

**RECEIVED**

11:39 am, Mar 19, 2009

Alameda County  
Environmental Health

  
76 Broadway  
Sacramento, California 95818

March 16, 2009

Barbara Jakub  
Alameda County Health Agency  
1131 Harbor Bay parkway, Suite250  
Alameda, California 94502-577

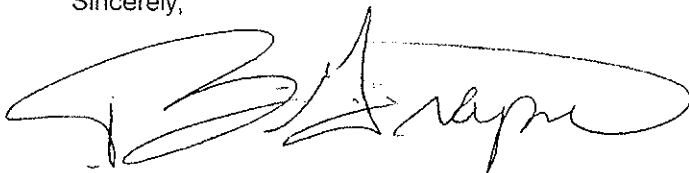
Re: ***Work Plan for Additional Delineation and Update of RBCA Analysis***  
**76 Service Station # 3135 RO # 0408**  
**6535 San Leandro Street**  
**Oakland, CA**

Dear Ms. Jakub:

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

If you have any questions or need additional information, please call me at (916) 558-7666.

Sincerely,



Terry L. Grayson  
Site Manager  
Risk Management & Remediation

MS. BARBARA JAKUB  
Hazardous Materials Specialist  
Alameda County Health Care Services (ACHCS)  
1131 Harbor Bay Parkway  
Alameda, CA 94502-6577

WORK PLAN FOR ADDITIONAL  
DELINEATION OF SOIL CONTAMINATION  
AND UPDATE OF RBCA ANALYSIS



76 SERVICE STATION NO. 3135  
6535 SAN LEANDRO ST  
OAKLAND, CALIFORNIA  
AOC# 01156  
RO# 0000408

DELTA PROJECT C105325  
March 16, 2009

Prepared for:

ConocoPhillips Company  
76 Broadway  
Sacramento, CA 95818

Prepared by:

Delta Consultants

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### FIGURES

Figure 1 – Site Location Map

Figure 2 – Site Map with Proposed Soil Boring Location

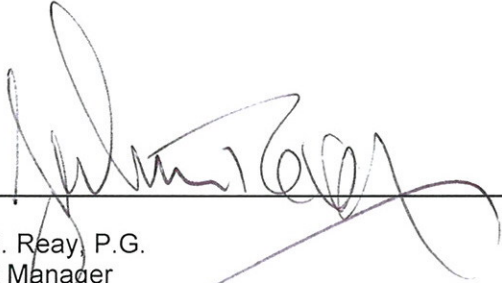
### ATTACHMENTS

Attachment 1 – COP Letter of Authority

## CERTIFICATION

This report was prepared under the supervision and direction of the undersigned California Professional Geologist.

### Delta Consultants



John R. Reay, P.G.  
Project Manager  
California Registered Professional Geologist No. 4716



## 1.0 DECLARATION

On behalf of ConocoPhillips Company (ConocoPhillips), Delta Consultants has prepared this *Work Plan for Additional Delineation of Soil Contamination* for the above referenced site. This work plan includes a description of the site background, remediation status, site conditions, and presents a scope of work to investigate migration of petroleum hydrocarbons in the groundwater at the site.

## 2.0 PROJECT OBJECTIVES AND SCOPE OF WORK

The objective of this work is to obtain a single soil sample from above the water table in the vicinity of MW-10 in order to better delineate soil contamination near this monitoring well and to update previously conducted RBCA analysis.

## 3.0 SITE DESCRIPTION AND SITE BACKGROUND

### 3.1. SITE DESCRIPTION

The subject site is an active service station located on the northwest corner of San Leandro Street and 66<sup>th</sup> Avenue in Oakland, California. Station facilities currently include two gasoline underground storage tanks (USTs), a 550-gallon waste oil UST, three dispenser islands under canopies, and a service station building. The product dispensers utilize a balanced vapor recovery system.

Historical data indicate that the site has been a service station since 1947. Renovation of the site first occurred in 1967, when the size of the site expanded to its current configuration.

