

ETIC

ENVIRONMENTAL ENGINEERS
CONTRACTOR'S LICENSE NO. 624022

3275 Stevens Creek Blvd. #315
San Jose, CA 95117
408-244-7202
FAX 408-244-7277

2/2/2000

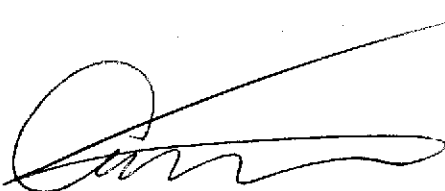
Alameda County Environmental Health Services
Attention: Ms. Eva Chu
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Dear Ms. Chu:

On 7/26/99 and again on 11/4/99 you requested a workplan for preliminary site assessment (PSA) at the Livermore Gas and Mini Mart located at 160 Holmes Street, in Livermore.

The PSA Workplan is enclosed for your review and comment.

Sincerely,



Costas Orountiotis
Project Manager

06 FEB - 8 AM 9: 04

ENVIRONMENTAL
PROTECTION

ETIC

ENVIRONMENTAL ENGINEERS
CONTRACTOR'S LICENSE NO. 624022

3275 Stevens Creek Blvd. #315
San Jose, CA 95117
408-244-7202
FAX 408-244-7277

**WORKPLAN
FOR
PRELIMINARY SITE INVESTIGATION**

ACEHS SID #4130

**LIVERMORE GAS AND MINI MART
160 HOLMES STREET
LIVERMORE, CALIFORNIA**

Prepared For:

Mr. Manwel Shuwayhat

1/31/2000

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WORKPLAN FOR PSA

**Livermore Gas and Mini Mart
160 Holmes Street
Livermore, California**

1/31/2000

INTRODUCTION

This document is the workplan requested by Ms. Eva Chu of the Alameda County Environmental Health Services (ACEHS) on 7/26/99 and on 11/4/99, for the preliminary soil and groundwater assessment (PSA) of contamination at the Livermore Gas and Mini Mart (LGMM), 160 Holmes Street, in Livermore. The two ACEHS directives are attached in Appendix A.

The objectives of the PSA are twofold: a) to delineate the onsite extent of soil and groundwater contamination and b) to determine the local gradient and follow up with off site soil and groundwater contaminant definition by the use of geoprobe technology.

The property is an old gas station that is currently in the process of been upgraded; it is located on the corner of First and Holmes Streets (the property is bound by First, Second and Holmes Streets). Figure 1 is the Site Vicinity Map and Figure 2 is the Site Plan.

PAST WORK ON SITE

On 2/26/99, a boring was advanced in the northern section of the property, about 10 feet from the edge of First Street sidewalk, to log soil and determine depth to groundwater. A groundwater grab sample was collected and analyzed for TPHg/BTEX/MtBE. The sample was found to be impacted by petroleum hydrocarbons (TPHg: 100,000 ug/l, Benzene: 6,100 ug/l, MtBE: 60,000). The results were communicated to the Livermore-Pleasanton Fire Department (LFPD) and a UST unauthorized release report was generated. The laboratory report and Chain of Custody (COC) are presented in Appendix B.

On 4/5/99, four USTs, associated dispensers and piping were removed, manifested and disposed, under permit by the LFPD. The pit was overexcavated and samples were collected from native soil beneath the USTs; sample analysis indicated the presence of petroleum hydrocarbons in soil. TPHd was detected at low levels (61 mg/kg) in the soil stockpile but not beneath the diesel tank; TPHg concentrations ranged from not detectable to 80 mg/kg in all samples; MtBE concentrations ranged from 24 to 110 mg/kg. The laboratory report and COC are presented in Appendix C.

On 5/20/99 samples were collected beneath the dispenser islands. TPHg was found beneath the east dispenser island in varying concentrations ranging from 32 mg/kg to 6,500 mg/kg; TPHd beneath the diesel dispenser was detected at 1300 mg/kg; no MtBE was detected beneath the dispenser islands. The laboratory report and COC are presented in Appendix D.

PROPOSED METHODOLOGY

Potential contamination patterns will be determined by installing three monitoring wells at the site; the general groundwater gradient is reported to be along the northwest axis of the valley. Well MW1 will be located in the northeast section of the site, between the former diesel tank and First Street. Well MW2 will be located in the southwest section of the site, between former gasoline dispenser #3 and First Street. Well MW3 will be located in the southeast section of the site between former gasoline dispenser #2 and Second Street. The proposed well locations, previous boring and UST locations are shown on Figure 2.

Borings for the wells will be drilled with truck mounted continuous flight auger drilling equipment. Eight inch outside diameter hollow stem augers will be used. The anticipated depth of the wells is 30 feet. Soil samples will be collected every five feet and at the semi-saturated capillary zone above the water table. Once the capillary fringe sample is obtained, the borings will be extended past the groundwater surface and terminated.

Soil samples will be labeled and placed in a cooler on ice to minimize potential loss of volatile constituents. Sample information will be entered onto a Chain of Custody (COC) document; the samples and COC will be submitted to Chromalab Inc., a State certified hazardous materials analysis laboratory. Selected soil samples will be analyzed for TPHd, TPHg/BTEX and MtBE compounds using EPA Methods 5030/8015/8020.

The wells will be constructed using 2" diameter, Schedule 40 PVC, factory threaded and factory slotted (0.010"). Wells will be screened with ten feet of screen from the bottom. Sand (No. 2/12) will be placed such that it extends 2 feet above the screened section. One to two feet of bentonite pellets will be placed over the sand-pack and hydrated with water to initiate expansion. The remaining borehole will be sealed with neat cement slurry. A 12"-diameter traffic rated enclosure (christie box) will be used to protect and provide access to each well. The top of each well will be secured with a locked expansion plug.

The wells will be surveyed to obtain data for the determination of the groundwater gradient and direction of flow.

After a minimum of 72 hours, the wells will be checked for floating product and purged of 4 to 10 well casing volumes each. A groundwater sample will be collected from each well using a disposable bailer.

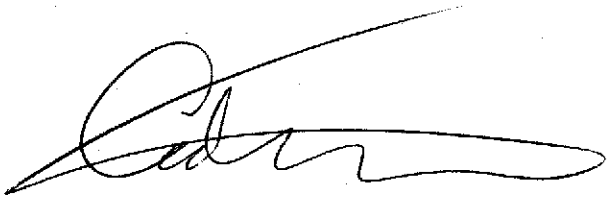
Samples will be collected by decanting the bailer into duplicate 40-ml VOA sample collection bottles with silicon septum, in such a way that no air bubbles are retained. Groundwater samples will be analyzed for TPHd, TPHg and BTEX compounds using EPA Methods 5030/8015/602. As required by the RWQCB the samples will also undergo a one-time analysis for fuel oxygenates using EPA method 8260.

PROPOSED SCHEDULE


When all laboratory results have been obtained, the data will be reviewed and a technical report will be prepared.

- 30 days Permits, driller scheduling, agency coordination
- 10 days Install wells, survey, sample, sample analysis
- 45 days Submit technical report of groundwater contamination beneath the site
- 15 days Submit short workplan on location of on and off site geoprobes
- 30 days Permits, driller scheduling, agency coordination, traffic control for geoprobes
- 10 days Advance geoprobes, sample groundwater, sample analysis
- 45 days Submit technical report on the off site contamination distribution

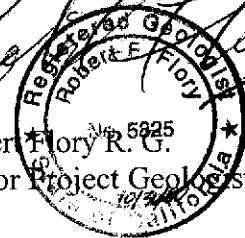
This workplan may be discussed by calling the undersigned at (408) 244-7202.

