: Not reported  
Waste Discharge System No: Not reported  
Effective Date: Not reported  
Region 2: 2  
WID Id: 2 019109N02  
Solid Waste Id No: Not reported  
Waste Management Uit Name: Not reported

**CORTESE:**

Region: CORTESE  
Facility County Code: 1  
Reg By: WBC&D  
Reg Id: 2 019109N02

**SLIC:**

Region: STATE  
**Facility Status: Open - Site Assessment**  
Status Date: 03/26/2012  
Global Id: SL20226844  
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)  
Lead Agency Case Number: 0066  
Latitude: 37.5205846412336  
Longitude: -122.048320770264  
Case Type: Cleanup Program Site  
Case Worker: CCM  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01S0157  
File Location: Regional Board  
Potential Media Affected: Other Groundwater (uses other than drinking water)  
Potential Contaminants of Concern: \* 1,4 Dioxane, \* Dioxins, \* Metals/Heavy Metals, \* Petroleum -  
Automotive gasolines, \* Semi-Volatile Organic Compounds, \* Volatile  
Organic Compounds (VOC)  
Site History: Files available at DTSC, Regional Water Board, and Geotracker.

Click here to access the California GeoTracker records for this facility:

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**JONES-HAMILTON (Continued)**

**S100223564**

CHMIRS:

OES Incident Number: 9991910  
OES notification: Not reported  
OES Date: Not reported  
OES Time: Not reported  
Incident Date: 15-APR-88  
**Date Completed: 15-APR-88**  
Property Use: 600  
Agency Id Number: 1070  
Agency Incident Number: 3-94/8  
Time Notified: 946  
Time Completed: 1146  
Surrounding Area: 099  
Estimated Temperature: 65  
Property Management: Not reported  
Special Studies 1: Not reported  
Special Studies 2: Not reported  
Special Studies 3: Not reported  
Special Studies 4: Not reported  
Special Studies 5: Not reported  
Special Studies 6: Not reported  
More Than Two Substances Involved?: N  
Resp Agncy Personel # Of Decontaminated: Not reported  
Responding Agency Personel # Of Injuries: Not reported  
Responding Agency Personel # Of Fatalities: Not reported  
Others Number Of Decontaminated: Not reported  
Others Number Of Injuries: Not reported  
Others Number Of Fatalities: Not reported  
Vehicle Make/year: Not reported  
Vehicle License Number: Not reported  
Vehicle State: Not reported  
Vehicle Id Number: Not reported  
CA/DOT/PUC/ICC Number: Not reported  
Company Name: Not reported  
Reporting Officer Name/ID: CAPT R MARSHALL  
Report Date: 15-APR-88  
Comments: N  
Facility Telephone: 415 790-7247  
Waterway Involved: Not reported  
Waterway: Not reported  
Spill Site: Not reported  
Cleanup By: Not reported  
Containment: Not reported  
What Happened: Not reported  
Type: Not reported  
Measure: Not reported  
Other: Not reported  
Date/Time: Not reported  
Year: 88-92  
Agency: Not reported  
Incident Date: Not reported  
Admin Agency: Not reported  
Amount: Not reported  
Contained: Not reported  
Site Type: Not reported  
E Date: 09-JUN-89  
Substance: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**JONES-HAMILTON (Continued)**

**S100223564**

Quantity Released: Not reported  
BBLS: Not reported  
Cups: Not reported  
CUFT: Not reported  
Gallons: Not reported  
Grams: Not reported  
Pounds: Not reported  
Liters: Not reported  
Ounces: Not reported  
Pints: Not reported  
Quarts: Not reported  
Sheen: Not reported  
Tons: Not reported  
Unknown: Not reported  
Evacuations: Not reported  
Number of Injuries: Not reported  
Number of Fatalities: Not reported  
Description: Not reported

ENF:

Region: 2  
Facility Id: 234035  
Agency Name: JONES-HAMILTON COMPANY  
Place Type: Facility  
Place Subtype: Not reported  
Facility Type: Industrial  
Agency Type: Privately-Owned Business  
# Of Agencies: 1  
Place Latitude: 37.5226230  
Place Longitude: -122.04821  
SIC Code 1: Not reported  
SIC Desc 1: Not reported  
SIC Code 2: Not reported  
SIC Desc 2: Not reported  
SIC Code 3: Not reported  
SIC Desc 3: Not reported  
NAICS Code 1: Not reported  
NAICS Desc 1: Not reported  
NAICS Code 2: Not reported  
NAICS Desc 2: Not reported  
NAICS Code 3: Not reported  
NAICS Desc 3: Not reported  
# Of Places: 1  
Source Of Facility: Reg Meas  
Design Flow: Not reported  
Threat To Water Quality: Not reported  
Complexity: Not reported  
Pretreatment: Not reported  
Facility Waste Type: Not reported  
Facility Waste Type 2: Not reported  
Facility Waste Type 3: Not reported  
Facility Waste Type 4: Not reported  
Program: UNREGS  
# Of Programs: 1  
WDID: 2 019109N02  
Reg Measure Id: 162029  
Reg Measure Type: Unregulated

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

JONES-HAMILTON (Continued)

S100223564

|                                   |                              |
|-----------------------------------|------------------------------|
| Region:                           | 2                            |
| Order #:                          | Not reported                 |
| Npdes# CA#:                       | Not reported                 |
| Major-Minor:                      | Not reported                 |
| Npdes Type:                       | Not reported                 |
| Reclamation:                      | Not reported                 |
| Dredge Fill Fee:                  | Not reported                 |
| 301H:                             | Not reported                 |
| Application Fee Amt Received:     | Not reported                 |
| Status:                           | Never Active                 |
| Status Date:                      | 02/21/2013                   |
| Effective Date:                   | Not reported                 |
| Expiration/Review Date:           | Not reported                 |
| Termination Date:                 | Not reported                 |
| WDR Review - Amend:               | Not reported                 |
| WDR Review - Revise/Renew:        | Not reported                 |
| WDR Review - Rescind:             | Not reported                 |
| WDR Review - No Action Required:  | Not reported                 |
| WDR Review - Pending:             | Not reported                 |
| WDR Review - Planned:             | Not reported                 |
| Status Enrollee:                  | N                            |
| Individual/General:               | I                            |
| Fee Code:                         | Not reported                 |
| Direction/Voice:                  | Passive                      |
| Enforcement Id(EID):              | 220071                       |
| Region:                           | 2                            |
| Order / Resolution Number:        | 89-110                       |
| Enforcement Action Type:          | Clean-up and Abatement Order |
| Effective Date:                   | 06/21/1989                   |
| Adoption/Issuance Date:           | Not reported                 |
| Achieve Date:                     | Not reported                 |
| Termination Date:                 | Not reported                 |
| ACL Issuance Date:                | Not reported                 |
| EPL Issuance Date:                | Not reported                 |
| Status:                           | Active                       |
| Title:                            | Enforcement - 2 019109N02    |
| Description:                      | ENF ORDER                    |
| Program:                          | UNREGS                       |
| Latest Milestone Completion Date: | Not reported                 |
| # Of Programs1:                   | 1                            |
| Total Assessment Amount:          | 0                            |
| Initial Assessed Amount:          | 0                            |
| Liability \$ Amount:              | 0                            |
| Project \$ Amount:                | 0                            |
| Liability \$ Paid:                | 0                            |
| Project \$ Completed:             | 0                            |
| Total \$ Paid/Completed Amount:   | 0                            |
| Region:                           | 2                            |
| Facility Id:                      | 234035                       |
| Agency Name:                      | JONES-HAMILTON COMPANY       |
| Place Type:                       | Facility                     |
| Place Subtype:                    | Not reported                 |
| Facility Type:                    | Industrial                   |
| Agency Type:                      | Privately-Owned Business     |
| # Of Agencies:                    | 1                            |
| Place Latitude:                   | 37.5226230                   |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**JONES-HAMILTON (Continued)**

**S100223564**

|                                  |                              |
|----------------------------------|------------------------------|
| Place Longitude:                 | -122.04821                   |
| SIC Code 1:                      | Not reported                 |
| SIC Desc 1:                      | Not reported                 |
| SIC Code 2:                      | Not reported                 |
| SIC Desc 2:                      | Not reported                 |
| SIC Code 3:                      | Not reported                 |
| SIC Desc 3:                      | Not reported                 |
| NAICS Code 1:                    | Not reported                 |
| NAICS Desc 1:                    | Not reported                 |
| NAICS Code 2:                    | Not reported                 |
| NAICS Desc 2:                    | Not reported                 |
| NAICS Code 3:                    | Not reported                 |
| NAICS Desc 3:                    | Not reported                 |
| # Of Places:                     | 1                            |
| Source Of Facility:              | Reg Meas                     |
| Design Flow:                     | Not reported                 |
| Threat To Water Quality:         | Not reported                 |
| Complexity:                      | Not reported                 |
| Pretreatment:                    | Not reported                 |
| Facility Waste Type:             | Not reported                 |
| Facility Waste Type 2:           | Not reported                 |
| Facility Waste Type 3:           | Not reported                 |
| Facility Waste Type 4:           | Not reported                 |
| Program:                         | UNREGS                       |
| # Of Programs:                   | 1                            |
| WDID:                            | 2 019109N02                  |
| Reg Measure Id:                  | 162029                       |
| Reg Measure Type:                | Unregulated                  |
| Region:                          | 2                            |
| Order #:                         | Not reported                 |
| Npdes# CA#:                      | Not reported                 |
| Major-Minor:                     | Not reported                 |
| Npdes Type:                      | Not reported                 |
| Reclamation:                     | Not reported                 |
| Dredge Fill Fee:                 | Not reported                 |
| 301H:                            | Not reported                 |
| Application Fee Amt Received:    | Not reported                 |
| Status:                          | Never Active                 |
| Status Date:                     | 02/21/2013                   |
| Effective Date:                  | Not reported                 |
| Expiration/Review Date:          | Not reported                 |
| Termination Date:                | Not reported                 |
| WDR Review - Amend:              | Not reported                 |
| WDR Review - Revise/Renew:       | Not reported                 |
| WDR Review - Rescind:            | Not reported                 |
| WDR Review - No Action Required: | Not reported                 |
| WDR Review - Pending:            | Not reported                 |
| WDR Review - Planned:            | Not reported                 |
| Status Enrollee:                 | N                            |
| Individual/General:              | I                            |
| Fee Code:                        | Not reported                 |
| Direction/Voice:                 | Passive                      |
| Enforcement Id(EID):             | 221828                       |
| Region:                          | 2                            |
| Order / Resolution Number:       | R2-1998-0067                 |
| Enforcement Action Type:         | Clean-up and Abatement Order |
| Effective Date:                  | 07/15/1998                   |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**JONES-HAMILTON (Continued)**

**S100223564**

Adoption/Issuance Date: Not reported  
Achieve Date: Not reported  
Termination Date: Not reported  
ACL Issuance Date: Not reported  
EPL Issuance Date: Not reported  
Status: Active  
Title: Enforcement - 2 019109N02  
Description: CAO-  
Program: UNREGS  
Latest Milestone Completion Date: Not reported  
# Of Programs1: 1  
Total Assessment Amount: 0  
Initial Assessed Amount: 0  
Liability \$ Amount: 0  
Project \$ Amount: 0  
Liability \$ Paid: 0  
Project \$ Completed: 0  
Total \$ Paid/Completed Amount: 0

**ENVIROSTOR:**

Site Type: Historical  
Site Type Detailed: \* Historical  
Acres: Not reported  
NPL: NO  
Regulatory Agencies: RWQCB 2 - San Francisco Bay  
Lead Agency: RWQCB 2 - San Francisco Bay  
Program Manager: Not reported  
Supervisor: Referred - Not Assigned  
Division Branch: Cleanup Berkeley  
Facility ID: 01280066  
Site Code: Not reported  
Assembly: 25  
Senate: 10  
Special Program: \* Site Char & Assess Grant (CERCLA 104)  
Status: Refer: RWQCB  
Status Date: 03/01/1986  
Restricted Use: NO  
Site Mgmt. Req.: NONE SPECIFIED  
Funding: Not reported  
Latitude: 37.52141  
Longitude: -122.0486  
APN: 92-116-58  
Past Use: NONE SPECIFIED  
Potential COC: \* OXYGENATED SOLVENTS, \* ACID SOLUTION WITHOUT METALS, \* UNSPECIFIED AQUEOUS SOLUTION, Lead, Cadmium and compounds, Chromium VI  
Confirmed COC: \* OXYGENATED SOLVENTS, \* ACID SOLUTION WITHOUT METALS, \* UNSPECIFIED AQUEOUS SOLUTION, Lead, Cadmium and compounds, Chromium VI, NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: IRVIN JONES & J KERN HAMILTON ('49-'56)  
Alias Type: Alternate Name  
Alias Name: J-H COMPANY  
Alias Type: Alternate Name  
Alias Name: 92-116-58  
Alias Type: APN  
Alias Name: SL20226844  
Alias Type: GeoTracker Global ID

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**JONES-HAMILTON (Continued)**

**S100223564**

Alias Name: CAD009166349  
Alias Type: HWTS Identification Code  
Alias Name: 01280066  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: Not reported  
Completed Sub Area Name: Not reported  
Completed Document Type: Not reported  
Completed Date: Not reported  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

Site Type: Tiered Permit  
Site Type Detailed: Tiered Permit  
Acres: 0  
NPL: NO  
Regulatory Agencies: NONE SPECIFIED  
Lead Agency: NONE SPECIFIED  
Program Manager: Not reported  
Supervisor: Referred - Not Assigned  
Division Branch: Cleanup Berkeley  
Facility ID: 71002269  
Site Code: Not reported  
Assembly: 25  
Senate: 10  
Special Program: Not reported  
Status: Refer: RWQCB  
Status Date: 03/03/1997  
Restricted Use: NO  
Site Mgmt. Req.: NONE SPECIFIED  
Funding: Not reported  
Latitude: 37.52141  
Longitude: -122.0486  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED  
Potential COC: \* OXYGENATED SOLVENTS, \* ACID SOLUTION WITHOUT METALS, \* UNSPECIFIED AQUEOUS SOLUTION, Lead, Cadmium and compounds, Chromium VI, NONE SPECIFIED, NONE SPECIFIED  
Confirmed COC: \* OXYGENATED SOLVENTS, \* ACID SOLUTION WITHOUT METALS, \* UNSPECIFIED AQUEOUS SOLUTION, Lead, Cadmium and compounds, Chromium VI, NONE SPECIFIED, NONE SPECIFIED, NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: CAD009166349  
Alias Type: EPA Identification Number  
Alias Name: 110001135904  
Alias Type: EPA (FRS #)  
Alias Name: 71002269  
Alias Type: Envirostor ID Number

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**JONES-HAMILTON (Continued)**

**S100223564**

Completed Info:

Completed Area Name: PROJECT WIDE  
 Completed Sub Area Name: Not reported  
 Completed Document Type: Phase 1  
 Completed Date: 03/03/1997  
 Comments: Phase 1 checklist indicates no further action. Follow up indicates a release from a non-regulated unit which was cleaned up with oversight from the Fire Dept. The RWQCB is overseeing operation of a pump & Treat system at the site.

Future Area Name: Not reported  
 Future Sub Area Name: Not reported  
 Future Document Type: Not reported  
 Future Due Date: Not reported  
 Schedule Area Name: Not reported  
 Schedule Sub Area Name: Not reported  
 Schedule Document Type: Not reported  
 Schedule Due Date: Not reported  
 Schedule Revised Date: Not reported

**D22**  
**NE**  
**1/8-1/4**  
**0.245 mi.**  
**1292 ft.**

**JONES-HAMILTON**  
**8400 ENTERPRISE DRIVE**  
**NEWARK, CA 94560**

**CA SLIC 1007282862**  
**N/A**

**Site 4 of 6 in cluster D**

**Relative:**  
**Higher**

SLIC REG 2:

Region: 2  
 Facility ID: 01S0157  
 Facility Status: Post remedial action monitoring  
 Date Closed: Not reported  
 Local Case #: Not reported  
 How Discovered: RPR  
 Leak Cause: Not reported  
 Leak Source: Not reported  
 Date Confirmed: Not reported  
 Date Prelim Site Assmnt Workplan Submitted: Not reported  
 Date Preliminary Site Assessment Began: Not reported  
 Date Pollution Characterization Began: Not reported  
 Date Remediation Plan Submitted: Not reported  
 Date Remedial Action Underway: Not reported  
 Date Post Remedial Action Monitoring Began: Not reported

**Actual:**  
**13 ft.**

**D23**  
**NE**  
**1/8-1/4**  
**0.245 mi.**  
**1292 ft.**

**8400 ENTERPRISE DR.**  
**NEWARK, CA**

**CA WMUDS/SWAT S103441001**  
**CA CHMIRS N/A**

**Site 5 of 6 in cluster D**

**Relative:**  
**Higher**

WMUDS/SWAT:

Edit Date: 19950214  
 Complexity: Category B - Any facility having a physical, chemical, or biological waste treatment system (except for septic systems with subsurface disposal), or any Class II or III disposal site, or facilities without treatment systems that are complex, such as marinas with petroleum products, solid wastes, and sewage pump out facilities.

**Actual:**  
**13 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

(Continued)

S103441001

Primary Waste: Washwater Waste (Product washwater wastes: E.G., photo reuse wastewater, vegetable washwater)

Primary Waste Type: Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.

Secondary Waste: Stormwater Runoff

Secondary Waste Type: Designated/Influent or Solid Wastes that pose a significant threat to water quality because of their high concentrations (E.G., BOD, Hardness, TRF, Chloride). 'Manageable' hazardous wastes (E.G., inorganic salts and heavy metals) are included in this category.

Base Meridian: Not reported

NPID: CA0028975

Tonnage: 0

Regional Board ID: 2199.9109

Municipal Solid Waste: False

Superorder: False

Open To Public: False

Waste List: False

Agency Type: Private

Agency Name: JONES-HAMILTON CO.

Agency Department: Not reported

Agency Address: BOX 464, 8400 ENTERPRISE DR

Agency City,St,Zip: NEWARK ,CA 945600464

Agency Contact: DAN GILBERT

Agency Telephone: 4157972471

Land Owner Name: JONES-HAMILTON

Land Owner Address: 8400 ENTERPRISE DRIVE

Land Owner City,St,Zip: NEWARK, CA 94560

Land Owner Contact: Not reported

Land Owner Phone: 4157972471

Region: 2

Facility Type: Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.

Facility Description: Not reported

Facility Telephone: 4157972471

SWAT Facility Name: Not reported

Primary SIC: 2819

Secondary SIC: Not reported

Comments: Not reported

Last Facility Editors: JHMJHM

Waste Discharge System: True

Solid Waste Assessment Test Program: True

Toxic Pits Cleanup Act Program: False

Resource Conservation Recovery Act: False

Department of Defence: False

Solid Waste Assessment Test Program: JONES-HAMILTON

Threat to Water Quality: Major Threat to Water Quality. A violation could render unusable a ground water or surface water resource used as a significant drink water supply, require closure of an area used for contact recreation, result in long-term deleterious effects on shell fish spawning or growth areas of aquatic resources, or directly expose the public to toxic substances.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

(Continued)

S103441001

Sub Chapter 15: True  
Regional Board Project Officer: GRF  
Number of WMUDS at Facility: 1  
Section Range: Not reported  
RCRA Facility: No  
Waste Discharge Requirements: A  
Self-Monitoring Rept. Frequency: Monthly Submittal  
Waste Discharge System ID: 2 019109001  
Solid Waste Information ID: Not reported

CHMIRS:

OES Incident Number: 28263  
OES notification: Not reported  
OES Date: 6/13/1993  
OES Time: 11:45:00 AM  
Incident Date: Not reported  
**Date Completed: Not reported**  
Property Use: Not reported  
Agency Id Number: Not reported  
Agency Incident Number: Not reported  
Time Notified: Not reported  
Time Completed: Not reported  
Surrounding Area: Not reported  
Estimated Temperature: Not reported  
Property Management: Not reported  
Special Studies 1: Not reported  
Special Studies 2: Not reported  
Special Studies 3: Not reported  
Special Studies 4: Not reported  
Special Studies 5: Not reported  
Special Studies 6: Not reported  
More Than Two Substances Involved?: Not reported  
Resp Agncy Personel # Of Decontaminated: Not reported  
Responding Agency Personel # Of Injuries: Not reported  
Responding Agency Personel # Of Fatalities: Not reported  
Others Number Of Decontaminated: Not reported  
Others Number Of Injuries: Not reported  
Others Number Of Fatalities: Not reported  
Vehicle Make/year: Not reported  
Vehicle License Number: Not reported  
Vehicle State: Not reported  
Vehicle Id Number: Not reported  
CA/DOT/PUC/ICC Number: Not reported  
Company Name: Not reported  
Reporting Officer Name/ID: Not reported  
Report Date: Not reported  
Comments: Not reported  
Facility Telephone: Not reported  
Waterway Involved: YES  
Waterway: Not reported  
Spill Site: Not reported  
Cleanup By: JONES HAMILTON  
Containment: Not reported  
What Happened: Not reported  
Type: CHEMICAL  
Measure: Not reported  
Other: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**(Continued)**

**S103441001**

Date/Time: Not reported  
 Year: 1993  
 Agency: NEWARK F.D.  
 Incident Date: 6/13/93/09:30  
 Admin Agency: Not reported  
 Amount: 50 GALLONS  
 Contained: Not reported  
 Site Type: Not reported  
 E Date: Not reported  
 Substance: SULPHARIC ACID  
 Quantity Released: Not reported  
 BBLS: Not reported  
 Cups: Not reported  
 CUFT: Not reported  
 Gallons: Not reported  
 Grams: Not reported  
 Pounds: Not reported  
 Liters: Not reported  
 Ounces: Not reported  
 Pints: Not reported  
 Quarts: Not reported  
 Sheen: Not reported  
 Tons: Not reported  
 Unknown: Not reported  
 Evacuations: UNKNOWN  
 Number of Injuries: UNKNOWN  
 Number of Fatalities: UNKNOWN  
 Description: OVERFILLE 6,000 GAL TANK 50 GALS OVERFLOWED

**D24  
 NE  
 1/8-1/4  
 0.245 mi.  
 1292 ft.**

**JONES HAMILTON CO  
 8400 ENTERPRISE DR  
 NEWARK, CA 94560  
 Site 6 of 6 in cluster D**

**CERC-NFRAP 1000221820  
 RCRA-SQG CAD009166349  
 CA HIST UST  
 CA EMI**

**Relative:  
 Higher**

CERC-NFRAP:  
 Site ID: 0901187  
 Federal Facility: Not a Federal Facility

**Actual:  
 13 ft.**

NPL Status: Not on the NPL  
 Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID: 13050999.00000  
 Person ID: 9271184.00000

Contact Sequence ID: 13288987.00000  
 Person ID: 13003854.00000

Contact Sequence ID: 13294582.00000  
 Person ID: 13003858.00000

Contact Sequence ID: 13300440.00000  
 Person ID: 13004003.00000

CERCLIS-NFRAP Site Alias Name(s):

Alias Name: JONES - HAMILTON CO (FINDS/RCRA)  
 Alias Address: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**JONES HAMILTON CO (Continued)**

**1000221820**

CA

CERCLIS-NFRAP Assessment History:

Action: PRELIMINARY ASSESSMENT  
Date Started: / /  
Date Completed: 04/01/88  
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

Action: ARCHIVE SITE  
Date Started: / /  
Date Completed: 04/01/88  
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT  
Date Started: 11/01/86  
Date Completed: 09/01/87  
Priority Level: Higher priority for further assessment

Action: DISCOVERY  
Date Started: / /  
Date Completed: 11/01/86  
Priority Level: Not reported

RCRA-SQG:

Date form received by agency: 02/13/2004  
Facility name: JONES HAMILTON CO  
Facility address: 8400 ENTERPRISE DRIVE  
NEWARK, CA 94560  
EPA ID: CAD009166349  
Contact: RAY A HAHN  
Contact address: 8400 ENTERPRISE DRIVE  
NEWARK, CA 94560  
Contact country: US  
Contact telephone: 510-797-2471  
Contact email: Not reported  
EPA Region: 09  
Land type: Private  
Classification: Small Small Quantity Generator  
Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

Owner/Operator Summary:

Owner/operator name: JONES HAMILTON  
Owner/operator address: Not reported  
Not reported  
Owner/operator country: US  
Owner/operator telephone: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 01/01/1951  
Owner/Op end date: Not reported  
Owner/operator name: JONES-HAMILTON CO.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**JONES HAMILTON CO (Continued)**

**1000221820**

Owner/operator address: Not reported  
Not reported  
Owner/operator country: US  
Owner/operator telephone: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: 05/01/1951  
Owner/Op end date: Not reported

Owner/operator name: JONES-HAMILTON CO.  
Owner/operator address: 8400 ENTERPRISE DRIVE  
NEWARK, CA 94560

Owner/operator country: US  
Owner/operator telephone: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 05/01/1951  
Owner/Op end date: Not reported

Owner/operator name: JONES HAMILTON CO  
Owner/operator address: Not reported  
Not reported

Owner/operator country: US  
Owner/operator telephone: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: 01/01/1951  
Owner/Op end date: Not reported

**Handler Activities Summary:**

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

**Historical Generators:**

Date form received by agency: 02/13/2004  
Facility name: JONES HAMILTON CO  
Classification: Large Quantity Generator

Date form received by agency: 02/10/2004  
Facility name: JONES HAMILTON CO  
Site name: JONES-HAMILTON CO.  
Classification: Large Quantity Generator

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**JONES HAMILTON CO (Continued)**

**1000221820**

Date form received by agency: 02/06/2002  
Facility name: JONES HAMILTON CO  
Site name: JONES-HAMILTON CO.  
Classification: Large Quantity Generator

Date form received by agency: 09/01/1996  
Facility name: JONES HAMILTON CO  
Site name: JONES-HAMILTON CO NEWARK CA PLT  
Classification: Large Quantity Generator

Date form received by agency: 08/18/1980  
Facility name: JONES HAMILTON CO  
Site name: JONES-HAMILTON CO NEWARK CA PLT  
Classification: Large Quantity Generator

**Hazardous Waste Summary:**

Waste code: D028  
Waste name: 1,2-DICHLOROETHANE

Waste code: D028  
Waste name: 1,2-DICHLOROETHANE

Violation Status: No violations found

**Evaluation Action Summary:**

Evaluation date: 06/19/2007  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 11/01/2006  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 10/31/2006  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 10/23/2006  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 08/07/2006  
Evaluation: FOLLOW-UP INSPECTION  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: Local

Evaluation date: 02/15/1991

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**JONES HAMILTON CO (Continued)**

**1000221820**

Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State Contractor/Grantee

Evaluation date: 11/29/1984  
Evaluation: FOCUSED COMPLIANCE INSPECTION  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 03/24/1984  
Evaluation: FOCUSED COMPLIANCE INSPECTION  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

**HIST UST:**

Region: STATE  
Facility ID: 00000001051  
Facility Type: Other  
Other Type: MANUFACTURING  
Total Tanks: 0001  
Contact Name: THOMAS SEBRING  
Telephone: 4157972471  
Owner Name: JONES-HAMILTON CO.  
Owner Address: 8400 ENTERPRISE DRIVE  
Owner City,St,Zip: NEWARK, CA 94560

Tank Num: 001  
Container Num: G-1  
Year Installed: 1974  
Tank Capacity: 00001000  
Tank Used for: PRODUCT  
Type of Fuel: UNLEADED  
Tank Construction: 10 gauge  
Leak Detection: Visual, Stock Inventor

**EMI:**

Year: 1990  
County Code: 1  
Air Basin: SF  
Facility ID: 748  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1993

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**JONES HAMILTON CO (Continued)**

**1000221820**

County Code: 1  
Air Basin: SF  
Facility ID: 748  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1995  
County Code: 1  
Air Basin: SF  
Facility ID: 748  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1996  
County Code: 1  
Air Basin: SF  
Facility ID: 748  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 1  
Particulate Matter Tons/Yr: 8  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 4

Year: 1997  
County Code: 1  
Air Basin: SF  
Facility ID: 748  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**JONES HAMILTON CO (Continued)**

**1000221820**

Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 1  
Particulate Matter Tons/Yr: 8  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 4

Year: 1998  
County Code: 1  
Air Basin: SF  
Facility ID: 748  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 11  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 5

Year: 1999  
County Code: 1  
Air Basin: SF  
Facility ID: 748  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 11  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 5

Year: 2000  
County Code: 1  
Air Basin: SF  
Facility ID: 748  
Air District Name: BA  
SIC Code: 2819  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 0  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**JONES HAMILTON CO (Continued)**

**1000221820**

SOX - Oxides of Sulphur Tons/Yr: 0  
 Particulate Matter Tons/Yr: 11  
 Part. Matter 10 Micrometers & Smlr Tons/Yr: 5

Year: 2001  
 County Code: 1  
 Air Basin: SF  
 Facility ID: 748  
 Air District Name: BA  
 SIC Code: 2819  
 Air District Name: BAY AREA AQMD  
 Community Health Air Pollution Info System: Not reported  
 Consolidated Emission Reporting Rule: Not reported  
 Total Organic Hydrocarbon Gases Tons/Yr: 0  
 Reactive Organic Gases Tons/Yr: 0  
 Carbon Monoxide Emissions Tons/Yr: 0  
 NOX - Oxides of Nitrogen Tons/Yr: 1  
 SOX - Oxides of Sulphur Tons/Yr: 0  
 Particulate Matter Tons/Yr: 11  
 Part. Matter 10 Micrometers & Smlr Tons/Yr: 5

**25**  
**East**  
**1/4-1/2**  
**0.274 mi.**  
**1445 ft.**

**EDWARDS ENTERPRISES**  
**8455 CABOT COURT**  
**NEWARK, CA**

**RCRA-SQG** **1000155220**  
**FINDS** **CAD981448939**  
**CA NPDES**  
**CA SLIC**  
**CA EMI**

**Relative:**  
**Higher**

**RCRA-SQG:**  
 Date form received by agency: 02/09/2004  
 Facility name: SANMINA SCI  
 Facility address: 8455 CABOT COURT  
 NEWARK, CA 94560  
 EPA ID: CAD981448939  
 Contact: SHAWN M BUTLER  
 Contact address: 8455 CABOT COURT  
 NEWARK, CA 94560  
 Contact country: US  
 Contact telephone: 925-371-3671  
 Contact email: Not reported  
 EPA Region: 09  
 Classification: Small Small Quantity Generator  
 Description: Handler: generates more than 100 and less than 1000 kg of hazardous waste during any calendar month and accumulates less than 6000 kg of hazardous waste at any time; or generates 100 kg or less of hazardous waste during any calendar month, and accumulates more than 1000 kg of hazardous waste at any time

**Actual:**  
**13 ft.**

**Owner/Operator Summary:**  
 Owner/operator name: SANMINA SCI  
 Owner/operator address: Not reported  
 Not reported  
 Owner/operator country: US  
 Owner/operator telephone: Not reported  
 Legal status: Private  
 Owner/Operator Type: Operator  
 Owner/Op start date: 12/30/2003  
 Owner/Op end date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**EDWARDS ENTERPRISES (Continued)**

**1000155220**

Owner/operator name: COORSTEK  
Owner/operator address: 8455 CABOT COURT  
NEWARK, CA 94560  
Owner/operator country: Not reported  
Owner/operator telephone: (510) 793-9100  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Owner/operator name: COORSTEK  
Owner/operator address: 8455 CABOT COURT  
NEWARK, CA 94560  
Owner/operator country: Not reported  
Owner/operator telephone: (510) 793-9100  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 01/01/0001  
Owner/Op end date: Not reported

Owner/operator name: SANMINA SCI  
Owner/operator address: Not reported  
Not reported  
Owner/operator country: US  
Owner/operator telephone: Not reported  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 12/30/2003  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 02/09/2004  
Facility name: SANMINA SCI  
Classification: Large Quantity Generator

Date form received by agency: 01/18/2000  
Facility name: SANMINA SCI  
Site name: COORSTEK EDWARDS ENTERPRISES  
Classification: Small Quantity Generator

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**EDWARDS ENTERPRISES (Continued)**

**1000155220**

Date form received by agency: 09/01/1996  
Facility name: SANMINA SCI  
Site name: COORSTEK EDWARDS ENTERPRISES  
Classification: Small Quantity Generator

**Hazardous Waste Summary:**

Waste code: D039  
Waste name: TETRACHLOROETHYLENE

Violation Status: No violations found

**FINDS:**

Registry ID: 110001185048

**Environmental Interest/Information System**

NCDB (National Compliance Data Base) supports implementation of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) and the Toxic Substances Control Act (TSCA). The system tracks inspections in regions and states with cooperative agreements, enforcement actions, and settlements.

The NEI (National Emissions Inventory) database contains information on stationary and mobile sources that emit criteria air pollutants and their precursors, as well as hazardous air pollutants (HAPs).

California Hazardous Waste Tracking System - Datamart (HWTS-DATAMART) provides California with information on hazardous waste shipments for generators, transporters, and treatment, storage, and disposal facilities.

US EPA TRIS (Toxics Release Inventory System) contains information from facilities on the amounts of over 300 listed toxic chemicals that these facilities release directly to air, water, land, or that are transported off-site.

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

**CRITERIA AND HAZARDOUS AIR POLLUTANT INVENTORY**

**NPDES:**

Npdes Number: CAS000001  
Facility Status: Active  
Agency Id: 0  
Region: 2  
Regulatory Measure Id: 181264  
Order No: 97-03-DWQ  
Regulatory Measure Type: Enrollee  
Place Id: Not reported  
WDID: 2 011018641  
Program Type: Industrial

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**EDWARDS ENTERPRISES (Continued)**

1000155220

Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: 02/18/2004  
Expiration Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: Not reported  
Discharge Name: Sanmina SCI Corp Plant III  
Discharge Address: 2068 Bering Dr  
Discharge City: San Jose  
Discharge State: California  
Discharge Zip: 95134

SLIC:

Region: STATE  
**Facility Status: Completed - Case Closed**  
Status Date: 03/04/2008  
Global Id: SL0600114433  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Lead Agency Case Number: 0480  
Latitude: 37.518449  
Longitude: -122.046967  
Case Type: Cleanup Program Site  
Case Worker: RS  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01S0674  
File Location: Local Agency  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: \* Petroleum - Diesel fuels, \* Petroleum - Other  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

EMI:

Year: 1987  
County Code: 1  
Air Basin: SF  
Facility ID: 1559  
Air District Name: BA  
SIC Code: 3423  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 10  
Reactive Organic Gases Tons/Yr: 2  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1990  
County Code: 1  
Air Basin: SF  
Facility ID: 1559  
Air District Name: BA  
SIC Code: 3423  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**EDWARDS ENTERPRISES (Continued)**

1000155220

Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 7  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1998  
County Code: 1  
Air Basin: SF  
Facility ID: 1559  
Air District Name: BA  
SIC Code: 3423  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1999  
County Code: 1  
Air Basin: SF  
Facility ID: 1559  
Air District Name: BA  
SIC Code: 3423  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2000  
County Code: 1  
Air Basin: SF  
Facility ID: 1559  
Air District Name: BA  
SIC Code: 3423  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**EDWARDS ENTERPRISES (Continued)**

**1000155220**

Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0  
  
Year: 2001  
County Code: 1  
Air Basin: SF  
Facility ID: 1559  
Air District Name: BA  
SIC Code: 3423  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 0  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2002  
County Code: 1  
Air Basin: SF  
Facility ID: 15307  
Air District Name: BA  
SIC Code: 3559  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2003  
County Code: 1  
Air Basin: SF  
Facility ID: 15307  
Air District Name: BA  
SIC Code: 3559  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 5  
Reactive Organic Gases Tons/Yr: 2  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2004  
County Code: 1  
Air Basin: SF

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**EDWARDS ENTERPRISES (Continued)**

**1000155220**

Facility ID: 15307  
Air District Name: BA  
SIC Code: 3559  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 7.371  
Reactive Organic Gases Tons/Yr: 2.9484  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2005  
County Code: 1  
Air Basin: SF  
Facility ID: 15307  
Air District Name: BA  
SIC Code: 3559  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 2.692  
Reactive Organic Gases Tons/Yr: 1.0768  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2006  
County Code: 1  
Air Basin: SF  
Facility ID: 15307  
Air District Name: BA  
SIC Code: 3559  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 2.871  
Reactive Organic Gases Tons/Yr: 1.1484  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2007  
County Code: 1  
Air Basin: SF  
Facility ID: 15307  
Air District Name: BA  
SIC Code: 3559  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**EDWARDS ENTERPRISES (Continued)**

**1000155220**

Total Organic Hydrocarbon Gases Tons/Yr: 3.736  
Reactive Organic Gases Tons/Yr: 1.4944  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2008  
County Code: 1  
Air Basin: SF  
Facility ID: 15307  
Air District Name: BA  
SIC Code: 3559  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 3.736  
Reactive Organic Gases Tons/Yr: 1.4944  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2009  
County Code: 1  
Air Basin: SF  
Facility ID: 15307  
Air District Name: BA  
SIC Code: 3559  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 2.3330000000000002  
Reactive Organic Gases Tons/Yr: 0.93320000000000003  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2010  
County Code: 1  
Air Basin: SF  
Facility ID: 15307  
Air District Name: BA  
SIC Code: 3559  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 6.9989999999999997  
Reactive Organic Gases Tons/Yr: 2.7995999999999999  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**EDWARDS ENTERPRISES (Continued)**

**1000155220**

Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

**G26  
 NE  
 1/4-1/2  
 0.350 mi.  
 1849 ft.**

**LESLIE SALT/FMC MAGNESIA WASTE PILE  
 WEST OF ENTERPRISE DRIVE  
 NEWARK, CA 94560**

**CA HIST Cal-Sites  
 CA RESPONSE  
 CA ENVIROSTOR**

**S102008167  
 N/A**

**Site 1 of 4 in cluster G**

**Relative:  
 Higher**

Calsite:

**Actual:  
 13 ft.**

Facility ID: 01280072  
 Region: 2  
 Region Name: BERKELEY  
 Branch: NC  
 Branch Name: NORTH COAST  
 File Name: Not reported  
 State Senate District: 10241991  
 Status: CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT  
 Status Name: CERTIFIED  
 Lead Agency: DTSC  
 Lead Agency: DEPT OF TOXIC SUBSTANCES CONTROL  
 Facility Type: RP  
 Type Name: RESPONSIBLE PARTY  
 NPL: Not Listed  
 SIC Code: 28  
 SIC Name: MANU - CHEMICALS & ALLIED PRODUCTS  
 Access: Controlled  
 Cortese: Not reported  
 Hazardous Ranking Score: Not reported  
 Date Site Hazard Ranked: Not reported  
 Groundwater Contamination: Unknown  
 Staff Member Responsible for Site: Not reported  
 Supervisor Responsible for Site: Not reported  
 Region Water Control Board: SF  
 Region Water Control Board Name: SAN FRANCISCO BAY  
 Lat/Long Direction: Not reported  
 Lat/Long (dms): 0 0 0 / 0 0 0  
 Lat/long Method: Not reported  
 Lat/Long Description: Not reported  
 State Assembly District Code: 20  
 State Senate District Code: 10  
 Facility ID: 01280072  
 Activity: DISC  
 Activity Name: DISCOVERY  
 AWP Code: Not reported  
 Proposed Budget: 0  
 AWP Completion Date: Not reported  
 Revised Due Date: Not reported  
 Comments Date: 03011980  
 Est Person-Yrs to complete: 0  
 Estimated Size: Not reported  
 Request to Delete Activity: Not reported  
 Activity Status: CERT  
 Definition of Status: CERTIFIED  
 Liquids Removed (Gals): 0  
 Liquids Treated (Gals): 0  
 Action Included Capping: Not reported  
 Well Decommissioned: Not reported  
 Action Included Fencing: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LESLIE SALT/FMC MAGNESIA WASTE PILE (Continued)**

**S102008167**

|                               |                                  |
|-------------------------------|----------------------------------|
| Removal Action Certification: | Not reported                     |
| Activity Comments:            | Not reported                     |
| For Commercial Reuse:         | 0                                |
| For Industrial Reuse:         | 0                                |
| For Residential Reuse:        | 0                                |
| Unknown Type:                 | 0                                |
| Facility ID:                  | 01280072                         |
| Activity:                     | RA                               |
| Activity Name:                | REMOVAL ACTION                   |
| AWP Code:                     | PILE                             |
| Proposed Budget:              | 0                                |
| AWP Completion Date:          | Not reported                     |
| Revised Due Date:             | Not reported                     |
| Comments Date:                | 06301985                         |
| Est Person-Yrs to complete:   | 0                                |
| Estimated Size:               | Not reported                     |
| Request to Delete Activity:   | Not reported                     |
| Activity Status:              | CERT                             |
| Definition of Status:         | CERTIFIED                        |
| Liquids Removed (Gals):       | 0                                |
| Liquids Treated (Gals):       | 0                                |
| Action Included Capping:      | Not reported                     |
| Well Decommissioned:          | Not reported                     |
| Action Included Fencing:      | Not reported                     |
| Removal Action Certification: | Not reported                     |
| Activity Comments:            | Not reported                     |
| For Commercial Reuse:         | 0                                |
| For Industrial Reuse:         | 0                                |
| For Residential Reuse:        | 0                                |
| Unknown Type:                 | 0                                |
| Facility ID:                  | 01280072                         |
| Activity:                     | SS                               |
| Activity Name:                | SITE SCREENING                   |
| AWP Code:                     | Not reported                     |
| Proposed Budget:              | 0                                |
| AWP Completion Date:          | Not reported                     |
| Revised Due Date:             | Not reported                     |
| Comments Date:                | 04021987                         |
| Est Person-Yrs to complete:   | 0                                |
| Estimated Size:               | Not reported                     |
| Request to Delete Activity:   | Not reported                     |
| Activity Status:              | CERT                             |
| Definition of Status:         | CERTIFIED                        |
| Liquids Removed (Gals):       | 0                                |
| Liquids Treated (Gals):       | 0                                |
| Action Included Capping:      | Not reported                     |
| Well Decommissioned:          | Not reported                     |
| Action Included Fencing:      | Not reported                     |
| Removal Action Certification: | Not reported                     |
| Activity Comments:            | Not reported                     |
| For Commercial Reuse:         | 0                                |
| For Industrial Reuse:         | 0                                |
| For Residential Reuse:        | 0                                |
| Unknown Type:                 | 0                                |
| Facility ID:                  | 01280072                         |
| Activity:                     | ORDER                            |
| Activity Name:                | I/SE, IORSE, FFA, FFSRA, VCA, EA |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LESLIE SALT/FMC MAGNESIA WASTE PILE (Continued)**

**S102008167**

AWP Code: ISE  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 07301988  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT  
Definition of Status: CERTIFIED  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01280072  
Activity: RIFS  
Activity Name: REMEDIAL INVESTIGATION / FEASIBILITY STUDY  
AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 06301989  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT  
Definition of Status: CERTIFIED  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01280072  
Activity: RAP  
Activity Name: REMEDIAL ACTION PLAN / RECORD OF DECISION  
AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 09301990  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LESLIE SALT/FMC MAGNESIA WASTE PILE (Continued)**

**S102008167**

|                               |               |
|-------------------------------|---------------|
| Definition of Status:         | CERTIFIED     |
| Liquids Removed (Gals):       | 0             |
| Liquids Treated (Gals):       | 0             |
| Action Included Capping:      | Not reported  |
| Well Decommissioned:          | Not reported  |
| Action Included Fencing:      | Not reported  |
| Removal Action Certification: | Not reported  |
| Activity Comments:            | Not reported  |
| For Commercial Reuse:         | 0             |
| For Industrial Reuse:         | 0             |
| For Residential Reuse:        | 0             |
| Unknown Type:                 | 0             |
| Facility ID:                  | 01280072      |
| Activity:                     | DES           |
| Activity Name:                | DESIGN        |
| AWP Code:                     | Not reported  |
| Proposed Budget:              | 0             |
| AWP Completion Date:          | Not reported  |
| Revised Due Date:             | Not reported  |
| Comments Date:                | 11301990      |
| Est Person-Yrs to complete:   | 0             |
| Estimated Size:               | Not reported  |
| Request to Delete Activity:   | Not reported  |
| Activity Status:              | CERT          |
| Definition of Status:         | CERTIFIED     |
| Liquids Removed (Gals):       | 0             |
| Liquids Treated (Gals):       | 0             |
| Action Included Capping:      | Not reported  |
| Well Decommissioned:          | Not reported  |
| Action Included Fencing:      | Not reported  |
| Removal Action Certification: | Not reported  |
| Activity Comments:            | Not reported  |
| For Commercial Reuse:         | 0             |
| For Industrial Reuse:         | 0             |
| For Residential Reuse:        | 0             |
| Unknown Type:                 | 0             |
| Facility ID:                  | 01280072      |
| Activity:                     | COST          |
| Activity Name:                | COST RECOVERY |
| AWP Code:                     | Not reported  |
| Proposed Budget:              | 0             |
| AWP Completion Date:          | Not reported  |
| Revised Due Date:             | Not reported  |
| Comments Date:                | 08301991      |
| Est Person-Yrs to complete:   | 0             |
| Estimated Size:               | Not reported  |
| Request to Delete Activity:   | Not reported  |
| Activity Status:              | CERT          |
| Definition of Status:         | CERTIFIED     |
| Liquids Removed (Gals):       | 0             |
| Liquids Treated (Gals):       | 0             |
| Action Included Capping:      | Not reported  |
| Well Decommissioned:          | Not reported  |
| Action Included Fencing:      | Not reported  |
| Removal Action Certification: | Not reported  |
| Activity Comments:            | Not reported  |
| For Commercial Reuse:         | 0             |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LESLIE SALT/FMC MAGNESIA WASTE PILE (Continued)**

**S102008167**

For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01280072  
Activity: CERT  
Activity Name: CERTIFICATION  
AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 10241991  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT  
Definition of Status: CERTIFIED  
Liquids Removed (Gals): 6585  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: N  
Activity Comments: EXCAVATION OF MATERIAL CONTAMINATED WITH COPPER, NAPHTHALENE AND OILY WASTES; REDISPOSAL AT THE USPCI CLASS I LANDFILL IN CLIVE, UTAH.

For Commercial Reuse: 0  
For Industrial Reuse: 20  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01280072  
Activity: FRA  
Activity Name: FINAL REMEDIAL ACTION  
AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 10241991  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT  
Definition of Status: CERTIFIED  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported

For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01280072  
Activity: ENFFU  
Activity Name: ENFORCEMENT FOLLOW UP, AG OR DA REFERRAL, ETC.  
AWP Code: SFACT  
Proposed Budget: 0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LESLIE SALT/FMC MAGNESIA WASTE PILE (Continued)**

**S102008167**

AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 09171996  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT  
Definition of Status: CERTIFIED  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Alternate Address: WEST OF ENTERPRISE DRIVE  
Alternate City,St,Zip: NEWARK, CA 94560  
Background Info: Leslie Salt owns the site and leased it to FMC Corporation from 1928 to 1968. During this period, FMC used the site for disposal of their process wastes. These wastes included: off-grade magnesia, dolomite, general rubbish, phosphorus sludges, gypsum and excess catalysts which were used for the production of synthetic rubber. The waste materials were disposed onsite in large piles. The catalyst material contains approximately 1-2% copper (20,000 parts per million) and mercury above the total threshold limit concentration.  
Comments Date: 07301988  
Comments: Issued Remedial Action Order to the Leslie Salt Company and FMC  
Comments Date: 07301988  
Comments: Corporation.  
Comments Date: 09301990  
Comments: Approved RAP proposing the removal of all hazardous constituents  
Comments Date: 09301990  
Comments: from the site.  
Comments Date: 10241991  
Comments: Completed FRA. All the material was removed and disposed  
Comments Date: 10241991  
Comments: off-site. Certified Site.  
ID Name: CALSTARS CODE  
ID Value: 200058  
ID Name: BEP DATABASE PCODE  
ID Value: P21036  
ID Name: EPA IDENTIFICATION NUMBER  
ID Value: CAD980673982  
Alternate Name: MAGNESIA WASTE PILELESLIE SALT/FMC MAGNESIA WASTE PILEFMC MAGNESIA WASTE PILE  
Special Programs Code: Not reported  
Special Programs Name: Not reported

**RESPONSE:**

Facility ID: 01280072  
Site Type: State Response  
Site Type Detail: State Response or NPL  
Acres: 20

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LESLIE SALT/FMC MAGNESIA WASTE PILE (Continued)**

**S102008167**

National Priorities List: NO  
Cleanup Oversight Agencies: SMBRP  
Lead Agency: SMBRP  
Lead Agency Description: DTSC - Site Cleanup Program  
Project Manager: Not reported  
Supervisor: Denise Tsuji  
Division Branch: Cleanup Berkeley  
Site Code: 200058  
Site Mgmt. Req.: NONE SPECIFIED  
Assembly: 25  
Senate: 10  
Special Program Status: Not reported  
Status: Certified  
Status Date: 10/24/1991  
Restricted Use: NO  
Funding: Responsible Party  
Latitude: 37.51972  
Longitude: -122.0544  
APN: NONE SPECIFIED  
Past Use: NONE  
Potential COC: NONE SPECIFIED, No Contaminants found  
Confirmed COC: NONE SPECIFIED, No Contaminants found, 31000-NO  
Potential Description: NMA  
Alias Name: FMC MAGNESIA WASTE PILE  
Alias Type: Alternate Name  
Alias Name: MAGNESIA WASTE PILE  
Alias Type: Alternate Name  
Alias Name: CAD980673982  
Alias Type: EPA Identification Number  
Alias Name: 110033607700  
Alias Type: EPA (FRS #)  
Alias Name: P21036  
Alias Type: PCode  
Alias Name: 200058  
Alias Type: Project Code (Site Code)  
Alias Name: 01280072  
Alias Type: Envirostor ID Number

**Completed Info:**

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedial Action Completion Report  
Completed Date: 10/24/1991  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Design/Implementation Workplan  
Completed Date: 11/30/1990  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedial Action Plan  
Completed Date: 09/30/1990  
Comments: Approved RAP proposing the removal of all hazardous constituents from the site.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LESLIE SALT/FMC MAGNESIA WASTE PILE (Continued)**

**S102008167**

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedial Investigation / Feasibility Study  
Completed Date: 06/30/1989  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Screening  
Completed Date: 04/02/1987  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Certification  
Completed Date: 10/24/1991  
Comments: Completed FRA. All the material was removed and disposed off-site.  
Certified Site.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)  
Completed Date: 07/30/1988  
Comments: Issued Remedial Action Order to the Leslie Salt Company and FMC Corporation.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \* Discovery  
Completed Date: 03/01/1980  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Removal Action Completion Report  
Completed Date: 06/30/1985  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Fact Sheets  
Completed Date: 06/01/1990  
Comments: Fact Sheet announces the start of a public comment period on the draft remedial action plan and a public meeting on June 13.

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

ENVIROSTOR:

Site Type: State Response

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LESLIE SALT/FMC MAGNESIA WASTE PILE (Continued)**

**S102008167**

Site Type Detailed: State Response or NPL  
Acres: 20  
NPL: NO  
Regulatory Agencies: SMBRP  
Lead Agency: SMBRP  
Program Manager: Not reported  
Supervisor: Denise Tsuji  
Division Branch: Cleanup Berkeley  
Facility ID: 01280072  
Site Code: 200058  
Assembly: 25  
Senate: 10  
Special Program: Not reported  
Status: Certified  
Status Date: 10/24/1991  
Restricted Use: NO  
Site Mgmt. Req.: NONE SPECIFIED  
Funding: Responsible Party  
Latitude: 37.51972  
Longitude: -122.0544  
APN: NONE SPECIFIED  
Past Use: NONE  
Potential COC: NONE SPECIFIED, No Contaminants found  
Confirmed COC: NONE SPECIFIED, No Contaminants found, 31000-NO  
Potential Description: NMA  
Alias Name: FMC MAGNESIA WASTE PILE  
Alias Type: Alternate Name  
Alias Name: MAGNESIA WASTE PILE  
Alias Type: Alternate Name  
Alias Name: CAD980673982  
Alias Type: EPA Identification Number  
Alias Name: 110033607700  
Alias Type: EPA (FRS #)  
Alias Name: P21036  
Alias Type: PCode  
Alias Name: 200058  
Alias Type: Project Code (Site Code)  
Alias Name: 01280072  
Alias Type: Envirostor ID Number

**Completed Info:**

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedial Action Completion Report  
Completed Date: 10/24/1991  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Design/Implementation Workplan  
Completed Date: 11/30/1990  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedial Action Plan  
Completed Date: 09/30/1990  
Comments: Approved RAP proposing the removal of all hazardous constituents from

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LESLIE SALT/FMC MAGNESIA WASTE PILE (Continued)**

**S102008167**

the site.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedial Investigation / Feasibility Study  
Completed Date: 06/30/1989  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Screening  
Completed Date: 04/02/1987  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Certification  
Completed Date: 10/24/1991  
Comments: Completed FRA. All the material was removed and disposed off-site.  
Certified Site.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Unilateral Order (I/SE, RAO, CAO, EPA AO)  
Completed Date: 07/30/1988  
Comments: Issued Remedial Action Order to the Leslie Salt Company and FMC Corporation.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \* Discovery  
Completed Date: 03/01/1980  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Removal Action Completion Report  
Completed Date: 06/30/1985  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Fact Sheets  
Completed Date: 06/01/1990  
Comments: Fact Sheet announces the start of a public comment period on the draft remedial action plan and a public meeting on June 13.

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**G27**      **BARON BLAKESLEE INC**  
**NE**        **8333 ENTERPRISE DR**  
**1/4-1/2**    **NEWARK, CA 94560**  
**0.357 mi.**  
**1885 ft.**    **Site 2 of 4 in cluster G**

**Relative:**  
**Higher**

**Actual:**  
**14 ft.**

**RCRA-TSDF**    **1000335330**  
**CERC-NFRAP**   **CAD074644659**  
**CORRACTS**  
**RCRA-LQG**  
**CA HIST UST**  
**NY MANIFEST**  
**CA EMI**  
**2020 COR ACTION**  
**CA WDS**  
**US FIN ASSUR**

**RCRA-TSDF:**

Date form received by agency: 02/29/2012  
Facility name: FRMR BARON BLAKESLEE, INC., DIV OF HONEYWELL INTL INC.  
Facility address: 8333 ENTERPRISE DRIVE  
NEWARK, CA 94560  
EPA ID: CAD074644659  
Mailing address: W. 190TH STREET M/S 23-21-80  
W. 190TH STREET M/S 23-21-80  
TORRANCE, CA 90504  
Contact: BENNY DEHGH  
Contact address: W. 190TH STREET M/S 23-21-80  
TORRANCE, CA 90504  
Contact country: Not reported  
Contact telephone: (310) 512-2296  
Contact email: BENNY.DEHGH@HONEYWELL.COM  
EPA Region: 09  
Land type: Private  
Classification: TSDF  
Description: Handler is engaged in the treatment, storage or disposal of hazardous waste  
Classification: Large Quantity Generator  
Description: Handler: generates 1,000 kg or more of hazardous waste during any calendar month; or generates more than 1 kg of acutely hazardous waste during any calendar month; or generates more than 100 kg of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month; or generates 1 kg or less of acutely hazardous waste during any calendar month, and accumulates more than 1 kg of acutely hazardous waste at any time; or generates 100 kg or less of any residue or contaminated soil, waste or other debris resulting from the cleanup of a spill, into or on any land or water, of acutely hazardous waste during any calendar month, and accumulates more than 100 kg of that material at any time

**Owner/Operator Summary:**

Owner/operator name: GALLADE CHEMICAL, INC.  
Owner/operator address: ENTERPRISE DRIVE  
NEWARK, CA 94560  
Owner/operator country: Not reported  
Owner/operator telephone: Not reported  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: 01/01/1998  
Owner/Op end date: Not reported  
  
Owner/operator name: BARON BLAKESLEE DIVISION PUREX CORP  
Owner/operator address: 2001 N JANICE AVE  
MELROSE PARK, IL 60160

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
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**BARON BLAKESLEE INC (Continued)**

**1000335330**

Owner/operator country: Not reported  
Owner/operator telephone: (708) 450-3900  
Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Owner/operator name: GALLADE ENTERPRISES, LLC  
Owner/operator address: EAST ST. GERTRUDE PLACE  
SANTA ANA, CA 92707

Owner/operator country: Not reported  
Owner/operator telephone: (510) 794-9482  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: 01/01/1998  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: No  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Historical Generators:

Date form received by agency: 02/22/2010  
Facility name: FRMR BARON BLAKESLEE, INC., DIV OF HONEYWELL INTL INC.  
Site name: FORMER BARON BLAKESLEE, INC, DIVISION OF HONEYWELL INTERNATIONAL, INC  
Classification: Large Quantity Generator

Date form received by agency: 02/27/2004  
Facility name: FRMR BARON BLAKESLEE, INC., DIV OF HONEYWELL INTL INC.  
Site name: NEWARK  
Classification: Large Quantity Generator

Date form received by agency: 02/27/2004  
Facility name: FRMR BARON BLAKESLEE, INC., DIV OF HONEYWELL INTL INC.  
Site name: NEWARK  
Classification: Small Quantity Generator

Date form received by agency: 02/20/2002  
Facility name: FRMR BARON BLAKESLEE, INC., DIV OF HONEYWELL INTL INC.  
Site name: NEWARK  
Classification: Large Quantity Generator

Date form received by agency: 10/12/2000

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**BARON BLAKESLEE INC (Continued)**

**1000335330**

Facility name: FRMR BARON BLAKESLEE, INC., DIV OF HONEYWELL INTL INC.  
Site name: FORMER BARON-BLAKESLEE  
Classification: Large Quantity Generator

Date form received by agency: 03/04/1999

Facility name: FRMR BARON BLAKESLEE, INC., DIV OF HONEYWELL INTL INC.  
Site name: BARON-BLAKESLEE DIV. OF ALLIED SIGNAL  
Classification: Large Quantity Generator

Date form received by agency: 10/22/1996

Facility name: FRMR BARON BLAKESLEE, INC., DIV OF HONEYWELL INTL INC.  
Site name: BARON BLAKESLEE INC DIV OF ALLIED SIGNAL  
Classification: Large Quantity Generator

Date form received by agency: 10/22/1996

Facility name: FRMR BARON BLAKESLEE, INC., DIV OF HONEYWELL INTL INC.  
Site name: BARON BLAKESLEE INC DIV OF ALLIED SIGNAL  
Classification: Not a generator, verified

Date form received by agency: 02/19/1996

Facility name: FRMR BARON BLAKESLEE, INC., DIV OF HONEYWELL INTL INC.  
Site name: BARON BLAKESLEE  
Classification: Large Quantity Generator

Date form received by agency: 03/15/1994

Facility name: FRMR BARON BLAKESLEE, INC., DIV OF HONEYWELL INTL INC.  
Site name: BARON BLAKESLEE DIV OF ALLIED SIGNAL  
Classification: Large Quantity Generator

Date form received by agency: 02/28/1992

Facility name: FRMR BARON BLAKESLEE, INC., DIV OF HONEYWELL INTL INC.  
Site name: BARON-BLAKESLEE, INC. DIVISION OF ALLIED  
Classification: Large Quantity Generator

Date form received by agency: 04/12/1990

Facility name: FRMR BARON BLAKESLEE, INC., DIV OF HONEYWELL INTL INC.  
Site name: BARON-BLAKESLEE A DIV OF ALLIED S  
Classification: Large Quantity Generator

Date form received by agency: 07/07/1986

Facility name: FRMR BARON BLAKESLEE, INC., DIV OF HONEYWELL INTL INC.  
Site name: BARON BLAKESLEE INC DIV OF ALLIED SIGNAL  
Classification: Large Quantity Generator

**Hazardous Waste Summary:**

Waste code: D040  
Waste name: TRICHLOROETHYLENE

Waste code: F001  
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

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**BARON BLAKESLEE INC (Continued)**

**1000335330**

Waste code: F002  
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F003  
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: F005  
Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Waste code: U080  
Waste name: METHANE, DICHLORO-

Waste code: U210  
Waste name: ETHENE, TETRACHLORO-

Waste code: U226  
Waste name: ETHANE, 1,1,1-TRICHLORO-

Waste code: U228  
Waste name: ETHENE, TRICHLORO-

Biennial Reports:

Last Biennial Reporting Year: 2013

Annual Waste Handled:

Waste code: D040  
Waste name: TRICHLOROETHYLENE  
Amount (Lbs): 8

Waste code: F001  
Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS USED IN DEGREASING: TETRACHLOROETHYLENE, TRICHLOROETHYLENE, METHYLENE CHLORIDE, 1,1,1-TRICHLOROETHANE, CARBON TETRACHLORIDE, AND CHLORINATED FLUOROCARBONS; ALL SPENT SOLVENT MIXTURES/BLENDS USED IN DEGREASING

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MAP FINDINGS

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**BARON BLAKESLEE INC (Continued)**

**1000335330**

CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Amount (Lbs): 254168

Waste code: F002

Waste name: THE FOLLOWING SPENT HALOGENATED SOLVENTS: TETRACHLOROETHYLENE, METHYLENE CHLORIDE, TRICHLOROETHYLENE, 1,1,1-TRICHLOROETHANE, CHLOROBENZENE, 1,1,2-TRICHLORO-1,2,2-TRIFLUOROETHANE, ORTHO-DICHLOROBENZENE, TRICHLOROFLUOROMETHANE, AND 1,1,2-TRICHLOROETHANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE HALOGENATED SOLVENTS OR THOSE LISTED IN F001, F004, OR F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Amount (Lbs): 254168

Waste code: F003

Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: XYLENE, ACETONE, ETHYL ACETATE, ETHYL BENZENE, ETHYL ETHER, METHYL ISOBUTYL KETONE, N-BUTYL ALCOHOL, CYCLOHEXANONE, AND METHANOL; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONLY THE ABOVE SPENT NON-HALOGENATED SOLVENTS; AND ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS, AND, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THOSE SOLVENTS LISTED IN F001, F002, F004, AND F005, AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Amount (Lbs): 251460

Waste code: F005

Waste name: THE FOLLOWING SPENT NON-HALOGENATED SOLVENTS: TOLUENE, METHYL ETHYL KETONE, CARBON DISULFIDE, ISOBUTANOL, PYRIDINE, BENZENE, 2-ETHOXYETHANOL, AND 2-NITROPROPANE; ALL SPENT SOLVENT MIXTURES/BLENDS CONTAINING, BEFORE USE, A TOTAL OF TEN PERCENT OR MORE (BY VOLUME) OF ONE OR MORE OF THE ABOVE NON-HALOGENATED SOLVENTS OR THOSE SOLVENTS LISTED IN F001, F002, OR F004; AND STILL BOTTOMS FROM THE RECOVERY OF THESE SPENT SOLVENTS AND SPENT SOLVENT MIXTURES.

