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June 20, 2012

Alameda County Environmental Health
Attn: Barbara Jakub, P.G.
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

Subject: Soil Vapor Investigation and Risk Assessment Report
Former Unocal Service Station
20405 Redwood Road
Castro Valley, California

Dear Ms. Jakub:

Enclosed please find a copy of the subject report dated June 20, 2012, prepared by BSK Associates.

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

Sincerely,

Randall Nahas

BSK Associates
Engineers & Laboratories

SOIL VAPOR INVESTIGATION AND RISK ASSESSMENT REPORT

FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

BSK PROJECT E0805401S

PREPARED FOR:

MR. RANDALL NAHAS
P.O. BOX 3049
SAN RAMON, CA 94583

JUNE 20, 2012

SOIL VAPOR INVESTIGATION AND RISK ASSESSMENT REPORT
FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

Prepared for:

Mr. Randall Nahas
P.O. Box 3059
San Ramon, CA 94583

E0805401S

June 20, 2012

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SOIL VAPOR INVESTIGATION AND RISK ASSESSMENT REPORT
FORMER UNOCAL SERVICE STATION
CASTRO VALLEY, CALIFORNIA

1. INTRODUCTION

At the request of Mr. Randall Nahas, BSK Associates has prepared this Soil Vapor Investigation and Tier I Human Health Risk Assessment (HHRA) report for the Former Unocal Service Station (the site). This investigation was requested by the Alameda County Environmental Health Department (ACEH) in a letter dated February 2, 2012, in order to update the site risk assessment.

Figure 1 illustrates the site vicinity. A site plan is shown on Figure 2. Site information is as follows:

Site Name and Location:	Former Unocal Service Station 20405 Redwood Road, Castro Valley, California
Contacts:	Mr. Randall Nahas P.O. Box 3059 San Ramon, California 94583
Global ID:	T0600101370

2. SITE DESCRIPTION AND PROJECT HISTORY

2.1 Site Description

The site is located at 20405 Redwood Road in Castro Valley, California. The property is bounded on the north by a parking lot, on the south by a strip mall, and on the west by a do-it-yourself car wash. Properties surrounding the site are in commercial use.

The former service station at this property included one building with a covered pump island. The structure was demolished in 1997. Since then, the property has been mostly vacant, except for occasional temporary use as a Christmas tree lot or construction staging area.

2.2 Project History

December 1989, Soil Investigation and Monitoring Well Installation: In December 1989, three groundwater monitoring wells (MW-2, MW-3 and MW-4) were installed at the locations shown on Figure 2. Soil samples were collected from soil borings MW-1 and MW-1A; however, they were not converted to monitoring wells (BSK, 1995). Summaries of soil sample analytical results are presented in Table 1 (petroleum hydrocarbons) and Table 2 (volatile and semi-volatile organic compounds). Monitoring well groundwater sample analytical results are summarized in Table 3 (petroleum hydrocarbons), Table 4 (volatile organic carbons).

March 1991, Soil Investigation: Thirteen soil borings (SB-1 through SB-13) were advanced at the locations shown on Figure 2 to depths ranging between approximately 10 and 20 feet below ground surface (bgs) (BSK, 1996). Soil sample analytical results are summarized in Table 1.

March through April 1992, Soil Borings and Monitoring Well Installation: Soil borings MW-5, MW-6, MW-7, SB-14, and SB-15 were drilled at the locations shown on Figure 2. A summary of soil sample analytical results is presented in Table 1. Borings MW-5, MW-6, and MW-7 were completed as groundwater monitoring wells.

October 1992, Chromatograph Evaluation: BSK identified a non-standard peak in the chromatograph from a groundwater sample from well MW-7. The peak was not typical of petroleum hydrocarbons.

November 1992, Groundwater Sampling: Groundwater samples from monitoring well MW-7 were analyzed for volatile halocarbons by EPA Method 601. Analytical results are summarized in Table 3. Tetrachloroethene (PCE) and trichloroethylene (TCE) were detected in groundwater samples from well MW-7 at concentrations of 14,000 µg/L and 660 µg/L, respectively. BSK Associates attributed the previous concentrations of total petroleum hydrocarbons as gasoline (TPHg) to the presence of PCE and concluded gasoline contamination may not occur in a significant quantity in monitoring well MW-7. As a result, BSK Associates recommended ceasing any further investigation of the gasoline plume south of well MW-7 (BSK, 1992).

November 1993, Soil Borings: Soil borings SP-1 and SP-2 were advanced at the locations shown on Figure 2. Soil and groundwater samples were collected from each boring. Summaries of soil sample analytical results are presented in Table 1 (petroleum hydrocarbons) and Table 2 (volatile and semi-volatile organic compounds). Monitoring well groundwater sample analytical results are summarized in Table 3 (Philip Environmental, 1996).

December 1995, Feasibility Study: Excavation and on-site treatment of excavated soil was selected as the remedial alternative for soil impacts. As a part of the feasibility study, an aquifer pump test was conducted. Groundwater extraction well MW-101 was installed at the location shown on Figure 2. Pump-and-treat was determined to be a feasible remedial alternative for groundwater impacts at the site. (BSK, 1995).

June 1996, Revised Corrective Action Plan: Philip Environmental prepared a Revised Corrective Action Plan. The plan stated that the site operator and property owner planned to cease operation of the site as a service station, which would require closure of the underground storage tanks. Philip Environmental recommended removal of the USTs, soil excavation and limited groundwater extraction (Philip Environmental, 1996).

As part of the Revised Corrective Action Plan, Tier I and Tier II Risk Assessments were conducted. Results of the Tier I Risk Assessment show benzene levels in soil at the site exceeded the risk based screening levels for volatilization from soil to outdoor air, vapor intrusion from soil to on-site buildings, soil ingestion, and leachate from soil to water exposure pathways. Toluene levels in soil at the site exceeded the risk based screening

levels for the vapor intrusion from soil to on-site buildings exposure pathway. Results of the Tier II Risk Assessment indicated that concentrations of hydrocarbons and benzene in soil and groundwater exceed Tier II site specific screening levels in the area adjacent to the USTs and the southern property boundary (Philip Environmental, 1996).

Summer 1997, Service Station Building Demolition: The service station building was demolished and fuel dispensers removed (Life Springs Environmental Inc., 1999).

November 1998, UST Removal: The concrete slabs and foundation of the building, fueling area, and pump islands, were broken up and hauled to a recycling facility. The three USTs and associated piping were removed and transported to Ecology Control Industries (ECI) in Richmond, California. Two hydraulic hoists and clarifier sump were also removed. No holes were observed in the gasoline USTs, but small holes were observed in the waste oil UST. The excavated soil (approximately 175 cubic yards) was stockpiled. Figure 3 shows the approximate extent of the excavation.

Soil samples were collected after excavation. Sample locations are shown on Figure 3. Tables 1 and 2 provide summaries of soil sample analytical results. The release of petroleum hydrocarbons at the site appears to have primarily impacted the backfill material surrounding the two 10,000 gallon gasoline USTs (Life Springs Environmental Inc., 1999).

The UST pit was backfilled with aggregate base to within 5 feet of ground surface. Winter weather conditions led Life Springs Environmental Inc. to place impacted soil back in the excavations of the waste oil UST and clarifier sump (Life Springs Environmental Inc., 1999).

April 1999, Stockpiled Soil Remediation: Beginning in April 1999, impacted soil from the main UST excavation was laid out in shallow beds and aerated by periodic tilling.

May 1999, Soil Re-Excavation and Sampling: The waste oil UST and clarifier sump areas were re-excavated, with the second excavation extending slightly deeper then the first. Excavated soil from the waste oil UST and clarifier sump pits was disposed of at Vasco Road Sanitary Landfill in Livermore, California (Life Springs Environmental Inc., 2000). Soil samples were collected from native soil in both pits and analyzed for total petroleum hydrocarbons as diesel (TPHd) and total oil and grease. A section of the pipe trench area was excavated to a depth of 3 feet bgs. Excavated soil from the trench was laid out in shallow beds for aeration. A soil sample was collected from the trench re-excavation (sample name: GASLINE). The sample was analyzed for TPHg, benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary-butyl ether (MTBE). Table 1 provides a summary of soil sample analytical results. Figure 3 shows the approximate extent of re-excavation and sample locations.

August 1999, Waste Oil and Clarifier Sump Pit Sampling and Soil Stockpiling: The aerated soil from previous excavations was stockpiled. Soil samples were collected from the bottom of the waste oil and clarifier sump pits at depths of 10 and 7 feet bgs respectively (Life Springs Environmental Inc., 1999). Table 1 provides a summary of soil sample analytical results, Figure 3 shows the approximate sample locations.

September 1999, Waste Oil Pit Sampling: A soil sample was collected from within the waste oil pit at a depth of 11.5 bgs and analyzed for chlorinated hydrocarbons and TPHd. Table 1 provides a summary of soil sample analytical results, Figure 3 shows the approximate sample location.

October 1999, Clarifier Sump Pit Sampling: A soil sample was collected within the clarifier sump pit at a depth of 9.5 feet bgs. Table 1 provides a summary of soil sample analytical results, Figure 3 shows the approximate sample location.

November 1999, Permission to Re-Use Stockpiled Soil: Permission was granted by Alameda County Environmental Health Services for the re-use of the stockpiled soil that had been remediated by aeration (Life Springs Environmental Inc., 2000).

December 1999, Waste Oil and Clarifier Sump Pit Deepening and Sampling: The waste oil pit was deepened to 10 feet bgs and the clarifier sump pit was deepened to 14 feet bgs. Soil removed from the over-excavation was also transported to the Vasco Road Sanitary Landfill in Livermore, California. Approximately 36.1 tons of soil were removed from both the waste oil pit and the clarifier sump pit during both re-excavation and over-excavation events. Soil samples were collected from the native soil in the bottom of each pit. The two excavations along with the final five feet of the main excavation were filled in with the remediated soil from the main excavation. Table 1 provides a summary of soil sample analytical results. Figure 3 shows the approximate extent of the over-excavation and sample locations.

Monitoring well MW-4 was abandoned by pressure grouting and drilling out. The vault boxes for monitoring wells MW-2 and MW-101 were replaced (Life Springs Environmental Inc., 2000).

Groundwater Monitoring Program: From August 1990 through 1999, groundwater monitoring activities were performed on a quarterly basis. Groundwater monitoring was performed semi-annually starting in 1999 through September 2003. Groundwater monitoring was not conducted from the third quarter of 2003 through the third quarter of 2008. Groundwater monitoring analytical data are summarized in Table 3 (petroleum hydrocarbon constituents) and Table 4 (volatile organic hydrocarbons). Groundwater elevation data are summarized in Table 5. Groundwater Flow direction and gradient data are summarized in Table 6. Currently, groundwater monitoring is conducted on a semi-annual basis. Figures 4 through 9 present groundwater elevation and TPHg benzene, and MTBE concentration time-series plots for monitoring wells MW-101, MW-2, MW-3, MW-5, MW-6, and MW-7, respectively.

Monitoring wells MW-2 and MW-3 were not sampled from the second half of 2009 through the second half of 2010. Bark and debris covers the area around MW-2 and MW-3, which prevented BSK from locating the wells on several attempts. With assistance from Mr. Nahas, the wells were located in time to sample for the first half 2011 reporting period. In the Status Report for the second half of 2010, BSK recommended locating the wells and installing a crash post next to each vault box. Since the wells have been located and referenced to nearby features, installing crash posts should no longer be necessary.

November 2011, Additional Activities: In a letter dated November 23, 2011, ACEH responded to BSK's Site Conceptual Model (BSK, 2009) and Status Report (BSK, 2011). The technical report requests included evaluating soil vapor in the area of monitoring well MW-101 and former boring SP-1, preparing a site risk assessment, and providing a wellhead elevation survey of the wells associated with the site.

3. RATIONALE

ACEH noted that the high concentration of petroleum hydrocarbons in groundwater at SP1 has not been characterized beyond the grab sample collected in 1993. ACEH requested the collection of soil vapor samples to investigate current petroleum hydrocarbon concentrations in the area.

Very high PCE concentrations exist under the building south of the site (URS, 2012). DTSC has identified Marshall Steel drycleaners as the source of the PCE plume. Petroleum hydrocarbon impact below the building and to the south is negligible compared to the PCE plume; therefore the focus of our investigation is limited to the north of the drycleaner building. We collected soil vapor samples north of the drycleaner building to evaluate the potential human health risk from petroleum hydrocarbon impact.

Future development within the footprint of the former gas station is likely and also requires a soil vapor intrusion assessment. We collected soil vapor samples in this area as well.

4. PURPOSE

The purpose of this phase of the investigation was to:

- Collect shallow soil vapor samples to provide additional data for use in the HHRA;
- Conduct a screening level risk assessment of the chemicals of concern relative to their potential for indoor vapor intrusion;
- Provide conclusions and recommendations regarding our findings.

5. SOIL VAPOR INVESTIGATION

5.1 Field Activities

Prior to initiating field activities, BSK obtained a drilling permit from the Alameda County Department of Public Works. BSK retained Confluence Environmental, Inc., of Sacramento, California, to conduct a soil vapor survey on May 10 and 11, 2012. Prior to initiating drilling, the sampling areas were marked in white paint and Underground Service Alert was notified to coordinate underground utility clearance. To collect soil vapor samples, vapor points SV-1 through SV-9 were set using a hand operated rotary hammer at the approximate locations shown on Figure 2.

The boreholes were advanced to five feet bgs using a rotary hammer fitted with 5/8-inch-diameter auger. A sacrificial stainless steel filter push-tip connected to ¼-inch-diameter Teflon™ tubing was pushed to the bottom of each boring. A one-foot-thick layer of #20 sand was place around the porous tip. Granular bentonite was placed in the remainder of the annulus to within six inches of the ground surface and allowed to hydrate overnight prior to sample collection. A gas-tight valve was attached to the surface end of each sampling tube to prevent the intrusion of ambient air or water from entering the sampling apparatus.

One soil gas sample from each of the nine temporary sample probes was collected in general accordance with BSK's approved workplan (BSK, 2012). The filled sample containers were stored at ambient temperatures until delivery to Air Toxics, Ltd., for laboratory analysis. The samples were analyzed for TPHg, BTEX, fuel oxygenates, and lead scavengers, by EPA Method TO-15. Soil vapor samples collected along the north side of the strip mall (SV-1, SV-2, and SV-3) were also analyzed for TCE and PCE by EPA Method TO-15.

One soil gas sample from SV-9 was also collected for EPA Method TO-17 analysis. A GilAir 5 pump was calibrated at the sampling point to a flow of 219 milliliters per minute while connected to a calibration tube. The sampling tube was then connected to the pump, which was then run for ten minutes. The sample tube was preserved in a chilled cooler until delivery to Air Toxics, Ltd., for laboratory analysis. After collection of the soil vapor samples, the tubing was removed and the sampling point boreholes were backfilled with granular bentonite.

5.2 Findings

Table 7 summarizes analytical results from the nine soil vapor samples. Laboratory analytical reports are included in Appendix A. The table includes the San Francisco Bay Regional Water Quality Control Board (SFBRWQCB) residential Environmental Screening Levels (ESLs) for shallow gas less than five feet bgs, as well as the Office of Environmental Health and Hazard Assessment (OEHHA) commercial soil-gas screening numbers for volatile chemicals below buildings constructed without engineered fill below sub-slab gravel. For each analyte in the table, the lower of the two values was prescribed by CVRWQCB to be the applicable screening level for the possible intrusion of impacted soil gas to indoor air in a commercial setting.

6. SOIL VAPOR RISK ASSESSMENT

A screening-level risk assessment was performed to evaluate the potential for chemical volatilization to indoor air. Soil vapor concentrations were compared to California Human Health Screening Levels (CHHSLs) soil-gas screening numbers for commercial/industrial land use developed by Cal/EPA Office of Environmental Health and Hazard Assessment (OEHHA). Soil vapor concentrations of the site's contaminants of concern did not exceed the OEHHA or CHHLS soil-gas screening numbers. PCE concentrations at sample locations SV-2 and SV-3 exceeded the soil-gas screening numbers; however, the former Unocal

facility is not the source of PCE contamination. The Marshall Steel dry-cleaning facility south of the site is the known source of the PCE and is currently under DTSC oversight.

7. GROUNDWATER TREND ANALYSIS

BSK evaluated whether trends were evident in TPHg, benzene, and MTBE concentrations in the six monitoring wells. The Seasonal-Kendall statistical test with a significance level (α) of 0.05 was used. A summary of findings is presented in Table 8. The test findings suggest that with the exception of those in monitoring well MW-6,TPH, benzene, and MTBE concentrations are decreasing or neither increasing nor decreasing (stable). Concentrations in MW-6 exhibited an increasing TPHg trend and stable benzene and MTBE trends.

8. CONCLUSIONS AND RECOMMENDATIONS

The HHRA indicates that it is unlikely that residual petroleum hydrocarbon constituents remaining in soil would pose a hazard to on-site receptors in a commercial setting.