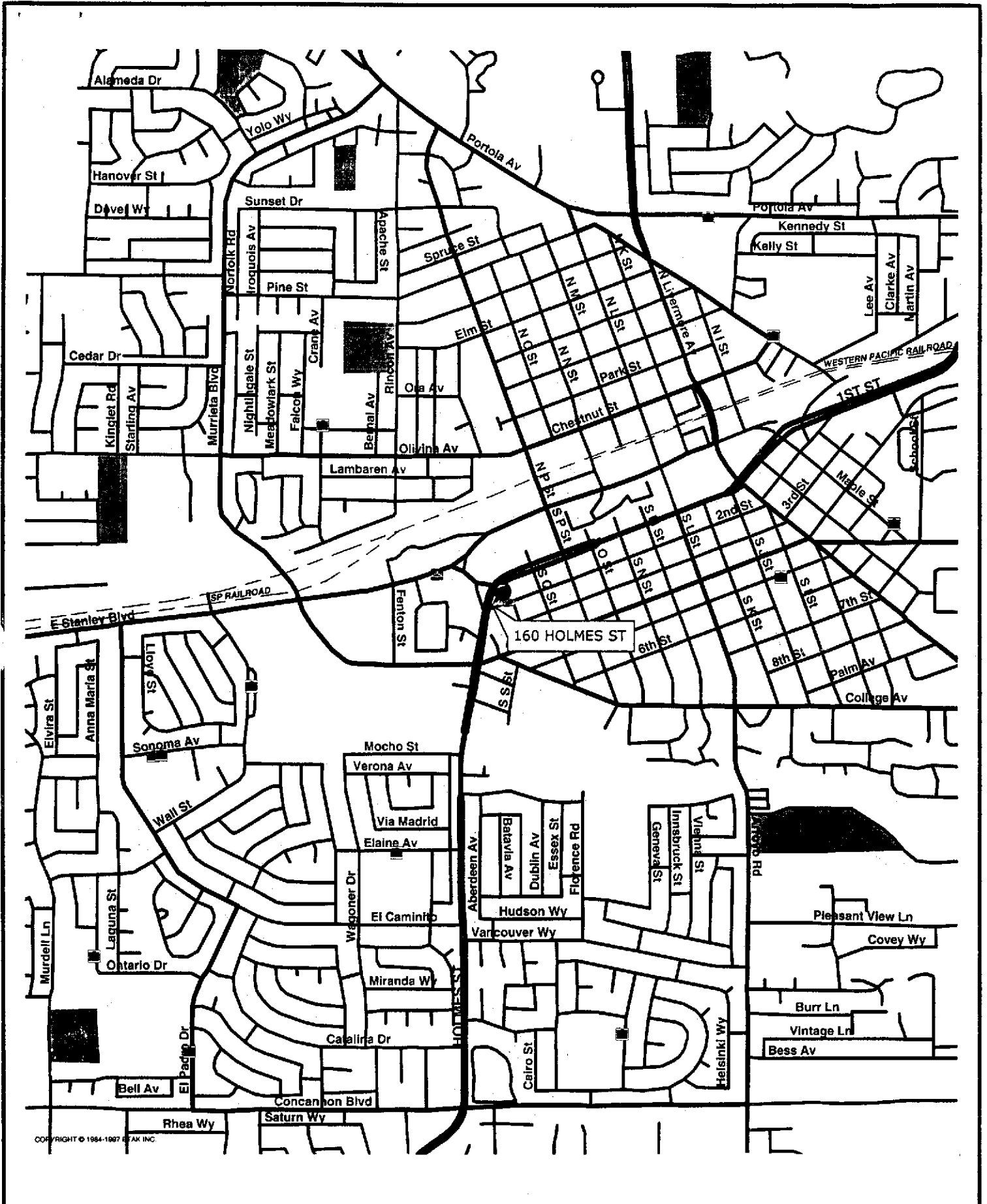


Costas Orountiotis
Project Manager



Robert Flory R. G.
Senior Project Geologist



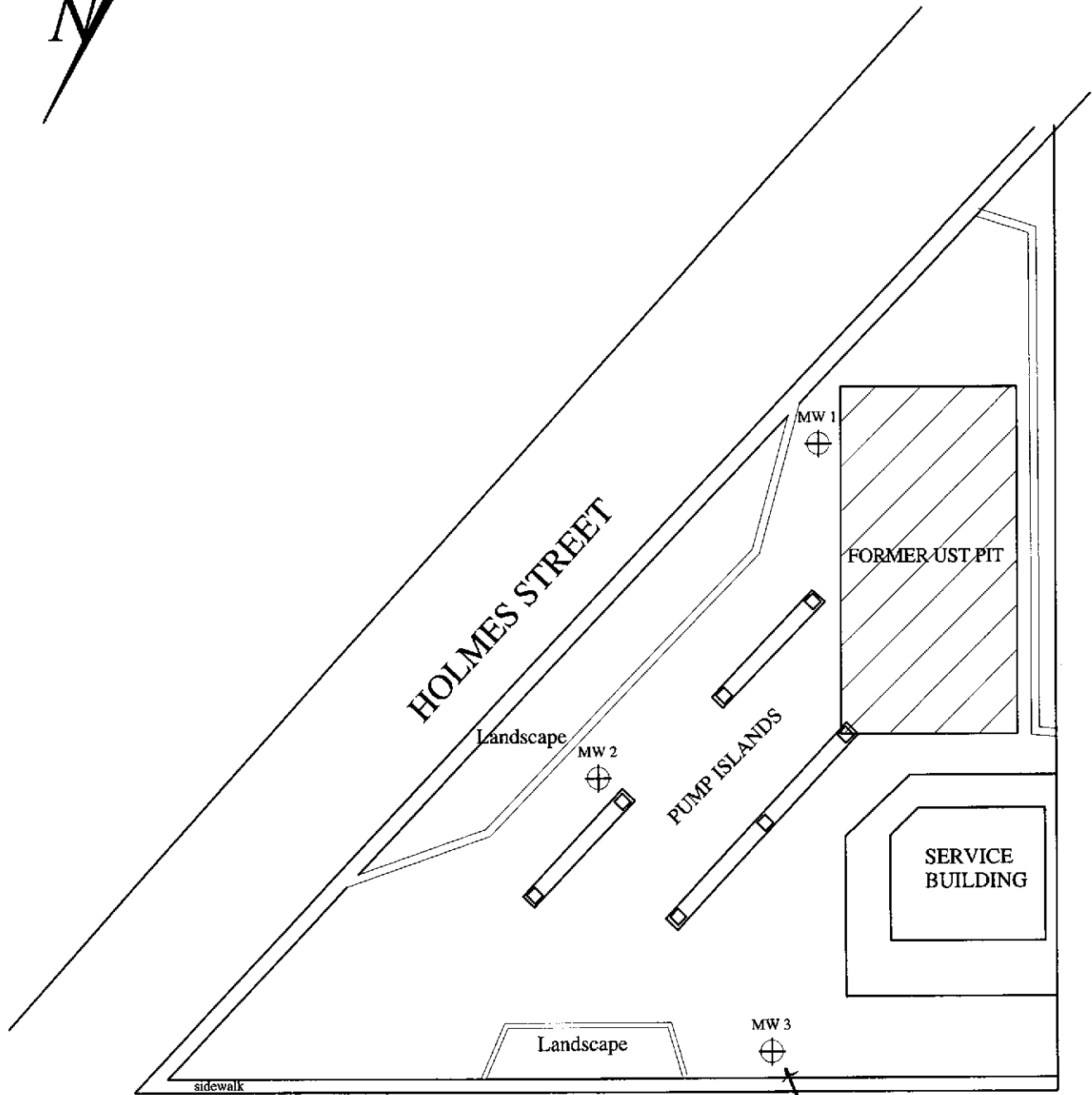


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ETIC
Engineering Inc

SITE VICINITY MAP
160 Homes Street
Livermore, CA

Figure No.
1
Project
Shuwayhat



Proposed well locations



ETIC
Engineering Inc

Site Plan and UST Location
Livermore Gas and Minimart
160 Homes Street, Livermore, CA

Figure No.
2

Project No.
shuwayhat

APPENDIX

A

ACEHS Directives

ALAMEDA COUNTY
HEALTH CARE SERVICES

AGENCY

DAVID J. KEARS, Agency Director



ENVIRONMENTAL HEALTH SERVICES

1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
(510) 357-9335 (FAX)

StID 4130

July 26, 1999

Mr. Manwel Shuwayhat
Livermore Gas and Mini Mart
54 Wolfe Canyon Road
Kentfield, C A 94904

RE: PSA for 160 Holmes Street, Livermore, CA

Dear Mr. Shuwayhat:

I have completed review of ETIC's July 1999 reports documenting the removal of four underground storage tanks (in February 1999) at the above referenced address. Soil samples collected from the tank excavation contained up to 6,500 parts per million total petroleum hydrocarbons as gasoline (TPHg) and 110 ppm Methy-Tert-Butyl-Ether (MTBE). In addition, a grab water sample collected from a soil boring advanced next to the former USTs contained 100 ppm TPHg and 60ppm MTBE. Clearly an unauthorized release of fuel products has occurred at the site.

At this time, additional investigations are required to delineate the extent and severity of soil and groundwater contamination at the site. Such an investigation shall be in the form of a **Preliminary Site Assessment**, or PSA. The information gathered by the PSA will be used to determine an appropriate course of action to remediate the site, if deemed necessary. The PSA must be conducted in accordance with the RWQCB Staff Recommendations for the Initial Evaluation and Investigation of Underground Tanks, and Article 11 of Title 23, California Code of Regulations. The major elements of such an investigation are summarized in the attached Appendix A.

In order to proceed with this site investigation, you should obtain the professional services of a reputable environmental consultant. Your responsibility is to have the consultant submit for review a proposal outlining planned activities for the delineation of soil and groundwater contamination at the site.

The PSA proposal is due **within 60 days** of the date of this letter, or by **September 27, 1999**. Once the proposal is approved, field work should commence within 60 days. A report must be submitted within 45 days after the completion of this phase of work at the site. Subsequent reports are to be submitted quarterly until this site qualifies for RWQCB "sign off." All reports and proposals must be submitted under seal of a California Registered Geologist, Certified Engineering Geologist, or Registered Civil Engineer.

