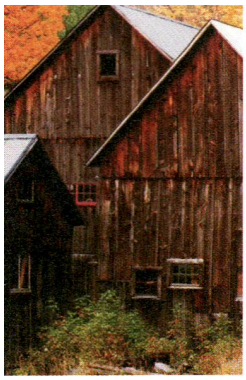


Nahas Company, LLC
Real Estate Services

130 Ryan Industrial Ct., Ste. 200
P. O. Box 3059
San Ramon, CA 94583
925-855-1978
Fax. 925-855-1414

RECEIVED

1:23 pm, Mar 03, 2009

Alameda County
Environmental Health

February 17, 2009

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

Subject: Status Report
Fourth Quarter 2008
Former Unocal Service Station
20405 Redwood Road
Castro Valley, California

Dear Ms. Jakub:

Enclosed please find a copy of the subject Status Report dated February 13, 2009, 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,

Randal Nahas

STATUS REPORT
FOURTH QUARTER 2008
FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

BSK Project E0805401S

Submitted to:

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

February 13, 2009

BSK

STATUS REPORT
FOURTH QUARTER 2008
FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

Prepared for:

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

BSK Project: E0805401S

February 13, 2009

Jeffrey G. Yeazell
Project Manager

Richard E. Johnson, CEG
Senior Geologist

PROFESSIONAL GEOLOGIST
RICHARD EDWARD JOHNSON
No. 1452
CERTIFIED ENGINEERING GEOLOGIST
STATE OF CALIFORNIA

BSK Associates
3140 Gold Camp Drive, Suite 160
Rancho Cordova, CA 95670
(916) 853-9293
(916) 853-9297 FAX
www.bskinc.com

TABLE OF CONTENTS

STATUS REPORT
FOURTH QUARTER 2008
FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

1.0 INTRODUCTION

At the request of Mr. Randall Nahas, BSK Associates performed groundwater monitoring and prepared this report summarizing data collected from the semi-annual monitoring of six groundwater monitoring wells located at the Former Unocal Service Station, 20405 Redwood Road, Castro Valley, California (the site). The site vicinity is shown on Figure 1.

2.0 PROJECT SITE DESCRIPTION AND 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 form 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.

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 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 Figure2. 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 chromatograph from a groundwater sample from 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. Tetrachloroethylene (PCE) and trichloroethylene (TCE) were found in groundwater samples from MW-7 at concentrations of 14,000 µg/L and 660 µg/L, respectively. BSK Associates attributed the previous concentrations of TPHg to the presence of PCE and concluded gasoline contamination may not occur in a significant quantity in monitoring well MW-7 and attributed the contamination to another source. BSK Associates recommended ceasing any further investigation of the gasoline plume south of MW-7 (BSK, 1992b).

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 determined to be the best remedial alternative for soil contamination. 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 contamination at the site. (BSK, 1995).

June 1996, Revised Corrective Action Plan: Philip Environmental prepared a Revised Corrective Action Plan. The plan reports 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 phase separated 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 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/BTEX and 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 precious 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 is summarized in Table 5.

3.0 PURPOSE AND SCOPE

The purpose of quarterly monitoring is to collect data on groundwater quality, groundwater depths, and direction of flow beneath the subject property with the intention of studying residual hydrocarbon contamination in groundwater beneath the site. BSK performed the following tasks:

- Measured depth to groundwater in four of the six monitoring wells. At the time of sampling, monitoring wells MW-2 and MW-3 were inaccessible because they were within a fenced enclosure and covered by a layer of mulch. BSK has since located the two wells, which were recently sampled for the first half 2009 groundwater monitoring event.

- Purged and sampled the four groundwater monitoring wells;

- Analyzed groundwater samples from each accessible monitoring well, for:
  - Total petroleum hydrocarbons as diesel (TPHd)
  - Total petroleum hydrocarbons as gasoline (TPHg)
  - Benzene, toluene, ethylbenzene, and xylenes (BTEX)
  - Fuel Oxygenates
  - Lead Scavengers
- Prepared this quarterly monitoring report summarizing the condition of the wells, depth to groundwater, groundwater flow direction, and laboratory analytical results.

4.0 GROUNDWATER FLOW DIRECTION

Groundwater depths were measured in the four accessible monitoring wells prior to purging and sampling on November 20, 2008. Depths were measured relative to the north side of the top of each well casing.

Based on our measurements, groundwater generally flowed approximately southeast, with a general hydraulic gradient of 0.01 feet/foot. Figure 4 presents a groundwater elevation contour map for the recent monitoring event, and includes a rose diagram depicting the groundwater flow direction. Table 5 summarizes groundwater elevations recorded during the investigation. Table 6 summarizes associated groundwater gradient and flow direction data.

5.0 GROUNDWATER SAMPLING AND ANALYTICAL RESULTS

Groundwater sampling was conducted on November 20, 2008. Each well was purged of a minimum of three casing volumes using an electric submersible pump. Water temperature, pH, and conductivity were measured after removal of each approximate casing volume. The purged water was discharged to the on-site ponds. Water sample logs are included in Appendix A.

After purging, water samples were collected from each well using a clean disposable bailer. The samples were labeled with the sample identification, date and time collected, and project identification. Samples were preserved in a chilled cooler and transported with completed chain-of-custody forms to BSK's state-certified analytical laboratory. The samples were analyzed for TPHd and TPHg by EPA Method 8015B, BTEX by EPA Method 8021B, and fuel oxygenates and lead scavengers by EPA Method 8260B. Equipment used during purging and sampling activities was cleaned with non-phosphate detergent wash and rinsed prior to use at each well location. The purged groundwater was stored in appropriately-labeled 55-gallon drums at the site.

Tables 3 and 4 summarize past quarterly monitoring analytical results. Figures 5 through 9 show time series plots for monitoring wells MW-2, MW-3, MW-6, MW-7, and MW-101 respectively. Appendix B contains laboratory data reports and chain-of-custody documentation for the samples collected this quarter.

6.0 LIMITATIONS

This report has been prepared for the exclusive use of Mr. Randall Nahas. 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.

7.0 REFERENCES

BSK 1992a, *Off Site Soil and Groundwater Contamination Characterization and Seventh Quarterly Groundwater Monitoring Report, Unocal Service Station 20405 and 20629 Redwood Road, Castro Valley, California*, May 29, 1992.

BSK 1992b, *Letter Report, Well MW-7 Special Sampling, Unocal Service Station/Safeway Parking Lot, 20405 and 20629 Redwood Road, Castro Valley, California*, December 23, 1992.

BSK 1995, *Feasibility Study, Soil and Groundwater Remediation, Tien's Unocal Station, 20405 Redwood Road, Castro Valley, California*, December 11, 1995.

BSK, 1996, *Semi-Annual Groundwater Monitoring Report, Unocal 76 Service Station, 20405 and 20629 Redwood Road, Castro Valley, California, BSK Associates,* May 14, 1996.

Philip Environmental 1996, *Revised Corrective Action Plan, R.T. Nahas Property/Tien Unocal 76 Service Station, 20405 Redwood Road, Castro Valley, California,* June 14, 1996.

Life Springs Environmental, Inc. 1999, *Technical Report, Tank Closure, Underground Fuel Tank Site, R.T. Nahas Company Property, Formerly Frank Tien Unocal 76 Service Station, 20405 Redwood Road, Castro Valley, California, 94546,* February 18, 1999.

Life Springs Environmental, Inc. 1999, *Soil Remediation Status Report, R.T. Nahas Property, Castro Valley*, August 17, 1999.

Life Springs Environmental, Inc. 1999, *Soil Remediation Status Report #2, R.T. Nahas Property,*

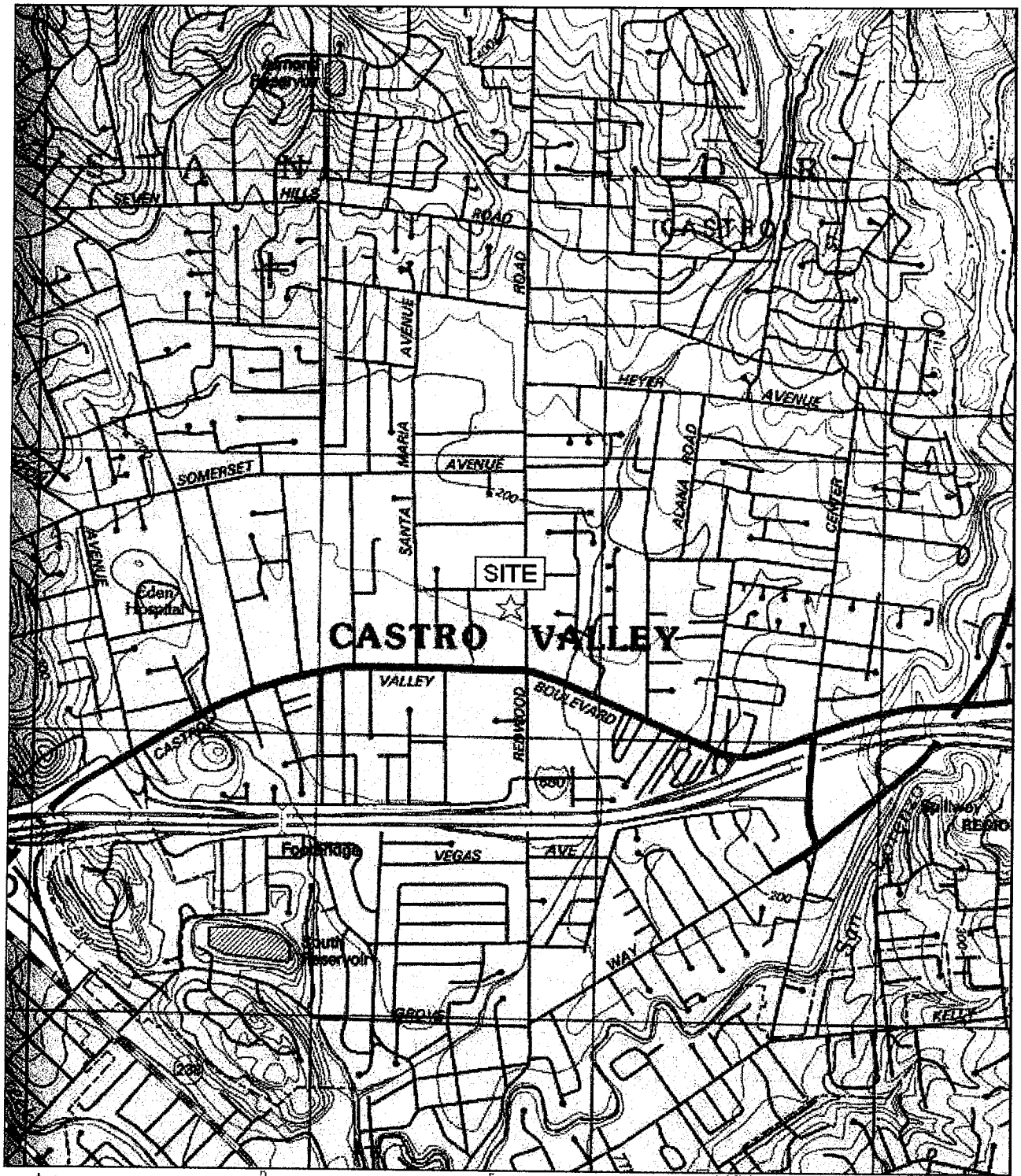
Castro Valley, October 26, 1999.

Life Springs Environmental, Inc. 2000, *Technical Report, Soil Remediation Closure Report, Underground Fuel Tank Site, R.T. Nahas Company Property, Formerly Frank Tien Unocal 76 Service Station, 20405 Redwood Road, Castro Valley, California, 94546,* April 13, 2000.

Graymer, R.W., 2000, Geologic map and map database of the Oakland metropolitan area, Alameda, Contra Costa, and San Francisco Counties, California: U.S. Geological Survey, Miscellaneous Field Studies Map MF-2342, scale 1:50000.

BSK, 2003, *Report, Eighth Semi-Annual Groundwater Monitoring (Third Quarter 2003), Former Unocal 76 Service Station, 20405 and 20629 Redwood Road, Castro Valley, California, BSK Associates,* May 14, 1996.

