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Jennifer C. Sedlachek
Project Manager

ExxonMobil

November 5, 2012

Ms. Barbara Jakub
Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, California 94502-6577

Re: Former Mobil RAS #04FGN/14994 East 14th Street/San Leandro, California

Dear Ms. Jakub:

Attached for your review and comment is a copy of the letter report entitled ***Soil Vapor Sampling and Evaluation of Low-Threat Closure Criteria Report,*** dated November 5, 2012, for the above-referenced site. The report was prepared by Cardno ERI of Petaluma, California, and details activities at the subject site.

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge.

If you have any questions or comments, please contact me at 510.547.8196.

Sincerely,

Jennifer C. Sedlachek
Project Manager

Attachment: Cardno ERI's ***Soil Vapor Sampling and Evaluation of Low-Threat Closure Criteria Report,*** dated November 5, 2012

cc: w/o attachment
Ms. Rebekah A. Westrup, Cardno ERI

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November 5, 2012
Cardno ERI 2785C.R01

Ms. Jennifer C. Sedlachek
ExxonMobil Environmental Services
4096 Piedmont Avenue #194
Oakland, California 94611

SUBJECT **Soil Vapor Sampling and Evaluation of Low-Threat Closure Criteria Report**
Former Mobil Service Station 04FGN
14994 East 14th Street, San Leandro, California

Alameda County RO# 0000422

Ms. Sedlachek:

At the request of ExxonMobil Environmental Services (EMES), on behalf of ExxonMobil Oil Corporation, Cardno ERI conducted soil vapor sampling activities at the subject site. The purpose of the work was to assess concentrations of fuel hydrocarbons in soil vapor underlying the site. The work consisted of purging and sampling soil vapor sampling (SVS) wells VW1 through VW5 at the subject site. In addition, Cardno ERI evaluated the subject site with respect to the criteria for low-threat closure as defined by the State Water Resources Control Board (State Water Board) *Low-Threat Underground Storage Tank Case Closure Policy* (SWRCB, 2012).

SITE DESCRIPTION

Former Mobil Service Station 04FGN is located at 14994 East 14th Street, on the northern corner of the intersection of East 14th Street and 150th Avenue in San Leandro, California (Plates 1 and 2). The surrounding areas consist of commercial properties. The site is currently in use as a retail shopping center.

GEOLOGY AND HYDROGEOLOGY

The site lies at an elevation of approximately 40 feet above msl. The nearest body of surface water is Lake Chabot approximately 8,000 feet northeast of the site. The San Francisco Bay is located approximately 3 miles southwest of the site.

The site lies within the East Bay Plain Subbasin of the Santa Clara Valley Groundwater Basin. The principal water-bearing units of the subbasin consist of unconsolidated of Quaternary age. The aquifer system consists of the early Pleistocene Santa Clara Formation, the late Pleistocene Alameda Formation and early Holocene Temescal Formation and artificial fill (CDWR, 2003). Assessment activities indicate that the alluvium beneath the site consists of silt and clay with occasional sand or gravel included (ETIC, 2011). DTW ranges between 5 and 13 feet bgs at the site (Appendix A).

PREVIOUS WORK

Historic site tables are included in Appendix A. Soil vapor and soil analytical results are summarized in Tables 1A and 1B and 2, respectively. Locations of borings and well are shown on Plate 2.

Fueling System Activities

The site operated as a gasoline service station prior to 1984, when Mobil Oil Corporation discontinued fuel dispensing operations. In 1987, the property owner removed three unleaded gasoline tanks, one used-oil UST, and associated fuel dispensers and piping from the site (ETIC, 2011).

Site Assessment Activities

Multiple phases of assessment were conducted from 1987 to 1995 including the advancement of 24 soil borings; the installation of seven groundwater monitoring wells; and the destruction of wells MW4A, MW6A, and MW7A; and the installation and sampling of five SVS wells (AEG, 1994, 1995; ETIC, 2011; SCI, 1987a, 1987b, 1988).

Remediation Activities

In September 1987, during work by Pacific Gas and Electric (PG&E) in the northern area of the eastern sidewalk adjacent to the site, hydrocarbon concentrations were reported in soil samples collected by the Alameda County Environmental Health Department. From December 1 through 8, 1987, the area was over-excavated and soil

samples were collected from the excavated area. The extent of the excavation and the sample locations are presented on Plates 3 and 4. The total depth of the excavation ranged from 5 and 10 feet bgs (SCI, 1987c).

Groundwater Monitoring Activities

Groundwater monitoring and sampling events were conducted on a quarterly basis from February 1994 to July 2004 and then again in December 2008. Well construction details and historic groundwater monitoring and sampling data are presented in Appendix A.

FIELD ACTIVITIES

Cardno ERI performed soil vapor sampling activities at the site in accordance with Cardno ERI's standard field protocol (Appendix B), a site-specific health and safety plan, and applicable regulatory guidelines under the advisement of a professional geologist.

Sampling Soil Vapor Sampling Wells

On April 12, 2012, Cardno ERI purged and collected soil vapor samples from wells VW1 through VW5. Three purge volumes were used for each of the shallow wells in accordance with the initial purge test (ETIC, 2011) and recommendations made by the California EPA in their March 2010 *Advisory – Active Soil Gas Investigation* (CalEPA, 2012).

Cardno ERI collected soil vapor samples using a manifold consisting of airtight valves, a flow regulator, pressure gauges, and a vacuum pump capable of producing a vacuum of approximately 20 inches of mercury (in Hg). The manifold also includes a port that connects sample collection vessels (Summa™ canisters). One vapor sample was collected from each of the wells over a period of approximately three minutes. A duplicate sample was collected from well VW4. Sampling was completed when the Summa™ canister reading reached approximately of 5 in Hg. Soil vapor samples were collected over a period of approximately five hours.

A summary of sampling times, Summa™ canister vacuum readings, and average flow rate data during sample collection is presented in Appendix C.

Laboratory Analytical Methods – Soil Vapor Samples

Cardno ERI collected and submitted soil vapor samples for laboratory analysis to H&P Mobile Geochemistry, Inc., of Carlsbad, California, a California state-certified laboratory, under COC protocol. The samples were analyzed for:

- TPHg (reported as TPHv) using EPA Method TO-15.
- Full-scan VOCs including BTEX, fuel oxygenates, and naphthalene using EPA Method TO-15.
- Oxygen and carbon dioxide using American Society for Testing and Materials (ASTM) Method 1945-96.
- Helium using ASTM Method D1945M.
- Methane using EPA Method 8015M.

The laboratory analytical report and COC record are included in Appendix D. Select analytical results are presented in Tables 1A and 1B and are shown on Plate 5.

RESULTS OF INVESTIGATION

Concentrations of TPHg, BTEX, and additional VOCs were reported in soil vapor samples collected during this investigation. Maximum concentrations of TPHg and benzene in soil vapor were reported at 260,000 micrograms per cubic meter (µg/m^3) (VW3) and 4.2 µg/m^3 (VW5), respectively.

Soil vapor sample results were compared to ESLs (Table E; CRWQCB - SFB, 2008) for shallow soil gas. With the exception of TPHg in samples collected at VW2 (150,000 µg/m^3) and VW3 (260,000 µg/m^3), the reported results were below applicable residential and commercial/industrial screening levels. The laboratory reporting limit for EDB exceeded the residential ESL in the samples; however, EDB was not reported in the samples collected.

DISCUSSION

Hydrocarbons in Vapor

During the initial sampling event on November 26, 2010, TPHg concentrations were above residential and commercial ESLs in samples from wells VW2 through VW4 with concentrations ranging from 15,000 µg/m^3 to 1,500,000 µg/m^3. Remaining reportable concentrations were below applicable residential and ESL commercial/industrial screening levels.

During the April 2012 sampling event, concentrations of TPHg decreased in the wells with previous ESL exceedances. TPHg concentrations in well VW2 decreased from 580,000 µg/m^3 to 150,000 µg/m^3. TPHg concentrations in well VW3 decreased from 1,500,000 µg/m^3 to 260,000 µg/m^3. TPHg concentrations in well VW4 decreased from 15,000 µg/m^3 to 2,400 µg/m^3, below the residential ESL. The laboratory reporting limit for EDB exceeded the residential ESL in the samples; however, EDB was not reported in the samples collected. Remaining constituents of concern were below applicable residential and commercial/industrial ESLs.

STATE WATER RESOURCES CONTROL BOARD CRITERIA FOR LOW-THREAT CASE CLOSURE

Cardno ERI evaluated the site with respect to the criteria for a low-threat UST case closure as defined by the State Water Board's *Low-Threat Underground Storage Tank Case Closure Policy* (SWRCB, 2012). A discussion for each criteria is presented in the following sections.

GENERAL CRITERIA

The unauthorized release is located within a service area of a public water system.

The site is located at 14994 East 14th Street in a developed part of the City of San Leandro where water service is provided by East Bay Municipal Utilities District.

The unauthorized release consists only of petroleum.

Cumulative analytical data and land use history indicate that the unauthorized release at the site related to operations at Former Mobil Service Station 04FGN consisted only of petroleum.

The unauthorized ("primary") release from the UST system has been stopped.

In 1987, the property owner removed three unleaded gasoline tanks, one used-oil UST, and associated fuel dispensers and piping from the site (ETIC, 2011).

Free product has been removed to the maximum extent practicable.

Free product has not been observed during assessment activities or during the groundwater monitoring and sampling program.

A conceptual model that assesses the nature, extent, and mobility of the release has been developed.

Cumulative reports about the subject site including the *Geotechnical Services, re. Contaminated Soil Removal* (SCI, 1987a), *Soil Contamination Characterization* (SCI, 1987b) *Closure Report* (SCI, 1987c), *Additional Site Investigation* (AEG, 1995), and *Formal Case Closure Request* (Alton, 1998) provide an adequate conceptual model for the site.

Secondary source has been removed to the extent practicable.

In September 1987, during work by PG&E in the northern area of the eastern sidewalk adjacent to the site, hydrocarbon concentrations were reported in soil samples collected by the Alameda County Environmental Health Department. The initial excavation by PG&E was approximately 2 feet square by 4 feet deep. In December 1987, the area was over-excavated approximately 29 feet in length and 12 to 17 feet wide; the depth of the excavation varied between 5 and 10 feet bgs (SCI, 1987c). Soil samples were collected from the excavated area. The extent of the excavation is shown on Plate 2.

Secondary sources have been removed to the maximum extent practicable.

Soil or groundwater has been tested for MTBE and the results reported in accordance with Health and Safety Code section 25296.15.

Cumulative soil analytical results, including MTBE results, are presented in Table 2. Cumulative groundwater analytical results, including MTBE results, are presented in Appendix A.

Nuisance as defined by Water Code section 13050 does not exist at the site.

Currently the site is a shopping center in a developed part of San Leandro. The current site conditions do not limit the current land use or any foreseeable future land use at the site.

MEDIA-SPECIFIC CRITERIA

Groundwater

The contaminant plume that exceeds WQOs is less than 250 feet in length.

With the exception of on-site wells MW1A, MW2A, and MW3A and Unocal well MW7, dissolved-phase hydrocarbon concentrations have been near or below laboratory reporting limits during recent groundwater

sampling events. The length of the dissolved-phase hydrocarbon concentrations can be defined to a distance of between approximately 110 feet and 140 feet by the analytical results for wells MW4A, MW5A, MW6A, and MW7A (Appendix A).

There is no free product.

Free product has not been observed during assessment activities or during the groundwater monitoring and sampling program.

The nearest existing water well or surface water body is greater than 1,000 feet from the defined plume boundary.

Well searches and field reconnaissance have reported five domestic wells within a 2,000-foot radius of the site. The closest reported well is approximately 1,800 feet from the site (ETIC, 2006).

Surface water bodies have not been identified within 1,000 feet of the site (Plate 1).

Direct Contact and Outdoor Air Exposure

Concentrations of Petroleum Constituents in Soil That Will Have No Significant Risk of Adversely Affecting Human Health (SWRCB, 2012)

Constituent	Residential		Commercial/Industrial		Utility Worker
	0 to 5 feet bgs mg/kg	Volatilization to Outdoor Air (5 to 10 feet bgs) mg/kg	0 to 5 feet bgs mg/kg	Volatilization to Outdoor Air (5 to 10 feet bgs) mg/kg	0 to 10 feet bgs mg/kg
Benzene	1.9	2.8	8.2	12	14
Ethylbenzene	21	32	89	134	314
Naphthalene	9.7	9.7	45	45	219
PAH	0.063	---	0.68	---	4.5

Maximum Soil Concentrations Left In Place at the Site

Constituent	0 to 5 feet bgs (mg/kg)	5 to 10 feet bgs (mg/kg)
Benzene	ND	ND
Ethylbenzene	ND	57
Naphthalene	---	---
PAH	---	---

Soil concentrations remaining in place at the site are below the residential and commercial concentrations specified for direct contact and volatilization to outdoor air (SWRCB, 2012) with the exception of the results for ethylbenzene collected at 6.5 feet from boring B-4 (57 mg/kg) in 1994. The data set for soil samples collected from depths less than 5 feet bgs is limited and many of the samples analyzed before 1990 had a limited

analytical suite. Naphthalene and PAHs have not been included in the analytical suite for samples collected to date.

Soil samples were collected from borings VW1 through VW5 in November 2010 at depths between 5.5 and 6 feet bgs. The soil samples from VW1 through VW5 represent the first soil samples collected at the site since 1995, a period of over 15 years. TPHg, TPHd, MTBE, and BTEX compounds were not reported in the soil samples collected from boring VW1 through VW5.

Cardno ERI concludes that the soil samples collected in 2012 are more representative of current site conditions than the sample collected from boring B-4 in 1994 and the site adequately meets the criteria for direct contact and outdoor air exposure. Furthermore, site-specific soil vapor data meets the criteria for indoor air intrusion risks.

Petroleum Vapor Intrusion to Indoor Air

Based on the site data, Cardno ERI concludes that the site meets Scenario 4 for the soil vapor criteria for low-threat closure (Appendix D).

The DTW at the site has consistently been greater than 5 feet bgs during the monitoring and sampling program (Appendix A). Dissolved-phase benzene has not been reported over 100 µg/L since 1997 (Appendix A).

The oxygen content in soil vapor samples has been greater than 4% in samples collected at the site to date (Table 1A).

Total TPH (sum of TPHg and TPHd) greater than 100 mg/kg was not reported in soil samples collected at 5 feet bgs or less at the site that are still remaining in place. Several samples that contained total TPH of greater than 100 mg/kg were subsequently excavated and are no longer present at the site (Table 2, Plates 3 and 4).

The DTW, oxygen content, and soil data in the upper 5 feet comprise a bioattenuation zone as specified in the *Low-Threat Underground Storage Tank Case Closure Policy* (SWRCB, 2012). The following table compares site-specific concentrations to the concentrations specified for sites with a bioattenuation zone. The site meets scenario 4 of the Low-Threat Policy (Appendix E).

Constituent	Residential ($\mu g/m^3$)	Commercial ($\mu g/m^3$)	Maximum Reported Concentration ($\mu g/m^3$)
Benzene	<85,000	<280,000	120
Ethylbenzene	<1,100,000	<3,600,000	140
Naphthalene	<93,000	<310,000	<53

The site meets Scenario 3 (Appendix E) as well based on the bioattenuation zone and the fact that reported concentrations of dissolved-phase benzene have been previously-described below 1,000 µg/L during the entire groundwater monitoring and sampling program (Appendix A).

CONCLUSIONS

Cardno ERI concludes that the site adequately meets the criteria for a Low-Threat Closure. With the exception of one soil sample collected in 1994 (B-4), the site meets the residential criteria. Subsequent soil samples and site-specific vapor data justify the case as a low-threat closure.

RECOMMENDATIONS

Cardno ERI recommends that the environmental case at the site be closed and that the remaining wells be destroyed.

CONTACT INFORMATION

The responsible party contact is Ms. Jennifer C. Sedlachek, ExxonMobil Environmental Services, 4096 Piedmont Avenue #194, Oakland, California, 94611. The consultant contact is Ms. Rebekah A. Westrup, Cardno ERI, 601 North McDowell Boulevard, Petaluma, California, 94954. The agency contact is Ms. Barbara Jakub, P.G., Alameda County Health Care Services Agency, Department of Environmental Health, 1131 Harbor Bay Parkway, Room 250, Alameda, California, 94502-6577.

