ExxonMobil
Refining & Supply Company
Global Remediation

4096 Piedmont Avenue #194
Oakland, California 94611
510.547.8196
510.547.8706 Fax
jennifer.c.sedlachek@exxonmobil.com

Jennifer C. Sedlachek
Project Manager

ExxonMobil
Refining & Supply

November 13, 2006

Mr. Steven Plunkett
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Room 250
Alameda, California 94502-6577

RE: Former Exxon RAS #7-3006/720 High Street, Oakland, California.

Dear Mr. Plunkett:

Attached for your review and comment is a copy of the letter report entitled ***Work Plan for Well Destruction,*** dated November 13, 2006, for the above-referenced site. The report was prepared by Environmental Resolutions, Inc. (ERI) of Petaluma, California, and details proposed activities for 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 Work Plan for Well Destruction, dated November 13, 2006.

cc: w/ attachment
Mr. Chuck Headlee, California Regional Water Quality Control Board, San Francisco Bay Region

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

ERI

ENVIRONMENTAL RESOLUTIONS, INC.

November 13, 2006
ERI 201003.W04

Ms. Jennifer C. Sedlachek
ExxonMobil Refining & Supply-Global Remediation
4096 Piedmont Avenue #194
Oakland, California 94611

SUBJECT Work Plan for Well Destruction
Former Exxon Service Station 7-3006
720 High Street, Oakland, California

Ms. Sedlachek:

At the request of Exxon Mobil Corporation (Exxon Mobil), Environmental Resolutions, Inc. (ERI) has prepared this work plan to destroy groundwater monitoring well MW1 at the subject site. This work was requested by Caltrans as a result of planned redevelopment activities in the area of MW1, anticipated to begin in January 2007.

BACKGROUND

Exxon Mobil operated a service station at the site from 1970 until 1987. The site is currently an active Gas and Food-branded station owned and operated by Mash Petroleum, Inc. The current service station has three underground storage tanks (USTs), storing three grades of unleaded gasoline. The locations of the former and current USTs, dispenser islands, groundwater monitoring wells, and select site features are shown on Plate 1.

Groundwater monitoring well MW1 was installed by Applied GeoSystems in May 1988. The total depth of the well is 29 feet below ground surface (fbgs), with the slotted screen interval extending from 4 to 29 fbgs. The boring log for MW1 is provided in Attachment A.

PROPOSED WORK

Beginning January 2007, Caltrans plans to redevelop the entire area encompassing existing well MW1 and proposed soil borings DP7, DP8, and CPT8 through CPT12, proposed in ERI's *Work Plan for Additional Assessment* (Work Plan), dated March 29, 2006, and approved by the Alameda County Health Services Agency in a letter dated July 24, 2006 (Attachment B). ERI applied for and received an encroachment permit from Caltrans to perform the off-site assessment. However, the encroachment permit required that well MW1 be destroyed by December 31, 2006 to accommodate the upcoming redevelopment of the area. ERI will advance soil borings DP7, DP8, and CPT8 through CPT12 and destroy well MW1 prior to December 31, 2006, in compliance with the Caltrans permit. A copy of the encroachment permit is provided in Attachment C.

ERI will obtain a well destruction permit from the Alameda County Public Works Agency (Public Works) prior to field activities. ERI will destroy well MW1 by pressure grouting in accordance with Public Works standards. The well box will be removed and the surface will be finished to match surrounding conditions. Soil and debris generated from the well destruction activities will be stored at the adjacent former Exxon site in 55-gallon metal drums pending appropriate disposal.

Well destruction field work is scheduled to occur along with the off-site assessment activities described in the Work Plan during the week of December 11, 2006, in order to meet the Caltrans schedule. A formal

notification of field activities will be submitted under separate cover. ERI will summarize the well destruction activities with the results of the additional off-site assessment.