FIGURES



Map created with TOPO!® ©2003 National Geographic (www.nationalgeographic.com/topo)

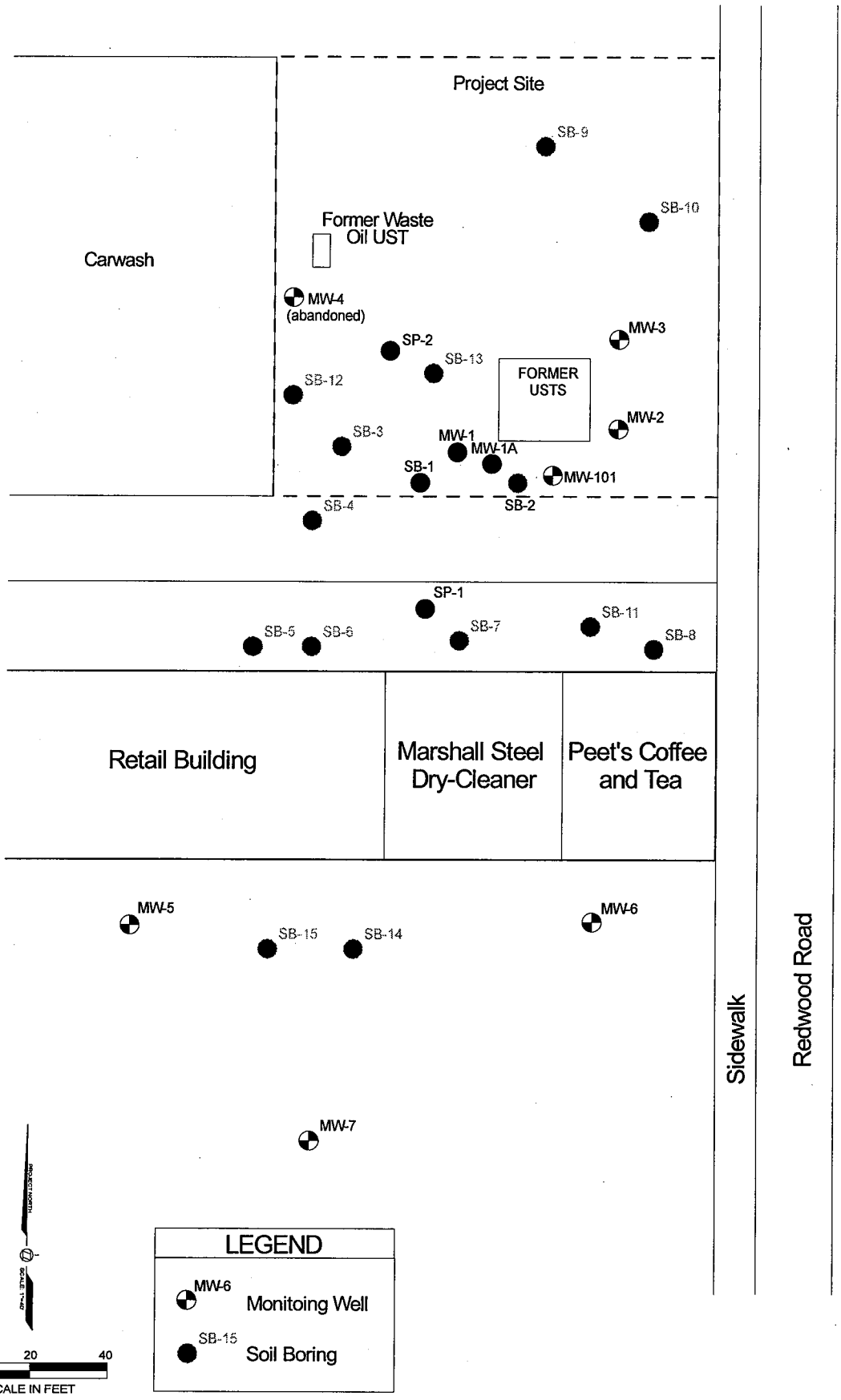
BSK Associates
Engineers & Laboratories

SITE VICINITY

FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

FIGURE 1

PROJECT: E0805401S



BSK Associates Engineers & Laboratories

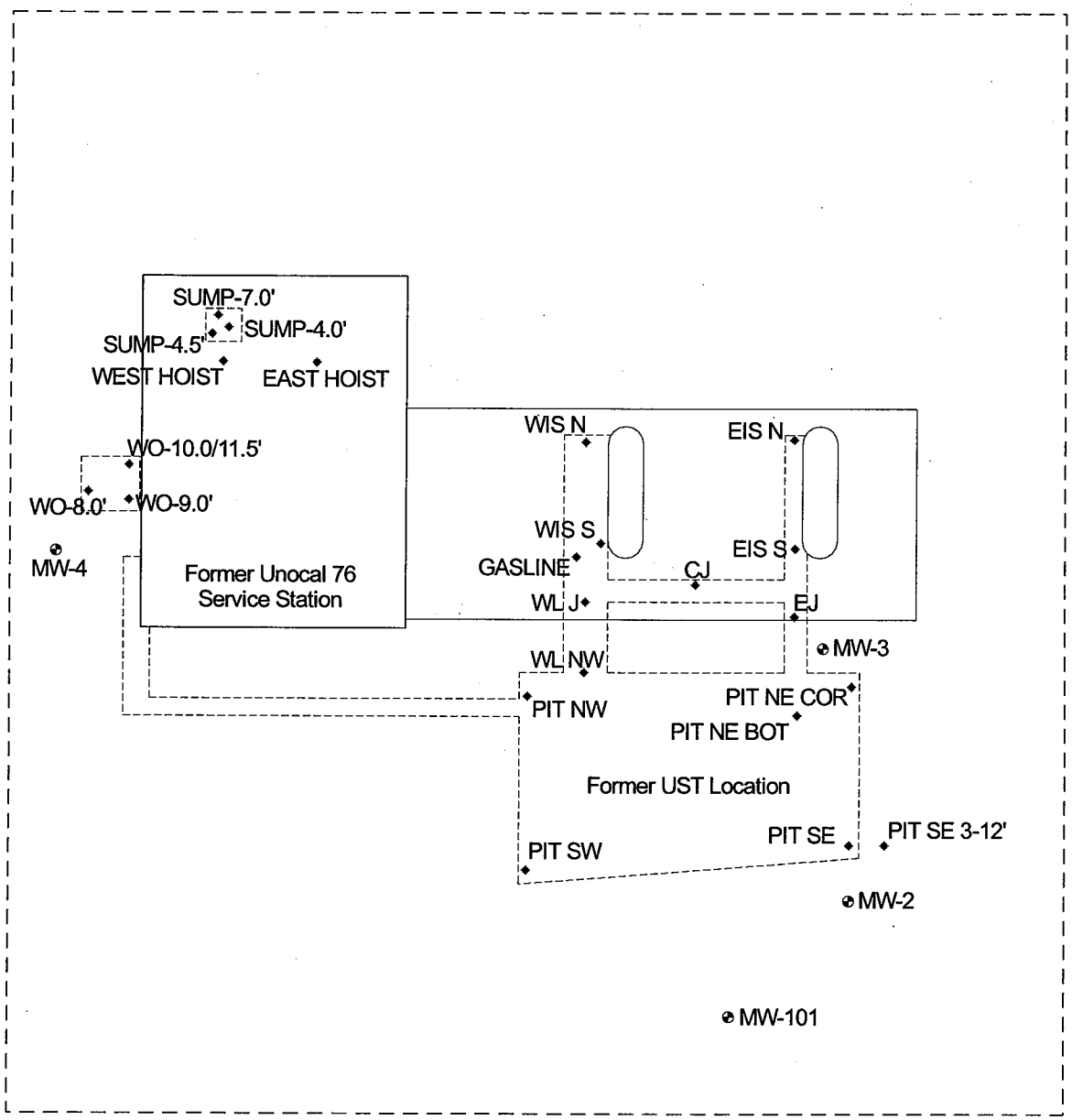
SITE PLAN

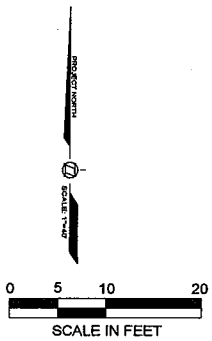
FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

FIGURE 2

PROJECT: E0805401S

DATE: 1/21/09





LEGEND
Soil Sample Location
Approximate Extent of Excavation
Monitoring Well Location