Amount (Lbs): 231082

Waste code: U080

Waste name: METHANE, DICHLORO-

Amount (Lbs): 231082

Waste code: U210

Waste name: ETHENE, TETRACHLORO-

Amount (Lbs): 232179

Waste code: U228

Waste name: ETHENE, TRICHLORO-

Amount (Lbs): 1382

**Corrective Action Summary:**

Event date: 09/17/1990

Event: Corrective Action Process Terminated

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**BARON BLAKESLEE INC (Continued)**

**1000335330**

|             |  |
|-------------|--|
| Event date: | 09/17/1990   |
| Event:      | RFA Completed  |
| Event date: | 08/27/1992   |
| Event:      | CA Prioritization, Facility or area was assigned a low corrective action priority.   |
| Event date: | 08/27/1992   |
| Event:      | Stabilization Measures Evaluation, This facility is not amenable to stabilization activity at the present time for reasons other than 1- it appears to be technically infeasible or inappropriate (NF) or 2- there is a lack of technical information (IN). Reasons for this conclusion may be the status of closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other administrative considerations. |
| Event date: | 06/21/1995   |
| Event:      | CMS Imposition   |
| Event date: | 06/21/1995   |
| Event:      | RFI Imposition   |
| Event date: | 01/04/1996   |
| Event:      | RFI Workplan Approved  |
| Event date: | 09/24/1997   |
| Event:      | CA Responsibility Referred To A Non-RCRA Federal Authority   |
| Event date: | 09/24/1997   |
| Event:      | Current Human Exposures under Control, Current human exposures are NOT under control.  |
| Event date: | 09/24/1997   |
| Event:      | Igration of Contaminated Groundwater under Control, Unacceptable migration of contaminated groundwater is observed or expected.  |
| Event date: | 09/24/1997   |
| Event:      | CA Prioritization, Facility or area was assigned a high corrective action priority.  |
| Event date: | 09/24/1997   |
| Event:      | Current Human Exposures under Control, Current human exposures are NOT under control.  |
| Event date: | 09/24/1997   |
| Event:      | Igration of Contaminated Groundwater under Control, Unacceptable migration of contaminated groundwater is observed or expected.  |
| Event date: | 09/24/1997   |
| Event:      | Stabilization Measures Evaluation, This facility is amenable to stabilization activity based on the status of corrective action work at the facility, technical factors, the degree of risk, timing considerations and administrative considerations.  |
| Event date: | 12/28/2000   |
| Event:      | Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information  |

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**BARON BLAKESLEE INC (Continued)**

**1000335330**

contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

Event date: 12/28/2000  
Event: Current Human Exposures under Control, Yes, Current Human Exposures Under Control has been verified. Based on a review of information contained in the EI determination, current human exposures are expected to be under control at the facility under current and reasonably expected conditions. This determination will be re-evaluated when the Agency/State becomes aware of significant changes at the facility.

Event date: 12/28/2000  
Event: Migration of Contaminated Groundwater under Control, More information is needed to make a determination.

Event date: 12/28/2000  
Event: Migration of Contaminated Groundwater under Control, More information is needed to make a determination.

Event date: 07/24/2007  
Event: Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

Event date: 07/24/2007  
Event: Date For Remedy Selection (CM Imposed)

Event date: 07/24/2007  
Event: Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified. Based on a review of information contained in the EI determination, it has been determined that migration of contaminated groundwater is under control at the facility. Specifically, this determination indicates that the migration of contaminated groundwater is under control, and that monitoring will be conducted to confirm that contaminated groundwater remains within the existing area of contaminated groundwater. This determination will be re-evaluated when the Agency becomes aware of significant changes at the facility.

Event date: 07/24/2007  
Event: Date For Remedy Selection (CM Imposed)

Event date: 06/09/2010  
Event: CA550RC

Event date: 06/09/2010

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**BARON BLAKESLEE INC (Continued)**

**1000335330**

Event: CA550RC  
Event date: 06/30/2011  
Event: CA550RC  
Event date: 10/02/2012  
Event: CA800YE  
Event date: Not reported  
Event: CA Prioritization, Facility or area was assigned a low corrective action priority.  
Event date: Not reported  
Event: CA048ST

Facility Has Received Notices of Violations:

Regulation violated: Not reported  
Area of violation: Permits - Conditions  
Date violation determined: 04/29/2011  
Date achieved compliance: 06/13/2011  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 05/02/2011  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - Financial Requirements  
Date violation determined: 01/01/2001  
Date achieved compliance: 01/01/2001  
Violation lead agency: EPA  
Enforcement action: Not reported  
Enforcement action date: Not reported  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: Not reported  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: Generators - General  
Date violation determined: 08/30/1990  
Date achieved compliance: 05/28/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 08/31/1990  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

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EDR ID Number  
EPA ID Number

**BARON BLAKESLEE INC (Continued)**

**1000335330**

Regulation violated: Not reported  
Area of violation: LDR - General  
Date violation determined: 08/30/1990  
Date achieved compliance: 05/28/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 08/31/1990  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - General  
Date violation determined: 08/30/1990  
Date achieved compliance: 05/28/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 08/31/1990  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - Preparedness and Prevention  
Date violation determined: 08/30/1990  
Date achieved compliance: 05/28/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 08/31/1990  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: LDR - General  
Date violation determined: 08/30/1990  
Date achieved compliance: 05/28/1992  
Violation lead agency: State  
Enforcement action: INITIAL 3008(A) COMPLIANCE  
Enforcement action date: 11/22/1991  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: 50822  
Final penalty amount: 30000  
Paid penalty amount: 30000

Regulation violated: Not reported

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MAP FINDINGS

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**BARON BLAKESLEE INC (Continued)**

**1000335330**

Area of violation: TSD - Container Use and Management  
Date violation determined: 08/30/1990  
Date achieved compliance: 05/28/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 08/31/1990  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Regulation violated: Not reported  
Area of violation: TSD - Closure/Post-Closure  
Date violation determined: 08/30/1990  
Date achieved compliance: 05/28/1992  
Violation lead agency: State  
Enforcement action: WRITTEN INFORMAL  
Enforcement action date: 08/31/1990  
Enf. disposition status: Not reported  
Enf. disp. status date: Not reported  
Enforcement lead agency: State  
Proposed penalty amount: Not reported  
Final penalty amount: Not reported  
Paid penalty amount: Not reported

Evaluation Action Summary:

Evaluation date: 07/12/2011  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 04/29/2011  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Permits - Conditions  
Date achieved compliance: 06/13/2011  
Evaluation lead agency: State

Evaluation date: 06/19/2002  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 05/28/1992  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: TSD - Financial Requirements  
Date achieved compliance: 01/01/2001  
Evaluation lead agency: EPA Contractor/Grantee

Evaluation date: 07/18/1990  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - Preparedness and Prevention  
Date achieved compliance: 05/28/1992  
Evaluation lead agency: State

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**BARON BLAKESLEE INC (Continued)**

**1000335330**

Evaluation date: 07/18/1990  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Generators - General  
Date achieved compliance: 05/28/1992  
Evaluation lead agency: State

Evaluation date: 07/18/1990  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - Closure/Post-Closure  
Date achieved compliance: 05/28/1992  
Evaluation lead agency: State

Evaluation date: 07/18/1990  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: LDR - General  
Date achieved compliance: 05/28/1992  
Evaluation lead agency: State

Evaluation date: 07/18/1990  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - General  
Date achieved compliance: 05/28/1992  
Evaluation lead agency: State

Evaluation date: 07/18/1990  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: TSD - Container Use and Management  
Date achieved compliance: 05/28/1992  
Evaluation lead agency: State

Evaluation date: 07/11/1990  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 06/29/1988  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 06/29/1988  
Evaluation: FOCUSED COMPLIANCE INSPECTION  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 05/06/1988  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

**CERC-NFRAP:**

Site ID: 0900268  
Federal Facility: Not a Federal Facility  
NPL Status: Not on the NPL

Map ID  
Direction  
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**BARON BLAKESLEE INC (Continued)**

**1000335330**

Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID: 13050671.00000  
Person ID: 9271184.00000

Contact Sequence ID: 13289613.00000  
Person ID: 13003854.00000

Contact Sequence ID: 13295208.00000  
Person ID: 13003858.00000

Contact Sequence ID: 13301066.00000  
Person ID: 13004003.00000

CERCLIS-NFRAP Assessment History:

Action: DISCOVERY  
Date Started: / /  
Date Completed: 01/01/90  
Priority Level: Not reported

Action: ARCHIVE SITE  
Date Started: / /  
Date Completed: 09/22/93  
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT  
Date Started: / /  
Date Completed: 09/22/93  
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

CORRACTS:

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19960104  
Action: CA150 - RFI Workplan Approved  
NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20100609  
Action: CA550RC  
NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: 20100609  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09

Map ID  
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**BARON BLAKESLEE INC (Continued)**

**1000335330**

Area Name: ENTIRE FACILITY  
Actual Date: 19950621  
Action: CA100 - RFI Imposition  
NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19950621  
Action: CA250 - CMS Imposition  
NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20110630  
Action: CA550RC  
NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: 20110903  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20070724  
Action: CA400 - Date For Remedy Selection (CM Imposed)  
NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: 20070724  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20070724  
Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified  
NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: 20070724  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20070724  
Action: CA400 - Date For Remedy Selection (CM Imposed)  
NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE INC (Continued)**

**1000335330**

Schedule end date: Not reported

EPA ID: CAD074644659

EPA Region: 09

Area Name: ENTIRE FACILITY

Actual Date: 20070724

Action: CA750YE - Migration of Contaminated Groundwater under Control, Yes, Migration of Contaminated Groundwater Under Control has been verified

NAICS Code(s): 325998

All Other Miscellaneous Chemical Product and Preparation Manufacturing

Original schedule date: Not reported

Schedule end date: Not reported

EPA ID: CAD074644659

EPA Region: 09

Area Name: ENTIRE FACILITY

Actual Date: 19920827

Action: CA225NR - Stabilization Measures Evaluation, This facility is, not amenable to stabilization activity at the, present time for reasons other than (1) it appears to be technically, infeasible or inappropriate (NF) or (2) there is a lack of technical, information (IN). Reasons for this conclusion may be the status of, closure at the facility, the degree of risk, timing considerations, the status of corrective action work at the facility, or other, administrative considerations

NAICS Code(s): 325998

All Other Miscellaneous Chemical Product and Preparation Manufacturing

Original schedule date: Not reported

Schedule end date: Not reported

EPA ID: CAD074644659

EPA Region: 09

Area Name: ENTIRE FACILITY

Actual Date: 19920827

Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority

NAICS Code(s): 325998

All Other Miscellaneous Chemical Product and Preparation Manufacturing

Original schedule date: Not reported

Schedule end date: Not reported

EPA ID: CAD074644659

EPA Region: 09

Area Name: ENTIRE FACILITY

Actual Date: 19900917

Action: CA999 - Corrective Action Process Terminated

NAICS Code(s): 325998

All Other Miscellaneous Chemical Product and Preparation Manufacturing

Original schedule date: Not reported

Schedule end date: Not reported

EPA ID: CAD074644659

EPA Region: 09

Area Name: ENTIRE FACILITY

Actual Date: 19900917

Action: CA050 - RFA Completed

NAICS Code(s): 325998

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE INC (Continued)**

**1000335330**

All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: 19900930  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19970924  
Action: CA075HI - CA Prioritization, Facility or area was assigned a high corrective action priority

NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19970924  
Action: CA750NO - Migration of Contaminated Groundwater under Control, Unacceptable migration of contaminated groundwater is observed or expected

NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: 19970924  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19970924  
Action: CA750NO - Migration of Contaminated Groundwater under Control, Unacceptable migration of contaminated groundwater is observed or expected

NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19970924  
Action: CA725NO - Current Human Exposures Under Control, Current human exposures are NOT under control

NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: 19970924  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19970924  
Action: CA210 - CA Responsibility Referred To A Non-RCRA Federal Authority  
NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE INC (Continued)**

**1000335330**

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19970924  
Action: CA225YE - Stabilization Measures Evaluation, This facility ,is amenable to stabilization activity based on the, status of corrective action work at the facility, technical factors, the degree of risk, timing considerations and administrative considerations  
NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 19970924  
Action: CA725NO - Current Human Exposures Under Control, Current human exposures are NOT under control  
NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20121002  
Action: CA800YE  
NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: 20121002  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20001228  
Action: CA750IN - Migration of Contaminated Groundwater under Control, More information is needed to make a determination  
NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: 20001228  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20001228  
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified  
NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing  
Original schedule date: 20001228

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE INC (Continued)**

**1000335330**

Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20001228  
Action: CA725YE - Current Human Exposures Under Control, Yes, Current Human Exposures Under Control has been verified

NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: 20001228  
Action: CA750IN - Migration of Contaminated Groundwater under Control, More information is needed to make a determination

NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing

Original schedule date: Not reported  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: Not reported  
Action: CA075LO - CA Prioritization, Facility or area was assigned a low corrective action priority

NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing

Original schedule date: 19901011  
Schedule end date: Not reported

EPA ID: CAD074644659  
EPA Region: 09  
Area Name: ENTIRE FACILITY  
Actual Date: Not reported  
Action: CA048ST

NAICS Code(s): 325998  
All Other Miscellaneous Chemical Product and Preparation Manufacturing

Original schedule date: 19920827  
Schedule end date: Not reported

**HIST UST:**

Region: STATE  
Facility ID: 00000000891  
Facility Type: Other  
Other Type: SOLVENT DISTRIBUTION  
Total Tanks: 0007  
Contact Name: ROBERT F. HANSEN  
Telephone: 4157946511  
Owner Name: CREED JENKINS  
Owner Address: 38235 ASHFORD DRIVE  
Owner City,St,Zip: FREMONT, CA 94536

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE INC (Continued)**

**1000335330**

Tank Num: 001  
Container Num: #1  
Year Installed: 1974  
Tank Capacity: 00000060  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Tank Construction: Not reported  
Leak Detection: None

Tank Num: 002  
Container Num: #2  
Year Installed: 1974  
Tank Capacity: 00000060  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Tank Construction: Not reported  
Leak Detection: None

Tank Num: 003  
Container Num: #3  
Year Installed: 1980  
Tank Capacity: 00000060  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Tank Construction: Not reported  
Leak Detection: None

Tank Num: 004  
Container Num: #4  
Year Installed: 1980  
Tank Capacity: 00000060  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Tank Construction: Not reported  
Leak Detection: None

Tank Num: 005  
Container Num: #5  
Year Installed: 1980  
Tank Capacity: 00000060  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Tank Construction: Not reported  
Leak Detection: None

Tank Num: 006  
Container Num: #6  
Year Installed: 1980  
Tank Capacity: 00000060  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Tank Construction: Not reported  
Leak Detection: None

Tank Num: 007  
Container Num: #7  
Year Installed: 1980

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE INC (Continued)**

**1000335330**

Tank Capacity: 00000060  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Tank Construction: Not reported  
Leak Detection: None

**NY MANIFEST:**

EPA ID: CAD074644659  
Country: USA  
Mailing Name: ALLERGAN HUMPHREY  
Mailing Contact: ALLERGAN HUMPHREY  
Mailing Address: 2992 ALVARDO STREET  
Mailing Address 2: Not reported  
Mailing City: SAN LEANDRO  
Mailing State: CA  
Mailing Zip: 94577  
Mailing Zip4: Not reported  
Mailing Country: USA  
Mailing Phone: 415-297-4146

Document ID: NYA8073936  
Manifest Status: Completed after the designated time period for a TSDf to get a copy to the DEC  
Trans1 State ID: 10208P  
Trans2 State ID: Not reported  
Generator Ship Date: 890920  
Trans1 Recv Date: 890920  
Trans2 Recv Date: Not reported  
TSD Site Recv Date: 891002  
Part A Recv Date: 891030  
Part B Recv Date: 891010  
Generator EPA ID: CAD074644659  
Trans1 EPA ID: NYD980769947  
Trans2 EPA ID: Not reported  
TSDf ID: NYD000632372  
Waste Code: D002 - NON-LISTED CORROSIVE WASTES  
Quantity: 00004  
Units: G - Gallons (liquids only)\* (8.3 pounds)  
Number of Containers: 004  
Container Type: CW - Wooden boxes  
Handling Method: T Chemical, physical, or biological treatment.  
Specific Gravity: 100  
Year: 89

**EMI:**

Year: 1987  
County Code: 1  
Air Basin: SF  
Facility ID: 2543  
Air District Name: BA  
SIC Code: 7399  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 94  
Reactive Organic Gases Tons/Yr: 93

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE INC (Continued)**

**1000335330**

Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1990  
County Code: 1  
Air Basin: SF  
Facility ID: 2543  
Air District Name: BA  
SIC Code: 7389  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 7  
Reactive Organic Gases Tons/Yr: 7  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1993  
County Code: 1  
Air Basin: SF  
Facility ID: 2543  
Air District Name: BA  
SIC Code: 7399  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 4  
Reactive Organic Gases Tons/Yr: 3  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1995  
County Code: 1  
Air Basin: SF  
Facility ID: 2543  
Air District Name: BA  
SIC Code: 2869  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE INC (Continued)**

**1000335330**

Year: 1996  
County Code: 1  
Air Basin: SF  
Facility ID: 2543  
Air District Name: BA  
SIC Code: 2869  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

Year: 1997  
County Code: 1  
Air Basin: SF  
Facility ID: 2543  
Air District Name: BA  
SIC Code: 2869  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smllr Tons/Yr: 0

**2020 COR ACTION:**

EPA ID: CAD074644659  
Region: 9  
Action: Not reported

**CA WDS:**

Facility ID: San Francisco Bay 011013967  
Facility Type: Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.  
Facility Status: Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.  
NPDES Number: CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board  
Subregion: 2  
Facility Telephone: 5107946511  
Facility Contact: PAUL BRADY  
Agency Name: GALLADE CHEMICAL INC  
Agency Address: 8333 Enterprise Dr

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE INC (Continued)**

**1000335330**

Agency City,St,Zip: Newark 945603307  
Agency Contact: PAUL BRADY  
Agency Telephone: 5107946511  
Agency Type: Private  
SIC Code: 0  
SIC Code 2: Not reported  
Primary Waste: Not reported  
Primary Waste Type: Not reported  
Secondary Waste: Not reported  
Secondary Waste Type: Not reported  
Design Flow: 0  
Baseline Flow: 0  
Reclamation: Not reported  
POTW: Not reported  
Treat To Water: Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality.  
Complexity: Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.

**US FIN ASSUR:**

EPA ID: CAD074644659  
Provider: MIZUHO CORPORATE BANK, LTD.  
EPA region: 9  
County: ALAMEDA  
Mechanism type: LETTER OF CREDIT  
Mechanism ID: Not reported  
Cost estimate: 8048000  
Face value: 12273000  
Effective date: 3/29/2009  
  
EPA ID: CAD074644659  
Provider: BANCO BILBAO VIZCAYA ARGENTARIA  
EPA region: 9  
County: ALAMEDA  
Mechanism type: LETTER OF CREDIT  
Mechanism ID: SBLC8703739NY  
Cost estimate: 8000000  
Face value: 8000000  
Effective date: 3/27/2008

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**G28** **BARON BLAKESLEE FACILITY**  
**NE** **8333 ENTERPRISE**  
**1/4-1/2** **NEWARK, CA**  
**0.357 mi.**  
**1885 ft.** **Site 3 of 4 in cluster G**

**CA NPDES** **S103673821**  
**CA Cortese** **N/A**  
**CA HIST CORTESE**  
**CA SLIC**  
**CA DEED**  
**CA ENF**  
**CA ENVIROSTOR**  
**CA Financial Assurance**

**Relative:**  
**Higher**

**Actual:**  
**14 ft.**

**NPDES:**  
Npdes Number: CAS000001  
Facility Status: Terminated  
Agency Id: 0  
Region: 2  
Regulatory Measure Id: 364921  
Order No: 97-03-DWQ  
Regulatory Measure Type: Enrollee  
Place Id: Not reported  
WDID: 2 011022143  
Program Type: Industrial  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: 05/14/2009  
Expiration Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: 06/29/2011  
Discharge Name: TRS Group Inc  
Discharge Address: 8333 Enterprise Dr  
Discharge City: Newark  
Discharge State: California  
Discharge Zip: 94560

Npdes Number: CAS000001  
Facility Status: Active  
Agency Id: 0  
Region: 2  
Regulatory Measure Id: 181068  
Order No: 97-03-DWQ  
Regulatory Measure Type: Enrollee  
Place Id: Not reported  
WDID: 2 011013967  
Program Type: Industrial  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: 05/07/1998  
Expiration Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: Not reported  
Discharge Name: Gallade Chemical Inc  
Discharge Address: 8333 Enterprise Dr  
Discharge City: Newark  
Discharge State: California  
Discharge Zip: 94560

**CORTESE:**  
Region: CORTESE  
Envirostor Id: Not reported  
Site/Facility Type: Not reported  
Cleanup Status: Not reported  
Status Date: Not reported  
Site Code: Not reported  
Latitude: Not reported  
Longitude: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE FACILITY (Continued)**

**S103673821**

Owner: Not reported  
Enf Type: Not reported  
Swat R: Not reported  
Flag: CORTESE  
Order No: Not reported  
Waste Discharge System No: Not reported  
Effective Date: Not reported  
Region 2: 2  
WID Id: 2 019300N01  
Solid Waste Id No: Not reported  
Waste Management Uit Name: Not reported

**CORTESE:**

Region: CORTESE  
Facility County Code: 1  
Reg By: WBC&D  
Reg Id: 2 019300N01

**SLIC:**

Region: STATE  
**Facility Status: Open - Remediation**  
Status Date: 04/16/2009  
Global Id: SL20268886  
Lead Agency: SAN FRANCISCO BAY RWQCB (REGION 2)  
Lead Agency Case Number: 0366  
Latitude: 37.5234437485069  
Longitude: -122.048213481903  
Case Type: Cleanup Program Site  
Case Worker: ES  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01S0294  
File Location: Regional Board  
Potential Media Affected: Other Groundwater (uses other than drinking water)  
Potential Contaminants of Concern: 1,1,1-Trichloroethane (TCA), Tetrachloroethylene (PCE), Toluene, Trichloroethylene (TCE), Vinyl chloride, Xylene  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

**SLIC REG 2:**

Region: 2  
Facility ID: 01S0294  
Facility Status: Remedial action (cleanup) Underway  
Date Closed: Not reported  
Local Case #: Not reported  
How Discovered: RBD  
Leak Cause: Not reported  
Leak Source: Not reported  
Date Confirmed: Not reported  
Date Prelim Site Assmnt Workplan Submitted: Not reported  
Date Preliminary Site Assessment Began: Not reported  
Date Pollution Characterization Began: Not reported  
Date Remediation Plan Submitted: Not reported  
Date Remedial Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE FACILITY (Continued)**

**S103673821**

DEED:

Area: Not reported  
Sub Area: Not reported  
Site Type: POST CLOSURE PERMIT  
Status: POST CLOSURE PERMIT  
Deed Date(s): Not reported

Area: Not reported  
Sub Area: Not reported  
Site Type: POST CLOSURE PERMIT  
Status: POST CLOSURE PERMIT  
Deed Date(s): Not reported

ENF:

Region: 2  
Facility Id: 208732  
Agency Name: ALLIEDSIGNAL, INC.  
Place Type: Manufacturing  
Place Subtype: Manufacturing NEC  
Facility Type: All other facilities  
Agency Type: Privately-Owned Business  
# Of Agencies: 1  
Place Latitude: Not reported  
Place Longitude: Not reported  
SIC Code 1: 286  
SIC Desc 1: Industrial organic chemicals  
SIC Code 2: Not reported  
SIC Desc 2: Not reported  
SIC Code 3: Not reported  
SIC Desc 3: Not reported  
NAICS Code 1: Not reported  
NAICS Desc 1: Not reported  
NAICS Code 2: Not reported  
NAICS Desc 2: Not reported  
NAICS Code 3: Not reported  
NAICS Desc 3: Not reported  
# Of Places: 1  
Source Of Facility: Reg Meas  
Design Flow: Not reported  
Threat To Water Quality: Not reported  
Complexity: Not reported  
Pretreatment: Not reported  
Facility Waste Type: Not reported  
Facility Waste Type 2: Not reported  
Facility Waste Type 3: Not reported  
Facility Waste Type 4: Not reported  
Program: UNREGS  
# Of Programs: 1  
WDID: 2 019300N01  
Reg Measure Id: 163163  
Reg Measure Type: Unregulated  
Region: 2  
Order #: Not reported  
Npdes# CA#: Not reported  
Major-Minor: Not reported  
Npdes Type: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE FACILITY (Continued)**

**S103673821**

|                                   |                              |
|-----------------------------------|------------------------------|
| Reclamation:                      | Not reported                 |
| Dredge Fill Fee:                  | Not reported                 |
| 301H:                             | Not reported                 |
| Application Fee Amt Received:     | Not reported                 |
| Status:                           | Never Active                 |
| Status Date:                      | 02/21/2013                   |
| Effective Date:                   | Not reported                 |
| Expiration/Review Date:           | Not reported                 |
| Termination Date:                 | Not reported                 |
| WDR Review - Amend:               | Not reported                 |
| WDR Review - Revise/Renew:        | Not reported                 |
| WDR Review - Rescind:             | Not reported                 |
| WDR Review - No Action Required:  | Not reported                 |
| WDR Review - Pending:             | Not reported                 |
| WDR Review - Planned:             | Not reported                 |
| Status Enrollee:                  | N                            |
| Individual/General:               | I                            |
| Fee Code:                         | Not reported                 |
| Direction/Voice:                  | Passive                      |
| Enforcement Id(EID):              | 223050                       |
| Region:                           | 2                            |
| Order / Resolution Number:        | 95-132                       |
| Enforcement Action Type:          | Clean-up and Abatement Order |
| Effective Date:                   | 06/21/1995                   |
| Adoption/Issuance Date:           | Not reported                 |
| Achieve Date:                     | Not reported                 |
| Termination Date:                 | Not reported                 |
| ACL Issuance Date:                | Not reported                 |
| EPL Issuance Date:                | Not reported                 |
| Status:                           | Historical                   |
| Title:                            | Enforcement - 2 019300N01    |
| Description:                      | SCR-                         |
| Program:                          | UNREGS                       |
| Latest Milestone Completion Date: | Not reported                 |
| # Of Programs1:                   | 1                            |
| Total Assessment Amount:          | 0                            |
| Initial Assessed Amount:          | 0                            |
| Liability \$ Amount:              | 0                            |
| Project \$ Amount:                | 0                            |
| Liability \$ Paid:                | 0                            |
| Project \$ Completed:             | 0                            |
| Total \$ Paid/Completed Amount:   | 0                            |
| Region:                           | 2                            |
| Facility Id:                      | 208732                       |
| Agency Name:                      | ALLIEDSIGNAL, INC.           |
| Place Type:                       | Manufacturing                |
| Place Subtype:                    | Manufacturing NEC            |
| Facility Type:                    | All other facilities         |
| Agency Type:                      | Privately-Owned Business     |
| # Of Agencies:                    | 1                            |
| Place Latitude:                   | Not reported                 |
| Place Longitude:                  | Not reported                 |
| SIC Code 1:                       | 286                          |
| SIC Desc 1:                       | Industrial organic chemicals |
| SIC Code 2:                       | Not reported                 |
| SIC Desc 2:                       | Not reported                 |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE FACILITY (Continued)**

**S103673821**

|                                  |                              |
|----------------------------------|------------------------------|
| SIC Code 3:                      | Not reported                 |
| SIC Desc 3:                      | Not reported                 |
| NAICS Code 1:                    | Not reported                 |
| NAICS Desc 1:                    | Not reported                 |
| NAICS Code 2:                    | Not reported                 |
| NAICS Desc 2:                    | Not reported                 |
| NAICS Code 3:                    | Not reported                 |
| NAICS Desc 3:                    | Not reported                 |
| # Of Places:                     | 1                            |
| Source Of Facility:              | Reg Meas                     |
| Design Flow:                     | Not reported                 |
| Threat To Water Quality:         | Not reported                 |
| Complexity:                      | Not reported                 |
| Pretreatment:                    | Not reported                 |
| Facility Waste Type:             | Not reported                 |
| Facility Waste Type 2:           | Not reported                 |
| Facility Waste Type 3:           | Not reported                 |
| Facility Waste Type 4:           | Not reported                 |
| Program:                         | UNREGS                       |
| # Of Programs:                   | 1                            |
| WDID:                            | 2 019300N01                  |
| Reg Measure Id:                  | 163163                       |
| Reg Measure Type:                | Unregulated                  |
| Region:                          | 2                            |
| Order #:                         | Not reported                 |
| Npdes# CA#:                      | Not reported                 |
| Major-Minor:                     | Not reported                 |
| Npdes Type:                      | Not reported                 |
| Reclamation:                     | Not reported                 |
| Dredge Fill Fee:                 | Not reported                 |
| 301H:                            | Not reported                 |
| Application Fee Amt Received:    | Not reported                 |
| Status:                          | Never Active                 |
| Status Date:                     | 02/21/2013                   |
| Effective Date:                  | Not reported                 |
| Expiration/Review Date:          | Not reported                 |
| Termination Date:                | Not reported                 |
| WDR Review - Amend:              | Not reported                 |
| WDR Review - Revise/Renew:       | Not reported                 |
| WDR Review - Rescind:            | Not reported                 |
| WDR Review - No Action Required: | Not reported                 |
| WDR Review - Pending:            | Not reported                 |
| WDR Review - Planned:            | Not reported                 |
| Status Enrollee:                 | N                            |
| Individual/General:              | I                            |
| Fee Code:                        | Not reported                 |
| Direction/Voice:                 | Passive                      |
| Enforcement Id(EID):             | 221805                       |
| Region:                          | 2                            |
| Order / Resolution Number:       | R2-1998-0108                 |
| Enforcement Action Type:         | Clean-up and Abatement Order |
| Effective Date:                  | 10/21/1998                   |
| Adoption/Issuance Date:          | Not reported                 |
| Achieve Date:                    | Not reported                 |
| Termination Date:                | Not reported                 |
| ACL Issuance Date:               | Not reported                 |
| EPL Issuance Date:               | Not reported                 |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE FACILITY (Continued)**

**S103673821**

Status: Active  
Title: Enforcement - 2 019300N01  
Description: SCO-ORDER NO 95-132 WAS RESCINDED TO UPDATE COMPLIANCE DUE DATES  
Program: UNREGS  
Latest Milestone Completion Date: Not reported  
# Of Programs1: 1  
Total Assessment Amount: 0  
Initial Assessed Amount: 0  
Liability \$ Amount: 0  
Project \$ Amount: 0  
Liability \$ Paid: 0  
Project \$ Completed: 0  
Total \$ Paid/Completed Amount: 0

**ENVIROSTOR:**

Site Type: Corrective Action  
Site Type Detailed: Corrective Action  
Acres: 0  
NPL: NO  
Regulatory Agencies: RWQCB 2 - San Francisco Bay  
Lead Agency: RWQCB 2 - San Francisco Bay  
Program Manager: Not reported  
Supervisor: \* Wei Wei Chui  
Division Branch: Cleanup Chatsworth  
Facility ID: 80001669  
Site Code: 200160  
Assembly: 25  
Senate: 10  
Special Program: Not reported  
Status: \* Completed  
Status Date: 01/01/2008  
Restricted Use: NO  
Site Mgmt. Req.: NONE SPECIFIED  
Funding: Not reported  
Latitude: 37.52285  
Longitude: -122.0479  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED  
Potential COC: NONE SPECIFIED  
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: CAD074644659  
Alias Type: EPA Identification Number  
Alias Name: 110018981609  
Alias Type: EPA (FRS #)  
Alias Name: 200160  
Alias Type: Project Code (Site Code)  
Alias Name: 80001669  
Alias Type: Envirostor ID Number

**Completed Info:**

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RCRA Facility Assessment Report  
Completed Date: 09/17/1990  
Comments: RCRA Facility Assessment Completed, site formerly known as Baron

Map ID  
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Distance  
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MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE FACILITY (Continued)**

**S103673821**

Blakeslee and Allied Signal

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Interim Measures Questionnaire  
Completed Date: 09/24/1997  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \* CA Process is Terminated  
Completed Date: 09/17/1990  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Interim Measures Questionnaire  
Completed Date: 08/27/1992  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Consent Agreement  
Completed Date: 06/21/1995  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedy Constructed  
Completed Date: 06/30/2011  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Groundwater Migration Controlled  
Completed Date: 12/28/2000  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Remedy Constructed  
Completed Date: 06/09/2010  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Groundwater Migration Controlled  
Completed Date: 09/24/1997  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Human Exposure Controlled  
Completed Date: 09/24/1997  
Comments: Not reported

Completed Area Name: PROJECT WIDE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**BARON BLAKESLEE FACILITY (Continued)**

**S103673821**

Completed Sub Area Name: Not reported  
Completed Document Type: Groundwater Migration Controlled  
Completed Date: 07/24/2007  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \* Remedy Selected  
Completed Date: 07/24/2007  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Human Exposure Controlled  
Completed Date: 12/28/2000  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: RFI Workplan  
Completed Date: 01/04/1996  
Comments: Not reported

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

CA Financial Assurance 1:

EPA ID Number: CAD074644659  
Sudden Amount1: 2000000  
Non Sudden Amount1: 6000000  
Closure Mechanism: Not reported  
Closure Amount: Not reported  
Post Closure Mechanism: LOC  
Post Closure Amount: Not reported  
Corrective Action Mechanism: Not reported  
Corrective Action Amount: Not reported  
Sudden Mechanism Type: LOC  
Sudden Mechanism Amount: 1000000  
Non Sudden Mechanism Type: LOC  
Non Sudden Mechanism Amount: Not reported  
O&M Mechanism Type: Not reported  
O&M Amount: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**G29**      **HONEYWELL INTERNATIONAL INC**  
**NE**        **8333 ENTERPRISE DR**  
**1/4-1/2**    **NEWARK, CA 94560**  
**0.357 mi.**  
**1885 ft.**    **Site 4 of 4 in cluster G**

**CA HWP**    **S111865972**  
**N/A**

**Relative:**  
**Higher**

HWP:  
 EPA Id:                    CAD074644659  
 Cleanup Status:        POST CLOSURE PERMIT  
 Latitude:                37.52285  
 Longitude:              -122.0479  
 Facility Type:         Post-Closure Permitted  
 Facility Size:          Medium Postclosure  
 Team:                    EDWARD NIETO  
 Supervisor:            MIKE ESHAGHIAN  
 Site Code:              200160  
 Assembly District:    25  
 Senate District:       10  
 Public Information Officer: Not reported

**Actual:**  
**14 ft.**

Activities:  
 EPA Id:                    CAD074644659  
 Facility Type:         Post-Closure Permitted  
 Unit Names:            CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
 Event Description:    Renewal - No Changes - 1ST NOTICE OF DEFICIENCY ISSUED  
 Actual Date:            05/10/1990

EPA Id:                    CAD074644659  
 Facility Type:         Post-Closure Permitted  
 Unit Names:            CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
 Event Description:    Renewal - No Changes - FINAL PERMIT RENEWAL (EFFECTIVE)  
 Actual Date:            11/13/1992

EPA Id:                    CAD074644659  
 Facility Type:         Post-Closure Permitted  
 Unit Names:            CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
 Event Description:    Renewal - No Changes - PUBLIC COMMENT (BEGIN)  
 Actual Date:            05/22/1992

EPA Id:                    CAD074644659  
 Facility Type:         Post-Closure Permitted  
 Unit Names:            CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
 Event Description:    New Operating Permit - FINAL PERMIT (EXPIRES)  
 Actual Date:            11/07/1988

EPA Id:                    CAD074644659  
 Facility Type:         Post-Closure Permitted  
 Unit Names:            CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
 Event Description:    New Operating Permit - APPLICATION PART B RECEIVED  
 Actual Date:            04/08/1983

EPA Id:                    CAD074644659  
 Facility Type:         Post-Closure Permitted  
 Unit Names:            CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
 Event Description:    Renewal - No Changes - 2ND NOTICE OF DEFICIENCY ISSUED  
 Actual Date:            12/17/1990

EPA Id:                    CAD074644659  
 Facility Type:         Post-Closure Permitted  
 Unit Names:            CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HONEYWELL INTERNATIONAL INC (Continued)**

**S111865972**

Event Description: Renewal - No Changes - RESPONSE TO 2ND NOD RECEIVED  
Actual Date: 01/11/1991

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: Renewal - No Changes - RESPONSE TO 1ST NOD RECEIVED  
Actual Date: 07/27/1990

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: Renewal - No Changes - APPLICATION PART B RECEIVED  
Actual Date: 11/01/1988

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: Renewal - No Changes - FINAL PERMIT RENEWAL  
Actual Date: 11/13/1992

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: Renewal - No Changes - 3RD NOTICE OF DEFICIENCY ISSUED  
Actual Date: 03/07/1991

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: New Operating Permit - DRAFT PERMIT  
Actual Date: 06/14/1983

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: Renewal - No Changes - FINAL PART A & PART B RECEIVED  
Actual Date: 05/21/1992

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: Renewal - No Changes - PUBLIC COMMENT (END)  
Actual Date: 07/06/1992

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: Renewal - No Changes - PUBLIC COMMENT (PUBLIC HEARING)  
Actual Date: 06/23/1992

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: New Operating Permit - FINAL PERMIT (EFFECTIVE)  
Actual Date: 11/13/1992

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HONEYWELL INTERNATIONAL INC (Continued)**

**S111865972**

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: New Operating Permit - FINAL PERMIT  
Actual Date: 11/07/1983

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: Renewal - No Changes - FINAL PERMIT RENEWAL (EXPIRES)  
Actual Date: 11/11/2002

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: New Operating Permit - PUBLIC COMMENT (BEGIN)  
Actual Date: 06/14/1983

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: Renewal - No Changes - RESPONSE TO 3RD NOD RECEIVED  
Actual Date: 05/30/1991

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: New Operating Permit - CALL-IN LETTER ISSUED  
Actual Date: 02/24/1983

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: Renewal - No Changes - DRAFT PERMIT RENEWAL  
Actual Date: 05/22/1992

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: New Operating Permit - PUBLIC COMMENT (END)  
Actual Date: 07/29/1983

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: Renewal - No Changes - CEQA DETERMINATION  
Actual Date: 05/21/1992

Closure:  
EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: New Post-Closure Permit - APPLICATION PART B RECEIVED  
Actual Date: 01/08/2009

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HONEYWELL INTERNATIONAL INC (Continued)**

**S111865972**

|                    |   |
|--------------------|---|
| Unit Names:        | CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)                    |
| Event Description: | New Post-Closure Permit - PUBLIC COMMENT (PUBLIC MEETING)     |
| Actual Date:       | 11/17/2009  |
| EPA Id:            | CAD074644659  |
| Facility Type:     | Post-Closure Permitted  |
| Unit Names:        | CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)                    |
| Event Description: | Closure Final - RECEIVE CLOSURE CERTIFICATION                 |
| Actual Date:       | 09/15/1994  |
| EPA Id:            | CAD074644659  |
| Facility Type:     | Post-Closure Permitted  |
| Unit Names:        | CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)                    |
| Event Description: | New Post-Closure Permit - CALL-IN LETTER ISSUED               |
| Actual Date:       | 08/20/2008  |
| EPA Id:            | CAD074644659  |
| Facility Type:     | Post-Closure Permitted  |
| Unit Names:        | CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)                    |
| Event Description: | New Post-Closure Permit - PUBLIC COMMENT (BEGIN)              |
| Actual Date:       | 10/15/2009  |
| EPA Id:            | CAD074644659  |
| Facility Type:     | Post-Closure Permitted  |
| Unit Names:        | CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)                    |
| Event Description: | New Post-Closure Permit - FINAL POST-CLOSURE PERMIT           |
| Actual Date:       | 03/18/2010  |
| EPA Id:            | CAD074644659  |
| Facility Type:     | Post-Closure Permitted  |
| Unit Names:        | CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)                    |
| Event Description: | New Post-Closure Permit - PUBLIC COMMENT (END)                |
| Actual Date:       | 01/18/2010  |
| EPA Id:            | CAD074644659  |
| Facility Type:     | Post-Closure Permitted  |
| Unit Names:        | CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)                    |
| Event Description: | Closure Final - ISSUE CLOSURE VERIFICATION                    |
| Actual Date:       | 09/18/1995  |
| EPA Id:            | CAD074644659  |
| Facility Type:     | Post-Closure Permitted  |
| Unit Names:        | CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)                    |
| Event Description: | New Post-Closure Permit - DISCLOSURE (CLEARED)                |
| Actual Date:       | 01/16/2009  |
| EPA Id:            | CAD074644659  |
| Facility Type:     | Post-Closure Permitted  |
| Unit Names:        | CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)                    |
| Event Description: | New Post-Closure Permit - FINAL PART A & PART B RECEIVED      |
| Actual Date:       | 10/01/2009  |
| EPA Id:            | CAD074644659  |
| Facility Type:     | Post-Closure Permitted  |
| Unit Names:        | CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)                    |
| Event Description: | New Post-Closure Permit - FINAL POST-CLOSURE PERMIT (EXPIRES) |
| Actual Date:       | 03/17/2020  |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HONEYWELL INTERNATIONAL INC (Continued)**

**S111865972**

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: New Post-Closure Permit - APPLICATION PART A RECEIVED  
Actual Date: 01/08/2009

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: New Post-Closure Permit - DRAFT POST-CLOSURE PERMIT  
Actual Date: 10/15/2009

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Unit Names: CONTAIN1 (GPRA Unit), TANKTRT1 (GPRA Unit)  
Event Description: New Post-Closure Permit - FINAL POST-CLOSURE PERMIT (EFFECTIVE)  
Actual Date: 03/18/2010

Alias:

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Alias Type: FRS  
Alias: 110018981609

EPA Id: CAD074644659  
Facility Type: Post-Closure Permitted  
Alias Type: Project Code (Site Code)  
Alias: 200160

Maintenance:

EPA Id: CAD074644659  
Title: the curtailment implementation report, thermal treatment in the former tank farm area dated May 13, 2011  
Document Type: Monitoring Report - Other  
Received Date: 10/03/2011

EPA Id: CAD074644659  
Title: Well Installation Workplan  
Document Type: Monitoring Workplan - Other  
Received Date: 10/03/2011

EPA Id: CAD074644659  
Title: Monthly update for in-situ thermal treatment  
Document Type: Monitoring Report - Groundwater  
Received Date: 02/22/2011

EPA Id: CAD074644659  
Title: Semiannual Statur Report  
Document Type: Monitoring Report - Groundwater  
Received Date: 12/09/2010

EPA Id: CAD074644659  
Title: Semiannual Status Report  
Document Type: Monitoring Report - Groundwater  
Received Date: 04/04/2012

EPA Id: CAD074644659

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HONEYWELL INTERNATIONAL INC (Continued)**

**S111865972**

|                |  |
|----------------|--|
| Title:         | Semiannual Status Report   |
| Document Type: | Monitoring Report - Groundwater  |
| Received Date: | 10/03/2011   |
| EPA Id:        | CAD074644659   |
| Title:         | Semiannual Status Report   |
| Document Type: | Monitoring Report - Groundwater  |
| Received Date: | 02/28/2012   |
| EPA Id:        | CAD074644659   |
| Title:         | Completion Report for the Full Scale In Situ Chemical Oxidation Treatment of the Shallow GW Plume        |
| Document Type: | Monitoring Report - Groundwater  |
| Received Date: | 05/29/2012   |
| EPA Id:        | CAD074644659   |
| Title:         | Honeywell Former BBI-Newark: Interim Groundwater Extraction and Treatment Work Plan                      |
| Document Type: | Monitoring Workplan - Other  |
| Received Date: | 10/03/2011   |
| EPA Id:        | CAD074644659   |
| Title:         | Completion Report, Thermal Treatment in the former Tank Farm Area  |
| Document Type: | Monitoring Report - Other  |
| Received Date: | 10/03/2011   |
| EPA Id:        | CAD074644659   |
| Title:         | Semiannual Status Report dated July 31, 2012 for January through June 2012                               |
| Document Type: | Monitoring Report - Groundwater  |
| Received Date: | 10/02/2012   |
| EPA Id:        | CAD074644659   |
| Title:         | Recorded Land Use Covenant   |
| Document Type: | Deed Restriction / LUC Issued  |
| Received Date: | 09/08/2010   |
| EPA Id:        | CAD074644659   |
| Title:         | the curtailment implementation report, thermal treatment in the former tank farm area dated May 13, 2011 |
| Document Type: | Investigation Workplan   |
| Received Date: | 10/03/2011   |
| EPA Id:        | CAD074644659   |
| Title:         | the curtailment implementation report, thermal treatment in the former tank farm area dated May 13, 2011 |
| Document Type: | Investigation Report   |
| Received Date: | 10/03/2011   |
| EPA Id:        | CAD074644659   |
| Title:         | Additional site investigation workplan   |
| Document Type: | Investigation Workplan   |
| Received Date: | 05/18/2012   |
| EPA Id:        | CAD074644659   |
| Title:         | Recorded Land Use Covenant   |
| Document Type: | Deed Restriction / LUC Issued  |
| Received Date: | 09/08/2010   |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

30  
NE  
1/4-1/2  
0.424 mi.  
2240 ft.

**UNKNOWN**  
**8240 ENTERPRISE**  
**NEWARK, CA 94560**

CA HIST CORTESE

S105025200  
N/A

Relative:  
Higher

CORTESE:  
Region: CORTESE  
Facility County Code: 1  
Reg By: LTNKA  
Reg Id: 2913

Actual:  
13 ft.

H31  
North  
1/4-1/2  
0.427 mi.  
2252 ft.

**UNION SANITARY DISTRICT-NEWARK**  
**8700 THORNTON AVE**  
**NEWARK, CA 94536**  
**Site 1 of 3 in cluster H**

CA LUST  
CA HIST UST  
CA SWEEPS UST  
CA CHMIRS  
CA EMI

U001596873  
N/A

Relative:  
Lower

LUST REG 2:  
Region: 2  
Facility Id: 01-2564  
Facility Status: Case Closed  
Case Number: 0001  
How Discovered: Tank Closure  
Leak Cause: Corrosion  
Leak Source: Tank  
Date Leak Confirmed: Not reported  
Oversight Program: LUST  
Prelim. Site Assesment Wokplan Submitted: Not reported  
Preliminary Site Assesment Began: Not reported  
Pollution Characterization Began: Not reported  
Pollution Remediation Plan Submitted: Not reported  
Date Remediation Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

Actual:  
10 ft.

HIST UST:

Region: STATE  
Facility ID: 00000021276  
Facility Type: Other  
Other Type: WASTEWATER TREATMENT  
Total Tanks: 0003  
Contact Name: ROGER L. HAM  
Telephone: 4157900140  
Owner Name: UNION SANITARY DISTRICT  
Owner Address: 37532 DUSTERBERRY WAY  
Owner City,St,Zip: FREMONT, CA 94536

Tank Num: 001  
Container Num: 2  
Year Installed: Not reported  
Tank Capacity: 00000550  
Tank Used for: PRODUCT  
Type of Fuel: DIESEL  
Tank Construction: Not reported  
Leak Detection: Not reported

Tank Num: 002  
Container Num: 4  
Year Installed: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION SANITARY DISTRICT-NEWARK (Continued)**

**U001596873**

Tank Capacity: 00002000  
Tank Used for: PRODUCT  
Type of Fuel: PREMIUM  
Tank Construction: Not reported  
Leak Detection: Visual, None

Tank Num: 003  
Container Num: 13  
Year Installed: Not reported  
Tank Capacity: 00001000  
Tank Used for: PRODUCT  
Type of Fuel: UNLEADED  
Tank Construction: Not reported  
Leak Detection: Visual

**SWEEPS UST:**

Status: Not reported  
Comp Number: 21276  
Number: Not reported  
Board Of Equalization: 44-001219  
Referral Date: Not reported  
Action Date: Not reported  
Created Date: Not reported  
Tank Status: Not reported  
Owner Tank Id: Not reported  
Swrcb Tank Id: 01-008-021276-000001  
Actv Date: Not reported  
Capacity: 550  
Tank Use: M.V. FUEL  
Stg: PRODUCT  
Content: DIESEL  
Number Of Tanks: 5

Status: Not reported  
Comp Number: 21276  
Number: Not reported  
Board Of Equalization: 44-001219  
Referral Date: Not reported  
Action Date: Not reported  
Created Date: Not reported  
Tank Status: Not reported  
Owner Tank Id: Not reported  
Swrcb Tank Id: 01-008-021276-000002  
Actv Date: Not reported  
Capacity: 2000  
Tank Use: M.V. FUEL  
Stg: PRODUCT  
Content: REG UNLEADED  
Number Of Tanks: Not reported

Status: Not reported  
Comp Number: 21276  
Number: Not reported  
Board Of Equalization: 44-001219  
Referral Date: Not reported  
Action Date: Not reported  
Created Date: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

UNION SANITARY DISTRICT-NEWARK (Continued)

U001596873

Tank Status: Not reported  
Owner Tank Id: Not reported  
Swrcb Tank Id: 01-008-021276-000003  
Actv Date: Not reported  
Capacity: 1000  
Tank Use: M.V. FUEL  
Stg: PRODUCT  
Content: REG UNLEADED  
Number Of Tanks: Not reported

Status: Not reported  
Comp Number: 21276  
Number: Not reported  
Board Of Equalization: 44-001219  
Referral Date: Not reported  
Action Date: Not reported  
Created Date: Not reported  
Tank Status: Not reported  
Owner Tank Id: Not reported  
Swrcb Tank Id: 01-008-021276-000004  
Actv Date: Not reported  
Capacity: 4906  
Tank Use: UNKNOWN  
Stg: PRODUCT  
Content: Not reported  
Number Of Tanks: Not reported

Status: Not reported  
Comp Number: 21276  
Number: Not reported  
Board Of Equalization: 44-001219  
Referral Date: Not reported  
Action Date: Not reported  
Created Date: Not reported  
Tank Status: Not reported  
Owner Tank Id: Not reported  
Swrcb Tank Id: 01-008-021276-000005  
Actv Date: Not reported  
Capacity: 10000  
Tank Use: M.V. FUEL  
Stg: PRODUCT  
Content: DIESEL  
Number Of Tanks: Not reported

CHMIRS:

OES Incident Number: 99-0839  
OES notification: 02/22/1999  
OES Date: Not reported  
OES Time: Not reported  
Incident Date: Not reported  
**Date Completed: Not reported**  
Property Use: Not reported  
Agency Id Number: Not reported  
Agency Incident Number: Not reported  
Time Notified: Not reported  
Time Completed: Not reported  
Surrounding Area: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION SANITARY DISTRICT-NEWARK (Continued)**

**U001596873**

Estimated Temperature: Not reported  
Property Management: Not reported  
Special Studies 1: Not reported  
Special Studies 2: Not reported  
Special Studies 3: Not reported  
Special Studies 4: Not reported  
Special Studies 5: Not reported  
Special Studies 6: Not reported  
More Than Two Substances Involved?: Not reported  
Resp Agncy Personel # Of Decontaminated: Not reported  
Responding Agency Personel # Of Injuries: Not reported  
Responding Agency Personel # Of Fatalities: Not reported  
Others Number Of Decontaminated: Not reported  
Others Number Of Injuries: Not reported  
Others Number Of Fatalities: Not reported  
Vehicle Make/year: Not reported  
Vehicle License Number: Not reported  
Vehicle State: Not reported  
Vehicle Id Number: Not reported  
CA/DOT/PUC/ICC Number: Not reported  
Company Name: Not reported  
Reporting Officer Name/ID: Not reported  
Report Date: Not reported  
Comments: Not reported  
Facility Telephone: Not reported  
Waterway Involved: Yes  
Waterway: storm drain  
Spill Site: Not reported  
Cleanup By: Responsible Party  
Containment: Not reported  
What Happened: Not reported  
Type: Not reported  
Measure: Not reported  
Other: Not reported  
Date/Time: Not reported  
Year: 1999  
Agency: Union Sanitary District  
Incident Date: 2/21/1999 12:00:00 AM  
Admin Agency: Newark Fire Department  
Amount: Not reported  
Contained: Yes  
Site Type: Treatment/Sewage Facility  
E Date: Not reported  
Substance: Raw Sewage  
Quantity Released: Not reported  
BBLs: 0  
Cups: 0  
CUFT: 0  
Gallons: 10  
Grams: 0  
Pounds: 0  
Liters: 0  
Ounces: 0  
Pints: 0  
Quarts: 0  
Sheen: 0  
Tons: 0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION SANITARY DISTRICT-NEWARK (Continued)**

**U001596873**

Unknown: 0  
Evacuations: 0  
Number of Injuries: 0  
Number of Fatalities: 0  
Description: Occurred 2/21/99, due to power failure at a pump station and failure of the back-up system. Some sewage went into storm drain, some into flood control channel which goes through a marsh then to SF Bay.

