

RECEIVED

8:39 am, Sep 14, 2010

Alameda County
Environmental Health



Shell Oil Products US

September 10, 2010

Re: Additional Site Assessment Work Plan
Shell-Branded Service Station
4895 Hacienda Dr.
Dublin, 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 stroke extending to the right.

Denis L. Brown
Project Manager

September 10, 2010
DELTA Project No. SCA4895H1
SAP No. 165112

Mr. Jerry Wickham
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Re: Additional Site Assessment Work Plan
Shell-Branded Service Station
4895 Hacienda Drive
Dublin, California

Dear Mr. Wickham:

On behalf of Equilon Enterprises LLC *dba* Shell Oil Products U.S. (Shell), Delta Consultants (Delta) has prepared this *Additional Site Assessment Work Plan* for the referenced site. In a letter dated June 30, 2010, Alameda County Environmental Health (ACEH) requested a work plan to further delineate the lateral and vertical extent of groundwater contamination as proposed in Delta's *Well Installation Report* dated April 15, 2010. ACEH also requested a detailed sensitive receptor survey to identify all water supply wells within a 2,000 foot radius of the subject site (Attachment A).

SITE DESCRIPTION

The subject property is located on the northeast corner at the intersection of Hacienda Drive and Hacienda Crossings/Martinelli Way in Dublin, California (Figure 1). The property is currently an active Shell-branded service station. The station facilities include a convenience store, a car wash, two underground storage tanks (USTs) and a large canopy covering two dispenser islands with six total dispenser stations (Figure 2).

SENSITIVE RECEPTOR SURVEY

Delta has completed a survey of water supply wells within a 2,000 ft radius of the subject site. Potential sensitive receptor information was obtained electronically from Zone 7 Water Agency and the State of California Department of Water Resources (DWR). Results of a previous search performed by Delta in 2005, the California State Water Resources Control Board's GeoTracker database and Google™ Earth were also utilized as resources.

One documented water supply well was identified within a 2,000 foot radius of the site. The location of the well is approximately 1,750 feet down-gradient of the site to the southeast. The well is designated 3S/1E-5K1 and was owned by the Alameda Sugar Company. A 1912 DWR Well Log submitted by the Spring Valley Water Company indicates the total depth of the well was approximately 130 feet below ground surface (bgs). Mr. Wyman Hong of the Zone 7 Water Agency told Delta that he had previously attempted to field-verify the well, but he was unable to find it. He reported the well as "un-locatable and most likely destroyed."



a member of:



A second well designated 3S/1E-5H1 was also identified within the 2,000 foot radius. Zone 7 Water Agency indicated on their map that the well was undocumented, and Mr. Hong stated that it could not be field-verified. A Well Drillers Report provided by the DWR indentifies the well as a 35-foot deep Test Well installed in 1986 and owned by the County of Alameda Public Works. The well had been installed on the grounds of the Santa Rita Rehabilitation Center. The water supply well details are summarized in Table 1. A figure from Zone 7 Water Agency showing the approximate location of the wells and the DWR logs are presented in Attachment B.

WORK PLAN

To vertically and laterally delineate the extent of petroleum hydrocarbons in soil and groundwater beneath the site and site vicinity, Delta proposes to advance two cone penetration test (CPT) borings (CPT-1 and CPT-2) and install one groundwater monitoring well (MW-7) in the locations shown on Figure 2.

PRE-FIELD ACTIVITIES

Prior to field activities, Delta will obtain the necessary drilling permits from the Zone 7 Water Agency. Delta will also mark the proposed well locations onsite; notify Underground Service Alert (USA) a minimum of 48 hours before work begins; and contract a private utility locating company to survey the borehole locations for the presence of subsurface utilities. Upon mobilization to the field, an air-knife will be employed to pre-excavate each boring location to a depth of approximately eight feet bgs.

CPT BORING DETAILS

To vertically delineate the extent of petroleum hydrocarbons in soil and groundwater, Delta recommends advancing two deep CPT Borings (CPT-1 and CPT-2) near onsite wells MW-2 and MW-5, which have reported the highest petroleum hydrocarbon concentrations in groundwater. The proposed borings will be advanced to a depth of approximately 60 feet bgs using CPT equipment.