LIMITATIONS

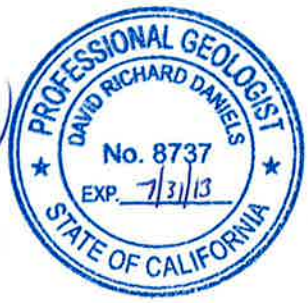
For any documents cited that were not generated by Cardno ERI, the data taken from those documents is used "as is" and is assumed to be accurate. Cardno ERI does not guarantee the accuracy of this data and makes no warranties for the referenced work performed nor the inferences or conclusions stated in these documents.

This document was prepared in accordance with generally accepted standards of environmental, geological, and engineering practices in California at the time of investigation. No soil engineering or geotechnical references are implied or should be inferred. The evaluation of the geologic conditions at the site for this

investigation is made from a limited number of data points. Subsurface conditions may vary away from these data points.

Please contact Ms. Rebekah A. Westrup, Cardno ERI's project manager for this site, at rebekah.westrup@cardno.com or at (707) 766-2000 with any questions regarding this report.

Sincerely,



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Enclosures:

References
Acronym List

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Plate 2	Generalized Site Plan
Plate 3	Select Soil Analytical Results
Plate 4	Select Soil Analytical Results – Detail
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Table 2	Cumulative Soil Analytical Results
Appendix A	Historical Site Tables
Appendix B	Field Protocol
Appendix C	Field Data Forms
Appendix D	Laboratory Analytical Report and Chain-of-Custody Record
Appendix E	Excerpts from Low-Threat Closure Policy (SWRCB, 2012)

cc: Ms. Barbara Jakub, P.G., Alameda County Health Care Services Agency, Department of Environmental Health, 1131 Harbor Bay Parkway, Room 250, Alameda, California, 94502-6577

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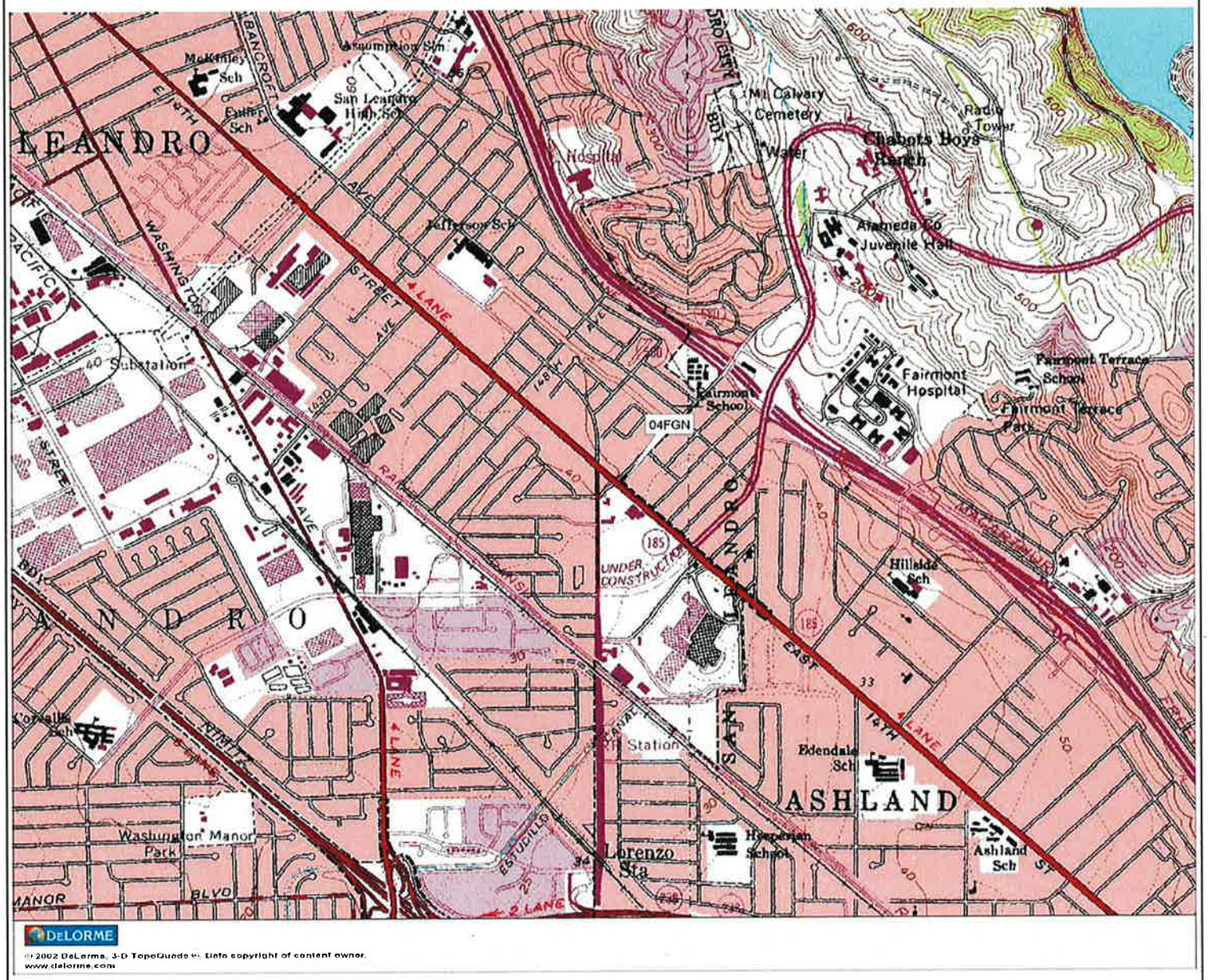
ACRONYM LIST

µg/L	Micrograms per liter
µs	Microsiemens
1,2-DCA	1,2-dichloroethane
acfm	Actual cubic feet per minute
AS	Air sparge
bgs	Below ground surface
BTEX	Benzene, toluene, ethylbenzene, and total xylenes
CEQA	California Environmental Quality Act
cfm	Cubic feet per minute
COC	Chain of Custody
CPT	Cone Penetration (Penetrometer) Test
DIPE	Di-isopropyl ether
DO	Dissolved oxygen
DOT	Department of Transportation
DPE	Dual-phase extraction
DTW	Depth to water
EDB	1,2-dibromoethane
EPA	Environmental Protection Agency
ESL	Environmental screening level
ETBE	Ethyl tertiary butyl ether
FID	Flame-ionization detector
fpm	Feet per minute
GAC	Granular activated carbon
gpd	Gallons per day
gpm	Gallons per minute
GWPTS	Groundwater pump and treat system
HVOC	Halogenated volatile organic compound
J	Estimated value between MDL and PQL (RL)
LEL	Lower explosive limit
LPC	Liquid-phase carbon
LRP	Liquid-ring pump
LUFT	Leaking underground fuel tank
LUST	Leaking underground storage tank
MCL	Maximum contaminant level
MDL	Method detection limit
mg/kg	Milligrams per kilogram
mg/L	Milligrams per liter
mg/m^3	Milligrams per cubic meter
MPE	Multi-phase extraction
MRL	Method reporting limit
msl	Mean sea level
MTBE	Methyl tertiary butyl ether
MTCA	Model Toxics Control Act
NAI	Natural attenuation indicators
NAPL	Non-aqueous phase liquid
NEPA	National Environmental Policy Act
NGVD	National Geodetic Vertical Datum
NPDES	National Pollutant Discharge Elimination System
O&M	Operations and Maintenance
ORP	Oxidation-reduction potential
OSHA	Occupational Safety and Health Administration
OVA	Organic vapor analyzer
P&ID	Process & Instrumentation Diagram
PAH	Polycyclic aromatic hydrocarbon
PCB	Polychlorinated biphenyl
PCE	Tetrachloroethene or perchloroethylene
PID	Photo-ionization detector
PLC	Programmable logic control
POTW	Publicly owned treatment works
ppmv	Parts per million by volume
PQL	Practical quantitation limit
psi	Pounds per square inch
PVC	Polyvinyl chloride
QA/QC	Quality assurance/quality control
RBSL	Risk-based screening levels
RCRA	Resource Conservation and Recovery Act
RL	Reporting limit
scfm	Standard cubic feet per minute
SSTL	Site-specific target level
STLC	Soluble threshold limit concentration
SVE	Soil vapor extraction
SVOC	Semivolatile organic compound
TAME	Tertiary amyl methyl ether
TBA	Tertiary butyl alcohol
TCE	Trichloroethene
TOC	Top of well casing elevation; datum is msl
TOG	Total oil and grease
TPHd	Total petroleum hydrocarbons as diesel
TPHg	Total petroleum hydrocarbons as gasoline
TPHmo	Total petroleum hydrocarbons as motor oil
TPHs	Total petroleum hydrocarbons as stoddard solvent
TRPH	Total recoverable petroleum hydrocarbons
UCL	Upper confidence level
USCS	Unified Soil Classification System
USGS	United States Geologic Survey
UST	Underground storage tank
VCP	Voluntary Cleanup Program
VOC	Volatile organic compound
VPC	Vapor-phase carbon



FN 2785TOPO

EXPLANATION

1/2-mile radius circle

APPROXIMATE SCALE

N

0 0.5 1 mile

SOURCE:
Modified from a map
provided by
DeLorme 3-D TopoQuads

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SITE VICINITY MAP

FORMER MOBIL SERVICE STATION 04FGN
14994 East 14th Street
San Leandro, California

PROJECT NO. 2785

PLATE 1

Cardno ERI
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GENERALIZED SITE PLAN

FORMER MOBIL SERVICE STATION 04FGN
14994 East 14th Street
San Leandro, California

EXPLANATION

- MW5A — Groundwater Monitoring Well
- VW5 — Soil Vapor Sampling Well
- SCB15 — Soil Borings
- MW7A — Destroyed Groundwater Monitoring Well
- MW11 — Groundwater Monitoring Well By Unocal
- B9 — Soil Borings By Unocal

PROJECT NO. 2785

PLATE 2

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Analyte Concentrations in mg/kg

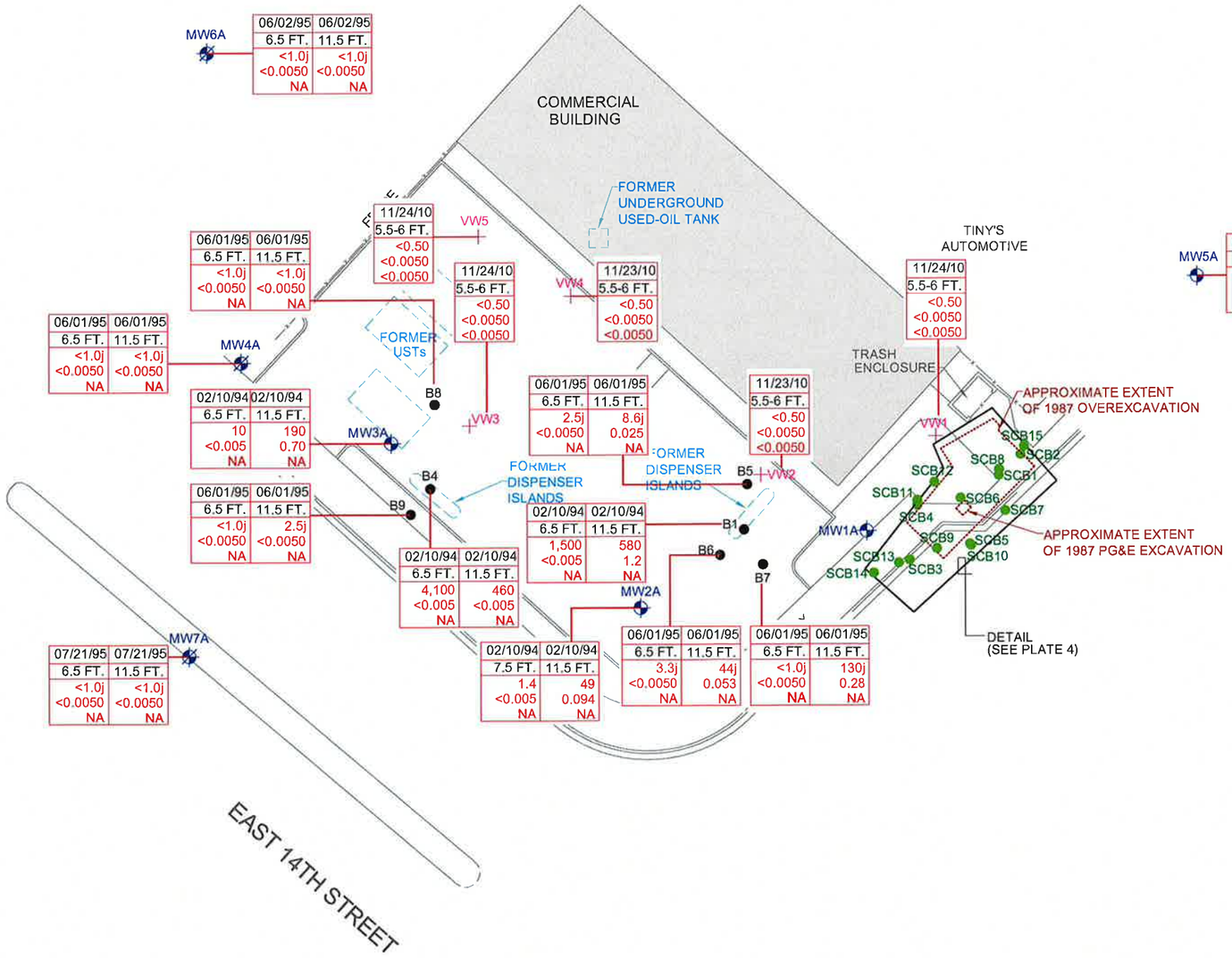
Sample Date
Sample Depth
Total Petroleum Hydrocarbons as gasoline
Benzene
Methyl Tertiary Butyl Ether

< Less Than the Stated Laboratory Reporting Limit

mg/kg Milligrams per kilograms

NA Not Analyzed

j Reported as purgeable hydrocarbons.



APPROXIMATE SCALE

0 30 60 Feet

FN 2785 12 R01 SOIL_RPT

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SELECT SOIL ANALYTICAL RESULTS

FORMER MOBIL SERVICE STATION 04FGN
14994 East 14th Street
San Leandro, California

EXPLANATION

MW5A Groundwater Monitoring Well

MW7A Destroyed Groundwater Monitoring Well

MW11 Groundwater Monitoring Well By Unocal

B9 Soil Borings By Unocal

SCB15 Soil Boring

22 Excavation Sample

VW5 Soil Vapor Sampling Well

PROJECT NO. 2785

PLATE 3

L:\EXXONMOBIL\ExxonMobil Projects\022785C (04FGN) San Leandro\2785 Autocad\REPORTS\12 R01\12 R01 SOIL_RPT.dwg, mary.jones

Analyte Concentrations in mg/kg

Sample Date
Sample Depth
Total Petroleum Hydrocarbons as gasoline
Benzene
Methyl Tertiary Butyl Ether

< Less Than the Stated Laboratory Reporting Limit

mg/kg Milligrams per kilograms

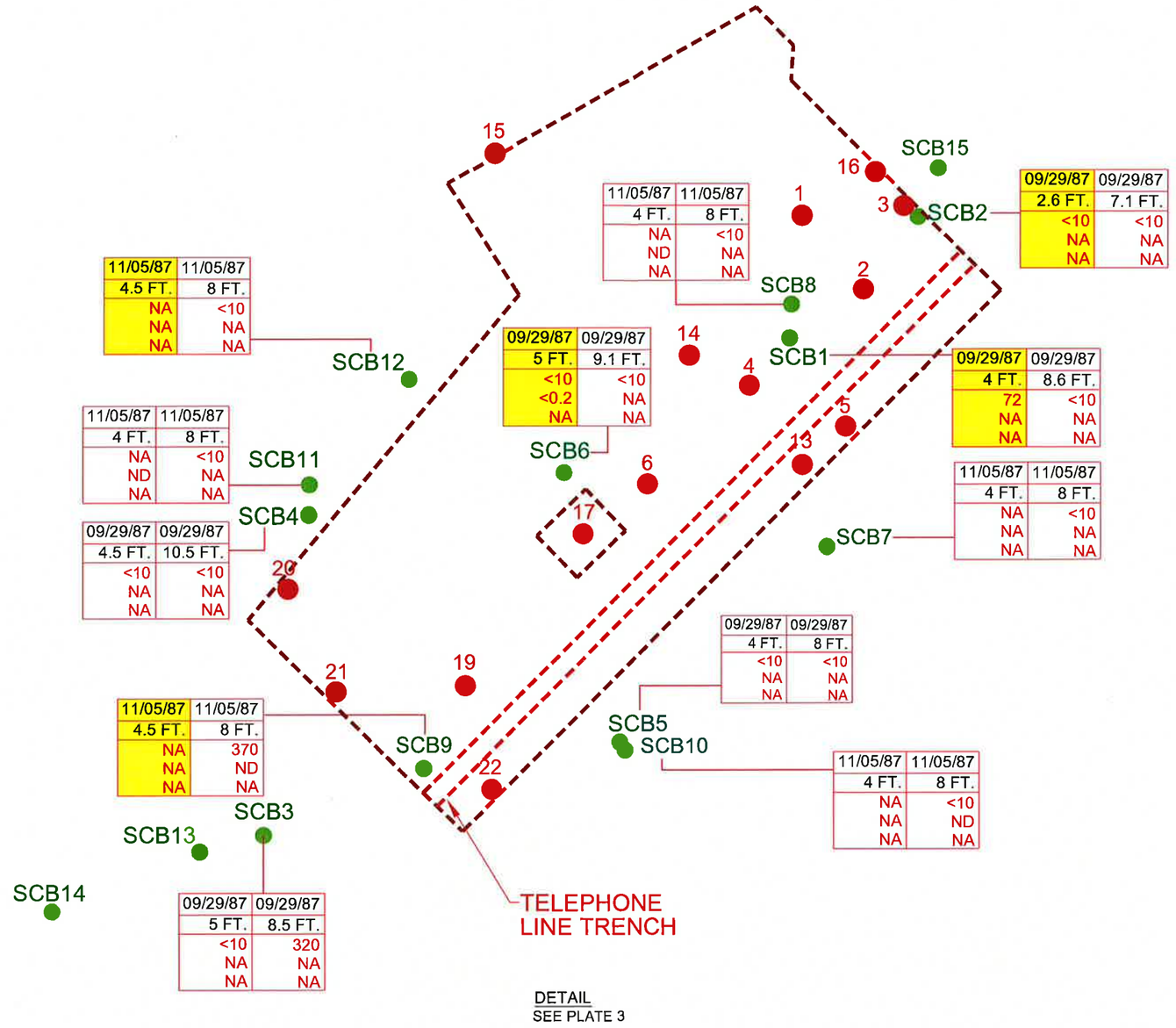
NA Not Analyzed

ND Not Detected

Highlighted Excavated

NOTE:

Excavation samples 1 through 22 and borings SCB13 through SCB15 analyzed for other analytes.



