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Jennifer C. Sedlachek
Project Manager

ExxonMobil

March 28, 2011

Ms. Barbara Jakub
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Subject: Former Mobil Station 04FGN, 14994 East 14th Street, San Leandro, California

Dear Ms. Jakub:

Attached for your review and comment is a copy of the *Soil Vapor Survey Report* for the above-referenced site. The document, prepared by ETIC Engineering, Inc. of Pleasant Hill, California, details the results of the soil vapor well installation and sampling events in November 2010.

Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

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

Sincerely,

Jennifer C. Sedlachek
Project Manager

Attachment: ETIC Soil Vapor Survey Report

c: w/ attachment:
Ms. Jana Gluckman – property owner

c: w/o attachment:
Ms. Christa Marting – ETIC Engineering, Inc.

Soil Vapor Survey Report

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

Prepared for

ExxonMobil Oil Corporation

Prepared by

ETIC Engineering, Inc.
2285 Morello Avenue
Pleasant Hill, California 94523
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3/28/11

Yuko Mamiya
Project Geologist

Date

3/28/11

Thomas E. Neely, PG, CHG, REA II
Senior Hydrogeologist

Date

REGISTERED GEOLOGIST
THOMAS E. NEELY
Exp. 9.30.11
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STATE OF CALIFORNIA

March 2011

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Former Mobil Station 04FGN

SITE CONTACTS

Site Name:	Former Mobil Station 04FGN
Site Address:	14994 East 14th Street San Leandro, California
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1. INTRODUCTION

At the request of ExxonMobil Environmental Services Company on behalf of ExxonMobil Oil Corporation (ExxonMobil), ETIC Engineering, Inc. (ETIC) has prepared this Soil Vapor Survey Report for former Mobil Station 04FGN, located at 14994 East 14th Street, San Leandro, California (Figure 1).

The investigation was conducted in general accordance with the Risk Assessment Work Plan and Preferential Pathway Survey dated October 2008. Work Plan Addendum dated 19 June 2009 was submitted in response to a letter from the Alameda County Health Care Services Agency (ACHCSA) dated 20 April 2009. The work plan outlined the proposed scope of work for the collection of soil and soil vapor samples to evaluate the potential risk via vapor intrusion from potential exposure to hydrocarbons beneath the site (ETIC 2008 and 2009b). In a letter dated 20 July 2010, ETIC notified the ACHCSA that the proposed work would be implemented. The regulatory correspondence is attached as Appendix A.

This report documents the installation of five soil vapor monitoring wells and presents the results of the soil vapor sampling and vapor intrusion evaluation.

Scope of Work

The work consisted of the following activities:

- On 23 and 24 November 2010, a total of five borings were advanced to a total depth of 6 feet below ground surface (bgs) using an air knife and a hand auger.
- Soil samples were collected from each location. Soil samples collected from 5 to 5.5 feet bgs and from 5.5 to 6 feet bgs were submitted for laboratory analysis.
- The borings were completed as soil vapor monitoring wells VW1 through VW5 for the collection of soil vapor samples.
- On 26 November 2010, soil vapor samples were collected from the vapor wells VW1 through VW5 in 1-liter SUMMA canisters and submitted for laboratory analysis.
- On 15 December 2010, the wells were surveyed by a licensed land surveying company.

2. SITE BACKGROUND

2.1 SITE LOCATION AND LAND USE

Former Mobil Station 04FGN is located at the northern corner of the intersection of East 14th Street and 150th Avenue in San Leandro, California (Figure 2). Three gasoline underground storage tanks (USTs), one used-oil UST, and the associated fuel dispensers and piping were removed in 1987. The sizes of the former USTs are unknown. The site is currently in use as a retail shopping center. Land use in the immediate vicinity of the site is predominantly commercial, with gasoline and auto service stations, restaurants, and offices.

2.2 REGIONAL GEOLOGY AND HYDROGEOLOGY

The site is located in the East Bay Plain Subbasin of the Santa Clara Valley Groundwater Basin. The East Bay Plain Subbasin is a northwest trending alluvial plain bounded on the north by San Pablo Bay, on the east by the contact with Franciscan Basement rock, and on the south by the Niles Cone Groundwater Basin. The East Bay Plain Basin extends beneath San Francisco Bay to the west. Numerous creeks including San Pablo Creek, Wildcat Creek, San Leandro Creek, and San Lorenzo Creek flow from the western slope of the Coast Ranges westward across the plain and into the San Francisco Bay. The East Bay Plain Subbasin aquifer system consists of unconsolidated deposits of Quaternary age. Deposits include the early Pleistocene Santa Clara Formation, the late Pleistocene Alameda Formation, the early Holocene Temescal Formation, and Artificial Fill. The cumulative thickness of the unconsolidated deposits is about 1,000 feet (Department of Water Resources (DWR) 2003).

Early Pleistocene Santa Clara Formation

The Santa Clara Formation consists of alluvial fan deposits inter-fingered with lake, swamp, river channel, and flood plain deposits. The formation ranges from 300 to 600 feet thick (DWR 2003).

Late Pleistocene Alameda Formation

The Alameda Formation includes a sequence of alluvial fan deposits. The formation was deposited primarily in an estuarine environment and ranges from 26 to 245 feet thick (DWR 2003).

Early Holocene Temescal Formation

The Temescal Formation is an alluvial deposit consisting primarily of silt and clay with some gravel layers. The formation ranges from 1 to 50 feet thick (DWR 2003).

Artificial Fill

Artificial fill is found mostly along the bay front and wetlands areas and is derived primarily from

dredging as well as quarrying, construction, demolition debris, and municipal waste. The fill ranges in thickness from 1 to 50 feet with the thickest deposits found closer to San Francisco Bay (DWR 2003).

2.3 SITE GEOLOGY AND HYDROGEOLOGY

The subsurface lithology beneath the site was evaluated using soil boring logs from previous investigations performed by Alisto Engineering Group. Soil encountered generally consisted of silt and clay with occasional sand or gravel included. Historically, groundwater has been found beneath the site at depths between approximately 4 and 14 feet bgs.

The groundwater flow direction in December 2008 was reported to be to the southwest (ETIC 2009a).

2.4 SUMMARY OF PREVIOUS INVESTIGATIONS AND REMEDIAL MEASURES

According to the closure request (Alton 1998), in 1984 Mobil discontinued fuel dispensing operations at the site. In 1987, three unleaded gasoline tanks of unknown size, one used-oil UST of unknown size, and the associated fuel dispensers and piping were removed from the site. During removal activities an unknown quantity of soil was excavated from the tank cavity. These activities were conducted by the property owner.

In September 1987, the Alameda County Environmental Health Department (ACEHD) collected and analyzed soil samples from a Pacific Gas and Electric Company (PG&E) excavation beneath the sidewalk near the eastern corner of the site. The ACEHD reported that soil cuttings from the PG&E excavation contained oil and grease at a concentration of 45,000 milligrams per kilogram (mg/kg) (Subsurface 1987). On 29 September 1987, Subsurface Consultants, Inc. (Subsurface) advanced soil borings SCB-1 through SCB-6 near the PG&E excavation. The soil borings ranged in total depth from 9.5 to 13.5 feet bgs. Total Petroleum Hydrocarbons as gasoline (TPH-g) were detected at concentrations of 72 mg/kg (SCB-1, 4.0 feet bgs) and 320 mg/kg (SCB-3, 8.5 feet bgs). Total Petroleum Hydrocarbons as diesel (TPH-d) were detected at a concentration of 200 mg/kg (SCB-1, 4.0 feet bgs). Benzene was detected at a concentration of 6.6 mg/kg (SCB-6, 5.0 feet bgs) (Alton 1998).

In March 1988, Subsurface excavated soil around the former PG&E excavation. Soil analytical results are summarized in Appendix B (Alton 1998).

In March 1988, Subsurface installed groundwater monitoring well MW1A. No soil analytical results from boring MW1A were reported (Alton 1998).

Soil borings B-1 through B-4 were advanced in February 1994 to depths ranging from 11.5 to 25 feet bgs. Borings B-2 and B-3 were converted into groundwater monitoring wells MW2A and MW3A (Alton 1998).

In June 1995, soil borings B-5 through B-9 and MW4A through MW6A were advanced to depths

ranging from 15.5 to 26.5 feet bgs. Borings MW4A through MW6A were completed as groundwater monitoring wells. Soil boring MW7A was advanced in July 1995 and completed as a groundwater monitoring well (Alton 1998).

In March 2000, MW4A through MW7A were decommissioned by pressure grouting method (TRC 2000).

Case closure requests for the site were submitted in November 1998 (Alton) and December 2006 (ETIC 2006).

Groundwater monitoring was conducted at the site from March 1988 to July 2004 and again in December 2008. Well construction details are presented in Table 1. Soil analytical results are summarized by Alton in their closure report (Alton 1998) and included in Appendix B. Historical gauging data and laboratory analytical results for the monitoring wells are summarized in Tables 2 and 3. Figure 3 shows the results from the December 2008 groundwater monitoring event (ETIC 2009a).

3. SUBSURFACE INVESTIGATION

On 23 and 24 November 2010, ETIC observed the installation of five soil vapor monitoring wells (VW1 through VW5). A permit was obtained from the Alameda County Public Works Agency (ACPWA). A copy of the permit is attached as Appendix C. A site-specific health and safety plan was used for this work. The locations of the soil vapor monitoring wells are shown on Figure 2.

The locations of the proposed soil vapor monitoring wells were selected based on the historical hydrocarbon concentrations beneath the site, groundwater flow direction, and locations of onsite structures.

An advisory published by the Department of Toxic Substances Control (DTSC) and the Los Angeles Regional Water Quality Control Board (DTSC/LARWQCB 2003) and vapor intrusion evaluation guidelines published by the DTSC (DTSC 2004) and Interstate Technology & Regulatory Council (ITRC 2007) were used as guidelines for the work detailed below.

3.1 ADVANCEMENT OF SOIL BORINGS AND SOIL SAMPLING

On 23 and 24 November 2010, soil borings VW1 through VW5 were advanced by Cascade Drilling, LP. of Rancho Cordova, California (C57 license #938110) with an air knife and a hand auger to depth of approximately 6 feet bgs.

Soil samples were collected in clean liners using a slide hammer hand sampler at depths of 5 to 5.5 feet bgs and 5.5 to 6 feet bgs. Soil was examined and characteristics were recorded on the soil boring logs presented in Appendix D. The soil sample liners were sealed with Teflon tape, capped, labeled, placed in a cooler with ice, and submitted under chain-of-custody protocol to a state-certified laboratory for analysis. Reusable sampling equipment was decontaminated after each use. Field methods and procedures are described in the protocols, presented in Appendix E.

3.2 SOIL VAPOR MONITORING WELL INSTALLATION

Borings VW1 through VW5 were completed as soil vapor monitoring wells. The wells were completed in accordance with the protocols provided in Appendix E. An ACPWA inspector approved the installation of each well.

The soil vapor monitoring wells were constructed with 0.25-inch-diameter stainless steel tubing connected to a 0.4-inch-diameter, 6-inch-long, stainless steel 0.0057-inch pore screen. All connections were sealed with Swagelok®-type fittings. The screen was capped at the bottom, connected to the tubing with a Swagelok®-type fitting, and placed from approximately 5.25 to 5.75 feet bgs in the borehole. A filter pack consisting of #2/12 Sand was placed between 5 and 6 feet bgs. The top of the stainless steel tubing was sealed with a Swagelok®-type valve. A 1-foot layer (from approximately 4 to 5 feet bgs) of dry granular bentonite was placed in the annular space of the borehole to separate the filter pack from the overlying grout seal. Hydrated granular bentonite was

used to fill the annular space of the borehole to just below ground surface. The well construction details are provided in Table 1 and are shown on the boring logs in Appendix D.

3.3 SOIL VAPOR SAMPLE COLLECTION

On 26 November 2010, a purge test was conducted for well VW3 which involved purging the well of 1, 3, and 7 purge volumes and screening the samples with a photoionization detector to determine the relative hydrocarbon content. Based on the results of this purge test, a purge volume of 3 purge volumes was determined to be the preferred amount for the remaining samples to be collected at the site.

On 26 November 2010, soil vapor samples were collected after purging 3 volumes from each well using SUMMA canisters. The initial pressure and the final pressure readings taken from the gauges on the SUMMA canisters were recorded. During sampling, helium was used to check for potential leaks. The samples were submitted under chain-of-custody protocol to a state-certified laboratory for analysis. Field protocols are provided in Appendix E. The field documents are included in Appendix F.

3.4 WELL SURVEYING

On 15 December 2010, the location and top of traffic box elevation of each soil vapor monitoring well was surveyed by Morrow Surveying, a licensed land surveyor. The surveyor's report is provided in Appendix G.

3.5 WASTE CONTAINMENT AND DISPOSAL

Waste generated during soil vapor monitoring well installation activities was collected in 55-gallon drums and stored onsite. A soil sample was collected from each drum and submitted to Calscience Environmental Laboratories, Inc. (Calscience), a state-certified laboratory in Garden Grove, California. The samples were analyzed for TPH-g, benzene, toluene, ethylbenzene, and total xylenes (BTEX), and total lead in order to characterize the soil for proper disposal. The laboratory analytical reports and chain-of-custody documentation are included in Appendix H. The drums were removed from the site on 15 December 2010 by Dillard Environmental Services and transported for disposal to Republic Landfill in Livermore, California. Waste documentation is included in Appendix I.

4. RESULTS

4.1 LOCAL GEOLOGY AND HYDROGEOLOGY

Soil encountered in boring VW1 generally consisted of silty clay with trace sand to approximately 1.5 feet bgs, gravelly sand with silt to approximately 2 feet bgs. Silty clay with gravel to approximately 5 feet bgs, and clayey silt with sand to 6 feet bgs, the total depth explored during this investigation. Soil encountered during this investigation in VW2 through VW5 generally consisted of clay with silt to approximately 3 feet bgs. The clay with silt was underlain by clayey silt with sand to 6 feet bgs, the total depth explored during this investigation. Groundwater was not encountered during this investigation. Detailed soil descriptions are presented in the boring logs in Appendix D.

4.2 SOIL SAMPLE ANALYTICAL METHODS AND RESULTS

Soil samples collected at depths from 5.5 to 6 feet bgs from borings VW1 through VW5 were submitted to Calscience and analyzed for TPH-d and TPH-g by EPA Method 8015B (M); BTEX by EPA Method 8021B, and methyl tertiary butyl ether (MTBE), tertiary butyl alcohol (TBA), 1,2-DCA, diisopropyl ether (DIPE), 1,2-dibromoethane (1,2-DBA), ethyl tertiary butyl ether (ETBE), and tertiary amyl methyl ether (TAME) by EPA Method 8260B.

Additionally, the soil samples collected from borings VW2 and VW4 were analyzed for volatile organic compounds (VOCs) by EPA Method 8260B and cadmium, chromium, lead, nickel, and zinc by EPA Method 6010B. The analytical results are summarized in Tables 4 and 5 and Figure 4. The laboratory analytical reports and chain-of-custody documentation are included in Appendix H.

- TPH-d, TPH-d, BTEX, MTBE, DIPE, ETBE, TAME, TBA, 1,2-DBA, and 1,2-DCA were not detected in the soil samples at or above laboratory reporting limits.
- Acetone (0.015 mg/kg), 2-butanone (0.0036 mg/kg), n-butylbenzene (0.00047 mg/kg), sec-butylbenzene (0.00047 mg/kg), and 1,2,4-trimethylbenzene (0.0011 mg/kg) were five VOCs detected in the soil sample collected from VW2.
- 1,2,4-trimethylbenzene (0.00030 mg/kg) was detected in the soil sample collected from VW4.
- Chromium was detected at concentrations up to 26.7 mg/kg (VW4).
- Lead was detected at concentrations up to 6.88 mg/kg (VW2).
- Nickel was detected at concentrations up to 38.8 mg/kg (VW2).
- Zinc was detected at concentrations up to 31.9 mg/kg (VW2).

Soil samples collected at depths from 5 to 5.5 feet bgs from borings VW1 through VW5 were also

submitted to Calscience and analyzed for moisture content by ASTM D2216 and porosity and bulk density by API RP40. The analytical results are summarized in Table 6.

The moisture content of the soil samples ranged from 15.1 to 20.1 percent by weight. The bulk density ranged from 1.69 to 1.88 grams per cubic centimeter. The total porosity of the samples ranged from 29.1 to 36.1 percent by volume, and the air-filled porosity ranged from 0.8 to 4.3 percent by volume. The laboratory analytical reports and chain-of-custody documentation are included in Appendix H.

4.3 SOIL VAPOR SAMPLE ANALYTICAL METHODS AND RESULTS

Soil vapor samples collected from vapor wells VW1 through VW5 were submitted to Calscience for analysis. The samples were analyzed for TPH-g by EPA Method TO-3 (M) and BTEX, MTBE, TBA, 1,2-DCA, DIPE, 1,2-DBA, ETBE, and TAME by EPA Method TO-15. The samples were also analyzed for oxygen, methane, and carbon dioxide by ASTM D1946. Additionally, soil vapor samples collected from VW2 and VW4 were analyzed for VOCs by EPA Method TO-15. The analytical results for the soil vapor samples are presented in Table 7 and on Figure 5.

- Benzene was detected at concentrations up to 120 micrograms per cubic meter ($\mu g/m^3$) (VW2).
- Toluene was detected at concentrations up to 41 $\mu g/m^3$ (VW2).
- Ethylbenzene was detected at concentrations up to 140 $\mu g/m^3$ (VW2).
- Total xylenes were detected at concentrations up to 330 $\mu g/m^3$ (VW2).
- TPH-g was detected at concentrations up to 1,500,000 $\mu g/m^3$ (VW3).
- TBA was detected at concentrations up to 58 $\mu g/m^3$ (VW2).
- Acetone (up to 120 $\mu g/m^3$), 2-butanone (40 $\mu g/m^3$), 4-ethyltoluene (25 $\mu g/m^3$), tetrachloroethene (up to 39 $\mu g/m^3$), 1,3,5-trimethylbenzene (240 $\mu g/m^3$), 1,2,4-trimethylbenzene (78 $\mu g/m^3$), and chloroform (7.4 $\mu g/m^3$) were the other VOCs detected in the samples from VW2 or VW4.
- Helium (the tracer gas) was not detected in the field-measured samples.

No other analytes were detected at or above laboratory reporting limits.

5. VAPOR INTRUSION EVALUATION

The potential health risks associated with vapor intrusion to indoor air were evaluated using soil vapor data obtained from the November 2010 subsurface investigation.

This analysis consisted of comparing the maximum shallow soil vapor concentrations detected at the site to applicable Environmental Screening Levels (ESLs) developed by the Regional Water Quality Control Board San Francisco Bay Region (RWQCB-SF) (RWQCB-SF 2008). The ESLs adopted by the RWQCB-SF correspond to a target carcinogenic risk level of 1×10^{-6} and a target non-carcinogenic hazard quotient of 0.2.

Table 8 lists the lowest applicable ESLs for potential vapor intrusion concerns corresponding to residential and commercial/industrial land use (Table E-2, RWQCB-SF 2008). Currently, the site is occupied by commercial businesses. Comparison of onsite soil vapor concentrations to residential ESLs is included in Table 8 for reference, but does not apply to the current use of the site. Comparison of onsite soil vapor concentrations to commercial/industrial ESLs is presented below.

Of the compounds detected:

- TPH-g concentrations exceeded the ESL for commercial/industrial land use in samples collected from wells VW2 and VW3.

- Benzene, toluene, ethylbenzene, xylenes, acetone, tetrachloroethene, and chloroform were not detected at concentrations exceeding the ESLs for commercial/industrial land use in the soil vapor samples collected.

6. SUMMARY

On 23 and 24 November 2010, ETIC observed the installation of five soil vapor monitoring wells (VW1 through VW5) at former Mobil Station 04FGN, located at 14994 East 14th Street, San Leandro, California. Soil samples were collected from borings VW1 through VW5 at depths of 5.5 to 6 feet bgs for chemical analysis. TPH-d, TPH-g, BTEX, five fuel oxygenates, and two fuel additives were not detected in the soil samples. Relatively low levels of acetone, 2-butanone, and volatile petroleum hydrocarbons were detected in the samples collected from borings VW2 and VW4. Soil samples were also collected from each boring for analysis of physical properties.

On 26 November 2010, soil vapor samples were collected from wells VW1 through VW5. TPH-g, BTEX, TBA, and some VOCs were detected in the soil vapor samples analyzed. A vapor intrusion evaluation which consisted of a comparison of the site maximum shallow soil vapor concentrations to relevant ESLs was performed. Concentrations of TPH-g and benzene in some soil vapor samples exceeded ESLs.

Recommendations based on the vapor intrusion evaluation will be submitted under separate cover.

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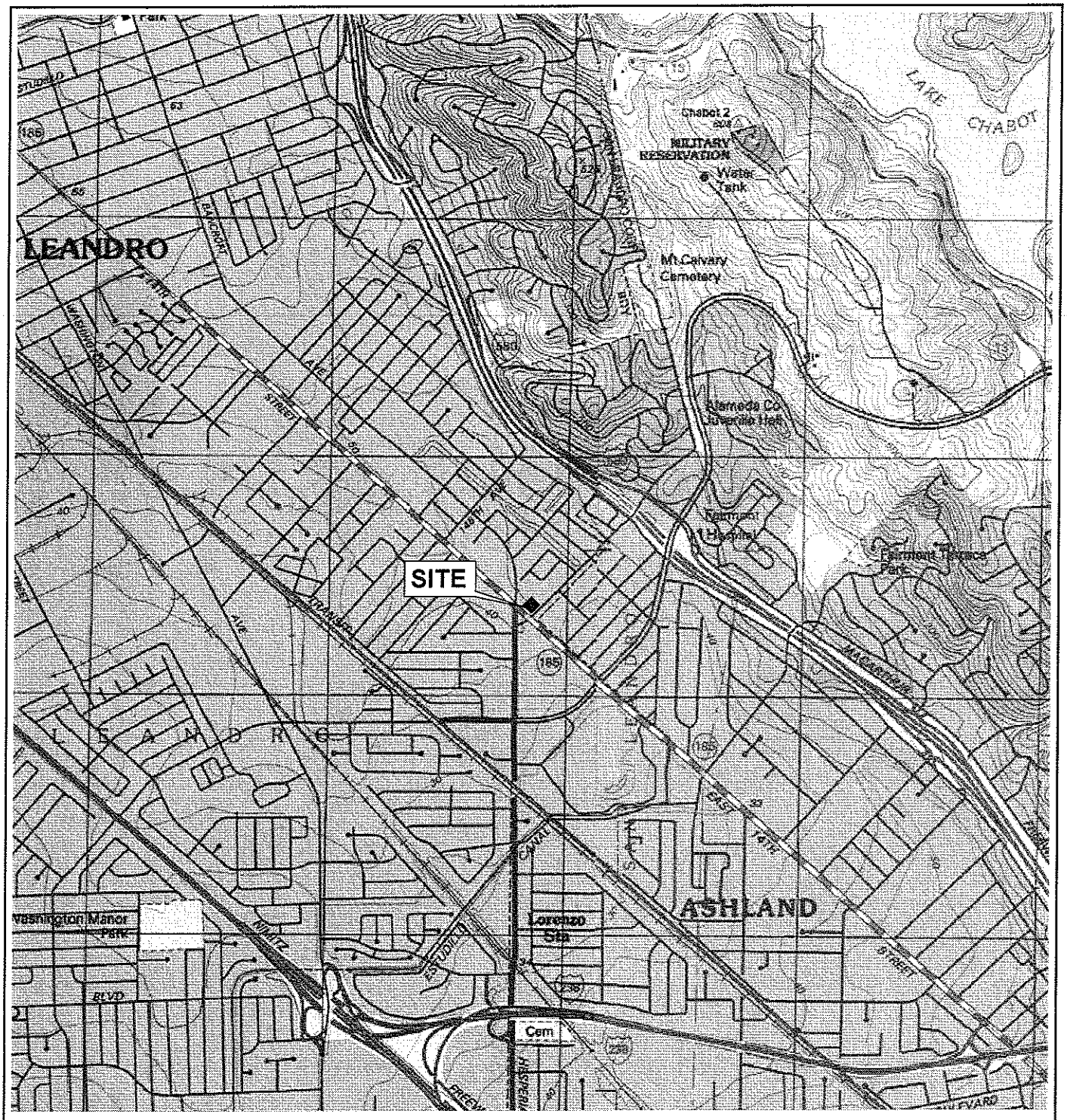
Figures



N

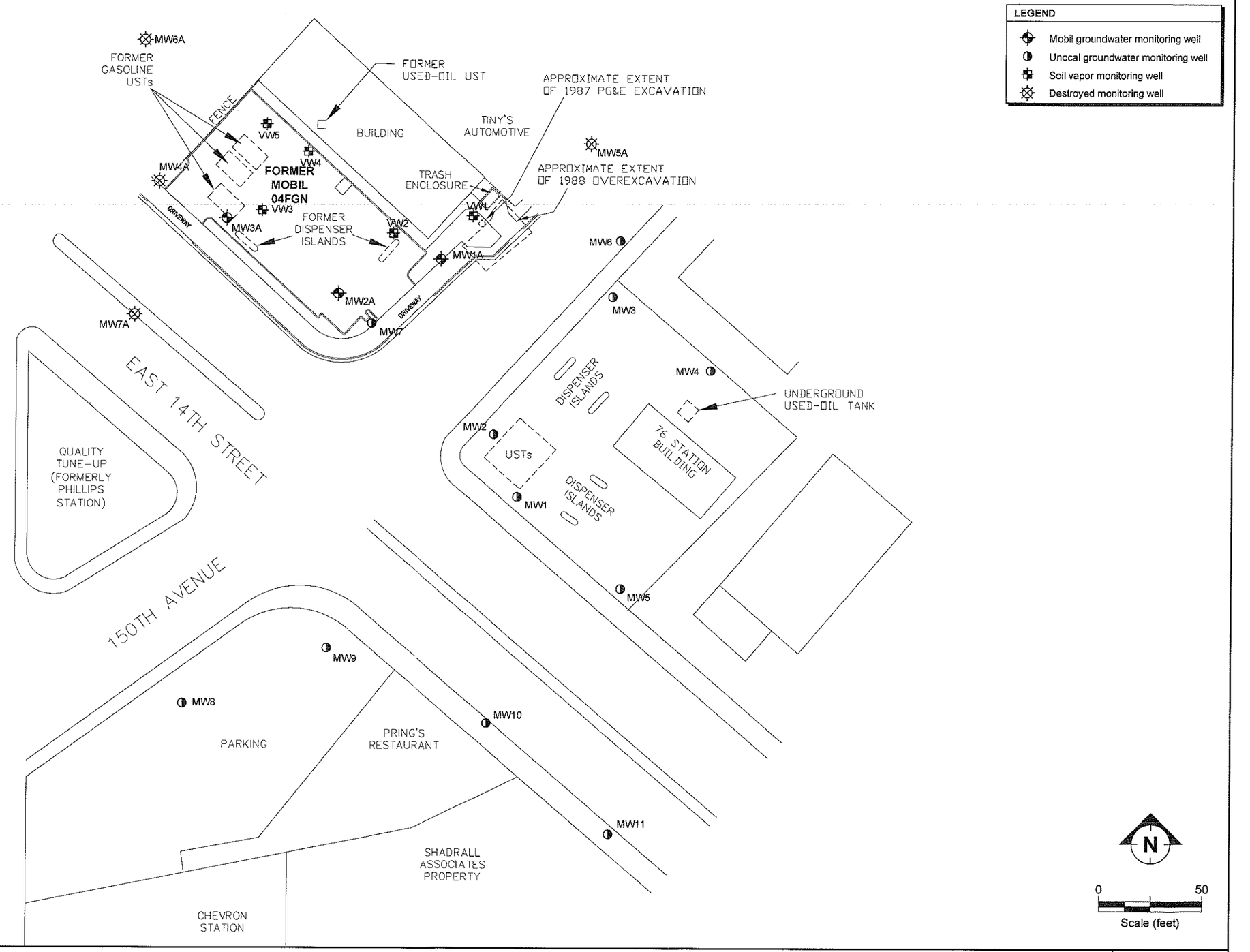
0 2,000

Scale (feet)