**ALAMEDA COUNTY
HEALTH CARE SERVICES****AGENCY**
DAVID J. KEARS, Agency Director**ENVIRONMENTAL HEALTH SERVICES**1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
(510) 337-9335 (FAX)

StID 4130

November 24, 1999

Mr. Manwel Shuwayhat
Livermore Gas and Mini Mart
54 Wolfe Canyon road
Kentfield, CA 94904**SECOND NOTICE OF VIOLATION**

Dear Mr. Shuwayhat:

On July 26, 1999, the Alameda County Department of Environmental Health, Hazardous Materials Division, sent you a letter requesting a workplan detailing the work to be performed to determine the extent of soil and groundwater contamination at **160 Holmes Street, Livermore, CA**. As of the date of this letter, however, we have not received any communication from you on this matter. Therefore, this letter constitutes a **Second Notice** that you are in violation of specific laws and that the technical report is due.

According to Section 25298 of the California Health and Safety Code, underground storage tank closure is incomplete until the responsible party characterizes and remediates the contamination resulting from product discharge. Therefore, you, as the responsible party are in violation of this section of the Code, for which Section 25299 specifies civil penalties of up to \$5,000, for each day of violation, upon conviction. Also, failure to furnish technical reports regarding documented or potential groundwater contamination violates Section 13267(b) of the California Water Code. The Regional Water Quality Control Board (RWQCB) can impose civil penalties of up to \$1,000 per day that such a violation continues.

You are required to submit the technical report for the site to this office within 30 days from the date of this letter or by **December 27, 1999**. Failure to respond may result in referral of this case to the RWQCB or Alameda County District Attorney to consider for enforcement action. Modification of required tasks or extensions of stated deadlines must be confirmed in writing by either this agency or the RWQCB.

If you have any questions, I can be reached at (510) 567-6762.

eva chu
Hazardous Materials Specialist

holmes3

**APPENDIX
B**

Groundwater sample from 2/26/99 soil boring

55004/2307/99

Lab: _____

44775
Sub-Contract

CHROMALAB, INC.

1220 Quarry Lane • Pleasanton, California 94566-4756
510/484-1919 • Facsimile 510/484-1096

Chain of Custody

Environmental Services (SDB) (DOI IS 1094)

DATE 2/26/99 PAGE 1 OF 1

PROJECT MGR COMPANY ADDRESS SAMPLES (SIGNATURE) (PHONE NO.) (FAX NO.) TPA/MS/PE BTX				ANALYSIS REPORT SURV #: 9503882 REP: PH CLIENT: ETIC DUE: 03/05/99 REF #: 44773												ChromaLab Reference or Submission Number(s)	NUMBER OF CONTAINERS			
C	OROUNTIOTIS ETIC																			
SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	X	X														
EXXON1	2/26/99		H2O	ICE	X	X														

2 VOLS
5-9
CA

PROJECT INFORMATION					SAMPLE RECEIPT					RELINQUISHED BY 1			RELINQUISHED BY 2			RELINQUISHED BY 3			
PROJECT NAME EXXON			TOTAL NO OF CONTAINERS		HEAD SPACE			REQ'D GOOD CONDITION/COLD			SIGNATURE C. OROUNTIOTIS			SIGNATURE			SIGNATURE		
PROJECT NUMBER					CONFIRMS TO RECORD			ETIC 2/26/99											
P.O. # ET 826																			
SPECIAL INSTRUCTIONS/COMMENTS										RECEIVED BY 1 SIGNATURE N. Pavez 2/26/99			RECEIVED BY 2			RECEIVED BY (LABORATORY) 3			
										SIGNATURE			SIGNATURE			SIGNATURE			
										DATE			DATE			DATE			
										COMPANY			COMPANY			COMPANY			
										LAB			LAB			LAB			

CHROMALAB, INC.

Environmental Services (SDB)

March 5, 1999

Submission #: 9903002

ETIC

Atten: Costas Orountiotis

Project: EXXON
Received: February 26, 1999

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: **EXXON1**

Spl#: 230532

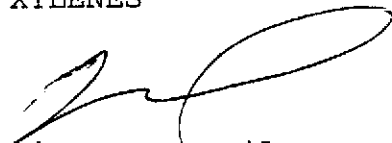
Matrix: WATER


Sampled: February 26, 1999

Run#:17671

Analyzed: March 2, 1999

ANALYTE	RESULT (ug/L)	REPORTING LIMIT (ug/L)	BLANK RESULT (ug/L)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	100000	25000	N.D.	98	500
MTBE	60000	2500	N.D.	99	500
BENZENE	6100	250	N.D.	89	500
TOLUENE	16000	250	N.D.	90	500
ETHYL BENZENE	2500	250	N.D.	88	500
XYLENES	11000	250	N.D.	87	500


Vincent Vancil
Analyst


Michael Verona
Operations Manager

**APPENDIX
C**

Soil samples beneath the four USTs

CHROMALAB, INC.

Environmental Services (SDB)

April 13, 1999

Submission #: 9904064

ETIC

Atten: Costas Orountiotis

Project: LIVERMORE
Received: April 6, 1999

Project#: ET843

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: T1-WEST


Spl#: 235527
Sampled: April 5, 1999

Matrix: SOIL
Run#:18232

Analyzed: April 8, 1999

<u>ANALYTE</u>	<u>RESULT</u> (mg/Kg)	<u>REPORTING</u> <u>LIMIT</u> (mg/Kg)	<u>BLANK</u> <u>RESULT</u> (mg/Kg)	<u>BLANK</u> <u>SPIKE</u> (%)	<u>DILUTION</u> <u>FACTOR</u>
GASOLINE	N.D.	20	N.D.	102	2
MTBE	24	1.2	N.D.	90	2
BENZENE	N.D.	1.2	N.D.	96	2
TOLUENE	N.D.	1.2	N.D.	96	2
ETHYL BENZENE	N.D.	1.2	N.D.	97	2
XYLENES	N.D.	1.2	N.D.	92	2


Vincent Vancil
Analyst


Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

April 13, 1999

Submission #: 9904064

ETIC

Atten: Costas Orountiotis

Project: LIVERMORE
Received: April 6, 1999

Project#: ET843

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: T2-WEST

Spl#: 235528

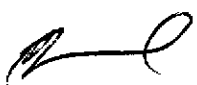
Matrix: SOIL

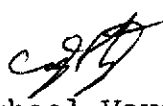
Sampled: April 5, 1999

Run#:18232

Analyzed: April 12, 1999

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	100	N.D.	102	10
MTBE	47	6.2	N.D.	90	10
BENZENE	N.D.	6.2	N.D.	96	10
TOLUENE	N.D.	6.2	N.D.	96	10
ETHYL BENZENE	N.D.	6.2	N.D.	97	10
XYLENES	N.D.	6.2	N.D.	92	10


Vincent Vancil
Analyst


Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

April 13, 1999

Submission #: 9904064

ETIC

Atten: Costas Orountiotis

Project: LIVERMORE
Received: April 6, 1999

Project#: ET843

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: T3-WEST

Spl#: 235529


Matrix: SOIL


Sampled: April 5, 1999

Run#:18232

Analyzed: April 9, 1999

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	200	N.D.	102	20
MTBE	41	12	N.D.	90	20
BENZENE	N.D.	12	N.D.	96	20
TOLUENE	N.D.	12	N.D.	96	20
ETHYL BENZENE	N.D.	12	N.D.	97	20
XYLENES	N.D.	12	N.D.	92	20


Vincent Vancil
Analyst


Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

April 13, 1999

Submission #: 9904064

ETIC

Atten: Costas Orountiotis

Project: LIVERMORE
Received: April 6, 1999

Project#: ET843

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: T4-WEST

Spl#: 235530


Matrix: SOIL


Sampled: April 5, 1999

Run#:18232

Analyzed: ** **, ****

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	200	N.D.	102	20
MTBE	110	12	N.D.	90	20
BENZENE	N.D.	12	N.D.	96	20
TOLUENE	N.D.	12	N.D.	96	20
ETHYL BENZENE	N.D.	12	N.D.	97	20
XYLENES	N.D.	12	N.D.	92	20


Vincent Vancil
Analyst


Michael Verona
Operations Manager

CHROMALAB, INC.

Environmental Services (SDB)

April 14, 1999

Submission #: 9904064

ETIC

Atten: Costas Orountiotis

Project: LIVERMORE
Received: April 6, 1999

Project#: ET843


re: 1 sample for TPH - Diesel analysis.
Method: EPA 8015M


Sampled: April 5, 1999

Matrix: SOIL
Run#: 18210

Extracted: April 7, 1999
Analyzed: April 7, 1999

Spl#	CLIENT SPL ID	DIESEL (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
235527	T1-WEST	N.D.	1.0	N.D.	79.9	1


Carolyn House
Analyst


Bruce Havlik
Analyst

9904064/235527

Reference #: 45382

CHROMALAB, INC.