### 3.2. SITE BACKGROUND

1989: Two 10,000-gallon gasoline USTs, one 280-gallon waste oil UST and product piping were removed from the site. Confirmation soil samples collected from the UST pit indicated low residual maximum concentrations of Total Petroleum Hydrocarbons as gasoline (TPH-g), benzene, and Total Oil and Grease (TOG). After confirmation soil sampling, approximately 5,000 gallons of groundwater were removed from the UST pit and disposed offsite. A groundwater sample was collected and analyzed after recharge of the UST pit and contained TPH-g at 7,900 parts per billion (ppb) and benzene at 850 ppb. Confirmation soil samples collected from the product piping trench indicated low maximum residual concentrations of TPH-g and benzene.

April 1990: Two shallow soil borings were advanced and three groundwater monitoring wells were installed to depths of approximately 22 feet below ground surface (bgs).

August 1990: Three groundwater-monitoring wells (MW-4 through MW-6) were installed.

January 1991: A hydropunch survey was performed at the site.

March 1991: The pre-1967 UST pit was over-excavated, and two concrete slabs were removed from depths of approximately 8.5 and 10 feet bgs. Approximately 2,000 cubic yards of impacted soil was removed from the site and properly disposed. Over-excavation was limited by existing product piping. Confirmation soil samples from the former UST pit indicated low to moderate residual concentrations of TPH-g. Approximately 20,000 gallons of groundwater were pumped from the former UST pit prior to backfilling and properly disposed.

September 1992: Three offsite groundwater monitoring wells were installed in the streets.

April 1993: One groundwater monitoring well was installed at the site.

August 1998: Oxygen Releasing Compound (ORC) was installed in monitoring well MW-6 to assist with biological attenuation of hydrocarbon compounds. Starting in 1999, the following bioattenuation parameters have been measured at the site: nitrate, sulfate, ferrous iron, dissolved oxygen, and, oxidation-reduction potential. According to Gettler-Ryan, Inc.'s (GR) Annual Monitoring and Sampling Report dated April 19, 2001, review of these parameters indicates that bioattenuation is occurring at the site.

July 2001: One offsite well boring was installed to a depth of 20 feet bgs.

October 2003: Site environmental consulting responsibilities were transferred to TRC.

#### **4.0 SENSITIVE RECEPTORS**

February 27, 2006: TRC completed a sensitive receptor survey for the site. According to the California Department of Water Resources (DWR) records, no water supply wells were located within a one-half mile distance of the Site. Surface water bodies within one-half mile of the Site include Damon Slough and Lion Creek, located approximately 775 feet south and 525 feet southeast of the site, respectively.

#### **5.0 SITE ASSESSMENT ACTIVITIES**

##### **5.1. REMEDIATION STATUS**

There is currently no remediation system employed at this site.

##### **5.2. MONITORING STATUS**

TRC Performs Quarterly Monitoring at this site.

#### **6.0 PROPOSED SCOPE OF WORK**

Hand auger to collect one soil sample via slide hammer from approximately 1 foot above the historical high groundwater level in the immediate vicinity of MW-10. Based on historical groundwater elevations measured from TOC in MW-10, ranging from 8.74 ft to 3.76 ft, the sample interval is anticipated to be 3.0 to 3.5 ft bg. The soil sample will be collected by driving a 2"x6" pre-cleaned brass or stainless steel cylinder into the proposed sample interval with a slide hammer. The sample cylinder will be retrieved, capped with Teflon end-caps, sealed with duct tape, and processed for delivery under chain-of-custody to the laboratory for analysis.

##### **6.1. PRE-FIELD ACTIVITIES**

Prior to commencing sampling activities, permits will be acquired from all appropriate agencies, which includes but may not be limited to encroachment and obstruction permits from the City of Oakland. Underground Service Alert (USA) will be notified at least two days prior to field activities to mark underground utilities within a ten foot radius if the proposed boring location. A Traffic Control plan will be prepared and submitted. Because the soil sample will be collected at a depth less than five feet bg, utility clearance via air knife is not applicable. COP has authorized collection of this sample by advancing the boring via hand auger and collection of the sample via slide hammer (Letter of Authority Attached).