In the location of CPT-1, one boring will be advanced to generate a hydrogeologic profile using an integrated electronic cone system that measures cone bearing (penetration resistance), sleeve friction and penetration pore-water pressure, and a second, adjacent boring will be advanced to collect soil and depth-discrete groundwater samples. The profile will be used to verify the depth and lateral continuity of the deeper water-bearing zones visually identified in the direct-push boring previously advanced near Well MW-5. Only one boring for collecting soil and groundwater samples will be advanced in the location of CPT-2. Additional borings may be advanced in either location depending on conditions.

Soil samples will be collected at approximate 5-foot depth intervals from 10 feet bgs to the total depth of the borings using a direct-push, piston-type sampler equipped with stainless steel liners. Samples will be field-screened for the presence of volatile organic compounds using a photo ionization detector (PID). Selected soil samples will be retained for potential laboratory analyses. Groundwater samples will be collected from depth-discrete permeable zones identified in the lithologic logs using a Hydropunch® type sampler and a disposable or reusable bailer. Upon completion, the boreholes will be back-filled with neat cement grout and capped with concrete.

All down-hole equipment will be cleaned prior to use and between boring locations. All soil and water generated during the boring activities will be stored onsite in Department of Transportation rated, 55-gallon drums pending characterization and appropriate disposal.

WELL CONSTRUCTION DETAILS

Offsite monitoring well MW-7 will be installed to laterally delineate soil and groundwater down-gradient of the subject site. The boring for Well MW-7 will be drilled to a total depth of approximately 30 feet bgs using 10-inch diameter to hollow-stem auger drilling equipment. Soil samples will be collected from the

well boring at approximate 5-foot depth intervals for logging and potential laboratory analysis using a split-spoon sampler fitted with brass or steel sample sleeves. The soil samples will be field-screened using a PID, and logged by Delta field staff in accordance with the Unified Soil Classification System. Additional soil samples will be retained for laboratory analysis if the PID readings are greater than 10 parts per million or obvious indications of petroleum hydrocarbons (i.e. strong odor or staining) are observed.

Previous work at the site indicates groundwater was first-encountered during drilling at depths between 17.5 and 22.5 feet bgs. Upon reaching the permeable horizon, groundwater rose 5 to 10 feet within the boreholes indicating locally confined conditions. The offsite boring will be converted to a groundwater monitoring well by the installation of 4-inch diameter, Schedule 40 polyvinyl chloride (PVC) well casing with ten feet of 0.010-inch factory-slotted well screen from 5 feet to 25 feet bgs. A filter pack of # 2/12 sand will be placed in the annular space from the bottom of the boring to approximately 1 foot above the top of the screen, followed by a sanitary seal consisting of approximately 1 foot of hydrated bentonite and neat cement grout that extends to the surface. Upon completion, the well will be protected with a traffic rated well box installed flush with the ground surface. All proposed well construction and sampling protocols may be modified depending on the field conditions encountered.

All down-hole drilling and sampling equipment will be cleaned prior to use. All soils, water and debris generated during the well installation activities will be stored onsite in Department of Transportation rated, 55-gallon drums pending characterization and appropriate disposal.

A minimum of three days following installation, the monitoring well will be developed by Blaine Tech Services, Inc. (Blaine) using a surge and bail technique. The well will be developed until a minimum of ten casing volumes are removed, groundwater quality parameters (i.e. turbidity, pH, electric conductivity and temperature) begin to stabilize and a relative change in groundwater clarity is observed. Following development, the well will be incorporated into the quarterly groundwater monitoring and sampling program for the site.

The well will also be surveyed by a licensed surveyor for latitude, longitude and elevation relative to mean sea level using both conventional survey techniques and GPS technology. The survey data will be uploaded to the California State GeoTracker database.