DETAIL
SEE PLATE 3

APPROXIMATE SCALE

0 5 10 Feet

FN2785 12 R01 SOIL DETAIL_RPT

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SELECT SOIL ANALYTICAL RESULTS - DETAIL

FORMER MOBIL SERVICE STATION 04FGN
14994 East 14th Street
San Leandro, California

EXPLANATION

MW3A Groundwater Monitoring Well

MW7A Destroyed Groundwater Monitoring Well

SCB15 Soil Boring

22 Excavation Sample

PROJECT NO. 2785

PLATE 4

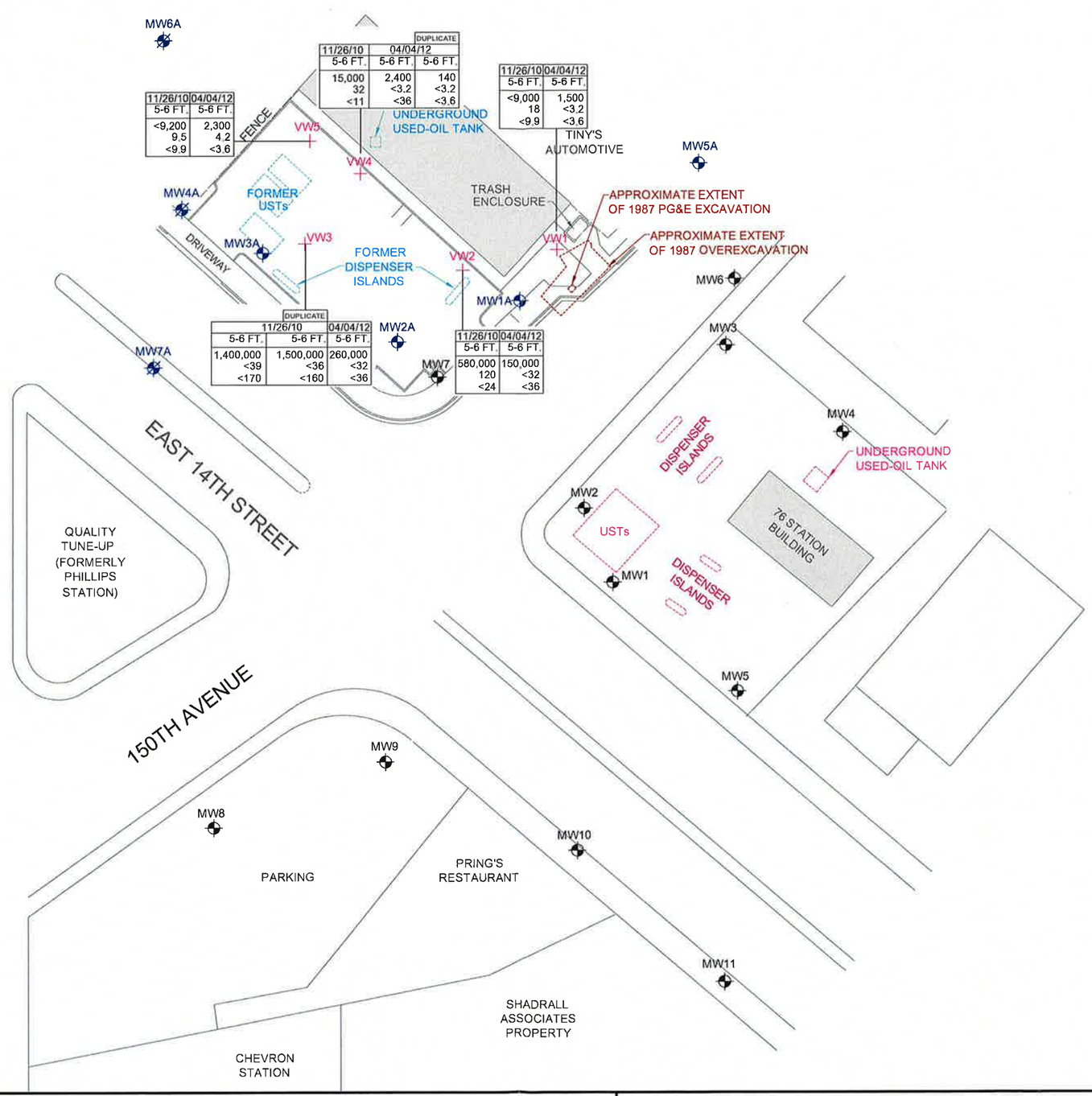
L:\EXXONMOBIL\ExxonMobil Projects\022785C (04FGN) San Leandro\2785 Autocad\REPORTS\12 R01\12 R01 SOIL DETAIL_RPT.dwg, mary.jones

Analyte Concentrations in ug/m 3

Sample Date
Sample Depth
Total Petroleum Hydrocarbons as gasoline
Benzene
Methyl Tertiary Butyl Ether

< Less Than the Stated Laboratory Reporting Limit

ug/m3 Micrograms per meter cubed



APPROXIMATE SCALE

0 50 100 Feet

FN 2785 12 R01 SOIL VAPOR_RPT

Cardno ERI
Shaping the Future

SELECT SOIL VAPOR ANALYTICAL RESULTS

FORMER MOBIL SERVICE STATION 04FGN
14994 East 14th Street
San Leandro, California

EXPLANATION

MW5A — Groundwater Monitoring Well

VW5 — Soil Vapor Sampling Well

MW7A — Destroyed Groundwater Monitoring Well

MW11 — Groundwater Monitoring Well By Unocal

PROJECT NO. 2785

PLATE 5

L:\EXXONMOBIL\ExxonMobil Projects\022785C (04FGN) San Leandro\2785 Autocad\REPORTS\12 R01\12 R01 SOIL VAPOR_RPT.dwg, mary.jones

TABLE 1A
CUMULATIVE SOIL VAPOR ANALYTICAL RESULTS
Former Mobil Service Station 04FGN
14994 East 14th Street
San Leandro, California
(Page 1 of 2)

Well ID	Sampling Date	Depth (feet bgs)	TPHg (µg/m³)	MTBE (µg/m³)	B (µg/m³)	T (µg/m³)	E (µg/m³)	o-X (µg/m³)	p,m-X (µg/m³)	X (µg/m³)	CO_2 (%V)	O_2 (%V)	Oxygen + Argon (%V)	Helium (%V)	Methane (%V)	Vacuum (in Hg)
Environmental Screening Levels for Soil Gas (Table E)																
Residential Land Use			10,000	9,400	84	63,000	980	---	---	21,000	---	---	---	---	---	---
Commercial/Industrial Land Use			29,000	310,000	280	180,000	3,300	---	---	58,000	---	---	---	---	---	---
VW1	11/26/10	5 - 6	<9,000	<9.9	18	18	5.7	---	---	18	4.71	---	12.7	---	<0.645	---
VW1	04/04/12	5 - 6	1,500	<3.6	<3.2	40h	<4.4	<4.4	<8.8	<13.2	6.2	12	---	<1.0	<0.0010	-3.4
VW2	11/26/10	5 - 6	**580,000**	<24	**120**	41	140	---	---	330	11.2	---	2.12	---	<0.670	---
VW2	04/04/12	5 - 6	**150,000**	<36	<32	<38h	<44	51	<88	<139	9.0	4.7	---	<1.0	0.048	-6.2
VW3	11/26/10	5 - 6	**1,400,000**	<170	<39	<46	<53	---	---	230	10.7	---	2.13	---	<0.755	---
VW3 (DUP)	11/26/10	5 - 6	**1,500,000**	<160	<36	<43	<49	---	---	220	10.9	---	2.21	---	<0.710	---
VW3	04/04/12	5 - 6	**260,000**	<36	<32	60h	<44	<44	<88	<132	6.4	4.5	---	<1.0	0.052	-4.8
VW4	11/26/10	5 - 6	**15,000**	<11	32	11	4.2	---	---	<13	9.77	---	4.26	---	<0.760	---
VW4	04/04/12	5 - 6	2,400	<3.6	<3.2	35h	<4.4	<4.4	9.5	<13.9	7.4	8.7	---	<1.0	<0.0010	-5.5
VW4 Dup	04/04/12	5 - 6	140	<3.6	<3.2	35h	<4.4	<4.4	<8.8	<13.2	8.0	7.9	---	<1.0	<0.0010	-5.0
VW5	11/26/10	5 - 6	<9,200	<9.9	9.5	5.4	<3.0	---	---	<12	9.95	---	11.8	---	<0.660	---
VW5	04/04/12	5 - 6	2,300	<3.6	4.2	71h	5.5	4.9	11	15.9	6.5	14	---	<1.0	<0.0010	-6.0

Notes:

TPHg	=	Total petroleum hydrocarbons as gasoline (reported as TPHv) analyzed using EPA Method TO-3M.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method TO-15.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method TO-15.
CO_2	=	Carbon dioxide analyzed using ASTM 1945-96.
O_2	=	Oxygen analyzed using ASTM 1945-96.
Oxygen + Argon	=	Oxygen and argon analyzed using ASTM 1946.
Helium	=	Helium analyzed using ASTM D1945M.
Methane	=	Methane analyzed using EPA Method 8015M; prior to November 2009, analyzed using ASTM Method D-1946.
Vacuum	=	Vacuum analyzed in the field.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method TO-15.
DIPE	=	Di-isopropyl ether analyzed using EPA Method TO-15.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method TO-15.
1,2-DCA	=	1,2-dichloroethane analyzed using EPA Method TO-15.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method TO-15.
EDB	=	1,2-dibromoethane analyzed using EPA Method TO-15.
Naphthalene	=	Napththalene analyzed using EPA Method TO-15.
Add'l VOCs	=	Additional volatile organic compounds analyzed using EPA Method TO-15. For complete list of analytes, see laboratory report.
bgs	=	Below ground surface.
µg/m³	=	Micrograms per meter cubed.
%v	=	Percent by volume.
in Hg	=	Inches of mercury volume.
ND	=	Not detected at or above the laboratory reporting limit.

TABLE 1B
ADDITIONAL CUMULATIVE SOIL VAPOR ANALYTICAL RESULTS
Former Mobil Service Station 04FGN
14994 East 14th Street
San Leandro, California

Well ID	Sampling Date	Depth (feet bgs)	TBA (µg/m³)	DIPE (µg/m³)	ETBE (µg/m³)	1,2-DCA (µg/m³)	TAME (µg/m³)	EDB (µg/m³)	Naphthalene (µg/m³)	Add'l VOCs (µg/m³)
Environmental Screening Levels for Soil Gas (Table E)										
Residential Land Use			---	---	---	94	---	4.1	72	660,000a, 410d, 460g
Commercial/Industrial Land Use			---	---	---	310	---	140	240	1,800,000a, 1,400d, 1,500g
VW1	11/26/10	5 - 6	<8.3	<11	<11	<2.8	<11	**<5.3**	---	---
VW1	04/12/12	5 - 6	<6.1	<4.2	<4.2	<4.1	<4.2	**<7.8**	<5.3	570a, 19d
VW2	11/26/10	5 - 6	58	<28	<28	<6.8	<28	**<13**	---	120a, 40b, 25c, 39d, 240e, 78f
VW2	04/12/12	5 - 6	<61	<42	<42	<41	<42	**<78**	<53	ND
VW3	11/26/10	5 - 6	<150	<200	<200	<49	<200	**<93**	---	---
VW3 (DUP)	11/26/10	5 - 6	<140	<190	<190	<46	<190	**<87**	---	---
VW3	04/12/12	5 - 6	<61	<42	<42	<41	<42	**<78**	<53	ND
VW4	11/26/10	5 - 6	<9.2	<13	<13	<3.1	<13	**<5.8**	---	20a, 7.4g, 15d
VW4	04/12/12	5 - 6	<6.1	<4.2	<4.2	<4.1	<4.2	**<7.8**	<5.3	6.0f
VW4 Dup	04/12/12	5 - 6	<6.1	<4.2	<4.2	<4.1	<4.2	**<7.8**	<5.3	ND
VW5	11/26/10	5 - 6	<8.3	<11	<11	<2.8	<11	**<5.3**	---	---
VW5	04/12/12	5 - 6	<6.1	<4.2	<4.2	<4.1	<4.2	**<7.8**	<5.3	260a, 7.8f

Notes:

TPHg	=	Total petroleum hydrocarbons as gasoline (reported as TPHv) analyzed using EPA Method TO-3M.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method TO-15.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method TO-15.
CO_2	=	Carbon dioxide analyzed using ASTM 1945-96.
O_2	=	Oxygen analyzed using ASTM 1945-96.
Oxygen + Argon	=	Oxygen and argon analyzed using ASTM 1946.
Helium	=	Helium analyzed using ASTM D1945M.
Methane	=	Methane analyzed using EPA Method 8015M; prior to November 2009, analyzed using ASTM Method D-1946.
Vacuum	=	Vacuum analyzed in the field.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method TO-15.
DIPE	=	Di-isopropyl ether analyzed using EPA Method TO-15.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method TO-15.
1,2-DCA	=	1,2-dichloroethane analyzed using EPA Method TO-15.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method TO-15.
EDB	=	1,2-dibromoethane analyzed using EPA Method TO-15.
Naphthalene	=	Napththalene analyzed using EPA Method TO-15.
Add'l VOCs	=	Additional volatile organic compounds analyzed using EPA Method TO-15. For complete list of analytes, see laboratory report.
bgs	=	Below ground surface.
µg/m³	=	Micrograms per meter cubed.

TABLE 1B
ADDITIONAL CUMULATIVE SOIL VAPOR ANALYTICAL RESULTS
Former Mobil Service Station 04FGN
14994 East 14th Street
San Leandro, California

Notes (Cont.):

%v	=	Percent by volume.
in Hg	=	Inches of mercury volume.
ND	=	Not detected at or above the laboratory reporting limit.
<	=	Less than the stated method detection limit.
---	=	Not applicable.
a	=	Acetone.
b	=	2-Butanone.
c	=	4-Ethyltoluene.
d	=	Tetrachloroethene.
e	=	1,3,5-Trimethylbenzene.
f	=	1,2,4-Trimethylbenzene.
g	=	Chloroform.
h	=	Analyte detected in Trip Blank.

