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Jennifer C. Sedlachek
Project Manager

ExxonMobil

December 18, 2008

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

RE: Former Exxon RAS #73006/720 High Street, Oakland, California.

Dear Ms. Jakub:

Attached for your review and comment is a copy of the letter report entitled ***Conduit Study and Summary of Field Activities,*** dated December 18, 2008, for the above-referenced site. The report was prepared by Environmental Resolutions, Inc. (ERI) of Petaluma, California, and details activities pertaining to the subject site.

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

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

Sincerely,

Jennifer C. Sedlachek
Project Manager

Attachment: ERI's Conduit Study and Summary of Field Activities, dated December 18, 2008

cc: w/ attachment
Mr. Mansour Sepehr, Ph.D., P.E., SOMA Environmental Engineering, Incorporated
Mr. Mo Mashoon, Mash Petroleum, Inc.

w/o attachment
Ms. Paula Sime, Environmental Resolutions, Inc.

VALUE, QUALITY, RESPONSE

Southern California
Northern California
Pacific Northwest
Southwest
Texas
Montana

December 18, 2008
ERI 201003.R30

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

SUBJECT **Conduit Study and Summary of Field Activities**
Former Exxon Service Station 73006
720 High Street, Oakland, California

Ms. Sedlachek:

At the request of ExxonMobil Environmental Services Company, on behalf of ExxonMobil Oil Corporation (ExxonMobil), Environmental Resolutions, Inc. (ERI) has prepared this conduit study and summary of field activities for the subject site (Plate 1). The purpose of the work was to further evaluate the potential for underground utilities in the vicinity of the site to act as preferential pathways for the migration of dissolved hydrocarbons in groundwater, as required by the Alameda County Health Care Services Agency Department of Environmental Health (ACEH) letter dated June 7, 2005 (Appendix A). The work was conducted in accordance with ERI's *Work Plan for Additional Soil and Groundwater Investigation* (Work Plan), dated March 29, 2006, which was approved in the ACEH letter dated July 24, 2006 (Appendix A).

SITE DESCRIPTION

Former Exxon Service Station 73006 is located on the southeastern corner of the intersection of High Street and Coliseum Way, Oakland, California (Plate 1). The surrounding areas consist of commercial properties (Plate 2).

The subject site operated as an Exxon-branded service station from 1970 to 1987. Prior to its use as a service station, the site was used as an oil storage and as a distribution facility (1912 to 1934), an automobile junkyard (1953 to 1969), and a dump site (prior to 1970) (RESNA, 1993a). The site is currently an active Gas and Food-branded station owned and operated by Mash Petroleum, Inc.

LOCAL GEOLOGY

The local geology of the site consists primarily of silt with lenses of fine sand and gravel. Cross sections were prepared using boring logs, CPT logs, and monitoring well construction details to illustrate subsurface conditions. The cross section location map and cross sections A-A', B-B', and C-C' are provided in Appendix B.

PREVIOUS WORK

Fueling System Activities

From 1912 to 1934, Standard Oil Company of California (currently known as Chevron U.S.A.) operated an oil storage and distribution facility on the southwestern part of the site. Up to six aboveground storage tanks were on site during this period. From 1953 to 1969, Mr. and Mrs. Roy Hatton purchased the northeastern part of the site and used the property as an automobile junkyard. In 1970, Humble Oil and Refining Company purchased the property and built an Exxon service station. In 1987, ExxonMobil discontinued operation at the site, and the property was sold to Victor and Lye Kyin Chu. In April 1987, Four USTs (10,000-, 8,000-, and 6,000-gallon gasoline tanks, and 1,000-gallon used-oil tank) were excavated and removed from the site by Pacific Southwest Construction and Service (AGS, 1987a). The property was vacant from 1987 to 1991. In 1991, new USTs were installed in the northwestern corner of the site. In 2004, the property was sold to Mash Petroleum, Inc. and currently is operated as a Gas and Food-branded service station, restaurant, and car wash.

Site Assessment Activities

Multiple phases of assessment have been conducted since 1987. A complete summary of historical site activities is provided in ERI's *Site Conceptual Model* dated May 24, 2005 (SCM). A Generalized Site Plan showing soil boring and well locations is presented as Plate 3.

Recent assessment activities conducted during 2005 and 2006 included the advancement of nine direct-push borings (DP1 through DP9), nine CPT borings (CPT1 through CPT6, CPT7, CPT11 and CPT12), and three Hydropunch® (HP) borings (HP7, HP11, and HP12). The direct-push borings were advanced on site and off site to the west and south of the site. The CPT and HP borings were advanced on site and

off site to the southwest underneath Interstate-880 and to the south of the site. Results of the DP and CPT assessments indicated maximum TPHd, TPHg, benzene, and MTBE concentrations in soil of 12,000 mg/kg, 1,190 mg/kg, 7.79 mg/kg, and 0.0230 mg/kg, respectively. Residual soil concentrations are primarily present in the capillary fringe and vadose zones (2 to 10 feet bgs). Results of the assessment indicated maximum TPHd, TPHg, benzene, and MTBE concentrations in groundwater of 182,000 µg/L, 1,060,000 µg/L, 7,000 µg/L, and 299 µg/L, respectively. Based on the results of the 2006 assessment activities, concentrations of residual hydrocarbons in soil and dissolved hydrocarbons in groundwater are present off site to the west and southwest and south of the site.

Cumulative soil analytical results are summarized in Tables 1A and 1B. Cumulative grab groundwater analytical results are summarized on Table 2. Select soil and grab groundwater results are also depicted on the cross sections presented in Appendix B.

Remediation Activities

ExxonMobil's remedial efforts at the site have included excavation, product bailing, groundwater extraction, vapor extraction, air sparging, and biosparging.

In May and July 1987, approximately 760 cubic yards (cy) of soil was excavated, aerated, and subsequently removed from the site (AGS, 1987b). In January 1991, approximately 500 cy of soil was excavated from the northwestern corner of the site for the new UST cavity (AGS, 1991b).

In 1989, approximately 27 gallons of LPH were removed from on-site wells. In 1993, petrotraps were installed in wells MW2, MW4, and MW6, and 6.3 gallons of LPH were removed (RESNA, 1993). The GWPTS system operated from January 1995 to December 1998, the AS/SVE system operated from August 1996 to July 1999, and the biosparge system operated from July 2001 to June 2003.

The GWPTS system was designed to treat separate-phase and dissolved petroleum hydrocarbons in groundwater extracted from the interceptor trench beneath the site. Pneumatic pumps were installed in extraction wells RW2 and RW5 to recover groundwater from the interceptor trench. Subsurface and aboveground collection piping were used to transfer extracted groundwater to a holding tank. A transfer pump and PVC piping were used to direct the water stream from the holding tank through water filters, an air stripper, and subsequently through liquid-phase GAC canisters connected in series. The treated groundwater was discharged to the sanitary sewer regulated by East Bay Municipal Utilities District (EBMUD). The GWPTS system operated from 1995 to 1998 and was shut down when influent concentrations decreased. The GWPTS system removed approximately 10 pounds of TPHg and 3 pounds of benzene (ERI, 1999a; ERI, 1999b).

The AS/SVE system consisted of six air-sparging wells (AS1 through AS6) for air injection, three vadose wells (VW1 through VW3) for vapor extraction within an on-site interceptor trench, a water knock-out tank, a Thermtech VAC-25 thermal/oxidizer, a Gast air compressor, and a propane tank for supplemental fuel. The AS/SVE system operated from 1996 to 1999 and removed approximately 5,144 pounds of TPHg and 61 pounds of benzene (ERI, 1999b). The AS/SVE system was shut down when influent TPHg concentrations decreased to near the laboratory reporting limits and TPHg removal rates reached asymptotic conditions.

The biosparge system used an air compressor to inject air into the on-site groundwater interceptor trench to enhance biodegradation. The biosparge system operated from 2001 to 2003.

Groundwater Monitoring Activities

Quarterly groundwater monitoring was implemented at the site in 1994. Measurable LPH was detected in wells MW3, MW4, MW6, VW2, and VW3 in the area of the former USTs and in wells MW2 and MW8 in the area of the former product piping from 1989 through 1994. Hydrocarbon sheen has also been identified in wells MW1, MW5, MW7, MW12, MW13, and MW15. Hydrocarbon sheen was most recently observed in wells MW8, MW12, and MW13 in June 1999. LPH was observed in water samples collected from boring CPT2 in April 2005. Approximately 27 gallons of LPH was removed in July and August 1989 from wells MW2, MW3, MW4, and MW8. Approximately 6.3 gallons of LPH were removed in February and March 1993 (RESNA, 1993).

In 2006, due to seismic retrofit activities, Caltrans required removal of downgradient groundwater monitoring well MW1 located across Coliseum way in the Caltrans right-of-way beneath Interstate 880 freeway. ERI observed the destruction of the well on March 26, 2007. In 2001, groundwater monitoring wells MW4 and MW12 were paved over during station renovations. In 2008, groundwater monitoring wells MW2 and MW6 were paved over during additional station renovations. Historical data indicates that the groundwater flow direction is towards the southwest. Currently, two groundwater monitoring wells remain accessible for use (MW3 and MW14) (Plate 3).

SUBSURFACE INVESTIGATION

Following the submission of ERI's SCM, the ACEH, in a letter dated June 7, 2005, requested further investigation to determine if utility trenches were providing a preferential pathway for dissolved hydrocarbons in groundwater (Appendix A).

In response to the ACEH request, ERI proposed the advancement of three hand-auger locations (HA1 through HA3) adjacent to the subject site (Plate 4). The following utility lines were identified adjacent to the site: gas and electric (operated by Pacific Gas and Electric [PG&E]); communications; water (operated by East Bay Municipal Utilities District [EBMUD]); and sewer and storm drain (operated by the City of Oakland Public Works Department [Public Works]) (Plate 5). ERI requested access to known utility trenches, and received no response to the request for access to gas, electric, and communications utility trenches. EBMUD and Public Works agreed to allow ERI to sample the utility trenches for water, sewer, and storm drain. Upon receipt of Public Works maps showing underground utility locations, ERI discovered the storm drain trench was not located adjacent to the site and was too far downgradient of the site to provide useful information. ERI moved forward with coordinating sampling of the water and sewer trenches adjacent to the site at locations HA1 through HA3 (Plate 4).

Pre-Field Activities

Prior to field activities, ERI obtained drilling permits from the Alameda County Public Works Agency (ACWPA) (Appendix C), notified Underground Service Alert (USA), and contracted a private utility-locating company to locate underground utilities at the site and obtained assess agreements from utility companies to access and sample the trench materials (Appendix D). Field activities were completed in accordance with ERI's standard field protocol (Appendix E), a site-specific health and safety plan, and under the advisement of a professional geologist.

Underground Utility Survey

On August 21, 2008, ERI observed a private utility locator conduct a geophysical survey of the proposed sampling locations to refine the locations and depths of the underground utility trenches prior to sampling. The utility laterals for natural gas and electric extend from the southern portion of the site building, where they are estimated to be 30 inches below ground surface, to the main utility lateral located along the eastern side of Coliseum Way at 1 foot below ground surface. Proposed location HA1 contained water, gas, and electric lines in a common trench at 1 feet bgs beneath the sidewalk along the eastern side of Coliseum Way. Because of the proximity to pressurized gas and electric lines (for which access to the trench was not obtained), sampling of the trench containing the water utility at location HA1 was cancelled.

The sewer line shown at location HA2 was estimated to be approximately 7.5 feet bgs. The water utility at location HA3 was estimated to be approximately 6 feet bgs, indicating that the utility trench slopes downward along Coliseum Way. The water utility at location HA3 does not occupy a common trench with the gas and electric utilities as it does at location HA1.

Field Activities

On August 28, 2008, ERI mobilized a professional traffic control subcontractor and Woodward Drilling Company to advance borings HA2 and HA3.

Traffic control was set up in accordance with the approved traffic control measures stipulated by the encroachment permit in preparation for sampling of location HA2. Traffic control setup began at approximately 9:30 A.M. to avoid working during rush hour traffic and to comply with the encroachment permit conditions. Three traffic lanes are present at the location of boring HA2: two northbound lanes and one southbound lane. Northbound Coliseum Way was reduced from two lanes of traffic to one lane in order to access the sewer line at location HA2 in the center, northbound lane of Coliseum Way. At this location, Coliseum Way converges with the I-880 off-ramp for High Street and the roadway is narrowed by the presence of a 5-foot wide sidewalk at the eastern edge of Coliseum Way. Closing a lane of the roadway created gridlock traffic conditions that extended down Coliseum Way and back onto the Interstate 880 freeway as well as the southbound lane of Coliseum Way and along High Street in the lanes attempting to turn south onto Coliseum Way. Additionally, the narrowing of the roadway at this location did not allow sufficient room to create a work zone for personnel to perform the work away from the vehicles in the adjacent lanes.

Since gridlock conditions occurred with the lane closure for boring HA2, it is assumed that similar conditions would be created by closing a lane to access location HA3. Given the traffic conditions and the inadequate safe working space, the work was cancelled.

DISCUSSION

The purpose of this investigation was to determine if utility trenches are providing a preferential pathway for dissolved hydrocarbon migration in groundwater. Based on the conditions encountered during the proposed trench sampling event, it was determined it was not feasible or safe to conduct this work during the hours specified on the encroachment permit (9:00 A.M. to 3:00 P.M.). Additionally the area is considered unsafe for nighttime work. When ERI initially proposed the utility trench investigation in 2005, it was to have been part of assessment activities that were completed in December 2006. The results of the 2005 and 2006 DP and CPT borings indicate that the utilities are not acting as preferential pathways

for dissolved hydrocarbon migration since petroleum hydrocarbon concentrations are present downgradient beyond the utilities in soil and groundwater (TPHg up to 900 mg/kg in boring DP7 at 10 feet bgs; TPHg up to 1,060,000 µg/L in boring CPT2 at 10 feet bgs).

Groundwater depths historically range from 1 to 12 feet bgs and average between 7 and 8 feet bgs. The maximum dissolved hydrocarbon concentrations occurs at approximately 10 feet bgs. The sewer line in the center lane of Coliseum Way is the deepest known utility in the site vicinity at 7.5 feet bgs and is likely submerged during average to high groundwater levels. Other known utilities at shallower depths are only submerged during periods of high groundwater levels. Under these circumstances, utility trenches in the site vicinity are unlikely to act as preferential pathways for dissolved hydrocarbon migration in groundwater.

CONCLUSIONS

In ERI's opinion, the concentrations of residual hydrocarbons in soil and dissolved-phase hydrocarbons in groundwater in samples collected offsite and down-gradient of the site during the 2005 and 2006 soil and groundwater investigations (Appendix B; Tables 1A, 1B and 2), indicate that utilities have not acted to cut off the lateral extent of residual and dissolved-phase hydrocarbons in soil and groundwater. Furthermore, it is unsafe and unnecessary to conduct trench sampling activities in Coliseum Way.

CONTACT INFORMATION

The responsible party contact is Ms. Jennifer C. Sedlachek ExxonMobil Environmental Services Company, 4096 Piedmont Avenue #194, Oakland, California 94611. The consultant contact is Ms. Paula Sime, Environmental Resolutions, Inc., 601 N. McDowell Boulevard, Petaluma, California 94954. The agency contact is Ms. Barbara Jakub, P.G., Alameda County Health Care Services Agency, Department of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, California 94502-6577.

LIMITATIONS

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

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

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

For any questions concerning the content of this report, please contact Ms. Paula Sime at (707) 766-2000.

Sincerely,

Environmental Resolutions, Inc.

Rebekah A. Westrup
Senior Staff Geologist

Heidi L. Dieffenbach-Carle
P.G. 6793

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

Mr. Mansour Sepehr, Ph.D., P.E., SOMA Environmental Engineering, Incorporated, 6620 Owens Drive, Suite A, Pleasanton, California 94588

Mr. Mohammed Mashoon, Mash Petroleum, 428 13th Street, 10th Floor, Oakland, California 94612

Mr. Victor Chu, 3915 Forest Hill Avenue, Oakland, California 94602

Enclosures:

References

Acronym List

Plate 1:	Site Vicinity Map
Plate 2:	Local Area Map
Plate 3:	Generalized Site Plan
Plate 4:	Proposed Trench Sample Locations
Plate 5:	Vault/Utility Map

Table 1A	Cumulative Soil Sampling Data
Table 1B	Additional Cumulative Soil Sampling Data
Table 2	Cumulative Grab Groundwater Analytical Results

Appendix A	Correspondence
Appendix B	Cross Sections and Historical Plates
Appendix C	Permits
Appendix D	Access Agreements
Appendix E	Field Protocols

REFERENCES

AGS (Applied GeoSystems). 1987a. Transmittal of letter report No. 87042-1 for the First Phase Soil Contamination Evaluation at Exxon Service Station No. 7-3006 located at 720 High Street, Oakland, California. AGS, Fremont, California. 13 May.