(Map Source: USGS Topographic Map)

ETIC ENGINEERING	SITE LOCATION AND TOPOGRAPHIC MAP FORMER MOBIL STATION 04FGN 14994 EAST 14th STREET SAN LEANDRO, CALIFORNIA	FIGURE: 1

FILENAME: TOPO1207.DWG 12/26/07



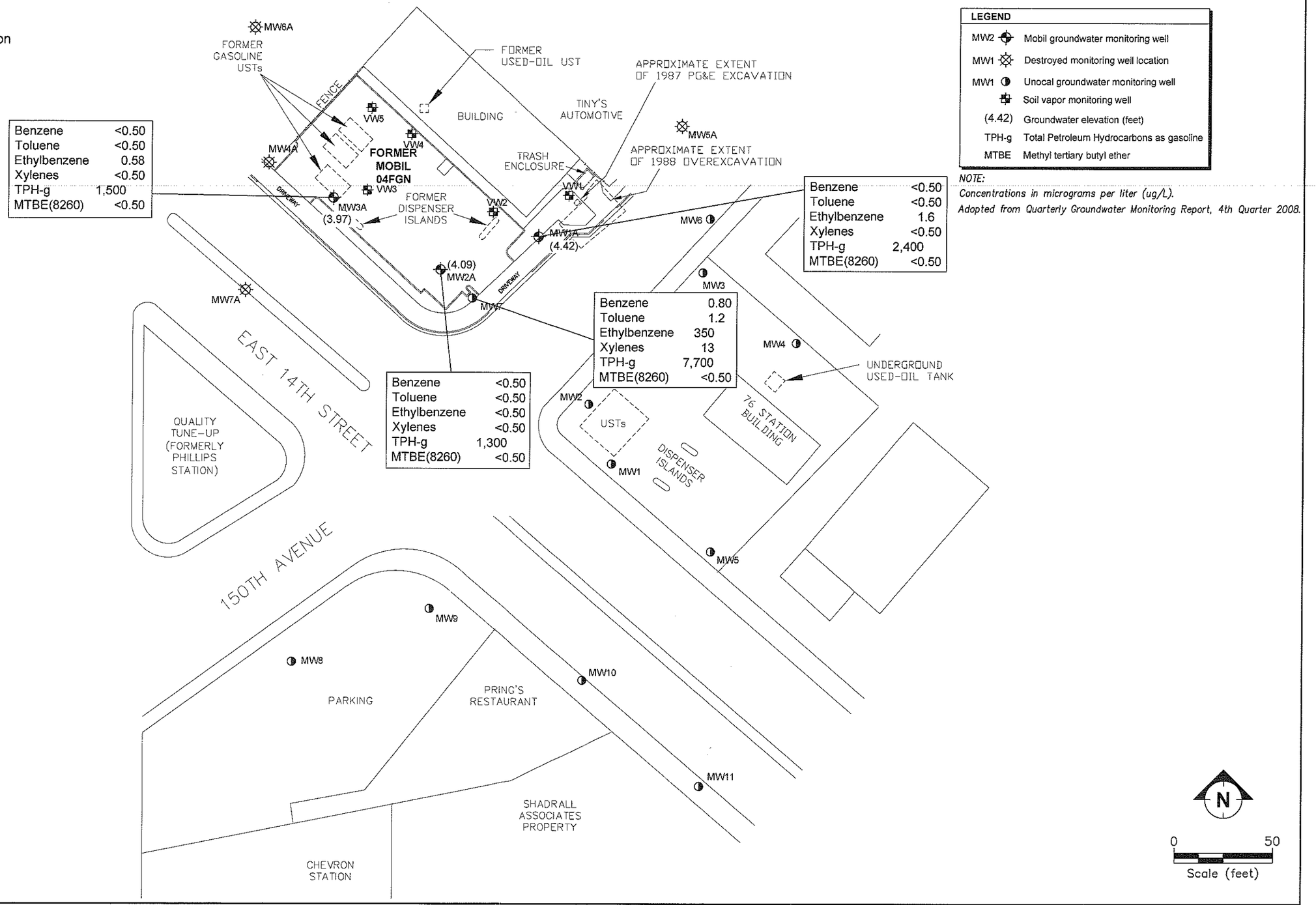
FILENAME: BASEMAP0507 3/15/11

ETIC ENGINEERING

SITE MAP
FORMER MOBIL STATION 04FGN
14994 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

FIGURE:
2

GW Approximate Groundwater Flow Direction
Gradient = 0.0065



Benzene	<0.50
Toluene	<0.50
Ethylbenzene	0.58
Xylenes	<0.50
TPH-g	1,500
MTBE(8260)	<0.50

Benzene	<0.50
Toluene	<0.50
Ethylbenzene	1.6
Xylenes	<0.50
TPH-g	2,400
MTBE(8260)	<0.50

Benzene	0.80
Toluene	1.2
Ethylbenzene	350
Xylenes	13
TPH-g	7,700
MTBE(8260)	<0.50

Benzene	<0.50
Toluene	<0.50
Ethylbenzene	<0.50
Xylenes	<0.50
TPH-g	1,300
MTBE(8260)	<0.50

LEGEND

MW2	Mobil groundwater monitoring well
MW1	Destroyed monitoring well location
MW1	Unocal groundwater monitoring well
VW1	Soil vapor monitoring well
(4.42)	Groundwater elevation (feet)
TPH-g	Total Petroleum Hydrocarbons as gasoline
MTBE	Methyl tertiary butyl ether

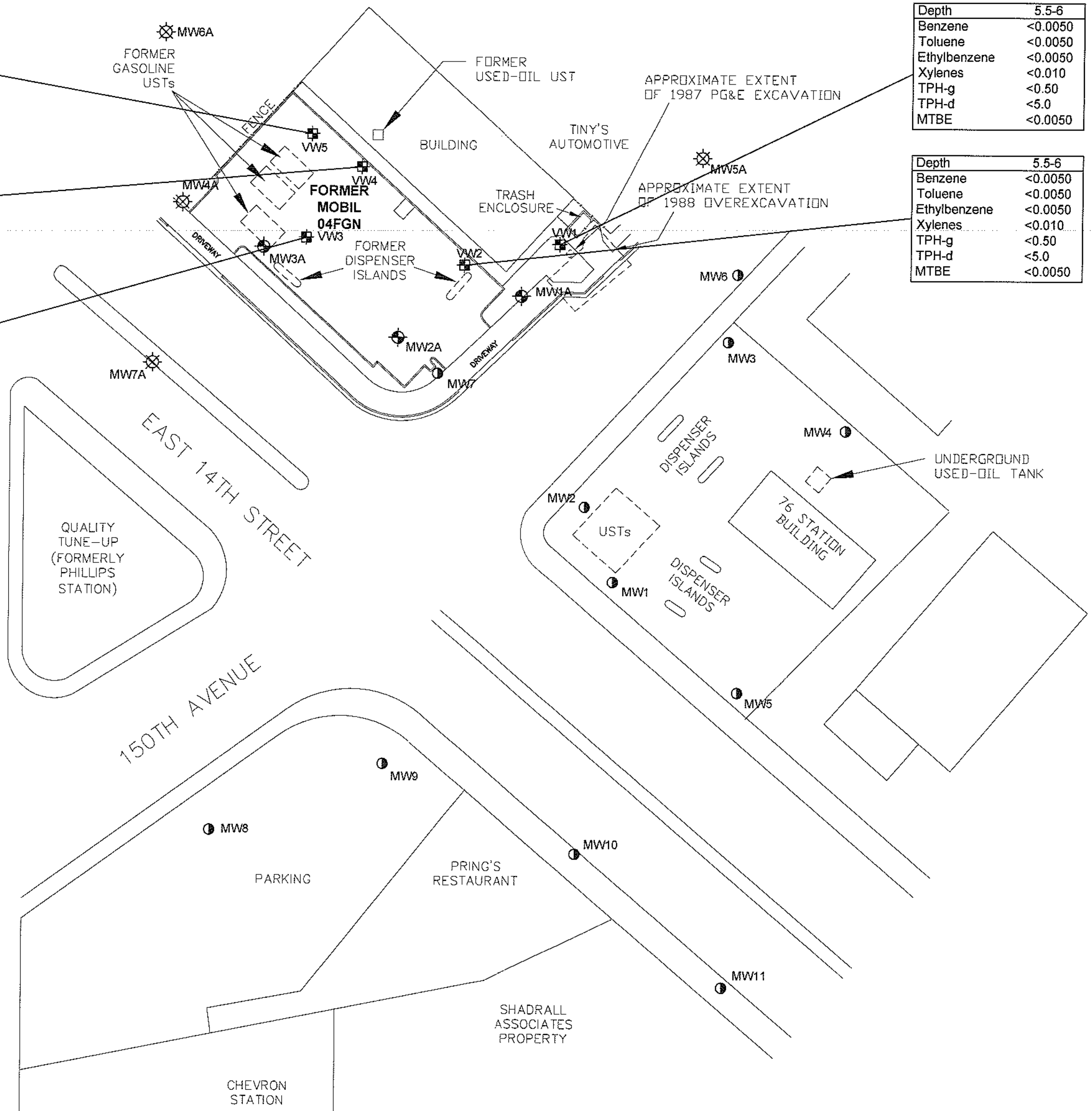
NOTE:
Concentrations in micrograms per liter (ug/L).
Adopted from Quarterly Groundwater Monitoring Report, 4th Quarter 2008.

ETIC ENGINEERING

SITE MAP SHOWING GROUNDWATER ELEVATIONS AND ANALYTICAL RESULTS
FORMER MOBIL STATION 04FGN
14994 EAST 14th STREET, SAN LEANDRO, CALIFORNIA
17 DECEMBER 2008

FIGURE: **3**

FILENAME: 4q2008.DWG 03/15/11



Depth	5.5-6
Benzene	<0.0050
Toluene	<0.0050
Ethylbenzene	<0.0050
Xylenes	<0.010
TPH-g	<0.50
TPH-d	<5.0
MTBE	<0.0050

Depth	5.5-6
Benzene	<0.0050
Toluene	<0.0050
Ethylbenzene	<0.0050
Xylenes	<0.010
TPH-g	<0.50
TPH-d	<5.0
MTBE	<0.0050

Depth	5.5-6
Benzene	<0.0050
Toluene	<0.0050
Ethylbenzene	<0.0050
Xylenes	<0.010
TPH-g	<0.50
TPH-d	<5.0
MTBE	<0.0050

Depth	5.5-6
Benzene	<0.0050
Toluene	<0.0050
Ethylbenzene	<0.0050
Xylenes	<0.010
TPH-g	<0.50
TPH-d	<5.0
MTBE	<0.0050

Depth	5.5-6
Benzene	<0.0050
Toluene	<0.0050
Ethylbenzene	<0.0050
Xylenes	<0.010
TPH-g	<0.50
TPH-d	<5.0
MTBE	<0.0050

LEGEND

(symbol)	Mobil groundwater monitoring well
(symbol)	Unocal groundwater monitoring well
(symbol)	Soil vapor monitoring well
(symbol)	Destroyed monitoring well
TPH-g	Total Petroleum Hydrocarbons as gasoline
TPH-d	Total Petroleum Hydrocarbons as diesel
MTBE	Methyl tertiary butyl ether

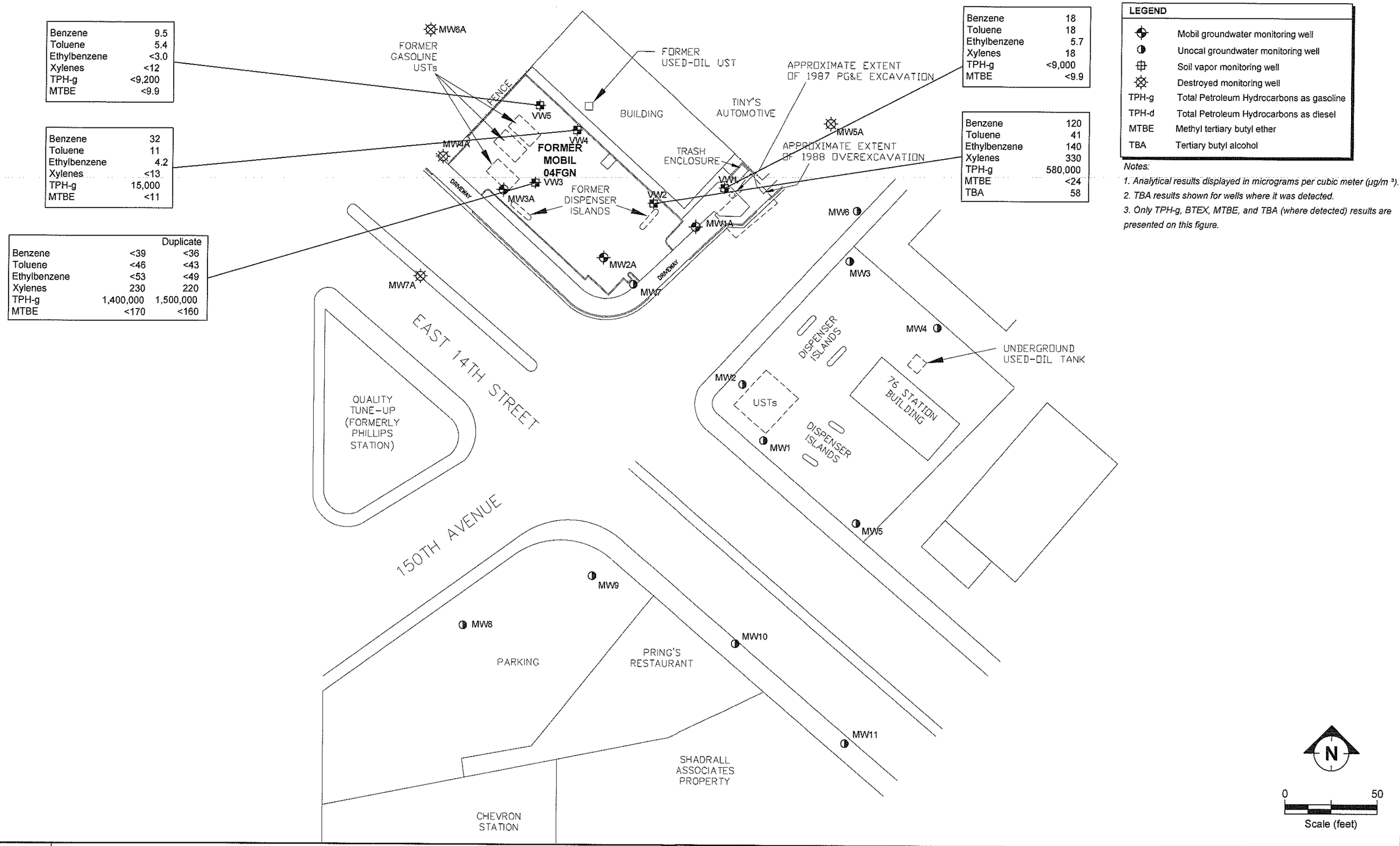
Notes:
1. Analytical results displayed in milligrams per kilogram (mg/kg).
2. Depths displayed in feet below ground surface.
3. Only TPH-g, TPH-d, BTEX, and MTBE results are presented on this figure.

FILENAME: SOIL0111.DWG 3/15/11

ETIC ENGINEERING

SITE MAP SHOWING SOIL SAMPLE ANALYTICAL RESULTS
FORMER MOBIL STATION 04FGN
14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA
23 AND 24 NOVEMBER 2010

FIGURE: **4**



FILENAME: SOIL0111.DWG 3/15/11

ETIC ENGINEERING

SITE MAP SHOWING SOIL VAPOR SAMPLE ANALYTICAL RESULTS
FORMER MOBIL STATION 04FGN
14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA
26 NOVEMBER 2010

FIGURE: **5**

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 4 SOIL SAMPLE ANALYTICAL RESULTS
FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

			Concentration (mg/kg)													
Sample ID	Date	Depth (feet bgs)	TPH-d	TPH-g	Benzene	Toluene	Ethyl-benzene	Total Xylenes	MTBE	DIPE	ETBE	TAME	TBA	EDB	1,2-DCA	VOCs
VW1	**11/24/10**	**5.5-6**	**<5.0h**	**<0.50**	**<0.0050**	**<0.0050**	**<0.0050**	**<0.010**	**<0.0050**	**<0.010**	**<0.010**	**<0.010**	**<0.050**	**<0.0050**	**<0.0050**	--
VW2	**11/23/10**	**5.5-6**	**<5.0h**	**<0.50**	**<0.0050**	**<0.0050**	**<0.0050**	**<0.010**	**<0.0050**	**<0.010**	**<0.010**	**<0.010**	**<0.050**	**<0.0050**	**<0.0050**	**0.015abc, 0.0036bd, 0.00047be, 0.00047bf, 0.0011bg**
VW3	**11/24/10**	**5.5-6**	**<5.0h**	**<0.50**	**<0.0050**	**<0.0050**	**<0.0050**	**<0.010**	**<0.0050**	**<0.010**	**<0.010**	**<0.010**	**<0.050**	**<0.0050**	**<0.0050**	--
VW4	**11/23/10**	**5.5-6**	**<5.0h**	**<0.50**	**<0.0050**	**<0.0050**	**<0.0050**	**<0.010**	**<0.0050**	**<0.010**	**<0.010**	**<0.010**	**<0.050**	**<0.0050**	**<0.0050**	**0.00030bg**
VW5	**11/24/10**	**5.5-6**	**<5.0h**	**<0.50**	**<0.0050**	**<0.0050**	**<0.0050**	**<0.010**	**<0.0050**	**<0.010**	**<0.010**	**<0.010**	**<0.050**	**<0.0050**	**<0.0050**	--

Note:

a Analyte was present in the associated method blank.
b Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
c Acetone.
d 2-Butanone.
e n-Butylbenzene.
f sec-Butylbenzene.
g 1,2,4-Trimethylbenzene.
h The sample extract was subjected to silica gel treatment prior to analysis.

TPH-g Total Petroleum Hydrocarbons as gasoline.
TPH-d Total Petroleum Hydrocarbons as diesel.
EDB Ethylene dibromide (1,2-dibromoethane or 1,2-DBA)
1,2-DCA 1,2-Dichloroethane.
DIPE Diisopropyl ether.
MTBE Methyl tertiary butyl ether by EPA Method 8260B.
TBA Tertiary butyl alcohol.
TAME Tertiary amyl methyl ether.
ETBE Tertiary butyl ethyl ether.
VOCs Volatile organic compounds.

-- Not analyzed.
mg/kg Milligrams per kilogram.

TABLE 5 SOIL SAMPLE ANALYTICAL RESULTS FOR METALS
FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Sample ID	Date	Depth	Concentration (mg/kg)				
			Cadmium	Chromium	Lead	Nickel	Zinc
VW2	**11/23/10**	**5.5-6**	**<0.500**	**26.4**	**6.88a**	**38.8**	**31.9**
VW4	**11/23/10**	**5.5-6**	**<0.500**	**26.7**	**6.74a**	**38.1**	**30.9**

Notes:

a Analyze was present in the associated method blank.

mg/kg Milligrams per kilogram.

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.

TABLE 7 SOIL VAPOR SAMPLE ANALYTICAL RESULTS, FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

Boring ID	Depth (feet bgs)	Date	Concentration (% by Volume) Oxygen and Argon	Methane	Carbon Dioxide	Concentration ($\mu g/m^3$) Benzene	Toluene	Ethyl-benzene	Total Xylenes	TPH-g	MTBE	TBA	DIPE	ETBE	1,2-DCA	TAME	EDB	VOCs
VW1	5 - 6	11/26/10	12.7	<0.645	4.71	18	18	5.7	18	<9,000	<9.9	<8.3	<11	<11	<2.8	<11	<5.3	--
VW2	5 - 6	11/26/10	2.12	<0.670	11.2	120	41	140	330	580,000	<24	58	<28	<28	<6.8	<28	<13	120a, 40b, 25c, 39d, 240e, 78f
VW3	5 - 6	11/26/10	2.13	<0.755	10.7	<39	<46	<53	230	1,400,000	<170	<150	<200	<200	<49	<200	<93	--
VW3 (DUP)	5 - 6	11/26/10	2.21	<0.710	10.9	<36	<43	<49	220	1,500,000	<160	<140	<190	<190	<46	<190	<87	--
VW4	5 - 6	11/26/10	4.26	<0.760	9.77	32	11	4.2	<13	15,000	<11	<9.2	<13	<13	<3.1	<13	<5.8	20a, 7.4g, 15d
VW5	5 - 6	11/26/10	11.8	<0.660	9.95	9.5	5.4	<3.0	<12	<9,200	<9.9	<8.3	<11	<11	<2.8	<11	<5.3	--

Notes:

a Acetone.
b 2-Butanone.
c 4-Ethyltoluene.
d Tetrachloroethene.
e 1,3,5-Trimethylbenzene.
f 1,2,4-Trimethylbenzene.
g Chloroform.

feet bgs Feet below ground surface.
1,2-DCA 1,2-Dichloroethane.
EDB Ethylene dibromide (1,2-dibromoethane or 1,2-DBA).
DIPE Diisopropyl ether.
ETBE Ethyl tertiary butyl ether.
MTBE Methyl tertiary butyl ether.
TAME Tertiary amyl methyl ether.
TBA Tertiary butyl alcohol.
TPH-g Total Petroleum Hydrocarbons as gasoline.
VOCs Volatile organic compounds.

DUP Duplicate.

-- Not analyzed or not applicable.
$\mu g/m^3$ Micrograms per cubic meter.

TABLE 8 TIER I ENVIRONMENTAL SCREENING LEVELS FOR SHALLOW SOIL VAPOR
FORMER MOBIL STATION 04FGN, 14994 EAST 14TH STREET, SAN LEANDRO, CALIFORNIA

					Tier I ESLs for Potential Vapor Intrusion Concern[a]			
					Residential Land Use		Commercial/Industrial Land Use	
Chemical	Date	Sample ID	Depth (feet bgs)	Maximum Detected Soil Vapor Concentration ($\mu g/m^3$)	Carcinogenic Effects ($\mu g/m^3$)	Non-Carcinogenic Effects ($\mu g/m^3$)	Carcinogenic Effects ($\mu g/m^3$)	Non-Carcinogenic Effects ($\mu g/m^3$)
Benzene	11/26/10	VW2	5-6	120	84	6,300	280	18,000
Toluene	11/26/10	VW2	5-6	41	NA	63,000	NA	180,000
Ethylbenzene	11/26/10	VW2	5-6	140	980	210,000	3,300	580,000
Total Xylenes	11/26/10	VW2	5-6	330	NA	21,000	NA	58,000
TPH-g	11/26/10	VW3 (DUP)	5-6	1,500,000	NA	10,000	NA	29,000
Acetone[b]	11/26/10	VW2	5-6	120	NA	660,000	NA	1,800,000
2-Butanone[b]	11/26/10	VW2	5-6	40	NA	1,000,000	NA	2,900,000
Tetrachloroethene[b]	11/26/10	VW2	5-6	39	410	83,000	1,400	230,000
Chloroform	11/26/10	VW4	5-6	7.4	460	63,000	1,500	180,000

Notes:

1,2-DCA	1,2-Dichloroethane.
2-Butanone	This compound is also known as methyl ethyl ketone or MEK.
bgs	Below ground surface.
ESL	Environmental Screening Level.
NA	Not applicable.
TPH-g	Total Petroleum Hydrocarbons as gasoline.
VOCs	Volatile organic compounds.
$\mu g/m^3$	Micrograms per cubic meter.
a	From Table E-2: Shallow soil gas screening levels for evaluation of potential vapor intrusion concerns.
b	All other VOCs are below the laboratory reporting limits with the exception of TBA, 4-ethyltoluene, 1,3,5-trimethylbenzene, and 1,2,4-trimethylbenzene (see Table 7). No ESLs have been established for these compounds.

Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater - Interim Final, San Francisco Regional Water Quality Control Board, November, 2007 (Revised May 2008).
Tier I ESLs adopted by RWQCB correspond to a 1 X 10^{-6} target risk level and a target hazard quotient of 0.2.

Appendix A

Regulatory Correspondence

ETIC ENGINEERING

20 July 2010

Ms. Barbara Jakub
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Subject: **Risk Assessment Work Plan and Preferential Pathway Survey and Work Plan Addendum**
Former Mobil Station 04FGN, 14994 East 14th Street, San Leandro, California
Fuel Leak Case No. RO0000422 / GeoTracker Global ID T0600100912

Dear Ms. Jakub:

At the request of ExxonMobil Environmental Services Company on behalf of ExxonMobil Oil Corporation, ETIC Engineering, Inc. (ETIC) submitted a Risk Assessment Work Plan and Preferential Pathway Survey dated October 2008 and Work Plan Addendum dated June 2009 for the above referenced site to the Alameda County Health Care Services Agency (ACHCSA).

The scope of work outlined in these documents includes a vapor intrusion assessment with the collection of soil vapor samples following the installation of soil vapor wells.

As of the date of this letter, the ACHCSA has not issued a written response to the referenced Work Plan Addendum. Therefore, ETIC hereby notifies the ACHCSA of its intent to invoke the "60-day policy" under Title 23, Chapter 16, Section 2722 of the California Underground Storage Tank Regulations, and implement the proposed scope of work outlined in the Risk Assessment Work Plan and Preferential Pathway Survey dated October 2008 and Work Plan Addendum dated June 2009. The proposed work including the submittal of all necessary permits will begin on or after 30 July 2010.

Unless we hear otherwise from you, ETIC trusts that this notification meets your requirement. Should you need additional information regarding this project, please contact me at (925) 602-4710 ext. 24.