BSK Associates
Engineers & Laboratories

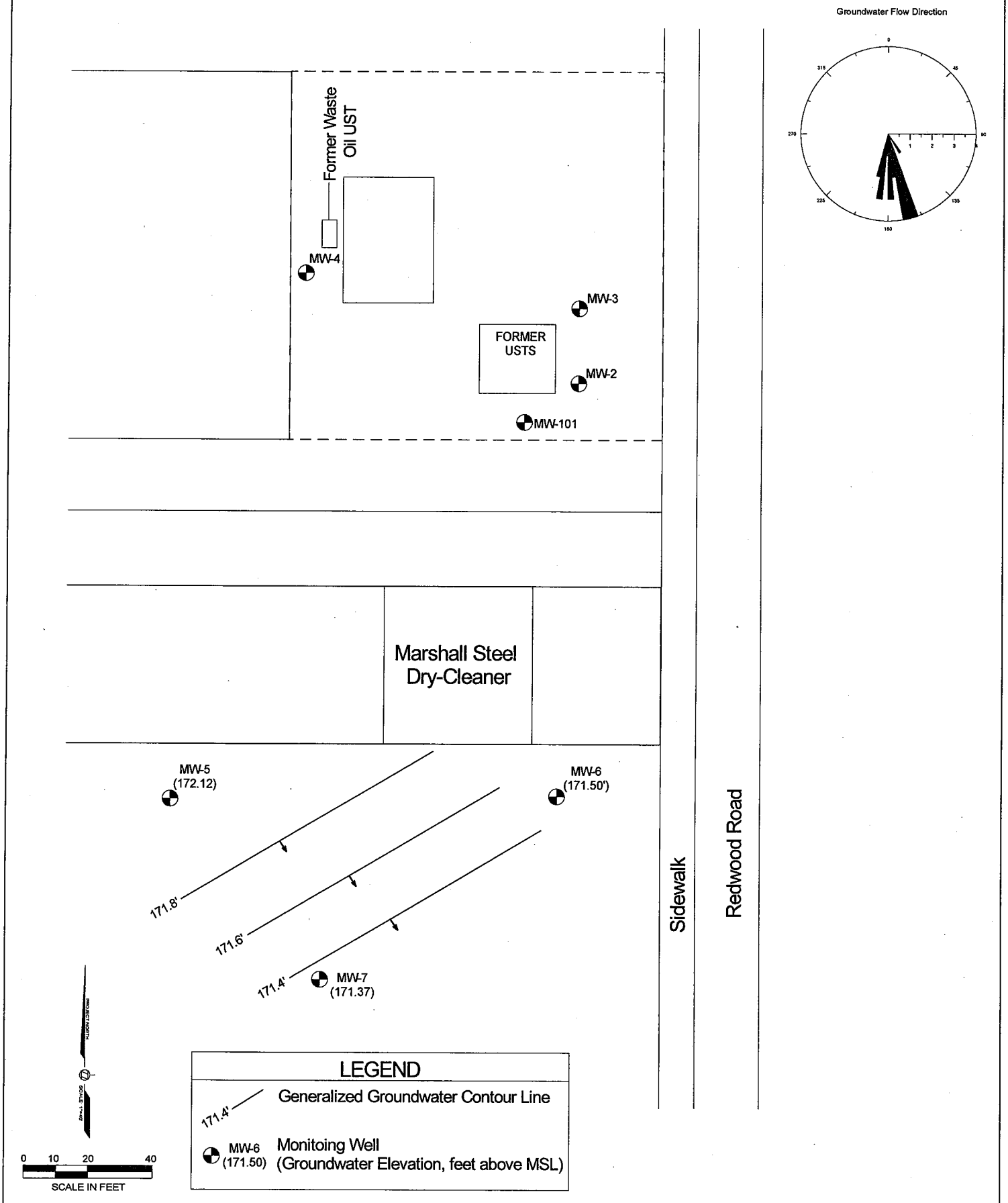
EXTENT OF EXCAVATIONS AND EXCAVATION SOIL SAMPLE LOCATIONS

FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

FIGURE 3

PROJECT: E0805401S

DATE: 2/12/09



BSK Associates Engineers & Laboratories

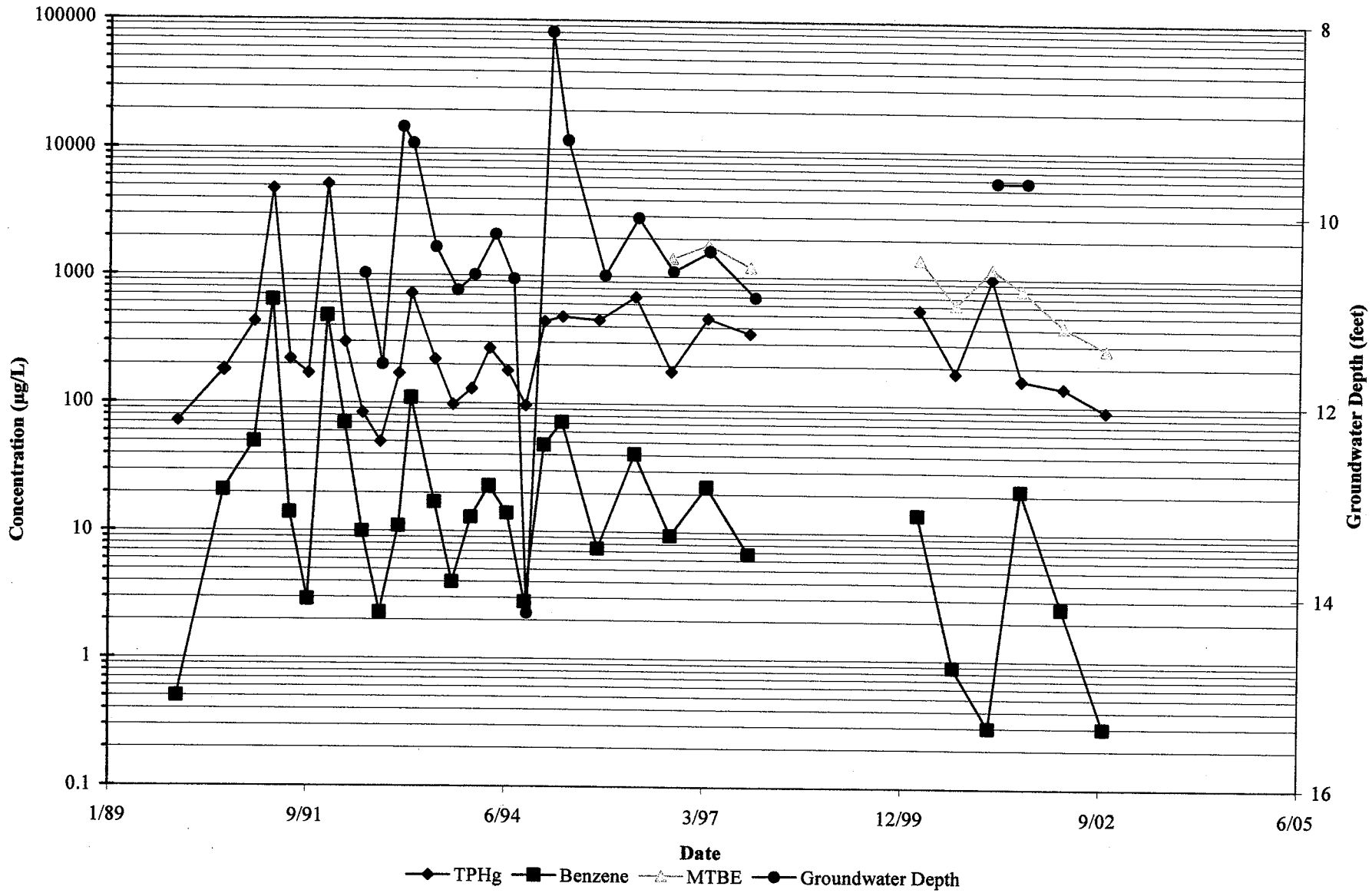
GENERALIZED GROUNDWATER ELEVATION MAP NOVEMBER 2008

FORMER UNOCAL SERVICE STATION
20405 REDWOOD ROAD
CASTRO VALLEY, CALIFORNIA

FIGURE 4

PROJECT: E0805401S

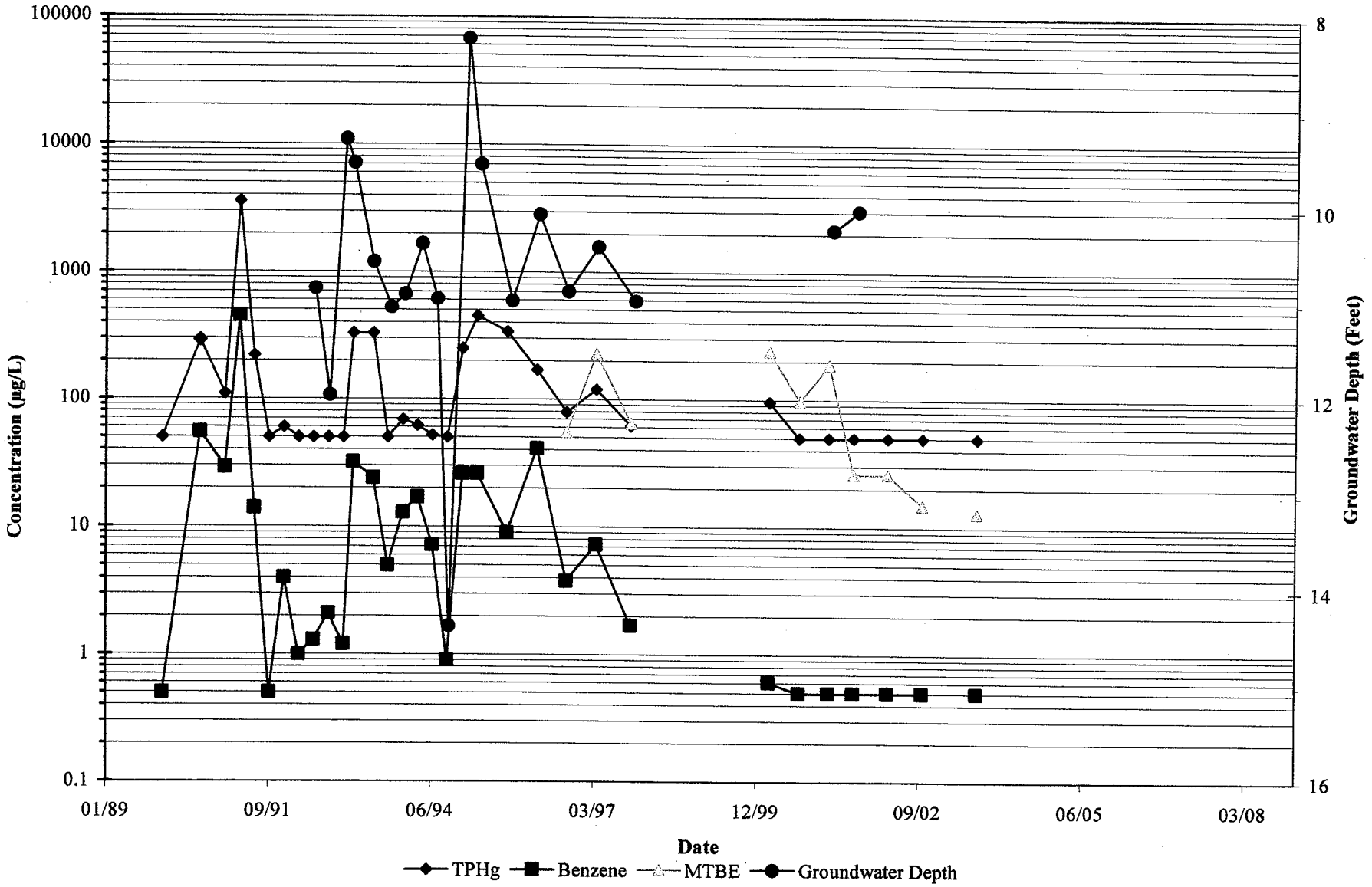
DATE: 1/27/09



BSK Associates
Engineers & Laboratories

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

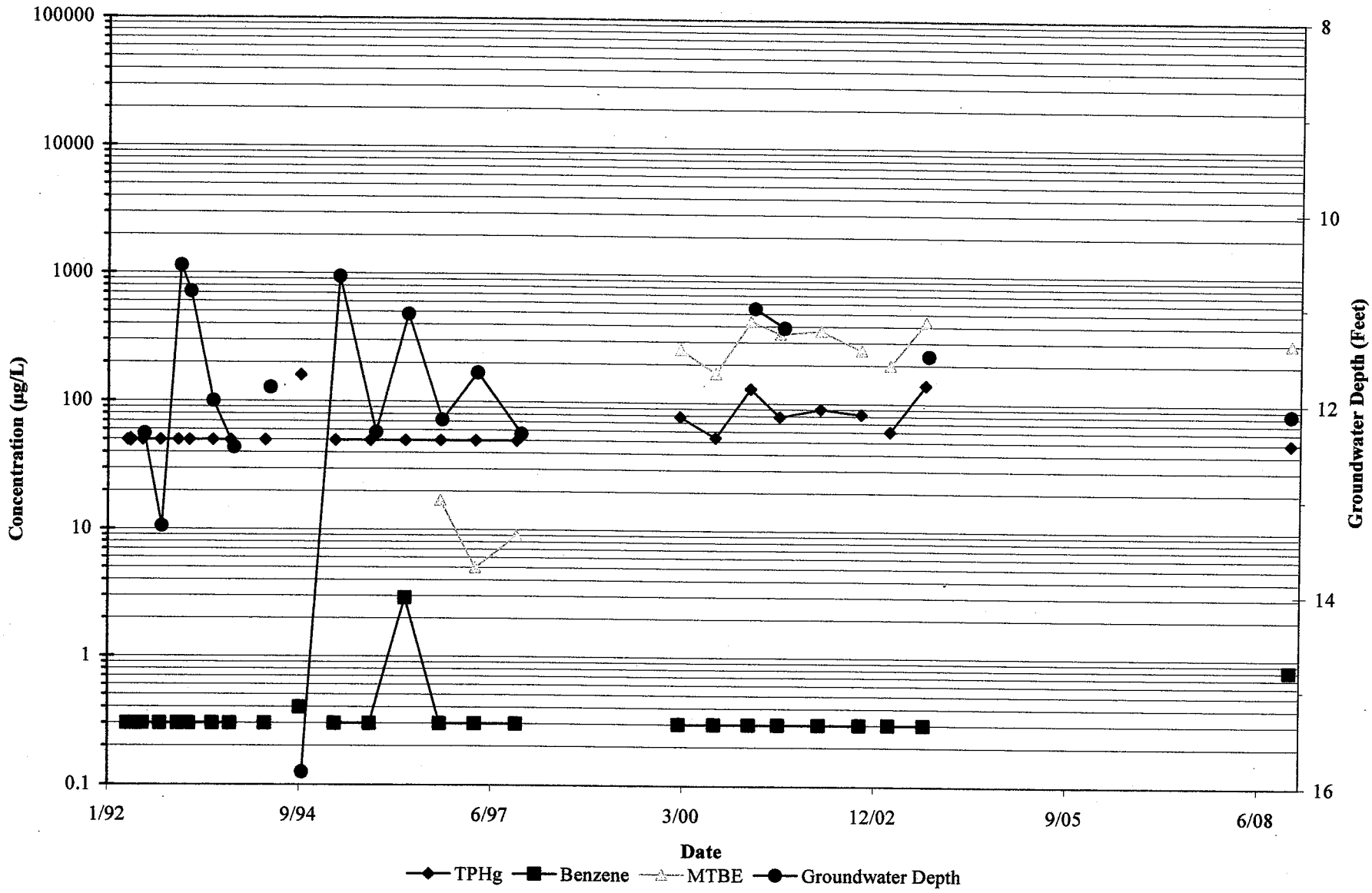
FIGURE 5
PROJECT: E0503102S
DATE: 1/20/09



