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4:04 pm, Feb 23, 2009

Alameda County  
Environmental Health



**Shell Oil Products US**

February 17, 2009

**Re: Work Plan for Installation of Wells S-10 and S-11**  
Shell-branded Service Station  
5251 Hopyard Road  
Pleasanton, California

Dear Mr. Jerry Wickham:

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

Sincerely,  
Shell Oil Products US

A handwritten signature in black ink that reads "Denis L. Brown". The signature is fluid and cursive, with a long horizontal flourish extending to the right.

Denis L. Brown  
Project Manager

February 17, 2009  
Project SCA5251H1A  
SAP #: 135785

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



**Subject: Work Plan for Installation of Wells S-10 and S-11**  
Shell Service Station  
5251 Hopyard Road  
Pleasanton, California

Dear Mr. Wickham:

Delta Environmental Consultants, Inc. (Delta), on behalf of Shell Oil Products US (Shell), has prepared this work plan for the installation of two additional groundwater monitoring wells at the site referenced above (Figure 1). The onsite wells will be located down-gradient of the previous and current underground storage tank (UST) complexes (Figure 2).

#### **Description of Methods**

Delta will obtain drilling permits from the Zone 7 Water Agency for the installation of monitoring wells S-10 and S-11. A drilling company with an active C-57 drilling license will be used to perform the work. The installation will be overseen by a Delta geologist under the supervision of a California Professional Geologist. Prior to conducting any field work at the site, Delta will prepare a site specific Health and Safety Plan (HASP). The Delta field geologist on site will review the HASP with onsite subcontractors at the start of each work day.

Monitoring wells S-10 and S-11 are being installed to monitor groundwater encountered within the upper water-bearing unit. Delta proposes to construct wells S-10 and S-11 as 4-inch PVC wells with a 14-foot screened interval from 6 to 20 feet below ground surface (bgs). Sand will extend from 20 to 5 feet bgs, a bentonite seal from 5 to 4 feet bgs, and cement/bentonite grout from 4 to 1 foot bgs with a well vault set in concrete to match existing grade.

Prior to drilling, the borehole location will be marked for subsurface utility clearance and Underground Services Alert (USA) will be notified a minimum of 48 hours before Delta begins work. Following this, a private subsurface utility locating company will survey the boring locations for the presence of subsurface utilities. Boring locations will be air-knifed to a depth of approximately 8 feet. These steps will be taken to avoid damaging any existing subsurface utilities.

Soil samples will be collected from the borings for each new well in sample liners at approximate 5-foot intervals from 8 feet to the total depth of the boring. Soil types will be logged by a Delta field geologist. Soil will be analyzed in the field using a photo-ionization detector (PID), and readings from the soil will be recorded on the field logs. A soil sample from the soil/groundwater interface will be collected and retained for laboratory analyses; in addition, soil samples with elevated PID readings (greater than 10 parts per million by volume [ppmv]) will be retained for laboratory analysis. The retained soil samples will be capped with *Teflon* tape and tight fitting end caps and placed on ice for transport to a California State-certified laboratory for analysis. Soil samples will be analyzed for total petroleum hydrocarbons as gasoline (TPH-g), the gasoline constituents benzene, toluene, ethylbenzene and total xylenes (BTEX compounds), and gasoline fuel oxygenates and breakdown products methyl tert-butyl ether (MTBE); tert-amyl methyl ether (TAME), diisopropyl ether (DIPE); ethyl tert-butyl ether (ETBE); tert-butyl alcohol (TBA) and ethanol by EPA Method 8260B. Excavated soil will be placed in labeled DOT-rated 55-gallon drums pending disposal characterization.

Following installation, new wells S-10 and S-11 will be surveyed for inclusion in the California State Geotracker data base, and will be developed and added to the quarterly groundwater monitoring program already in place for the site.

## **REMARKS**

The recommendations contained in this work plan represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This work plan is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this work plan were performed. This work plan is intended only for the use of Delta's Client and anyone else specifically listed on this report. Delta will not and cannot be liable for unauthorized reliance by any other third party. Other than as contained in this paragraph, Delta makes no express or implied warranty as to the contents of this work plan.

Mr. Jerry Wickham  
Alameda County Health Care Services Agency  
February 17, 2009  
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If you have any questions regarding this site, please contact Suzanne McClurkin-Nelson (Delta) at (408) 826-1875 or Mr. Denis Brown (Shell) at (707) 865-0251.

Sincerely,

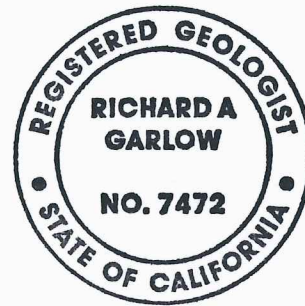
**DELTA ENVIRONMENTAL CONSULTANTS, INC.**