The following five criteria generally applied for a no further action determination have been sufficiently met:

1. **The leak has been stopped and sources, including free product, have been removed or remediated:** The USTs have been removed from the site and stockpiled soil was remediated by aeration. The trend analysis recently conducted shows that groundwater concentrations are generally decreasing.
2. **The site has been adequately characterized:** The lateral extent of soil and groundwater contamination is adequately defined by the existing monitoring well network.
3. **The contaminant plume is not migrating and chemical concentrations in groundwater are projected to meet water quality objectives through natural attenuation or engineered solutions prior to the beneficial use of groundwater:** Groundwater monitoring has been conducted for over 20 years. The groundwater trend analyses BSK conducted indicate that the constituents of concern are predominantly stable or degrading. TPHg in monitoring well MW-6 is the exception.
4. **No other waters of the State, water supply wells, or other sensitive receptors are likely to be impacted:** An area well search conducted by BSK in 2009 identified two supply wells, approximately 800 feet east and 1,200 feet east/southeast of the site, respectively. As the groundwater generally flows to the south/southeast, both wells are generally cross-gradient from the site. No irrigation wells were found within 2,000 feet of the Site (BSK, 2009).
5. **The site represents no significant risk to human health or safety:** Shallow groundwater is not currently a source of drinking water. The site is capped, making dermal exposure and ingestion unlikely exposure pathways. The HHRA suggests that residual petroleum hydrocarbon concentrations in soil vapor are generally within

acceptable risk levels.

BSK recommends that the Former Unocal Service Station be given a no further action (NFA) determination by the ACEH.

9. LIMITATIONS

This report has been prepared for the exclusive use of Mr. Randall Nahas and pertinent regulatory agencies. Unauthorized use of or reliance on the information contained in this report by others, unless given the express written consent by BSK Associates, is prohibited.

The conclusions presented in this report are professional opinions based on the indicated data described in this report. This report has been prepared in accordance with generally accepted methodologies and standards of professional practice. No other warranties, either expressed or implied, are made as to the findings or conclusions included in the report. Conclusions and recommendations are intended only for the purpose, site location and project indicated.

Opinions presented in this report apply to site conditions existing at the time of our study and those reasonably foreseeable. They cannot necessarily apply to site changes of which this office is not aware and has not evaluated. Changes in the conditions of the subject property may occur with time, because of natural processes or the works of man, on the subject site or on adjacent properties.

10. REFERENCES

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Table 1
Soil Sample Analytical Results
Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California
(Concentrations in mg/kg)

Location	Depth (feet)	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	Oil and Grease	Total Lead	MTBE
December 1989, Soil Investigation and Monitoring Well Installation										
MW-1	5	<10	-	<0.02	<0.02	<0.02	<0.02	-	-	-
	10	**89**	-	**1.8**	**7.8**	**3.8**	**20**	-	-	-
	15	<10	-	**0.09**	<0.02	<0.02	<0.02	-	-	-
	19	<10	-	<0.02	<0.02	<0.02	<0.02	-	-	-
MW-1A	5	<10	<10	<0.02	<0.02	<0.02	<0.02	-	<2.0	-
	10	**110**	**50**[b]	**2.2**	**11**	**5.4**	**25**	-	<2.0	-
	13	**11**	<10	**0.64**	**0.71**	**0.64**	**3.5**	-	<2.0	-
	16.5	<10	<10	<0.02	<0.02	<0.02	<0.02	-	<2.0	-
MW-2	5	<10	-	<0.02	<0.02	<0.02	<0.02	-	-	-
	10	<10	-	**0.05**	<0.02	<0.02	**0.03**	-	-	-
	15	<10	-	<0.02	<0.02	<0.02	<0.02	-	-	-
	20	<10	-	<0.02	<0.02	<0.02	<0.02	-	-	-
MW-3	5	<10	-	<0.02	<0.02	<0.02	<0.02	-	-	-
	10	<10	-	<0.02	<0.02	<0.02	<0.02	-	-	-
	15	**92**	-	ND	ND	**0.97**	**4.0**	-	-	-
	19	<10	-	<0.02	<0.02	<0.02	<0.02	-	-	-
MW-4[a]	5	-	<10	<0.02	<0.02	<0.02	<0.02	<100	-	-
	8.5	-	<10	<0.02	<0.02	<0.02	<0.02	<100	-	-
	13	-	<10	<0.02	<0.02	<0.02	<0.02	<100	-	-
March 1991, Soil Investigation										
SB-1	14.5	<10	-	**0.05**	**0.03**	<0.02	**0.06**	-	-	-
SB-2	10.5	**440**	-	**4.5**	**18**	**11**	**55**	-	<2.0	-
	13	**810**	**340**[b]	**5.3**	**4.2**	**13**	**76**	-	-	-
SB-3	13.5	**15**	<10	**0.09**	**0.18**	**0.19**	**1.1**	-	<2.0	-
	17	<10	-	<0.02	<0.02	<0.02	<0.02	-	-	-
SB-4	14	<10	<10	<0.02	<0.02	<0.02	**0.1**	-	-	-
SB-5	14.5	<10	-	<0.02	<0.02	<0.02	<0.02	-	-	-
SB-6	15	**310**	-	**0.8**	**15**	**6.2**	**36**	-	-	-
SB-8	20.5	<10	-	<0.02	<0.02	<0.02	<0.02	-	-	-
SB-10	16	<10	-	<0.02	<0.02	<0.02	<0.02	-	-	-
SB-11	10.5	**31**	-	**0.09**	**0.03**	**0.49**	**1.8**	-	-	-
SB-12	15.5	<10	-	<0.02	<0.02	<0.02	<0.02	-	-	-
SB-13	10.5	**1100**	-	**5.5**	**67**	**27**	**140**	-	-	-
	14	**530**	-	**7.8**	**48**	**14**	**73**	-	-	-

Table 1
Soil Sample Analytical Results
Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California
(Concentrations in mg/kg)

Location	Depth (feet)	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	Oil and Grease	Total Lead	MTBE
March through April 1992, Soil Borings and Monitoring Well Installation										
SB-14	21	<1	<1	<0.005	<0.005	<0.005	<0.005	-	-	-
SB-15	20.5	<1	**3**	<0.005	**0.007**	<0.005	<0.008	-	-	-
MW-5	21	<1	<1	<0.005	<0.005	<0.005	<0.005	-	-	-
MW-6	16	<1	<1	<0.005	<0.005	<0.005	<0.005	-	-	-
MW-7	15.5	<1	<1	<0.005	<0.005	<0.005	<0.005	-	-	-
November 1993, Soil Borings										
SP-2	14	**9**	-	**0.14**	**0.52**	**0.19**	**1.0**	-	-	-
SP-1	16	-	-	**0.18**	<0.005	**0.075**	**0.055**	-	-	-
December 1995, Monitoring Well Installation										
MW-101	10	**120**	-	<0.005	**0.95**	**2.1**	**11**	-	-	-
	15	**63**	-	ND	**1.5**	**0.87**	**9.8**	-	-	-
November 1998, UST Removal										
WO	8	<1.0	**270**	<0.005	**0.0061**	**0.027**	**0.079**	**2300**	**9.0**	<0.005
PIT NE COR	12	**47**	-	<0.62	<0.62	**0.74**	**3.4**	-	-	<0.62
PIT NE BOT	13	**14**	-	<0.62	<0.62	<0.62	<0.62	-	-	<0.62
PIT SE	12	**31**	-	<0.62	**1.8**	<0.62	**3.0**	-	-	<0.62
PIT SE	unk	**100**	-	<2.5	<2.5	**2.6**	**14**	-	-	<2.5
PIT SW	11.5	**22**	-	<0.62	<0.62	<0.62	**3.0**	-	-	<0.62
PIT NW	12	**2.6**	-	**0.088**	**0.0054**	**0.11**	**0.52**	-	-	**0.014**
WL NW	2	<1.0	-	<0.005	<0.005	<0.005	<0.005	-	-	**0.018**
WL J	2	<1.0	-	<0.005	<0.005	<0.005	<0.005	-	-	<0.005
WIS S	2	**410**	-	**3.6**	**11**	**12**	**72**	-	-	**0.80**
WIS N	2	<1.0	-	<0.005	<0.005	<0.005	<0.005	-	-	<0.005
EJ	2	<1.0	-	<0.005	<0.005	<0.005	<0.005	-	-	<0.005
EIS S	2	<1.0	-	<0.005	<0.005	<0.005	<0.005	-	-	<0.005
EIS N	2	<1.0	-	<0.005	<0.005	<0.005	<0.005	-	-	<0.005
CJ	2	<1.0	-	<0.005	<0.005	<0.005	<0.005	-	-	<0.005
WEST HOIST[3]	8.5	-	**1000*,[1]**	-	-	-	-	-	-	-
EAST HOIST[3]	8.5	-	<1.0**	-	-	-	-	-	-	-
SUMP	4.5	<1.0	**120[1]**	<0.005	<0.005	<0.005	<0.005	**96**	**7.9**	<0.005

TABLES

Table 1
Soil Sample Analytical Results
Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California
(Concentrations in mg/kg)

Location	Depth (feet)	TPHg	TPHd	Benzene	Toluene	Ethylbenzene	Xylenes	Oil and Grease	Total Lead	MTBE
May 1999, Soil Re-excavation and Sampling										
GASLINE	3	<1.0	-	<0.005	<0.005	<0.005	<0.005	-	-	-
SUMP	4	-	**2700[1]/4800[c]**	-	-	-	-	-	-	-
WO	9	-	**38[1]**	-	-	-	-	**140**	-	-
August 1999, Waste Oil and Clarifier Sump Pit Sampling										
SUMP	7	-	**84**	-	-	-	-	**88**	-	-
WO	10	-	**560**	-	-	-	-	**1400**	-	-
September 1999, Waste Oil Pit Sampling										
WO	11.5	<1.0	**1.2[1]**	<0.005	<0.005	<0.005	<0.005	<50	-	-
October 1999, Clarifier Sump Pit Sampling										
SUMP[3]	9.5	**71[1]**	**270[2]**	<0.62	<0.62	<0.62	<0.62	**220**	-	<0.62
December 1999, Waste Oil and Clarifier Sump Pit Deepening and Sampling										
WO[3]	11	<1.0	<1.0	<0.005	<0.005	<0.005	<0.005	<50	-	<0.005
SUMP[3]	15	**6.3[1]**	**690[1]**	<0.005	<0.005	**0.14**	**0.25**	**1200**	-	<0.005

Notes:
-: Not analyzed.
unk: Unknown.
[1]: Hydrocarbon reported does not match the pattern of Chromalab, Inc. standard.
[2]: Estimated concentration reported due to overlapping fuel patterns.
[3]: Exact location not mapped.
* West Hoist also had 2000 mg/kg hydraulic oil.
**East Hoist <50 mg/kg hydraulic oil.
[a]: Soil samples at were also analyzed for VOCs by EPA method 8010. None were detected.
[b]: Sample contains lower molecular weight hydrocarbons.
[c]: Reported as motor oil

Table 2
Soil Sample Analytical Results
Volatile and Semi-Volatile Organic Compounds
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California
(Concentrations in mg/kg)

Well	Depth	Phenanthrene	Fluoranthene	Pyrene	bis(2-Ethylhexyl) phthalate
December 1989, Soil Investigation and Monitoring Well Installation					
MW-4*	5	-	-	-	-
	8.5	-	-	-	-
	13	-	-	-	-
November 1993, Soil Borings					
SP-2*	1	-	-	-	-
SP-1*	16	-	-	-	-
November 1998, UST Removal					
WO	8	**0.10**	**0.17**	**0.22**	**0.6**
SUMP	4.5	<0.10	<0.10	<0.10	<0.50
August 1999, Waste Oil and Clarifier Sump Pit Sampling					
SUMP	7	<0.10	<0.10	<0.10	<0.50
WO	10	<0.10	**0.13**	**0.20**	**0.82**
September 1999, Waste Oil Pit Sampling					
WO	11.5	<0.10	<0.10	<0.10	<0.50

Notes:
-: Not analyzed
*: Samples were analyzed for VOCs by EPA Method 8260 only; none were detected above reportable detection limits

Table 3
Groundwater Monitoring Analytical Results
Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California
(Concentrations in µg/L)

Well	Date	TPHg	TPHd	Total Oil and Grease	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-2	12/89	72	-	-	<0.5	<0.5	<0.5	<0.5	-
	8/90	180	-	-	21	3.9	7.2	28	-
	1/91	430	-	-	50	33	22	110	-
	4/91	4,800	-	-	640	520	140	790	-
	7/91	220	-	-	14	1	17	8	-
	10/91	170	-	-	2.9	ND	2.5	6	-
	1/92	5,200	-	-	480	870	160	860	-
	4/20/92	300	-	-	70	0.3	15	7	-
	7/9/92	84	-	-	10	ND	0.6	2.3	-
	10/8/92	ND	-	-	2.3	ND	2.3	3	-
	1/12/93	170	-	-	11	5.1	1.4	6.3	-
	3/4/93	720	-	-	110	32	67	28	-
	7/1/93	220	-	-	17	1.1	6	12	-
	10/19/93	98	-	-	4.0	ND	2.3	3.1	-
	1/12/94	130	-	-	13	3.4	4.9	9.2	-
	4/25/94	270	-	-	23	1.1	8.2	17	-
	7/28/94	180	-	-	14	0.7	5.8	12	-
	10/13/94	97	-	-	2.8	ND	2.9	1.8	-
	1/10/95	440	-	-	48	2.8	15	27	-
	4/19/95	480	-	-	72	2.8	47	22	-
	10/12/95	450	-	-	7.4	ND	5.1	5.5	-
	4/12/96	690	-	-	41	2.8	27	50	-
	10/8/96	180	-	-	9.4	0.5	7.2	9.4	1,400
	4/9/97	470	-	-	23	1.6	21	31.4	1,800
	11/5/97	360	-	-	6.8	0.64	4.7	8.2	1,200
	3/1/00	560	-	-	14	0.92	16	24	1,400
	9/00	180	-	-	0.89	ND	1	0.65	620
	3/22/01	1,000	-	-	ND	ND	ND	ND	1,300[1]/1,200
	8/23/01	160	-	-	22	1.5	17	27	690[1]/820
	3/02	140	-	-	2.6	0.31	2	1.7	420
	10/02	92	-	-	ND	ND	ND	ND	280
	03/03	IA	IA	IA	IA	IA	IA	IA	IA
	9/17/03	IA	IA	IA	IA	IA	IA	IA	IA
	11/20/08	IA	IA	IA	IA	IA	IA	IA	IA
	2/11/09*	<50	<50	-	<0.3	<0.3	<0.3	<0.3	62
	8/25/09	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL
	8/4/10	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL
	1/7/11	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL
	4/8/11	<50	<50	-	0.4	<0.3	1.7	1.2	110
	10/13/11	430	220	-	<0.3	<0.3	<0.3	<0.4	400

Table 3
Groundwater Monitoring Analytical Results
Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California
(Concentrations in µg/L)

Well	Date	TPHg	TPHd	Total Oil and Grease	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-3	12/89	<50	-	-	<0.5	<0.5	<0.5	<0.5	-
	8/90	**290**	-	-	**55**	**3.8**	**20**	**59**	-
	1/91	**110**	-	-	**29**	**3.3**	**9.7**	**34**	-
	4/91	**3,600**	-	-	**450**	**270**	**150**	**760**	-
	7/91	**220**	-	-	**14**	**14**	**33**	**8.0**	-
	10/91	ND	ND	ND	ND	ND	ND	ND	-
	1/92	**60**	-	-	**4.0**	**10**	**2.0**	**8.0**	-
	4/20/92	ND	-	-	**1.0**	**0.4**	ND	**0.9**	-
	7/9/92	ND	-	-	**1.3**	**0.40**	ND	**1.3**	-
	10/8/92	ND	-	-	**2.1**	ND	ND	**0.30**	-
	1/12/93	ND	-	-	**1.2**	**1.0**	**0.60**	**4.1**	-
	3/4/93	**330**	-	-	**32**	**0.90**	**64**	**13**	-
	7/1/93	**330**	-	-	**24**	**11**	**14**	**82**	-
	10/19/93	ND	-	-	**5.0**	ND	**0.60**	**1.2**	-
	1/12/94	**69**	-	-	**13**	**3.4**	**4.9**	**9.2**	-
	4/25/94	**62**	-	-	**17**	**1.0**	**4.9**	**24**	-
	7/28/94	**52**	-	-	**7.2**	**0.4**	**1.6**	**4.6**	-
	10/13/94	ND	-	-	**0.9**	ND	ND	ND	-
	1/10/95	**250**	-	-	**26**	**0.60**	**14**	**45**	-
	4/19/95	**450**	-	-	**26**	**0.60**	**40**	**19**	-
	10/12/95	**340**	-	-	**9.0**	**3.9**	**8.5**	**34**	-
	4/12/96	**170**	-	-	**41**	**2.8**	**27**	**50**	-
	10/8/96	**79**	-	-	**3.8**	**1.5**	**2.1**	**6.8**	**55**
	4/9/97	**120**	-	-	**7.3**	ND	**3.3**	**5.4**	**230**
	11/5/97	**62**	-	-	**1.7**	**1.4**	**2.3**	**8.3**	**65**
	3/1/00	**96**	-	-	**0.61**	ND	ND	ND	**240**
	9/00	ND	-	-	ND	ND	ND	ND	**98**
	3/22/01	ND	-	-	ND	ND	ND	ND	**190**
	8/23/01	ND	-	-	ND	ND	ND	ND	**26**
	3/02	ND	-	-	ND	ND	ND	ND	**26**
	10/02	ND	-	-	ND	ND	ND	ND	**15**
	3/03	IA	IA	IA	IA	IA	IA	IA	IA
	9/17/03	ND	-	-	ND	ND	ND	ND	**13**
	11/20/08	IA	IA	IA	IA	IA	IA	IA	IA
	2/11/09*	<50	<50	-	<0.3	<0.3	<0.3	<0.3	**12**
	8/25/09	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL
	8/4/10	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL
	1/7/11	CNL	CNL	CNL	CNL	CNL	CNL	CNL	CNL
	4/8/11	<50	<50	-	<0.3	<0.3	<0.3	<0.4	**19**
	10/13/11	<50	**130**	-	<0.3	<0.3	<0.3	<0.4	**15**

Table 3
Groundwater Monitoring Analytical Results
Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California
(Concentrations in µg/L)

Well	Date	TPHg	TPHd	Total Oil and Grease	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-4	12/89	<50	<100	<5,000	<0.5	<0.5	<0.5	<0.5	-
	08/90	ND	ND	ND	ND	ND	ND	ND	-
	1/91	-	-	-	-	-	-	-	-
	4/91	ND	ND	ND	ND	ND	ND	ND	-
	7/91	-	-	-	-	-	-	-	-
	10/91	ND	ND	ND	ND	ND	ND	ND	-
	1/92	-	-	-	-	-	-	-	-
	4/20/92	ND	ND	ND	ND	ND	ND	ND	-
	7/9/92	-	-	-	-	-	-	-	-
	10/8/92	ND	**120**	ND	ND	ND	ND	ND	-
	1/12/93	ND	ND	ND	ND	ND	ND	ND	-
	3/4/93	ND	ND	ND	ND	ND	ND	ND	-
	7/1/93	ND	ND	**1,000**	ND	ND	ND	ND	-
	10/19/93	ND	ND	ND	**0.40**	ND	ND	**0.40**	-
	4/25/94	ND	ND	ND	ND	ND	ND	**0.40**	-
	7/28/94	ND	**86**	ND	ND	**0.60**	ND	ND	-
	10/13/94	**70**	ND	ND	ND	**36**	ND	**1.3**	-
	1/10/95	ND	ND	**2,000**	ND	ND	ND	ND	-
	4/19/95	ND	ND	ND	ND	ND	ND	ND	-
	10/12/95	ND	ND	-	ND	ND	ND	ND	-
	4/12/96	ND	ND	-	ND	ND	ND	ND	-
	10/8/96	ND	ND	-	ND	ND	ND	ND	ND
	4/9/97	ND	ND	-	ND	ND	ND	ND	ND
	11/5/97	ND	ND	-	ND	ND	ND	ND	ND
	Abandoned December 1999.								