ANALYTICAL TESTING

Soil and groundwater samples will be analyzed for the presence of total petroleum hydrocarbons as diesel (TPH-d) by Environmental Protection Agency (EPA) Method 8015M, and for TPH as gasoline (TPH-g), benzene, toluene, ethylbenzene, and xylenes (BTEX compounds), methyl tert-butyl ether (MTBE) diisopropyl ether (DIPE), ethyl tert-butyl ether (ETBE), tert-amyl methyl ether (TAME), tert-butyl alcohol (TBA), ethanol, 1,2-dichloroethane (1,2-DCA) and 1,2-dibromoethane (EDB) by EPA Method 8260B.

SCHEDULE

Delta will begin pre-field preparations following approval of this work plan by the ACEH and will commence field activities within 60 days of receipt of the approval letter, assuming all permits and pre-field requirements have been met.

REMARKS

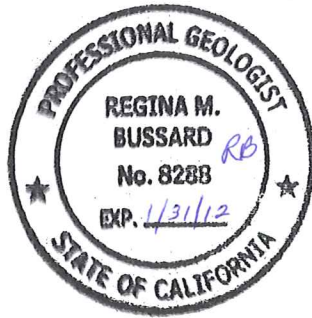
This document represents Delta's professional opinions based upon the currently available information and is arrived at in accordance with currently acceptable professional standards. This document is based upon a specific scope of work requested by the client. The Contract between Delta and its client outlines the scope of work, and only those tasks specifically authorized by that contract or outlined in this document will be performed. This document is intended only for the use of Delta's Client and anyone else specifically listed on this document. 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 document.

If you have any questions, please contact Regina Bussard (Delta) at (408) 826-1876 or Denis Brown (Shell) at (707) 865-0251.

Sincerely,
Delta Consultants



Regina Bussard, PG
Project Manager



Abhik Dutta
Project Geologist

ATTACHMENTS:

Table 1- Water Supply Well Details

Figure 1 - Site Location Map

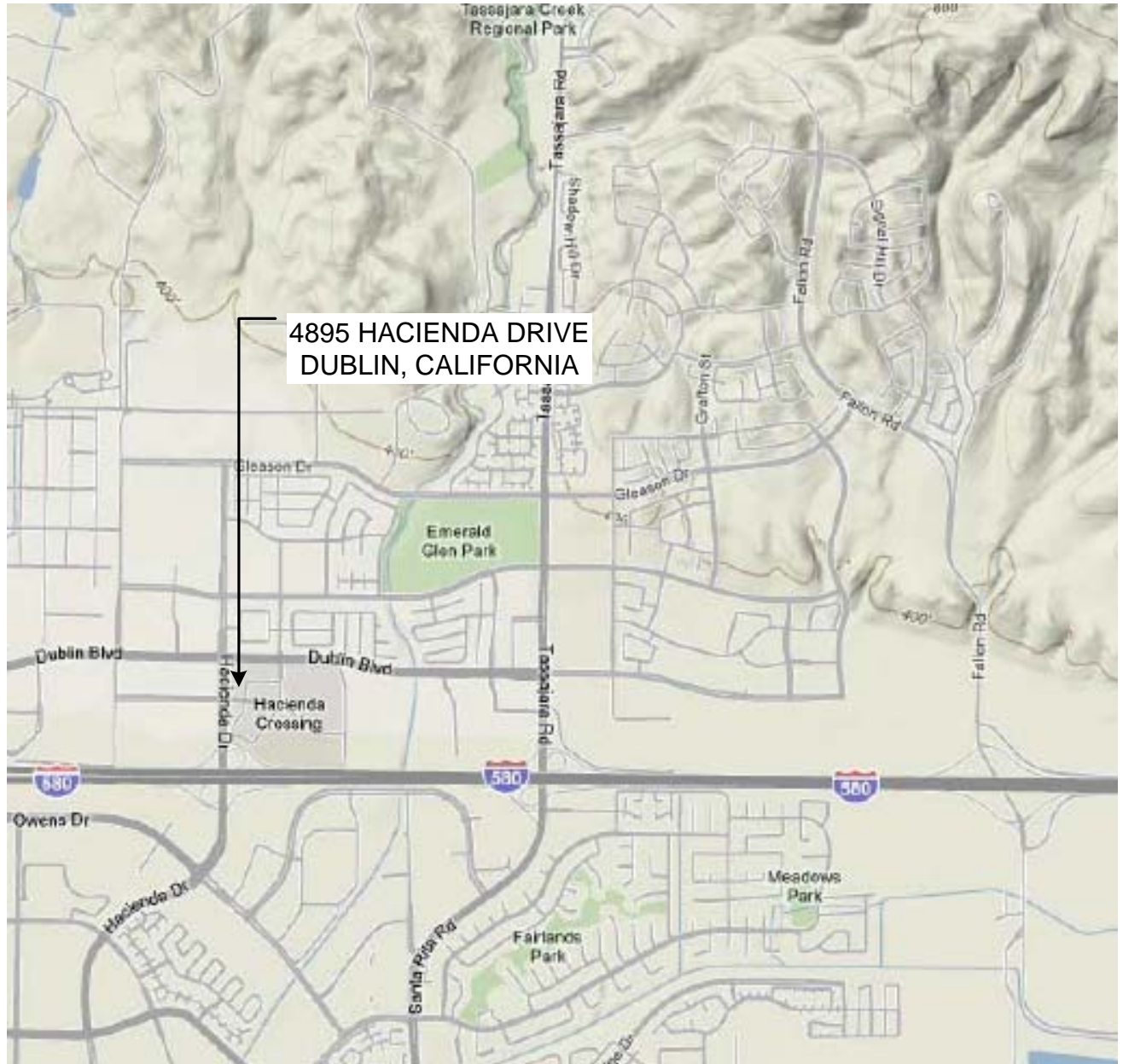
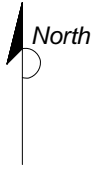
Figure 2 – Site Map