1220 Quarry Lane • Pleasanton, California 94566-4756
510/484-1919 • Facsimile 510/484-1096

Chain of Custody

Environmental Services (SDB) (DOHS 1094)

DATE 4/5/99 PAGE 1 OF 1

PROJ MGR C. Orountiotis
COMPANY ETIC Engineering
ADDRESS 3275 Stevens Creek Blvd., #315
San Jose, CA 95117

SAMPLERS (SIGNATURE) [Signature] (PHONE NO.) (408) 244-7202
(FAX NO.) (408) 244-7277

ANALYSIS REPORT

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH (EPA 8015, 8020) * Gas w/ BTEX (MTE)	PURGEABLE AROMATICS BTEX (EPA 8020)	TPH-Diesel (EPA 8015M)	TEPH (EPA 8015M) * Kerosene, Diesel, O.M.O.	PURGEABLE HALOCARBONS, (HVOCS) (EPA 8010)	VOLATILE ORGANICS (VOCs) (EPA 8260)	SEMIVOLATILES (EPA 8270)	TOTAL OIL AND GREASE (SM 5520 B + F, E + F)	<input type="checkbox"/> PESTICIDES (EPA 8080) <input type="checkbox"/> PCB'S (EPA 8080)	PNA's by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310	<input type="checkbox"/> Spec. Cond. <input type="checkbox"/> TSS <input type="checkbox"/> TDS	LUFT METALS: Cd, Cr, Pb, Ni, Zn	CAM 17 METALS (EPA 6010/7470/7471)	TOTAL LEAD	D.W.E.T. (STLC) <input type="checkbox"/> TCLP	<input type="checkbox"/> Hexavalent Chromium <input type="checkbox"/> pH (24 hr hold time for H2O)	NUMBER OF CONTAINERS
T1-west	4/5/99	4:00	Soil	ice	X		X														1
T2-west	↓	↓	↓	↓	X																1
T3-west	↓	↓	↓	↓	X																1
T4-west	↓	↓	↓	↓	X																1
SUBM #: 9904064 REP: PH CLIENT: ETIC DUE: 04/13/99 REF #: 45382																					

4.7 off
4 soil tubes

PROJECT INFORMATION
PROJECT NAME Livermore
PROJECT NUMBER ET 843

SAMPLE RECEIPT
TOTAL NO. OF CONTAINERS
HEAD SPACE
TEMPERATURE
CONFORMS TO RECORD

TAT STANDARD 5-DAY 24 48 72 OTHER

Report: Routine Level 2 Level 3 Level 4 Electronic Report

SPECIAL INSTRUCTIONS/COMMENTS:
Only west end of pit sampled.
East end in 2 weeks.

RELINQUISHED BY 1 <u>[Signature]</u> (SIGNATURE) (TIME) <u>C. OROUNTIOUIS</u> (PRINTED NAME) (DATE) <u>ETIC 4/5/99</u> (COMPANY)	RELINQUISHED BY 2 <u>[Signature]</u> (SIGNATURE) (TIME) <u>[Signature]</u> (PRINTED NAME) (DATE) <u>[Signature]</u> (COMPANY)	RELINQUISHED BY 3 <u>[Signature]</u> (SIGNATURE) (TIME) <u>[Signature]</u> (PRINTED NAME) (DATE) <u>[Signature]</u> (COMPANY)
RECEIVED BY 1 <u>[Signature]</u> (SIGNATURE) (TIME) <u>[Signature]</u> (PRINTED NAME) (DATE) <u>[Signature]</u> (COMPANY)	RECEIVED BY 2 <u>[Signature]</u> (SIGNATURE) (TIME) <u>[Signature]</u> (PRINTED NAME) (DATE) <u>[Signature]</u> (COMPANY)	RECEIVED BY (LABORATORY) 3 <u>[Signature]</u> (SIGNATURE) (TIME) <u>[Signature]</u> (PRINTED NAME) (DATE) <u>[Signature]</u> (LAB)

CHROMALAB, INC.

Environmental Services (SDB)

April 13, 1999

Submission #: 9904065

ETIC

Atten: Costas Orountiotis

Project: LIVERMORE
Received: April 6, 1999

Project#: ET844

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: STOCK-1

Spl#: 235531

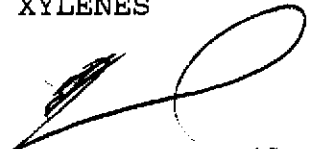
Matrix: SOIL

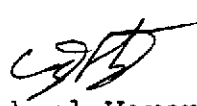
Sampled: April 5, 1999

Run#:18232

Analyzed: April 9, 1999

ANALYTE	RESULT (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
GASOLINE	N.D.	10	N.D.	102	1
MTBE	0.70	0.62	N.D.	90	1
BENZENE	N.D.	0.62	N.D.	96	1
TOLUENE	N.D.	0.62	N.D.	96	1
ETHYL BENZENE	N.D.	0.62	N.D.	97	1
XYLENES	N.D.	0.62	N.D.	92	1


Vincent Vancil
Analyst


Michael Verona
Operations Manager

408-244-7277

1220 Quarry Lane • Pleasanton, California 94566-4756
(925) 484-1919 • Facsimile (925) 484-1096
Federal ID #68-0140157

PM V135 O: BTEXQC0220

VINCE 13:53

9904065/235531

45383

CHROMALAB, INC.

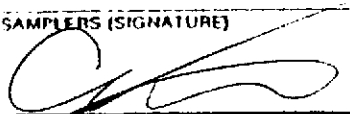
1220 Quarry Lane • Pleasanton, California 94566-4756
510/484-1919 • Facsimile 510/484-1096

Reference #: _____
Chain of Custody

Environmental Services (SDB) (DOHS 1094)

DATE 4/5/99 PAGE 1 OF 1

PROJ MGR C. Orountiotis
COMPANY ETIC Engineering
ADDRESS 3275 Stevens Creek Blvd., #315
San Jose, CA 95117

SAMPLERS (SIGNATURE)  (PHONE NO.) (408) 244-7202
(FAX NO.) (408) 244-7277

ANALYSIS REPORT

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH (EPA 8015, 8020) BTEX w/ 75 BTEX MMBTE	PURGEABLE AROMATICS BTEX (EPA 8020)	TPH-Diesel (EPA 8015M)	TEPH (EPA 8016M) Kerosene, Diesel, OM.O.	PURGEABLE HALOCARBONS (BYOCs) (EPA 8010)	VOLATILE ORGANICS (VOCs) (EPA 8260)	SEMI-VOLATILES (EPA 8270)	TOTAL OIL AND GREASE (SM 5520 B + F, E + F)	PESTICIDES (EPA 8080) PCB'S (EPA 8080)	PNA's by <input type="checkbox"/> 8270 <input type="checkbox"/> 8310	Spec. Cond. TSS <input type="checkbox"/> TDS	LUFT METALS: Cd, Cr, Pb, Ni, Zn	CAM 17 METALS (EPA 6010/7470/7471)	TOTAL LEAD	D.W.E.T. (STLC) TCLP	Hexavalent Chromium pH (24 hr hold time for H2O)	NUMBER OF CONTAINERS
STOCK-1	4/5/99		Soil	Ice	X																1

JOB # 9904065 REP: PH
CLIENT: ETIC
DUE: 04/13/99
REF # 99065

47°C
1 Soil tube

PROJECT INFORMATION		SAMPLE RECEIPT	
PROJECT NAME <u>Livermore</u>	TOTAL NO. OF CONTAINERS <u>1</u>	HEAD SPACE	TEMPERATURE
PROJECT NUMBER		CONFORMS TO RECORD	
P.O.# <u>ET1844</u>			
TAT	STANDARD 5-DAY	24	48 72 OTHER

RELINQUISHED BY	1.	RELINQUISHED BY	2.	RELINQUISHED BY	3.
(SIGNATURE) <u>C. Orountiotis</u>	(TIME)	(SIGNATURE)	(TIME)	(SIGNATURE) <u>[Signature]</u>	(TIME)
(PRINTED NAME) <u>ETIC</u>	(DATE) <u>4/6/99</u>	(PRINTED NAME)	(DATE)	(PRINTED NAME) <u>[Name]</u>	(DATE) <u>4/6/99</u>
(COMPANY)		(COMPANY)		(COMPANY)	

Report: Routine Level 2 Level 3 Level 4 Electronic Report

SPECIAL INSTRUCTIONS/COMMENTS:
Stockpile sample

RECEIVED BY	1.	RECEIVED BY	2.	RECEIVED BY (LABORATORY)	3.
(SIGNATURE) <u>[Signature]</u>	(TIME)	(SIGNATURE)	(TIME)	(SIGNATURE) <u>[Signature]</u>	(TIME) <u>1615</u>
(PRINTED NAME) <u>[Name]</u>	(DATE) <u>4-6-99</u>	(PRINTED NAME)	(DATE)	(PRINTED NAME) <u>[Name]</u>	(DATE) <u>4/6/99</u>
(COMPANY)		(COMPANY)		(LAB)	

CHROMALAB, INC.

Environmental Services (SDB)

April 27, 1999

Submission #: 9904266

ETIC

Atten: Costas Orountiotis


Project: LIVERMORE
Received: April 6, 1999

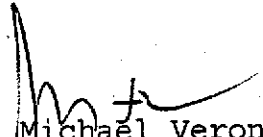
Project#: ET844

re: 1 sample for Lead analysis.
Method: EPA 3050A/7420A

Matrix: SOIL Extracted: April 22, 1999
Run#: 18443 Analyzed: April 23, 1999
Sampled: April 5, 1999

Spl#	CLIENT SPL ID	LEAD (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
237407	STOCK-1	N.D.	5.0	N.D.	102	1


Christopher Arndt
Analyst


Michael Verona
Operations Manager

9904266-237407 ADD ON/CHANGE

CHROMALAB, INC.