TABLE 2
CUMULATIVE SOIL ANALYTICAL RESULTS
Former Mobil Service Station 04FGN
14994 East 14th Street
San Leandro, California

Sample ID	Date Collected	Sample Depth (feet bgs)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	TOG (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Add'l VOCs (mg/kg)	Purgeable Organics (mg/kg)
Excavation Samples																		
1	December 1987	1.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.025i	---
2	December 1987	5.0	30	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.025i	---
3	December 1987	2.5	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.025i	---
4	December 1987	5.5	100	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.025i	---
5	December 1987	4.0	<100	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.025i	---
6	December 1987	5.5	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.025i	---
13	December 1987	5.0	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.001i	---
14	December 1987	5.0	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.001i	---
15	December 1987	4.0	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.001i	---
16	December 1987	4.5	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.001i	---
17	December 1987	7.5	<10	---	---	---	---	---	---	<50	---	---	---	---	---	---	<0.001i	---
19	December 1987	10.0	<10	---	---	---	---	---	---	<50	---	---	---	---	---	---	<0.001i	---
20	December 1987	7.0	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.001i	---
21	December 1987	5.0	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.001i	---
22	December 1987	6.5	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<0.001i	---
Soil Borings																		
SCB-1	09/29/87	4.0	200	72	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-1	09/29/87	8.6	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-2	09/29/87	2.6	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-2	09/29/87	7.1	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-3	09/29/87	5.0	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-3	09/29/87	8.5	<50	320	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-4	09/29/87	4.5	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-4	09/29/87	10.5	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-5	09/29/87	4.0	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-5	09/29/87	8.0	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB-6	09/29/87	5.0	<50	<10	---	<0.2	<0.2	<0.2	---	---	---	---	---	---	---	---	8.0a, 6.6g, 15.0h	---
SCB-6	09/29/87	9.1	<50	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	---
SCB7	11/05/87	4.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB7	11/05/87	8.0	---	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB8	11/05/87	4.0	---	---	---	ND	0.150	ND	---	---	---	---	---	---	---	---	ND	<1.0
SCB8	11/05/87	8.0	---	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB9	11/05/87	4.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB9	11/05/87	8.0	---	370	---	ND	ND	ND	---	---	---	---	---	---	---	---	ND	<1.0
SCB10	11/05/87	4.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB10	11/05/87	8.0	---	<10	---	ND	0.051	ND	---	---	---	---	---	---	---	---	ND	<1.0

TABLE 2
CUMULATIVE SOIL ANALYTICAL RESULTS
Former Mobil Service Station 04FGN
14994 East 14th Street
San Leandro, California

Sample ID	Date Collected	Sample Depth (feet bgs)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	TOG (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Add'l VOCs (mg/kg)	Purgeable Organics (mg/kg)
SCB11	11/05/87	4.0	---	---	---	ND	ND	ND	---	---	---	---	---	---	---	---	ND	<1.0
SCB11	11/05/87	8.0	---	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB12	11/05/87	4.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB12	11/05/87	8.0	---	<10	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB13	11/05/87	4.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB13	11/05/87	8.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB14	11/05/87	4.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB14	11/05/87	8.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB15	11/05/87	4.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
SCB15	11/05/87	8.0	---	---	---	---	---	---	---	---	---	---	---	---	---	---	---	<1.0
B-1	02/10/94	6.5	160	1,500	---	<0.005	2.9	18	85	160	---	---	---	---	---	---	---	---
B-1	02/10/94	11.5	120	580	---	1.2	1.1	5.5	18	<30	---	---	---	---	---	---	---	---
B-4	02/10/94	6.5	650	4,100	---	<0.005	15	57	390	130	---	---	---	---	---	---	---	---
B-4	02/10/94	11.5	62	460	---	<0.005	1.0	4.7	23	<30	---	---	---	---	---	---	---	---
B-5	06/01/95	6.5	<1.0k	2.5j	---	<0.0050	<0.0050	0.0076	0.17	---	---	---	---	---	---	---	---	---
B-5	06/01/95	11.5	2.1k,l	8.6j	---	0.025	0.025	0.020	0.11	---	---	---	---	---	---	---	---	---
B-6	06/01/95	6.5	4.3k,m	3.3j	---	<0.0050	<0.0050	0.068	0.16	---	---	---	---	---	---	---	---	---
B-6	06/01/95	11.5	2.7k,l	44j	---	0.053	0.078	1.4	5.3	---	---	---	---	---	---	---	---	---
B-7	06/01/95	6.5	<1.0k	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
B-7	06/01/95	11.5	8.1k,l	130j	---	0.28	0.31	0.92	1.2	---	---	---	---	---	---	---	---	---
B-8	06/01/95	6.5	<1.0k	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
B-8	06/01/95	11.5	<1.0k	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
B-9	06/01/95	6.5	1.4k,n	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
B-9	06/01/95	11.5	1.7k,n	2.5j	---	<0.0050	0.0053	0.0059	0.0052	---	---	---	---	---	---	---	---	---
Groundwater Monitoring Wells																		
B2 (MW-2)	02/10/94	7.5	1.6	1.4	---	<0.005	0.0065	<0.005	<0.005	<30	---	---	---	---	---	---	---	---
B2 (MW-2)	02/10/94	11.5	12	49	---	0.094	<0.005	0.18	0.33	<30	---	---	---	---	---	---	---	---
B3 (MW-3)	02/10/94	6.5	24	10	---	<0.005	0.028	0.027	0.049	100	---	---	---	---	---	---	---	---
B3 (MW-3)	02/10/94	11.5	31	190	---	0.70	0.11	2.5	0.52	<30	---	---	---	---	---	---	---	---
MW-4A	06/01/95	6.5	2.2k,n	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
MW-4A	06/01/95	11.5	<1.0k	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
MW-5A	06/01/95	6.5	1.6k,n	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
MW-5A	06/01/95	11.5	<1.0k	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---

TABLE 2
CUMULATIVE SOIL ANALYTICAL RESULTS
Former Mobil Service Station 04FGN
14994 East 14th Street
San Leandro, California

Sample ID		Date Collected	Sample Depth (feet bgs)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)	TOG (mg/kg)	TBA (mg/kg)	TAME (mg/kg)	DIPE (mg/kg)	ETBE (mg/kg)	EDB (mg/kg)	1,2-DCA (mg/kg)	Add'l VOCs (mg/kg)	Purgeable Organics (mg/kg)
MW-6A		06/02/95	6.5	<1.0k	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
MW-6A		06/02/95	11.5	<1.0k	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
MW-7A		07/21/95	6.5	---	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
MW-7A		07/21/95	11.5	---	<1.0j	---	<0.0050	<0.0050	<0.0050	<0.0050	---	---	---	---	---	---	---	---	---
Soil Vapor Wells																			
VW1		11/24/10	5.5-6	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	---	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	ND	---
VW2	o	11/23/10	5.5-6	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	---	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	0.015b, 0.0036c, 0.00047d, 0.00047e, 0.0011f	---
VW3		11/24/10	5.5-6	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	---	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	ND	---
VW4	p	11/23/10	5.5-6	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	---	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	0.00030f	---
VW5		11/24/10	5.5-6	<5.0	<0.50	<0.0050	<0.0050	<0.0050	<0.0050	<0.010	---	<0.050	<0.010	<0.010	<0.010	<0.0050	<0.0050	ND	---

TABLE 2
CUMULATIVE SOIL ANALYTICAL RESULTS
Former Mobil Service Station 04FGN
14994 East 14th Street
San Leandro, California

Notes:		Data provided by ETIC Engineering, Inc, Alisto Engineering Group, and Alton Geoscience in previous site reports.
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015B.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015 (modified) or 8015B. Samples SBC7 through SBC15 analyzed using EPA Method 8010, Extraction Method 5030
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B; prior to 2004, analyzed using EPA Method 8021B.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8020 or 8021B.
TOG	=	Total oil and grease.
TBA	=	Tertiary butyl alcohol.
TAME	=	Tertiary amyl methyl ether.
DIPE	=	Di-isopropyl ether.
ETBE	=	Ethyl tertiary butyl ether.
EDB	=	1,2-dibromoethane.
1,2-DCA	=	1,2-dichloroethane.
Purgeable Organics	=	Purgeable Organics analyzed using EPA Method 8010.
Add'l VOCs	=	Additional volatile organic compounds.
feet bgs	=	Feet below ground surface.
mg/kg	=	Milligrams per Kilogram.
ND	=	Not detected at or above the laboratory method reporting limit.
Blue	=	Samples removed from site through excavation activities.
<	=	Less than the stated laboratory reporting limit.
---	=	Not analyzed/Not applicable.
a	=	trans-1,2-dichloroethylene.
b	=	Acetone.
c	=	2-Butanone.
d	=	n-Butylbenzene
e	=	sec-Butylbenzene.
f	=	1,2,4-Trimethylbenzene.
g	=	Tetrachloroethene.
h	=	Trichloroethene.
i	=	Volatile halocarbons analyzed using EPA Method 8010; Extraction Method EPA 5030.
j	=	Reported as purgeable hydrocarbons.
k	=	Reported as extractable hydrocarbons.
l	=	Unidentified hydrocarbons <C15.
m	=	Unidentified hydrocarbons <C15 and >C20.
n	=	Discrete peaks.
o	=	Additional analyses: cadmium (<0.500 mg/kg), chromium (26.4 mg/kg), lead (6.88 mg/kg, analyte present in method blank), nickel (38.8 mg/kg), and zinc (31.9 mg/kg).
p	=	Additional analyses: cadmium (<0.500 mg/kg), chromium (26.7 mg/kg), lead (6.74 mg/kg, analyte present in method blank), nickel (38.1 mg/kg), and zinc (30.9 mg/kg).

APPENDIX A

HISTORICAL SITE TABLES

TABLE 1 WELL CONSTRUCTION DETAILS, FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well Number		Well Installation Date	Elevation TOC (feet)	Casing Material	Total Depth (feet)	Well Depth (feet)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material
MW1A	a	03/31/88	39.30	PVC	24	19	8	2	9 - 19	0.020	8 - 19 19 - 24 [c]	#3 Sand
MW2A	a	02/10/94	39.52	PVC	24	24	8	2	8.5 - 24	0.010	7 - 24	#2/12 Lonestar Sand
MW3A	a	02/10/94	39.82	PVC	23	23	8	2	8 - 23	0.010	6.5 - 23	#2/12 Lonestar Sand
MW4A	b	06/01/95	--	PVC	26.5	24	11	4	9 - 24	0.010	7 - 26.5	#2/12 Lonestar Sand
MW5A	b	06/01/95	--	PVC	26.5	24	11	4	9 - 24	0.010	7 - 26.5	#2/12 Lonestar Sand
MW6A	b	06/02/95	--	PVC	26.5	24	11	4	9 - 24	0.010	7 - 26.5	#2/12 Lonestar Sand
MW7A	b	07/28/95	--	PVC	26.5	24	11	4	9 - 24	0.010	7 - 26.5	#2/12 Lonestar Sand
VW1	**a**	**11/24/10**	--	**SS**	**6**	**6**	**4**	**0.25**	**5.25 - 5.75**	**0.0057**	**5 - 6**	**#2/12 Sand**
VW2	**a**	**11/23/10**	--	**SS**	**6**	**6**	**4**	**0.25**	**5.25 - 5.75**	**0.0057**	**5 - 6**	**#2/12 Sand**
VW3	**a**	**11/24/10**	--	**SS**	**6**	**6**	**4**	**0.25**	**5.25 - 5.75**	**0.0057**	**5 - 6**	**#2/12 Sand**
VW4	**a**	**11/23/10**	--	**SS**	**6**	**6**	**4**	**0.25**	**5.25 - 5.75**	**0.0057**	**5 - 6**	**#2/12 Sand**
VW5	**a**	**11/24/10**	--	**SS**	**6**	**6**	**4**	**0.25**	**5.25 - 5.75**	**0.0057**	**5 - 6**	**#2/12 Sand**

Notes:

a Well surveyed on 15 December 2010.

b Well destroyed.

c Depth of bentonite seal at the base of the boring.

TABLE 1 WELL CONSTRUCTION DETAILS, FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well Number	Well Installation Date	Elevation TOC (feet)	Casing Material	Total Depth (feet)	Well Depth (feet)	Borehole Diameter (inches)	Casing Diameter (inches)	Screened Interval (feet)	Slot Size (inches)	Filter Pack Interval (feet)	Filter Pack Material

PVC Polyvinyl chloride.
SS Stainless steel.
TOC Top of casing.

-- Information not available.

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentrations (µg/L)								
					TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8020 or 8021)	MTBE (8240 or 8260)	VOCs (8260)
MW1A	03/31/88	36.35	—	—	29,000	ND	ND	ND	550	640	—	—	—
MW1A	01/31/89	36.35	—	—	11,200	—	260	ND	500	500	—	—	—
MW1A	02/24/94	36.35	9.42	26.93	11,000	2,500	70	ND	260	180	—	—	—
MW1A	08/03/94	36.35	12.00	24.35	13,000	7,100	61	50	280	230	—	—	—
MW1A	11/23/94	36.35	11.18	25.17	12,000	2,500	49	ND	300	190	—	—	—
MW1A	02/28/95	36.35	9.08	27.27	10,000	3,200	25	ND	110	67	—	—	—
MW1A	05/10/95	36.35	8.33	28.02	10,000	3,600	31	ND	140	81	—	—	—
MW1A	08/02/95	36.63	9.49	27.14	10,000	3,800	24	18	130	80	—	—	—
MW1A	11/02/95	36.63	11.05	25.58	12,000	3,400[a]	ND	ND	190	150	—	—	—
MW1A	02/08/96	36.63	7.55	29.08	8,000	3,600[a]	100	21	87	58	—	—	—
MW1A	05/08/96	36.63	7.52	29.11	9,200	—	11	ND	120	64	—	—	—
MW1A	08/09/96	36.63	9.63	27.00	—	—	—	—	—	—	—	—	—
MW1A	08/20/96	36.63	—	—	6,800	—	64	22	100	55	130	ND	—
MW1A	11/07/96	36.63	11.01	25.62	7,900	—	100	12	70	34	95	ND	—
MW1A	02/10/97	36.63	7.58	29.05	5,800	—	36	15	67	29	58	ND	—
MW1A	05/07/97	36.63	9.15	27.48	1,400	—	13	ND	11	ND	ND	—	—
MW1A	09/10/97	36.63	10.88	25.75	7,800	—	64	ND	70	26	120	ND	—
MW1A	02/12/98	36.63	5.52	31.11	ND	—	ND	ND	ND	ND	ND	—	—
MW1A	08/12/98	36.63	8.80	27.83	500	—	41	12	1.8	20	ND	—	—
MW1A	12/10/99	36.63	10.86	25.77	1,700	—	ND	1.4	6.2	3.3	ND	—	—
MW1A	01/14/00	36.63	11.33	25.30	4,600	—	ND	30	28	ND	ND	—	—
MW1A	10/27/00	36.63	10.30	26.33	3,500	—	<10	2.6	13	6.4	18	<5	—
MW1A	01/18/01	36.63	10.45	26.18	4,500	—	<10	3.9	12	4.7	<20	—	—
MW1A	07/10/01	36.63	10.72	25.91	2,000	—	<20	18	9.6	18	<20	<2	—
MW1A	11/27/01	16.34	Well resurveyed to new reference point										—
MW1A	01/16/02	16.34	9.02	7.32	2,690	—	11.7	1.60	6.80	6.00	23.9	—	—
MW1A	07/08/02	16.34	10.43	5.91	1,570	—	12.0	11.0	<5.0	<5.0	24.0	<0.50	—
MW1A	01/23/03	16.34	8.84	7.50	2,040	—	16.5	3.5	8.70	5.90	—	<0.50	—
MW1A	07/09/03	16.34	9.97	6.37	1,440	—	8.60	1.0	7.3	5.2	13.6	<0.5	—
MW1A	01/15/04	16.34	9.39	6.95	1,640	—	0.70	5.2	4.0	2.8	—	<0.5	—
MW1A	07/07/04	16.34	10.75	5.59	2,210	—	18.7	2.9	3.7	1.5	—	<0.5	—
MW1A	12/17/08	16.34	11.92	4.42	2,400	—	<0.50	<0.50	1.6	<0.50	—	<0.50	ND
MW2A	02/24/94	36.61	9.52	27.09	6,400	4,500	31	ND	58	42	—	—	—
MW2A	08/23/94	36.61	12.05	24.56	7,500	7,100	42	21	71	53	—	—	—
MW2A	11/23/94	36.61	11.25	25.36	7,000	1,800	33	11	39	ND	—	—	—
MW2A	02/28/95	36.61	9.10	27.51	9,000	1,600	29	36	96	45	—	—	—