Attachment A – Alameda County Environmental Health letter dated July 30, 2010

Attachment B – Water Supply Well Location Map and Logs

cc: Denis Brown, Shell Oil Products US, Carson (electronic)
Mr. Carl Cox, C and J Cox Corporation, Pleasanton
Cheryl Dizon, Zone 7 Water Agency, Livermore

FIGURES

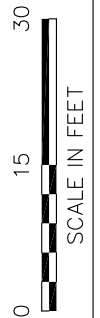


APPROX. SCALE

FIGURE 1
SITE LOCATION MAP
SHELL-BRANDED SERVICE STATION
4895 HACIENDA DRIVE
DUBLIN, CALIFORNIA

PROJECT NO. SCA4895H1	DRAWN BY AD SEPT, 2009
FILE NO.	PREPARED BY AD
REVISION NO. 2	REVIEWED BY





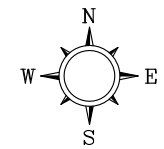
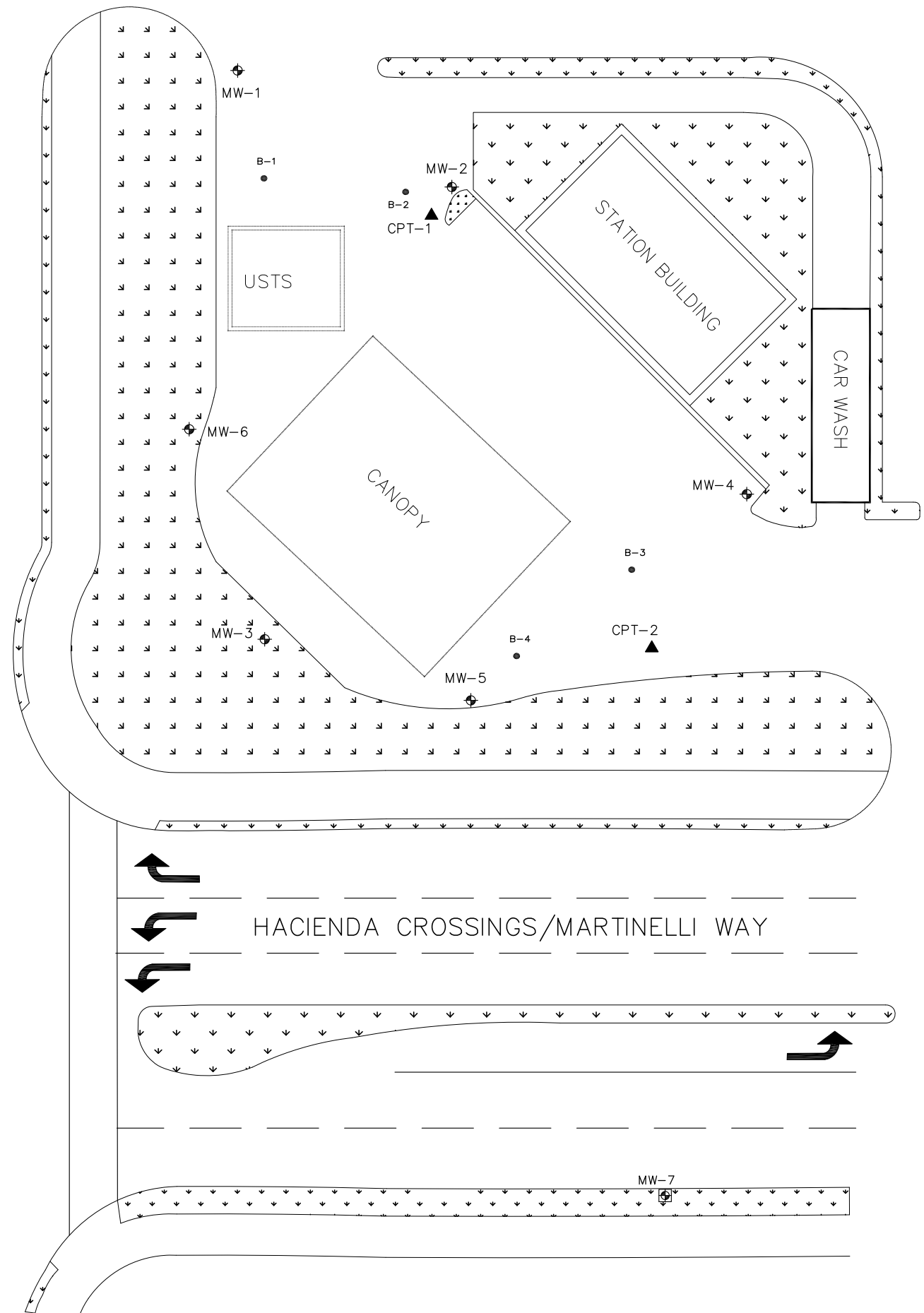
PROJECT NUMBER SCA4895H1

APPROVED BY

CHECKED BY

DRAWN BY AD
SEPT, 2010

HACIENDA DRIVE



LEGEND

MW-1		PROPOSED GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION
CPT-1		PROPOSED CONE PENETRATION TEST BORING LOCATION AND DESIGNATION
B-1		SOIL BORING (AUGUST 20, 2008)
MW-1		GROUNDWATER MONITORING WELL LOCATION AND DESIGNATION



SHELL OIL PRODUCTS US
SHELL BRANDED SERVICE STATION
DUBLIN, CALIFORNIA

FIGURE 2

SITE MAP

4895 HACIENDA DRIVE
DUBLIN, CALIFORNIA

TABLE

TABLE 1
WATER SUPPLY WELL DETAILS
 Shell-Branded Service Station
 4895 Hacienda Drive
 Dublin, California

WELL DESIGNATION	LOCATION	TOTAL DEPTH (feet)	WELL DIAMETER	SCREEN INTERVAL	DATE OF INSTALLATION	CURRENT STATUS	HISTORIC USE	WELL OWNER
3S/1E-5K1	1,750 feet SE of Site	130	NA	NA	NA	Inactive	Water supply well	Alameda Sugar Company

Abbreviations:

NA = Not Available
 SE = Southeast

Notes:

The well information was provided by Zone 7 Water Agency and the State of California Department of Water Resources. Well 3S/1E-5K1 construction data was from a 1912 report prepared by the Spring Valley Water Company; the well was reported by Zone 7 Water Agency as unable to be located and most likely destroyed. No other water supply wells were identified within a 1/2-mile radius of the subject site.