Sincerely,

Bryan Campbell
Program Manager

cc: Ms. Jennifer Sedlachek, ExxonMobil Environmental Services Company
Ms. Jana Gluckman, Property Owner

Appendix B

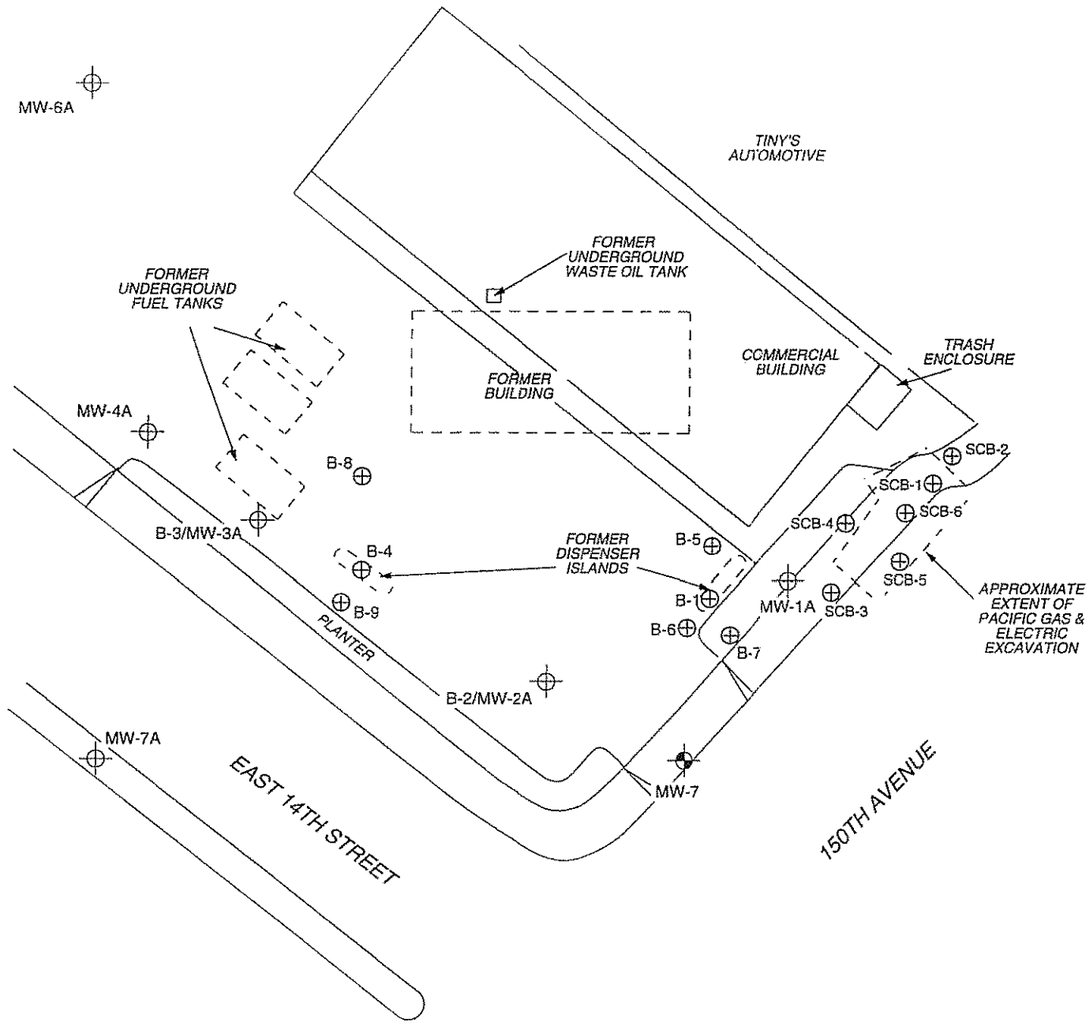
Summary of Soil Sample Analysis (Alton 1998)

Table 1

Summary of Soil Sample Analysis*

Former Mobil Station 04-FGN

Boring ID	Date	Sample Depth (feet)	TPH-G (ppm)	TPH-D (ppm)	TOG (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Total Xylenes (ppm)	PCE (ppm)	TCE (ppm)	Trans-1, 2-DCE (ppm)
SCB-1	09/29/87	4.0	72	200	—	—	—	—	200	—	—	—
SCB-1	09/29/87	8.6	ND<10	ND<50	—	—	—	—	ND<50	—	—	—
SCB-2	09/29/87	2.6	ND<10	ND<50	—	—	—	—	ND<50	—	—	—
SCB-2	09/29/87	7.1	ND<10	ND<50	—	—	—	—	ND<50	—	—	—
SCB-3	09/29/87	5.0	ND<10	ND<50	—	—	—	—	ND<50	—	—	—
SCB-3	09/29/87	8.5	320	ND<50	—	—	—	—	ND<50	—	—	—
SCB-4	09/29/87	4.5	ND<10	ND<50	—	—	—	—	ND<50	—	—	—
SCB-4	09/29/87	10.5	ND<10	ND<50	—	—	—	—	ND<50	—	—	—
SCB-5	09/29/87	4.0	ND<10	ND<50	—	—	—	—	ND<50	—	—	—
SCB-5	09/29/87	8.0	ND<10	ND<50	—	—	—	—	ND<50	—	—	—
SCB-6	09/29/87	5.0	ND<10	ND<50	—	6.6	15.0	8.0	ND<50	6.6	15.0	8.0
SCB-6	09/29/87	9.1	ND<10	ND<50	—	—	—	—	ND<50	—	—	—
B-1	02/10/94	6.5	1,500	160	160	ND<0.005	2.9	18	85	—	—	—
B-1	02/10/94	11.5	580	120	ND<30	1.2	1.1	5.5	18	—	—	—
B-2	02/10/94	7.5	1.4	1.6	ND<30	ND<0.005	0.0065	ND<0.005	ND<0.005	—	—	—
B-2	02/10/94	11.5	49	12	ND<30	0.094	ND<0.005	0.18	0.33	—	—	—
B-3	02/10/94	6.5	10	2.4	100	ND<0.005	0.028	0.027	0.049	—	—	—
B-3	02/10/94	11.5	190	31	ND<30	0.70	0.11	2.5	0.52	—	—	—
B-4	02/10/94	6.5	4,100	650	130	ND<0.005	15	57	390	—	—	—
B-4	02/10/94	11.5	460	62	ND<30	ND<0.005	1.0	4.7	23	—	—	—
B-5	06/01/95	6.5	2.5	ND<1.0	—	ND<0.0050	ND<0.0050	0.0076	0.17	—	—	—
B-5	06/01/95	11.5	8.6	2.1	—	0.025	0.025	0.020	0.11	—	—	—
B-6	06/01/95	6.5	3.3	4.3	—	ND<0.0050	ND<0.0050	0.068	0.16	—	—	—
B-6	06/01/95	11.5	44	2.7	—	0.053	0.078	1.4	5.3	—	—	—
B-7	06/01/95	6.5	ND<1.0	ND<1.0	—	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	—	—	—
B-7	06/01/95	11.5	130	8.1	—	0.28	0.31	0.92	1.2	—	—	—



LEGEND

- MW-7A — Groundwater monitoring well (Mobil)
- MW-7 — Groundwater monitoring well (Unocal)
- B-4 — Soil boring

SCALE (feet)

0 15 30

SOURCE: Allsto Engineering Group

ALTON GEOSCIENCE
Livermore, California

SITE DETAIL SHOWING EXCAVATION AND SOIL SAMPLE LOCATIONS

Former Mobil Station 04-FGN
14994 East 14th Street
San Leandro, California

FIGURE 3

04-FGN/Site Detail

Summary of Soil Sample Analysis*

Former Mobil Station 04-FGN

Boring ID	Date	Sample Depth (feet)	TPH-G (ppm)	TPH-D (ppm)	TOG (ppm)	Benzene (ppm)	Toluene (ppm)	Ethyl-benzene (ppm)	Total Xylenes (ppm)	PCE (ppm)	TCE (ppm)	Trans-1, 2-DCE (ppm)
B-8	06/01/95	6.5	ND<1.0	ND<1.0	—	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	—	—	—
B-8	06/01/95	11.5	ND<1.0	ND<1.0	—	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	—	—	—
B-9	06/01/95	6.5	ND<1.0	1.4	—	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	—	—	—
B-9	06/01/95	11.5	2.5	1.7	—	ND<0.0050	0.0053	0.0059	0.0052	—	—	—
MW-4A	06/01/95	6.5	ND<1.0	2.2	—	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	—	—	—
MW-4A	06/01/95	11.5	ND<1.0	ND<1.0	—	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	—	—	—
MW-5A	06/01/95	6.5	ND<1.0	1.6	—	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	—	—	—
MW-5A	06/01/95	11.5	ND<1.0	ND<1.0	—	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	—	—	—
MW-6A	06/02/95	6.5	ND<1.0	ND<1.0	—	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	—	—	—
MW-6A	06/02/95	11.5	ND<1.0	ND<1.0	—	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	—	—	—
MW-7A	07/21/95	6.5	ND<1.0	—	—	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	—	—	—
MW-7A	07/21/95	11.5	ND<1.0	—	—	ND<0.0050	ND<0.0050	ND<0.0050	ND<0.0050	—	—	—

NOTES:

* = Source: Alisto Engineering Group; SCB borings drilled by Subsurface Consultants, Inc.
TPH-G = total petroleum hydrocarbons as gasoline
TPH-D = total petroleum hydrocarbons as diesel
TOG = total oil and grease
PCE = tetrachloroethylene
TCE = trichloroethylene
Trans-1,2-DCE = trans-1,2-dichloroethylene
ppm = parts per million
ND = not detected at or above method detection limit
— = not analyzed / not applicable

Appendix C

Permits

Alameda County Public Works Agency - Water Resources Well Permit

399 Elmhurst Street
Hayward, CA 94544-1395
Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 11/12/2010 By jamesy

Permit Numbers: W2010-0858
Permits Valid from 11/23/2010 to 11/24/2010

Application Id: 1289514687108 **City of Project Site:** San Leandro
Site Location: Former Mobil Station 04FGN
14994 East 14th Street, San Leandro, CA
Project Start Date: 11/23/2010 **Completion Date:** 11/24/2010
Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

Applicant:	ETIC Engineering, Inc. - Bryan Campbell 2285 Morello Avenue, Pleasant Hill, CA 94523	**Phone:** 925-602-4710 x24
Property Owner:	Jana Gluckman 2110 Stonehaven Dr., Los Altos, CA 94024	**Phone:** --
Client:	ExxonMobil Environmental Services Company 4096 Piedmont Avenue, #194, Oakland, CA 94611	**Phone:** 510-547-8196
Contact:	Erik Appel	**Phone:** 925-602-4710 x21 **Cell:** 925-642-2545

Total Due: $265.00
Receipt Number: WR2010-0386 **Total Amount Paid:** $265.00
Payer Name : ETIC Engineering, Inc. Paid By: CHECK **PAID IN FULL**

Works Requesting Permits:

Well Construction-Vapor monitoring well-Vapor monitoring well - 5 Wells
Driller: Cascade Drilling, L.P. - Lic #: 938110 - Method: other **Work Total: $265.00**

Specifications

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2010-0858	11/12/2010	02/21/2011	VW1	4.00 in.	0.25 in.	5.00 ft	6.00 ft
W2010-0858	11/12/2010	02/21/2011	VW2	4.00 in.	0.25 in.	5.00 ft	6.00 ft
W2010-0858	11/12/2010	02/21/2011	VW3	4.00 in.	0.25 in.	5.00 ft	6.00 ft
W2010-0858	11/12/2010	02/21/2011	VW4	4.00 in.	0.25 in.	5.00 ft	6.00 ft
W2010-0858	11/12/2010	02/21/2011	VW5	4.00 in.	0.25 in.	5.00 ft	6.00 ft

Specific Work Permit Conditions

1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.

2. Compliance with the above well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate state reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days, including permit number and site map.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend

and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

4. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.

5. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

6. No changes in construction procedures or well type shall change, as described on this permit application. This permit may be voided if it contains incorrect information.

7. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.

8. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

9. Wells shall have a Christy box or similar structure with a locking cap or cover. Well(s) shall be kept locked at all times. Well(s) that become damaged by traffic or construction shall be repaired in a timely manner or destroyed immediately (through permit process). No well(s) shall be left in a manner to act as a conduit at any time.

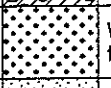
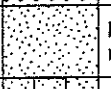
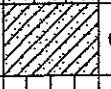
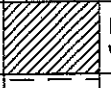
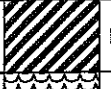
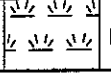
10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of $500.00.

11. Vapor monitoring wells above water level constructed with tubing maybe be backfilled with pancake-batter consistency bentonite. Minimum surface seal thickness is two inches of cement grout around well box.

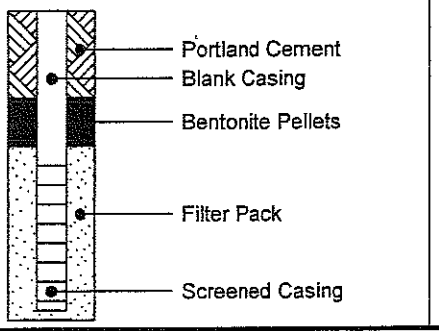
Vapor monitoring wells above water level constructed with pvc pipe shall have a minimum seal depth (Neat Cement Seal) of 2 feet below ground surface (BGS). Minimum surface seal thickness is two inches of cement grout around well box. All other conditions for monitoring well construction shall apply.

Appendix D

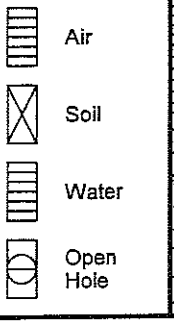
Soil Boring Logs, Well Completion Diagrams, and DWR Forms

MAJOR DIVISIONS			TYPICAL NAMES		
COARSE-GRAINED SOILS More than half is coarser than No. 200 sieve	GRAVELS more than half coarse fraction is larger than No. 4 sieve size	Clean gravels with little or no fines	GW		Well graded gravels with or without sand, little or no fines.
			GP		Poorly graded gravels with or without sand, little or no fines.
		Gravels with over 12% fines	GM		Silty gravels, silty gravels with sand.
			GC		Clayey gravels, clayey gravels with sand.
	SANDS more than half coarse fraction is smaller than No. 4 sieve size	Clean sands with little or no fines	SW		Well graded sands with or without gravel, little or no fines.
			SP		Poorly graded sands with or without gravels, little or no fines.
		Sands with over 12% fines	SM		Silty sands with or without gravel.
			SC		Clayey sands with or without gravel.
FINE-GRAINED SOILS More than half is finer than No. 200 sieve	SILTS AND CLAYS liquid limit 50% or less		ML		Inorganic silts and very fine sands, rock flour, silts with sands and gravels.
			CL		Inorganic clays of low to medium plasticity, clays with sands and gravels, lean clays.
			OL		Organic silts or clays of low plasticity.
	SILTS AND CLAYS liquid limit greater than 50%		MH		Inorganic silts, micaceous or diatomaceous, fine sandy or silty soils, elastic silts.
			CH		Inorganic clays of high plasticity, fat clays
			OH		Organic clays or clays of medium to high plasticity.
HIGHLY ORGANIC SOILS			PT		Peat and other highly organic soils.

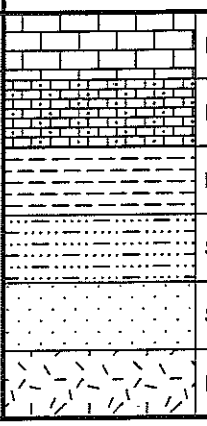
SYMBOLS



Samples



DRILL LOG ROCK TYPES



ETIC ENGINEERING

UNIFIED SOIL CLASSIFICATION SYSTEM DESCRIPTIONS AND SYMBOLS USED ON ETIC DRILL LOGS

ETIC ENGINEERING

LOG OF SOIL BORING: **VW1**

COORDINATES: N2083680.1 :E6090420.9
ELEVATION TOP OF CASING:
CASING BELOW SURFACE:

DRILLING COMPANY: Cascade Drilling
LICENSE NUMBER: C57-938110

CLIENT	SITE NUMBER	LOCATION
EXXONMOBIL	04FGN	14994 East 14th Street San Leandro, California

DRILLING AND SAMPLING METHODS: Borehole advanced to 6 feet below ground surface using an air knife and a 4-inch diameter hand auger. Sampled with a slide hammer and 6-inch long liners.

				START	FINISH
WATER LEVEL					
TIME				TIME 1110	TIME 1145
DATE				DATE 11/24/10	DATE 11/24/10
REFERENCE					

SURFACE CONDITIONS: Unpaved

DESCRIPTION BY: Yuko Mamiya

INCHES DRIVEN	INCHES RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	GRAPHIC LOG
				0	CL
				1	
				2	SP
				3	CL
				4	
6	6			5	ML
6	6			6	
				7	
				8	
				9	
				10	

AIR SAMPLE | WATER SAMPLE | SOIL SAMPLE | RECOVERED

SILTY CLAY WITH TRACE SAND - dark yellowish brown (10YR 4/4), stiff, low plasticity, fine grained sand, very moist.

- occasional subrounded gravel up to 2 inches in diameter.

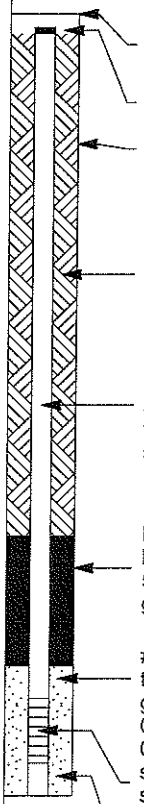
GRAVELLY SAND WITH SILT - dark olive brown (2.5Y 3/4), medium dense, course grained sand, subrounded gravel up to 2 inches in diameter, very moist to wet.

SILTY CLAY WITH SOME GRAVEL - dark yellowish brown (10YR 4/4), stiff, low plasticity, subrounded gravel up to 2 inches in diameter, very moist.

CLAYEY SILT WITH SOME SAND - dark olive gray (5Y 3/2), stiff, low plasticity, fine grained sand, moist.

Boring terminated at 6 feet below ground surface.

DETAILS



LOG OF SOIL BORING 04FGN.GPJ ETIC.GDT 3/16/11

ETIC ENGINEERING

LOG OF SOIL BORING: **VW2**

COORDINATES: N2083671.7 :E6090382.4
ELEVATION TOP OF CASING:
CASING BELOW SURFACE:

DRILLING COMPANY: Cascade Drilling
LICENSE NUMBER: C57-938110

CLIENT	SITE NUMBER	LOCATION
EXXONMOBIL	04FGN	14994 East 14th Street San Leandro, California

DRILLING AND SAMPLING METHODS: Borehole advanced to 6 feet below ground surface using an air knife and a 4-inch diameter hand auger. Sampled with a slide hammer and 6-inch long liners.

				START	FINISH
WATER LEVEL					
TIME				TIME 1000	TIME 1045
DATE				DATE 11/23/10	DATE 11/23/10
REFERENCE					

SURFACE CONDITIONS: Asphalt

DESCRIPTION BY: Yuko Mamiya

INCHES DRIVEN	INCHES RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE	RECOVERED	GRAPHIC LOG
				0					AC/AB
				1					CL
				2					
				3					
				4					ML
6	6			5					
6	6			6					
				7					
				8					
				9					
				10					

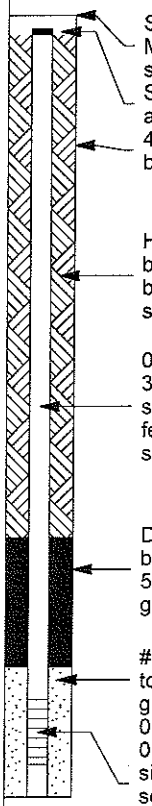
ASPHALT from surface to 3 inches below ground surface.
AGGREGATE BASE from 3 inches to 1 foot below ground surface.

CLAY WITH SILT - black (5Y 2.5/1), stiff, low to medium plasticity, moist,

CLAYEY SILT WITH SOME SAND - dark olive gray (5Y 3/2), very stiff to hard, low plasticity, fine grained sand, moist.

Boring terminated at 6 feet below ground surface.

DETAILS



LOG OF SOIL BORING 04FGN.GPJ ETIC.GDT 3/16/11

ETIC ENGINEERING

LOG OF SOIL BORING: **VW3**

COORDINATES: N2083682.6 :E6090318.3
ELEVATION TOP OF CASING:
CASING BELOW SURFACE:

DRILLING COMPANY: Cascade Drilling
LICENSE NUMBER: C57-938110

CLIENT	SITE NUMBER	LOCATION
EXXONMOBIL	04FGN	14994 East 14th Street San Leandro, California

DRILLING AND SAMPLING METHODS: Borehole advanced to 6 feet below ground surface using an air knife and a 4-inch diameter hand auger. Sampled with a slide hammer and 6-inch long liners.

				START	FINISH
WATER LEVEL					
TIME				TIME 0930	TIME 1000
DATE				DATE 11/24/10	DATE 11/24/10
REFERENCE					

SURFACE CONDITIONS: Asphalt

DESCRIPTION BY: Yuko Mamiya

INCHES DRIVEN	INCHES RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	GRAPHIC LOG
				0	AC/AB
				1	CL
				2	
				3	
				4	ML
6	6			5	
6	6			6	
				7	
				8	
				9	
				10	

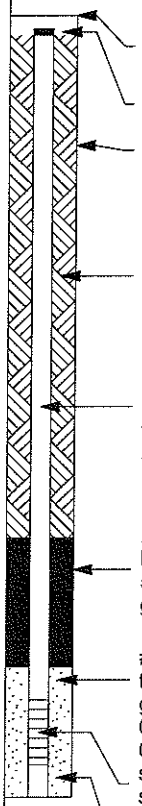
ASPHALT from surface to 3 inches below ground surface.
AGGREGATE BASE from 3 inches to 1 foot below ground surface.

CLAY WTH SILT - black (5Y 2.5/1), stiff, low to medium plasticity, moist.

CLAYEY SILT WITH SOME SAND - dark olive gray (5Y 3/2), very stiff to hard, low plasticity, fine grained sand, moist.

Boring terminated at 6 feet below ground surface.

DETAILS



LOG OF SOIL BORING 04FGN.GPJ ETIC.GDT 3/16/11

ETIC ENGINEERING

LOG OF SOIL BORING: **VW4**

COORDINATES: N2083711.1 :E6090340.7
ELEVATION TOP OF CASING:
CASING BELOW SURFACE:

DRILLING COMPANY: Cascade Drilling
LICENSE NUMBER: C57-938110

CLIENT	SITE NUMBER	LOCATION
EXXONMOBIL	04FGN	14994 East 14th Street San Leandro, California

DRILLING AND SAMPLING METHODS: Borehole advanced to 6 feet below ground surface using an air knife and a 4-inch diameter hand auger. Sampled with a slide hammer and 6-inch long liners.

				START	FINISH
WATER LEVEL					
TIME				TIME 1400	TIME 1500
DATE					
REFERENCE				DATE 11/23/10	DATE 11/23/10

SURFACE CONDITIONS: Asphalt

DESCRIPTION BY: Yuko Mamiya

INCHES DRIVEN	INCHES RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	AIR SAMPLE	WATER SAMPLE	SOIL SAMPLE	RECOVERED	GRAPHIC LOG
				0					AC/AB
				1					CL
				2					
				3					ML
				4					
6	6			5					
6	6			6					
				7					
				8					
				9					
				10					

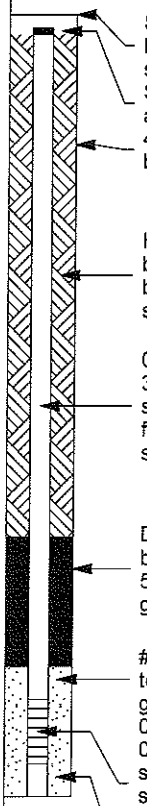
ASPHALT from surface to 3 inches below ground surface.
AGGREGATE BASE from 3 inches to 1 foot below ground surface.

CLAY WTH SILT - black (5Y 2.5/1), stiff, low to medium plasticity, moist.

CLAYEY SILT WITH SOME SAND - dark olive gray (5Y 3/2), very stiff to hard, low plasticity, fine grained sand, moist.

Boring terminated at 6 feet below ground surface.

DETAILS



Single-bolt, Morrison well box, set in concrete.
Swagelok valve and cap
4-inch diameter borehole.
Hydrated granular bentonite to 4 feet below ground surface.
0.25-Inch diameter 316L stainless steel tubing to 5.25 feet below ground surface.
Dry granular bentonite from 4 to 5 feet below ground surface.
#2/12 sand from 5 to 6 feet below ground surface.
0.4-inch diameter 0.0057-inch pore size stainless steel screen from 5.25 to 5.75 feet below ground surface.
Implant anchor

LOG OF SOIL BORING 04FGN.GPJ ETIC.GDT 3/16/11

ETIC ENGINEERING

LOG OF SOIL BORING: **VW5**

COORDINATES: N2083724.3 :E6090320.3
ELEVATION TOP OF CASING:
CASING BELOW SURFACE:

DRILLING COMPANY: Cascade Drilling
LICENSE NUMBER: C57-938110

CLIENT	SITE NUMBER	LOCATION
EXXONMOBIL	04FGN	14994 East 14th Street San Leandro, California

DRILLING AND SAMPLING METHODS: Borehole advanced to 6 feet below ground surface using an air knife and a 4-inch diameter hand auger. Sampled with a slide hammer and 6-inch long liners.

				START	FINISH
WATER LEVEL					
TIME				TIME 0800	TIME 0900
DATE				DATE 11/24/10	DATE 11/24/10
REFERENCE					

SURFACE CONDITIONS: Asphalt

DESCRIPTION BY: Yuko Mamiya

INCHES DRIVEN	INCHES RECOVER	BLOWS / 6" SAMPLER	OVA READING	DEPTH (feet)	GRAPHIC LOG
				0	AC/AB
				1	CL
				2	
				3	ML
				4	
6	6			5	
6	6			6	
				7	
				8	
				9	
				10	

AIR SAMPLE | WATER SAMPLE | SOIL SAMPLE | RECOVERED

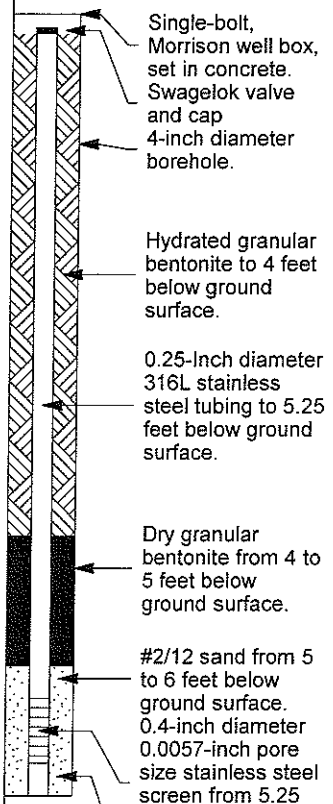
ASPHALT from surface to 3 inches below ground surface.
AGGREGATE BASE from 3 inches to 1 foot below ground surface.

CLAY WTH SILT - black (5Y 2.5/1), stiff, low to medium plasticity, moist.

CLAYEY SILT WITH SOME SAND - dark olive gray (5Y 3/2), very stiff to hard, low plasticity, fine grained sand, moist.

Boring terminated at 6 feet below ground surface.

