SOIL REMEDIATION WORKPLAN FOR

RMC LONESTAR'S ELIOT AGGREGATE PLANT

1544 STANLEY BLVD., PLEASANTON CALIFORNIA

Prepared by:

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FEBRUARY 28, 1991

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All hydrological and geologic information, conclusions, and recommendations in this report have been reviewed by an RMC Lonestar California Registered Geologist.

Peter H. Cotter
Manager of Resources
California Registered Geologist #4332

All Engineering and technical information, conclusions, and recommendations in this report have been reviewed by an RMC Lonestar California Registered Professional Engineer.

Harry W. Reppert; BS, MS
Director of Environmental Affairs
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Certified in Hazardous Materials Management

All hydrological and geologic field work shall be performed under the supervision of RMC Lonestar's Project Geologist.

Louis B. Schipper; BS, MS
Project Geologist

All excavation, sampling, and project management shall be performed by RMC Lonestar's Environmental Engineer.

Bradd Statley; BS
Environmental Engineer

SOIL REMEDIATION WORKPLAN
FOR
RMC LONESTAR ELIOT AGGREGATE PLANT
1544 STANLEY BLVD., PLEASANTON CALIFORNIA

EXECUTIVE SUMMARY

This report explains RMC-LONESTAR's (RMCLS) soil remediation proposal related to the clean up of petroleum contaminated soil at its Eliot Aggregate Plant. All work and reports which require geologic or engineering evaluations and/or judgements will be performed under the direction of an appropriate registered or certified professional.

RMCLS has prepared this report for the Alameda County Health Agency (ACHA) to outline a proposed workplan for remediation of approximately seven thousand cubic yards of petroleum contaminated soil. Due to the large amount of material and the expectation that it will prove to be non-hazardous, a sampling plan which is a variation to the California Regional Water Quality Control Board's (RWQCB) recommendations for stockpile characterization is proposed in this report. Accordingly, RMCLS requests approval from the ACHA to proceed with the sampling plan protocol as outlined herein. The sampling plan is intended to support a declaration that the contaminated soil is non-hazardous.

1. INTRODUCTION

1.1 Terms of Reference

This report was prepared by RMC Lonestar's Environmental Services Department to document the activities associated with the sampling, remediation, and disposal/recycling of contaminated soil at the 1544 Stanley Blvd. site in Pleasanton, California.

1.2 Project Management

Project management and site safety coordinator:

Bradd Statley
RMC Lonestar
Environmental Services Department
P.O. Box 5252
Pleasanton, CA 94566
415\426-2279

1.3 Organization of Report

This report is organized as follows:

Section 2: "Site Location and History", contains a brief summary of the site location, history, and origin of the contaminated soil.

Section 3: "Field Activities", contains the workplan to screen the rock from the soil, the sampling protocol, and the methodology planned for remediating the soil.

Section 4: "Conclusion", contains the options for recycling the non-contaminated rock and remediated soil.

2. SITE LOCATION AND HISTORY

The Eliot Aggregate Plant location is shown in Figure 1. This site has been operating as an aggregate quarry since the mid 1900's producing much of the sand, gravel, and crushed stone for the Bay Area's construction industry. The site consists of the quarry, the main aggregate processing plant, and a vehicle and plant maintenance shop. The maintenance shop services plant equipment, on and off road vehicles, and concrete mixer trucks.

The Eliot Site is located in an area underlain by course sand and gravel sediments. Figure 1 shows the surrounding area and topographic features. Shadow Cliff Lake is located directly west of the site. The water level in the lake is artificially maintained at a level above the surrounding groundwater table. In relation to the Eliot Site the lake level has typically been maintained at approximately 10 to 15 feet higher than the water level underlying the area where the contamination was removed. The resulting ground water flow gradient therefore, is approximately northeast, away from the lake. A deep quarry pit along the north side of the site (shown on Figure 2) has been excavated down to ground water. Along the southern side of the quarry pit is a visible seepage face that demonstrates the northward ground water flow direction.

Historically the handling of used oils removed from certain equipment was dumped on site. This practice was allowed by most industries prior to any regulations restricting the practice. The facility installed an above ground storage tank soon after refineries began picking up used oils for recycling. In the early years oil spillage around these storage areas was quite common. By the time regulations were adopted to control the storage and disposal of used oils, a significant amount of waste had been spilled.

In 1987 discolored soil was noticed by the RMC Lonestar Environmental Staff around the above ground storage tank. Drainage of steam cleaning water from a elevated concrete pad to the above ground tank had apparently overfilled the tank causing a discharge to the surface below.

In 1988, RMC Lonestar excavated a test pit in the vicinity of the drain pipe outlet to an approximate depth of 15 feet. The subsurface soils consisted mainly of course sand and gravel and were stained with petroleum products. Ground water was not encountered. Analysis of soil samples collected at the base of the excavation reported concentrations of Total Petroleum Hydrocarbons (TPH) at up to 6,000 parts per million (ppm). The test pit was enlarged in early 1989 and later in December of 1990 by further excavation and stockpiling of soils. The approximate location of the current excavation is shown in Figure 2. Closure of the pit excavation will be the subject of a future report.

In an action unrelated to the oil spill area described above, three underground storage tanks were removed from this site in the past few months. These tanks were replaced with two new double wall fiberglass tanks. As a result of the tank removals, several yards of contaminated soil was identified and removed in January. That soil has been stockpiled on site as additional material for remediation. A closure report for the tank removals will be submitted in a separate report.

An estimated seven to ten thousand yards of contaminated soil is now stockpiled on site and, pending approval from the ACHA, will be remediated in accordance with the workplan herein described.

3. FIELD ACTIVITIES

The contaminated soils which have been stockpiled at the Eliot Site are alluvial sediments consisting of cobbles, gravel, sand and silt. Characteristically, cobble and gravel rock material is less susceptible to the adhesion of hydrocarbon products and wastes than are the finer sediments. Consequently, hydrocarbon contamination within the vadose zone of alluvial sediments tends to concentrate by absorption, cohesion and adsorption into the fine-grained sands and silts.

RMCLS proposes a two step process for remediating this material. The first step will separate the uncontaminated cobble and gravel from the stock piles so as to reduce the volume of material to be subject to bio-remediation. The second step will involve the bio-treatment of the contaminated fine material.

3.1 Screening/Separating Material

For a given volume of material, fine aggregates, sands and silts have a greater surface area than do coarse aggregates. For example, the surface area of a coarse sand having a diameter of 1/16 inch is approximately 70 times greater than that of small gravel having a diameter of 1/2 inch. Since hydrocarbon contamination of mineral soils (as opposed to organic soils) is a surface attraction phenomenon, RMCLS proposes to screen out from the existing stockpiles the finer material (minus 1/2 inch diameter). A sampling and testing program will verify that any significant levels of contamination will be contained within the screened fines and that the coarse rock will contain no significant contamination.