Applied GeoSystems (AGS). July 10, 1987b. *Report Excavation, Aeration, and Removal of Contaminated Soil Including Soil Sampling and Analyses, Exxon Service Station No. 7-3006, 720 High Street, Oakland, California.*

Applied GeoSystems (AGS). May 13, 1991. *Letter report on results of soil sampling for the new underground storage tank pit at Exxon Station No. 7-3006, 720 High Street, Oakland, California.*

Environmental Resolutions, Inc. (ERI). February 2, 1999a. *Quarterly Groundwater Monitoring and Remediation Status Report, Fourth Quarter 1998, Former Exxon Service Station 7-3006, 720 High Street, Oakland, California.*

Environmental Resolutions, Inc. (ERI). October 28, 1999b. *Quarterly Groundwater Monitoring and Remediation Status Report, Third Quarter 1999, Former Exxon Service Station 7-3006, 720 High Street, Oakland, California.*

Environmental Resolutions, Inc. (ERI). May 24, 2005. *Site Conceptual Model, Former Exxon Service Station 7-3006, 720 High Street, Oakland, California.*

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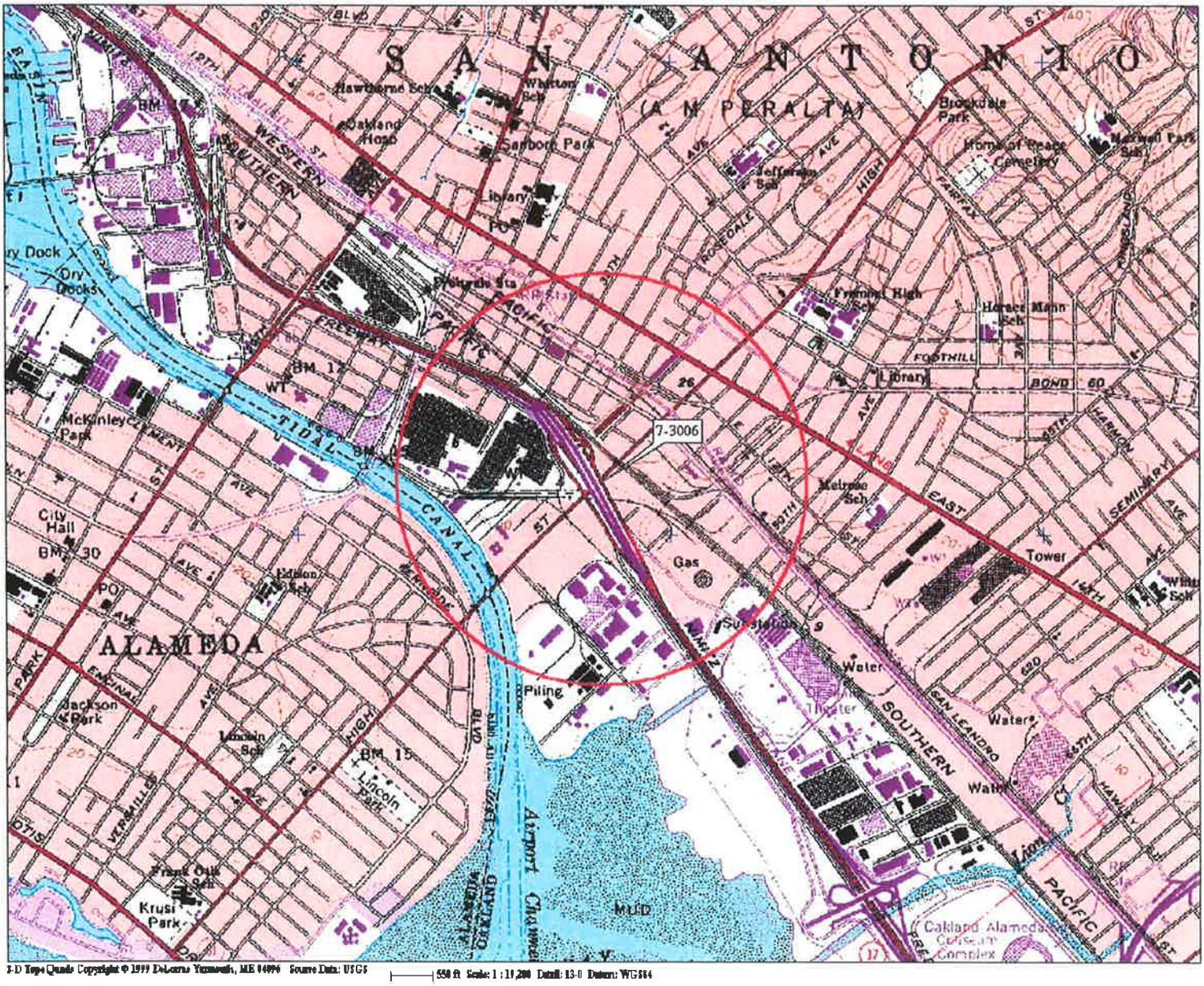
RESNA Industries, Inc. (RESNA). March 24, 1993a. *Limited Records Search, Exxon Station 7-3006, 720 High Street, Oakland, California.*

RESNA Industries, Inc. (RESNA). April 16, 1993b. *Interim Remediation Investigation at 720 High Street, Oakland, California.*



FN 2010

EXPLANATION

1/2-mile radius circle

N

APPROXIMATE SCALE

0 0.5 1 mile

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

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SITE VICINITY MAP

FORMER EXXON SERVICE STATION 73006
720 High Street
Oakland, California

PROJECT NO. 2010

PLATE 1

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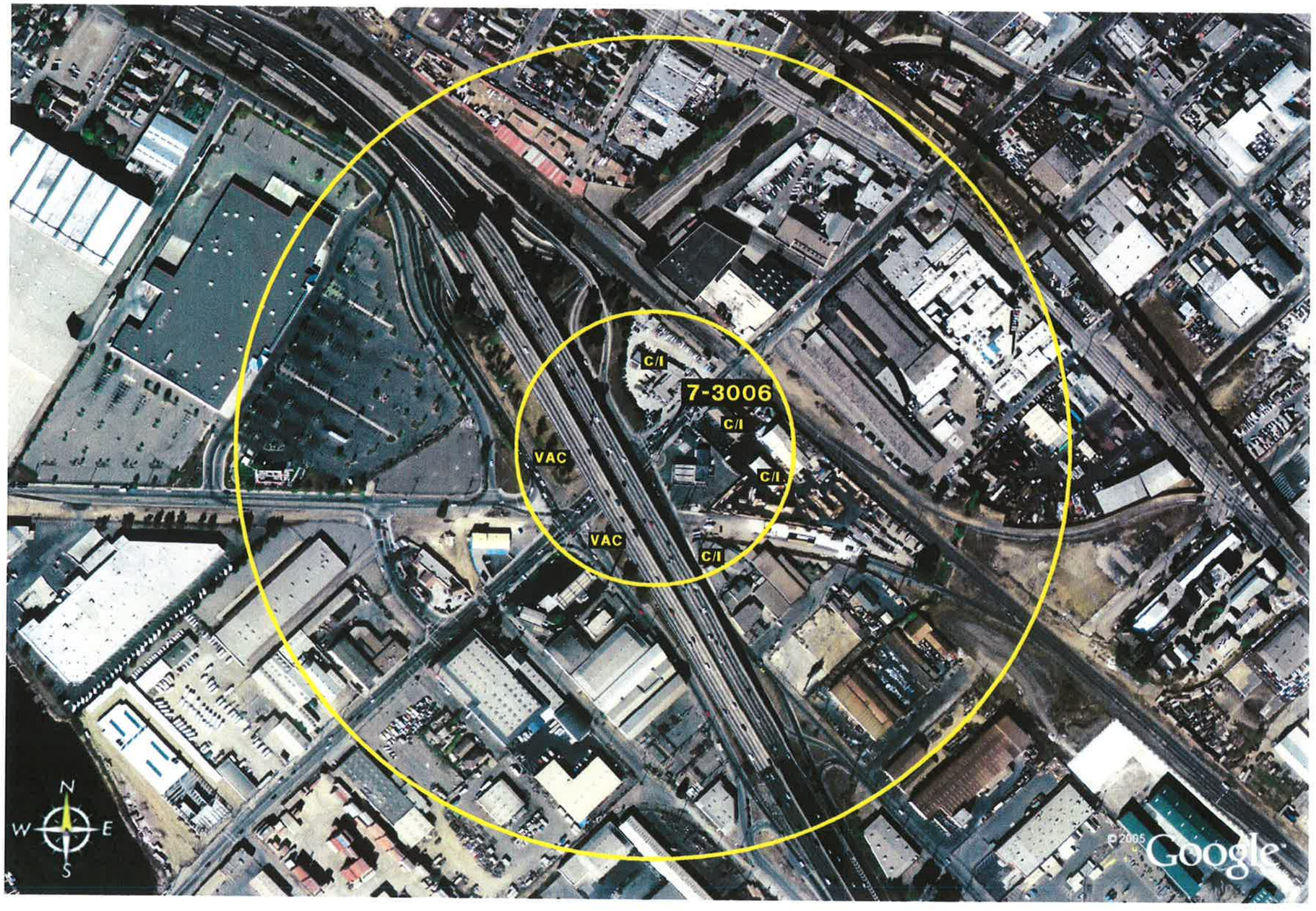

FN 2010 08 R30 AERIAL MAP

LEGEND

- C/I — Commericial / Industrial
- VAC — Vacant Lot
- P — Parking Lot
- R — Additional Residential

WELLS

There are no public or private wells within a 300m radius. See the Site Location Map for well locations.

RESIDENCES

1 None

SURFACE WATER

1 None

PUBLIC USE AREAS

1 None

100 Meter and 300 Meter Radius

APPROXIMATE SCALE

0 80 160 METERS

LOCAL AREA MAP

FORMER EXXON SERVICE STATION 7-3006
720 High Street
Oakland, California

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PROJECT NO. 2010

PLATE 2

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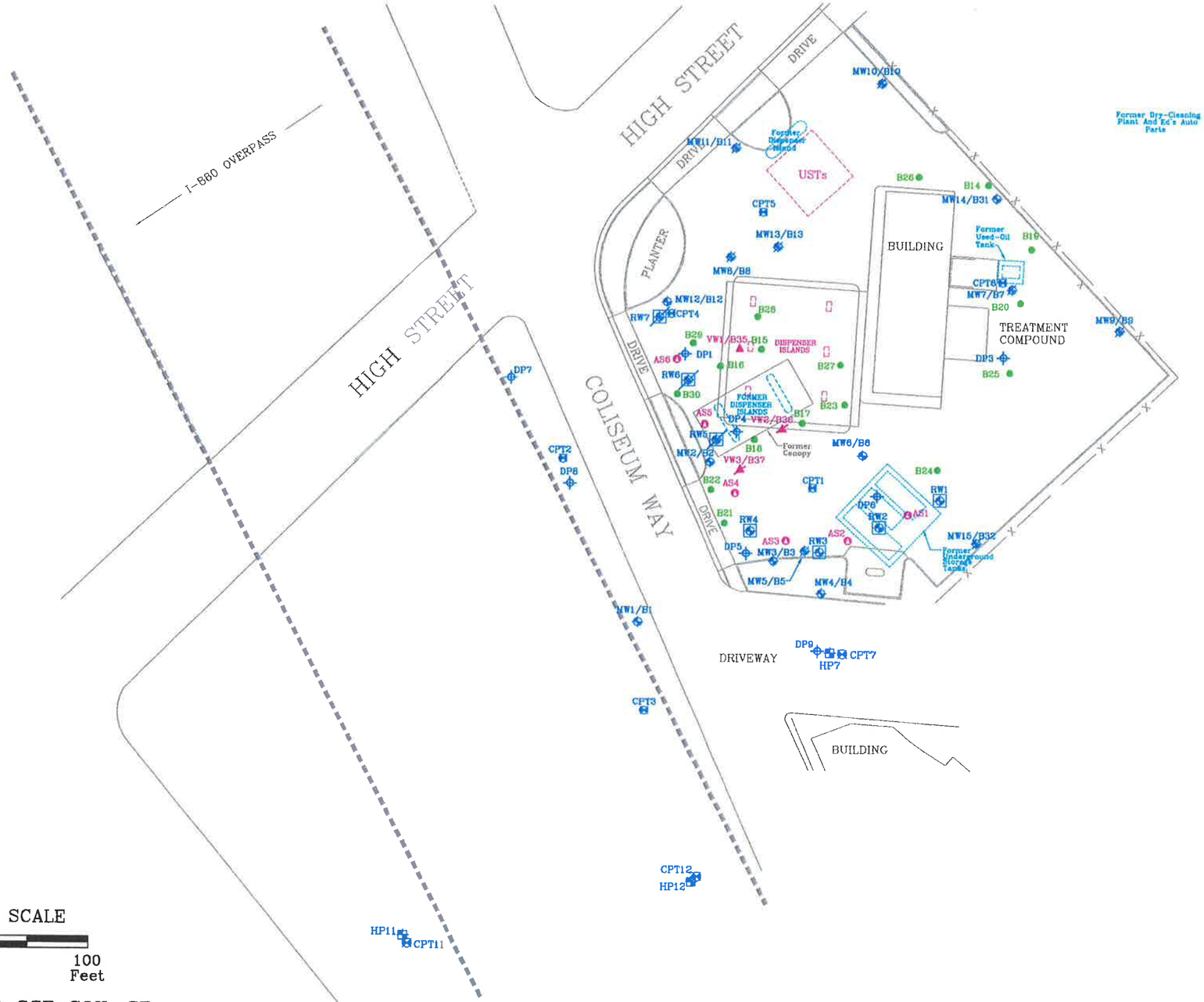

APPROXIMATE SCALE

0 50 100 Feet

FN 2010 08 R30 GSP SOIL_SP

GENERALIZED SITE PLAN

FORMER
EXXON SERVICE STATION 73006
720 High Street
Oakland, California

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EXPLANATION

- MW14 — Groundwater Monitoring Well
- B30 — Soil Boring/Soil Sample
- AS6 — Air Sparge Well
- RW4 — Recovery Well
- DP9 — Direct Push Boring
- CPT12 — Cone Penetrometer Test Boring
- HP12 — Hydropunch Boring
- VW1/B35 — Soil Vapor Extraction Well
- RW7 — Destroyed Recovery Well
- MW15 — Destroyed Groundwater Monitoring Well
- VW3/B37 — Soil Vapor Extraction Well

PROJECT NO. 2010

PLATE 3

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FN 2010 06 R30 SAMPLE LOCATIONS_SP

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PROPOSED TRENCH SAMPLE LOCATIONS

FORMER EXXON SERVICE STATION 73006
720 High Street
Oakland, California

EXPLANATION

HA3 ● Trench Sample Location

W —·—·— Water Line

S ----- Sewer Line

PROJECT NO.
2010

PLATE
4

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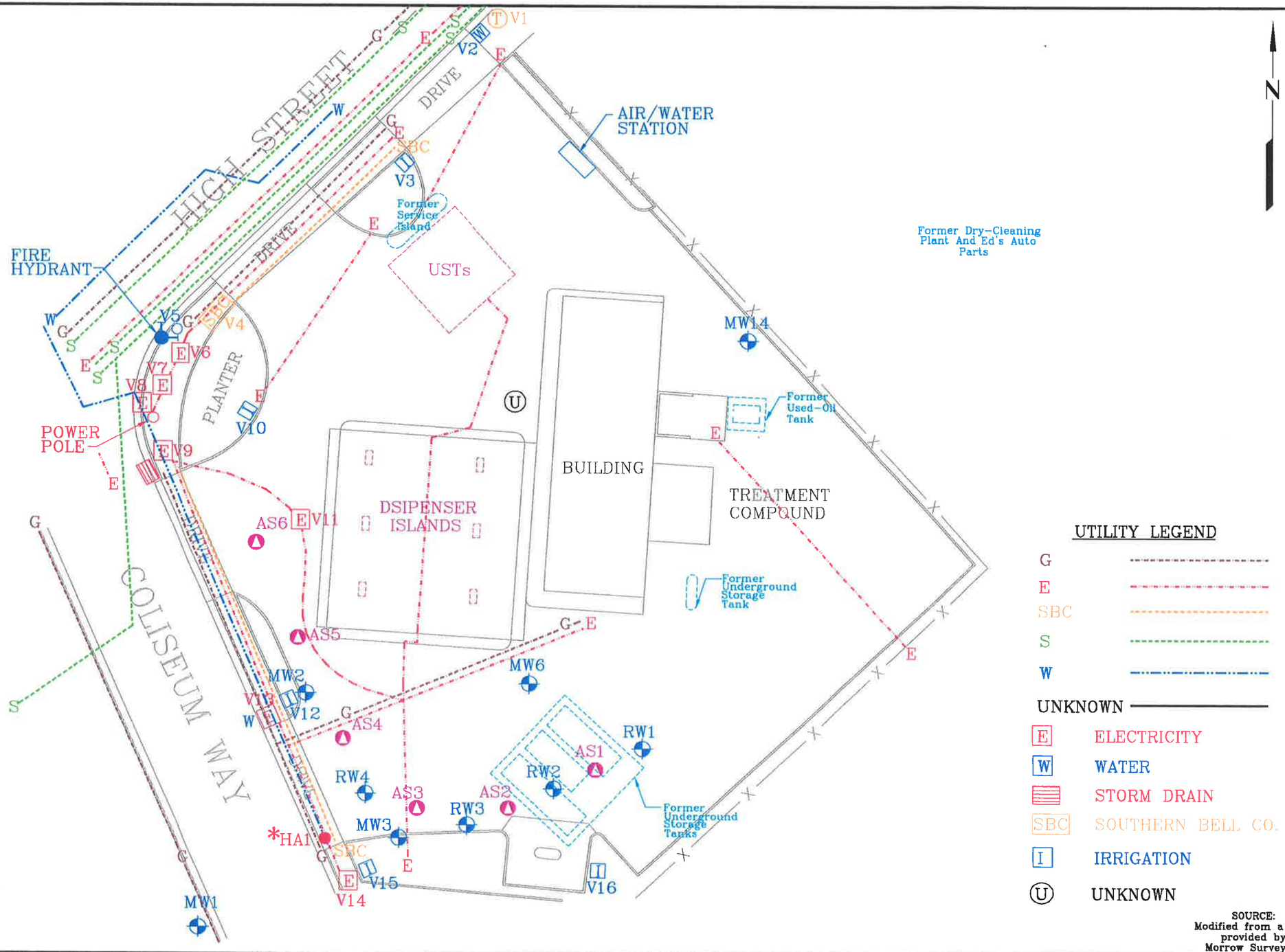

APPROXIMATE SCALE

0 30 60 Feet

FN 2010 SRS 06 UTILITY_SP

UTILITY LEGEND

- G
- E
- SBC
- S
- W
- UNKNOWN
- [E] ELECTRICITY
- [W] WATER
- STORM DRAIN
- [SBC] SOUTHERN BELL CO.
- [I] IRRIGATION
- (U) UNKNOWN

SOURCE: Modified from a map provided by Morrow Surveying

ERI
VALUE. QUALITY. RESPONSE

VAULT/UTILITY MAP

FORMER
EXXON SERVICE STATION 7-3006
720 High Street
Oakland, California

EXPLANATION

MW14 Groundwater Monitoring Well

HA1 Proposed Trench Sample Location

AS6 Air Sparge Well

NOTE:

*Proposed borings HA2 and HA3 located approximately 75 and 105 feet south, respectively.