DETAILS

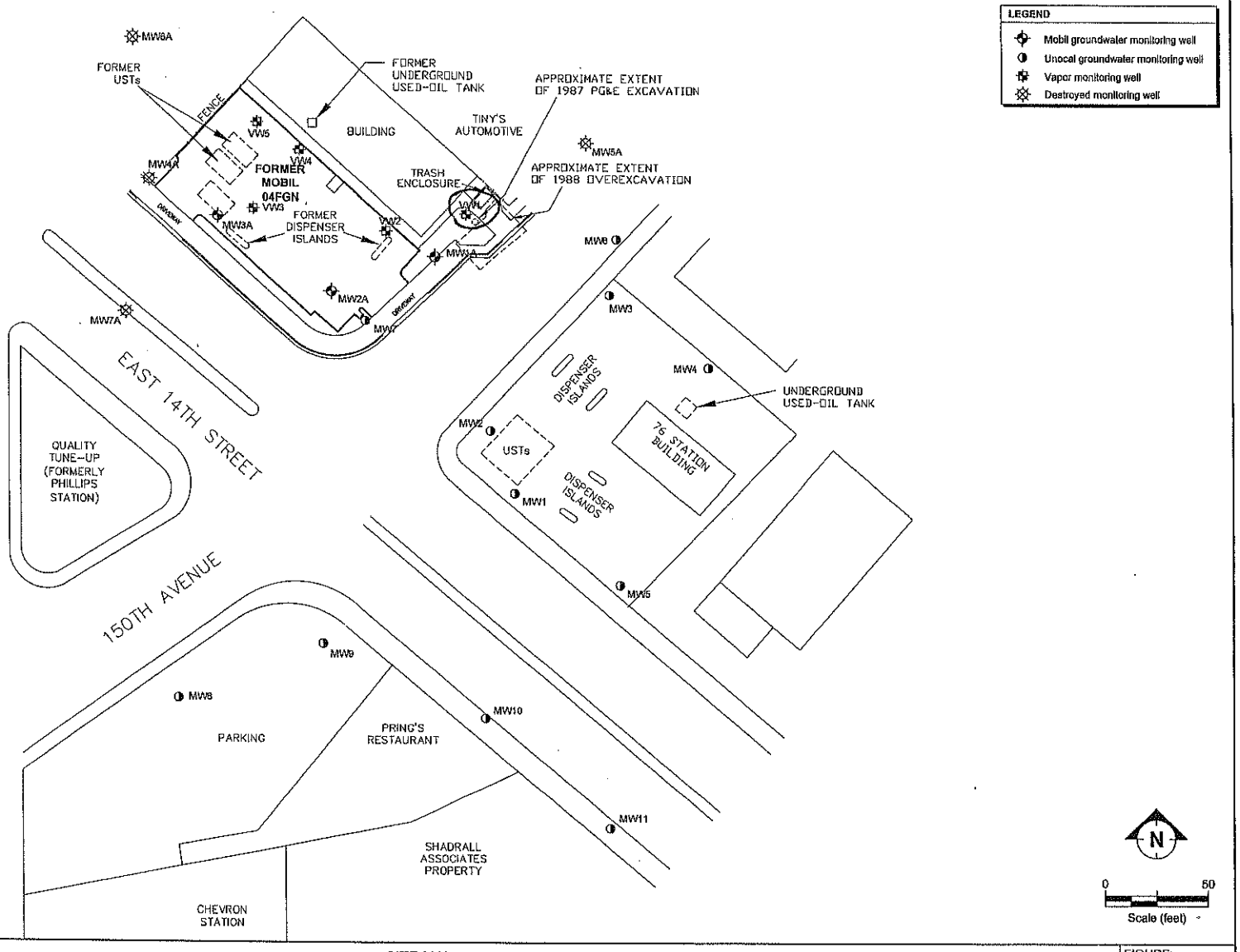


LOG OF SOIL BORING 04FGN.GPJ ETIC.GDT 3/16/11

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



FILENAME: BASEMAP0507 12/28/07

ETIC ENGINEERING

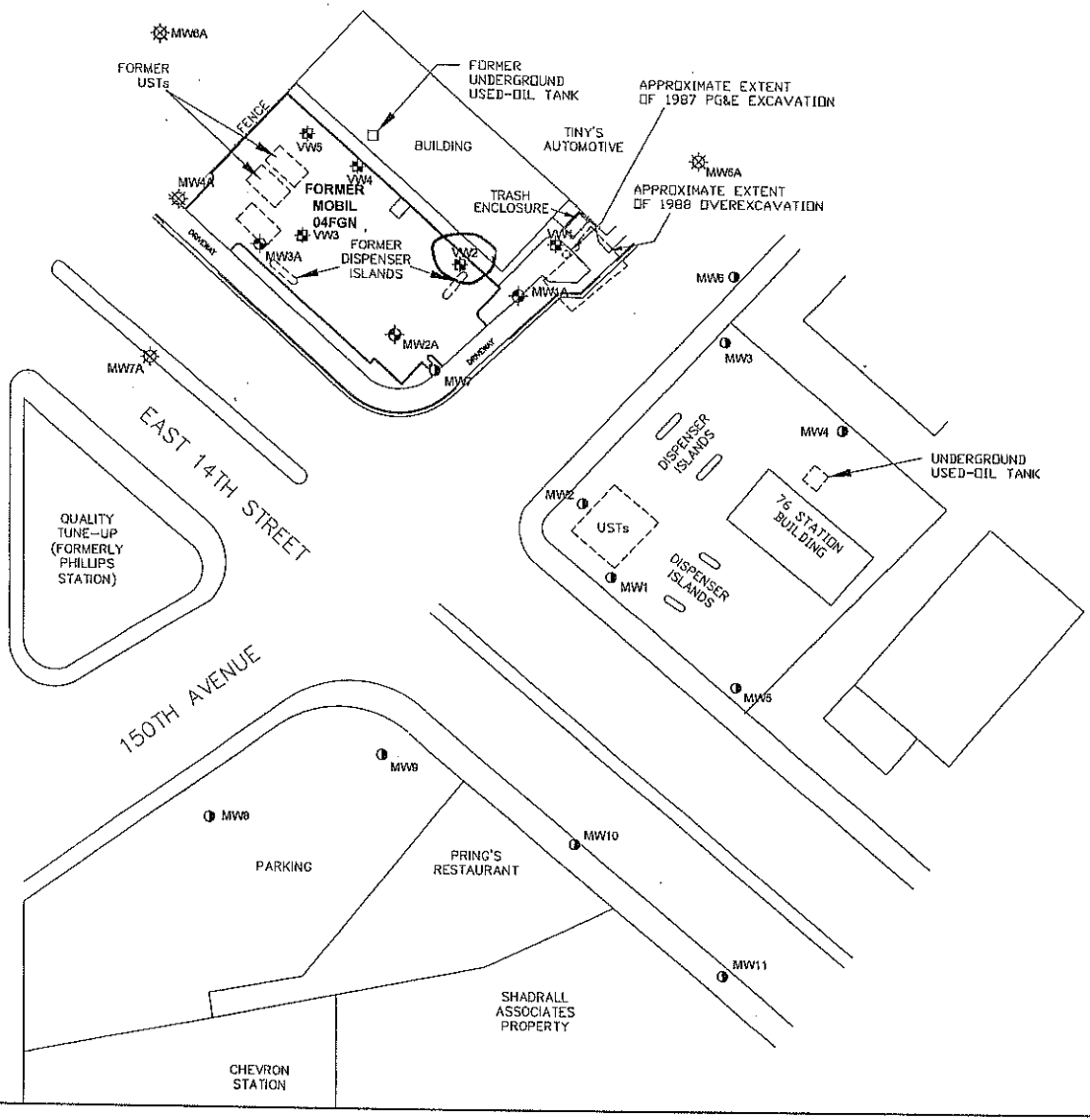
SITE MAP
FORMER MOBIL 04FGN
14994 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

FIGURE:
1

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



ETIC ENGINEERING

SITE MAP
FORMER MOBIL 04FGN
14994 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

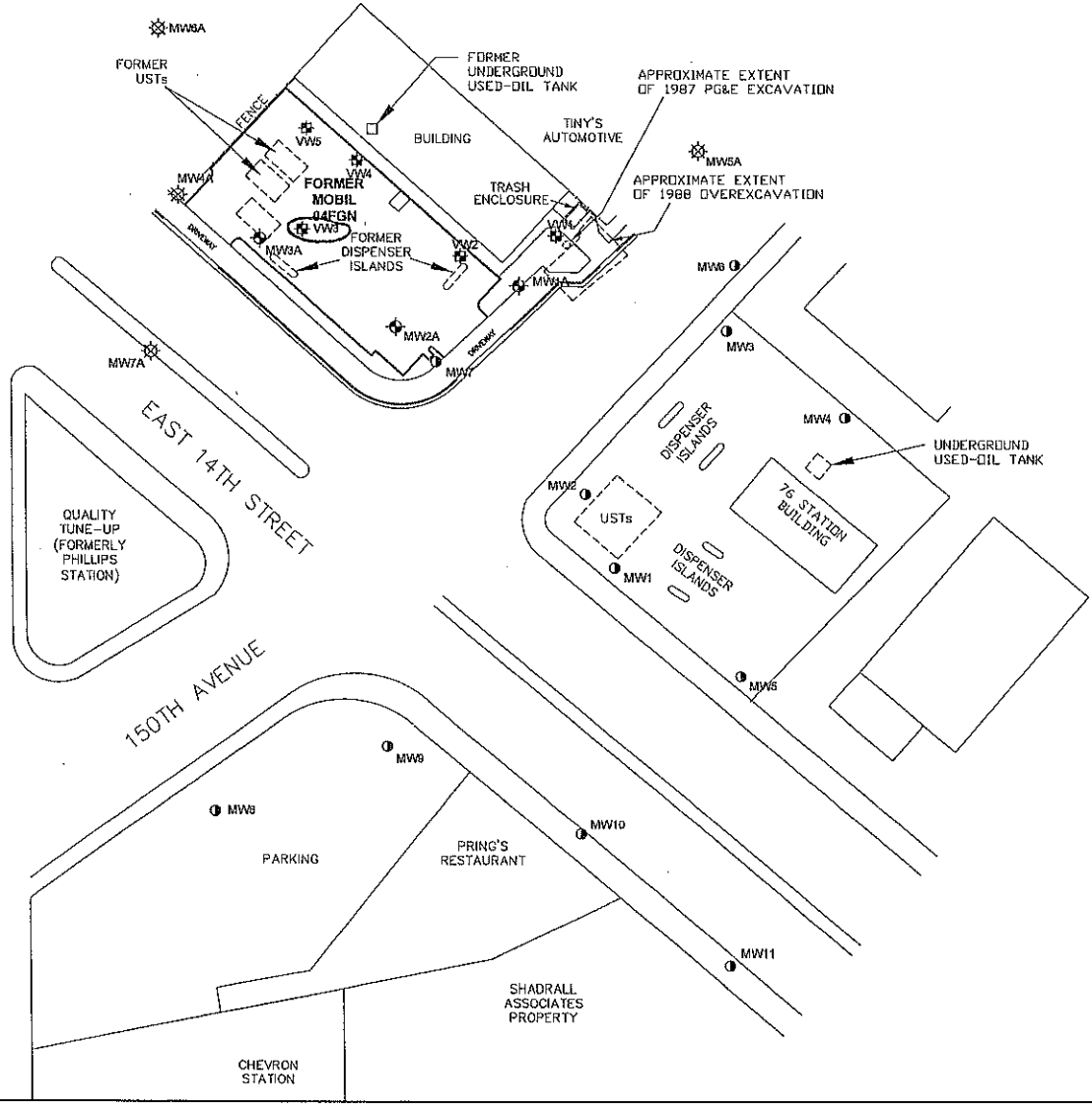
FIGURE: 1

FILENAME: BASEMAP0597 12/26/07

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



FILENAME: BASEMAP0307 12/28/07

ETIC ENGINEERING

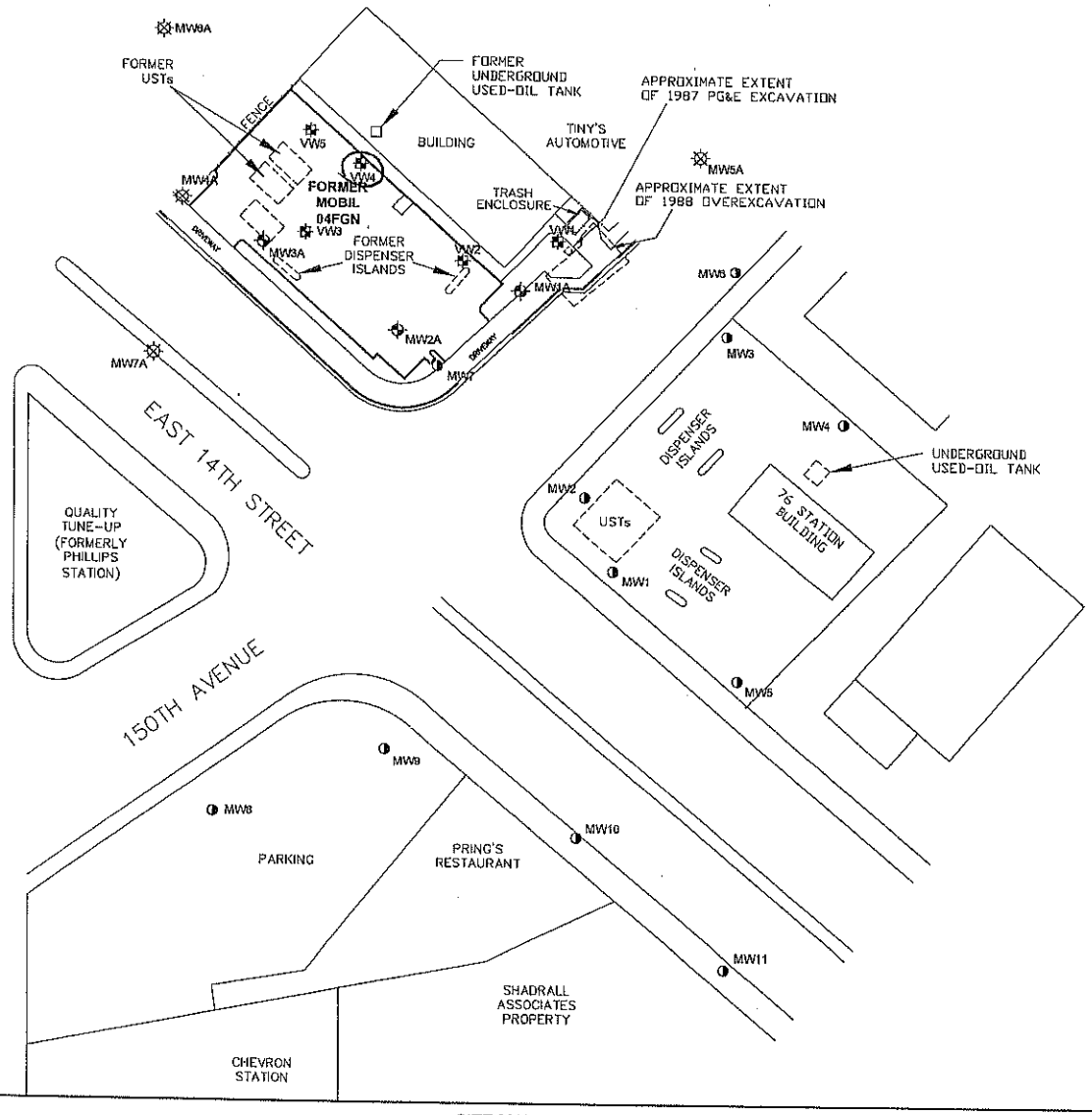
SITE MAP
FORMER MOBIL 04FGN
14994 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

FIGURE:
1

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



FILENAME: BASEMAP0507 12/26/07

ETIC ENGINEERING

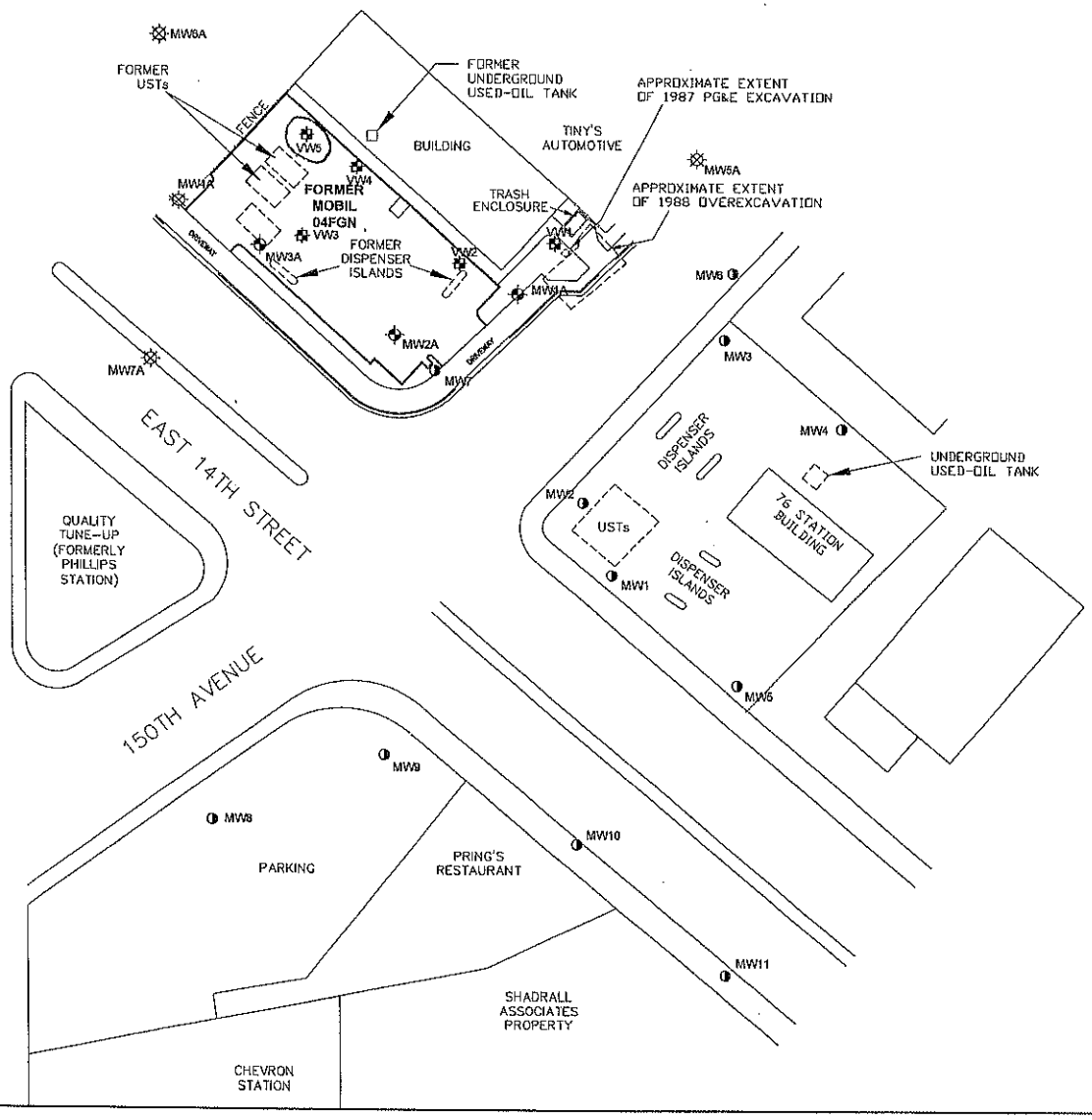
SITE MAP
FORMER MOBIL 04FGN
14994 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

FIGURE: 1

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED



FILENAME: BASEMAP0507 12/26/07

ETIC ENGINEERING

SITE MAP
FORMER MOBIL 04FGN
14994 EAST 14TH STREET
SAN LEANDRO, CALIFORNIA

FIGURE:
1

Appendix E

Field Protocols

PROTOCOLS FOR INSTALLATION AND SAMPLING OF SOIL VAPOR WELLS

SUBSURFACE CLEARANCE SURVEY PROCEDURES

Prior to drilling, the proposed locations of borings are marked with white paint. Underground Service Alert (USA) is contacted prior to subsurface activities and a "ticket" is issued for this investigation. USA members mark underground utilities in the delineated areas using standard color code identifiers.

Once USA has marked the site, all proposed borehole locations are investigated by subsurface clearance surveys to identify possible buried hazards (pipelines, drums, tanks). Subsurface clearance surveys use several geophysical methods to locate shallow buried man-made objects. The geophysical methods include electromagnetic induction (EMI) profiling, ground penetrating radar (GPR), and/or magnetic surveying. The choice of methods depends on the target object and potential interference from surrounding features.

Prior to drilling, all boreholes are cleared of underground utilities to a depth of at least 4 feet below ground surface (bgs) in "non-critical zones" and to 8 feet bgs in "critical zones". Critical zones are defined as locations that are within 10 feet from the furthest edge of any underground storage tank (UST), within 10 feet of the product dispenser islands, the entire area between the UST field and the product dispenser islands, and within 10 feet of any suspected underground line. An 8- to 12-inch-diameter circle is cut in the surface cover at each boring location. A hole is then cleared at each boring location using a 4-inch diameter hand auger.

SOIL SAMPLING

Shallow soil samples are collected using a 6-inch long sample barrel connected to a slide hammer, containing a 6-inch long stainless steel sample liner. After driving the hammer 6 inches, the rods and sample barrel are withdrawn from the borehole and the sample liner is removed.

Soil from the hand auger is removed and placed in a sealed plastic bag. The soil is scanned with an organic vapor analyzer (OVA) equipped with a flame ionization detector (FID) or photoionization detector (PID) and the readings are noted on the soil boring logs. The remaining soil from the hand auger is examined and classified according to the Unified Soil Classification System (USCS).

Soil samples are delivered, under chain of custody, to a laboratory certified by the California Department of Health Services (DHS) for analyses.

SOIL VAPOR MONITORING WELL INSTALLATION PROCEDURES

The soil vapor monitoring wells are constructed with 0.25-inch-diameter stainless steel tubing connected to 0.4-inch-diameter vapor sampling implant with a 6-inch-long, 0.0057-inch pore size stainless steel screen and bottom implant anchor. All connections are sealed with Swagelok® type fittings. A filter pack of 1 foot of #2/12 sand is placed at the screened interval and approximately 3 inches above and below the screen for each well. The filter pack is separated from the annular grout

seal, using 1 foot of dry granular bentonite. Hydrated granular bentonite is used to fill and seal the annular space in the borehole to near ground surface. The tubing is sealed at the surface with a stainless steel Swagelok® valve and a stainless steel cap.

The wells are finished at the surface with a slightly raised, steel traffic-rated box set in concrete. The lid on the traffic-rated box is bolted to the rim of the well box.

SOIL VAPOR SAMPLING PROCEDURES

To allow for subsurface conditions to equilibrate, the wells are not disturbed for a period of at least 48 hours.

To ensure air-tight connections between the tubing, sampling port, valves, and other connections, a vacuum tightness test is performed on each well. The test consists of the application of a vacuum and monitoring of vacuum tightness using vacuum gauges and/or flow meter for 5 to 10 minutes. A leak would be evident if the vacuum gauges registered a decrease in the vacuum or flow was recorded on the meter.

A purge test is conducted for one well to determine the purge volume for subsequent wells. The selected well should be the one with the highest expected concentrations. The test consists of the collection of soil vapor samples using Tedlar bags after purging the well of one (1), three (3), and seven (7) purge volumes by drawing vapor into the Tedlar bag using a vacuum chamber and vacuum pump. The purge volume is estimated based on the internal volume of the tubing used, the volume of the screen, and the voids in the sand pack within the annular space around the screen. The samples are collected through a particulate filter and flow controller which regulates the flow of soil vapor to no more than 200 milliliters per minute. The purge test samples are analyzed in the field using a PID. The results of the purge test are used to dictate the purge volume to be used during the sampling of subsequent wells.

The soil vapor samples are collected in 1-liter stainless steel Summa canisters. The samples are collected through a particulate filter and flow controller which regulates the flow of soil vapor to no more than 200 milliliters per minute. To ensure an air-tight connection at the well head and that ambient air does not enter the well at the well head, a tracer is applied. The tracer used is helium gas. To apply the tracer, a small shroud is placed over the well head and the tracer gas is allowed to fill the shroud at a constant rate. A hand-held helium detector is used in the field to measure the tracer within the shroud. Soil vapor is drawn into a Tedlar bag from the well using a vacuum chamber and vacuum pump. A leak would be evident if the concentration of the tracer in the well exceeds 10% of the concentration of the tracer in the shroud.

The 1-liter Summa canisters are labeled and packaged for delivery to a state-certified laboratory for chemical analysis. The initial pressure and the final vacuum readings taken from the gauges on the Summa canisters are recorded. A small vacuum of about 5 inches of mercury is left inside the sample canister and is recorded on the chain-of-custody. Upon receipt, the laboratory checks the pressure in the sample canister and compare it to the pressure recorded on the chain-of-custody for quality control purposes.

Appendix F

Field Documents

ETIC ENGINEERING

Purge Volume Test Form

Site: 04FGN | Project #: UP04FGN 6.12 | Page: 1 of 1

Date: 11/26/10 | Personnel: Yuko Mamiya | Purge Test Well: VW3

Purge Volume Calculation

WELL PURGE VOLUME CALCULATION	Tubing Volume (ML)		Screen Volume (ML)		Pore Space Volume (ML)		Volume (ML)		Purge Volumes	Total Purge Volume (ML)	Flow Rate (ML/minute)	Estimated Time to Purge (Minutes)
	23.42	+	12.35	+	810.98	=	846.75	X	1 vol.	847	200	4
									3 vol.	2,540	200	8
									7 vol.	5,927	200	21

Purge Data

Purge Cannister Volume: 6 L

Purge Volumes	Purge Canister Serial Number	Flow Regulator Serial Number	Initial Purge Canister Vacuum (Inches Hg)	Start Time	Stop Time	Final Purge Canister Vacuum (Inches Hg)	PID Reading
1	D698	A193	-30	0946	0950	-26	131
3	↓	↓	-26	0957	1005	-17.5	153
7	↓	↓	-17.5	1011	1040	-2	148

Notes: Shut-down leak test: Start 0939 – Stop 0946, Vac Readings -30 'Hg.
Weather: Sunny

ETIC ENGINEERING

SUMMA Canister Soil Vapor Sampling Form

Site: Former Mobil Station 04FGN
Address: 14994 East 14th Street, San Leandro, CA
Project #: UP04FGN 6.12
Date: 11/26/10

Personnel: Yuko Mamiya
Page: 1 of 1
Purge Canister Volume (liters): 6
Sample Canister Volume (liters): 1

Temperature: ~52 °F
Barometric Pressure: ~30 inches Hg
Precipitation: 0.00
Relative Humidity: ~62 %
Purge Volume : 3
Flow Rate : 200 liters/minute

Sampling Location	Purge Canister Serial Number	Sample Canister Serial Number	Flow Regulator Serial Number	Leak Check 1		Initial Purge Canister Vacuum (Inches Hg)	Leak Check 2		Purge Canister Vacuum (Inches Hg)	Vapor Purge		Final Purge Canister Vacuum (Inches Hg)	Initial Sample Canister Vacuum (Inches Hg)	Vapor Sample		Final Sample Canister Vacuum (Inches Hg)
				Ambient He Concentration (ppm)	Tubing He Concentration (ppm)		Start Time	Stop Time		Start Time	Stop Time			Start Time	Stop Time	
VW1	D234	LC291	A107	70,000 100,000	0	-30	1406	1413	-30	1428	1428	-17	-30	1428	1435	-4
VW2	D083	LC426	A320	80,000 100,000	0	-30	1304	1309	-30	1309	1324	-17	-30	1324	1330	-4
VW3	D698	LC485	A193	50,000 60,000	0	-2	1108	1113	-2	See Purge Test Form			-30	1113	1118	-4
VW4	D457	LC210	A315	60,000 80,000	0	-30	1226	1231	-30	1231	1249	-17	-30	1249	1255	-5
VW5	D329	A263	A263	60,000 70,000	0	-30	1131	1137	-30	1137	1154	-18	-30	1206	1213	-3
VW3 (DUP)		LC193	A193			Sample Canister -29	1312	1317	-29				-29	1317	1323	-2

General Weather Conditions: Sunny

Other:

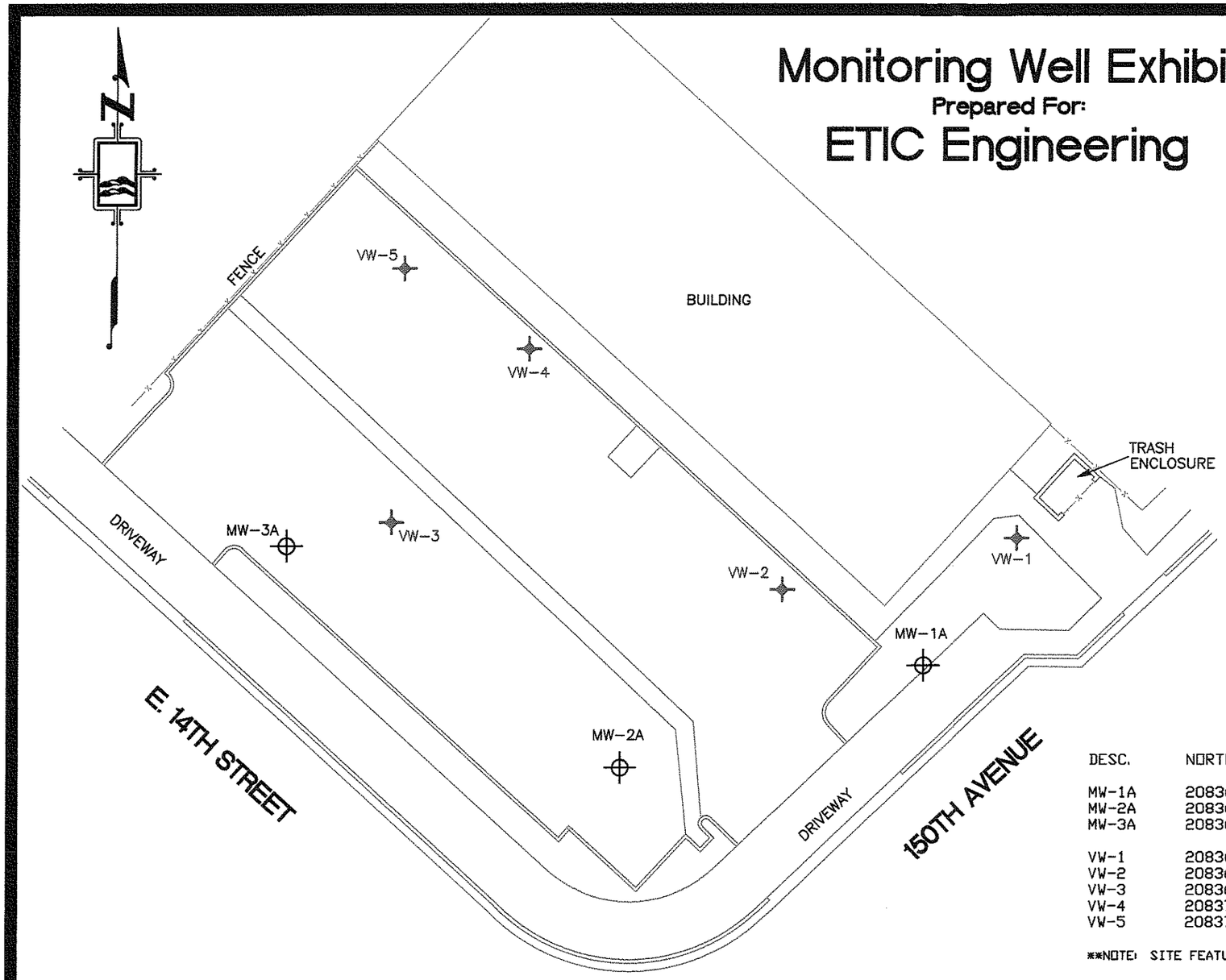
Appendix G

Survey Data

Monitoring Well Exhibit

Prepared For:

ETIC Engineering



BASIS OF COORDINATES AND ELEVATIONS:

COORDINATES ARE CALIFORNIA STATE PLANE ZONE 3 COORDINATES FROM GPS OBSERVATIONS USING CSDS VIRTUAL SURVEY NETWORK.