Table 3
Groundwater Monitoring Analytical Results
Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California
(Concentrations in µg/L)

Well	Date	TPHg	TPHd	Total Oil and Grease	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-5	4/13/92	ND	-	-	ND	ND	ND	ND	-
	4/27/92	ND	-	-	ND	ND	ND	ND	-
	7/9/92	ND	-	-	ND	ND	ND	ND	-
	10/8/92	ND	-	-	ND	**0.40**	ND	ND	-
	1/12/93	ND	-	-	ND	ND	ND	ND	-
	3/4/93	ND	-	-	ND	ND	ND	ND	-
	7/1/93	ND	-	-	ND	ND	ND	ND	-
	10/19/93	ND	-	-	ND	ND	ND	ND	-
	4/25/94	ND	-	-	ND	**0.40**	ND	**1.0**	-
	7/94	-	-	-	-	-	-	-	-
	10/13/94	**87**	ND	ND	ND	**36**	ND	**1.3**	-
	1/95	-	-	-	-	-	-	-	-
	4/19/95	ND	-	-	ND	ND	ND	ND	-
	10/12/95	ND	-	-	ND	ND	ND	ND	-
	4/12/96	ND	-	-	ND	ND	ND	ND	-
	10/8/96	ND	-	-	ND	ND	ND	ND	ND
	4/9/97	ND	-	-	ND	ND	ND	ND	ND
	11/5/97	ND	ND	-	ND	ND	ND	ND	ND
	3/1/00	ND	-	-	ND	ND	ND	ND	ND
	9/00	ND	-	-	ND	ND	ND	ND	ND
	3/22/01	ND	-	-	ND	ND	ND	ND	ND
	8/23/01	NS	NS	NS	NS	NS	NS	NS	NS
	3/02	NS	NS	NS	NS	NS	NS	NS	NS
	10/02	NS	NS	NS	NS	NS	NS	NS	NS
	3/03	NS	NS	NS	NS	NS	NS	NS	NS
	9/17/03	NS	NS	NS	NS	NS	NS	NS	NS
	11/20/08*	<50	<50	-	**0.31**	<0.3	<0.3	**0.38**	<5.0
	2/6/09*	<50	<50	-	<0.3	<0.3	<0.3	<0.3	<5.0
	8/25/09	<50	<50	-	<0.5	<0.5	<0.5	<0.5	<5.0
	8/4/10	<50	<100	-	<0.3	<0.3	<0.3	<0.3	<1.0
	1/7/11	<50	<50	-	<0.3	<0.3	<0.3	**0.64**	<1.0
	4/8/11	<50	<50	-	<0.3	<0.3	<0.3	<0.4	<0.5
	10/13/11	<50	**120**	-	<0.3	<0.3	<0.3	<0.4	<0.5

Table 3
Groundwater Monitoring Analytical Results
Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California
(Concentrations in µg/L)

Well	Date	TPHg	TPHd	Total Oil and Grease	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-6	4/13/92	ND	-	-	ND	**0.30**	ND	ND	-
	4/27/92	ND	-	-	ND	ND	ND	ND	-
	7/9/92	ND	-	-	ND	ND	ND	ND	-
	10/8/92	ND	-	-	ND	ND	ND	ND	-
	1/12/93	ND	-	-	ND	ND	ND	ND	-
	3/4/93	ND	-	-	ND	ND	ND	ND	-
	7/1/93	ND	-	-	ND	ND	ND	ND	-
	10/19/93	ND	-	-	ND	ND	ND	ND	-
	4/25/94	ND	-	-	ND	**0.30**	ND	**0.40**	-
	7/94	-	-	-	-	-	-	-	-
	10/13/94	**160**	-	-	**0.40**	**140**	**0.5**	**2.3**	-
	1/95	-	-	-	-	-	-	-	-
	4/19/95	ND	-	-	ND	ND	ND	ND	-
	10/12/95	ND	-	-	ND	ND	ND	ND	-
	4/12/96	ND	-	-	**2.9**	**2.9**	ND	ND	-
	10/8/96	ND	-	-	ND	ND	ND	ND	**17**
	4/9/97	ND	-	-	ND	ND	ND	ND	ND
	11/5/97	ND	ND	-	ND	ND	ND	ND	**9.0**
	3/1/00	**78**	-	-	ND	**0.49**	ND	ND	**260**
	9/00	**54**	-	-	ND	ND	ND	ND	**170**
	3/22/01	**130**	-	-	ND	ND	ND	ND	**440**
	8/23/01	**79**	-	-	ND	ND	ND	ND	**280[1]/350**
	3/02	**91**	-	-	ND	ND	ND	ND	**370**
	10/02	**83**	-	-	ND	ND	ND	ND	**260**
	3/03	**61**	-	-	ND	ND	ND	ND	**200**
	9/17/03	**140**	-	-	ND	ND	ND	ND	**440**
	11/20/08*	<50	<50	-	**0.81**	<0.3	<0.3	<0.3	**300**
	2/6/09*	**97**	<50	-	<0.3	<0.3	<0.3	<0.3	**200**
	8/25/09	NS	NS	NS	NS	NS	NS	NS	NS
	8/4/10	<50	<100	-	<0.3	<0.3	<0.3	<0.3	**54**
	1/7/11	<50	<50	-	<0.3	<0.3	<0.3	**0.44**	**40**
	4/8/11	<50	<50	-	<0.3	<0.3	<0.3	<0.4	**68**
	10/13/11	**99**	**85**	-	<0.3	<0.3	<0.3	<0.4	**95**

Table 3
Groundwater Monitoring Analytical Results
Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California
(Concentrations in µg/L)

Well	Date	TPHg	TPHd	Total Oil and Grease	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-7	4/13/92	**1,300**	-	-	**0.40**	**0.30**	**0.30**	**0.9**	-
	4/27/92	**1,100**	-	-	ND	ND	ND	ND	-
	7/9/92	**830**	-	-	ND	ND	ND	ND	-
	10/8/92	**3,900**	-	-	ND	ND	ND	ND	-
	11/30/92	**2,700**	ND	-	-	-	-	-	-
	1/12/93	U	U	U	U	U	U	U	U
	1/93	**1,900**	-	-	ND	ND	ND	ND	-
	3/4/93	**830**	-	-	ND	ND	ND	ND	-
	7/1/93	**680**	-	-	ND	ND	ND	ND	-
	10/19/93	**360**	-	-	ND	ND	ND	**0.70**	-
	1/12/94	**330**	-	-	ND	ND	ND	ND	-
	4/25/94	**360**	-	-	ND	ND	ND	ND	-
	7/28/94	-	-	-	-	-	-	-	-
	10/13/94	-	-	-	-	-	-	-	-
	1/95	-	-	-	-	-	-	-	-
	4/19/95	-	-	-	ND	ND	ND	ND	-
	10/12/95	-	-	-	ND	ND	ND	ND	-
	4/12/96	-	-	-	ND	ND	ND	ND	-
	10/8/96	-	-	-	-	-	-	-	-
	4/9/97	-	-	-	-	-	-	-	-
	11/5/97	-	-	-	-	-	-	-	-
	3/1/00	ND	-	-	**890**	ND	ND	ND	ND
	9/00	**770**	-	-	**3.0**	**0.32**	**13**	**27**	ND
	3/22/01	**630**	-	-	ND	ND	ND	ND	ND
	8/23/01	**800**	-	-	ND	ND	ND	ND	**7.3[1]/ND**
	3/02	**280**	-	-	**0.35**	ND	**0.91**	**2.2**	**7.7**
	10/02	IA	IA	IA	IA	IA	IA	IA	IA
	3/03	IA	IA	IA	IA	IA	IA	IA	IA
	9/17/03	IA	IA	IA	IA	IA	IA	IA	IA
	11/20/08	**520**	**70**	-	<0.3	<0.3	<0.3	<0.3	<5.0
	2/6/09*	**400**	<50	-	<0.3	<0.3	<0.3	<0.3	<5.0
	8/25/09	IA	IA	IA	IA	IA	IA	IA	IA
	8/4/10	**430**	<100	-	<0.3	<0.3	<0.3	<0.3	<1
	1/7/11	**250**	<50	-	<0.3	<0.3	<0.3	<0.3	<1
	4/8/11	**130**	<50	-	<0.3	<0.3	<0.3	<0.4	<0.5
	10/13/11	IA	IA	IA	IA	IA	IA	IA	IA

Table 3
Groundwater Monitoring Analytical Results
Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California
(Concentrations in µg/L)

Well	Date	TPHg	TPHd	Total Oil and Grease	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
MW-101	9/95	9,400	-	-	170	94	150	710	-
	3/01/00	40,000	-	-	2,500	490	4,300	10,000	2,400[1]/ 1,400
	9/00	770	-	-	3.0	0.32	13	27	-
	3/01	34,000	-	-	1,400	62	3,400	7,700	970
	8/23/01	12,000	-	-	630	ND	1,500	480	1,400
	3/02	19,000	-	-	600	25	1,600	3,100	1,600[1]/ 870
	10/02	5,200	-	-	240	0.74	230	76	1,500[1]/ 1,400
	3/03	6,300	-	-	330	ND	440	370	1,400[1]/ 840
	9/17/03	3,000	-	-	150	ND	100	110	850[1]/ 1,100
	11/20/08*	2,800	5,400	-	61	<0.3	38	1.6	570
	2/6/09*	<50	3,600	-	<0.3	<0.3	<0.3	<0.3	630
	8/25/09	2,200	1,500	-	9.9	<0.5	14	5.6	440
	8/4/10	1,100	<100	-	11	<0.3	12	4.8	280
	1/7/11	1,600	2,300	-	75	0.72	150	110	420
	4/8/11	2,400	1,900	-	150	0.89	210	130	370
	10/13/11	1,300	2,800	-	37	<0.3	44	15	500
SP-1	11/1993	49,000	-	-	3,900	13,000	2,800	15,000	-
SP-2	11/1993	1,400	-	-	54	240	87	390	-

Notes:
ND: Not detected.
<: Not detected above laboratory's indicated reportable detection limit.
NS: No sample collected.
IA: Well inaccessible at time of sampling.
CNL: Could not locate well.
U: Unavailable.
-: Not analyzed.
*: Other fuel oxygenates and 1,2-DCA not detected above 5 µg/L (50 µg/L for TBA).
[1]: MTBE by EPA method 8015/8020; otherwise by EPA Method 8260.

Table 4
Groundwater Monitoring Analytical Results
Volatile Organic Compounds
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California
(Concentrations in µg/L)

Well	Date	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloroethane	Tetrachloroethene	Trichloroethene
MW-2	3/4/93	<0.5	<0.5	<0.5	<0.5	**0.6**	<0.5	<0.5
	10/19/93	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
MW-4	12/14/89	<0.5	<0.5	-	<0.5	<0.5	<0.5	<0.5
	3/4/93	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
	10/19/93	<0.5	<0.5	<0.5	<0.5	<0.5	**0.7**	**0.9**
MW-5	3/4/93	<0.5	<0.5	<0.5	<0.5	<0.5	**0.8**	<0.5
MW-6	3/4/93	<0.5	<0.5	<0.5	<0.5	<0.5	**3.5**	<0.5
MW-7	11/30/92	**2.0**	**2.0**	**180**	**1.5**	-	**14,000**	**660**
	3/4/93	-	<20	-	<20	<20	**3,700**	**210**
SP-1	11/18/93	unknown	unknown	**28**	**15**	**12**	**22**	**20**
SP-2	11/18/93	unknown	unknown	ND	ND	ND	ND	ND

Notes:
<: Not detected above laboratory's indicated reportable detection limit.
-: Not analyzed

Table 5
Summary of Groundwater Elevation Data
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California

Well	Date Measured	Casing Elevation (Feet above MSL)	Depth to Groundwater (Feet)	Groundwater Elevation (Feet above MSL)
MW-101	09/95	U	U	-
	3/1/00		9.75	-
	09/00		U	-
	03/01		U	-
	08/23/01		9.70	-
	03/02		U	-
	10/02		U	-
	03/03		U	-
	9/17/03		9.80	-
	11/20/08		10.69	-
	2/6/09		10.46	-
	8/25/09		10.53	-
	8/4/10		11.47	-
	4/8/11		9.01	-
	10/13/11		10.41	-

Table 5
Summary of Groundwater Elevation Data
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California

Well	Date Measured	Casing Elevation (Feet above MSL)	Depth to Groundwater (Feet)	Groundwater Elevation (Feet above MSL)
MW-2	12/89	U	U	-
	08/90		U	-
	01/91		U	-
	04/91		U	-
	07/91		U	-
	10/91		U	-
	01/92		U	-
	4/20/92	183.10	10.36	172.74
	7/9/92		10.65	172.45
	10/8/92	183.47	11.60	171.87
	1/12/93		9.11	174.36
	3/4/93		9.28	174.19
	7/1/93		10.37	173.10
	10/19/93		10.82	172.65
	1/12/94		10.66	172.81
	4/25/94		10.23	173.24
	7/28/94		10.70	172.77
	10/13/94		14.19	169.28
	1/10/95		8.12	175.35
	4/19/95		9.24	174.23
	10/12/95		10.66	172.81
	4/12/96		10.05	173.42
	10/8/96		10.61	172.86
	4/9/97		10.40	173.07
	11/5/97		10.88	172.59
	3/1/00		8.49	174.98
	09/00		U	-
	3/22/01		9.65	173.82
	8/23/01		9.65	173.82
	03/2002		U	-
	10/2002		U	-
	03/2003		IA	-
	9/17/03		IA	-
	11/20/08		IA	-
	2/11/09		U	-
	8/25/09		CNL	-
	8/4/10		CNL	-
	1/7/11		CNL	-
	4/8/11		9.35	174.12
	10/13/11		10.30	173.17

Table 5
Summary of Groundwater Elevation Data
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California

Well	Date Measured	Casing Elevation (Feet above MSL)	Depth to Groundwater (Feet)	Groundwater Elevation (Feet above MSL)
MW-3	12/89	U	U	-
	08/90		U	-
	01/91		U	-
	04/91		U	-
	07/91		U	-
	10/91		U	-
	01/92		U	-
	4/20/92	183.52	10.34	173.18
	7/9/92		10.84	172.68
	10/8/92	184.03	11.96	172.07
	1/12/93		9.28	174.75
	3/4/93		9.53	174.50
	7/1/93		10.56	173.47
	10/19/93		11.04	172.99
	1/12/94		10.90	173.13
	4/25/94		10.37	173.66
	7/28/94		10.95	173.08
	10/13/94		14.37	169.66
	1/10/95		8.23	175.80
	4/19/95		9.54	174.49
	10/12/95		10.97	173.06
	4/12/96		10.06	173.97
	10/8/96		10.87	173.16
	4/9/97		10.40	173.63
	11/5/97		10.97	173.06
	3/1/00		8.68	175.35
	09/00		U	-
	3/22/01		10.22	173.81
	8/23/01		10.02	174.01
	03/02		U	-
	10/02		U	-
	03/03		U	-
	9/17/03		10.00	174.03
	11/20/08		IA	-
	2/11/09		U	-
	8/25/09		CNL	-
	8/4/10		CNL	-
	1/7/11		CNL	-
	4/8/11		9.66	174.37
	10/13/11		10.46	173.57

Table 5
Summary of Groundwater Elevation Data
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California

Well	Date Measured	Casing Elevation (Feet above MSL)	Depth to Groundwater (Feet)	Groundwater Elevation (Feet above MSL)
MW-4	12/89	U	U	-
	08/90		U	-
	01/91		U	-
	04/91		U	-
	07/91		U	-
	10/91		U	-
	01/92		U	-
	4/20/92		10.89	-
	7/9/92	184.33	10.65	173.68
	10/8/92	184.61	12.78	171.83
	1/12/93		9.67	174.94
	3/4/93		10.20	174.41
	7/1/93		11.41	173.20
	10/19/93		11.92	172.69
	4/25/94		10.94	173.67
	7/28/94		11.74	172.87
	10/13/94		15.31	169.30
	1/10/95		8.02	176.59
	4/19/95		9.97	174.64
	10/12/95		11.70	172.91
	4/12/96		10.33	174.28
	10/8/96		11.65	172.96
	4/9/97		10.93	173.68
	11/5/97		11.82	172.79

MW-4 abandoned December 1999.