PROJECT NO. 2010

PLATE 5

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TABLE 1A
CUMULATIVE SOIL SAMPLING DATA
Former Exxon Service Station 73006
720 High Street
Oakland, California

Sample Location	Associated Well/Boring	Date Sampled	Depth (fbgs)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)
Monitoring Wells										
S-3-MW14	B31	10/31/90	3.0	<10	<1.0	---	<0.005	<0.005	<0.005	<0.007
S-8-MW14	B31	10/31/90	8.0	<10	<1.0	---	<0.005	<0.005	<0.005	<0.007
S-18-MW14	B31	10/31/90	18.0	<10	837	---	0.10	1.6	6.0	34
S-6-MW15	B32	10/31/90	6.0	<10	<1.0	---	<0.005	<0.005	<0.005	<0.007
S-8.5-MW15	B32	10/31/90	8.5	<10	<1.0	---	<0.005	<0.005	<0.005	<0.007
S-13.5-MW15	B32	10/31/90	13.5	<10	<1.0	---	<0.005	<0.005	<0.005	<0.007
Soil Borings										
S-7.5-B1	MW1	05/21/88	7.5	25	<10	---	<0.050	<0.050	<0.15	<0.15
S-10-B2	MW2	09/10/87	10.0	---	9.97	---	4.14	0.09	1.09	0.38
S-10-B3	MW3	09/10/87	10.0	4,261	2,689	---	126	17	41	131
S-10-B4	MW4	09/10/87	10.0	2,938	209.9	---	14.9	0.5	6.4	11.1
S-10-B5	MW5	09/10/87	10.0	848	90.83	---	9.27	0.24	1.45	6.62
S-10-B6	MW6	09/10/87	10.0	---	448.0	---	5.7	3.7	14.1	63.2
S-10-B7	MW7	09/10/87	10.0	1,338	901.6	---	26.4	5.3	41.4	54.2
S-10-B8	MW8	09/10/87	10.0	---	0.48	---	<0.05	<0.05	<0.05	<0.05
S-9-B9	MW9	05/12/88	10.0	---	<2	---	<0.05	<0.05	<0.05	<0.05
S-10-B10	MW10	11/27/89	10.0	<10	<2	---	<0.05	<0.05	<0.05	<0.05
S-10-B11	MW11	11/27/89	11.0	<10	<2	---	0.064	0.11	<0.05	0.076
S-7.5-B12	MW12	11/28/89	7.5	23	160	---	1.2	3.1	3.4	14
S-10-B12	MW12	11/28/89	10.0	16	3.1	---	0.86	0.090	0.18	0.17
S-7.5-B13	MW13	11/28/89	7.5	<10	<2	---	<0.05	0.12	<0.05	0.10
S-10-B13	MW13	11/28/89	10.0	<10	17	---	<0.05	0.14	0.33	1.2
S-10-B14	---	11/29/89	10.0	1,900	3,400	---	<0.5	<0.5	1.2	1.2
S-5-B15	---	11/28/89	5.0	<10	130	---	2.2	7.2	2.2	11
S-7.5-B15	---	11/28/89	7.5	28	98	---	0.97	3.9	1.8	9.8
S-10-B15	---	11/28/89	10.0	82	180	---	1.4	4.4	3.6	16
S-5-B16	---	11/28/89	5.0	43	87	---	2.2	4.4	1.7	7.6
S-7.5-B16	---	11/28/89	7.5	1,500	1,100	---	9.0	60	23	109
S-10-B16	---	11/28/89	10.0	110	380	---	4.2	11	8.4	35
S-5-B17	---	11/29/89	5.0	<10	<2	---	<0.050	<0.050	<0.050	<0.050
S-7.5-B17	---	11/29/89	7.5	<10	8.1	---	0.085	<0.050	0.19	0.24
S-10-B17	---	11/29/89	10.0	200	7.1	---	0.091	<0.050	0.20	0.25
S-5-B18	---	11/29/89	5.0	46	210	---	1.6	0.71	3.9	12
S-7.5-B18	---	11/29/89	7.5	270	210	---	2.4	0.50	4.8	20
S-10-B18	---	11/29/89	10.0	2,000	130	---	0.93	0.36	2.8	11
S-10-B19	---	11/29/89	10.0	21	21	---	<0.5	<0.5	<0.5	1.7
S-10-B20	---	11/29/89	10.0	360	3,100	---	<5	<5	64	120

TABLE 1A
CUMULATIVE SOIL SAMPLING DATA
Former Exxon Service Station 73006
720 High Street
Oakland, California

Sample Location	Associated Well/Boring	Date Sampled	Depth (fbgs)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)
Soil Borings (cont.)										
S-3-B21	---	11/01/90	3.0	1,125	433	---	9.0	0.9	7.5	13
S-8-B21	---	11/01/90	8.0	2,112	1,084	---	22	3.5	31	100
S-5.5-B22	---	11/01/90	5.5	2,570	423	---	6.9	1.0	19	18
S-8-B22	---	11/01/90	8.0	210	3,232	---	31	123	137	493
S-3-B23	---	11/01/90	3.0	<10	20	---	0.50	0.08	0.41	0.70
S-8-B23	---	11/01/90	8.0	<10	277	---	2.4	3.5	7.2	28
S-5.5-B24	---	11/01/90	5.5	<10	<1.0	---	<0.005	<0.005	<0.005	<0.007
S-8-B24	---	11/01/90	8.0	<10	80	---	0.70	0.26	<0.005	0.70
S-5.5-B25	---	11/01/90	5.5	<10	<1.0	---	<0.005	<0.005	<0.005	<0.007
S-8-B25	---	11/01/90	8.0	<10	15	---	0.27	0.05	0.17	0.75
S-5.5-B26	---	11/01/90	5.5	<10	<1.0	---	<0.005	<0.005	<0.005	<0.007
S-8-B26	---	11/01/90	8.0	<10	<1.0	---	<0.005	<0.005	<0.005	<0.007
S-5.5-B27	---	11/01/90	5.5	<10	12	---	0.17	0.05	1.7	0.91
S-8-B27	---	11/01/90	8.0	<10	608	---	8.1	2.7	19	30
S-3-B28	---	11/02/90	3.0	<10	22	---	1.0	1.0	0.43	2.5
S-8-B28	---	11/02/90	8.0	<10	1,295	---	10	45	52	156
S-5.5-B29	---	11/02/90	5.5	<10	1,931	---	31	122	84	240
S-8-B29	---	11/02/90	8.0	<10	1,262	---	14	68	49	153
S-5.5-B30	---	11/02/90	5.5	<10	1,069	---	20	39	44	116
S-8-B30	---	11/02/90	8.0	<10	1,118	---	9.3	62	47	143
S-3.5-B35	VW1	02/11/93	3.5	<5.0	<1	---	0.033	<0.0050	<0.0050	0.0062
S-6.5-B35	VW1	02/11/93	6.5	6.3	120	---	2	3.2	1.8	7.3
S-7.5-B35	VW1	02/11/93	7.5	30b	410	---	3.7	9.6	8.2	35
S-9-B35	VW1	02/11/93	9.0	12	950	---	7.6	28	21	89
S-4-B36	VW2	02/11/93	4.0	<5.0	1.7	---	0.023	<0.0050	<0.0050	0.021
S-7-B36	VW2	02/11/93	7.0	<5.0	<1	---	0.0054	<0.0050	<0.0050	<0.0050
S-9.5-B36	VW2	02/11/93	9.5	<5.0	160	---	0.65	0.34	2.3	5.2
S-4-B37	VW3	02/11/93	4.0	5.8	92	---	2.1	0.75	2.4	7.9
S-6-B37	VW3	02/11/93	6.0	21	220	---	2	5.6	5.8	21
S-7.5-B37	VW3	02/11/93	7.5	14	220	---	1.7	2.9	4.9	21
S-2-CPT1	---	04/06/05	2.0	155	<4.97	<0.0020	0.0038	<0.0050	<0.0050	<0.0050
S-4-CPT1	---	04/06/05	4.0	539	<4.98	<0.0020	0.0057	<0.0050	<0.0050	0.0218
S-6-CPT1	---	04/06/05	6.0	270	<4.99	<0.0020	0.0056	<0.0050	<0.0050	0.0219

TABLE 1A
CUMULATIVE SOIL SAMPLING DATA
Former Exxon Service Station 73006
720 High Street
Oakland, California

Sample Location	Associated Well/Boring	Date Sampled	Depth (fbgs)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)
Soil Borings (cont.)										
S-2-CPT2	---	04/07/05	2.0	<10.2	<5.01	<0.0020	<0.0010	<0.0050	<0.0050	<0.0050
S-4-CPT2	---	04/07/05	4.0	<10.0	<5.04	<0.0020	<0.0010	<0.0050	<0.0050	<0.0050
S-6-CPT2	---	04/07/05	6.0	59.6	<5.03	<0.0020	0.0053	<0.0050	<0.0050	0.0210
S-8-CPT2	---	04/07/05	8.0	77.7	<4.98	<0.0020	0.0130	0.0053	<0.0050	0.0092
S-2-CPT3	---	04/07/05	2.0	402	<5.03	<0.0020	<0.0010	<0.0050	<0.0050	<0.0050
S-4-CPT3	---	04/07/05	4.0	73.2	<5.03	<0.0020	<0.0010	<0.0050	<0.0050	<0.0050
S-6-CPT3	---	04/07/05	6.0	177	<5.00	<0.0020	<0.0010	<0.0050	<0.0050	<0.0050
S-8-CPT3	---	04/07/05	8.0	33.0	<5.00	<0.0020	<0.0010	<0.0050	<0.0050	<0.0050
S-2-CPT4	---	04/07/05	2.0	<10.0	<5.02	<0.0020	0.0021	<0.0050	0.0094	<0.0050
S-4-CPT4	---	04/07/05	4.0	<9.92	<5.01	0.0029	0.0163	<0.0050	0.189	0.159
S-6-CPT4	---	04/07/05	6.0	10.3	52.7	0.0077	0.0288	0.0196	5.70	19.1
S-8-CPT4	---	04/07/05	8.0	17.3	62.3	0.0230	0.0413	0.0289	0.112	5.40
S-2-CPT5	---	04/07/05	2.0	<9.92	<5.01	<0.0020	0.0019	<0.0050	<0.0050	<0.0050
S-4-CPT5	---	04/07/05	4.0	12.0	<4.98	<0.0020	0.0025	<0.0050	<0.0050	<0.0050
S-6-CPT5	---	04/07/05	6.0	<9.92	<5.04	<0.0020	0.0011	<0.0050	<0.0050	<0.0050
S-8-CPT5	---	04/07/05	8.0	<10.1	<5.04	0.0046	<0.0010	<0.0050	<0.0050	<0.0050
S-2-CPT6	---	04/06/05	2.0	<9.98	<5.05	<0.0020	<0.0010	<0.0051	<0.0051	<0.0051
S-4-CPT6	---	04/06/05	4.0	<10.1	<5.02	<0.0020	<0.0010	<0.0050	<0.0050	<0.0050
S-6-CPT6	---	04/06/05	6.0	93.4	<5.02	<0.0020	<0.0010	<0.0050	<0.0050	<0.0050
S-8-CPT6	---	04/06/05	8.0	<9.88	<5.02	<0.0020	<0.0010	<0.0050	<0.0050	<0.0050
S-5-CPT7	---	12/11/06	5.0	<3.92	<0.502	<0.00200	<0.00200	<0.00200	<0.00200	<0.00500
S-5-CPT11	---	12/12/06	5.0	26a	<0.10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
S-5-CPT12	---	12/11/06	5.0	<3.96	<0.498	<0.00200	<0.00200	<0.00200	<0.00200	<0.00500
S-2-DP1	---	04/07/05	2.0	<10.0	<5.01	<0.0020	0.0029	<0.0050	<0.0050	<0.0050
S-4-DP1	---	04/07/05	4.0	<10.1	<5.02	<0.0020	0.0139	<0.0050	0.0061	0.0223
S-6-DP1	---	04/07/05	6.0	28.3	65.0	<0.0020	0.0890	0.0131	11.6	56.5
S-8-DP1	---	04/07/05	8.0	79.8	226	<0.100	0.743	<1.24	6.34	17.5
S-10.5-DP1	---	04/14/05	10.5	33.0a	1,190	0.0111	4.78	6.67	32.9	130

TABLE 1A
CUMULATIVE SOIL SAMPLING DATA
Former Exxon Service Station 73006
720 High Street
Oakland, California

Sample Location	Associated Well/Boring	Date Sampled	Depth (fbgs)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)
Soil Borings (cont.)										
S-2-DP3	---	04/06/05	2.0	1,840	<5.02	<0.0020	<0.0010	<0.0050	<0.0050	<0.0050
S-4-DP3	---	04/06/05	4.0	<10.1	<5.02	<0.0020	<0.0010	<0.0050	<0.0050	<0.0050
S-6-DP3	---	04/06/05	6.0	<10.2	<5.03	<0.0020	<0.0010	<0.0050	<0.0050	<0.0050
S-8-DP3	---	04/06/05	8.0	<10.1	<5.00	<0.0020	<0.0010	<0.0050	<0.0050	<0.0050
S-9.5-DP3	---	04/14/05	9.5	<10.1	<4.95	<0.0020	<0.0010	<0.0050	<0.0050	<0.0050
S-12-DP3	---	04/14/05	12.0	64.0a	26.3	<0.0020	0.0209	<0.0050	0.0079	0.0780
S-2-DP4	---	04/07/05	2.0	65.6	<5.00	<0.0020	0.0044	<0.0050	<0.0050	0.0091
S-4-DP4	---	04/07/05	4.0	<9.96	<5.05	<0.0020	0.0027	<0.0051	<0.0051	<0.0051
S-6-DP4	---	04/07/05	6.0	<10.2	<5.01	<0.0020	0.0114	<0.0050	0.136	1.55
S-8-DP4	---	04/07/05	8.0	11.1	12.4	<0.0020	0.0260	0.0086	1.82	2.36
S-10.5-DP4	---	04/14/05	10.5	50.0a	366	<0.0020	1.39	1.49	5.76	33.9
S-2-DP5	---	04/07/05	2.0	12,000	16.7	<0.0020	7.79	0.0235	0.0116	0.0588
S-4-DP5	---	04/07/05	4.0	1,200	<4.98	<0.0020	0.128	<0.0050	0.0100	0.0228
S-6-DP5	---	04/07/05	6.0	3,610	8.61	<0.0020	0.599	<0.0050	0.0095	0.0339
S-8-DP5	---	04/07/05	8.0	3,850	522	<0.0020	6.99	<1.26	<1.26	2.09
S-10.5-DP5	---	04/14/05	10.5	875a	842	<0.0020	4.61	1.14	7.90	1.75
S-2-DP6	---	04/06/05	2.0	13.1	<5.05	<0.0020	<0.0010	<0.0051	<0.0051	<0.0051
S-4-DP6	---	04/06/05	4.0	36.4	<5.05	<0.0020	<0.0010	<0.0051	<0.0051	<0.0051
S-6-DP6	---	04/06/05	6.0	<20.4	<5.05	<0.0020	<0.0010	<0.0051	<0.0051	<0.0051
S-5-DP7	---	12/08/06	5.0	245a	0.696	<0.00200	<0.00200	<0.00200	<0.00200	<0.00500
S-10-DP7	---	12/14/06	10.0	900	370	<0.050	<0.050	<0.050	<0.050	0.056
S-15.5-DP7	---	12/14/06	15.5	<1.0	<0.10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
S-20-DP7	---	12/14/06	20.0	6.4a	<0.10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
S-25.5-DP7	---	12/14/06	25.5	5.6a	<0.10	0.011	<0.0050	<0.0050	<0.0050	<0.0050
S-29.5-DP7	---	12/14/06	29.5	3.5a	<0.10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050

TABLE 1A
CUMULATIVE SOIL SAMPLING DATA
Former Exxon Service Station 73006
720 High Street
Oakland, California

Sample Location	Associated Well/Boring	Date Sampled	Depth (fbgs)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)
Soil Borings (cont.)										
S-5-DP8	---	12/08/06	5.0	318a	<0.499	<0.00200	<0.00200	<0.00200	<0.00200	<0.00500
S-10-DP8	---	12/14/06	10.0	890	110	<0.050	<0.050	<0.050	<0.050	<0.050
S-15-DP8	---	12/14/06	15.0	49a	120	<0.050	<0.050	<0.050	<0.050	<0.050
S-19.5-DP8	---	12/14/06	19.5	2.9a	0.33	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
S-29.5-DP8	---	12/14/06	29.5	1.8a	<0.10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
S-5-DP9	---	12/11/06	5.0	465a	<0.495	<0.00200	0.00773	<0.00200	<0.00200	<0.00500
S-9.5-DP9	---	12/15/06	9.5	2,000a	61	<0.0050	<0.0050	<0.0050	<0.0050	0.013
S-14.5-DP9	---	12/15/06	14.5	10a	0.21	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
S-20-DP9	---	12/15/06	20.0	5.7a	<0.10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
S-25.5-DP9	---	12/15/06	25.5	16a	<0.10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
S-29.5-DP9	---	12/15/06	29.5	4.1a	<0.10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
S-5-HP7	---	12/11/06	5.0	102a	<0.505	<0.00200	<0.00200	<0.00200	<0.00200	<0.00500
S-5-HP11	---	12/12/06	5.0	2.0a	<0.10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
S-5-HP12	---	12/12/06	5.0	1.2a	<0.10	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050
Product Line Trench Samples										
S3-Trench	---	04/28/87	3.0	434	---	---	---	---	---	---
S(3A+3B)	---	05/05/87	---	---	17.0	---	---	---	---	---
S(3C+3D)	---	05/05/87	---	---	4299.0	---	---	---	---	---
S(3E+3F+3G)	---	05/05/87	---	---	545.70	---	---	---	---	---
S-1T	---	06/03/87	---	---	0.71	---	---	---	---	---
S-2T	---	06/03/87	---	---	1.70	---	---	---	---	---
S-3T	---	06/03/87	---	---	3.21	---	---	---	---	---
S-4T	---	06/03/87	---	---	0.44	---	---	---	---	---
S-1A	---	07/26/89	5.0	<5	---	---	---	---	---	---
S-1B	---	07/26/89	9.0	---	61	---	---	---	---	---
S-2A	---	08/04/89	9.0	---	3.8	---	<0.050	<0.050	<0.050	<0.050
S-3A	---	08/04/89	9.0	4,200	290	---	0.77	0.15	0.30	0.63
S-4A	---	08/04/89	9.0	---	93	---	<0.097	<0.050	<0.050	<0.050
Old Tank Pit Samples										
S-5-T1F	---	04/28/87	5.0	---	1,846	---	0.9	6.3	5.6	28
S-5-T1P	---	04/28/87	5.0	---	2,613	---	0.89	3	2.9	14
S-5-T2F	---	04/28/87	5.0	---	454	---	<0.2	<0.2	1.4	2.9

TABLE 1A
CUMULATIVE SOIL SAMPLING DATA
Former Exxon Service Station 73006
720 High Street
Oakland, California