COORDINATE DATUM IS NAD 83.

REFERENCE GEOID IS GEOID03.

VERTICAL DATUM IS NAVD 88 FROM GPS OBSERVATIONS.

DESC.	NORTHING	EASTING	LATITUDE	LONGITUDE	EL. PVC	EL. BOX
MW-1A	2083659.3	6090405.7	37.7060677	-122.1291107	39.30	39.67
MW-2A	2083642.5	6090355.9	37.7060191	-122.1292815	39.52	39.88
MW-3A	2083678.8	6090301.1	37.7061162	-122.1294733	39.82	40.14
VW-1	2083680.1	6090420.9	37.7061256	-122.1290592		40.89
VW-2	2083671.7	6090382.4	37.7061006	-122.1291917		40.59
VW-3	2083682.6	6090318.3	37.7061276	-122.1294139		40.04
VW-4	2083711.1	6090340.7	37.7062067	-122.1293382		40.66
VW-5	2083724.3	6090320.3	37.7062420	-122.1294096		40.59

**NOTE: SITE FEATURES AND ALL WELLS DEPICTED ON THIS EXHIBIT WERE SURVEYED ON 12-15-10.

1"=20'

0 10 20 40 60

SCALE IN FEET

Former Mobile 04FGN
14994 East 14th St.
San Leandro
Alameda County
California

Morrow Surveying
LAND SURVEYORS

1255 Starboard Drive
West Sacramento
California 95691
(916) 372-8124
mark@morrowsurveying.com

Date: December, 2010
Scale: 1"=20'
Field Survey: 12-15-10
Revised:
Field Book: MW-52
Dwg. No. 1893-072 MAM

Appendix H

Laboratory Analytical Reports and Chain-of-Custody Documentation

Calscience Environmental Laboratories, Inc.

Supplemental Report 3

March 18, 2011

Additional requested analyses have been added to the original report.

Erik Appel
ETIC Engineering, Inc.
2285 Morello Avenue
Pleasant Hill, CA 94523-1850

Subject: **Calscience Work Order No.: 10-11-2044**
Client Reference: ExxonMobil 04FGN

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 11/26/2010 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Cecile L deGuia

Calscience Environmental
Laboratories, Inc.
Cecile deGuia
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)

Project: ExxonMobil 04FGN

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW2@5.5-6.0	10-11-2044-6-A	11/23/10 10:33	Solid	GC 46	11/30/10	11/30/10 20:22	101130B15

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Diesel	ND	5.0	4.8	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	105	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW4@5.5-6.0	10-11-2044-7-A	11/23/10 14:10	Solid	GC 46	11/30/10	11/30/10 20:37	101130B15

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Diesel	ND	5.0	4.8	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	96	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW5@5.5-6.0	10-11-2044-8-A	11/24/10 08:45	Solid	GC 46	11/30/10	11/30/10 20:53	101130B15

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Diesel	ND	5.0	4.8	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	98	61-145	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW3@5.5-6.0	10-11-2044-9-A	11/24/10 09:53	Solid	GC 46	11/30/10	11/30/10 21:08	101130B15

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Diesel	ND	5.0	4.8	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	108	61-145	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)

Project: ExxonMobil 04FGN

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW1@5.5-6.0	**10-11-2044-10-A**	**11/24/10 11:25**	**Solid**	**GC 46**	**11/30/10**	**11/30/10 21:23**	**101130B15**

Comment(s): -The sample extract was subjected to Silica Gel treatment prior to analysis.
-Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Diesel	ND	5.0	4.8	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	113	61-145	

Method Blank	**099-12-275-3,778**	**N/A**	**Solid**	**GC 46**	**11/30/10**	**11/30/10 19:06**	**101130B15**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Diesel	ND	5.0	4.8	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
Decachlorobiphenyl	102	61-145	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.	Date Received:	11/26/10
2285 Morello Avenue	Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850	Preparation:	EPA 5030C
	Method:	EPA 8021B
	Units:	mg/kg
Project: ExxonMobil 04FGN		Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW2@5.5-6.0	**10-11-2044-6-A**	**11/23/10 10:33**	**Solid**	**GC 21**	**11/30/10**	**11/30/10 18:32**	**101130B01**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Benzene	ND	0.0050	0.0012	1	U	Ethylbenzene	ND	0.0050	0.0011	1	U
Toluene	ND	0.0050	0.0012	1	U	Xylenes (total)	ND	0.010	0.0023	1	U

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	100	51-129	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW4@5.5-6.0	**10-11-2044-7-A**	**11/23/10 14:10**	**Solid**	**GC 21**	**11/30/10**	**11/30/10 16:46**	**101130B01**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Benzene	ND	0.0050	0.0012	1	U	Ethylbenzene	ND	0.0050	0.0011	1	U
Toluene	ND	0.0050	0.0012	1	U	Xylenes (total)	ND	0.010	0.0023	1	U

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	98	51-129	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW5@5.5-6.0	**10-11-2044-8-A**	**11/24/10 08:45**	**Solid**	**GC 21**	**11/30/10**	**11/30/10 19:07**	**101130B01**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Benzene	ND	0.0050	0.0012	1	U	Ethylbenzene	ND	0.0050	0.0011	1	U
Toluene	ND	0.0050	0.0012	1	U	Xylenes (total)	ND	0.010	0.0023	1	U

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	91	51-129	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW3@5.5-6.0	**10-11-2044-9-A**	**11/24/10 09:53**	**Solid**	**GC 21**	**11/30/10**	**11/30/10 19:43**	**101130B01**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Benzene	ND	0.0050	0.0012	1	U	Ethylbenzene	ND	0.0050	0.0011	1	U
Toluene	ND	0.0050	0.0012	1	U	Xylenes (total)	ND	0.010	0.0023	1	U

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	97	51-129	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 5030C
		Method:	EPA 8021B
		Units:	mg/kg
Project: ExxonMobil 04FGN			Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW1@5.5-6.0	**10-11-2044-10-A**	**11/24/10 11:25**	**Solid**	**GC 21**	**11/30/10**	**11/30/10 20:18**	**101130B01**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Benzene	ND	0.0050	0.0012	1	U	Ethylbenzene	ND	0.0050	0.0011	1	U
Toluene	ND	0.0050	0.0012	1	U	Xylenes (total)	ND	0.010	0.0023	1	U

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	96	51-129	

Method Blank	**099-12-657-659**	**N/A**	**Solid**	**GC 21**	**11/30/10**	**11/30/10 15:00**	**101130B01**		

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Benzene	ND	0.0050	0.0012	1	U	Ethylbenzene	ND	0.0050	0.0011	1	U
Toluene	ND	0.0050	0.0012	1	U	Xylenes (total)	ND	0.010	0.0023	1	U

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	102	51-129	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.	Date Received:	11/26/10
2285 Morello Avenue	Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)

Project: ExxonMobil 04FGN

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW2@5.5-6.0	**10-11-2044-6-A**	**11/23/10 10:33**	**Solid**	**GC 24**	**11/30/10**	**11/30/10 14:59**	**101130B01**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	0.50	0.42	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	73	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW4@5.5-6.0	**10-11-2044-7-A**	**11/23/10 14:10**	**Solid**	**GC 24**	**11/30/10**	**11/30/10 15:33**	**101130B01**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	0.50	0.42	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	72	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW5@5.5-6.0	**10-11-2044-8-A**	**11/24/10 08:45**	**Solid**	**GC 24**	**11/30/10**	**11/30/10 16:07**	**101130B01**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	0.50	0.42	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	73	42-126	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW3@5.5-6.0	**10-11-2044-9-A**	**11/24/10 09:53**	**Solid**	**GC 24**	**11/30/10**	**11/30/10 16:41**	**101130B01**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	0.50	0.42	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	72	42-126	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.	Date Received:	11/26/10
2285 Morello Avenue	Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850	Preparation:	EPA 5030C
	Method:	EPA 8015B (M)

Project: ExxonMobil 04FGN

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW1@5.5-6.0	**10-11-2044-10-A**	**11/24/10 11:25**	**Solid**	**GC 24**	**11/30/10**	**11/30/10 17:15**	**101130B01**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	0.50	0.42	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	71	42-126	

Method Blank	099-12-279-4,131	N/A	Solid	GC 24	12/30/10	11/30/10 12:37	101130B01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	0.50	0.42	1	U	mg/kg

Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene - FID	73	42-126	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 04FGN			Page 1 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW5@5.5-6.0	**10-11-2044-8-A**	**11/24/10 08:45**	**Solid**	**GC/MS FF**	**11/26/10**	**11/30/10 20:37**	**101130L03**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
1,2-Dibromoethane	ND	0.0050	0.00025	1	U	Diisopropyl Ether (DIPE)	ND	0.010	0.00034	1	U
1,2-Dichloroethane	ND	0.0050	0.00026	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	0.010	0.00028	1	U
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	0.00025	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.010	0.00026	1	U
Tert-Butyl Alcohol (TBA)	ND	0.050	0.022	1	U						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	100	63-141		1,2-Dichloroethane-d4	110	62-146	
Toluene-d8	103	80-120		1,4-Bromofluorobenzene	102	60-132	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW3@5.5-6.0	**10-11-2044-9-A**	**11/24/10 09:53**	**Solid**	**GC/MS FF**	**11/26/10**	**11/30/10 21:05**	**101130L03**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
1,2-Dibromoethane	ND	0.0050	0.00025	1	U	Diisopropyl Ether (DIPE)	ND	0.010	0.00034	1	U
1,2-Dichloroethane	ND	0.0050	0.00026	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	0.010	0.00028	1	U
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	0.00025	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.010	0.00026	1	U
Tert-Butyl Alcohol (TBA)	ND	0.050	0.022	1	U						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	101	63-141		1,2-Dichloroethane-d4	112	62-146	
Toluene-d8	103	80-120		1,4-Bromofluorobenzene	101	60-132	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW1@5.5-6.0	**10-11-2044-10-A**	**11/24/10 11:25**	**Solid**	**GC/MS FF**	**11/26/10**	**11/30/10 21:32**	**101130L03**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
1,2-Dibromoethane	ND	0.0050	0.00025	1	U	Diisopropyl Ether (DIPE)	ND	0.010	0.00034	1	U
1,2-Dichloroethane	ND	0.0050	0.00026	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	0.010	0.00028	1	U
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	0.00025	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.010	0.00026	1	U
Tert-Butyl Alcohol (TBA)	ND	0.050	0.022	1	U						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	98	63-141		1,2-Dichloroethane-d4	111	62-146	
Toluene-d8	102	80-120		1,4-Bromofluorobenzene	102	60-132	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.	Date Received:	11/26/10
2285 Morello Avenue	Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850	Preparation:	EPA 5030C
	Method:	EPA 8260B
	Units:	mg/kg
Project: ExxonMobil 04FGN		Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-796-4,627**	**N/A**	**Solid**	**GC/MS FF**	**11/30/10**	**11/30/10 14:29**	**101130L03**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
1,2-Dibromoethane	ND	0.0050	0.00025	1	U	Diisopropyl Ether (DIPE)	ND	0.010	0.00034	1	U
1,2-Dichloroethane	ND	0.0050	0.00026	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	0.010	0.00028	1	U
Methyl-t-Butyl Ether (MTBE)	ND	0.0050	0.00025	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.010	0.00026	1	U
Tert-Butyl Alcohol (TBA)	ND	0.050	0.022	1	U						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	105	63-141		1,2-Dichloroethane-d4	121	62-146	
Toluene-d8	100	80-120		1,4-Bromofluorobenzene	104	60-132	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 04FGN			Page 1 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW2@5.5-6.0	10-11-2044-6-A	11/23/10 10:33	Solid	GC/MS FF	11/26/10	11/30/10 20:09	101130L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	0.015	0.12	0.0048	1	B,J	2,2-Dichloropropane	ND	0.0050	0.00056	1	U
Bromobenzene	ND	0.0050	0.00023	1	U	1,1-Dichloropropene	ND	0.0050	0.00049	1	U
Bromochloromethane	ND	0.0050	0.00078	1	U	c-1,3-Dichloropropene	ND	0.0050	0.00069	1	U
Bromodichloromethane	ND	0.0050	0.00061	1	U	t-1,3-Dichloropropene	ND	0.0050	0.00021	1	U
Bromoform	ND	0.0050	0.00076	1	U	2-Hexanone	ND	0.050	0.0047	1	U
Bromomethane	ND	0.025	0.0033	1	U	Isopropylbenzene	ND	0.0050	0.0022	1	U
2-Butanone	0.0036	0.050	0.0032	1	J	p-Isopropyltoluene	ND	0.0050	0.00018	1	U
n-Butylbenzene	0.00047	0.0050	0.00014	1	J	Methylene Chloride	ND	0.050	0.0023	1	U
sec-Butylbenzene	0.00047	0.0050	0.00017	1	J	4-Methyl-2-Pentanone	ND	0.050	0.0015	1	U
tert-Butylbenzene	ND	0.0050	0.00087	1	U	Naphthalene	ND	0.050	0.0036	1	U
Carbon Disulfide	ND	0.050	0.0024	1	U	n-Propylbenzene	ND	0.0050	0.00017	1	U
Carbon Tetrachloride	ND	0.0050	0.0012	1	U	Styrene	ND	0.0050	0.0013	1	U
Chlorobenzene	ND	0.0050	0.00024	1	U	1,1,1,2-Tetrachloroethane	ND	0.0050	0.00024	1	U
Chloroethane	ND	0.0050	0.0026	1	U	1,1,2,2-Tetrachloroethane	ND	0.0050	0.00043	1	U
Chloroform	ND	0.0050	0.00058	1	U	Tetrachloroethene	ND	0.0050	0.00036	1	U
Chloromethane	ND	0.025	0.0030	1	U	1,2,3-Trichlorobenzene	ND	0.010	0.00033	1	U
2-Chlorotoluene	ND	0.0050	0.00020	1	U	1,2,4-Trichlorobenzene	ND	0.0050	0.00079	1	U
4-Chlorotoluene	ND	0.0050	0.00029	1	U	1,1,1-Trichloroethane	ND	0.0050	0.0013	1	U
Dibromochloromethane	ND	0.0050	0.00042	1	U	1,1,2-Trichloroethane	ND	0.0050	0.00044	1	U
1,2-Dibromo-3-Chloropropane	ND	0.010	0.0026	1	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	0.00082	1	U
1,2-Dibromoethane	ND	0.0050	0.00025	1	U	Trichloroethene	ND	0.0050	0.00048	1	U
Dibromomethane	ND	0.0050	0.0012	1	U	1,2,3-Trichloropropane	ND	0.0050	0.00061	1	U
1,2-Dichlorobenzene	ND	0.0050	0.00026	1	U	1,2,4-Trimethylbenzene	0.0011	0.0050	0.00015	1	J
1,3-Dichlorobenzene	ND	0.0050	0.00026	1	U	Trichlorofluoromethane	ND	0.050	0.00098	1	U
1,4-Dichlorobenzene	ND	0.0050	0.00021	1	U	1,3,5-Trimethylbenzene	ND	0.0050	0.0022	1	U
Dichlorodifluoromethane	ND	0.0050	0.0030	1	U	Vinyl Acetate	ND	0.050	0.011	1	U
1,1-Dichloroethane	ND	0.0050	0.00026	1	U	Vinyl Chloride	ND	0.0050	0.00095	1	U
1,2-Dichloroethane	ND	0.0050	0.00026	1	U	Methyl-t-Butyl Ether (MTBE)	ND	0.0050	0.00025	1	U
1,1-Dichloroethene	ND	0.0050	0.00029	1	U	Tert-Butyl Alcohol (TBA)	ND	0.050	0.022	1	U
c-1,2-Dichloroethene	ND	0.0050	0.00083	1	U	Diisopropyl Ether (DIPE)	ND	0.010	0.00034	1	U
t-1,2-Dichloroethene	ND	0.0050	0.00068	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	0.010	0.00028	1	U
1,2-Dichloropropane	ND	0.0050	0.00036	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.010	0.00026	1	U
1,3-Dichloropropane	ND	0.0050	0.00021	1	U						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	98	63-141		1,2-Dichloroethane-d4	110	62-146	
Toluene-d8	100	80-120		1,4-Bromofluorobenzene	102	60-132	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 04FGN			Page 2 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW4@5.5-6.0	10-11-2044-7-A	11/23/10 14:10	Solid	GC/MS FF	11/26/10	11/30/10 14:57	101130L01

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	ND	0.12	0.0048	1	U	2,2-Dichloropropane	ND	0.0050	0.00056	1	U
Bromobenzene	ND	0.0050	0.00023	1	U	1,1-Dichloropropene	ND	0.0050	0.00049	1	U
Bromochloromethane	ND	0.0050	0.00078	1	U	c-1,3-Dichloropropene	ND	0.0050	0.00069	1	U
Bromodichloromethane	ND	0.0050	0.00061	1	U	t-1,3-Dichloropropene	ND	0.0050	0.00021	1	U
Bromoform	ND	0.0050	0.00076	1	U	2-Hexanone	ND	0.050	0.0047	1	U
Bromomethane	ND	0.025	0.0033	1	U	Isopropylbenzene	ND	0.0050	0.0022	1	U
2-Butanone	ND	0.050	0.0032	1	U	p-Isopropyltoluene	ND	0.0050	0.00018	1	U
n-Butylbenzene	ND	0.0050	0.00014	1	U	Methylene Chloride	ND	0.050	0.0023	1	U
sec-Butylbenzene	ND	0.0050	0.00017	1	U	4-Methyl-2-Pentanone	ND	0.050	0.0015	1	U
tert-Butylbenzene	ND	0.0050	0.00087	1	U	Naphthalene	ND	0.050	0.0036	1	U
Carbon Disulfide	ND	0.050	0.0024	1	U	n-Propylbenzene	ND	0.0050	0.00017	1	U
Carbon Tetrachloride	ND	0.0050	0.0012	1	U	Styrene	ND	0.0050	0.0013	1	U
Chlorobenzene	ND	0.0050	0.00024	1	U	1,1,1,2-Tetrachloroethane	ND	0.0050	0.00024	1	U
Chloroethane	ND	0.0050	0.0026	1	U	1,1,2,2-Tetrachloroethane	ND	0.0050	0.00043	1	U
Chloroform	ND	0.0050	0.00058	1	U	Tetrachloroethene	ND	0.0050	0.00036	1	U
Chloromethane	ND	0.025	0.0030	1	U	1,2,3-Trichlorobenzene	ND	0.010	0.00033	1	U
2-Chlorotoluene	ND	0.0050	0.00020	1	U	1,2,4-Trichlorobenzene	ND	0.0050	0.00079	1	U
4-Chlorotoluene	ND	0.0050	0.00029	1	U	1,1,1-Trichloroethane	ND	0.0050	0.0013	1	U
Dibromochloromethane	ND	0.0050	0.00042	1	U	1,1,2-Trichloroethane	ND	0.0050	0.00044	1	U
1,2-Dibromo-3-Chloropropane	ND	0.010	0.0026	1	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	0.00082	1	U
1,2-Dibromoethane	ND	0.0050	0.00025	1	U	Trichloroethene	ND	0.0050	0.00048	1	U
Dibromomethane	ND	0.0050	0.0012	1	U	1,2,3-Trichloropropane	ND	0.0050	0.00061	1	U
1,2-Dichlorobenzene	ND	0.0050	0.00026	1	U	1,2,4-Trimethylbenzene	0.00030	0.0050	0.00015	1	J
1,3-Dichlorobenzene	ND	0.0050	0.00026	1	U	Trichlorofluoromethane	ND	0.050	0.00098	1	U
1,4-Dichlorobenzene	ND	0.0050	0.00021	1	U	1,3,5-Trimethylbenzene	ND	0.0050	0.0022	1	U
Dichlorodifluoromethane	ND	0.0050	0.0030	1	U	Vinyl Acetate	ND	0.050	0.011	1	U
1,1-Dichloroethane	ND	0.0050	0.00026	1	U	Vinyl Chloride	ND	0.0050	0.00095	1	U
1,2-Dichloroethane	ND	0.0050	0.00026	1	U	Methyl-t-Butyl Ether (MTBE)	ND	0.0050	0.00025	1	U
1,1-Dichloroethene	ND	0.0050	0.00029	1	U	Tert-Butyl Alcohol (TBA)	ND	0.050	0.022	1	U
c-1,2-Dichloroethene	ND	0.0050	0.00083	1	U	Diisopropyl Ether (DIPE)	ND	0.010	0.00034	1	U
t-1,2-Dichloroethene	ND	0.0050	0.00068	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	0.010	0.00028	1	U
1,2-Dichloropropane	ND	0.0050	0.00036	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.010	0.00026	1	U
1,3-Dichloropropane	ND	0.0050	0.00021	1	U						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	102	63-141		1,2-Dichloroethane-d4	113	62-146	
Toluene-d8	103	80-120		1,4-Bromofluorobenzene	102	60-132	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 04FGN			Page 3 of 3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-796-4,210**	**N/A**	**Solid**	**GC/MS FF**	**11/30/10**	**11/30/10 14:29**	**101130L01**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Acetone	0.0066	0.12	0.0048	1	J	2,2-Dichloropropane	ND	0.0050	0.00056	1	U
Bromobenzene	ND	0.0050	0.00023	1	U	1,1-Dichloropropene	ND	0.0050	0.00049	1	U
Bromochloromethane	ND	0.0050	0.00078	1	U	c-1,3-Dichloropropene	ND	0.0050	0.00069	1	U
Bromodichloromethane	ND	0.0050	0.00061	1	U	t-1,3-Dichloropropene	ND	0.0050	0.00021	1	U
Bromoform	ND	0.0050	0.00076	1	U	2-Hexanone	ND	0.050	0.0047	1	U
Bromomethane	ND	0.025	0.0033	1	U	Isopropylbenzene	ND	0.0050	0.0022	1	U
2-Butanone	ND	0.050	0.0032	1	U	p-Isopropyltoluene	ND	0.0050	0.00018	1	U
n-Butylbenzene	ND	0.0050	0.00014	1	U	Methylene Chloride	ND	0.050	0.0023	1	U
sec-Butylbenzene	ND	0.0050	0.00017	1	U	4-Methyl-2-Pentanone	ND	0.050	0.0015	1	U
tert-Butylbenzene	ND	0.0050	0.00087	1	U	Naphthalene	ND	0.050	0.0036	1	U
Carbon Disulfide	ND	0.050	0.0024	1	U	n-Propylbenzene	ND	0.0050	0.00017	1	U
Carbon Tetrachloride	ND	0.0050	0.0012	1	U	Styrene	ND	0.0050	0.0013	1	U
Chlorobenzene	ND	0.0050	0.00024	1	U	1,1,1,2-Tetrachloroethane	ND	0.0050	0.00024	1	U
Chloroethane	ND	0.0050	0.0026	1	U	1,1,2,2-Tetrachloroethane	ND	0.0050	0.00043	1	U
Chloroform	ND	0.0050	0.00058	1	U	Tetrachloroethene	ND	0.0050	0.00036	1	U
Chloromethane	ND	0.025	0.0030	1	U	1,2,3-Trichlorobenzene	ND	0.010	0.00033	1	U
2-Chlorotoluene	ND	0.0050	0.00020	1	U	1,2,4-Trichlorobenzene	ND	0.0050	0.00079	1	U
4-Chlorotoluene	ND	0.0050	0.00029	1	U	1,1,1-Trichloroethane	ND	0.0050	0.0013	1	U
Dibromochloromethane	ND	0.0050	0.00042	1	U	1,1,2-Trichloroethane	ND	0.0050	0.00044	1	U
1,2-Dibromo-3-Chloropropane	ND	0.010	0.0026	1	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	0.050	0.00082	1	U
1,2-Dibromoethane	ND	0.0050	0.00025	1	U	Trichloroethene	ND	0.0050	0.00048	1	U
Dibromomethane	ND	0.0050	0.0012	1	U	1,2,3-Trichloropropane	ND	0.0050	0.00061	1	U
1,2-Dichlorobenzene	ND	0.0050	0.00026	1	U	1,2,4-Trimethylbenzene	ND	0.0050	0.00015	1	U
1,3-Dichlorobenzene	ND	0.0050	0.00026	1	U	Trichlorofluoromethane	ND	0.050	0.00098	1	U
1,4-Dichlorobenzene	ND	0.0050	0.00021	1	U	1,3,5-Trimethylbenzene	ND	0.0050	0.0022	1	U
Dichlorodifluoromethane	ND	0.0050	0.0030	1	U	Vinyl Acetate	ND	0.050	0.011	1	U
1,1-Dichloroethane	ND	0.0050	0.00026	1	U	Vinyl Chloride	ND	0.0050	0.00095	1	U
1,2-Dichloroethane	ND	0.0050	0.00026	1	U	Methyl-t-Butyl Ether (MTBE)	ND	0.0050	0.00025	1	U
1,1-Dichloroethene	ND	0.0050	0.00029	1	U	Tert-Butyl Alcohol (TBA)	ND	0.050	0.022	1	U
c-1,2-Dichloroethene	ND	0.0050	0.00083	1	U	Diisopropyl Ether (DIPE)	ND	0.010	0.00034	1	U
t-1,2-Dichloroethene	ND	0.0050	0.00068	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	0.010	0.00028	1	U
1,2-Dichloropropane	ND	0.0050	0.00036	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	0.010	0.00026	1	U
1,3-Dichloropropane	ND	0.0050	0.00021	1	U						

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	105	63-141		1,2-Dichloroethane-d4	121	62-146	
Toluene-d8	100	80-120		1,4-Bromofluorobenzene	104	60-132	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 3050B
		Method:	EPA 6010B
		Units:	mg/kg
Project: ExxonMobil 04FGN			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW2@5.5-6.0	**10-11-2044-6-A**	**11/23/10 10:33**	**Solid**	**ICP 5300**	**01/14/11**	**01/14/11 19:54**	**110114L04A**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Cadmium	ND	0.500	0.0883	1	U	Nickel	38.8	0.250	0.115	1	
Chromium	26.4	0.250	0.0878	1		Zinc	31.9	1.00	0.242	1	
Lead	6.88	0.500	0.181	1	B						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW4@5.5-6.0	**10-11-2044-7-A**	**11/23/10 14:10**	**Solid**	**ICP 5300**	**01/14/11**	**01/14/11 19:55**	**110114L04A**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Cadmium	ND	0.500	0.0883	1	U	Nickel	38.1	0.250	0.115	1	
Chromium	26.7	0.250	0.0878	1		Zinc	30.9	1.00	0.242	1	
Lead	6.74	0.500	0.181	1	B						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-14,533**	**N/A**	**Solid**	**ICP 5300**	**01/14/11**	**01/14/11 19:31**	**110114L04A**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Cadmium	ND	0.500	0.0883	1	U	Nickel	ND	0.250	0.115	1	U
Chromium	ND	0.250	0.0878	1	U	Zinc	ND	1.00	0.242	1	U
Lead	0.227	0.500	0.181	1	J						