When the coarse rock material is determined to be contaminant free, RMCLS proposes to return it to the Eliot quarrying process.

Sieve analysis of the currently stockpiled material indicates that 20 percent is larger than the 1/2 inch screen size. A portable double deck screen plant with 1-1/4 inch and 1/2 inch

screens will be utilized for separation. A 4-1/4 inch standard cone crusher will be installed ahead of the screen to reduce any extremely large material to about 1-1/4 inches. This will ensure that any large clay balls will be broken into finer material which will pass the 1/2 inch screen. The minus 1/2 inch material will be stockpiled in the remediation cells while the plus 1/2 material will be stockpiled for testing and eventual release back to the quarrying process.

3.2 Sampling of Plus 1/2 Inch Material

The plus 1/2 inch material will be stockpiled on site and will have two samples (for compositing) taken for every 100 cubic yards of material coming off the stacking conveyor. Samples will be taken using one quart glass jars, placed into a chilled cooler, and taken to a state certified laboratory using proper chain of custody protocol. The samples will be composited at the laboratory and analyzed for TPH as gasoline and diesel, BTX&E, and total oil and grease. Analytical results obtained from sample taken during the excavation were tested for purgeable halocarbons (halogenated hydrocarbons) using EPA method 8010 and did not show any detectable levels of these constituents (refer to Appendix A).

3.3 Remediation Cells

Remediation cells will be constructed using a Grundle HDPE 30 mil liner for the containment base. Each cell will be 20 feet wide by 360 feet long. The perimeter of the cells will be bermed to a height of at least 8 inches. The minus 1/2 inch material will have a microbiological humic polymer (X-19) added to it at a ratio of 1 yard of X-19 to 4 yards of soil.

X-19 is a proprietary product marketed locally. As a bio-remediation product, it appears to be particularly cost effective both in terms of product cost and the cost of remediation cell maintenance. Since X-19 is a relatively new product, performance data relative to its application is sparse. Perhaps the best data to be generated will come from a project now underway at the Zanker Road landfill in Santa Clara County.

At the Zanker site X-19 is under a pilot study for the treatment of approximately 2,000 cubic yards of contaminated bentonite and sand absorbent. This contaminated material was generated by the Santa Clara County Transit Agency's spill management program. The contamination level in this material is approximately 600 ppm TPH as diesel with a strong odor. RMCLS expects some contaminant levels in the Eliot material to fall in the same range. The Zanker site is becoming recognized as a prototype project for the Transit District and other transit organizations in the Bay area. Mr. Ray Hybarger, Associate Environmental Engineer for the County of Santa Clara is the project manager (phone: 408-299-7655).

Within the next few weeks test data from the Zanker site will be available to help confirm the design of this Eliot remediation plan. Assuming positive confirmation by the Zanker data, RMCLS proposes to follow the following processing plan: The X-19 will be mixed with the separated soil as it comes off the stacking conveyor from the screening plant. The material will then be stockpiled with a front-end loader into the cells with a height of approximately 4 feet. If needed, water will be added with a spray truck to achieve about 30% moisture content for the blended material. The material will then be covered with plastic and monitored for moisture for approximately 3 to 4 months to bring the levels of contamination down to non detectable limits. Although the biodegradation of hydrocarbons is primarily an aerobic process, the X-19 substrate material is claimed to contain sufficient entrained oxygen to passively remediate the soil without further aeration.

Several samples will be taken during the remediation period to determine the progress of contamination reduction. After RMC Lonestar's Environmental Staff has determined that the levels of contamination have been sufficiently reduced final sampling will take place.

3.4 Sampling Remediated Material

Final samples will be taken randomly using the statistical sampling format found in the Tri Regional Guidelines. One discrete sample representing 20 yards of material will be taken for every 100 yards in the cell. The samples will be taken with a drive sampler using clean brass tubes. The tubes will be sealed with aluminum and plastic caps. Samples will be placed into a chilled cooler and taken to a state certified laboratory using proper chain of custody protocol. All samples will be analyzed for TPH as Gasoline and Diesel, BTX&E, and Total Oil and Grease. In addition, 10 samples will be analyzed for Purgeable Halocarbons using EPA method 8010.

The protocol for final sampling as just described is intended to provide sufficient data to verify that the remediated material is essentially free of hydrocarbon contamination. RMCLS proposes that the treated product will then be an organically enriched soil supplement suitable as topsoil for quarry reclamation or other landscaping purposes.

4. CONCLUSION

Like many other companies, RMCLS is experiencing the increasing economic burden of managing soils containing low levels of hydrocarbon contamination. Clearly, it is an abuse of valuable landfill resource to send this material to permitted disposal sites. However, there are not many alternatives available that are competitive with the "treat and dump" landfill option. This Eliot soil remediation plan represents an important step to our company in finding a long-term cost-effective method for converting this type of high-volume low-toxicity waste into a useful substance. We propose this workplan as an improved solution to the soil remediation problem. We appreciate the assistance of the Alameda County Health Agency in helping us meet this important objective of cost-effective compliance.

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- Drinking Water (#955)
- Waste Water
- Consultation

December 14, 1990

ChromaLab File No.: 1290027
1290028

RMC LONESTAR

Attn: Bradd Statley

RE: Thirteen soil samples for gasoline/BTEX, Diesel, and Oil & Grease analyses

Project Name: RMC LS
Date Sampled: Dec 7, 1990 Date Submitted: Dec 7, 1990
Date Extracted:Dec. 11-14, 1990 Date Analyzed: Dec 11-14,1990

RESULTS:

Sample No.	Gasoline (mg/Kg)	Diesel (mg/Kg)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl Benzene (µg/Kg)	Total Xylenes (µg/Kg)	Oil & Grease (mg/Kg)
E-45	N.D.	N.D.	N.D.	5.2	N.D.	N.D.	79
E-46	N.D.	N.D.	N.D.	13	N.D.	N.D	12
E-48	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	47
E-49	N.D.	N.D.	N.D.	35	N.D.	N.D.	N.D
E-50	N.D.	N.D.	N.D.	62	N.D.	N.D.	N.D.
E-51	N.D.	N.D.	N.D.	5.6	N.D.	N.D.	N.D.
E-52	N.D.	N.D.	N.D.	180	N.D.	N.D.	N.D.
E-53	N.D.	N.D.	N.D.	240	N.D.	N.D.	N.D.
E-54	N.D.	N.D.	N.D.	220	N.D.	N.D.	N.D.
E-55	N.D.	N.D.	N.D.	110	N.D.	N.D.	N.D.
E-56	N.D.	N.D.	N.D.	34	N.D.	N.D.	17
E-57	N.D.	N.D.	N.D.	80	N.D.	N.D.	N.D.
E-58	N.D.	N.D.	N.D.	23	N.D.	N.D.	23
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	87.2%	91.4%	88.5%	95.4%	87.1%	96.0%	----
DUP.SP.REC.	93.9%	96.6%	84.8%	95.8%	101.8%	93.2%	----
DETECTION LIMIT	1.0	1.0	5.0	5.0	5.0	5.0	10
METHOD OF ANALYSIS	5030/ 8015	3550/ 8015	8020	8020	8020	8020	5520 D & F