Sample Location	Associated Well/Boring	Date Sampled	Depth (fbgs)	TPHd (mg/kg)	TPHg (mg/kg)	MTBE (mg/kg)	B (mg/kg)	T (mg/kg)	E (mg/kg)	X (mg/kg)
S-5-T2P	---	04/28/87	5.0	---	1,735	---	0.54	0.77	2.1	10
S-5-T3F	---	04/28/87	5.0	---	1,936	---	0.61	0.5	1.7	6.3
S-5-T3P	---	04/28/87	5.0	---	5,995	---	<0.01	0.035	0.015	0.039
S-5-WOT	---	04/28/87	5.0	<5	---	---	0.21	<0.2	0.6	2.7
S-8-N	---	05/05/87	8.0	---	96.8	---	---	---	---	---
S-10-E	---	05/05/87	10.0	---	186.6	---	---	---	---	---
S-7-S	---	05/05/87	7.0	---	13.55	---	---	---	---	---
S-6-W	---	05/05/87	6.0	---	8.69	---	---	---	---	---
S-16-S	---	05/06/87	16.0	---	0.86	---	---	---	---	---
Old Tank Pit Samples (cont.)										
S1	---	05/14/87	14.0	c	c	c	c	c	c	c
S2	---	05/14/87	14.0	c	c	c	c	c	c	c
S-14EE	---	05/15/87	14.0	---	---	---	20	40	60	180
New Tank Pit Excavation										
S-12-TPW1	---	01/15/91	12.0	<10	6.2	---	<0.005	0.010	0.18	0.31
S-8-TPW2	---	01/15/91	8.0	<10	6.5	---	<0.005	<0.005	0.25	0.41
S-12-TPW4	---	01/15/91	12.0	<10	<1.0	---	<0.005	<0.005	<0.005	<0.005
S-8-TPW5	---	01/15/91	8.0	<10	<1.0	---	<0.005	<0.005	<0.005	<0.005
S-4-TPW6	---	01/15/91	4.0	<10	<1.0	---	<0.005	<0.005	<0.005	<0.005
S-8-TPW8	---	01/15/91	8.0	<10	53	---	<0.005	0.053	0.48	0.70
S-4-TPW9	---	01/15/91	4.0	<10	<1.0	---	<0.005	<0.005	<0.005	0.010
S-12-TPW10	---	01/15/91	12.0	<10	19	---	<0.005	0.15	0.25	0.86
S-8-TPW11	---	01/15/91	8.0	<10	8.8	---	<0.005	0.017	0.13	0.36
S-4-TPW12	---	01/15/91	4.0	<10	<1.0	---	<0.005	<0.005	<0.005	0.012
S-15-TPF1	---	01/15/91	15.0	<10	1.1	---	<0.005	<0.005	0.016	0.078
S-15-TPF2	---	01/15/91	15.0	<10	12	---	<0.005	0.15	0.13	0.44
S-15-TPF3	---	01/15/91	15.0	<10	1.3	---	0.007	0.014	0.025	0.097
S-15-TPF4	---	01/15/91	15.0	<10	<1.0	---	<0.005	<0.005	<0.005	<0.005
Stockpile Soil Samples										
SP-1 (A-D)	---	12/15/06	---	270	3.6	<0.0050	<0.0050	<0.0050	<0.0050	<0.0050

TABLE 1A
CUMULATIVE SOIL SAMPLING DATA
Former Exxon Service Station 73006
720 High Street
Oakland, California

Notes:		
S-2-CPT1	=	Soil - Sample Depth - Sample Location.
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015B.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015B.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8021B.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method 8260B.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method 8260B.
1,2-DCA	=	1,2-Dichloroethane analyzed using EPA Method 8260B.
EDB	=	1,2-Dibromoethane analyzed using EPA Method 8260B.
DIPE	=	Di-isopropyl ether analyzed using EPA Method 8260B.
Ethanol	=	Ethanol analyzed using EPA Method 8260B.
Lead	=	Lead analyzed using EPA Method 6010B.
fbgs	=	Feet below ground surface.
mg/kg	=	Milligrams per kilogram.
<	=	Less than the stated reporting limit.
a	=	TPHd result is not consistent with diesel fuel.
b	=	Hydrocarbons greater than C22 were detected, and 460 mg/kg of Oil and Grease analyzed using SM5520 were detected.
c	=	Data missing from historical files.

TABLE 1B
ADDITIONAL CUMULATIVE SOIL SAMPLING DATA
Former Exxon Service Station 73006
720 High Street
Oakland, California

Sample Location	Date Sampled	Depth (fbgs)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	DIPE (mg/kg)	Ethanol (mg/kg)	Lead (mg/kg)
Monitoring Wells										
Soil samples from monitoring wells not analyzed for these analytes.										
Soil Borings										
Soil samples from borings B1 through B37 not analyzed for these analytes.										
S-2-CPT1	04/06/05	2.0	<0.0020	<0.0020	<0.0502	<0.00201	<0.0020	<0.0020	---	---
S-4-CPT1	04/06/05	4.0	<0.0020	<0.0020	<0.0501	<0.00200	<0.0020	<0.0020	---	---
S-6-CPT1	04/06/05	6.0	<0.0020	<0.0020	<0.0497	<0.00199	<0.0020	<0.0020	---	---
S-2-CPT2	04/07/05	2.0	<0.0020	<0.0020	<0.0504	<0.00202	<0.0020	<0.0020	---	---
S-4-CPT2	04/07/05	4.0	<0.0020	<0.0020	<0.0502	<0.00201	<0.0020	<0.0020	---	---
S-6-CPT2	04/07/05	6.0	<0.0020	<0.0020	<0.0501	<0.00200	<0.0020	<0.0020	---	---
S-8-CPT2	04/07/05	8.0	<0.0020	<0.0020	<0.0500	<0.00200	<0.0020	<0.0020	---	---
S-2-CPT3	04/07/05	2.0	<0.0020	<0.0020	<0.0498	<0.00199	<0.0020	<0.0020	---	---
S-4-CPT3	04/07/05	4.0	<0.0020	<0.0020	<0.0496	<0.00198	<0.0020	<0.0020	---	---
S-6-CPT3	04/07/05	6.0	<0.0020	<0.0020	<0.0501	<0.00200	<0.0020	<0.0020	---	---
S-8-CPT3	04/07/05	8.0	<0.0020	<0.0020	<0.0502	<0.00201	<0.0020	<0.0020	---	---
S-2-CPT4	04/07/05	2.0	<0.0020	<0.0020	<0.0496	<0.00198	<0.0020	<0.0020	---	---
S-4-CPT4	04/07/05	4.0	<0.0020	<0.0020	<0.0505	<0.00202	<0.0020	<0.0020	---	---
S-6-CPT4	04/07/05	6.0	<0.0020	<0.0020	<0.0500	<0.00200	<0.0020	<0.0020	---	---
S-8-CPT4	04/07/05	8.0	<0.0020	<0.0020	0.0567	<0.00199	<0.0020	<0.0020	---	---
S-2-CPT5	04/07/05	2.0	<0.0020	<0.0020	<0.0497	<0.00199	<0.0020	<0.0020	---	---
S-4-CPT5	04/07/05	4.0	<0.0020	<0.0020	<0.0501	<0.00200	<0.0020	<0.0020	---	---
S-6-CPT5	04/07/05	6.0	<0.0020	<0.0020	<0.0495	<0.00198	<0.0020	<0.0020	---	---
S-8-CPT5	04/07/05	8.0	<0.0020	<0.0020	<0.0499	<0.00200	<0.0020	<0.0020	---	---
S-2-CPT6	04/06/05	2.0	<0.0020	<0.0020	<0.0499	<0.00200	<0.0020	<0.0020	---	---
S-4-CPT6	04/06/05	4.0	<0.0020	<0.0020	<0.0502	<0.00201	<0.0020	<0.0020	---	---
S-6-CPT6	04/06/05	6.0	<0.0020	<0.0020	<0.0504	<0.00202	<0.0020	<0.0020	---	---
S-8-CPT6	04/06/05	8.0	<0.0020	<0.0020	<0.0502	<0.00201	<0.0020	<0.0020	---	---
S-5-CPT7	12/11/06	5.0	<0.00500	<0.00200	<0.0500	<0.00200	<0.00200	<0.00200	---	---
S-5-CPT11	12/12/06	5.0	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.10	---
S-5-CPT12	12/11/06	5.0	<0.00500	<0.00200	<0.0500	<0.00200	<0.00200	<0.00200	---	---

TABLE 1B
ADDITIONAL CUMULATIVE SOIL SAMPLING DATA
Former Exxon Service Station 73006
720 High Street
Oakland, California

Sample Location	Date Sampled	Depth (fbgs)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	DIPE (mg/kg)	Ethanol (mg/kg)	Lead (mg/kg)
Soil Borings (cont.)										
S-2-DP1	04/07/05	2.0	<0.0020	<0.0020	<0.0504	<0.00202	<0.0020	<0.0020	---	---
S-4-DP1	04/07/05	4.0	<0.0020	<0.0020	<0.0502	<0.00201	<0.0020	<0.0020	---	---
S-6-DP1	04/07/05	6.0	<0.0020	<0.0020	<0.0496	<0.00198	<0.0020	<0.0020	---	---
S-8-DP1	04/07/05	8.0	<0.100	<0.100	<2.50	<0.100	<0.100	<0.100	---	---
S-10.5-DP1	04/14/05	10.5	<0.0020	<0.0020	<0.0500	<0.00200	<0.0020	<0.0020	---	---
S-2-DP3	04/06/05	2.0	<0.0020	<0.0020	<0.0504	<0.00202	<0.0020	<0.0020	---	---
S-4-DP3	04/06/05	4.0	<0.0020	<0.0020	<0.0502	<0.00201	<0.0020	<0.0020	---	---
S-6-DP3	04/06/05	6.0	<0.0020	<0.0020	<0.0501	<0.00200	<0.0020	<0.0020	---	---
S-8-DP3	04/06/05	8.0	<0.0020	<0.0020	<0.0502	<0.00201	<0.0020	<0.0020	---	---
S-9.5-DP3	04/14/05	9.5	<0.0020	<0.0020	<0.0496	<0.00198	<0.0020	<0.0020	---	---
S-12-DP3	04/14/05	12.0	<0.0020	<0.0020	<0.0496	<0.00198	<0.0020	<0.0020	---	---
S-2-DP4	04/07/05	2.0	<0.0020	<0.0020	<0.0498	<0.00199	<0.0020	<0.0020	---	---
S-4-DP4	04/07/05	4.0	<0.0020	<0.0020	<0.0503	<0.00201	<0.0020	<0.0020	---	---
S-6-DP4	04/07/05	6.0	<0.0020	<0.0020	<0.0498	<0.00199	<0.0020	<0.0020	---	---
S-8-DP4	04/07/05	8.0	<0.0020	<0.0020	<0.0497	<0.00199	<0.0020	<0.0020	---	---
S-10.5-DP4	04/14/05	10.5	<0.0020	<0.0020	<0.0502	<0.00201	<0.0020	<0.0020	---	---
S-2-DP5	04/07/05	2.0	<0.0020	<0.0020	<0.0496	<0.00198	<0.0020	<0.0020	---	---
S-4-DP5	04/07/05	4.0	<0.0020	<0.0020	<0.0498	<0.00199	<0.0020	<0.0020	---	---
S-6-DP5	04/07/05	6.0	<0.0020	<0.0020	<0.0501	<0.00200	<0.0020	<0.0020	---	---
S-8-DP5	04/07/05	8.0	<0.0020	<0.0020	<0.0500	<0.00200	<0.0020	<0.0020	---	---
S-10.5-DP5	04/14/05	10.5	<0.0020	<0.0020	<0.0501	<0.00200	<0.0020	<0.0020	---	---
S-2-DP6	04/06/05	2.0	<0.0020	<0.0020	<0.0500	<0.00200	<0.0020	<0.0020	---	---
S-4-DP6	04/06/05	4.0	<0.0020	<0.0020	<0.0498	<0.00199	<0.0020	<0.0020	---	---
S-6-DP6	04/06/05	6.0	<0.0020	<0.0020	<0.0498	<0.00199	<0.0020	<0.0020	---	---

TABLE 1B
ADDITIONAL CUMULATIVE SOIL SAMPLING DATA
Former Exxon Service Station 73006
720 High Street
Oakland, California

Sample Location	Date Sampled	Depth (fbgs)	ETBE (mg/kg)	TAME (mg/kg)	TBA (mg/kg)	1,2-DCA (mg/kg)	EDB (mg/kg)	DIPE (mg/kg)	Ethanol (mg/kg)	Lead (mg/kg)
Soil Borings (cont.)										
S-5-DP7	12/08/06	5.0	<0.00500	<0.00200	<0.0500	<0.00200	<0.00200	<0.00200	---	---
S-10-DP7	12/14/06	10.0	<0.050	<0.050	<0.20	<0.050	<0.050	<0.050	<1.0	---
S-15.5-DP7	12/14/06	15.5	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.10	---
S-20-DP7	12/14/06	20.0	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.10	---
S-25.5-DP7	12/14/06	25.5	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.10	---
S-29.5-DP7	12/14/06	29.5	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.10	---
S-5-DP8	12/08/06	5.0	<0.00500	<0.00200	<0.0500	<0.00200	<0.00200	<0.00200	---	---
S-10-DP8	12/14/06	10.0	<0.050	<0.050	<0.20	<0.050	<0.050	<0.050	<1.0	---
S-15-DP8	12/14/06	15.0	<0.050	<0.050	<0.20	<0.050	<0.050	<0.050	<1.0	---
S-19.5-DP8	12/14/06	19.5	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.10	---
S-29.5-DP8	12/14/06	29.5	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.10	---
S-5-DP9	12/11/06	5.0	<0.00500	<0.00200	<0.0500	<0.00200	<0.00200	<0.00200	---	---
S-9.5-DP9	12/15/06	9.5	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.10	---
S-14.5-DP9	12/15/06	14.5	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.10	---
S-20-DP9	12/15/06	20.0	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.10	---
S-25.5-DP9	12/15/06	25.5	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.10	---
S-29.5-DP9	12/15/06	29.5	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.10	---
S-5-HP7	12/11/06	5.0	<0.00500	<0.00200	<0.0500	<0.00200	<0.00200	<0.00200	---	---
S-5-HP11	12/12/06	5.0	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.10	---
S-5-HP12	12/12/06	5.0	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.10	---
Product Line Trench Samples										
Soil samples from product line trench not analyzed for these analytes.										
Old Tank Pit Samples										
Soil samples collected from old tank pit excavation not analyzed for these analytes.										
New Tank Pit Excavation										
Soil samples collected from new tank pit excavation not analyzed for these analytes.										
Stockpile Soil Samples										
SP-1 (A-D)	12/15/06	---	<0.0050	<0.0050	<0.020	<0.0050	<0.0050	<0.0050	<0.10	12

TABLE 1B
ADDITIONAL CUMULATIVE SOIL SAMPLING DATA
Former Exxon Service Station 73006
720 High Street
Oakland, California

Notes:		
S-2-CPT1	=	Soil - Sample Depth - Sample Location.
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using EPA Method 8015B.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using EPA Method 8015B.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8021B.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method 8260B.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method 8260B.
1,2-DCA	=	1,2-Dichloroethane analyzed using EPA Method 8260B.
EDB	=	1,2-Dibromoethane analyzed using EPA Method 8260B.
DIPE	=	Di-isopropyl ether analyzed using EPA Method 8260B.
Ethanol	=	Ethanol analyzed using EPA Method 8260B.
Lead	=	Lead analyzed using EPA Method 6010B.
fbgs	=	Feet below ground surface.
mg/kg	=	Milligrams per kilogram.
<	=	Less than the stated reporting limit.
a	=	TPHd result is not consistent with diesel fuel.
b	=	Hydrocarbons greater than C22 were detected, and 460 mg/kg of Oil and Grease analyzed using SM5520 were detected.
c	=	Data missing from historical files.

TABLE 2
CUMULATIVE ANALYTICAL RESULTS OF GRAB GROUNDWATER SAMPLES
Former Exxon Service Station 73006
720 High Street
Oakland, California

Sample ID	Depth (fbgs)	Date Sampled	TPHd (µg/L)	TPHg (µg/L)	MTBE (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	ETBE (µg/L)	TAME (µg/L)	TBA (µg/L)	EDB (µg/L)	1,2-DCA (µg/L)	DIPE (µg/L)	Ethanol (µg/L)
CPT Borings																
W-18-CPT1	18	04/12/05	187a	<50.0	1.00	<0.50	<0.5	<0.5	<0.5	<0.50	<0.50	<10.0	<0.50	<0.50	<0.50	---
W-10-CPT2	10	04/13/05	---	1,060,000	85.0	1,380	1,280	400	4,340	<5.00	<5.00	<100	<5.00	<5.00	18.0	---
W-26-CPT2	26	04/13/05	283a	240	299	<0.50	<0.5	<0.5	<0.5	<0.50	<0.50	<10.0	<0.50	<0.50	<0.50	---
W-10-CPT3	10	04/13/05	76,800	358	107	<0.50	<0.5	<0.5	1.1	<0.50	<0.50	<10.0	<0.50	<0.50	<0.50	---
W-29-CPT3	29	04/13/05	450a	1,240	1.80	<0.50	<0.5	<0.5	<0.5	<0.50	<0.50	<10.0	<0.50	<0.50	<0.50	---
W-10-CPT4	10	04/12/05	15,700a	10,600	129	233	17.0	557	83.0	<0.50	<0.50	<10.0	<0.50	<0.50	<0.50	---
W-24-CPT4	24	04/12/05	377a	171	48.3	0.50	<0.5	2.5	2.9	<0.50	<0.50	<10.0	<0.50	7.60	<0.50	---
W-10-CPT5	10	04/12/05	5,520a	2,200	<0.50	13.2	2.5	5.7	2.2	<0.50	<0.50	<10.0	<0.50	<0.50	<0.50	---
W-10-CPT6	10	04/11/05	1,110a	570	<0.50	<0.50	<0.5	<0.5	1.0	<0.50	<0.50	<10.0	<0.50	<0.50	<0.50	---
W-30-CPT6	30	04/11/05	---	177	<0.50	<0.50	<0.5	<0.5	<0.5	<0.50	<0.50	<10.0	<0.50	<0.50	<0.50	---
W-30-CPT6	30	04/12/05	473a	---	---	---	---	---	---	---	---	---	---	---	---	---
Direct-Push Borings																
W-12-DP1	12	04/14/05	23,000a	30,000	146	1,700	250	770	4,980	<0.50	4.80	138	<0.50	<0.50	<0.50	---
W-12-DP3	12	04/14/05	11,100a	2,200	<0.50	12.6	5.7	2.3	13.8	<0.50	<0.50	<10.0	<0.50	<0.50	<0.50	---
W-12-DP4	12	04/14/05	20,200a	42,400	13.4	7,000	260	4,760	1,720	<0.50	<0.50	<10.0	<0.50	<0.50	<0.50	---
W-12-DP5	12	04/14/05	182,000	32,100	18.7	2,890	96.0	336	186	<0.50	<0.50	<10.0	<0.50	<0.50	0.60	---
W-12-DP6	12	04/14/05	338a	<50.0	<0.50	<0.50	<0.5	<0.5	<0.5	<0.50	<0.50	<10.0	<0.50	<0.50	<0.50	---
W-30-DP9	30	12/15/06	430a	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.50	<0.50	<0.50	<100
Hydropunch® Borings																
W-13-HP7	13	12/12/06	570a	<50	1.1	11	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<0.50	<0.50	<0.50	<100
W-30-HP11	30	12/13/06	<50	<50	3.9	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.50	<0.50	<0.50	<100
W-13.5-HP12	13.5	12/13/06	<62	<50	1.6	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.50	<0.50	<0.50	<100
W-31-HP12	31	12/13/06	<55	<50	17	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<20	<0.50	1.3	<0.50	<100

TABLE 2

CUMULATIVE ANALYTICAL RESULTS OF GRAB GROUNDWATER SAMPLES

Former Exxon Service Station 73006
720 High Street
Oakland, California

Notes:

W-2-CPT1	=	Water - Sample Depth - Boring Number.
TPHd	=	Total petroleum hydrocarbons as diesel analyzed using modified EPA Method 8015B.
TPHg	=	Total petroleum hydrocarbons as gasoline analyzed using modified EPA Method 8015B.
MTBE	=	Methyl tertiary butyl ether analyzed using EPA Method 8260B.
BTEX	=	Benzene, toluene, ethylbenzene, and total xylenes analyzed using EPA Method 8260B. Prior to 12/12/06, analyzed using EPA Method 8021B.
ETBE	=	Ethyl tertiary butyl ether analyzed using EPA Method 8260B.
TAME	=	Tertiary amyl methyl ether analyzed using EPA Method 8260B.
TBA	=	Tertiary butyl alcohol analyzed using EPA Method 8260B.
1,2-DCA	=	1,2-Dichloroethane analyzed using EPA Method 8260B.
EDB	=	1,2-Dibromoethane analyzed using EPA Method 8260B.
DIPE	=	Di-isopropyl ether analyzed using EPA Method 8260B.
Ethanol	=	Ethanol analyzed using EPA Method 8260B.
fbgs	=	Feet below ground surface.
µg/L	=	Micrograms per liter.
<	=	Less than the stated reporting limit.
---	=	Not analyzed/Not sampled.
a	=	TPHd result is not consistent with diesel fuel.