BSK Associates
Engineers & Laboratories

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

FIGURE 6
PROJECT: E0503102S
DATE: 1/20/09



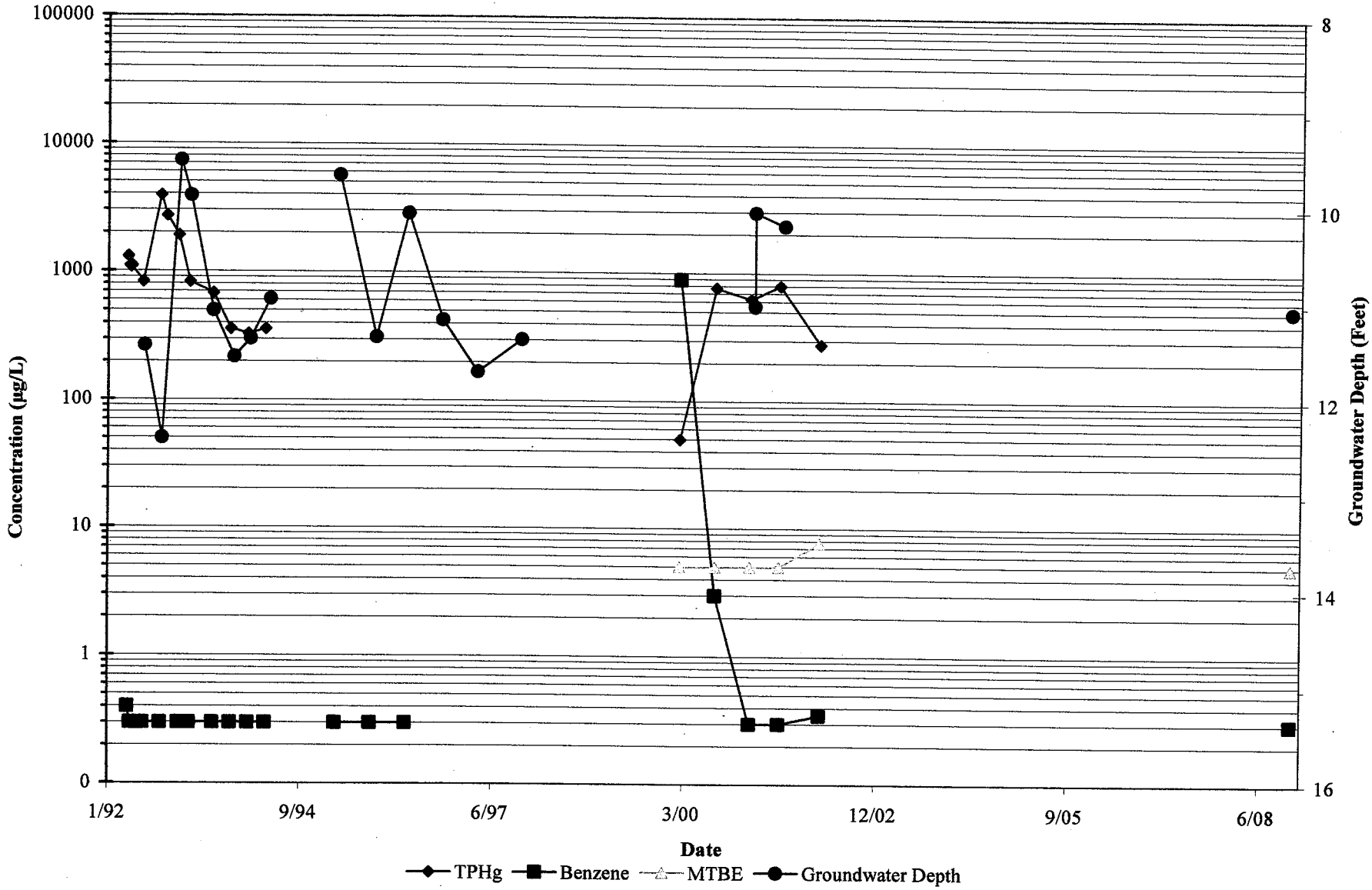
BSK Associates
Engineers & Laboratories

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

FIGURE 7

PROJECT: E0503102S

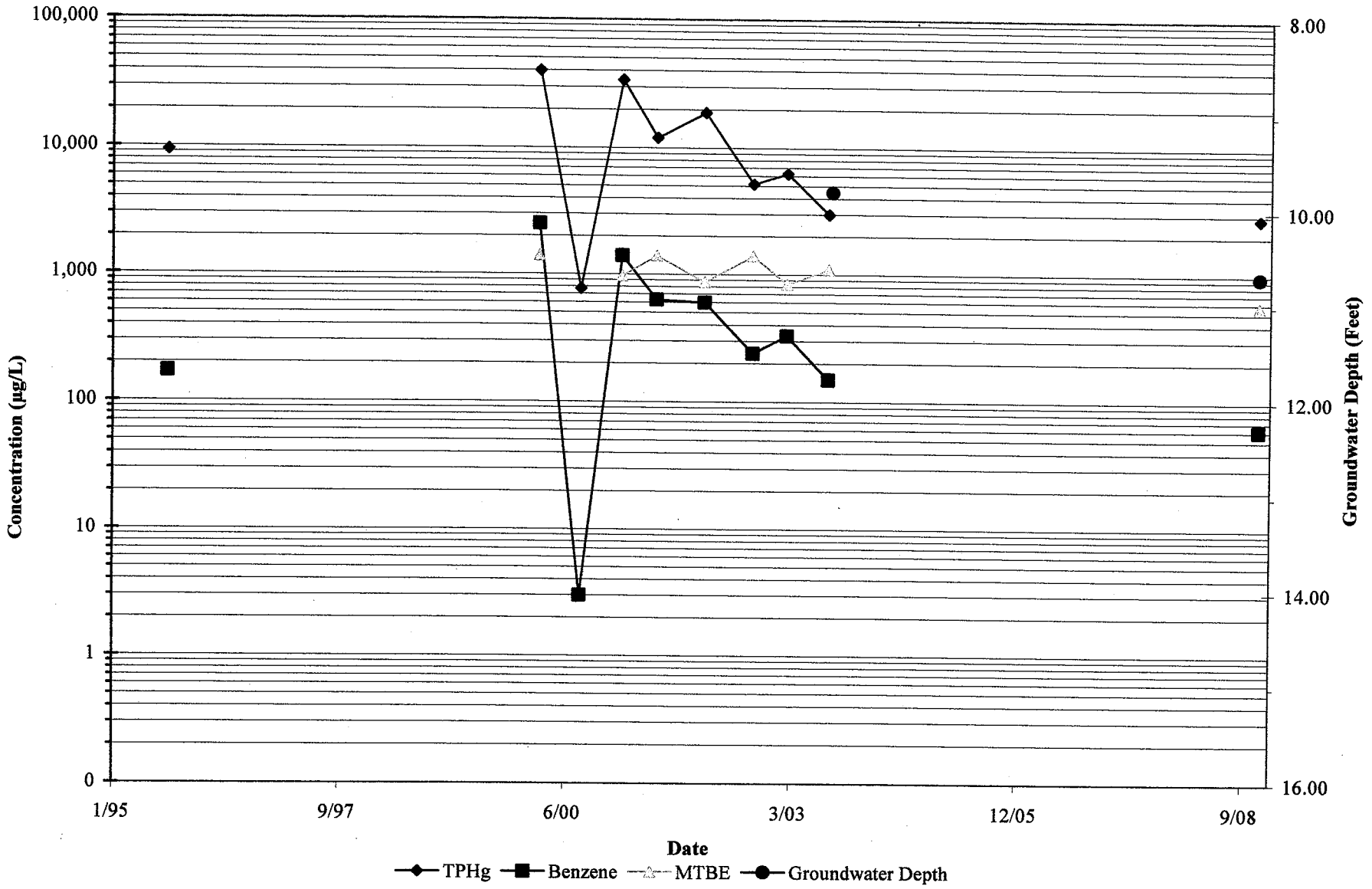
DATE: 1/20/09



BSK Associates
Engineers & Laboratories

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

FIGURE 8
PROJECT: E0503102S
DATE: 1/20/09



BSK Associates
Engineers & Laboratories

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

FIGURE 9
PROJECT: E0503102S
DATE: 1/20/09

TABLES

Table 1
Soil Sample Analytical Results
Former Unocal Service Station
20405 Redwood Road
Castro Valley, California

Location	Depth (feet bgs)	TPHg (mg/kg)	TPHd (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylenes (mg/kg)	Oil and Grease (mg/kg)	Total Lead (mg/kg)	MTBE (mg/kg)
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**	-	-	-
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**	-	-	-

BSK

Table 1
Soil Sample Analytical Results
Former Unocal Service Station
20405 Redwood Road
Castro Valley, California

Location	Depth (feet bgs)	TPHg (mg/kg)	TPHd (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylenes (mg/kg)	Oil and Grease (mg/kg)	Total Lead (mg/kg)	MTBE (mg/kg)
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
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

BSK

Table 2
Soil Sample Analytical Results
Volatile and Semi-Volatile Organic Compounds
Former Unocal Service Station
20405 Redwood Road
Castro Valley, California

Well	Depth	Phenanthrene (mg/kg)	Fluoranthene (mg/kg)	Pyrene (mg/kg)	bis(2-Ethylhexyl) phthalate (mg/kg)
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

BSK

Table 3
Groundwater Monitoring Analytical Results - Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road
Castro Valley, California

Well	Date	TPHg (µg/L)	TPHd (µg/L)	Total Oil and Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
MW-2	12/89	72	-	-	<0.5	<0.5	<0.5	<0.5	-
	08/90	180	-	-	21	3.9	7.2	28	-
	01/91	430	-	-	50	33	22	110	-
	04/91	4,800	-	-	640	520	140	790	-
	07/91	220	-	-	14	1	17	8	-
	10/91	170	-	-	2.9	ND	2.5	6	-
	01/92	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
	09/00	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
	03/02	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

BSK

Table 3
Groundwater Monitoring Analytical Results - Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road
Castro Valley, California

Well	Date	TPHg (µg/L)	TPHd (µg/L)	Total Oil and Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
MW-3	12/89	<50	-	-	<0.5	<0.5	<0.5	<0.5	-
	08/90	290	-	-	55	3.8	20	59	-
	01/91	110	-	-	29	3.3	9.7	34	-
	04/91	3,600	-	-	450	270	150	760	-
	07/91	220	-	-	14	14	33	8.0	-
	10/91	ND	ND	ND	ND	ND	ND	ND	-
	01/92	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
	09/00	ND	-	-	ND	ND	ND	ND	98
	3/22/01	ND	-	-	ND	ND	ND	ND	190
	8/23/01	ND	-	-	ND	ND	ND	ND	26
	03/02	ND	-	-	ND	ND	ND	ND	26
	10/02	ND	-	-	ND	ND	ND	ND	15
	03/03	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

BSK

Table 3
Groundwater Monitoring Analytical Results - Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road
Castro Valley, California

Well	Date	TPHg (µg/L)	TPHd (µg/L)	Total Oil and Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethlybenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
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	-
	01/91	-	-	-	-	-	-	-	-
	04/91	ND	ND	ND	ND	ND	ND	ND	-
	07/91	-	-	-	-	-	-	-	-
	10/91	ND	ND	ND	ND	ND	ND	ND	-
	01/92	-	-	-	-	-	-	-	-
	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

BSK

Table 3
Groundwater Monitoring Analytical Results - Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road
Castro Valley, California

Well	Date	TPHg (µg/L)	TPHd (µg/L)	Total Oil and Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethlybenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
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**	-
	07/94	-	-	-	-	-	-	-	-
	10/13/94	**87**	ND	ND	ND	**36**	ND	**1.3**	-
	01/95	-	-	-	-	-	-	-	-
	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
	09/00	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
	03/02	NS	NS	NS	NS	NS	NS	NS	NS
	10/02	NS	NS	NS	NS	NS	NS	NS	NS
	03/03	NS	NS	NS	NS	NS	NS	NS	NS
	9/17/03	NS	NS	NS	NS	NS	NS	NS	NS
	11/20/2008*	<50	<50	-	**0.31**	<0.3	<0.3	**0.38**	<5.0

BSK

Table 3
Groundwater Monitoring Analytical Results - Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road
Castro Valley, California

Well	Date	TPHg (µg/L)	TPHd (µg/L)	Total Oil and Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethylbenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
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**	-
	07/94	-	-	-	-	-	-	-	-
	10/13/94	**160**	-	-	**0.40**	**140**	**0.5**	**2.3**	-
	01/95	-	-	-	-	-	-	-	-
	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**
	09/00	**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[1]**
	03/02	**91**	-	-	ND	ND	ND	ND	**370**
	10/02	**83**	-	-	ND	ND	ND	ND	**260**
	03/03	**61**	-	-	ND	ND	ND	ND	**200**
	9/17/03	**140**	-	-	ND	ND	ND	ND	**440**
	11/20/2008*	<50	<50	-	**0.81**	<0.3	<0.3	<0.3	**300**

BSK

Table 3
Groundwater Monitoring Analytical Results - Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road
Castro Valley, California

Well	Date	TPHg (µg/L)	TPHd (µg/L)	Total Oil and Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethlybenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
MW-7	04/13/92	**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
	01/93	**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	-	-	-	-	-	-	-	-
	01/95	-	-	-	-	-	-	-	-
	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
	09/00	**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**
	03/02	**280**	-	-	**0.35**	ND	**0.91**	**2.2**	**7.7**
	10/02	IA	IA	IA	IA	IA	IA	IA	IA
	03/03	IA	IA	IA	IA	IA	IA	IA	IA
	9/17/03	IA	IA	IA	IA	IA	IA	IA	IA
	11/20/2008*	**520**	**70**	-	<0.3	<0.3	<0.3	<0.3	<5.0

BSK

Table 3
Groundwater Monitoring Analytical Results - Petroleum Hydrocarbon Constituents
Former Unocal Service Station
20405 Redwood Road
Castro Valley, California

Well	Date	TPHg (µg/L)	TPHd (µg/L)	Total Oil and Grease (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethlybenzene (µg/L)	Xylenes (µg/L)	MTBE (µg/L)
MW-101	09/95	**9,400**	-	-	**170**	**94**	**150**	**710**	-
	03/01/00	**40,000**	-	-	**2,500**	**490**	**4,300**	**10,000**	**2,400[1]/1,400**
	09/00	**770**	-	-	**3.0**	**0.32**	**13**	**27**	-
	03/01	**34,000**	-	-	**1,400**	**62**	**3,400**	**7,700**	**970**
	08/23/01	**12,000**	-	-	**630**	ND	**1,500**	**480**	**1,400**
	03/02	**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**
	03/03	**6,300**	-	-	**330**	ND	**440**	**370**	**1,400[1]/840**
	9/17/03	**3,000**	-	-	**150**	ND	**100**	**110**	**850[1]/1,100**
	11/20/2008*	**2,800**	**5,400**	-	**61**	<0.3	**38**	**1.6**	**570**
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.
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.