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam (by DD)
Eric Tam
Laboratory Director

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December 14, 1990 ChromaLab File #1290027A

Client: RMC LONESTAR
Attn: Bradd Statley
Date Sampled: Dec. 7, 1990 Date Submitted: Dec. 7, 1990
Date of Analysis: December 13-14, 1990

Project Name: RMC LS
Sample I.D.: E-45
Method of Analysis: EPA 8010 Detection Limit: 5.0 µg/Kg

COMPOUND NAME	µg/Kg	Spike Recovery
CHLOROMETHANE	N.D	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	90.2% 93.1%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	96.9% 89.7%
1,2-DICHLOROETHANE	N.D.	---
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	90.1% 92.5%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	93.1% 92.4%
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---

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Eric Tam
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- Waste Water
- Consultation

December 14, 1990 ChromaLab File #1290027B

Client: RMC LONESTAR
Attn: Bradd Statley
Date Sampled: Dec. 7, 1990 Date Submitted: Dec. 7, 1990
Date of Analysis: December 13-14, 1990

Project Name: RMC LS
Sample I.D.: E-46
Method of Analysis: EPA 8010 Detection Limit: 5.0 µg/Kg

COMPOUND NAME	µg/Kg	Spike Recovery
CHLOROMETHANE	N.D	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	90.2% 93.1%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	96.9% 89.7%
1,2-DICHLOROETHANE	N.D.	---
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	90.1% 92.5%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	93.1% 92.4%
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---

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December 14, 1990 ChromaLab File #1290027D

Client: RMC LONESTAR
Attn: Bradd Statley
Date Sampled: Dec. 7, 1990 Date Submitted: Dec. 7, 1990
Date of Analysis: December 13-14, 1990

Project Name: RMC LS
Sample I.D.: E-49
Method of Analysis: EPA 8010 Detection Limit: 5.0 µg/Kg

COMPOUND NAME	µg/Kg	Spike Recovery	
CHLOROMETHANE	N.D	---	
VINYL CHLORIDE	N.D.	---	
BROMOMETHANE	N.D.	---	
CHLOROETHANE	N.D.	---	
TRICHLOROFLUOROMETHANE	N.D.	---	
1,1-DICHLOROETHENE	N.D.	90.2%	93.1%
METHYLENE CHLORIDE	N.D.	---	
1,2-DICHLOROETHENE (TOTAL)	N.D.	---	
1,1-DICHLOROETHANE	N.D.	---	
CHLOROFORM	N.D.	---	
1,1,1-TRICHLOROETHANE	N.D.	---	
CARBON TETRACHLORIDE	N.D.	96.9%	89.7%
1,2-DICHLOROETHANE	N.D.	---	
TRICHLOROETHENE	N.D.	---	
1,2-DICHLOROPROPANE	N.D.	---	
BROMODICHLOROMETHANE	N.D.	---	
2-CHLOROETHYLVINYLETHER	N.D.	---	
TRANS-1,3-DICHLOROPROPENE	N.D.	90.1%	92.5%
CIS-1,3-DICHLOROPROPENE	N.D.	---	
1,1,2-TRICHLOROETHANE	N.D.	---	
TETRACHLOROETHENE	N.D.	---	
DIBROMOCHLOROMETHANE	N.D.	---	
CHLOROBENZENE	N.D.	93.1%	92.4%
BROMOFORM	N.D.	---	
1,1,2,2-TETRACHLOROETHANE	N.D.	---	
1,3-DICHLOROBENZENE	N.D.	---	
1,4-DICHLOROBENZENE	N.D.	---	
1,2-DICHLOROBENZENE	N.D.	---	

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- Drinking Water (#955)
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- Consultation

December 14, 1990 ChromaLab File #1290027H

Client: RMC LONESTAR
Attn: Bradd Statley
Date Sampled: Dec. 7, 1990 Date Submitted: Dec. 7, 1990
Date of Analysis: December 13-14, 1990

Project Name: RMC LS
Sample I.D.: E-53
Method of Analysis: EPA 8010 Detection Limit: 5.0 µg/Kg

COMPOUND NAME	µg/Kg	Spike Recovery	
CHLOROMETHANE	N.D	---	
VINYL CHLORIDE	N.D.	---	
BROMOMETHANE	N.D.	---	
CHLOROETHANE	N.D.	---	
TRICHLOROFLUOROMETHANE	N.D.	---	
1,1-DICHLOROETHENE	N.D.	90.2%	93.1%
METHYLENE CHLORIDE	N.D.	---	
1,2-DICHLOROETHENE (TOTAL)	N.D.	---	
1,1-DICHLOROETHANE	N.D.	---	
CHLOROFORM	N.D.	---	
1,1,1-TRICHLOROETHANE	N.D.	---	
CARBON TETRACHLORIDE	N.D.	96.9%	89.7%
1,2-DICHLOROETHANE	N.D.	---	
TRICHLOROETHENE	N.D.	---	
1,2-DICHLOROPROPANE	N.D.	---	
BROMODICHLOROMETHANE	N.D.	---	
2-CHLOROETHYLVINYLETHER	N.D.	---	
TRANS-1,3-DICHLOROPROPENE	N.D.	90.1%	92.5%
CIS-1,3-DICHLOROPROPENE	N.D.	---	
1,1,2-TRICHLOROETHANE	N.D.	---	
TETRACHLOROETHENE	N.D.	---	
DIBROMOCHLOROMETHANE	N.D.	---	
CHLOROBENZENE	N.D.	93.1%	92.4%
BROMOFORM	N.D.	---	
1,1,2,2-TETRACHLOROETHANE	N.D.	---	
1,3-DICHLOROBENZENE	N.D.	---	
1,4-DICHLOROBENZENE	N.D.	---	
1,2-DICHLOROBENZENE	N.D.	---	

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December 14, 1990 ChromaLab File #1290028D

Client: RMC LONESTAR
Attn: Bradd Statley
Date Sampled: Dec. 7, 1990 Date Submitted: Dec. 7, 1990
Date of Analysis: December 13-14, 1990