APPENDIX A

CORRESPONDENCE

July 24, 2006

Ms. Jennifer Sedlachek
ExxonMobil Refining & Supply – Global Remediation
4096 Piedmont Avenue #194
Oakland, CA 94611

Mr. Mohammad Mashhoon
Mash Petroleum Inc.
5725 Thornhill Drive
Oakland, CA 94611

Mr. Victor Chu
3915 Forest Hill Avenue
Oakland, CA 94602

Subject: Fuel Leak Case No. RO0000491, Exxon #7-3006, 720 High Street, Oakland, CA 94601

Dear Ms. Sedlachek: Mr. Mashhoon and Chu

Alameda County Environmental Health Department (ACEH) staff has reviewed the recently submitted reports entitled, "Groundwater Monitoring Report, First Quarter 2006", and "Work Plan for Additional Soil and Groundwater Investigation", dated March 31 and March 29 2006, respectively and prepared on your behalf by Environmental Resolutions Inc. (ERI). ACEH agrees with the need for additional on-site and off-site soil and groundwater investigation in order to properly characterize soil and groundwater contamination issues on site and immediately downgradient of the site.

Currently, elevated concentrations of petroleum hydrocarbons occur throughout the site, of particular concern is groundwater in the southwest portion of the site in the vicinity of DP-4 and DP-5. During the April 2005 investigation groundwater samples collected for these two borings tested 42,400 and 32,100 µg/L for TPHg, respectively. In addition, the April 2005 investigation detected groundwater contamination off site at maximum concentrations of 1,060,000 µg/L TPHg, which are indicative of free product, from a grab groundwater sample collected at soil boring CPT-2. Moreover, at a depth of 26 feet bgs groundwater contamination was also discovered in boring CPT-2. While groundwater samples collected at 29 feet bgs from boring CPT-3 tested 1,240 µg/L TPHg, suggesting that the vertical extent of contamination has not been delineated. Please see the technical comments below regarding the proposed work plan implementation.

We request that you perform the proposed work address the following technical comments and send us the reports described below. Please provide 72-hour advance written notification to this office (e-mail preferred to steven.plunkett@acgov.org) prior to the start of field activities.

TECHNICAL COMMENTS

1. **Proposed Soil Boring Installation for Soil and Groundwater Sampling.** Current conditions along the southwest property line of the site indicate the presence of elevated concentrations of petroleum hydrocarbons in soil and groundwater, both on site and off site. The recent site investigation completed in April 2005 consisted of the installation of five on site direct push borings and four on site CPT borings. Results of the investigation determined that free phase petroleum hydrocarbons are present in the vicinity of CPT-2, and groundwater samples collected tested 1,060,000 µg/L TPHg. Additionally, according to the soil analytical data from the April 2005 investigation TPHg concentrations in on site borings DP-1, DP-4 and DP-5 appear to increase with depth, up to 10.5 feet bgs.

   ERI suggests that soil sampling be completed to a maximum depth of 20 feet bgs. However, considering that groundwater samples collected below 20 feet bgs. tested elevated concentrations of petroleum hydrocarbon, ACEH is concerned that the suggested maximum sampling depth will not adequately define the vertical extent of petroleum hydrocarbon contamination off site. Please describe your rational for choosing the maximum depth of 20 feet bgs. for soil sampling based on site hydrogeology, previous site investigations and soil and groundwater analytical results.

   Furthermore, limited soil analytical data has been collected at depths greater than 10 feet bgs. ACEH requests that off site soil characterization, including soil sampling and soil logging should be completed to total depth of at least 30 feet. ACEH recommends that during soil boring installation, soil samples should be screened with a PID and examined for visible staining and hydrocarbon odor. ACEH request that soil samples be collected as follows; any interval where staining, odor, or elevated PID readings occur, the capillary fringe, where groundwater is first encountered and distinct changes in lithology. If no change in lithology occur then collect samples at five foot intervals until a total depth is reached. The results of the proposed investigation are to be presented in the report requested below.

2. **CPT/Hydropunch Groundwater Sampling.** ACEH agrees with need for depth discrete groundwater sampling. Considering the results of the April 2005 investigation, of particular concern are the 1240 µg/L TPHg concentrations in CPT-3 at 29 feet bgs, 240 µg/L TPHg in CPT-2 at 26 feet bgs and 171 µg/L TPHg in CPT-4 at 24 feet bgs. ACEH recommends using the soil boring data to target discrete groundwater bearing zones and direct groundwater sampling activities accordingly. Please present the results of the investigation in the report requested below.

3. **Chemical Analysis.** ACEH concurs with the proposed chemical analyses for all soil and groundwater samples. We also request that EtOH be added to the list of constituents for laboratory analysis for both soil and groundwater.

4. **Survey of Potential Preferential Pathways**. Given the groundwater elevation in the area it is possible that utilities trenches may be acting as a preferential pathway to transmit petroleum hydrocarbon contamination downgradient of the site. In April 2004 a utility survey was conducted for the site; however, no determination was made as to whether the utilities were acting as a migration pathway for petroleum hydrocarbons downgradient of the site. ACEH agrees with the proposal to perform a conduit survey along Coliseum Way and evaluate the presence of preferential migration pathways. ACEH requests that one additional pothole location be added along Coliseum Way between DP-6 and DP-7. However, if it is not possible to collect groundwater samples as expected, we request that soil samples be

collected instead. Any soil or groundwater samples collected are to be analyzed for the suite of constituents as proposed by ERI, with the addition of EtOH. ACEH requests that the results from the survey of potential preferential pathways be presented in the report requested below. We request that you also use graphics to depict your results (maps, cross-sections, etc).

5. **Access Agreements.** ACEH will provide you with a standard letter requesting cooperation during the investigation and allowing access that can be sent to property owners you identify in the area that may be affected.

6. **Groundwater Monitoring Well Rehabilitation and Location.** Results of the most recent groundwater monitoring conducted in January 2006 demonstrate that groundwater contamination remains a concern at the site. In addition, free phase hydrocarbons have been detected in several on site monitoring wells including MW-4 and MW-12, which are currently covered with asphalt and inaccessible. The location of monitoring wells MW-4 and MW-12 is important because these monitoring wells define the northwest and southwest extent of the property. ACEH requests that every attempt be made to locate monitoring wells MW-4 and MW-12 and rehabilitate the wells if possible. If the monitoring wells are located and still in operable condition they should be redeveloped and included in future groundwater monitoring activities at the site. However, in the event that the wells cannot be rehabilitated the wells should be decommissioned in compliance with Alameda County Department of Public Works guidelines for well decommissioning. This work should be performed as part of the proposed site investigation and utility survey.

7. **Monitoring Well Installation.** Currently, five monitoring wells at the site have screen intervals that are at least 25 feet in length. Please explain the rational to define the vertical extent of groundwater contamination and to assess, based on site-specific conditions, whether the long screen wells provide accurate groundwater monitoring results, which may not be consistent with the collection of depth discrete groundwater samples due to various conditions that can occur within the well bore. ACEH suggests the use of monitoring wells designed with sand pack intervals of 2'-5 or less, as these wells will likely be representative of depth discrete groundwater conditions.

8. **Site Conceptual Model (SCM).** ACEH appreciate the submittal of the SCM from ExxonMobil. The current SCM should be combined with information obtained from the proposed soil and groundwater investigation, reflecting current conditions at the site. The SCM for this site is to incorporate, but not be limited to, the following:

   A. A concise narrative discussion of the regional geologic and hydrogeologic setting. Include a list of technical references you reviewed.

   B. A concise discussion of the on-site and off-site geology, hydrogeology, release source and history, secondary source areas, remediation status, risk assessment, plume migration, attenuation mechanisms, preferential pathways, and potential threat to downgradient receptors. The SCM shall include an analysis of the hydraulic flow system at and downgradient from the site, including potential vertical hydraulic gradients.

   C. Local and regional maps showing location of sources, extent of soil and groundwater contamination for appropriate depth intervals (i.e., an interpretive drawings and isoconcentration maps—not a plot of laboratory results), rose diagram of recent and historical groundwater gradients, and locations of receptors. "Receptors" include, but are

not limited to, all supply wells and surface water bodies within 2,000 feet of the source area, and all potentially impacted schools, hospitals, daycare facilities, residences, and other areas of heightened concern for vapor impacts.

D. Geologic cross-sections, which include an interpretive drawing of the vertical extent of soil and groundwater contamination (i.e., an interpretive drawing—not a plot of laboratory results). The SCM report requested below is to include one cross section parallel and one cross section perpendicular to the contaminant plume axis. Each cross section should include, but not be restricted to, the following:

    1. Subsurface geologic features, depth to groundwater and man-made conduits.
    2. Surface topography. The cross sections should be extended off-site where necessary to show significant breaks in slope.
    3. Soil descriptions for all borings and wells along the line of section.
    4. Screen and filter pack intervals for each monitoring well.
    5. Sampling locations and results for soil and grab groundwater samples.
    6. Site features such as the tank pit, dispensers, etc.
    7. Where appropriate, monitoring well location and soil boring locations will be projected back to the strike of the cross section line.

E. Temporal changes in the plume location and concentrations are also a key element of the SCM. In addition to providing a measure of the magnitude of the problem, these data are often useful to confirm details of the flow system inferred from the hydraulic head measurements.

F. Exposure evaluation flowchart (similar to Figure 2 in ASTM's Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites) and/or a graphical SCM (similar to Figure 1 in the Central Valley Regional Water Quality Control Board's Appendix A – Reports, Tri - Regional Board Staff Recommendations For Preliminary Investigation And Evaluation Of Underground Tank Sites, 16 April 2004).

G. Plots of chemical concentrations vs. time and vs. distance from the source. Plots should be shown for each monitoring well, which has had detectable levels of contaminants.

H. Summary tables of chemical concentrations in each historically sampled media (including soil, groundwater and soil vapor).

I. Boring and well logs (including construction/screening), and a summary table indicating construction specifications for each monitoring and extraction well.

J. Identification and listing of specific data gaps that require further investigation during subsequent phases of work.

Please report the information discussed above in your initial SCM and include it in the SCM Report requested below. Also Include updates to your SCM in subsequent reports.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Mr. Steven Plunkett), according to the following schedule:

- **August 30, 2006** – Soil and Groundwater Investigation Report with updated Site Conceptual Model

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

ELECTRONIC SUBMITTAL OF REPORTS

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program ftp site are provided on the attached "Electronic Report Upload (ftp) Instructions." Please do not submit reports as attachments to electronic mail.
Submission of reports to the Alameda County ftp site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. Submission of reports to the Geotracker website does not fulfill the requirement to submit documents to the Alameda County ftp site. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitor wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, electronic submittal of a complete copy of all necessary reports was required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/cleanup/electronic_reporting).

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "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." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to $10,000 per day for each day of violation.

If you have any questions, please call me at (510) 383-1767.

Sincerely,

Steven Plunkett
Hazardous Materials Specialist

cc: Ms. Paula Sime
Environmental Resolutions Inc.
601 North McDowell Boulevard
Petaluma, CA 94954

Donna Drogos, ACEH
Steven Plunkett, ACEH
File

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway
Alameda, CA 94502-6577
(510) 567-6700
Fax (510) 337-9335

RO0000491

June 7, 2005

Ms. Jennifer C. Sedlachek
ExxonMobil Corporation
4096 Peidmont Ave. #194
Oakland, CA 94611

Re: Former Exxon Service Station 7-3006, 720 High St., Oakland CA 94601

Dear Ms. Sedlachek:

Alameda County Environmental Health has received and reviewed the "May 24, 2005, Site Conceptual Model report", by Mr. James F. Chappell of Environmental Resolution Inc., and other documents regarding the above referenced site. As you are aware, there have been several meetings and discussions with you and or your representatives as well as with Mr. Mashoon, the current property owner, regarding the above referenced site. We request that you address the following technical comments, perform the proposed work, and send us the technical reports requested below.

TECHNICAL COMMENTS

- There has been some reduction in the concentrations of the CoCs.
- Additional work regarding the plume delineation work should concentrate on the south, west, and southwest areas for CoCs.
- As you are aware, it is still unclear whether the utility trenches provide any preferential pathway for the plume. Further investigation is necessary to determine this possibility.
- Further investigation of the site is necessary to address the litho logical discrepancies revealed by CPTs versus well logs and soil borings in the past.
- Please submit a workplan to address all the above issues.
- Further refinement of the Site Conceptual Model must be performed after the above issues are addressed.

TECHNICAL REPORT REQUEST

Please submit the following technical reports to Alameda County Department of Environmental Health (Attention: Amir K. Gholami):

July 7, 2005 Work Plan

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "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." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

Professional Certification

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

Should you have any questions, please do not hesitate to call me at 510-567-6876.

Sincerely,

Amir K. Gholami, REHS
Hazardous Materials Specialist

C: Mr. James F. Chappell, ERI, 73 Digital Drive, Suite 100, Novato, CA 94949-5791
Mr. M. Mashhoon, Mash Petroleum, Inc., 1721 Jefferson Street, Oakland, CA 94612
D. Drogos, A. Gholami

APPENDIX B

CROSS SECTIONS AND HISTORICAL PLATES

Analyte Concentrations in ug/L
Sampled October 6 and December 12 through 15, 2006

5,300 Total Petroleum Hydrocarbons as diesel
360 Total Petroleum Hydrocarbons as gasoline
3.8 Benzene
9.7 Methyl Tertiary Butyl Ether (EPA Method 8260B)

< Less Than the Stated Laboratory Reporting Limit
ug/L Micrograms per Liter

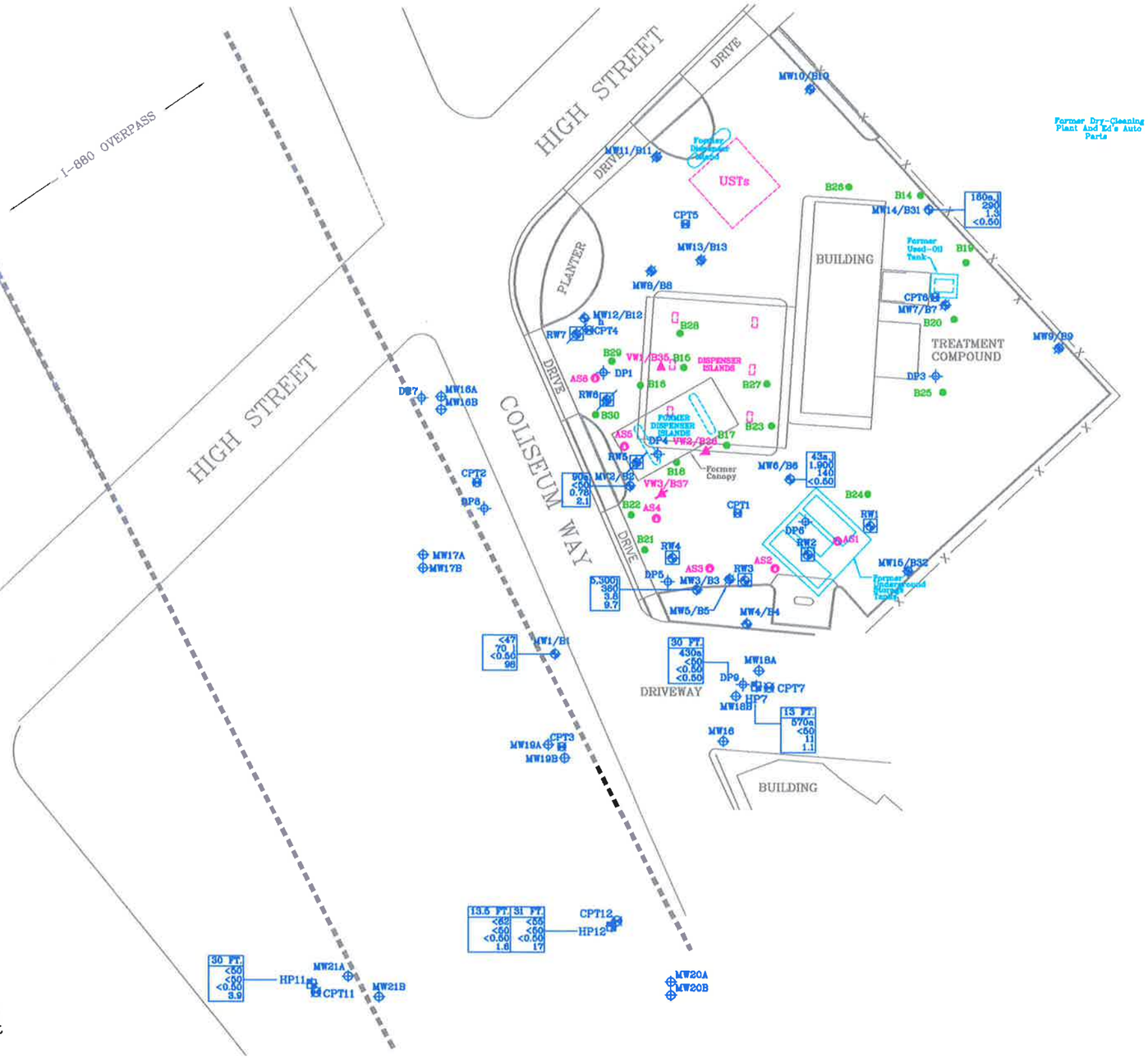
a TPHd result is not consistent with diesel fuel.

j Analyte detected in trip blank, method blank, and/or bailer blank; result is suspect.

h Well inaccessible.

l Elevated result due to single analyte peak in quantitation range.