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 3050B
		Method:	EPA 6010B

Project ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
11-01-0777-1	**Solid**	**ICP 5300**	**01/01/95**	**01/15/11**	**110114S04**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Cadmium	99	98	75-125	1	0-20	
Chromium	110	107	75-125	2	0-20	
Lead	102	100	75-125	2	0-20	
Nickel	102	97	75-125	2	0-20	
Zinc	119	124	75-125	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

ETIC Engineering, Inc.		Date Received	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 3050B
		Method:	EPA 6010B

Project: ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
11-01-0777-1	**Solid**	**ICP 5300**	**01/01/95**	**01/15/11**	**110114S04**

Analysis Comment: * - Analyzed 1/18/2011 1:34:00 PM

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Cadmium	100	101	75-125	1	0-20	
Chromium	100	104	75-125	2	0-20	
Lead	100	100	75-125	0	0-20	
Nickel	96	100	75-125	2	0-20	
Zinc	103	104	75-125	0	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.	Date Received: 11/26/10
2285 Morello Avenue	Work Order No: 10-11-2044
Pleasant Hill, CA 94523-1850	Preparation: EPA 3550B
	Method: EPA 8015B (M)

Project ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
VW1@5.5-6.0	**Solid**	**GC 46**	**11/30/10**	**11/30/10**	**101130S15**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	65	68	64-130	4	0-15	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 5030C
		Method:	EPA 8021B

Project ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
VW4@5.5-6.0	Solid	GC 21	11/30/10	11/30/10	101130S01

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	99	99	58-118	0	0-24	
Toluene	93	92	61-109	1	0-20	
Ethylbenzene	89	87	59-113	2	0-20	
Xylenes (total)	90	88	56-110	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)

Project ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
VW4@5.5-6.0	**Solid**	**GC 24**	**12/30/10**	**11/30/10**	**101130S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	93	96	48-114	3	0-23	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
VW4@5.5-6.0	**Solid**	**GC/MS FF**	**11/26/10**	**11/30/10**	**101130S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
1,2-Dibromoethane	99	100	64-124	1	0-20	
1,2-Dichloroethane	116	122	80-120	5	0-20	3
Methyl-t-Butyl Ether (MTBE)	106	110	57-123	4	0-21	
Tert-Butyl Alcohol (TBA)	108	109	30-168	1	0-34	
Diisopropyl Ether (DIPE)	110	117	57-129	7	0-20	
Ethyl-t-Butyl Ether (ETBE)	107	114	55-127	6	0-20	
Tert-Amyl-Methyl Ether (TAME)	101	105	58-124	4	0-20	
Ethanol	124	119	17-167	3	0-47	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ETIC Engineering, Inc.
2285 Morello Avenue
Pleasant Hill, CA 94523-1850

Date Received: N/A
Work Order No: 10-11-2044
Preparation: EPA 3050B
Method: EPA 6010B

Project: ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-002-14,533	Solid	ICP 5300	01/14/11	01/14/11	110114L04A

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Cadmium	103	104	80-120	1	0-20	
Chromium	104	104	80-120	0	0-20	
Lead	108	108	80-120	0	0-20	
Nickel	107	107	80-120	0	0-20	
Zinc	104	110	80-120	6	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ETIC Engineering, Inc.		Date Received:	N/A
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 3550B
		Method:	EPA 8015B (M)

Project: ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-275-3,778	**Solid**	**GC 46**	**11/30/10**	**11/30/10**	**101130B15**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Diesel	96	97	75-123	1	0-12	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ETIC Engineering, Inc.		Date Received:	N/A
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 5030C
		Method:	EPA 8021B

Project: ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-657-659	Solid	GC 21	11/30/10	11/30/10	101130B01

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	104	103	70-118	1	0-7	
Toluene	101	99	71-107	1	0-8	
Ethylbenzene	100	100	66-120	1	0-7	
Xylenes (total)	102	101	66-114	1	0-8	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ETIC Engineering, Inc.		Date Received:	N/A
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)

Project: ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-279-4,131	**Solid**	**GC 24**	**12/30/10**	**11/30/10**	**101130B01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	109	110	70-124	1	0-18	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ETIC Engineering, Inc.		Date Received:	N/A
2285 Morello Avenue		Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850		Preparation:	EPA 5030C
		Method:	EPA 8260B

Project: ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-796-4,627	Solid	GC/MS FF	11/30/10	11/30/10	101130L03

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
1,2-Dibromoethane	94	96	80-120	2	0-20	
1,2-Dichloroethane	113	112	80-120	1	0-20	
Methyl-t-Butyl Ether (MTBE)	103	101	77-120	2	0-20	
Tert-Butyl Alcohol (TBA)	93	94	68-122	0	0-20	
Diisopropyl Ether (DIPE)	108	105	78-120	3	0-20	
Ethyl-t-Butyl Ether (ETBE)	106	104	78-120	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	100	100	75-120	0	0-20	
Ethanol	103	97	56-140	6	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ETIC Engineering, Inc.	Date Received:	N/A
2285 Morello Avenue	Work Order No:	10-11-2044
Pleasant Hill, CA 94523-1850	Preparation:	EPA 5030C
	Method:	EPA 8260B

Project: ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-796-4,210	Solid	GC/MS FF	11/30/10	11/30/10	101130L01

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	99	98	78-120	71-127	1	0-20	
Carbon Tetrachloride	127	122	49-139	34-154	4	0-20	
Chlorobenzene	91	90	79-120	72-127	2	0-20	
1,2-Dibromoethane	94	96	80-120	73-127	2	0-20	
1,2-Dichlorobenzene	90	88	75-120	68-128	2	0-20	
1,2-Dichloroethane	113	112	80-120	73-127	1	0-20	
1,1-Dichloroethene	115	112	74-122	66-130	3	0-20	
Ethylbenzene	96	95	76-120	69-127	1	0-20	
Toluene	97	95	77-120	70-127	2	0-20	
Trichloroethene	100	97	80-120	73-127	3	0-20	
Vinyl Chloride	117	109	68-122	59-131	6	0-20	
Methyl-t-Butyl Ether (MTBE)	103	101	77-120	70-127	2	0-20	
Tert-Butyl Alcohol (TBA)	93	94	68-122	59-131	0	0-20	
Diisopropyl Ether (DIPE)	108	105	78-120	71-127	3	0-20	
Ethyl-t-Butyl Ether (ETBE)	106	104	78-120	71-127	2	0-20	
Tert-Amyl-Methyl Ether (TAME)	100	100	75-120	68-128	0	0-20	
Ethanol	103	97	56-140	42-154	6	0-20	

Total number of LCS compounds : 17
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 10-11-2044

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS recovery percentage is within LCS ME control limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
QO	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
U	Undetected at detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Sandy Tat

From: Thomas Neely [tneely@eticeng.com]
Sent: Tuesday, March 08, 2011 11:28 AM
To: Sandy Tat
Subject: Re: ExxonMobil 04FGN / CEL 10-11-2044 and CEL 10-11-2128

Yes. Please

Tom Neely

Thomas Neely, PG, CHG, REA II
ETIC Engineering, Inc.
2285 Morello Ave.
Pleasant Hill
CA 94523
Tel. 925-602-4710 x32
Fax. 925-602-4720
Mobile.925-301-7125
tneely@eticeng.com
www.eticeng.com

From: Sandy Tat <STat@calscience.com>
To: Thomas Neely
Sent: Tue Mar 08 11:03:55 2011
Subject: RE: ExxonMobil 04FGN / CEL 10-11-2044 and CEL 10-11-2128

Hi Thomas,

Yes, we can report full scan on both samples; therefore, do you want us to proceed? Thanks!

Best Regards,

Sandy Tat
Project Manager Assistant
Calscience Environmental Laboratories, Inc.
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone: 714-895-5494 x220
Fax: 714-894-7501
STat@calscience.com

From: Thomas Neely [mailto:tneely@eticeng.com]
Sent: Monday, March 07, 2011 1:24 PM
To: Cecile de Guia

Cc: Yuko Mamiya
Subject: ExxonMobil 04FGN / CEL 10-11-2044 and CEL 10-11-2128

Cecile,

For soil sample VW4@5.5-6.0 (CEL 10-11-2044-7-A) and soil vapor sample VW4 (CEL 10-11-2128-4-A). Would you be able to report the full VOC list (8260B or TO-15, accordingly)?

Please let me know, then I will inform you if we would like to proceed.

Thank you,

Tom

Thomas Neely, PG, CHG, REA II
ETIC Engineering, Inc.
2285 Morello Ave.
Pleasant Hill
CA 94523
Tel. 925-602-4710 x32
Fax. 925-602-4720
Mobile.925-301-7125
tneely@eticeng.com
www.eticeng.com

Cecile de Guia

From: Yuko Mamiya [ymamiya@eticeng.com]
Sent: Thursday, January 13, 2011 5:07 PM
To: Cecile de Guia
Subject: RE: ExxonMobil 04FGN / CEL 10-11-2044 and CEL 10-11-2128

Hi Cecile,

Do you still have the soil samples VW2@5.5-6.0 and VW4@5.5-6.0 and vapor sample VW2? They were sampled on 11/23/10 (soil) and 11/26/10 (vapor).... We need to analyze the samples for the following compounds:

Soil sample VW2@5.5-6.0
- Volatile organic compounds (VOCs) including chlorinated hydrocarbons by EPA Method 8260,
- Metals (Cd, Cr, Pb, Ni, and Zn) by ICAP or AA,

Soil sample VW4@5.5-6.0
- Metals (Cd, Cr, Pb, Ni, and Zn) by ICAP or AA,

Vapor sample VW2
- Chlorinated VOCs (EPA Method 8260 or TO-15) analysis for the soil vapor samples.

Please let me know...

Yuko Mamiya
ETIC Engineering, Inc.
2285 Morello Ave.
Pleasant Hill
CA 94523
Tel. 925-602-4710 x 37
Fax. 925-602-4720

ymamiya@eticeng.com
www.eticeng.com

From: Jason Leary
Sent: Thursday, December 09, 2010 10:31 AM
To: Yuko Mamiya
Cc: Deborah Hensley; Aileen Galve
Subject: LAB SOIL RESULTS: 04FGN (10-11-2044)

Jason Leary
ETIC Engineering, Inc.
2285 Morello Ave.
Pleasant Hill
CA 94523
Tel. 925-602-4710 x 20
Fax. 925-602-4720

jleary@eticeng.com

www.eticeng.com

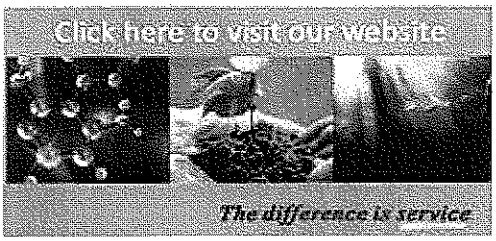
ETIC ENGINEERING

From: Sandy Tat [mailto:STat@calscience.com]
Sent: Wednesday, December 08, 2010 4:46 PM
To: ETICLabReports; Erik Appel
Cc: Bryan Campbell
Subject: ExxonMobil 04FGN / CEL 10-11-2044

Best Regards,

Sandy Tat
Project Manager Assistant
Calscience Environmental Laboratories, Inc.
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone: 714-895-5494 x220
Fax: 714-894-7501
STat@calscience.com

Christmas/New Year's Holiday Schedule
Dec. 24, Friday – 08:30-17:30*
Dec. 25, Saturday – CLOSED
Dec. 27, Monday – 08:30-17:30*
Dec. 31, Friday – 08:30-17:30*
Jan. 1, Saturday – CLOSED
**Sample receiving only, business is closed.*



not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience Environmental Laboratories, Inc. for any defense to any litigation which arises.

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

Site Name

Provide MRN for retail or AFE for major projects

Retail Project (MRN)

Major Project (AFE)

Project Name: Former Mobil 04FGN

ExxonMobil Engr:

CHAIN OF CUSTODY RECORD

DATE: 11/24/10

PAGE: 1 OF 2

LABORATORY CLIENT: ExxonMobil c/o ETIC Engineering

ADDRESS: 2285 Morello Avenue

CITY: Pleasant Hill, CA 94523

TEL: 925-602-4710 Ext. 21 FAX: 925-602-4720

GLOBAL ID #/ COELT LOG CODE: GLOBAL ID# T0600100912

PROJECT CONTACT: Erik Appel, ETIC Engineering, Inc.

SAMPLER(S): (SIGNATURE)

P.O. 4512008383

LAB USE ONLY: 11204

COOLER RECEIPT Temp = ____ °C

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☑ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS:

edf file required, GLOBAL ID# T0600100912
email report to eticlabreports@eticeng.com

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	MOISTURE CONTENT BY D2216	POROSITY AND BULK DENSITY BY API RP40	CONTAINER TYPE
1	VW20 50-55		11/23/10	1030	Soil	1	X	X	6" ss sleeve
2	VW40 50-55		11/23/10	1407	Soil	1	X	X	6" ss sleeve
3	VW50 50-55		11/23/10	0840	Soil	1	X	X	6" ss sleeve
4	VW30 50-55			0950	Soil	1	X	X	6" ss sleeve
5	VW10 50-55			1120	Soil	1	X	X	6" ss sleeve

Relinquished by: (Signature)

Relinquished by: (Signature) to GSO 11/24/10 1730

Relinquished by: (Signature)

Received by: (Signature) To Malley CEC

Received by: (Signature) CEC

Received by: (Signature)

Date, & Time: 11/24/10 1500

Date, & Time: 11/26/10 0945

Date, & Time:

COC\04FGN COC_soil

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

Site Name	
Provide MRN for retail or AFE for major projects	
Retail Project (MRN)	
Major Project (AFE)	
Project Name	Former Mobil 04FGN

CHAIN OF CUSTODY RECORD

DATE: 11/24/10

PAGE: 2 OF 2

ExxonMobil Engr:

LABORATORY CLIENT:
ExxonMobil c/o ETIC Engineering

ADDRESS:
2285 Morello Avenue

CITY:
Pleasant Hill, CA 94523

TEL: **925-602-4710 Ext. 21** FAX: **925-602-4720**

GLOBAL ID # COELT LOG CODE:
GLOBAL ID# T0600100912

PROJECT CONTACT:
Erik Appel, ETIC Engineering, Inc.

SAMPLER(S): (SIGNATURE)

P.O.
4512008383

LAB USE ONLY: 1 1 2 0 4 4

COOLER RECEIPT
Temp = °C

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☑ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS:

edf file required, GLOBAL ID# T0600100912
email report to eticlabreports@eticeng.com
*** 7 Oxygenates include MTBE, TBA, TAME, ETBE, DIPE, EDB, AND 1,2-DCA.**

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH-g/TPH-d BY 8015B(M)	BTEX BY 8021B	7 OXYGENATES* BY 8260B	CONTAINER TYPE
6	VW2@5.5-6.0		11/23/10	1033	Soil	1	X	X	X	6" ss sleeve
7	VW4@5.5-6.0		11/23/10	1410	Soil	1	X	X	X	6" ss sleeve
8	VW5@5.5-6.0		11/24/10	0845	Soil	1	X	X	X	6" ss sleeve
9	VW3@5.5-6.0		"	0953	Soil	1	X	X	X	6" ss sleeve
10	VW1@5.5-6.0		"	1125	Soil	1	X	X	X	6" ss sleeve

Relinquished by: (Signature)

Relinquished by: (Signature) to GSO 11/24/10 1730

Relinquished by: (Signature)

Received by: (Signature) Tom Malley CEL

Received by: (Signature) CEL

Received by: (Signature)

Date, & Time: 11/24/10 1500

Date, & Time: 11/26/10 0945

Date, & Time:

COC\04FGN COC soil

2044

GSO

WebShip > > > > >

800-322-5555 www.gso.com

Ship From:
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

Ship To:
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
PREMIER ENV, ETIC, CRA

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 515432186

NPS

ORC

D

GARDEN GROVE

D92843A

C1|86621189

86621189

Print Date : 11/24/10 15:44 PM

Package 1 of 1

Send Label To Printer | ☑ Print All | Edit Shipment | Finish

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-11-2 0 H 4

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: ETIC DATE: 11/26/10

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.6 °C + 0.5 °C (CF) = 3.1 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☐ Air ☐ Filter Initial: YL

CUSTODY SEALS INTACT:

☑ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: YL

☐ Sample ☐ _____ ☐ No (Not Intact) ☑ Not Present Initial: YL

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☑Sleeve (5) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☐VOA**h** ☐VOA**na$_2$** ☐125AGB ☐125AGB**h** ☐125AGB**p** ☐1AGB ☐1AGB**na$_2$** ☐1AGB**s** ☐500AGB ☐500AGJ ☐500AGJ**s** ☐250AGB ☐250CGB ☐250CGB**s** ☐1PB ☐500PB ☐500PB**na** ☐250PB ☐250PB**n** ☐125PB ☐125PB**znna** ☐100PJ ☐100PJ**na$_2$** ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** YL

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:**

Preservative: h: HCL n: HNO_3 na$_2$: $Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 znna: $ZnAc_2$+NaOH f: Field-filtered **Scanned by:**

PTS Laboratories, Inc.

8100 Secura Way • Santa Fe Springs, CA 90670
Telephone (562) 347-2500 • Fax (562) 907-3610

December 22, 2010

Cecile de Guia
Calscience
7440 Lincoln Way
Garden Grove, CA 92841-1427

Re: PTS File No: 40878
Physical Properties Data
10-11-2044

Dear Ms. de Guia:

Please find enclosed report for Physical Properties analyses conducted upon cores received from your 10-11-2044 project. All analyses were performed by applicable ASTM, EPA, or API methodologies. An electronic version of the report has previously been sent to your attention via the internet. The samples are currently in storage and will be retained for thirty days past completion of testing at no charge. Please note that the samples will be disposed of at that time. You may contact me regarding storage, disposal, or return of the samples.

PTS Laboratories appreciates the opportunity to be of service. If you have any questions or require additional information, please give Rachel Spitz a call at (562) 347-2504.

Sincerely,
PTS Laboratories

Michael Mark Brady, P.G.
District Manager

Encl.

PTS Laboratories

Project Name: N/A
Project Number: 10-11-2044

PTS File No: 40878
Client: Calscience

TEST PROGRAM

CORE ID	Depth ft.	Core Recovery ft.	Moisture Content ASTM D2216	Dry Bulk Density API RP 40	Total/Air/Water Porosity API RP 40		Notes
		Plugs:	Vert. 1"	Vert. 1"	Vert. 1"		
Date Received:11/29/10							
VW2 @ 5.0-5.5	5.0-5.5	0.50	X	X	X		
VW4 @ 5.0-5.5	5.0-5.5	0.50	X	X	X		
VW5 @ 5.0-5.5	5.0-5.5	0.50	X	X	X		
VW3 @ 5.0-5.5	5.0-5.5	0.50	X	X	X		
VW1 @ 5.0-5.5	5.0-5.5	0.50	X	X	X		
TOTALS:	5 cores	2.5	5	5	5		

Laboratory Test Program Notes
Water-Filled Porosity: Includes Air-Filled and Total Porosity.

PTS File No: 40878
Client: Calscience

PHYSICAL PROPERTIES DATA

PROJECT NAME: N/A
PROJECT NO: 10-11-2044

		METHODS:	API RP 40 / ASTM D2216	API RP 40	API RP 40		
					POROSITY, %Vb (2)		
SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	MOISTURE CONTENT, % weight	BULK DENSITY, g/cc	TOTAL	AIR FILLED	WATER FILLED
VW2 @ 5.0-5.5	5.0-5.5	V	15.1	1.88	29.1	0.8	28.3
VW4 @ 5.0-5.5	5.0-5.5	V	20.1	1.69	36.1	2.2	33.9
VW5 @ 5.0-5.5	5.0-5.5	V	17.0	1.74	33.9	4.3	29.6
VW3 @ 5.0-5.5	5.0-5.5	V	18.3	1.75	33.7	1.7	32.1
VW1 @ 5.0-5.5	5.0-5.5	V	17.0	1.80	31.7	1.1	30.6

(1) Sample Orientation: H = horizontal; V = vertical
(2) Total Porosity = all interconnected pore channels; Air Filled = pore channels not occupied by pore fluids
Vb = Bulk Volume, cc

Calscience Environmental Laboratories, Inc.

7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

TO: PTS - SFS

CHAIN OF CUSTODY RECORD

DATE: 11/29/10

PAGE: 1 OF 1

LABORATORY CLIENT: CALSCIENCE ENVIRONMENTAL LABORATORIES, INC.

ADDRESS: 7440 LINCOLN WAY

GARDEN GROVE, CA 92841-1427

TEL: 714-895-5494 FAX: E-MAIL: cdeguia@calscience.com

CLIENT PROJECT NAME / NUMBER: 10-11-2044

P.O. NO.:

PROJECT CONTACT: Cecile de Guia

LAB USE ONLY: 4-0878

SAMPLER(S): (PRINT NAME)

COELT LOG CODE

COOLER RECEIPT Temp = 33°F °C

TURNAROUND TIME: ☐ SAME DAY ☐ 24 HR ☐ 48HR ☐ 72 HR ☐ 5 DAYS ☒ STANDARD

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY): ☐ RWQCB REPORTING ☐ COELT EDF ☐

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	ASTM D2216 % Moisture	Porosity and Bulk Density by API RP40	CONTAINER TYPE
✓	VW2@5.0-5.5	11/23/10	1030	Soil	1	X	X	6" ss sleeve
✓	VW4@5.0-5.5	11/23/10	1407	Soil	1	X	X	6" ss sleeve
✓	VW5@5.0-5.5	11/24/10	0840	Soil	1	X	X	6" ss sleeve
✓	VW3@5.0-5.5	11/24/10	0950	Soil	1	X	X	6" ss sleeve
✓	VW1@5.0-5.5	11/24/10	1120	Soil	1	X	X	6" ss sleeve

Relinquished by: (Signature)	Received by: (Signature / Affiliation)	Date:	Time:
[signature] (CALSCIENCE)	[signature] PTS Labs inc	11/29/10	13:45
Relinquished by: (Signature)	Received by: (Signature / Affiliation)	Date:	Time:
Relinquished by: (Signature)	Received by: (Signature / Affiliation)	Date:	Time:

Calscience
Environmental
Laboratories, Inc.

Supplemental Report 2

March 18, 2011

Additional requested analyses have been added to the original report.

Erik Appel
ETIC Engineering, Inc.
2285 Morello Avenue
Pleasant Hill, CA 94523-1850

Subject: **Calscience Work Order No.: 10-11-2128**
Client Reference: ExxonMobil 04FGN

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 11/30/2010 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Cecile L deGuia

Calscience Environmental
Laboratories. Inc.
Cecile deGuia
Project Manager

Case Narrative

Work Order # 10-11-2128

Modified EPA TO-14A or EPA TO-15

EPA Methods TO-14A and TO-15 describe gas chromatographic procedures that will allow for that separation of volatile organic compounds and their qualitative and quantitative analysis by mass spectrometry (GC/MS). A known volume of sample is directed from the container (Summa® canister or Tedlar™ bag) through a solid multi-module (glass beads, tenex, cryofocuser) concentrator. Following concentration, the VOCs are thermally desorbed onto a gas chromatographic column for separation and then detected on a mass selective detector.

Comparison of EPA TO-14A/TO-15 versus Calscience EPA TO-14A/TO-15 (Modified)

Requirement	EPA Method	Calscience Modifications
BFB Acceptance Criteria	CLP Protocol	SW846 Protocol
Initial Calibration	Allowable % RSD for each Target Analyte <= 30%, two analytes allowed <= 40%	Allowable % RSD for each Target Analyte <= 30%, 10% of analytes allowed <= 40%
Initial Calibration Verification (ICV) - Second Source Standard (LCS)	Not Mentioned	Analytes contained in the LCS standard evaluated against historical control limits for the LCS
Daily Calibration Verification (CCV)	Allowable % Difference for each Target Analyte is <= 30%	**Full List Analysis:** Allowable % Difference for each CCC analyte is <= 30%
		Target List Analysis: Allowable % Difference for each target analytes is <= 30%
Daily Calibration Verification (CCV) - Internal Standard Area Response	Allowable +/- 40% (Range: 60% to 140%)	Allowable +/- 50% (Range: 50% to 150%)
Method Blank, Laboratory Control Sample and Sample - Internal Standard Area Response	Allowable +/- 40% of the mean area response of most recent Initial Calibration (Range: 60% to 140%)	Allowable +/- 50% of the mean area response of the most recent Calibration Verification (Range: 50% to 150%)
Surrogates	Not Mentioned	1,4-Bromoflurobenzene, 1,2-Dichloroethane-d4 and Toluene-d8 - % Recoveries based upon historical control limits +/-3S

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.	Date Received:	11/30/10
2285 Morello Avenue	Work Order No:	10-11-2128
Pleasant Hill, CA 94523-1850	Preparation:	N/A
	Method:	ASTM D-1946
	Units:	%v

Project: ExxonMobil 04FGN

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW1	**10-11-2128-1-A**	**11/26/10 14:35**	**Air**	**GC 36**	**N/A**	**11/30/10 17:52**	**101130L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.645	1.29	U	Oxygen + Argon	12.7	0.645	1.29	
Carbon Dioxide	4.71	0.645	1.29						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW2	**10-11-2128-2-A**	**11/26/10 13:30**	**Air**	**GC 36**	**N/A**	**11/30/10 18:11**	**101130L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.670	1.34	U	Oxygen + Argon	2.12	0.670	1.34	
Carbon Dioxide	11.2	0.670	1.34						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW3	**10-11-2128-3-A**	**11/26/10 11:18**	**Air**	**GC 36**	**N/A**	**11/30/10 18:33**	**101130L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.755	1.51	U	Oxygen + Argon	2.13	0.755	1.51	
Carbon Dioxide	10.7	0.755	1.51						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW4	**10-11-2128-4-A**	**11/26/10 12:55**	**Air**	**GC 36**	**N/A**	**11/30/10 18:50**	**101130L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.760	1.52	U	Oxygen + Argon	4.26	0.760	1.52	
Carbon Dioxide	9.77	0.760	1.52						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW5	**10-11-2128-5-A**	**11/26/10 12:13**	**Air**	**GC 36**	**N/A**	**11/30/10 19:12**	**101130L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.660	1.32	U	Oxygen + Argon	11.8	0.660	1.32	
Carbon Dioxide	9.95	0.660	1.32						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW3 (DUP)	**10-11-2128-6-A**	**11/26/10 13:23**	**Air**	**GC 36**	**N/A**	**11/30/10 19:30**	**101130L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.710	1.42	U	Oxygen + Argon	2.21	0.710	1.42	
Carbon Dioxide	10.9	0.710	1.42						

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-03-002-1,187**	**N/A**	**Air**	**GC 36**	**N/A**	**11/30/10 09:09**	**101130L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Methane	ND	0.500	1	U	Oxygen + Argon	ND	0.500	1	U
Carbon Dioxide	ND	0.500	1	U					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.	Date Received:	11/30/10
2285 Morello Avenue	Work Order No:	10-11-2128
Pleasant Hill, CA 94523-1850	Preparation:	N/A
	Method:	EPA TO-3M

Project: ExxonMobil 04FGN

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW1	**10-11-2128-1-A**	**11/26/10 14:35**	**Air**	**GC 13**	**N/A**	**11/30/10 17:50**	**101130L01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	9000	1.29	U	ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW2	**10-11-2128-2-A**	**11/26/10 13:30**	**Air**	**GC 13**	**N/A**	**11/30/10 18:03**	**101130L01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	580000	9400	1.34		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW3	**10-11-2128-3-A**	**11/26/10 11:18**	**Air**	**GC 13**	**N/A**	**11/30/10 18:18**	**101130L01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	1400000	11000	1.51		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW4	**10-11-2128-4-A**	**11/26/10 12:55**	**Air**	**GC 13**	**N/A**	**11/30/10 18:35**	**101130L01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	15000	11000	1.52		ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW5	**10-11-2128-5-A**	**11/26/10 12:13**	**Air**	**GC 13**	**N/A**	**11/30/10 18:44**	**101130L01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	9200	1.32	U	ug/m3