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentrations (µg/L) TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8020 or 8021)	MTBE (8240 or 8260)	VOCs (8260)
MW2A	05/10/95	36.61	8.42	28.19	5,100	1,600	20	27	32	35	—	—	—
MW2A	08/02/95	36.62	9.54	27.08	4,300	1,800	36	ND	11	16	—	—	—
MW2A	11/02/95	36.62	11.08	25.54	4,300	3,000[a]	22	ND	10	11	—	—	—
MW2A	02/08/96	36.62	7.68	28.94	2,900	940[a]	32	13	13	ND	—	—	—
MW2A	05/08/96	36.62	8.64	27.98	2,500	—	13	12	19	26	—	—	—
MW2A	08/09/96	36.62	9.71	26.91	—	—	—	—	—	—	—	—	—
MW2A	08/20/96	36.62	—	—	2,500	—	19	11	6.8	8.1	36	—	—
MW2A	11/07/96	36.62	11.04	25.58	4,700	—	58	7.3	5.3	ND	55	—	—
MW2A	02/10/97	36.62	7.75	28.87	2,600	—	12	10	35	15	ND	—	—
MW2A	05/07/97	36.62	9.23	27.39	3,300	—	25	18	16	11	ND	—	—
MW2A	09/10/97	36.62	10.91	25.71	2,800	—	24	ND	ND	ND	43	—	—
MW2A	02/12/98	36.62	5.59	31.03	3,800	—	10	11	30	14	ND	—	—
MW2A	08/12/98	36.62	8.85	27.77	1,300	—	0.8	8.7	2.4	4.7	ND	—	—
MW2A	12/10/99	36.62	10.90	25.72	1,300	—	ND	2.2	ND	ND	ND	—	—
MW2A	01/14/00	36.62	11.39	25.23	2,700	—	1.3	18	2.4	ND	ND	—	—
MW2A	10/27/00	36.62	10.48	26.14	2,600	—	9.6	2.4	<5.0	<5.0	7.9	—	—
MW2A	01/18/01	36.62	10.61	26.01	3,800	—	<5.0	2.1	3.0	2.0	<10	—	—
MW2A	07/10/01	36.62	10.78	25.84	2,100	—	<10	2.6	2.8	3.4	<10	—	—
MW2A	11/27/01	16.12	Well resurveyed to new reference point										—
MW2A	01/16/02	16.12	9.11	7.01	2,500	—	9.80	5.10	6.50	9.80	16.0	—	—
MW2A	07/08/02	16.12	10.48	5.64	682	—	6.3	0.7	0.9	3.3	8.5	—	—
MW2A	01/23/03	16.12	8.94	7.18	1,180	—	8.8	3.1	4.8	5.8	—	<0.50	—
MW2A	07/09/03	16.12	10.03	6.09	1,430	—	7.80	1.5	3.1	3.4	10.5	<0.5	—
MW2A	01/15/04	16.12	9.48	6.64	1,530	—	0.50	4.8	2.2	2.9	—	<0.5	—
MW2A	07/07/04	16.12	10.80	5.32	797	—	5.70	1.3	1.7	1.1	—	<0.5	—
MW2A	12/17/08	16.12	12.03	4.09	1,300	—	<0.50	<0.50	<0.50	<0.50	—	<0.50	ND
MW3A	02/24/94	36.92	9.85	27.07	19,000	10,000	52	30	690	290	—	—	—
MW3A	08/23/94	36.92	12.33	24.59	14,000	11,000	44	24	1,000	100	—	—	—
MW3A	11/23/94	36.92	11.56	25.36	13,000	2,600	30	18	690	52	—	—	—
MW3A	02/28/95	36.92	9.35	27.57	8,500	—	11	ND	340	24	—	—	—
MW3A	05/10/95	36.92	8.55	28.37	7,600	3,800	ND	ND	400	45	—	—	—
MW3A	08/02/95	36.93	9.75	27.18	9,200	3,800	17	13	340	34	—	—	—
MW3A	11/02/95	36.93	11.29	25.64	9,200	4,400[a]	31	ND	360	72	—	—	—
MW3A	02/08/96	36.93	7.97	28.96	6,900	3,800[a]	38	ND	230	43	—	—	—
MW3A	05/08/96	36.93	8.82	28.11	7,700	—	ND	ND	270	38	—	—	—
MW3A	08/09/96	36.93	9.95	26.98	—	—	—	—	—	—	—	—	—

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentrations (µg/L) TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8020 or 8021)	MTBE (8240 or 8260)	VOCs (8260)
MW3A	08/20/96	36.93	—	—	5,600	—	8.0	29	180	23	12	—	—
MW3A	11/07/96	36.93	11.28	25.65	8,600	—	47	ND	150	29	ND	—	—
MW3A	02/10/97	36.93	7.95	28.98	8,300	—	28	ND	130	23	ND	—	—
MW3A	05/07/97	36.93	9.45	27.48	37,000	—	230	110	630	ND	ND	—	—
MW3A	09/10/97	36.93	11.13	25.80	5,500	—	16	ND	75	11	ND	—	—
MW3A	02/12/98	36.93	5.72	31.21	10,000	—	37	ND	84	25	ND	—	—
MW3A	08/12/98	36.93	9.05	27.88	5,600	—	4	18	39	19	ND	—	—
MW3A	12/10/99	36.93	11.21	25.72	5,900	—	ND	3.0	22	5.0	ND	—	—
MW3A	01/14/00	36.93	11.64	25.29	6,500	—	7.5	27	37	ND	ND	—	—
MW3A	10/27/00	36.93	10.78	26.15	6,300	—	<10	3.8	17	5.6	<20	—	—
MW3A	01/18/01	36.93	10.87	26.06	7,300	—	<20	3.1	14	3.3	<10	—	—
MW3A	07/10/01	36.93	11.03	25.90	5,200	—	7.3	8.0	11	9.6	<10	—	—
MW3A	11/27/01	16.42	Well resurveyed to new reference point										—
MW3A	01/16/02	16.42	9.38	7.04	4,900	—	19.0	<5.00	16.0	14.0	28.0	<5	—
MW3A	07/08/02	16.42	10.75	5.67	2,470	—	9.1	1.8	8.8	4.1	17.5	—	—
MW3A	01/23/03	16.42	9.20	7.22	2,240	—	12.5	4.5	7.9	28.0	—	<0.50	—
MW3A	07/09/03	16.42	10.28	6.14	2,850	—	10.8	2.8	8.3	5.5	15.7	<0.5	—
MW3A	01/15/04	16.42	9.77	6.65	2,810	—	1.20	8.2	5.9	9.1	—	<0.5	—
MW3A	07/07/04	16.42	11.07	5.35	2,250	—	15.9	2.7	5.8	1.8	—	<0.5	—
MW3A	12/17/08	16.42	12.45	3.97	1,500	—	<0.50	<0.50	0.58	<0.50	—	<0.50	ND
MW4A	08/02/95	37.18	9.63	27.55	ND	ND	ND	ND	ND	ND	—	—	—
MW4A	11/02/95	37.18	11.48	25.70	ND	ND	ND	ND	ND	ND	—	—	—
MW4A	02/08/96	37.18	8.18	29.00	ND	ND	ND	1.1	ND	0.92	—	—	—
MW4A	05/08/96	37.18	8.49	28.69	ND	—	ND	ND	ND	ND	—	—	—
MW4A	08/09/96	37.18	10.05	27.13	—	—	—	—	—	—	—	—	—
MW4A	08/20/96	37.18	—	—	ND	—	ND	ND	ND	ND	ND	—	—
MW4A	11/07/96	37.18	11.48	25.70	ND	—	ND	ND	ND	0.88	ND	—	—
MW4A	02/10/97	37.18	8.11	29.07	ND	—	ND	2.4	ND	ND	ND	—	—
MW4A	05/07/97	37.18	9.64	27.54	ND	—	ND	ND	ND	ND	ND	—	—
MW4A	09/10/97	37.18	11.32	25.86	—	—	—	—	—	—	—	—	—
MW4A	02/12/98	37.18	5.90	31.28	ND	—	ND	ND	ND	ND	ND	—	—
MW4A	08/12/98	37.18	9.21	27.97	—	—	—	—	—	—	—	—	—
MW4A	12/10/99	37.18	11.46	25.72	ND	—	ND	0.39	ND	0.95	ND	—	—
MW4A	03/09/00	Well destroyed											
MW5A	08/02/95	35.91	8.74	27.17	1,300	220	16	0.68	1.3	4.3	—	—	—
MW5A	11/02/95	35.91	10.34	25.57	180	ND	1.9	1.2	ND	ND	—	—	—

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentrations (µg/L)								
					TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8020 or 8021)	MTBE (8240 or 8260)	VOCs (8260)
MW5A	02/08/96	35.91	6.67	29.24	160	150	1.9	2.2	ND	0.89	—	—	—
MW5A	05/08/96	35.91	7.35	28.56	260	—	2.4	6.7	2.0	9.6	—	—	—
MW5A	08/09/96	35.91	8.81	27.10	—	—	—	—	—	—	—	—	—
MW5A	08/20/96	35.91	—	—	ND	—	ND	1.8	ND	ND	9.4	—	—
MW5A	11/07/96	35.91	10.25	25.66	—	—	—	—	—	—	—	—	—
MW5A	02/10/97	35.91	6.93	28.98	ND	—	ND	1.2	ND	ND	ND	—	—
MW5A	05/07/97	35.91	8.42	27.49	—	—	—	—	—	—	—	—	—
MW5A	09/10/97	35.91	10.15	25.76	—	—	—	—	—	—	—	—	—
MW5A	02/12/98	35.91	5.32	30.59	ND	—	ND	ND	ND	ND	ND	—	—
MW5A	08/12/98	35.91	8.19	27.72	—	—	—	—	—	—	—	—	—
MW5A	12/10/99	35.91	10.10	25.81	ND	—	ND	ND	ND	ND	ND	—	—
MW5A	03/09/00	Well destroyed											
MW6A	08/02/95	37.10	9.68	27.42	ND	ND	ND	ND	ND	ND	—	—	—
MW6A	11/02/95	37.10	11.26	25.84	ND	ND	ND	ND	ND	ND	—	—	—
MW6A	02/08/96	37.10	7.79	29.31	ND	ND	ND	1.3	ND	1.3	—	—	—
MW6A	05/08/96	37.10	8.38	28.72	ND	—	ND	1.6	ND	1.2	—	—	—
MW6A	08/09/96	37.10	9.82	27.28	—	—	—	—	—	—	—	—	—
MW6A	08/20/96	37.10	—	—	ND	—	ND	ND	ND	ND	ND	—	—
MW6A	11/07/96	37.10	11.02	26.08	—	—	—	—	—	—	—	—	—
MW6A	02/10/97	37.10	7.70	29.40	ND	—	ND	3.4	ND	ND	ND	—	—
MW6A	05/07/97	37.10	9.31	27.79	—	—	—	—	—	—	—	—	—
MW6A	09/10/97	37.10	11.08	26.02	—	—	—	—	—	—	—	—	—
MW6A	02/12/98	37.10	5.52	31.58	ND	—	ND	ND	ND	ND	ND	—	—
MW6A	08/12/98	37.10	8.91	28.19	—	—	—	—	—	—	—	—	—
MW6A	12/10/99	37.10	11.24	25.86	ND	—	ND	0.32	ND	ND	ND	—	—
MW6A	03/09/00	Well destroyed											
MW7A	11/02/95	37.39	11.77	25.62	ND	ND	ND	ND	ND	ND	—	—	—
MW7A	02/08/96	37.39	8.68	28.71	ND	75	ND	1.4	ND	1.5	—	—	—
MW7A	05/08/96	37.39	9.00	28.39	ND	—	2.2	6.3	1.4	7.9	—	—	—
MW7A	08/09/96	37.39	10.31	27.08	—	—	—	—	—	—	—	—	—
MW7A	08/20/96	37.39	—	—	ND	—	ND	ND	ND	ND	ND	—	—
MW7A	11/07/96	37.39	11.81	25.58	ND	—	ND	0.96	ND	1.6	ND	—	—
MW7A	02/10/97	37.39	8.57	28.82	ND	—	ND	2.4	ND	ND	ND	—	—
MW7A	05/07/97	37.39	10.05	27.34	ND	—	ND	ND	ND	ND	ND	—	—
MW7A	09/10/97	37.39	11.66	25.73	ND	—	ND	ND	ND	ND	ND	—	—
MW7A	02/12/98	37.39	6.55	30.84	ND	—	ND	ND	ND	ND	ND	—	—

TABLE 2 GROUNDWATER MONITORING DATA, FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	TOC Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Concentrations (µg/L)								
					TPH-g	TPH-d	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE (8020 or 8021)	MTBE (8240 or 8260)	VOCs (8260)
MW7A	08/12/98	37.39	9.65	27.74	ND	—	0.5	ND	ND	ND	ND	—	—
MW7A	12/10/99	37.39	11.80	25.59	ND	—	ND	ND	ND	ND	ND	—	—
MW7A	03/09/00	Well destroyed											
MW-7	12/17/08	—	—	—	7,700	—	0.80	1.2	350	13	—	<0.50	ND

Notes: Well MW-7 was installed for the 76 Station site located to the southeast.
Adopted from ETIC, 2009a. Quarterly Groundwater Monitoring Report, January.

a Unidentified hydrocarbons <C10

MTBE Methyl tertiary butyl ether.
ND Not detected at or above laboratory reporting limit.
TOC Top of casing.
TPH-d Total Petroleum Hydrocarbons as diesel.
TPH-g Total Petroleum Hydrocarbons as gasoline.
VOCs Volatile organic compounds including tetrachlorethene, trichlorethene, and 1,2-dichloroethene.

µg/L Micrograms per liter.
— Not analyzed or not provided.

TABLE 3 GROUNDWATER ANALYTICAL RESULTS FOR OXYGENATES AND ADDITIVES,
FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Well ID	Date	Concentrations (µg/L)						
		Tertiary butyl alcohol	Methyl tertiary butyl ether	Diisopropyl ether	Ethyl tertiary butyl ether	Tertiary amyl methyl ether	1,2-Dichloro-ethane	1,2-Dibromo-ethane
MW1A	08/20/96	--	ND	--	--	--	--	--
MW1A	11/07/96	--	ND	--	--	--	--	--
MW1A	02/10/97	--	ND	--	--	--	--	--
MW1A	09/10/97	--	ND	--	--	--	--	--
MW1A	10/27/00	--	<5	--	--	--	--	--
MW1A	07/10/01	--	<2	--	--	--	--	--
MW1A	07/08/02	--	<0.50	--	--	--	--	--
MW1A	01/23/03	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW1A	01/15/04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW1A	07/07/04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW1A	12/17/08	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2A	01/23/03	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW2A	01/15/04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW2A	07/07/04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW2A	12/17/08	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW3A	01/16/02	--	<5	--	--	--	--	--
MW3A	01/23/03	<10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW3A	01/15/04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW3A	07/07/04	<10	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW3A	12/17/08	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
MW-7	12/17/08	<20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

Notes: Well MW-7 was installed for the 76 Station site located to the southeast.
Adopted from ETIC, 2009a. Quarterly Groundwater Monitoring Report, January.

ND Not detected at or above laboratory reporting limit.

-- Not analyzed or not provided.

µg/L Micrograms per liter.

TABLE 6 PHYSICAL PROPERTIES ANALYTICAL RESULTS FOR SOIL SAMPLES,
FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Boring ID	Sample Date	Sample Depth (feet bgs)	Moisture Content (% by weight)	Total Porosity (% of bulk volume)	Air-Filled Porosity (% of bulk volume)	Bulk Density (gm/cc)
VW1	**11/24/10**	**5-5.5**	**17.0**	**31.7**	**1.1**	**1.80**
VW2	**11/23/10**	**5-5.5**	**15.1**	**29.1**	**0.8**	**1.88**
VW3	**11/24/10**	**5-5.5**	**18.3**	**33.7**	**1.7**	**1.75**
VW4	**11/23/10**	**5-5.5**	**20.1**	**36.1**	**2.2**	**1.69**
VW5	**11/24/10**	**5-5.5**	**17.0**	**33.9**	**4.3**	**1.74**

feet bgs Feet below ground surface.
gm/cc Grams per cubic centimeter.
% Percent.