Project Name: RMC LS
Sample I.D.: E-57
Method of Analysis: EPA 8010 Detection Limit: 5.0 µg/Kg

COMPOUND NAME	µg/Kg	Spike Recovery
CHLOROMETHANE	N.D	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	90.2% 93.1%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	96.9% 89.7%
1,2-DICHLOROETHANE	N.D.	---
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	90.1% 92.5%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	93.1% 92.4%
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam (by DD)
Eric Tam
Lab Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

December 14, 1990 ChromaLab File #1290028A

Client: RMC LONESTAR
Attn: Bradd Statley
Date Sampled: Dec. 7, 1990 Date Submitted: Dec. 7, 1990
Date of Analysis: December 13-14, 1990

Project Name: RMC LS
Sample I.D.: E-54
Method of Analysis: EPA 8010 Detection Limit: 5.0 µg/Kg

COMPOUND NAME	µg/Kg	Spike Recovery
CHLOROMETHANE	N.D	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	90.2% 93.1%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	96.9% 89.7%
1,2-DICHLOROETHANE	N.D.	---
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	90.1% 92.5%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	93.1% 92.4%
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---

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CHROMALAB, INC.

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Chain of Custody

DATE 12/7/90 PAGE 2 OF 2

PROJ. MGR. BRADD STATLEY
COMPANY RMC LONESTAR
ADDRESS P.O. Box 5252
Pleasanton CA 94566

SAMPLERS (SIGNATURE) Bradd Statley
(PHONE NO.) (415) 426-2279

CHROMALAB FILE # 1290028

ANALYSIS REQUE

SAMPLE ID.	DATE	TIME	MATRIX	LAB ID.	TPH - Gasoline (EPA 5030)	TPH - Gasoline (5030) w/BTEX (EPA 602, 8020)	TPH - Diesel (EPA 3510, 3550)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240)	BASE/NEUTRALS, ACIDS (EPA 624/627, 8270)	TOTAL OIL & GREASE (EPA 5030E)	PESTICIDES/PCB (EPA 608, 8080)	PHENOLS (EPA 604, 8040)			METALS: Cd,	CAM METALS w/Cr VI	PRIORITY POL METALS (13)						NUMBER OF CONTAINERS
E-54	12/7/90	12:37				✓	✓		✓			✓													1
E-55	12/7/90	12:42				✓	✓					✓													1
E-56	12/7/90	12:47				✓	✓					✓													1
E-57	12/7/90	13:03				✓	✓		✓			✓													1
E-58	12/7/90	13:10				✓	✓					✓													1

PROJECT INFORMATION

PROJECT: RMC LS
PO NO. Eliot W.O.
~~SHIPPING ID. NO.~~ P.O.# 985288848
VIA:

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS	13
CHAIN OF CUSTODY SEALS	2
REC'D GOOD CONDITION/COLD	✓
CONFORMS TO RECORD	✓
LAB NO.	

SPECIAL INSTRUCTIONS/COMMENTS:

NORMAL 5 Day TAT

RELINQUISHED BY 1.	RELINQUISHED BY 2.	RELINQUISHED BY 3.
(Signature) Bradd Statley (Time) 415	(Signature) (Time)	(Signature) (Time)
(Printed Name) Bradd Statley (Date) 12-7-90	(Printed Name) (Date)	(Printed Name) (Date)
(Company) RMC Lonestar	(Company)	(Company)
RECEIVED BY 1.	**RECEIVED BY 2.**	**RECEIVED BY (LABORATORY) 3.**
(Signature) (Time)	(Signature) (Time)	(Signature) 415 (Time)
(Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) ERIC TOM 12/7/90 (DATE)
(Company)	(Company)	(LAB) CHROMALAB, INC

CHROMALAB, INC.

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798

Chain of Custod

DATE 12/7/90 PAGE 1 OF

PROJ. MGR. BRADD STATLEY
COMPANY RMC LONESTAR
ADDRESS P.O. Box 5252
Pleasanton, CA 94566

SAMPLERS (SIGNATURE) (PHONE NO.) (415) 426-2279

CHROMALAB FILE # 1290027

ANALYSIS REQUEST

SAMPLE ID.	DATE	TIME	MATRIX	LAB ID.	TPH - Gasoline (EPA 5030)	TPH - Gasoline (5030) w/BTEX (EPA 602, 8020)	TPH - Diesel (EPA 3510, 3550)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240)	BASE/NEUTRALS, ACIDS (EPA 624/627, 8270)	TOTAL OIL & GREASE (EPA 5030&E)	PESTICIDES/PCB (EPA 608, 8080)	PHENOLS (EPA 604, 8040)			METALS: Cd,	CAM METALS w/Cr VI	PRIORITY POL METALS (13)							NUMBER OF CONTAINERS
E-45	12/7/90	10:20				✓	✓		✓			✓														1
E-46		10:23				✓	✓		✓			✓														1
E-47		10:25																								1
E-48		11:50				✓	✓					✓														1
E-49		11:55				✓	✓		✓			✓														1
E-50		12:00				✓	✓					✓														1
E-51		12:05				✓	✓					✓														1
E-52		12:30				✓	✓					✓														1
E-53	↓	12:33				✓	✓		✓			✓														1

ACAD

PROJECT INFORMATION

PROJECT: RMC LS
PO NO.: Eliot W.O.
SHIPPING ID. NO.: P.O.# 9852884 8
VIA:

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS	13
CHAIN OF CUSTODY SEALS	2
REC'D GOOD CONDITION/COLD	✓
CONFORMS TO RECORD	✓
LAB NO.	

SPECIAL INSTRUCTIONS/COMMENTS:

Normal 5 Day TAT

RELINQUISHED BY 1.
(Signature) 4:15pm (Time)
Bradd Stalley 12-7-90 (Printed Name) (Date)
RMC Lonestar (Company)

RECEIVED BY 1.
(Signature) (Time)
(Printed Name) (Date)
(Company)

RELINQUISHED BY 2.
(Signature) (Time)
(Printed Name) (Date)
(Company)

RECEIVED BY 2.
(Signature) (Time)
(Printed Name) (Date)
(Company)

RELINQUISHED BY 3.
(Signature) (Time)
(Printed Name) (Date)
(Company)

RECEIVED BY (LABORATORY) 3.
(Signature) 4:15pm (Time)
ERIC TAM 12/7/90 (Printed Name) (DATE)
CHROMALAB INC (LAB)

CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

December 26, 1990

ChromaLab File No.: 1290069

RMC LONESTAR

Attn: Bradd Statley

RE: Six soil samples for Gasoline/BTEX, Diesel, and Oil & Grease analysess

Project Name: ELIOT W.O.
Date Sample: Dec. 14, 1990
Date Submitted: Dec. 14, 1990
Date Extracted: Dec. 18-21,1990
Date Analyzed: Dec. 18-21,1990