**EMI:**

Year: 1987  
County Code: 1  
Air Basin: SF  
Facility ID: 2885  
Air District Name: BA  
SIC Code: 4952  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1990  
County Code: 1  
Air Basin: SF  
Facility ID: 2885  
Air District Name: BA  
SIC Code: 4952  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 1995  
County Code: 1  
Air Basin: SF  
Facility ID: 2885  
Air District Name: BA  
SIC Code: 4952  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 2  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION SANITARY DISTRICT-NEWARK (Continued)**

**U001596873**

|   |               |
|---|---------------|
| Particulate Matter Tons/Yr:                 | 0             |
| Part. Matter 10 Micrometers & Smlr Tons/Yr: | 0             |
| Year:                                       | 1996          |
| County Code:                                | 1             |
| Air Basin:                                  | SF            |
| Facility ID:                                | 2885          |
| Air District Name:                          | BA            |
| SIC Code:                                   | 4952          |
| Air District Name:                          | BAY AREA AQMD |
| Community Health Air Pollution Info System: | Not reported  |
| Consolidated Emission Reporting Rule:       | Not reported  |
| Total Organic Hydrocarbon Gases Tons/Yr:    | 2             |
| Reactive Organic Gases Tons/Yr:             | 1             |
| Carbon Monoxide Emissions Tons/Yr:          | 0             |
| NOX - Oxides of Nitrogen Tons/Yr:           | 0             |
| SOX - Oxides of Sulphur Tons/Yr:            | 0             |
| Particulate Matter Tons/Yr:                 | 0             |
| Part. Matter 10 Micrometers & Smlr Tons/Yr: | 0             |
| Year:                                       | 1997          |
| County Code:                                | 1             |
| Air Basin:                                  | SF            |
| Facility ID:                                | 2885          |
| Air District Name:                          | BA            |
| SIC Code:                                   | 4952          |
| Air District Name:                          | BAY AREA AQMD |
| Community Health Air Pollution Info System: | Not reported  |
| Consolidated Emission Reporting Rule:       | Not reported  |
| Total Organic Hydrocarbon Gases Tons/Yr:    | 2             |
| Reactive Organic Gases Tons/Yr:             | 1             |
| Carbon Monoxide Emissions Tons/Yr:          | 0             |
| NOX - Oxides of Nitrogen Tons/Yr:           | 0             |
| SOX - Oxides of Sulphur Tons/Yr:            | 0             |
| Particulate Matter Tons/Yr:                 | 0             |
| Part. Matter 10 Micrometers & Smlr Tons/Yr: | 0             |
| Year:                                       | 1998          |
| County Code:                                | 1             |
| Air Basin:                                  | SF            |
| Facility ID:                                | 2885          |
| Air District Name:                          | BA            |
| SIC Code:                                   | 4952          |
| Air District Name:                          | BAY AREA AQMD |
| Community Health Air Pollution Info System: | Not reported  |
| Consolidated Emission Reporting Rule:       | Not reported  |
| Total Organic Hydrocarbon Gases Tons/Yr:    | 10            |
| Reactive Organic Gases Tons/Yr:             | 8             |
| Carbon Monoxide Emissions Tons/Yr:          | 0             |
| NOX - Oxides of Nitrogen Tons/Yr:           | 1             |
| SOX - Oxides of Sulphur Tons/Yr:            | 0             |
| Particulate Matter Tons/Yr:                 | 0             |
| Part. Matter 10 Micrometers & Smlr Tons/Yr: | 0             |
| Year:                                       | 1999          |
| County Code:                                | 1             |
| Air Basin:                                  | SF            |

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION SANITARY DISTRICT-NEWARK (Continued)**

**U001596873**

Facility ID: 2885  
Air District Name: BA  
SIC Code: 4952  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 10  
Reactive Organic Gases Tons/Yr: 7  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2000  
County Code: 1  
Air Basin: SF  
Facility ID: 2885  
Air District Name: BA  
SIC Code: 4952  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 10  
Reactive Organic Gases Tons/Yr: 7  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2001  
County Code: 1  
Air Basin: SF  
Facility ID: 2885  
Air District Name: BA  
SIC Code: 4952  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 2  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2002  
County Code: 1  
Air Basin: SF  
Facility ID: 2885  
Air District Name: BA  
SIC Code: 4952  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION SANITARY DISTRICT-NEWARK (Continued)**

**U001596873**

Total Organic Hydrocarbon Gases Tons/Yr: 2  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 0  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2003  
County Code: 1  
Air Basin: SF  
Facility ID: 2885  
Air District Name: BA  
SIC Code: 4952  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 2  
Reactive Organic Gases Tons/Yr: 1  
Carbon Monoxide Emissions Tons/Yr: 0  
NOX - Oxides of Nitrogen Tons/Yr: 1  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: 0  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0

Year: 2004  
County Code: 1  
Air Basin: SF  
Facility ID: 2885  
Air District Name: BA  
SIC Code: 4952  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.62  
Reactive Organic Gases Tons/Yr: 1.1440229  
Carbon Monoxide Emissions Tons/Yr: 0.245  
NOX - Oxides of Nitrogen Tons/Yr: 1.128  
SOX - Oxides of Sulphur Tons/Yr: 0.017  
Particulate Matter Tons/Yr: 0.081  
Part. Matter 10 Micrometers & Smlr Tons/Yr: 0.079056

Year: 2005  
County Code: 1  
Air Basin: SF  
Facility ID: 2885  
Air District Name: BA  
SIC Code: 4952  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.62  
Reactive Organic Gases Tons/Yr: 1.1440229  
Carbon Monoxide Emissions Tons/Yr: .245  
NOX - Oxides of Nitrogen Tons/Yr: 1.128  
SOX - Oxides of Sulphur Tons/Yr: .017  
Particulate Matter Tons/Yr: .081

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**UNION SANITARY DISTRICT-NEWARK (Continued)**

**U001596873**

Part. Matter 10 Micrometers & Smlr Tons/Yr: .079056

Year: 2006  
County Code: 1  
Air Basin: SF  
Facility ID: 2885  
Air District Name: BA  
SIC Code: 4952  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.626  
Reactive Organic Gases Tons/Yr: 1.1490431  
Carbon Monoxide Emissions Tons/Yr: .262  
NOX - Oxides of Nitrogen Tons/Yr: 1.206  
SOX - Oxides of Sulphur Tons/Yr: .019  
Particulate Matter Tons/Yr: .086  
Part. Matter 10 Micrometers & Smlr Tons/Yr: .083936

Year: 2007  
County Code: 1  
Air Basin: SF  
Facility ID: 2885  
Air District Name: BA  
SIC Code: 4952  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.626  
Reactive Organic Gases Tons/Yr: 1.1490431  
Carbon Monoxide Emissions Tons/Yr: .262  
NOX - Oxides of Nitrogen Tons/Yr: 1.206  
SOX - Oxides of Sulphur Tons/Yr: .019  
Particulate Matter Tons/Yr: .086  
Part. Matter 10 Micrometers & Smlr Tons/Yr: .083936

Year: 2008  
County Code: 1  
Air Basin: SF  
Facility ID: 2885  
Air District Name: BA  
SIC Code: 4952  
Air District Name: BAY AREA AQMD  
Community Health Air Pollution Info System: Not reported  
Consolidated Emission Reporting Rule: Not reported  
Total Organic Hydrocarbon Gases Tons/Yr: 1.546  
Reactive Organic Gases Tons/Yr: 1.0821071  
Carbon Monoxide Emissions Tons/Yr: .026  
NOX - Oxides of Nitrogen Tons/Yr: .269  
SOX - Oxides of Sulphur Tons/Yr: 0  
Particulate Matter Tons/Yr: .005  
Part. Matter 10 Micrometers & Smlr Tons/Yr: .00488

Year: 2009  
County Code: 1  
Air Basin: SF  
Facility ID: 2885

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**UNION SANITARY DISTRICT-NEWARK (Continued)**

**U001596873**

Air District Name: BA  
 SIC Code: 4952  
 Air District Name: BAY AREA AQMD  
 Community Health Air Pollution Info System: Not reported  
 Consolidated Emission Reporting Rule: Not reported  
 Total Organic Hydrocarbon Gases Tons/Yr: 1.5409999999999999  
 Reactive Organic Gases Tons/Yr: 1.0779236000000001  
 Carbon Monoxide Emissions Tons/Yr: 1.7999999999999999E-2  
 NOX - Oxides of Nitrogen Tons/Yr: 0.182  
 SOX - Oxides of Sulphur Tons/Yr: 0  
 Particulate Matter Tons/Yr: 0.00307377049180327  
 Part. Matter 10 Micrometers & Smlr Tons/Yr: 3.0000000000000001E-3

Year: 2010  
 County Code: 1  
 Air Basin: SF  
 Facility ID: 2885  
 Air District Name: BA  
 SIC Code: 4952  
 Air District Name: BAY AREA AQMD  
 Community Health Air Pollution Info System: Not reported  
 Consolidated Emission Reporting Rule: Not reported  
 Total Organic Hydrocarbon Gases Tons/Yr: 1.5409999999999999  
 Reactive Organic Gases Tons/Yr: 1.0779236000000001  
 Carbon Monoxide Emissions Tons/Yr: 1.7999999999999999E-2  
 NOX - Oxides of Nitrogen Tons/Yr: 0.182  
 SOX - Oxides of Sulphur Tons/Yr: 0  
 Particulate Matter Tons/Yr: 0.00307377049180327  
 Part. Matter 10 Micrometers & Smlr Tons/Yr: 3.0000000000000001E-3

**H32**  
**North**  
**1/4-1/2**  
**0.427 mi.**  
**2252 ft.**

**MILITARY FAMILY HOUSING**  
**8700 THORNTON**  
**NEWARK, CA**

**CA HIST CORTESE** **S105025203**  
**CA LUST** **N/A**

**Site 2 of 3 in cluster H**

**Relative:**  
**Lower**

**CORTESE:**  
 Region: CORTESE  
 Facility County Code: 1  
 Reg By: LTNKA  
 Reg Id: 2885

**Actual:**  
**10 ft.**

**LUST:**  
 Region: STATE  
 Global Id: T0600149151  
 Latitude: 37.519413  
 Longitude: -122.066366  
 Case Type: LUST Cleanup Site  
 Status: Completed - Case Closed  
 Status Date: 01/10/1997  
 Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
 Case Worker: SDI  
 Local Agency: ALAMEDA COUNTY WATER DISTRICT  
 RB Case Number: 01-2564  
 LOC Case Number: 0001  
 File Location: Local Agency Warehouse  
 Potential Media Affect: Other Groundwater (uses other than drinking water)

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**MILITARY FAMILY HOUSING (Continued)**

**S105025203**

Potential Contaminants of Concern: Other Solvent or Non-Petroleum Hydrocarbon, Waste Oil / Motor / Hydraulic / Lubricating, Acetone

Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0600149151  
Contact Type: Regional Board Caseworker  
Contact Name: Cherie McCaulou  
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)  
Address: 1515 CLAY STREET, SUITE 1400  
City: OAKLAND  
Email: cmccaulou@waterboards.ca.gov  
Phone Number: Not reported

Global Id: T0600149151  
Contact Type: Local Agency Caseworker  
Contact Name: STEVEN D. INN  
Organization Name: ALAMEDA COUNTY WATER DISTRICT  
Address: 43885 SOUTH GRIMMER BOULEVARD  
City: FREMONT  
Email: steven.inn@acwd.com  
Phone Number: Not reported

Regulatory Activities:

Global Id: T0600149151  
Action Type: Other  
Date: 01/01/1950  
Action: Leak Reported

Global Id: T0600149151  
Action Type: Other  
Date: 01/01/1950  
Action: Leak Stopped

Global Id: T0600149151  
Action Type: REMEDIATION  
Date: 01/01/1950  
Action: Excavation

Global Id: T0600149151  
Action Type: ENFORCEMENT  
Date: 06/28/2002  
Action: \* No Action

Global Id: T0600149151  
Action Type: Other  
Date: 01/01/1950  
Action: Leak Discovery

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**I33**  
**ENE**  
**1/4-1/2**  
**0.432 mi.**  
**2280 ft.**

**STEFFENSEN PROPERTY-ENTERPRISE DR.**  
**8140 ENTERPRISE DRIVE**  
**NEWARK, CA 94560**

**CA SLIC** **S106234850**  
**N/A**

**Site 1 of 5 in cluster I**

**Relative:**  
**Higher**

SLIC:

**Actual:**  
**13 ft.**

Region: STATE  
**Facility Status: Open - Verification Monitoring**  
Status Date: 06/25/2002  
Global Id: SL0600130203  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Lead Agency Case Number: 0374  
Latitude: 37.519322  
Longitude: -122.046413  
Case Type: Cleanup Program Site  
Case Worker: RS  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01S0628  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating, Diesel  
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

SLIC REG 2:

Region: 2  
Facility ID: Not reported  
Facility Status: Post remedial action monitoring  
Date Closed: Not reported  
Local Case #: Not reported  
How Discovered: Not reported  
Leak Cause: Not reported  
Leak Source: Not reported  
Date Confirmed: Not reported  
Date Prelim Site Assmnt Workplan Submitted: Not reported  
Date Preliminary Site Assessment Began: Not reported  
Date Pollution Characterization Began: Not reported  
Date Remediation Plan Submitted: Not reported  
Date Remedial Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

**I34**  
**ENE**  
**1/4-1/2**  
**0.436 mi.**  
**2303 ft.**

**CONSOLIDATED FREIGHTWAYS**  
**8130 ENTERPRISE DR**  
**NEWARK, CA 94560**

**CA HIST UST** **U001597763**  
**CA SWEEPS UST** **N/A**  
**CA HWP**

**Site 2 of 5 in cluster I**

**Relative:**  
**Higher**

HIST UST:

**Actual:**  
**13 ft.**

Region: STATE  
Facility ID: 00000063769  
Facility Type: Other  
Other Type: COMMON CARRIER  
Total Tanks: 0001  
Contact Name: JOHN MILLER  
Telephone: 4157910348  
Owner Name: CONSOLIDATED FREIGHTWAYS  
Owner Address: 175 LINFIELD DRIVE

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**CONSOLIDATED FREIGHTWAYS (Continued)**

**U001597763**

Owner City,St,Zip: MENLO PARK, CA 94025

Tank Num: 001  
Container Num: D-1  
Year Installed: 1985  
Tank Capacity: 00010000  
Tank Used for: PRODUCT  
Type of Fuel: DIESEL  
Tank Construction: 1/4 inches  
Leak Detection: Stock Inventor

**SWEEPS UST:**

Status: Active  
Comp Number: 63769  
Number: 9  
Board Of Equalization: 44-000859  
Referral Date: 07-01-85  
Action Date: Not reported  
Created Date: 02-29-88  
Tank Status: A  
Owner Tank Id: D-1  
Swrcb Tank Id: 01-008-063769-000001  
Actv Date: 07-01-85  
Capacity: 10000  
Tank Use: M.V. FUEL  
Stg: P  
Content: DIESEL  
Number Of Tanks: 1

Status: Active  
Comp Number: 63769  
Number: 9  
Board Of Equalization: 44-000859  
Referral Date: 07-01-85  
Action Date: Not reported  
Created Date: 02-29-88  
Tank Status: A  
Owner Tank Id: D-1  
Swrcb Tank Id: 01-008-063769-000001  
Actv Date: 07-01-85  
Capacity: 10000  
Tank Use: M.V. FUEL  
Stg: P  
Content: DIESEL  
Number Of Tanks: 1

**HWP:**

EPA Id: CAT080013360  
Cleanup Status: CLOSED  
Latitude: 37.52310  
Longitude: -122.0466  
Facility Type: Historical - Non-Operating  
Facility Size: Not reported  
Team: Not reported  
Supervisor: Not reported  
Site Code: Not reported

Map ID  
 Direction  
 Distance  
 Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
 EPA ID Number

**CONSOLIDATED FREIGHTWAYS (Continued)**

**U001597763**

Assembly District: 25  
 Senate District: 10  
 Public Information Officer: Not reported

Closure:  
 EPA Id: CAT080013360  
 Facility Type: Historical - Non-Operating  
 Unit Names: CONTAIN1  
 Event Description: Closure Final - ISSUE CLOSURE VERIFICATION  
 Actual Date: 08/12/1987

Alias:  
 EPA Id: CAT080013360  
 Facility Type: Historical - Non-Operating  
 Alias Type: Alternate Name  
 Alias: HOLLAND OIL

EPA Id: CAT080013360  
 Facility Type: Historical - Non-Operating  
 Alias Type: Envirostor ID Number  
 Alias: 01290019

EPA Id: CAT080013360  
 Facility Type: Historical - Non-Operating  
 Alias Type: FRS  
 Alias: 110002946135

**I35**  
**ENE**  
**1/4-1/2**  
**0.436 mi.**  
**2303 ft.**

**ABE OIL INC**  
**8130 ENTERPRISE DR**  
**NEWARK, CA 94560**  
**Site 3 of 5 in cluster I**

**CERC-NFRAP** **1000126669**  
**RCRA NonGen / NLR** **CAT080013360**  
**FINDS**

**Relative:**  
**Higher**  
  
**Actual:**  
**13 ft.**

CERC-NFRAP:  
 Site ID: 0902681  
 Federal Facility: Not a Federal Facility  
 NPL Status: Not on the NPL  
 Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information

CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID: 13051847.00000  
 Person ID: 9271184.00000

Contact Sequence ID: 13285717.00000  
 Person ID: 13003854.00000

Contact Sequence ID: 13291312.00000  
 Person ID: 13003858.00000

Contact Sequence ID: 13297170.00000  
 Person ID: 13004003.00000

CERCLIS-NFRAP Site Alias Name(s):

Alias Name: ADVANCE OIL RECOVERY INC  
 Alias Address: Not reported  
 CA

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ABE OIL INC (Continued)**

**1000126669**

CERCLIS-NFRAP Assessment History:

Action: SITE INSPECTION  
Date Started: / /  
Date Completed: 02/01/86  
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information

Action: ARCHIVE SITE  
Date Started: / /  
Date Completed: 02/01/86  
Priority Level: Not reported

Action: PRELIMINARY ASSESSMENT  
Date Started: 01/01/84  
Date Completed: 09/01/84  
Priority Level: Low priority for further assessment

Action: DISCOVERY  
Date Started: / /  
Date Completed: 11/01/80  
Priority Level: Not reported

RCRA NonGen / NLR:

Date form received by agency: 11/24/1980  
Facility name: ABE OIL INC  
Facility address: 8130 ENTERPRISE DR  
NEWARK, CA 94560  
EPA ID: CAT080013360  
Mailing address: 8130 ENTERPRISE DR.  
NEWARK, CA 94560  
Contact: ENVIRONMENTAL MANAGER  
Contact address: 8130 ENTERPRISE DR  
NEWARK, CA 94560  
Contact country: US  
Contact telephone: (415) 794-7460  
Contact email: Not reported  
EPA Region: 09  
Land type: Other land type  
Classification: Non-Generator  
Description: Handler: Non-Generators do not presently generate hazardous waste

Owner/Operator Summary:

Owner/operator name: JACK M HOLLAND/BARBARA J. HOLLAND  
Owner/operator address: 1404 FRANKLIN ST.  
OAKLAND, CA 94610  
Owner/operator country: Not reported  
Owner/operator telephone: (415) 839-4641  
Legal status: Private  
Owner/Operator Type: Owner  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Owner/operator name: ABE OIL INCORPORATED  
Owner/operator address: 8130 ENTERPRISE DRIVE  
CITY NOT REPORTED, CA 99999  
Owner/operator country: Not reported  
Owner/operator telephone: (415) 794-7460

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**ABE OIL INC (Continued)**

**1000126669**

Legal status: Private  
Owner/Operator Type: Operator  
Owner/Op start date: Not reported  
Owner/Op end date: Not reported

Handler Activities Summary:

U.S. importer of hazardous waste: No  
Mixed waste (haz. and radioactive): No  
Recycler of hazardous waste: No  
Transporter of hazardous waste: Yes  
Treater, storer or disposer of HW: No  
Underground injection activity: No  
On-site burner exemption: No  
Furnace exemption: No  
Used oil fuel burner: No  
Used oil processor: No  
User oil refiner: No  
Used oil fuel marketer to burner: No  
Used oil Specification marketer: No  
Used oil transfer facility: No  
Used oil transporter: No

Violation Status: No violations found

Evaluation Action Summary:

Evaluation date: 09/03/1987  
Evaluation: FINANCIAL RECORD REVIEW  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

Evaluation date: 07/09/1987  
Evaluation: COMPLIANCE EVALUATION INSPECTION ON-SITE  
Area of violation: Not reported  
Date achieved compliance: Not reported  
Evaluation lead agency: State

FINDS:

Registry ID: 110002946135

Environmental Interest/Information System

RCRAInfo is a national information system that supports the Resource Conservation and Recovery Act (RCRA) program through the tracking of events and activities related to facilities that generate, transport, and treat, store, or dispose of hazardous waste. RCRAInfo allows RCRA program staff to track the notification, permit, compliance, and corrective action activities required under RCRA.

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**I36**  
**ENE**  
**1/4-1/2**  
**0.436 mi.**  
**2303 ft.**  
**POZAS BROTHERS TRUCKING**  
**8130 ENTERPRISE DR**  
**NEWARK, CA 94560**  
**Site 4 of 5 in cluster I**

**CA NPDES**  
**CA HIST CORTESE**  
**CA SLIC**  
**CA CHMIRS**  
**CA RESPONSE**  
**CA ENVIROSTOR**  
**S100191189**  
**N/A**

**Relative:**  
**Higher**

NPDES:

**Actual:**  
**13 ft.**

Npdes Number: CAS000001  
Facility Status: Active  
Agency Id: 0  
Region: 2  
Regulatory Measure Id: 276881  
Order No: 97-03-DWQ  
Regulatory Measure Type: Enrollee  
Place Id: Not reported  
WDID: 2 011019292  
Program Type: Industrial  
Adoption Date Of Regulatory Measure: Not reported  
Effective Date Of Regulatory Measure: 01/21/2005  
Expiration Date Of Regulatory Measure: Not reported  
Termination Date Of Regulatory Measure: Not reported  
Discharge Name: Pozas Brothers Trucking  
Discharge Address: 8130 Enterprise Dr  
Discharge City: Newark  
Discharge State: California  
Discharge Zip: 94560

CORTESE:

Region: CORTESE  
Facility County Code: 1  
Reg By: CALSI  
Reg Id: 01290019

SLIC:

Region: STATE  
**Facility Status: Open - Remediation**  
Status Date: 07/01/2010  
Global Id: SL0600163185  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Lead Agency Case Number: 0257  
Latitude: 37.520976  
Longitude: -122.04417  
Case Type: Cleanup Program Site  
Case Worker: RS  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01S0499  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

SLIC REG 2:

Region: 2  
Facility ID: Not reported  
Facility Status: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s) EDR ID Number  
EPA ID Number

**POZAS BROTHERS TRUCKING (Continued)**

**S100191189**

Date Closed: Not reported  
Local Case #: Not reported  
How Discovered: Not reported  
Leak Cause: Not reported  
Leak Source: Not reported  
Date Confirmed: Not reported  
Date Prelim Site Assmnt Workplan Submitted: Not reported  
Date Preliminary Site Assessment Began: Not reported  
Date Pollution Characterization Began: Not reported  
Date Remediation Plan Submitted: Not reported  
Date Remedial Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

**CHMIRS:**

OES Incident Number: 9990656  
OES notification: Not reported  
OES Date: Not reported  
OES Time: Not reported  
Incident Date: 20-SEP-88  
**Date Completed: 20-SEP-88**  
Property Use: 099  
Agency Id Number: 1070  
Agency Incident Number: 247/8  
Time Notified: 750  
Time Completed: 939  
Surrounding Area: 600  
Estimated Temperature: 68  
Property Management: P  
Special Studies 1: Not reported  
Special Studies 2: Not reported  
Special Studies 3: Not reported  
Special Studies 4: Not reported  
Special Studies 5: Not reported  
Special Studies 6: Not reported  
More Than Two Substances Involved?: N  
Resp Agncy Personel # Of Decontaminated: 2  
Responding Agency Personel # Of Injuries: Not reported  
Responding Agency Personel # Of Fatalities: Not reported  
Others Number Of Decontaminated: Not reported  
Others Number Of Injuries: Not reported  
Others Number Of Fatalities: Not reported  
Vehicle Make/year: Not reported  
Vehicle License Number: Not reported  
Vehicle State: Not reported  
Vehicle Id Number: Not reported  
CA/DOT/PUC/ICC Number: Not reported  
Company Name: Not reported  
Reporting Officer Name/ID: JAQUELINE BRETSCHNEIDER  
Report Date: 26-SEP-88  
Comments: Y  
Facility Telephone: 415 790-7254  
Waterway Involved: Not reported  
Waterway: Not reported  
Spill Site: Not reported  
Cleanup By: Not reported  
Containment: Not reported  
What Happened: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**POZAS BROTHERS TRUCKING (Continued)**

**S100191189**

Type: Not reported  
Measure: Not reported  
Other: Not reported  
Date/Time: Not reported  
Year: 88-92  
Agency: Not reported  
Incident Date: Not reported  
Admin Agency: Not reported  
Amount: Not reported  
Contained: Not reported  
Site Type: Not reported  
E Date: 14-FEB-89  
Substance: Not reported  
Quantity Released: Not reported  
BBLs: Not reported  
Cups: Not reported  
CUFT: Not reported  
Gallons: Not reported  
Grams: Not reported  
Pounds: Not reported  
Liters: Not reported  
Ounces: Not reported  
Pints: Not reported  
Quarts: Not reported  
Sheen: Not reported  
Tons: Not reported  
Unknown: Not reported  
Evacuations: Not reported  
Number of Injuries: Not reported  
Number of Fatalities: Not reported  
Description: Not reported

**RESPONSE:**

Facility ID: 01290019  
Site Type: State Response  
Site Type Detail: State Response or NPL  
Acres: 4  
National Priorities List: NO  
Cleanup Oversight Agencies: SMBRP, ALAMEDA COUNTY, ALAMEDA COUNTY WATER DISTRICT, CITY OF NEWARK  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Lead Agency Description: ALAMEDA COUNTY WATER DISTRICT  
Project Manager: Denise Tsuji  
Supervisor: Denise Tsuji  
Division Branch: Cleanup Berkeley  
Site Code: Not reported  
Site Mgmt. Req.: NONE SPECIFIED  
Assembly: 25  
Senate: 10  
Special Program Status: Not reported  
Status: Certified  
Status Date: 01/01/1985  
Restricted Use: NO  
Funding: Responsible Party  
Latitude: 37.52098  
Longitude: -122.0440  
APN: 092-0116-012-15, 92-116-12-15  
Past Use: FUEL TERMINALS, RECYCLING - USED OIL

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**POZAS BROTHERS TRUCKING (Continued)**

**S100191189**

Potential COC: Benzene, TPH-diesel, TPH-gas  
Confirmed COC: Benzene, TPH-diesel, TPH-gas, Benzene, TPH-diesel, TPH-gas  
Potential Description: OTH, SOIL  
Alias Name: ABE OIL INC  
Alias Type: Alternate Name  
Alias Name: CALIFORNIA OIL RECYCLERS  
Alias Type: Alternate Name  
Alias Name: 092-0116-012-15  
Alias Type: APN  
Alias Name: 92-116-12-15  
Alias Type: APN  
Alias Name: CAT080013360  
Alias Type: EPA Identification Number  
Alias Name: 110002946135  
Alias Type: EPA (FRS #)  
Alias Name: 110033614916  
Alias Type: EPA (FRS #)  
Alias Name: 01290019  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Certification  
Completed Date: 01/01/1985  
Comments: In October 1984, the six waste oil AGTs were removed; approximately 160 cubic yards of soil (up to 5 feet depth) was excavated and disposed offsite. Site cleanup was completed and subsequently reported to the Department of Health Services (DHS), predecessor to DTSC in October 1984. Holland conducted post removal sampling in November 1984 under the oversight of the Newark Fire Department which showed significantly reduced TPH and no detectable levels of PCBs. DHS signed off on the cleanup of the site in a letter dated December 20, 1984 stating no further remedial action will be required for the site.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \* Discovery  
Completed Date: 09/14/1981  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Screening  
Completed Date: 04/10/1987  
Comments: Completed Site Screening. In September 1984, a soil investigation at the site revealed the presence of total petroleum hydrocarbons as gasoline (TPHg) as high as 12000 ppm and TPH as diesel (TPHd) as high as 4100 ppm. In October 1984, the six waste oil AGTs were removed; approximately 160 cubic yards of soil (up to 5 feet depth) was excavated and disposed offsite. Site cleanup was subsequently reported to the Department of Health Services (DHS), predecessor to the Department of Toxic Substances Control (DTSC) in October 1984.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Assessment Report

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**POZAS BROTHERS TRUCKING (Continued)**

**S100191189**

Completed Date: 02/07/1984  
Comments: Completed PA. Between 1979 and 1984, the site had six above ground tanks (AGTs) with a total capacity of 750,000 gallons used for waste oils. An oil spill resulting from a mechanical hose failure occurred at the site in 1979 and was remediated under the oversight of the Alameda County Department of Environmental Health (ACDEH) and the Newark Fire Department (NFD).

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Screening  
Completed Date: 06/03/2003  
Comments: State Screening Assessment during remediation under the ACWD and NFD. Recommendation: PEA/Deed Restriction.

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

**ENVIROSTOR:**

Site Type: State Response  
Site Type Detailed: State Response or NPL  
Acres: 4  
NPL: NO  
Regulatory Agencies: SMBRP, ALAMEDA COUNTY, ALAMEDA COUNTY WATER DISTRICT, CITY OF NEWARK  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Program Manager: Denise Tsuji  
Supervisor: Denise Tsuji  
Division Branch: Cleanup Berkeley  
Facility ID: 01290019  
Site Code: Not reported  
Assembly: 25  
Senate: 10  
Special Program: Not reported  
Status: Certified  
Status Date: 01/01/1985  
Restricted Use: NO  
Site Mgmt. Req.: NONE SPECIFIED  
Funding: Responsible Party  
Latitude: 37.52098  
Longitude: -122.0440  
APN: 092-0116-012-15, 92-116-12-15  
Past Use: FUEL TERMINALS, RECYCLING - USED OIL  
Potential COC: Benzene, TPH-diesel, TPH-gas  
Confirmed COC: Benzene, TPH-diesel, TPH-gas, Benzene, TPH-diesel, TPH-gas  
Potential Description: OTH, SOIL  
Alias Name: ABE OIL INC  
Alias Type: Alternate Name  
Alias Name: CALIFORNIA OIL RECYCLERS  
Alias Type: Alternate Name  
Alias Name: 092-0116-012-15

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**POZAS BROTHERS TRUCKING (Continued)**

**S100191189**

Alias Type: APN  
Alias Name: 92-116-12-15  
Alias Type: APN  
Alias Name: CAT080013360  
Alias Type: EPA Identification Number  
Alias Name: 110002946135  
Alias Type: EPA (FRS #)  
Alias Name: 110033614916  
Alias Type: EPA (FRS #)  
Alias Name: 01290019  
Alias Type: Envirostor ID Number

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Certification  
Completed Date: 01/01/1985  
Comments: In October 1984, the six waste oil AGTs were removed; approximately 160 cubic yards of soil (up to 5 feet depth) was excavated and disposed offsite. Site cleanup was completed and subsequently reported to the Department of Health Services (DHS), predecessor to DTSC in October 1984. Holland conducted post removal sampling in November 1984 under the oversight of the Newark Fire Department which showed significantly reduced TPH and no detectable levels of PCBs. DHS signed off on the cleanup of the site in a letter dated December 20, 1984 stating no further remedial action will be required for the site.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: \* Discovery  
Completed Date: 09/14/1981  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Screening  
Completed Date: 04/10/1987  
Comments: Completed Site Screening. In September 1984, a soil investigation at the site revealed the presence of total petroleum hydrocarbons as gasoline (TPHg) as high as 12000 ppm and TPH as diesel (TPHd) as high as 4100 ppm. In October 1984, the six waste oil AGTs were removed; approximately 160 cubic yards of soil (up to 5 feet depth) was excavated and disposed offsite. Site cleanup was subsequently reported to the Department of Health Services (DHS), predecessor to the Department of Toxic Substances Control (DTSC) in October 1984.

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Preliminary Assessment Report  
Completed Date: 02/07/1984  
Comments: Completed PA. Between 1979 and 1984, the site had six above ground tanks (AGTs) with a total capacity of 750,000 gallons used for waste oils. An oil spill resulting from a mechanical hose failure occurred at the site in 1979 and was remediated under the oversight of the Alameda County Department of Environmental Health (ACDEH) and the Newark Fire Department (NFD).

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**POZAS BROTHERS TRUCKING (Continued)**

**S100191189**

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Site Screening  
Completed Date: 06/03/2003  
Comments: State Screening Assessment during remediation under the ACWD and NFD.  
Recommendation: PEA/Deed Restriction.

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

**I37**  
**ENE**  
**1/4-1/2**  
**0.436 mi.**  
**2303 ft.**

**HOLLAND OIL**  
**8130 ENTERPRISE DRIVE**  
**NEWARK, CA 94560**

**CA HIST Cal-Sites S102008177**  
**N/A**

**Site 5 of 5 in cluster I**

**Relative:**  
**Higher**

Calsite:

**Actual:**  
**13 ft.**

Facility ID: 01290019  
Region: 2  
Region Name: BERKELEY  
Branch: NC  
Branch Name: NORTH COAST  
File Name: Not reported  
State Senate District: 01011985  
Status: CERTIFIED AS HAVING BEEN REMEDIED SATISFACTORILY UNDER DTSC OVERSIGHT  
Status Name: CERTIFIED  
Lead Agency: Not reported  
Lead Agency: N/A  
Facility Type: RP  
Type Name: RESPONSIBLE PARTY  
NPL: Not reported  
SIC Code: 29  
SIC Name: MANU - PETROLEUM & COAL PRODUCTS  
Access: Controlled  
Cortese: Not reported  
Hazardous Ranking Score: Not reported  
Date Site Hazard Ranked: Not reported  
Groundwater Contamination: Not reported  
Staff Member Responsible for Site: AANTONIO  
Supervisor Responsible for Site: Not reported  
Region Water Control Board: SF  
Region Water Control Board Name: SAN FRANCISCO BAY  
Lat/Long Direction: Not reported  
Lat/Long (dms): 0 0 0 / 0 0 0  
Lat/long Method: Not reported  
Lat/Long Description: Not reported  
State Assembly District Code: 20  
State Senate District Code: 10  
Facility ID: 01290019  
Activity: DISC  
Activity Name: DISCOVERY

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HOLLAND OIL (Continued)**

**S102008177**

AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 09141981  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT  
Definition of Status: CERTIFIED  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01290019  
Activity: CERT  
Activity Name: CERTIFICATION  
AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 01011985  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT  
Definition of Status: CERTIFIED  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Facility ID: 01290019  
Activity: SS  
Activity Name: SITE SCREENING  
AWP Code: Not reported  
Proposed Budget: 0  
AWP Completion Date: Not reported  
Revised Due Date: Not reported  
Comments Date: 04101987  
Est Person-Yrs to complete: 0  
Estimated Size: Not reported  
Request to Delete Activity: Not reported  
Activity Status: CERT

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HOLLAND OIL (Continued)**

**S102008177**

Definition of Status: CERTIFIED  
Liquids Removed (Gals): 0  
Liquids Treated (Gals): 0  
Action Included Capping: Not reported  
Well Decommissioned: Not reported  
Action Included Fencing: Not reported  
Removal Action Certification: Not reported  
Activity Comments: Not reported  
For Commercial Reuse: 0  
For Industrial Reuse: 0  
For Residential Reuse: 0  
Unknown Type: 0  
Alternate Address: 8130 ENTERPRISE DRIVE  
Alternate City,St,Zip: NEWARK, CA 94560  
Background Info: The Holland Oil Site is currently owned by the Pozas Brothers Trucking Company (Pozas) as a truck maintenance facility. The Site contains a warehouse and an office type structure and an asphalt paved area used for tractor-trailer parking. Holland was also previously known as Abe Oil Incorporated (Abe) and as California Oil Recyclers. Between 1984 and 1994, the facility was a trucking terminal owned and operated by Consolidated Freightway.  
Comments Date: 01011985  
Comments: Certified Site. In October 1984, the six waste oil AGTs were  
Comments Date: 01011985  
Comments: removed; approximately 160 cubic yards of soil (up to 5 feet  
Comments Date: 01011985  
Comments: depth) was excavated and disposed offsite. Site cleanup was  
Comments Date: 01011985  
Comments: completed and subsequently reported to the Department of Health  
Comments Date: 01011985  
Comments: Services (DHS), predecessor to DTSC in October 1984. Holland  
Comments Date: 01011985  
Comments: conducted post removal sampling in November 1984 under the  
Comments Date: 01011985  
Comments: oversight of the NFD which showed significantly reduced TPH and  
Comments Date: 01011985  
Comments: no detectable levels of PCBs. DHS signed off on the cleanup of  
Comments Date: 01011985  
Comments: the site in a letter dated December 20, 1984 stating no further  
Comments Date: 01011985  
Comments: remedial action will be required for the site.  
Comments Date: 02071984  
Comments: Completed PA. Between 1979 and 1984, the site had six above  
Comments Date: 02071984  
Comments: ground tanks (AGTs) with a total capacity of 750,000 gallons  
Comments Date: 02071984  
Comments: used for waste oils. An oil spill resulting from a mechanical  
Comments Date: 02071984  
Comments: hose failure occurred at the site in 1979 and was remediated  
Comments Date: 02071984  
Comments: under the oversight of the Alameda County Department of  
Comments Date: 02071984  
Comments: Environmental Health (ACDEH) and the Newark Fire Department  
Comments Date: 02071984  
Comments: (NFD).  
Comments Date: 04101987

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**HOLLAND OIL (Continued)**

**S102008177**

Comments: Completed Site Screening. In September 1984, a soil  
Comments Date: 04101987  
Comments: investigation at the site revealed the presence of total  
Comments Date: 04101987  
Comments: petroleum hydrocarbons as gasoline (TPHg) as high as 12000 ppm  
Comments Date: 04101987  
Comments: and TPH as diesel (TPHd) as high as 4100 ppm. In October 1984,  
Comments Date: 04101987  
Comments: the six waste oil AGTs were removed; approximately 160 cubic  
Comments Date: 04101987  
Comments: yards of soil (up to 5 feet depth) was excavated and disposed  
Comments Date: 04101987  
Comments: offsite. Site cleanup was subsequently reported to the  
Comments Date: 04101987  
Comments: Department of Health Services (DHS), predecessor to the  
Comments Date: 04101987  
Comments: Department of Toxic Substances Control (DTSC) in October 1984.  
ID Name: EPA IDENTIFICATION NUMBER  
ID Value: CAT080013360  
Alternate Name: ABE OIL INC HOLLAND OIL CALIFORNIA OIL RECYCLERS  
Special Programs Code: R3012  
Special Programs Name: RCRA 3012

**H38**  
**North**  
**1/4-1/2**  
**0.442 mi.**  
**2335 ft.**

**THORNTON BUSINESS CENTER**  
**8500 THORNTON & WILLOW**  
**NEWARK, CA 94560**  
**Site 3 of 3 in cluster H**

**CA HIST CORTESE** **S105025204**  
**CA LUST** **N/A**

**Relative:**  
**Lower**

**CORTESE:**  
Region: CORTESE  
Facility County Code: 1  
Reg By: LTNKA  
Reg Id: 01-1471

**Actual:**  
**9 ft.**

**LUST:**  
Region: STATE  
Global Id: T0600101358  
Latitude: 37.526407  
Longitude: -122.055999  
Case Type: LUST Cleanup Site  
Status: Completed - Case Closed  
Status Date: 03/23/1992  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Case Worker: SDI  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01-1471  
LOC Case Number: 0283  
File Location: Not reported  
Potential Media Affect: Soil  
Potential Contaminants of Concern: Waste Oil / Motor / Hydraulic / Lubricating  
Site History: Not reported

Click here to access the California GeoTracker records for this facility:

**Contact:**  
Global Id: T0600101358  
Contact Type: Regional Board Caseworker

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**THORNTON BUSINESS CENTER (Continued)**

**S105025204**

Contact Name: Cherie McCaulou  
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)  
Address: 1515 CLAY STREET, SUITE 1400  
City: OAKLAND  
Email: cmccaulou@waterboards.ca.gov  
Phone Number: Not reported

Global Id: T0600101358  
Contact Type: Local Agency Caseworker  
Contact Name: STEVEN D. INN  
Organization Name: ALAMEDA COUNTY WATER DISTRICT  
Address: 43885 SOUTH GRIMMER BOULEVARD  
City: FREMONT  
Email: steven.inn@acwd.com  
Phone Number: Not reported

Regulatory Activities:

Global Id: T0600101358  
Action Type: Other  
Date: 01/01/1950  
Action: Leak Reported

Global Id: T0600101358  
Action Type: Other  
Date: 01/01/1950  
Action: Leak Stopped

Global Id: T0600101358  
Action Type: Other  
Date: 01/01/1950  
Action: Leak Discovery

Global Id: T0600101358  
Action Type: REMEDIATION  
Date: 01/01/1950  
Action: Excavation

LUST REG 2:

Region: 2  
Facility Id: 01-1471  
Facility Status: Case Closed  
Case Number: 0283  
How Discovered: Tank Closure  
Leak Cause: Structure Failure  
Leak Source: Tank  
Date Leak Confirmed: Not reported  
Oversight Program: LUST  
Prelim. Site Assessment Workplan Submitted: 5/7/1990  
Preliminary Site Assessment Began: 6/15/1990  
Pollution Characterization Began: Not reported  
Pollution Remediation Plan Submitted: Not reported  
Date Remediation Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

MAP FINDINGS

Map ID  
Direction  
Distance  
Elevation

Site

Database(s)

EDR ID Number  
EPA ID Number

**39**  
**North**  
**1/4-1/2**  
**0.478 mi.**  
**2523 ft.**

**FORMER NEWARK SPORTSMEN'S CLUB**  
**HICKORY STREET AND PERRIN AVE**  
**NEWARK, CA**

**CA SLIC S106234946**  
**N/A**

**Relative:**  
**Lower**

SLIC:

|                                    |                                    |
|------------------------------------|------------------------------------|
| Region:                            | STATE                              |
| <b>Facility Status:</b>            | <b>Open - Inactive</b>             |
| Status Date:                       | 06/02/2009                         |
| Global Id:                         | SL600192653                        |
| Lead Agency:                       | SAN FRANCISCO BAY RWQCB (REGION 2) |
| Lead Agency Case Number:           | Not reported                       |
| Latitude:                          | 37.527243                          |
| Longitude:                         | -122.054566                        |
| Case Type:                         | Cleanup Program Site               |
| Case Worker:                       | UUU                                |
| Local Agency:                      | Not reported                       |
| RB Case Number:                    | 2199.9303                          |
| File Location:                     | Not reported                       |
| Potential Media Affected:          | Not reported                       |
| Potential Contaminants of Concern: | Not reported                       |
| Site History:                      | Not reported                       |

**Actual:**  
**8 ft.**

Click here to access the California GeoTracker records for this facility:

SLIC REG 2:

|   |                                 |
|---|---------------------------------|
| Region:                                     | 2                               |
| Facility ID:                                | 2199.9303                       |
| Facility Status:                            | Post remedial action monitoring |
| Date Closed:                                | Not reported                    |
| Local Case #:                               | Not reported                    |
| How Discovered:                             | Not reported                    |
| Leak Cause:                                 | Not reported                    |
| Leak Source:                                | Not reported                    |
| Date Confirmed:                             | Not reported                    |
| Date Prelim Site Assmnt Workplan Submitted: | Not reported                    |
| Date Preliminary Site Assessment Began:     | Not reported                    |
| Date Pollution Characterization Began:      | Not reported                    |
| Date Remediation Plan Submitted:            | Not reported                    |
| Date Remedial Action Underway:              | Not reported                    |
| Date Post Remedial Action Monitoring Began: | Not reported                    |

**J40**  
**NE**  
**1/4-1/2**  
**0.483 mi.**  
**2549 ft.**

**DUTRA ART STONE FACILITY**  
**8175 WELLS AVE**  
**NEWARK, CA 94560**

**CA SLIC S106234812**  
**N/A**

**Site 1 of 3 in cluster J**

**Relative:**  
**Higher**

SLIC REG 2:

|                  |              |
|------------------|--------------|
| Region:          | 2            |
| Facility ID:     | Not reported |
| Facility Status: | Not reported |
| Date Closed:     | Not reported |
| Local Case #:    | Not reported |
| How Discovered:  | Not reported |
| Leak Cause:      | Not reported |
| Leak Source:     | Not reported |
| Date Confirmed:  | Not reported |

**Actual:**  
**13 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**DUTRA ART STONE FACILITY (Continued)**

**S106234812**

Date Prelim Site Assmnt Workplan Submitted: Not reported  
Date Preliminary Site Assessment Began: Not reported  
Date Pollution Characterization Began: Not reported  
Date Remediation Plan Submitted: Not reported  
Date Remedial Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

**J41**  
**NE**  
**1/4-1/2**  
**0.483 mi.**  
**2549 ft.**

**SILVEY-- LIQUID AIR PROPERTY**  
**8175 WELLS AVENUE**  
**NEWARK, CA 94560**

**CA LUST** **S105033539**  
**N/A**

**Site 2 of 3 in cluster J**

**Relative:**  
**Higher**

**LUST REG 2:**

Region: 2  
Facility Id: 01-1392  
Facility Status: Case Closed  
Case Number: 0244  
How Discovered: Tank Closure  
Leak Cause: Structure Failure  
Leak Source: Tank  
Date Leak Confirmed: 8/31/1990  
Oversight Program: LUST  
Prelim. Site Assesment Wokplan Submitted: 4/8/1996  
Preliminary Site Assesment Began: 4/9/1996  
Pollution Characterization Began: Not reported  
Pollution Remediation Plan Submitted: Not reported  
Date Remediation Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: Not reported

**Actual:**  
**13 ft.**

Region: 2  
Facility Id: 01-3512  
Facility Status: Case Closed  
Case Number: 0664  
How Discovered: Not reported  
Leak Cause: Not reported  
Leak Source: Not reported  
Date Leak Confirmed: 3/17/2003  
Oversight Program: LUST  
Prelim. Site Assesment Wokplan Submitted: Not reported  
Preliminary Site Assesment Began: Not reported  
Pollution Characterization Began: Not reported  
Pollution Remediation Plan Submitted: Not reported  
Date Remediation Action Underway: Not reported  
Date Post Remedial Action Monitoring Began: 3/17/2003

**J42**  
**NE**  
**1/4-1/2**  
**0.483 mi.**  
**2549 ft.**

**SILVEY TRANSPORTATION, INC.**  
**8175 WELLS AVE**  
**NEWARK, CA 94560**

**CA HIST CORTESE** **U001597792**  
**CA LUST** **N/A**  
**CA SLIC**  
**CA HIST UST**  
**CA SWEEPS UST**

**Site 3 of 3 in cluster J**

**Relative:**  
**Higher**

**CORTESE:**

Region: CORTESE  
Facility County Code: 1  
Reg By: LTNKA

**Actual:**  
**13 ft.**

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SILVEY TRANSPORTATION, INC. (Continued)**

**U001597792**

Reg Id: 01-1392

LUST:

Region: STATE  
Global Id: T0600101286  
Latitude: 37.5233623  
Longitude: -122.0460248  
Case Type: LUST Cleanup Site  
Status: Completed - Case Closed  
Status Date: 09/12/2001  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Case Worker: SDI  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01-1392  
LOC Case Number: 0244  
File Location: Not reported  
Potential Media Affect: Soil  
Potential Contaminants of Concern: Gasoline  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

Contact:

Global Id: T0600101286  
Contact Type: Regional Board Caseworker  
Contact Name: Cherie McCaulou  
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)  
Address: 1515 CLAY STREET, SUITE 1400  
City: OAKLAND  
Email: cmccaulou@waterboards.ca.gov  
Phone Number: Not reported

Global Id: T0600101286  
Contact Type: Local Agency Caseworker  
Contact Name: STEVEN D. INN  
Organization Name: ALAMEDA COUNTY WATER DISTRICT  
Address: 43885 SOUTH GRIMMER BOULEVARD  
City: FREMONT  
Email: steven.inn@acwd.com  
Phone Number: Not reported

Regulatory Activities:

Global Id: T0600101286  
Action Type: Other  
Date: 01/01/1950  
Action: Leak Reported

Global Id: T0600101286  
Action Type: REMEDIATION  
Date: 01/01/1950  
Action: Excavation

Global Id: T0600101286  
Action Type: Other  
Date: 01/01/1950  
Action: Leak Stopped

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SILVEY TRANSPORTATION, INC. (Continued)**

**U001597792**

Global Id: T0600101286  
Action Type: ENFORCEMENT  
Date: 01/08/2003  
Action: \* No Action

Global Id: T0600101286  
Action Type: REMEDIATION  
Date: 01/01/1950  
Action: Pump & Treat (P&T) Groundwater

Global Id: T0600101286  
Action Type: REMEDIATION  
Date: 01/01/1950  
Action: Excavation

Global Id: T0600101286  
Action Type: Other  
Date: 01/01/1950  
Action: Leak Discovery

Region: STATE  
Global Id: T0600108049  
Latitude: 37.52344  
Longitude: -122.045788  
Case Type: LUST Cleanup Site  
Status: Completed - Case Closed  
Status Date: 10/04/2004  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Case Worker: RS  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01-3512  
LOC Case Number: 0664  
File Location: Not reported  
Potential Media Affect: Not reported  
Potential Contaminants of Concern: Chromium, \* Solvents, Diesel  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

**Contact:**

Global Id: T0600108049  
Contact Type: Regional Board Caseworker  
Contact Name: Cherie McCaulou  
Organization Name: SAN FRANCISCO BAY RWQCB (REGION 2)  
Address: 1515 CLAY STREET, SUITE 1400  
City: OAKLAND  
Email: cmccaulou@waterboards.ca.gov  
Phone Number: Not reported

Global Id: T0600108049  
Contact Type: Local Agency Caseworker  
Contact Name: RANGARAJAN SAMPATH  
Organization Name: ALAMEDA COUNTY WATER DISTRICT  
Address: 43885 SOUTH GRIMMER BLVD  
City: FREMONT  
Email: rangarajan.sampath@acwd.com  
Phone Number: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SILVEY TRANSPORTATION, INC. (Continued)**

**U001597792**

Regulatory Activities:

Global Id: T0600108049  
Action Type: ENFORCEMENT  
Date: 10/04/2004  
Action: Closure/No Further Action Letter

Global Id: T0600108049  
Action Type: Other  
Date: 01/01/1950  
Action: Leak Reported

Global Id: T0600108049  
Action Type: Other  
Date: 01/01/1950  
Action: Leak Discovery

SLIC:

Region: STATE  
**Facility Status: Completed - Case Closed**  
Status Date: 07/22/2008  
Global Id: SL0600141517  
Lead Agency: ALAMEDA COUNTY WATER DISTRICT  
Lead Agency Case Number: 0703  
Latitude: 37.52344  
Longitude: -122.045788  
Case Type: Cleanup Program Site  
Case Worker: EC  
Local Agency: ALAMEDA COUNTY WATER DISTRICT  
RB Case Number: 01S0614  
File Location: Not reported  
Potential Media Affected: Not reported  
Potential Contaminants of Concern: Not reported  
Site History: Not reported

[Click here to access the California GeoTracker records for this facility:](#)

HIST UST:

Region: STATE  
Facility ID: 00000014541  
Facility Type: Other  
Other Type: TRUCKING  
Total Tanks: 0006  
Contact Name: LEONARD SILVEY  
Telephone: 4157931800  
Owner Name: SILVEY TRANSPORTATION, INC.  
Owner Address: 8175 WELLS AVENUE  
Owner City,St,Zip: NEWARK, CA 94560

Tank Num: 001  
Container Num: #1  
Year Installed: 1959  
Tank Capacity: 00010000  
Tank Used for: PRODUCT  
Type of Fuel: DIESEL  
Tank Construction: 1/4 inches

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SILVEY TRANSPORTATION, INC. (Continued)**

**U001597792**

Leak Detection: Stock Inventor

Tank Num: 002  
Container Num: #2  
Year Installed: 1959  
Tank Capacity: 00002000  
Tank Used for: PRODUCT  
Type of Fuel: REGULAR  
Tank Construction: 3/16 inches  
Leak Detection: Stock Inventor

Tank Num: 003  
Container Num: #3  
Year Installed: 1967  
Tank Capacity: 00000550  
Tank Used for: PRODUCT  
Type of Fuel: Not reported  
Tank Construction: 3/16 inches  
Leak Detection: Stock Inventor

Tank Num: 004  
Container Num: #4  
Year Installed: 1967  
Tank Capacity: 00001000  
Tank Used for: WASTE  
Type of Fuel: WASTE OIL  
Tank Construction: 3/16 inches  
Leak Detection: None

Tank Num: 005  
Container Num: #5  
Year Installed: 1980  
Tank Capacity: 00002000  
Tank Used for: PRODUCT  
Type of Fuel: REGULAR  
Tank Construction: 3/16 inches  
Leak Detection: Stock Inventor

Tank Num: 006  
Container Num: #6  
Year Installed: 1980  
Tank Capacity: 00012000  
Tank Used for: PRODUCT  
Type of Fuel: DIESEL  
Tank Construction: 1/4 inches  
Leak Detection: Stock Inventor

**SWEEPS UST:**

Status: Not reported  
Comp Number: 14541  
Number: Not reported  
Board Of Equalization: 44-001214  
Referral Date: Not reported  
Action Date: Not reported  
Created Date: Not reported  
Tank Status: Not reported  
Owner Tank Id: Not reported

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SILVEY TRANSPORTATION, INC. (Continued)**

**U001597792**

Swrcb Tank Id: 01-008-014541-000001  
Actv Date: Not reported  
Capacity: 10000  
Tank Use: M.V. FUEL  
Stg: PRODUCT  
Content: DIESEL  
Number Of Tanks: 5

Status: Not reported  
Comp Number: 14541  
Number: Not reported  
Board Of Equalization: 44-001214  
Referral Date: Not reported  
Action Date: Not reported  
Created Date: Not reported  
Tank Status: Not reported  
Owner Tank Id: Not reported  
Swrcb Tank Id: 01-008-014541-000002  
Actv Date: Not reported  
Capacity: 2000  
Tank Use: M.V. FUEL  
Stg: PRODUCT  
Content: LEADED  
Number Of Tanks: Not reported

Status: Not reported  
Comp Number: 14541  
Number: Not reported  
Board Of Equalization: 44-001214  
Referral Date: Not reported  
Action Date: Not reported  
Created Date: Not reported  
Tank Status: Not reported  
Owner Tank Id: Not reported  
Swrcb Tank Id: 01-008-014541-000003  
Actv Date: Not reported  
Capacity: 550  
Tank Use: UNKNOWN  
Stg: PRODUCT  
Content: Not reported  
Number Of Tanks: Not reported

Status: Not reported  
Comp Number: 14541  
Number: Not reported  
Board Of Equalization: 44-001214  
Referral Date: Not reported  
Action Date: Not reported  
Created Date: Not reported  
Tank Status: Not reported  
Owner Tank Id: Not reported  
Swrcb Tank Id: 01-008-014541-000004  
Actv Date: Not reported  
Capacity: 1000  
Tank Use: OIL  
Stg: WASTE  
Content: WASTE OIL

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**SILVEY TRANSPORTATION, INC. (Continued)**

**U001597792**

Number Of Tanks: Not reported  
Status: Not reported  
Comp Number: 14541  
Number: Not reported  
Board Of Equalization: 44-001214  
Referral Date: Not reported  
Action Date: Not reported  
Created Date: Not reported  
Tank Status: Not reported  
Owner Tank Id: Not reported  
Swrcb Tank Id: 01-008-014541-000006  
Actv Date: Not reported  
Capacity: 12000  
Tank Use: M.V. FUEL  
Stg: PRODUCT  
Content: DIESEL  
Number Of Tanks: Not reported

**43**  
**ENE**  
**1/2-1**  
**0.950 mi.**  
**5014 ft.**

**LTD CERAMICS, INC.**  
**7411 CENTRAL AVENUE**  
**NEWARK, CA 94560**

**CA ENVIROSTOR** **S108212776**  
**N/A**

**Relative:**  
**Lower**

**ENVIROSTOR:**

**Actual:**  
**9 ft.**

Site Type: Tiered Permit  
Site Type Detailed: Tiered Permit  
Acres: 1  
NPL: NO  
Regulatory Agencies: NONE SPECIFIED  
Lead Agency: NONE SPECIFIED  
Program Manager: Not reported  
Supervisor: Karen Toth  
Division Branch: Cleanup Berkeley  
Facility ID: 71003345  
Site Code: Not reported  
Assembly: 25  
Senate: 10  
Special Program: Not reported  
Status: Inactive - Needs Evaluation  
Status Date: 05/04/2000  
Restricted Use: NO  
Site Mgmt. Req.: NONE SPECIFIED  
Funding: Not reported  
Latitude: 37.52132  
Longitude: -122.0363  
APN: NONE SPECIFIED  
Past Use: NONE SPECIFIED  
Potential COC: NONE SPECIFIED  
Confirmed COC: NONE SPECIFIED, NONE SPECIFIED  
Potential Description: NONE SPECIFIED  
Alias Name: CAL000135806  
Alias Type: EPA Identification Number  
Alias Name: 110013851536  
Alias Type: EPA (FRS #)  
Alias Name: 71003345  
Alias Type: Envirostor ID Number

Map ID  
Direction  
Distance  
Elevation

MAP FINDINGS

Site

Database(s)

EDR ID Number  
EPA ID Number

**LTD CERAMICS, INC. (Continued)**

**S108212776**

Completed Info:

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Compliance Verification  
Completed Date: 05/04/2000  
Comments: Phase I Non-Submittal Drive By

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Phase 1 Non-Submittal  
Completed Date: 12/21/2000  
Comments: Not reported

Completed Area Name: PROJECT WIDE  
Completed Sub Area Name: Not reported  
Completed Document Type: Phase 1  
Completed Date: 06/28/2000  
Comments: Phase 1 checklist indicates no releases.

Future Area Name: Not reported  
Future Sub Area Name: Not reported  
Future Document Type: Not reported  
Future Due Date: Not reported  
Schedule Area Name: Not reported  
Schedule Sub Area Name: Not reported  
Schedule Document Type: Not reported  
Schedule Due Date: Not reported  
Schedule Revised Date: Not reported

Count: 15 records.

## ORPHAN SUMMARY

| City           | EDR ID     | Site Name                          | Site Address                   | Zip   | Database(s)       |
|----------------|------------|------------------------------------|--------------------------------|-------|-------------------|
| ALAMEDA COUNTY | S105256196 | CAL DEPT OF TRANS- STATE RTE 4     | HWY 4, CONTRA COSTA COUNTY     | 0     | CA WDS            |
| ALAMEDA COUNTY | S107537953 |                                    | CALAVERAS RD/MI MARKER 5.70 @  | 0     | CA CDL            |
| ALAMEDA COUNTY | M300002760 | CARGILL INC/LESLIE SALT            | NEWARK PLANT                   |       | US MINES          |
| NEWARK         | S112955427 | AMERICAN METAL & IRON INC          | HWY 880                        | 94560 | CA HAZNET         |
| NEWARK         | S106248686 | KIRKS BODY SHOP                    | 11791 HWY 99W                  | 94560 | CA EMI            |
| NEWARK         | 1003878583 | LESLIE SALT CO MAGNESIA PILE PROPE | BASE OF ENTERPRISE DR          | 94560 | CERC-NFRAP        |
| NEWARK         | 1010728001 | OHLONE COMMUNITY COLLEGE DISTRICT  | CHERRY ST                      |       | FINDS             |
| NEWARK         | S100833248 | LESLIE SALT                        | ENTERPRISE DRIVE               | 94560 | CA BOND EXP. PLAN |
| NEWARK         | 1003109105 | SUN MICROSYSTEMS, NEWARK           | INTERSECTION MOURY AVE & CHER  | 94560 | CERCLIS, FINDS    |
| NEWARK         | U003776641 | TOSCO CORPORATION SITE NO. 257003  | 5799 A MOWEY AVE               | 94560 | CA UST            |
| NEWARK         | 1014633322 | CARGILL INC.                       | MOWRY SLOUGH IN SF BAY NATIONA | 94560 | ICIS              |
| NEWARK         | 1014673894 | CARGILL INC.                       | MOWRY SLOUGH IN SF BAY NATIONA | 94560 | FINDS             |
| NEWARK         | S112923903 | CARGILL SALT                       | OFF PERRIN AVE & WILLOW ST     | 94560 | CA HAZNET         |
| NEWARK         | S112932471 | CARGILL SALT                       | OFF PERRIN AVE & WILLOW ST     | 94560 | CA HAZNET         |
| NEWARK         | S106101752 | CARGILL INC HILL PARCEL AREA       | WESTERN END ENTERPRISE DR      | 94560 | CA NPDES, CA WDS  |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

To maintain currency of the following federal and state databases, EDR contacts the appropriate governmental agency on a monthly or quarterly basis, as required.

**Number of Days to Update:** Provides confirmation that EDR is reporting records that have been updated within 90 days from the date the government agency made the information available to the public.

## STANDARD ENVIRONMENTAL RECORDS

### ***Federal NPL site list***

#### **NPL: National Priority List**

National Priorities List (Superfund). The NPL is a subset of CERCLIS and identifies over 1,200 sites for priority cleanup under the Superfund Program. NPL sites may encompass relatively large areas. As such, EDR provides polygon coverage for over 1,000 NPL site boundaries produced by EPA's Environmental Photographic Interpretation Center (EPIC) and regional EPA offices.

|   |  |
|---|--|
| Date of Government Version: 04/26/2013  | Source: EPA                            |
| Date Data Arrived at EDR: 05/09/2013    | Telephone: N/A                         |
| Date Made Active in Reports: 07/10/2013 | Last EDR Contact: 07/12/2013           |
| Number of Days to Update: 62            | Next Scheduled EDR Contact: 10/21/2013 |
|   | Data Release Frequency: Quarterly      |

#### **NPL Site Boundaries**

##### **Sources:**

EPA's Environmental Photographic Interpretation Center (EPIC)  
Telephone: 202-564-7333

EPA Region 1  
Telephone 617-918-1143

EPA Region 6  
Telephone: 214-655-6659

EPA Region 3  
Telephone 215-814-5418

EPA Region 7  
Telephone: 913-551-7247

EPA Region 4  
Telephone 404-562-8033

EPA Region 8  
Telephone: 303-312-6774

EPA Region 5  
Telephone 312-886-6686

EPA Region 9  
Telephone: 415-947-4246

EPA Region 10  
Telephone 206-553-8665

#### **Proposed NPL: Proposed National Priority List Sites**

A site that has been proposed for listing on the National Priorities List through the issuance of a proposed rule in the Federal Register. EPA then accepts public comments on the site, responds to the comments, and places on the NPL those sites that continue to meet the requirements for listing.

|   |  |
|---|--|
| Date of Government Version: 04/26/2013  | Source: EPA                            |
| Date Data Arrived at EDR: 05/09/2013    | Telephone: N/A                         |
| Date Made Active in Reports: 07/10/2013 | Last EDR Contact: 07/12/2013           |
| Number of Days to Update: 62            | Next Scheduled EDR Contact: 10/21/2013 |
|   | Data Release Frequency: Quarterly      |

#### **NPL LIENS: Federal Superfund Liens**

Federal Superfund Liens. Under the authority granted the USEPA by CERCLA of 1980, the USEPA has the authority to file liens against real property in order to recover remedial action expenditures or when the property owner received notification of potential liability. USEPA compiles a listing of filed notices of Superfund Liens.

|   |   |
|---|---|
| Date of Government Version: 10/15/1991  | Source: EPA                               |
| Date Data Arrived at EDR: 02/02/1994    | Telephone: 202-564-4267                   |
| Date Made Active in Reports: 03/30/1994 | Last EDR Contact: 08/15/2011              |
| Number of Days to Update: 56            | Next Scheduled EDR Contact: 11/28/2011    |
|   | Data Release Frequency: No Update Planned |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ***Federal Delisted NPL site list***

DELISTED NPL: National Priority List Deletions

The National Oil and Hazardous Substances Pollution Contingency Plan (NCP) establishes the criteria that the EPA uses to delete sites from the NPL. In accordance with 40 CFR 300.425.(e), sites may be deleted from the NPL where no further response is appropriate.

|   |  |
|---|--|
| Date of Government Version: 04/26/2013  | Source: EPA                            |
| Date Data Arrived at EDR: 05/09/2013    | Telephone: N/A                         |
| Date Made Active in Reports: 07/10/2013 | Last EDR Contact: 07/12/2013           |
| Number of Days to Update: 62            | Next Scheduled EDR Contact: 10/21/2013 |
|   | Data Release Frequency: Quarterly      |

## ***Federal CERCLIS list***

CERCLIS: Comprehensive Environmental Response, Compensation, and Liability Information System

CERCLIS contains data on potentially hazardous waste sites that have been reported to the USEPA by states, municipalities, private companies and private persons, pursuant to Section 103 of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA). CERCLIS contains sites which are either proposed to or on the National Priorities List (NPL) and sites which are in the screening and assessment phase for possible inclusion on the NPL.

|   |  |
|---|--|
| Date of Government Version: 04/26/2013  | Source: EPA                            |
| Date Data Arrived at EDR: 05/29/2013    | Telephone: 703-412-9810                |
| Date Made Active in Reports: 08/09/2013 | Last EDR Contact: 09/13/2013           |
| Number of Days to Update: 72            | Next Scheduled EDR Contact: 12/09/2013 |
|   | Data Release Frequency: Quarterly      |

FEDERAL FACILITY: Federal Facility Site Information listing

A listing of National Priority List (NPL) and Base Realignment and Closure (BRAC) sites found in the Comprehensive Environmental Response, Compensation and Liability Information System (CERCLIS) Database where EPA Federal Facilities Restoration and Reuse Office is involved in cleanup activities.

|   |   |
|---|---|
| Date of Government Version: 07/31/2012  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 10/09/2012    | Telephone: 703-603-8704                 |
| Date Made Active in Reports: 12/20/2012 | Last EDR Contact: 07/08/2013            |
| Number of Days to Update: 72            | Next Scheduled EDR Contact: 10/21/2013  |
|   | Data Release Frequency: Varies          |

## ***Federal CERCLIS NFRAP site List***

CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

|   |  |
|---|--|
| Date of Government Version: 04/26/2013  | Source: EPA                            |
| Date Data Arrived at EDR: 05/29/2013    | Telephone: 703-412-9810                |
| Date Made Active in Reports: 08/09/2013 | Last EDR Contact: 09/13/2013           |
| Number of Days to Update: 72            | Next Scheduled EDR Contact: 12/09/2013 |
|   | Data Release Frequency: Quarterly      |

## ***Federal RCRA CORRACTS facilities list***

CORRACTS: Corrective Action Report

CORRACTS identifies hazardous waste handlers with RCRA corrective action activity.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/11/2013  
Date Data Arrived at EDR: 08/08/2013  
Date Made Active in Reports: 09/13/2013  
Number of Days to Update: 36

Source: EPA  
Telephone: 800-424-9346  
Last EDR Contact: 08/08/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Quarterly

## ***Federal RCRA non-CORRACTS TSD facilities list***

### **RCRA-TSDF: RCRA - Treatment, Storage and Disposal**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Transporters are individuals or entities that move hazardous waste from the generator offsite to a facility that can recycle, treat, store, or dispose of the waste. TSDFs treat, store, or dispose of the waste.

Date of Government Version: 07/11/2013  
Date Data Arrived at EDR: 08/08/2013  
Date Made Active in Reports: 09/13/2013  
Number of Days to Update: 36

Source: Environmental Protection Agency  
Telephone: (415) 495-8895  
Last EDR Contact: 08/08/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Quarterly

## ***Federal RCRA generators list***

### **RCRA-LQG: RCRA - Large Quantity Generators**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Large quantity generators (LQGs) generate over 1,000 kilograms (kg) of hazardous waste, or over 1 kg of acutely hazardous waste per month.

Date of Government Version: 07/11/2013  
Date Data Arrived at EDR: 08/08/2013  
Date Made Active in Reports: 09/13/2013  
Number of Days to Update: 36

Source: Environmental Protection Agency  
Telephone: (415) 495-8895  
Last EDR Contact: 08/08/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Quarterly

### **RCRA-SQG: RCRA - Small Quantity Generators**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Small quantity generators (SQGs) generate between 100 kg and 1,000 kg of hazardous waste per month.

Date of Government Version: 07/11/2013  
Date Data Arrived at EDR: 08/08/2013  
Date Made Active in Reports: 09/13/2013  
Number of Days to Update: 36

Source: Environmental Protection Agency  
Telephone: (415) 495-8895  
Last EDR Contact: 08/08/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Quarterly

### **RCRA-CESQG: RCRA - Conditionally Exempt Small Quantity Generators**

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Conditionally exempt small quantity generators (CESQGs) generate less than 100 kg of hazardous waste, or less than 1 kg of acutely hazardous waste per month.