APPENDIX B

FIELD PROTOCOLS

Cardno ERI

Soil Vapor Sampling Well Installation and Sampling Field Protocol

Preliminary Activities

Prior to the onset of field activities at the site, Cardno ERI obtains the appropriate permit(s) from the governing agency(s). Advance notification is made as required by the agency(s) prior to the start of work. Cardno ERI marks the borehole locations and contacts the local one call utility locating service at least 48 hours prior to the start of work to mark buried utilities. Borehole locations may also be checked for buried utilities by a private geophysical surveyor. Prior to drilling, the borehole location is cleared in accordance with the client's procedures. Fieldwork is conducted under the advisement of a registered professional geologist and in accordance with an updated site-specific safety plan prepared for the project, which is available at the job site during field activities.

Well Construction

The borehole is advanced to the desired depth using either a direct-push rig, hand auger, or air vacuum rig. Lithologic conditions are recorded on a boring log during borehole advancement, and select soil matrix sampling may be conducted based on soil characteristics.

Each soil vapor sampling (SVS) well is constructed using inert screen material attached to $^1/_8$- to ¼-inch outer diameter inert tubing. A gas-tight vacuum fitting or valve is attached to the top of each length of tubing using a female compression fitting. Each screen is set within a minimum of a 12-inch thick appropriately sized sand pack, with a minimum of 3 inches of sand pack above the top of the screen. A minimum of 4 inches of dry granular bentonite is set above each screen and associated sand pack. In SVS wells with multiple and separate casings and screens, the annular space between the top of the dry granular bentonite above the deep screen and the bottom of the sand pack associated with the shallow screen is sealed with a minimum of 18 inches of hydrated bentonite. The remainder of the annular space of the well is sealed with hydrated bentonite to 1 foot below ground surface. Wellheads are finished with traffic-rated well boxes set in concrete flush with the surrounding grade. No glues, chemical cements, or solvents are used in well construction.

A boring log is completed with the construction details for each well, including the materials of construction, depth of the borehole, screen length, and annular seal thickness.

Soil Vapor Sampling

Samples are collected using a soil vapor purging and sampling manifold consisting of a flow regulator, vacuum gauges, vacuum pump, shroud, and laboratory-prepared, gas-tight, opaque containers such as Summa™ canisters. Samples may also be collected using a syringe and analyzed by a mobile laboratory. Prior to use, Summa™ canisters are checked to ensure they are under the laboratory induced vacuum between 31 and 25 inches of mercury

(in. Hg). New inert tubing is used to purge and sample each well. Prior to purging and sampling each SVS well, the sampling manifold is connected to the gas-tight vacuum fitting or valve at the wellhead, and the downstream tubing and fittings are vacuum tested at approximately 24 to 28 in. Hg. Purging and sampling are conducted only on SVS wells when the tubing and fittings hold the applied vacuum for 5 minutes per vacuum gauge reading.

When required, Cardno ERI conducts a purge volume versus constituent concentration test on at least one SVS well prior to purging and sampling activities. The purge volume test well is selected based on the location of the anticipated source of chemical constituents at the site and on the location of anticipated maximum soil vapor concentrations based on lithologic conditions. If the SVS well has been in place for more than 1 week, it is assumed that soil vapor in the sand pack has equilibrated with the surrounding soil, and only the screen and tubing volumes are included in the purge volume calculation. If the SVS well has been in place for less than 1 week, the volume of the sand pack around the screen is included in the purge volume calculation. A photo-ionization detector (PID) or on-site mobile laboratory is used to evaluate concentrations of chemical constituents in the vapor stream after 1, 3, and 10 volumes of vapor have been purged from the SVS well. Purging is conducted at a rate of 100 to 200 milliliters per minute (ml/min). The purge volume exhibiting the highest concentration is the volume of vapor purged from each SVS well prior to sampling. If the three separate purge volumes produce equal concentrations a default of 3 purge volumes is extracted prior to sampling.

Prior to sampling, a helium leak test is performed at each SVS well, including a summa canister and its fittings, to check for leaks in the SVS annulus. To assess the potential for leaks in the SVS well annulus, a shroud is placed over the SVS well and summa canister and the shroud is filled with a measured amount of helium. Helium screening is performed in the field by drawing soil gas into a Tedlar bag via a lung-box and screening the contents of the Tedlar bag with a helium meter. The concentration of helium in the sample divided by the concentration of helium in the shroud provides a measure of the proportion of the sample attributable to leakage. A leak that comprises less than 5% of the sample is insignificant. Helium screening is also performed using laboratory analysis of the contents of the summa canister collected under the shroud. Sampling is conducted at approximately the same rate of purging, at 100 to 200 ml/min. Soil vapor samples are submitted under chain-of-custody protocol for the specified laboratory analyses.

At a minimum, weather conditions (temperature, barometric pressure and precipitation), the sampling flow rate, the purge volume, the helium leak detection percentage results, the sample canister identification number, the method of sample collection, and the vacuum of the sampling canister at the start and end of sample collection (if applicable) are recorded on a log for each SVS well purged and sampled.

Decontamination Procedures

If soil samples are collected, Cardno ERI or the contracted driller decontaminates the soil sampling equipment between each sampling interval using a non-phosphate solution, followed by a minimum of two tap water rinses.

De-ionized water may be used for the final rinse. Downhole drilling equipment is steam-cleaned or triple-rinsed prior to advancing each borehole.

Waste Treatment and Disposal

Soil cuttings generated from the well installation are stored on site in labeled, Department of Transportation-approved, 55-gallon drums or other appropriate storage container. The soil is removed from the site and transported under manifest to a client- and regulatory-approved facility for recycling or disposal. Decontamination water is stored on site in labeled, regulatory-approved storage containers, and is subsequently transported under manifest to a client- and regulatory-approved facility for disposal or treated with a permitted mobile or fixed-base carbon treatment system.

APPENDIX C

FIELD NOTES

Former Mobil Service Station 04FGN
14994 East 14th Street, San Leandro, CA

SVS Point Sampling

Date 4-4-12

VW2

	Start	End	Inches Hg	Flow Setting	PID (ppm)
Vac Test	940	945	20.5/20.5	–	–
(2nd Vac Test)					
Purge	949	1015	–	100cc/min	20%/0%
Sample	1015	1019	27/5.5		20%

231 Composited

Can# 014 1023 1026 27.5/5 20%

DUP	Start	End	Inches Hg	Flow Setting	PID (ppm)
Sample					

VW3

	Start	End	Inches Hg	Flow Setting	PID (ppm)
Vac Test	1055	1100	20.5/20.5	–	–
(2nd Vac Test)					
Purge	1103	1129	–	100cc/min	20%/50ppm
Sample	1129	1132	30/5	–	20%

147

VW1

	Start	End	Inches Hg	Flow Setting	PID (ppm)
Vac Test	1201	1206	20.5/20.5	–	–
(2nd Vac Test)					
Purge	1207	1233	–	100cc/min	20%/0%
Sample	1233	1236	30/5	–	20%

216

VW4

	Start	End	Inches Hg	Flow Setting	PID (ppm)
Vac Test	1303	1308	21.5/21.5	–	–
(2nd Vac Test)					
Purge	1308	1334	–	100cc/min	20%/0%
Sample	1335	1338	28/5	–	20%

121

166 VW4 DUP 1342 1345 28.5/5 – 20%

3 Purge Vol = 26 minutes @ 100 cc/min

Former Mobil Service Station 04FGN
14994 East 14th Street, San Leandro, CA

SVS Point Sampling

Date 4.4.12

VW5

133

	Start	End	Inches Hg	Flow Setting	PID (ppm)
Vac Test	1413	1418	20.5/20.5	—	—
(2nd Vac Test)					
Purge	1419	1445	—	100 cc/min	20%/150ppm
Sample	1443	1448	28.5/5	—	20%

DUP	Start	End	Inches Hg	Flow Setting	PID (ppm)
Sample					

	Start	End	Inches Hg	Flow Setting	PID (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

	Start	End	Inches Hg	Flow Setting	PID (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

	Start	End	Inches Hg	Flow Setting	PID (ppm)
Vac Test					
(2nd Vac Test)					
Purge					
Sample					

3 Purge Vol = 26 minutes @ 100 cc/min

APPENDIX D

LABORATORY ANALYTICAL REPORT AND CHAIN-OF-CUSTODY RECORD

H&P Mobile Geochemistry Inc.

24 April 2012

Ms. Paula Sime
Cardno ERI - Petaluma
601 N. McDowell Blvd
Petaluma, CA 94954

H&P Project: ERI040912-10
Client Project: Former Mobil 04FGN

Dear Ms. Paula Sime:

Enclosed is the analytical report for the above referenced project. The data herein applies to samples as received by H&P Mobile Geochemistry, Inc. on 09-Apr-12 which were analyzed in accordance with the attached Chain of Custody record(s).

The results for all sample analyses and required QA/QC analyses are presented in the following sections and summarized in the documents:

- Sample Summary
- Case Narrative (if applicable)
- Sample Results
- Quality Control Summary
- Notes and Definitions / Appendix
- Chain of Custody

Unless otherwise noted, all analyses were performed and reviewed in compliance with our Quality Systems Manual and Standard Operating Procedures. This report shall not be reproduced, except in full, without the written approval of H&P Mobile Geochemistry, Inc.

We at H&P Mobile Geochemistry, Inc. sincerely appreciate the opportunity to provide analytical services to you on this project. If you have any questions or concerns regarding this analytical report, please contact me at your convenience at 760-804-9678.

Sincerely,

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry, Inc. operates under CA Environmental Lab Accreditation Program Numbers 2579, 2740, 2741, 2742, 2743, 2745 and 2754. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

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Mobile Geochemistry Inc.

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
VW1	E204057-01	Vapor	04-Apr-12	09-Apr-12
VW2	E204057-02	Vapor	04-Apr-12	09-Apr-12
VW3	E204057-03	Vapor	04-Apr-12	09-Apr-12
VW4	E204057-04	Vapor	04-Apr-12	09-Apr-12
VW4-Dup	E204057-05	Vapor	04-Apr-12	09-Apr-12
VW5	E204057-06	Vapor	04-Apr-12	09-Apr-12
Trip Blank	E204057-07	Vapor	04-Apr-12	09-Apr-12

A low level Toluene concentration was deteced in the Trip Blank. The sample data is not affected since the Toluene present in the samples is no less than 5x the concentration present in the Trip Blank.

H&P Mobile Geochemistry Inc.

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Soil Gas and Vapor Analysis

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
VW1 (E204057-01) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
Carbon dioxide	**6.2**	0.2	%	1	ED21210	11-Apr-12	11-Apr-12	ASTM 1945-96	
Oxygen	**12**	0.2	"	"	"	"	"	"	
Helium (LCC)	ND	1.0	"	"	ED21212	11-Apr-12	11-Apr-12	ASTM D1945M	
Methane	ND	0.0010	"	"	ED21211	11-Apr-12	11-Apr-12	EPA 8015M	
Vacuum	**-3.4**	-30.0	inch of Hg	"	ED21014	09-Apr-12	09-Apr-12	Vacuum Gauge	
VW2 (E204057-02) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
Carbon dioxide	**9.0**	0.2	%	1	ED21210	11-Apr-12	11-Apr-12	ASTM 1945-96	
Oxygen	**4.7**	0.2	"	"	"	"	"	"	
Helium (LCC)	ND	1.0	"	"	ED21212	11-Apr-12	11-Apr-12	ASTM D1945M	
Methane	**0.048**	0.0010	"	"	ED21211	11-Apr-12	11-Apr-12	EPA 8015M	
Vacuum	**-6.2**	-30.0	inch of Hg	"	ED21014	09-Apr-12	09-Apr-12	Vacuum Gauge	
VW3 (E204057-03) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
Carbon dioxide	**6.4**	0.2	%	1	ED21210	11-Apr-12	11-Apr-12	ASTM 1945-96	
Oxygen	**4.5**	0.2	"	"	"	"	"	"	
Helium (LCC)	ND	1.0	"	"	ED21212	11-Apr-12	11-Apr-12	ASTM D1945M	
Methane	**0.052**	0.0010	"	"	ED21211	11-Apr-12	11-Apr-12	EPA 8015M	
Vacuum	**-4.8**	-30.0	inch of Hg	"	ED21014	09-Apr-12	09-Apr-12	Vacuum Gauge	
VW4 (E204057-04) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
Carbon dioxide	**7.4**	0.2	%	1	ED21210	11-Apr-12	11-Apr-12	ASTM 1945-96	
Oxygen	**8.7**	0.2	"	"	"	"	"	"	
Helium (LCC)	ND	1.0	"	"	ED21212	11-Apr-12	11-Apr-12	ASTM D1945M	
Methane	ND	0.0010	"	"	ED21211	11-Apr-12	11-Apr-12	EPA 8015M	
Vacuum	**-5.5**	-30.0	inch of Hg	"	ED21014	09-Apr-12	09-Apr-12	Vacuum Gauge	

H&P Mobile Geochemistry Inc.

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Soil Gas and Vapor Analysis

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
VW4-Dup (E204057-05) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
Carbon dioxide	**8.0**	0.2	%	1	ED21210	11-Apr-12	11-Apr-12	ASTM 1945-96	
Oxygen	**7.9**	0.2	"	"	"	"	"	"	
Helium (LCC)	ND	1.0	"	"	ED21212	11-Apr-12	11-Apr-12	ASTM D1945M	
Methane	ND	0.0010	"	"	ED21211	11-Apr-12	11-Apr-12	EPA 8015M	
Vacuum	**-5.0**	-30.0	inch of Hg	"	ED21014	09-Apr-12	09-Apr-12	Vacuum Gauge	
VW5 (E204057-06) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
Carbon dioxide	**6.5**	0.2	%	1	ED21210	11-Apr-12	11-Apr-12	ASTM 1945-96	
Oxygen	**14**	0.2	"	"	"	"	"	"	
Helium (LCC)	ND	1.0	"	"	ED21212	11-Apr-12	11-Apr-12	ASTM D1945M	
Methane	ND	0.0010	"	"	ED21211	11-Apr-12	11-Apr-12	EPA 8015M	
Vacuum	**-6.0**	-30.0	inch of Hg	"	ED21014	09-Apr-12	09-Apr-12	Vacuum Gauge	
Trip Blank (E204057-07) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
Carbon dioxide	ND	0.2	%	1	ED21210	11-Apr-12	11-Apr-12	ASTM 1945-96	
Oxygen	**2.8**	0.2	"	"	"	"	"	"	
Helium (LCC)	ND	1.0	"	"	ED21212	11-Apr-12	11-Apr-12	ASTM D1945M	
Methane	ND	0.0010	"	"	ED21211	11-Apr-12	11-Apr-12	EPA 8015M	

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Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
VW1 (E204057-01) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	5.6	"	"	"	"	"	"	
Acetone	**570**	24	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	4.2	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	4.2	"	"	"	"	"	"	
Trichloroethene	ND	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	**40**	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
Tetrachloroethene	**19**	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
VW1 (E204057-01) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
1,1,1,2-Tetrachloroethane	ND	7.0	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
Naphthalene	ND	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*93.4 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*101 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*108 %*		*77-127*	"	"	"	"	
VW2 (E204057-02) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
Dichlorodifluoromethane (F12)	ND	50	ug/m3	10	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
Chloromethane	ND	21	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	71	"	"	"	"	"	"	
Vinyl chloride	ND	26	"	"	"	"	"	"	
Bromomethane	ND	160	"	"	"	"	"	"	
Chloroethane	ND	80	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	56	"	"	"	"	"	"	
Acetone	ND	240	"	"	"	"	"	"	
1,1-Dichloroethene	ND	40	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	61	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	77	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	35	"	"	"	"	"	"	
Carbon disulfide	ND	63	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	80	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	36	"	"	"	"	"	"	

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
VW2 (E204057-02) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
1,1-Dichloroethane	ND	41	ug/m3	10	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
2-Butanone (MEK)	ND	300	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	40	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	42	"	"	"	"	"	"	
Chloroform	ND	49	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	42	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	55	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	41	"	"	"	"	"	"	
Benzene	ND	32	"	"	"	"	"	"	
Carbon tetrachloride	ND	64	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	42	"	"	"	"	"	"	
Trichloroethene	ND	55	"	"	"	"	"	"	
1,2-Dichloropropane	ND	94	"	"	"	"	"	"	
Bromodichloromethane	ND	68	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	46	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	83	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	46	"	"	"	"	"	"	
Toluene	ND	38	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	55	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	83	"	"	"	"	"	"	
Dibromochloromethane	ND	86	"	"	"	"	"	"	
Tetrachloroethene	ND	69	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	78	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	70	"	"	"	"	"	"	
Chlorobenzene	ND	47	"	"	"	"	"	"	
Ethylbenzene	ND	44	"	"	"	"	"	"	
m,p-Xylene	ND	88	"	"	"	"	"	"	
Styrene	ND	43	"	"	"	"	"	"	
o-Xylene	**51**	44	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	70	"	"	"	"	"	"	
4-Ethyltoluene	ND	50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	120	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	120	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	120	"	"	"	"	"	"	
Naphthalene	ND	53	"	"	"	"	"	"	