BSK

Table 4
Groundwater Monitoring Analytical Results
Volatile Organic Compounds
Former Unocal Service Station
20405 Redwood Road
Castro Valley, California

Well	Date	Chlorobenzene	Chloroform	cis-1,2-Dichloroethene	trans-1,2-Dichloroethene	1,2-Dichloroethane	Tetrachloroethene	Trichloroethene
MW-2	Mar-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 analyzed

BSK

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	-
	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	-

BSK

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	-
	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	-

BSK

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	-
	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	-

BSK

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	-
	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

BSK

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

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		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

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

Notes:
IA: Well Inaccessible
NS: Well Not Sampled
U: Data Unavailable
-: Unable to calculate elevation

BSK

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)
11/1/1992	Southeast	0.006
1/27/1993	Southeast	0.010
3/4/1993	Southeast	0.012
7/1/1993	Southeast	0.012
10/19/1993	South	0.005
1/12/1994	South	0.001
5/13/1994	Southwest	0.007
10/13/1994	South	0.001
1/31/1995	South	0.002
5/17/1995	South	0.009
10/30/1995	South	0.007
4/12/1996	South	0.008
11/5/1996	South	0.008
4/9/1997	South	0.010
8/23/2001	South	0.008
9/17/2003	Southeast	0.012
11/20/2008	Southeast	0.010

APPENDIX A

Water Sample Logs

WELL SAMPLE LOG

Project Name: UNOCAL CASTRO VALLEY	Job #: EDB054015	Field Personnel: O. CUELLAR
Day: Mon Tu Wed (Thur) Fri Sat Sun (Circle)	Date: 11-20-08	Weather: (Clear) Partly Cloudy Overcast Rain (Circle) Cold (Cool) Warm Hot Very Hot

Well:	MW-101	Water Level Measurement Technique: X Electric Sounder Not Measured
Static Depth to Water (Ft.) (A)	1) 10.69' 2)	Purge Method: (Grundfos Submersible Pump) Pneumatic Pump
Total Depth of Casing (Ft.) (B)	29.57'	(Circle) Electric Pump Hand Bailed
Total Ft. of Water (B-A)	18.88'	Other
Casing Diameter (in.)	4"	Dedicated System: Yes (No)
Casing Capacity-gal/ft (C)	0.653	pH Calibration: X 4.0 X 7.0 ___ 10.0
Gallons per Casing Volume ([B-A]*C)	12.33	EC Calibration(µmhos) 1413

Time	Gallons Purged	PH	EC (µmhos)	Temp (°F) / (°C)	Other	Remarks (Color, Odor, Turbidity, etc.)
1547	~12	7.07	766	23.1		clear, strong hydro c odor
1551	~24	7.10	762	22.3		" "
1555	~36	7.15	758	22.5		" "

Purge Pump On	1543	Discharge Measurement: (Circle) (Bucket) Tank Flowmeter	
Purge Pump Off	1555	Sample Collection Method:	___ Direct From Discharge Hose
Total Gallons Purged	~36		___ Teflon Bailer X Disposable Bailer
Purge Rate (gpm)	3.0	Ice Chest Coolant: X Crushed Ice	___ Blue Ice Ice Chest Temp (°C) ___

Sample Time	Analyses	Amount/Container Used	Sample Description
1620		6-40 ml. VOA's w/ HCl	
		1-500 ml. amber w/ H_2SO_4	

Well Vault Type:	FLUSH MOUNT	Floating Product: ___ Yes X No ___ NA
Lock Number/Type:		Thickness:
Drums Filled/Used:		Description:

WELL SAMPLE LOG

Project Name: UNOCAL CASTRO VALLEY	Job #: E080540 15	Field Personnel: D. CUELLAR
Day: Mon Tu Wed Thur Fri Sat Sun (Circle)	Date: 11.21.08	Weather: Clear Partly Cloudy Overcast Rain (Circle) Cold Cool Warm Hot Very Hot

Well:	MW-2		Water Level Measurement Technique: _____Electric Sounder _____Not Measured
Static Depth to Water (Ft.) (A)	1)	2)	Purge Method: Grundfos Submersible Pump Pneumatic Pump (Circle) Electric Pump Hand Bailed Other _____
Total Depth of Casing (Ft.) (B)			
Total Ft. of Water (B-A)			
Casing Diameter (in.)			Dedicated System: Yes No
Casing Capacity-gal/ft (C)			pH Calibration: ___ 4.0 ___ 7.0 ___ 10.0
Gallons per Casing Volume ([B-A]*C)			EC Calibration(µmhos) _____

Time	Gallons Purged	PH	EC (µmhos)	Temp (°F) / (°C)	Other _____	Remarks (Color, Odor, Turbidity, etc.)
				NOT	SAMPLED	

Purge Pump On		Discharge Measurement: (Circle) Bucket Tank Flowmeter	
Purge Pump Off		Sample Collection Method: _____Direct From Discharge Hose _____Teflon Bailer _____Disposable Bailer	
Total Gallons Purged			
Purge Rate (gpm)		Ice Chest Coolant: _____Crushed Ice _____Blue Ice Ice Chest Temp (°C)_____	

Sample Time	Analyses	Amount/Container Used	Sample Description

Well Vault Type:		Floating Product: ___ Yes ___ No ___ NA
Lock Number/Type:		Thickness: _____
Drums Filled/Used:		Description: _____

WELL SAMPLE LOG

Project Name: UNOCAL CASTRO VALLEY	Job #: E090540I5	Field Personnel: D. CUELLAR
Day: Mon Tu Wed Thur (Fri) Sat Sun (Circle)	Date: 11-21-08	Weather: (Clear) Partly Cloudy Overcast Rain (Circle) Cold (Cool) Warm Hot Very Hot

Well:	MW-3	Water Level Measurement Technique: _____Electric Sounder _____Not Measured
Static Depth to Water (Ft.) (A)	1) 2)	Purge Method: Grundfos Submersible Pump Pneumatic Pump (Circle) Electric Pump Hand Bailed Other _____
Total Depth of Casing (Ft.) (B)		
Total Ft. of Water (B-A)		
Casing Diameter (in.)		Dedicated System: Yes No
Casing Capacity-gal/ft (C)		pH Calibration: ____ 4.0____ 7.0 ____ 10.0
Gallons per Casing Volume ([B-A]*C)		EC Calibration(µmhos) _____

Time	Gallons Purged	PH	EC (µmhos)	Temp (°F) / (°C)	Other	Remarks (Color, Odor, Turbidity, etc.)
			NOT SAMPLED			

Purge Pump On		Discharge Measurement: (Circle) Bucket Tank Flowmeter
Purge Pump Off		Sample Collection Method: _____Direct From Discharge Hose _____Teflon Bailer _____Disposable Bailer
Total Gallons Purged		
Purge Rate (gpm)		Ice Chest Coolant: _____Crushed Ice _____Blue Ice Ice Chest Temp (°C)_____

Sample Time	Analyses	Amount/Container Used	Sample Description

Well Vault Type:		Floating Product: ____ Yes ____ No ____ NA Thickness:_____ Description:_____
Lock Number/Type:		
Drums Filled/Used:		

WELL SAMPLE LOG

Project Name: UNOCAL CASTRO VALLEY	Job #: E08054015	Field Personnel: O. CUELLAR
Day: Mon Tu Wed (Thur) Fri Sat Sun (Circle)	Date: 11.20.08	Weather: (Clear) Partly Cloudy Overcast Rain (Circle) Cold (Cool) Warm Hot Very Hot

Well:	MW-5	Water Level Measurement Technique: X Electric Sounder ___ Not Measured
Static Depth to Water (Ft.) (A)	1) 11.80' 2)	Purge Method: (Grundfos Submersible Pump) Pneumatic Pump (Circle) Electric Pump Hand Bailed Other ___
Total Depth of Casing (Ft.) (B)	34.30'	
Total Ft. of Water (B-A)	22.50'	
Casing Diameter (in.)	2"	Dedicated System: Yes (No)
Casing Capacity-gal/ft (C)	0.163	pH Calibration: X 4.0 X 7.0 ___ 10.0
Gallons per Casing Volume ([B-A]*C)	3.67	EC Calibration(µmhos) 1413

Time	Gallons Purged	PH	EC (µmhos)	Temp (°F) / (°C)	Other ___	Remarks (Color, Odor, Turbidity, etc.)
1356	~4	7.47	586	21.3		clear, no odor
1357	~8	6.95	547	21.6		clear, no odor
1358	~12	6.79	547	21.7		clear, no odor

Purge Pump On	1355	Discharge Measurement: (Circle) (Bucket) Tank Flowmeter
Purge Pump Off	1358	Sample Collection Method: ___ Direct From Discharge Hose ___ Teflon Bailer X Disposable Bailer
Total Gallons Purged	~12	
Purge Rate (gpm)	4.0	Ice Chest Coolant: X Crushed Ice ___ Blue Ice Ice Chest Temp (°C) ___

Sample Time	Analyses	Amount/Container Used	Sample Description
1420		6-40ml. VOA's w/ HCl	
		1-500ml. amber w/ H_2SO_4	

Well Vault Type:	FLUSH MOUNT	Floating Product: ___ Yes X No ___ NA
Lock Number/Type:		Thickness: ___
Drums Filled/Used:		Description: ___

WELL SAMPLE LOG

Project Name: UNOCAL CASTRO VALLEY	Job #: E080540015	Field Personnel: D. CUELLAR
Day: Mon Tu Wed (Thur) Fri Sat Sun (Circle)	Date: 11-20-08	Weather: (Clear) Partly Cloudy Overcast Rain (Circle) Cold (Cool) Warm Hot Very Hot

Well:	MW-6	Water Level Measurement Technique: X Electric Sounder ____ Not Measured
Static Depth to Water (Ft.) (A)	1) 12.10' 2)	Purge Method: (Grundfos Submersible Pump) Pneumatic Pump (Circle) Electric Pump Hand Bailed Other ____
Total Depth of Casing (Ft.) (B)	26.85'	
Total Ft. of Water (B-A)	14.75'	
Casing Diameter (in.)	2"	Dedicated System: Yes (No)
Casing Capacity-gal/ft (C)	0.163	pH Calibration: X 4.0 X 7.0 ___ 10.0
Gallons per Casing Volume ([B-A]*C)	2.40	EC Calibration(µmhos) 1413

Time	Gallons Purged	PH	EC (µmhos)	Temp (°F) / (°C)	Other ____	Remarks (Color, Odor, Turbidity, etc.)
1314	~2.5	6.94	634	20.8		clear, no odor
1315	~5.0	6.71	681	21.7		clear, no odor
1316	~7.5	6.66	686	22.3		clear, no odor

Purge Pump On	1313	Discharge Measurement: (Circle) (Bucket) Tank Flowmeter
Purge Pump Off	1316	Sample Collection Method: ____ Direct From Discharge Hose ____ Teflon Bailer X Disposable Bailer
Total Gallons Purged	~7.5	
Purge Rate (gpm)	2.5	Ice Chest Coolant: X Crushed Ice ____ Blue Ice Ice Chest Temp (°C) ____

Sample Time	Analyses	Amount/Container Used	Sample Description
1345		6-40ml. VOA's w/ HCl	
		1-500ml. amber w/ H_2SO_4	