ATTACHMENT A
ALAMEDA COUNTY ENVIRONMENTAL HEALTH
LETTER DATED JULY 30, 2010



ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

June 30, 2010

Mr. Denis Brown
Shell Oil Products US
20945 S. Wilmington Ave.
Carson, CA 90810-1039

Carl Cox
CJC Hacienda LLC
4431 Stoneridge Drive #100
Pleasanton, CA 94588-8417

Subject: Fuel Leak Case No. RO0002985 and Geotracker Global ID T10000000423, Shell #16-5112, 4895 Hacienda Drive, Dublin, CA 94568 – Request for Work Plan

Dear Mr. Brown:

Alameda County Environmental Health (ACEH) staff has reviewed the fuel leak case file for the above referenced site including the documents entitled, "*Well Installation Report*," dated April 15, 2010 (Report). The Report, which was prepared by Delta Consultants on behalf of Shell Oil Products, presents the results from soil and groundwater sampling conducted during and following installation of six groundwater monitoring wells. We request that you address the following technical comments, perform the proposed work, and send us the reports described below.

TECHNICAL COMMENTS

- 1. Delineation of Lateral and Vertical Extent of Contamination.** Based on the results of soil and groundwater sampling conducted during well installation, the Well Installation Report recommends preparation of a Work Plan to complete lateral and vertical delineation of groundwater contamination. We concur with the recommendation and request that you submit a Work Plan no later than September 10, 2010.
- 2. Detailed Well Survey.** In order to identify potential receptors for the fuel hydrocarbon plume from your site, we request that you locate all water supply wells within a radius of 2,000 feet of the subject site. We recommend that you obtain well information from both the Zone 7 Water Agency and the State of California Department of Water Resources. Submittal of maps showing the location of all wells identified in your study, and the use of tables to report the data collected as part of your survey are required. Please provide a table that includes the well designation, location, total depth, diameter, screen interval, date of well installation, current status, historic use, and owner of the wells. In addition, please provide well logs and completion records for wells downgradient from the site that are potential receptors. Results of the detailed well survey are to be included in the Work Plan requested below.

Mr. Denis Brown
Mr. Carl Cox
RO0002985
June 30, 2010
Page 2

3. **Groundwater Monitoring.** Please conduct quarterly groundwater sampling in the six monitoring wells installed in February 2010. Groundwater samples from the wells are to be analyzed using the methods previously proposed for groundwater samples in the September 28, 2009, "Soil and Groundwater Investigation Work Plan." Please present the results in the Groundwater Monitoring Reports requested below.

TECHNICAL REPORT REQUEST

Please submit technical reports to Alameda County Environmental Health (Attention: Jerry Wickham), according to the following schedule:

- **August 13, 2010** – Second Quarter 2010 Groundwater Monitoring Report
- **September 10, 2010** – Work Plan
- **November 13, 2010** – Third Quarter 2010 Groundwater Monitoring Report

If you have any questions, please call me at (510) 567-6791 or send me an electronic mail message at jerry.wickham@acgov.org.

Sincerely,



Digitally signed by Jerry Wickham
DN: cn=Jerry Wickham, o, ou,
email=jerry.wickham@acgov.org, c=US
Date: 2010.06.29 15:10:01 -07'00'

Jerry Wickham, California PG 3766, CEG 1177, and CHG 297
Senior Hazardous Materials Specialist

Attachment: Responsible Party(ies) Legal Requirements/Obligations
Enclosure: ACEH Electronic Report Upload (ftp) Instructions

cc: Cheryl Dizon (QIC 8021), Zone 7 Water Agency, 100 North Canyons Pkwy, Livermore, CA 94551
(Sent via E-mail to: cdizon@zone7water.com)

Regina Bussard, Delta Environmental Consultants, Inc., 312 Piercy Road, San Jose, CA 95138
(Sent via E-mail to: RBussard@deltaenv.com)

Suzanne McClurkin-Nelson, Delta Environmental Consultants, Inc., 312 Piercy Road, San Jose, CA 95138 (Sent via E-mail to: SMcClurkin-Nelson@deltaenv.com)

Donna Drogos, ACEH (Sent via E-mail to: donna.drogos@acgov.org)
Jerry Wickham, ACEH
Geotracker, File

Attachment 1
Responsible Party(ies) Legal Requirements/Obligations

REPORT REQUESTS

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

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to 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 Instructions." 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. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all 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 monitoring wells, and other data to the GeoTracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in GeoTracker (in PDF format). Please visit the SWRCB website for more information on these requirements (http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml).