Date of Government Version: 07/11/2013  
Date Data Arrived at EDR: 08/08/2013  
Date Made Active in Reports: 09/13/2013  
Number of Days to Update: 36

Source: Environmental Protection Agency  
Telephone: (415) 495-8895  
Last EDR Contact: 08/08/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ***Federal institutional controls / engineering controls registries***

### **US ENG CONTROLS: Engineering Controls Sites List**

A listing of sites with engineering controls in place. Engineering controls include various forms of caps, building foundations, liners, and treatment methods to create pathway elimination for regulated substances to enter environmental media or effect human health.

|   |   |
|---|---|
| Date of Government Version: 03/14/2013  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/29/2013    | Telephone: 703-603-0695                 |
| Date Made Active in Reports: 05/10/2013 | Last EDR Contact: 09/10/2013            |
| Number of Days to Update: 42            | Next Scheduled EDR Contact: 12/23/2013  |
|   | Data Release Frequency: Varies          |

### **US INST CONTROL: Sites with Institutional Controls**

A listing of sites with institutional controls in place. Institutional controls include administrative measures, such as groundwater use restrictions, construction restrictions, property use restrictions, and post remediation care requirements intended to prevent exposure to contaminants remaining on site. Deed restrictions are generally required as part of the institutional controls.

|   |   |
|---|---|
| Date of Government Version: 03/14/2013  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/29/2013    | Telephone: 703-603-0695                 |
| Date Made Active in Reports: 05/10/2013 | Last EDR Contact: 09/10/2013            |
| Number of Days to Update: 42            | Next Scheduled EDR Contact: 12/23/2013  |
|   | Data Release Frequency: Varies          |

### **LUCIS: Land Use Control Information System**

LUCIS contains records of land use control information pertaining to the former Navy Base Realignment and Closure properties.

|   |  |
|---|--|
| Date of Government Version: 12/09/2005  | Source: Department of the Navy         |
| Date Data Arrived at EDR: 12/11/2006    | Telephone: 843-820-7326                |
| Date Made Active in Reports: 01/11/2007 | Last EDR Contact: 08/15/2013           |
| Number of Days to Update: 31            | Next Scheduled EDR Contact: 09/02/2013 |
|   | Data Release Frequency: Varies         |

## ***Federal ERNS list***

### **ERNS: Emergency Response Notification System**

Emergency Response Notification System. ERNS records and stores information on reported releases of oil and hazardous substances.

|   |   |
|---|---|
| Date of Government Version: 12/31/2012  | Source: National Response Center, United States Coast Guard |
| Date Data Arrived at EDR: 01/17/2013    | Telephone: 202-267-2180                                     |
| Date Made Active in Reports: 02/15/2013 | Last EDR Contact: 07/01/2013                                |
| Number of Days to Update: 29            | Next Scheduled EDR Contact: 10/14/2013                      |
|   | Data Release Frequency: Annually                            |

## ***State- and tribal - equivalent NPL***

### **RESPONSE: State Response Sites**

Identifies confirmed release sites where DTSC is involved in remediation, either in a lead or oversight capacity. These confirmed release sites are generally high-priority and high potential risk.

|   |  |
|---|--|
| Date of Government Version: 08/05/2013  | Source: Department of Toxic Substances Control |
| Date Data Arrived at EDR: 08/05/2013    | Telephone: 916-323-3400                        |
| Date Made Active in Reports: 08/27/2013 | Last EDR Contact: 09/05/2013                   |
| Number of Days to Update: 22            | Next Scheduled EDR Contact: 11/18/2013         |
|   | Data Release Frequency: Quarterly              |

## ***State- and tribal - equivalent CERCLIS***

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ENVIROSTOR: EnviroStor Database

The Department of Toxic Substances Control's (DTSC's) Site Mitigation and Brownfields Reuse Program's (SMBRP's) EnviroStor database identifies sites that have known contamination or sites for which there may be reasons to investigate further. The database includes the following site types: Federal Superfund sites (National Priorities List (NPL)); State Response, including Military Facilities and State Superfund; Voluntary Cleanup; and School sites. EnviroStor provides similar information to the information that was available in CalSites, and provides additional site information, including, but not limited to, identification of formerly-contaminated properties that have been released for reuse, properties where environmental deed restrictions have been recorded to prevent inappropriate land uses, and risk characterization information that is used to assess potential impacts to public health and the environment at contaminated sites.

|   |  |
|---|--|
| Date of Government Version: 08/05/2013  | Source: Department of Toxic Substances Control |
| Date Data Arrived at EDR: 08/05/2013    | Telephone: 916-323-3400                        |
| Date Made Active in Reports: 08/27/2013 | Last EDR Contact: 09/05/2013                   |
| Number of Days to Update: 22            | Next Scheduled EDR Contact: 11/18/2013         |
|   | Data Release Frequency: Quarterly              |

## **State and tribal landfill and/or solid waste disposal site lists**

### SWF/LF (SWIS): Solid Waste Information System

Active, Closed and Inactive Landfills. SWF/LF records typically contain an inventory of solid waste disposal facilities or landfills. These may be active or inactive facilities or open dumps that failed to meet RCRA Section 4004 criteria for solid waste landfills or disposal sites.

|   |  |
|---|--|
| Date of Government Version: 05/20/2013  | Source: Department of Resources Recycling and Recovery |
| Date Data Arrived at EDR: 05/21/2013    | Telephone: 916-341-6320                                |
| Date Made Active in Reports: 06/25/2013 | Last EDR Contact: 08/19/2013                           |
| Number of Days to Update: 35            | Next Scheduled EDR Contact: 12/02/2013                 |
|   | Data Release Frequency: Quarterly                      |

## **State and tribal leaking storage tank lists**

### LUST REG 8: Leaking Underground Storage Tanks

California Regional Water Quality Control Board Santa Ana Region (8). For more current information, please refer to the State Water Resources Control Board's LUST database.

|   |  |
|---|--|
| Date of Government Version: 02/14/2005  | Source: California Regional Water Quality Control Board Santa Ana Region (8) |
| Date Data Arrived at EDR: 02/15/2005    | Telephone: 909-782-4496  |
| Date Made Active in Reports: 03/28/2005 | Last EDR Contact: 08/15/2011   |
| Number of Days to Update: 41            | Next Scheduled EDR Contact: 11/28/2011                                       |
|   | Data Release Frequency: Varies   |

### LUST REG 7: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Imperial, Riverside, San Diego, Santa Barbara counties.

|   |   |
|---|---|
| Date of Government Version: 02/26/2004  | Source: California Regional Water Quality Control Board Colorado River Basin Region (7) |
| Date Data Arrived at EDR: 02/26/2004    | Telephone: 760-776-8943   |
| Date Made Active in Reports: 03/24/2004 | Last EDR Contact: 08/01/2011  |
| Number of Days to Update: 27            | Next Scheduled EDR Contact: 11/14/2011  |
|   | Data Release Frequency: No Update Planned   |

### LUST REG 6V: Leaking Underground Storage Tank Case Listing

Leaking Underground Storage Tank locations. Inyo, Kern, Los Angeles, Mono, San Bernardino counties.

|   |   |
|---|---|
| Date of Government Version: 06/07/2005  | Source: California Regional Water Quality Control Board Victorville Branch Office (6) |
| Date Data Arrived at EDR: 06/07/2005    | Telephone: 760-241-7365   |
| Date Made Active in Reports: 06/29/2005 | Last EDR Contact: 09/12/2011  |
| Number of Days to Update: 22            | Next Scheduled EDR Contact: 12/26/2011  |
|   | Data Release Frequency: No Update Planned   |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## LUST REG 6L: Leaking Underground Storage Tank Case Listing

For more current information, please refer to the State Water Resources Control Board's LUST database.

|   |   |
|---|---|
| Date of Government Version: 09/09/2003  | Source: California Regional Water Quality Control Board Lahontan Region (6) |
| Date Data Arrived at EDR: 09/10/2003    | Telephone: 530-542-5572   |
| Date Made Active in Reports: 10/07/2003 | Last EDR Contact: 09/12/2011  |
| Number of Days to Update: 27            | Next Scheduled EDR Contact: 12/26/2011                                      |
|   | Data Release Frequency: No Update Planned                                   |

## LUST REG 5: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Alameda, Alpine, Amador, Butte, Colusa, Contra Costa, Calveras, El Dorado, Fresno, Glenn, Kern, Kings, Lake, Lassen, Madera, Mariposa, Merced, Modoc, Napa, Nevada, Placer, Plumas, Sacramento, San Joaquin, Shasta, Solano, Stanislaus, Sutter, Tehama, Tulare, Tuolumne, Yolo, Yuba counties.

|   |   |
|---|---|
| Date of Government Version: 07/01/2008  | Source: California Regional Water Quality Control Board Central Valley Region (5) |
| Date Data Arrived at EDR: 07/22/2008    | Telephone: 916-464-4834   |
| Date Made Active in Reports: 07/31/2008 | Last EDR Contact: 07/01/2011  |
| Number of Days to Update: 9             | Next Scheduled EDR Contact: 10/17/2011  |
|   | Data Release Frequency: No Update Planned   |

## LUST REG 4: Underground Storage Tank Leak List

Los Angeles, Ventura counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

|   |  |
|---|--|
| Date of Government Version: 09/07/2004  | Source: California Regional Water Quality Control Board Los Angeles Region (4) |
| Date Data Arrived at EDR: 09/07/2004    | Telephone: 213-576-6710  |
| Date Made Active in Reports: 10/12/2004 | Last EDR Contact: 09/06/2011   |
| Number of Days to Update: 35            | Next Scheduled EDR Contact: 12/19/2011   |
|   | Data Release Frequency: No Update Planned                                      |

## LUST REG 3: Leaking Underground Storage Tank Database

Leaking Underground Storage Tank locations. Monterey, San Benito, San Luis Obispo, Santa Barbara, Santa Cruz counties.

|   |  |
|---|--|
| Date of Government Version: 05/19/2003  | Source: California Regional Water Quality Control Board Central Coast Region (3) |
| Date Data Arrived at EDR: 05/19/2003    | Telephone: 805-542-4786  |
| Date Made Active in Reports: 06/02/2003 | Last EDR Contact: 07/18/2011   |
| Number of Days to Update: 14            | Next Scheduled EDR Contact: 10/31/2011   |
|   | Data Release Frequency: No Update Planned  |

## LUST REG 2: Fuel Leak List

Leaking Underground Storage Tank locations. Alameda, Contra Costa, Marin, Napa, San Francisco, San Mateo, Santa Clara, Solano, Sonoma counties.

|   |  |
|---|--|
| Date of Government Version: 09/30/2004  | Source: California Regional Water Quality Control Board San Francisco Bay Region (2) |
| Date Data Arrived at EDR: 10/20/2004    | Telephone: 510-622-2433  |
| Date Made Active in Reports: 11/19/2004 | Last EDR Contact: 09/19/2011   |
| Number of Days to Update: 30            | Next Scheduled EDR Contact: 01/02/2012   |
|   | Data Release Frequency: Quarterly  |

## LUST REG 1: Active Toxic Site Investigation

Del Norte, Humboldt, Lake, Mendocino, Modoc, Siskiyou, Sonoma, Trinity counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

|   |   |
|---|---|
| Date of Government Version: 02/01/2001  | Source: California Regional Water Quality Control Board North Coast (1) |
| Date Data Arrived at EDR: 02/28/2001    | Telephone: 707-570-3769   |
| Date Made Active in Reports: 03/29/2001 | Last EDR Contact: 08/01/2011  |
| Number of Days to Update: 29            | Next Scheduled EDR Contact: 11/14/2011                                  |
|   | Data Release Frequency: No Update Planned                               |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## LUST: Geotracker's Leaking Underground Fuel Tank Report

Leaking Underground Storage Tank Incident Reports. LUST records contain an inventory of reported leaking underground storage tank incidents. Not all states maintain these records, and the information stored varies by state. For more information on a particular leaking underground storage tank sites, please contact the appropriate regulatory agency.

Date of Government Version: 07/26/2013  
Date Data Arrived at EDR: 07/26/2013  
Date Made Active in Reports: 08/26/2013  
Number of Days to Update: 31

Source: State Water Resources Control Board  
Telephone: see region list  
Last EDR Contact: 09/17/2013  
Next Scheduled EDR Contact: 12/30/2013  
Data Release Frequency: Quarterly

## LUST REG 9: Leaking Underground Storage Tank Report

Orange, Riverside, San Diego counties. For more current information, please refer to the State Water Resources Control Board's LUST database.

Date of Government Version: 03/01/2001  
Date Data Arrived at EDR: 04/23/2001  
Date Made Active in Reports: 05/21/2001  
Number of Days to Update: 28

Source: California Regional Water Quality Control Board San Diego Region (9)  
Telephone: 858-637-5595  
Last EDR Contact: 09/26/2011  
Next Scheduled EDR Contact: 01/09/2012  
Data Release Frequency: No Update Planned

## SLIC: Statewide SLIC Cases

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 07/26/2013  
Date Data Arrived at EDR: 07/26/2013  
Date Made Active in Reports: 08/26/2013  
Number of Days to Update: 31

Source: State Water Resources Control Board  
Telephone: 866-480-1028  
Last EDR Contact: 09/17/2013  
Next Scheduled EDR Contact: 12/30/2013  
Data Release Frequency: Varies

## SLIC REG 1: Active Toxic Site Investigations

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2003  
Date Data Arrived at EDR: 04/07/2003  
Date Made Active in Reports: 04/25/2003  
Number of Days to Update: 18

Source: California Regional Water Quality Control Board, North Coast Region (1)  
Telephone: 707-576-2220  
Last EDR Contact: 08/01/2011  
Next Scheduled EDR Contact: 11/14/2011  
Data Release Frequency: No Update Planned

## SLIC REG 2: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/30/2004  
Date Data Arrived at EDR: 10/20/2004  
Date Made Active in Reports: 11/19/2004  
Number of Days to Update: 30

Source: Regional Water Quality Control Board San Francisco Bay Region (2)  
Telephone: 510-286-0457  
Last EDR Contact: 09/19/2011  
Next Scheduled EDR Contact: 01/02/2012  
Data Release Frequency: Quarterly

## SLIC REG 3: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/18/2006  
Date Data Arrived at EDR: 05/18/2006  
Date Made Active in Reports: 06/15/2006  
Number of Days to Update: 28

Source: California Regional Water Quality Control Board Central Coast Region (3)  
Telephone: 805-549-3147  
Last EDR Contact: 07/18/2011  
Next Scheduled EDR Contact: 10/31/2011  
Data Release Frequency: Semi-Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## SLIC REG 4: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/17/2004  
Date Data Arrived at EDR: 11/18/2004  
Date Made Active in Reports: 01/04/2005  
Number of Days to Update: 47

Source: Region Water Quality Control Board Los Angeles Region (4)  
Telephone: 213-576-6600  
Last EDR Contact: 07/01/2011  
Next Scheduled EDR Contact: 10/17/2011  
Data Release Frequency: Varies

## SLIC REG 5: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/01/2005  
Date Data Arrived at EDR: 04/05/2005  
Date Made Active in Reports: 04/21/2005  
Number of Days to Update: 16

Source: Regional Water Quality Control Board Central Valley Region (5)  
Telephone: 916-464-3291  
Last EDR Contact: 09/12/2011  
Next Scheduled EDR Contact: 12/26/2011  
Data Release Frequency: Semi-Annually

## SLIC REG 6V: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 05/24/2005  
Date Data Arrived at EDR: 05/25/2005  
Date Made Active in Reports: 06/16/2005  
Number of Days to Update: 22

Source: Regional Water Quality Control Board, Victorville Branch  
Telephone: 619-241-6583  
Last EDR Contact: 08/15/2011  
Next Scheduled EDR Contact: 11/28/2011  
Data Release Frequency: Semi-Annually

## SLIC REG 6L: SLIC Sites

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 09/07/2004  
Date Data Arrived at EDR: 09/07/2004  
Date Made Active in Reports: 10/12/2004  
Number of Days to Update: 35

Source: California Regional Water Quality Control Board, Lahontan Region  
Telephone: 530-542-5574  
Last EDR Contact: 08/15/2011  
Next Scheduled EDR Contact: 11/28/2011  
Data Release Frequency: No Update Planned

## SLIC REG 7: SLIC List

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 11/24/2004  
Date Data Arrived at EDR: 11/29/2004  
Date Made Active in Reports: 01/04/2005  
Number of Days to Update: 36

Source: California Regional Quality Control Board, Colorado River Basin Region  
Telephone: 760-346-7491  
Last EDR Contact: 08/01/2011  
Next Scheduled EDR Contact: 11/14/2011  
Data Release Frequency: No Update Planned

## SLIC REG 8: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

Date of Government Version: 04/03/2008  
Date Data Arrived at EDR: 04/03/2008  
Date Made Active in Reports: 04/14/2008  
Number of Days to Update: 11

Source: California Region Water Quality Control Board Santa Ana Region (8)  
Telephone: 951-782-3298  
Last EDR Contact: 09/12/2011  
Next Scheduled EDR Contact: 12/26/2011  
Data Release Frequency: Semi-Annually

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## SLIC REG 9: Spills, Leaks, Investigation & Cleanup Cost Recovery Listing

The SLIC (Spills, Leaks, Investigations and Cleanup) program is designed to protect and restore water quality from spills, leaks, and similar discharges.

|   |  |
|---|--|
| Date of Government Version: 09/10/2007  | Source: California Regional Water Quality Control Board San Diego Region (9) |
| Date Data Arrived at EDR: 09/11/2007    | Telephone: 858-467-2980  |
| Date Made Active in Reports: 09/28/2007 | Last EDR Contact: 08/08/2011   |
| Number of Days to Update: 17            | Next Scheduled EDR Contact: 11/21/2011                                       |
|   | Data Release Frequency: Annually   |

## INDIAN LUST R10: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Alaska, Idaho, Oregon and Washington.

|   |  |
|---|--|
| Date of Government Version: 02/05/2013  | Source: EPA Region 10                  |
| Date Data Arrived at EDR: 02/06/2013    | Telephone: 206-553-2857                |
| Date Made Active in Reports: 04/12/2013 | Last EDR Contact: 07/24/2013           |
| Number of Days to Update: 65            | Next Scheduled EDR Contact: 11/11/2013 |
|   | Data Release Frequency: Quarterly      |

## INDIAN LUST R1: Leaking Underground Storage Tanks on Indian Land

A listing of leaking underground storage tank locations on Indian Land.

|   |  |
|---|--|
| Date of Government Version: 09/28/2012  | Source: EPA Region 1                   |
| Date Data Arrived at EDR: 11/01/2012    | Telephone: 617-918-1313                |
| Date Made Active in Reports: 04/12/2013 | Last EDR Contact: 08/02/2013           |
| Number of Days to Update: 162           | Next Scheduled EDR Contact: 11/11/2013 |
|   | Data Release Frequency: Varies         |

## INDIAN LUST R8: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Colorado, Montana, North Dakota, South Dakota, Utah and Wyoming.

|   |  |
|---|--|
| Date of Government Version: 08/27/2012  | Source: EPA Region 8                   |
| Date Data Arrived at EDR: 08/28/2012    | Telephone: 303-312-6271                |
| Date Made Active in Reports: 10/16/2012 | Last EDR Contact: 07/24/2013           |
| Number of Days to Update: 49            | Next Scheduled EDR Contact: 11/11/2013 |
|   | Data Release Frequency: Quarterly      |

## INDIAN LUST R6: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in New Mexico and Oklahoma.

|   |  |
|---|--|
| Date of Government Version: 09/12/2011  | Source: EPA Region 6                   |
| Date Data Arrived at EDR: 09/13/2011    | Telephone: 214-665-6597                |
| Date Made Active in Reports: 11/11/2011 | Last EDR Contact: 07/24/2013           |
| Number of Days to Update: 59            | Next Scheduled EDR Contact: 11/11/2013 |
|   | Data Release Frequency: Varies         |

## INDIAN LUST R4: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Florida, Mississippi and North Carolina.

|   |  |
|---|--|
| Date of Government Version: 02/06/2013  | Source: EPA Region 4                   |
| Date Data Arrived at EDR: 02/08/2013    | Telephone: 404-562-8677                |
| Date Made Active in Reports: 04/12/2013 | Last EDR Contact: 07/24/2013           |
| Number of Days to Update: 63            | Next Scheduled EDR Contact: 11/11/2013 |
|   | Data Release Frequency: Semi-Annually  |

## INDIAN LUST R7: Leaking Underground Storage Tanks on Indian Land

LUSTs on Indian land in Iowa, Kansas, and Nebraska

|   |  |
|---|--|
| Date of Government Version: 12/31/2012  | Source: EPA Region 7                   |
| Date Data Arrived at EDR: 02/28/2013    | Telephone: 913-551-7003                |
| Date Made Active in Reports: 04/12/2013 | Last EDR Contact: 07/24/2013           |
| Number of Days to Update: 43            | Next Scheduled EDR Contact: 11/11/2013 |
|   | Data Release Frequency: Varies         |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

INDIAN LUST R9: Leaking Underground Storage Tanks on Indian Land  
LUSTs on Indian land in Arizona, California, New Mexico and Nevada

|   |   |
|---|---|
| Date of Government Version: 03/01/2013  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/01/2013    | Telephone: 415-972-3372                 |
| Date Made Active in Reports: 04/12/2013 | Last EDR Contact: 07/24/2013            |
| Number of Days to Update: 42            | Next Scheduled EDR Contact: 11/11/2013  |
|   | Data Release Frequency: Quarterly       |

## **State and tribal registered storage tank lists**

UST: Active UST Facilities

Active UST facilities gathered from the local regulatory agencies

|   |  |
|---|--|
| Date of Government Version: 07/26/2013  | Source: SWRCB                          |
| Date Data Arrived at EDR: 07/26/2013    | Telephone: 916-341-5851                |
| Date Made Active in Reports: 08/20/2013 | Last EDR Contact: 09/17/2013           |
| Number of Days to Update: 25            | Next Scheduled EDR Contact: 12/30/2013 |
|   | Data Release Frequency: Semi-Annually  |

AST: Aboveground Petroleum Storage Tank Facilities  
Registered Aboveground Storage Tanks.

|   |   |
|---|---|
| Date of Government Version: 08/01/2009  | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 09/10/2009    | Telephone: 916-327-5092                     |
| Date Made Active in Reports: 10/01/2009 | Last EDR Contact: 07/03/2013                |
| Number of Days to Update: 21            | Next Scheduled EDR Contact: 10/21/2013      |
|   | Data Release Frequency: Quarterly           |

INDIAN UST R10: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 10 (Alaska, Idaho, Oregon, Washington, and Tribal Nations).

|   |  |
|---|--|
| Date of Government Version: 02/05/2013  | Source: EPA Region 10                  |
| Date Data Arrived at EDR: 02/06/2013    | Telephone: 206-553-2857                |
| Date Made Active in Reports: 04/12/2013 | Last EDR Contact: 07/24/2013           |
| Number of Days to Update: 65            | Next Scheduled EDR Contact: 11/11/2013 |
|   | Data Release Frequency: Quarterly      |

INDIAN UST R9: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 9 (Arizona, California, Hawaii, Nevada, the Pacific Islands, and Tribal Nations).

|   |  |
|---|--|
| Date of Government Version: 02/21/2013  | Source: EPA Region 9                   |
| Date Data Arrived at EDR: 02/26/2013    | Telephone: 415-972-3368                |
| Date Made Active in Reports: 04/12/2013 | Last EDR Contact: 07/24/2013           |
| Number of Days to Update: 45            | Next Scheduled EDR Contact: 11/11/2013 |
|   | Data Release Frequency: Quarterly      |

INDIAN UST R8: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 8 (Colorado, Montana, North Dakota, South Dakota, Utah, Wyoming and 27 Tribal Nations).

|   |  |
|---|--|
| Date of Government Version: 08/27/2012  | Source: EPA Region 8                   |
| Date Data Arrived at EDR: 08/28/2012    | Telephone: 303-312-6137                |
| Date Made Active in Reports: 10/16/2012 | Last EDR Contact: 07/24/2013           |
| Number of Days to Update: 49            | Next Scheduled EDR Contact: 11/11/2013 |
|   | Data Release Frequency: Quarterly      |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## INDIAN UST R7: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 7 (Iowa, Kansas, Missouri, Nebraska, and 9 Tribal Nations).

|   |  |
|---|--|
| Date of Government Version: 12/31/2012  | Source: EPA Region 7                   |
| Date Data Arrived at EDR: 02/28/2013    | Telephone: 913-551-7003                |
| Date Made Active in Reports: 04/12/2013 | Last EDR Contact: 07/24/2013           |
| Number of Days to Update: 43            | Next Scheduled EDR Contact: 11/11/2013 |
|   | Data Release Frequency: Varies         |

## INDIAN UST R6: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 6 (Louisiana, Arkansas, Oklahoma, New Mexico, Texas and 65 Tribes).

|   |  |
|---|--|
| Date of Government Version: 05/10/2011  | Source: EPA Region 6                   |
| Date Data Arrived at EDR: 05/11/2011    | Telephone: 214-665-7591                |
| Date Made Active in Reports: 06/14/2011 | Last EDR Contact: 07/24/2013           |
| Number of Days to Update: 34            | Next Scheduled EDR Contact: 11/11/2013 |
|   | Data Release Frequency: Semi-Annually  |

## INDIAN UST R5: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 5 (Michigan, Minnesota and Wisconsin and Tribal Nations).

|   |  |
|---|--|
| Date of Government Version: 08/02/2012  | Source: EPA Region 5                   |
| Date Data Arrived at EDR: 08/03/2012    | Telephone: 312-886-6136                |
| Date Made Active in Reports: 11/05/2012 | Last EDR Contact: 07/24/2013           |
| Number of Days to Update: 94            | Next Scheduled EDR Contact: 11/11/2013 |
|   | Data Release Frequency: Varies         |

## INDIAN UST R4: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 4 (Alabama, Florida, Georgia, Kentucky, Mississippi, North Carolina, South Carolina, Tennessee and Tribal Nations)

|   |  |
|---|--|
| Date of Government Version: 02/06/2013  | Source: EPA Region 4                   |
| Date Data Arrived at EDR: 02/08/2013    | Telephone: 404-562-9424                |
| Date Made Active in Reports: 04/12/2013 | Last EDR Contact: 07/24/2013           |
| Number of Days to Update: 63            | Next Scheduled EDR Contact: 11/11/2013 |
|   | Data Release Frequency: Semi-Annually  |

## INDIAN UST R1: Underground Storage Tanks on Indian Land

The Indian Underground Storage Tank (UST) database provides information about underground storage tanks on Indian land in EPA Region 1 (Connecticut, Maine, Massachusetts, New Hampshire, Rhode Island, Vermont and ten Tribal Nations).

|   |  |
|---|--|
| Date of Government Version: 09/28/2012  | Source: EPA, Region 1                  |
| Date Data Arrived at EDR: 11/07/2012    | Telephone: 617-918-1313                |
| Date Made Active in Reports: 04/12/2013 | Last EDR Contact: 08/02/2013           |
| Number of Days to Update: 156           | Next Scheduled EDR Contact: 11/11/2013 |
|   | Data Release Frequency: Varies         |

## FEMA UST: Underground Storage Tank Listing

A listing of all FEMA owned underground storage tanks.

|   |  |
|---|--|
| Date of Government Version: 01/01/2010  | Source: FEMA                           |
| Date Data Arrived at EDR: 02/16/2010    | Telephone: 202-646-5797                |
| Date Made Active in Reports: 04/12/2010 | Last EDR Contact: 07/19/2013           |
| Number of Days to Update: 55            | Next Scheduled EDR Contact: 10/28/2013 |
|   | Data Release Frequency: Varies         |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ***State and tribal voluntary cleanup sites***

### INDIAN VCP R7: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 7.

|   |  |
|---|--|
| Date of Government Version: 03/20/2008  | Source: EPA, Region 7                  |
| Date Data Arrived at EDR: 04/22/2008    | Telephone: 913-551-7365                |
| Date Made Active in Reports: 05/19/2008 | Last EDR Contact: 04/20/2009           |
| Number of Days to Update: 27            | Next Scheduled EDR Contact: 07/20/2009 |
|   | Data Release Frequency: Varies         |

### VCP: Voluntary Cleanup Program Properties

Contains low threat level properties with either confirmed or unconfirmed releases and the project proponents have request that DTSC oversee investigation and/or cleanup activities and have agreed to provide coverage for DTSC's costs.

|   |  |
|---|--|
| Date of Government Version: 08/05/2013  | Source: Department of Toxic Substances Control |
| Date Data Arrived at EDR: 08/05/2013    | Telephone: 916-323-3400                        |
| Date Made Active in Reports: 08/27/2013 | Last EDR Contact: 09/05/2013                   |
| Number of Days to Update: 22            | Next Scheduled EDR Contact: 11/18/2013         |
|   | Data Release Frequency: Quarterly              |

### INDIAN VCP R1: Voluntary Cleanup Priority Listing

A listing of voluntary cleanup priority sites located on Indian Land located in Region 1.

|   |  |
|---|--|
| Date of Government Version: 09/28/2012  | Source: EPA, Region 1                  |
| Date Data Arrived at EDR: 10/02/2012    | Telephone: 617-918-1102                |
| Date Made Active in Reports: 10/16/2012 | Last EDR Contact: 07/02/2013           |
| Number of Days to Update: 14            | Next Scheduled EDR Contact: 10/14/2013 |
|   | Data Release Frequency: Varies         |

## **ADDITIONAL ENVIRONMENTAL RECORDS**

### ***Local Brownfield lists***

#### US BROWNFIELDS: A Listing of Brownfields Sites

Brownfields are real property, the expansion, redevelopment, or reuse of which may be complicated by the presence or potential presence of a hazardous substance, pollutant, or contaminant. Cleaning up and reinvesting in these properties takes development pressures off of undeveloped, open land, and both improves and protects the environment. Assessment, Cleanup and Redevelopment Exchange System (ACRES) stores information reported by EPA Brownfields grant recipients on brownfields properties assessed or cleaned up with grant funding as well as information on Targeted Brownfields Assessments performed by EPA Regions. A listing of ACRES Brownfield sites is obtained from Cleanups in My Community. Cleanups in My Community provides information on Brownfields properties for which information is reported back to EPA, as well as areas served by Brownfields grant programs.

|   |   |
|---|---|
| Date of Government Version: 06/24/2013  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 06/25/2013    | Telephone: 202-566-2777                 |
| Date Made Active in Reports: 08/09/2013 | Last EDR Contact: 09/24/2013            |
| Number of Days to Update: 45            | Next Scheduled EDR Contact: 01/08/2014  |
|   | Data Release Frequency: Semi-Annually   |

### ***Local Lists of Landfill / Solid Waste Disposal Sites***

#### ODI: Open Dump Inventory

An open dump is defined as a disposal facility that does not comply with one or more of the Part 257 or Part 258 Subtitle D Criteria.

|   |   |
|---|---|
| Date of Government Version: 06/30/1985  | Source: Environmental Protection Agency   |
| Date Data Arrived at EDR: 08/09/2004    | Telephone: 800-424-9346                   |
| Date Made Active in Reports: 09/17/2004 | Last EDR Contact: 06/09/2004              |
| Number of Days to Update: 39            | Next Scheduled EDR Contact: N/A           |
|   | Data Release Frequency: No Update Planned |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## DEBRIS REGION 9: Torres Martinez Reservation Illegal Dump Site Locations

A listing of illegal dump sites location on the Torres Martinez Indian Reservation located in eastern Riverside County and northern Imperial County, California.

Date of Government Version: 01/12/2009  
Date Data Arrived at EDR: 05/07/2009  
Date Made Active in Reports: 09/21/2009  
Number of Days to Update: 137

Source: EPA, Region 9  
Telephone: 415-947-4219  
Last EDR Contact: 07/26/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: No Update Planned

## WMUDS/SWAT: Waste Management Unit Database

Waste Management Unit Database System. WMUDS is used by the State Water Resources Control Board staff and the Regional Water Quality Control Boards for program tracking and inventory of waste management units. WMUDS is composed of the following databases: Facility Information, Scheduled Inspections Information, Waste Management Unit Information, SWAT Program Information, SWAT Report Summary Information, SWAT Report Summary Data, Chapter 15 (formerly Subchapter 15) Information, Chapter 15 Monitoring Parameters, TPCA Program Information, RCRA Program Information, Closure Information, and Interested Parties Information.

Date of Government Version: 04/01/2000  
Date Data Arrived at EDR: 04/10/2000  
Date Made Active in Reports: 05/10/2000  
Number of Days to Update: 30

Source: State Water Resources Control Board  
Telephone: 916-227-4448  
Last EDR Contact: 08/07/2013  
Next Scheduled EDR Contact: 11/25/2013  
Data Release Frequency: No Update Planned

## SWRCY: Recycler Database

A listing of recycling facilities in California.

Date of Government Version: 06/17/2013  
Date Data Arrived at EDR: 06/17/2013  
Date Made Active in Reports: 08/16/2013  
Number of Days to Update: 60

Source: Department of Conservation  
Telephone: 916-323-3836  
Last EDR Contact: 09/16/2013  
Next Scheduled EDR Contact: 12/30/2013  
Data Release Frequency: Quarterly

## HAULERS: Registered Waste Tire Haulers Listing

A listing of registered waste tire haulers.

Date of Government Version: 04/26/2013  
Date Data Arrived at EDR: 04/26/2013  
Date Made Active in Reports: 05/16/2013  
Number of Days to Update: 20

Source: Integrated Waste Management Board  
Telephone: 916-341-6422  
Last EDR Contact: 09/10/2013  
Next Scheduled EDR Contact: 12/02/2013  
Data Release Frequency: Varies

## INDIAN ODI: Report on the Status of Open Dumps on Indian Lands

Location of open dumps on Indian land.

Date of Government Version: 12/31/1998  
Date Data Arrived at EDR: 12/03/2007  
Date Made Active in Reports: 01/24/2008  
Number of Days to Update: 52

Source: Environmental Protection Agency  
Telephone: 703-308-8245  
Last EDR Contact: 07/31/2013  
Next Scheduled EDR Contact: 11/18/2013  
Data Release Frequency: Varies

## **Local Lists of Hazardous waste / Contaminated Sites**

### US CDL: Clandestine Drug Labs

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 03/04/2013  
Date Data Arrived at EDR: 03/12/2013  
Date Made Active in Reports: 05/10/2013  
Number of Days to Update: 59

Source: Drug Enforcement Administration  
Telephone: 202-307-1000  
Last EDR Contact: 09/04/2013  
Next Scheduled EDR Contact: 12/16/2013  
Data Release Frequency: Quarterly

## HIST CAL-SITES: Calsites Database

The Calsites database contains potential or confirmed hazardous substance release properties. In 1996, California EPA reevaluated and significantly reduced the number of sites in the Calsites database. No longer updated by the state agency. It has been replaced by ENVIROSTOR.

Date of Government Version: 08/08/2005  
Date Data Arrived at EDR: 08/03/2006  
Date Made Active in Reports: 08/24/2006  
Number of Days to Update: 21

Source: Department of Toxic Substance Control  
Telephone: 916-323-3400  
Last EDR Contact: 02/23/2009  
Next Scheduled EDR Contact: 05/25/2009  
Data Release Frequency: No Update Planned

## SCH: School Property Evaluation Program

This category contains proposed and existing school sites that are being evaluated by DTSC for possible hazardous materials contamination. In some cases, these properties may be listed in the CalSites category depending on the level of threat to public health and safety or the environment they pose.

Date of Government Version: 08/05/2013  
Date Data Arrived at EDR: 08/05/2013  
Date Made Active in Reports: 08/27/2013  
Number of Days to Update: 22

Source: Department of Toxic Substances Control  
Telephone: 916-323-3400  
Last EDR Contact: 09/05/2013  
Next Scheduled EDR Contact: 11/18/2013  
Data Release Frequency: Quarterly

## TOXIC PITS: Toxic Pits Cleanup Act Sites

Toxic PITS Cleanup Act Sites. TOXIC PITS identifies sites suspected of containing hazardous substances where cleanup has not yet been completed.

Date of Government Version: 07/01/1995  
Date Data Arrived at EDR: 08/30/1995  
Date Made Active in Reports: 09/26/1995  
Number of Days to Update: 27

Source: State Water Resources Control Board  
Telephone: 916-227-4364  
Last EDR Contact: 01/26/2009  
Next Scheduled EDR Contact: 04/27/2009  
Data Release Frequency: No Update Planned

## CDL: Clandestine Drug Labs

A listing of drug lab locations. Listing of a location in this database does not indicate that any illegal drug lab materials were or were not present there, and does not constitute a determination that the location either requires or does not require additional cleanup work.

Date of Government Version: 12/31/2012  
Date Data Arrived at EDR: 04/03/2013  
Date Made Active in Reports: 05/14/2013  
Number of Days to Update: 41

Source: Department of Toxic Substances Control  
Telephone: 916-255-6504  
Last EDR Contact: 09/03/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Varies

## US HIST CDL: National Clandestine Laboratory Register

A listing of clandestine drug lab locations. The U.S. Department of Justice ("the Department") provides this web site as a public service. It contains addresses of some locations where law enforcement agencies reported they found chemicals or other items that indicated the presence of either clandestine drug laboratories or dumpsites. In most cases, the source of the entries is not the Department, and the Department has not verified the entry and does not guarantee its accuracy. Members of the public must verify the accuracy of all entries by, for example, contacting local law enforcement and local health departments.

Date of Government Version: 09/01/2007  
Date Data Arrived at EDR: 11/19/2008  
Date Made Active in Reports: 03/30/2009  
Number of Days to Update: 131

Source: Drug Enforcement Administration  
Telephone: 202-307-1000  
Last EDR Contact: 03/23/2009  
Next Scheduled EDR Contact: 06/22/2009  
Data Release Frequency: No Update Planned

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## **Local Lists of Registered Storage Tanks**

### CA FID UST: Facility Inventory Database

The Facility Inventory Database (FID) contains a historical listing of active and inactive underground storage tank locations from the State Water Resource Control Board. Refer to local/county source for current data.

|   |  |
|---|--|
| Date of Government Version: 10/31/1994  | Source: California Environmental Protection Agency |
| Date Data Arrived at EDR: 09/05/1995    | Telephone: 916-341-5851                            |
| Date Made Active in Reports: 09/29/1995 | Last EDR Contact: 12/28/1998                       |
| Number of Days to Update: 24            | Next Scheduled EDR Contact: N/A                    |
|   | Data Release Frequency: No Update Planned          |

### UST MENDOCINO: Mendocino County UST Database

A listing of underground storage tank locations in Mendocino County.

|   |  |
|---|--|
| Date of Government Version: 09/23/2009  | Source: Department of Public Health    |
| Date Data Arrived at EDR: 09/23/2009    | Telephone: 707-463-4466                |
| Date Made Active in Reports: 10/01/2009 | Last EDR Contact: 09/03/2013           |
| Number of Days to Update: 8             | Next Scheduled EDR Contact: 12/16/2013 |
|   | Data Release Frequency: Annually       |

### HIST UST: Hazardous Substance Storage Container Database

The Hazardous Substance Storage Container Database is a historical listing of UST sites. Refer to local/county source for current data.

|   |   |
|---|---|
| Date of Government Version: 10/15/1990  | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 01/25/1991    | Telephone: 916-341-5851                     |
| Date Made Active in Reports: 02/12/1991 | Last EDR Contact: 07/26/2001                |
| Number of Days to Update: 18            | Next Scheduled EDR Contact: N/A             |
|   | Data Release Frequency: No Update Planned   |

### SWEEPS UST: SWEEPS UST Listing

Statewide Environmental Evaluation and Planning System. This underground storage tank listing was updated and maintained by a company contacted by the SWRCB in the early 1990's. The listing is no longer updated or maintained. The local agency is the contact for more information on a site on the SWEEPS list.

|   |   |
|---|---|
| Date of Government Version: 06/01/1994  | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 07/07/2005    | Telephone: N/A                              |
| Date Made Active in Reports: 08/11/2005 | Last EDR Contact: 06/03/2005                |
| Number of Days to Update: 35            | Next Scheduled EDR Contact: N/A             |
|   | Data Release Frequency: No Update Planned   |

## **Local Land Records**

### LIENS 2: CERCLA Lien Information

A Federal CERCLA ('Superfund') lien can exist by operation of law at any site or property at which EPA has spent Superfund monies. These monies are spent to investigate and address releases and threatened releases of contamination. CERCLIS provides information as to the identity of these sites and properties.

|   |   |
|---|---|
| Date of Government Version: 02/06/2013  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 04/25/2013    | Telephone: 202-564-6023                 |
| Date Made Active in Reports: 05/10/2013 | Last EDR Contact: 07/24/2013            |
| Number of Days to Update: 15            | Next Scheduled EDR Contact: 11/11/2013  |
|   | Data Release Frequency: Varies          |

### LIENS: Environmental Liens Listing

A listing of property locations with environmental liens for California where DTSC is a lien holder.

|   |  |
|---|--|
| Date of Government Version: 06/14/2013  | Source: Department of Toxic Substances Control |
| Date Data Arrived at EDR: 06/17/2013    | Telephone: 916-323-3400                        |
| Date Made Active in Reports: 08/21/2013 | Last EDR Contact: 09/23/2013                   |
| Number of Days to Update: 65            | Next Scheduled EDR Contact: 12/23/2013         |
|   | Data Release Frequency: Varies                 |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## DEED: Deed Restriction Listing

Site Mitigation and Brownfields Reuse Program Facility Sites with Deed Restrictions & Hazardous Waste Management Program Facility Sites with Deed / Land Use Restriction. The DTSC Site Mitigation and Brownfields Reuse Program (SMBRP) list includes sites cleaned up under the program's oversight and generally does not include current or former hazardous waste facilities that required a hazardous waste facility permit. The list represents deed restrictions that are active. Some sites have multiple deed restrictions. The DTSC Hazardous Waste Management Program (HWMP) has developed a list of current or former hazardous waste facilities that have a recorded land use restriction at the local county recorder's office. The land use restrictions on this list were required by the DTSC HWMP as a result of the presence of hazardous substances that remain on site after the facility (or part of the facility) has been closed or cleaned up. The types of land use restriction include deed notice, deed restriction, or a land use restriction that binds current and future owners.

Date of Government Version: 06/10/2013  
Date Data Arrived at EDR: 06/11/2013  
Date Made Active in Reports: 08/21/2013  
Number of Days to Update: 71

Source: Department of Toxic Substances Control  
Telephone: 916-323-3400  
Last EDR Contact: 09/11/2013  
Next Scheduled EDR Contact: 12/23/2013  
Data Release Frequency: Semi-Annually

## **Records of Emergency Release Reports**

### HMIRS: Hazardous Materials Information Reporting System

Hazardous Materials Incident Report System. HMIRS contains hazardous material spill incidents reported to DOT.

Date of Government Version: 12/31/2012  
Date Data Arrived at EDR: 01/03/2013  
Date Made Active in Reports: 02/27/2013  
Number of Days to Update: 55

Source: U.S. Department of Transportation  
Telephone: 202-366-4555  
Last EDR Contact: 07/01/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Annually

### CHMIRS: California Hazardous Material Incident Report System

California Hazardous Material Incident Reporting System. CHMIRS contains information on reported hazardous material incidents (accidental releases or spills).

Date of Government Version: 03/12/2013  
Date Data Arrived at EDR: 05/01/2013  
Date Made Active in Reports: 06/25/2013  
Number of Days to Update: 55

Source: Office of Emergency Services  
Telephone: 916-845-8400  
Last EDR Contact: 08/02/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Varies

### LDS: Land Disposal Sites Listing

The Land Disposal program regulates of waste discharge to land for treatment, storage and disposal in waste management units.

Date of Government Version: 07/26/2013  
Date Data Arrived at EDR: 07/26/2013  
Date Made Active in Reports: 08/26/2013  
Number of Days to Update: 31

Source: State Water Quality Control Board  
Telephone: 866-480-1028  
Last EDR Contact: 09/17/2013  
Next Scheduled EDR Contact: 12/30/2013  
Data Release Frequency: Quarterly

### MCS: Military Cleanup Sites Listing

The State Water Resources Control Board and nine Regional Water Quality Control Boards partner with the Department of Defense (DoD) through the Defense and State Memorandum of Agreement (DSMOA) to oversee the investigation and remediation of water quality issues at military facilities.

Date of Government Version: 07/26/2013  
Date Data Arrived at EDR: 07/26/2013  
Date Made Active in Reports: 08/26/2013  
Number of Days to Update: 31

Source: State Water Resources Control Board  
Telephone: 866-480-1028  
Last EDR Contact: 09/17/2013  
Next Scheduled EDR Contact: 12/30/2013  
Data Release Frequency: Quarterly

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## SPILLS 90: SPILLS90 data from FirstSearch

Spills 90 includes those spill and release records available exclusively from FirstSearch databases. Typically, they may include chemical, oil and/or hazardous substance spills recorded after 1990. Duplicate records that are already included in EDR incident and release records are not included in Spills 90.

|   |   |
|---|---|
| Date of Government Version: 06/06/2012  | Source: FirstSearch                       |
| Date Data Arrived at EDR: 01/03/2013    | Telephone: N/A                            |
| Date Made Active in Reports: 02/22/2013 | Last EDR Contact: 01/03/2013              |
| Number of Days to Update: 50            | Next Scheduled EDR Contact: N/A           |
|   | Data Release Frequency: No Update Planned |

## Other Ascertainable Records

### RCRA NonGen / NLR: RCRA - Non Generators

RCRAInfo is EPA's comprehensive information system, providing access to data supporting the Resource Conservation and Recovery Act (RCRA) of 1976 and the Hazardous and Solid Waste Amendments (HSWA) of 1984. The database includes selective information on sites which generate, transport, store, treat and/or dispose of hazardous waste as defined by the Resource Conservation and Recovery Act (RCRA). Non-Generators do not presently generate hazardous waste.

|   |   |
|---|---|
| Date of Government Version: 07/11/2013  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 08/08/2013    | Telephone: (415) 495-8895               |
| Date Made Active in Reports: 09/13/2013 | Last EDR Contact: 08/08/2013            |
| Number of Days to Update: 36            | Next Scheduled EDR Contact: 10/14/2013  |
|   | Data Release Frequency: Varies          |

### DOT OPS: Incident and Accident Data

Department of Transportation, Office of Pipeline Safety Incident and Accident data.

|   |   |
|---|---|
| Date of Government Version: 07/31/2012  | Source: Department of Transportation, Office of Pipeline Safety |
| Date Data Arrived at EDR: 08/07/2012    | Telephone: 202-366-4595   |
| Date Made Active in Reports: 09/18/2012 | Last EDR Contact: 08/05/2013                                    |
| Number of Days to Update: 42            | Next Scheduled EDR Contact: 11/18/2013                          |
|   | Data Release Frequency: Varies                                  |

### DOD: Department of Defense Sites

This data set consists of federally owned or administered lands, administered by the Department of Defense, that have any area equal to or greater than 640 acres of the United States, Puerto Rico, and the U.S. Virgin Islands.

|   |  |
|---|--|
| Date of Government Version: 12/31/2005  | Source: USGS                           |
| Date Data Arrived at EDR: 11/10/2006    | Telephone: 888-275-8747                |
| Date Made Active in Reports: 01/11/2007 | Last EDR Contact: 07/19/2013           |
| Number of Days to Update: 62            | Next Scheduled EDR Contact: 10/28/2013 |
|   | Data Release Frequency: Semi-Annually  |

### FUDS: Formerly Used Defense Sites

The listing includes locations of Formerly Used Defense Sites properties where the US Army Corps of Engineers is actively working or will take necessary cleanup actions.

|   |  |
|---|--|
| Date of Government Version: 12/31/2011  | Source: U.S. Army Corps of Engineers   |
| Date Data Arrived at EDR: 02/26/2013    | Telephone: 202-528-4285                |
| Date Made Active in Reports: 03/13/2013 | Last EDR Contact: 09/10/2013           |
| Number of Days to Update: 15            | Next Scheduled EDR Contact: 12/23/2013 |
|   | Data Release Frequency: Varies         |

### CONSENT: Superfund (CERCLA) Consent Decrees

Major legal settlements that establish responsibility and standards for cleanup at NPL (Superfund) sites. Released periodically by United States District Courts after settlement by parties to litigation matters.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 12/31/2011  
Date Data Arrived at EDR: 01/15/2013  
Date Made Active in Reports: 03/13/2013  
Number of Days to Update: 57

Source: Department of Justice, Consent Decree Library  
Telephone: Varies  
Last EDR Contact: 06/25/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Varies

## ROD: Records Of Decision

Record of Decision. ROD documents mandate a permanent remedy at an NPL (Superfund) site containing technical and health information to aid in the cleanup.

Date of Government Version: 12/18/2012  
Date Data Arrived at EDR: 03/13/2013  
Date Made Active in Reports: 04/12/2013  
Number of Days to Update: 30

Source: EPA  
Telephone: 703-416-0223  
Last EDR Contact: 09/13/2013  
Next Scheduled EDR Contact: 12/23/2013  
Data Release Frequency: Annually

## UMTRA: Uranium Mill Tailings Sites

Uranium ore was mined by private companies for federal government use in national defense programs. When the mills shut down, large piles of the sand-like material (mill tailings) remain after uranium has been extracted from the ore. Levels of human exposure to radioactive materials from the piles are low; however, in some cases tailings were used as construction materials before the potential health hazards of the tailings were recognized.

Date of Government Version: 09/14/2010  
Date Data Arrived at EDR: 10/07/2011  
Date Made Active in Reports: 03/01/2012  
Number of Days to Update: 146

Source: Department of Energy  
Telephone: 505-845-0011  
Last EDR Contact: 05/28/2013  
Next Scheduled EDR Contact: 09/09/2013  
Data Release Frequency: Varies

## US MINES: Mines Master Index File

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 02/05/2013  
Date Data Arrived at EDR: 04/18/2013  
Date Made Active in Reports: 05/10/2013  
Number of Days to Update: 22

Source: Department of Labor, Mine Safety and Health Administration  
Telephone: 303-231-5959  
Last EDR Contact: 09/05/2013  
Next Scheduled EDR Contact: 12/16/2013  
Data Release Frequency: Semi-Annually

## TRIS: Toxic Chemical Release Inventory System

Toxic Release Inventory System. TRIS identifies facilities which release toxic chemicals to the air, water and land in reportable quantities under SARA Title III Section 313.

Date of Government Version: 12/31/2011  
Date Data Arrived at EDR: 07/31/2013  
Date Made Active in Reports: 09/13/2013  
Number of Days to Update: 44

Source: EPA  
Telephone: 202-566-0250  
Last EDR Contact: 08/30/2013  
Next Scheduled EDR Contact: 12/09/2013  
Data Release Frequency: Annually

## TSCA: Toxic Substances Control Act

Toxic Substances Control Act. TSCA identifies manufacturers and importers of chemical substances included on the TSCA Chemical Substance Inventory list. It includes data on the production volume of these substances by plant site.

Date of Government Version: 12/31/2006  
Date Data Arrived at EDR: 09/29/2010  
Date Made Active in Reports: 12/02/2010  
Number of Days to Update: 64

Source: EPA  
Telephone: 202-260-5521  
Last EDR Contact: 09/24/2013  
Next Scheduled EDR Contact: 01/08/2014  
Data Release Frequency: Every 4 Years

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## FTTS: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

FTTS tracks administrative cases and pesticide enforcement actions and compliance activities related to FIFRA, TSCA and EPCRA (Emergency Planning and Community Right-to-Know Act). To maintain currency, EDR contacts the Agency on a quarterly basis.

|   |   |
|---|---|
| Date of Government Version: 04/09/2009  | Source: EPA/Office of Prevention, Pesticides and Toxic Substances |
| Date Data Arrived at EDR: 04/16/2009    | Telephone: 202-566-1667   |
| Date Made Active in Reports: 05/11/2009 | Last EDR Contact: 08/22/2013                                      |
| Number of Days to Update: 25            | Next Scheduled EDR Contact: 12/09/2013                            |
|   | Data Release Frequency: Quarterly                                 |

## FTTS INSP: FIFRA/ TSCA Tracking System - FIFRA (Federal Insecticide, Fungicide, & Rodenticide Act)/TSCA (Toxic Substances Control Act)

A listing of FIFRA/TSCA Tracking System (FTTS) inspections and enforcements.

|   |  |
|---|--|
| Date of Government Version: 04/09/2009  | Source: EPA                            |
| Date Data Arrived at EDR: 04/16/2009    | Telephone: 202-566-1667                |
| Date Made Active in Reports: 05/11/2009 | Last EDR Contact: 08/22/2013           |
| Number of Days to Update: 25            | Next Scheduled EDR Contact: 12/09/2013 |
|   | Data Release Frequency: Quarterly      |

## HIST FTTS: FIFRA/TSCA Tracking System Administrative Case Listing

A complete administrative case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

|   |   |
|---|---|
| Date of Government Version: 10/19/2006  | Source: Environmental Protection Agency   |
| Date Data Arrived at EDR: 03/01/2007    | Telephone: 202-564-2501                   |
| Date Made Active in Reports: 04/10/2007 | Last EDR Contact: 12/17/2007              |
| Number of Days to Update: 40            | Next Scheduled EDR Contact: 03/17/2008    |
|   | Data Release Frequency: No Update Planned |

## HIST FTTS INSP: FIFRA/TSCA Tracking System Inspection & Enforcement Case Listing

A complete inspection and enforcement case listing from the FIFRA/TSCA Tracking System (FTTS) for all ten EPA regions. The information was obtained from the National Compliance Database (NCDB). NCDB supports the implementation of FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) and TSCA (Toxic Substances Control Act). Some EPA regions are now closing out records. Because of that, and the fact that some EPA regions are not providing EPA Headquarters with updated records, it was decided to create a HIST FTTS database. It included records that may not be included in the newer FTTS database updates. This database is no longer updated.

|   |   |
|---|---|
| Date of Government Version: 10/19/2006  | Source: Environmental Protection Agency   |
| Date Data Arrived at EDR: 03/01/2007    | Telephone: 202-564-2501                   |
| Date Made Active in Reports: 04/10/2007 | Last EDR Contact: 12/17/2008              |
| Number of Days to Update: 40            | Next Scheduled EDR Contact: 03/17/2008    |
|   | Data Release Frequency: No Update Planned |

## SSTS: Section 7 Tracking Systems

Section 7 of the Federal Insecticide, Fungicide and Rodenticide Act, as amended (92 Stat. 829) requires all registered pesticide-producing establishments to submit a report to the Environmental Protection Agency by March 1st each year. Each establishment must report the types and amounts of pesticides, active ingredients and devices being produced, and those having been produced and sold or distributed in the past year.

|   |  |
|---|--|
| Date of Government Version: 12/31/2009  | Source: EPA                            |
| Date Data Arrived at EDR: 12/10/2010    | Telephone: 202-564-4203                |
| Date Made Active in Reports: 02/25/2011 | Last EDR Contact: 07/24/2013           |
| Number of Days to Update: 77            | Next Scheduled EDR Contact: 11/11/2013 |
|   | Data Release Frequency: Annually       |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## ICIS: Integrated Compliance Information System

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

|   |   |
|---|---|
| Date of Government Version: 07/20/2011  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 11/10/2011    | Telephone: 202-564-5088                 |
| Date Made Active in Reports: 01/10/2012 | Last EDR Contact: 07/01/2013            |
| Number of Days to Update: 61            | Next Scheduled EDR Contact: 10/28/2013  |
|   | Data Release Frequency: Quarterly       |

## PADS: PCB Activity Database System

PCB Activity Database. PADS Identifies generators, transporters, commercial storers and/or brokers and disposers of PCB's who are required to notify the EPA of such activities.

|   |  |
|---|--|
| Date of Government Version: 11/01/2012  | Source: EPA                            |
| Date Data Arrived at EDR: 01/16/2013    | Telephone: 202-566-0500                |
| Date Made Active in Reports: 05/10/2013 | Last EDR Contact: 07/17/2013           |
| Number of Days to Update: 114           | Next Scheduled EDR Contact: 10/28/2013 |
|   | Data Release Frequency: Annually       |

## MLTS: Material Licensing Tracking System

MLTS is maintained by the Nuclear Regulatory Commission and contains a list of approximately 8,100 sites which possess or use radioactive materials and which are subject to NRC licensing requirements. To maintain currency, EDR contacts the Agency on a quarterly basis.

|   |  |
|---|--|
| Date of Government Version: 03/14/2013  | Source: Nuclear Regulatory Commission  |
| Date Data Arrived at EDR: 03/20/2013    | Telephone: 301-415-7169                |
| Date Made Active in Reports: 07/10/2013 | Last EDR Contact: 09/10/2013           |
| Number of Days to Update: 112           | Next Scheduled EDR Contact: 12/23/2013 |
|   | Data Release Frequency: Quarterly      |

## RADINFO: Radiation Information Database

The Radiation Information Database (RADINFO) contains information about facilities that are regulated by U.S. Environmental Protection Agency (EPA) regulations for radiation and radioactivity.

|   |   |
|---|---|
| Date of Government Version: 04/09/2013  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 04/11/2013    | Telephone: 202-343-9775                 |
| Date Made Active in Reports: 05/10/2013 | Last EDR Contact: 07/12/2013            |
| Number of Days to Update: 29            | Next Scheduled EDR Contact: 10/21/2013  |
|   | Data Release Frequency: Quarterly       |

## FINDS: Facility Index System/Facility Registry System

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

|   |  |
|---|--|
| Date of Government Version: 03/08/2013  | Source: EPA                            |
| Date Data Arrived at EDR: 03/21/2013    | Telephone: (415) 947-8000              |
| Date Made Active in Reports: 07/10/2013 | Last EDR Contact: 09/11/2013           |
| Number of Days to Update: 111           | Next Scheduled EDR Contact: 12/23/2013 |
|   | Data Release Frequency: Quarterly      |

## RAATS: RCRA Administrative Action Tracking System

RCRA Administration Action Tracking System. RAATS contains records based on enforcement actions issued under RCRA pertaining to major violators and includes administrative and civil actions brought by the EPA. For administration actions after September 30, 1995, data entry in the RAATS database was discontinued. EPA will retain a copy of the database for historical records. It was necessary to terminate RAATS because a decrease in agency resources made it impossible to continue to update the information contained in the database.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 04/17/1995  
Date Data Arrived at EDR: 07/03/1995  
Date Made Active in Reports: 08/07/1995  
Number of Days to Update: 35

Source: EPA  
Telephone: 202-564-4104  
Last EDR Contact: 06/02/2008  
Next Scheduled EDR Contact: 09/01/2008  
Data Release Frequency: No Update Planned

## RMP: Risk Management Plans

When Congress passed the Clean Air Act Amendments of 1990, it required EPA to publish regulations and guidance for chemical accident prevention at facilities using extremely hazardous substances. The Risk Management Program Rule (RMP Rule) was written to implement Section 112(r) of these amendments. The rule, which built upon existing industry codes and standards, requires companies of all sizes that use certain flammable and toxic substances to develop a Risk Management Program, which includes a(n): Hazard assessment that details the potential effects of an accidental release, an accident history of the last five years, and an evaluation of worst-case and alternative accidental releases; Prevention program that includes safety precautions and maintenance, monitoring, and employee training measures; and Emergency response program that spells out emergency health care, employee training measures and procedures for informing the public and response agencies (e.g the fire department) should an accident occur.

Date of Government Version: 05/08/2012  
Date Data Arrived at EDR: 05/25/2012  
Date Made Active in Reports: 07/10/2012  
Number of Days to Update: 46

Source: Environmental Protection Agency  
Telephone: 202-564-8600  
Last EDR Contact: 07/24/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Varies

## BRS: Biennial Reporting System

The Biennial Reporting System is a national system administered by the EPA that collects data on the generation and management of hazardous waste. BRS captures detailed data from two groups: Large Quantity Generators (LQG) and Treatment, Storage, and Disposal Facilities.

Date of Government Version: 12/31/2011  
Date Data Arrived at EDR: 02/26/2013  
Date Made Active in Reports: 04/19/2013  
Number of Days to Update: 52

Source: EPA/NTIS  
Telephone: 800-424-9346  
Last EDR Contact: 08/26/2013  
Next Scheduled EDR Contact: 12/09/2013  
Data Release Frequency: Biennially

## CA BOND EXP. PLAN: Bond Expenditure Plan

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989  
Date Data Arrived at EDR: 07/27/1994  
Date Made Active in Reports: 08/02/1994  
Number of Days to Update: 6

Source: Department of Health Services  
Telephone: 916-255-2118  
Last EDR Contact: 05/31/1994  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## NPDES: NPDES Permits Listing

A listing of NPDES permits, including stormwater.

Date of Government Version: 05/20/2013  
Date Data Arrived at EDR: 05/21/2013  
Date Made Active in Reports: 06/12/2013  
Number of Days to Update: 22

Source: State Water Resources Control Board  
Telephone: 916-445-9379  
Last EDR Contact: 08/19/2013  
Next Scheduled EDR Contact: 12/02/2013  
Data Release Frequency: Quarterly

## UIC: UIC Listing

A listing of underground control injection wells.

