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Alameda County
Environmental Health

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January 25, 2008

Mr. Jerry Wickham
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502-6577

Re: **Agency Response and Site Investigation Work Plan**
Former Shell Service Station
8930 Bancroft Avenue
Oakland, California
SAP Code 135678
Incident No. 98995742
Fuel Leak Case No. RO0000404

Dear Mr. Wickham:

Conestoga-Rovers & Association (CRA) prepared this agency response and site investigation work plan on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell) to address the requests made in Alameda County Health Care Services Agency's (ACHCSA's) letter dated October 12, 2007.

In response to a request that this site be considered for case closure, ACHCSA performed a complete review of all the information in the case files, including the results of the 1999 underground storage tank (UST) removal and excavation activities, the recent site investigation activities, and the verification groundwater monitoring activities. ACHCSA's findings of the file review were presented in their October 12, 2007 letter, in which to further consider this site for closure, ACHCSA requested additional information pertaining to removal of the first generation USTs originally located northwest of the pump islands, and the extent of any soil contamination in the area of these former USTs. CRA has reviewed all available internal files, all available Shell files, and the City of Oakland Fire Department files for information related to this request and was not able to locate any relevant information pertaining to the removal of these former USTs, other than that they were apparently removed from the site in 1983 or 1984.

To address the request in ACHCSA's October 12, 2007 letter, Shell is proposing to drill soil borings within the cavity of the former first generation USTs to collect soil samples to determine the extent, if any, of soil contamination in the area of these former USTs. The proposed scope of work is presented in this document which complies with ACHCSA and Regional Water Quality Control Board (RWQCB) guidelines.

SITE LOCATION AND DESCRIPTION

This former Shell service station is located at the north corner of the Bancroft Avenue and 90th Avenue intersection in a mixed commercial and residential area of Oakland, California (Figure 1). A review of historic aerial photographs and Sanborn maps in 1999 indicated that the site was first developed as a gasoline service station in 1960. The former first generation UST location is along the northwest property boundary, and the second generation USTs are located near the southern corner of the site (Figure 2). Currently, a 24-7 Quick Mart occupies the site.

WORK PLAN

Technical Rationale for Proposed Scope of Work

- There is no documentation available to demonstrate the first generation USTs have been removed from the site.
- No soil data is available to document soil conditions in the vicinity of the former first generation USTs.
- Three soil borings are proposed to collect soils samples from the native soils beneath the center of each of the former first generation USTs to determine the extent, if any, of soil contamination in the area of these former USTs, and to verify the USTs have been removed.

Work Tasks

Permits: CRA will obtain the required drilling permit(s) from Alameda County Public Works Agency (ACPWA) for drilling the borings.

Site Safety Plan: CRA will prepare a comprehensive Site-Specific Safety Plan to protect site workers. The plan will be reviewed and signed by each site worker and kept on the site during field activities.

Utility Clearance: CRA will mark proposed boring locations and will clear the locations through Underground Service Alert (USA) prior to drilling. A private utility locating service will also be used to verify clearance of each boring from subsurface utilities or other obstructions. Because these borings are proposed within the cavity of former USTs, and thus could be considered a "critical area" as defined by Shells' Subsurface Investigation Procedures, the first ten feet of each boring will be cleared to a diameter of 3 inches larger than the lead auger using an air-knife, or a water knife, to minimize potential damage to underground structures not identified through USA or the utility locating service. In addition, a

conductor casing will be placed in the borehole, and will extend the entire length of the proposed clearing, prior to advancing any augers or use of any mechanical drilling equipment in the borehole.

Site Investigation: Three soil borings (TB-1, TB-2, and TB-3) are proposed at the locations shown on Figure 2. After borehole clearance with the air knife or water knife, described above, each boring will be advanced into native soils using direct-push technology for the collection of soil samples for soil logging, field screening, and chemical analyses. Soil samples will be collected in each boring in native soil beneath the bottom of the former tank cavity.