NOTE:
DP7 and DP8 dry at 30', at completion of drilling.



APPROXIMATE SCALE
0 50 100 Feet

FN 08_R30 SAR GW_SP

ERI
VALUE, QUALITY, RESPONSE

SELECT GROUNDWATER ANALYTICAL RESULTS
October 6 and December 12 Through 15, 2006

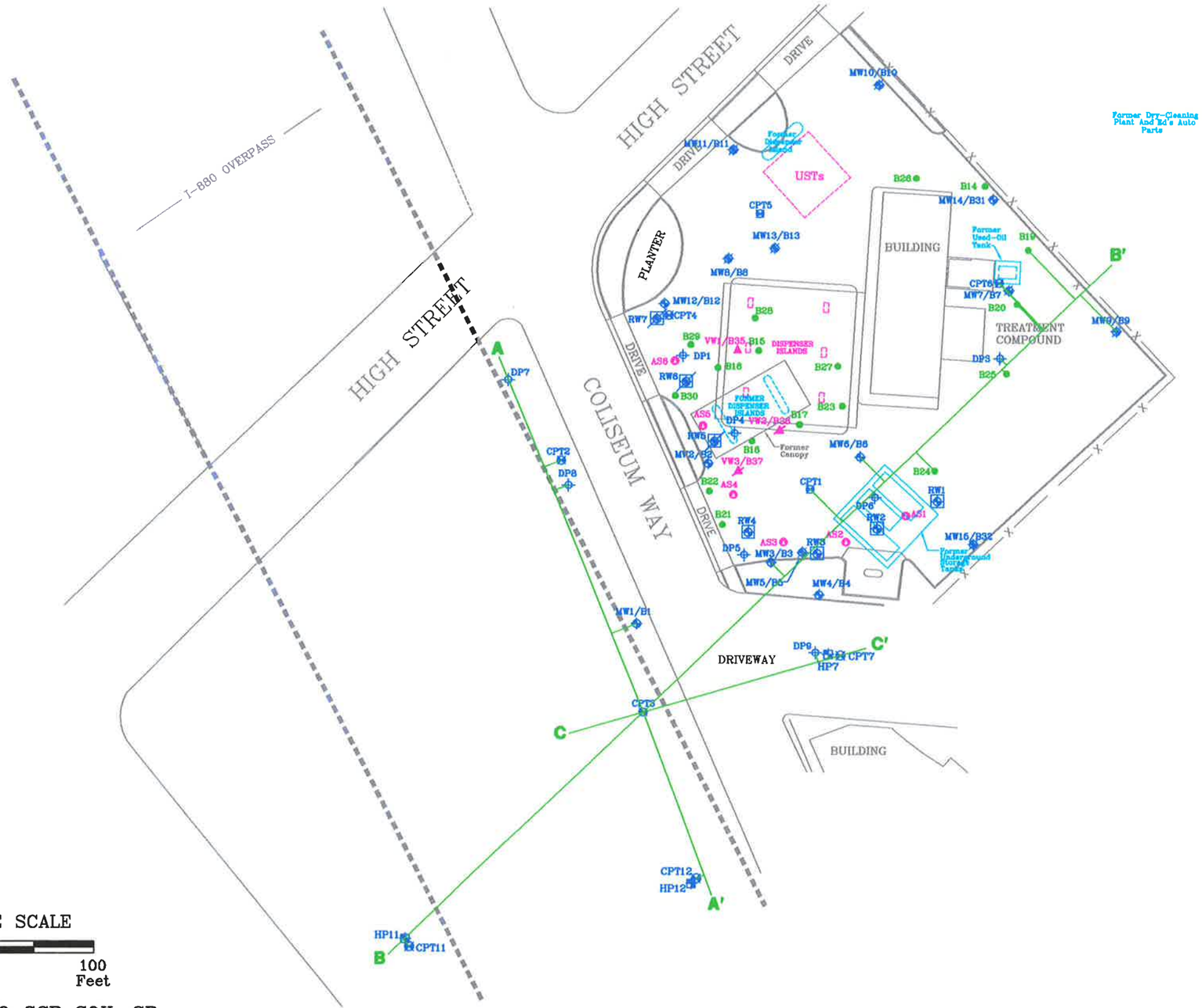
FORMER
EXXON SERVICE STATION 73006
720 High Street
Oakland, California

EXPLANATION

- MW14 Groundwater Monitoring Well
- B30 Soil Boring/Soil Sample
- AS6 Air Sparge Well
- RW4 Recovery Well
- DP9 Direct Push Boring
- CPT12 Cone Penetrometer Test Boring
- HP12 Hydropunch Boring
- VW1/B35 Soil Vapor Extraction Well
- RW7 Destroyed Recovery Well
- MW15 Destroyed Groundwater Monitoring Well
- VW3/B37 Soil Vapor Extraction Well
- MW21A Proposed Upper Groundwater Monitoring Well
- MW21B Proposed Lower Groundwater Monitoring Well

PROJECT NO.
2010

APPENDIX
B



APPROXIMATE SCALE

0 50 100 Feet

FN 2010 08 R30 GSP SOIL_SP

C C' Cross Section Locations

ERI
VALUE, QUALITY, RESPONSE

CROSS SECTION LOCATIONS

FORMER
EXXON SERVICE STATION 73006
720 High Street
Oakland, California

EXPLANATION

- MW14 Groundwater Monitoring Well
- B30 Soil Boring/Soil Sample
- AS6 Air Sparge Well
- RW4 Recovery Well
- DP9 Direct Push Boring
- CPT12 Cone Penetrometer Test Boring
- HP12 Hydropunch Boring
- VW1/B35 Soil Vapor Extraction Well
- RW7 Destroyed Recovery Well
- MW15 Destroyed Groundwater Monitoring Well
- VW3/B37 Soil Vapor Extraction Well

PROJECT NO.
2010

APPENDIX
B

Analyte Concenterations in mg/kg

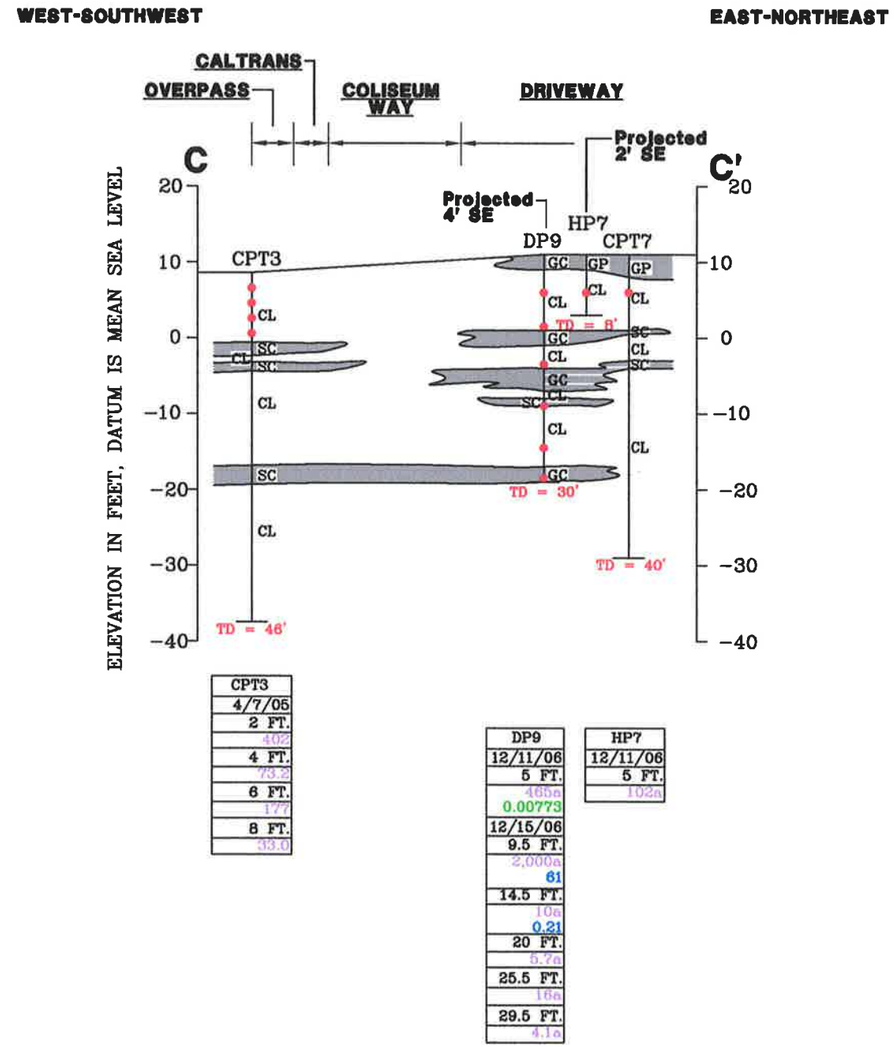
12/15/06	Sample Date
9.5 FT.	Sample Depth
2,000a	Total Petroleum Hydrocarbons as diesel
61	Total Petroleum Hydrocarbons as gasoline
---	Benzene

FT. Feet

< Less Than the Stated Laboratory Reporting Limit

mg/kg Milligrams per kilogram

a TPHd result is not consistent with diesel fuel.



CPT3
4/7/05
2 FT.
402
4 FT.
73.2
6 FT.
177
8 FT.
33.0

DP9
12/11/06
5 FT.
465a
0.00773
12/15/06
9.5 FT.
2,000a
61
14.5 FT.
10a
0.21
20 FT.
5.7a
25.5 FT.
16a
29.5 FT.
4.1a

HP7
12/11/06
5 FT.
102a

20
0
40
feet

Vertical Exaggeration x2

FN 2010 08 R30 XS C-C' SOIL

VALUE, QUALITY, RESPONSE

CROSS SECTION C-C'
VERTICAL LIMITS OF RESIDUAL HYDROCARBONS IN SOIL

FORMER
EXXON SERVICE STATION 73006
720 High Street
Oakland, California

EXPLANATION

Coarse-grained sediments (Including SC, SM, and GC. Also includes select layers, desingated silt on the CPT logs, interpreted to be coarser water-bearing sidiments based on the presence of groundwater and stratigrafic correlation with sand layers in the DP borings.)

Fine-grained sediments (Including, CL, CH, and ML.)

TD = Total Depth

Sample Depth

PROJECT NO. 2010

APPENDIX B

Analyte Concenterations in ug/L

4/13/05	Sample Date
10 FT.	Sample Depth
76,800	Total Petroleum Hydrocarbons as diesel
358	Total Petroleum Hydrocarbons as gasoline
<	Benzene
107	Methyl Tertiary Butyl Ether

FT. Feet

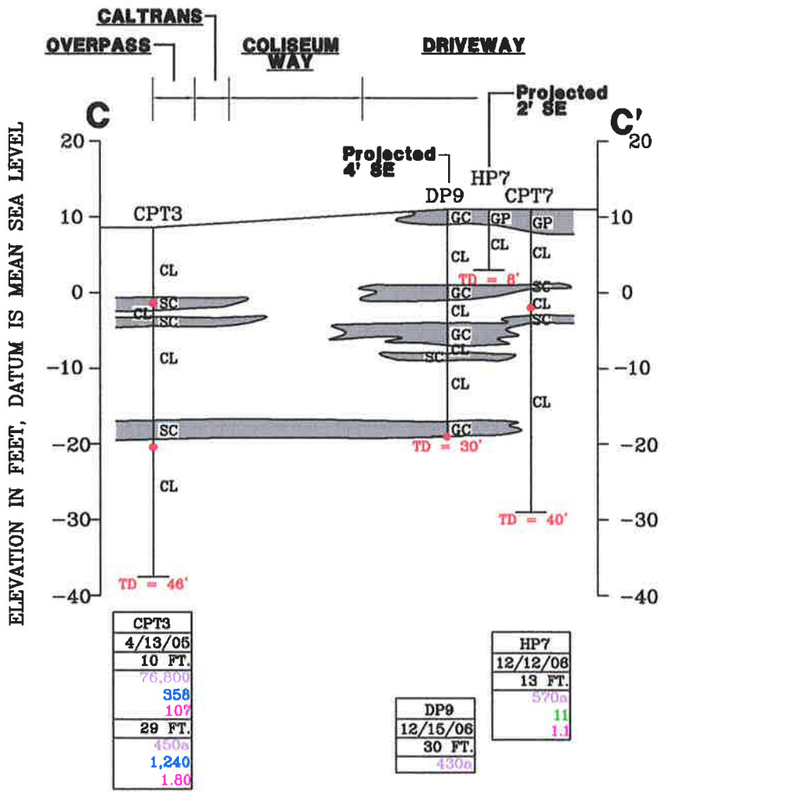
< Less Than the Stated Laboratory Reporting Limit

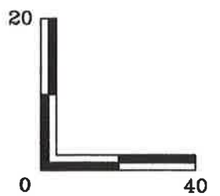
ug/L Micrograms per Liter

a TPHd result is not consistent with diesel fuel.

WEST-SOUTHWEST

EAST-NORTHEAST





Vertical Exaggeration x2

FN 2010 08 R30 XS C-C' GW

ERI

VALUE, QUALITY, RESPONSE

CROSS SECTION C-C'
VERTICAL LIMITS OF DISSOLVED HYDROCARBON IN GROUNDWATER
FORMER
EXXON SERVICE STATION 73006
720 High Street
Oakland, California

EXPLANATION

Coarse-grained sediments (Including SC, SM, and GC. Also includes select layers, desingated silt on the CPT logs, interpreted to be coarser water-bearing sidiments based on the presence of groundwater and stratigrafic correlation with sand layers in the DP borings.)

Fine-grained sediments (Including, CL, CH, and ML.)

TD = Total Depth

• Sample Depth

PROJECT NO.
2010

APPENDIX
B

Analyte Concenterations in mg/kg

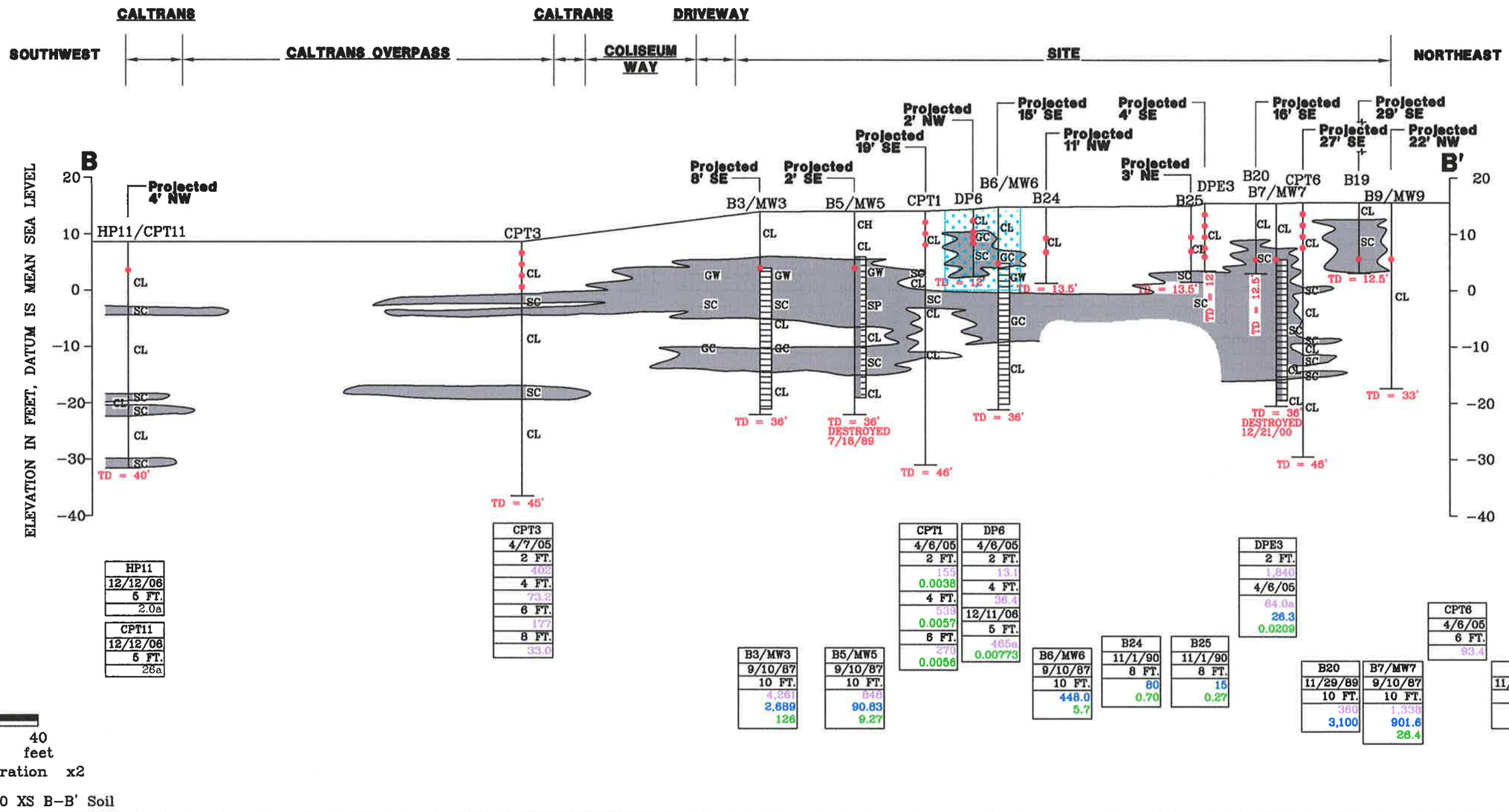
9/10/87	Sample Date
10 FT.	Sample Depth
4,261	Total Petroleum Hydrocarbons as diesel
2,689	Total Petroleum Hydrocarbons as gasoline
126	Benzene

FT. Feet

< Less Than the Stated Laboratory Reporting Limit

mg/kg Milligrams per kilogram

a TPHd result is not consistent with diesel fuel.