Date of Government Version: 03/05/2013  
Date Data Arrived at EDR: 03/19/2013  
Date Made Active in Reports: 03/27/2013  
Number of Days to Update: 8

Source: Department of Conservation  
Telephone: 916-445-2408  
Last EDR Contact: 09/17/2013  
Next Scheduled EDR Contact: 12/30/2013  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CORTESE: "Cortese" Hazardous Waste & Substances Sites List

The sites for the list are designated by the State Water Resource Control Board (LUST), the Integrated Waste Board (SWF/LS), and the Department of Toxic Substances Control (Cal-Sites).

|   |   |
|---|---|
| Date of Government Version: 07/05/2013  | Source: CAL EPA/Office of Emergency Information |
| Date Data Arrived at EDR: 07/05/2013    | Telephone: 916-323-3400                         |
| Date Made Active in Reports: 08/26/2013 | Last EDR Contact: 07/05/2013                    |
| Number of Days to Update: 52            | Next Scheduled EDR Contact: 10/14/2013          |
|   | Data Release Frequency: Quarterly               |

## HIST CORTESE: Hazardous Waste & Substance Site List

The sites for the list are designated by the State Water Resource Control Board [LUST], the Integrated Waste Board [SWF/LS], and the Department of Toxic Substances Control [CAL SITES]. This listing is no longer updated by the state agency.

|   |  |
|---|--|
| Date of Government Version: 04/01/2001  | Source: Department of Toxic Substances Control |
| Date Data Arrived at EDR: 01/22/2009    | Telephone: 916-323-3400                        |
| Date Made Active in Reports: 04/08/2009 | Last EDR Contact: 01/22/2009                   |
| Number of Days to Update: 76            | Next Scheduled EDR Contact: N/A                |
|   | Data Release Frequency: No Update Planned      |

## NOTIFY 65: Proposition 65 Records

Listings of all Proposition 65 incidents reported to counties by the State Water Resources Control Board and the Regional Water Quality Control Board. This database is no longer updated by the reporting agency.

|   |   |
|---|---|
| Date of Government Version: 10/21/1993  | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 11/01/1993    | Telephone: 916-445-3846                     |
| Date Made Active in Reports: 11/19/1993 | Last EDR Contact: 09/23/2013                |
| Number of Days to Update: 18            | Next Scheduled EDR Contact: 01/08/2014      |
|   | Data Release Frequency: No Update Planned   |

## DRYCLEANERS: Cleaner Facilities

A list of drycleaner related facilities that have EPA ID numbers. These are facilities with certain SIC codes: power laundries, family and commercial; garment pressing and cleaner's agents; linen supply; coin-operated laundries and cleaning; drycleaning plants, except rugs; carpet and upholster cleaning; industrial launderers; laundry and garment services.

|   |   |
|---|---|
| Date of Government Version: 12/11/2012  | Source: Department of Toxic Substance Control |
| Date Data Arrived at EDR: 12/12/2012    | Telephone: 916-327-4498                       |
| Date Made Active in Reports: 01/04/2013 | Last EDR Contact: 09/10/2013                  |
| Number of Days to Update: 23            | Next Scheduled EDR Contact: 12/24/2012        |
|   | Data Release Frequency: Annually              |

## WIP: Well Investigation Program Case List

Well Investigation Program case in the San Gabriel and San Fernando Valley area.

|   |   |
|---|---|
| Date of Government Version: 07/03/2009  | Source: Los Angeles Water Quality Control Board |
| Date Data Arrived at EDR: 07/21/2009    | Telephone: 213-576-6726                         |
| Date Made Active in Reports: 08/03/2009 | Last EDR Contact: 06/25/2013                    |
| Number of Days to Update: 13            | Next Scheduled EDR Contact: 10/14/2013          |
|   | Data Release Frequency: Varies                  |

## ENF: Enforcement Action Listing

A listing of Water Board Enforcement Actions. Formal is everything except Oral/Verbal Communication, Notice of Violation, Expedited Payment Letter, and Staff Enforcement Letter.

|   |   |
|---|---|
| Date of Government Version: 04/26/2013  | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 04/29/2013    | Telephone: 916-445-9379                     |
| Date Made Active in Reports: 05/16/2013 | Last EDR Contact: 08/08/2013                |
| Number of Days to Update: 17            | Next Scheduled EDR Contact: 11/11/2013      |
|   | Data Release Frequency: Varies              |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## HAZNET: Facility and Manifest Data

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

|   |  |
|---|--|
| Date of Government Version: 12/31/2012  | Source: California Environmental Protection Agency |
| Date Data Arrived at EDR: 07/16/2013    | Telephone: 916-255-1136                            |
| Date Made Active in Reports: 08/26/2013 | Last EDR Contact: 07/16/2013                       |
| Number of Days to Update: 41            | Next Scheduled EDR Contact: 10/28/2013             |
|   | Data Release Frequency: Annually                   |

## EMI: Emissions Inventory Data

Toxics and criteria pollutant emissions data collected by the ARB and local air pollution agencies.

|   |  |
|---|--|
| Date of Government Version: 12/31/2010  | Source: California Air Resources Board |
| Date Data Arrived at EDR: 06/25/2013    | Telephone: 916-322-2990                |
| Date Made Active in Reports: 08/22/2013 | Last EDR Contact: 06/25/2013           |
| Number of Days to Update: 58            | Next Scheduled EDR Contact: 10/07/2013 |
|   | Data Release Frequency: Varies         |

## INDIAN RESERV: Indian Reservations

This map layer portrays Indian administered lands of the United States that have any area equal to or greater than 640 acres.

|   |  |
|---|--|
| Date of Government Version: 12/31/2005  | Source: USGS                           |
| Date Data Arrived at EDR: 12/08/2006    | Telephone: 202-208-3710                |
| Date Made Active in Reports: 01/11/2007 | Last EDR Contact: 07/19/2013           |
| Number of Days to Update: 34            | Next Scheduled EDR Contact: 10/28/2013 |
|   | Data Release Frequency: Semi-Annually  |

## SCRD DRYCLEANERS: State Coalition for Remediation of Drycleaners Listing

The State Coalition for Remediation of Drycleaners was established in 1998, with support from the U.S. EPA Office of Superfund Remediation and Technology Innovation. It is comprised of representatives of states with established drycleaner remediation programs. Currently the member states are Alabama, Connecticut, Florida, Illinois, Kansas, Minnesota, Missouri, North Carolina, Oregon, South Carolina, Tennessee, Texas, and Wisconsin.

|   |   |
|---|---|
| Date of Government Version: 03/07/2011  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/09/2011    | Telephone: 615-532-8599                 |
| Date Made Active in Reports: 05/02/2011 | Last EDR Contact: 08/01/2013            |
| Number of Days to Update: 54            | Next Scheduled EDR Contact: 11/04/2013  |
|   | Data Release Frequency: Varies          |

## US FIN ASSUR: Financial Assurance Information

All owners and operators of facilities that treat, store, or dispose of hazardous waste are required to provide proof that they will have sufficient funds to pay for the clean up, closure, and post-closure care of their facilities.

|   |   |
|---|---|
| Date of Government Version: 03/04/2013  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 03/15/2013    | Telephone: 202-566-1917                 |
| Date Made Active in Reports: 05/10/2013 | Last EDR Contact: 08/23/2013            |
| Number of Days to Update: 56            | Next Scheduled EDR Contact: 12/02/2013  |
|   | Data Release Frequency: Quarterly       |

## PCB TRANSFORMER: PCB Transformer Registration Database

The database of PCB transformer registrations that includes all PCB registration submittals.

|   |   |
|---|---|
| Date of Government Version: 02/01/2011  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 10/19/2011    | Telephone: 202-566-0517                 |
| Date Made Active in Reports: 01/10/2012 | Last EDR Contact: 08/02/2013            |
| Number of Days to Update: 83            | Next Scheduled EDR Contact: 11/11/2013  |
|   | Data Release Frequency: Varies          |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## PROC: Certified Processors Database

A listing of certified processors.

Date of Government Version: 06/17/2013  
Date Data Arrived at EDR: 06/17/2013  
Date Made Active in Reports: 08/21/2013  
Number of Days to Update: 65

Source: Department of Conservation  
Telephone: 916-323-3836  
Last EDR Contact: 09/16/2013  
Next Scheduled EDR Contact: 12/30/2013  
Data Release Frequency: Quarterly

## MWMP: Medical Waste Management Program Listing

The Medical Waste Management Program (MWMP) ensures the proper handling and disposal of medical waste by permitting and inspecting medical waste Offsite Treatment Facilities (PDF) and Transfer Stations (PDF) throughout the state. MWMP also oversees all Medical Waste Transporters.

Date of Government Version: 05/02/2013  
Date Data Arrived at EDR: 06/13/2013  
Date Made Active in Reports: 07/24/2013  
Number of Days to Update: 41

Source: Department of Public Health  
Telephone: 916-558-1784  
Last EDR Contact: 09/11/2013  
Next Scheduled EDR Contact: 12/23/2013  
Data Release Frequency: Varies

## COAL ASH DOE: Sleam-Electric Plan Operation Data

A listing of power plants that store ash in surface ponds.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 08/07/2009  
Date Made Active in Reports: 10/22/2009  
Number of Days to Update: 76

Source: Department of Energy  
Telephone: 202-586-8719  
Last EDR Contact: 07/19/2013  
Next Scheduled EDR Contact: 10/28/2013  
Data Release Frequency: Varies

## COAL ASH EPA: Coal Combustion Residues Surface Impoundments List

A listing of coal combustion residues surface impoundments with high hazard potential ratings.

Date of Government Version: 08/17/2010  
Date Data Arrived at EDR: 01/03/2011  
Date Made Active in Reports: 03/21/2011  
Number of Days to Update: 77

Source: Environmental Protection Agency  
Telephone: N/A  
Last EDR Contact: 09/13/2013  
Next Scheduled EDR Contact: 12/23/2013  
Data Release Frequency: Varies

## HWT: Registered Hazardous Waste Transporter Database

A listing of hazardous waste transporters. In California, unless specifically exempted, it is unlawful for any person to transport hazardous wastes unless the person holds a valid registration issued by DTSC. A hazardous waste transporter registration is valid for one year and is assigned a unique registration number.

Date of Government Version: 07/15/2013  
Date Data Arrived at EDR: 07/16/2013  
Date Made Active in Reports: 08/12/2013  
Number of Days to Update: 27

Source: Department of Toxic Substances Control  
Telephone: 916-440-7145  
Last EDR Contact: 07/16/2013  
Next Scheduled EDR Contact: 10/28/2013  
Data Release Frequency: Quarterly

## HWP: EnviroStor Permitted Facilities Listing

Detailed information on permitted hazardous waste facilities and corrective action ("cleanups") tracked in EnviroStor.

Date of Government Version: 05/28/2013  
Date Data Arrived at EDR: 05/29/2013  
Date Made Active in Reports: 06/27/2013  
Number of Days to Update: 29

Source: Department of Toxic Substances Control  
Telephone: 916-323-3400  
Last EDR Contact: 08/27/2013  
Next Scheduled EDR Contact: 12/09/2013  
Data Release Frequency: Quarterly

## Financial Assurance 2: Financial Assurance Information Listing

A listing of financial assurance information for solid waste facilities. Financial assurance is intended to ensure that resources are available to pay for the cost of closure, post-closure care, and corrective measures if the owner or operator of a regulated facility is unable or unwilling to pay.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/21/2013  
Date Data Arrived at EDR: 05/22/2013  
Date Made Active in Reports: 06/27/2013  
Number of Days to Update: 36

Source: California Integrated Waste Management Board  
Telephone: 916-341-6066  
Last EDR Contact: 08/15/2013  
Next Scheduled EDR Contact: 12/02/2013  
Data Release Frequency: Varies

## Financial Assurance 1: Financial Assurance Information Listing Financial Assurance information

Date of Government Version: 06/30/2013  
Date Data Arrived at EDR: 08/08/2013  
Date Made Active in Reports: 08/27/2013  
Number of Days to Update: 19

Source: Department of Toxic Substances Control  
Telephone: 916-255-3628  
Last EDR Contact: 08/26/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Varies

## LEAD SMELTER 1: Lead Smelter Sites

A listing of former lead smelter site locations.

Date of Government Version: 01/29/2013  
Date Data Arrived at EDR: 02/14/2013  
Date Made Active in Reports: 02/27/2013  
Number of Days to Update: 13

Source: Environmental Protection Agency  
Telephone: 703-603-8787  
Last EDR Contact: 09/24/2013  
Next Scheduled EDR Contact: 10/21/2013  
Data Release Frequency: Varies

## LEAD SMELTER 2: Lead Smelter Sites

A list of several hundred sites in the U.S. where secondary lead smelting was done from 1931 and 1964. These sites may pose a threat to public health through ingestion or inhalation of contaminated soil or dust

Date of Government Version: 04/05/2011  
Date Data Arrived at EDR: 10/27/2010  
Date Made Active in Reports: 12/02/2010  
Number of Days to Update: 36

Source: American Journal of Public Health  
Telephone: 703-305-6451  
Last EDR Contact: 12/02/2009  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## 2020 COR ACTION: 2020 Corrective Action Program List

The EPA has set ambitious goals for the RCRA Corrective Action program by creating the 2020 Corrective Action Universe. This RCRA cleanup baseline includes facilities expected to need corrective action. The 2020 universe contains a wide variety of sites. Some properties are heavily contaminated while others were contaminated but have since been cleaned up. Still others have not been fully investigated yet, and may require little or no remediation. Inclusion in the 2020 Universe does not necessarily imply failure on the part of a facility to meet its RCRA obligations.

Date of Government Version: 11/11/2011  
Date Data Arrived at EDR: 05/18/2012  
Date Made Active in Reports: 05/25/2012  
Number of Days to Update: 7

Source: Environmental Protection Agency  
Telephone: 703-308-4044  
Last EDR Contact: 08/16/2013  
Next Scheduled EDR Contact: 11/25/2013  
Data Release Frequency: Varies

## FEDLAND: Federal and Indian Lands

Federally and Indian administered lands of the United States. Lands included are administered by: Army Corps of Engineers, Bureau of Reclamation, National Wild and Scenic River, National Wildlife Refuge, Public Domain Land, Wilderness, Wilderness Study Area, Wildlife Management Area, Bureau of Indian Affairs, Bureau of Land Management, Department of Justice, Forest Service, Fish and Wildlife Service, National Park Service.

Date of Government Version: 12/31/2005  
Date Data Arrived at EDR: 02/06/2006  
Date Made Active in Reports: 01/11/2007  
Number of Days to Update: 339

Source: U.S. Geological Survey  
Telephone: 888-275-8747  
Last EDR Contact: 07/19/2013  
Next Scheduled EDR Contact: 10/28/2013  
Data Release Frequency: N/A

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## PRP: Potentially Responsible Parties

A listing of verified Potentially Responsible Parties

|   |  |
|---|--|
| Date of Government Version: 04/15/2013  | Source: EPA                            |
| Date Data Arrived at EDR: 07/03/2013    | Telephone: 202-564-6023                |
| Date Made Active in Reports: 09/13/2013 | Last EDR Contact: 07/03/2013           |
| Number of Days to Update: 72            | Next Scheduled EDR Contact: 10/14/2013 |
|   | Data Release Frequency: Quarterly      |

## WDS: Waste Discharge System

Sites which have been issued waste discharge requirements.

|   |   |
|---|---|
| Date of Government Version: 06/19/2007  | Source: State Water Resources Control Board |
| Date Data Arrived at EDR: 06/20/2007    | Telephone: 916-341-5227                     |
| Date Made Active in Reports: 06/29/2007 | Last EDR Contact: 08/22/2013                |
| Number of Days to Update: 9             | Next Scheduled EDR Contact: 12/09/2013      |
|   | Data Release Frequency: Quarterly           |

## US AIRS (AFS): Aerometric Information Retrieval System Facility Subsystem (AFS)

The database is a sub-system of Aerometric Information Retrieval System (AIRS). AFS contains compliance data on air pollution point sources regulated by the U.S. EPA and/or state and local air regulatory agencies. This information comes from source reports by various stationary sources of air pollution, such as electric power plants, steel mills, factories, and universities, and provides information about the air pollutants they produce. Action, air program, air program pollutant, and general level plant data. It is used to track emissions and compliance data from industrial plants.

|   |  |
|---|--|
| Date of Government Version: 01/23/2013  | Source: EPA                            |
| Date Data Arrived at EDR: 01/30/2013    | Telephone: 202-564-5962                |
| Date Made Active in Reports: 05/10/2013 | Last EDR Contact: 06/25/2013           |
| Number of Days to Update: 100           | Next Scheduled EDR Contact: 10/14/2013 |
|   | Data Release Frequency: Annually       |

## US AIRS MINOR: Air Facility System Data

A listing of minor source facilities.

|   |  |
|---|--|
| Date of Government Version: 01/23/2013  | Source: EPA                            |
| Date Data Arrived at EDR: 01/30/2013    | Telephone: 202-564-5962                |
| Date Made Active in Reports: 05/10/2013 | Last EDR Contact: 06/25/2013           |
| Number of Days to Update: 100           | Next Scheduled EDR Contact: 10/14/2013 |
|   | Data Release Frequency: Annually       |

## EPA WATCH LIST: EPA WATCH LIST

EPA maintains a "Watch List" to facilitate dialogue between EPA, state and local environmental agencies on enforcement matters relating to facilities with alleged violations identified as either significant or high priority. Being on the Watch List does not mean that the facility has actually violated the law only that an investigation by EPA or a state or local environmental agency has led those organizations to allege that an unproven violation has in fact occurred. Being on the Watch List does not represent a higher level of concern regarding the alleged violations that were detected, but instead indicates cases requiring additional dialogue between EPA, state and local agencies - primarily because of the length of time the alleged violation has gone unaddressed or unresolved.

|   |   |
|---|---|
| Date of Government Version: 06/30/2013  | Source: Environmental Protection Agency |
| Date Data Arrived at EDR: 08/13/2013    | Telephone: 617-520-3000                 |
| Date Made Active in Reports: 09/13/2013 | Last EDR Contact: 08/07/2013            |
| Number of Days to Update: 31            | Next Scheduled EDR Contact: 11/25/2013  |
|   | Data Release Frequency: Quarterly       |

## EDR HIGH RISK HISTORICAL RECORDS

### *EDR Exclusive Records*

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## EDR MGP: EDR Proprietary Manufactured Gas Plants

The EDR Proprietary Manufactured Gas Plant Database includes records of coal gas plants (manufactured gas plants) compiled by EDR's researchers. Manufactured gas sites were used in the United States from the 1800's to 1950's to produce a gas that could be distributed and used as fuel. These plants used whale oil, rosin, coal, or a mixture of coal, oil, and water that also produced a significant amount of waste. Many of the byproducts of the gas production, such as coal tar (oily waste containing volatile and non-volatile chemicals), sludges, oils and other compounds are potentially hazardous to human health and the environment. The byproduct from this process was frequently disposed of directly at the plant site and can remain or spread slowly, serving as a continuous source of soil and groundwater contamination.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: No Update Planned

## EDR US Hist Auto Stat: EDR Exclusive Historic Gas Stations

EDR has searched selected national collections of business directories and has collected listings of potential gas station/filling station/service station sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include gas station/filling station/service station establishments. The categories reviewed included, but were not limited to gas, gas station, gasoline station, filling station, auto, automobile repair, auto service station, service station, etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

## EDR US Hist Cleaners: EDR Exclusive Historic Dry Cleaners

EDR has searched selected national collections of business directories and has collected listings of potential dry cleaner sites that were available to EDR researchers. EDR's review was limited to those categories of sources that might, in EDR's opinion, include dry cleaning establishments. The categories reviewed included, but were not limited to dry cleaners, cleaners, laundry, laundromat, cleaning/laundry, wash & dry etc. This database falls within a category of information EDR classifies as "High Risk Historical Records", or HRHR. EDR's HRHR effort presents unique and sometimes proprietary data about past sites and operations that typically create environmental concerns, but may not show up in current government records searches.

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: EDR, Inc.  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

## EDR US Hist Cleaners: EDR Proprietary Historic Dry Cleaners - Cole

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: N/A  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

## EDR US Hist Auto Stat: EDR Proprietary Historic Gas Stations - Cole

Date of Government Version: N/A  
Date Data Arrived at EDR: N/A  
Date Made Active in Reports: N/A  
Number of Days to Update: N/A

Source: N/A  
Telephone: N/A  
Last EDR Contact: N/A  
Next Scheduled EDR Contact: N/A  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## COUNTY RECORDS

### ALAMEDA COUNTY:

#### Contaminated Sites

A listing of contaminated sites overseen by the Toxic Release Program (oil and groundwater contamination from chemical releases and spills) and the Leaking Underground Storage Tank Program (soil and ground water contamination from leaking petroleum USTs).

Date of Government Version: 07/25/2013  
Date Data Arrived at EDR: 07/26/2013  
Date Made Active in Reports: 08/09/2013  
Number of Days to Update: 14

Source: Alameda County Environmental Health Services  
Telephone: 510-567-6700  
Last EDR Contact: 06/28/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Semi-Annually

#### Underground Tanks

Underground storage tank sites located in Alameda county.

Date of Government Version: 07/25/2013  
Date Data Arrived at EDR: 07/26/2013  
Date Made Active in Reports: 08/20/2013  
Number of Days to Update: 25

Source: Alameda County Environmental Health Services  
Telephone: 510-567-6700  
Last EDR Contact: 06/28/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Semi-Annually

### AMADOR COUNTY:

#### CUPA Facility List

Cupa Facility List

Date of Government Version: 06/20/2013  
Date Data Arrived at EDR: 06/21/2013  
Date Made Active in Reports: 08/21/2013  
Number of Days to Update: 61

Source: Amador County Environmental Health  
Telephone: 209-223-6439  
Last EDR Contact: 09/10/2013  
Next Scheduled EDR Contact: 12/23/2013  
Data Release Frequency: Varies

### BUTTE COUNTY:

#### CUPA Facility Listing

Cupa facility list.

Date of Government Version: 08/01/2013  
Date Data Arrived at EDR: 08/02/2013  
Date Made Active in Reports: 08/22/2013  
Number of Days to Update: 20

Source: Public Health Department  
Telephone: 530-538-7149  
Last EDR Contact: 07/26/2013  
Next Scheduled EDR Contact: 10/28/2013  
Data Release Frequency: Varies

### CALVERAS COUNTY:

#### CUPA Facility Listing

Cupa Facility Listing

Date of Government Version: 06/30/2013  
Date Data Arrived at EDR: 07/24/2013  
Date Made Active in Reports: 08/09/2013  
Number of Days to Update: 16

Source: Calveras County Environmental Health  
Telephone: 209-754-6399  
Last EDR Contact: 06/25/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Quarterly

### COLUSA COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CUPA Facility List

Cupa facility list.

Date of Government Version: 06/20/2013  
Date Data Arrived at EDR: 07/01/2013  
Date Made Active in Reports: 08/09/2013  
Number of Days to Update: 39

Source: Health & Human Services  
Telephone: 530-458-0396  
Last EDR Contact: 08/08/2013  
Next Scheduled EDR Contact: 11/25/2013  
Data Release Frequency: Varies

## CONTRA COSTA COUNTY:

### Site List

List includes sites from the underground tank, hazardous waste generator and business plan/2185 programs.

Date of Government Version: 06/10/2013  
Date Data Arrived at EDR: 06/11/2013  
Date Made Active in Reports: 07/24/2013  
Number of Days to Update: 43

Source: Contra Costa Health Services Department  
Telephone: 925-646-2286  
Last EDR Contact: 08/05/2013  
Next Scheduled EDR Contact: 11/18/2013  
Data Release Frequency: Semi-Annually

## DEL NORTE COUNTY:

### CUPA Facility List

Cupa Facility list

Date of Government Version: 01/09/2013  
Date Data Arrived at EDR: 01/10/2013  
Date Made Active in Reports: 02/25/2013  
Number of Days to Update: 46

Source: Del Norte County Environmental Health Division  
Telephone: 707-465-0426  
Last EDR Contact: 09/20/2013  
Next Scheduled EDR Contact: 08/19/2013  
Data Release Frequency: Varies

## EL DORADO COUNTY:

### CUPA Facility List

CUPA facility list.

Date of Government Version: 05/20/2013  
Date Data Arrived at EDR: 05/21/2013  
Date Made Active in Reports: 06/25/2013  
Number of Days to Update: 35

Source: El Dorado County Environmental Management Department  
Telephone: 530-621-6623  
Last EDR Contact: 08/05/2013  
Next Scheduled EDR Contact: 11/18/2013  
Data Release Frequency: Varies

## FRESNO COUNTY:

### CUPA Resources List

Certified Unified Program Agency. CUPA's are responsible for implementing a unified hazardous materials and hazardous waste management regulatory program. The agency provides oversight of businesses that deal with hazardous materials, operate underground storage tanks or aboveground storage tanks.

Date of Government Version: 06/30/2013  
Date Data Arrived at EDR: 07/16/2013  
Date Made Active in Reports: 07/24/2013  
Number of Days to Update: 8

Source: Dept. of Community Health  
Telephone: 559-445-3271  
Last EDR Contact: 07/15/2013  
Next Scheduled EDR Contact: 10/28/2013  
Data Release Frequency: Semi-Annually

## HUMBOLDT COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CUPA Facility List

CUPA facility list.

Date of Government Version: 08/09/2013  
Date Data Arrived at EDR: 08/09/2013  
Date Made Active in Reports: 08/22/2013  
Number of Days to Update: 13

Source: Humboldt County Environmental Health  
Telephone: N/A  
Last EDR Contact: 08/09/2013  
Next Scheduled EDR Contact: 12/09/2013  
Data Release Frequency: Varies

## IMPERIAL COUNTY:

### CUPA Facility List

Cupa facility list.

Date of Government Version: 07/26/2013  
Date Data Arrived at EDR: 08/09/2013  
Date Made Active in Reports: 08/22/2013  
Number of Days to Update: 13

Source: San Diego Border Field Office  
Telephone: 760-339-2777  
Last EDR Contact: 08/08/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Varies

## INYO COUNTY:

### CUPA Facility List

Cupa facility list.

Date of Government Version: 06/26/2012  
Date Data Arrived at EDR: 06/27/2012  
Date Made Active in Reports: 08/17/2012  
Number of Days to Update: 51

Source: Inyo County Environmental Health Services  
Telephone: 760-878-0238  
Last EDR Contact: 09/10/2013  
Next Scheduled EDR Contact: 12/09/2013  
Data Release Frequency: Varies

## KERN COUNTY:

### Underground Storage Tank Sites & Tank Listing Kern County Sites and Tanks Listing.

Date of Government Version: 08/31/2010  
Date Data Arrived at EDR: 09/01/2010  
Date Made Active in Reports: 09/30/2010  
Number of Days to Update: 29

Source: Kern County Environment Health Services Department  
Telephone: 661-862-8700  
Last EDR Contact: 08/07/2013  
Next Scheduled EDR Contact: 11/25/2013  
Data Release Frequency: Quarterly

## KINGS COUNTY:

### CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 06/20/2013  
Date Data Arrived at EDR: 06/24/2013  
Date Made Active in Reports: 08/21/2013  
Number of Days to Update: 58

Source: Kings County Department of Public Health  
Telephone: 559-584-1411  
Last EDR Contact: 08/22/2013  
Next Scheduled EDR Contact: 12/09/2013  
Data Release Frequency: Varies

## LAKE COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CUPA Facility List

Cupa facility list

Date of Government Version: 01/23/2013  
Date Data Arrived at EDR: 01/25/2013  
Date Made Active in Reports: 02/27/2013  
Number of Days to Update: 33

Source: Lake County Environmental Health  
Telephone: 707-263-1164  
Last EDR Contact: 07/18/2013  
Next Scheduled EDR Contact: 11/04/2013  
Data Release Frequency: Varies

## LOS ANGELES COUNTY:

### San Gabriel Valley Areas of Concern

San Gabriel Valley areas where VOC contamination is at or above the MCL as designated by region 9 EPA office.

Date of Government Version: 03/30/2009  
Date Data Arrived at EDR: 03/31/2009  
Date Made Active in Reports: 10/23/2009  
Number of Days to Update: 206

Source: EPA Region 9  
Telephone: 415-972-3178  
Last EDR Contact: 09/23/2013  
Next Scheduled EDR Contact: 01/08/2014  
Data Release Frequency: No Update Planned

### HMS: Street Number List

Industrial Waste and Underground Storage Tank Sites.

Date of Government Version: 03/28/2013  
Date Data Arrived at EDR: 06/17/2013  
Date Made Active in Reports: 08/21/2013  
Number of Days to Update: 65

Source: Department of Public Works  
Telephone: 626-458-3517  
Last EDR Contact: 07/15/2013  
Next Scheduled EDR Contact: 10/28/2013  
Data Release Frequency: Semi-Annually

### List of Solid Waste Facilities

Solid Waste Facilities in Los Angeles County.

Date of Government Version: 07/22/2013  
Date Data Arrived at EDR: 07/22/2013  
Date Made Active in Reports: 08/26/2013  
Number of Days to Update: 35

Source: La County Department of Public Works  
Telephone: 818-458-5185  
Last EDR Contact: 07/22/2013  
Next Scheduled EDR Contact: 11/04/2013  
Data Release Frequency: Varies

### City of Los Angeles Landfills

Landfills owned and maintained by the City of Los Angeles.

Date of Government Version: 03/05/2009  
Date Data Arrived at EDR: 03/10/2009  
Date Made Active in Reports: 04/08/2009  
Number of Days to Update: 29

Source: Engineering & Construction Division  
Telephone: 213-473-7869  
Last EDR Contact: 07/17/2013  
Next Scheduled EDR Contact: 11/04/2013  
Data Release Frequency: Varies

### Site Mitigation List

Industrial sites that have had some sort of spill or complaint.

Date of Government Version: 01/30/2013  
Date Data Arrived at EDR: 02/21/2013  
Date Made Active in Reports: 03/25/2013  
Number of Days to Update: 32

Source: Community Health Services  
Telephone: 323-890-7806  
Last EDR Contact: 07/17/2013  
Next Scheduled EDR Contact: 11/04/2013  
Data Release Frequency: Annually

### City of El Segundo Underground Storage Tank

Underground storage tank sites located in El Segundo city.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/31/2013  
Date Data Arrived at EDR: 08/01/2013  
Date Made Active in Reports: 08/27/2013  
Number of Days to Update: 26

Source: City of El Segundo Fire Department  
Telephone: 310-524-2236  
Last EDR Contact: 07/18/2013  
Next Scheduled EDR Contact: 11/04/2013  
Data Release Frequency: Semi-Annually

## City of Long Beach Underground Storage Tank

Underground storage tank sites located in the city of Long Beach.

Date of Government Version: 03/28/2003  
Date Data Arrived at EDR: 10/23/2003  
Date Made Active in Reports: 11/26/2003  
Number of Days to Update: 34

Source: City of Long Beach Fire Department  
Telephone: 562-570-2563  
Last EDR Contact: 07/26/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Annually

## City of Torrance Underground Storage Tank

Underground storage tank sites located in the city of Torrance.

Date of Government Version: 07/15/2013  
Date Data Arrived at EDR: 07/18/2013  
Date Made Active in Reports: 08/20/2013  
Number of Days to Update: 33

Source: City of Torrance Fire Department  
Telephone: 310-618-2973  
Last EDR Contact: 07/15/2013  
Next Scheduled EDR Contact: 10/28/2013  
Data Release Frequency: Semi-Annually

## MADERA COUNTY:

### CUPA Facility List

A listing of sites included in the county's Certified Unified Program Agency database. California's Secretary for Environmental Protection established the unified hazardous materials and hazardous waste regulatory program as required by chapter 6.11 of the California Health and Safety Code. The Unified Program consolidates the administration, permits, inspections, and enforcement activities.

Date of Government Version: 04/15/2013  
Date Data Arrived at EDR: 04/16/2013  
Date Made Active in Reports: 05/17/2013  
Number of Days to Update: 31

Source: Madera County Environmental Health  
Telephone: 559-675-7823  
Last EDR Contact: 08/22/2013  
Next Scheduled EDR Contact: 12/09/2013  
Data Release Frequency: Varies

## MARIN COUNTY:

### Underground Storage Tank Sites

Currently permitted USTs in Marin County.

Date of Government Version: 11/26/2012  
Date Data Arrived at EDR: 11/28/2012  
Date Made Active in Reports: 01/21/2013  
Number of Days to Update: 54

Source: Public Works Department Waste Management  
Telephone: 415-499-6647  
Last EDR Contact: 07/18/2013  
Next Scheduled EDR Contact: 10/21/2013  
Data Release Frequency: Semi-Annually

## MERCED COUNTY:

### CUPA Facility List

CUPA facility list.

Date of Government Version: 05/28/2013  
Date Data Arrived at EDR: 05/29/2013  
Date Made Active in Reports: 06/25/2013  
Number of Days to Update: 27

Source: Merced County Environmental Health  
Telephone: 209-381-1094  
Last EDR Contact: 08/22/2013  
Next Scheduled EDR Contact: 12/09/2013  
Data Release Frequency: Varies

## MONO COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## CUPA Facility List

### CUPA Facility List

Date of Government Version: 06/04/2013  
Date Data Arrived at EDR: 06/05/2013  
Date Made Active in Reports: 07/15/2013  
Number of Days to Update: 40

Source: Mono County Health Department  
Telephone: 760-932-5580  
Last EDR Contact: 09/03/2013  
Next Scheduled EDR Contact: 12/16/2013  
Data Release Frequency: Varies

## MONTEREY COUNTY:

### CUPA Facility Listing

CUPA Program listing from the Environmental Health Division.

Date of Government Version: 06/21/2013  
Date Data Arrived at EDR: 06/21/2013  
Date Made Active in Reports: 08/21/2013  
Number of Days to Update: 61

Source: Monterey County Health Department  
Telephone: 831-796-1297  
Last EDR Contact: 08/22/2013  
Next Scheduled EDR Contact: 12/09/2013  
Data Release Frequency: Varies

## NAPA COUNTY:

### Sites With Reported Contamination

A listing of leaking underground storage tank sites located in Napa county.

Date of Government Version: 12/05/2011  
Date Data Arrived at EDR: 12/06/2011  
Date Made Active in Reports: 02/07/2012  
Number of Days to Update: 63

Source: Napa County Department of Environmental Management  
Telephone: 707-253-4269  
Last EDR Contact: 09/03/2013  
Next Scheduled EDR Contact: 12/16/2013  
Data Release Frequency: No Update Planned

### Closed and Operating Underground Storage Tank Sites

Underground storage tank sites located in Napa county.

Date of Government Version: 01/15/2008  
Date Data Arrived at EDR: 01/16/2008  
Date Made Active in Reports: 02/08/2008  
Number of Days to Update: 23

Source: Napa County Department of Environmental Management  
Telephone: 707-253-4269  
Last EDR Contact: 09/03/2013  
Next Scheduled EDR Contact: 12/16/2013  
Data Release Frequency: No Update Planned

## NEVADA COUNTY:

### CUPA Facility List

CUPA facility list.

Date of Government Version: 05/29/2013  
Date Data Arrived at EDR: 05/30/2013  
Date Made Active in Reports: 07/15/2013  
Number of Days to Update: 46

Source: Community Development Agency  
Telephone: 530-265-1467  
Last EDR Contact: 08/15/2013  
Next Scheduled EDR Contact: 11/18/2013  
Data Release Frequency: Varies

## ORANGE COUNTY:

### List of Industrial Site Cleanups

Petroleum and non-petroleum spills.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/01/2013  
Date Data Arrived at EDR: 05/15/2013  
Date Made Active in Reports: 06/12/2013  
Number of Days to Update: 28

Source: Health Care Agency  
Telephone: 714-834-3446  
Last EDR Contact: 08/07/2013  
Next Scheduled EDR Contact: 11/25/2013  
Data Release Frequency: Annually

## List of Underground Storage Tank Cleanups

Orange County Underground Storage Tank Cleanups (LUST).

Date of Government Version: 05/01/2013  
Date Data Arrived at EDR: 05/15/2013  
Date Made Active in Reports: 06/25/2013  
Number of Days to Update: 41

Source: Health Care Agency  
Telephone: 714-834-3446  
Last EDR Contact: 08/07/2013  
Next Scheduled EDR Contact: 11/25/2013  
Data Release Frequency: Quarterly

## List of Underground Storage Tank Facilities

Orange County Underground Storage Tank Facilities (UST).

Date of Government Version: 05/01/2013  
Date Data Arrived at EDR: 05/15/2013  
Date Made Active in Reports: 06/25/2013  
Number of Days to Update: 41

Source: Health Care Agency  
Telephone: 714-834-3446  
Last EDR Contact: 08/07/2013  
Next Scheduled EDR Contact: 11/25/2013  
Data Release Frequency: Quarterly

## PLACER COUNTY:

### Master List of Facilities

List includes aboveground tanks, underground tanks and cleanup sites.

Date of Government Version: 03/12/2013  
Date Data Arrived at EDR: 03/13/2013  
Date Made Active in Reports: 03/27/2013  
Number of Days to Update: 14

Source: Placer County Health and Human Services  
Telephone: 530-745-2363  
Last EDR Contact: 08/20/2013  
Next Scheduled EDR Contact: 12/23/2013  
Data Release Frequency: Semi-Annually

## RIVERSIDE COUNTY:

### Listing of Underground Tank Cleanup Sites

Riverside County Underground Storage Tank Cleanup Sites (LUST).

Date of Government Version: 07/18/2013  
Date Data Arrived at EDR: 07/18/2013  
Date Made Active in Reports: 07/24/2013  
Number of Days to Update: 6

Source: Department of Environmental Health  
Telephone: 951-358-5055  
Last EDR Contact: 09/23/2013  
Next Scheduled EDR Contact: 01/08/2014  
Data Release Frequency: Quarterly

### Underground Storage Tank Tank List

Underground storage tank sites located in Riverside county.

Date of Government Version: 07/18/2013  
Date Data Arrived at EDR: 07/18/2013  
Date Made Active in Reports: 08/20/2013  
Number of Days to Update: 33

Source: Department of Environmental Health  
Telephone: 951-358-5055  
Last EDR Contact: 09/23/2013  
Next Scheduled EDR Contact: 01/08/2014  
Data Release Frequency: Quarterly

## SACRAMENTO COUNTY:

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## Toxic Site Clean-Up List

List of sites where unauthorized releases of potentially hazardous materials have occurred.

Date of Government Version: 05/03/2013  
Date Data Arrived at EDR: 07/08/2013  
Date Made Active in Reports: 07/24/2013  
Number of Days to Update: 16

Source: Sacramento County Environmental Management  
Telephone: 916-875-8406  
Last EDR Contact: 07/05/2013  
Next Scheduled EDR Contact: 10/21/2013  
Data Release Frequency: Quarterly

## Master Hazardous Materials Facility List

Any business that has hazardous materials on site - hazardous material storage sites, underground storage tanks, waste generators.

Date of Government Version: 05/03/2013  
Date Data Arrived at EDR: 07/08/2013  
Date Made Active in Reports: 08/23/2013  
Number of Days to Update: 46

Source: Sacramento County Environmental Management  
Telephone: 916-875-8406  
Last EDR Contact: 07/05/2013  
Next Scheduled EDR Contact: 10/21/2013  
Data Release Frequency: Quarterly

## SAN BERNARDINO COUNTY:

### Hazardous Material Permits

This listing includes underground storage tanks, medical waste handlers/generators, hazardous materials handlers, hazardous waste generators, and waste oil generators/handlers.

Date of Government Version: 05/30/2013  
Date Data Arrived at EDR: 05/31/2013  
Date Made Active in Reports: 07/15/2013  
Number of Days to Update: 45

Source: San Bernardino County Fire Department Hazardous Materials Division  
Telephone: 909-387-3041  
Last EDR Contact: 08/08/2013  
Next Scheduled EDR Contact: 11/25/2013  
Data Release Frequency: Quarterly

## SAN DIEGO COUNTY:

### Hazardous Materials Management Division Database

The database includes: HE58 - This report contains the business name, site address, business phone number, establishment 'H' permit number, type of permit, and the business status. HE17 - In addition to providing the same information provided in the HE58 listing, HE17 provides inspection dates, violations received by the establishment, hazardous waste generated, the quantity, method of storage, treatment/disposal of waste and the hauler, and information on underground storage tanks. Unauthorized Release List - Includes a summary of environmental contamination cases in San Diego County (underground tank cases, non-tank cases, groundwater contamination, and soil contamination are included.)

Date of Government Version: 08/17/2012  
Date Data Arrived at EDR: 08/20/2012  
Date Made Active in Reports: 10/03/2012  
Number of Days to Update: 44

Source: Hazardous Materials Management Division  
Telephone: 619-338-2268  
Last EDR Contact: 09/23/2013  
Next Scheduled EDR Contact: 12/23/2013  
Data Release Frequency: Quarterly

### Solid Waste Facilities

San Diego County Solid Waste Facilities.

Date of Government Version: 10/31/2012  
Date Data Arrived at EDR: 11/06/2012  
Date Made Active in Reports: 11/30/2012  
Number of Days to Update: 24

Source: Department of Health Services  
Telephone: 619-338-2209  
Last EDR Contact: 07/24/2013  
Next Scheduled EDR Contact: 11/11/2013  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## Environmental Case Listing

The listing contains all underground tank release cases and projects pertaining to properties contaminated with hazardous substances that are actively under review by the Site Assessment and Mitigation Program.

|   |   |
|---|---|
| Date of Government Version: 03/23/2010  | Source: San Diego County Department of Environmental Health |
| Date Data Arrived at EDR: 06/15/2010    | Telephone: 619-338-2371                                     |
| Date Made Active in Reports: 07/09/2010 | Last EDR Contact: 09/10/2013                                |
| Number of Days to Update: 24            | Next Scheduled EDR Contact: 12/23/2013                      |
|   | Data Release Frequency: No Update Planned                   |

## SAN FRANCISCO COUNTY:

### Local Oversight Facilities

A listing of leaking underground storage tank sites located in San Francisco county.

|   |  |
|---|--|
| Date of Government Version: 09/19/2008  | Source: Department Of Public Health San Francisco County |
| Date Data Arrived at EDR: 09/19/2008    | Telephone: 415-252-3920                                  |
| Date Made Active in Reports: 09/29/2008 | Last EDR Contact: 08/07/2013                             |
| Number of Days to Update: 10            | Next Scheduled EDR Contact: 11/25/2013                   |
|   | Data Release Frequency: Quarterly                        |

### Underground Storage Tank Information

Underground storage tank sites located in San Francisco county.

|   |  |
|---|--|
| Date of Government Version: 11/29/2010  | Source: Department of Public Health    |
| Date Data Arrived at EDR: 03/10/2011    | Telephone: 415-252-3920                |
| Date Made Active in Reports: 03/15/2011 | Last EDR Contact: 08/07/2013           |
| Number of Days to Update: 5             | Next Scheduled EDR Contact: 11/25/2013 |
|   | Data Release Frequency: Quarterly      |

## SAN JOAQUIN COUNTY:

### San Joaquin Co. UST

A listing of underground storage tank locations in San Joaquin county.

|   |   |
|---|---|
| Date of Government Version: 06/18/2013  | Source: Environmental Health Department |
| Date Data Arrived at EDR: 06/24/2013    | Telephone: N/A                          |
| Date Made Active in Reports: 08/20/2013 | Last EDR Contact: 09/23/2013            |
| Number of Days to Update: 57            | Next Scheduled EDR Contact: 01/08/2014  |
|   | Data Release Frequency: Semi-Annually   |

## SAN LUIS OBISPO COUNTY:

### CUPA Facility List

Cupa Facility List.

|   |   |
|---|---|
| Date of Government Version: 06/04/2013  | Source: San Luis Obispo County Public Health Department |
| Date Data Arrived at EDR: 06/05/2013    | Telephone: 805-781-5596                                 |
| Date Made Active in Reports: 07/15/2013 | Last EDR Contact: 08/22/2013                            |
| Number of Days to Update: 40            | Next Scheduled EDR Contact: 12/09/2013                  |
|   | Data Release Frequency: Varies                          |

## SAN MATEO COUNTY:

### Business Inventory

List includes Hazardous Materials Business Plan, hazardous waste generators, and underground storage tanks.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 07/02/2013  
Date Data Arrived at EDR: 07/05/2013  
Date Made Active in Reports: 08/23/2013  
Number of Days to Update: 49

Source: San Mateo County Environmental Health Services Division  
Telephone: 650-363-1921  
Last EDR Contact: 06/13/2013  
Next Scheduled EDR Contact: 09/30/2013  
Data Release Frequency: Annually

## Fuel Leak List

A listing of leaking underground storage tank sites located in San Mateo county.

Date of Government Version: 06/17/2013  
Date Data Arrived at EDR: 06/18/2013  
Date Made Active in Reports: 08/21/2013  
Number of Days to Update: 64

Source: San Mateo County Environmental Health Services Division  
Telephone: 650-363-1921  
Last EDR Contact: 09/16/2013  
Next Scheduled EDR Contact: 12/30/2013  
Data Release Frequency: Semi-Annually

## SANTA BARBARA COUNTY:

### CUPA Facility Listing

CUPA Program Listing from the Environmental Health Services division.

Date of Government Version: 09/08/2011  
Date Data Arrived at EDR: 09/09/2011  
Date Made Active in Reports: 10/07/2011  
Number of Days to Update: 28

Source: Santa Barbara County Public Health Department  
Telephone: 805-686-8167  
Last EDR Contact: 09/23/2013  
Next Scheduled EDR Contact: 12/09/2013  
Data Release Frequency: Varies

## SANTA CLARA COUNTY:

### Cupa Facility List

Cupa facility list

Date of Government Version: 06/03/2013  
Date Data Arrived at EDR: 06/04/2013  
Date Made Active in Reports: 07/15/2013  
Number of Days to Update: 41

Source: Department of Environmental Health  
Telephone: 408-918-1973  
Last EDR Contact: 09/03/2013  
Next Scheduled EDR Contact: 12/16/2013  
Data Release Frequency: Varies

### HIST LUST - Fuel Leak Site Activity Report

A listing of open and closed leaking underground storage tanks. This listing is no longer updated by the county. Leaking underground storage tanks are now handled by the Department of Environmental Health.

Date of Government Version: 03/29/2005  
Date Data Arrived at EDR: 03/30/2005  
Date Made Active in Reports: 04/21/2005  
Number of Days to Update: 22

Source: Santa Clara Valley Water District  
Telephone: 408-265-2600  
Last EDR Contact: 03/23/2009  
Next Scheduled EDR Contact: 06/22/2009  
Data Release Frequency: No Update Planned

### LOP Listing

A listing of leaking underground storage tanks located in Santa Clara county.

Date of Government Version: 06/03/2013  
Date Data Arrived at EDR: 06/06/2013  
Date Made Active in Reports: 07/15/2013  
Number of Days to Update: 39

Source: Department of Environmental Health  
Telephone: 408-918-3417  
Last EDR Contact: 09/03/2013  
Next Scheduled EDR Contact: 12/16/2013  
Data Release Frequency: Annually

### Hazardous Material Facilities

Hazardous material facilities, including underground storage tank sites.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

Date of Government Version: 05/16/2013  
Date Data Arrived at EDR: 05/17/2013  
Date Made Active in Reports: 06/25/2013  
Number of Days to Update: 39

Source: City of San Jose Fire Department  
Telephone: 408-535-7694  
Last EDR Contact: 08/08/2013  
Next Scheduled EDR Contact: 11/25/2013  
Data Release Frequency: Annually

## SANTA CRUZ COUNTY:

CUPA Facility List  
CUPA facility listing.

Date of Government Version: 05/28/2013  
Date Data Arrived at EDR: 05/29/2013  
Date Made Active in Reports: 06/27/2013  
Number of Days to Update: 29

Source: Santa Cruz County Environmental Health  
Telephone: 831-464-2761  
Last EDR Contact: 08/22/2013  
Next Scheduled EDR Contact: 12/09/2013  
Data Release Frequency: Varies

## SHASTA COUNTY:

CUPA Facility List  
Cupa Facility List.

Date of Government Version: 06/17/2013  
Date Data Arrived at EDR: 06/18/2013  
Date Made Active in Reports: 08/21/2013  
Number of Days to Update: 64

Source: Shasta County Department of Resource Management  
Telephone: 530-225-5789  
Last EDR Contact: 08/22/2013  
Next Scheduled EDR Contact: 12/09/2013  
Data Release Frequency: Varies

## SOLANO COUNTY:

Leaking Underground Storage Tanks

A listing of leaking underground storage tank sites located in Solano county.

Date of Government Version: 06/17/2013  
Date Data Arrived at EDR: 06/20/2013  
Date Made Active in Reports: 08/12/2013  
Number of Days to Update: 53

Source: Solano County Department of Environmental Management  
Telephone: 707-784-6770  
Last EDR Contact: 09/16/2013  
Next Scheduled EDR Contact: 12/30/2013  
Data Release Frequency: Quarterly

Underground Storage Tanks

Underground storage tank sites located in Solano county.

Date of Government Version: 06/17/2013  
Date Data Arrived at EDR: 06/20/2013  
Date Made Active in Reports: 08/20/2013  
Number of Days to Update: 61

Source: Solano County Department of Environmental Management  
Telephone: 707-784-6770  
Last EDR Contact: 09/16/2013  
Next Scheduled EDR Contact: 12/30/2013  
Data Release Frequency: Quarterly

## SONOMA COUNTY:

Cupa Facility List  
Cupa Facility list

Date of Government Version: 07/05/2013  
Date Data Arrived at EDR: 07/05/2013  
Date Made Active in Reports: 08/21/2013  
Number of Days to Update: 47

Source: County of Sonoma Fire & Emergency Services Department  
Telephone: 707-565-1174  
Last EDR Contact: 06/25/2013  
Next Scheduled EDR Contact: 10/14/2013  
Data Release Frequency: Varies

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## Leaking Underground Storage Tank Sites

A listing of leaking underground storage tank sites located in Sonoma county.

|   |  |
|---|--|
| Date of Government Version: 07/02/2013  | Source: Department of Health Services  |
| Date Data Arrived at EDR: 07/05/2013    | Telephone: 707-565-6565                |
| Date Made Active in Reports: 08/12/2013 | Last EDR Contact: 06/25/2013           |
| Number of Days to Update: 38            | Next Scheduled EDR Contact: 10/14/2013 |
|   | Data Release Frequency: Quarterly      |

## SUTTER COUNTY:

### Underground Storage Tanks

Underground storage tank sites located in Sutter county.

|   |   |
|---|---|
| Date of Government Version: 06/10/2013  | Source: Sutter County Department of Agriculture |
| Date Data Arrived at EDR: 06/11/2013    | Telephone: 530-822-7500                         |
| Date Made Active in Reports: 08/19/2013 | Last EDR Contact: 09/10/2013                    |
| Number of Days to Update: 69            | Next Scheduled EDR Contact: 12/23/2013          |
|   | Data Release Frequency: Semi-Annually           |

## TUOLUMNE COUNTY:

### CUPA Facility List

Cupa facility list

|   |  |
|---|--|
| Date of Government Version: 01/14/2013  | Source: Division of Environmental Health |
| Date Data Arrived at EDR: 01/16/2013    | Telephone: 209-533-5633                  |
| Date Made Active in Reports: 02/27/2013 | Last EDR Contact: 07/26/2013             |
| Number of Days to Update: 42            | Next Scheduled EDR Contact: 11/11/2013   |
|   | Data Release Frequency: Varies           |

## VENTURA COUNTY:

### Business Plan, Hazardous Waste Producers, and Operating Underground Tanks

The BWT list indicates by site address whether the Environmental Health Division has Business Plan (B), Waste Producer (W), and/or Underground Tank (T) information.

|   |  |
|---|--|
| Date of Government Version: 04/26/2013  | Source: Ventura County Environmental Health Division |
| Date Data Arrived at EDR: 05/22/2013    | Telephone: 805-654-2813                              |
| Date Made Active in Reports: 06/25/2013 | Last EDR Contact: 08/19/2013                         |
| Number of Days to Update: 34            | Next Scheduled EDR Contact: 12/02/2013               |
|   | Data Release Frequency: Quarterly                    |

### Inventory of Illegal Abandoned and Inactive Sites

Ventura County Inventory of Closed, Illegal Abandoned, and Inactive Sites.

|   |  |
|---|--|
| Date of Government Version: 12/01/2011  | Source: Environmental Health Division  |
| Date Data Arrived at EDR: 12/01/2011    | Telephone: 805-654-2813                |
| Date Made Active in Reports: 01/19/2012 | Last EDR Contact: 07/03/2013           |
| Number of Days to Update: 49            | Next Scheduled EDR Contact: 10/21/2013 |
|   | Data Release Frequency: Annually       |

### Listing of Underground Tank Cleanup Sites

Ventura County Underground Storage Tank Cleanup Sites (LUST).

|   |  |
|---|--|
| Date of Government Version: 05/29/2008  | Source: Environmental Health Division  |
| Date Data Arrived at EDR: 06/24/2008    | Telephone: 805-654-2813                |
| Date Made Active in Reports: 07/31/2008 | Last EDR Contact: 08/19/2013           |
| Number of Days to Update: 37            | Next Scheduled EDR Contact: 12/02/2013 |
|   | Data Release Frequency: Quarterly      |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## Medical Waste Program List

To protect public health and safety and the environment from potential exposure to disease causing agents, the Environmental Health Division Medical Waste Program regulates the generation, handling, storage, treatment and disposal of medical waste throughout the County.

|   |   |
|---|---|
| Date of Government Version: 05/28/2013  | Source: Ventura County Resource Management Agency |
| Date Data Arrived at EDR: 06/24/2013    | Telephone: 805-654-2813                           |
| Date Made Active in Reports: 08/12/2013 | Last EDR Contact: 07/30/2013                      |
| Number of Days to Update: 49            | Next Scheduled EDR Contact: 11/11/2013            |
|   | Data Release Frequency: Quarterly                 |

## Underground Tank Closed Sites List

Ventura County Operating Underground Storage Tank Sites (UST)/Underground Tank Closed Sites List.

|   |  |
|---|--|
| Date of Government Version: 05/28/2013  | Source: Environmental Health Division  |
| Date Data Arrived at EDR: 06/17/2013    | Telephone: 805-654-2813                |
| Date Made Active in Reports: 08/20/2013 | Last EDR Contact: 09/16/2013           |
| Number of Days to Update: 64            | Next Scheduled EDR Contact: 12/30/2013 |
|   | Data Release Frequency: Quarterly      |

## YOLO COUNTY:

### Underground Storage Tank Comprehensive Facility Report

Underground storage tank sites located in Yolo county.

|   |  |
|---|--|
| Date of Government Version: 06/24/2013  | Source: Yolo County Department of Health |
| Date Data Arrived at EDR: 06/26/2013    | Telephone: 530-666-8646                  |
| Date Made Active in Reports: 08/20/2013 | Last EDR Contact: 09/23/2013             |
| Number of Days to Update: 55            | Next Scheduled EDR Contact: 01/08/2014   |
|   | Data Release Frequency: Annually         |

## YUBA COUNTY:

### CUPA Facility List

CUPA facility listing for Yuba County.

|   |   |
|---|---|
| Date of Government Version: 08/01/2013  | Source: Yuba County Environmental Health Department |
| Date Data Arrived at EDR: 08/05/2013    | Telephone: 530-749-7523                             |
| Date Made Active in Reports: 08/22/2013 | Last EDR Contact: 07/31/2013                        |
| Number of Days to Update: 17            | Next Scheduled EDR Contact: 11/18/2013              |
|   | Data Release Frequency: Varies                      |

## OTHER DATABASE(S)

Depending on the geographic area covered by this report, the data provided in these specialty databases may or may not be complete. For example, the existence of wetlands information data in a specific report does not mean that all wetlands in the area covered by the report are included. Moreover, the absence of any reported wetlands information does not necessarily mean that wetlands do not exist in the area covered by the report.

### CT MANIFEST: Hazardous Waste Manifest Data

Facility and manifest data. Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a tsd facility.

|   |   |
|---|---|
| Date of Government Version: 05/20/2013  | Source: Department of Energy & Environmental Protection |
| Date Data Arrived at EDR: 05/21/2013    | Telephone: 860-424-3375                                 |
| Date Made Active in Reports: 06/27/2013 | Last EDR Contact: 08/19/2013                            |
| Number of Days to Update: 37            | Next Scheduled EDR Contact: 12/02/2013                  |
|   | Data Release Frequency: Annually                        |

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## NJ MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011  
Date Data Arrived at EDR: 07/19/2012  
Date Made Active in Reports: 08/28/2012  
Number of Days to Update: 40

Source: Department of Environmental Protection  
Telephone: N/A  
Last EDR Contact: 07/19/2013  
Next Scheduled EDR Contact: 10/28/2013  
Data Release Frequency: Annually

## NY MANIFEST: Facility and Manifest Data

Manifest is a document that lists and tracks hazardous waste from the generator through transporters to a TSD facility.

Date of Government Version: 08/01/2013  
Date Data Arrived at EDR: 08/07/2013  
Date Made Active in Reports: 09/10/2013  
Number of Days to Update: 34

Source: Department of Environmental Conservation  
Telephone: 518-402-8651  
Last EDR Contact: 08/07/2013  
Next Scheduled EDR Contact: 11/18/2013  
Data Release Frequency: Annually

## PA MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2012  
Date Data Arrived at EDR: 07/24/2013  
Date Made Active in Reports: 08/19/2013  
Number of Days to Update: 26

Source: Department of Environmental Protection  
Telephone: 717-783-8990  
Last EDR Contact: 07/18/2013  
Next Scheduled EDR Contact: 11/04/2013  
Data Release Frequency: Annually

## RI MANIFEST: Manifest information

Hazardous waste manifest information

Date of Government Version: 12/31/2012  
Date Data Arrived at EDR: 06/21/2013  
Date Made Active in Reports: 08/05/2013  
Number of Days to Update: 45

Source: Department of Environmental Management  
Telephone: 401-222-2797  
Last EDR Contact: 08/23/2013  
Next Scheduled EDR Contact: 12/09/2013  
Data Release Frequency: Annually

## WI MANIFEST: Manifest Information

Hazardous waste manifest information.

Date of Government Version: 12/31/2011  
Date Data Arrived at EDR: 07/19/2012  
Date Made Active in Reports: 09/27/2012  
Number of Days to Update: 70

Source: Department of Natural Resources  
Telephone: N/A  
Last EDR Contact: 09/16/2013  
Next Scheduled EDR Contact: 12/30/2013  
Data Release Frequency: Annually

Oil/Gas Pipelines: This data was obtained by EDR from the USGS in 1994. It is referred to by USGS as GeoData Digital Line Graphs from 1:100,000-Scale Maps. It was extracted from the transportation category including some oil, but primarily gas pipelines.

## Electric Power Transmission Line Data

Source: Rextag Strategies Corp.

Telephone: (281) 769-2247

U.S. Electric Transmission and Power Plants Systems Digital GIS Data

Sensitive Receptors: There are individuals deemed sensitive receptors due to their fragile immune systems and special sensitivity to environmental discharges. These sensitive receptors typically include the elderly, the sick, and children. While the location of all sensitive receptors cannot be determined, EDR indicates those buildings and facilities - schools, daycares, hospitals, medical centers, and nursing homes - where individuals who are sensitive receptors are likely to be located.

## AHA Hospitals:

Source: American Hospital Association, Inc.

Telephone: 312-280-5991

The database includes a listing of hospitals based on the American Hospital Association's annual survey of hospitals.

# GOVERNMENT RECORDS SEARCHED / DATA CURRENCY TRACKING

## Medical Centers: Provider of Services Listing

Source: Centers for Medicare & Medicaid Services

Telephone: 410-786-3000

A listing of hospitals with Medicare provider number, produced by Centers of Medicare & Medicaid Services, a federal agency within the U.S. Department of Health and Human Services.

## Nursing Homes

Source: National Institutes of Health

Telephone: 301-594-6248

Information on Medicare and Medicaid certified nursing homes in the United States.

## Public Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on elementary and secondary public education in the United States. It is a comprehensive, annual, national statistical database of all public elementary and secondary schools and school districts, which contains data that are comparable across all states.

## Private Schools

Source: National Center for Education Statistics

Telephone: 202-502-7300

The National Center for Education Statistics' primary database on private school locations in the United States.

## Daycare Centers: Licensed Facilities

Source: Department of Social Services

Telephone: 916-657-4041

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

## Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

## **STREET AND ADDRESS INFORMATION**

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## GEOCHECK<sup>®</sup> - PHYSICAL SETTING SOURCE ADDENDUM

### TARGET PROPERTY ADDRESS

CARGILL SITE  
HICKORY STREET/ENTERPRISE DRIVE  
NEWARK, CA 94560

### TARGET PROPERTY COORDINATES

|                               |                           |
|-------------------------------|---------------------------|
| Latitude (North):             | 37.5177 - 37° 31' 3.72"   |
| Longitude (West):             | 122.0544 - 122° 3' 15.84" |
| Universal Tranverse Mercator: | Zone 10                   |
| UTM X (Meters):               | 583565.0                  |
| UTM Y (Meters):               | 4152520.5                 |
| Elevation:                    | 13 ft. above sea level    |

### USGS TOPOGRAPHIC MAP

|                       |                     |
|-----------------------|---------------------|
| Target Property Map:  | 37122-E1 NEWARK, CA |
| Most Recent Revision: | 1999                |

EDR's GeoCheck Physical Setting Source Addendum is provided to assist the environmental professional in forming an opinion about the impact of potential contaminant migration.

Assessment of the impact of contaminant migration generally has two principal investigative components:

1. Groundwater flow direction, and
2. Groundwater flow velocity.

Groundwater flow direction may be impacted by surface topography, hydrology, hydrogeology, characteristics of the soil, and nearby wells. Groundwater flow velocity is generally impacted by the nature of the geologic strata.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## GROUNDWATER FLOW DIRECTION INFORMATION

Groundwater flow direction for a particular site is best determined by a qualified environmental professional using site-specific well data. If such data is not reasonably ascertainable, it may be necessary to rely on other sources of information, such as surface topographic information, hydrologic information, hydrogeologic data collected on nearby properties, and regional groundwater flow information (from deep aquifers).

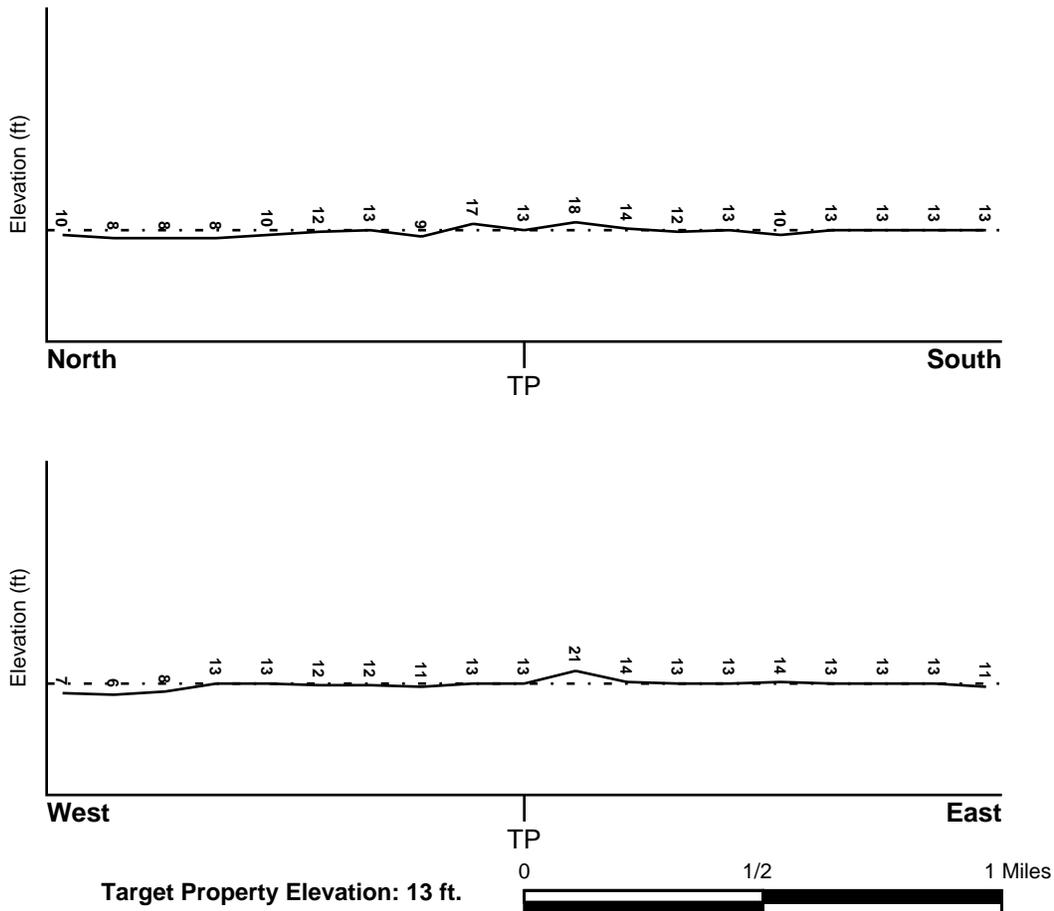
## TOPOGRAPHIC INFORMATION

Surface topography may be indicative of the direction of surficial groundwater flow. This information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

## TARGET PROPERTY TOPOGRAPHY

General Topographic Gradient: General NNW

## SURROUNDING TOPOGRAPHY: ELEVATION PROFILES



Source: Topography has been determined from the USGS 7.5' Digital Elevation Model and should be evaluated on a relative (not an absolute) basis. Relative elevation information between sites of close proximity should be field verified.