ORDER

New Submission No: _____

Order No: 45620

Environmental Services (SDB) (DOHS 1094)

Original Submission Info

Client Name: ETIC

Project Mgr: Caritas Orountiotis

Project Name: Silverman

Project No: ET844

PO#: _____

Date Received: 04-06-99

Submission No: 9904065

Name of Caller: C Orountiotis

Call Date: 04-20-99 Time: _____

Add on Due Date: 04-27-99 Date Sampled: _____

Comments: _____

SUBM #: 9904066 REF: PR
 CLIENT: ETIC
 DUE: 04/27/99
 REF #: 45620/9904063

ANALYSIS REPORT

SAMPLE ID	DATE	TIME	MATRIX	PRESRV.	TPH - Gasoline (EPA 8030, 8015)	TPH - Gasoline (S030, 8015) w/BTEX (EPA 602, 8020)	TPH - Diesel, TEPH (EPA 3510/3550, 8015)	PURGEABLE AROMATICS BTEX (EPA 602, 8020)	PURGEABLE HALOCARBONS (EPA 601, 8010)	VOLATILE ORGANICS (EPA 624, 8240, 524-C)	BASENEUTRALS, ACIDS (EPA 625/627, 8270, 525)	TOTAL OIL & GREASE (EPA 3520, 844, 8-F)	PCB (EPA 608, 8080)	PESTICIDES (EPA 608, 8080)	TOTAL RECOVERABLE HYDROCARBONS (EPA 418.1)	LUFT METALS: Cd, Cr, Pb, Zn, Ni	CAM METALS (17)	PRIORITY POLLUTANT METALS (13)	TOTAL LEAD	EXTRACTION (ICLP, STLC)	NUMBER OF CONTAINERS	
Stack-1	4-5-99		soil																X			

9905065

Reference #: 45900

CHROMALAB, INC.

1220 Quarry Lane • Pleasanton, California 94566-4756
510/484-1919 • Facsimile 510/484-1096

Chain of Custody

Environmental Services (SDB) (DOHS 1094)

DATE 5/6/99 PAGE 1 OF 1

PROJ MGR C. Orountiotis
COMPANY ETIC Engineering
ADDRESS 3275 Stevens Creek Blvd., #315
San Jose, CA 95117

ANALYSTS (SIGNATURE) (PHONE NO.)
Calvin Pratt (408) 244-7202
(408) 244-7277

ANALYSIS REPORT

SAMPLE ID.	DATE	TIME	MATRIX	PRESERV.	TPH (EPA 8015, 8020) W/ Gas w/ BTEX QM/TB	PURGEABLE AROMATICS BTEX (EPA 8020)	TPH-Diesel (EPA 8015M)	TEPH (EPA 8015M) Kerosene, Diesel, OM.O.	PURGEABLE HALOCARBONS, (HYOCs) (EPA 8010)	VOLATILE ORGANICS (VOCs) (EPA 8260)	SEMI-VOLATILES (EPA 8270)	TOTAL OIL AND GREASE (SM 5520 B + F, E + F)	PESTICIDES (EPA 8080) PCB'S (EPA 9080)	PNA's by 8270 8310	Spec. Cond. TSS TDS	LUFT METALS: Cd, Cr, Pb, Ni, Zn	CAM 17 METALS (EPA 6010/7470/7471)	TOTAL LEAD	W.E.T. (STLC) TCLP	Hexavalent Chromium pH (24 hr hold time for H2O)	NUMBER OF CONTAINERS	
T1-East Diesel	5/6/99		Soil	ice	X	X	X	No											No	No		1
T2-East	5/6/99		"		X	X	No												No			1
T3-East	5/6/99	1050	"		X	X	No											X				1
T4-East	5/6/99	1030	"		X	X	No												No			1
Stock 2	"		"		X	X	X															1

Order #: 9905065 REP: PH
CLIENT: ETIC
DUE: 6/15/99
REF #: 45900

PROJECT INFORMATION
PROJECT NAME: MANWEL
PROJECT NUMBER: ET 853
P.O. # ET 853
TAT: STANDARD 5-DAY
Report: Routine Level 2 Level 3 Level 4 Electronic Report
SPECIAL INSTRUCTIONS/COMMENTS: Depth ~ 14' (Handwritten)

SAMPLE RECEIPT
TOTAL NO. OF CONTAINERS: 5
HEAD SPACE:
TEMPERATURE:
CONFORMS TO RECORD:

RELINQUISHED BY 1 <i>Calvin Pratt</i> (SIGNATURE) Calvin Pratt (PRINTED NAME) for ETIC (COMPANY) 5/6/99 (DATE)	RELINQUISHED BY 2 <i>C. Orountiotis</i> (SIGNATURE) C. OROUNTIOTIS (PRINTED NAME) ETIC (COMPANY) 5/6/99 (DATE)	RELINQUISHED BY 3 <i>Denise Harrington</i> (SIGNATURE) D. Harrington (PRINTED NAME) Chromalab (COMPANY) 5/6/99 (DATE)
RECEIVED BY 1 <i>Costas Orountiotis</i> (SIGNATURE) Costas Orountiotis (PRINTED NAME) ETIC (COMPANY) 5/6/99 (DATE)	RECEIVED BY 2	RECEIVED BY (LABORATORY) 3 <i>Denise Harrington</i> (SIGNATURE) D. Harrington (PRINTED NAME) Chromalab (COMPANY) 5/6/99 (DATE)

CHROMALAB, INC.

Environmental Services (SDB)

May 13, 1999

Submission #: 9905065

ETIC

Atten: Costas Orountiotis

Project: MANWELL
Received: May 6, 1999

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: STOCK 2

Spl#: 239813

Matrix: SOIL

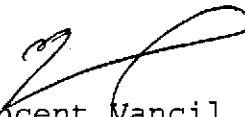
Sampled: May 6, 1999


Run#: 18748

Analyzed: May 11, 1999

<u>ANALYTE</u>	<u>RESULT</u> <u>(mg/Kg)</u>	<u>REPORTING</u> <u>LIMIT</u> <u>(mg/Kg)</u>	<u>BLANK</u> <u>RESULT</u> <u>(mg/Kg)</u>	<u>BLANK</u> <u>SPIKE</u> <u>(%)</u>	<u>DILUTION</u> <u>FACTOR</u>
GASOLINE	80	10	N.D.	122	1
MTBE	12	0.62	N.D.	108	1
BENZENE	N.D.	0.62	N.D.	118	1
TOLUENE	N.D.	0.62	N.D.	120	1
ETHYL BENZENE	1.3	0.62	N.D.	122	1
XYLENES	6.2	0.62	N.D.	112	1

Note: Hydrocarbon found in Gasoline Range is uncharacteristic of Gasoline Profile.


Vincent Vancil
Analyst


Eric Tam
Laboratory Director

CHROMALAB, INC.

Environmental Services (SDB)

May 13, 1999

Submission #: 9905065

ETIC

Atten: Costas Orountiotis

Project: MANWELL
Received: May 6, 1999

re: 2 samples for TPH - Diesel analysis.
Method: EPA 8015M


Sampled: May 6, 1999 Matrix: SOIL Extracted: May 7, 1999
Run#: 18704 Analyzed: May 10, 1999

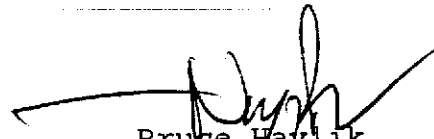
Spl#	CLIENT SPL ID	DIESEL (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
239809	T1-EAST	N.D.	1.0	N.D.	70.3	1

Sampled: May 6, 1999 Matrix: SOIL Extracted: May 7, 1999
Run#: 18704 Analyzed: May 11, 1999

Spl#	CLIENT SPL ID	DIESEL (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
239813	STOCK 2	61	1.0	N.D.	70.3	1

Note: Hydrocarbon reported is in the early Diesel Range and does not match our Diesel Standard.


Carolyn House
Analyst


Bruce Havlik
Analyst

CHROMALAB, INC.

Environmental Services (SDB)

May 13, 1999

Submission #: 9905065

ETIC

Atten: Costas Orountiotis

Project: MANWELL
Received: May 6, 1999

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: T1-EAST

Spl#: 239809

Matrix: SOIL


Sampled: May 6, 1999


Run#: 18748

Analyzed: May 10, 1999

<u>ANALYTE</u>	<u>RESULT</u> (mg/Kg)	<u>REPORTING</u> <u>LIMIT</u> (mg/Kg)	<u>BLANK</u> <u>RESULT</u> (mg/Kg)	<u>BLANK</u> <u>SPIKE</u> (%)	<u>DILUTION</u> <u>FACTOR</u>
GASOLINE	17	10	N.D.	122	1
MTBE	7.7	0.62	N.D.	108	1
BENZENE	N.D.	0.62	N.D.	118	1
TOLUENE	N.D.	0.62	N.D.	120	1
ETHYL BENZENE	N.D.	0.62	N.D.	122	1
XYLENES	N.D.	0.62	N.D.	112	1

Note: Hydrocarbon found in Gasoline Range is uncharacteristic of Gasoline Profile.