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
VW2 (E204057-02) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
1,2,4-Trichlorobenzene	ND	75	ug/m3	10	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
Hexachlorobutadiene	ND	110	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*87.7 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*101 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*125 %*		*77-127*	"	"	"	"	
VW3 (E204057-03) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
Dichlorodifluoromethane (F12)	ND	50	ug/m3	10	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
Chloromethane	ND	21	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	71	"	"	"	"	"	"	
Vinyl chloride	ND	26	"	"	"	"	"	"	
Bromomethane	ND	160	"	"	"	"	"	"	
Chloroethane	ND	80	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	56	"	"	"	"	"	"	
Acetone	ND	240	"	"	"	"	"	"	
1,1-Dichloroethene	ND	40	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	61	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	77	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	35	"	"	"	"	"	"	
Carbon disulfide	ND	63	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	80	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	36	"	"	"	"	"	"	
1,1-Dichloroethane	ND	41	"	"	"	"	"	"	
2-Butanone (MEK)	ND	300	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	40	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	42	"	"	"	"	"	"	
Chloroform	ND	49	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	42	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	55	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	41	"	"	"	"	"	"	
Benzene	ND	32	"	"	"	"	"	"	
Carbon tetrachloride	ND	64	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	42	"	"	"	"	"	"	
Trichloroethene	ND	55	"	"	"	"	"	"	
1,2-Dichloropropane	ND	94	"	"	"	"	"	"	
Bromodichloromethane	ND	68	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	46	"	"	"	"	"	"	

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
VW3 (E204057-03) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
4-Methyl-2-pentanone (MIBK)	ND	83	ug/m3	10	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
trans-1,3-Dichloropropene	ND	46	"	"	"	"	"	"	
Toluene	**60**	38	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	55	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	83	"	"	"	"	"	"	
Dibromochloromethane	ND	86	"	"	"	"	"	"	
Tetrachloroethene	ND	69	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	78	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	70	"	"	"	"	"	"	
Chlorobenzene	ND	47	"	"	"	"	"	"	
Ethylbenzene	ND	44	"	"	"	"	"	"	
m,p-Xylene	ND	88	"	"	"	"	"	"	
Styrene	ND	43	"	"	"	"	"	"	
o-Xylene	ND	44	"	"	"	"	"	"	
Bromoform	ND	100	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	70	"	"	"	"	"	"	
4-Ethyltoluene	ND	50	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	50	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	50	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	120	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	120	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	120	"	"	"	"	"	"	
Naphthalene	ND	53	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	75	"	"	"	"	"	"	
Hexachlorobutadiene	ND	110	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*80.3 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*99.6 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*96.9 %*		*77-127*	"	"	"	"	

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
VW4 (E204057-04) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	5.6	"	"	"	"	"	"	
Acetone	ND	24	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	4.2	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	4.2	"	"	"	"	"	"	
Trichloroethene	ND	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	**35**	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	

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601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
VW4 (E204057-04) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
1,1,1,2-Tetrachloroethane	ND	7.0	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	**9.5**	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**6.0**	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
Naphthalene	ND	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*93.9 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*99.8 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*77-127*	"	"	"	"	
VW4-Dup (E204057-05) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	5.6	"	"	"	"	"	"	
Acetone	ND	24	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	3.6	"	"	"	"	"	"	

H&P Mobile Geochemistry Inc.

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
VW4-Dup (E204057-05) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
1,1-Dichloroethane	ND	4.1	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	4.2	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	4.2	"	"	"	"	"	"	
Trichloroethene	ND	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	**35**	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
Naphthalene	ND	5.3	"	"	"	"	"	"	

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
VW4-Dup (E204057-05) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
1,2,4-Trichlorobenzene	ND	7.5	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
Hexachlorobutadiene	ND	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*92.5 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*95.8 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*105 %*		*77-127*	"	"	"	"	
VW5 (E204057-06) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	5.6	"	"	"	"	"	"	
Acetone	**260**	24	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	4.2	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	**4.2**	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	4.2	"	"	"	"	"	"	
Trichloroethene	ND	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
VW5 (E204057-06) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
4-Methyl-2-pentanone (MIBK)	ND	8.3	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	**71**	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	
1,1,1,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	**5.5**	4.4	"	"	"	"	"	"	
m,p-Xylene	**11**	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	**4.9**	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	**7.8**	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
Naphthalene	ND	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*91.0 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*98.2 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*107 %*		*77-127*	"	"	"	"	

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Trip Blank (E204057-07) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
Chloromethane	ND	2.1	"	"	"	"	"	"	
Dichlorotetrafluoroethane (F114)	ND	7.1	"	"	"	"	"	"	
Vinyl chloride	ND	2.6	"	"	"	"	"	"	
Bromomethane	ND	16	"	"	"	"	"	"	
Chloroethane	ND	8.0	"	"	"	"	"	"	
Trichlorofluoromethane (F11)	ND	5.6	"	"	"	"	"	"	
Acetone	ND	24	"	"	"	"	"	"	
1,1-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Tertiary-butyl alcohol (TBA)	ND	6.1	"	"	"	"	"	"	
1,1,2-Trichlorotrifluoroethane (F113)	ND	7.7	"	"	"	"	"	"	
Methylene chloride (Dichloromethane)	ND	3.5	"	"	"	"	"	"	
Carbon disulfide	ND	6.3	"	"	"	"	"	"	
trans-1,2-Dichloroethene	ND	8.0	"	"	"	"	"	"	
Methyl tertiary-butyl ether (MTBE)	ND	3.6	"	"	"	"	"	"	
1,1-Dichloroethane	ND	4.1	"	"	"	"	"	"	
2-Butanone (MEK)	ND	30	"	"	"	"	"	"	
cis-1,2-Dichloroethene	ND	4.0	"	"	"	"	"	"	
Diisopropyl ether (DIPE)	ND	4.2	"	"	"	"	"	"	
Chloroform	ND	4.9	"	"	"	"	"	"	
Ethyl tert-butyl ether (ETBE)	ND	4.2	"	"	"	"	"	"	
1,1,1-Trichloroethane	ND	5.5	"	"	"	"	"	"	
1,2-Dichloroethane (EDC)	ND	4.1	"	"	"	"	"	"	
Benzene	ND	3.2	"	"	"	"	"	"	
Carbon tetrachloride	ND	6.4	"	"	"	"	"	"	
Tertiary-amyl methyl ether (TAME)	ND	4.2	"	"	"	"	"	"	
Trichloroethene	ND	5.5	"	"	"	"	"	"	
1,2-Dichloropropane	ND	9.4	"	"	"	"	"	"	
Bromodichloromethane	ND	6.8	"	"	"	"	"	"	
cis-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
4-Methyl-2-pentanone (MIBK)	ND	8.3	"	"	"	"	"	"	
trans-1,3-Dichloropropene	ND	4.6	"	"	"	"	"	"	
Toluene	**6.8**	3.8	"	"	"	"	"	"	
1,1,2-Trichloroethane	ND	5.5	"	"	"	"	"	"	
2-Hexanone (MBK)	ND	8.3	"	"	"	"	"	"	
Dibromochloromethane	ND	8.6	"	"	"	"	"	"	
Tetrachloroethene	ND	6.9	"	"	"	"	"	"	
1,2-Dibromoethane (EDB)	ND	7.8	"	"	"	"	"	"	

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601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Volatile Organic Compounds by EPA TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
Trip Blank (E204057-07) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
1,1,1,2-Tetrachloroethane	ND	7.0	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
Chlorobenzene	ND	4.7	"	"	"	"	"	"	
Ethylbenzene	ND	4.4	"	"	"	"	"	"	
m,p-Xylene	ND	8.8	"	"	"	"	"	"	
Styrene	ND	4.3	"	"	"	"	"	"	
o-Xylene	ND	4.4	"	"	"	"	"	"	
Bromoform	ND	10	"	"	"	"	"	"	
1,1,2,2-Tetrachloroethane	ND	7.0	"	"	"	"	"	"	
4-Ethyltoluene	ND	5.0	"	"	"	"	"	"	
1,3,5-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,2,4-Trimethylbenzene	ND	5.0	"	"	"	"	"	"	
1,3-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,4-Dichlorobenzene	ND	12	"	"	"	"	"	"	
1,2-Dichlorobenzene	ND	12	"	"	"	"	"	"	
Naphthalene	ND	5.3	"	"	"	"	"	"	
1,2,4-Trichlorobenzene	ND	7.5	"	"	"	"	"	"	
Hexachlorobutadiene	ND	11	"	"	"	"	"	"	
Surrogate: 1,2-Dichloroethane-d4		*93.8 %*		*76-134*	"	"	"	"	
Surrogate: Toluene-d8		*95.2 %*		*78-125*	"	"	"	"	
Surrogate: 4-Bromofluorobenzene		*104 %*		*77-127*	"	"	"	"	

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601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

TPHv / APH on Vapors by EPA Method TO-15

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
VW1 (E204057-01) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
TPHv (C5 - C11)	**1500**	100	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
VW2 (E204057-02) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
TPHv (C5 - C11)	**150000**	1000	ug/m3	10	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
VW3 (E204057-03) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
TPHv (C5 - C11)	**260000**	1000	ug/m3	10	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
VW4 (E204057-04) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
TPHv (C5 - C11)	**2400**	100	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
VW4-Dup (E204057-05) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
TPHv (C5 - C11)	**140**	100	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
VW5 (E204057-06) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
TPHv (C5 - C11)	**2300**	100	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	
Trip Blank (E204057-07) Vapor Sampled: 04-Apr-12 Received: 09-Apr-12									
TPHv (C5 - C11)	ND	100	ug/m3	1	ED21604	13-Apr-12	13-Apr-12	EPA TO-15	

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Soil Gas and Vapor Analysis - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED21210 - GC										
Blank (ED21210-BLK1)				Prepared & Analyzed: 11-Apr-12						
Carbon dioxide	ND	0.2	%							
Batch ED21211 - GC										
Blank (ED21211-BLK1)				Prepared & Analyzed: 11-Apr-12						
Methane	ND	0.001	%							
Batch ED21212 - GC										
Blank (ED21212-BLK1)				Prepared & Analyzed: 11-Apr-12						
Helium (LCC)	ND	1.0	%							

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601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED21604 - TO-15										
Blank (ED21604-BLK1)				Prepared & Analyzed: 13-Apr-12						
Dichlorodifluoromethane (F12)	ND	5.0	ug/m3							
Chloromethane	ND	2.1	"							
Dichlorotetrafluoroethane (F114)	ND	7.1	"							
Vinyl chloride	ND	2.6	"							
Bromomethane	ND	16	"							
Chloroethane	ND	8.0	"							
Trichlorofluoromethane (F11)	ND	5.6	"							
Acetone	ND	24	"							
1,1-Dichloroethene	ND	4.0	"							
Tertiary-butyl alcohol (TBA)	ND	6.1	"							
1,1,2-Trichlorotrifluoroethane (F113)	ND	7.7	"							
Methylene chloride (Dichloromethane)	ND	3.5	"							
Carbon disulfide	ND	6.3	"							
trans-1,2-Dichloroethene	ND	8.0	"							
Methyl tertiary-butyl ether (MTBE)	ND	3.6	"							
1,1-Dichloroethane	ND	4.1	"							
2-Butanone (MEK)	ND	30	"							
cis-1,2-Dichloroethene	ND	4.0	"							
Diisopropyl ether (DIPE)	ND	4.2	"							
Chloroform	ND	4.9	"							
Ethyl tert-butyl ether (ETBE)	ND	4.2	"							
1,1,1-Trichloroethane	ND	5.5	"							
1,2-Dichloroethane (EDC)	ND	4.1	"							
Benzene	ND	3.2	"							
Carbon tetrachloride	ND	6.4	"							
Tertiary-amyl methyl ether (TAME)	ND	4.2	"							
Trichloroethene	ND	5.5	"							
1,2-Dichloropropane	ND	9.4	"							
Bromodichloromethane	ND	6.8	"							
cis-1,3-Dichloropropene	ND	4.6	"							
4-Methyl-2-pentanone (MIBK)	ND	8.3	"							
trans-1,3-Dichloropropene	ND	4.6	"							
Toluene	ND	3.8	"							
1,1,2-Trichloroethane	ND	5.5	"							

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED21604 - TO-15										
Blank (ED21604-BLK1)				Prepared & Analyzed: 13-Apr-12						
2-Hexanone (MBK)	ND	8.3	ug/m3							
Dibromochloromethane	ND	8.6	"							
Tetrachloroethene	ND	6.9	"							
1,2-Dibromoethane (EDB)	ND	7.8	"							
1,1,1,2-Tetrachloroethane	ND	7.0	"							
Chlorobenzene	ND	4.7	"							
Ethylbenzene	ND	4.4	"							
m,p-Xylene	ND	8.8	"							
Styrene	ND	4.3	"							
o-Xylene	ND	4.4	"							
Bromoform	ND	10	"							
1,1,2,2-Tetrachloroethane	ND	7.0	"							
4-Ethyltoluene	ND	5.0	"							
1,3,5-Trimethylbenzene	ND	5.0	"							
1,2,4-Trimethylbenzene	ND	5.0	"							
1,3-Dichlorobenzene	ND	12	"							
1,4-Dichlorobenzene	ND	12	"							
1,2-Dichlorobenzene	ND	12	"							
Naphthalene	ND	5.3	"							
1,2,4-Trichlorobenzene	ND	7.5	"							
Hexachlorobutadiene	ND	11	"							
Surrogate: 1,2-Dichloroethane-d4	*203*		"	*214*		*94.6*	*76-134*			
Surrogate: Toluene-d8	*198*		"	*207*		*95.7*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*370*		"	*365*		*101*	*77-127*			
LCS (ED21604-BS1)				Prepared & Analyzed: 13-Apr-12						
Dichlorodifluoromethane (F12)	90	5.0	ug/m3	101		89.0	65-135			
Vinyl chloride	47	2.6	"	52.0		90.6	65-135			
Chloroethane	50	8.0	"	53.6		92.6	65-135			
Trichlorofluoromethane (F11)	100	5.6	"	113		89.5	65-135			
1,1-Dichloroethene	70	4.0	"	80.8		86.1	65-135			
1,1,2-Trichlorotrifluoroethane (F113)	130	7.7	"	155		84.9	65-135			
Methylene chloride (Dichloromethane)	54	3.5	"	70.8		76.7	65-135			

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Volatile Organic Compounds by EPA TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED21604 - TO-15										
LCS (ED21604-BS1)				Prepared & Analyzed: 13-Apr-12						
trans-1,2-Dichloroethene	66	8.0	ug/m3	80.8		82.1	65-135			
1,1-Dichloroethane	70	4.1	"	82.4		85.3	65-135			
cis-1,2-Dichloroethene	70	4.0	"	80.0		87.3	65-135			
Chloroform	83	4.9	"	99.2		84.0	65-135			
1,1,1-Trichloroethane	100	5.5	"	111		89.7	65-135			
1,2-Dichloroethane (EDC)	71	4.1	"	82.4		85.7	65-135			
Benzene	56	3.2	"	64.8		85.7	65-135			
Carbon tetrachloride	120	6.4	"	128		96.4	65-135			
Trichloroethene	97	5.5	"	110		88.1	65-135			
Toluene	65	3.8	"	76.8		84.9	65-135			
1,1,2-Trichloroethane	92	5.5	"	111		83.1	65-135			
Tetrachloroethene	130	6.9	"	138		93.8	65-135			
1,1,1,2-Tetrachloroethane	130	7.0	"	140		91.9	65-135			
Ethylbenzene	72	4.4	"	88.4		81.8	65-135			
m,p-Xylene	150	8.8	"	177		82.1	65-135			
o-Xylene	71	4.4	"	88.4		80.8	65-135			
1,1,2,2-Tetrachloroethane	100	7.0	"	140		72.7	65-135			
Surrogate: 1,2-Dichloroethane-d4	*207*		"	*214*		*96.4*	*76-134*			
Surrogate: Toluene-d8	*200*		"	*207*		*96.6*	*78-125*			
Surrogate: 4-Bromofluorobenzene	*393*		"	*365*		*108*	*77-127*			

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

TPHv / APH on Vapors by EPA Method TO-15 - Quality Control

H&P Mobile Geochemistry, Inc.

