

RO-156



**Shell Oil Products US**

April 14, 2003

eva chu  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Alameda County  
APR 17 2003  
Environmental Health

**Subject: Shell-branded Service Station**  
1285 Bancroft Avenue  
San Leandro, California

Dear Ms. chu:

Attached for your review and comment is a copy of the *Agency Response* for the above referenced site. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

As always, please feel free to contact me directly at (559) 645-9306 with any questions or concerns.

Sincerely,

**Shell Oil Products US**

A handwritten signature in cursive script that reads "Karen Petryna".

Karen Petryna  
Sr. Environmental Engineer

April 14, 2003

eva chu  
Alameda County Health Care Services Agency  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Re: **Agency Response**  
Shell-branded Service Station  
1285 Bancroft Avenue  
San Leandro, California  
Incident #98996067  
Cambria Project #245-0504



Dear Ms. chu:

On behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell), Cambria Environmental Technology, Inc. (Cambria) is submitting this correspondence to address the technical comments listed in the Alameda County Health Care Services Agency (ACHCSA) letter dated February 6, 2003.

**1. Site Characterization** – ACHCSA has noted that the lateral and vertical extent of the plume is not defined and has requested that our monitoring network include depth-discrete monitoring with screened intervals appropriate to the plume stratification at the site. ACHCSA is suggesting that future monitoring wells have no greater than 2-foot screened intervals. ACHCSA also requests that we include a proposal for plume delineation in an amended work plan.

As stated in Cambria's September 20, 2002 *Third Quarter 2002 Monitoring Report* and the October 15, 2002 work plan, the objective of this investigation is to define the downgradient extent of methyl tertiary butyl ether (MTBE) in groundwater and to provide for ongoing groundwater monitoring downgradient of the site. In the original work plan, Cambria proposed to install two downgradient monitoring wells to achieve this objective. Concurrent with this letter, Cambria is submitting *Subsurface Investigation Work Plan Amendment* that provides for collecting depth-discrete grab-groundwater samples from borings prior to installing monitoring wells. Cambria will use the data collected to determine the optimum well location, well depth and well screen intervals.

**2. Determining Well Locations** – Similar to Item 1 above, ACHCSA suggests that Cambria collect depth-discrete grab groundwater samples to determine optimal well locations. As noted above, Cambria's is submitting *Subsurface Investigation Work Plan Amendment* to perform depth-discrete groundwater sampling prior to installing monitoring wells.

**Cambria  
Environmental  
Technology, Inc.**

5900 Hollis Street  
Suite A  
Emeryville, CA 94608  
Tel (510) 420-0700  
Fax (510) 420-9170

**3. Source Characterization** – ACHCSA has requested that Cambria collect soil samples in the “source area” since soil samples collected during the 1992 installation of monitoring wells MW-2 and MW-3 were not analyzed for MTBE. The highest MTBE concentration detected in soil from MW-5 (located immediately downgradient of the tank complex) was 2.25 parts per million (at 35.5 feet below grade [fbg]) using EPA Method 8260. In fact, all three samples where MTBE was detected in soil from this boring were below the static groundwater level, and thus concentrations may be more indicative of chemicals in groundwater rather than soil. Cambria’s *Subsurface Investigation Work Plan Amendment* includes advancing one onsite soil boring to obtain current soil data in the tank pit vicinity.



**4. Site Conceptual Model (SCM)** – ACHCSA has requested an SCM consisting of, but not limited to, discussion of: regional geologic and hydrogeologic setting; onsite and offsite geology; release history; source zone; plume development and migration; attenuation mechanisms, preferential pathways; potential threat to downgradient and aboveground receptors (including vapor pathways); hydraulic flow system analysis, rose diagram; and analysis of vertical hydraulic gradients.

Although Shell’s consultants have provided much of this information since monitoring began at the site in 1990, Cambria concurs that a compilation and summary of this information would be useful. However, we would like to incorporate results from the proposed subsurface investigation in the SCM. Cambria proposes to submit an SCM following the report of the proposed investigation.