Vincent Vancil
Analyst


Eric Tam
Laboratory Director

CHROMALAB, INC.

Environmental Services (SDB)

May 13, 1999

Submission #: 9905065

ETIC

Atten: Costas Orountiotis

Project: MANWELL
Received: May 6, 1999

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: T2-EAST


Spl#: 239810
Sampled: May 6, 1999

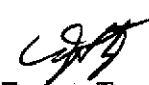
Matrix: SOIL
Run#: 18748

Analyzed: May 10, 1999

<u>ANALYTE</u>	<u>RESULT</u> <u>(mg/Kg)</u>	<u>REPORTING</u> <u>LIMIT</u> <u>(mg/Kg)</u>	<u>BLANK</u> <u>RESULT</u> <u>(mg/Kg)</u>	<u>BLANK</u> <u>SPIKE</u> <u>(%)</u>	<u>DILUTION</u> <u>FACTOR</u>
GASOLINE	31	10	N.D.	122	1
MTBE	28	0.62	N.D.	108	1
BENZENE	N.D.	0.62	N.D.	118	1
TOLUENE	N.D.	0.62	N.D.	120	1
ETHYL BENZENE	N.D.	0.62	N.D.	122	1
XYLENES	N.D.	0.62	N.D.	112	1

Note: Hydrocarbon found in Gasoline Range is uncharacteristic of Gasoline Profile.


Vincent Vancil
Analyst


Eric Tam
Laboratory Director

CHROMALAB, INC.

Environmental Services (SDB)

May 13, 1999

Submission #: 9905065

ETIC

Atten: Costas Orountiotis

Project: MANWELL
Received: May 6, 1999

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: T3-EAST

Spl#: 239811

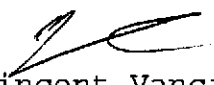
Matrix: SOIL


Sampled: May 6, 1999

Run#:18748

Analyzed: May 11, 1999

<u>ANALYTE</u>	<u>RESULT</u> (mg/Kg)	<u>REPORTING</u> <u>LIMIT</u> (mg/Kg)	<u>BLANK</u> <u>RESULT</u> (mg/Kg)	<u>BLANK</u> <u>SPIKE</u> (%)	<u>DILUTION</u> <u>FACTOR</u>
GASOLINE	N.D.	50	N.D.	122	5
MTBE	41	3.1	N.D.	108	5
BENZENE	N.D.	3.1	N.D.	118	5
TOLUENE	N.D.	3.1	N.D.	120	5
ETHYL BENZENE	N.D.	3.1	N.D.	122	5
XYLENES	N.D.	3.1	N.D.	112	5


Vincent Vancil
Analyst


Eric Tam
Laboratory Director

CHROMALAB, INC.

Environmental Services (SDB)

May 13, 1999

Submission #: 9905065

ETIC

Atten: Costas Orountiotis

Project: MANWELL
Received: May 6, 1999

re: One sample for Gasoline BTEX MTBE analysis.
Method: SW846 8020A Nov 1990 / 8015Mod

Client Sample ID: T4-EAST

Spl#: 239812
Sampled: May 6, 1999

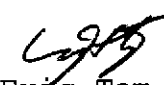
Matrix: SOIL
Run#: 18748

Analyzed: May 11, 1999

<u>ANALYTE</u>	<u>RESULT</u> (mg/Kg)	<u>REPORTING</u> <u>LIMIT</u> (mg/Kg)	<u>BLANK</u> <u>RESULT</u> (mg/Kg)	<u>BLANK</u> <u>SPIKE</u> (%)	<u>DILUTION</u> <u>FACTOR</u>
GASOLINE	14	10	N.D.	122	1
MTBE	20	0.62	N.D.	108	1
BENZENE	N.D.	0.62	N.D.	118	1
TOLUENE	N.D.	0.62	N.D.	120	1
ETHYL BENZENE	N.D.	0.62	N.D.	122	1
XYLENES	N.D.	0.62	N.D.	112	1

Note: Hydrocarbon found in Gasoline Range is uncharacteristic of Gasoline Profile.


Vincent Vancil
Analyst


Eric Tam
Laboratory Director

CHROMALAB, INC.

Environmental Services (SDB)

May 12, 1999

Submission #: 9905065

ETIC

Atten: Costas Orountiotis

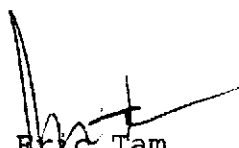
Project: MANWELL
Received: May 6, 1999

re: 1 sample for Lead analysis.
Method: EPA 3050A/7420A

Sampled: May 6, 1999 Matrix: SOIL Run#: 18695 Extracted: May 7, 1999
Analyzed: May 7, 1999

Spl#	CLIENT SPL ID	LEAD (mg/Kg)	REPORTING LIMIT (mg/Kg)	BLANK RESULT (mg/Kg)	BLANK SPIKE (%)	DILUTION FACTOR
239811	T3-EAST	N.D.	5.0	N.D.	107	1


Shari Barekzai
Analyst


Eric Tam
Laboratory Director

CHROMALAB

Change request received by: *Crise/da*

Date Requested: *05/07/99*

SAMPLE STATUS CHANGE FORM				Requested by (Client's name)
Submission#	Client Samp.ID	Old Status Description	Description of Changes	
<i>9905065</i>	<i>Stock 2</i>	<i>lms 239813</i>	<i>Add on Gp v MTR</i>	<i>SUE 5/13/99</i>

Changes were done in lms by(login): *Crise/da* On: *1 / 1*

CC: Lab.Director Dept.manager Analyst Proj.Manager

CHROMALAB, INC.

Environmental Services (SDB)

May 13, 1999

Submission #: 9905065

ETIC
3275 Stevens Creek, Suite 315
San Jose, CA 95117

Attn: Costas Orountiotis

RE: Analysis for project MANWELL.

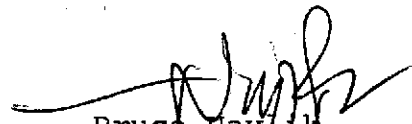
REPORTING INFORMATION

Samples were received cold and in good condition on May 6, 1999. They were refrigerated upon receipt and analyzed as described in the attached report. ChromaLab followed EPA or equivalent methods for all testing reported.

No discrepancies were observed or difficulties encountered with the testing.

Motor Oil was found in sample STOCK 2.


Carolyn House
Analyst


Bruce Havlik
Analyst

**APPENDIX
D**

Soil Samples Beneath Dispensers

CHROMALAB, INC.

Environmental Services (SDB) (DOTS 1094)

1220 Quarry Lane • Pleasanton, California 94566-4756
510/484-1819 • Facsimile 510/484-1096

99-05-1208

Reference #: 46162

Chain of Custody

DATE 5/20/99 PAGE 1 OF 1

ANALYSIS REPORT

PROJ MGR C. Orountiotis
 COMPANY ETIC Engineering
 ADDRESS 3275 Stevens Creek Blvd., #315
San Jose, CA 95117
 (PHONE NO) (408) 244-7202
 (FAX NO) (408) 244-7277

SAMPLE ID.	DATE	TIME	MATRIX	PREP. BY	TPH (EPA 8015, 8020) *Gas w/ w/BTEX-APRIS	PURGEABLE AROMATICS BTEX (EPA 8020)	TPH-Diesel (EPA 8015M)	TEPH (EPA 8015M) Chloroform, Dibenz. OILD.	PURGEABLE HALOCARBONS, (BYOC) (EPA 8015)	VOLATILE ORGANICS (VOCs) (EPA 8260)	SEMI-VOLATILES (EPA 8270)	TOTAL OIL AND GREASE (SM 5520 B+F, E+F)	<input type="checkbox"/> PESTICIDES (EPA 8080) <input type="checkbox"/> PCB'S (EPA 8090)	PNA's by <input type="checkbox"/> 8270 <input type="checkbox"/> 8210	<input type="checkbox"/> Spec. Cond. <input type="checkbox"/> TSS <input type="checkbox"/> TDS	LIIFT METALS: Cd, Cr, Pb, Ni, Zn	CAM 17 METALS (EPA 8010/7470/71)	TOTAL LEAD	D.W.E.T. (STLC) DTCLP	<input type="checkbox"/> Hexavalent Chromium <input type="checkbox"/> pH (24 hr hold time for H2O)	NUMBER OF CONTAINERS
Dispenser 1			Soil		X																1
" 2					X																1
" 3					X																1
" 4					X																1
" 5					X																1
" 6					X																1
Diesel-D					X	X	X														1