Table 5
Summary of Groundwater Elevation Data
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California

Well	Date Measured	Casing Elevation (Feet above MSL)	Depth to Groundwater (Feet)	Groundwater Elevation (Feet above MSL)
MW-5	4/27/92	183.62	11.72	171.90
	7/9/92		12.24	171.38
	10/8/92	183.92	13.24	170.68
	1/12/93		10.30	173.62
	3/4/93		10.53	173.39
	7/1/93		11.85	172.07
	10/19/93		12.32	171.60
	4/25/94		11.58	172.34
	07/94		U	-
	10/13/94		15.71	168.21
	01/95		U	-
	4/19/95		10.41	173.51
	10/12/95		12.12	171.80
	4/12/96		10.85	173.07
	10/8/96		12.00	171.92
	4/9/97		11.40	172.52
	11/5/97		12.19	171.73
	3/1/00		9.45	174.47
	09/00		U	-
	3/22/01		11.04	172.88
	8/23/01		11.06	172.86
	03/02		NS	-
	10/02		NS	-
	03/03		NS	-
	9/17/03		11.03	172.89
	11/20/08		11.80	172.12
	2/6/09		11.56	172.36
	8/25/09		11.90	172.02
	8/4/10		11.61	172.31
	1/7/11		10.45	173.47
	4/8/11		10.26	173.66
	10/13/11		11.53	172.39

Table 5
Summary of Groundwater Elevation Data
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California

Well	Date Measured	Casing Elevation (Feet above MSL)	Depth to Groundwater (Feet)	Groundwater Elevation (Feet above MSL)
MW-6	4/27/92	U	11.90	171.80
	7/9/92	183.70	12.34	171.36
	10/8/92	183.96	13.3	170.66
	1/12/93	183.60	10.59	173.01
	3/4/93		10.86	172.74
	7/1/93		12.00	171.60
	10/19/93		12.48	171.12
	4/25/94		11.86	171.74
	07/94		U	-
	10/13/94		15.87	167.73
	01/95		U	-
	4/19/95		10.70	172.90
	10/12/95		12.32	171.28
	4/12/96		11.09	172.51
	10/8/96		12.19	171.41
	4/9/97		11.70	171.90
	11/5/97		12.33	171.27
	3/1/00		9.73	173.87
	09/00		U	-
	3/22/01		11.01	172.59
	8/23/01		11.21	172.39
	03/02		U	-
	10/02		U	-
	03/03		U	-
	9/17/03		11.50	172.10
	11/20/08		12.10	171.50
	2/6/09		11.83	171.77
	8/25/09		Dry	-
	8/4/10		12.85	170.75
	1/7/11		10.75	172.85
	4/8/11		10.59	173.01
	10/13/11		11.81	171.79

Table 5
Summary of Groundwater Elevation Data
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California

Well	Date Measured	Casing Elevation (Feet above MSL)	Depth to Groundwater (Feet)	Groundwater Elevation (Feet above MSL)
MW-7	4/27/92	182.52	10.97	171.55
	7/9/92		11.43	171.09
	10/8/92	182.78	12.40	170.38
	11/30/92		12.00	170.78
	1/12/93		9.51	173.27
	01/93		U	-
	3/4/93		9.88	172.90
	7/1/93		11.07	171.71
	10/19/93		11.55	171.23
	1/12/94	182.42	11.36	171.06
	4/25/94		10.85	171.57
	7/28/94		NS	-
	10/13/94		NS	-
	01/95		U	-
	4/19/95		9.66	172.76
	10/12/95		11.34	171.08
	4/12/96		10.06	172.36
	10/8/96		11.16	171.26
	4/9/97		11.70	170.72
	11/5/97		11.36	171.06
	3/1/00		8.72	173.70
	09/00		U	-
	3/22/01		10.04	172.38
	8/23/01		10.18	172.24
	03/02		U	-
	10/02		IA	-
	03/03		IA	-
	9/17/03		IA	-
	11/20/08		11.05	171.37
	2/6/09		10.76	171.66
	8/25/09		IA	-
	8/4/10		10.76	171.66
	1/7/11		9.67	172.25
	4/8/11		9.49	172.93
	10/13/11		IA	-

Notes:
IA: Well Inaccessible
CNL: Could not locate well
NS: Well Not Sampled
U: Data Unavailable
-: Unable to calculate elevation

Table 6
Summary of Groundwater Flow Direction and Gradient Data
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California

Date	Flow Direction	Gradient (Feet/Foot)
11/1/92	Southeast	0.006
1/27/93	Southeast	0.01
3/4/93	Southeast	0.01
7/1/93	Southeast	0.01
10/19/93	South	0.005
1/12/94	South	0.001
5/13/94	Southwest	0.007
10/13/94	South	0.001
1/31/95	South	0.002
5/17/95	South	0.009
10/30/95	South	0.007
4/12/96	South	0.008
11/5/96	South	0.008
4/9/97	South	0.01
8/23/01	South	0.008
9/17/03	Southeast	0.01
11/20/08	Southeast	0.01
2/5/09	South-southeast	0.01
8/25/09	-	-
8/4/10	East-southeast	0.01
1/7/11	South-southeast	0.02
4/8/11	South-southeast	0.01
10/13/11	South-southeast	0.01
5/2/12	South	0.01

Notes:
-: Unable to calculate flow direction

Table 7
Soil Vapor Sample Analytical Results, May 2012
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California

Sample Location	TPHg	TPHd	MTBE	Benzene	Toluene	Ethylbenzene	m,p-Xylenes	o-Xylene	TCE	PCE
SV-1	**1,200**	-	<2.6	<2.3	<3.8	<3.1	<3.1	<3.1	<3.9	**9.4**
SV-2	**6,000**	-	<11	<9.5	<11	<13	<13	<13	<16	**7,000**
SV-3	<150,000	-	<2,600	<2,300	<2,700	<3,100	<3,100	<3,100	**9,500**	**$1.4x10^6$**
SV-4	<10,000	-	<180	<160	<190	<220	<220	<220	-	-
SV-5	**7,200**	-	**4.6**	**23**	**74**	**16**	**62**	**19**	-	-
SV-6	**15,000**	-	<2.7	<2.4	<2.8	<3.2	<3.2	<3.2	-	-
SV-7	**1,500**	-	**10**	**6.3**	**8.9**	<3.6	**6.3**	<3.6	-	-
SV-8	**670**	-	**15**	<2.5	**2.9**	<3.4	**4.3**	<3.4	-	-
SV-9	**360**	**4,200**	<2.7	<2.4	<2.9	<3.3	<3.3	<3.3	<4.1	**7.7**
Screening Values										
ESL[1]	290,000	290,000	310,000	2,800	1,800,000	33,000	480,000	480,000	41,000	14,000
OEHHA Values[2]	NE	NE	13,000	120	380,000	14,000	890,000	880,000	18,000	6,000

Notes:
All concentrations in $\mu g/m^3$
<: Not detected above laboratory detection limit.
[1]: Commercial Environmental Screening Level for shallow soil gas less than 5 feet bgs (SFBRWQCB, 2005).
[2]: Commercial soil-gas screening number for volatile chemicals below buildings constructed without engineered fill below sub-slab gravel (OEHHA, 2010).
-: Not analyzed.
NE: Not established/available/published.
Underlined concentration indicates the smallest screening value is exceeded.

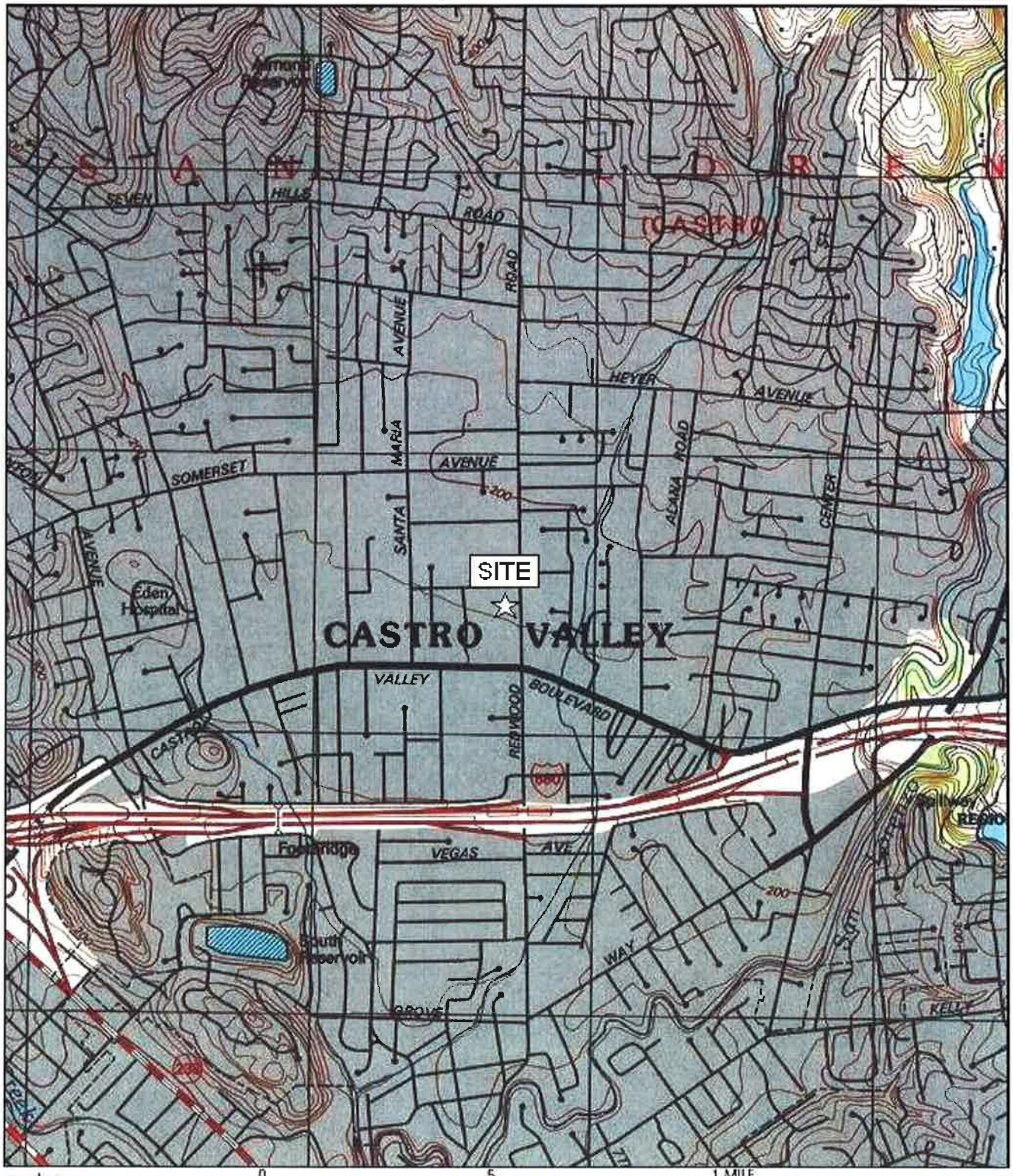
Table 8
Mann-Kendall Trend Analysis
Former Unocal Service Station
20405 Redwood Road, Castro Valley, California

	Z	Significant?	Trend
MW-101			
TPHg	-3.01	Yes	Decreasing
Benzene	-2.23	Yes	Decreasing
MTBE	-3.23	Yes	Decreasing
MW-2			
TPHg	-0.74	No	Stable
Benzene	-3.09	Yes	Decreasing
MTBE	-3.49	Yes	Decreasing
MW-3			
TPHg	-2.10	Yes	Decreasing
Benzene	-3.50	Yes	Decreasing
MTBE	-3.18	Yes	Decreasing
MW-5			
TPHg	-0.45	No	Stable
Benzene	0.74	No	Stable
MTBE	0	No	Stable
MW-6			
TPHg	2.90	Yes	Increasing
Benzene	0.00	No	Stable
MTBE	-0.58	No	Stable
MW-7			
TPHg	-2.85	Yes	Decreasing
Benzene	-0.19	No	Stable
MTBE	-0.16	No	Stable

Notes:
Z: Mann-Kendall test statistic.
Z*: Critical Z-score.
At a 5% significance level (α), Z* = 1.65

Hypothesis Formulation:
Null Hypothesis (H_0): There is no trend in the data series.
Alternate Hypothesis (H_A): There is a decreasing or increasing trend (two-tailed test).
Reject H_0 if $|Z| > Z^*$. If Z is negative, increasing trend is present. If Z is positive, decreasing trend is present.

FIGURES



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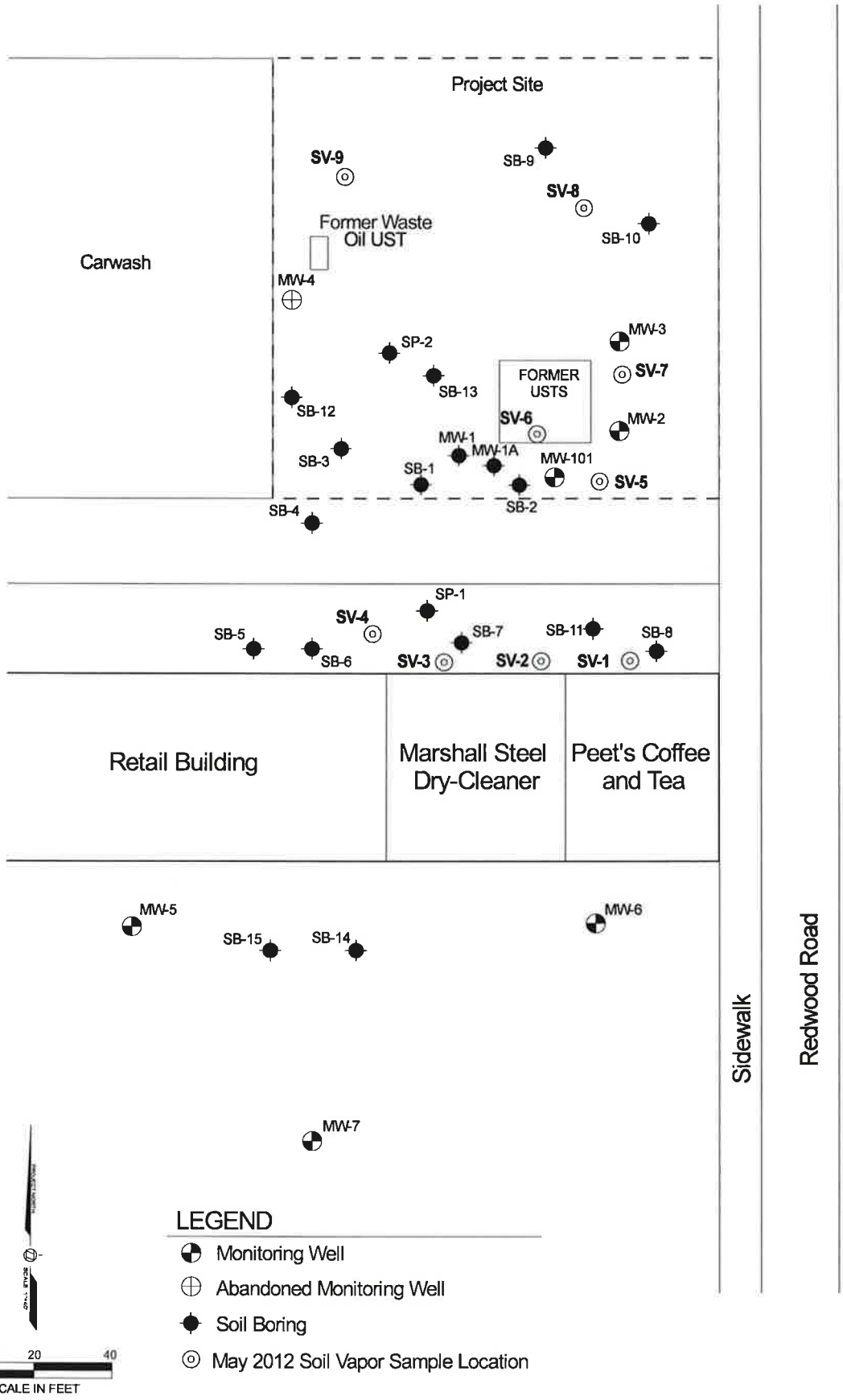
SITE VICINITY

FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

FIGURE 1

PROJECT: E0805401S



BSK Associates Engineers & Laboratories

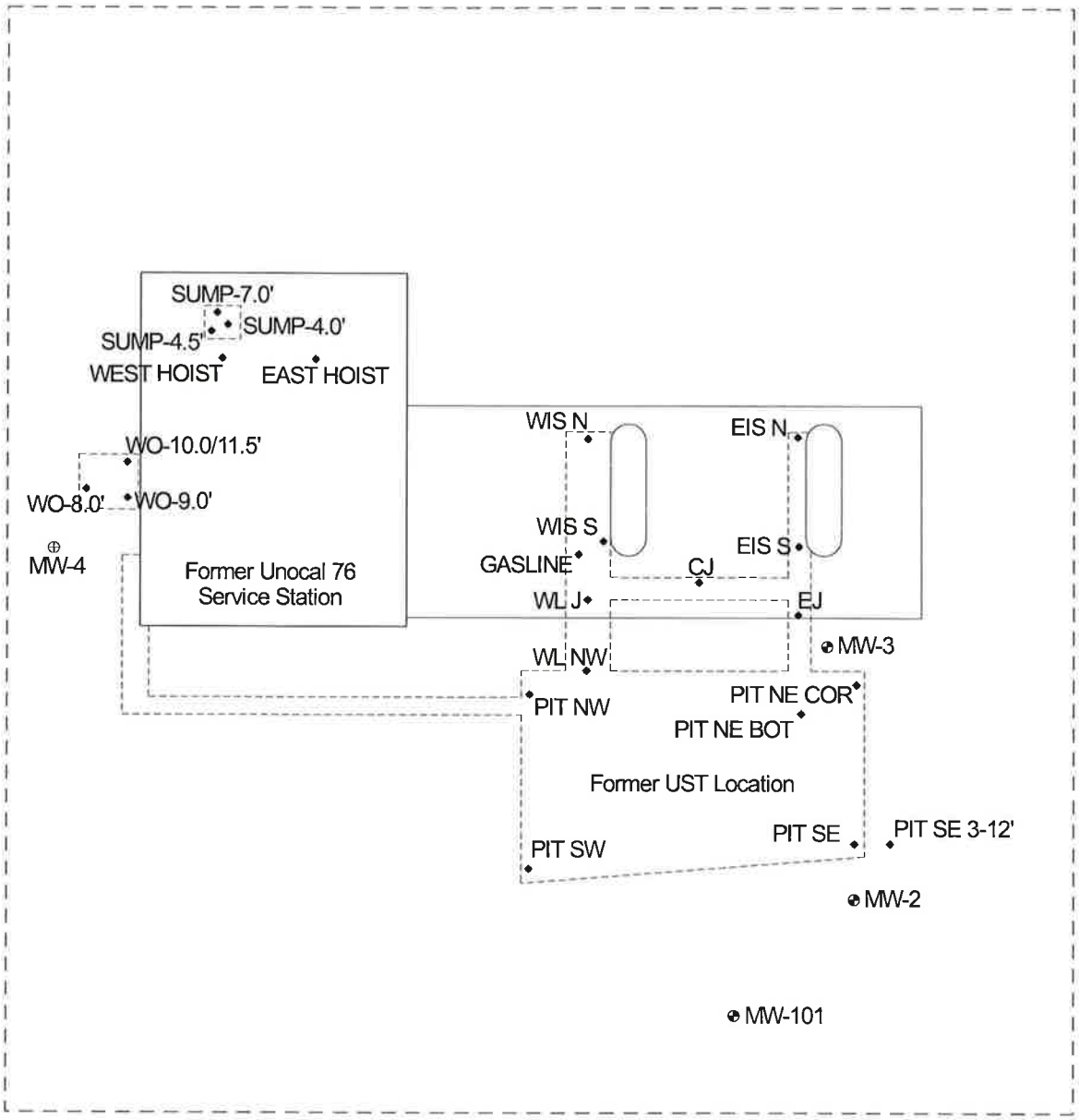
SITE PLAN

FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

FIGURE 2

PROJECT: E0805401S

DATE: 6/13/2012



LEGEND

- Soil Sample Location
- Approximate Extent of Excavation
- Monitoring Well Location
- Abandoned Monitoring Well Location

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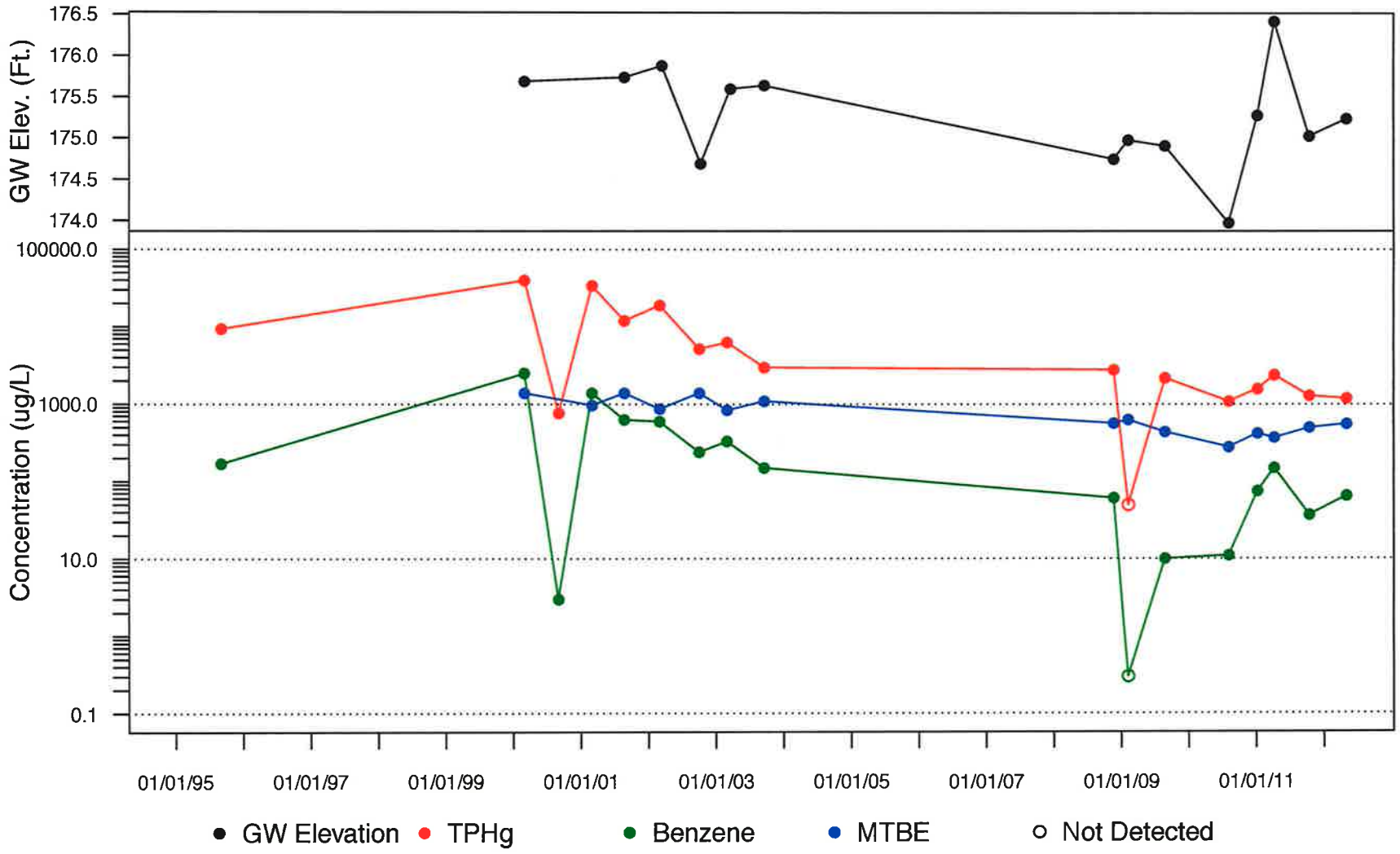
EXTENT OF EXCAVATIONS AND EXCAVATION SOIL SAMPLE LOCATIONS

FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

FIGURE 3

PROJECT: E0805401S

DATE: 2/12/09



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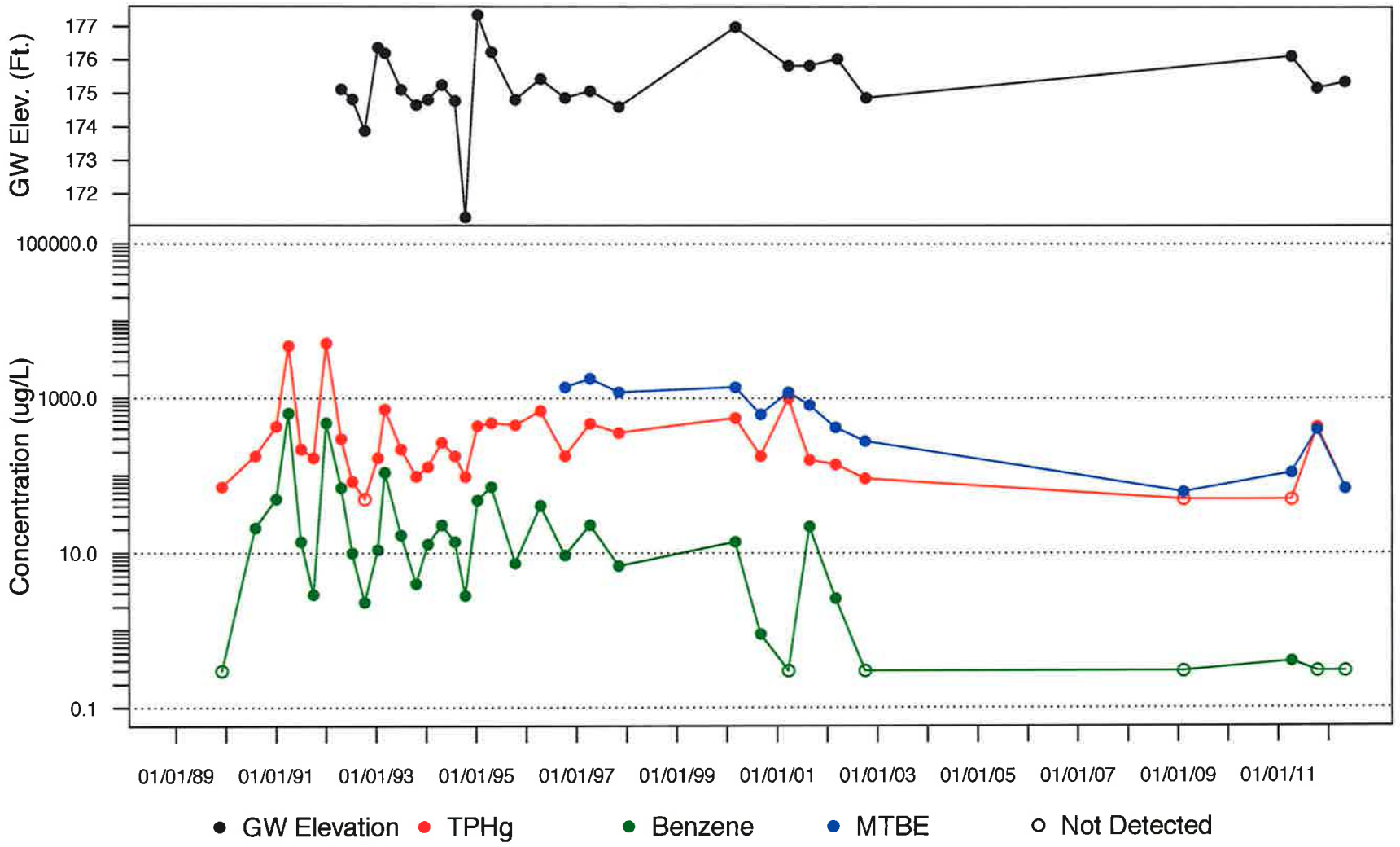
MW-101 TIME-SERIES PLOTS
FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

FIGURE 4

PROJECT: E0805401S

DATE: 6/14/12



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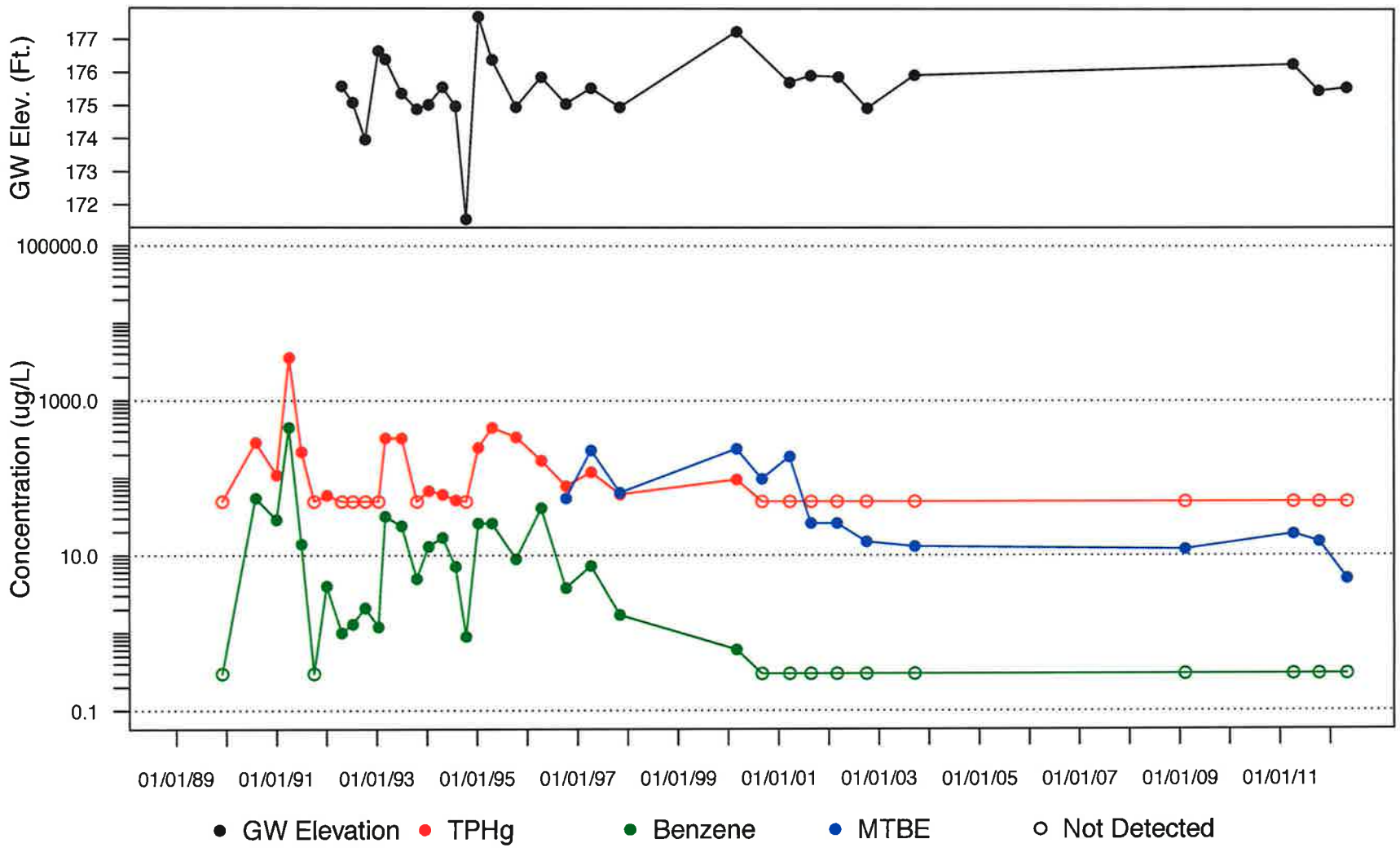
MW-2 TIME-SERIES PLOTS
FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

FIGURE 5
PROJECT: E0805401S
DATE: 6/14/12



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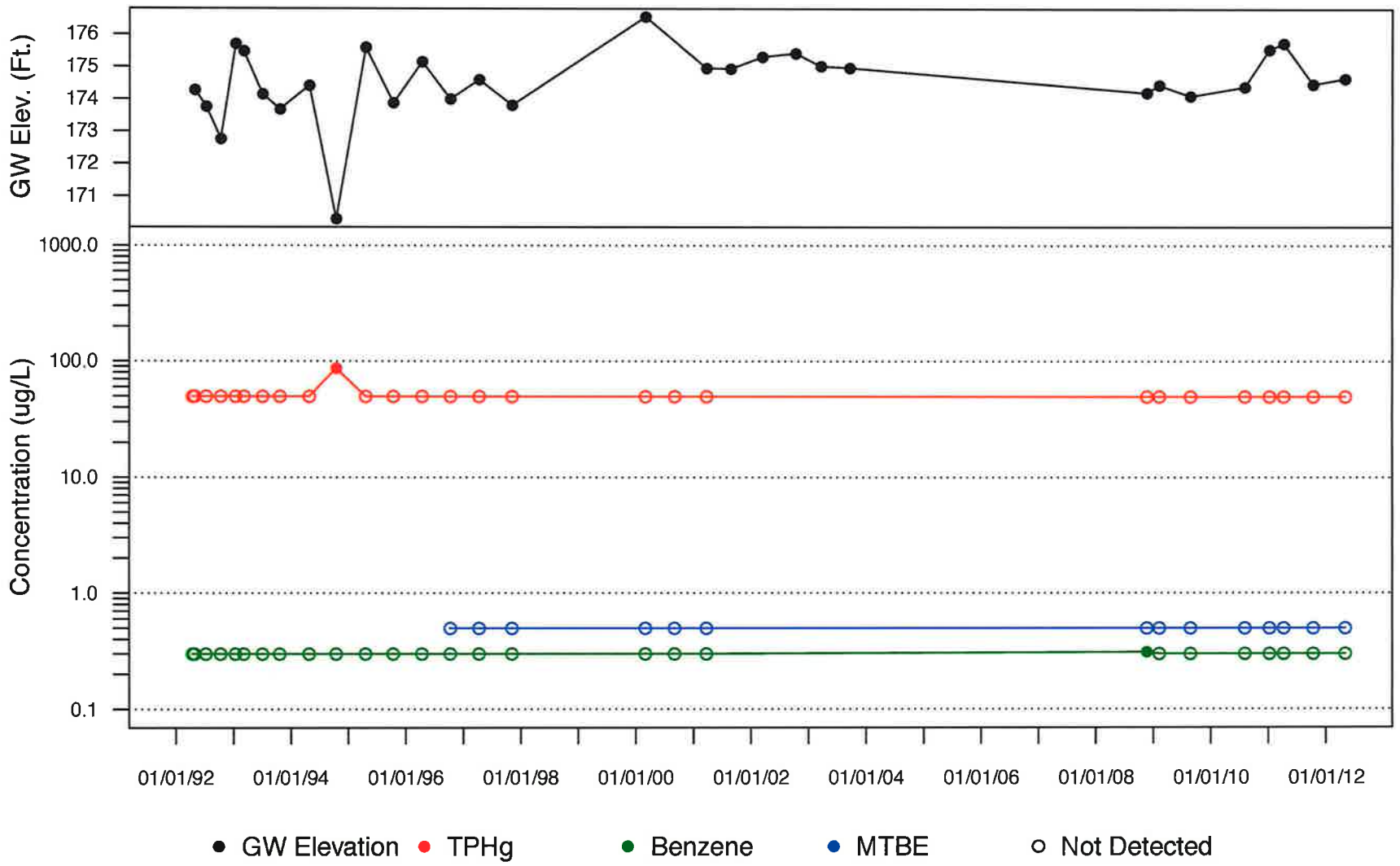
MW-3 TIME-SERIES PLOTS
FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