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch ED21604 - TO-15										
Blank (ED21604-BLK1)				Prepared & Analyzed: 13-Apr-12						
TPHv (C5 - C11)	ND	100	ug/m3							

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Cardno ERI - Petaluma	Project: ERI040912-10	
601 N. McDowell Blvd	Project Number: Former Mobil 04FGN	Reported:
Petaluma, CA 94954	Project Manager: Ms. Paula Sime	24-Apr-12 11:46

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Appendix

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the Environmental Laboratory Accreditation Program (CA) for the category of Volatile and Semi-Volatile Organic Chemistry of Hazardous Waste for the following methods:

Certificate# 2741, 2743, 2579, 2754 & 2740 approved for EPA 8260 and LUFT GC/MS
Certificate# 2742, 2745, & 2741 approved for LUFT
Certificate# 2745 & 2742 approved for EPA 418.1

H&P Mobile Geochemistry, Inc. is approved as an Environmental Laboratory in conformance with the National Environmental Accreditation Conference Standards for the category Environmental Analysis Air and Emissions for the following analytes and methods:

1,2,4-Trichlorobenzene by EPA TO-15 & TO-14A
Hexachlorobutadiene by EPA TO-15 & TO-14A
1,2,4-Trimethylbenzene by EPA TO -14A
1,2-Dichlorobenzene by EPA TO-15 & TO-14A
1,3,5-Trimethylbenzene by EPA TO -14A
1,4-Dichlorobenzene by EPA TO-15 & TO-14A
Benzene by EPA TO-15 & TO-14A
Chlorobenzene by EPA TO-15 & TO-14A
Ethyl benzene by EPA TO-15 & TO-14A
Styrene by EPA TO-15 & TO-14A
Toluene by EPA TO-15 & TO-14A
Total Xylenes by EPA TO-15 & TO-14A
1,1,1-Trichloroethane by EPA TO-15 & TO-14A
1,1,2,2-Tetrachloroethane by EPA TO-15 & TO-14A
1,1,2-Trichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethane by EPA TO-15 & TO-14A
1,1-Dichloroethene by EPA TO-15 & TO-14A
1,2-Dichloroethane by EPA TO-15 & TO-14A
1,2-Dichloropropane by EPA TO-15 & TO-14A
Benzyl Chloride by EPA TO-15 & TO-14A
Bromoform by EPA TO-15
Bromomethane by EPA TO-15 & TO-14A
Carbon tetrachloride by EPA TO-15 & TO-14A
Chloroethane by EPA TO-15
Chloroform by EPA TO-15 & TO-14A
Chloromethane by EPA TO-15 & TO-14A
cis-1,2-Dichloroethene by EPA TO-15
cis-1,2-Dichloropropene by EPA TO-15 & TO-14A
Methylene chloride by EPA TO -15 & TO-14A
Tetrachloroethane by EPA TO-15 & TO-14A
trans-1,2-Dichloroethene by EPA TO-15
trans-1,2-Dichloropropene by EPA TO-15 & TO-14A
Trichloroethene by EPA TO-15 & TO-14A
Vinyl chloride by EPA TO -15 & TO-14A
2-Butanone by EPA TO-15
4-Methyl-2-Pentanone by EPA TO-15
Hexane by EPA TO-15
Methyl tert-butyl ether by EPA TO-15
Vinyl acetate by EPA TO-15
Dibromochloromethane by EPA TO-15
Dichlorodifluoromethane by EPA TO-15 & TO-14A
Trichlorofluoromethane by EPA TO-15 & TO-14A
Naphthalene by EPA TO-15 & TO-14A
m&p Xylenes by EPA TO-15
o-Xylene by EPA TO-15
1,3-Butadiene by EPA TO-15
1,1,2-Trichlorotrifluoroethane by EPA TO-15 & TO-14A
Carbon disulfide by EPA TO-15
1,4-Dioxane by EPA TO-15
Cyclohexane by EPA TO-15
tert-Butyl Alcohol by EPA TO-15
1,3-Dichlorobenzene by EPA TO-15 & TO-14A
Heptane by EPA TO-15
Bromodichloromethane by EPA TO-15 & TO-14A

This certification applies to samples analyzed in summa canisters.

Chain of Custody Record

H&P Mobile Geochemistry Inc.

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Date: 4-4-12
H&P Project # ERI040912-10
Outside Lab:

Client: Exxon Mobil Oil Company, Jennifer Sedlachek
Collector: Alex Snyder
Page: 1 of 1
Address: 601 North McDowell Blvd, Petaluma, CA 94954
Client Project # Former Mobil 04FGN
Project Contact: Paula Sime
Location: 14994 East 14th St, San Leandro
Email: alex.snyder@cardno.com
Phone: 707-766-2000
Fax:
Turn around time: Standard

Geotracker EDF: Yes ☒ No ☐
Global ID: T0600100912
Excel EDD: Yes ☒ No ☐

Sample Receipt
Intact: ☑ Yes ☐ No
Seal Intact: ☑ Yes ☐ No ☐ N/A
Cold: ☐ Yes ☐ No ☑ N/A
Temperature: RT

Special Instructions: UPS Tracking # 1Z 93T T61 90 4787 2129
Napthalene within required reporting limits
Report units = ug/m3
Report vacuum guage readings

Lab Work Order # E204057

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	Total # of containers	8260B Full List	8260B ☐ BTEX/OXY ☐ TPH gas	8015M TPH ☐ g ☐ d ☐ ext	418.1 TRPH	VOC's: Full List ☐ 8260B ☒ TO-15	VOC's: Short List/DTSC ☐ 8260B ☐ TO-15	VOC's: SAM, 8260B ☐ SAM A ☐ SAM B	Naphthalene ☐ 8260B ☒ TO-15	Oxygenates ☐ 8260B ☒ TO-15	TPHv gas ☐ 8260B ☒ TO-15	Ketones ☐ 8260B ☐ TO-15	Other ____ ☐ 8260B ☐ TO-15	Leak Check Compound ☐ 1,1 DFA ☐ OTHER	Methane ☒ (2)	Fixed Gases ☒ H2 ☐ N2 ☒ O2 ☒ CO2 (2)	CAN#	VAC#
								SOIL/GW				SOIL VAPOR/AIR ANALYSIS												
VW1	VW1	–	1236	4-4-12	V	Summa	1					X			X	X	X				X	X	216	7.4
VW2	VW2	–	1026	4-4-12	V	Summa	1																014	6.2
VW3	VW3	–	1132	4-4-12	V	Summa	1																147	4.8
VW4	VW4	–	1338	4-4-12	V	Summa	1																121	5.5
VW4-DUP	VW4	–	1345	4-4-12	V	Summa	1							ND									166	5.0
VW5	VW5	–	1448	4-4-12	V	Summa	1					X		X	X	X	X				X	X	133	6.0
VW2-PARTIAL SAMPLE-DO NOT TEST																								
TRIP BLANK	TRIP BLANK	–	N/A	4-4-12	V	Summa	1					X		ND	X	X	X				X	X	388	

Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
	CARDNO ERI		HTP	4/5/12	1040
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back

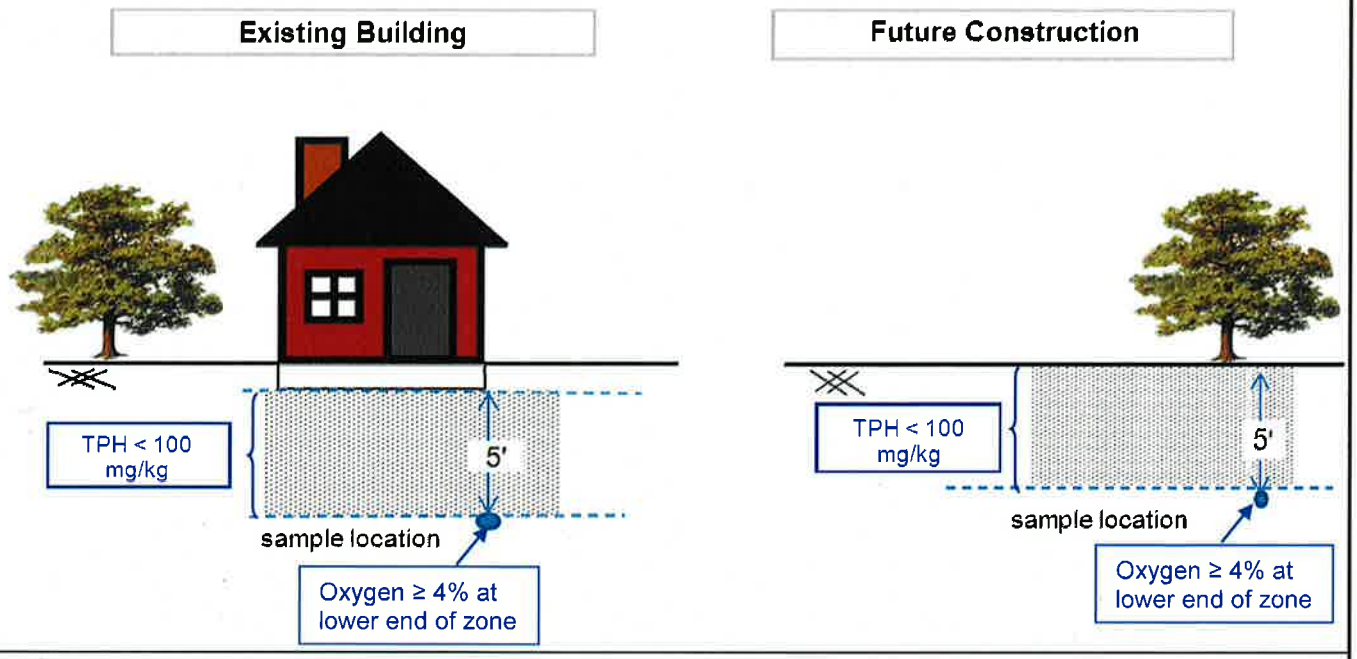
Sample disposal instruction: ☐ Disposal ☐ Return to client ☐ Pickup

APPENDIX E

EXCERPTS FROM LOW-THREAT POLICY (SWRCB, 2012)

Appendix 4
Scenario 4 - Direct Measurement of Soil Gas Concentrations
(2 of 2)

Soil Gas Sampling – With Bioattenuation Zone



The criteria in the table below apply if the following requirements for a biattenuation zone are satisfied:

1. There is a minimum of five vertical feet of soil between the soil vapor measurement and the foundation of an existing building or ground surface of future construction.
2. TPH (TPHg + TPHd) is less than 100 mg/kg (measured in at least two depths within the five-foot zone.)
3. Oxygen is greater than or equal to four percent measured at the bottom of the five-foot zone.

Soil Gas Criteria ($\mu g/m^3$)

	With Bioattenuation Zone**	
	Residential	Commercial
Constituent	Soil Gas Concentration ($\mu g/m^3$)	
Benzene	< 85,000	< 280,000
Ethylbenzene	<1,100,000	<3,600,000
Naphthalene	< 93,000	< 310,000

**A 1000-fold bioattenuation of petroleum vapors is assumed for the bioattenuation zone.

Appendix 3
Scenario 3 - Dissolved Phase Benzene Concentrations in Groundwater
(Low concentration groundwater scenarios with or without oxygen data)
(2 of 2)

Defining the Bioattenuation Zone With Oxygen ≥ 4%

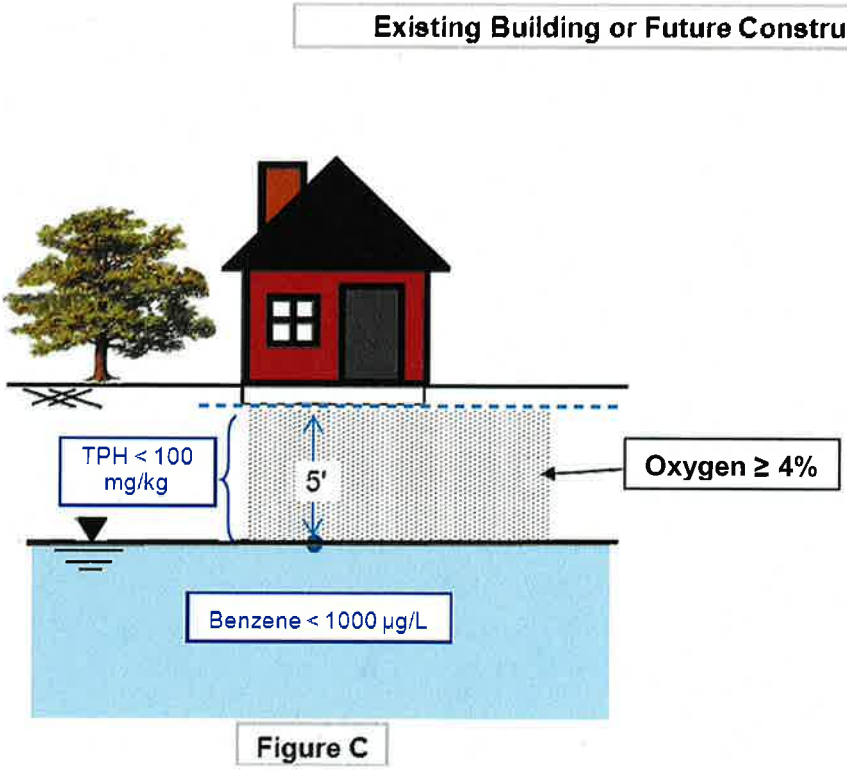


Figure C

Required Characteristics of Bioattenuation Zone for Sites With Oxygen ≥ 4%

Where benzene concentrations are less than 1000 µg/L, the bioattenuation zone:

1. Shall be a continuous zone that provides a separation of least 5 feet vertically between the dissolved phase Benzene and the foundation of existing or potential buildings; and
2. Contain Total TPH (TPH-g and TPH-d combined) less than 100 mg/kg throughout the entire depth of the bioattenuation zone.

It is a fundamental tenet of this low-threat closure policy that if the closure criteria described in this policy are satisfied at a petroleum unauthorized release site, attaining background water quality is not feasible, establishing an alternate level of water quality not to exceed that prescribed in the applicable Basin Plan is appropriate, and that water quality objectives will be attained through natural attenuation within a reasonable time, prior to the expected need for use of any affected groundwater.

If groundwater with a designated beneficial use is affected by an unauthorized release, to satisfy the media-specific criteria for groundwater, the contaminant plume that exceeds water quality objectives must be stable or decreasing in areal extent, and meet all of the additional characteristics of one of the five classes of sites listed below. A plume that is "stable or decreasing" is a contaminant mass that has expanded to its maximum extent: the distance from the release where attenuation exceeds migration.

Groundwater-Specific Criteria

(1) a. The contaminant plume that exceeds water quality objectives is less than 100 feet in length.
   b. There is no free product.
   c. The nearest existing water supply well or surface water body is greater than 250 feet from the defined plume boundary.

(2) a. The contaminant plume that exceeds water quality objectives is less than 250 feet in length.
   b. There is no free product.
   c. The nearest existing water supply well or surface water body is greater than 1,000 feet from the defined plume boundary.
   d. The dissolved concentration of benzene is less than 3,000 micrograms per liter (µg/l), and the dissolved concentration of MTBE is less than 1,000 µg/l.

(3) a. The contaminant plume that exceeds water quality objectives is less than 250 feet in length.
   b. Free product has been removed to the maximum extent practicable, may still be present below the site where the release originated, but does not extend off-site.
   c. The plume has been stable or decreasing for a minimum of five years.
   d. The nearest existing water supply well or surface water body is greater than 1,000 feet from the defined plume boundary.
   e. The property owner is willing to accept a land use restriction if the regulatory agency requires a land use restriction as a condition of closure.

(4) a. The contaminant plume that exceeds water quality objectives is less than 1,000 feet in length.
   b. There is no free product.
   c. The nearest existing water supply well or surface water body is greater than 1,000 feet from the defined plume boundary.
   d. The dissolved concentration of benzene is less than 1,000 µg/l, and the dissolved concentration of MTBE is less than 1,000 µg/l.

(5) a. The regulatory agency determines, based on an analysis of site specific conditions that under current and reasonably anticipated near-term future scenarios, the contaminant plume poses a low threat to human health and safety and to the environment and water quality objectives will be achieved within a reasonable time frame.