PROJECT INFORMATION		SAMPLE RECEIPT		RELINQUISHED BY 1		RELINQUISHED BY 2		RELINQUISHED BY 3	
PROJECT NAME <u>Manuel</u>		TOTAL NO. OF CONTAINERS <u>7</u>		SIGNATURE <u>Manuel D Pina</u> (TIME)		SIGNATURE <u>Ever Wilson</u> (TIME)		SIGNATURE (TIME)	
PROJECT NUMBER		HEAD SPACE		PRINTED NAME <u>Manuel D Pina</u> (DATE)		PRINTED NAME <u>Ever Wilson</u> (DATE)		PRINTED NAME (DATE)	
P.O. # <u>ET 854</u>		TEMPERATURE		COMPANY <u>WALLEN Eng & Const. Inc</u>		COMPANY <u>World Center</u>		COMPANY	
CONFORMS TO RECORD		CONFORMS TO RECORD		RECEIVED BY <u>Ever Wilson</u> (TIME)		RECEIVED BY (TIME)		RECEIVED BY LABORATORY <u>16:05</u> (TIME)	
Report: <input type="checkbox"/> Routine <input type="checkbox"/> Level 2 <input type="checkbox"/> Level 3 <input type="checkbox"/> Level 4 <input type="checkbox"/> Electronic Report		CONFORMS TO RECORD		PRINTED NAME <u>Chromalab</u> (DATE) <u>5/21/99</u>		PRINTED NAME (DATE)		PRINTED NAME (DATE) <u>CRISTINA 05-21</u>	
SPECIAL INSTRUCTIONS/COMMENTS:		CONFORMS TO RECORD		COMPANY		COMPANY		COMPANY	

4-1
TRANSIT

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SDB)

To: **ETIC**
Attn: Costas Orountiotis

Test Method: 8015m
Prep Method: 3550/8015M

Legend & Notes

Diesel

Analysis Notes

DIESEL-D (Lab# 1999-05-1208-007)

ohc=Estimated concentration reported due to overlapping fuel patterns.

Analyte Flags

sh

Surrogate recoveries were higher than QC limits due to matrix interference.

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SDB)

Gas/BTEX and MTBE

ETIC	✉ 3275 Stevens Creek, Suite 315 San Jose, CA 95117
Attn: Costas Orountiotis	Phone: (408) 244-7202 Fax: (408) 244-7277
Project #:	Project: Marwel

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
DISPENSER 2	Soil	05/20/1999	2
DISPENSER 4	Soil	05/20/1999	4
DISPENSER 6	Soil	05/20/1999	6

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SDB)

To: ETIC

Test Method: 8020
8015M

Attn.: Costas Orountiotis

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: DISPENSER 2	Lab Sample ID: 1999-05-1208-002
Project: Manwai	Received: 05/21/1999 18:07
Sampled: 05/20/1999	Extracted: 05/25/1999 15:52
Matrix: Soil	QC-Batch: 1999/05/25-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	05/25/1999 15:52	
Benzene	ND	0.0050	mg/Kg	1.00	05/25/1999 15:52	
Toluene	ND	0.0050	mg/Kg	1.00	05/25/1999 15:52	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	05/25/1999 15:52	
Xylene(s)	ND	0.0050	mg/Kg	1.00	05/25/1999 15:52	
MTBE	ND	0.0050	mg/Kg	1.00	05/25/1999 15:52	
Surrogate(s)						
Trifluorotoluene	79.6	53-125	%	1.00	05/25/1999 15:52	
4-Bromofluorobenzene-FID	71.1	58-124	%	1.00	05/25/1999 15:52	

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SOB)

To: ETIC

Test Method: 8020
8015M

Attn.: Costas Orountiotis

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: DISPENSER 4	Lab Sample ID: 1999-05-1208-004
Project: Manwel	Received: 05/21/1999 18:07
Sampled: 05/20/1999	Extracted: 05/25/1999 18:09
Matrix: Soil	QC-Batch: 1999/05/25-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	NA	1.0	mg/Kg	1.00	05/25/1999 18:09	
Benzene	NA	0.0050	mg/Kg	1.00	05/25/1999 18:09	
Toluene	NA	0.0050	mg/Kg	1.00	05/25/1999 18:09	
Ethyl benzene	NA	0.0050	mg/Kg	1.00	05/25/1999 18:09	
Xylene(s)	NA	0.0050	mg/Kg	1.00	05/25/1999 18:09	
MTBE	NA	0.0050	mg/Kg	1.00	05/25/1999 18:09	
Surrogate(s)						
Trifluorotoluene	54.6	53-125	%	1.00	05/25/1999 18:09	
4-Bromofluorobenzene-FID	50.0	58-124	%	1.00	05/25/1999 18:09	

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SDB)

To: **ETIC**

Test Method: 8020
8015M

Attn.: Costas Orountiotis

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID: DISPENSER 6	Lab Sample ID: 1999-05-1208-006
Project: Manwel	Received: 05/21/1999 18:07
Sampled: 05/20/1999	Extracted: 05/25/1999 18:37
Matrix: Soil	QC-Batch: 1999/05/25-01.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	05/25/1999 18:37	
Benzene	ND	0.0050	mg/Kg	1.00	05/25/1999 18:37	
Toluene	ND	0.0050	mg/Kg	1.00	05/25/1999 18:37	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	05/25/1999 18:37	
Xylene(s)	ND	0.0050	mg/Kg	1.00	05/25/1999 18:37	
MTBE	ND	0.0050	mg/Kg	1.00	05/25/1999 18:37	
Surrogate(s)						
Trifluorotoluene	54.8	53-125	%	1.00	05/25/1999 18:37	
4-Bromofluorobenzene-FID	42.7	58-124	%	1.00	05/25/1999 18:37	

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SOB)

To: ETIC

Test Method: 8020
8015M

Attn: Costas Orountiotis

Prep Method: 5030

Batch QC Report
Gas/BTEX and MTBE

Method Blank	Soil	QC Batch # 1999/05/25-01.01
MB: 1999/05/25-01.01-001		Date Extracted: 05/25/1999 08:42

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	05/25/1999 08:42	
Benzene	ND	0.0050	mg/Kg	05/25/1999 08:42	
Toluene	ND	0.0050	mg/Kg	05/25/1999 08:42	
Ethyl benzene	ND	0.0050	mg/Kg	05/25/1999 08:42	
Xylene(s)	ND	0.0050	mg/Kg	05/25/1999 08:42	
MTBE	ND	0.0050	mg/Kg	05/25/1999 08:42	
Surrogate(s)					
Trifluorotoluene	84.7	53-125	%	05/25/1999 08:42	
4-Bromofluorobenzene-FID	75.8	58-124	%	05/25/1999 08:42	

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SOB)

To: ETIC

Test Method: 8020
8015M

Attn: Costas Orountiotis

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD)	Soil	QC Batch # 1999/05/25-01.01
LCS: 1999/05/26-01.01-002	Extracted: 05/25/1999 09:08	Analyzed: 05/25/1999 09:08
LCSD: 1999/05/26-01.01-003	Extracted: 05/25/1999 10:02	Analyzed: 05/25/1999 10:02

Compound	Conc. [mg/Kg]		Exp. Conc. [mg/Kg]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD		Recovery	RPD	LCS	LCSD
Gasoline	2.3555	2.6332	2.5	2.5	94.2	105.3	11.1	75-125	35		
Benzene	0.477	0.474	0.50	0.50	95.4	94.8	0.6	77-123	35		
Toluene	0.477	0.481	0.50	0.50	95.4	96.2	0.8	78-122	35		
Ethyl benzene	0.469	0.477	0.50	0.50	93.8	95.4	1.7	70-130	35		
Xylene(s)	1.371	1.396	1.5	1.5	91.4	93.1	1.8	75-125	35		
Surrogate(s)											
Trifluorotoluene	478.5299	477.534	500	500	95.7	95.5		53-125			
4-Bromofluorobenzene-F1	424.0609	479.2822	500	500	84.8	95.9		58-124			

CHROMALAB, INC.

Submission #: 1899-05-1208

Environmental Services (SDB)

Gas/BTEX (Methanol Extraction)

ETIC	✉ 3275 Stevens Creek, Suite 315 San Jose, CA 95117
Attn: Costas Orountiotis	Phone: (408) 244-7202 Fax: (408) 244-7277
Project #:	Project: Marwel

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
DISPENSER 1	Soil	05/20/1999	1
DISPENSER 3	Soil	05/20/1999	3
DISPENSER 5	Soil	05/20/1999	5
DIESEL-D	Soil	05/20/1999	7

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SDB)

To: **ETIC**

Test Method: 8020
8015M

Attn.: Costas Orountiotis

Prep Method: 5030

Gas/BTEX (Methanol Extraction)

Sample ID: DISPENSER 1	Lab Sample ID: 1999-05-1208-001
Project: Manwei	Received: 05/21/1999 18:07
Sampled: 05/20/1999	Extracted: 05/28/1999 07:49
Matrix: Soil	QC-Batch: 1999/05/26-02.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	49	10	mg/Kg	1.00	05/28/1999 17:49	g
Benzene	0.015	0.0050	mg/Kg	1.00	05/28/1999 17:49	
Toluene	0.064	0.0050	mg/Kg	1.00	05/28/1999 17:49	
Ethyl benzene	0.033	0.0050	mg/Kg	1.00	05/28/1999 17:49	
Xylene(s)	0.041	0.0050	mg/Kg	1.00	05/28/1999 17:49	
MTBE	ND	0.0050	mg/Kg	1.00	05/28/1999 17:49	
Surrogate(s)						
Trifluorotoluene	101.6	53-125	%	1.00	05/28/1999 17:49	
4-Bromofluorobenzene-FID	136.6	58-124	%	1.00	05/28/1999 17:49	sh