**5. Preferential Pathway Study** – ACHCSA has requested a preferential pathway study including a detailed well survey and utility survey. Weiss Associates submitted a well survey in 1992 and Cambria provided an additional review of sensitive receptors in a letter dated February 24, 1999. The distance and direction to sensitive receptors nearest the site have been shown on the quarterly groundwater contour maps since the second quarter of 2002. Cambria will attempt to obtain well records and review construction details for these wells.

Groundwater at the site currently ranges from approximately 32 to 35 fbg, and the shallowest recorded depth to water was 23.2 fbg in July 1999. Utilities are not typically buried at such a depth and therefore it is highly unlikely that utility trenches within and near the site and plume areas could be serving as preferential pathways for chemical migration in groundwater.

**6. Interim Remediation** – ACHCSA has requested that Cambria provide dual-phase vapor extraction (DVE) design parameters and that results of the proposed investigation be used to evaluate the effectiveness of the DVE system. ACHCSA made a similar request in a letter dated June 14, 2001. In response, Cambria discussed DVE methodology under “Second Quarter 2001 Activities” in the *Second Quarter 2001 Monitoring Report* dated July 9, 2001.

DVE is the process of applying high vacuum (up to 29 inches of mercury) to simultaneously extract vapor and groundwater from the source area. DVE removes soil vapors and separate phase hydrocarbons from the vadose zone and enhances groundwater removal from remediation or monitoring wells. A fixed DVE system has not been installed at the site. "Mobile" DVE is conducted on a periodic basis. Mobile DVE equipment consists of a dedicated extraction "stinger," (Figure 1) installed in each target well, a vacuum truck, and a carbon vapor treatment system. A process flow diagram of the mobile DVE system is shown in Figure 2.



In November 1999, Cambria initiated monthly mobile DVE using wells MW-5 and MW-6, extracting for approximately three hours from each well. Cambria tabulates hydrocarbon mass removal for extracted groundwater and vapor and presents a graphical evaluation of the effect of DVE on well concentrations in quarterly monitoring reports. Cambria will use data obtained in the proposed investigation to further evaluate DVE effectiveness.

**7. Quarterly Monitoring** – ACHCSA has requested that Cambria continue quarterly monitoring for total petroleum hydrocarbons as gasoline (TPHg), benzene, toluene, ethylbenzene, xylenes (BTEX), and MTBE. Additionally, ACHCSA has requested one-time analysis for tert-amyl methyl ether (TAME), ethyl tert-butyl ether (ETBE), di-isopropyl ether (DIPE), tert-butyl alcohol (TBA), ethanol, ethylene dibromide (EDB) and ethylene dichloride (1,2-DCA).


In addition to the usual analysis for TPHg, BTEX and MTBE, groundwater from onsite wells MW-1 through MW-4 was analyzed for 1,2-DCA, EDB, ethanol, TBA, DIPE, ETBE and TAME in January 1999; none of the additional chemicals was detected. In October 2001, groundwater from MW-5 and MW-6 was analyzed for ethanol, TBA, DIPE, ETBE and TAME; of these additional oxygenates, only TBA was detected at 1,110 parts per billion (ppb) in MW-6.

As requested, samples collected in the second quarter of 2003 will be analyzed for the additional constituents. If any of these are detected and are above the California Regional Water Quality Control Board's risk-based screening levels for groundwater that is a current or potential source of drinking water, they will be incorporated into the regular monitoring plan. Since we do not find specific reference to reporting limit requirements, we will provide analysis for all chemicals based on the following laboratory reporting limits:

TPHg	50 ppb	Benzene	0.5 ppb
Toluene	0.5 ppb	Ethylbenzene	0.5 ppb
Xylenes	1.0 ppb	MTBE	0.5 ppb
TAME	2.0 ppb	ETBE	2.0 ppb
DIPE	2.0 ppb	TBA	2.0 ppb
Ethanol	50 ppb	EDB	0.5 ppb
1,2 DCA	0.5 ppb		

**8. Groundwater Gradients** – ACHCSA noted that groundwater gradient rose diagrams provided in quarterly monitoring report include groundwater gradients from the second quarter of 1999 to the present. As requested, Cambria will include all available historical groundwater gradient data in future rose diagrams.