A CRA staff geologist will supervise the drilling and describe encountered soils using the Unified Soil Classification System and Munsell Soil Color Charts. Using a calibrated photo-ionization detector (PID), organic vapors will be measured in the soil samples and CRA will prepare an exploratory boring log for each boring and PID measurements will be recorded on the logs.

Soil samples designated for chemical analyses will be retained in plastic, stainless steel, or brass sample tubes. The tubes will be covered on both ends with Teflon sheets and plastic end caps. Soil samples will be labeled, entered onto a chain-of-custody record, and placed into a cooler with ice, and transported to a California state certified laboratory.

Following soil sample collection, all borings will be backfilled with a cement-bentonite grout mixture to within 4 inches below grade and capped with tinted concrete to match the surrounding surface.

Chemical Analyses: Based on previous work at the site, the soil samples will be analyzed for total petroleum hydrocarbons as gasoline (TPHg) by EPA Method 8015M, and for benzene, toluene, ethylbenzene, and xylenes, and the five oxygenates (methyl tertiary butyl either, tertiary butyl either, di-isopropyl ether, ethyl tertiary-butyl ether, and tertiary-amyl methyl ether) using EPA Method 8260B.

Report Preparation: Following the receipt of analytical results from the laboratory, CRA will prepare a written report which will include a description of the field procedures, a presentation of the analytical results, tabulated data, figures showing sample locations, the complete analytical laboratory reports, boring logs, and investigation findings and conclusions.

CERTIFICATION

The scope of work described in this work plan will be performed under the supervision of a California professional geologist or engineer.

SCHEDULE

CRA is prepared to begin work upon approval of this work plan by ACHCSA and receipt of approved drilling permit(s) from ACPWA.

CLOSING

If you have any questions regarding the scope of work outlined in this work plan, please call Dennis Baertschi at (707) 268-3813.