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SDB)

To: **ETIC**

Test Method: 8020
8015M

Attn.: Costas Orountiotis

Prep Method: 5030

Gas/BTEX (Methanol Extraction)

Sample ID: DISPENSER 3	Lab Sample ID: 1999-05-1208-003
Project: Manwei	Received: 05/21/1999 18:07
Sampled: 05/20/1999	Extracted: 05/26/1999
Matrix: Soil	QC-Batch: 1999/05/26-02.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	6500	500	mg/Kg	1.00	06/01/1999 10:07	g
Benzene	ND	31	mg/Kg	1.00	06/01/1999 10:07	
Toluene	81	31	mg/Kg	1.00	06/01/1999 10:07	
Ethyl benzene	120	31	mg/Kg	1.00	06/01/1999 10:07	
Xylene(s)	940	31	mg/Kg	1.00	06/01/1999 10:07	
MTBE	ND	31	mg/Kg	1.00	06/01/1999 10:07	
Surrogate(s)						
Trifluorotoluene	ND	53-125	mg/Kg	1.00	06/01/1999 10:07	
4-Bromofluorobenzene-FID	ND	58-124	mg/Kg	1.00	06/01/1999 10:07	

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SDS)

To: **ETIC**

Test Method: 8020
8015M

Attn.: Costas Orountiotis

Prep Method: 5030

Gas/BTEX (Methanol Extraction)

Sample ID: DISPENSER 5	Lab Sample ID: 1999-05-1208-005
Project: Marwei	Received: 05/21/1999 18:07
Sampled: 05/20/1999	Extracted: 05/28/1999 08:44
Matrix: Soil	QC-Batch: 1999/05/26-02.01
Sample/Analysis Flag: sdc (See Legend & Note section)	

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	32	10	mg/Kg	1.00	05/28/1999 08:44	
Benzene	0.040	0.0050	mg/Kg	1.00	05/28/1999 08:44	
Toluene	0.62	0.62	mg/Kg	1.00	05/28/1999 08:44	
Ethyl benzene	0.29	0.0050	mg/Kg	1.00	05/28/1999 08:44	
Xylene(s)	3.0	0.62	mg/Kg	1.00	05/28/1999 08:44	
MTBE	ND	0.0050	mg/Kg	1.00	05/28/1999 08:44	
Surrogate(s)						
Trifluorobluene	97.6	53-125	%	1.00	05/28/1999 08:44	
4-Bromofluorobenzene-FID	125.0	58-124	%	1.00	05/28/1999 08:44	sh

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SDB)

To: **ETIC**

Test Method: 8020
8015M

Attn.: Costas Orountiotis

Prep Method: 5030

Gas/BTEX (Methanol Extraction)

Sample ID: DIESEL-D	Lab Sample ID: 1999-05-1208-007
Project: Manwei	Received: 05/21/1999 18:07
Sampled: 05/20/1999	Extracted: 05/26/1999
Matrix: Soil	QC-Batch: 1999/05/26-02.01

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	160	10	mg/Kg	1.00	05/28/1999 08:17	
Benzene	0.032	0.0050	mg/Kg	1.00	05/28/1999 08:17	
Toluene	0.20	0.0050	mg/Kg	1.00	05/28/1999 08:17	
Ethyl benzene	0.089	0.0050	mg/Kg	1.00	05/28/1999 08:17	
Xylene(s)	15	0.62	mg/Kg	1.00	05/28/1999 08:17	
MTBE	ND	0.62	mg/Kg	1.00	05/28/1999 08:17	
Surrogate(s)						
Trifluorotoluene	114.4	53-125	%	1.00	05/28/1999 08:17	
4-Bromofluorobenzene-FID	180.0	58-124	%	1.00	05/28/1999 08:17	sh

JUN -02' 99 (WED) 15:05 CHROMALAB, INC.

TEL: 510 484 1096

P. 018

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SDB)

To: **ETIC**

Test Method: 8020

8015M

Attn.: Costas Orountiatis

Prep Method: 5030

Batch QC Report
Gas/BTEX (Methanol Extraction)

Method Blank	Soil	QC Batch # 1999/05/26-02.01
MB: 1999/05/26-02.01-001		Date Extracted: 05/26/1999 12:19

Compound	Result	Rep. Limit	Units	Analyzed	Flag
Gasoline	ND	10	mg/Kg	05/26/1999 12:19	
Benzene	ND	0.62	mg/Kg	05/26/1999 12:19	
Toluene	ND	0.62	mg/Kg	05/26/1999 12:19	
Ethyl benzene	ND	0.62	mg/Kg	05/26/1999 12:19	
Xylene(s)	ND	0.62	mg/Kg	05/26/1999 12:19	
MTBE	ND	0.62	mg/Kg	05/26/1999 12:19	
Surrogate(s)					
Trifluorotoluene	79.6	53-125	%	05/26/1999 12:19	
4-Bromofluorobenzene-FID	89.2	58-124	%	05/26/1999 12:19	

1220 Quarry Lane * Pleasanton, CA 94566-4756

Telephone: (925) 484-1919 * Facsimile: (925) 484-1096

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SDB)

To: ETIC
Attn: Costas Orountiotts

Test Method: 8015m
Prep Method: 3550/8015M

Batch QC Report

Diesel

Laboratory Control Spike (LCS/LCSD)		Soil	QC Batch # 1999/05/24-01.10
LCS:	1999/05/24-01.10-002	Extracted: 05/24/1999 07:44	Analyzed: 05/24/1999 11:38
LCSD:	1999/05/24-01.10-003	Extracted: 05/24/1999 07:44	Analyzed: 05/24/1999 12:14

Compound	Conc. [mg/Kg]		Added Amount	Recovery %		RPD	Control Limits %		Flags	
	LCS	LCSD		LCS	LCSD		Recovery	RPD	LCS	LCSD
Diesel	369.3421	377.9284	500	73.9	75.6	2.3	60-130	25		
Surrogate(s) o-Terphenyl	24.1382	24.7976	20	120.7	124.0		60-130			

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SDB)

To: ETIC
Attn.: Costas OrountiotisTest Method: 8015m
Prep Method: 3550/8015M**Batch QC Report**
Diesel

Method Blank

Soil

QC Batch # 1999/05/24-01.10

MB: 1999/05/24-01.10-001

Date Extracted: 05/24/1999 07:44

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	1	mg/Kg	05/24/1999 11:38	
Surrogate(s) o-Terphenyl	88.8	60-130	%	05/24/1999 11:38	

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SDB)

To: ETIC
Attn: Costas OrountiotisTest Method: 8015m
Prep Method: 3560/8015M

Diesel

Sample ID: DIESEL-D	Lab Sample ID: 1999-05-1208-007
Project: Manwel	Received: 05/21/1999 18:07
Sampled: 05/20/1999	Extracted: 05/24/1999 07:44
Matrix: Soil	QC-Batch: 1999/05/24-01.10

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	1300	1.0	mg/Kg	1.00	05/24/1999 13:25	,ohc
Surrogate(s) o-Terphenyl	234.8	60-130	%	1.00	05/24/1999 13:25	sh

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SDB)

Diesel

ETIC	✉ 3275 Stevens Creek, Suite 315 San Jose, CA 95117
Attn: Costas Orountlotis	Phone: (408) 244-7202 Fax: (408) 244-7277
Project #:	Project: Manwei

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
DIESEL-D	Soil	05/20/1999	7

CHROMALAB, INC.

Submission #: 1999-05-1208

Environmental Services (SDB)

Date: May 28, 1999

ETIC

3275 Stevens Creek, Suite 315
San Jose, CA 95117

Attn.: Mr. Costas Orountiots

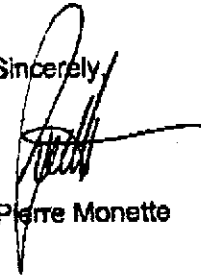
Project: Manwel

Dear Costas,

Attached is our report for your samples received on Friday May 21, 1999.
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after June 20, 1999 unless you have requested otherwise. We appreciate the opportunity to be of service to you. If you have any questions, please call me at (925) 484-1919.

Sincerely,



Pierre Monette

ETICENVIRONMENTAL ENGINEERS
CONTRACTOR'S LICENSE NO. 624022

3275 Stevens Creek Blvd. #315

San Jose, CA 95117

408-244-7202

FAX 408-244-7277

Holmes x 2nd

FAX COVER SHEET

TO: Eva Chu

FAX NO.: 510-337-9335

DATE: 2-4-00

FROM: Costas
OrountiotisNUMBER OF PAGES: 5
(including cover)

Dear Eva

I am faxing you the text and proposed well locations of the Workplan that you had requested, for the Livermore Gas and Mini Mart site, 160 Holmes Street, Livermore.

The full report with the appendices of past analytical results is being mailed today.

Costas Orountiotis

- consider 4" well by UST pt
(for possible extraction (remediation)
and dispenser.

- send SOP

~~No Pb analysis. Collect soil
SS from well by UST at~~