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## HYDROLOGIC INFORMATION

Surface water can act as a hydrologic barrier to groundwater flow. Such hydrologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

Refer to the Physical Setting Source Map following this summary for hydrologic information (major waterways and bodies of water).

## FEMA FLOOD ZONE

Target Property County  
ALAMEDA, CA

FEMA Flood  
Electronic Data  
YES - refer to the Overview Map and Detail Map

Flood Plain Panel at Target Property: 06001C - FEMA DFIRM Flood data

Additional Panels in search area: Not Reported

## NATIONAL WETLAND INVENTORY

NWI Quad at Target Property  
NEWARK

NWI Electronic  
Data Coverage  
YES - refer to the Overview Map and Detail Map

## HYDROGEOLOGIC INFORMATION

Hydrogeologic information obtained by installation of wells on a specific site can often be an indicator of groundwater flow direction in the immediate area. Such hydrogeologic information can be used to assist the environmental professional in forming an opinion about the impact of nearby contaminated properties or, should contamination exist on the target property, what downgradient sites might be impacted.

### *Site-Specific Hydrogeological Data\*:*

Search Radius: 1.25 miles  
Status: Not found

## AQUIFLOW®

Search Radius: 1.000 Mile.

EDR has developed the AQUIFLOW Information System to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted by environmental professionals to regulatory authorities at select sites and has extracted the date of the report, groundwater flow direction as determined hydrogeologically, and the depth to water table.

| <u>MAP ID</u> | <u>LOCATION FROM TP</u> | <u>GENERAL DIRECTION GROUNDWATER FLOW</u> |
|---------------|-------------------------|---|
| Not Reported  |                         |   |

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### GROUNDWATER FLOW VELOCITY INFORMATION

Groundwater flow velocity information for a particular site is best determined by a qualified environmental professional using site specific geologic and soil strata data. If such data are not reasonably ascertainable, it may be necessary to rely on other sources of information, including geologic age identification, rock stratigraphic unit and soil characteristics data collected on nearby properties and regional soil information. In general, contaminant plumes move more quickly through sandy-gravelly types of soils than silty-clayey types of soils.

### GEOLOGIC INFORMATION IN GENERAL AREA OF TARGET PROPERTY

Geologic information can be used by the environmental professional in forming an opinion about the relative speed at which contaminant migration may be occurring.

#### **ROCK STRATIGRAPHIC UNIT**

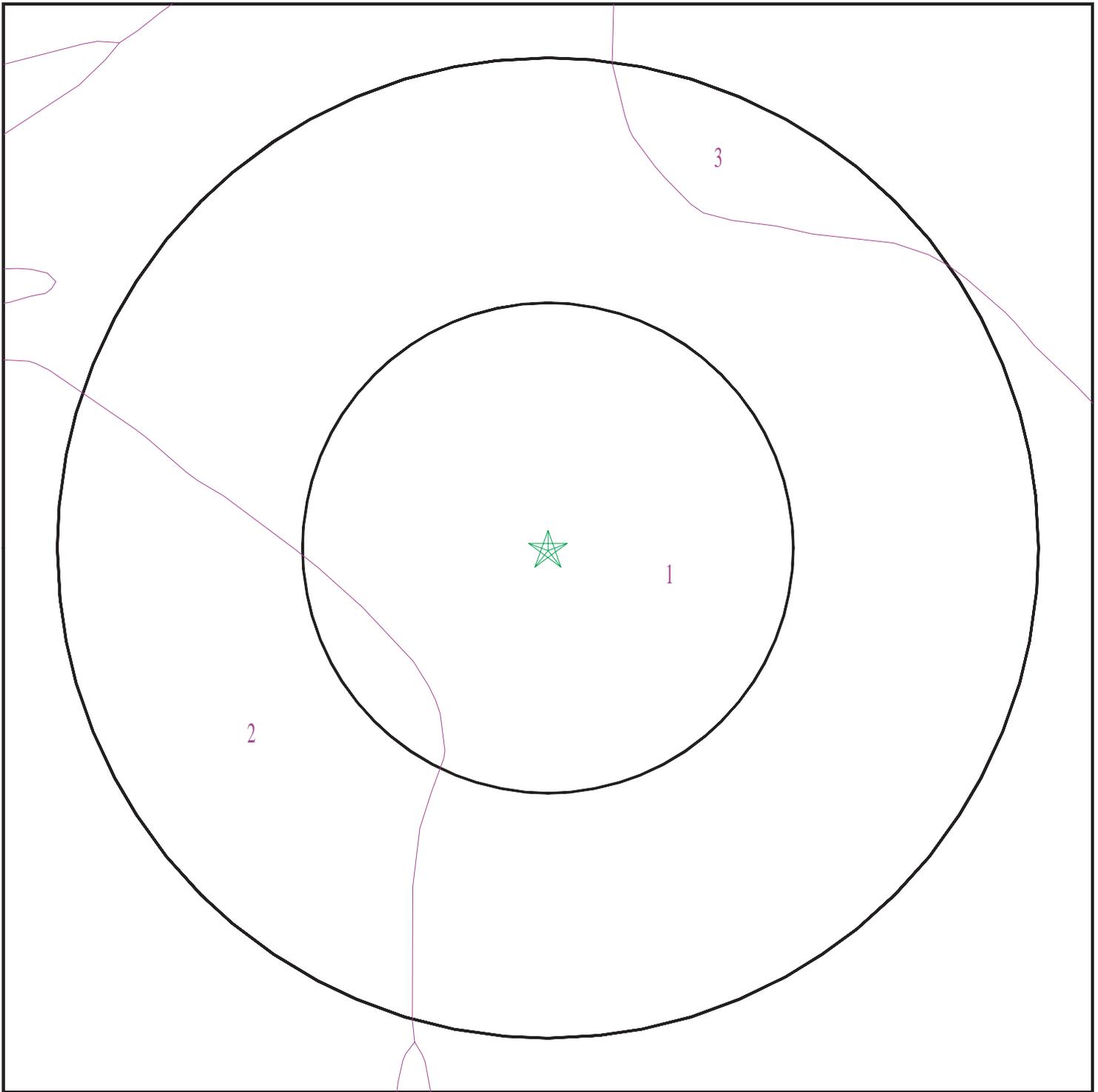
Era: Cenozoic  
System: Quaternary  
Series: Quaternary  
Code: Q (*decoded above as Era, System & Series*)

#### **GEOLOGIC AGE IDENTIFICATION**

Category: Stratified Sequence

Geologic Age and Rock Stratigraphic Unit Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - a digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

# SSURGO SOIL MAP - 3738660.2s



- ★ Target Property
- ∩ SSURGO Soil
- ∩ Water



SITE NAME: Cargill Site  
ADDRESS: Hickory Street/Enterprise Drive  
Newark CA 94560  
LAT/LONG: 37.5177 / 122.0544

CLIENT: Haley & Aldrich, Inc.  
CONTACT: Marie Rose Javier  
INQUIRY #: 3738660.2s  
DATE: September 24, 2013 5:10 pm

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## DOMINANT SOIL COMPOSITION IN GENERAL AREA OF TARGET PROPERTY

The U.S. Department of Agriculture's (USDA) Soil Conservation Service (SCS) leads the National Cooperative Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. The following information is based on Soil Conservation Service SSURGO data.

### Soil Map ID: 1

Soil Component Name: Pescadero

Soil Surface Texture: clay loam

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 153 inches

| Soil Layer Information |           |           |                    |  |  |  |                    |
|------------------------|-----------|-----------|--------------------|--|--|--|--------------------|
| Layer                  | Boundary  |           | Soil Texture Class | Classification   |  | Saturated hydraulic conductivity micro m/sec | Soil Reaction (pH) |
|                        | Upper     | Lower     |                    | AASHTO Group   | Unified Soil   |  |                    |
| 1                      | 0 inches  | 1 inches  | clay loam          | Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils. | Max: 1.4<br>Min: 0.42                        | Max: 9 Min: 7.9    |
| 2                      | 1 inches  | 29 inches | clay               | Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils. | Max: 1.4<br>Min: 0.42                        | Max: 9 Min: 7.9    |
| 3                      | 29 inches | 59 inches | clay loam          | Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay Soils. | Max: 1.4<br>Min: 0.42                        | Max: 9 Min: 7.9    |

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

### Soil Map ID: 2

Soil Component Name: Reyes

Soil Surface Texture: clay

Hydrologic Group: Class D - Very slow infiltration rates. Soils are clayey, have a high water table, or are shallow to an impervious layer.

Soil Drainage Class: Very poorly drained

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 0 inches

| Soil Layer Information |          |           |                    |  |   |   |                    |
|------------------------|----------|-----------|--------------------|--|---|---|--------------------|
| Layer                  | Boundary |           | Soil Texture Class | Classification   |   | Saturated hydraulic conductivity<br>micro m/sec | Soil Reaction (pH) |
|                        | Upper    | Lower     |                    | AASHTO Group   | Unified Soil  |   |                    |
| 1                      | 0 inches | 5 inches  | clay               | Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt. | Max: 0.42<br>Min: 0.01                          | Max: 9 Min: 7.9    |
| 2                      | 5 inches | 72 inches | clay               | Silt-Clay Materials (more than 35 pct. passing No. 200), Clayey Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), silt. | Max: 0.42<br>Min: 0.01                          | Max: 9 Min: 7.9    |

### Soil Map ID: 3

Soil Component Name: Marvin

Soil Surface Texture: silt loam

Hydrologic Group: Class C - Slow infiltration rates. Soils with layers impeding downward movement of water, or soils with moderately fine or fine textures.

Soil Drainage Class: Somewhat poorly drained

## GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

Hydric Status: All hydric

Corrosion Potential - Uncoated Steel: High

Depth to Bedrock Min: > 0 inches

Depth to Watertable Min: > 145 inches

| Soil Layer Information |           |           |                    |   |   |   |                      |
|------------------------|-----------|-----------|--------------------|---|---|---|----------------------|
| Layer                  | Boundary  |           | Soil Texture Class | Classification  |   | Saturated hydraulic conductivity<br>micro m/sec | Soil Reaction (pH)   |
|                        | Upper     | Lower     |                    | AASHTO Group  | Unified Soil  |   |                      |
| 1                      | 0 inches  | 3 inches  | silt loam          | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay | Max: 1.4<br>Min: 0.42                           | Max: 8.4<br>Min: 7.9 |
| 2                      | 3 inches  | 35 inches | clay               | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay | Max: 1.4<br>Min: 0.42                           | Max: 8.4<br>Min: 7.9 |
| 3                      | 35 inches | 59 inches | clay loam          | Silt-Clay Materials (more than 35 pct. passing No. 200), Silty Soils. | FINE-GRAINED SOILS, Silts and Clays (liquid limit less than 50%), Lean Clay | Max: 1.4<br>Min: 0.42                           | Max: 8.4<br>Min: 7.9 |

### LOCAL / REGIONAL WATER AGENCY RECORDS

EDR Local/Regional Water Agency records provide water well information to assist the environmental professional in assessing sources that may impact ground water flow direction, and in forming an opinion about the impact of contaminant migration on nearby drinking water wells.

### WELL SEARCH DISTANCE INFORMATION

| <u>DATABASE</u>  | <u>SEARCH DISTANCE (miles)</u> |
|------------------|--------------------------------|
| Federal USGS     | 1.000                          |
| Federal FRDS PWS | Nearest PWS within 0.001 miles |
| State Database   | 1.000                          |

### FEDERAL USGS WELL INFORMATION

| <u>MAP ID</u>  | <u>WELL ID</u> | <u>LOCATION FROM TP</u> |
|----------------|----------------|-------------------------|
| No Wells Found | _____          | _____                   |

# GEOCHECK® - PHYSICAL SETTING SOURCE SUMMARY

## FEDERAL FRDS PUBLIC WATER SUPPLY SYSTEM INFORMATION

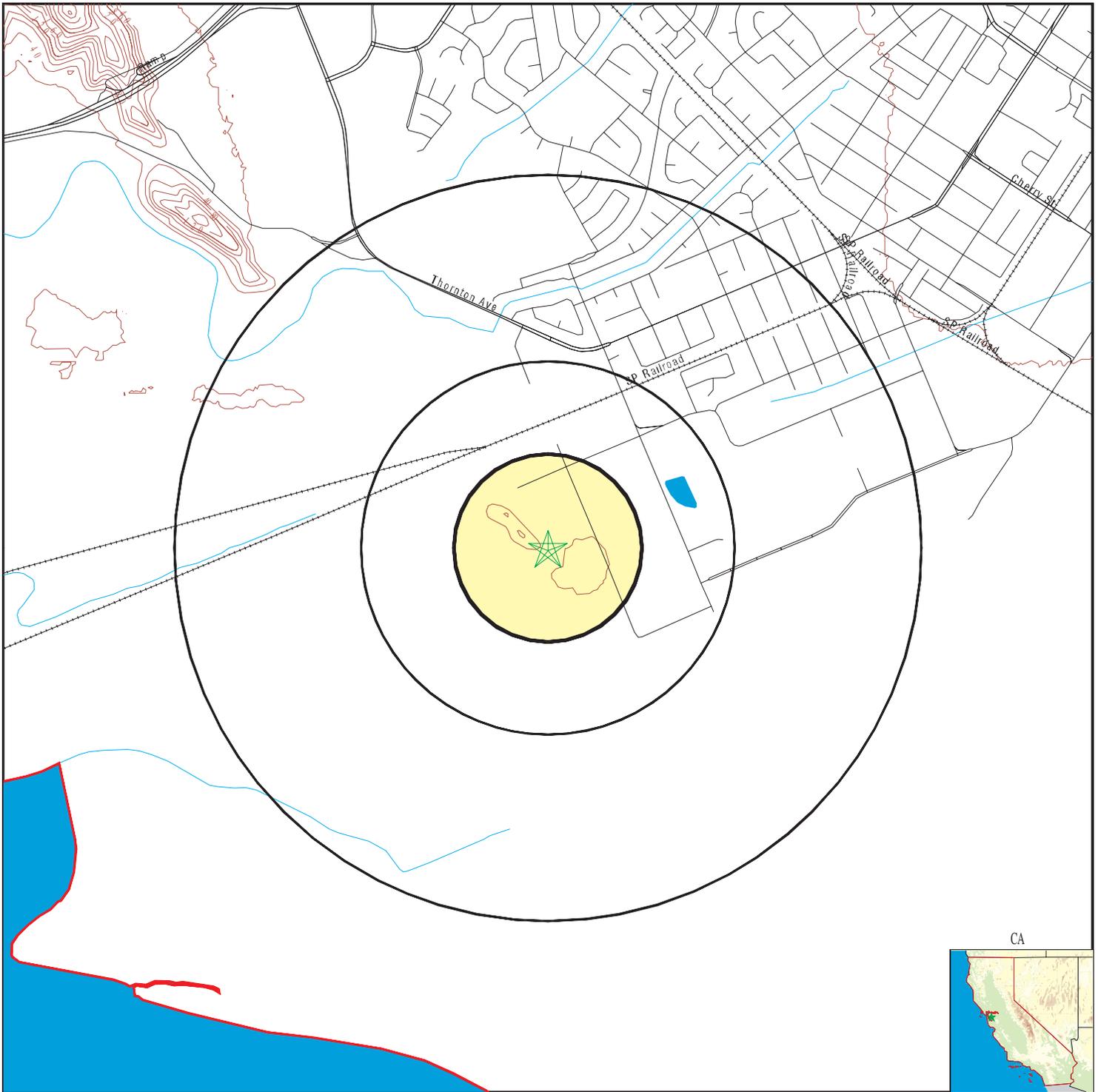
| MAP ID                      | WELL ID                     | LOCATION<br>FROM TP         |
|-----------------------------|-----------------------------|-----------------------------|
| <u>                    </u> | <u>                    </u> | <u>                    </u> |
| No PWS System Found         |                             |                             |

Note: PWS System location is not always the same as well location.

## STATE DATABASE WELL INFORMATION

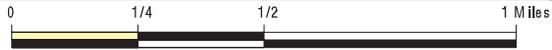
| MAP ID                      | WELL ID                     | LOCATION<br>FROM TP         |
|-----------------------------|-----------------------------|-----------------------------|
| <u>                    </u> | <u>                    </u> | <u>                    </u> |
| No Wells Found              |                             |                             |

# PHYSICAL SETTING SOURCE MAP - 3738660.2s



- County Boundary
- Major Roads
- Contour Lines
- Earthquake Fault Lines
- Earthquake epicenter, Richter 5 or greater
- Water Wells
- Public Water Supply Wells
- Cluster of Multiple Icons

- Groundwater Flow Direction
- Indeterminate Groundwater Flow at Location
- Groundwater Flow Varies at Location
- Closest Hydrogeological Data
- Oil, gas or related wells



SITE NAME: Cargill Site  
 ADDRESS: Hickory Street/Enterprise Drive  
 Newark CA 94560  
 LAT/LONG: 37.5177 / 122.0544

CLIENT: Haley & Aldrich, Inc.  
 CONTACT: Marie Rose Javier  
 INQUIRY #: 3738660.2s  
 DATE: September 24, 2013 5:10 pm

# GEOCHECK® - PHYSICAL SETTING SOURCE MAP FINDINGS RADON

## AREA RADON INFORMATION

State Database: CA Radon

### Radon Test Results

| Zipcode | Num Tests | > 4 pCi/L |
|---------|-----------|-----------|
| 94560   | 18        | 0         |

Federal EPA Radon Zone for ALAMEDA County: 2

- Note: Zone 1 indoor average level > 4 pCi/L.  
 : Zone 2 indoor average level >= 2 pCi/L and <= 4 pCi/L.  
 : Zone 3 indoor average level < 2 pCi/L.

---

### Federal Area Radon Information for ALAMEDA COUNTY, CA

Number of sites tested: 49

| Area                    | Average Activity | % <4 pCi/L | % 4-20 pCi/L | % >20 pCi/L |
|-------------------------|------------------|------------|--------------|-------------|
| Living Area - 1st Floor | 0.776 pCi/L      | 100%       | 0%           | 0%          |
| Living Area - 2nd Floor | -0.400 pCi/L     | 100%       | 0%           | 0%          |
| Basement                | 1.338 pCi/L      | 100%       | 0%           | 0%          |

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## TOPOGRAPHIC INFORMATION

### USGS 7.5' Digital Elevation Model (DEM)

Source: United States Geologic Survey

EDR acquired the USGS 7.5' Digital Elevation Model in 2002 and updated it in 2006. The 7.5 minute DEM corresponds to the USGS 1:24,000- and 1:25,000-scale topographic quadrangle maps. The DEM provides elevation data with consistent elevation units and projection.

### Scanned Digital USGS 7.5' Topographic Map (DRG)

Source: United States Geologic Survey

A digital raster graphic (DRG) is a scanned image of a U.S. Geological Survey topographic map. The map images are made by scanning published paper maps on high-resolution scanners. The raster image is georeferenced and fit to the Universal Transverse Mercator (UTM) projection.

## HYDROLOGIC INFORMATION

**Flood Zone Data:** This data, available in select counties across the country, was obtained by EDR in 2003 & 2011 from the Federal Emergency Management Agency (FEMA). Data depicts 100-year and 500-year flood zones as defined by FEMA.

**NWI:** National Wetlands Inventory. This data, available in select counties across the country, was obtained by EDR in 2002 and 2005 from the U.S. Fish and Wildlife Service.

## HYDROGEOLOGIC INFORMATION

### AQUIFLOW<sup>R</sup> Information System

Source: EDR proprietary database of groundwater flow information

EDR has developed the AQUIFLOW Information System (AIS) to provide data on the general direction of groundwater flow at specific points. EDR has reviewed reports submitted to regulatory authorities at select sites and has extracted the date of the report, hydrogeologically determined groundwater flow direction and depth to water table information.

## GEOLOGIC INFORMATION

### Geologic Age and Rock Stratigraphic Unit

Source: P.G. Schruben, R.E. Arndt and W.J. Bawiec, Geology of the Conterminous U.S. at 1:2,500,000 Scale - A digital representation of the 1974 P.B. King and H.M. Beikman Map, USGS Digital Data Series DDS - 11 (1994).

### STATSGO: State Soil Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services

The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service (NRCS) leads the national Conservation Soil Survey (NCSS) and is responsible for collecting, storing, maintaining and distributing soil survey information for privately owned lands in the United States. A soil map in a soil survey is a representation of soil patterns in a landscape. Soil maps for STATSGO are compiled by generalizing more detailed (SSURGO) soil survey maps.

### SSURGO: Soil Survey Geographic Database

Source: Department of Agriculture, Natural Resources Conservation Services (NRCS)

Telephone: 800-672-5559

SSURGO is the most detailed level of mapping done by the Natural Resources Conservation Services, mapping scales generally range from 1:12,000 to 1:63,360. Field mapping methods using national standards are used to construct the soil maps in the Soil Survey Geographic (SSURGO) database. SSURGO digitizing duplicates the original soil survey maps. This level of mapping is designed for use by landowners, townships and county natural resource planning and management.

# PHYSICAL SETTING SOURCE RECORDS SEARCHED

## LOCAL / REGIONAL WATER AGENCY RECORDS

### FEDERAL WATER WELLS

#### PWS: Public Water Systems

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Public Water System data from the Federal Reporting Data System. A PWS is any water system which provides water to at least 25 people for at least 60 days annually. PWSs provide water from wells, rivers and other sources.

#### PWS ENF: Public Water Systems Violation and Enforcement Data

Source: EPA/Office of Drinking Water

Telephone: 202-564-3750

Violation and Enforcement data for Public Water Systems from the Safe Drinking Water Information System (SDWIS) after August 1995. Prior to August 1995, the data came from the Federal Reporting Data System (FRDS).

#### USGS Water Wells: USGS National Water Inventory System (NWIS)

This database contains descriptive information on sites where the USGS collects or has collected data on surface water and/or groundwater. The groundwater data includes information on wells, springs, and other sources of groundwater.

### STATE RECORDS

#### Water Well Database

Source: Department of Water Resources

Telephone: 916-651-9648

#### California Drinking Water Quality Database

Source: Department of Health Services

Telephone: 916-324-2319

The database includes all drinking water compliance and special studies monitoring for the state of California since 1984. It consists of over 3,200,000 individual analyses along with well and water system information.

## OTHER STATE DATABASE INFORMATION

#### California Oil and Gas Well Locations

Source: Department of Conservation

Telephone: 916-323-1779

Oil and Gas well locations in the state.

### RADON

#### State Database: CA Radon

Source: Department of Health Services

Telephone: 916-324-2208

Radon Database for California

#### Area Radon Information

Source: USGS

Telephone: 703-356-4020

The National Radon Database has been developed by the U.S. Environmental Protection Agency (USEPA) and is a compilation of the EPA/State Residential Radon Survey and the National Residential Radon Survey. The study covers the years 1986 - 1992. Where necessary data has been supplemented by information collected at private sources such as universities and research institutions.

#### EPA Radon Zones

Source: EPA

Telephone: 703-356-4020

Sections 307 & 309 of IRAA directed EPA to list and identify areas of U.S. with the potential for elevated indoor radon levels.

## PHYSICAL SETTING SOURCE RECORDS SEARCHED

### OTHER

Airport Landing Facilities: Private and public use landing facilities  
Source: Federal Aviation Administration, 800-457-6656

Epicenters: World earthquake epicenters, Richter 5 or greater  
Source: Department of Commerce, National Oceanic and Atmospheric Administration

California Earthquake Fault Lines: The fault lines displayed on EDR's Topographic map are digitized quaternary fault lines, prepared in 1975 by the United State Geological Survey. Additional information (also from 1975) regarding activity at specific fault lines comes from California's Preliminary Fault Activity Map prepared by the California Division of Mines and Geology.

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**CARGILL INC/LESLIE SALT**  
NEWARK PLANT  
CA

Inquiry Number:  
October 9, 2013

## EDR Site Report™

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All available detailed information from databases where sites are identified.

**Section 3: Databases and Update Information. . . . . Page 5**

Name, source, update dates, contact phone number and description of each of the databases for this report.

***Thank you for your business.***  
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# SECTION 1: FACILITY SUMMARY

| FACILITY   | FACILITY 1<br>CARGILL INC/LESLIE SALT<br>NEWARK PLANT<br>CA<br>EDR ID #M300002760 |
|--|---|
| AREA   |   |
| <b>WASTE MANAGEMENT</b><br>Facility generates hazardous waste (RCRA)   | NO  |
| Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSD)                                       | NO  |
| Facility has received Notices of Violations (RCRA/VIOL)  | NO  |
| Facility has been subject to RCRA administrative actions (RAATS)   | NO  |
| Facility has been subject to corrective actions (CORRACTS)   | NO  |
| Facility handles PCBs (PADS)   | NO  |
| Facility uses radioactive materials (MLTS)   | NO  |
| Facility manages registered aboveground storage tanks (AST)  | NO  |
| Facility manages registered underground storage tanks (UST)  | NO  |
| Facility has reported leaking underground storage tank incidents (LUST)  | NO  |
| Facility has reported emergency releases to the soil (ERNS)  | NO  |
| Facility has reported hazardous material incidents to DOT (HMIRS)  | NO  |
| <b>WASTE DISPOSAL</b><br>Facility is a Superfund Site (NPL)  | NO  |
| Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)               | NO  |
| Facility has a reported Superfund Lien on it (LIENS)   | NO  |
| Facility is listed as a state hazardous waste site (SHWS)  | NO  |
| Facility has disposed of solid waste on-site (SWF/LF)  | NO  |
| <b>MULTIMEDIA</b><br>Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS) | NO  |
| Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)                                | NO  |
| Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)   | NO  |
| Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)   | NO  |
| Facility is listed in EPA's index system (FINDS)   | NO  |
| Facility is listed in other database records (OTHER)   | <b>YES - p4</b>   |
| <b>POTENTIAL SUPERFUND LIABILITY</b><br>Facility has a list of potentially responsible parties PRP               | NO  |
| <b>TOTAL (YES)</b>   | 1   |

## SECTION 2: FACILITY DETAIL REPORTS

### MULTIMEDIA

Facility is listed in other database records

#### DATABASE: Other Database Records (OTHER)

CARGILL INC/LESLIE SALT  
NEWARK PLANT  
CA  
EDR ID #M300002760

#### Ferrous and Nonferrous Metal Mines Database:

|            |   |
|------------|---|
| Mine ID:   | 3646                                    |
| Commodity: | Salt                                    |
| Latitude:  | 37.531                                  |
| Longitude: | -122.033                                |
| Site Type: | The facility is both a mine and a plant |

## SECTION 3: DATABASES AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

**Elapsed ASTM days:** Provides confirmation that this report meets or exceeds the 90-day updating requirement of the ASTM standard.

### DATABASES FOUND IN THIS REPORT

**MINES: Mines Master Index File**

Source: Department of Labor, Mine Safety and Health Administration

Telephone: 303-231-5959

Contains all mine identification numbers issued for mines active or opened since 1971. The data also includes violation information.

Date of Government Version: 08/01/2013  
Database Release Frequency: Semi-Annually

Date of Last EDR Contact: 09/05/2013  
Date of Next Scheduled Update: 12/16/2013

**CARGILL INC.**

MOWRY SLOUGH IN SF BAY NATIONAL WILDLIFE REFUGE NEWARK C  
NEWARK, CA 94560

Inquiry Number:  
October 9, 2013

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# SECTION 1: FACILITY SUMMARY

| FACILITY   | FACILITY 1<br>CARGILL INC.<br>MOWRY SLOUGH IN SF BAY NATIONAL WILDLIFE RE<br>NEWARK, CA 94560<br>EDR ID #1014633322 |
|--|---|
| AREA   |   |
| <b>WASTE MANAGEMENT</b><br>Facility generates hazardous waste (RCRA)   | NO  |
| Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSD)                                       | NO  |
| Facility has received Notices of Violations (RCRA/VIOL)  | NO  |
| Facility has been subject to RCRA administrative actions (RAATS)   | NO  |
| Facility has been subject to corrective actions (CORRACTS)   | NO  |
| Facility handles PCBs (PADS)   | NO  |
| Facility uses radioactive materials (MLTS)   | NO  |
| Facility manages registered aboveground storage tanks (AST)  | NO  |
| Facility manages registered underground storage tanks (UST)  | NO  |
| Facility has reported leaking underground storage tank incidents (LUST)  | NO  |
| Facility has reported emergency releases to the soil (ERNS)  | NO  |
| Facility has reported hazardous material incidents to DOT (HMIRS)  | NO  |
| <b>WASTE DISPOSAL</b><br>Facility is a Superfund Site (NPL)  | NO  |
| Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)               | NO  |
| Facility has a reported Superfund Lien on it (LIENS)   | NO  |
| Facility is listed as a state hazardous waste site (SHWS)  | NO  |
| Facility has disposed of solid waste on-site (SWF/LF)  | NO  |
| <b>MULTIMEDIA</b><br>Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS) | NO  |
| Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)                                | NO  |
| Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)   | NO  |
| Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)   | NO  |
| Facility is listed in EPA's index system (FINDS)   | NO  |
| Facility is listed in other database records (OTHER)   | <b>YES - p4</b>   |
| <b>POTENTIAL SUPERFUND LIABILITY</b><br>Facility has a list of potentially responsible parties PRP               | NO  |
| <b>TOTAL (YES)</b>   | 1   |

## SECTION 2: FACILITY DETAIL REPORTS

### MULTIMEDIA

Facility is listed in other database records

#### DATABASE: Other Database Records (OTHER)

CARGILL INC.  
MOWRY SLOUGH IN SF BAY NATIONAL WILDLIFE REFUGE NEWARK C  
NEWARK, CA 94560  
EDR ID #1014633322

#### ICIS:

|                          |  |
|--------------------------|--|
| Enforcement Action ID:   | 09-1998-0167   |
| FRS ID:                  | 37165  |
| Program ID:              | Not reported   |
| Action Name:             | CARGILL INC.   |
| Facility Name:           | Not reported   |
| Facility Address:        | MOWRY SLOUGH IN SF BAY NATIONAL WILDLIFE REFUGE NEWARK CA 94560<br>NEWARK, 94560 |
| Enforcement Action Type: | Civil Judicial Action  |
| Facility County:         | Orange   |
| EPA Region #:            | 9  |

## SECTION 3: DATABASES AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

**Elapsed ASTM days:** Provides confirmation that this report meets or exceeds the 90-day updating requirement of the ASTM standard.

### DATABASES FOUND IN THIS REPORT

**ICIS: Integrated Compliance Information System**

Source: Environmental Protection Agency

Telephone: 202-564-5088

The Integrated Compliance Information System (ICIS) supports the information needs of the national enforcement and compliance program as well as the unique needs of the National Pollutant Discharge Elimination System (NPDES) program.

Date of Government Version: 07/20/2011  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 10/09/2014  
Date of Next Scheduled Update: 01/27/2014

**LESLIE SALT**  
ENTERPRISE DRIVE  
NEWARK, CA 94560

Inquiry Number:  
October 9, 2013

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# SECTION 1: FACILITY SUMMARY

| FACILITY   | FACILITY 1<br>LESLIE SALT<br>ENTERPRISE DRIVE<br>NEWARK, CA 94560<br>EDR ID #S100833248 |
|--|---|
| AREA   |   |
| <b>WASTE MANAGEMENT</b><br>Facility generates hazardous waste (RCRA)   | NO  |
| Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSD)                                       | NO  |
| Facility has received Notices of Violations (RCRA/VIOL)  | NO  |
| Facility has been subject to RCRA administrative actions (RAATS)   | NO  |
| Facility has been subject to corrective actions (CORRACTS)   | NO  |
| Facility handles PCBs (PADS)   | NO  |
| Facility uses radioactive materials (MLTS)   | NO  |
| Facility manages registered aboveground storage tanks (AST)  | NO  |
| Facility manages registered underground storage tanks (UST)  | NO  |
| Facility has reported leaking underground storage tank incidents (LUST)  | NO  |
| Facility has reported emergency releases to the soil (ERNS)  | NO  |
| Facility has reported hazardous material incidents to DOT (HMIRS)  | NO  |
| <b>WASTE DISPOSAL</b><br>Facility is a Superfund Site (NPL)  | NO  |
| Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)               | NO  |
| Facility has a reported Superfund Lien on it (LIENS)   | NO  |
| Facility is listed as a state hazardous waste site (SHWS)  | NO  |
| Facility has disposed of solid waste on-site (SWF/LF)  | NO  |
| <b>MULTIMEDIA</b><br>Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS) | NO  |
| Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)                                | NO  |
| Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)   | NO  |
| Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)   | NO  |
| Facility is listed in EPA's index system (FINDS)   | NO  |
| Facility is listed in other database records (OTHER)   | <b>YES - p4</b>   |
| <b>POTENTIAL SUPERFUND LIABILITY</b><br>Facility has a list of potentially responsible parties PRP               | NO  |
| <b>TOTAL (YES)</b>   | 1   |

## SECTION 2: FACILITY DETAIL REPORTS

### MULTIMEDIA

Facility is listed in other database records

#### DATABASE: Other Database Records (OTHER)

LESLIE SALT  
ENTERPRISE DRIVE  
NEWARK, CA 94560  
EDR ID #S100833248

#### CA BOND EXP. PLAN:

|                                     |  |
|-------------------------------------|--|
| Responsible Party:                  | RESPONSIBLE PARTY-LEAD SITE CLEANUP WORKPLAN   |
| Project Revenue Source Company:     | Not reported   |
| Project Revenue Source Addr:        | Not reported   |
| Project Revenue Source City,St,Zip: | Not reported   |
| Project Revenue Source Desc:        | FMC and Leslie Salt are the responsible parties and are active businesses. The RPs are in compliance with an order issued by the Department on July 19, 1988. DHS has budgeted \$50,000 for oversight/monitoring of cleanup efforts. DHS will recover 100 percent of direct costs plus staff costs and overhead related to the project. The responsible parties will pay all costs associated with remedial investigations and cleanup activities.                                       |
| Site Description:                   | This was a disposal area for waste material from recovery of bromine and magnesia from bittern and for disposal of wastes from a processing facility producing agricultural and industrial chemicals and catalysts. Large piles containing caustic calcium and magnesium salts, copper catalysts, phosphoric acid saturated activated carbon and industrial processing trash are located on a serpentine ridge adjacent to bittern ponds. The area is no longer used as a disposal site. |
| Hazardous Waste Desc:               | Large piles of caustic magnesium salts with some heavy metals have been identified. Caustic magnesium salts exhibit high pH and are corrosive on contact.  |
| Threat To Public Health & Env:      | The primary route of exposure is through direct contact to humans. Also there is a possibility of environmental damage by surface water runoff to the Bay.   |
| Site Activity Status:               | An investigation will be implemented to confirm that hazardous waste materials are buried in the piles. DHS issued a RAO to the RPs in July, 1988 directing them to proceed with steps necessary for the characterization and final remediation of the hazards on the site. An RI report is in preparation. The site is fenced and posted.   |

## SECTION 3: DATABASES AND UPDATE DATES

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### DATABASES FOUND IN THIS REPORT

**CA BEP: Bond Expenditure Plan**

Source: Department of Health Services

Telephone: 916-255-2118

Department of Health Services developed a site-specific expenditure plan as the basis for an appropriation of Hazardous Substance Cleanup Bond Act funds. It is not updated.

Date of Government Version: 01/01/1989

Database Release Frequency: No Update Planned

Date of Last EDR Contact: 05/31/1994

Date of Next Scheduled Update: Not reported



**CARGILL INC.**

MOWRY SLOUGH IN SF BAY NATIONAL WILDLIFE REFUGE  
NEWARK, CA

Inquiry Number:  
October 9, 2013



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## SECTION 1: FACILITY SUMMARY

| FACILITY   | FACILITY 1<br>CARGILL INC.<br>MOWRY SLOUGH IN SF BAY NATIONAL WILDLIFE RE<br>NEWARK, CA<br>EDR ID #1014673894<br>EPA #110043465755 |
|--|--|
| <b>AREA</b>  |  |
| <b>WASTE MANAGEMENT</b><br>Facility generates hazardous waste (RCRA)   | NO   |
| Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSD)                                       | NO   |
| Facility has received Notices of Violations (RCRA/VIOL)  | NO   |
| Facility has been subject to RCRA administrative actions (RAATS)   | NO   |
| Facility has been subject to corrective actions (CORRACTS)   | NO   |
| Facility handles PCBs (PADS)   | NO   |
| Facility uses radioactive materials (MLTS)   | NO   |
| Facility manages registered aboveground storage tanks (AST)  | NO   |
| Facility manages registered underground storage tanks (UST)  | NO   |
| Facility has reported leaking underground storage tank incidents (LUST)  | NO   |
| Facility has reported emergency releases to the soil (ERNS)  | NO   |
| Facility has reported hazardous material incidents to DOT (HMIRS)  | NO   |
| <b>WASTE DISPOSAL</b><br>Facility is a Superfund Site (NPL)  | NO   |
| Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)               | NO   |
| Facility has a reported Superfund Lien on it (LIENS)   | NO   |
| Facility is listed as a state hazardous waste site (SHWS)  | NO   |
| Facility has disposed of solid waste on-site (SWF/LF)  | NO   |
| <b>MULTIMEDIA</b><br>Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS) | NO   |
| Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)                                | NO   |
| Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)   | NO   |
| Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)   | NO   |
| Facility is listed in EPA's index system (FINDS)   | <b>YES - p4</b>  |
| Facility is listed in other database records (OTHER)   | NO   |
| <b>POTENTIAL SUPERFUND LIABILITY</b><br>Facility has a list of potentially responsible parties PRP               | NO   |
| <b>TOTAL (YES)</b>   | 1  |

## SECTION 2: FACILITY DETAIL REPORTS

### MULTIMEDIA

Facility is listed in EPA's index system

**DATABASE: Facility Index System (FINDS)**

CARGILL INC.  
MOWRY SLOUGH IN SF BAY NATIONAL WILDLIFE REFUGE  
NEWARK, CA  
EDR ID #1014673894

This site is listed in the Federal FINDS database. The FINDS database may contain references to records from government databases included elsewhere in the report.  
Please note: the FINDS database may also contain references to out of date records formerly associated with the site.

Registry ID: 110043465755  
Facility Name: CARGILL INC.  
Facility Address: MOWRY SLOUGH IN SF BAY NATIONAL WILDLIFE REFUGE  
NEWARK, CA 94560  
Facility URL: [http://iaspub.epa.gov/enviro/fii\\_query\\_detail.disp\\_program\\_facility?p\\_registry\\_id=110043465755](http://iaspub.epa.gov/enviro/fii_query_detail.disp_program_facility?p_registry_id=110043465755)  
FIPS: 06001  
Fed Facility: Not reported  
Tribal Land: Not reported  
Tribal Name: Not reported  
Congressional District: 02  
Hydrologic Unit Code: Not reported  
EPA Region: 09  
Site Type: STATIONARY  
Date Created: 26-MAY-11  
Date Updated: 07-FEB-13  
U.S-Mexico Border: Not reported  
Latitude: Not reported  
Longitude: Not reported  
Horizontal Collection: Not reported  
Horizontal Accuracy: Not reported  
Reference Point: Not reported  
Horizontal Datum: NAD83  
Coordinates Source: Not reported  
Environmental Interest/Information System

ICIS (Integrated Compliance Information System) is the Integrated Compliance Information System and provides a database that, when complete, will contain integrated Enforcement and Compliance information across most of EPA's programs. The vision for ICIS is to replace EPA's independent databases that contain Enforcement data with a single repository for that information. Currently, ICIS contains all Federal Administrative and Judicial enforcement actions. This information is maintained in ICIS by EPA in the Regional offices and its Headquarters. A future release of ICIS will replace the Permit Compliance System (PCS) which supports the NPDES and will integrate that information with Federal actions already in the system. ICIS also has the capability to track other activities occurring in the Region that support Compliance and Enforcement programs. These include; Incident Tracking, Compliance Assistance, and Compliance Monitoring.

Program System ID: 37165  
Program Sys. Name: ICIS  
Env. Interest Type: FORMAL ENFORCEMENT ACTION  
Env. Interest Start Dt.: 17-OCT-98  
Start Date Qualifier: COMPLAINT FILED WITH COURT  
Env. Interest End Dt.: Not reported  
End Date Qualifier: Not reported  
Data Source: ICIS  
Active Code: Not reported

Alternative Name: CARGILL INC.

SIC Code: 2899(CHEMICALS AND CHEMICAL PREPARATIONS, NOT ELSEWHERE CLASSIFIED)

Supplemental Interest: FORMAL ENFORCEMENT ACTION  
PGM Sys ID: ICIS  
Supplemental PGM Sys ID: 09-1998-0167  
Start Date: 17-OCT-98  
Start Date Qualifier: COMPLAINT FILED WITH COURT  
End Date: Not reported  
End Date Qualifier: Not reported  
Date Source: ICIS  
Last Reported: 01-FEB-11  
Date Created: 01-JUN-11  
Date Updated: Not reported

## SECTION 3: DATABASES AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

**Elapsed ASTM days:** Provides confirmation that this report meets or exceeds the 90-day updating requirement of the ASTM standard.

### DATABASES FOUND IN THIS REPORT

#### **FINDS: Facility Index System/Facility Registry System**

Source: EPA

Telephone: Not reported

Facility Index System. FINDS contains both facility information and 'pointers' to other sources that contain more detail. EDR includes the following FINDS databases in this report: PCS (Permit Compliance System), AIRS (Aerometric Information Retrieval System), DOCKET (Enforcement Docket used to manage and track information on civil judicial enforcement cases for all environmental statutes), FURS (Federal Underground Injection Control), C-DOCKET (Criminal Docket System used to track criminal enforcement actions for all environmental statutes), FFIS (Federal Facilities Information System), STATE (State Environmental Laws and Statutes), and PADS (PCB Activity Data System).

Date of Government Version: 03/08/2013  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 09/11/2013  
Date of Next Scheduled Update: 12/23/2013

**CARGILL SALT**  
OFF PERRIN AVE & WILLOW ST  
NEWARK, CA 94560

Inquiry Number:  
October 9, 2013

## EDR Site Report™

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Summary of facility filings including a review of the following areas: waste management, waste disposal, multi-media issues, and Superfund liability.

**Section 2: Facility Detail Reports . . . . . Page 4**

All available detailed information from databases where sites are identified.

**Section 3: Databases and Update Information. . . . . Page 5**

Name, source, update dates, contact phone number and description of each of the databases for this report.

***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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# SECTION 1: FACILITY SUMMARY

| FACILITY   | FACILITY 1<br>CARGILL SALT<br>OFF PERRIN AVE & WILLOW ST<br>NEWARK, CA 94560<br>EDR ID #S112932471 |
|--|--|
| AREA   |  |
| <b>WASTE MANAGEMENT</b><br>Facility generates hazardous waste (RCRA)   | NO   |
| Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSD)                                       | NO   |
| Facility has received Notices of Violations (RCRA/VIOL)  | NO   |
| Facility has been subject to RCRA administrative actions (RAATS)   | NO   |
| Facility has been subject to corrective actions (CORRACTS)   | NO   |
| Facility handles PCBs (PADS)   | NO   |
| Facility uses radioactive materials (MLTS)   | NO   |
| Facility manages registered aboveground storage tanks (AST)  | NO   |
| Facility manages registered underground storage tanks (UST)  | NO   |
| Facility has reported leaking underground storage tank incidents (LUST)  | NO   |
| Facility has reported emergency releases to the soil (ERNS)  | NO   |
| Facility has reported hazardous material incidents to DOT (HMIRS)  | NO   |
| <b>WASTE DISPOSAL</b><br>Facility is a Superfund Site (NPL)  | NO   |
| Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)               | NO   |
| Facility has a reported Superfund Lien on it (LIENS)   | NO   |
| Facility is listed as a state hazardous waste site (SHWS)  | NO   |
| Facility has disposed of solid waste on-site (SWF/LF)  | NO   |
| <b>MULTIMEDIA</b><br>Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS) | NO   |
| Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)                                | NO   |
| Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)   | NO   |
| Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)   | NO   |
| Facility is listed in EPA's index system (FINDS)   | NO   |
| Facility is listed in other database records (OTHER)   | <b>YES - p4</b>  |
| <b>POTENTIAL SUPERFUND LIABILITY</b><br>Facility has a list of potentially responsible parties PRP               | NO   |
| <b>TOTAL (YES)</b>   | 1  |

## SECTION 2: FACILITY DETAIL REPORTS

### MULTIMEDIA

Facility is listed in other database records

#### DATABASE: Other Database Records (OTHER)

CARGILL SALT  
OFF PERRIN AVE & WILLOW ST  
NEWARK, CA 94560  
EDR ID #S112932471

#### HAZNET:

|                      |                                      |
|----------------------|--------------------------------------|
| Year:                | 2003                                 |
| Gepaid:              | CAC002569608                         |
| Contact:             | TERI PETERSON                        |
| Telephone:           | 5107908625                           |
| Mailing Name:        | Not reported                         |
| Mailing Address:     | 7220 CENTRAL AVE                     |
| Mailing City,St,Zip: | NEWARK, CA 94560                     |
| Gen County:          | Not reported                         |
| TSD EPA ID:          | CAT000646117                         |
| TSD County:          | Not reported                         |
| Waste Category:      | Contaminated soil from site clean-up |
| Disposal Method:     | Disposal, Land Fill                  |
| Tons:                | 60.68                                |
| Facility County:     | Alameda                              |

## SECTION 3: DATABASES AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

**Elapsed ASTM days:** Provides confirmation that this report meets or exceeds the 90-day updating requirement of the ASTM standard.

### DATABASES FOUND IN THIS REPORT

#### CA HAZNET: Facility and Manifest Data

Source: California Environmental Protection Agency

Telephone: 916-255-1136

Facility and Manifest Data. The data is extracted from the copies of hazardous waste manifests received each year by the DTSC. The annual volume of manifests is typically 700,000 - 1,000,000 annually, representing approximately 350,000 - 500,000 shipments. Data are from the manifests submitted without correction, and therefore many contain some invalid values for data elements such as generator ID, TSD ID, waste category, and disposal method.

Date of Government Version: 12/31/2012  
Database Release Frequency: Annually

Date of Last EDR Contact: 07/16/2013  
Date of Next Scheduled Update: 10/28/2013

**LESLIE SALT CO MAGNESIA PILE PRO**  
BASE OF ENTERPRISE DR  
NEWARK, CA 94560

Inquiry Number:  
October 9, 2013

**EDR Site Report™**

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Name, source, update dates, contact phone number and description of each of the databases for this report.

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# SECTION 1: FACILITY SUMMARY

| FACILITY   | FACILITY 1<br>LESLIE SALT CO MAGNESIA PILE PROPERTY<br>BASE OF ENTERPRISE DR<br>NEWARK, CA 94560<br>EDR ID #1003878583<br>EPA #CAD980673982 |
|--|---|
| AREA   |   |
| <b>WASTE MANAGEMENT</b><br>Facility generates hazardous waste (RCRA)   | NO  |
| Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSD)                                       | NO  |
| Facility has received Notices of Violations (RCRA/VIOL)  | NO  |
| Facility has been subject to RCRA administrative actions (RAATS)   | NO  |
| Facility has been subject to corrective actions (CORRACTS)   | NO  |
| Facility handles PCBs (PADS)   | NO  |
| Facility uses radioactive materials (MLTS)   | NO  |
| Facility manages registered aboveground storage tanks (AST)  | NO  |
| Facility manages registered underground storage tanks (UST)  | NO  |
| Facility has reported leaking underground storage tank incidents (LUST)  | NO  |
| Facility has reported emergency releases to the soil (ERNS)  | NO  |
| Facility has reported hazardous material incidents to DOT (HMIRS)  | NO  |
| <b>WASTE DISPOSAL</b><br>Facility is a Superfund Site (NPL)  | NO  |
| Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)               | <b>YES - p4 (NFRAP)</b>   |
| Facility has a reported Superfund Lien on it (LIENS)   | NO  |
| Facility is listed as a state hazardous waste site (SHWS)  | NO  |
| Facility has disposed of solid waste on-site (SWF/LF)  | NO  |
| <b>MULTIMEDIA</b><br>Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS) | NO  |
| Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)                                | NO  |
| Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)   | NO  |
| Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)   | NO  |
| Facility is listed in EPA's index system (FINDS)   | NO  |
| Facility is listed in other database records (OTHER)   | NO  |
| <b>POTENTIAL SUPERFUND LIABILITY</b><br>Facility has a list of potentially responsible parties PRP               | NO  |
| <b>TOTAL (YES)</b>   | 1   |

## SECTION 2: FACILITY DETAIL REPORTS

### WASTE DISPOSAL

#### DATABASE: No Further Remedial Action Planned (CERCLIS/NFRAP)

LESLIE SALT CO MAGNESIA PILE PROPERTY  
BASE OF ENTERPRISE DR  
NEWARK, CA 94560  
EDR ID #1003878583

#### CERC-NFRAP:

Site ID: 0901945  
EPA ID: CAD980673982  
Facility County: ALAMEDA  
Short Name: LESLIE SALT CO MAGNESIA P  
Congressional District: 10  
SMSA Number: 7360  
USGC Hydro Unit: 18050003  
Federal Facility: Not a Federal Facility  
RCRA ID: Not reported  
NFRAP Flag: NFA  
EPA Region: 09  
Classification: Not reported  
NPL Status: Not on the NPL  
Non NPL Status: NFRAP-Site does not qualify for the NPL based on existing information  
Site FUDS Flag: Not reported

#### CERCLIS-NFRAP Site Contact Details:

Contact Sequence ID: 13055665.00000  
Person ID: 9271184.00000  
  
Contact Sequence ID: 13288403.00000  
Person ID: 13003854.00000  
  
Contact Sequence ID: 13293998.00000  
Person ID: 13003858.00000  
  
Contact Sequence ID: 13299856.00000  
Person ID: 13004003.00000

#### CERCLIS-NFRAP Assessment History:

Action Code: 001  
Action: PRELIMINARY ASSESSMENT  
Date Started: 10/01/84  
Date Completed: 02/01/85  
Priority Level: NFRAP-Site does not qualify for the NPL based on existing information  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

Action Code: 001  
Action: ARCHIVE SITE  
Date Started: / /  
Date Completed: 02/01/85  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA In-House  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

Action Code: 001  
Action: DISCOVERY  
Date Started: / /  
Date Completed: 10/01/79  
Priority Level: Not reported  
Operable Unit: SITEWIDE  
Primary Responsibility: EPA Fund-Financed  
Planning Status: Not reported  
Urgency Indicator: Not reported  
Action Anomaly: Not reported

## SECTION 3: DATABASES AND UPDATE DATES

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### DATABASES FOUND IN THIS REPORT

#### **CERCLIS-NFRAP: CERCLIS No Further Remedial Action Planned**

Source: EPA

Telephone: 703-412-9810

Archived sites are sites that have been removed and archived from the inventory of CERCLIS sites. Archived status indicates that, to the best of EPA's knowledge, assessment at a site has been completed and that EPA has determined no further steps will be taken to list this site on the National Priorities List (NPL), unless information indicates this decision was not appropriate or other considerations require a recommendation for listing at a later time. This decision does not necessarily mean that there is no hazard associated with a given site; it only means that, based upon available information, the location is not judged to be a potential NPL site.

Date of Government Version: 04/26/2013  
Database Release Frequency: Quarterly

Date of Last EDR Contact: 09/27/2013  
Date of Next Scheduled Update: 12/09/2013

**CARGILL INC HILL PARCEL AREA**  
WESTERN END ENTERPRISE DR  
NEWARK, CA 94560

Inquiry Number:  
October 9, 2013

## EDR Site Report™

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# SECTION 1: FACILITY SUMMARY

| FACILITY   | FACILITY 1<br>CARGILL INC HILL PARCEL AREA<br>WESTERN END ENTERPRISE DR<br>NEWARK, CA 94560<br>EDR ID #S106101752 |
|--|---|
| <b>AREA</b>  |   |
| <b>WASTE MANAGEMENT</b><br>Facility generates hazardous waste (RCRA)   | NO  |
| Facility treats, stores, or disposes of hazardous waste on-site (RCRA/TSD)                                       | NO  |
| Facility has received Notices of Violations (RCRA/VIOL)  | NO  |
| Facility has been subject to RCRA administrative actions (RAATS)   | NO  |
| Facility has been subject to corrective actions (CORRACTS)   | NO  |
| Facility handles PCBs (PADS)   | NO  |
| Facility uses radioactive materials (MLTS)   | NO  |
| Facility manages registered aboveground storage tanks (AST)  | NO  |
| Facility manages registered underground storage tanks (UST)  | NO  |
| Facility has reported leaking underground storage tank incidents (LUST)  | NO  |
| Facility has reported emergency releases to the soil (ERNS)  | NO  |
| Facility has reported hazardous material incidents to DOT (HMIRS)  | NO  |
| <b>WASTE DISPOSAL</b><br>Facility is a Superfund Site (NPL)  | NO  |
| Facility has a known or suspect abandoned, inactive or uncontrolled hazardous waste site (CERCLIS)               | NO  |
| Facility has a reported Superfund Lien on it (LIENS)   | NO  |
| Facility is listed as a state hazardous waste site (SHWS)  | NO  |
| Facility has disposed of solid waste on-site (SWF/LF)  | NO  |
| <b>MULTIMEDIA</b><br>Facility uses toxic chemicals and has notified EPA under SARA Title III, Section 313 (TRIS) | NO  |
| Facility produces pesticides and has notified EPA under Section 7 of FIFRA (SSTS)                                | NO  |
| Facility manufactures or imports toxic chemicals on the TSCA list (TSCA)   | NO  |
| Facility has inspections under FIFRA, TSCA or EPCRA (FTTS)   | NO  |
| Facility is listed in EPA's index system (FINDS)   | NO  |
| Facility is listed in other database records (OTHER)   | <b>YES - p4</b>   |
| <b>POTENTIAL SUPERFUND LIABILITY</b><br>Facility has a list of potentially responsible parties PRP               | NO  |
| <b>TOTAL (YES)</b>   | 1   |

## SECTION 2: FACILITY DETAIL REPORTS

### MULTIMEDIA

Facility is listed in other database records

#### DATABASE: Other Database Records (OTHER)

CARGILL INC HILL PARCEL AREA  
WESTERN END ENTERPRISE DR  
NEWARK, CA 94560  
EDR ID #S106101752

#### NPDES:

|   |                  |
|---|------------------|
| Npdes Number:                           | CAS000001        |
| Facility Status:                        | Active           |
| Agency Id:                              | 0                |
| Region:                                 | 2                |
| Regulatory Measure Id:                  | 181204           |
| Order No:                               | 97-03-DWQ        |
| Regulatory Measure Type:                | Enrollee         |
| Place Id:                               | Not reported     |
| WDID:                                   | 2 011016881      |
| Program Type:                           | Industrial       |
| Adoption Date Of Regulatory Measure:    | Not reported     |
| Effective Date Of Regulatory Measure:   | 10/23/2001       |
| Expiration Date Of Regulatory Measure:  | Not reported     |
| Termination Date Of Regulatory Measure: | Not reported     |
| Discharge Name:                         | Cargill Inc      |
| Discharge Address:                      | 7220 Central Ave |
| Discharge City:                         | Newark           |
| Discharge State:                        | California       |
| Discharge Zip:                          | 94560            |

#### CA WDS:

|                       |  |
|-----------------------|--|
| Facility ID:          | San Francisco Bay 011016881  |
| Facility Type:        | Industrial - Facility that treats and/or disposes of liquid or semisolid wastes from any servicing, producing, manufacturing or processing operation of whatever nature, including mining, gravel washing, geothermal operations, air conditioning, ship building and repairing, oil production, storage and disposal operations, water pumping.   |
| Facility Status:      | Active - Any facility with a continuous or seasonal discharge that is under Waste Discharge Requirements.  |
| NPDES Number:         | CAS000001 The 1st 2 characters designate the state. The remaining 7 are assigned by the Regional Board   |
| Subregion:            | 2  |
| Facility Telephone:   | 5107908625   |
| Facility Contact:     | PETERSON TERI  |
| Agency Name:          | CARGILL INC  |
| Agency Address:       | 7220 Central Ave   |
| Agency City,St,Zip:   | Newark 945604205   |
| Agency Contact:       | PETERSON TERI  |
| Agency Telephone:     | 5107908625   |
| Agency Type:          | Private  |
| SIC Code:             | 0  |
| SIC Code 2:           | Not reported   |
| Primary Waste:        | Not reported   |
| Primary Waste Type:   | Not reported   |
| Secondary Waste:      | Not reported   |
| Secondary Waste Type: | Not reported   |
| Design Flow:          | 0  |
| Baseline Flow:        | 0  |
| Reclamation:          | Not reported   |
| POTW:                 | Not reported   |
| Treat To Water:       | Minor Threat to Water Quality. A violation of a regional board order should cause a relatively minor impairment of beneficial uses compared to a major or minor threat. Not: All nurds without a TTTWQ will be considered a minor threat to water quality unless coded at a higher Level. A Zero (0) may be used to code those NURDS that are found to represent no threat to water quality. |
| Complexity:           | Category C - Facilities having no waste treatment systems, such as cooling water dischargers or those who must comply through best management practices, facilities with passive waste treatment and disposal systems, such as septic systems with subsurface disposal, or dischargers having waste storage systems with land disposal such as dairy waste ponds.                            |

## SECTION 3: DATABASES AND UPDATE DATES

To maintain currency of the following federal, state and local databases, EDR contacts the appropriate government agency on a monthly or quarterly basis as required.

**Elapsed ASTM days:** Provides confirmation that this report meets or exceeds the 90-day updating requirement of the ASTM standard.

### DATABASES FOUND IN THIS REPORT

#### CA WDS: Waste Discharge System

Source: State Water Resources Control Board

Telephone: 916-341-5227

Sites which have been issued waste discharge requirements.

Date of Government Version: 06/19/2007

Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/22/2013

Date of Next Scheduled Update: 12/09/2013

#### CA NPDES: NPDES Permits Listing

Source: State Water Resources Control Board

Telephone: 916-445-9379

A listing of NPDES permits, including stormwater.

Date of Government Version: 08/19/2013

Database Release Frequency: Quarterly

Date of Last EDR Contact: 08/19/2013

Date of Next Scheduled Update: 12/02/2013

**Cargill Site**

Hickory Street/Enterprise Drive  
Newark, CA 94560

Inquiry Number: 3738660.8  
September 24, 2013

# The EDR Property Tax Map Report

## EDR Property Tax Map Report

Environmental Data Resources, Inc.'s EDR Property Tax Map Report is designed to assist environmental professionals in evaluating potential environmental conditions on a target property by understanding property boundaries and other characteristics. The report includes a search of available property tax maps, which include information on boundaries for the target property and neighboring properties, addresses, parcel identification numbers, as well as other data typically used in property location and identification.

## NO COVERAGE

***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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ASSESSOR'S MAP 537

Code Area Nos. 11-009, 11-010, 11-018, 11-038, 11-039

852

SCALE: 1" = 400'

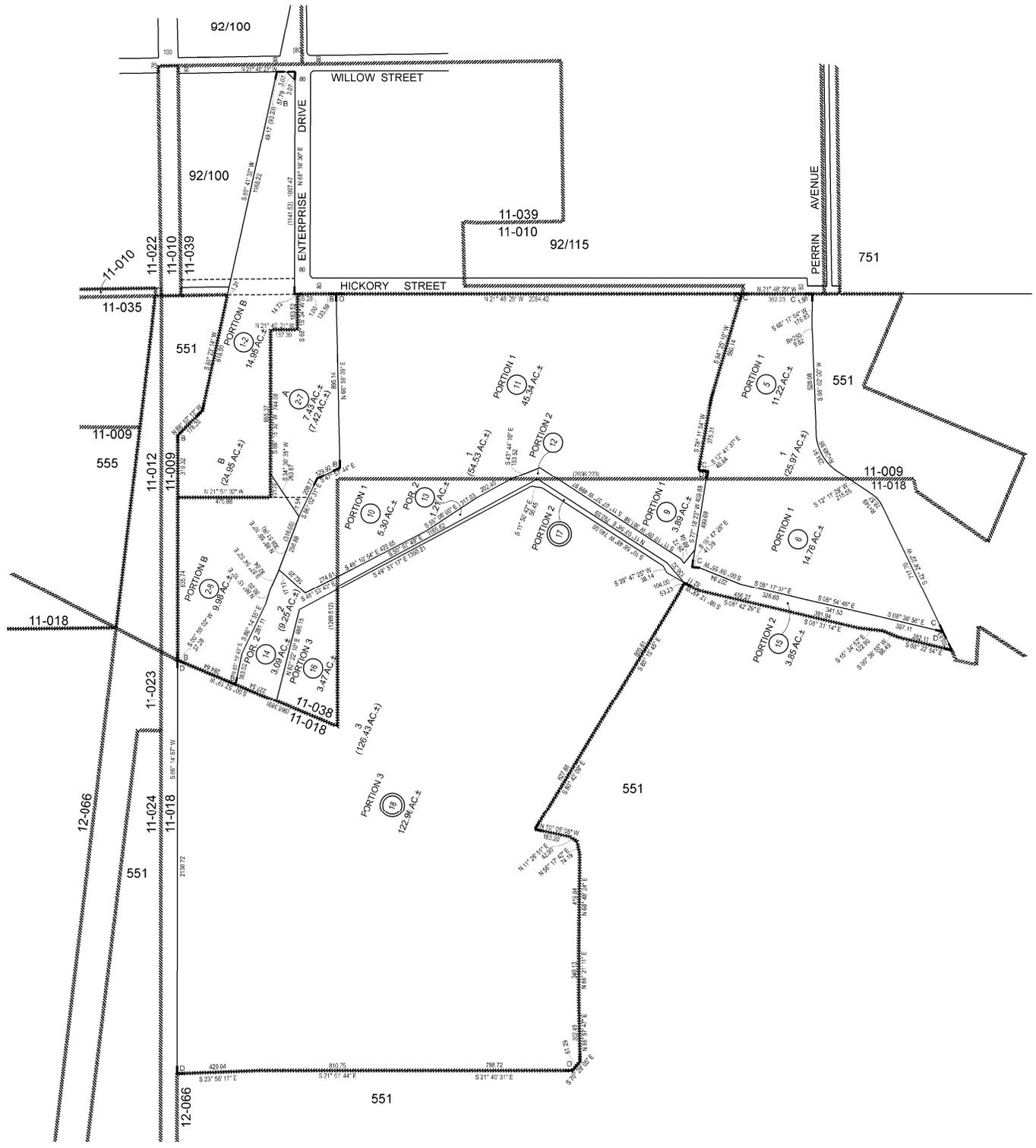
- (B) P.M. 3120 121/43
- (C) P.M. 7505 252/81-82
- (D) P.M. 9837 315/84.85



REVISED: 05-17-11 MN

DRAWN: 05-13-11 MN

FORMERLY: POR, BLK.551, POR, BLK.100, BK. 92



**Cargill Site  
Hickory Street/Enterprise Drive  
Newark, CA 94560**

**Inquiry Number: 3738660.7S  
October 11, 2013**

# The EDR Environmental LienSearch™ Report



440 Wheelers Farms Road  
Milford, CT 06461  
800.352.0050  
[www.edrnet.com](http://www.edrnet.com)

## EDR Environmental LienSearch™ Report

The EDR Environmental LienSearch Report provides results from a search of available current land title records for environmental cleanup liens and other activity and use limitations, such as engineering controls and institutional controls.