RESULTS:

Sample No.	Gasoline (mg/Kg)	Diesel (mg/Kg)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl Benzene (µg/Kg)	Total Xylenes (µg/Kg)	Oil & Grease (mg/Kg)
E-59	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
E-60	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
E-61	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	11
E-62	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	89
E-63	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
E-64	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	41
BLANK SPIKE RECOVERY	93.9%	96.6%	84.8%	95.8%	101.8%	93.2%	----
DUP SPIKE RECOVERY	87.2%	94.0%	88.5%	95.4%	87.1%	96.0%	----
DETECTION LIMIT	1.0	1.0	5.0	5.0	5.0	5.0	10
METHOD OF ANALYSIS	5030/ 8015	3550/ 8015	8020	8020	8020	8020	5520 D&F

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam (by DD)
Eric Tam
Laboratory Director

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CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

December 21, 1990 ChromaLab File #1290069A

Client: RMC LONESTAR Attn: Bradd Statley
Date Sampled: Dec. 14, 1990 Date Submitted: Dec. 15, 1990
Date of Analysis: Dec. 18-21, 1990

Project Name: ELIOT W.O
Sample I.D.: E-59
Method of Analysis: EPA 8010 Detection Limit: 5.0 µg/Kg

COMPOUND NAME	µg/Kg	Spike Recovery
CHLOROMETHANE	N.D	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	90.2% 93.1%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	96.9% 89.7%
1,2-DICHLOROETHANE	N.D.	---
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	90.1% 92.5%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	93.1% 92.4%
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam (by DD)
Eric Tam
Lab Director

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CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

December 21, 1990 ChromaLab File #1290069B

Client: RMC LONESTAR Attn: Bradd Statley
Date Sampled: Dec. 14, 1990 Date Submitted: Dec. 15, 1990
Date of Analysis: Dec. 18-21, 1990

Project Name: ELIOT W.O
Sample I.D.: E-60
Method of Analysis: EPA 8010 Detection Limit: 5.0 µg/Kg

COMPOUND NAME	µg/Kg	Spike Recovery	
CHLOROMETHANE	N.D	---	
VINYL CHLORIDE	N.D.	---	
BROMOMETHANE	N.D.	---	
CHLOROETHANE	N.D.	---	
TRICHLOROFLUOROMETHANE	N.D.	---	
1,1-DICHLOROETHENE	N.D.	90.2%	93.1%
METHYLENE CHLORIDE	N.D.	---	
1,2-DICHLOROETHENE (TOTAL)	N.D.	---	
1,1-DICHLOROETHANE	N.D.	---	
CHLOROFORM	N.D.	---	
1,1,1-TRICHLOROETHANE	N.D.	---	
CARBON TETRACHLORIDE	N.D.	96.9%	89.7%
1,2-DICHLOROETHANE	N.D.	---	
TRICHLOROETHENE	N.D.	---	
1,2-DICHLOROPROPANE	N.D.	---	
BROMODICHLOROMETHANE	N.D.	---	
2-CHLOROETHYLVINYLETHER	N.D.	---	
TRANS-1,3-DICHLOROPROPENE	N.D.	90.1%	92.5%
CIS-1,3-DICHLOROPROPENE	N.D.	---	
1,1,2-TRICHLOROETHANE	N.D.	---	
TETRACHLOROETHENE	N.D.	---	
DIBROMOCHLOROMETHANE	N.D.	---	
CHLOROBENZENE	N.D.	93.1%	92.4%
BROMOFORM	N.D.	---	
1,1,2,2-TETRACHLOROETHANE	N.D.	---	
1,3-DICHLOROBENZENE	N.D.	---	
1,4-DICHLOROBENZENE	N.D.	---	
1,2-DICHLOROBENZENE	N.D.	---	

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- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

December 21, 1990

ChromaLab File #1290069C

Client: RMC LONESTAR
Attn: Bradd Statley
Date Sampled: Dec. 14, 1990
Date Submitted: Dec. 15, 1990
Date of Analysis: Dec. 18-21, 1990

Project Name: ELIOT W.O
Sample I.D.: E-61
Method of Analysis: EPA 8010
Detection Limit: 5.0 µg/Kg

COMPOUND NAME	µg/Kg	Spike Recovery
CHLOROMETHANE	N.D	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	90.2% 93.1%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	96.9% 89.7%
1,2-DICHLOROETHANE	N.D.	---
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	90.1% 92.5%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	93.1% 92.4%
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---

ChromaLab, Inc.

David Duong
Senior Chemist

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Eric Tam
Lab Director

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CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

December 21, 1990

ChromaLab File #1290069D

Client: RMC LONESTAR
Attn: Bradd Statley
Date Sampled: Dec. 14, 1990
Date Submitted: Dec. 15, 1990
Date of Analysis: Dec. 18-21, 1990

Project Name: ELIOT W.O
Sample I.D.: E-62
Method of Analysis: EPA 8010
Detection Limit: 5.0 µg/Kg

COMPOUND NAME	µg/Kg	Spike Recovery	
CHLOROMETHANE	N.D	---	
VINYL CHLORIDE	N.D.	---	
BROMOMETHANE	N.D.	---	
CHLOROETHANE	N.D.	---	
TRICHLOROFLUOROMETHANE	N.D.	---	
1,1-DICHLOROETHENE	N.D.	90.2%	93.1%
METHYLENE CHLORIDE	N.D.	---	
1,2-DICHLOROETHENE (TOTAL)	N.D.	---	
1,1-DICHLOROETHANE	N.D.	---	
CHLOROFORM	N.D.	---	
1,1,1-TRICHLOROETHANE	N.D.	---	
CARBON TETRACHLORIDE	N.D.	96.9%	89.7%
1,2-DICHLOROETHANE	N.D.	---	
TRICHLOROETHENE	N.D.	---	
1,2-DICHLOROPROPANE	N.D.	---	
BROMODICHLOROMETHANE	N.D.	---	
2-CHLOROETHYLVINYLETHER	N.D.	---	
TRANS-1,3-DICHLOROPROPENE	N.D.	90.1%	92.5%
CIS-1,3-DICHLOROPROPENE	N.D.	---	
1,1,2-TRICHLOROETHANE	N.D.	---	
TETRACHLOROETHENE	N.D.	---	
DIBROMOCHLOROMETHANE	N.D.	---	
CHLOROBENZENE	N.D.	93.1%	92.4%
BROMOFORM	N.D.	---	
1,1,2,2-TETRACHLOROETHANE	N.D.	---	
1,3-DICHLOROBENZENE	N.D.	---	
1,4-DICHLOROBENZENE	N.D.	---	
1,2-DICHLOROBENZENE	N.D.	---	