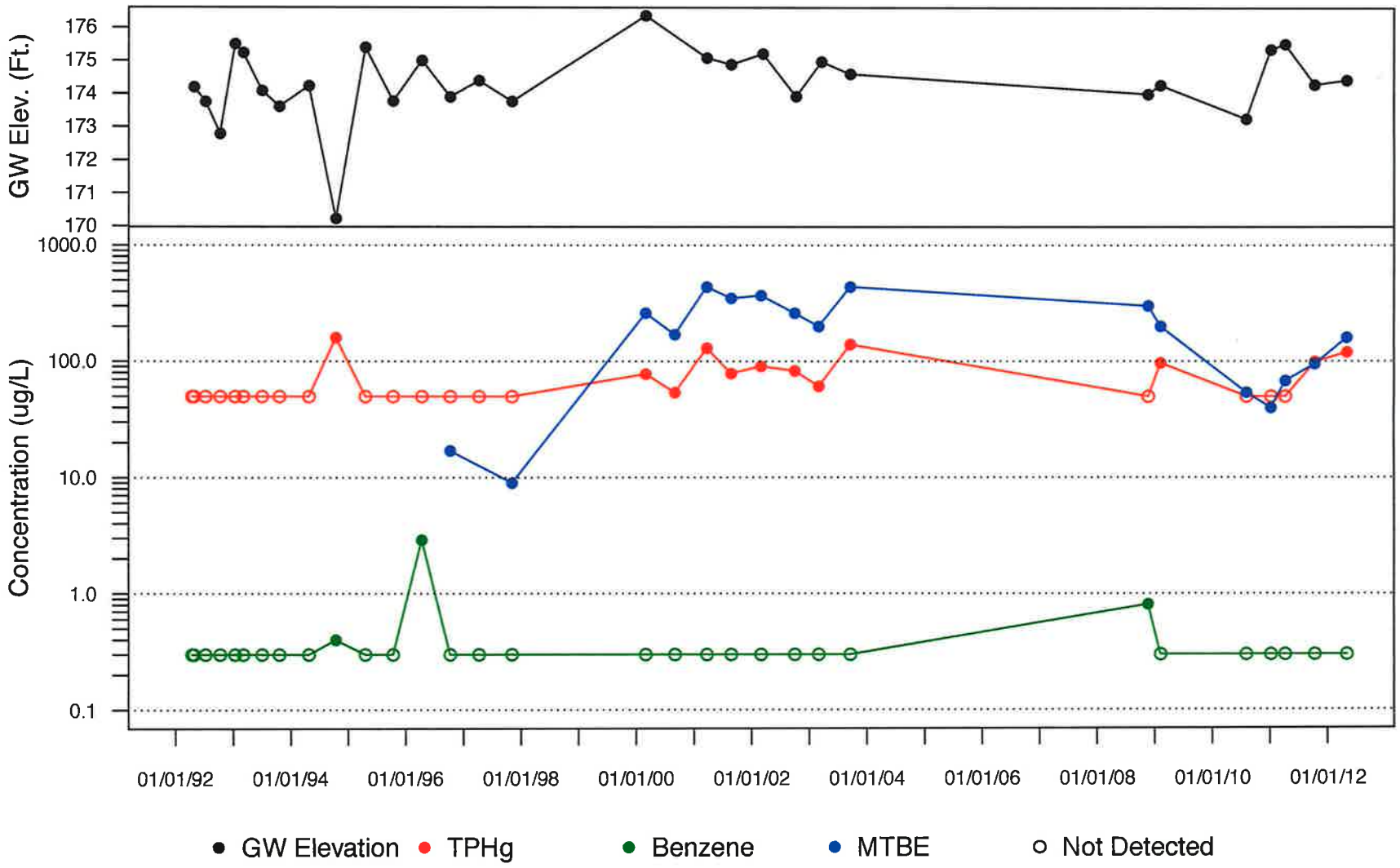
FIGURE 6
PROJECT: E0805401S
DATE: 6/14/12



BSK Associates Engineers & Laboratories

MW-5 TIME-SERIES PLOTS
FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

FIGURE 7
PROJECT: E0805401S
DATE: 6/14/12



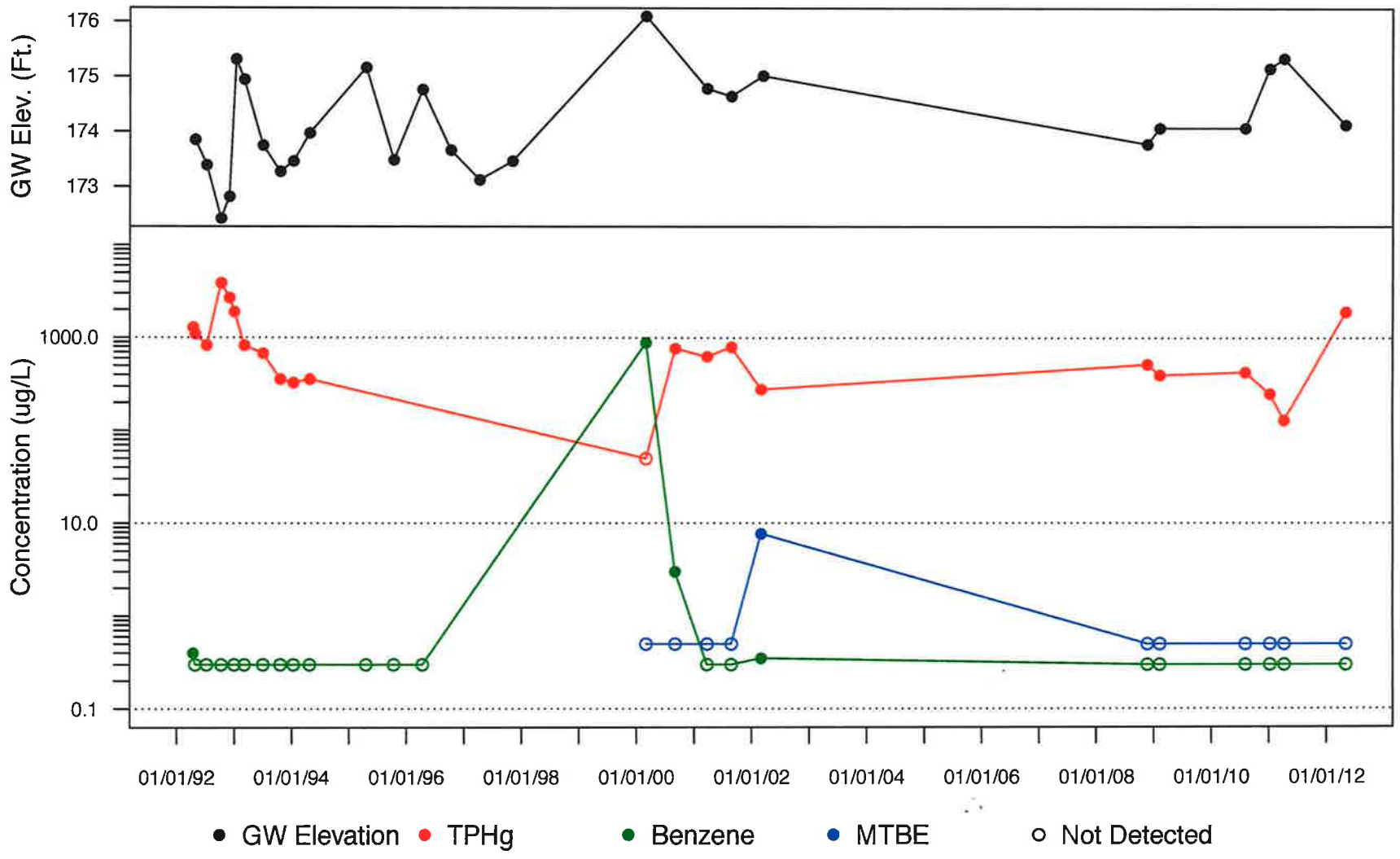
BSK Associates Engineers & Laboratories

MW-6 TIME-SERIES PLOTS
FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

FIGURE 8

PROJECT: E0805401S

DATE: 6/14/12



BSK Associates Engineers & Laboratories

MW-7 TIME-SERIES PLOTS
FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

FIGURE 9
PROJECT: E0805401S
DATE: 6/14/12

APPENDIX A

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5/25/2012
Mr. Jeff Yeazell
BSK Associates
3140 Gold Camp Drive
Suite 160
Rancho Cordova CA 95670

Project Name: Former Unocal
Project #: E08054015
Workorder #: 1205273

Dear Mr. Jeff Yeazell

The following report includes the data for the above referenced project for sample(s) received on 5/14/2012 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-17 VI are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1205273

Work Order Summary

CLIENT:	Mr. Jeff Yeazell BSK Associates 3140 Gold Camp Drive Suite 160 Rancho Cordova, CA 95670	**BILL TO:**	Mr. Jeff Yeazell BSK Associates 3140 Gold Camp Drive Suite 160 Rancho Cordova, CA 95670
PHONE:	916-853-9293x106	**P.O. #**	E08054015
FAX:	916-853-9297	**PROJECT #**	E08054015 Former Unocal
DATE RECEIVED:	05/14/2012	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	05/25/2012		

FRACTION #	NAME	TEST
01A	SV-9	Modified TO-17 VI
02A	Trip Blank	Modified TO-17 VI
03A	Lab Blank	Modified TO-17 VI
04A	CCV	Modified TO-17 VI
05A	LCS	Modified TO-17 VI
05AA	LCSD	Modified TO-17 VI

CERTIFIED BY: Linda D. Truman DATE: 05/25/12

Laboratory Director

Certfication numbers: AZ Licensure AZ0719, CA NELAP - 02110CA, LA NELAP - 02089, NY NELAP - 11291, TX NELAP - T104704434-11-3, UT NELAP -CA009332011-1, WA NELAP - C935
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act, Accreditation number: E87680, Effective date: 07/01/11 , Expiration date: 06/30/12.
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

LABORATORY NARRATIVE
Modified EPA Method TO-17 (VI Tubes)
BSK Associates
Workorder# 1205273

One TO-17 VI Tube sample plus one Trip Blank were received on May 14, 2012. The laboratory performed the analysis via modified EPA Method TO-17 using GC/MS in the full scan mode. TO-17 'VI' sorbent tubes are thermally desorbed onto a secondary trap. The trap is thermally desorbed to elute the components into the GC/MS system for further separation.

A modification that may be applied to EPA Method TO-17 at the client's discretion is the requirement to transport sorbent tubes at 4 deg C. Laboratory studies demonstrate a high level of stability for VOCs on the TO-17 'VI' tube at room temperature for periods of up to 14 days. Tubes can be shipped to and from the field site at ambient conditions as long as the 14-day sample hold time is upheld. Trip blanks and field surrogate spikes are used as additional control measures to monitor recovery and background contribution during tube transport.

Since the TO-17 VI application significantly extends the scope of target compounds addressed in EPA Method TO-15 and TO-17, the laboratory has implemented several method modifications outlined in the table below. Specific project requirements may over-ride the laboratory modifications.

Requirement	*TO-17*	*ATL Modifications*
Initial Calibration	%RSD</=30% with 2 allowed out up to 40%	VOC list: %RSD</=30% with 2 allowed out up to 40% SVOC list: %RSD</=30% with 2 allowed out up to 40%
Daily Calibration	%D for each target compound within +/-30%.	Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene within +/-40%D
Audit Accuracy	70-130%	Second source recovery limits for Fluorene, Phenanthrene, Anthracene, Fluoranthene, and Pyrene = 60-140%.
Distributed Volume Pairs	Collection of distributed volume pairs required for monitoring ambient air to insure high quality.	If site is well-characterized or performance previously verified, single tube sampling may be appropriate. Distributed pairs may be impractical for soil gas collection due to configuration and volume constraints.

Receiving Notes

There were no receiving discrepancies.

Analytical Notes

A sampling volume of 2.02 L was used to convert ng to ppbv amd ug/m3 for the associated Lab Blank and sample Trip Blank.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.
S - Saturated peak.
Q - Exceeds quality control limits.
U - Compound analyzed for but not detected above the reporting limit.
UJ- Non-detected compound associated with low bias in the CCV and/or LCS.
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-17

Client Sample ID: SV-9

Lab ID#: 1205273-01A

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	500	8600	4200

Client Sample ID: Trip Blank

Lab ID#: 1205273-02A

No Detections Were Found.

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Client Sample ID: SV-9
Lab ID#: 1205273-01A
EPA METHOD TO-17

File Name:	11052235	Date of Extraction: NA	Date of Collection: 5/11/12 5:49:00 PM
Dil. Factor:	1.00		Date of Analysis: 5/23/12 11:05 AM

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	500	8600	4200

Air Sample Volume(L): 2.02
Container Type: TO-17 VI Tube

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Client Sample ID: Trip Blank

Lab ID#: 1205273-02A

EPA METHOD TO-17

File Name:	**11052232**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 5/23/12 09:04 AM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	500	Not Detected	Not Detected

Air Sample Volume(L): 2.02
Container Type: TO-17 VI Tube

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Client Sample ID: Lab Blank

Lab ID#: 1205273-03A

EPA METHOD TO-17

File Name:	**11052228**	**Date of Extraction: NA**	**Date of Collection: NA**
Dil. Factor:	**1.00**		**Date of Analysis: 5/23/12 04:57 AM**

Compound	Rpt. Limit (ng)	Rpt. Limit (ug/m3)	Amount (ng)	Amount (ug/m3)
TPH (Diesel Range C10-C24)	1000	500	Not Detected	Not Detected

Air Sample Volume(L): 2.02
Container Type: NA - Not Applicable

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Client Sample ID: CCV
Lab ID#: 1205273-04A
EPA METHOD TO-17

File Name:	11052222a	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00		Date of Analysis: 5/23/12 12:54 AM

Compound	%Recovery
TPH (Diesel Range C10-C24)	106

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

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Client Sample ID: LCS
Lab ID#: 1205273-05A
EPA METHOD TO-17

File Name:	11052226	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00		Date of Analysis: 5/23/12 03:36 AM

Compound	%Recovery
TPH (Diesel Range C10-C24)	127

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

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Client Sample ID: LCSD
Lab ID#: 1205273-05AA
EPA METHOD TO-17

File Name:	11052227	Date of Extraction: NA	Date of Collection: NA
Dil. Factor:	1.00		Date of Analysis: 5/23/12 04:16 AM

Compound	%Recovery
TPH (Diesel Range C10-C24)	123

Air Sample Volume(L): 1.00
Container Type: NA - Not Applicable

SORBENT SAMPLE COLLECTION

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922.

180 BLUE RAVINE ROAD, SUITE B
FOLSOM, CA 95630
(916) 985-1000 FAX (916) 985-1020

Page ____ of ____

Project Manager: Jeff Yeazell
Collected by: (Print and Sign) Erin Basel [signature]
Company: BSK Email: jyeazell@bskinc.com
Address: 3140 Gold Camp Drive #160 City: Rancho Cordova State: CA Zip: 95670
Phone: (916) 853-9293 ext 106 Fax: (916) 853-9297

Project Info:
P.O. #: E0805401S
Project #: Same
Project Name: Former Unocal

Turn Around Time: ☒ Normal ☐ Rush ______ specify

Circle Reporting Units: (ppbv) ppmv (ug/m3) mg/m3

Lab I.D.	Field Sample I.D. (Location)	Tube # / Cartridge #	Date of Collection	Start Time	End Time	Duration	Final Volume	Analysis Requested
01A	SV-9		5/11/12	1739	1749	10 min	Flow=201.9 ccm	TPH (TO-17)

Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
[signature] 5/14/12 11:30	B. Whittaker ATL 5/14/12 1330
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time

Pump Calibration Information
Pre-test Flow Rate:
Post-test Flow Rate:
Average Flow Rate:
Notes:

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	H/D		4.1°C	Good	Yes No (None)	1205273

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5/29/2012
Mr. Jeff Yeazell
BSK Associates
3140 Gold Camp Drive
Suite 160
Rancho Cordova CA 95670

Project Name: Former Unocal
Project #: same
Workorder #: 1205286

Dear Mr. Jeff Yeazell

The following report includes the data for the above referenced project for sample(s) received on 5/14/2012 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kelly Buettner at 916-985-1000 if you have any questions regarding the data in this report.