A network of professional, trained researchers, following established procedures, uses client supplied address information to:

- search for parcel information and/or legal description;
- search for ownership information;
- research official land title documents recorded at jurisdictional agencies such as recorders' offices, registries of deeds, county clerks' offices, etc.;
- access a copy of the deed;
- search for environmental encumbering instrument(s) associated with the deed;
- provide a copy of any environmental encumbrance(s) based upon a review of key words in the instrument(s) (title, parties involved, and description); and
- provide a copy of the deed or cite documents reviewed.

***Thank you for your business.***  
Please contact EDR at 1-800-352-0050  
with any questions or comments.

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# EDR Environmental LienSearch™ Report

## TARGET PROPERTY INFORMATION

### ADDRESS

Cargill Site  
Hickory Street/Enterprise Drive  
Newark, CA 94560

### RESEARCH SOURCE

Source 1: Alameda County, California Assessor

Source 2: Alameda County, California Recorder

### PROPERTY INFORMATION

#### **Deed 1:**

Type of Deed: Deed  
Title is vested in: The Arden Salt Company  
Title received from: August and Agnes Schilling  
Deed Recorded: 1926  
Book: unknown  
Page: unknown  
Instrument: unknown  
Comments: Leslie Salt Company merged with Arden Salt Company in 1936.

**Legal Description:** All that certain piece or parcel of land containing 3.89 acres, more or less, being a portion of Parcel 1 of Parcel Map 9837, filed in Book 315, Pages 84-85, situate and lying in the County of Alameda, State of California.

**Legal Current Owner:** Cargill, Incorporated, a Delaware corporation, successor to Leslie Salt Co.

**Property Identifiers:** 537-0852-009-00

#### **Deed 2:**

Type of Deed: Deed  
Title is vested in: The Arden Salt Company  
Title received from: August and Agnes Schilling  
Deed Recorded: 1926  
Book: unknown  
Page: unknown  
Instrument: unknown  
Comments: Leslie Salt Company merged with Arden Salt Company in 1936.

**Legal Description:** All that certain piece or parcel of land containing 5.30 acres, more or less, being a portion of Parcel 1 of Parcel Map 9837, filed in Book 315, Pages 84-85, situate and lying in the County of Alameda, State of California.

**Legal Current Owner:** Cargill, Incorporated, a Delaware corporation, successor to Leslie Salt Co.

**Property Identifiers:** 537-0852-010-00

## EDR Environmental LienSearch™ Report

**Deed 3:**

Type of Deed: Deed

Title is vested in: The Arden Salt Company

Title received from: August and Agnes Schilling

Deed Recorded: 1926

Book: unknown

Page: unknown

Instrument: unknown

Comments: Leslie Salt Company merged with Arden Salt Company in 1936.

**Legal Description:** All that certain piece or parcel of land containing 45.34 acres, more or less, being a portion of Parcel 1 of Parcel Map 9837, filed in Book 315, Pages 84-85, situate and lying in the County of Alameda, State of California.

**Legal Current Owner:** Cargill, Incorporated, a Delaware corporation, successor to Leslie Salt Co.

**Property Identifiers:** 537-0852-011-00

## EDR Environmental LienSearch™ Report

### **ENVIRONMENTAL LIEN**

Environmental Lien: Found  Not Found

If found:

1<sup>st</sup> Party:

2<sup>nd</sup> Party:

Dated:

Recorded:

Book:

Page:

Docket:

Volume:

Instrument:

Comments:

Miscellaneous:

### **OTHER ACTIVITY AND USE LIMITATIONS (AULs)**

Other AUL's: Found  Not Found

If found:

1<sup>st</sup> Party:

2<sup>nd</sup> Party:

Dated:

Recorded:

Book:

Page:

Docket:

Volume:

Instrument:

Comments: Leslie Salt owned the site and leased it to FMC Corporation from 1928 to 1968. During this period, FMC used the site for disposal of their process wastes. These wastes included: off-grade magnesia, dolomite, general rubbish, phosphorus sludges, gypsum and excess catalysts which were used for the production of synthetic rubber. The waste materials were disposed onsite in large piles. The catalyst material contains approximately 1-2% copper (20,000 parts per million) and mercury above the total threshold limit concentration.

The Department of Toxic Substances Control has determined that all appropriate response actions have been completed, that all acceptable engineering practices were implemented and that no further removal/remedial action is necessary. (see attached documents)

Miscellaneous:

**APPENDIX D**

**Site Photographs**



Photograph 1. East-northeast-facing photograph showing the northeastern portion of the subject site and the main entrance off of Enterprise Drive.



Photograph 2. Northwest-facing photograph showing some of the R.J Gordon Construction equipment stored on the northwestern portion of the subject site.



Photograph 3. Photograph showing an area of stained soil (left-center of the photograph) caused by leaking engine fluid from a fork lift on the northwestern portion of the subject site.



Photograph 4. North-northwest-facing photograph showing the northern portion of the E-1 Ditch as it appears adjacent to the south of the former FMC property and north of the access road.



Photograph 5. Southeast-facing photograph showing a former magnesium sulfate settling pond located on the northwestern corner of the subject site.



Photograph 6. North-facing photograph showing the E-1 Ditch from the central portion of the subject site.



Photograph 7. Photograph showing one of three 2-inch diameter groundwater monitoring wells located on the northeastern portion of the subject site.



Photograph 8. Photograph showing the 4-inch diameter groundwater monitoring well located on the east side of the E-1 Ditch on the northeastern portion of the subject site.



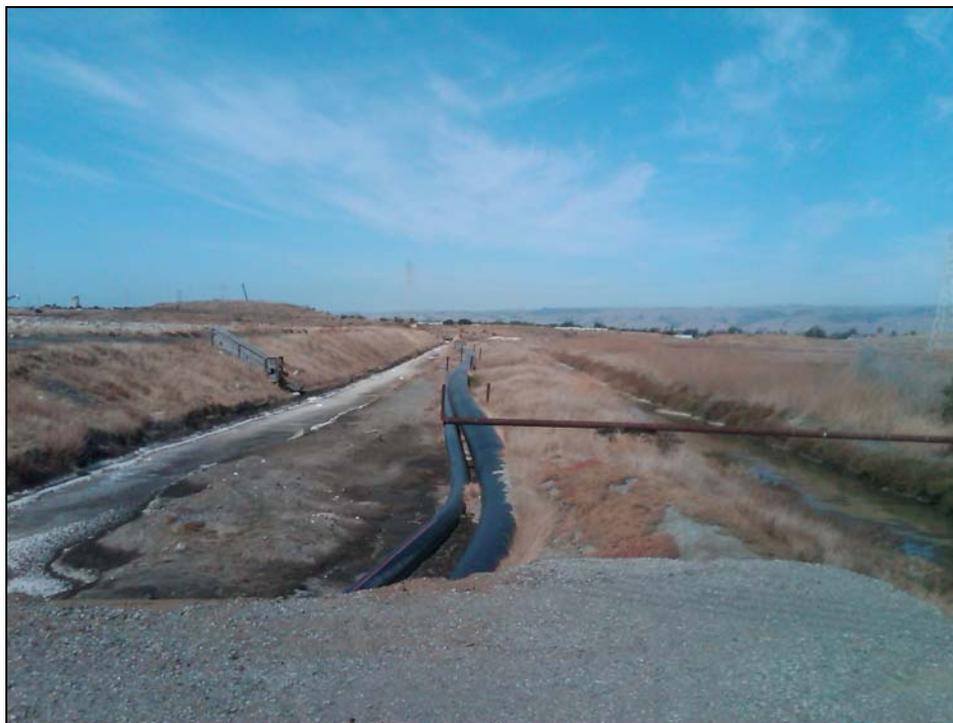
Photograph 9. Southeast-facing photograph showing the Newark Police Department Pistol Range on the southeastern portion of the subject site.



Photograph 10. Northeast-facing photograph showing the K-9 training area and clubhouse at the Witmer-Tyson Police Dog Training School on the southeastern corner of the subject site.



Photograph 11. East-facing photograph taken of the former Bittern Truck Loading Area from the southwestern corner of the subject site.



Photograph 12. North-northeast-facing photograph showing a brine ditch (right side of photograph) along the southwestern property line on the southwestern corner of the subject site. The two pipelines carry salt brine and are offsite.



30 October 2014  
File No. 40451-001

Dumbarton Area 2, LLC  
888 San Clemente, Suite 100  
Newport Beach, California 92660

Attention: Glenn Brown, PE

Subject: Phase II Environmental Site Assessment Results  
Gateway Station West  
Newark, California

Dear Mr. Brown:

This letter summarizes the results of the Phase II environmental site assessment (Phase II) performed at the Gateway Station West site by Haley & Aldrich, Inc. (Haley & Aldrich) on behalf of Dumbarton Area 2, LLC (DA2) per our agreement dated 23 September 2014. Haley & Aldrich has previously completed a Phase I environmental site assessment (Phase I) of the above-referenced site, which consists of approximately 54.53 acres located southwest of Hickory Street and Enterprise Drive in Newark, California. Based on our Phase I findings, Haley & Aldrich identified the following recognized environmental conditions (RECs) that warranted further investigation:

- Former Magnesite Pile;
- Former Newark Sportsman's Club (NSC) Area;
- Pistol Range;
- E-1 Drainage Ditch;
- Evaporation Ponds and Detention Basin; and
- Impacted Groundwater.

Haley & Aldrich conducted Phase II soil and soil gas investigation activities between 2 and 17 October 2014 to assess potential impacts associated with the identified RECs. This letter summarizes our findings and includes draft tables and a draft figure; these are being finalized for inclusion in a final report to be submitted to the Alameda County Water District (ACWD) per the requirements of the drilling permit obtained to perform this investigation. The conclusions and recommendations presented in this letter are solely for your consideration and will not be included in the ACWD report.

### **Data Screening**

To evaluate the potential health risks associated with constituents detected in soil at the site, the soil analytical results were compared to published screening levels that are protective of the following:

- Direct exposure of future site occupants to soil under a residential land use scenario; and



- Leaching of constituents from soil to groundwater.

With the exception of arsenic and carcinogenic polycyclic aromatic hydrocarbons (PAHs), the screening levels used for evaluation of the residential direct exposure pathway was the lowest of the following:

- Environmental screening levels (ESLs) for direct exposure under a residential land use scenario published by the California Regional Water Quality Control Board, San Francisco Bay Region (Water Board);<sup>1</sup>
- Residential soil regional screening levels (RSLs) published by the U.S. Environmental Protection Agency, Region 9;<sup>2</sup> and
- California-modified screening levels published by the California Department of Toxic Substances Control (DTSC).<sup>3</sup>

Because arsenic may exceed conservative risk-based screening levels at “background” levels, detected concentrations were evaluated by comparison to background concentrations. For arsenic, a recent evaluation of background concentrations in urbanized flatland soils within the San Francisco Bay Area, completed at San Francisco State University in coordination with Water Board staff, established an upper-limit background concentration of 11 milligrams per kilogram (mg/kg).<sup>4</sup> This value was selected as a representative background threshold value (BTV) for the Site.

Carcinogenic PAHs<sup>5</sup> were evaluated by calculating a benzo(a)pyrene equivalent (BaPe) and comparing it to an “ambient” background value of 900 micrograms per kilogram ( $\mu\text{g}/\text{kg}$ ) for northern California.<sup>6</sup>

The Water Board ESLs were used to evaluate the soil leaching scenario. Because the screening levels used are based on conservative assumptions that likely overestimate risk, chemical concentrations detected at or below corresponding screening levels can be assumed to not pose a significant risk to human health and the environment. Conversely, the presence of chemicals at concentrations exceeding the screening levels does not necessarily indicate that adverse health effects will occur. Rather, it indicates that there is a potential for adverse impacts that may warrant further evaluation.

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<sup>1</sup> California Regional Water Quality Control Board, San Francisco Bay Region, 2013, Update to Environmental Screening Levels, Table K-1, Direct Exposure Soil Screening Levels, Residential Exposure Scenario, December.

<sup>2</sup> U.S., Environmental Protection Agency, Region 9, 2014, Regional Screening Levels, May, <http://www.epa.gov/region9/superfund/prg/>. Residential soil screening levels were used.

<sup>3</sup> California Department of Toxic Substances Control, 2013, Human Health Risk Assessment Note 3, May 21.

<sup>4</sup> Duvergé, D.J., 2011, Establishing Background Arsenic in Soil of the Urbanized San Francisco Bay Region: Master's thesis, San Francisco State University, December, [http://www.swrcb.ca.gov/sanfranciscobay/water\\_issues/available\\_documents/2011\\_Arsenic\\_Background\\_Duverge.pdf](http://www.swrcb.ca.gov/sanfranciscobay/water_issues/available_documents/2011_Arsenic_Background_Duverge.pdf).

<sup>5</sup> Carcinogenic PAHs include benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, and indeno(1,2,3-cd)perylene.

<sup>6</sup> California Department of Toxic Substances Control (DTSC), 2009b, *Use of the Northern and Southern California Polynuclear Aromatic Hydrocarbon (PAH) Studies in the Manufactured Gas Plant Cleanup Process*, July 1.

To evaluate the potential health risks associated with constituents detected in soil gas at the site, the soil gas analytical results were compared to published screening levels that are protective of future site occupants under a residential land use scenario.

The screening levels used for evaluation of the soil gas data was the lowest of the following:

- Environmental screening levels (ESLs) published by the Water Board;<sup>7</sup> and
- Regional screening levels (RSLs) published by the U.S. Environmental Protection Agency, Region 9 for indoor air with an attenuation factor of 0.001.<sup>8</sup>

The investigation performed and results of data screening are summarized below by REC.

### **Former Magnesia Pile**

A total of 33 soil samples were collected from 10 locations in the Former Magnesia Pile Area and analyzed for Title 22 metals<sup>9</sup> and pH. With the exception of selenium and thallium, all metals analyzed for were detected in at least one sample. Analytical results are summarized on Table I.

- Arsenic was detected at a concentration exceeding the background concentration at one location (MP6 at 5 feet below ground surface [bgs]). However, despite this exceedance, concentrations of arsenic in soil appear consistent with background concentrations.
- Cobalt exceeded the screening levels in four samples collected from two boring (MP3 at 5 feet and 9 feet bgs and MP4 at 5 feet and 8 feet bgs).
- The pH of the soil samples collected in this area ranged from 7.12 to 8.67.

Given the depth of the cobalt exceedances and natural variability of background arsenic concentrations, the limited impacts associated with this REC do not pose a significant threat and are not expected to require further action prior to site redevelopment.

### **Former NSC Area**

A total of 25 soil samples were collected from 10 locations in the Former NSC Area; samples were analyzed for Title 22 metals and PAHs. Analytical results are summarized on Table II.

- Lead was detected at concentrations exceeding the screening levels in three samples collected from boring NSC5 at 0.5 feet bgs, NSC8 at 0.5 feet bgs, and NSC9 at 2.5 feet bgs.

---

<sup>7</sup> California Regional Water Quality Control Board, San Francisco Bay Region, 2013, Update to Environmental Screening Levels, Table E-2, Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion, Residential Exposure Scenario, December.

<sup>8</sup> U.S., Environmental Protection Agency, Region 9, 2014, Regional Screening Levels, May, <http://www.epa.gov/region9/superfund/prg/>. Residential Air screening levels were used with an attenuation factor of 0.001.

<sup>9</sup> Title 22 metals include antimony, arsenic, barium, beryllium, cadmium, chromium, cobalt, copper, lead, mercury, molybdenum, nickel, selenium, silver, thallium, vanadium, and zinc.

- BaPe was detected at concentrations exceeding the background value in six samples collected from five locations (borings NSC5, NSC6, and NSC7 at 0.5 feet bgs, boring NSC8 at 0.5 and 2.5 feet bgs, and boring NSC9 at 2.5 feet bgs). BaPe concentrations were two to four orders of magnitude above screening levels in four of these samples.
- Noncarcinogenic PAHs (specifically, acenaphthalene, anthracene, benzo(g,h,i)perylene, fluoranthene, naphthalene, phenanthrene, and pyrene) were detected at concentrations exceeding the screening levels in the sample collected from boring NSC8 at 0.5 feet bgs. Benzo(g,h,i)perylene was detected at concentrations exceeding screening levels in the sample collected from boring NSC9 at 2.5 feet bgs.

Lead and PAH impacts in the Former NSC Area are co-located. The impacts associated with this REC should be addressed prior to site redevelopment through excavation and disposal of shallow soil within the affected portion of the Former NSC Area.

### **Pistol Range**

A total of 11 soil samples were collected from 6 locations in the Pistol Range; samples were analyzed for Title 22 metals. Analytical results are summarized on Table III.

- Cobalt was detected at concentrations exceeding the screening levels in five samples collected from three locations (boring PR4 at 0.5 and 2.5 feet bgs, PR5 at 0.5 and 2.5 feet bgs, and PR8 at 0.5 feet bgs).

The limited cobalt impacts associated with this REC do not significantly exceed the residential screening level and may be considered local background. However, performing excavation and disposal of shallow soil within the affected portion of the Pistol Range may be preferable to pursuing regulatory concurrence on this conclusion given other recommended remediation at the site.

### **E-1 Drainage Ditch**

A total of 10 soil samples were collected from 5 locations in the E-1 Drainage Ditch; samples were analyzed for Title 22 metals, semivolatile organic compounds (SVOCs), PAHs, total petroleum hydrocarbons (TPH) quantified as diesel (TPHd) and as motor oil (TPHmo), volatile organic compounds (VOCs), and pH. Analytical results are summarized on Table IV.

- Arsenic was detected at concentrations exceeding screening levels at 0.5 feet bgs from borings E3, E4, and E5.
- Lead was detected at concentrations exceeding screening levels in samples collected from boring E3 at 0.5 feet bgs and E4 at 0.5 feet bgs.
- TPHd and TPHmo were detected at concentrations exceeding screening levels in the samples collected from borings E3 at 0.5 feet bgs and E4 at 0.5 feet bgs. TPHd was also detected at concentrations exceeding screening levels in samples collected from E2 at 0.5 feet bgs and E5 at 0.5 feet bgs.
- SVOCs, PAHs, and VOCs were not detected at concentrations exceeding screening levels.
- The pH of the soil samples collected in this area ranged from 6.96 to 8.66.

Arsenic and lead impacts are co-located with the TPH impacts in the shallow (0.5 feet bgs) soil; deeper samples collected at 2.5 feet bgs were not impacted. The impacts associated with this REC should be addressed prior to site redevelopment through excavation and disposal of shallow soil within the E-1 Drainage Ditch. Although the entire length of the E-1 Drainage Ditch was not uniformly sampled, impacts at the northern and southern ends are very similar and therefore it should be assumed the entire length will require remediation.

### **Evaporation Pond**

A total of 16 soil samples were collected from 8 locations in the Evaporation Pond Area; samples were analyzed for Title 22 metals and pH. Analytical results are summarized on Table V.

- Metals were not detected at concentrations exceeding screening levels.
- The pH of the soil samples collected in this area ranged from 7.3 to 9.51.

Although there is no specific screening standard for pH levels, a survey of Water Board guidance documents indicates that values greater than 9.0 may be considered outside of the 'normal' range. However, the pH values detected in the Evaporation Pond Area are not significantly outside of that range and should not be considered a significant threat. Obtaining regulatory concurrence on this issue is recommended to confirm no further action would be required in this area prior to site redevelopment.

### **Detention Basin**

A total of 12 soil samples were collected from 4 locations in the Evaporation Pond Area; samples were analyzed for Title 22 metals, SVOCs, PAHs, TPH quantified as gasoline (TPHg), TPHd, TPHmo, and pH. Analytical results are summarized on Table VI.

- Cobalt was detected at concentrations exceeding screening levels in samples collected from DB1 at 0.5 feet bgs and DB3 at 2.5 feet bgs.
- TPHd was detected at a concentration exceeding the screening level in the sample collected from boring DB2 at 2.5 feet bgs.
- The pH of the soil samples collected in this area ranged from 7.81 to 8.67.
- SVOCs, PAHs, TPHg, and TPHmo were not detected at concentrations exceeding screening levels.

The two exceedances for cobalt (24 and 26 mg/kg) only slightly exceeded the screening level of 23 mg/kg; likewise the solitary exceedance for TPHd (130 mg/kg) only slightly exceeded the screening level of 110 mg/kg. Therefore the limited impacts associated with this REC do not pose a significant threat and are not expected to require further action prior to site redevelopment.

### **Impacted Groundwater**

Fourteen soil gas samples were collected from 12 locations to assess potential soil gas impacts that may be associated with impacted groundwater from upgradient off-site sources. Samples were analyzed for

VOCs. Analytical results are summarized on Table VII. Several VOCs were detected; however detected concentrations do not exceed screening levels. Therefore this REC does not pose a vapor intrusion threat. However, the Water Board may still request vapor intrusion engineering controls in this area of the site as part of redevelopment plans due to its proximity to the neighboring Ashland site.

### **Summary and Conclusions**

**Former Magnesia Pile:** Given the depth of the cobalt exceedances and natural variability of background arsenic concentrations, the limited impacts associated with this REC do not pose a significant threat and are not expected to require further action prior to site redevelopment.

**Former Newark Sportsman's Club (NSC) Area:** Lead and PAH impacts in the Former NSC Area are co-located. The impacts associated with this REC should be addressed prior to site redevelopment through excavation and disposal of shallow soil within the affected portion of the Former NSC Area.

**Pistol Range:** The limited cobalt impacts associated with this REC do not significantly exceed the residential screening level and may be considered local background. However, performing excavation and disposal of shallow soil within the affected portion of the Pistol Range may be preferable to pursuing regulatory concurrence on this conclusion given other recommended remediation at the site.

**E-1 Drainage Ditch:** Arsenic and lead impacts are co-located with the TPH impacts in the shallow (0.5 feet bgs) soil; deeper samples collected at 2.5 feet bgs were not impacted. The impacts associated with this REC should be addressed prior to site redevelopment through excavation and disposal of shallow soil within the E-1 Drainage Ditch. Although the entire length of the E-1 Drainage Ditch was not uniformly sampled, impacts at the northern and southern ends are very similar and therefore it should be assumed the entire length will require remediation.

**Evaporation Ponds and Detention Basin:** The two exceedances for cobalt (24 and 26 mg/kg) only slightly exceeded the screening level of 23 mg/kg; likewise the solitary exceedance for TPHd (130 mg/kg) only slightly exceeded the screening level of 110 mg/kg. Therefore the limited impacts associated with this REC do not pose a significant threat and are not expected to require further action prior to site redevelopment.

**Impacted Groundwater:** Detected concentrations of VOCs did not exceed screening levels, therefore this REC does not pose a vapor intrusion threat. However, the Water Board may still request vapor intrusion engineering controls in this area of the site as part of redevelopment plans due to its proximity to the neighboring Ashland site.

Thank you for choosing Haley & Aldrich to perform this investigation. Should you have any questions regarding this letter, please do not hesitate to contact me.

Dumbarton Area 2, LLC

30 October 2014

Page 7 of 7

Sincerely yours,

**HALEY & ALDRICH, INC.**

A handwritten signature in blue ink, appearing to read "James Schwartz".

James Schwartz, PG  
Client Leader

Attachments

Figure 1 – Site Plan

Tables I through VII – Site Data



**TABLE I -- DRAFT**

SUMMARY OF ANALYTICAL RESULTS - FORMER MAGNESIA PILE<sup>1</sup>  
 GATEWAY STATION WEST  
 NEWARK, CALIFORNIA

| Chemical Group                           | Chemical Name | Inorganic Compounds |                |                 |            |             |             |            |            |           |            |              |                |            |          |             |          | pH (lab)   |           |             |
|--|---------------|---------------------|----------------|-----------------|------------|-------------|-------------|------------|------------|-----------|------------|--------------|----------------|------------|----------|-------------|----------|------------|-----------|-------------|
|  |               | Antimony            | Arsenic        | Barium          | Beryllium  | Cadmium     | Chromium    | Cobalt     | Copper     | Lead      | Mercury    | Molybdenum   | Nickel         | Selenium   | Silver   | Thallium    | Vanadium |            | Zinc      | pH units    |
| Units                                    | Units         | mg/kg               | mg/kg          | mg/kg           | mg/kg      | mg/kg       | mg/kg       | mg/kg      | mg/kg      | mg/kg     | mg/kg      | mg/kg        | mg/kg          | mg/kg      | mg/kg    | mg/kg       | mg/kg    | mg/kg      | mg/kg     |             |
| Loc.                                     | Sample Date   | Sample Depth (bgs)  |                |                 |            |             |             |            |            |           |            |              |                |            |          |             |          |            |           |             |
| Residential Screening Level <sup>2</sup> |               |                     | 31             | 11 <sup>3</sup> | 15000      | 160         | 70          | 120000     | 23         | 3100      | 80         | 6.7          | 390            | 1500       | 390      | 390         | 0.78     | 390        | 23000     | -           |
| Soil Leaching ESL <sup>4</sup>           |               |                     | -              | -               | -          | -           | -           | -          | -          | -         | -          | -            | -              | -          | -        | -           | -        | -          | -         | -           |
| MP1                                      | 10/06/2014    | 0 - 0.5 (ft)        | 1.5 R          | <b>4.5</b>      | <b>200</b> | <b>0.33</b> | < 0.38      | <b>48</b>  | <b>13</b>  | <b>71</b> | <b>8</b>   | <b>0.095</b> | < 1.5          | <b>58</b>  | < 3.1    | < 0.77      | < 1.5    | <b>46</b>  | <b>43</b> | <b>8.27</b> |
|  | 10/06/2014    | 2 - 2.5 (ft)        | < 1.6          | <b>4.1</b>      | <b>270</b> | <b>0.5</b>  | < 0.40      | <b>51</b>  | <b>11</b>  | <b>26</b> | <b>6.6</b> | <b>0.11</b>  | < 1.6          | <b>46</b>  | < 3.2    | < 0.79      | < 1.6    | <b>52</b>  | <b>34</b> | <b>7.99</b> |
|  | 10/09/2014    | 4.5 - 5 (ft)        | < 1.9 J        | <b>4.0 J-</b>   | <b>350</b> | <b>0.54</b> | < 0.47      | <b>63</b>  | <b>15</b>  | <b>36</b> | <b>4.7</b> | <b>0.045</b> | < 1.9 J        | <b>63</b>  | < 3.8 J  | < 0.94      | < 1.9    | <b>130</b> | <b>57</b> | <b>7.59</b> |
| MP2                                      | 10/06/2014    | 0 - 0.5 (ft)        | 1.7 R          | <b>11</b>       | <b>150</b> | <b>0.41</b> | < 0.43      | <b>54</b>  | <b>11</b>  | <b>27</b> | <b>11</b>  | <b>0.11</b>  | < 1.7          | <b>45</b>  | < 3.5    | < 0.87      | < 1.7    | <b>48</b>  | <b>61</b> | <b>7.79</b> |
|  | 10/06/2014    | 2 - 2.5 (ft)        | <b>0.69</b>    | <b>5.8</b>      | <b>170</b> | <b>0.17</b> | < 0.19      | <b>75</b>  | <b>10</b>  | <b>28</b> | <b>9.3</b> | <b>0.46</b>  | <b>0.61</b>    | <b>67</b>  | < 0.92   | <b>0.33</b> | < 0.46   | <b>33</b>  | <b>59</b> | <b>7.46</b> |
|  | 10/09/2014    | 4.5 - 5 (ft)        | < 1.8 J        | <b>5.0 J-</b>   | <b>190</b> | < 0.36      | < 0.45      | <b>69</b>  | <b>16</b>  | <b>43</b> | <b>7.6</b> | <b>0.085</b> | < 1.8 J        | <b>63</b>  | < 3.6 J  | < 0.89      | < 1.8    | <b>67</b>  | <b>60</b> | <b>7.89</b> |
| MP3                                      | 10/06/2014    | 0 - 0.5 (ft)        | 0.41 R         | <b>3.2</b>      | <b>120</b> | <b>0.23</b> | < 0.10      | <b>30</b>  | <b>6.6</b> | <b>14</b> | <b>5.9</b> | <b>0.041</b> | < 0.41         | <b>29</b>  | < 0.83   | < 0.21      | < 0.41   | <b>28</b>  | <b>31</b> | <b>8.19</b> |
|  | 10/06/2014    | 2 - 2.5 (ft)        | < 1.6          | < 3.2           | <b>110</b> | < 0.32      | < 0.40      | <b>67</b>  | <b>15</b>  | <b>29</b> | <b>4.2</b> | <b>0.038</b> | < 1.6          | <b>49</b>  | < 3.2    | < 0.80      | < 1.6    | <b>73</b>  | <b>41</b> | <b>8.27</b> |
|  | 10/09/2014    | 4.5 - 5 (ft)        | < 1.8 J        | < 3.5 J         | <b>110</b> | < 0.35      | < 0.44      | <b>150</b> | <b>33</b>  | <b>66</b> | <b>2.2</b> | <b>0.016</b> | < 1.8 J        | <b>100</b> | < 3.5 J  | < 0.88      | < 1.8    | <b>150</b> | <b>68</b> | <b>7.54</b> |
|  | 10/09/2014    | 8.5 - 9 (ft)        | -              | -               | -          | -           | -           | -          | <b>28</b>  | -         | -          | -            | -              | -          | -        | -           | -        | -          | -         | -           |
| MP4                                      | 10/06/2014    | 0 - 0.5 (ft)        | <b>0.60 J-</b> | <b>6</b>        | <b>170</b> | <b>0.22</b> | < 0.17      | <b>68</b>  | <b>11</b>  | <b>29</b> | <b>8.6</b> | <b>0.088</b> | < 0.47         | <b>69</b>  | < 0.93   | <b>0.27</b> | < 0.47   | <b>33</b>  | <b>58</b> | <b>7.67</b> |
|  | 10/06/2014    | 2 - 2.5 (ft)        | < 1.5          | <b>6</b>        | <b>130</b> | < 0.31      | < 0.38      | <b>59</b>  | <b>12</b>  | <b>31</b> | <b>27</b>  | <b>0.7</b>   | < 1.5          | <b>61</b>  | < 3.1    | < 0.76      | < 1.5    | <b>45</b>  | <b>65</b> | <b>8.22</b> |
|  | 10/09/2014    | 4.5 - 5 (ft)        | < 1.7 J        | < 3.3 J         | <b>150</b> | < 0.33      | < 0.42      | <b>65</b>  | <b>34</b>  | <b>46</b> | < 1.7      | <b>0.028</b> | < 1.7 J        | <b>57</b>  | < 3.3 J  | < 0.83      | < 1.7    | <b>180</b> | <b>82</b> | <b>8.49</b> |
|  | 10/09/2014    | 7.5 - 8 (ft)        | -              | -               | -          | -           | -           | -          | <b>35</b>  | -         | -          | -            | -              | -          | -        | -           | -        | -          | -         | -           |
| MP5                                      | 10/06/2014    | 0 - 0.5 (ft)        | 1.9 R          | <b>7.1</b>      | <b>110</b> | <b>0.41</b> | < 0.49      | <b>72</b>  | <b>16</b>  | <b>34</b> | <b>9.4</b> | <b>0.039</b> | < 1.9          | <b>85</b>  | < 3.9    | < 0.97      | < 1.9    | <b>43</b>  | <b>54</b> | <b>7.84</b> |
|  | 10/06/2014    | 2 - 2.5 (ft)        | < 1.7          | <b>6.2</b>      | <b>140</b> | < 0.35      | < 0.43      | <b>68</b>  | <b>15</b>  | <b>31</b> | <b>7.6</b> | <b>0.035</b> | < 1.7          | <b>86</b>  | < 3.5    | < 0.87      | < 1.7    | <b>39</b>  | <b>58</b> | <b>7.71</b> |
|  | 10/09/2014    | 4.5 - 5 (ft)        | < 1.7 J        | <b>7.3 J-</b>   | <b>450</b> | < 0.34      | <b>0.49</b> | <b>67</b>  | <b>17</b>  | <b>31</b> | <b>9</b>   | <b>0.065</b> | < 1.7 J        | <b>92</b>  | < 3.4 J  | < 0.85      | < 1.7    | <b>34</b>  | <b>52</b> | <b>7.46</b> |
| MP6                                      | 10/06/2014    | 0 - 0.5 (ft)        | 1.6 R          | <b>5.8</b>      | <b>170</b> | < 0.32      | < 0.40      | <b>68</b>  | <b>13</b>  | <b>25</b> | <b>6.9</b> | <b>0.052</b> | < 1.6          | <b>81</b>  | < 3.2    | < 0.79      | < 1.6    | <b>35</b>  | <b>52</b> | <b>8.37</b> |
|  | 10/06/2014    | 2 - 2.5 (ft)        | < 1.4          | <b>5.6</b>      | <b>210</b> | < 0.36      | < 0.36      | <b>48</b>  | <b>12</b>  | <b>28</b> | <b>8.6</b> | <b>0.086</b> | < 1.4          | <b>61</b>  | < 2.9    | < 0.72      | < 1.4    | <b>37</b>  | <b>50</b> | <b>8.67</b> |
|  | 10/09/2014    | 4.5 - 5 (ft)        | < 1.8 J        | <b>12 J-</b>    | <b>190</b> | <b>0.97</b> | < 0.46      | <b>76</b>  | <b>20</b>  | <b>52</b> | <b>10</b>  | <b>0.076</b> | <b>3.4 J-</b>  | <b>120</b> | < 3.7 J  | < 0.92      | < 1.8    | <b>69</b>  | <b>82</b> | <b>7.89</b> |
|  | 10/09/2014    | 8.5 - 9 (ft)        | -              | <b>7.6</b>      | -          | -           | -           | -          | -          | -         | -          | -            | -              | -          | -        | -           | -        | -          | -         | -           |
| MP7                                      | 10/06/2014    | 0 - 0.5 (ft)        | 1.7 R          | <b>5.9</b>      | <b>190</b> | <b>0.34</b> | < 0.43      | <b>70</b>  | <b>14</b>  | <b>27</b> | <b>8.9</b> | <b>0.061</b> | < 1.7          | <b>78</b>  | < 3.4    | < 0.86      | < 1.7    | <b>39</b>  | <b>50</b> | <b>8.07</b> |
|  | 10/06/2014    | 2 - 2.5 (ft)        | < 1.6          | <b>6</b>        | <b>170</b> | <b>0.32</b> | < 0.39      | <b>65</b>  | <b>14</b>  | <b>25</b> | <b>7.4</b> | <b>0.046</b> | < 1.6          | <b>75</b>  | < 3.1    | < 0.78      | < 1.6    | <b>36</b>  | <b>47</b> | <b>8.28</b> |
|  | 10/09/2014    | 4.5 - 5 (ft)        | < 1.8 J        | <b>7.0 J-</b>   | <b>230</b> | <b>0.42</b> | < 0.44      | <b>80</b>  | <b>14</b>  | <b>29</b> | <b>8.4</b> | <b>0.077</b> | < 1.8 J        | <b>93</b>  | < 3.5 J  | < 0.88      | < 1.8    | <b>40</b>  | <b>53</b> | <b>7.94</b> |
| MP8                                      | 10/06/2014    | 0 - 0.5 (ft)        | 1.4 R          | <b>4.2</b>      | <b>130</b> | < 0.27      | < 0.34      | <b>45</b>  | <b>9.6</b> | <b>22</b> | <b>11</b>  | <b>0.13</b>  | < 1.4          | <b>36</b>  | < 2.7    | < 0.68      | < 1.4    | <b>38</b>  | <b>54</b> | <b>8.11</b> |
|  | 10/06/2014    | 2 - 2.5 (ft)        | < 0.47         | <b>4.5</b>      | <b>140</b> | <b>0.26</b> | <b>0.23</b> | <b>35</b>  | <b>8.6</b> | <b>25</b> | <b>10</b>  | <b>0.046</b> | <b>0.52</b>    | <b>33</b>  | < 0.93   | < 0.23      | < 0.47   | <b>40</b>  | <b>59</b> | <b>8.05</b> |
|  | 10/09/2014    | 4.5 - 5 (ft)        | < 1.8 J        | <b>4.9 J-</b>   | <b>170</b> | <b>0.4</b>  | < 0.45      | <b>52</b>  | <b>21</b>  | <b>22</b> | <b>15</b>  | <b>0.045</b> | < 1.8 J        | <b>55</b>  | < 3.6 J  | < 0.91      | < 1.8    | <b>51</b>  | <b>44</b> | <b>7.24</b> |
| MP9                                      | 10/06/2014    | 0 - 0.5 (ft)        | 1.8 R          | <b>4.4</b>      | <b>300</b> | <b>0.55</b> | < 0.44      | <b>18</b>  | <b>6.1</b> | <b>18</b> | <b>7.1</b> | <b>0.059</b> | < 1.8          | <b>13</b>  | < 3.5    | < 0.88      | < 1.8    | <b>23</b>  | <b>32</b> | <b>7.12</b> |
|  | 10/06/2014    | 2 - 2.5 (ft)        | < 1.8          | <b>5.7</b>      | <b>130</b> | < 0.36      | < 0.45      | <b>59</b>  | <b>12</b>  | <b>26</b> | <b>11</b>  | <b>0.054</b> | < 1.8          | <b>72</b>  | < 3.6    | < 0.91      | < 1.8    | <b>34</b>  | <b>56</b> | <b>8.64</b> |
|  | 10/09/2014    | 4.5 - 5 (ft)        | < 1.7 J        | <b>7.4 J-</b>   | <b>170</b> | < 0.34      | < 0.42      | <b>71</b>  | <b>14</b>  | <b>31</b> | <b>13</b>  | <b>0.085</b> | < 1.7 J        | <b>88</b>  | < 3.4 J  | < 0.84      | < 1.7    | <b>38</b>  | <b>58</b> | <b>8.64</b> |
| MP10                                     | 10/06/2014    | 0 - 0.5 (ft)        | 1.8 R          | <b>5.3</b>      | <b>170</b> | < 0.35      | < 0.44      | <b>61</b>  | <b>13</b>  | <b>27</b> | <b>10</b>  | <b>0.12</b>  | < 1.8          | <b>71</b>  | < 3.5    | < 0.88      | < 1.8    | <b>43</b>  | <b>60</b> | <b>8.28</b> |
|  | 10/06/2014    | 2 - 2.5 (ft)        | < 1.6          | <b>4.7</b>      | <b>250</b> | < 0.33      | < 0.41      | <b>65</b>  | <b>12</b>  | <b>25</b> | <b>4.4</b> | <b>0.082</b> | < 1.6          | <b>78</b>  | < 3.3    | < 0.82      | < 1.6    | <b>45</b>  | <b>54</b> | <b>8.32</b> |
|  | 10/09/2014    | 4.5 - 5 (ft)        | < 0.44 J       | <b>5.2 J-</b>   | <b>220</b> | <b>0.27</b> | <b>0.26</b> | <b>43</b>  | <b>10</b>  | <b>21</b> | <b>6.5</b> | <b>0.056</b> | <b>0.45 J-</b> | <b>52</b>  | < 0.88 J | < 0.22      | < 0.44   | <b>39</b>  | <b>39</b> | <b>8.19</b> |

- Notes:**
- Soil samples collected by Haley & Aldrich, Inc. and analyzed by Test America Laboratories, Inc., of Pleasanton, California, for Title 22 metals using EPA Method 6010B/7471A and pH using EPA Method 9045. **Bold** indicates a detected result. Highlighted results exceed screening levels.
  - Lowest (most conservative) value of the following residential screening levels:
    - Environmental Screening Levels (ESLs; Water Board, Update to Environmental Screening Levels, Table K-1, Direct Exposure Soil Screening Levels, Residential Exposure Scenario, December 2013).
    - Alternative Soil and Tapwater Screening Values (Cal-modified; DTSC Office of Human and Ecological Risk, 2013, HHRA Note 3.2)
    - Residential Soil Regional Screening Level (RSLs; USEPA, 2014).
  - Arsenic was evaluated by comparison to background value of 11 mg/kg.
  - ESLs for the protection of groundwater resources (Water Board, 2013, Update to Environmental Screening Levels, Table G, Soil Screening Levels for Leaching Concerns, Drinking Water Resource, December).

**Abbreviations:**

- = Not Analyzed/ No action level
- < = result not detected at the indicated analytical reporting limit
- bgs = below ground surface
- J = Estimated value. Quality control deficiencies have compromised result accuracy.
- J- = Estimated Biased Low
- J+ = Estimated Biased High
- mg/kg = milligrams per kilogram
- R = result is rejected to data quality deficiencies
- Loc. = location

TABLE II - DRAFT

SUMMARY OF ANALYTICAL RESULTS - FORMER NEWARK SPORTSMAN'S CLUB  
 GATEWAY STATION WEST  
 NEWARK, CALIFORNIA

| Loc.                                     | Sample Date | Chemical Group<br>Chemical Name<br>Units<br>Sample Depth (bgs) | Inorganic Compounds |                 |            |             |             |            |            |           |              |              |             |            |          |        |          |           |           |
|--|-------------|--|---------------------|-----------------|------------|-------------|-------------|------------|------------|-----------|--------------|--------------|-------------|------------|----------|--------|----------|-----------|-----------|
|  |             |  | Antimony            | Arsenic         | Barium     | Beryllium   | Cadmium     | Chromium   | Cobalt     | Copper    | Lead         | Mercury      | Molybdenum  | Nickel     | Selenium | Silver | Thallium | Vanadium  | Zinc      |
|  |             |  | mg/kg               | mg/kg           | mg/kg      | mg/kg       | mg/kg       | mg/kg      | mg/kg      | mg/kg     | mg/kg        | mg/kg        | mg/kg       | mg/kg      | mg/kg    | mg/kg  | mg/kg    | mg/kg     | mg/kg     |
| Residential Screening Level <sup>2</sup> |             |  | 31                  | 11 <sup>3</sup> | 15000      | 160         | 70          | 120000     | 23         | 3100      | 80           | 6.7          | 390         | 1500       | 390      | 390    | 0.78     | 390       | 23000     |
| Soil Leaching ESL <sup>4</sup>           |             |  | -                   | -               | -          | -           | -           | -          | -          | -         | -            | -            | -           | -          | -        | -      | -        | -         | -         |
| NSC1                                     | 10/02/2014  | 0 - 0.5 (ft)   | <b>1.0 J-</b>       | <b>4.2</b>      | <b>360</b> | <b>0.21</b> | < 0.20      | <b>51</b>  | <b>12</b>  | <b>62</b> | <b>7.2</b>   | <b>0.066</b> | < 0.78      | <b>52</b>  | < 1.6    | < 0.39 | < 0.78   | <b>44</b> | <b>45</b> |
|  | 10/02/2014  | 2 - 2.5 (ft)   | <b>0.92</b>         | <b>6.2</b>      | <b>160</b> | <b>0.19</b> | < 0.11      | <b>52</b>  | <b>11</b>  | <b>26</b> | <b>5.5</b>   | <b>0.027</b> | < 0.45      | <b>65</b>  | < 0.91   | < 0.23 | < 0.45   | <b>30</b> | <b>44</b> |
| NSC2                                     | 10/02/2014  | 0 - 0.5 (ft)   | <b>0.90 J-</b>      | <b>5.8</b>      | <b>190</b> | <b>0.23</b> | < 0.18      | <b>58</b>  | <b>13</b>  | <b>37</b> | <b>6.4</b>   | <b>0.026</b> | <b>0.53</b> | <b>68</b>  | < 1.5    | < 0.36 | < 0.73   | <b>39</b> | <b>41</b> |
|  | 10/02/2014  | 2 - 2.5 (ft)   | < 0.79              | <b>7.1</b>      | <b>220</b> | <b>0.23</b> | < 0.20      | <b>61</b>  | <b>11</b>  | <b>29</b> | <b>6.8</b>   | <b>0.36</b>  | <b>0.65</b> | <b>75</b>  | < 1.6    | < 0.40 | < 0.79   | <b>35</b> | <b>49</b> |
| NSC3                                     | 10/02/2014  | 0 - 0.5 (ft)   | <b>0.93 J-</b>      | <b>5.3</b>      | <b>100</b> | <b>0.26</b> | < 0.11      | <b>53</b>  | <b>8.9</b> | <b>21</b> | <b>5.2</b>   | <b>0.033</b> | <b>0.61</b> | <b>57</b>  | < 0.85   | < 0.21 | < 0.43   | <b>31</b> | <b>36</b> |
|  | 10/02/2014  | 2 - 2.5 (ft)   | <b>0.99</b>         | <b>6.5</b>      | <b>130</b> | <b>0.28</b> | < 0.12      | <b>61</b>  | <b>12</b>  | <b>27</b> | <b>6.1</b>   | <b>0.033</b> | <b>0.52</b> | <b>74</b>  | < 0.98   | < 0.25 | < 0.49   | <b>33</b> | <b>44</b> |
| NSC4                                     | 10/02/2014  | 0 - 0.5 (ft)   | <b>0.94 J-</b>      | <b>6</b>        | <b>170</b> | <b>0.3</b>  | < 0.12      | <b>63</b>  | <b>11</b>  | <b>26</b> | <b>7</b>     | <b>0.022</b> | <b>0.59</b> | <b>73</b>  | < 0.93   | < 0.23 | < 0.46   | <b>33</b> | <b>41</b> |
|  | 10/02/2014  | 2 - 2.5 (ft)   | <b>0.65</b>         | <b>6.3</b>      | <b>160</b> | <b>0.18</b> | < 0.11      | <b>50</b>  | <b>9.9</b> | <b>25</b> | <b>5.7</b>   | <b>0.048</b> | <b>0.47</b> | <b>63</b>  | < 0.88   | < 0.22 | < 0.44   | <b>30</b> | <b>41</b> |
| NSC5                                     | 10/02/2014  | 0 - 0.5 (ft)   | <b>31 J-</b>        | <b>26</b>       | <b>120</b> | <b>0.24</b> | <b>0.12</b> | <b>140</b> | <b>20</b>  | <b>23</b> | <b>1,400</b> | <b>0.055</b> | < 0.49      | <b>270</b> | < 0.98   | < 0.25 | < 0.49   | <b>33</b> | <b>40</b> |
|  | 10/02/2014  | 2 - 2.5 (ft)   | < 0.78              | <b>7.1</b>      | <b>160</b> | <b>0.28</b> | < 0.20      | <b>70</b>  | <b>12</b>  | <b>30</b> | <b>8.3</b>   | <b>0.04</b>  | <b>0.71</b> | <b>81</b>  | < 1.6    | < 0.39 | < 0.78   | <b>36</b> | <b>50</b> |
|  | 10/13/2014  | 4.5 - 5 (ft)   | -                   | -               | -          | -           | -           | -          | -          | -         | -            | -            | -           | -          | -        | -      | -        | -         | -         |
| NSC6                                     | 10/02/2014  | 0 - 0.5 (ft)   | <b>1.3 J-</b>       | <b>6.4</b>      | <b>150</b> | <b>0.3</b>  | < 0.10      | <b>55</b>  | <b>11</b>  | <b>23</b> | <b>27</b>    | <b>0.037</b> | <b>0.44</b> | <b>60</b>  | < 0.80   | < 0.20 | < 0.40   | <b>34</b> | <b>36</b> |
|  | 10/02/2014  | 2 - 2.5 (ft)   | <b>0.9</b>          | <b>6.6</b>      | <b>150</b> | <b>0.27</b> | < 0.12      | <b>57</b>  | <b>11</b>  | <b>27</b> | <b>6.3</b>   | <b>0.043</b> | <b>0.57</b> | <b>67</b>  | < 0.94   | < 0.24 | < 0.47   | <b>34</b> | <b>44</b> |
|  | 10/13/2014  | 4.5 - 5 (ft)   | -                   | -               | -          | -           | -           | -          | -          | -         | -            | -            | -           | -          | -        | -      | -        | -         | -         |
| NSC7                                     | 10/02/2014  | 0 - 0.5 (ft)   | <b>0.99 J-</b>      | <b>6.2</b>      | <b>160</b> | <b>0.31</b> | < 0.19      | <b>62</b>  | <b>11</b>  | <b>26</b> | <b>7.1</b>   | <b>0.025</b> | <b>0.45</b> | <b>69</b>  | < 1.5    | < 0.38 | < 0.77   | <b>37</b> | <b>39</b> |
|  | 10/02/2014  | 2 - 2.5 (ft)   | <b>0.8</b>          | <b>6.5</b>      | <b>180</b> | <b>0.24</b> | < 0.12      | <b>54</b>  | <b>11</b>  | <b>26</b> | <b>6.3</b>   | <b>0.033</b> | <b>0.64</b> | <b>70</b>  | < 0.94   | < 0.24 | < 0.47   | <b>31</b> | <b>44</b> |
| NSC8                                     | 10/02/2014  | 0 - 0.5 (ft)   | <b>3.5 J-</b>       | <b>5.5</b>      | <b>83</b>  | <b>0.1</b>  | <b>0.29</b> | <b>150</b> | <b>20</b>  | <b>17</b> | <b>590</b>   | <b>0.13</b>  | < 0.43      | <b>330</b> | < 1.7    | < 0.22 | < 0.43   | <b>22</b> | <b>37</b> |
|  | 10/02/2014  | 2 - 2.5 (ft)   | <b>1</b>            | <b>6.2</b>      | <b>270</b> | <b>0.33</b> | < 0.11      | <b>71</b>  | <b>11</b>  | <b>27</b> | <b>6.2</b>   | <b>0.045</b> | < 0.45      | <b>78</b>  | < 0.90   | < 0.23 | < 0.45   | <b>33</b> | <b>44</b> |
|  | 10/13/2014  | 4.5 - 5 (ft)   | -                   | -               | -          | -           | -           | -          | -          | -         | -            | -            | -           | -          | -        | -      | -        | -         | -         |
| NSC9                                     | 10/02/2014  | 0 - 0.5 (ft)   | <b>0.87 J-</b>      | <b>5.5</b>      | <b>180</b> | <b>0.29</b> | < 0.10      | <b>59</b>  | <b>10</b>  | <b>24</b> | <b>7.2</b>   | <b>0.037</b> | < 0.41      | <b>65</b>  | < 0.82   | < 0.20 | < 0.41   | <b>32</b> | <b>38</b> |
|  | 10/02/2014  | 2 - 2.5 (ft)   | <b>2.4</b>          | <b>6.1</b>      | <b>110</b> | <b>0.2</b>  | <b>0.15</b> | <b>56</b>  | <b>11</b>  | <b>22</b> | <b>110</b>   | <b>0.05</b>  | < 0.49      | <b>81</b>  | < 0.97   | < 0.24 | < 0.49   | <b>30</b> | <b>37</b> |
|  | 10/13/2014  | 4.5 - 5 (ft)   | -                   | -               | -          | -           | -           | -          | -          | -         | <b>8.5</b>   | -            | -           | -          | -        | -      | -        | -         | -         |
| NSC10                                    | 10/02/2014  | 0 - 0.5 (ft)   | <b>0.84 J-</b>      | <b>5.8</b>      | <b>160</b> | <b>0.3</b>  | < 0.12      | <b>62</b>  | <b>11</b>  | <b>25</b> | <b>7.3</b>   | <b>0.042</b> | < 0.48      | <b>68</b>  | < 0.95   | < 0.24 | < 0.48   | <b>33</b> | <b>40</b> |
|  | 10/02/2014  | 2 - 2.5 (ft)   | <b>0.77</b>         | <b>5.4</b>      | <b>140</b> | <b>0.27</b> | < 0.12      | <b>52</b>  | <b>11</b>  | <b>20</b> | <b>7.5</b>   | <b>0.026</b> | < 0.47      | <b>61</b>  | < 0.93   | < 0.23 | < 0.47   | <b>30</b> | <b>33</b> |
|  | 10/13/2014  | 4.5 - 5 (ft)   | -                   | -               | -          | -           | -           | -          | -          | -         | -            | -            | -           | -          | -        | -      | -        | -         | -         |

- Notes:
- Soil samples collected by Haley & Aldrich, Inc. and analyzed by Test America Laboratories, Inc., of Pleasanton, California, for Title 22 metals using EPA Method 6461B/7471A and PAHs using EPA Method 8270C with selective ion monitoring (SIM). Highlighted results exceed screening levels. Bold indicates a detected result.
  - Lowest (most conservative) value of the following residential screening levels:
    - Environmental Screening Levels (ESLs; Water Board, Update to Environmental Screening Levels, Table K-1, Direct Exposure Soil Screening Levels, Residential Exposure Scenario, December 2013).
    - Alternative Soil and Tapwater Screening Values (Cal-modified; DTSC Office of Human and Ecological Risk, 2013, HHRA Note 3.2)
    - Residential Soil Regional Screening Level (RSLs; USEPA, 2014).
  - Arsenic was evaluated by comparison to background value of 11 mg/kg.
  - ESLs for the protection of groundwater resources (Water Board, 2013, Update to Environmental Screening Levels, Table G, Soil Screening Levels for Leaching Concerns, Drinking Water Resource, December).
  - All carcinogenic PAHs are shown, only detected non-carcinogenic PAHs are shown.

Abbreviations: J = Estimated value. Quality control deficiencies have compromised result accuracy. mg/kg = milligrams per kilogram  
 Loc. = location R = result is rejected to data quality deficiencies  
 < = result not detected at the indicated analytical reporting limit J- = Estimated Biased Low - = Not Analyzed/ No action level  
 bgs = below ground surface J+ = Estimated Biased High

TABLE II - DRAFT

SUMMARY OF ANALYTICAL RESULTS - FORMER NEWARK SPORTSMAN'S CLUB  
GATEWAY STATION WEST  
NEWARK, CALIFORNIA

| Chemical Group | Polycyclic Aromatic Hydrocarbons <sup>5</sup> |                    |            |                    |                |                      |                      |                      |          |                       |              |          |                        |             |              |        |   |         |
|----------------|---|--------------------|------------|--------------------|----------------|----------------------|----------------------|----------------------|----------|-----------------------|--------------|----------|------------------------|-------------|--------------|--------|---|---------|
|                | Chemical Name                                 | Acenaphthene       | Anthracene | Benzo(a)anthracene | Benzo(a)pyrene | Benzo(b)fluoranthene | Benzo(g,h,i)perylene | Benzo(k)fluoranthene | Chrysene | Dibenz(a,h)anthracene | Fluoranthene | Fluorene | Indeno(1,2,3-cd)pyrene | Naphthalene | Phenanthrene | Pyrene | Benzo(A)Pyrene Equivalent (1/2 RL substituted for ND) |         |
| Units          | ug/kg   | ug/kg              | ug/kg      | ug/kg              | ug/kg          | ug/kg                | ug/kg                | ug/kg                | ug/kg    | ug/kg                 | ug/kg        | ug/kg    | ug/kg                  | ug/kg       | ug/kg        | ug/kg  | ug/kg   |         |
| Loc.           | Sample Date                                   | Sample Depth (bgs) |            |                    |                |                      |                      |                      |          |                       |              |          |                        |             |              |        |   |         |
|                | Residential Screening Level <sup>2</sup>      |                    | 3.40E+06   | 1.70E+07           | 150            | 15                   | 150                  | -                    | 380      | 3800                  | 15           | 2.30E+06 | 2.30E+06               | 150         | -            | -      | 1.70E+06  | 900     |
|                | Soil Leaching ESL <sup>4</sup>                |                    | 16000      | 2800               | 12000          | 130000               | 46000                | 27000                | 5100     | 23000                 | 9900         | 60000    | 8900                   | 15000       | 1200         | 11000  | 85000   | -       |
| NSC1           | 10/02/2014                                    | 0 - 0.5 (ft)       | < 5.0      | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0    | < 5.0                 | < 5.0        | < 5.0    | < 5.0                  | < 5.0       | < 5.0        | < 5.0  | < 5.0   | 4.38    |
|                | 10/02/2014                                    | 2 - 2.5 (ft)       | < 4.9      | < 4.9              | < 4.9          | < 4.9                | < 4.9                | < 4.9                | < 4.9    | < 4.9                 | < 4.9        | < 4.9    | < 4.9                  | < 4.9       | < 4.9        | < 4.9  | < 4.9   | 4.29    |
| NSC2           | 10/02/2014                                    | 0 - 0.5 (ft)       | < 4.9      | < 4.9              | < 4.9          | < 4.9                | < 4.9                | < 4.9                | < 4.9    | < 4.9                 | < 4.9        | < 4.9    | < 4.9                  | < 4.9       | < 4.9        | < 4.9  | < 4.9   | 4.29    |
|                | 10/02/2014                                    | 2 - 2.5 (ft)       | < 5.0      | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0    | < 5.0                 | < 5.0        | < 5.0    | < 5.0                  | < 5.0       | < 5.0        | < 5.0  | < 5.0   | 4.38    |
| NSC3           | 10/02/2014                                    | 0 - 0.5 (ft)       | < 5.0      | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0    | < 5.0                 | < 5.0        | < 5.0    | < 5.0                  | < 5.0       | < 5.0        | < 5.0  | < 5.0   | 4.38    |
|                | 10/02/2014                                    | 2 - 2.5 (ft)       | < 5.0      | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0    | < 5.0                 | < 5.0        | < 5.0    | < 5.0                  | < 5.0       | < 5.0        | < 5.0  | < 5.0   | 4.38    |
| NSC4           | 10/02/2014                                    | 0 - 0.5 (ft)       | < 4.9      | < 4.9              | 18             | 39                   | 41                   | 16                   | 19       | 19                    | 5.8          | 10       | < 4.9                  | 17          | < 4.9        | < 4.9  | 16  | 50.66   |
|                | 10/02/2014                                    | 2 - 2.5 (ft)       | < 5.0      | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0    | < 5.0                 | < 5.0        | < 5.0    | < 5.0                  | < 5.0       | < 5.0        | < 5.0  | < 5.0   | 4.38    |
| NSC5           | 10/02/2014                                    | 0 - 0.5 (ft)       | 2,500      | 2,600              | 9,300          | 22,000               | 13,000               | 12,000               | 16,000   | 13,000                | 4,900        | 9,700    | 1,600                  | 12,000      | 1,100        | 9,600  | 11,000  | 28,826  |
|                | 10/02/2014                                    | 2 - 2.5 (ft)       | < 5.0      | < 5.0              | 44             | 89                   | 99                   | 35                   | 41       | 45                    | 12           | 38       | < 5.0                  | 35          | < 5.0        | 9.2    | 46  | 115.43  |
|                | 10/13/2014                                    | 4.5 - 5 (ft)       | < 4.9      | < 4.9              | < 4.9          | < 4.9                | < 4.9                | < 4.9                | < 4.9    | < 4.9                 | < 4.9        | < 4.9    | < 4.9                  | < 4.9       | < 4.9        | < 4.9  | < 4.9   | 4.29    |
| NSC6           | 10/02/2014                                    | 0 - 0.5 (ft)       | 62         | 62                 | 370            | 690                  | 420                  | 440                  | 550      | 490                   | 160          | 450      | 11                     | 400         | < 9.9        | 180    | 470   | 923.3   |
|                | 10/02/2014                                    | 2 - 2.5 (ft)       | < 5.0      | 6                  | 45             | 49                   | 66                   | 16                   | 27       | 45                    | 6.8          | 62       | < 5.0                  | 16          | < 5.0        | 14     | 65  | 67.16   |
|                | 10/13/2014                                    | 4.5 - 5 (ft)       | < 4.9      | < 4.9              | < 4.9          | < 4.9                | < 4.9                | < 4.9                | < 4.9    | < 4.9                 | < 4.9        | < 4.9    | < 4.9                  | < 4.9       | < 4.9        | < 4.9  | < 4.9   | 4.29    |
| NSC7           | 10/02/2014                                    | 0 - 0.5 (ft)       | 30         | 23                 | 320            | 710                  | 430                  | 410                  | 530      | 440                   | 170          | 270      | < 10                   | 410         | < 10         | 65     | 330   | 941.2   |
|                | 10/02/2014                                    | 2 - 2.5 (ft)       | < 5.0      | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0    | < 5.0                 | < 5.0        | < 5.0    | < 5.0                  | < 5.0       | < 5.0        | < 5.0  | 5.2   | 4.38    |
| NSC8           | 10/02/2014                                    | 0 - 0.5 (ft)       | 28,000     | 19,000             | 200,000        | 370,000              | 240,000              | 180,000              | 270,000  | 260,000               | 71,000       | 170,000  | < 4,900                | 160,000     | 5,000        | 63,000 | 230,000   | 483,740 |
|                | 10/02/2014                                    | 2 - 2.5 (ft)       | 50         | 240                | 730            | 830                  | 660                  | 380                  | 660      | 870                   | 180          | 1,300    | 34                     | 390         | < 9.9        | 750    | 1,000   | 1,144   |
|                | 10/13/2014                                    | 4.5 - 5 (ft)       | < 5.0      | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0    | < 5.0                 | < 5.0        | < 5.0    | < 5.0                  | < 5.0       | < 5.0        | < 5.0  | < 5.0   | 4.38    |
| NSC9           | 10/02/2014                                    | 0 - 0.5 (ft)       | < 5.0      | < 5.0              | 6.2            | 12                   | 8.2                  | 8.8                  | 8.1      | 9.7                   | < 5.0        | 5.6      | < 5.0                  | 6.8         | < 5.0        | < 5.0  | 6.8   | 15.88   |
|                | 10/02/2014                                    | 2 - 2.5 (ft)       | 2,100      | 2,400              | 35,000         | 60,000               | 47,000               | 32,000               | 39,000   | 49,000                | 12,000       | 27,000   | < 990                  | 30,000      | < 990        | 8,200  | 37,000  | 79,670  |
|                | 10/13/2014                                    | 4.5 - 5 (ft)       | < 4.9      | < 4.9              | < 4.9          | < 4.9                | < 4.9                | < 4.9                | < 4.9    | < 4.9                 | < 4.9        | < 4.9    | < 4.9                  | < 4.9       | < 4.9        | < 4.9  | < 4.9   | 4.29    |
| NSC10          | 10/02/2014                                    | 0 - 0.5 (ft)       | < 5.0      | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0    | < 5.0                 | < 5.0        | < 5.0    | < 5.0                  | < 5.0       | < 5.0        | < 5.0  | < 5.0   | 4.38    |
|                | 10/02/2014                                    | 2 - 2.5 (ft)       | < 5.0      | 5.9                | 71             | 130                  | 66                   | 72                   | 56       | 110                   | 20           | 42       | < 5.0                  | 50          | < 5.0        | 22     | 69  | 162.2   |
|                | 10/13/2014                                    | 4.5 - 5 (ft)       | < 5.0      | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0    | < 5.0                 | < 5.0        | < 5.0    | < 5.0                  | < 5.0       | < 5.0        | < 5.0  | < 5.0   | 4.38    |

- Notes:
- Soil samples collected by Haley & Aldrich, Inc. and analyzed by Test America Laboratories, Inc., of Pleasanton, California, for Title 22 metals using EPA Method 6461B/7471A and PAHs using EPA Method 8270C with selective ion monitoring (SIM). **Bold** indicates a detected result. Highlighted results exceed screening levels.
  - Lowest (most conservative) value of the following residential screening levels:
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  - Arsenic was evaluated by comparison to background value of 11 mg/kg.
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  - All carcinogenic PAHs are shown, only detected non-carcinogenic PAHs are shown.