Sincerely,
Conestoga-Rovers & Associates

for Dennis Baertschi
Project Manager

Joe W. Neely, PG

PROFESSIONAL GEOLOGIST
JOSEPH W. NEELY
No. 6927
STATE OF CALIFORNIA

Attachments

Figure 1. Vicinity Map
Figure 2. Proposed Boring Location Map

cc: Denis Brown, Shell
Sidhu Associates, 8930 Bancroft Ave., Oakland, CA 94605

05/16/07

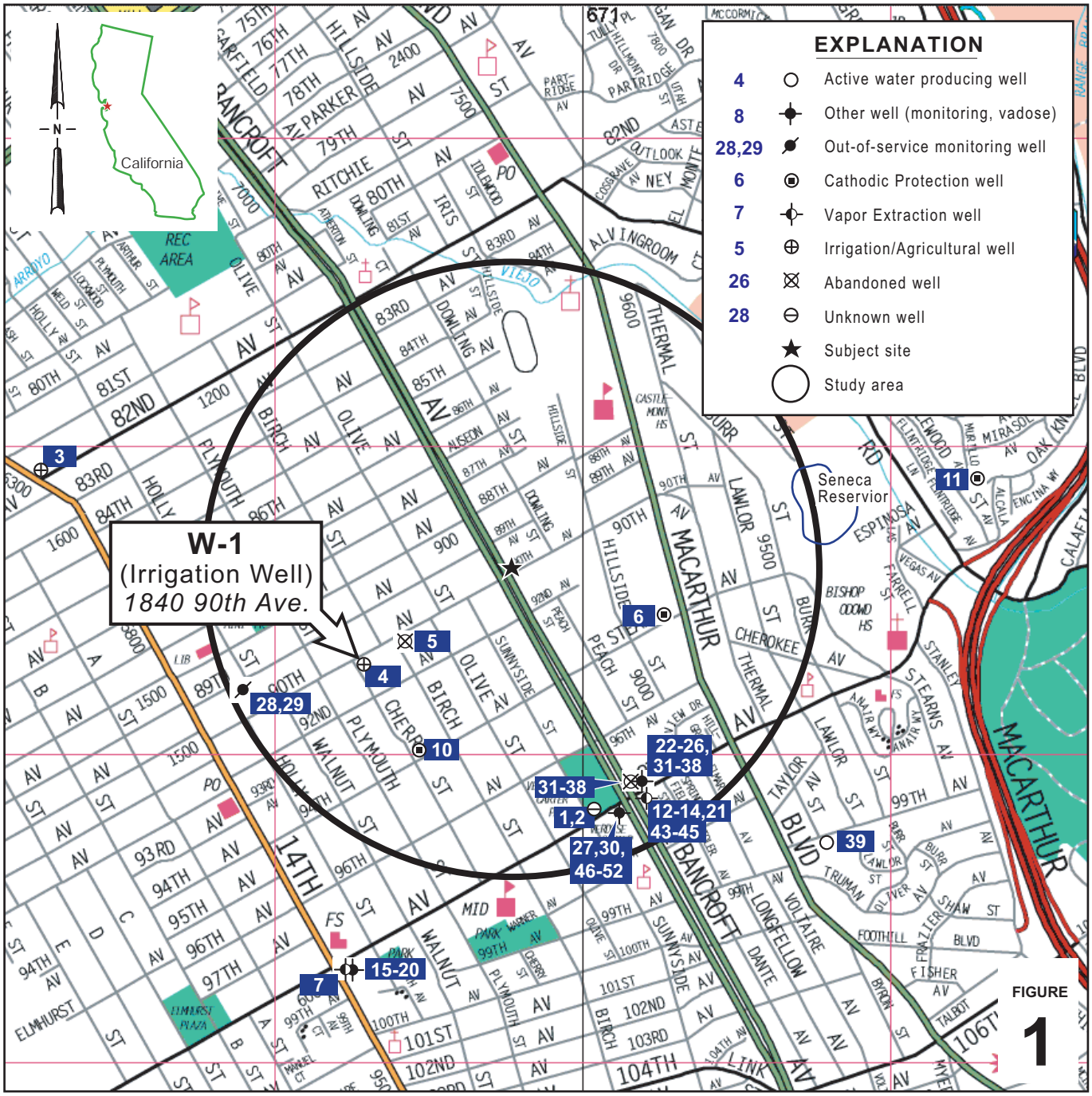

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FIGURE 1

0 1/8 1/4 1/2 1

SCALE 1" = 1/4 MILE

Former Shell Service Station

8930 Bancroft Avenue

Oakland, California

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Vicinity Map

01/23/08

Proposed Boring Location Map

EXPLANATION

- MW-1 — Monitoring well location
- CPT-1 — Soil boring location (7/13/06)
- SB-A — Cambria soil boring location (04/01/01)
- TB-1 — Proposed boring location
- Sanitary Sewer line (SS)
- Storm Drain line (SD)
- Flow direction
- Storm drain inlet
- Manhole
- FL — Flowline elevation (in feet above msl)

Note:
All conduit locations are approximate

Former Shell Station
8930 Bancroft Ave.

property line

MW-1
MW-2
MW-3
MW-4
MW-5
MW-6

former USTs
TB-1
TB-2
TB-3

Dispenser Islands

USTs

Former Pump Island

sidewalk

Groundwater Flow Direction
(2Q00 through 4Q06)

48"Ø SD

12"Ø SD

15"Ø SD

42"Ø SD

10"Ø SS

8"Ø SS

FL = 44.99'
FL = 46.11'
FL = 44.21'
FL = 44.08'
FL = 43.06'
FL = 43.97'
FL = 51.30'
FL = 45.00'

SB-1
SB-A
SB-2
SB-B
SB-C

median

BANCROFT AVENUE

90TH AVENUE

residential property

Nearest Sensitive Receptor to Site

Irrigation Well
1,100 ft. WSW

0 15 30 60
Scale (ft)

FIGURE
2

Former Shell Service Station
8930 Bancroft Avenue
Oakland, California

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