DOCUMENT DISTRIBUTION

ERI recommends that a signed copy of this Work Plan be forwarded to the following:

Mr. Steven Plunkett
Alameda County Health Care Services Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Mr. Chuck Headlee
California Regional Water Quality Control Board
San Francisco Bay Region
1515 Clay Street, Suite 1400
Oakland, California 94612

LIMITATIONS

This report was prepared in accordance with generally accepted standards of environmental practice in California at the time this investigation was performed. This report has been prepared for Exxon Mobil, and any reliance on this report by third parties shall be at such party's sole risk.

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

Sincerely,
Environmental Resolutions, Inc.

Paula Sime
Project Manager

Geoffrey V. Waterhouse
P.G. 5019
C.HG. 334
C.E.G. 1561

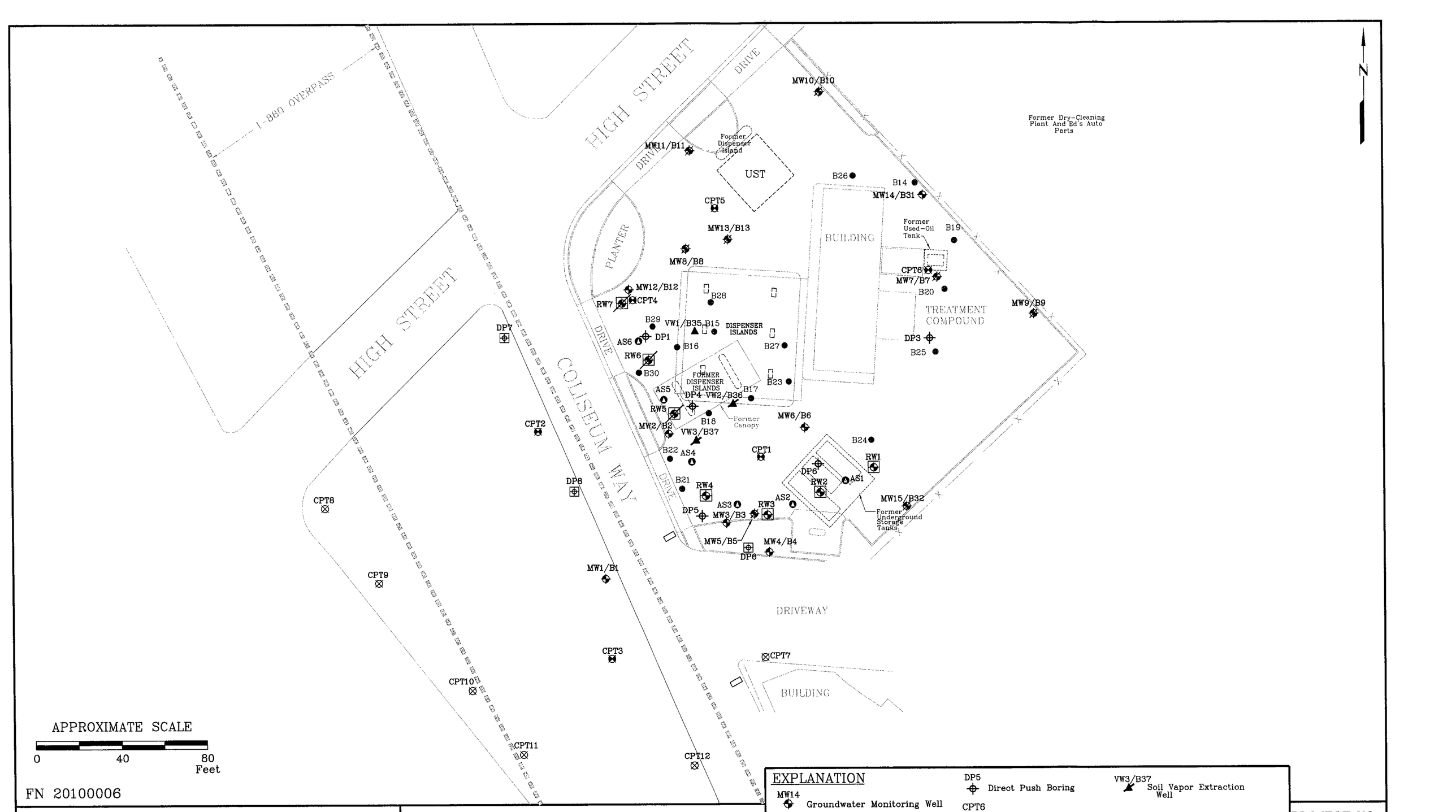
Attachments: Reference

Plate 1: Generalized Site Plan