Well Vault Type:	FLUSH MOUNT	Floating Product: ___ Yes X No ___ NA
Lock Number/Type:		Thickness: ____
Drums Filled/Used:		Description: ____

WELL SAMPLE LOG

Project Name: UNOCAL CASTRO VALLEY	Job #: E080540 15	Field Personnel: D. CUELLAR
Day: Mon Tu Wed (Thur) Fri Sat Sun (Circle)	Date: 11-20-08	Weather: (Clear) Partly Cloudy Overcast Rain (Circle) Cold (Cool) Warm Hot Very Hot

Well:	MW-7	Water Level Measurement Technique: X Electric Sounder ___ Not Measured
Static Depth to Water (Ft.) (A)	1) 11.05' 2)	Purge Method: (Grundfos Submersible Pump) Pneumatic Pump (Circle) Electric Pump Hand Bailed Other ___
Total Depth of Casing (Ft.) (B)	28.00'	
Total Ft. of Water (B-A)	16.95'	
Casing Diameter (in.)	2"	Dedicated System: (Yes) No
Casing Capacity-gal/ft (C)	0.163	pH Calibration: X 4.0 X 7.0 ___ 10.0
Gallons per Casing Volume ([B-A]*C)	2.76	EC Calibration(µmhos) 1413

Time	Gallons Purged	PH	EC (µmhos)	Temp (°F) / (°C)	Other ___	Remarks (Color, Odor, Turbidity, etc.)
1444	~3	7.42	531	21.8		blackish, some odor (sewage?)
1445	~6	6.83	606	23.0		clearing
1446	~9	6.91	637	23.2		clearing

Purge Pump On	1443	Discharge Measurement: (Circle) (Bucket) Tank Flowmeter	
Purge Pump Off	1446	Sample Collection Method:	___ Direct From Discharge Hose ___ Teflon Bailer X Disposable Bailer
Total Gallons Purged	~9		
Purge Rate (gpm)	3.0	Ice Chest Coolant: X Crushed Ice ___ Blue Ice	Ice Chest Temp (°C) ___

Sample Time	Analyses	Amount/Container Used	Sample Description
1510		6-40 ml. VOA's w/ HCl	
		1-500 ml. amber w/ H_2SO_4	

Well Vault Type:	FLUSH MOUNT	Floating Product: ___ Yes X No ___ NA
Lock Number/Type:		Thickness: ___
Drums Filled/Used:		Description: ___

APPPENDIX B

Laboratory Reports
Groundwater Samples

BSK

BSK Analytical Laboratories
Engineers & Laboratories

1414 Stanislaus Street
Fresno, California 93706
(559) 497-2888
Fax (559) 485-6935

BSK Submission Number: 2008111635

Jeff Yeazell
BSK Associates - Sacramento
3140 Gold Camp Drive Suite 160
Rancho Cordova, CA 95670

12/09/2008

Dear Jeff Yeazell,

Thank you for selecting BSK Analytical Laboratories for your analytical testing needs. We have prepared this report in response to your request for analytical services. Please find enclosed the following sections for your complete laboratory report, each uniquely paginated:

CASE NARRATIVE: An overview of the work performed.
CERTIFICATE OF ANALYSIS: Analytical results.
QUALITY CONTROL (QC) SUMMARY: QC supporting the results presented herein.
REPORT OF SAMPLE INTEGRITY
CHAIN OF CUSTODY FORM

Certification: BSK Analytical Laboratories certifies that the test results contained in this report meet all requirements of the NELAC Standards for applicable certified drinking water chemistry analyses under CA NELAP Certificate #04227CA, CA-ELAP Certificate #1180, and Nevada Certificate #CA79. For all other matrices and bacteriological analyses, this data package is in compliance with ELAP Standards for applicable certified analyses under CA-ELAP Certificate #1180. Any exceptions to applicable standards have been noted in the case narrative. Please note that certifications are applicable only to tests and/or analytes specified on each. Certification information may be obtained by contacting the laboratory or visiting our website at www.bsklabs.com. The results in this report pertain only to the samples tested in the laboratory. This report shall not be reproduced, except in full, without written permission from BSK Analytical Laboratories.

If additional clarification of any information is required, please contact your Client Services Representative, Dan Larkin, at (800) 877-8310 or (559) 497-2888.

BSK ANALYTICAL LABORATORIES

Dan Larkin
Client Services Representative

Quality Control Reviewer

Case Narrative

BSK Submission Number: 2008111635

SAMPLE AND RECEIPT INFORMATION

The sample(s) was received, prepared, and analyzed within the method specified holding times unless otherwise noted on the Certificate of Analysis. Samples, when shipped, arrived within acceptable temperature requirements of 0° to 6° Celsius unless otherwise noted on the Report of Sample Integrity. Samples collected by BSK Analytical Laboratories were collected in accordance with the BSK Sampling and Collection Standard Operating Procedures.

QUALITY CONTROL

All analytical quality controls are within established method criteria except when noted in the Quality Control section or on the Certificate of Analysis. All positive results for EPA Methods 504.1, 502.2, and 524.2 require the analysis of a Field Reagent Blank (FRB) to confirm that the results are not a contamination error from field sampling steps. If Field Reagent Blanks were not submitted with the samples, this method requirement has not been performed. QC samples may include analytes not requested in this submission.

RUN	ORDER	TEST	ANALYTE	COMMENT
164313	1064754	EPA 8015B	TPH as Diesel (C10-C28)	LCS and LCSD were biased high in this run at 132 and 160%, respectively. Sample results may be similarly biased.
163997	1062383	EPA 8260B		Spikes were biased high for one or more analytes in this run. Associated samples were either ND or were confirmed by second analysis.

SAMPLE RESULT INFORMATION

Samples are analyzed as received (wet weight basis) unless noted here. The results relate only to the items tested. Any exceptions to be considered when evaluating these results are also listed here, if applicable. Results contained in this package shall not be reproduced, except in full, without written approval of BSK Analytical Laboratories.

ORDER	TEST	ANALYTE	COMMENT

BSK Analytical Laboratories
Engineers & Laboratories

1414 Stanislaus Street
Fresno, California 93706
(559) 497-2888
Fax (559) 485-6935

Certificate of Analysis

NELAP Certificate #04227CA
ELAP Certificate #1180

Jeff Yeazell
BSK Associates - Sacramento
3140 Gold Camp Drive Suite 160
Rancho Cordova, CA 95670

BSK Submission #: 2008111635
BSK Sample ID #: 1060599

Report Issue Date: 12/09/2008

Project ID: E08054015
Project Desc: Unocal Castro Valley
Submission Comments:
Sample Type: Liquid
Sample Description: MW-6
Sample Comments:

Date Sampled: 11/20/2008
Time Sampled: 1345
Date Received: 11/21/2008

Organics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date/Time	Analysis Date/Time
TPH as Diesel (C10-C28)	EPA 8015B	**ND**	µg/L	50	1	50	12/02/08	12/04/08
TPH as Gasoline (C6-C10)	EPA 8015B	**ND**	µg/L	50	1	50	12/02/08	12/02/08
Benzene	EPA 8021B	**0.81**	µg/L	0.30	1	0.30	12/02/08	12/02/08
Ethylbenzene	EPA 8021B	**ND**	µg/L	0.30	1	0.30	12/02/08	12/02/08
Toluene	EPA 8021B	**ND**	µg/L	0.30	1	0.30	12/02/08	12/02/08
Total Xylenes	EPA 8021B	**ND**	µg/L	0.30	1	0.30	12/02/08	12/02/08
1,2-Dibromoethane	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
1,2-Dichloroethane	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
Di-isopropyl Ether	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
Ethyl t-Butyl Ether	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
Methyl-t-Butyl Ether	EPA 8260B	**300**	µg/L	5.0	50	250	12/03/08	12/03/08
t-Amyl Methyl Ether	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
tert-Butyl Alcohol	EPA 8260B	**ND**	µg/L	50	1	50	11/28/08	11/29/08
Surrogate								
Tetracosane	EPA 8015B	**86**	% Rec		1	N/A	12/02/08	12/04/08
Fluorobenzene	EPA 8021B	**90**	% Rec	-	1	N/A	12/02/08	12/02/08
Toluene-d8	EPA 8260B	**100**	% Rec	-	1	N/A	11/28/08	11/29/08

mg/L: Milligrams/Liter (ppm)
mg/Kg: Milligrams/Kilogram (ppm)
µg/L: Micrograms/Liter (ppb)
µg/Kg: Micrograms/Kilogram (ppb)
%Rec: Percent Recovered (surrogates)

PQL: Practical Quantitation Limit
DLR: Detection Limit for Reporting : PQL x Dilution
ND: None Detected at DLR
pCi/L: Picocurie per Liter

H: Analyzed outside of hold time
P: Preliminary result
S: Suspect result. See Case Narrative for comments.
E: Analysis performed by External laboratory. See External Laboratory Report attachments.
MDC: Min Detectable Concentration

Report Authentication Code:

BSK Analytical Laboratories
Engineers & Laboratories

1414 Stanislaus Street
Fresno, California 93706
(559) 497-2888
Fax (559) 485-6935

Certificate of Analysis

NELAP Certificate #04227CA
ELAP Certificate #1180

Jeff Yeazell
BSK Associates - Sacramento
3140 Gold Camp Drive Suite 160
Rancho Cordova, CA 95670

BSK Submission #: 2008111635
BSK Sample ID #: 1060600

Report Issue Date: 12/09/2008

Project ID: E08054015
Project Desc: Unocal Castro Valley
Submission Comments:
Sample Type: Liquid
Sample Description: MW-5
Sample Comments:

Date Sampled: 11/20/2008
Time Sampled: 1420
Date Received: 11/21/2008

Organics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date/Time	Analysis Date/Time
TPH as Diesel (C10-C28)	EPA 8015B	**ND**	µg/L	50	1	50	12/02/08	12/04/08
TPH as Gasoline (C6-C10)	EPA 8015B	**ND**	µg/L	50	1	50	12/02/08	12/02/08
Benzene	EPA 8021B	**0.31**	µg/L	0.30	1	0.30	12/02/08	12/02/08
Ethylbenzene	EPA 8021B	**ND**	µg/L	0.30	1	0.30	12/02/08	12/02/08
Toluene	EPA 8021B	**ND**	µg/L	0.30	1	0.30	12/02/08	12/02/08
Total Xylenes	EPA 8021B	**0.38**	µg/L	0.30	1	0.30	12/02/08	12/02/08
1,2-Dibromoethane	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
1,2-Dichloroethane	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
Di-isopropyl Ether	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
Ethyl t-Butyl Ether	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
Methyl-t-Butyl Ether	EPA 8260B	**ND**	µg/L	5.0	1	5.0	12/03/08	12/03/08
t-Amyl Methyl Ether	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
tert-Butyl Alcohol	EPA 8260B	**ND**	µg/L	50	1	50	11/28/08	11/29/08
Surrogate								
Tetracosane	EPA 8015B	**100**	% Rec		1	N/A	12/02/08	12/04/08
Fluorobenzene	EPA 8021B	**91**	% Rec	-	1	N/A	12/02/08	12/02/08
Toluene-d8	EPA 8260B	**100**	% Rec	-	1	N/A	11/28/08	11/29/08

mg/L: Milligrams/Liter (ppm)
mg/Kg: Milligrams/Kilogram (ppm)
µg/L: Micrograms/Liter (ppb)
µg/Kg: Micrograms/Kilogram (ppb)
%Rec: Percent Recovered (surrogates)

PQL: Practical Quantitation Limit
DLR: Detection Limit for Reporting : PQL x Dilution
ND: None Detected at DLR
pCi/L: Picocurie per Liter

H: Analyzed outside of hold time
P: Preliminary result
S: Suspect result. See Case Narrative for comments.
E: Analysis performed by External laboratory. See External Laboratory Report attachments.
MDC: Min Detectable Concentration

Report Authentication Code:

BSK Analytical Laboratories
Engineers & Laboratories

1414 Stanislaus Street
Fresno, California 93706
(559) 497-2888
Fax (559) 485-6935

Certificate of Analysis

NELAP Certificate #04227CA
ELAP Certificate #1180

Jeff Yeazell
BSK Associates - Sacramento
3140 Gold Camp Drive Suite 160
Rancho Cordova, CA 95670

BSK Submission #: 2008111635
BSK Sample ID #: 1060601

Report Issue Date: 12/09/2008

Project ID: E08054015
Project Desc: Unocal Castro Valley
Submission Comments:
Sample Type: Liquid
Sample Description: MW-7
Sample Comments:

Date Sampled: 11/20/2008
Time Sampled: 1510
Date Received: 11/21/2008

Organics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date/Time	Analysis Date/Time
TPH as Diesel (C10-C28)	EPA 8015B	**70**	µg/L	50	1	50	12/02/08	12/04/08
TPH as Gasoline (C6-C10)	EPA 8015B	**520**	µg/L	50	1	50	12/02/08	12/02/08
Benzene	EPA 8021B	**ND**	µg/L	0.30	1	0.30	12/02/08	12/02/08
Ethylbenzene	EPA 8021B	**ND**	µg/L	0.30	1	0.30	12/02/08	12/02/08
Toluene	EPA 8021B	**ND**	µg/L	0.30	1	0.30	12/02/08	12/02/08
Total Xylenes	EPA 8021B	**ND**	µg/L	0.30	1	0.30	12/02/08	12/02/08
1,2-Dibromoethane	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
1,2-Dichloroethane	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
Di-isopropyl Ether	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
Ethyl t-Butyl Ether	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
Methyl-t-Butyl Ether	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
t-Amyl Methyl Ether	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
tert-Butyl Alcohol	EPA 8260B	**ND**	µg/L	50	1	50	11/28/08	11/29/08
Surrogate								
Tetracosane	EPA 8015B	**110**	% Rec		1	N/A	12/02/08	12/04/08
Fluorobenzene	EPA 8021B	**92**	% Rec	-	1	N/A	12/02/08	12/02/08
Toluene-d8	EPA 8260B	**98**	% Rec	-	1	N/A	11/28/08	11/29/08

mg/L: Milligrams/Liter (ppm)
mg/Kg: Milligrams/Kilogram (ppm)
µg/L: Micrograms/Liter (ppb)
µg/Kg: Micrograms/Kilogram (ppb)
%Rec: Percent Recovered (surrogates)

PQL: Practical Quantitation Limit
DLR: Detection Limit for Reporting : PQL x Dilution
ND: None Detected at DLR
pCi/L: Picocurie per Liter

H: Analyzed outside of hold time
P: Preliminary result
S: Suspect result. See Case Narrative for comments.
E: Analysis performed by External laboratory. See External Laboratory Report attachments.
MDC: Min Detectable Concentration

Report Authentication Code:

BSK Analytical Laboratories
Engineers & Laboratories

1414 Stanislaus Street
Fresno, California 93706
(559) 497-2888
Fax (559) 485-6935

Certificate of Analysis

NELAP Certificate #04227CA
ELAP Certificate #1180

Jeff Yeazell
BSK Associates - Sacramento
3140 Gold Camp Drive Suite 160
Rancho Cordova, CA 95670

BSK Submission #: 2008111635
BSK Sample ID #: 1060602

Report Issue Date: 12/09/2008

Project ID: E08054015
Project Desc: Unocal Castro Valley
Submission Comments:
Sample Type: Liquid
Sample Description: MW-101
Sample Comments:

Date Sampled: 11/20/2008
Time Sampled: 1620
Date Received: 11/21/2008

Organics

Analyte	Method	Result	Units	PQL	Dilution	DLR	Prep Date/Time	Analysis Date/Time
TPH as Diesel (C10-C28)	EPA 8015B	**5400**	µg/L	50	5	250	12/02/08	12/04/08
TPH as Gasoline (C6-C10)	EPA 8015B	**2800**	µg/L	50	4	200	12/02/08	12/02/08
Benzene	EPA 8021B	**61**	µg/L	0.30	4	1.2	12/02/08	12/02/08
Ethylbenzene	EPA 8021B	**38**	µg/L	0.30	4	1.2	12/02/08	12/02/08
Toluene	EPA 8021B	**ND**	µg/L	0.30	4	1.2	12/02/08	12/02/08
Total Xylenes	EPA 8021B	**1.6**	µg/L	0.30	4	1.2	12/02/08	12/02/08
1,2-Dibromoethane	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
1,2-Dichloroethane	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
Di-isopropyl Ether	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
Ethyl t-Butyl Ether	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
Methyl-t-Butyl Ether	EPA 8260B	**570**	µg/L	5.0	100	500	12/03/08	12/03/08
t-Amyl Methyl Ether	EPA 8260B	**ND**	µg/L	5.0	1	5.0	11/28/08	11/29/08
tert-Butyl Alcohol	EPA 8260B	**ND**	µg/L	50	1	50	11/28/08	11/29/08

Surrogate

Tetracosane	EPA 8015B	**220**	% Rec		5	N/A	12/02/08	12/04/08
Fluorobenzene	EPA 8021B	**89**	% Rec	-	4	N/A	12/02/08	12/02/08
Toluene-d8	EPA 8260B	**100**	% Rec	-	1	N/A	11/28/08	11/29/08

LUFT Comments

TPH as Diesel (C10-C28) Higher boiling point hydrocarbons decreased relative to standard

mg/L: Milligrams/Liter (ppm)
mg/Kg: Milligrams/Kilogram (ppm)
µg/L: Micrograms/Liter (ppb)
µg/Kg: Micrograms/Kilogram (ppb)
%Rec: Percent Recovered (surrogates)

PQL: Practical Quantitation Limit
DLR: Detection Limit for Reporting : PQL x Dilution
ND: None Detected at DLR
pCi/L: Picocurie per Liter

H: Analyzed outside of hold time
P: Preliminary result
S: Suspect result. See Case Narrative for comments.
E: Analysis performed by External laboratory. See External Laboratory Report attachments.
MDC: Min Detectable Concentration

Report Authentication Code:

BSK Analytical Laboratories
Engineers & Laboratories

1414 Stanislaus Street
Fresno, California 93706
(559) 497-2888
Fax (559) 485-6935

QC Summary Report

12/09/2008

NELAP Certificate #04227CA
ELAP Certificate #1180

BSK Submission : **2008111635**
Client : **BSK Associates - Sacramento**
Date Submitted : **11/21/2008**
Project ID : **E08054015**

Project Desc : **Unocal Castro Valley**

BSK StarLims Run #: 163997

Analyst Initials: **FRANKP**

Method Number: **8260OX**

Analyte Results

Analyte	QC Type	Matrix Spike ID	Result	Units	% Rec or RPD	Spike RPD	Spk Conc	Matrix Conc	UCL	LCL	Date	
1,2-Dibromoethane	LCS	N/A	16	µg/L	124		12.5	ND	120	80	11/28/08	*OOS-High*
1,2-Dichloroethane	LCS	N/A	16	µg/L	126		12.5	ND	120	75	11/28/08	*OOS-High*
Di-isopropyl Ether	LCS	N/A	15	µg/L	122		12.5	ND	130	80	11/28/08	*Acceptable*
Ethyl t-Butyl Ether	LCS	N/A	17	µg/L	133		12.5	ND	130	70	11/28/08	*OOS-High*
Methyl-t-Butyl Ether	LCS	N/A	17	µg/L	134		12.5	ND	130	80	11/28/08	*OOS-High*
t-Amyl Methyl Ether	LCS	N/A	17	µg/L	136		12.5	ND	140	60	11/28/08	*Acceptable*
tert-Butyl Alcohol	LCS	N/A	200	µg/L	159		125	ND	140	60	11/28/08	*OOS-High*
1,2-Dibromoethane	LCSD	N/A	17	µg/L	136	9	12.5	ND	120	80	11/28/08	*OOS-High*
1,2-Dichloroethane	LCSD	N/A	16	µg/L	127	0.7	12.5	ND	120	75	11/28/08	*OOS-High*
Di-isopropyl Ether	LCSD	N/A	16	µg/L	125	2	12.5	ND	130	80	11/28/08	*Acceptable*
Ethyl t-Butyl Ether	LCSD	N/A	18	µg/L	141	6	12.5	ND	130	70	11/28/08	*OOS-High*
Methyl-t-Butyl Ether	LCSD	N/A	18	µg/L	144	6.9	12.5	ND	130	80	11/28/08	*OOS-High*
t-Amyl Methyl Ether	LCSD	N/A	18	µg/L	148	8	12.5	ND	140	60	11/28/08	*OOS-High*
tert-Butyl Alcohol	LCSD	N/A	230	µg/L	183	13	125	ND	140	60	11/28/08	*OOS-High*
1,2-Dibromoethane	RBLK	N/A	ND	µg/L	< 5.0				5.0	N/A	11/28/08	*Acceptable*
1,2-Dichloroethane	RBLK	N/A	ND	µg/L	< 5.0				5.0	N/A	11/28/08	*Acceptable*
Di-isopropyl Ether	RBLK	N/A	ND	µg/L	< 5.0				5.0	N/A	11/28/08	*Acceptable*
Ethyl t-Butyl Ether	RBLK	N/A	ND	µg/L	< 5.0				5.0	N/A	11/28/08	*Acceptable*
Methyl-t-Butyl Ether	RBLK	N/A	ND	µg/L	< 5.0				5.0	N/A	11/28/08	*Acceptable*
t-Amyl Methyl Ether	RBLK	N/A	ND	µg/L	< 5.0				5.0	N/A	11/28/08	*Acceptable*
tert-Butyl Alcohol	RBLK	N/A	ND	µg/L	< 50				50	N/A	11/28/08	*Acceptable*

Run	Test	Analyte	Comment
163997	8260OX		Spikes were biased high for one or more analytes in this run. Associated samples were either ND or were confirmed by second analysis.

Surrogate Results

Analyte	QC Type		Surr. Result		UCL	LCL	Date	
Toluene-d8	LCS	N/A	99	% Rec	98	120	80	11/28/08 *Acceptable*
Toluene-d8	LCSD	N/A	99	% Rec	98	120	80	11/28/08 *Acceptable*
Toluene-d8	RBLK	N/A	98	% Rec		N/A	N/A	11/28/08 *Acceptable*

StarLims Run 163997 includes the following BSK Sample ID# :

1060312 1060313 1060314 1060315 1060316 1060581 1060599 1060600 1060601 1060602 1062382 1062383 1062384

BSK StarLims Run #: 164164

Analyst Initials: **PAOY**

Method Number: **BTEX_LL**

%Rec: Percent Recovered
RPD: Relative Percent Difference
UCL: Upper Control Limit
LCL: Lower Control Limit
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate
LDUP: Laboratory Sample Duplicate

Parent Sample: Sample used as background matrix for MS/MSD
OOS-High: QC Result Above UCL
OOS-Low: QC Result Below LCL
MS: Matrix Spike
MSD: Matrix Spike Duplicate
RBLK: Reagent (Method) Blank
Surrogate results for QC standards are not evaluated for acceptability (due to definition of a surrogate standard)

BSK Analytical Laboratories
Engineers & Laboratories
1414 Stanislaus Street
Fresno, California 93706
(559) 497-2888
Fax (559) 485-6935

QC Summary Report

12/09/2008

NELAP Certificate #04227CA
ELAP Certificate #1180

BSK Submission : **2008111635**
Client : **BSK Associates - Sacramento**
Date Submitted : **11/21/2008**
Project ID : **E08054015**

Project Desc : **Unocal Castro Valley**

BSK StarLims Run #: 164164

Analyst Initials: **PAOY**

Method Number: **BTEX_LL**

Analyte Results

Analyte	QC Type	Matrix Spike ID	Result	Units	% Rec or RPD	Spike RPD	Spk Conc	Matrix Conc	UCL	LCL	Date	
Benzene	LCS	N/A	19	µg/L	95		20	ND	130	70	12/02/08	*Acceptable*
Ethylbenzene	LCS	N/A	19	µg/L	95		20	ND	130	70	12/02/08	*Acceptable*
Toluene	LCS	N/A	18	µg/L	91		20	ND	130	70	12/02/08	*Acceptable*
Total Xylenes	LCS	N/A	56	µg/L	92		60	ND	130	70	12/02/08	*Acceptable*
Benzene	LCSD	N/A	19	µg/L	95	0.3	20	ND	130	70	12/02/08	*Acceptable*
Ethylbenzene	LCSD	N/A	19	µg/L	96	0.75	20	ND	130	70	12/02/08	*Acceptable*
Toluene	LCSD	N/A	19	µg/L	93	2.9	20	ND	130	70	12/02/08	*Acceptable*
Total Xylenes	LCSD	N/A	57	µg/L	94	2.1	60	ND	130	70	12/02/08	*Acceptable*
Benzene	MS	1060600	9.5	µg/L	92		10	0.31	130	70	12/02/08	*Acceptable*
Ethylbenzene	MS	1060600	9.5	µg/L	93		10	ND	130	70	12/02/08	*Acceptable*
Toluene	MS	1060600	11	µg/L	111		10	ND	130	70	12/02/08	*Acceptable*
Total Xylenes	MS	1060600	28	µg/L	91		30	0.38	130	70	12/02/08	*Acceptable*
Benzene	RBLK	N/A	ND	µg/L	< 0.30				0.30	N/A	12/02/08	*Acceptable*
Ethylbenzene	RBLK	N/A	ND	µg/L	< 0.30				0.30	N/A	12/02/08	*Acceptable*
Toluene	RBLK	N/A	ND	µg/L	< 0.30				0.30	N/A	12/02/08	*Acceptable*
Total Xylenes	RBLK	N/A	ND	µg/L	< 0.30				0.30	N/A	12/02/08	*Acceptable*