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam (by DD)

Eric Tam
Lab Director

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CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

December 21, 1990

ChromaLab File #1290069E

Client: RMC LONESTAR
Attn: Brad Statley
Date Sampled: Dec. 14, 1990
Date Submitted: Dec. 15, 1990
Date of Analysis: Dec. 18-21, 1990

Project Name: ELIOT W.O
Sample I.D.: E-63
Method of Analysis: EPA 8010
Detection Limit: 5.0 µg/Kg

COMPOUND NAME	µg/Kg	Spike Recovery	
CHLOROMETHANE	N.D	---	
VINYL CHLORIDE	N.D.	---	
BROMOMETHANE	N.D.	---	
CHLOROETHANE	N.D.	---	
TRICHLOROFLUOROMETHANE	N.D.	---	
1,1-DICHLOROETHENE	N.D.	90.2%	93.1%
METHYLENE CHLORIDE	N.D.	---	
1,2-DICHLOROETHENE (TOTAL)	N.D.	---	
1,1-DICHLOROETHANE	N.D.	---	
CHLOROFORM	N.D.	---	
1,1,1-TRICHLOROETHANE	N.D.	---	
CARBON TETRACHLORIDE	N.D.	96.9%	89.7%
1,2-DICHLOROETHANE	N.D.	---	
TRICHLOROETHENE	N.D.	---	
1,2-DICHLOROPROPANE	N.D.	---	
BROMODICHLOROMETHANE	N.D.	---	
2-CHLOROETHYLVINYLETHER	N.D.	---	
TRANS-1,3-DICHLOROPROPENE	N.D.	90.1%	92.5%
CIS-1,3-DICHLOROPROPENE	N.D.	---	
1,1,2-TRICHLOROETHANE	N.D.	---	
TETRACHLOROETHENE	N.D.	---	
DIBROMOCHLOROMETHANE	N.D.	---	
CHLOROBENZENE	N.D.	93.1%	92.4%
BROMOFORM	N.D.	---	
1,1,2,2-TETRACHLOROETHANE	N.D.	---	
1,3-DICHLOROBENZENE	N.D.	---	
1,4-DICHLOROBENZENE	N.D.	---	
1,2-DICHLOROBENZENE	N.D.	---	

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam (by DD)
Eric Tam
Lab Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

December 21, 1990

ChromaLab File #1290069F

Client: RMC LONESTAR
Date Sampled: Dec. 14, 1990
Date of Analysis: Dec. 18-21, 1990

Attn: Bradd Statley
Date Submitted: Dec. 15, 1990

Project Name: ELIOT W.O
Sample I.D.: E-64
Method of Analysis: EPA 8010

Detection Limit: 5.0 µg/Kg

COMPOUND NAME	µg/Kg	Spike Recovery
CHLOROMETHANE	N.D	---
VINYL CHLORIDE	N.D.	---
BROMOMETHANE	N.D.	---
CHLOROETHANE	N.D.	---
TRICHLOROFLUOROMETHANE	N.D.	---
1,1-DICHLOROETHENE	N.D.	90.2% 93.1%
METHYLENE CHLORIDE	N.D.	---
1,2-DICHLOROETHENE (TOTAL)	N.D.	---
1,1-DICHLOROETHANE	N.D.	---
CHLOROFORM	N.D.	---
1,1,1-TRICHLOROETHANE	N.D.	---
CARBON TETRACHLORIDE	N.D.	96.9% 89.7%
1,2-DICHLOROETHANE	N.D.	---
TRICHLOROETHENE	N.D.	---
1,2-DICHLOROPROPANE	N.D.	---
BROMODICHLOROMETHANE	N.D.	---
2-CHLOROETHYLVINYLETHER	N.D.	---
TRANS-1,3-DICHLOROPROPENE	N.D.	90.1% 92.5%
CIS-1,3-DICHLOROPROPENE	N.D.	---
1,1,2-TRICHLOROETHANE	N.D.	---
TETRACHLOROETHENE	N.D.	---
DIBROMOCHLOROMETHANE	N.D.	---
CHLOROBENZENE	N.D.	93.1% 92.4%
BROMOFORM	N.D.	---
1,1,2,2-TETRACHLOROETHANE	N.D.	---
1,3-DICHLOROBENZENE	N.D.	---
1,4-DICHLOROBENZENE	N.D.	---
1,2-DICHLOROBENZENE	N.D.	---

ChromaLab, Inc.

David Duong
Senior Chemist

Eric Tam (by DD)
Eric Tam
Lab Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798

Chain of Custody

DATE 12-14-90 PAGE 1 OF 1

PROJ. MGR. BRADO STAICEY
COMPANY RMC LONESTAR
ADDRESS P.O Box 5252
Pleasanton CA 94566

SAMPLERS (SIGNATURE) (PHONE NO.)
Brado Staicey (415) 426-2279

CHROMALAB FILE # 1290069

ANALYSIS REQUEST

SAMPLE ID.	DATE	TIME	MATRIX	LAB ID.	TPH - Gasoline (EPA 5030)	TPH - Gasoline (5030) w/BTEX (EPA 602, 8020)	TPH - Diesel (EPA 3510, 3550)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240)	BASE/NEUTRALS, ACIDS (EPA 624/627, 8270)	TOTAL OIL & GREASE (EPA 5030&E)	PESTICIDES/PCB (EPA 608, 8080)	PHENOLS (EPA 604, 8040)			METALS: Cd, Cr, Pb, Zn	CAM METALS w/Cr VI	PRIORITY POL METALS (13)						NUMBER OF CONTAINERS
E-59	12/14/90	3:45			✓	✓	✓		✓			✓													1
E-60		3:47			✓	✓	✓		✓			✓													1
E-61		3:50			✓	✓	✓		✓			✓													1
E-62		4:05			✓	✓	✓		✓			✓													1
E-63		4:08			✓	✓	✓		✓			✓													1
E-64		4:10			✓	✓	✓		✓			✓													1

PROJECT INFORMATION

PROJECT: Eliot W.O.
PO NO. RMC LS
~~SHIPPING ID. NO.~~
P.O.# 9852885-0
VIA:

SAMPLE RECEIPT

TOTAL NO. OF CONTAINERS	6
CHAIN OF CUSTODY SEALS	✓
REC'D GOOD CONDITION/COLD	✓
CONFORMS TO RECORD	
LAB NO.	

SPECIAL INSTRUCTIONS/COMMENTS:

NORMAL 5 DAY T.A.T.