A site and job specific health and safety plan that promotes personnel safety and preparedness during the planned activities will be prepared. On the morning of the day that the field activities are to commence, a "tailgate" meeting will be conducted with all exclusion zone workers to discuss the health and safety issues and concerns related to the specific work.

##### **6.2. WASTE DISPOSAL**

Soil cuttings and water generated during site assessment activities will be stored onsite in Department of Transportation (DOT)-approved 55-gallon drums pending disposal at a COP approved disposal/recycling facility. Waste manifests will be prepared for proper transport and disposal of the waste.

##### **6.3. SITE ASSESSMENT REPORT**

Delta will prepare a report detailing the findings and analytical results of the soil sampling obtained through this scope of work.

The Site Assessment Report will be submitted to the ACHCS within six weeks of the completion of the field activities.

## **8.0 REMARKS**

The recommendations contained in this report represent Delta's professional opinions based upon the currently available information and are arrived at in accordance with currently acceptable professional standards. This report 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 report will be performed. This report 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 report.

If you have questions regarding this work plan or require additional information, please call John Reay at (916) 503-1260.

Sincerely,

**Delta Consultants**

## FIGURES



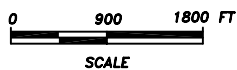
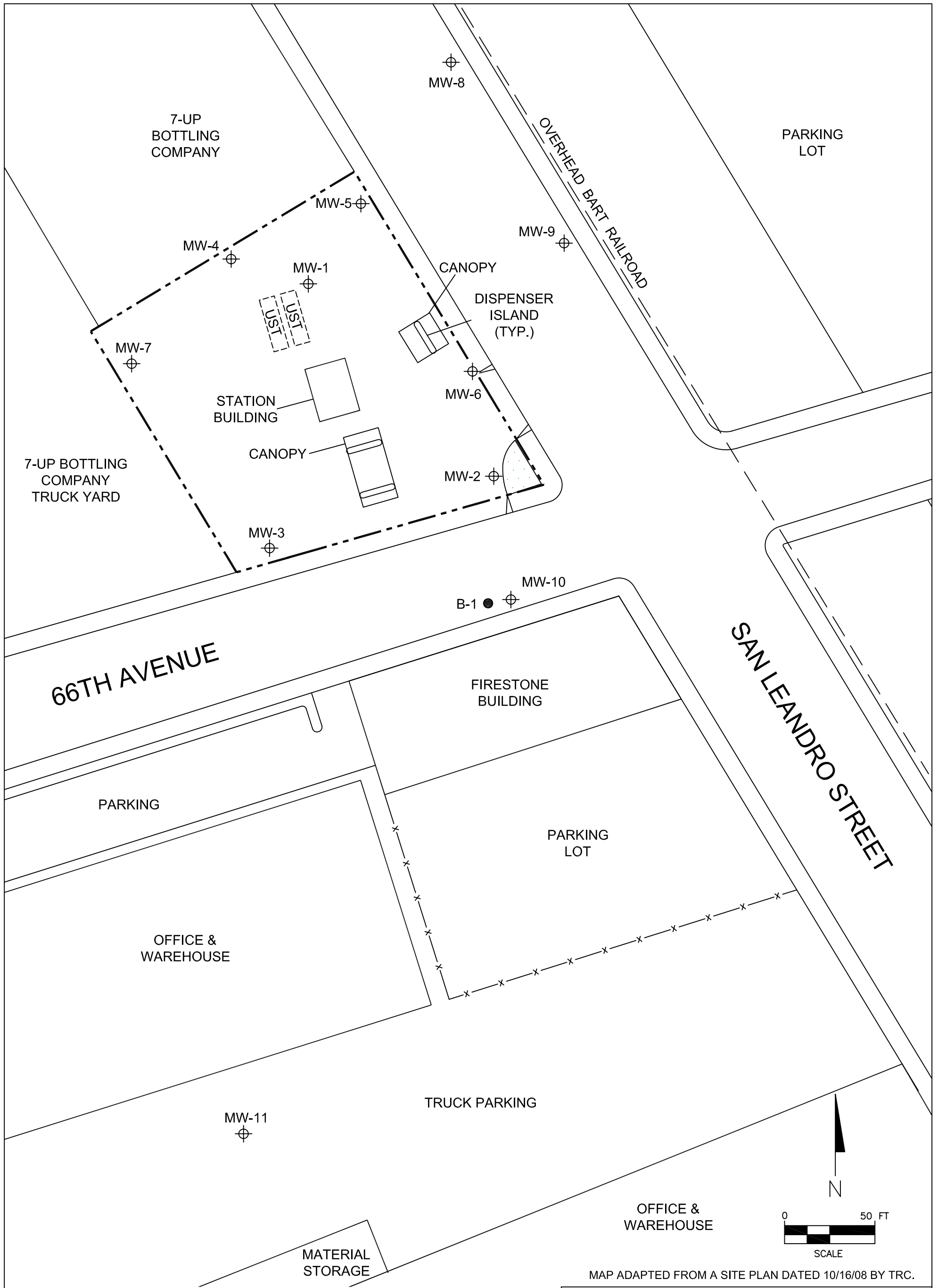