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.

Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)	ISSUE DATE: July 5, 2005
	REVISION DATE: March 27, 2009
	PREVIOUS REVISIONS: December 16, 2005, October 31, 2005
SECTION: Miscellaneous Administrative Topics & Procedures	SUBJECT: Electronic Report Upload (ftp) Instructions

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.

REQUIREMENTS

- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection**. (Please do not submit reports as attachments to electronic mail.)
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements **must** be included and have either original or electronic signature.
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:
RO#_Report Name_Year-Month-Date (e.g., RO#5555_WorkPlan_2005-06-14)

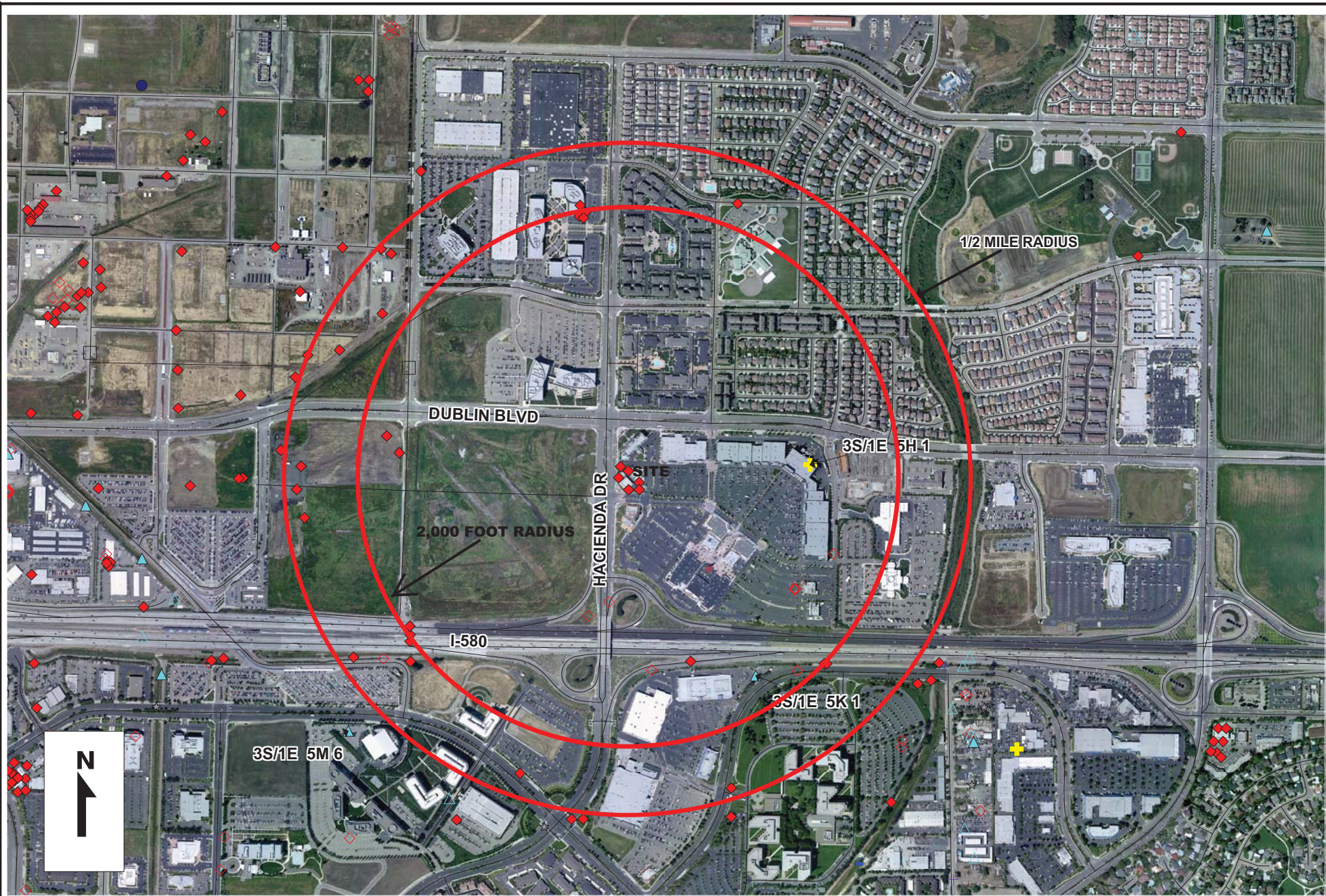
Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