**9. Risk-Based Corrective Action (RBCA)** – ACHCSA will review Cambria's June 27, 2001 RBCA after characterization and definition of the chemical plume has been completed.



ACHCSA indicated concern that TPHg was not considered in the RBCA. It should be noted that the RBCA was based on the *Standard Guide for Risk-Based Corrective Action Applied at Petroleum Release Sites* (ASTM E1739-95). Section 6.4.3 of that document states that “the TPHs should not be used for risk assessment because the general measure of TPH provides insufficient information about the amounts of individual chemicals of concern present.” Therefore TPHg was not included as a chemical of concern for the RBCA analysis.

ACHCSA indicated that volatilization from the irrigation well needs to be considered in the RBCA analysis. Cambria considered water use from the irrigation well as a potential exposure pathway in the RBCA; however, no TPHg, BTEX or MTBE have been detected in this well since Cambria began monitoring it in the second quarter of 1999. Therefore Cambria did not document additional consideration of detailed potential exposure pathways resulting from use of the well. Since chemical concentrations have been below detection limits, Cambria does not believe use of the irrigation well poses a health risk.

Cambria agrees with the ACHCSA comment that MTBE should be considered a potential resource risk. However, the results of Cambria's June 27, 2001 RBCA analysis indicated that representative concentrations of MTBE in soil and groundwater were below the site specific target levels for the site, since the RBCA analysis assumed no onsite use of groundwater.

**10. April 2002 Enhanced Underground Storage Tank (UST) Testing** – On April 2 and 3, 2002, Shell voluntarily conducted enhanced testing on the USTs at this site. Part of enhanced testing includes a VacuTect Tank Test, testing tanks under vacuum condition. When the VacuTect test indicated a problem with the plus tank, the product was immediately transferred out of the tank for investigation. Investigation included tank entry for visual inspections and additional tank tests. No visible cracks were found, but additional layers of fiberglass were added to suspected problem areas. A passing VacuTect test was conducted. Cambria's October 15, 2002 *Subsurface Investigation Work Plan* indicated that the crack was detected in the secondary containment of the tank, but the tank is actually a single-wall vessel and, as previously mentioned, no crack was detected. A problem with tank was only found during the VacuTect test, which does not necessarily indicate a leak condition.

11. **Hydrogen Peroxide Injections** – As noted in Cambria’s *Second Quarter 2001 Monitoring Report* dated July 9, 2001, Cambria proposed, in a work plan dated February 3, 2000, to enhance biodegradation of hydrocarbons in the vicinity of wells MW-2 and MW-3 by injecting a 4% hydrogen peroxide solution. The ACHCSA submitted a letter to the Alameda County Fire Department, dated August 24, 2000, asking for an opinion as to the safety of the proposed hydrogen peroxide injection procedure. Cambria suspended this activity until a response was received. Cambria is not aware of any further response from the Fire Department or the ACHCSA regarding the work plan. In light of the current low to non-detect concentrations of benzene and MTBE in these wells, peroxide injection is no longer warranted. Therefore, we are retracting the proposal.

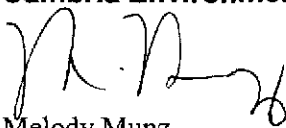


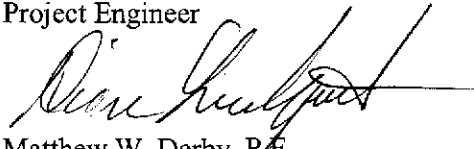
12. **Dispenser Replacement Soil Sampling Report** – As requested, a copy of Weiss Associate’s’ March 15, 1996 *Dispenser Replacement Sampling* report documenting soil sampling and overexcavation activities for the October 1995 fuel dispenser replacements and product piping removal, is included as Attachment A.

**CLOSING**

We appreciate the opportunity to work with you on this project. Please call Melody Munz at (510) 420-3324 if you have any questions or comments.