Vertical Exaggeration x2

FN 2010 08 R30 XS B–B' Soil

ERI
VALUE, QUALITY, RESPONSE

CROSS SECTION B-B'
VERTICAL LIMITS OF RESIDUAL HYDROCARBONS IN SOIL
FORMER
EXXON SERVICE STATION 73006
720 High Street
Oakland, California

EXPLANATION

Coarse-grained sediments (including SC, SM, and GC. Also includes select layers, desingated silt on the CPT logs, interpreted to be coarser water-bearing sidiments based on the presence of groundwater and stratigrafic correlation with sand layers in the DP borings.)

Fine-grained sediments (including, CL, CH, and ML.)

Former UST Basin

TD = Total Depth

Sample Depth

PROJECT NO.
2010

APPENDIX
B

Analyte Concenterations in ug/L

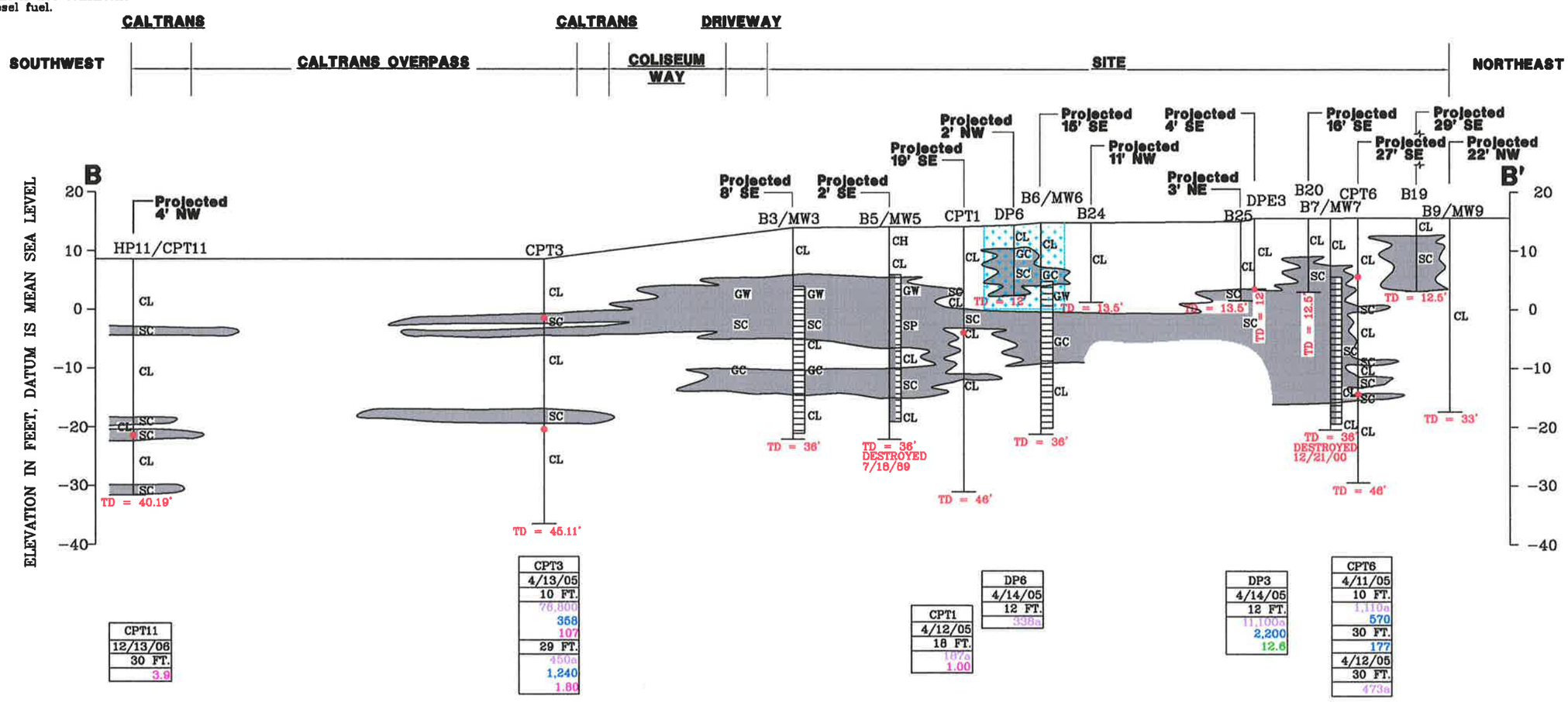
4/13/05	Sample Date
10 FT.	Sample Depth
76,800	Total Petroleum Hydrocarbons as diesel
358	Total Petroleum Hydrocarbons as gasoline
<	Benzene
107	Methyl Tertiary Butyl Ether

FT. Feet

< Less Than the Stated Laboratory Reporting Limit

ug/L Micrograms per Liter

a TPHd result is not consistent with diesel fuel.



FN 2010 08 R30 XS B-B' GW

ERI
VALUE, QUALITY, RESPONSE

CROSS SECTION B-B'
VERTICAL LIMITS OF DISSOLVED HYDROCARBONS IN GROUNDWATER

FORMER
EXXON SERVICE STATION 73006
720 High Street
Oakland, California

EXPLANATION

Coarse-grained sediments (including SC, SM, and GC. Also includes select layers, desingated silt on the CPT logs, interpreted to be coarser water-bearing sidiments based on the presence of groundwater and stratigrafic correlation with sand layers in the DP borings.)

Fine-grained sediments (including, CL, CH, and ML.)

Former UST Basin

TD = Total Depth

Sample Depth

PROJECT NO.
2010

APPENDIX
B

Analyte Concenterations in mg/kg

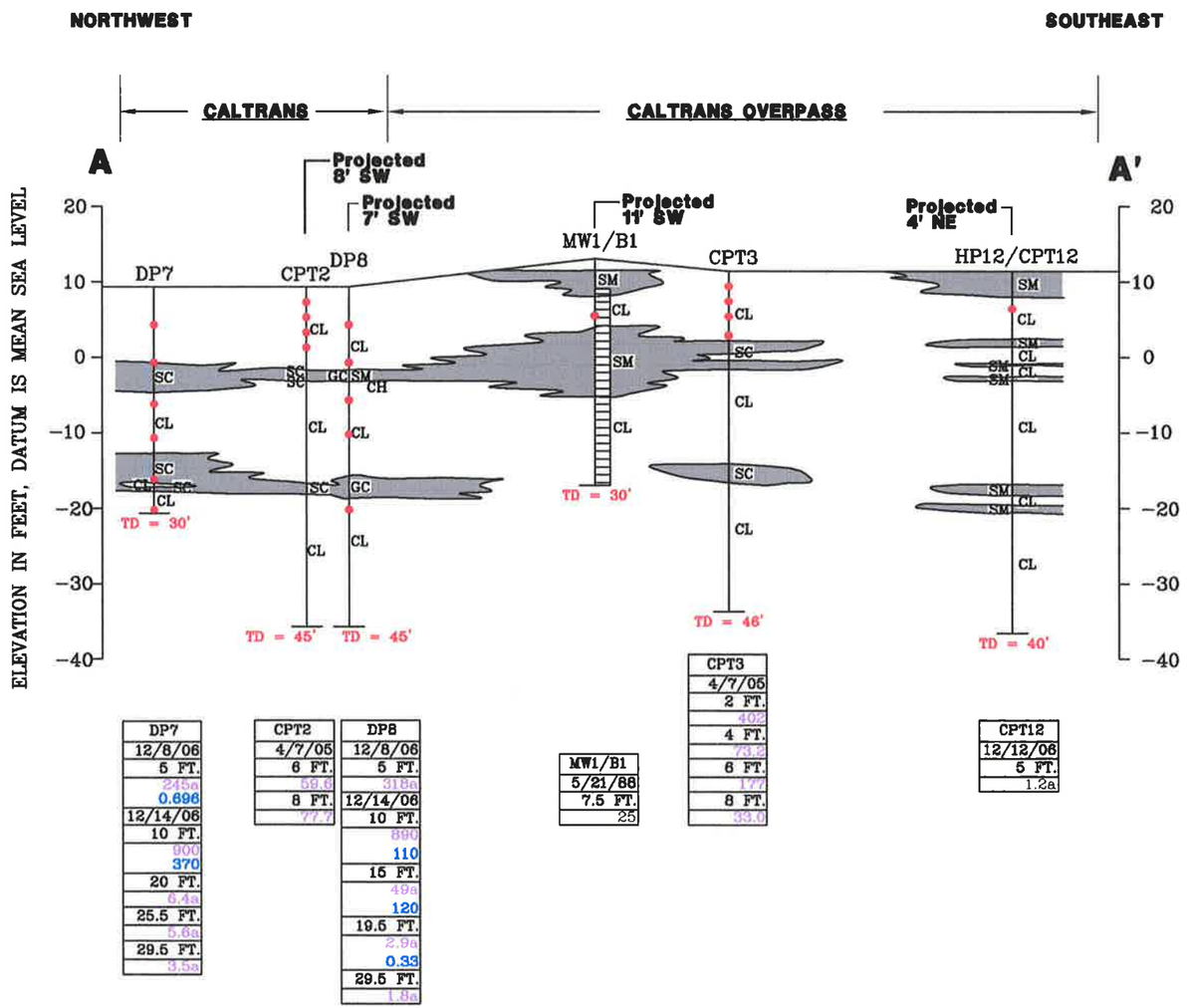
12/14/06	Sample Date
10 FT.	Sample Depth
900	Total Petroleum Hydrocarbons as diesel
370	Total Petroleum Hydrocarbons as gasoline

FT. Feet

< Less Than the Stated Laboratory Reporting Limit

mg/kg Milligrams per kilogram

a TPHd result is not consistent with diesel fuel.



DP7
12/8/06
5 FT.
245a
0.696
12/14/06
10 FT.
900
370
20 FT.
6.4a
25.5 FT.
5.6a
29.5 FT.
3.5a

CPT2
4/7/05
6 FT.
59.6
8 FT.
77.7

DP8
12/8/06
5 FT.
318a
12/14/06
10 FT.
890
110
15 FT.
49a
120
19.5 FT.
2.9a
0.33
29.5 FT.
1.8a

MW1/B1
5/21/88
7.5 FT.
25

CPT3
4/7/05
2 FT.
402
4 FT.
73.2
6 FT.
177
8 FT.
33.0

CPT12
12/12/06
5 FT.
1.2a

20

0 40 feet

Vertical Exaggeration x2

FN 2010 08 R30 XS A-A' SOIL

VALUE, QUALITY, RESPONSE

CROSS SECTION A-A'
VERTICAL LIMITS OF RESIDUAL HYDROCARBONS IN SOIL

FORMER
EXXON SERVICE STATION 7-3006
720 High Street
Oakland, California

EXPLANATION

Coarse-grained sediments (Including SC, SM, and GC. Also includes select layers, desingated silt on the CPT logs, interpreted to be coarser water-bearing sidiments based on the presence of groundwater and stratigrafic correlation with sand layers in the DP borings.)

Fine-grained sediments (Including, CL, CH, and ML.)

TD = Total Depth

• Sample Depth

PROJECT NO.
2010

APPENDIX
B

Analyte Concenterations in ug/L

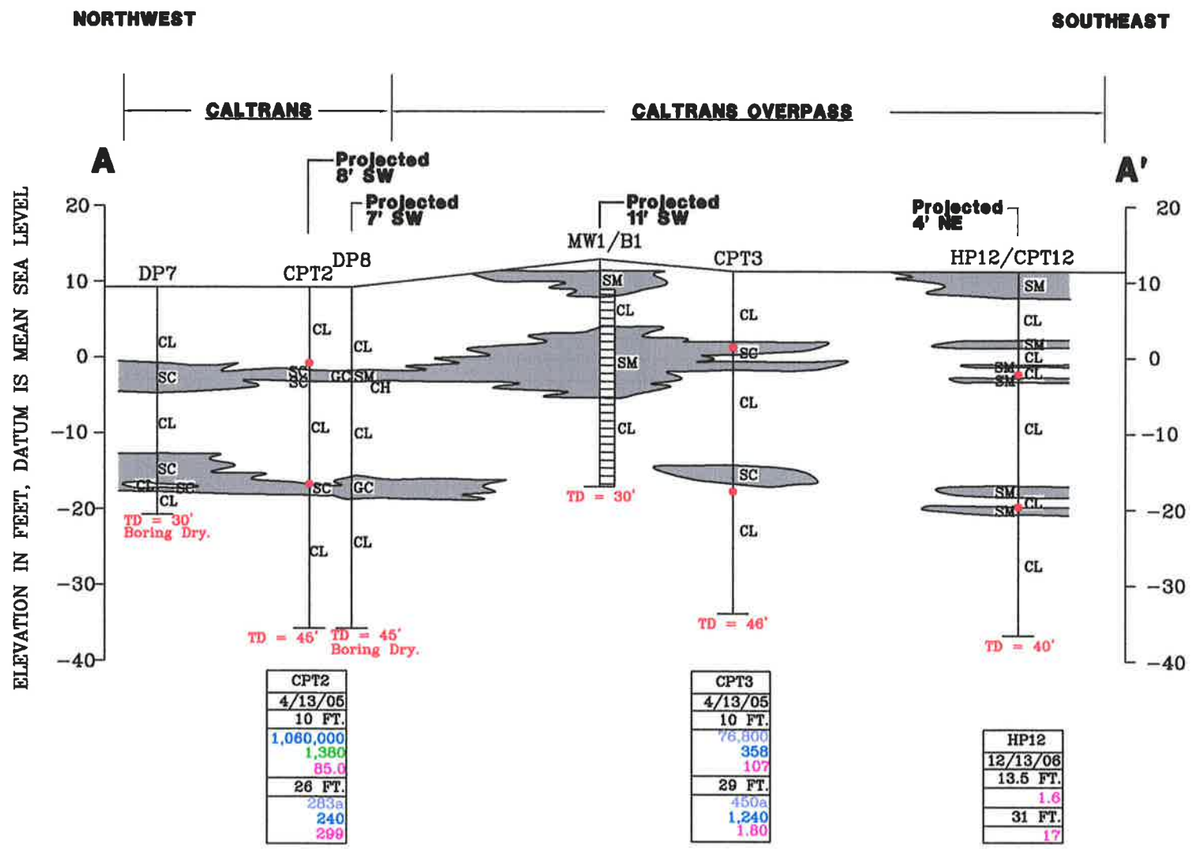
4/13/05	Sample Date
10 FT.	Sample Depth
76,800	Total Petroleum Hydrocarbons as diesel
358	Total Petroleum Hydrocarbons as gasoline
<	Benzene
107	Methyl Tertiary Butyl Ether

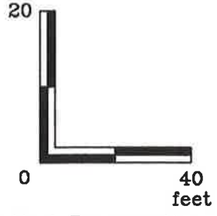
FT. Feet

< Less Than the Stated Laboratory Reporting Limit

ug/L Micrograms per Liter

a TPHd result is not consistent with diesel fuel.





Vertical Exaggeration x2

FN 2010 07 R28 XS A-A' GW

ERI
VALUE, QUALITY, RESPONSE

CROSS SECTION A-A'
VERTICAL LIMITS OF DISSOLVED HYDROCARBONS IN GROUNDWATER

FORMER
EXXON SERVICE STATION 73006
720 High Street
Oakland, California

EXPLANATION

Coarse-grained sediments (Including SC, SM, and GC. Also includes select layers, desingated silt on the CPT logs, interpreted to be coarser water-bearing sidiments based on the presence of groundwater and stratigrafic correlation with sand layers in the DP borings.)

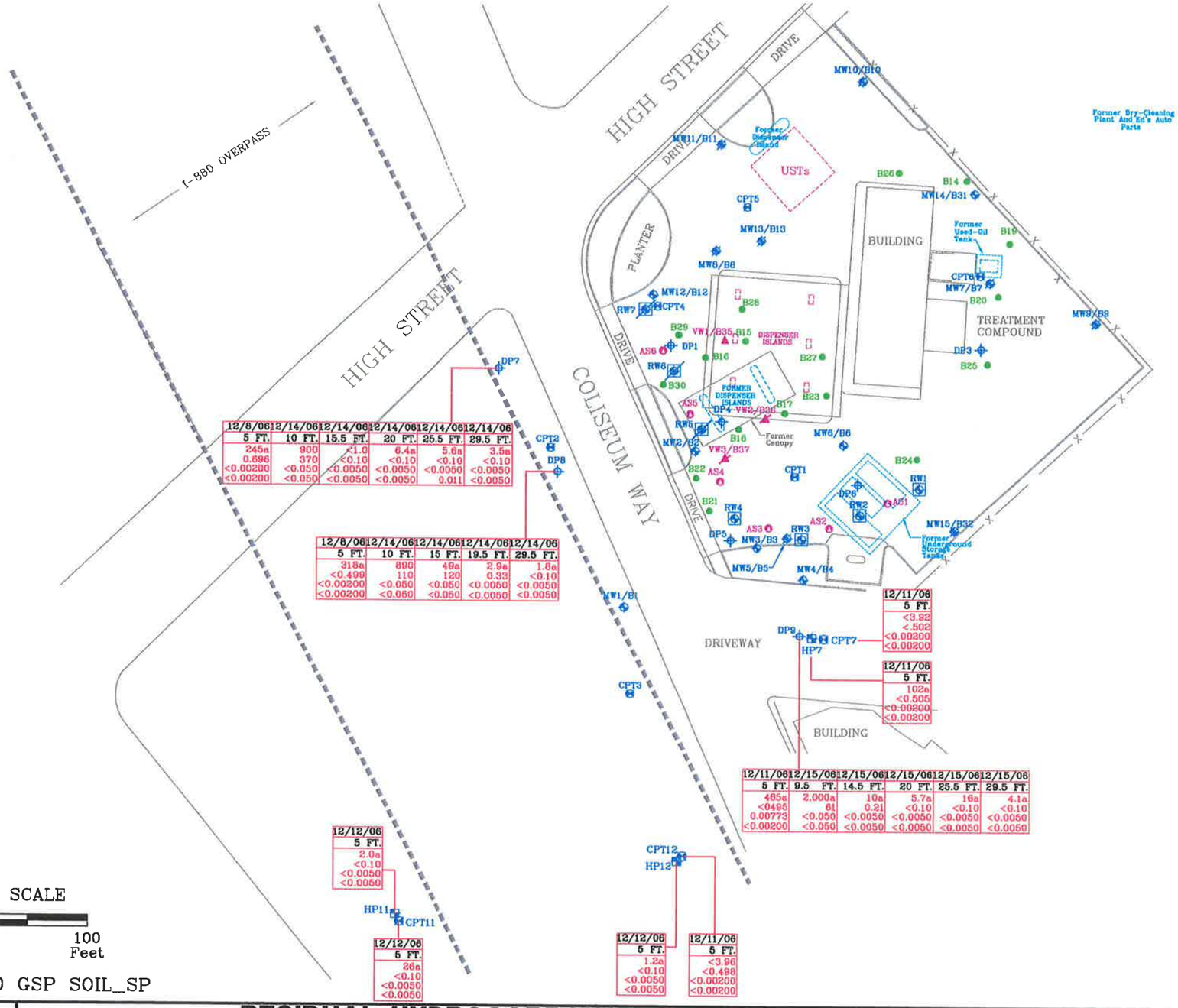
Fine-grained sediments (Including, CL, CH, and ML.)