RELINQUISHED BY 1.	RELINQUISHED BY 2.	RELINQUISHED BY 3.
(Signature) (Time) 5:10	(Signature) (Time)	(Signature) (Time)
(Printed Name) (Date) BRADO STAICEY 12/14	(Printed Name) (Date)	(Printed Name) (Date)
(Company) RMC LONESTAR	(Company)	(Company)
RECEIVED BY 1.	**RECEIVED BY 2.**	**RECEIVED BY (LABORATORY) 3.**
(Signature) (Time)	(Signature) (Time)	(Signature) 5:10 (Time) Tara Jamison 12-14-90
(Printed Name) (Date)	(Printed Name) (Date)	(Printed Name) (DATE)
(Company)	(Company)	(LAB) Chromalab, INC.

CHROMALAB, INC.

Analytical Laboratory
Specializing in GC-GC/MS

- Environmental Analysis
- Hazardous Waste (#E694)
- Drinking Water (#955)
- Waste Water
- Consultation

January 25, 1991

ChromaLab File No.: 0191076

RECEIVED
JAN 3 0 1991
ENVIRONMENTAL

RMC LONESTAR

Attn: Bradd Statley

RE: Three soil samples for Gasoline/BTEX, Diesel, and Oil & Grease analyses

Project Name: ELIOT W.O.
Date Sampled: Jan 18, 1991 Date Submitted: Jan 18, 1991
Date Extracted:Jan. 21-24, 1991 Date Analyzed: Jan 21-24,1991

RESULTS:

Sample No.	Gasoline (mg/Kg)	Diesel (mg/Kg)	Benzene (µg/Kg)	Toluene (µg/Kg)	Ethyl Benzene (µg/Kg)	Total Xylenes (µg/Kg)	Oil & Grease (mg/Kg)
E-65	6.1	89	N.D.	13	N.D.	N.D.	7400
E-66	3.2	110	N.D.	N.D.	N.D.	N.D	2600
E-67	5.5	75	N.D.	N.D.	N.D.	N.D.	2200
BLANK	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.	N.D.
SPIKE RECOVERY	97.0%	88.8%	94.5%	92.2%	99.6%	90.3%	----
DUP.SP.REC.	93.9%	103.2%	84.8%	95.8%	101.8%	93.2%	----
DETECTION LIMIT	1.0	1.0	5.0	5.0	5.0	5.0	10
METHOD OF ANALYSIS	5030/ 8015	3550/ 8015	8020	8020	8020	8020	5520 E & F

ChromaLab, Inc.

David Duong
Chief Chemist

Eric Tam (by DD)
Eric Tam
Laboratory Director

2239 Omega Road, #1 • San Ramon, California 94583
415/831-1788 • Facsimile 415/831-8798
Federal ID #68-0140157

CHROMALAB, INC.

CHROMALAB FILE # 191076

22 1441 ornia 94583 :798

Chain of Custody

DATE 1-18-91 PAGE 1 OF 1

PROJ. MGR. BRADD STATLEY
COMPANY RMC LONESTAR
ADDRESS P.O. Box 5252
Pleasanton CA 94566

SAMPLERS (SIGNATURE) Bradd Statley (PHONE NO.) (415) 426-2279

ANALYSIS REQUEST

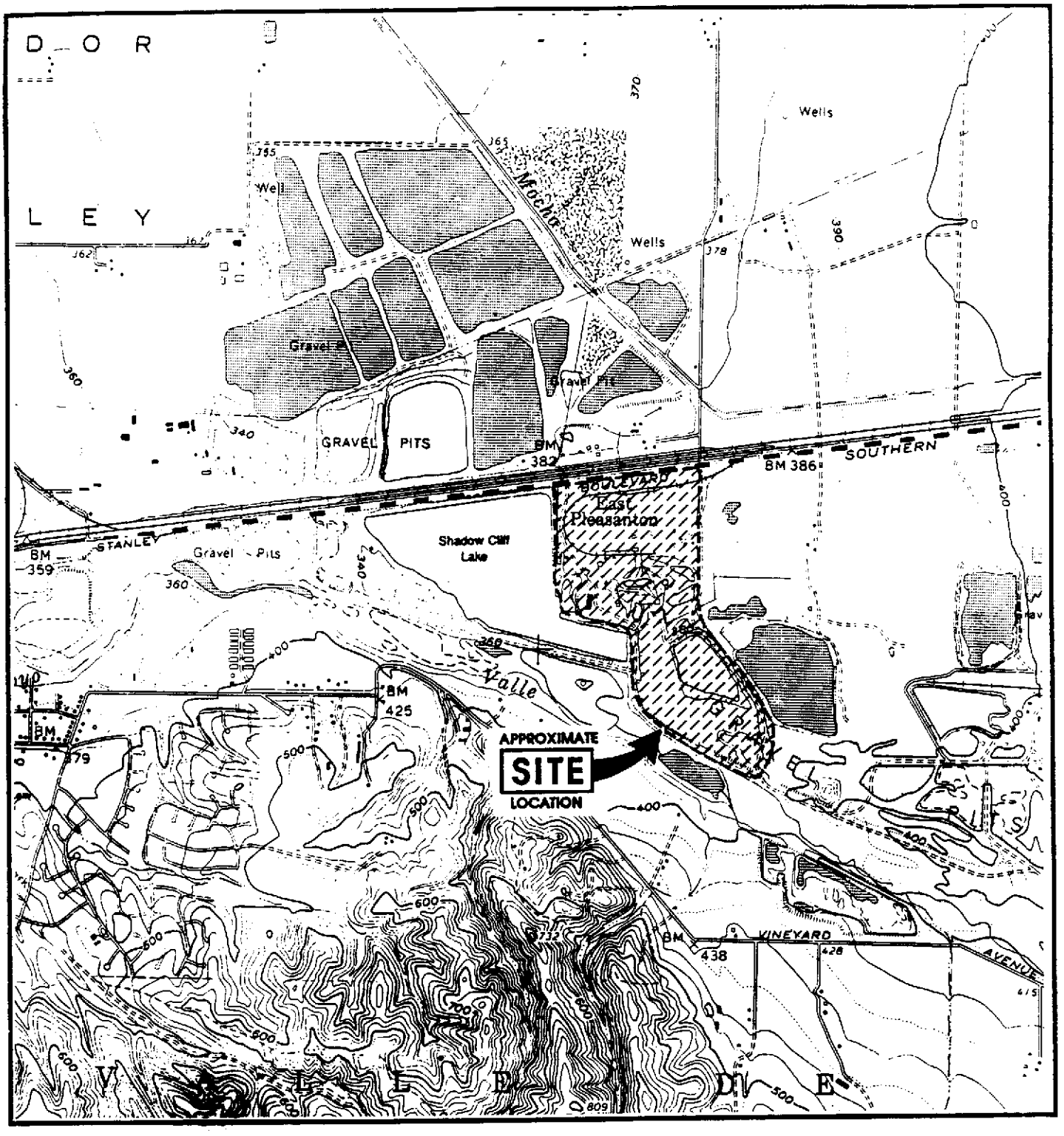
SAMPLE ID.	DATE	TIME	MATRIX	LAB ID.	TPH - Gasoline (EPA 5030)	TPH - Gasoline (5030) w/BTEX (EPA 602, 8020)	TPH - Diesel (EPA 3510, 3550)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240)	BASE/NEUTRALS, ACIDS (EPA 624/627, 8270)	TOTAL OIL & GREASE (EPA 5030&E)	PESTICIDES/PCB (EPA 608, 8080)	PHENOLS (EPA 604, 8040)			METALS: Cd, Cr, Pb, Zn	CAM METALS (18) w/Cr VI	PRIORITY POLLUTANT METALS (13)						NUMBER OF CONTAINERS
E-65	1-18-91	9:30				X	X					X													
E-66	"	9:45				X	X					X													
E-67	"	10:00				X	X					X													