Sincerely,  
**Cambria Environmental Technology, Inc**

  
Melody Munz  
Project Engineer

  
Matthew W. Derby, P.E.  
Senior Project Engineer



- Figures: 1 - Dual Vacuum Extraction (DVE) “Stinger”
- 2 - Mobile Dual-Phase Vacuum Extraction (DVE) System

Attachment A - Dispenser Replacement Sampling Report (March 5, 1996)

cc: Karen Petryna, Shell Oil Products US, P.O. Box 7869, Burbank, CA 91510-7869  
Mike Bakaldin, City of San Leandro, 835 East 14th Street, San Leandro, CA 94577

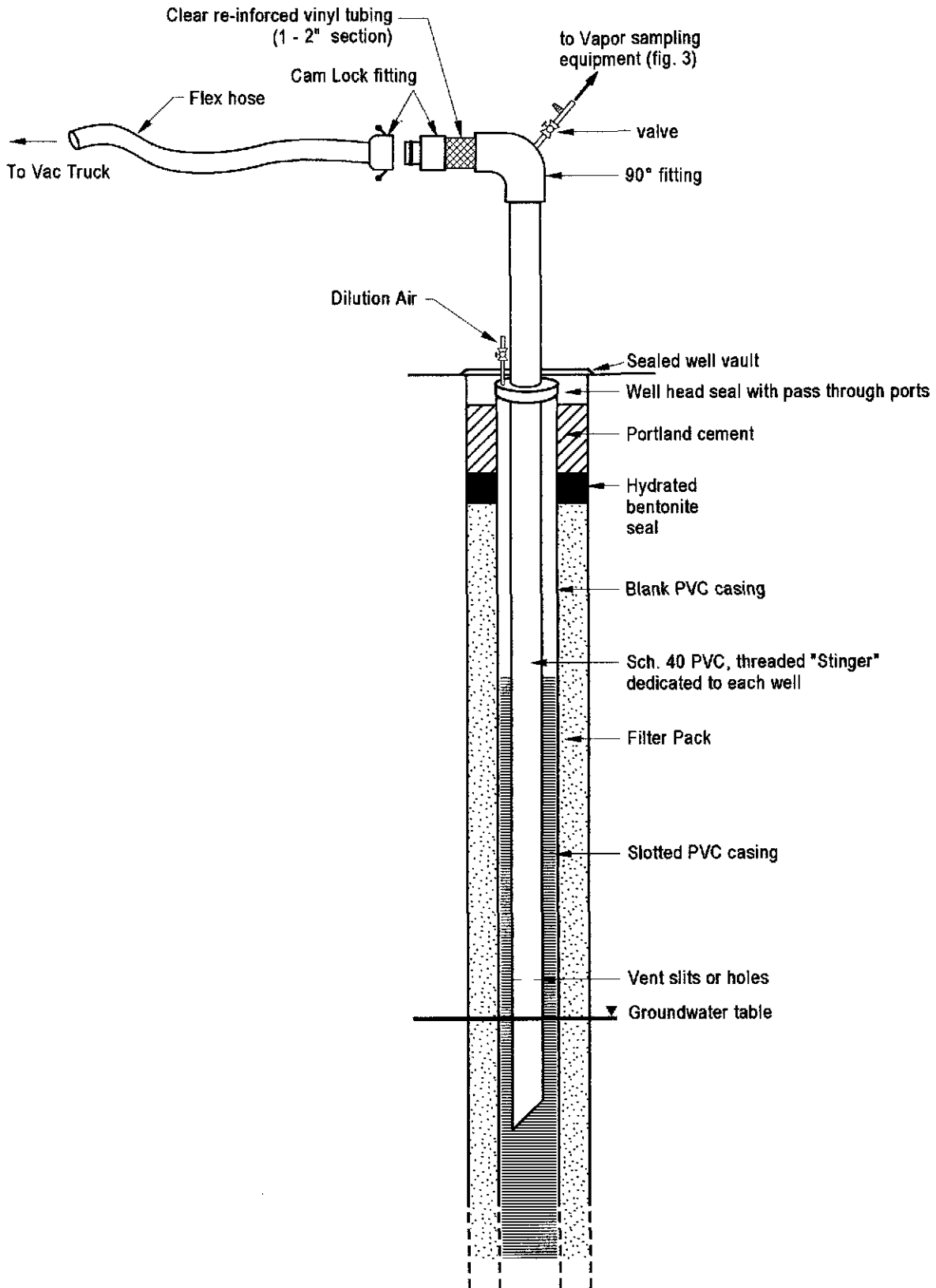


FIGURE  
**1**

G:\SANLEANDRO\1285BANCROFT\FIGURES\DVESTINGER.A1

**Shell-branded Service Station**  
 1285 Bancroft Avenue  
 San Leandro, California  
 Incident #98996067



C A M B R I A

**Dual-Phase Vacuum Extraction  
 (DVE) "Stinger"**

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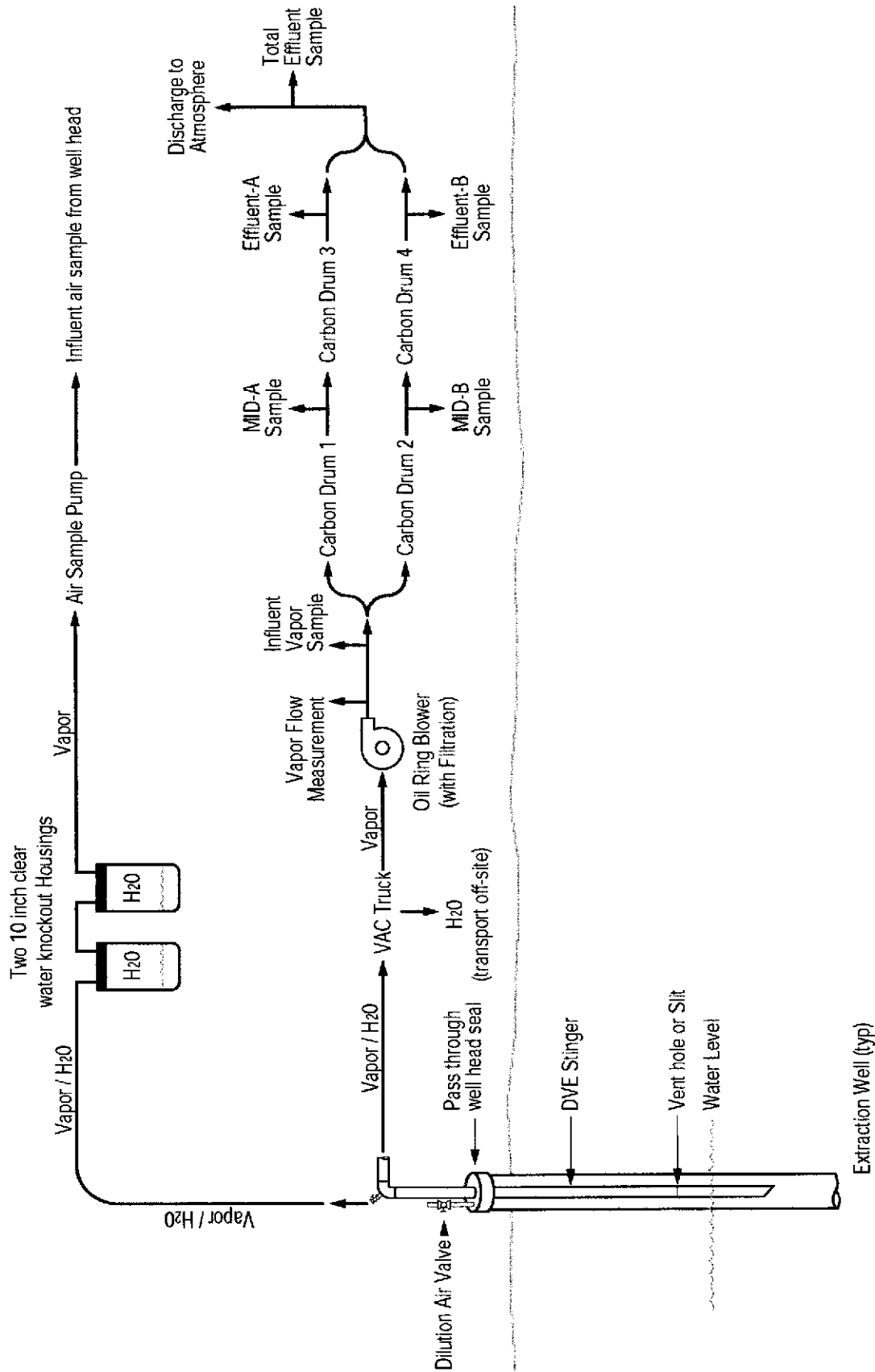