Regards,

Kelly Buettner

Project Manager

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WORK ORDER #: 1205286

Work Order Summary

CLIENT:	Mr. Jeff Yeazell BSK Associates 3140 Gold Camp Drive Suite 160 Rancho Cordova, CA 95670	**BILL TO:**	Mr. Jeff Yeazell BSK Associates 3140 Gold Camp Drive Suite 160 Rancho Cordova, CA 95670
PHONE:	916-853-9293x106	**P.O. #**	E08054015
FAX:	916-853-9297	**PROJECT #**	same Former Unocal
DATE RECEIVED:	05/14/2012	**CONTACT:**	Kelly Buettner
DATE COMPLETED:	05/29/2012		

FRACTION #	NAME	TEST	RECEIPT VAC./PRES.	FINAL PRESSURE
01A	SV-1	Modified TO-15	2.0 "Hg	5 psi
02A	SV-2	Modified TO-15	3.0 "Hg	5 psi
03A	SV-3	Modified TO-15	2.0 "Hg	5 psi
04A	SV-4	Modified TO-15	16.5 "Hg	5 psi
05A	SV-5	Modified TO-15	3.0 "Hg	5 psi
06A	SV-6	Modified TO-15	3.0 "Hg	5 psi
07A	SV-7	Modified TO-15	5.5 "Hg	5 psi
08A	SV-8	Modified TO-15	4.0 "Hg	5 psi
09A	SV-9	Modified TO-15	3.5 "Hg	5 psi
10A	Lab Blank	Modified TO-15	NA	NA
11A	CCV	Modified TO-15	NA	NA
12A	LCS	Modified TO-15	NA	NA
12AA	LCSD	Modified TO-15	NA	NA

CERTIFIED BY: Linda D. Truman DATE: 05/29/12

Laboratory Director

Certfication numbers: AZ Licensure AZ0719, CA NELAP - 02110CA, LA NELAP - 02089, NY NELAP - 11291, TX NELAP - T104704434-11-3, UT NELAP -CA009332011-1, WA NELAP - C935
Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act, Accreditation number: E87680, Effective date: 07/01/11 , Expiration date: 06/30/12.
Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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LABORATORY NARRATIVE
EPA Method TO-15
BSK Associates
Workorder# 1205286

Nine 1 Liter Summa Canister samples were received on May 14, 2012. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

Receiving Notes

Sample SV-4 was received with significant vacuum remaining in the canister. The residual canister vacuum resulted in elevated reporting limits.

Analytical Notes

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

Dilution was performed on samples SV-2 and SV-3 due to the presence of high level target species.

Dilution was performed on sample SV-4 due to the presence of high level non-target species.

Ethanol was detected at a concentration less than 5 times the reporting limit in sample SV-7. Because the preceding sample contained concentrations of Ethanol exceeding the calibration range, the result for this compound in sample SV-7 may be biased high.

The hydrocarbon profile present in samples SV-1, SV-2, and SV-9 shows mostly heavier hydrocarbons and did not resemble that of commercial gasoline. Results were calculated using the response factor derived from the current gasoline calibration.

The hydrocarbon profile present in samples SV-5 and SV-6 shows TPH gasoline and some heavier hydrocarbons. Results were calculated using the response factor derived from the current gasoline calibration.

Definition of Data Qualifying Flags

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV and/or LCS.
N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:
a-File was requantified
b-File was quantified by a second column and detector
r1-File was requantified for the purpose of reissue

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-1

Lab ID#: 1205286-01A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Toluene	0.72	1.0	2.7	3.8
Tetrachloroethene	0.72	1.4	4.9	9.4
TPH ref. to Gasoline (MW=100)	36	300	150	1200

Client Sample ID: SV-2

Lab ID#: 1205286-02A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	3.0	1000	20	7000
TPH ref. to Gasoline (MW=100)	150	1500	610	6000

Client Sample ID: SV-3

Lab ID#: 1205286-03A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Trichloroethene	720	1800	3900	9500
Tetrachloroethene	720	200000	4900	1400000

Client Sample ID: SV-4

Lab ID#: 1205286-04A

No Detections Were Found.

Client Sample ID: SV-5

Lab ID#: 1205286-05A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.74	1.3	2.7	4.6
Benzene	0.74	7.3	2.4	23
Toluene	0.74	20	2.8	74
Ethyl Benzene	0.74	3.6	3.2	16
m,p-Xylene	0.74	14	3.2	62
o-Xylene	0.74	4.4	3.2	19

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Summary of Detected Compounds
EPA METHOD TO-15 GC/MS FULL SCAN

Client Sample ID: SV-5

Lab ID#: 1205286-05A

TPH ref. to Gasoline (MW=100)	37	1700	150	7200

Client Sample ID: SV-6

Lab ID#: 1205286-06A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
TPH ref. to Gasoline (MW=100)	37	3700	150	15000

Client Sample ID: SV-7

Lab ID#: 1205286-07A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.82	2.8	3.0	10
Benzene	0.82	2.0	2.6	6.3
Toluene	0.82	2.4	3.1	8.9
m,p-Xylene	0.82	1.4	3.6	6.3
TPH ref. to Gasoline (MW=100)	41	380	170	1500

Client Sample ID: SV-8

Lab ID#: 1205286-08A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.78	4.2	2.8	15
Toluene	0.78	2.5	2.9	9.3
m,p-Xylene	0.78	0.99	3.4	4.3
TPH ref. to Gasoline (MW=100)	39	160	160	670

Client Sample ID: SV-9

Lab ID#: 1205286-09A

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Tetrachloroethene	0.76	1.1	5.2	7.7
TPH ref. to Gasoline (MW=100)	38	88	160	360

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Client Sample ID: SV-1

Lab ID#: 1205286-01A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051710**	**Date of Collection: 5/11/12 9:04:00 AM**	
Dil. Factor:	**1.44**	**Date of Analysis: 5/17/12 05:13 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.72	Not Detected	2.6	Not Detected
Benzene	0.72	Not Detected	2.3	Not Detected
1,2-Dichloroethane	0.72	Not Detected	2.9	Not Detected
Trichloroethene	0.72	Not Detected	3.9	Not Detected
Toluene	0.72	1.0	2.7	3.8
Tetrachloroethene	0.72	1.4	4.9	9.4
1,2-Dibromoethane (EDB)	0.72	Not Detected	5.5	Not Detected
Ethyl Benzene	0.72	Not Detected	3.1	Not Detected
m,p-Xylene	0.72	Not Detected	3.1	Not Detected
o-Xylene	0.72	Not Detected	3.1	Not Detected
tert-Butyl alcohol	2.9	Not Detected	8.7	Not Detected
Ethyl-tert-butyl ether	2.9	Not Detected	12	Not Detected
Isopropyl ether	2.9	Not Detected	12	Not Detected
tert-Amyl methyl ether	2.9	Not Detected	12	Not Detected
TPH ref. to Gasoline (MW=100)	36	300	150	1200

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	99	70-130
Toluene-d8	98	70-130

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Client Sample ID: SV-2

Lab ID#: 1205286-02A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051711**	**Date of Collection: 5/11/12 9:35:00 AM**	
Dil. Factor:	**5.96**	**Date of Analysis: 5/17/12 05:56 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	3.0	Not Detected	11	Not Detected
Benzene	3.0	Not Detected	9.5	Not Detected
1,2-Dichloroethane	3.0	Not Detected	12	Not Detected
Trichloroethene	3.0	Not Detected	16	Not Detected
Toluene	3.0	Not Detected	11	Not Detected
Tetrachloroethene	3.0	1000	20	7000
1,2-Dibromoethane (EDB)	3.0	Not Detected	23	Not Detected
Ethyl Benzene	3.0	Not Detected	13	Not Detected
m,p-Xylene	3.0	Not Detected	13	Not Detected
o-Xylene	3.0	Not Detected	13	Not Detected
tert-Butyl alcohol	12	Not Detected	36	Not Detected
Ethyl-tert-butyl ether	12	Not Detected	50	Not Detected
Isopropyl ether	12	Not Detected	50	Not Detected
tert-Amyl methyl ether	12	Not Detected	50	Not Detected
TPH ref. to Gasoline (MW=100)	150	1500	610	6000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	99	70-130
Toluene-d8	98	70-130

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Client Sample ID: SV-3

Lab ID#: 1205286-03A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051718**	**Date of Collection: 5/11/12 10:19:00 AM**	
Dil. Factor:	**1440**	**Date of Analysis: 5/17/12 10:37 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	720	Not Detected	2600	Not Detected
Benzene	720	Not Detected	2300	Not Detected
1,2-Dichloroethane	720	Not Detected	2900	Not Detected
Trichloroethene	720	1800	3900	9500
Toluene	720	Not Detected	2700	Not Detected
Tetrachloroethene	720	200000	4900	1400000
1,2-Dibromoethane (EDB)	720	Not Detected	5500	Not Detected
Ethyl Benzene	720	Not Detected	3100	Not Detected
m,p-Xylene	720	Not Detected	3100	Not Detected
o-Xylene	720	Not Detected	3100	Not Detected
tert-Butyl alcohol	2900	Not Detected	8700	Not Detected
Ethyl-tert-butyl ether	2900	Not Detected	12000	Not Detected
Isopropyl ether	2900	Not Detected	12000	Not Detected
tert-Amyl methyl ether	2900	Not Detected	12000	Not Detected
TPH ref. to Gasoline (MW=100)	36000	Not Detected	150000	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	99	70-130
Toluene-d8	101	70-130

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Client Sample ID: SV-4

Lab ID#: 1205286-04A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051719**	**Date of Collection: 5/11/12 12:05:00 PM**	
Dil. Factor:	**99.3**	**Date of Analysis: 5/17/12 11:27 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	50	Not Detected	180	Not Detected
Benzene	50	Not Detected	160	Not Detected
1,2-Dichloroethane	50	Not Detected	200	Not Detected
Toluene	50	Not Detected	190	Not Detected
1,2-Dibromoethane (EDB)	50	Not Detected	380	Not Detected
Ethyl Benzene	50	Not Detected	220	Not Detected
m,p-Xylene	50	Not Detected	220	Not Detected
o-Xylene	50	Not Detected	220	Not Detected
tert-Butyl alcohol	200	Not Detected	600	Not Detected
Ethyl-tert-butyl ether	200	Not Detected	830	Not Detected
Isopropyl ether	200	Not Detected	830	Not Detected
tert-Amyl methyl ether	200	Not Detected	830	Not Detected
TPH ref. to Gasoline (MW=100)	2500	Not Detected	10000	Not Detected

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
4-Bromofluorobenzene	96	70-130
Toluene-d8	100	70-130

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Client Sample ID: SV-5

Lab ID#: 1205286-05A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051712**	**Date of Collection: 5/11/12 3:40:00 PM**	
Dil. Factor:	**1.49**	**Date of Analysis: 5/17/12 06:33 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.74	1.3	2.7	4.6
Benzene	0.74	7.3	2.4	23
1,2-Dichloroethane	0.74	Not Detected	3.0	Not Detected
Toluene	0.74	20	2.8	74
1,2-Dibromoethane (EDB)	0.74	Not Detected	5.7	Not Detected
Ethyl Benzene	0.74	3.6	3.2	16
m,p-Xylene	0.74	14	3.2	62
o-Xylene	0.74	4.4	3.2	19
tert-Butyl alcohol	3.0	Not Detected	9.0	Not Detected
Ethyl-tert-butyl ether	3.0	Not Detected	12	Not Detected
Isopropyl ether	3.0	Not Detected	12	Not Detected
tert-Amyl methyl ether	3.0	Not Detected	12	Not Detected
TPH ref. to Gasoline (MW=100)	37	1700	150	7200

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	99	70-130
4-Bromofluorobenzene	104	70-130
Toluene-d8	100	70-130

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Client Sample ID: SV-6

Lab ID#: 1205286-06A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051713**	**Date of Collection: 5/11/12 2:45:00 PM**	
Dil. Factor:	**1.49**	**Date of Analysis: 5/17/12 07:29 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.74	Not Detected	2.7	Not Detected
Benzene	0.74	Not Detected	2.4	Not Detected
1,2-Dichloroethane	0.74	Not Detected	3.0	Not Detected
Toluene	0.74	Not Detected	2.8	Not Detected
1,2-Dibromoethane (EDB)	0.74	Not Detected	5.7	Not Detected
Ethyl Benzene	0.74	Not Detected	3.2	Not Detected
m,p-Xylene	0.74	Not Detected	3.2	Not Detected
o-Xylene	0.74	Not Detected	3.2	Not Detected
tert-Butyl alcohol	3.0	Not Detected	9.0	Not Detected
Ethyl-tert-butyl ether	3.0	Not Detected	12	Not Detected
Isopropyl ether	3.0	Not Detected	12	Not Detected
tert-Amyl methyl ether	3.0	Not Detected	12	Not Detected
TPH ref. to Gasoline (MW=100)	37	3700	150	15000

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	93	70-130
4-Bromofluorobenzene	99	70-130
Toluene-d8	102	70-130

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Client Sample ID: SV-7

Lab ID#: 1205286-07A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051714**	**Date of Collection: 5/11/12 3:30:00 PM**	
Dil. Factor:	**1.64**	**Date of Analysis: 5/17/12 08:09 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.82	2.8	3.0	10
Benzene	0.82	2.0	2.6	6.3
1,2-Dichloroethane	0.82	Not Detected	3.3	Not Detected
Toluene	0.82	2.4	3.1	8.9
1,2-Dibromoethane (EDB)	0.82	Not Detected	6.3	Not Detected
Ethyl Benzene	0.82	Not Detected	3.6	Not Detected
m,p-Xylene	0.82	1.4	3.6	6.3
o-Xylene	0.82	Not Detected	3.6	Not Detected
tert-Butyl alcohol	3.3	Not Detected	9.9	Not Detected
Ethyl-tert-butyl ether	3.3	Not Detected	14	Not Detected
Isopropyl ether	3.3	Not Detected	14	Not Detected
tert-Amyl methyl ether	3.3	Not Detected	14	Not Detected
TPH ref. to Gasoline (MW=100)	41	380	170	1500

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	94	70-130
4-Bromofluorobenzene	99	70-130
Toluene-d8	101	70-130

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Client Sample ID: SV-8

Lab ID#: 1205286-08A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051715**	**Date of Collection: 5/11/12 4:07:00 PM**	
Dil. Factor:	**1.55**	**Date of Analysis: 5/17/12 08:46 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Methyl tert-butyl ether	0.78	4.2	2.8	15
Benzene	0.78	Not Detected	2.5	Not Detected
1,2-Dichloroethane	0.78	Not Detected	3.1	Not Detected
Toluene	0.78	2.5	2.9	9.3
1,2-Dibromoethane (EDB)	0.78	Not Detected	6.0	Not Detected
Ethyl Benzene	0.78	Not Detected	3.4	Not Detected
m,p-Xylene	0.78	0.99	3.4	4.3
o-Xylene	0.78	Not Detected	3.4	Not Detected
tert-Butyl alcohol	3.1	Not Detected	9.4	Not Detected
Ethyl-tert-butyl ether	3.1	Not Detected	13	Not Detected
Isopropyl ether	3.1	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.1	Not Detected	13	Not Detected
TPH ref. to Gasoline (MW=100)	39	160	160	670

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	92	70-130
4-Bromofluorobenzene	99	70-130
Toluene-d8	101	70-130

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Client Sample ID: SV-9

Lab ID#: 1205286-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051716**	**Date of Collection: 5/11/12 6:14:00 PM**	
Dil. Factor:	**1.52**	**Date of Analysis: 5/17/12 09:23 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.76	Not Detected	3.8	Not Detected
Freon 114	0.76	Not Detected	5.3	Not Detected
Vinyl Chloride	0.76	Not Detected	1.9	Not Detected
Bromomethane	7.6	Not Detected	30	Not Detected
Chloroethane	3.0	Not Detected	8.0	Not Detected
Freon 11	0.76	Not Detected	4.3	Not Detected
1,1-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Freon 113	0.76	Not Detected	5.8	Not Detected
Methylene Chloride	7.6	Not Detected	26	Not Detected
1,1-Dichloroethane	0.76	Not Detected	3.1	Not Detected
cis-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
Chloroform	0.76	Not Detected	3.7	Not Detected
1,1,1-Trichloroethane	0.76	Not Detected	4.1	Not Detected
Carbon Tetrachloride	0.76	Not Detected	4.8	Not Detected
Benzene	0.76	Not Detected	2.4	Not Detected
1,2-Dichloroethane	0.76	Not Detected	3.1	Not Detected
Trichloroethene	0.76	Not Detected	4.1	Not Detected
1,2-Dichloropropane	0.76	Not Detected	3.5	Not Detected
cis-1,3-Dichloropropene	0.76	Not Detected	3.4	Not Detected
Toluene	0.76	Not Detected	2.9	Not Detected
trans-1,3-Dichloropropene	0.76	Not Detected	3.4	Not Detected
1,1,2-Trichloroethane	0.76	Not Detected	4.1	Not Detected
Tetrachloroethene	0.76	1.1	5.2	7.7
1,2-Dibromoethane (EDB)	0.76	Not Detected	5.8	Not Detected
Chlorobenzene	0.76	Not Detected	3.5	Not Detected
Ethyl Benzene	0.76	Not Detected	3.3	Not Detected
m,p-Xylene	0.76	Not Detected	3.3	Not Detected
o-Xylene	0.76	Not Detected	3.3	Not Detected
Styrene	0.76	Not Detected	3.2	Not Detected
1,1,2,2-Tetrachloroethane	0.76	Not Detected	5.2	Not Detected
1,3,5-Trimethylbenzene	0.76	Not Detected	3.7	Not Detected
1,2,4-Trimethylbenzene	0.76	Not Detected	3.7	Not Detected
1,3-Dichlorobenzene	0.76	Not Detected	4.6	Not Detected
1,4-Dichlorobenzene	0.76	Not Detected	4.6	Not Detected
alpha-Chlorotoluene	0.76	Not Detected	3.9	Not Detected
1,2-Dichlorobenzene	0.76	Not Detected	4.6	Not Detected
1,3-Butadiene	0.76	Not Detected	1.7	Not Detected
Hexane	0.76	Not Detected	2.7	Not Detected
Cyclohexane	0.76	Not Detected	2.6	Not Detected
Heptane	0.76	Not Detected	3.1	Not Detected
Bromodichloromethane	0.76	Not Detected	5.1	Not Detected
Dibromochloromethane	0.76	Not Detected	6.5	Not Detected