Suzanne McClurkin-Nelson  
Senior Project Manager



Richard A. Garlow, M.S., P.G.  
Project Specialist

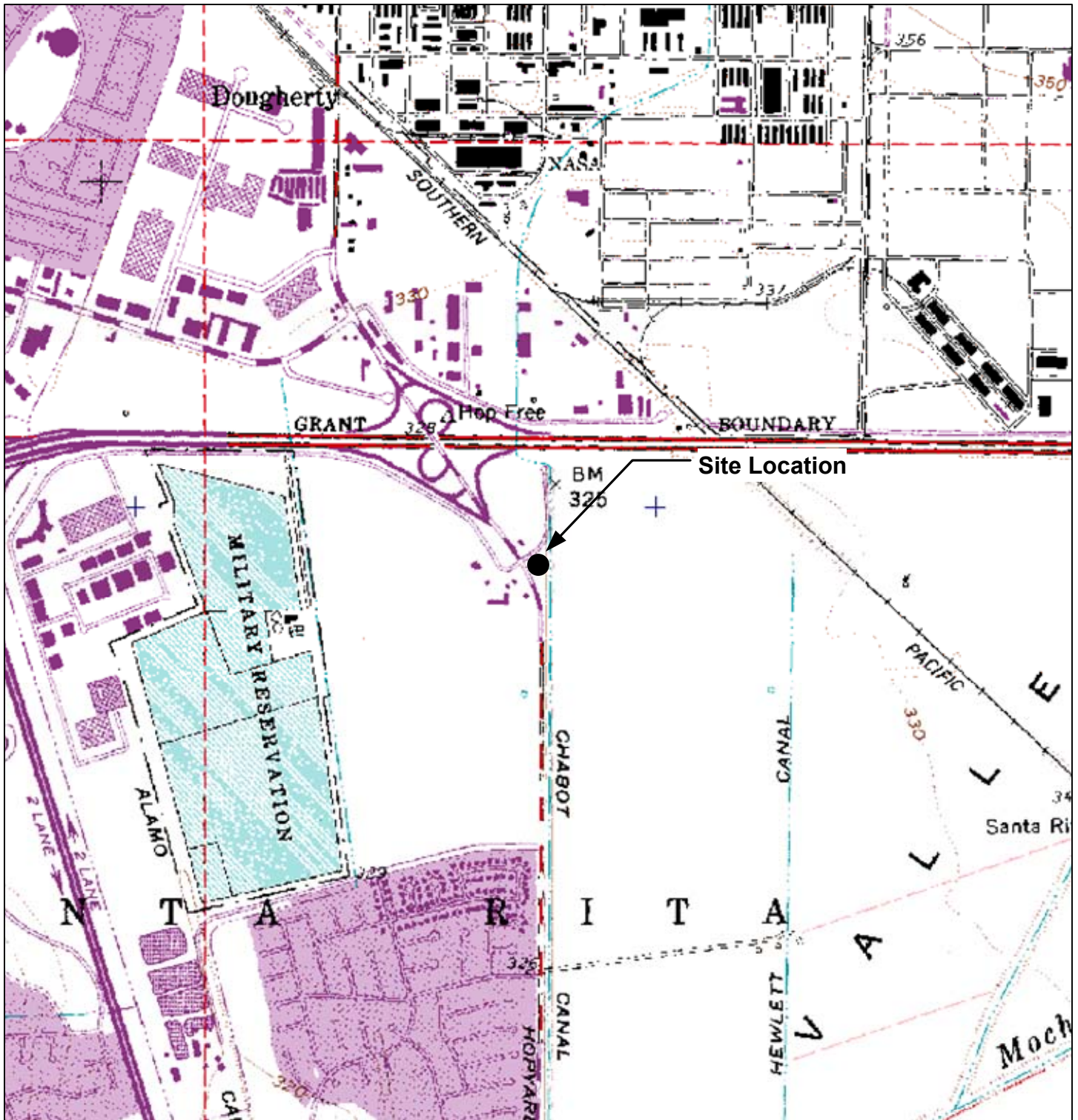


**Attachments:**

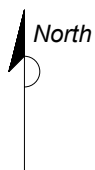
Figure 1 – Site Location Map

Figure 2 – Site Plan with Proposed Monitoring Wells

cc: Denis Brown, Shell Oil Products US, Monte Rio  
Matt Katen, Zone 7 Water District  
Colleen Winey, Zone 7 Water Agency, Livermore  
Carl Cox, C and J Cox Corporation, Pleasanton  
Danielle Stefani, Livermore-Pleasanton Fire Department, Pleasanton



GENERAL NOTES:  
 Base Map from: DeLorme Yarmouth, ME 04096  
 Source Data: USGS



QUADRANGLE LOCATION

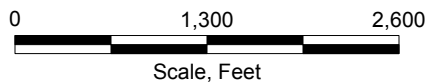


FIGURE 1  
 SITE LOCATION MAP

SHELL-BRANDED SERVICE STATION  
 5251 Hopyard Road  
 Pleasanton, California

PROJECT NO. SCA5251H1	DRAWN BY V. F. 3/31/05
FILE NO.	PREPARED BY VF
REVISION NO.	REVIEWED BY

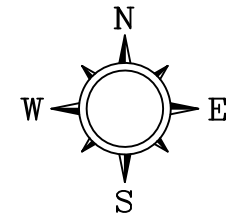


PROJECT NUMBER SCA5251H1

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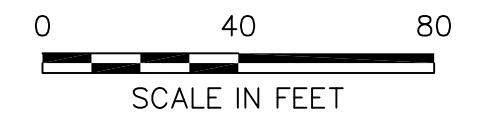
DRAWN BY AD  
JAN 2009



S-9  
~222ft E  
OF SITE

**LEGEND**

- MW-1 GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- EW-1 GROUNDWATER EXTRACTION WELL LOCATION AND DESIGNATION
- V-3 SOIL VAPOR EXTRACTION WELL LOCATION AND DESIGNATION
- PMW S-10 PROPOSED GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
- APPROXIMATE GROUNDWATER GRADIENT DIRECTION (ft/ft)



**DELTA** CONSULTANTS

SHELL OIL PRODUCTS US  
SHELL BRANDED SERVICE STATION  
PLEASANTON, CALIFORNIA

**FIGURE 2**

**SITE PLAN**  
WITH PROPOSED MONITORING WELLS  
5251 HOPYARD ROAD  
PLEASANTON, CALIFORNIA