FIGURE 1  
SITE LOCATION MAP

76 STATION 3135  
845 66TH AVENUE  
OAKLAND, CALIFORNIA

PROJECT NO. C103135	DRAWN BY JH 02/25/09
FILE NO. 3135-SiteLocator	PREPARED BY AB
REVISION NO.	REVIEWED BY JR






- LEGEND:**
- APPROXIMATE PROPERTY BOUNDARY
  - x- FENCE
  - MW-11 ⊕ MONITORING WELL
  - B-1 ● PROPOSED BORING LOCATION

MAP ADAPTED FROM A SITE PLAN DATED 10/16/08 BY TRC.

**FIGURE 2**  
SITE PLAN

76 STATION 3135  
845 66TH AVENUE  
OAKLAND, CALIFORNIA

PROJECT NO. C103135	PREPARED BY AB	DRAWN BY JH	
DATE 02/25/09	REVIEWED BY JR	FILE NAME C103135	

**ATTACHMENT 1**

**Alan Buehler**

---

**From:** Grayson, Terry L (DXT Services) [Terry.L.Grayson@contractor.conocophillips.com]  
**Sent:** Friday, February 27, 2009 9:42 AM  
**To:** John Reay  
**Subject:** RE: 3135 Request for Hand Auger vs Air Knife

Hi John,

This will serve as my approval given the sample collection need of only 3 feet bg anticipated at site 3135 (6535 San Leandro St) in Oakland CA to hand auger and slide hammer vs. the standard air knife required.

Thank you,

Terry L. Grayson

---

**From:** John Reay [mailto:JReay@deltaenv.com]  
**Sent:** Wednesday, February 25, 2009 11:44 AM  
**To:** Grayson, Terry L (DXT Services)  
**Subject:** 3135

Terry:

Can I get a letter from you authorizing NOT using air knife, and instead collecting this one soil sample with hand auger and slide hammer (which are also intrinsically safe)? This is because we have to collect a sample from only 3 feet bg and air knife would blast any contam out of the sample interval.

Thanks!!

**John R. Reay, P.G.**  
Senior Project Manager  
Delta Consultants  
11050 White Rock Road  
Rancho Cordova, CA. 95670  
916-503-1260  
[www.deltaenv.com](http://www.deltaenv.com)

Member of Inogen  
[www.inogenet.com](http://www.inogenet.com)

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