Attachment A: Boring Log
Attachment B: Regulatory Correspondence
Attachment C: Encroachment Permit

REFERENCE

Environmental Resolutions, Inc. (ERI). March 29, 2006. Work Plan for Additional Assessment, Former Exxon Service Station 7-3006, 720 High Street, Oakland, California.



APPROXIMATE SCALE

0 40 80 Feet

FN 20100006

ERI ENVIRONMENTAL RESOLUTIONS, INC.

GENERALIZED SITE PLAN

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

EXPLANATION

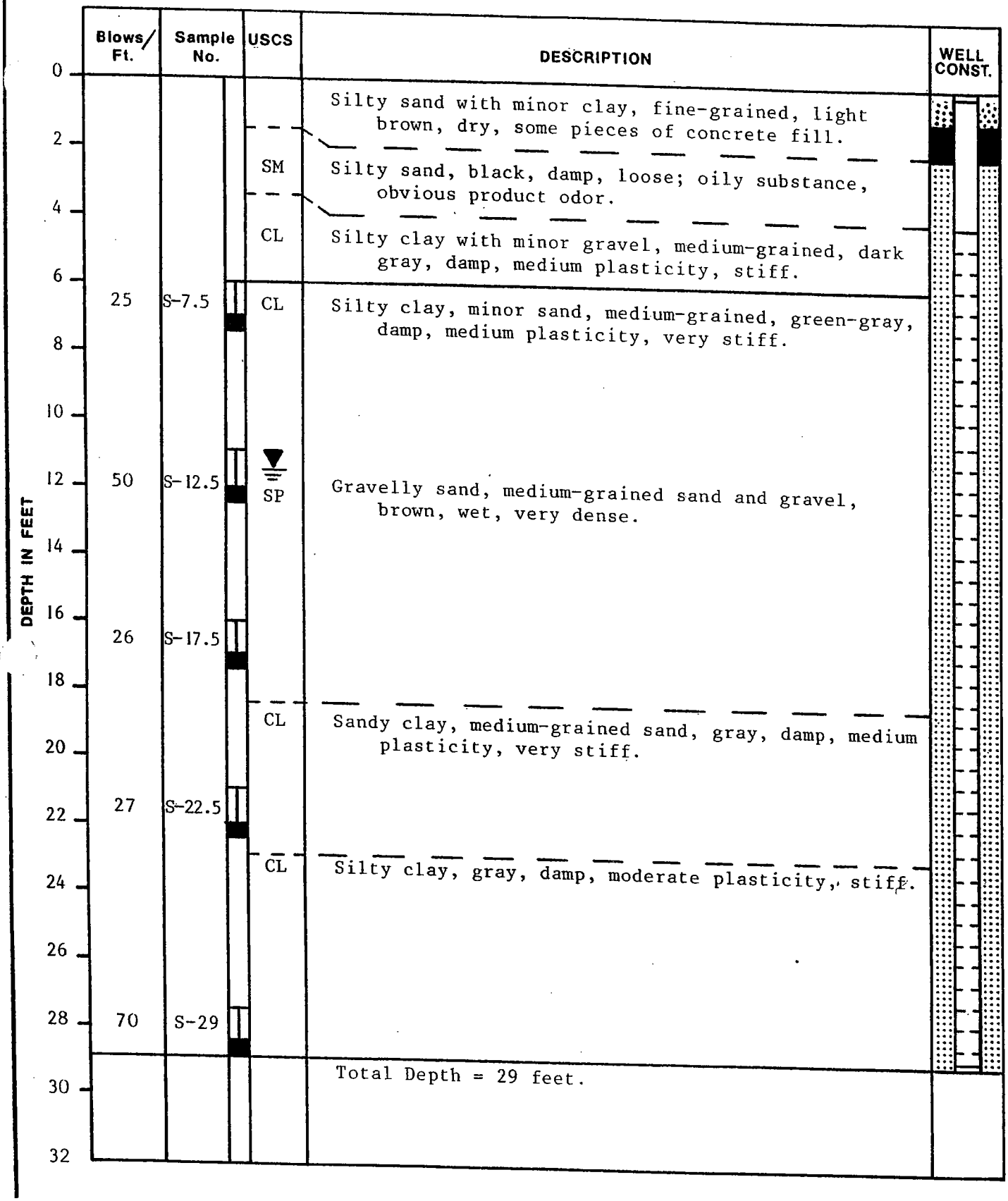
- MW14 — Groundwater Monitoring Well
- B30 — Soil Boring/Soil Sample
- AS6 — Air Sparge Well
- RW4 — Recovery Well
- DP5 — Direct Push Boring
- CPT6 — Cone Penetrometer Test Boring
- VW1/B35 — Soil Vapor Extraction Well
- RW7 — Destroyed Recovery Well
- MW15 — Destroyed Groundwater Monitoring Well
- VW3/B37 — Soil Vapor Extraction Well
- CPT12 — Proposed Cone Penetrometer Test Boring
- DP8 — Proposed Direct Push Boring
- Utility Trench Sampling Point