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW3 (DUP)	**10-11-2128-6-A**	**11/26/10 13:23**	**Air**	**GC 13**	**N/A**	**11/30/10 18:58**	**101130L01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	1500000	9900	1.42		ug/m3

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.		Date Received:	11/30/10
2285 Morello Avenue		Work Order No:	10-11-2128
Pleasant Hill, CA 94523-1850		Preparation:	N/A
		Method:	EPA TO-3M

Project: ExxonMobil 04FGN

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**098-01-005-2,770**	**N/A**	**Air**	**GC 13**	**N/A**	**11/30/10 09:04**	**101130L01**

Parameter	Result	RL	DF	Qual	Units
TPH as Gasoline	ND	7000	1	U	ug/m3

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.	Date Received:	11/30/10
2285 Morello Avenue	Work Order No:	10-11-2128
Pleasant Hill, CA 94523-1850	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3

Project: ExxonMobil 04FGN

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW1	10-11-2128-1-A	11/26/10 14:35	Air	GC/MS YY	N/A	12/02/10 01:20	101201L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	18	2.2	1.37		Methyl-t-Butyl Ether (MTBE)	ND	9.9	1.37	U
Diisopropyl Ether (DIPE)	ND	11	1.37	U	Xylenes (total)	18	12	1.37	
1,2-Dibromoethane	ND	5.3	1.37	U	Tert-Amyl-Methyl Ether (TAME)	ND	11	1.37	U
1,2-Dichloroethane	ND	2.8	1.37	U	Tert-Butyl Alcohol (TBA)	ND	8.3	1.37	U
Ethyl-t-Butyl Ether (ETBE)	ND	11	1.37	U	Toluene	18	2.6	1.37	
Ethylbenzene	5.7	3.0	1.37						
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	99	57-129			1,2-Dichloroethane-d4	94	47-137		
Toluene-d8	98	78-156							

VW3	10-11-2128-3-A	11/26/10 11:18	Air	GC/MS YY	N/A	12/05/10 05:24	101204L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	39	24.2	U	Methyl-t-Butyl Ether (MTBE)	ND	170	24.2	U
Diisopropyl Ether (DIPE)	ND	200	24.2	U	Xylenes (total)	230	210	24.2	
1,2-Dibromoethane	ND	93	24.2	U	Tert-Amyl-Methyl Ether (TAME)	ND	200	24.2	U
1,2-Dichloroethane	ND	49	24.2	U	Tert-Butyl Alcohol (TBA)	ND	150	24.2	U
Ethyl-t-Butyl Ether (ETBE)	ND	200	24.2	U	Toluene	ND	46	24.2	U
Ethylbenzene	ND	53	24.2	U					
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	131	57-129		2	1,2-Dichloroethane-d4	92	47-137		
Toluene-d8	49	78-156		2					

VW5	10-11-2128-5-A	11/26/10 12:13	Air	GC/MS YY	N/A	12/05/10 08:42	101204L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	9.5	2.2	1.37		Methyl-t-Butyl Ether (MTBE)	ND	9.9	1.37	U
Diisopropyl Ether (DIPE)	ND	11	1.37	U	Xylenes (total)	ND	12	1.37	U
1,2-Dibromoethane	ND	5.3	1.37	U	Tert-Amyl-Methyl Ether (TAME)	ND	11	1.37	U
1,2-Dichloroethane	ND	2.8	1.37	U	Tert-Butyl Alcohol (TBA)	ND	8.3	1.37	U
Ethyl-t-Butyl Ether (ETBE)	ND	11	1.37	U	Toluene	5.4	2.6	1.37	
Ethylbenzene	ND	3.0	1.37	U					
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	102	57-129			1,2-Dichloroethane-d4	93	47-137		
Toluene-d8	99	78-156							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.	Date Received:	11/30/10
2285 Morello Avenue	Work Order No:	10-11-2128
Pleasant Hill, CA 94523-1850	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3
Project: ExxonMobil 04FGN		Page 2 of 2

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW3 (DUP)	**10-11-2128-6-A**	**11/26/10 13:23**	**Air**	**GC/MS YY**	**N/A**	**12/05/10 06:08**	**101204L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	36	22.7	U	Methyl-t-Butyl Ether (MTBE)	ND	160	22.7	U
Diisopropyl Ether (DIPE)	ND	190	22.7	U	Xylenes (total)	220	200	22.7	
1,2-Dibromoethane	ND	87	22.7	U	Tert-Amyl-Methyl Ether (TAME)	ND	190	22.7	U
1,2-Dichloroethane	ND	46	22.7	U	Tert-Butyl Alcohol (TBA)	ND	140	22.7	U
Ethyl-t-Butyl Ether (ETBE)	ND	190	22.7	U	Toluene	ND	43	22.7	U
Ethylbenzene	ND	49	22.7	U					

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	117	57-129		1,2-Dichloroethane-d4	92	47-137	
Toluene-d8	46	78-156	2				

Method Blank	095-01-021-8,864	N/A	Air	GC/MS YY	N/A	12/01/10 18:43	101201L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	1.6	1	U	Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	U
Diisopropyl Ether (DIPE)	ND	8.4	1	U	Xylenes (total)	ND	8.7	1	U
1,2-Dibromoethane	ND	3.8	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1	U
1,2-Dichloroethane	ND	2.0	1	U	Tert-Butyl Alcohol (TBA)	ND	6.1	1	U
Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1	U	Toluene	ND	1.9	1	U
Ethylbenzene	ND	2.2	1	U					

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	100	57-129		1,2-Dichloroethane-d4	101	47-137	
Toluene-d8	98	78-156					

Method Blank	095-01-021-8,869	N/A	Air	GC/MS YY	N/A	12/04/10 11:35	101204L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Benzene	ND	1.6	1	U	Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	U
Diisopropyl Ether (DIPE)	ND	8.4	1	U	Xylenes (total)	ND	8.7	1	U
1,2-Dibromoethane	ND	3.8	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1	U
1,2-Dichloroethane	ND	2.0	1	U	Tert-Butyl Alcohol (TBA)	ND	6.1	1	U
Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1	U	Toluene	ND	1.9	1	U
Ethylbenzene	ND	2.2	1	U					

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	100	57-129		1,2-Dichloroethane-d4	99	47-137	
Toluene-d8	99	78-156					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.	Date Received:	11/30/10
2285 Morello Avenue	Work Order No:	10-11-2128
Pleasant Hill, CA 94523-1850	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3
Project: ExxonMobil 04FGN		Page 1 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW2	10-11-2128-2-A	11/26/10 13:30	Air	GC/MS YY	N/A	12/02/10 02:06	101201L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	120	16	3.35		t-1,2-Dichloroethene	ND	6.6	3.35	U
Benzene	120	5.4	3.35		t-1,3-Dichloropropene	ND	15	3.35	U
Benzyl Chloride	ND	26	3.35	U	Ethyl-t-Butyl Ether (ETBE)	ND	28	3.35	U
Bromodichloromethane	ND	11	3.35	U	Ethylbenzene	140	7.3	3.35	
Bromoform	ND	17	3.35	U	4-Ethyltoluene	25	8.2	3.35	
Bromomethane	ND	6.5	3.35	U	Hexachloro-1,3-Butadiene	ND	54	3.35	U
2-Butanone	40	15	3.35		2-Hexanone	ND	21	3.35	U
Carbon Disulfide	ND	21	3.35	U	Methyl-t-Butyl Ether (MTBE)	ND	24	3.35	U
Carbon Tetrachloride	ND	11	3.35	U	Methylene Chloride	ND	58	3.35	U
Chlorobenzene	ND	7.7	3.35	U	4-Methyl-2-Pentanone	ND	21	3.35	U
Chloroethane	ND	4.4	3.35	U	Xylenes (total)	330	29	3.35	
Chloroform	ND	8.2	3.35	U	Styrene	ND	21	3.35	U
Chloromethane	ND	3.5	3.35	U	Tert-Amyl-Methyl Ether (TAME)	ND	28	3.35	U
Dibromochloromethane	ND	14	3.35	U	Tert-Butyl Alcohol (TBA)	58	20	3.35	
Dichlorodifluoromethane	ND	8.3	3.35	U	Tetrachloroethene	39	11	3.35	
Diisopropyl Ether (DIPE)	ND	28	3.35	U	Toluene	41	6.3	3.35	
1,1-Dichloroethane	ND	6.8	3.35	U	Trichloroethene	ND	9.0	3.35	U
1,1-Dichloroethene	ND	6.6	3.35	U	Trichlorofluoromethane	ND	19	3.35	U
1,2-Dibromoethane	ND	13	3.35	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	39	3.35	U
Dichlorotetrafluoroethane	ND	47	3.35	U	1,1,1-Trichloroethane	ND	9.1	3.35	U
1,2-Dichlorobenzene	ND	10	3.35	U	1,1,2-Trichloroethane	ND	9.1	3.35	U
1,2-Dichloroethane	ND	6.8	3.35	U	1,3,5-Trimethylbenzene	240	8.2	3.35	
1,2-Dichloropropane	ND	7.7	3.35	U	1,1,2,2-Tetrachloroethane	ND	23	3.35	U
1,3-Dichlorobenzene	ND	10	3.35	U	1,2,4-Trimethylbenzene	78	25	3.35	
1,4-Dichlorobenzene	ND	10	3.35	U	1,2,4-Trichlorobenzene	ND	50	3.35	U
c-1,3-Dichloropropene	ND	7.6	3.35	U	Vinyl Acetate	ND	24	3.35	U
c-1,2-Dichloroethene	ND	6.6	3.35	U	Vinyl Chloride	ND	4.3	3.35	U
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	192	57-129		2	1,2-Dichloroethane-d4	95	47-137		
Toluene-d8	31	78-156		2					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.		Date Received:	11/30/10
2285 Morello Avenue		Work Order No:	10-11-2128
Pleasant Hill, CA 94523-1850		Preparation:	N/A
		Method:	EPA TO-15
		Units:	ug/m3
Project: ExxonMobil 04FGN			Page 2 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
VW4	10-11-2128-4-A	11/26/10 12:55	Air	GC/MS YY	N/A	12/05/10 07:47	101204L01

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	20	7.2	1.52		t-1,2-Dichloroethene	ND	3.0	1.52	U
Benzene	32	2.4	1.52		t-1,3-Dichloropropene	ND	6.9	1.52	U
Benzyl Chloride	ND	12	1.52	U	Ethyl-t-Butyl Ether (ETBE)	ND	13	1.52	U
Bromodichloromethane	ND	5.1	1.52	U	Ethylbenzene	4.2	3.3	1.52	
Bromoform	ND	7.9	1.52	U	4-Ethyltoluene	ND	3.7	1.52	U
Bromomethane	ND	3.0	1.52	U	Hexachloro-1,3-Butadiene	ND	24	1.52	U
2-Butanone	ND	6.7	1.52	U	2-Hexanone	ND	9.3	1.52	U
Carbon Disulfide	ND	9.5	1.52	U	Methyl-t-Butyl Ether (MTBE)	ND	11	1.52	U
Carbon Tetrachloride	ND	4.8	1.52	U	Methylene Chloride	ND	26	1.52	U
Chlorobenzene	ND	3.5	1.52	U	4-Methyl-2-Pentanone	ND	9.3	1.52	U
Chloroethane	ND	2.0	1.52	U	Xylenes (total)	ND	13	1.52	U
Chloroform	7.4	3.7	1.52		Styrene	ND	9.7	1.52	U
Chloromethane	ND	1.6	1.52	U	Tert-Amyl-Methyl Ether (TAME)	ND	13	1.52	U
Dibromochloromethane	ND	6.5	1.52	U	Tert-Butyl Alcohol (TBA)	ND	9.2	1.52	U
Dichlorodifluoromethane	ND	3.8	1.52	U	Tetrachloroethene	15	5.2	1.52	
Diisopropyl Ether (DIPE)	ND	13	1.52	U	Toluene	11	2.9	1.52	
1,1-Dichloroethane	ND	3.1	1.52	U	Trichloroethene	ND	4.1	1.52	U
1,1-Dichloroethene	ND	3.0	1.52	U	Trichlorofluoromethane	ND	8.5	1.52	U
1,2-Dibromoethane	ND	5.8	1.52	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	17	1.52	U
Dichlorotetrafluoroethane	ND	21	1.52	U	1,1,1-Trichloroethane	ND	4.1	1.52	U
1,2-Dichlorobenzene	ND	4.6	1.52	U	1,1,2-Trichloroethane	ND	4.1	1.52	U
1,2-Dichloroethane	ND	3.1	1.52	U	1,3,5-Trimethylbenzene	ND	3.7	1.52	U
1,2-Dichloropropane	ND	3.5	1.52	U	1,1,2,2-Tetrachloroethane	ND	10	1.52	U
1,3-Dichlorobenzene	ND	4.6	1.52	U	1,2,4-Trimethylbenzene	ND	11	1.52	U
1,4-Dichlorobenzene	ND	4.6	1.52	U	1,2,4-Trichlorobenzene	ND	23	1.52	U
c-1,3-Dichloropropene	ND	3.4	1.52	U	Vinyl Acetate	ND	11	1.52	U
c-1,2-Dichloroethene	ND	3.0	1.52	U	Vinyl Chloride	ND	1.9	1.52	U
Surrogates:	REC (%)	Control Limits	Qual		Surrogates:	REC (%)	Control Limits	Qual	
1,4-Bromofluorobenzene	100	57-129			1,2-Dichloroethane-d4	92	47-137		
Toluene-d8	96	78-156							

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.	Date Received:	11/30/10
2285 Morello Avenue	Work Order No:	10-11-2128
Pleasant Hill, CA 94523-1850	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3

Project: ExxonMobil 04FGN

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-021-8,864**	**N/A**	**Air**	**GC/MS YY**	**N/A**	**12/01/10 18:43**	**101201L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	4.8	1	U	t-1,2-Dichloroethene	ND	2.0	1	U
Benzene	ND	1.6	1	U	t-1,3-Dichloropropene	ND	4.5	1	U
Benzyl Chloride	ND	7.8	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1	U
Bromodichloromethane	ND	3.4	1	U	Ethylbenzene	ND	2.2	1	U
Bromoform	ND	5.2	1	U	4-Ethyltoluene	ND	2.5	1	U
Bromomethane	ND	1.9	1	U	Hexachloro-1,3-Butadiene	ND	16	1	U
2-Butanone	ND	4.4	1	U	2-Hexanone	ND	6.1	1	U
Carbon Disulfide	ND	6.2	1	U	Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	U
Carbon Tetrachloride	ND	3.1	1	U	Methylene Chloride	ND	17	1	U
Chlorobenzene	ND	2.3	1	U	4-Methyl-2-Pentanone	ND	6.1	1	U
Chloroethane	ND	1.3	1	U	Xylenes (total)	ND	8.7	1	U
Chloroform	ND	2.4	1	U	Styrene	ND	6.4	1	U
Chloromethane	ND	1.0	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1	U
Dibromochloromethane	ND	4.3	1	U	Tert-Butyl Alcohol (TBA)	ND	6.1	1	U
Dichlorodifluoromethane	ND	2.5	1	U	Tetrachloroethene	ND	3.4	1	U
Diisopropyl Ether (DIPE)	ND	8.4	1	U	Toluene	ND	1.9	1	U
1,1-Dichloroethane	ND	2.0	1	U	Trichloroethene	ND	2.7	1	U
1,1-Dichloroethene	ND	2.0	1	U	Trichlorofluoromethane	ND	5.6	1	U
1,2-Dibromoethane	ND	3.8	1	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	U
Dichlorotetrafluoroethane	ND	14	1	U	1,1,1-Trichloroethane	ND	2.7	1	U
1,2-Dichlorobenzene	ND	3.0	1	U	1,1,2-Trichloroethane	ND	2.7	1	U
1,2-Dichloroethane	ND	2.0	1	U	1,3,5-Trimethylbenzene	ND	2.5	1	U
1,2-Dichloropropane	ND	2.3	1	U	1,1,2,2-Tetrachloroethane	ND	6.9	1	U
1,3-Dichlorobenzene	ND	3.0	1	U	1,2,4-Trimethylbenzene	ND	7.4	1	U
1,4-Dichlorobenzene	ND	3.0	1	U	1,2,4-Trichlorobenzene	ND	15	1	U
c-1,3-Dichloropropene	ND	2.3	1	U	Vinyl Acetate	ND	7.0	1	U
c-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Chloride	ND	1.3	1	U

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	100	57-129		1,2-Dichloroethane-d4	101	47-137	
Toluene-d8	98	78-156					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.	Date Received:	11/30/10
2285 Morello Avenue	Work Order No:	10-11-2128
Pleasant Hill, CA 94523-1850	Preparation:	N/A
	Method:	EPA TO-15
	Units:	ug/m3
Project: ExxonMobil 04FGN		Page 4 of 4

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**095-01-021-8,869**	**N/A**	**Air**	**GC/MS YY**	**N/A**	**12/04/10 11:35**	**101204L01**

Parameter	Result	RL	DF	Qual	Parameter	Result	RL	DF	Qual
Acetone	ND	4.8	1	U	t-1,2-Dichloroethene	ND	2.0	1	U
Benzene	ND	1.6	1	U	t-1,3-Dichloropropene	ND	4.5	1	U
Benzyl Chloride	ND	7.8	1	U	Ethyl-t-Butyl Ether (ETBE)	ND	8.4	1	U
Bromodichloromethane	ND	3.4	1	U	Ethylbenzene	ND	2.2	1	U
Bromoform	ND	5.2	1	U	4-Ethyltoluene	ND	2.5	1	U
Bromomethane	ND	1.9	1	U	Hexachloro-1,3-Butadiene	ND	16	1	U
2-Butanone	ND	4.4	1	U	2-Hexanone	ND	6.1	1	U
Carbon Disulfide	ND	6.2	1	U	Methyl-t-Butyl Ether (MTBE)	ND	7.2	1	U
Carbon Tetrachloride	ND	3.1	1	U	Methylene Chloride	ND	17	1	U
Chlorobenzene	ND	2.3	1	U	4-Methyl-2-Pentanone	ND	6.1	1	U
Chloroethane	ND	1.3	1	U	Xylenes (total)	ND	8.7	1	U
Chloroform	ND	2.4	1	U	Styrene	ND	6.4	1	U
Chloromethane	ND	1.0	1	U	Tert-Amyl-Methyl Ether (TAME)	ND	8.4	1	U
Dibromochloromethane	ND	4.3	1	U	Tert-Butyl Alcohol (TBA)	ND	6.1	1	U
Dichlorodifluoromethane	ND	2.5	1	U	Tetrachloroethene	ND	3.4	1	U
Diisopropyl Ether (DIPE)	ND	8.4	1	U	Toluene	ND	1.9	1	U
1,1-Dichloroethane	ND	2.0	1	U	Trichloroethene	ND	2.7	1	U
1,1-Dichloroethene	ND	2.0	1	U	Trichlorofluoromethane	ND	5.6	1	U
1,2-Dibromoethane	ND	3.8	1	U	1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	11	1	U
Dichlorotetrafluoroethane	ND	14	1	U	1,1,1-Trichloroethane	ND	2.7	1	U
1,2-Dichlorobenzene	ND	3.0	1	U	1,1,2-Trichloroethane	ND	2.7	1	U
1,2-Dichloroethane	ND	2.0	1	U	1,3,5-Trimethylbenzene	ND	2.5	1	U
1,2-Dichloropropane	ND	2.3	1	U	1,1,2,2-Tetrachloroethane	ND	6.9	1	U
1,3-Dichlorobenzene	ND	3.0	1	U	1,2,4-Trimethylbenzene	ND	7.4	1	U
1,4-Dichlorobenzene	ND	3.0	1	U	1,2,4-Trichlorobenzene	ND	15	1	U
c-1,3-Dichloropropene	ND	2.3	1	U	Vinyl Acetate	ND	7.0	1	U
c-1,2-Dichloroethene	ND	2.0	1	U	Vinyl Chloride	ND	1.3	1	U

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
1,4-Bromofluorobenzene	100	57-129		1,2-Dichloroethane-d4	99	47-137	
Toluene-d8	99	78-156					

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Duplicate

ETIC Engineering, Inc.		Date Received:	11/30/10
2285 Morello Avenue		Work Order No:	10-11-2128
Pleasant Hill, CA 94523-1850		Preparation:	N/A
		Method:	EPA TO-3M

Project: ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared:	Date Analyzed:	Duplicate Batch Number
10-11-2179-4	Air	GC 13	N/A	11/30/10	101130D01

Parameter	Sample Conc	DUP Conc	RPD	RPD CL	Qualifiers
TPH as Gasoline	777200	737700	5	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ETIC Engineering, Inc.	Date Received:	N/A
2285 Morello Avenue	Work Order No:	10-11-2128
Pleasant Hill, CA 94523-1850	Preparation:	N/A
	Method:	ASTM D-1946

Project: ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-03-002-1,187	**Air**	**GC 36**	**N/A**	**11/30/10**	**101130L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Carbon Dioxide	102	98	80-120	3	0-30	
Oxygen + Argon	90	90	80-120	0	0-30	
Nitrogen	90	90	80-120	0	0-30	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ETIC Engineering, Inc.
2285 Morello Avenue
Pleasant Hill, CA 94523-1850

Date Received: N/A
Work Order No: 10-11-2128
Preparation: N/A
Method: EPA TO-15

Project: ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-8,864	Air	GC/MS YY	N/A	12/01/10	101201L01

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	102	96	60-156	44-172	6	0-40	
Carbon Tetrachloride	101	96	64-154	49-169	5	0-32	
1,2-Dibromoethane	106	100	54-144	39-159	6	0-36	
1,2-Dichlorobenzene	88	84	34-160	13-181	5	0-47	
1,2-Dichloroethane	96	91	69-153	55-167	5	0-30	
1,2-Dichloropropane	102	96	67-157	52-172	6	0-35	
1,4-Dichlorobenzene	93	88	36-156	16-176	5	0-47	
c-1,3-Dichloropropene	116	109	61-157	45-173	6	0-35	
Ethylbenzene	105	100	52-154	35-171	5	0-38	
Xylenes (total)	103	97	52-148	36-164	6	0-38	
Tetrachloroethene	100	95	56-152	40-168	5	0-40	
Toluene	101	95	56-146	41-161	6	0-43	
Trichloroethene	99	94	63-159	47-175	6	0-34	
1,1,2-Trichloroethane	101	96	65-149	51-163	6	0-37	
Vinyl Chloride	110	103	45-177	23-199	6	0-36	

Total number of LCS compounds : 15
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ETIC Engineering, Inc.	Date Received: N/A
2285 Morello Avenue	Work Order No: 10-11-2128
Pleasant Hill, CA 94523-1850	Preparation: N/A
	Method: EPA TO-15

Project: ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
095-01-021-8,869	Air	GC/MS YY	N/A	12/04/10	101204L01

Parameter	LCS %REC	LCSD %REC	%REC CL	ME_CL	RPD	RPD CL	Qualifiers
Benzene	105	105	60-156	44-172	0	0-40	
Carbon Tetrachloride	100	101	64-154	49-169	1	0-32	
1,2-Dibromoethane	108	108	54-144	39-159	0	0-36	
1,2-Dichlorobenzene	89	90	34-160	13-181	1	0-47	
1,2-Dichloroethane	96	97	69-153	55-167	1	0-30	
1,2-Dichloropropane	104	105	67-157	52-172	0	0-35	
1,4-Dichlorobenzene	94	95	36-156	16-176	1	0-47	
c-1,3-Dichloropropene	118	119	61-157	45-173	1	0-35	
Ethylbenzene	107	107	52-154	35-171	0	0-38	
Xylenes (total)	104	104	52-148	36-164	0	0-38	
Tetrachloroethene	102	102	56-152	40-168	0	0-40	
Toluene	104	104	56-146	41-161	0	0-43	
Trichloroethene	101	101	63-159	47-175	1	0-34	
1,1,2-Trichloroethane	103	104	65-149	51-163	0	0-37	
Vinyl Chloride	110	110	45-177	23-199	0	0-36	

Total number of LCS compounds : 15
Total number of ME compounds : 0
Total number of ME compounds allowed : 1
LCS ME CL validation result : Pass

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 10-11-2128

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS recovery percentage is within LCS ME control limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
QO	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
U	Undetected at detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture. All QC results are reported on a wet weight basis.

Sandy Tat

From: Thomas Neely [tneely@eticeng.com]
Sent: Tuesday, March 08, 2011 11:28 AM
To: Sandy Tat
Subject: Re: ExxonMobil 04FGN / CEL 10-11-2044 and CEL 10-11-2128

Yes. Please

Tom Neely

Thomas Neely, PG, CHG, REA II
ETIC Engineering, Inc.
2285 Morello Ave.
Pleasant Hill
CA 94523
Tel. 925-602-4710 x32
Fax. 925-602-4720
Mobile.925-301-7125
tneely@eticeng.com
www.eticeng.com

From: Sandy Tat <STat@calscience.com>
To: Thomas Neely
Sent: Tue Mar 08 11:03:55 2011
Subject: RE: ExxonMobil 04FGN / CEL 10-11-2044 and CEL 10-11-2128

Hi Thomas,

Yes, we can report full scan on both samples; therefore, do you want us to proceed? Thanks!

Best Regards,

Sandy Tat
Project Manager Assistant
Calscience Environmental Laboratories, Inc.
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone: 714-895-5494 x220
Fax: 714-894-7501
STat@calscience.com

From: Thomas Neely [mailto:tneely@eticeng.com]
Sent: Monday, March 07, 2011 1:24 PM
To: Cecile de Guia

Cc: Yuko Mamiya
Subject: ExxonMobil 04FGN / CEL 10-11-2044 and CEL 10-11-2128

Cecile,

For soil sample VW4@5.5-6.0 (CEL 10-11-2044-7-A) and soil vapor sample VW4 (CEL 10-11-2128-4-A). Would you be able to report the full VOC list (8260B or TO-15, accordingly)?

Please let me know, then I will inform you if we would like to proceed.

Thank you,

Tom

Thomas Neely, PG, CHG, REA II
ETIC Engineering, Inc.
2285 Morello Ave.
Pleasant Hill
CA 94523
Tel. 925-602-4710 x32
Fax. 925-602-4720
Mobile.925-301-7125
tneely@eticeng.com
www.eticeng.com

Cecile de Guia

From: Yuko Mamiya [ymamiya@eticeng.com]
Sent: January 13, 2011 17:07
To: Cecile de Guia
Subject: RE: ExxonMobil 04FGN / CEL 10-11-2044 and CEL 10-11-2128

Hi Cecile,

Do you still have the soil samples VW2@5.5-6.0 and VW4@5.5-6.0 and vapor sample VW2? They were sampled on 11/23/10 (soil) and 11/26/10 (vapor).... We need to analyze the samples for the following compounds:

Soil sample VW2@5.5-6.0
- Volatile organic compounds (VOCs) including chlorinated hydrocarbons by EPA Method 8260,
- Metals (Cd, Cr, Pb, Ni, and Zn) by ICAP or AA,

Soil sample VW4@5.5-6.0
- Metals (Cd, Cr, Pb, Ni, and Zn) by ICAP or AA,

Vapor sample VW2
- Chlorinated VOCs (EPA Method 8260 or TO-15) analysis for the soil vapor samples.

Please let me know...

Yuko Mamiya
ETIC Engineering, Inc.
2285 Morello Ave.
Pleasant Hill
CA 94523
Tel. 925-602-4710 x 37
Fax. 925-602-4720

ymamiya@eticeng.com
www.eticeng.com

From: Jason Leary
Sent: Thursday, December 09, 2010 10:31 AM
To: Yuko Mamiya
Cc: Deborah Hensley; Aileen Galve
Subject: LAB SOIL RESULTS: 04FGN (10-11-2044)

Jason Leary
ETIC Engineering, Inc.
2285 Morello Ave.
Pleasant Hill
CA 94523
Tel. 925-602-4710 x 20
Fax. 925-602-4720

jleary@eticeng.com

www.eticeng.com

ETIC ENGINEERING

From: Sandy Tat [mailto:STat@calscience.com]
Sent: Wednesday, December 08, 2010 4:46 PM
To: ETICLabReports; Erik Appel
Cc: Bryan Campbell
Subject: ExxonMobil 04FGN / CEL 10-11-2044

Best Regards,

Sandy Tat
Project Manager Assistant
Calscience Environmental Laboratories, Inc.
7440 Lincoln Way
Garden Grove, CA 92841-1427
Phone: 714-895-5494 x220
Fax: 714-894-7501
STat@calscience.com

Christmas/New Year's Holiday Schedule
Dec. 24, Friday – 08:30-17:30*
Dec. 25, Saturday – CLOSED
Dec. 27, Monday – 08:30-17:30*
Dec. 31, Friday – 08:30-17:30*
Jan. 1, Saturday – CLOSED
**Sample receiving only, business is closed.*

not responsible, legally or otherwise. The client or recipient agrees to indemnify Calscience Environmental Laboratories, Inc. for any defense to any litigation which arises.