Abbreviations:

- = Not Analyzed/ No action level
- < = result not detected at the indicated analytical reporting limit
- bgs = below ground surface
- ESL = environmental screening level
- J = Estimated value. Quality control deficiencies have compromised result accuracy.
- J- = Estimated Biased Low
- J+ = Estimated Biased High
- Loc. = location
- mg/kg = milligrams per kilogram
- PAHs = polynuclear aromatic hydrocarbons
- R = result is rejected to data quality deficiencies

**TABLE III - DRAFT**  
 SUMMARY OF ANALYTICAL RESULTS - PISTOL RANGE  
 GATEWAY STATION WEST  
 NEWARK, CALIFORNIA

| Loc. | Sample Date | Sample Depth (bgs) | Chemical Group<br>Chemical Name<br>Units | Inorganic Compounds |                  |                 |                    |                  |                   |                 |                 |               |                  |                     |                 |                   |                 |                   |                   |               |
|------|-------------|--------------------|--|---------------------|------------------|-----------------|--------------------|------------------|-------------------|-----------------|-----------------|---------------|------------------|---------------------|-----------------|-------------------|-----------------|-------------------|-------------------|---------------|
|      |             |                    |  | Antimony<br>mg/kg   | Arsenic<br>mg/kg | Barium<br>mg/kg | Beryllium<br>mg/kg | Cadmium<br>mg/kg | Chromium<br>mg/kg | Cobalt<br>mg/kg | Copper<br>mg/kg | Lead<br>mg/kg | Mercury<br>mg/kg | Molybdenum<br>mg/kg | Nickel<br>mg/kg | Selenium<br>mg/kg | Silver<br>mg/kg | Thallium<br>mg/kg | Vanadium<br>mg/kg | Zinc<br>mg/kg |
|      |             |                    | Residential Screening Level <sup>2</sup> | 31                  | 11 <sup>3</sup>  | 15000           | 160                | 70               | 120000            | 23              | 3100            | 80            | 6.7              | 390                 | 1500            | 390               | 390             | 0.78              | 390               | 23000         |
|      |             |                    | Soil Leaching ESL <sup>4</sup>           | -                   | -                | -               | -                  | -                | -                 | -               | -               | -             | -                | -                   | -               | -                 | -               | -                 | -                 | -             |
| PR1  | 10/02/2014  | 0 - 0.5 (ft)       | 0.41 R                                   | <b>1.9</b>          | <b>70</b>        | < 0.081         | <b>0.11</b>        | <b>27</b>        | <b>12</b>         | <b>28</b>       | <b>10</b>       | <b>0.14</b>   | < 0.41 J         | <b>32</b>           | < 0.81          | < 0.20            | < 0.41          | <b>43</b>         | <b>43</b>         |               |
|      | 10/02/2014  | 2 - 2.5 (ft)       | < 0.50                                   | <b>6.2</b>          | <b>170</b>       | <b>0.3</b>      | < 0.12             | <b>61</b>        | <b>15</b>         | <b>27</b>       | <b>7.9</b>      | <b>0.028</b>  | <b>0.73</b>      | <b>74</b>           | < 0.99          | < 0.25            | < 0.50          | <b>39</b>         | <b>44</b>         |               |
| PR2  | 10/02/2014  | 0 - 0.5 (ft)       | 0.90 R                                   | <b>4.9</b>          | <b>160</b>       | <b>0.25</b>     | < 0.23             | <b>150</b>       | <b>21</b>         | <b>27</b>       | <b>9.5</b>      | <b>0.067</b>  | < 0.45 J         | <b>240</b>          | < 1.8           | < 0.45            | < 0.90          | <b>36</b>         | <b>49</b>         |               |
|      | 10/02/2014  | 2 - 2.5 (ft)       | < 0.80                                   | <b>7.5</b>          | <b>160</b>       | <b>0.31</b>     | < 0.20             | <b>89</b>        | <b>17</b>         | <b>36</b>       | <b>9.4</b>      | <b>0.033</b>  | <b>0.52</b>      | <b>120</b>          | < 1.6           | < 0.40            | < 0.80          | <b>46</b>         | <b>64</b>         |               |
| PR3  | 10/02/2014  | 0 - 0.5 (ft)       | 0.76 R                                   | <b>6.2</b>          | <b>170</b>       | <b>0.28</b>     | < 0.19             | <b>99</b>        | <b>14</b>         | <b>30</b>       | <b>7.9</b>      | <b>0.031</b>  | <b>0.77 J-</b>   | <b>120</b>          | < 1.5           | < 0.38            | < 0.76          | <b>45</b>         | <b>50</b>         |               |
|      | 10/02/2014  | 2 - 2.5 (ft)       | < 0.88                                   | <b>7.2</b>          | <b>320</b>       | <b>0.21</b>     | < 0.22             | <b>72</b>        | <b>13</b>         | <b>30</b>       | <b>7.4</b>      | <b>0.054</b>  | <b>0.65</b>      | <b>81</b>           | < 1.8           | < 0.44            | < 0.88          | <b>44</b>         | <b>53</b>         |               |
| PR4  | 10/02/2014  | 0 - 0.5 (ft)       | <b>1.6 J</b>                             | <b>2.8</b>          | <b>220</b>       | < 0.095         | < 0.24             | <b>660</b>       | <b>64</b>         | <b>31</b>       | <b>4.5</b>      | <b>0.025</b>  | < 0.48 J         | <b>1,200</b>        | < 1.9           | < 0.48            | < 0.95          | <b>41</b>         | <b>59</b>         |               |
|      | 10/02/2014  | 2 - 2.5 (ft)       | < 0.99                                   | <b>2.7</b>          | <b>150</b>       | < 0.099         | < 0.25             | <b>420</b>       | <b>39</b>         | <b>26</b>       | <b>4.6</b>      | <b>0.031</b>  | < 0.50           | <b>780</b>          | < 2.0           | < 0.50            | < 0.99          | <b>38</b>         | <b>49</b>         |               |
| PR5  | 10/02/2014  | 0 - 0.5 (ft)       | <b>1.5 J</b>                             | <b>2.5</b>          | <b>220</b>       | <b>0.1</b>      | < 0.22             | <b>560</b>       | <b>57</b>         | <b>28</b>       | <b>5.1</b>      | <b>0.03</b>   | < 0.45 J         | <b>990</b>          | < 1.8           | < 0.45            | < 0.89          | <b>38</b>         | <b>52</b>         |               |
|      | 10/02/2014  | 2 - 2.5 (ft)       | < 1.0                                    | <b>3.6</b>          | <b>200</b>       | <b>0.14</b>     | < 0.25             | <b>510</b>       | <b>47</b>         | <b>32</b>       | <b>5.5</b>      | <b>0.065</b>  | < 0.50           | <b>900</b>          | < 2.0           | < 0.50            | < 1.0           | <b>46</b>         | <b>58</b>         |               |
| PR8  | 10/02/2014  | 0 - 0.5 (ft)       | 0.94 R                                   | <b>3</b>            | <b>79</b>        | < 0.094         | < 0.24             | <b>200</b>       | <b>27</b>         | <b>41</b>       | <b>9.2</b>      | <b>0.13</b>   | < 0.47 J         | <b>310</b>          | < 1.9           | < 0.47            | < 0.94          | <b>47</b>         | <b>70</b>         |               |

**Notes:**

- Soil samples collected by Haley & Aldrich, Inc. and analyzed by Test America Laboratories, Inc., of Pleasanton, California, for Title 22 metals using EPA Method 6010B/7471A.  
**Bold** indicates a detected result. Highlighted results exceed screening levels.
- Lowest (most conservative) value of the following residential screening levels:  
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J = Estimated value. Quality control deficiencies have compromised result accuracy.  
 J- = Estimated Biased Low  
 J+ = Estimated Biased High

Loc. = location  
 mg/kg = milligrams per kilogram  
 R = result is rejected to data quality deficiencies

**TABLE IV - DRAFT**  
 SUMMARY OF ANALYTICAL RESULTS - E-1 DRAINAGE DITCH  
 GATEWAY STATION WEST  
 NEWARK, CALIFORNIA

| Loc.  | Sample Date | Sample Depth (bgs) | Chemical Group                           | Inorganic Compounds |                 |            |             |             |           |            |            |            |              |            |           |          |             |          | Other     | Semi-Volatile Organic Compounds <sup>5</sup> |               |      |
|-------|-------------|--------------------|--|---------------------|-----------------|------------|-------------|-------------|-----------|------------|------------|------------|--------------|------------|-----------|----------|-------------|----------|-----------|--|---------------|------|
|       |             |                    |  | Chemical Name       |                 |            |             |             |           |            |            |            |              |            |           |          |             |          |           |  |               |      |
|       |             |                    |  | Antimony            | Arsenic         | Barium     | Beryllium   | Cadmium     | Chromium  | Cobalt     | Copper     | Lead       | Mercury      | Molybdenum | Nickel    | Selenium | Silver      | Thallium |           |  | Vanadium      | Zinc |
| mg/kg | mg/kg       | mg/kg              | mg/kg                                    | mg/kg               | mg/kg           | mg/kg      | mg/kg       | mg/kg       | mg/kg     | mg/kg      | mg/kg      | mg/kg      | mg/kg        | mg/kg      | mg/kg     | mg/kg    | mg/kg       | pH units | mg/kg     |  |               |      |
|       |             |                    | Residential Screening Level <sup>2</sup> | 31                  | 11 <sup>3</sup> | 15000      | 160         | 70          | 120000    | 23         | 3100       | 80         | 6.7          | 390        | 1500      | 390      | 390         | 0.78     | 390       | 23000  | -             | -    |
|       |             |                    | Soil Leaching ESL <sup>4</sup>           | -                   | -               | -          | -           | -           | -         | -          | -          | -          | -            | -          | -         | -        | -           | -        | -         | -  | -             | 1.5  |
| E1    | 10/03/2014  | 0 - 0.5 (ft)       |  | < 0.86              | <b>7.3</b>      | <b>190</b> | <b>0.2</b>  | <b>0.22</b> | <b>74</b> | <b>14</b>  | <b>56</b>  | <b>21</b>  | <b>0.2</b>   | < 0.43     | <b>87</b> | < 1.7    | < 0.43      | < 0.86   | <b>42</b> | <b>73</b>                                    | <b>8.56</b>   | ND   |
|       | 10/03/2014  | 2 - 2.5 (ft)       |  | < 0.81              | <b>8.4</b>      | <b>170</b> | <b>0.22</b> | <b>0.2</b>  | <b>73</b> | <b>15</b>  | <b>57</b>  | <b>24</b>  | <b>0.18</b>  | < 0.41     | <b>89</b> | < 1.6    | < 0.41      | < 0.81   | <b>43</b> | <b>70</b>                                    | <b>8.66</b>   | ND   |
| E2    | 10/03/2014  | 0 - 0.5 (ft)       |  | <b>1.1</b>          | <b>10</b>       | <b>330</b> | <b>0.21</b> | <b>0.61</b> | <b>60</b> | <b>9.8</b> | <b>69</b>  | <b>39</b>  | <b>0.41</b>  | < 0.38     | <b>67</b> | < 1.5    | <b>0.67</b> | < 0.76   | <b>34</b> | <b>83</b>                                    | <b>8.01</b>   | ND   |
|       | 10/03/2014  | 2 - 2.5 (ft)       |  | < 0.66              | <b>9.1</b>      | <b>160</b> | <b>0.13</b> | < 0.17      | <b>66</b> | <b>12</b>  | <b>29</b>  | <b>7.1</b> | <b>0.044</b> | < 0.33     | <b>83</b> | < 1.3    | < 0.33      | < 0.66   | <b>35</b> | <b>53</b>                                    | <b>8.13</b>   | ND   |
| E3    | 10/03/2014  | 0 - 0.5 (ft)       |  | <b>5.7</b>          | <b>48</b>       | <b>300</b> | <b>0.13</b> | <b>5.7</b>  | <b>54</b> | <b>9.9</b> | <b>320</b> | <b>220</b> | <b>1.3</b>   | <b>4.6</b> | <b>53</b> | < 0.87   | <b>6.5</b>  | < 0.43   | <b>34</b> | <b>430</b>                                   | <b>6.96 J</b> | ND   |
|       | 10/03/2014  | 2 - 2.5 (ft)       |  | < 0.83              | <b>11</b>       | <b>130</b> | <b>0.21</b> | <b>0.22</b> | <b>70</b> | <b>14</b>  | <b>43</b>  | <b>16</b>  | <b>0.055</b> | < 0.41     | <b>87</b> | < 1.7    | < 0.41      | < 0.83   | <b>39</b> | <b>70</b>                                    | <b>7.94 J</b> | ND   |
| E4    | 10/03/2014  | 0 - 0.5 (ft)       |  | <b>2.3</b>          | <b>41</b>       | <b>150</b> | <b>0.12</b> | <b>0.83</b> | <b>48</b> | <b>5.2</b> | <b>220</b> | <b>170</b> | <b>2.9</b>   | <b>2</b>   | <b>33</b> | < 0.73   | <b>4.1</b>  | < 0.36   | <b>20</b> | <b>320</b>                                   | <b>7.03 J</b> | ND   |
|       | 10/03/2014  | 2 - 2.5 (ft)       |  | < 0.89              | <b>11</b>       | <b>170</b> | <b>0.16</b> | < 0.22      | <b>69</b> | <b>13</b>  | <b>30</b>  | <b>7.8</b> | <b>0.078</b> | < 0.45     | <b>87</b> | < 1.8    | < 0.45      | < 0.89   | <b>39</b> | <b>55</b>                                    | <b>8.41 J</b> | ND   |
| E5    | 10/03/2014  | 0 - 0.5 (ft)       |  | <b>2.3</b>          | <b>25</b>       | <b>230</b> | <b>0.13</b> | <b>2.2</b>  | <b>46</b> | <b>6.2</b> | <b>140</b> | <b>72</b>  | <b>1.2</b>   | <b>2.9</b> | <b>38</b> | < 0.81   | <b>3.3</b>  | < 0.40   | <b>23</b> | <b>380</b>                                   | <b>7.02 J</b> | ND   |
|       | 10/03/2014  | 2 - 2.5 (ft)       |  | < 0.52              | <b>7</b>        | <b>140</b> | <b>0.18</b> | <b>0.28</b> | <b>63</b> | <b>14</b>  | <b>31</b>  | <b>8.5</b> | <b>0.041</b> | <b>0.4</b> | <b>80</b> | < 1.0    | < 0.26      | < 0.52   | <b>36</b> | <b>60</b>                                    | <b>7.6 J</b>  | ND   |

**Notes:**

- Soil samples collected by Haley & Aldrich, Inc. and analyzed by Test America Laboratories, Inc., of Pleasanton, California, for Title 22 metals using EPA Method 6010B/7471A, pH using EPA Method 9045, SVOCs using EPA Method 8270C, PAHs using EPA Method 8270c with selective ion monitoring (SIM), total petroleum hydrocarbons quantified as diesel and motor oil using EPA Method 8015M, and VOCs using EPA Method 8260B. **Bold** indicates a detected result. Highlighted results exceed screening levels.
- Lowest (most conservative) value of the following residential screening levels:
  - Environmental Screening Levels (ESLs; Water Board, Update to Environmental Screening Levels, Table K-1, Direct Exposure Soil Screening Levels, Residential Exposure Scenario, December 2013).
  - Alternative Soil and Tapwater Screening Values (Cal-modified; DTSC Office of Human and Ecological Risk, 2013, HHRA Note 3.2)
  - Residential Soil Regional Screening Level (RSLs; USEPA, 2014).
- Arsenic was evaluated by comparison to background value of 11 mg/kg.
- ESLs for the protection of groundwater resources (Water Board, 2013, Update to Environmental Screening Levels, Table G, Soil Screening Levels for Leaching Concerns, Drinking Water Resource, December).
- Only detected analytes shown.
- All carcinogenic PAHs are shown, only detected non-carcinogenic PAHs are shown.

**Abbreviations:**

|   |   |   |
|---|---|---|
| - = Not Analyzed/ No action level                                   | J = Estimated value. Quality control deficiencies have compromised result accuracy. | mg/kg = milligrams per kilogram                     |
| < = result not detected at the indicated analytical reporting limit | J- = Estimated Biased Low   | ug/kg = micrograms per kilogram                     |
| bgs = below ground surface  | J+ = Estimated Biased High  | R = result is rejected to data quality deficiencies |
| ND = Not detected   | Loc. = location   | SVOCs = semivolatile organic compounds              |
|   |   | VOCs = volatile organic compounds                   |

**TABLE IV - DRAFT**  
 SUMMARY OF ANALYTICAL RESULTS - E-1 DRAINAGE DITCH  
 GATEWAY STATION WEST  
 NEWARK, CALIFORNIA

| Loc. | Sample Date                              | Units<br>Sample Depth (bgs) | Polycyclic Aromatic Hydrocarbons <sup>6</sup> |                    |                |                      |                      |                      |          |                       |              |                        |              | Total Petroleum Hydrocarbons |   |  | Volatile Organic Compounds <sup>5</sup>           |   |              |                  |
|------|--|-----------------------------|---|--------------------|----------------|----------------------|----------------------|----------------------|----------|-----------------------|--------------|------------------------|--------------|------------------------------|---|--|---|---|--------------|------------------|
|      |  |                             | Chemical Name                                 | Benzo(a)anthracene | Benzo(a)pyrene | Benzo(b)fluoranthene | Benzo(g,h,i)perylene | Benzo(k)fluoranthene | Chrysene | Dibenz(a,h)anthracene | Fluoranthene | Indeno(1,2,3-cd)pyrene | Phenanthrene | Pyrene                       | Benzo(A)Pyrene Equivalent (1/2 RL substituted for ND) | Total Petroleum Hydrocarbons, Diesel (C10-C28) | Total Petroleum Hydrocarbons, Motor Oil (C24-C36) | Total Petroleum Hydrocarbons, gasoline (C5-C12) | Acetone      | Carbon disulfide |
|      |  |                             | ug/kg   | ug/kg              | ug/kg          | ug/kg                | ug/kg                | ug/kg                | ug/kg    | ug/kg                 | ug/kg        | ug/kg                  | ug/kg        | ug/kg                        | ug/kg   | mg/kg  | mg/kg   | ug/kg   | ug/kg        | ug/kg            |
|      | Residential Screening Level <sup>2</sup> |                             | 150   | 15                 | 150            | -                    | 380                  | 3800                 | 15       | 2.30E+06              | 150          | -                      | 1.70E+06     | 900                          | 110   | 2500   | 82000   | 60000   | 770          |                  |
|      | Soil Leaching ESL <sup>4</sup>           |                             | 12000   | 130000             | 46000          | 27000                | 5100                 | 23000                | 9900     | 60000                 | 15000        | 11000                  | 85000        | -                            | 570   | -  | 770000  | 500   | -            |                  |
| E1   | 10/03/2014 0 - 0.5 (ft)                  |                             | < 4.9   | < 4.9              | <b>7.2</b>     | < 4.9                | < 4.9                | <b>5.1</b>           | < 4.9    | <b>5.5</b>            | < 4.9        | < 4.9                  | <b>5.5</b>   | <b>8.81</b>                  | <b>54</b>   | <b>120</b>                                     | < 250   | < 51  | < 5.1        |                  |
|      | 10/03/2014 2 - 2.5 (ft)                  |                             | < 5.0   | < 5.0              | <b>5.5</b>     | < 5.0                | < 5.0                | < 5.0                | < 5.0    | < 5.0                 | < 5.0        | < 5.0                  | < 5.0        | <b>8.8</b>                   | <b>60</b>   | <b>110</b>                                     | < 280   | < 57  | < 5.7        |                  |
| E2   | 10/03/2014 0 - 0.5 (ft)                  |                             | < 9.9   | <b>13</b>          | <b>22</b>      | < 9.9                | < 9.9                | < 9.9                | < 9.9    | < 9.9                 | <b>10</b>    | < 9.9                  | <b>22</b>    | <b>21.64</b>                 | <b>810 J-</b>   | <b>920 J-</b>                                  | < 190   | < 38  | < 3.8        |                  |
|      | 10/03/2014 2 - 2.5 (ft)                  |                             | < 4.9   | < 4.9              | < 4.9          | < 4.9                | < 4.9                | < 4.9                | < 4.9    | < 4.9                 | < 4.9        | < 4.9                  | < 4.9        | <b>4.29</b>                  | <b>1.9</b>  | < 50   | < 190   | < 37  | < 3.7        |                  |
| E3   | 10/03/2014 0 - 0.5 (ft)                  |                             | < 50  | <b>50</b>          | <b>90</b>      | < 50                 | < 50                 | <b>65</b>            | < 50     | < 50                  | < 50         | < 50                   | <b>98</b>    | <b>91.65</b>                 | <b>2,700</b>  | <b>2,600</b>                                   | < 230   | < 46  | < 4.6        |                  |
|      | 10/03/2014 2 - 2.5 (ft)                  |                             | < 5.0   | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0    | < 5.0                 | < 5.0        | < 5.0                  | < 5.0        | <b>4.38</b>                  | <b>19</b>   | < 50   | < 200   | < 41  | < 4.1        |                  |
| E4   | 10/03/2014 0 - 0.5 (ft)                  |                             | <b>35</b>                                     | <b>61</b>          | <b>110</b>     | <b>40</b>            | <b>39</b>            | <b>75</b>            | < 25     | <b>59</b>             | <b>42</b>    | <b>52</b>              | <b>110</b>   | <b>92.85</b>                 | <b>2,600</b>  | <b>2,600</b>                                   | < 260 J   | <b>87 J-</b>                                    | < 5.3 J      |                  |
|      | 10/03/2014 2 - 2.5 (ft)                  |                             | < 5.0   | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0    | < 5.0                 | < 5.0        | < 5.0                  | < 5.0        | <b>4.38</b>                  | <b>99</b>   | <b>100</b>                                     | < 200   | < 40  | < 4.0        |                  |
| E5   | 10/03/2014 0 - 0.5 (ft)                  |                             | <b>10</b>                                     | <b>19</b>          | <b>29</b>      | <b>11</b>            | <b>13</b>            | <b>16</b>            | < 5.0    | <b>24</b>             | <b>12</b>    | <b>11</b>              | <b>25</b>    | <b>27.26</b>                 | <b>370 J-</b>   | <b>410 J-</b>                                  | < 270   | <b>140 J+</b>                                   | <b>18 J+</b> |                  |
|      | 10/03/2014 2 - 2.5 (ft)                  |                             | < 4.9   | < 4.9              | < 4.9          | < 4.9                | < 4.9                | < 4.9                | < 4.9    | < 4.9                 | < 4.9        | < 4.9                  | < 4.9        | <b>4.29</b>                  | <b>66</b>   | <b>80</b>                                      | < 180   | < 35  | < 3.5        |                  |

**Notes:**

- Soil samples collected by Haley & Aldrich, Inc. and analyzed by Test America Laboratories, Inc., of Pleasanton, California, for Title 22 metals using EPA Method 6010B/7471A, pH using EPA Method 9045, SVOCs using EPA Method 8270C, PAHs using EPA Method 8270c with selective ion monitoring (SIM), total petroleum hydrocarbons quantified as diesel and motor oil using EPA Method 8015M, and VOCs using EPA Method 8260B. Highlighted results exceed screening levels. **Bold** indicates a detected result.
- Lowest (most conservative) value of the following residential screening levels:
  - Environmental Screening Levels (ESLs; Water Board, Update to Environmental Screening Levels, Table K-1, Direct Exposure Soil Screening Levels, Residential Exposure Scenario, December 2013).
  - Alternative Soil and Tapwater Screening Values (Cal-modified; DTSC Office of Human and Ecological Risk, 2013, HHRA Note 3.2)
  - Residential Soil Regional Screening Level (RSLs; USEPA, 2014).
- Arsenic was evaluated by comparison to background value of 11 mg/kg.
- ESLs for the protection of groundwater resources (Water Board, 2013, Update to Environmental Screening Levels, Table G, Soil Screening Levels for Leaching Concerns, Drinking Water Resource, December).
- Only detected analytes shown.
- All carcinogenic PAHs are shown, only detected non-carcinogenic PAHs are shown.

**Abbreviations:**

|   |   |   |
|---|---|---|
| - = Not Analyzed/ No action level                                   | J = Estimated value. Quality control deficiencies have compromised result accuracy. | mg/kg = milligrams per kilogram                     |
| < = result not detected at the indicated analytical reporting limit | J- = Estimated Biased Low   | ug/kg = micrograms per kilogram                     |
| bgs = below ground surface  | J+ = Estimated Biased High  | R = result is rejected to data quality deficiencies |
| ND = Not detected   | Loc. = location   | SVOCs = semivolatile organic compounds              |
|   |   | VOCs = volatile organic compounds                   |

**TABLE V - DRAFT**

SUMMARY OF ANALYTICAL RESULTS - EVAPORATION POND <sup>1</sup>  
 GATEWAY STATION WEST  
 NEWARK, CALIFORNIA

| Loc. | Sample Date | Chemical Group<br>Chemical Name<br>Units<br>Sample Depth (bgs) | Inorganic Compounds |                  |                 |                    |                  |                   |                 |                 |               |                  |                     |                 |                   |                 |                   |                   | pH (lab)<br>pH units |               |
|------|-------------|--|---------------------|------------------|-----------------|--------------------|------------------|-------------------|-----------------|-----------------|---------------|------------------|---------------------|-----------------|-------------------|-----------------|-------------------|-------------------|----------------------|---------------|
|      |             |  | Antimony<br>mg/kg   | Arsenic<br>mg/kg | Barium<br>mg/kg | Beryllium<br>mg/kg | Cadmium<br>mg/kg | Chromium<br>mg/kg | Cobalt<br>mg/kg | Copper<br>mg/kg | Lead<br>mg/kg | Mercury<br>mg/kg | Molybdenum<br>mg/kg | Nickel<br>mg/kg | Selenium<br>mg/kg | Silver<br>mg/kg | Thallium<br>mg/kg | Vanadium<br>mg/kg |                      | Zinc<br>mg/kg |
|      |             | Residential Screening Level <sup>2</sup>                       | 31                  | 11 <sup>3</sup>  | 15000           | 160                | 70               | 120000            | 23              | 3100            | 80            | 6.7              | 390                 | 1500            | 390               | 390             | 0.78              | 390               | 23000                | -             |
|      |             | Soil Leaching ESL <sup>4</sup>                                 | -                   | -                | -               | -                  | -                | -                 | -               | -               | -             | -                | -                   | -               | -                 | -               | -                 | -                 | -                    | -             |
| EP1  | 10/03/2014  | 0 - 0.5 (ft)   | 1.8 R               | <b>1.9</b>       | <b>13</b>       | < 0.071            | < 0.089          | <b>10</b>         | <b>1.9</b>      | <b>8.6</b>      | <b>9.3</b>    | < 0.0090         | < 0.36              | <b>15</b>       | < 3.6             | < 0.18          | < 0.36 J          | <b>5.6</b>        | <b>10</b>            | <b>9.4</b>    |
|      | 10/03/2014  | 2 - 2.5 (ft)   | < 2.4               | < 0.95           | <b>0.55</b>     | < 0.095            | < 0.12           | < 0.48            | < 0.19          | < 7.1           | < 0.48        | < 0.0085         | < 0.48              | < 2.4           | < 4.8             | < 0.24          | < 0.48            | < 0.48            | < 1.4                | <b>8.82</b>   |
| EP2  | 10/03/2014  | 0 - 0.5 (ft)   | 0.82 R              | <b>2.6</b>       | <b>25</b>       | < 0.082            | < 0.10           | <b>26</b>         | <b>4.8</b>      | <b>12</b>       | <b>8.9</b>    | <b>0.068</b>     | < 0.41              | <b>35</b>       | < 1.6             | < 0.20          | < 0.41 J          | <b>14</b>         | <b>22</b>            | <b>9.38</b>   |
|      | 10/03/2014  | 2 - 2.5 (ft)   | < 0.48              | <b>4.6</b>       | <b>140</b>      | <b>0.13</b>        | < 0.12           | <b>52</b>         | <b>11</b>       | <b>19</b>       | <b>5.2</b>    | <b>0.069</b>     | <b>0.53</b>         | <b>59</b>       | < 0.95            | < 0.24          | < 0.48            | <b>30</b>         | <b>35</b>            | <b>8.51</b>   |
| EP3  | 10/03/2014  | 0 - 0.5 (ft)   | 0.91 R              | <b>8.4</b>       | <b>180</b>      | <b>0.26</b>        | < 0.23           | <b>76</b>         | <b>12</b>       | <b>30</b>       | <b>7.7</b>    | <b>0.038</b>     | <b>0.54</b>         | <b>85</b>       | < 1.8             | < 0.45          | < 0.91 J          | <b>42</b>         | <b>58</b>            | <b>7.89</b>   |
|      | 10/03/2014  | 2 - 2.5 (ft)   | < 0.45              | <b>5.5</b>       | <b>140</b>      | <b>0.16</b>        | <b>0.13</b>      | <b>53</b>         | <b>12</b>       | <b>25</b>       | <b>5.9</b>    | <b>0.031</b>     | < 0.45              | <b>62</b>       | < 0.91            | < 0.23          | < 0.45            | <b>35</b>         | <b>38</b>            | <b>8.18</b>   |
| EP4  | 10/03/2014  | 0 - 0.5 (ft)   | 0.48 R              | <b>6.5</b>       | <b>110</b>      | <b>0.29</b>        | < 0.12           | <b>57</b>         | <b>12</b>       | <b>27</b>       | <b>7.1</b>    | <b>0.027</b>     | < 0.48              | <b>67</b>       | < 0.95            | < 0.24          | < 0.48 J          | <b>38</b>         | <b>43</b>            | <b>7.81</b>   |
|      | 10/03/2014  | 2 - 2.5 (ft)   | < 3.7               | <b>7.6</b>       | <b>160</b>      | < 0.74             | < 0.92           | <b>80</b>         | <b>16</b>       | <b>33</b>       | <b>9.4</b>    | <b>0.018</b>     | < 3.7               | <b>100</b>      | < 7.4             | < 1.8           | < 3.7             | <b>45</b>         | <b>62</b>            | <b>7.3</b>    |
| EP5  | 10/03/2014  | 0 - 0.5 (ft)   | 2.2 R               | <b>4.3</b>       | <b>75</b>       | < 0.088            | <b>0.11</b>      | <b>25</b>         | <b>5.8</b>      | <b>19</b>       | <b>12</b>     | <b>0.034</b>     | < 0.44              | <b>33</b>       | < 4.4             | < 0.22          | < 0.44 J          | <b>23</b>         | <b>29</b>            | <b>8.98</b>   |
|      | 10/03/2014  | 2 - 2.5 (ft)   | < 1.7               | < 0.68           | <b>1.9</b>      | < 0.068            | < 0.084          | <b>0.49</b>       | <b>0.16</b>     | < 5.1           | <b>1.5</b>    | < 0.0095         | <b>0.4</b>          | < 1.7           | < 3.4             | < 0.17          | < 0.34            | <b>0.55</b>       | <b>2.4</b>           | <b>8.19</b>   |
| EP6  | 10/03/2014  | 0 - 0.5 (ft)   | 1.9 R               | < 0.95           | <b>5.3</b>      | < 0.095            | < 0.12           | <b>0.58</b>       | < 0.19          | < 5.7           | <b>1.6</b>    | < 0.0087         | < 0.48              | < 1.9           | < 3.8             | < 0.24          | < 0.48 J          | < 0.48            | <b>1.7</b>           | <b>9.51</b>   |
|      | 10/03/2014  | 2 - 2.5 (ft)   | < 8.3               | < 3.3            | <b>65</b>       | < 0.33             | < 0.42           | < 1.7             | < 0.67          | < 25            | <b>3.8</b>    | < 0.0088         | < 1.7               | < 8.3           | < 17              | < 0.83          | < 1.7             | <b>2.2</b>        | < 5.0                | <b>9.26</b>   |
| EP7  | 10/03/2014  | 0 - 0.5 (ft)   | 2.0 R               | < 3.9            | <b>28</b>       | < 0.39             | < 0.49           | <b>2.7</b>        | < 0.78          | <b>13</b>       | <b>6.1</b>    | <b>0.11</b>      | < 2.0               | <b>3.1</b>      | < 3.9             | < 0.98          | < 2.0 J           | <b>2.6</b>        | <b>6.4</b>           | <b>9.4</b>    |
|      | 10/03/2014  | 2 - 2.5 (ft)   | < 8.8               | <b>2.7</b>       | <b>38</b>       | < 0.088            | < 0.11           | <b>3.6</b>        | <b>0.67</b>     | <b>31</b>       | <b>19</b>     | <b>0.58</b>      | <b>0.46</b>         | < 8.8           | < 18              | < 0.22          | < 0.44            | <b>5</b>          | <b>13</b>            | <b>9.39</b>   |
| EP8  | 10/03/2014  | 0 - 0.5 (ft)   | 2.0 R               | <b>3.1</b>       | <b>51</b>       | < 0.098            | < 0.12           | <b>6.3</b>        | <b>1.9</b>      | <b>29</b>       | <b>11</b>     | <b>0.13</b>      | < 0.49              | <b>9.5</b>      | < 3.9             | < 0.25          | < 0.49 J          | <b>7.6</b>        | <b>12</b>            | <b>9.33</b>   |
|      | 10/03/2014  | 2 - 2.5 (ft)   | < 0.38              | <b>4</b>         | <b>140</b>      | <b>0.29</b>        | <b>0.69</b>      | <b>46</b>         | <b>11</b>       | <b>22</b>       | <b>5.3</b>    | <b>0.047</b>     | < 0.38              | <b>48</b>       | < 0.75            | < 0.19          | < 0.38            | <b>34</b>         | <b>33</b>            | <b>7.52</b>   |

**Notes:**

- Soil samples collected by Haley & Aldrich, Inc. and analyzed by Test America Laboratories, Inc., of Pleasanton, California, for Title 22 metals using EPA Method 6010B/7471A and pH using EPA Method 9045. **Bold** indicates a detected result. Highlighted results exceed screening levels.
- Lowest (most conservative) value of the following residential screening levels:
  - Environmental Screening Levels (ESLs; Water Board, Update to Environmental Screening Levels, Table K-1, Direct Exposure Soil Screening Levels, Residential Exposure Scenario, December 2013).
  - Alternative Soil and Tapwater Screening Values (Cal-modified; DTSC Office of Human and Ecological Risk, 2013, HHRA Note 3.2)
  - Residential Soil Regional Screening Level (RSLs; USEPA, 2014).
- Arsenic was evaluated by comparison to background value of 11 mg/kg.
- ESLs for the protection of groundwater resources (Water Board, 2013, Update to Environmental Screening Levels, Table G, Soil Screening Levels for Leaching Concerns, Drinking Water Resource, December).

**Abbreviations:**

- = Not Analyzed/ No action level  
 < = result not detected at the indicated analytical reporting limit  
 bgs = below ground surface  
 ESLs = environmental screening levels

J = Estimated value. Quality control deficiencies have compromised result accuracy.  
 J- = Estimated Biased Low  
 J+ = Estimated Biased High

Loc. = location  
 mg/kg = milligrams per kilogram  
 R = result is rejected to data quality deficiencies

**TABLE VI - DRAFT**  
 SUMMARY OF ANALYTICAL RESULTS - DETENTION BASIN<sup>1</sup>  
 GATEWAY STATION WEST  
 NEWARK, CALIFORNIA

| Loc. | Sample Date | Sample Depth (bgs) | Chemical Group                           | Inorganic Compounds |                 |            |             |           |           |           |           |            |              |         |            |        |          |        | Other     | Semi-Volatile Organic Compounds |             |          |       |          |       |
|------|-------------|--------------------|--|---------------------|-----------------|------------|-------------|-----------|-----------|-----------|-----------|------------|--------------|---------|------------|--------|----------|--------|-----------|---------------------------------|-------------|----------|-------|----------|-------|
|      |             |                    |  | Chemical Name       | Antimony        | Arsenic    | Barium      | Beryllium | Cadmium   | Chromium  | Cobalt    | Copper     | Lead         | Mercury | Molybdenum | Nickel | Selenium | Silver |           |                                 | Thallium    | Vanadium | Zinc  | pH (lab) | SVOCs |
|      |             |                    |  | Units               | mg/kg           | mg/kg      | mg/kg       | mg/kg     | mg/kg     | mg/kg     | mg/kg     | mg/kg      | mg/kg        | mg/kg   | mg/kg      | mg/kg  | mg/kg    | mg/kg  |           |                                 | mg/kg       | mg/kg    | mg/kg | pH units | mg/kg |
|      |             |                    | Residential Screening Level <sup>2</sup> | 31                  | 11 <sup>3</sup> | 15000      | 160         | 70        | 120000    | 23        | 3100      | 80         | 6.7          | 390     | 1500       | 390    | 390      | 0.78   | 390       | 23000                           | -           | -        |       |          |       |
|      |             |                    | Soil Leaching ESL <sup>4</sup>           | -                   | -               | -          | -           | -         | -         | -         | -         | -          | -            | -       | -          | -      | -        | -      | -         | -                               | -           | 27       |       |          |       |
| DB1  | 10/06/2014  | 0 - 0.5 (ft)       |  | < 2.0               | < 3.9           | <b>260</b> | < 0.39      | < 0.49    | <b>82</b> | <b>24</b> | <b>34</b> | < 2.0      | <b>0.058</b> | < 2.0   | <b>82</b>  | < 3.9  | < 0.98   | < 2.0  | <b>94</b> | <b>67</b>                       | <b>8.16</b> | ND       |       |          |       |
|      | 10/06/2014  | 2 - 2.5 (ft)       |  | < 1.8               | <b>9</b>        | <b>240</b> | < 0.36      | < 0.45    | <b>86</b> | <b>16</b> | <b>59</b> | <b>23</b>  | <b>0.27</b>  | < 1.8   | <b>120</b> | < 3.6  | < 0.90   | < 1.8  | <b>46</b> | <b>98</b>                       | <b>8.65</b> | ND       |       |          |       |
|      | 10/08/2014  | 4.5 - 5 (ft)       |  | < 1.8               | <b>8.6</b>      | <b>160</b> | < 0.36      | < 0.45    | <b>81</b> | <b>15</b> | <b>45</b> | <b>16</b>  | <b>0.13</b>  | < 1.8   | <b>100</b> | < 3.6  | < 0.90   | < 1.8  | <b>45</b> | <b>68</b>                       | <b>8.18</b> | ND       |       |          |       |
| DB2  | 10/06/2014  | 0 - 0.5 (ft)       |  | < 1.9               | < 3.8           | <b>170</b> | < 0.38      | < 0.47    | <b>81</b> | <b>16</b> | <b>28</b> | < 1.9      | <b>0.13</b>  | < 1.9   | <b>72</b>  | < 3.8  | < 0.94   | < 1.9  | <b>72</b> | <b>48</b>                       | <b>7.88</b> | ND       |       |          |       |
|      | 10/06/2014  | 2 - 2.5 (ft)       |  | < 2.0               | <b>8.7</b>      | <b>180</b> | < 0.40      | < 0.50    | <b>73</b> | <b>13</b> | <b>51</b> | <b>18</b>  | <b>0.27</b>  | < 2.0   | <b>100</b> | < 4.0  | < 1.0    | < 2.0  | <b>39</b> | <b>67</b>                       | <b>8.67</b> | ND       |       |          |       |
|      | 10/08/2014  | 4.5 - 5 (ft)       |  | < 1.8               | <b>7.6</b>      | <b>160</b> | <b>0.36</b> | < 0.44    | <b>85</b> | <b>17</b> | <b>37</b> | <b>9.9</b> | <b>0.03</b>  | < 1.8   | <b>100</b> | < 3.5  | < 0.88   | < 1.8  | <b>47</b> | <b>59</b>                       | <b>8.17</b> | ND       |       |          |       |
| DB3  | 10/06/2014  | 0 - 0.5 (ft)       |  | < 1.8               | < 3.6           | <b>170</b> | < 0.36      | < 0.45    | <b>77</b> | <b>21</b> | <b>31</b> | < 1.8      | <b>0.11</b>  | < 1.8   | <b>79</b>  | < 3.6  | < 0.89   | < 1.8  | <b>81</b> | <b>57</b>                       | <b>7.81</b> | ND       |       |          |       |
|      | 10/06/2014  | 2 - 2.5 (ft)       |  | < 1.9               | <b>11</b>       | <b>370</b> | < 0.39      | < 0.49    | <b>92</b> | <b>26</b> | <b>41</b> | <b>9.8</b> | <b>0.099</b> | < 1.9   | <b>100</b> | < 3.9  | < 0.97   | < 1.9  | <b>60</b> | <b>65</b>                       | <b>8.45</b> | ND       |       |          |       |
|      | 10/08/2014  | 4.5 - 5 (ft)       |  | < 1.6               | <b>8.3</b>      | <b>220</b> | <b>0.43</b> | < 0.40    | <b>85</b> | <b>16</b> | <b>36</b> | <b>9.4</b> | <b>0.028</b> | < 1.6   | <b>100</b> | < 3.2  | < 0.79   | < 1.6  | <b>48</b> | <b>59</b>                       | <b>8.43</b> | ND       |       |          |       |
| DB4  | 10/06/2014  | 0 - 0.5 (ft)       |  | < 1.8               | <b>8.2</b>      | <b>260</b> | < 0.37      | < 0.46    | <b>85</b> | <b>19</b> | <b>82</b> | <b>31</b>  | <b>0.34</b>  | < 1.8   | <b>88</b>  | < 3.7  | < 0.92   | < 1.8  | <b>61</b> | <b>110</b>                      | <b>7.96</b> | ND       |       |          |       |
|      | 10/06/2014  | 2 - 2.5 (ft)       |  | < 1.8               | <b>9.4</b>      | <b>170</b> | < 0.36      | < 0.45    | <b>85</b> | <b>16</b> | <b>37</b> | <b>5.6</b> | <b>0.033</b> | < 1.8   | <b>97</b>  | < 3.6  | < 0.91   | < 1.8  | <b>51</b> | <b>62</b>                       | <b>8.15</b> | ND       |       |          |       |
|      | 10/08/2014  | 4.5 - 5 (ft)       |  | < 1.6               | <b>6.9</b>      | <b>200</b> | <b>0.36</b> | < 0.41    | <b>84</b> | <b>16</b> | <b>35</b> | <b>9.4</b> | <b>0.036</b> | < 1.6   | <b>100</b> | < 3.3  | < 0.82   | < 1.6  | <b>45</b> | <b>58</b>                       | <b>7.94</b> | ND       |       |          |       |

**Notes:**

- Soil samples collected by Haley & Aldrich, Inc. and analyzed by Test America Laboratories, Inc., of Pleasanton, California, for Title 22 metals using EPA Method 6010B/7471A, pH using EPA Method 9045, SVOCs using EPA Method 8270C, PAHs using EPA Method 8270c with selective ion monitoring (SIM), total petroleum hydrocarbons (TPH) quantified as diesel and motor oil using EPA Method 8015M, and TPH quantified as gasoline using EPA Method 8260B. **Bold** indicates a detected result. Highlighted results exceed screening levels.
- Lowest (most conservative) value of the following residential screening levels:
  - Environmental Screening Levels (ESLs; Water Board, Update to Environmental Screening Levels, Table K-1, Direct Exposure Soil Screening Levels, Residential Exposure Scenario, December 2013).
  - Alternative Soil and Tapwater Screening Values (Cal-modified; DTSC Office of Human and Ecological Risk, 2013, HHRA Note 3.2)
  - Residential Soil Regional Screening Level (RSLs; USEPA, 2014).
- Arsenic was evaluated by comparison to background value of 11 mg/kg.
- ESLs for the protection of groundwater resources (Water Board, 2013, Update to Environmental Screening Levels, Table G, Soil Screening Levels for Leaching Concerns, Drinking Water Resource, December).

**Abbreviations:**

|   |   |   |
|---|---|---|
| - = Not Analyzed/ No action level                                   | J = Estimated value. Quality control deficiencies have compromised result accuracy. | mg/kg = milligrams per kilogram                     |
| < = result not detected at the indicated analytical reporting limit | J- = Estimated Biased Low   | ug/kg = micrograms per kilogram                     |
| bgs = below ground surface  | J+ = Estimated Biased High  | R = result is rejected to data quality deficiencies |
| Loc. = location   | SVOCs = semivolatile organic compounds  | PAHs = polynuclear aromatic hydrocarbons            |
| ESLs = environmental screening levels                               |   |   |

**TABLE VI - DRAFT**  
 SUMMARY OF ANALYTICAL RESULTS - DETENTION BASIN<sup>1</sup>  
 GATEWAY STATION WEST  
 NEWARK, CALIFORNIA

| Chemical Group                           | Polycyclic Aromatic Hydrocarbons |                    |                |                      |                      |                      |            |                       |              |                        |           | Total Petroleum Hydrocarbons                          |  |  |   |
|--|----------------------------------|--------------------|----------------|----------------------|----------------------|----------------------|------------|-----------------------|--------------|------------------------|-----------|---|--|--|---|
|  | Chemical Name                    | Benzo(a)anthracene | Benzo(a)pyrene | Benzo(b)fluoranthene | Benzo(g,h,i)perylene | Benzo(k)fluoranthene | Chrysene   | Dibenz(a,h)anthracene | Fluoranthene | Indeno(1,2,3-cd)pyrene | Pyrene    | Benzo(A)Pyrene Equivalent (1/2 RL substituted for ND) | Total Petroleum Hydrocarbons (C10-C28) DRO | Total Petroleum Hydrocarbons (C24-C36) Motor Oil | Total Petroleum Hydrocarbons (C5-C12) GRO |
| Units                                    | ug/kg                            | ug/kg              | ug/kg          | ug/kg                | ug/kg                | ug/kg                | ug/kg      | ug/kg                 | ug/kg        | ug/kg                  | ug/kg     | mg/kg   | mg/kg                                      | mg/kg  |   |
| Loc. Sample Date Sample Depth (bgs)      |                                  |                    |                |                      |                      |                      |            |                       |              |                        |           |   |  |  |   |
| Residential Screening Level <sup>2</sup> | 150                              | 15                 | 150            | -                    | 380                  | 3800                 | 15         | 2.30E+06              | 150          | 1.70E+06               | 900       | 110   | 2500                                       | 82   |   |
| Soil Leaching ESL <sup>4</sup>           | 12000                            | 130000             | 46000          | 27000                | 5100                 | 23000                | 9900       | 60000                 | 15000        | 85000                  | -         | 570   | -  | 770  |   |
| <b>DB1</b>                               | 10/06/2014 0 - 0.5 (ft)          | < 4.9              | < 4.9          | < 4.9                | < 4.9                | < 4.9                | < 4.9      | < 4.9                 | < 4.9        | < 4.9                  | < 4.9     | <b>4.29</b>   | <b>3.1</b>                                 | < 50   | < 0.24                                    |
|  | 10/06/2014 2 - 2.5 (ft)          | <b>11</b>          | <b>13</b>      | <b>18</b>            | < 9.9                | < 9.9                | <b>12</b>  | < 9.9                 | <b>17</b>    | < 9.9                  | <b>17</b> | <b>2.67</b>   | <b>31</b>                                  | <b>93</b>  | < 0.24                                    |
|  | 10/08/2014 4.5 - 5 (ft)          | < 4.9              | < 4.9          | < 4.9                | < 4.9                | < 4.9                | < 4.9      | < 4.9                 | < 4.9        | < 4.9                  | < 4.9     | <b>4.29</b>   | <b>9.1</b>                                 | < 50   | < 0.24                                    |
| <b>DB2</b>                               | 10/06/2014 0 - 0.5 (ft)          | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0      | < 5.0                 | < 5.0        | < 5.0                  | < 5.0     | <b>4.38</b>   | <b>10</b>                                  | <b>49</b>  | < 0.24                                    |
|  | 10/06/2014 2 - 2.5 (ft)          | <b>5.4</b>         | <b>7.5</b>     | <b>13</b>            | < 5.0                | < 5.0                | <b>8.9</b> | < 5.0                 | <b>11</b>    | < 5.0                  | <b>10</b> | <b>1.35</b>   | <b>130</b>                                 | <b>290</b>                                       | < 0.25                                    |
|  | 10/08/2014 4.5 - 5 (ft)          | < 4.9              | < 4.9          | < 4.9                | < 4.9                | < 4.9                | < 4.9      | < 4.9                 | < 4.9        | < 4.9                  | < 4.9     | <b>4.29</b>   | < 0.99                                     | < 50   | < 0.25                                    |
| <b>DB3</b>                               | 10/06/2014 0 - 0.5 (ft)          | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0      | < 5.0                 | < 5.0        | < 5.0                  | < 5.0     | <b>4.38</b>   | <b>12</b>                                  | <b>53</b>  | < 0.24                                    |
|  | 10/06/2014 2 - 2.5 (ft)          | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0      | < 5.0                 | < 5.0        | < 5.0                  | < 5.0     | <b>4.38</b>   | <b>23</b>                                  | <b>94</b>  | < 0.24                                    |
|  | 10/08/2014 4.5 - 5 (ft)          | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0      | < 5.0                 | < 5.0        | < 5.0                  | < 5.0     | <b>4.38</b>   | <b>1.8</b>                                 | < 50   | < 0.24                                    |
| <b>DB4</b>                               | 10/06/2014 0 - 0.5 (ft)          | < 9.9              | <b>14</b>      | <b>25</b>            | <b>12</b>            | < 9.9                | <b>15</b>  | < 9.9                 | <b>18</b>    | <b>10</b>              | <b>16</b> | <b>2.67</b>   | <b>75</b>                                  | <b>190</b>                                       | < 0.24                                    |
|  | 10/06/2014 2 - 2.5 (ft)          | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0      | < 5.0                 | < 5.0        | < 5.0                  | < 5.0     | <b>4.38</b>   | <b>36</b>                                  | <b>91</b>  | < 0.25                                    |
|  | 10/08/2014 4.5 - 5 (ft)          | < 5.0              | < 5.0          | < 5.0                | < 5.0                | < 5.0                | < 5.0      | < 5.0                 | < 5.0        | < 5.0                  | < 5.0     | <b>4.38</b>   | <b>6.2</b>                                 | < 49   | < 0.24                                    |

**Notes:**

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| bgs = below ground surface  | J+ = Estimated Biased High  | R = result is rejected to data quality deficiencies |
| Loc. = location   | SVOCs = semivolatile organic compounds  | PAHs = polynuclear aromatic hydrocarbons            |
| ESLs = environmental screening levels                               |   |   |

TABLE VII - DRAFT

SUMMARY OF ANALYTICAL RESULTS - SOIL GAS <sup>1</sup>  
 GATEWAY STATION WEST  
 NEWARK, CALIFORNIA

| Chemical Name                            |             |             | Volatile Organic Compounds <sup>3</sup> |                    |                    |                                  |   |             |            |                        |                  |                                |                                    |             |                    |            |                         |            |                       |                                   |  |
|--|-------------|-------------|---|--------------------|--------------------|----------------------------------|---|-------------|------------|------------------------|------------------|--------------------------------|------------------------------------|-------------|--------------------|------------|-------------------------|------------|-----------------------|-----------------------------------|--|
|  |             |             | 1,1,1-Trichloroethane                   | 1,1-Dichloroethane | 1,2-Dichloroethane | 2-Butanone (Methyl Ethyl Ketone) | 4-Methyl-2-Pentanone (Methyl Isobutyl Ketone) | Acetone     | Benzene    | Bromo dichloro methane | Carbon disulfide | Chloroform (Trichloro methane) | Dichloro difluoro methane (CFC-12) | m,p-Xylenes | Methylene chloride | o-Xylene   | Tetrachloroethene (PCE) | Toluene    | Trichloroethene (TCE) | Trichloro fluoro methane (CFC-11) | Trifluoro trichloro ethane (Freon 113) |
| Loc.                                     | Sample Date | Sample Type | ug/m3                                   | ug/m3              | ug/m3              | ug/m3                            | ug/m3   | ug/m3       | ug/m3      | ug/m3                  | ug/m3            | ug/m3                          | ug/m3                              | ug/m3       | ug/m3              | ug/m3      | ug/m3                   | ug/m3      | ug/m3                 | ug/m3                             |  |
| Residential Screening Level <sup>2</sup> |             |             | 2.60E+06                                | 760                | 58                 | 2.60E+06                         | 1.60E+06                                      | 1.60E+07    | 42         | 33                     | 730000           | 120                            | 100000                             | 52000       | 2600               | 52000      | 210                     | 160000     | 300                   | 730000                            | 3.10E+07                               |
| SG1                                      | 10/17/2014  | Primary     | <b>16</b>                               | < 1.2              | < 3.2              | <b>15 J</b>                      | < 1.6   | <b>74 J</b> | <b>2</b>   | < 2.0                  | <b>20</b>        | <b>12</b>                      | <b>3.1</b>                         | < 3.5       | < 1.4              | < 1.7      | <b>28</b>               | <b>2.7</b> | <b>3</b>              | <b>17</b>                         | <b>15</b>                              |
| SG1                                      | 10/17/2014  | Duplicate   | <b>16</b>                               | < 1.2              | < 3.2              | < 2.4 J                          | < 1.6   | <b>13 J</b> | <b>1.9</b> | < 2.0                  | <b>19</b>        | <b>12</b>                      | <b>3.1</b>                         | < 3.5       | < 1.4              | < 1.7      | <b>27</b>               | < 1.5      | <b>2.9</b>            | <b>18</b>                         | <b>15</b>                              |
| SG2                                      | 10/17/2014  | Primary     | < 1.6                                   | < 1.2              | < 3.2              | <b>2.7</b>                       | < 1.6   | <b>55</b>   | <b>1.5</b> | < 2.0                  | <b>5.2</b>       | <b>1.9</b>                     | <b>2.6</b>                         | < 3.5       | < 1.4              | < 1.7      | < 2.7                   | < 1.5      | < 2.1                 | < 2.2                             | < 3.1                                  |
| SG4                                      | 10/16/2014  | Primary     | < 1.6                                   | < 1.2              | < 3.2              | < 2.4                            | < 1.6   | < 12        | <b>1.8</b> | < 2.0                  | <b>5.4</b>       | < 1.5                          | <b>2.5</b>                         | < 3.5       | < 1.4              | < 1.7      | < 2.7                   | < 1.5      | < 2.1                 | < 2.2                             | < 3.1                                  |
| SG5                                      | 10/17/2014  | Primary     | < 1.6                                   | < 1.2              | < 3.2              | < 2.4                            | < 1.6   | <b>15</b>   | <b>2</b>   | < 2.0                  | <b>11</b>        | <b>3.3</b>                     | <b>2.4</b>                         | < 3.5       | < 1.4              | < 1.7      | < 2.7                   | < 1.5      | < 2.1                 | <b>4.6</b>                        | < 3.1                                  |
| SG7                                      | 10/16/2014  | Primary     | < 1.6                                   | <b>10</b>          | < 3.2              | <b>4.4</b>                       | < 1.6   | <b>32</b>   | <b>12</b>  | < 2.0                  | <b>190</b>       | <b>1.9</b>                     | <b>2.5</b>                         | < 3.5       | < 1.4              | < 1.7      | < 2.7                   | <b>8.7</b> | < 2.1                 | < 2.2                             | < 3.1                                  |
| SG8                                      | 10/17/2014  | Primary     | < 1.6                                   | < 1.2              | < 3.2              | <b>3.1</b>                       | < 1.6   | <b>22</b>   | <b>6.8</b> | < 2.0                  | <b>56</b>        | <b>27</b>                      | <b>2.2</b>                         | < 3.5       | < 1.4              | < 1.7      | < 2.7                   | <b>3.9</b> | < 2.1                 | <b>6.6</b>                        | < 3.1                                  |
| SG9                                      | 10/15/2014  | Primary     | < 1.6                                   | < 1.2              | < 3.2              | <b>3.4</b>                       | <b>2.2</b>                                    | <b>24</b>   | <b>9.4</b> | < 2.0                  | <b>74</b>        | < 1.5                          | <b>2.3</b>                         | <b>4.8</b>  | < 1.4              | <b>1.7</b> | < 2.7                   | <b>14</b>  | < 2.1                 | < 2.2                             | < 3.1                                  |
| SG10                                     | 10/16/2014  | Primary     | < 1.6                                   | < 1.2              | < 3.2              | <b>3.7</b>                       | < 1.6   | <b>24</b>   | <b>12</b>  | < 2.0                  | <b>79</b>        | <b>29</b>                      | <b>2.4</b>                         | <b>3.5</b>  | < 1.4              | < 1.7      | < 2.7                   | <b>11</b>  | < 2.1                 | < 2.2                             | < 3.1                                  |
| SG10                                     | 10/16/2014  | Duplicate   | < 1.6                                   | < 1.2              | < 3.2              | <b>2.9</b>                       | < 1.6   | <b>23</b>   | <b>12</b>  | < 2.0                  | <b>79</b>        | <b>29</b>                      | <b>2.5</b>                         | <b>3.5</b>  | < 1.4              | < 1.7      | < 2.7                   | <b>11</b>  | < 2.1                 | < 2.2                             | < 3.1                                  |
| SG11                                     | 10/15/2014  | Primary     | < 1.6                                   | <b>15</b>          | <b>42</b>          | < 2.4                            | < 1.6   | < 12        | <b>2.5</b> | <b>2.2</b>             | <b>35</b>        | <b>9.2</b>                     | <b>2.4</b>                         | < 3.5       | <b>1.4</b>         | < 1.7      | < 2.7                   | < 1.5      | < 2.1                 | < 2.2                             | < 3.1                                  |
| SG12                                     | 10/16/2014  | Primary     | < 1.6                                   | < 1.2              | < 3.2              | <b>3.2</b>                       | < 1.6   | <b>25</b>   | <b>8</b>   | < 2.0                  | <b>32</b>        | <b>1.6</b>                     | <b>2.4</b>                         | < 3.5       | < 1.4              | < 1.7      | < 2.7                   | <b>8.4</b> | < 2.1                 | < 2.2                             | < 3.1                                  |
| SG13                                     | 10/16/2014  | Primary     | < 1.6                                   | < 1.2              | < 3.2              | <b>3.5</b>                       | < 1.6   | <b>23</b>   | <b>6.1</b> | < 2.0                  | <b>31</b>        | <b>10</b>                      | <b>2.5</b>                         | < 3.5       | < 1.4              | < 1.7      | < 2.7                   | <b>6</b>   | < 2.1                 | <b>7.7</b>                        | < 3.1                                  |
| SG14                                     | 10/16/2014  | Primary     | < 1.6                                   | <b>1.5</b>         | < 3.2              | <b>3.2</b>                       | < 1.6   | <b>21</b>   | <b>6.5</b> | < 2.0                  | <b>20</b>        | <b>3.6</b>                     | <b>2.6</b>                         | < 3.5       | < 1.4              | < 1.7      | < 2.7                   | <b>4.6</b> | < 2.1                 | <b>5.8</b>                        | < 3.1                                  |

Notes:

- Soil gas samples collected by Haley & Aldrich, Inc. and analyzed by Test America Laboratories, Inc., of Pleasanton, California for volatile organic compounds using EPA method TO-15. **Bold** indicates a detected result.
- Lowest (most conservative) value of the following residential screening levels:
  - Environmental Screening Levels (ESLs; Water Board, Update to Environmental Screening Levels, Table E-2, Soil Gas Screening Levels for Evaluation of Potential Vapor Intrusion, Residential Exposure Scenario, December 2013).
  - Residential Air Regional Screening Level (RSLs; USEPA, 2014), using an attenuation factor of 0.001.
- Only detected analytes shown.

Abbreviations:

< = result not detected at the indicated analytical reporting limit  
 Loc. = location  
 grams per cubic meter

J = Estimated value. Quality control deficiencies have compromised result accuracy.  
 J- = Estimated Biased Low  
 J+ = Estimated Biased High

R = result is rejected to data quality deficiencies