PROJECT NO. 2010

PLATE 1

ATTACHMENT A

BORING LOG



Applied GeoSystems
43255 Mission Blvd. Suite B Fremont, CA 94539 (415) 651-1906

PROJECT NO. 87042-5

LOG OF BORING B-1/MW-1

Exxon Station No. 7-3006
720 High Street
Oakland, California

PLATE
P - 4

ATTACHMENT B

REGULATORY 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

ATTACHMENT C

ENCROACHMENT PERMIT

STATE OF CALIFORNIA • DEPARTMENT OF TRANSPORTATION

ENCROACHMENT PERMIT RIDER

TR-0122

Collected by	Permit No. (Original)
	0489-6SV1322
Rider Fee Paid	Dist/Co/Rte/PM
$164.00	04-Ala-880-27.9
Date	Rider Number
9/20/2006	0406-6RW1568

RECEIVED
SEP 25 2006
BY:.....

TO: ENVIRONMENTAL RESOLUTIONS, INC.
601 N. McDowell Boulevard
Petaluma, CA 94954

Attn: Paula Sime
Phone: (707) 766-2000

, **PERMITTEE**

In compliance with your request of August 30, 2006, we are hereby amending the above numbered encroachment permit as follows:

Date of completion extended to: No change.

Reference your project to: Install one ground water monitoring well behind the curb of City Street undercrossing State Highway 04-Ala-880, Post Mile 27.9, at Alameda Avenue, in the City of Oakland.

Permission is granted to perform additional soil borings to collect soil and water sampling.

Because the next construction of a State project (EA 04-16544) at this location, all work related and authorized under this permit No.0489-6SV1322, rider 0405-6RW0539, and rider 0406-6RW1568, must be completed by December 31, 2006.

Abandon or relocate monitoring well MW1

Certain details of work authorized hereby are shown on permittee's plan submitted with request for permit rider.

Except as amended, all other terms and provisions of the original permit shall remain in effect.

APB
CC: MMc, NF, Ala I-A.Zepeda, DTM-B.Loo, J.Richardson, City of Oakland

APPROVED:

BIJAN SARTIPI, District Director

BY:

Acting for

MICHAEL D. CONDIE, District Permit Engineer