Surrogate Results

Analyte	QC Type			Surr. Result		UCL	LCL	Date	
Fluorobenzene	LCS	N/A	94	% Rec	95	130	70	12/02/08	*Acceptable*
Fluorobenzene	LCSD	N/A	94	% Rec	95	130	70	12/02/08	*Acceptable*
Fluorobenzene	MS	1060600	93	% Rec	91	130	70	12/02/08	*Acceptable*
Fluorobenzene	RBLK	N/A	95	% Rec		N/A	N/A	12/02/08	*Acceptable*

StarLims Run 164164 includes the following BSK Sample ID# :

1060599 1060600 1060601 1060602 1062598 1062599 1062600 1062601 1063409 1063410 1063411 1063412

BSK StarLims Run #: 164313

Analyst Initials: **PAOY**

Method Number: **TPHD_LL**

Analyte Results

Analyte	QC Type	Matrix Spike ID	Result	Units	% Rec or RPD	Spike RPD	Spk Conc	Matrix Conc	UCL	LCL	Date	
TPH as Diesel (C10-C28)	LCS	N/A	3300	µg/L	132		2500	ND	130	70	12/03/08	*OOS-High*
TPH as Diesel (C10-C28)	LCSD	N/A	4000	µg/L	160	19	2500	ND	130	70	12/03/08	*OOS-High*
TPH as Diesel (C10-C28)	RBLK	N/A	ND	µg/L	< 50				50	N/A	12/03/08	*Acceptable*
TPH as Kerosene (C8-C17)	RBLK	N/A	ND	µg/L	< 50				50	N/A	12/03/08	*Acceptable*

%Rec: Percent Recovered
RPD: Relative Percent Difference
UCL: Upper Control Limit
LCL: Lower Control Limit
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate
LDUP: Laboratory Sample Duplicate

Parent Sample: Sample used as background matrix for MS/MSD
OOS-High: QC Result Above UCL
OOS-Low: QC Result Below LCL
MS: Matrix Spike
MSD: Matrix Spike Duplicate
RBLK: Reagent (Method) Blank
Surrogate results for QC standards are not evaluated for acceptability (due to definition of a surrogate standard)

BSK Analytical Laboratories
Engineers & Laboratories
1414 Stanislaus Street
Fresno, California 93706
(559) 497-2888
Fax (559) 485-6935

QC Summary Report

12/09/2008

NELAP Certificate #04227CA
ELAP Certificate #1180

BSK Submission : **2008111635**
Client : **BSK Associates - Sacramento**
Date Submitted : **11/21/2008**
Project ID : **E08054015**

Project Desc : **Unocal Castro Valley**

BSK StarLims Run #: 164313

Analyst Initials: **PAOY**

Method Number: **TPHO_LL**

Analyte Results

Analyte	QC Type	Matrix Spike ID	Result	Units	% Rec or RPD	Spike RPD	Spk Conc	Matrix Conc	UCL	LCL	Date	
TPH as Motor Oil (C17-C40)	RBLK	N/A	ND	µg/L	< 50				50	N/A	12/03/08	*Acceptable*

Run	Test	Analyte	Comment
164313	TPHD_LL	TPHDiesel	LCS and LCSD were biased high in this run at 132 and 160%, respectively. Sample results may be similarly biased.

Surrogate Results

Analyte	QC Type		Surr. Result		UCL	LCL	Date	
Tetracosane	LCS	N/A	100	% Rec	84	189	45	12/03/08 *Acceptable*
Tetracosane	LCSD	N/A	120	% Rec	84	189	45	12/03/08 *Acceptable*
Tetracosane	RBLK	N/A	84	% Rec	N/A	N/A	12/03/08	*Acceptable*

StarLims Run_164313 includes the following BSK Sample ID# :

1060311 1060312 1060313 1060314 1060315 1060316 1060599 1060600 1060601 1060602 1061080 1061081 1061082 1061956 1061957 1064753 1064754 1064755 1064756

Approved by: Maria C. Manuel

%Rec: Percent Recovered
RPD: Relative Percent Difference
UCL: Upper Control Limit
LCL: Lower Control Limit
LCS: Laboratory Control Sample
LCSD: Laboratory Control Sample Duplicate
LDUP: Laboratory Sample Duplicate

Parent Sample: Sample used as background matrix for MS/MSD
OOS-High: QC Result Above UCL
OOS-Low: QC Result Below LCL
MS: Matrix Spike
MSD: Matrix Spike Duplicate
RBLK: Reagent (Method) Blank
Surrogate results for QC standards are not evaluated for acceptability (due to definition of a surrogate standard)

Sample Integrity

Pg. 1 of 2

2008111635 11/21/2008
BSK S
1121077 TAT: Standard

Date Received 11 21 08

Section 1- Sampled Same Day

Sample Transport: (Walk In) SJVC BSK-Courier Transported In: (Ice Chest) Box Hand

Has chilling process begun? (Y) N Samples Received: Chilled to Touch / Ambient / (On Ice)

Section 2- Sampled Previously

Sample Transport: CAO UPS SJVC Walk-In BSK-Courier GSO Fed Exp. Other:_____

No. Coolers/Ice Chests: _____ Temperature(s): _____

Was Temperature In Range: Y N Received On Ice: Wet Blue

Describe type of packing materials: Bubble Wrap Foam Packing Peanuts Paper Other:_____

Were ice chest custody seals present? Y N Intact: Y N

Section 3- COC Info.	Completed Yes	Completed No	Info From Container		Completed Yes	Completed No	Info From Container
Was COC Received	✓			Analysis Requested	✓		
Date Sampled	✓			Any hold times less than 72hr			✓
Time Sampled	✓			Client Name	✓		
Sample ID	✓			Address	✓		
Special Storage/Handling Ins.		✓		Telephone #	✓		

Section 4- Bottles / Analysis	Yes	No	N/A	Comment
Did all bottles arrive unbroken and intact?:		✓		
Were bottle custody seals present?		✓		
Were bottle custody seals intact?		✓		
Did all bottle labels agree with COC?:	✓			
Were correct containers used for the tests requested?:	✓			
Were correct preservations used for the tests requested?:	✓			
Was a sufficient amount of sample sent for tests indicated?:	✓			
Were bubbles present in VOA Vials?: **(Volatile Methods Only)**		✓	SK	
Were Ascorbic Acid Bottles received with the VOAs		✓		

Section 5- Comments / Discrepancies

Sample(s) Split/Preserve: Yes (No) Container: _____ Preservation: _____ Init.:____

Was Client Service Rep. notified of discrepancies: Yes No (N/A) CSR: Notified By:

Explanations / Comments

Report Comment Entered:

SR-FL-0002-02

Labeled by: RA Labels checked by: N

Sample Integrity Pg 1 of 1

2008111635 11/21/2008

BSK S

1121077

SR-FL-0002-02 BSK Bottles Yes No TAT: Standard

8oz (A) 16oz (B) 32oz (C) Amber Glass (AG)

Container(s) Received	1-4						
Bacti $Na_2S_2O_3$							
None (p) White Cap							
None (p) Blue Cap							
HNO_3 (p) Red Cap							
H_2SO_4 (p) Yellow Cap							
NaOH (p) Green Cap							
Other:							
Dissolved Oxygen 300ml (g)							
250ml (AG) None							
250ml (AG) H_2SO_4 COD Yellow Label							
250ml (AG) $Na_2S_2O_3$ 515,547 Blue Label							
250ml (AG) $Na_2S_2O_3$+ MCAA 531.1 Orange Label							
250ml (AG) NH_4Cl 552 Purple Label							
250ml (AG) EDA DBPs Brown Label							
250ml (AG) Other:							
500ml (AG) None							
500ml (AG) H_2SO_4 TPH-Diesel Yellow Label	1						
1 Liter (AG) None							
1 Liter (AG) H_2SO_4 O&G Yellow Label							
1 Liter (AG) $Na_2S_2O_3$ 548 / 525 / 521 Blue Label							
1 Liter (P) $Na_2S_2O_3$+ H_2SO_4 549							
1 Liter (AG) NaOH+ZnAc Sulfide							
1 Liter (AG) Ascorbic/EDTA/Pot Citrate 527 Grey Label							
1 Liter (AG) CuSO4/Trizma 529 Turquoise Label							
1 Liter (AG) Na_2SO_3 / HCL 525 **UCMR** Neon Green Label							
1 Liter (AG) Ammonium Chloride 535 Purple Label							
40ml VOA Vial Clear – HCL	6						
40ml VOA Vial Amber – $Na_2S_2O_3$							
40ml VOA Vial Clear – None							
40ml VOA Vial Clear - $Na_2S_2O_3$ 504, 505							
40ml VOA Vial Clear – H_3PO_4							
Other:							
Asbestos 32oz Plastic/Foil							
Radiological GA / GB (½ Gal Plastic)							
Radiological 226 / 228 (32 oz plastic N-BSK)							
Radon 200ml Clear (g)							
Low Level Hg/Metals Double Baggie							
THM-FP 4-40ml VOA None							
250 Clear Glass Jar							
500 Clear Glass Jar							
1 Liter Clear Glass Jar							
Plastic Bag							
Soil Tube Brass / Steel / Plastic							
Tedlar Bags							

JMD

11/21/08

BSK ANALYTICAL LABORATORIES

1414 STANISLAUS ST., FRESNO, CA 93706
(559) 497-2888 • FAX (559) 497-2893 • www.bsklabs.com

2008111635 11/21/2008
BSK S TAT: Standard
1121077

* Required Fields

Temp _____

Client/Company Name *:	Report Attention* :	Phone* : Fax* :
BSK-SAC	jyeazell@bskinc.com JEFF YEAZELL	Email : 916 853 9293 853 9297 FAX

Address*	City*	State*	Zip*
3140 GOLD CAMP DRIVE, SUITE 160	RANCHO CORDOVA, CA		95670

Project Information: EO8054015 UNOCAL CASTROVALLEY PO# Quote#

How would you like your completed results sent? ☒ E-Mail ☒ Fax ☒ EDD ☐ Mail Only-

Sampler Name Printed / Signature*: DAVID J CUELLAR

QC Request: STD (Level II)

Result Request **Surcharge: (STD) 3Day** 2Day** 1 Day**

Carbon Copies: (Circle One)
CDHS Fresno Co EPA
Merced Co Tulare Co
Other:

REGULATORY COMPLIANCE
Electronic Data Transfer (Y) N
System No.*: T0600101370

Matrix Types: RSW= Raw Surface Water CFW= Chlorinated Finished Water CWW= Chlorinated Waste Water BW= Bottled Water RGW = Raw Ground Water FW = Finished Water WW = Waste Water SW = Storm Water DW = Drinking Water SO = Solid

Sample #	# Btls	Sampled* Date	Sampled* Time	Sample Description/Location*	Matrix*	Comments / Station Code	BTEX / THPg (8020/8015M)	TPHd (8015M)	Fuel Oxygenates (8260B)	Lead Scavengers (8260B)
1	7	11/20/08	1345	MW-6	RGW	1,060,599	✓	✓	✓	✓
2	7		1420	MW-5	RGW	600	✓	✓	✓	✓
3	7		1510	MW-7	RGW	601	✓	✓	✓	✓
4	7		1620	MW-101	RGW	602	✓	✓	✓	✓

Relinquished by : (Signature and Printed Name)	Company	Date	Time	Received by (Signature and Print Name)	Company
DAVID J CUELLAR	BSK	11/21/08	1444		
Relinquished by : (Signature and Printed Name)	Company	Date	Time	Received by (Signature and Print Name)	Company
Received for lab by : (Signature and Printed Name)		Date	Time	Payment Received at Delivery: Date: Amount: Check/Cash/Card PIA# Init.	
		11/21/08	1444		

Shipping Method: CAO UPS GSO (WALK-IN) SJVC FED EX OTHER

Cooling Method: (WET) BLUE NONE

Packing Material: C