PROJECT INFORMATION	
PROJECT:	Eliot W.O.
PO NO.	
SHIPPING ID. NO.	
VIA:	

SAMPLE RECEIPT	
TOTAL NO. OF CONTAINERS	3
CHAIN OF CUSTODY SEALS	✓
REC'D GOOD CONDITION/COLD	✓
CONFORMS TO RECORD	✓
LAB NO.	

SPECIAL INSTRUCTIONS/COMMENTS:
Normal 5 DAY TAT

RELINQUISHED BY 1.	RELINQUISHED BY 2.	RELINQUISHED BY 3.
(Signature) Bradd Statley (Time) 12:30	(Signature) (Time)	(Signature) (Time)
(Printed Name) BRADD STATLEY (Date) 1-18-91	(Printed Name) (Date)	(Printed Name) (Date)
(Company)	(Company)	(Company)
RECEIVED BY 1.	**RECEIVED BY 2.**	**RECEIVED BY (LABORATORY) 3.**
(Signature) (Time)	(Signature) (Time)	(Signature) 1-18-91 (Time)
(Printed Name) (Date)	(Printed Name) (Date)	P. MOUETTE 12:30 (Printed Name) (DATE)
(Company)	(Company)	(LAB)



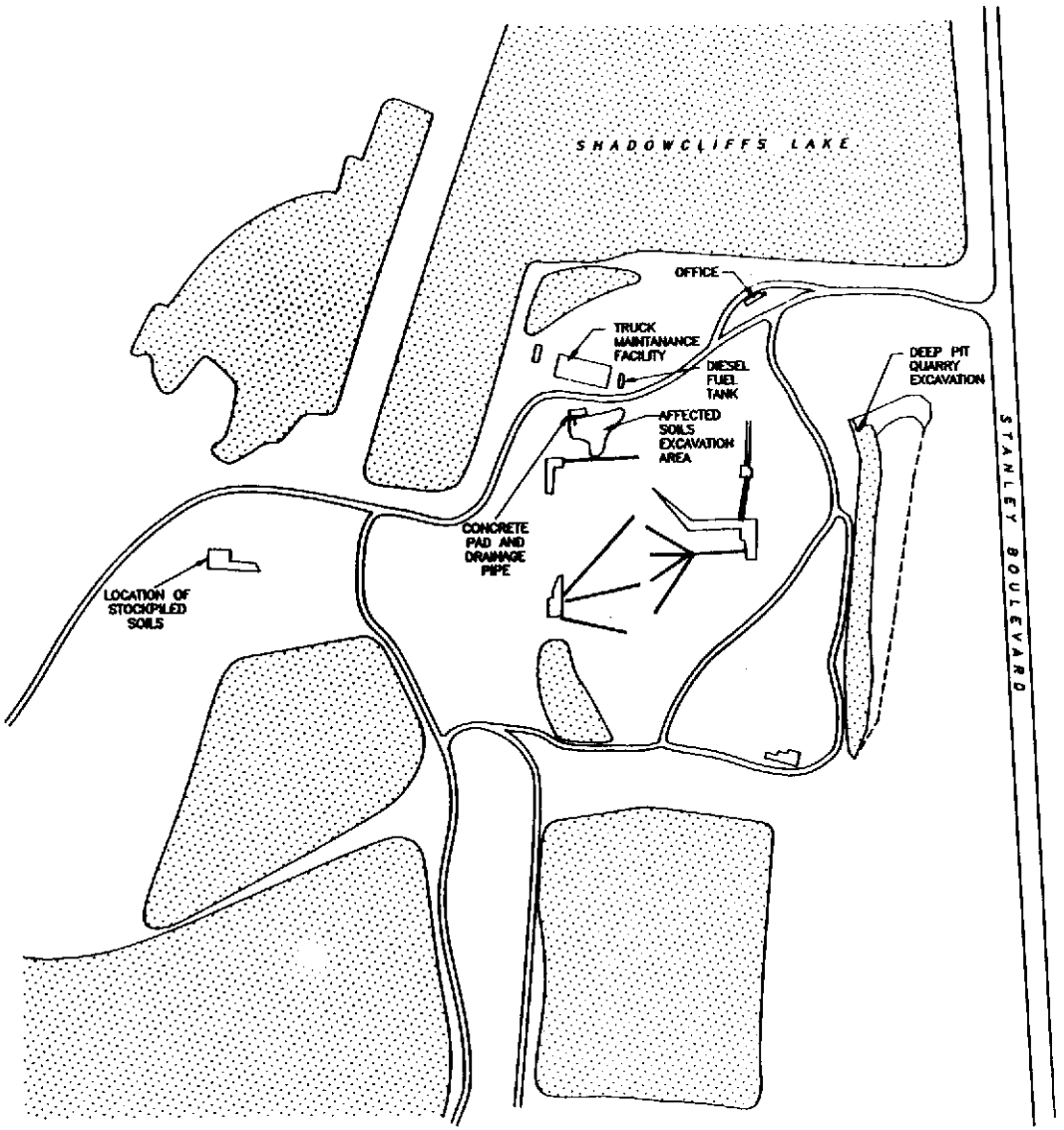
MAP SOURCE:
U.S.G.S. Livermore, California
7.5' Quadrangle

Figure 1 : SITE VICINITY MAP

Project No. 89P-271

LEVINE • FRICKE
CONSULTING ENGINEERS AND HYDROGEOLOGISTS

89P-271RL13APR89jca/fig.1



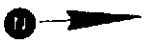


Figure 2 :
SITE PLAN

Project No.88P-271 LEVINE•FRICKE