TD = Total Depth

• Sample Depth

PROJECT NO. 2010

APPENDIX B



FN 2010 08 R30 GSP SOIL_SP

VALUE, QUALITY, RESPONSE

RESIDUAL HYDROCARBONS IN SOIL
December 8 through 15, 2006
FORMER
EXXON SERVICE STATION 73006
720 High Street
Oakland, California

EXPLANATION

- MW14 — Groundwater Monitoring Well
- B30 — Soil Boring/Soil Sample
- AS6 — Air Sparge Well
- RW4 — Recovery Well
- DP9 — Direct Push Boring
- CPT12 — Cone Penetrometer Test Boring
- HP12 — Hydropunch Boring
- VW1/B35 — Soil Vapor Extraction Well
- RW7 — Destroyed Recovery Well
- MW15 — Destroyed Groundwater Monitoring Well
- VW3/B37 — Soil Vapor Extraction Well

PROJECT NO. 2010

APPENDIX B

F:\EXXONMOBIL\ExxonMobil Projects\022010 (73006) Oakland\2010 AutoCad\SPECIALTY MAPS\08 R30\08 R30 GSP SP.dwg, mklones

APPENDIX C

PERMITS

Alameda County Public Works Agency - Water Resources Well Permit

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

Application Approved on: 08/06/2008 By jamesy

Permit Numbers: W2008-0558
Permits Valid from 08/19/2008 to 08/21/2008

Application Id: 1217539869507
City of Project Site: Oakland
Site Location: 720 High Street
Along Coliseum Way within the City right-of-way
Project Start Date: 08/19/2008
Completion Date: 08/21/2008
Requested Inspection: 08/19/2008
Scheduled Inspection: 08/19/2008 at 11:00 AM (Contact your inspector, Ron Smalley at (510) 670-5407, to confirm.)

Applicant: Environmental Resolution, Inc - Rebekah A. Westrup
601 N. McDowell Blvd, Petaluma, CA 94594
Phone: 707-766-2000

Property Owner: Mr. Mohammad Mashhoon
1721 Jerreson Street, Oakland, CA 94612
Phone: 510-534-1920

Client: ** same as Property Owner **

Total Due: $230.00
Receipt Number: WR2008-0281 **Total Amount Paid:** $230.00
Payer Name : Environmental Resolution, Inc Paid By: CHECK **PAID IN FULL**

Works Requesting Permits:

Borehole(s) for Investigation-Contamination Study - 4 Boreholes
Driller: Woodward Drilling (HA-1 to HA-4) - Lic #: 710079 - Method: Hand **Work Total: $230.00**

Specifications

Permit Number	Issued Dt	Expire Dt	# Boreholes	Hole Diam	Max Depth
W2008-0558	08/06/2008	11/17/2008	4	4.00 in.	15.00 ft

Specific Work Permit Conditions

1. Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings. All cuttings remaining or unused shall be containerized and hauled off site. The containers shall be clearly labeled to the ownership of the container and labeled hazardous or non-hazardous.

2. Boreholes shall not be left open for a period of more than 24 hours. All boreholes left open more than 24 hours will need approval from Alameda County Public Works Agency, Water Resources Section. All boreholes shall be backfilled according to permit destruction requirements and all concrete material and asphalt material shall be to Caltrans Spec or County/City Codes. No borehole(s) shall be left in a manner to act as a conduit at any time.

3. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

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

permits and requirements have been approved or obtained.

5. Applicant shall contact Ron Smalley for an inspection time at 510-670-5407 at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.

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

7. Permit is valid only for the purpose specified herein. No changes in construction procedures, as described on this permit application. Boreholes shall not be converted to monitoring wells, without a permit application process.

APPENDIX D

ACCESS AGREEMENTS

ERI
LUE, QUALITY, RESPONSE

Southern California
Northern California
Pacific Northwest
Southwest
Texas
Montana

August 14, 2007
ERI 201003MU.L30

Mr. Marcel Uzegbu
Supervising Civil Engineer
Sewer Lines
Engineering Division Public Works Agency
250 Frank Ogowa Plaza, Suite 4314
Oakland, California 94612

SUBJECT Request for Access to Sample Trench Backfill Material
Subsurface Utility Line F.L. 4.9
Adjacent to Former Exxon Service Station 7-3006
720 High Street, Oakland, California

Mr. Uzegbu:

At the request of Exxon Mobil Corporation (Exxon Mobil), Environmental Resolutions, Inc. (ERI) performs environmental activities at the subject site. In response to a directive from the Alameda County Health Care Services Agency, Environmental Health Services (ACEH), ERI is evaluating the potential for underground utilities adjacent to the site to act as preferential pathways for the migration of dissolved hydrocarbons in groundwater. This work will require collection of soil and groundwater (if present) samples from select utility trenches adjacent to the site, as proposed in ERI's *Work Plan for Additional Soil and Groundwater Investigation*, dated March 29, 2006 (Work Plan) (Attachment A) and approved by the ACEH in a letter dated July 24, 2006. Agency correspondence is provided in Attachment B.

ERI is requesting authorization to remove overlying asphalt and road base materials and collect samples of the fill material and groundwater encountered in the City of Oakland (the City) sewer drain line trench F.L. 4.9. The sewer line runs beneath Coliseum Way and is located approximately 230 feet southeast of the intersection of High Street and Coliseum way. A copy of a map provided by the City showing the location of the utility trench is included as Attachment C. ERI will contract with a professional saw cutter to cut or core the asphalt in accordance with the City specifications. Underlying materials will be removed using hand tools to prevent damage to utility lines within the trench.

ERI anticipates that the work will take two days to complete. The work will require encroachment permits from the City. ERI will coordinate the actual work times and dates with you or your designated representative; please inform ERI if a representative from the City will be present for oversight during the field work.

A copy of ERI's current Workers' Compensation Insurance Certificate, Certificate of Liability Insurance, and Contractors License is attached (Attachment D). If you request, ERI will send the City a copy of the report documenting the results of the investigation. Enclosed are two copies of this letter. If this request is acceptable, please sign both copies, return one original to ERI in the enclosed stamped envelope, and retain the other for your records.

Please call Ms. Paula Sime, ERI's project manager for this site, at (707) 766-2000 with any questions regarding the work.

Sincerely,
Environmental Resolutions, Inc.

For
Rebekah A. Westrup
Senior Staff Geologist

Paula Sime
Project Manager

Attachments:

Attachment A: ERI's *Work Plan for Additional Soil and Groundwater Investigation*, dated March 29, 2006
Attachment B: Agency Correspondence
Attachment C: City of Oakland Utility Map
Attachment D: ERI's Workers' Compensation Insurance, Certificate of Liability Insurance, and Contractors License

Signatures:

Excavation Permit Required

Mr. Marcel Uzegbu, Supervising Civil Engineer

Date 5/1/08

Keith A. Romstad
Vice President
Environmental Resolutions, Inc.

Date 8/15/07

cc: Ms. Jennifer C. Sedlachek, ExxonMobil Refining & Supply – Global Remediation
Mr. Steven Plunkett, Alameda County Health Care Services Agency, Department of Environmental Health
Mr. Chuck Headlee, California Regional Water Quality Control Board, San Francisco Bay Region

January 16, 2008
ERI 201003GN.L32

Mr. Gopal Nair
Environmental Specialist
Environmental Services Division
Public Works Agency, City of Oakland
250 Frank Ogowa Plaza, Suite 5301
Oakland, California 94612

SUBJECT Request for Access to Sample Trench Backfill Material
Subsurface Storm Drain F.L 6.40
Adjacent to Former Exxon Service Station 7-3006
720 High Street, Oakland, California

Mr. Nair:

At the request of Exxon Mobil Corporation (Exxon Mobil), Environmental Resolutions, Inc. (ERI) performs environmental activities at the subject site. In response to a directive from the Alameda County Health Care Services Agency, Environmental Health Services (ACEH), ERI is evaluating the potential for underground utilities adjacent to the site to act as preferential pathways for the migration of dissolved hydrocarbons in groundwater. This work will require collection of soil and groundwater (if present) samples from select utility trenches adjacent to the site, as proposed in ERI's *Work Plan for Additional Soil and Groundwater Investigation*, dated March 29, 2006 (Work Plan) (Attachment A) and approved by the ACEH in a letter dated July 24, 2006. Agency correspondence is provided in Attachment B.

ERI is requesting authorization to remove overlying asphalt and road base materials and collect samples of the fill material and groundwater encountered in the City of Oakland (the City) storm drain line trench F.L. 6.40. The storm drain line runs beneath Coliseum Way and is located approximately 380 feet southeast of the intersection of High Street and Coliseum way. A copy of a map provided by the City showing the location of the utility trench is included as Attachment C. ERI will contract with a professional saw cutter to cut or core the asphalt in accordance with the City specifications. Underlying materials will be removed using hand tools to prevent damage to utility lines within the trench.

ERI anticipates that the work will take two days to complete. The work will require encroachment permits from the City. ERI will coordinate the actual work times and dates with you or your designated representative; please inform ERI if a representative from the City will be present for oversight during the field work.

A copy of ERI's current Workers' Compensation Insurance Certificate, Certificate of Liability Insurance, and Contractors License is attached (Attachment D). If you request, ERI will send the City a copy of the report documenting the results of the investigation. Enclosed are two copies of this letter. If this request is acceptable, please sign both copies, return one original to ERI in the enclosed stamped envelope, and retain the other for your records.

Please call Ms. Paula Sime, ERI's project manager for this site, at (707) 766-2000 with any questions regarding the work.

Sincerely,
Environmental Resolutions, Inc.

Rebekah A. Westrup
Senior Staff Geologist

Paula Sime
Project Manager

Attachments:

Attachment A: ERI's *Work Plan for Additional Soil and Groundwater Investigation*, dated March 29, 2006
Attachment B: Agency Correspondence
Attachment C: City of Oakland Utility Map
Attachment D: ERI's Workers' Compensation Insurance, Certificate of Liability Insurance, and Contractors License

Signatures:

Note:
Consultant needs to get necessary city permits

Gopal Nair
Mr. Gopal Nair, Environmental Specialist

Date 5/1/08

Keith A. Romstad
Vice President
Environmental Resolutions, Inc.

Date 5/5/08

cc: Ms. Jennifer C. Sedlachek, ExxonMobil Refining & Supply – Global Remediation
Mr. Steven Plunkett, Alameda County Health Care Services Agency, Department of Environmental Health
Mr. Chuck Headlee, California Regional Water Quality Control Board, San Francisco Bay Region

/

ERI

...CE, QUALITY, RESPONSE

Southern Calif.
Northern Calif.
Pacific Northw...
Southwest
Texas
Montana

June 25, 2007
ERI 201003RM.L28

Mr. Rolly Mercurio
East Bay Municipal Utility District
3715 11th Street, Oakland, California 94612

SUBJECT Request for Access to Sample Trench Backfill Material
Subsurface Utility Line E-2777-6CM49
Adjacent to Former Exxon Service Station 7-3006
720 High Street, Oakland, California

Mr. Mercurio:

At the request of Exxon Mobil Corporation (Exxon Mobil), Environmental Resolutions, Inc. (ERI) performs environmental activities at the subject site. In response to a directive from the Alameda County Health Care Services Agency, Environmental Health Services (ACEH), ERI is evaluating the potential for underground utilities adjacent to the site to act as preferential pathways for the migration of dissolved hydrocarbons in groundwater. This work will require collection of soil and groundwater (if present) samples from select utility trenches adjacent to the site, as proposed in ERI's *Work Plan for Additional Soil and Groundwater Investigation*, dated March 29, 2006 (Attachment A) (Work Plan) and approved by the ACEH in a letter dated July 24, 2006. Agency correspondence is provided in Attachment B.

ERI is requesting authorization to remove overlying asphalt and road base materials and collect samples of the fill material and groundwater encountered in East Bay Municipal Utility District (EBMUD) utility trench E-2777-6CM49 at the two proposed had auger locations shown on Plate 1. A copy of the map provided by the EBMUD Mapping Department showing the location of the utility trench is included as Attachment C. ERI will contract with a professional saw cutter to cut or core the asphalt in accordance with City of Oakland specifications. Underlying materials will be removed using hand tools to prevent damage to utility lines within the trench.

ERI anticipates that the work will take two days to complete. The work will require encroachment permits from the City. ERI will coordinate the actual work times and dates with you or your designated representative; please inform ERI if a representative from EBMUD will be present for oversight during the field work.

A copy of our current Workers' Compensation Insurance Certificate, Certificate of Liability Insurance, and Contractors License is attached (Attachment D). At your request, ERI will send EBMUD a copy of the report documenting the results of the investigation. Enclosed are two copies of this letter. If this request is acceptable, please sign both copies, return one original to ERI in the enclosed stamped envelope, and retain the other for your records.

EAST BAY
MUNICIPAL UTILITY DISTRICT

XAVIER J. IRI
DIRECTOR OF ENGINEERING AND CONSTRUCT

July 23, 2007

Ms. Paula Sime, Project Manager
Environmental Resolutions, Inc
601 North McDowell Blvd
Petaluma, CA 94954-2312

Attention: Ms. Rebekka A. Westrup

RE: Request for Access to Sample Trench Backfill Material
Subsurface Utility Line E-2777(1) – 6CM49
Adjacent to Former Exxon Service Station 7-3006
720 High Street, Oakland, California

Dear Ms. Sime:

Enclosed is the signed consent document for the above-mentioned request to sample the trench backfill material on EBMUD existing waterline (6CM49 - E 27771), at two (2) locations, along the north side of Coliseum Way, east of High Street, pursuant to the mediation requirement by the Alameda County Environmental Health Services, (Re: Fuel Leak Case No. RO0000491, Exxon #7-3006, 720 High Street, Oakland, CA 94601).

Please notify Ms. Margo Schueler, Superintendent, South Area at 510-287-0837, at least 48 hours, prior to the field sampling of the trench backfill material.

The second copy of the letter including the attached documents has been retained for our files.

If you have any questions, please call me, at (510) 287-1096.

Sincerely,

R. C. Mercurio
Distribution System Engineering

Please call Ms. Paula Sime, ERI's project manager for this site, at (707) 766-2000 with any questions regarding the work.

Sincerely,
Environmental Resolutions, Inc.

Keri Chappell
for
Rebekah A. Westrup
Senior Staff Geologist

Paula Sime
Project Manager

Attachments:

Plate 1: Proposed Hand-Auger Location Map

Attachment A: ERI's *Work Plan for Additional Soil and Groundwater Investigation*, dated March 29, 2006
Attachment B: Agency Correspondence
Attachment C: EBMUD Utility Map
Attachment D: ERI's Workers' Compensation Insurance, Certificate of Liability Insurance, and Contractors License

Signatures:

Received

Mr. Rolando (Rolly) Mercurio, EBMUD Representative

Date 12 Jul 07

for Keith A. Romstad

Date 06.27.07

Keith A. Romstad
Vice President
Environmental Resolutions, Inc.

cc: Ms. Jennifer C. Sedlachek, ExxonMobil Refining & Supply – Global Remediation
Mr. Steven Plunkett, Alameda County Health Care Services Agency, Department of Environmental Health
Mr. Chuck Headlee, California Regional Water Quality Control Board, San Francisco Bay Region

APPENDIX E

FIELD PROTOCOLS

Site Safety Plan

Field work will be performed by ERI personnel in accordance with a Site Safety Plan developed for the site. This SSP describes the basic safety requirements for the subsurface investigation and the drilling of soil borings at the work site. SSP applies to ERI personnel and subcontractors. Personnel at the site are informed of the contents of the SSP prior to beginning work. A copy of the SSP is kept at the work site and is available for reference during the work. The ERI geologist oversees health and safety operations during field work.

Soil Borings and Sampling

Prior to hand augering of borings, ERI acquires necessary permits and access agreements from the appropriate agencies. ERI also contacts Underground Service Alert (USA) before drilling to help locate public utility lines at the site.

Soil borings are advanced with $3^{1/4}$-inch diameter hand-auger. Hand augers and sampling equipment are cleaned before use to minimize the possibility of cross-hole contamination. The rinsate is containerized and stored on site. ERI will coordinate with ExxonMobil for appropriate recycling or disposal of the rinsate.

Drilling is performed under the observation of a field geologist, and the earth materials in the borings are identified using visual and manual methods, and classified as drilling progresses using the Unified Soil Classification System.

During drilling, soil samples are collected at 1-foot intervals. Soil samples are monitored with a photo-ionization detector (PID), which measures hydrocarbon concentrations in the ambient air or headspace above the soil sample. Field instruments such as the PID are useful for indicating relative levels of hydrocarbon vapors, but do not detect concentrations of hydrocarbons with the same precision as laboratory analyses. Soil samples selected for possible chemical analyses are sealed promptly with Teflon® tape, and plastic caps. The samples are labeled and placed in iced storage for transport to the laboratory. Chain of Custody Records are initiated by the geologist in the field, updated throughout handling of the samples, and sent with the samples to the laboratory. Copies of these records are included in ERI's report. Cuttings generated during drilling are placed on plastic sheeting or in 55-gallon drums and stored at the site pending characterization and disposal. ERI coordinates with ExxonMobil for the soil to be removed to an appropriate disposal facility.