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Client Sample ID: SV-9

Lab ID#: 1205286-09A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051716**	**Date of Collection: 5/11/12 6:14:00 PM**	
Dil. Factor:	**1.52**	**Date of Analysis: 5/17/12 09:23 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	0.76	Not Detected	3.7	Not Detected
Propylbenzene	0.76	Not Detected	3.7	Not Detected
Chloromethane	7.6	Not Detected	16	Not Detected
1,2,4-Trichlorobenzene	3.0	Not Detected	22	Not Detected
Hexachlorobutadiene	3.0	Not Detected	32	Not Detected
Acetone	7.6	Not Detected	18	Not Detected
Carbon Disulfide	3.0	Not Detected	9.5	Not Detected
2-Propanol	3.0	Not Detected	7.5	Not Detected
trans-1,2-Dichloroethene	0.76	Not Detected	3.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.0	Not Detected	9.0	Not Detected
Tetrahydrofuran	0.76	Not Detected	2.2	Not Detected
1,4-Dioxane	3.0	Not Detected	11	Not Detected
4-Methyl-2-pentanone	0.76	Not Detected	3.1	Not Detected
2-Hexanone	3.0	Not Detected	12	Not Detected
Bromoform	0.76	Not Detected	7.8	Not Detected
4-Ethyltoluene	0.76	Not Detected	3.7	Not Detected
Ethanol	3.0	Not Detected	5.7	Not Detected
Methyl tert-butyl ether	0.76	Not Detected	2.7	Not Detected
tert-Butyl alcohol	3.0	Not Detected	9.2	Not Detected
Ethyl-tert-butyl ether	3.0	Not Detected	13	Not Detected
Isopropyl ether	3.0	Not Detected	13	Not Detected
tert-Amyl methyl ether	3.0	Not Detected	13	Not Detected
3-Chloropropene	3.0	Not Detected	9.5	Not Detected
2,2,4-Trimethylpentane	0.76	Not Detected	3.6	Not Detected
Naphthalene	3.0	Not Detected	16	Not Detected
TPH ref. to Gasoline (MW=100)	38	88	160	360

Container Type: 1 Liter Summa Canister

Surrogates	%Recovery	Method Limits
Toluene-d8	101	70-130
1,2-Dichloroethane-d4	101	70-130
4-Bromofluorobenzene	100	70-130

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Client Sample ID: Lab Blank

Lab ID#: 1205286-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051708**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/17/12 03:44 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Freon 12	0.50	Not Detected	2.5	Not Detected
Freon 114	0.50	Not Detected	3.5	Not Detected
Vinyl Chloride	0.50	Not Detected	1.3	Not Detected
Bromomethane	5.0	Not Detected	19	Not Detected
Chloroethane	2.0	Not Detected	5.3	Not Detected
Freon 11	0.50	Not Detected	2.8	Not Detected
1,1-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Freon 113	0.50	Not Detected	3.8	Not Detected
Methylene Chloride	5.0	Not Detected	17	Not Detected
1,1-Dichloroethane	0.50	Not Detected	2.0	Not Detected
cis-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
Chloroform	0.50	Not Detected	2.4	Not Detected
1,1,1-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Carbon Tetrachloride	0.50	Not Detected	3.1	Not Detected
Benzene	0.50	Not Detected	1.6	Not Detected
1,2-Dichloroethane	0.50	Not Detected	2.0	Not Detected
Trichloroethene	0.50	Not Detected	2.7	Not Detected
1,2-Dichloropropane	0.50	Not Detected	2.3	Not Detected
cis-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
trans-1,3-Dichloropropene	0.50	Not Detected	2.3	Not Detected
1,1,2-Trichloroethane	0.50	Not Detected	2.7	Not Detected
Tetrachloroethene	0.50	Not Detected	3.4	Not Detected
1,2-Dibromoethane (EDB)	0.50	Not Detected	3.8	Not Detected
Chlorobenzene	0.50	Not Detected	2.3	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Styrene	0.50	Not Detected	2.1	Not Detected
1,1,2,2-Tetrachloroethane	0.50	Not Detected	3.4	Not Detected
1,3,5-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,2,4-Trimethylbenzene	0.50	Not Detected	2.4	Not Detected
1,3-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,4-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
alpha-Chlorotoluene	0.50	Not Detected	2.6	Not Detected
1,2-Dichlorobenzene	0.50	Not Detected	3.0	Not Detected
1,3-Butadiene	0.50	Not Detected	1.1	Not Detected
Hexane	0.50	Not Detected	1.8	Not Detected
Cyclohexane	0.50	Not Detected	1.7	Not Detected
Heptane	0.50	Not Detected	2.0	Not Detected
Bromodichloromethane	0.50	Not Detected	3.4	Not Detected
Dibromochloromethane	0.50	Not Detected	4.2	Not Detected

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Client Sample ID: Lab Blank

Lab ID#: 1205286-10A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051708**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/17/12 03:44 PM**	

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Cumene	0.50	Not Detected	2.4	Not Detected
Propylbenzene	0.50	Not Detected	2.4	Not Detected
Chloromethane	5.0	Not Detected	10	Not Detected
1,2,4-Trichlorobenzene	2.0	Not Detected	15	Not Detected
Hexachlorobutadiene	2.0	Not Detected	21	Not Detected
Acetone	5.0	Not Detected	12	Not Detected
Carbon Disulfide	2.0	Not Detected	6.2	Not Detected
2-Propanol	2.0	Not Detected	4.9	Not Detected
trans-1,2-Dichloroethene	0.50	Not Detected	2.0	Not Detected
2-Butanone (Methyl Ethyl Ketone)	2.0	Not Detected	5.9	Not Detected
Tetrahydrofuran	0.50	Not Detected	1.5	Not Detected
1,4-Dioxane	2.0	Not Detected	7.2	Not Detected
4-Methyl-2-pentanone	0.50	Not Detected	2.0	Not Detected
2-Hexanone	2.0	Not Detected	8.2	Not Detected
Bromoform	0.50	Not Detected	5.2	Not Detected
4-Ethyltoluene	0.50	Not Detected	2.4	Not Detected
Ethanol	2.0	Not Detected	3.8	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
tert-Butyl alcohol	2.0	Not Detected	6.1	Not Detected
Ethyl-tert-butyl ether	2.0	Not Detected	8.4	Not Detected
Isopropyl ether	2.0	Not Detected	8.4	Not Detected
tert-Amyl methyl ether	2.0	Not Detected	8.4	Not Detected
3-Chloropropene	2.0	Not Detected	6.3	Not Detected
2,2,4-Trimethylpentane	0.50	Not Detected	2.3	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	25	Not Detected	100	Not Detected

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	95	70-130
4-Bromofluorobenzene	102	70-130

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Client Sample ID: CCV

Lab ID#: 1205286-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/17/12 09:29 AM**	

Compound	%Recovery
Freon 12	104
Freon 114	112
Vinyl Chloride	108
Bromomethane	114
Chloroethane	110
Freon 11	100
1,1-Dichloroethene	110
Freon 113	109
Methylene Chloride	105
1,1-Dichloroethane	103
cis-1,2-Dichloroethene	107
Chloroform	99
1,1,1-Trichloroethane	103
Carbon Tetrachloride	110
Benzene	107
1,2-Dichloroethane	103
Trichloroethene	111
1,2-Dichloropropane	106
cis-1,3-Dichloropropene	113
Toluene	105
trans-1,3-Dichloropropene	122
1,1,2-Trichloroethane	115
Tetrachloroethene	113
1,2-Dibromoethane (EDB)	112
Chlorobenzene	110
Ethyl Benzene	113
m,p-Xylene	112
o-Xylene	112
Styrene	115
1,1,2,2-Tetrachloroethane	107
1,3,5-Trimethylbenzene	111
1,2,4-Trimethylbenzene	110
1,3-Dichlorobenzene	110
1,4-Dichlorobenzene	106
alpha-Chlorotoluene	128
1,2-Dichlorobenzene	106
1,3-Butadiene	102
Hexane	102
Cyclohexane	107
Heptane	110
Bromodichloromethane	111
Dibromochloromethane	117

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Client Sample ID: CCV

Lab ID#: 1205286-11A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051702**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/17/12 09:29 AM**	

Compound	%Recovery
Cumene	112
Propylbenzene	111
Chloromethane	107
1,2,4-Trichlorobenzene	113
Hexachlorobutadiene	107
Acetone	112
Carbon Disulfide	94
2-Propanol	117
trans-1,2-Dichloroethene	101
2-Butanone (Methyl Ethyl Ketone)	107
Tetrahydrofuran	104
1,4-Dioxane	112
4-Methyl-2-pentanone	115
2-Hexanone	118
Bromoform	122
4-Ethyltoluene	110
Ethanol	107
Methyl tert-butyl ether	105
tert-Butyl alcohol	102
Ethyl-tert-butyl ether	100
Isopropyl ether	107
tert-Amyl methyl ether	106
3-Chloropropene	108
2,2,4-Trimethylpentane	100
Naphthalene	119
TPH ref. to Gasoline (MW=100)	100

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	97	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	104	70-130

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Client Sample ID: LCS

Lab ID#: 1205286-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/17/12 10:49 AM**	

Compound	%Recovery
Freon 12	109
Freon 114	116
Vinyl Chloride	114
Bromomethane	115
Chloroethane	113
Freon 11	103
1,1-Dichloroethene	122
Freon 113	112
Methylene Chloride	108
1,1-Dichloroethane	104
cis-1,2-Dichloroethene	110
Chloroform	102
1,1,1-Trichloroethane	106
Carbon Tetrachloride	111
Benzene	108
1,2-Dichloroethane	103
Trichloroethene	114
1,2-Dichloropropane	106
cis-1,3-Dichloropropene	114
Toluene	104
trans-1,3-Dichloropropene	125
1,1,2-Trichloroethane	114
Tetrachloroethene	112
1,2-Dibromoethane (EDB)	115
Chlorobenzene	112
Ethyl Benzene	113
m,p-Xylene	114
o-Xylene	110
Styrene	114
1,1,2,2-Tetrachloroethane	111
1,3,5-Trimethylbenzene	110
1,2,4-Trimethylbenzene	106
1,3-Dichlorobenzene	110
1,4-Dichlorobenzene	104
alpha-Chlorotoluene	128
1,2-Dichlorobenzene	107
1,3-Butadiene	105
Hexane	99
Cyclohexane	107
Heptane	108
Bromodichloromethane	111
Dibromochloromethane	117

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Client Sample ID: LCS

Lab ID#: 1205286-12A

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051703**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/17/12 10:49 AM**	

Compound	%Recovery
Cumene	111
Propylbenzene	110
Chloromethane	117
1,2,4-Trichlorobenzene	115
Hexachlorobutadiene	106
Acetone	115
Carbon Disulfide	121
2-Propanol	120
trans-1,2-Dichloroethene	119
2-Butanone (Methyl Ethyl Ketone)	108
Tetrahydrofuran	101
1,4-Dioxane	108
4-Methyl-2-pentanone	111
2-Hexanone	112
Bromoform	121
4-Ethyltoluene	105
Ethanol	108
Methyl tert-butyl ether	111
tert-Butyl alcohol	Not Spiked
Ethyl-tert-butyl ether	Not Spiked
Isopropyl ether	Not Spiked
tert-Amyl methyl ether	Not Spiked
3-Chloropropene	125
2,2,4-Trimethylpentane	100
Naphthalene	102
TPH ref. to Gasoline (MW=100)	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	98	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	103	70-130

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Client Sample ID: LCSD

Lab ID#: 1205286-12AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/17/12 12:14 PM**	

Compound	%Recovery
Freon 12	109
Freon 114	116
Vinyl Chloride	114
Bromomethane	115
Chloroethane	113
Freon 11	103
1,1-Dichloroethene	120
Freon 113	111
Methylene Chloride	105
1,1-Dichloroethane	104
cis-1,2-Dichloroethene	109
Chloroform	101
1,1,1-Trichloroethane	106
Carbon Tetrachloride	111
Benzene	109
1,2-Dichloroethane	102
Trichloroethene	111
1,2-Dichloropropane	108
cis-1,3-Dichloropropene	114
Toluene	105
trans-1,3-Dichloropropene	122
1,1,2-Trichloroethane	114
Tetrachloroethene	111
1,2-Dibromoethane (EDB)	114
Chlorobenzene	113
Ethyl Benzene	113
m,p-Xylene	113
o-Xylene	109
Styrene	113
1,1,2,2-Tetrachloroethane	109
1,3,5-Trimethylbenzene	106
1,2,4-Trimethylbenzene	103
1,3-Dichlorobenzene	108
1,4-Dichlorobenzene	104
alpha-Chlorotoluene	126
1,2-Dichlorobenzene	105
1,3-Butadiene	106
Hexane	102
Cyclohexane	109
Heptane	108
Bromodichloromethane	110
Dibromochloromethane	116

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Client Sample ID: LCSD

Lab ID#: 1205286-12AA

EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	**2051704**	**Date of Collection: NA**	
Dil. Factor:	**1.00**	**Date of Analysis: 5/17/12 12:14 PM**	

Compound	%Recovery
Cumene	109
Propylbenzene	109
Chloromethane	116
1,2,4-Trichlorobenzene	107
Hexachlorobutadiene	98
Acetone	114
Carbon Disulfide	118
2-Propanol	119
trans-1,2-Dichloroethene	117
2-Butanone (Methyl Ethyl Ketone)	107
Tetrahydrofuran	100
1,4-Dioxane	105
4-Methyl-2-pentanone	109
2-Hexanone	112
Bromoform	120
4-Ethyltoluene	102
Ethanol	108
Methyl tert-butyl ether	111
tert-Butyl alcohol	Not Spiked
Ethyl-tert-butyl ether	Not Spiked
Isopropyl ether	Not Spiked
tert-Amyl methyl ether	Not Spiked
3-Chloropropene	124
2,2,4-Trimethylpentane	98
Naphthalene	94
TPH ref. to Gasoline (MW=100)	Not Spiked

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
Toluene-d8	99	70-130
1,2-Dichloroethane-d4	91	70-130
4-Bromofluorobenzene	103	70-130

Air Toxics LTD.

CHAIN-OF-CUSTODY RECORD

Sample Transportation Notice
Relinquishing signature on this document indicates that sample is being shipped in compliance with all applicable local, State, Federal, national, and international laws, regulations and ordinances of any kind. Air Toxics Limited assumes no liability with respect to the collection, handling or shipping of these samples. Relinquishing signature also indicates agreement to hold harmless, defend, and indemnify Air Toxics Limited against any claim, demand, or action, of any kind, related to the collection, handling, or shipping of samples. D.O.T. Hotline (800) 467-4922

180 BLUE RAVINE ROAD, SUITE B
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(916) 985-1000 FAX (916) 985-1020

Project Manager Jeff Yeazell
Collected by: (Print and Sign) Erin Basel EBasel
Company BSK Email jyeazell@bskinc.com
Address 3140 Gold Camp Dr #160 City Rancho Cordova State CA Zip 95670
Phone (916) 853-9293 Ext 106 Fax (916) 853-9297

Project Info:
P.O. # E08054015
Project # 5002
Project Name Former Unocal

Turn Around Time:
☒ Normal
☐ Rush
specify

Lab Use Only
Pressurized by:
Date:
Pressurization Gas: N_2 He

Lab I.D.	Field Sample I.D. (Location)	Can #	Date of Collection	Time of Collection	Analyses Requested	Canister Pressure/Vacuum Initial	Final	Receipt	Final (psi)
01A	SV-1	14511	5/11/12	0904	* + TCE, PCE (TO-15)	-30	-2		
02A	SV-2	22966	5/11/12	0935	* + TCE, PCE (TO-15)	-29	-2		
03A	SV-3	34629	5/11/12	1019	* + TCE, PCE (TO-15)	-30	-2		
04A	SV-4	37689	5/11/12	1205	* ~~+ TCE, PCE (TO-15)~~	-30	-18.5		
05A	SV-5	25287	5/11/12	1540	*	-30	-3.5		
06A	SV-6	33390	5/11/12	1445	*	-30	-3.5		
07A	SV-7	30456	5/11/12	1530	*	-30	-4.5		
08A	SV-8	37396	5/11/12	1607	*	-30	-1.5		
09A	SV-9	25180	5/11/12	1814	* Full scan VOCs ~~+ TPHd by TO-15~~	-30	~~-3.5~~ -3.4		

Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
EBasel 5/14/12 11:28	B. Whitaker ATL 5/14/12 1330
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time
Relinquished by: (signature) Date/Time	Received by: (signature) Date/Time

Notes: * All samples will be analyzed for the following:
- TPHg, BTEX, fuel oxygenates + lead scavengers (EPA method TO-15)

Lab Use Only	Shipper Name	Air Bill #	Temp (°C)	Condition	Custody Seals Intact?	Work Order #
	H/D		N/A	Good	Yes No (None)	1205286

Form 1293 rev.11