Cecile de Guia

From: Erik Appel [eappel@eticeng.com]
Sent: November 30, 2010 14:15
To: Cecile de Guia
Cc: Yuko Mamiya
Subject: Re: ExxonMobil 04FGN; 10-11-2128

Cecile,

Yes, helium was used as the leak detector.

Erik Appel, PG
eappel@eticeng.com
ETIC Engineering,Inc.
2285 Morello Ave.
Pleasant Hill, CA 94523
Tel: 925-602-4710 x 21
Fax: 925-602-4720
Cell: 925-642-2545
www.eticeng.com

On Nov 30, 2010, at 1:45 PM, "Cecile de Guia" <CdeGuia@calscience.com> wrote:

> Erik - Please review the attached COC and advise if you have used Helium as the Leak Detector compound and if we need to analyze it. If yes, please add to the attached COC for analysis, Helium by ASTM D-1946. Thank you.
>
> <<10-11-2128.PDF>>
>
> Cecile de Guia
> Project Manager
> Calscience Environmental Laboratories, Inc.
> 7440 Lincoln Way
> Garden Grove, CA 92841-1427
> Phone: 714-895-5494 x221
> Fax: 714-894-7501
> CdeGuia@calscience.com
>
> PRIVACY NOTICE:
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>
> <10-11-2128.PDF>

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

Site Name

Provide MRN for retail or AFE for major projects	
Retail Project (MRN)	
Major Project (AFE)	
Project Name	Former Mobil 04FGN

CHAIN OF CUSTODY RECORD

DATE: 11/26/10

PAGE: 1 OF 1

ExxonMobil Engr:

LABORATORY CLIENT:
ExxonMobil c/o ETIC Engineering

ADDRESS:
2285 Morello Avenue

CITY:
Pleasant Hill, CA 94523

TEL: **925-602-4710 Ext. 21** FAX: **925-602-4720**

GLOBAL ID # COELT LOG CODE:
GLOBAL ID# T0600100912

PROJECT CONTACT:
Erik Appel, ETIC Engineering, Inc.

SAMPLER(S): (SIGNATURE)

P.O.
4512008383

LAB USE ONLY
11-2128

COOLER RECEIPT
Temp = ____ °C

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☑ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS:
edf file required, GLOBAL ID# T0600100912
email report to eticlabreports@eticeng.com
Please use µg/m3 for TPHg, MTBE, TBA, BTEX and Helium.
* 7 Oxygenates include MTBE, TBA, TAME, ETBE, DIPE, EDB, AND 1,2-DCA.

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPHg (EPA TO-3(M))	7 Oxygenates (EPA TO-15)*	BTEX (TO-15)	Oxygen & argon, Methane, Carbon dioxide (ASTM D-1946)	CONTAINER TYPE
1	VW1	-4" Hg. Left	11/26/10	1435	Vapor	1	X	X	X	X	1-Liter Summa Canister
2	VW2	-4" Hg. Left		1330	Vapor	1	X	X	X	X	1-Liter Summa Canister
3	VW3	-4" Hg. Left		1118	Vapor	1	X	X	X	X	1-Liter Summa Canister
4	VW4	-5" Hg. Left		1255	Vapor	1	X	X	X	X	1-Liter Summa Canister
5	VW5	-3" Hg. Left		1213	Vapor	1	X	X	X	X	1-Liter Summa Canister
6	VW3(DUP)	-2" Hg. Left		1323	Vapor	1	X	X	X	X	1-Liter Summa Canister

Relinquished by: (Signature)	Received by: (Signature)	Date, & Time: 11/29/10 1420
Relinquished by: (Signature) to CDD 11/29/10 1730	Received by: (Signature)	Date, & Time: 11/30/10 1030
Relinquished by: (Signature)	Received by: (Signature)	Date, & Time:

COC\04FGN COC_vapor

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

Site Name

Provide MRN for retail or AFE for major projects

Retail Project (MRN)

Major Project (AFE)

Project Name: Former Mobil 04FGN

CHAIN OF CUSTODY RECORD

DATE: 11/26/10

PAGE: 1 OF 1

ExxonMobil Engr:

LABORATORY CLIENT: ExxonMobil c/o ETIC Engineering

ADDRESS: 2285 Morello Avenue

CITY: Pleasant Hill, CA 94523

TEL: 925-602-4710 Ext. 21 FAX: 925-602-4720

GLOBAL ID #/ COELT LOG CODE: GLOBAL ID# T0600100912

PROJECT CONTACT: Erik Appel, ETIC Engineering, Inc.

SAMPLER(S): (SIGNATURE)

P.O. 4512008383

LAB USE ONLY: 11728

COOLER RECEIPT Temp = _____ °C

TURNAROUND TIME

☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☑ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)

☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS:

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MAT-RIX	NO. OF CONT.	REQUESTED ANALYSIS	CONTAINER TYPE
7	VW1	-17" Hg. Left	11/26/10		Vapor	1	DO NOT ANALYZE	6-Liter Summa Canister
8	VW2	-17" Hg. Left	↓		Vapor	1	DO NOT ANALYZE	6-Liter Summa Canister
9	VW3	-2" Hg. Left			Vapor	1	DO NOT ANALYZE	6-Liter Summa Canister
10	VW4	-17" Hg. Left			Vapor	1	DO NOT ANALYZE	6-Liter Summa Canister
11	VW5	-18" Hg. Left			Vapor	1	DO NOT ANALYZE	6-Liter Summa Canister
					Vapor	1	DO NOT ANALYZE	6-Liter Summa Canister

Relinquished by: (Signature)

Relinquished by: (Signature) to CSD 11/29/10 1730

Relinquished by: (Signature)

COC\99105 COC vapor

Received by: (Signature) Tom Mally CEL

Received by: (Signature) CEL

Received by: (Signature)

Date, & Time: 11/29/10 1420

Date, & Time: 11/30/10 1030

Date, & Time:

GSO

WebShip > > > > >
800-322-5555 www.gso.com

Ship From:
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

Ship To:
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
ETIC

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 515441611

NPS

ORC

D

GARDEN GROVE

D92843A

86658388

Print Date : 11/29/10 15:07 PM

Package 1 of 2

GSO

WebShip > > > > >
800-322-5555 www.gso.com

Ship From:
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

Ship To:
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
ETIC

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 515441612

NPS

ORC

D

GARDEN GROVE

D92843A

86658390

Print Date : 11/29/10 15:07 PM

Package 2 of 2

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-11-2128

SAMPLE RECEIPT FORM

Cooler 0 of 0

CLIENT: ETIC DATE: 11/ /10

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature ____.____ °C + 0.5 °C (CF) = ____.____ °C ☐ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ **Received at ambient temperature, placed on ice for transport by Courier.**

Ambient Temperature: ☑ Air ☐ Filter **Initial:** NC

CUSTODY SEALS INTACT:

☐ Cooler ☑ Box ☐ No (Not Intact) ☐ Not Present ☐ N/A **Initial:** NC

☐ Sample ☐ _____ ☐ No (Not Intact) ☑ Not Present **Initial:** NC

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☐Sleeve (_____) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☐VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna_2 ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐500PB ☐500PBna ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_2 ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☑Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** NC

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** W

Preservative: h: HCL n: HNO_3 na_2: $Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 znna: $ZnAc_2$+NaOH f: Field-filtered **Scanned by:** _____

Calscience
Environmental
Laboratories, Inc.

December 08, 2010

Erik Appel
ETIC Engineering, Inc.
2285 Morello Avenue
Pleasant Hill, CA 94523-1850

Subject: **Calscience Work Order No.: 10-11-2045**
Client Reference: ExxonMobil 04FGN

Dear Client:

Enclosed is an analytical report for the above-referenced project. The samples included in this report were received 11/26/2010 and analyzed in accordance with the attached chain-of-custody.

Calscience Environmental Laboratories certifies that the test results provided in this report meet all NELAC requirements for parameters for which accreditation is required or available. Any exceptions to NELAC requirements are noted in the case narrative. The original report of subcontracted analysis, if any, is provided herein, and follows the standard Calscience data package. The results in this analytical report are limited to the samples tested and any reproduction thereof must be made in its entirety.

Note that the Chain-of-Custody Record and Sample Receipt Form are integral parts of this report.

If you have any questions regarding this report, please do not hesitate to contact the undersigned.

Sincerely,

Cecile L deGuia

Calscience Environmental
Laboratories, Inc.
Cecile deGuia
Project Manager

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2045
Pleasant Hill, CA 94523-1850		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)

Project: ExxonMobil 04FGN

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Drum 1 and 2	**10-11-2045-3-A**	**11/24/10 00:00**	**Solid**	**GC 24**	**11/27/10**	**11/27/10 14:42**	**101127B01**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	0.50	0.42	1	U	mg/kg
Surrogates:	REC (%)	Control Limits			Qual	
1,4-Bromofluorobenzene	92	42-126				

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-279-4,121**	**N/A**	**Solid**	**GC 24**	**11/27/10**	**11/27/10 12:26**	**101127B01**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
TPH as Gasoline	ND	0.50	0.42	1	U	mg/kg
Surrogates:	REC (%)	Control Limits			Qual	
1,4-Bromofluorobenzene - FID	122	42-126				

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2045
Pleasant Hill, CA 94523-1850		Preparation:	EPA 5030C
		Method:	EPA 8260B
		Units:	mg/kg
Project: ExxonMobil 04FGN			Page 1 of 1

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Drum 1 and 2	**10-11-2045-3-A**	**11/24/10 00:00**	**Solid**	**GC/MS Z**	**11/26/10**	**11/28/10 07:11**	**101127L03**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Benzene	ND	0.0050	0.00020	1	U	Toluene	ND	0.0050	0.00029	1	U
Ethylbenzene	ND	0.0050	0.00016	1	U	Xylenes (total)	ND	0.0050	0.00032	1	U

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	99	63-141		1,2-Dichloroethane-d4	95	62-146	
Toluene-d8	98	80-120		1,4-Bromofluorobenzene	95	60-132	

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**099-12-796-4,211**	**N/A**	**Solid**	**GC/MS Z**	**11/27/10**	**11/27/10 23:07**	**101127L03**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Parameter	Result	RL	MDL	DF	Qual
Benzene	ND	0.0050	0.00020	1	U	Toluene	ND	0.0050	0.00029	1	U
Ethylbenzene	ND	0.0050	0.00016	1	U	Xylenes (total)	ND	0.0050	0.00032	1	U

Surrogates:	REC (%)	Control Limits	Qual	Surrogates:	REC (%)	Control Limits	Qual
Dibromofluoromethane	95	63-141		1,2-Dichloroethane-d4	88	62-146	
Toluene-d8	97	80-120		1,4-Bromofluorobenzene	93	60-132	

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Analytical Report

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2045
Pleasant Hill, CA 94523-1850		Preparation:	EPA 3050B
		Method:	EPA 6010B

Project: ExxonMobil 04FGN

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Drum 1 and 2	**10-11-2045-3-A**	**11/24/10 00:00**	**Solid**	**ICP 5300**	**11/29/10**	**11/29/10 20:02**	**101129L01**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
Lead	29.0	0.500	0.181	1		mg/kg

Client Sample Number	Lab Sample Number	Date/Time Collected	Matrix	Instrument	Date Prepared	Date/Time Analyzed	QC Batch ID
Method Blank	**097-01-002-14,382**	**N/A**	**Solid**	**ICP 5300**	**11/29/10**	**11/29/10 14:33**	**101129L01**

Comment(s): -Results were evaluated to the MDL, concentrations >= to the MDL but < RL, if found, are qualified with a "J" flag.

Parameter	Result	RL	MDL	DF	Qual	Units
Lead	ND	0.500	0.181	1	U	mg/kg

RL - Reporting Limit , DF - Dilution Factor , Qual - Qualifiers

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.	Date Received:	11/26/10
2285 Morello Avenue	Work Order No:	10-11-2045
Pleasant Hill, CA 94523-1850	Preparation:	EPA 3050B
	Method:	EPA 6010B

Project ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-11-1618-5	**Solid**	**ICP 5300**	**11/29/10**	**11/29/10**	**101129S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	88	99	75-125	7	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - PDS / PDSD

ETIC Engineering, Inc.	Date Received	11/26/10
2285 Morello Avenue	Work Order No:	10-11-2045
Pleasant Hill, CA 94523-1850	Preparation:	EPA 3050B
	Method:	EPA 6010B

Project: ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	PDS / PDSD Batch Number
10-11-1618-5	**Solid**	**ICP 5300**	**11/29/10**	**11/29/10**	**101129S01**

Parameter	PDS %REC	PDSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	95	94	75-125	1	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.		Date Received:	11/26/10
2285 Morello Avenue		Work Order No:	10-11-2045
Pleasant Hill, CA 94523-1850		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)

Project ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
Drum 1 and 2	**Solid**	**GC 24**	**11/27/10**	**11/27/10**	**101127S01**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	89	81	48-114	9	0-23	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - Spike/Spike Duplicate

ETIC Engineering, Inc.	Date Received:	11/26/10
2285 Morello Avenue	Work Order No:	10-11-2045
Pleasant Hill, CA 94523-1850	Preparation:	EPA 5030C
	Method:	EPA 8260B

Project ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	MS/MSD Batch Number
10-11-2023-21	**Solid**	**GC/MS Z**	**11/24/10**	**11/28/10**	**101127S02**

Parameter	MS %REC	MSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	89	91	61-127	1	0-20	
Ethylbenzene	90	90	57-129	1	0-22	
Toluene	91	92	63-123	2	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ETIC Engineering, Inc.		Date Received:	N/A
2285 Morello Avenue		Work Order No:	10-11-2045
Pleasant Hill, CA 94523-1850		Preparation:	EPA 3050B
		Method:	EPA 6010B

Project: ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
097-01-002-14,382	**Solid**	**ICP 5300**	**11/29/10**	**11/29/10**	**101129L01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Lead	110	114	80-120	4	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ETIC Engineering, Inc.		Date Received:	N/A
2285 Morello Avenue		Work Order No:	10-11-2045
Pleasant Hill, CA 94523-1850		Preparation:	EPA 5030C
		Method:	EPA 8015B (M)

Project: ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-279-4,121	**Solid**	**GC 24**	**11/27/10**	**11/27/10**	**101127B01**

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
TPH as Gasoline	113	105	70-124	7	0-18	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Quality Control - LCS/LCS Duplicate

ETIC Engineering, Inc.	Date Received:	N/A
2285 Morello Avenue	Work Order No:	10-11-2045
Pleasant Hill, CA 94523-1850	Preparation:	EPA 5030C
	Method:	EPA 8260B

Project: ExxonMobil 04FGN

Quality Control Sample ID	Matrix	Instrument	Date Prepared	Date Analyzed	LCS/LCSD Batch Number
099-12-796-4,211	Solid	GC/MS Z	11/27/10	11/27/10	101127L03

Parameter	LCS %REC	LCSD %REC	%REC CL	RPD	RPD CL	Qualifiers
Benzene	88	88	78-120	0	0-20	
Ethylbenzene	88	85	76-120	3	0-20	
Toluene	88	90	77-120	3	0-20	

RPD - Relative Percent Difference , CL - Control Limit

Calscience Environmental Laboratories, Inc.

Glossary of Terms and Qualifiers

Work Order Number: 10-11-2045

Qualifier	Definition
*	See applicable analysis comment.
1	Surrogate compound recovery was out of control due to a required sample dilution, therefore, the sample data was reported without further clarification.
2	Surrogate compound recovery was out of control due to matrix interference. The associated method blank surrogate spike compound was in control and, therefore, the sample data was reported without further clarification.
3	Recovery of the Matrix Spike (MS) or Matrix Spike Duplicate (MSD) compound was out of control due to matrix interference. The associated LCS and/or LCSD was in control and, therefore, the sample data was reported without further clarification.
4	The MS/MSD RPD was out of control due to matrix interference. The LCS/LCSD RPD was in control and, therefore, the sample data was reported without further clarification.
5	The PDS/PDSD or PES/PESD associated with this batch of samples was out of control due to a matrix interference effect. The associated batch LCS/LCSD was in control and, hence, the associated sample data was reported without further clarification.
B	Analyte was present in the associated method blank.
BU	Sample analyzed after holding time expired.
E	Concentration exceeds the calibration range.
ET	Sample was extracted past end of recommended max. holding time.
I	Compound did not meet method-described identification guidelines. Identification was based on additional GC/MS characteristics.
J	Analyte was detected at a concentration below the reporting limit and above the laboratory method detection limit. Reported value is estimated.
ME	LCS recovery percentage is within LCS ME control limit range.
ND	Parameter not detected at the indicated reporting limit.
Q	Spike recovery and RPD control limits do not apply resulting from the parameter concentration in the sample exceeding the spike concentration by a factor of four or greater.
U	Undetected at detection limit.
X	% Recovery and/or RPD out-of-range.
Z	Analyte presence was not confirmed by second column or GC/MS analysis.

Solid - Unless otherwise indicated, solid sample data is reported on a wet weight basis, not corrected for % moisture.

Calscience Environmental Laboratories, Inc.
7440 LINCOLN WAY
GARDEN GROVE, CA 92841-1432
TEL: (714) 895-5494 . FAX: (714) 894-7501

Site Name	
Provide MRN for retail or AFE for major projects	
Retail Project (MRN)	
Major Project (AFE)	
Project Name	Former Mobil 04FGN

CHAIN OF CUSTODY RECORD

DATE: 11/24/10

PAGE: 1 OF 1

ExxonMobil Engr:

LABORATORY CLIENT:
ExxonMobil c/o ETIC Engineering

ADDRESS:
2285 Morello Avenue

CITY:
Pleasant Hill, CA 94523

TEL: **925-602-4710 Ext. 21** FAX: **925-602-4720**

GLOBAL ID #/ COELT LOG CODE:
GLOBAL ID# T0600100912

PROJECT CONTACT:
Erik Appel, ETIC Engineering, Inc.

SAMPLER(S): (SIGNATURE)

P.O.
4512008383

LAB USE ONLY
11-2045

COOLER RECEIPT
Temp = ____ °C

TURNAROUND TIME
☐ SAME DAY ☐ 24 HR ☐ 48 HR ☐ 72 HR ☐ 5 DAYS ☑ 10 DAYS

SPECIAL REQUIREMENTS (ADDITIONAL COSTS MAY APPLY)
☐ RWQCB REPORTING ☐ ARCHIVE SAMPLES UNTIL ____/____/____

SPECIAL INSTRUCTIONS:
edf file required, GLOBAL ID# T0600100912
email report to eticlabreports@eticeng.com

REQUESTED ANALYSIS

LAB USE ONLY	SAMPLE ID	LOCATION/ DESCRIPTION	SAMPLING DATE	SAMPLING TIME	MATRIX	NO. OF CONT.	TPH-g BY 8015B	BTEX BY 8260B	TOTAL LEAD BY 6010	CONTAINER TYPE
1	Drum 1		11/24/10	1000	Soil	1	X	X	X	6" ss sleeve
2	Drum 2		11/24/10	1155	Soil	1	X	X	X	

Composite and designate as "Drum 1 and 2".

Relinquished by: (Signature)	Received by: (Signature)	Date, & Time:
	To O'Malley CEL	11/24/10 1500
Relinquished by: (Signature) To GSO 11/24/10 1730	Received by: (Signature) CEL	Date, & Time: 11/26/10 0945
Relinquished by: (Signature)	Received by: (Signature)	Date, & Time:

COC\04FGN COC soil

2045

GSO

WebShip

800-322-5555 www.gso.com

Ship From:
ALAN KEMP
CAL SCIENCE- CONCORD
5063 COMMERCIAL CIRCLE #H
CONCORD, CA 94520

Ship To:
SAMPLE RECEIVING
CEL
7440 LINCOLN WAY
GARDEN GROVE, CA 92841

COD:
$0.00

Reference:
PREMIER ENV, ETIC, CRA

Delivery Instructions:

Signature Type:
SIGNATURE REQUIRED

Tracking #: 515432186

NPS

ORC

D

GARDEN GROVE

D92843A

C1|86621189

86621189

Print Date : 11/24/10 15:44 PM

Package 1 of 1

Send Label To Printer | Print All | Edit Shipment | Finish

LABEL INSTRUCTIONS:

Do not copy or reprint this label for additional shipments - each package must have a unique barcode.

STEP 1 - Use the "Send Label to Printer" button on this page to print the shipping label on a laser or inkjet printer.

STEP 2 - Fold this page in half.

STEP 3 - Securely attach this label to your package, do not cover the barcode.

STEP 4 - Request an on-call pickup for your package, if you do not have scheduled daily pickup service or Drop-off your package at the nearest GSO drop box. Locate nearest GSO dropbox locations using this link.

ADDITIONAL OPTIONS:

Send Label Via Email | Create Return Label

TERMS AND CONDITIONS:

By giving us your shipment to deliver, you agree to all the service terms and conditions described in this section.
Our liability for loss or damage to any package is limited to your actual damages or $100 whichever is less, unless you pay for and declare a higher authorized value. If you declare a higher value and pay the additional charge, our liability will be the lesser of your declared value or the actual value of your loss or damage. In any event, we will not be liable for any damage, whether direct, incidental, special or consequential, in excess of the declared value of a shipment whether or not we had knowledge that such damage might be incurred including but not limited to loss of income or profit. We will not be liable for your acts or omissions, including but not limited to improper or insufficient packaging, securing, marking or addressing. Also, we will not be liable if you or the recipient violates any of the terms of our agreement. We will not be liable for loss, damage or delay caused by events we cannot control, including but not limited to acts of God, perils of the air, weather conditions, act of public enemies, war, strikes, or civil commotion. The highest declared value for our GSO Priority Letter or GSO Priority Package is $500. For other shipments the highest declared value is $10,000 unless your package contains items of "extraordinary value", in which case the highest declared value we allow is $500. Items of "extraordinary value" include, but or not limited to, artwork, jewelry, furs, precious metals, tickets, negotiable instruments and other items with intrinsic value.

Calscience Environmental Laboratories, Inc.

WORK ORDER #: 10-11-[S][0][4][5]

SAMPLE RECEIPT FORM

Cooler 1 of 1

CLIENT: ETIC

DATE: 11/26/10

TEMPERATURE: Thermometer ID: SC1 (Criteria: 0.0 °C – 6.0 °C, not frozen)

Temperature 2.6 °C + 0.5 °C (CF) = 3.1 °C ☑ Blank ☐ Sample

☐ Sample(s) outside temperature criteria (PM/APM contacted by: _____).

☐ Sample(s) outside temperature criteria but received on ice/chilled on same day of sampling.

☐ Received at ambient temperature, placed on ice for transport by Courier.

Ambient Temperature: ☐ Air ☐ Filter Initial: YC

CUSTODY SEALS INTACT:

☑ Cooler ☐ _____ ☐ No (Not Intact) ☐ Not Present ☐ N/A Initial: YC

☐ Sample ☐ _____ ☐ No (Not Intact) ☑ Not Present Initial: [illegible]

SAMPLE CONDITION:	Yes	No	N/A
Chain-Of-Custody (COC) document(s) received with samples	☑	☐	☐
COC document(s) received complete	☑	☐	☐
☐ Collection date/time, matrix, and/or # of containers logged in based on sample labels.			
☐ No analysis requested. ☐ Not relinquished. ☐ No date/time relinquished.			
Sampler's name indicated on COC	☑	☐	☐
Sample container label(s) consistent with COC	☑	☐	☐
Sample container(s) intact and good condition	☑	☐	☐
Proper containers and sufficient volume for analyses requested	☑	☐	☐
Analyses received within holding time	☑	☐	☐
pH / Residual Chlorine / Dissolved Sulfide received within 24 hours	☐	☐	☑
Proper preservation noted on COC or sample container	☐	☐	☑
☐ Unpreserved vials received for Volatiles analysis			
Volatile analysis container(s) free of headspace	☐	☐	☑
Tedlar bag(s) free of condensation	☐	☐	☑

CONTAINER TYPE:

Solid: ☐4ozCGJ ☐8ozCGJ ☐16ozCGJ ☑Sleeve (S) ☐EnCores® ☐TerraCores® ☐_____

Water: ☐VOA ☐VOAh ☐VOAna_2 ☐125AGB ☐125AGBh ☐125AGBp ☐1AGB ☐1AGBna_2 ☐1AGBs ☐500AGB ☐500AGJ ☐500AGJs ☐250AGB ☐250CGB ☐250CGBs ☐1PB ☐500PB ☐500PBna ☐250PB ☐250PBn ☐125PB ☐125PBznna ☐100PJ ☐100PJna_2 ☐_____ ☐_____ ☐_____

Air: ☐Tedlar® ☐Summa® **Other:** ☐_____ **Trip Blank Lot#:**_____ **Labeled/Checked by:** [illegible]

Container: C: Clear A: Amber P: Plastic G: Glass J: Jar B: Bottle Z: Ziploc/Resealable Bag E: Envelope **Reviewed by:** YC

Preservative: h: HCL n: HNO_3 na_2:$Na_2S_2O_3$ na: NaOH p: H_3PO_4 s: H_2SO_4 znna: $ZnAc_2$+NaOH f: Field-filtered **Scanned by:** YC

Appendix I

Waste Documentation

NON-HAZARDOUS WASTE MANIFEST

1. Generator ID Number

2. Page 1 of 1

3. Emergency Response Phone: 800-575-1056

4. Waste Tracking Number: 911079-121410

GENERATOR

5. Generator's Name and Mailing Address
Exxon Mobil Oil Corporation (04FGN)
2555 West 190th St., #1105
Oakland, CA 90504 USA

Generator's Site Address (if different than mailing address)
14594 East 14th St.,
San Leandro, CA USA

Generator's Phone: 925-575-1056-32

6. Transporter 1 Company Name: DILLARD ENVIRONMENTAL SERVICES
U.S. EPA ID Number: CAD982523433

7. Transporter 2 Company Name
U.S. EPA ID Number

8. Designated Facility Name and Site Address
REPUBLIC SERVICES (VASCO ROAD LANDFILL)
4001 N VASCO ROAD
LIVERMORE, CA 94550 USA
U.S. EPA ID Number

Facility's Phone: 925-447-0491

	9. Waste Shipping Name and Description	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit Wt./Vol.	
1.	Non Hazardous Waste Soil, (Drill Cuttings)	2	DM	800	P	
2.	Non Hazardous Waste Solid, (Construction Debris)	1	DM	400	P	
3.						
4.						

13. Special Handling Instructions and Additional Information
DES Job# 911-079

DEC 20 2010

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and governmental regulations.

Generator's/Offeror's Printed/Typed Name: Bryan Campbell on behalf of Exxon Mobil Oil Corp. Signature: [signature] Month: 12 Day: 15 Year: 10

TRANSPORTER

15. International Shipments: ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter Signature (for exports only): Date leaving U.S.:

16. Transporter Acknowledgement of Receipt of Materials

Transporter 1 Printed/Typed Name: David Burke Signature: [signature] Month: 12 Day: 15 Year: 10

Transporter 2 Printed/Typed Name: Signature: Month: Day: Year:

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space: ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator) U.S. EPA ID Number:

Facility's Phone:

17c. Signature of Alternate Facility (or Generator) Month: Day: Year:

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a DEC 15 2010

Printed/Typed Name: Signature: Month: Day: Year:

169-BLC-O 6 10498 (Rev. 9/09)

DESIGNATED FACILITY TO GENERATOR

12-20-10