Submission Instructions

- 1) Obtain User Name and Password:
 - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
 - i) Send an e-mail to dehloptoxic@acgov.org
 - Or
 - ii) Send a fax on company letterhead to (510) 337-9335, to the attention of My Le Huynh.
 - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses**, and the **Case Numbers (RO# available in Geotracker) you will be posting for**.
- 2) Upload Files to the ftp Site
 - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
 - (i) Note: Netscape and Firefox browsers will not open the FTP site.
 - b) Click on File, then on Login As.
 - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
 - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
 - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
 - a) Send email to dehloptoxic@acgov.org notify us that you have placed a report on our ftp site.
 - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
 - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO# use the street address instead.
 - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

ATTACHMENT B
WATER SUPPLY WELL LOCATION MAP AND LOGS



- ▲ Water Supply Wells
- ◆ Monitoring Wells
- + Undocumented Well

ZONE 7 WATER AGENCY
100 NORTH CANYONS PARKWAY
LIVERMORE, CA 94551

WELL LOCATION MAP

SCALE: 1" = 1000 ft

DATE: 8/23/10

4895 Hacienda Dr, Dublin

REGION _____
 COUNTY _____
 NEAR _____

DEPARTMENT OF WATER RESOURCES
 DEPARTMENT OF PUBLIC WORKS
 STATE OF CALIFORNIA

01-956

No. 38/1E-5K/ B & M
 OTHER NOS. 42

WELL LOG

LOCATION _____ 9

OWNER _____ ADDRESS _____

DRILLED BY _____ ADDRESS _____

DRILLING METHOD _____ GRAVEL PACKED _____ DATE COMPLETED _____

SIZE OF CASING DEPTH _____ STRUCK WATER AT _____

PERFORATIONS _____ SIZE _____ No. _____

WATER LEVEL BEFORE PERFORATING _____ AFTER _____

TEST DATA: DISCHARGE G. P. M. _____ DRAWDOWN FT. _____ HOURS RUN _____

OTHER DATA AVAILABLE: WATER LEVEL RECORD _____ ANALYSIS _____

SURFACE ELEV. 357 DATUM 3800 SOURCE OF INFORMATION Spring valley water co. 1912 report

FOR FIELD COPIES USE ALTERNATE LINES

DEPTH	ELEV. OF BOTTOM OF STRATUM	MATERIAL	THICKNESS	SP. YIELD %
0 - 5		soil	5	
5 - 6		sand- little water	1	
6 - 14		gray and blue clay		
14 - 21		blue clay	7	
21 - 34		gray clay	13	
34 - 44		yellow sediment		
44 - 47		blue clay and sand		
47 - 51		blue clay and gravel		
51 - 68		coarse water gravel	17	
68 - 81		fine gravel and sand		
81 - 91		yellow clay		
91 - 96		blue clay, somewhat sandy		
96 - 98		clay		
98 - 105		gray, sandy clay, mostly sand		
105 - 130		blue clay		
		Total thickness		

LOG OBTAINED BY _____ DATE _____ SHEET 1 OF _____

CONFIDENTIAL

STATE OF CALIFORNIA DWR
WELL COMPLETION REPORT
(WELL LOGS)

REMOVED