FIGURE 2

### Shell-branded Service Station

1285 Bancroft Avenue  
San Leandro, California  
Incident #98996067



C A M R I A

### Mobile Dual-Phase Vacuum Extraction (DVE) System



**ATTACHMENT A**

Dispenser Replacement Sampling Report  
(March 5, 1996)



**COPY**

Site: 1285 San Leandro  
Proj.  Rem.  Rpt.  Bill   
1  2  3  4  5  6

March 5, 1996

**PROJECT COPY**

Karl Busche  
Hazardous Materials Specialist  
City of San Leandro Fire Department  
Civic Center  
835 East 14th Street  
San Leandro, California 94577

**RE: Dispenser Replacement Sampling**  
Shell Service Station  
WIC #204-6852-0703  
1285 Bancroft Avenue  
San Leandro, California  
WA Job #81-0423-08

Dear Mr. Busche:

On behalf of Shell Oil Products Company (Shell), Weiss Associates (WA) submits this report documenting soil sampling and overexcavation activities for the recent fuel dispenser replacements and product piping removal at the above referenced Shell service station (Figure 1). The former dispensers were used to supply gasoline pumped from the underground storage tanks. The objective of this sampling was to assess whether hydrocarbons are in soil beneath the former dispensers and product piping. The objective of the overexcavation was to remove hydrocarbon-bearing soil as directed by City of San Leandro Fire Department personnel. WA's scope of work, the site background, and the soil sampling results are presented below.

**Scope of Work**

WA's scope of work for this investigation was to:

- Collect soil samples from beneath the former dispensers and the removed product piping according to local and state regulatory guidelines;
- Analyze collected soil samples for petroleum hydrocarbons;
- Overexcavate hydrocarbon-bearing soil;
- Sample and dispose of the excavated soil; and
- Report the results.

## Site Background

- Location:** The operating Shell service station is located at the northwest corner of Bancroft and Estudillo Avenues in San Leandro, California (Figures 1 and 2).
- Surroundings:** Residential development.
- Local Topography:** The site is about 65 ft above mean sea level and slopes very gently towards San Francisco Bay to the west.
- Ground Water Depth:** In July 1995, depth to water in onsite monitoring wells ranged from 34.50 to 35.88 ft below ground surface.

## Soil Sampling Results

- Parties Present:** WA Geologist Joyce E. Adams collected the soil samples. City of San Leandro Fire Department Inspector Karl Busche observed the soil sampling. Shell retained American West of Livermore, California, to excavate the trenches, remove the product lines, assist with the sampling and replace the dispensers.
- Sampling Dates:** October 4 and 10, 1995.
- Number of Samples:** Six initial samples and 2 confirmation samples: The initial sampling consisted of collecting one sample from beneath each of the four removed dispensers and one sample from beneath the removed product lines. The soil sample identified as D-2B was not submitted to the laboratory for analysis due to strong hydrocarbon odors and high PID readings. Instead, two areas where odorous soil was detected were overexcavated and confirmation samples were collected. Sample locations are presented on Figure 3.
- Soil Sampling Method:** Soil samples were collected by driving clean brass tubes into undisturbed soil, either from a backhoe bucket or directly from the open trenches or excavation. The product line sample was collected from 2.0 feet below ground surface (bgs). Confirmation overexcavation samples were collected at 3.5 and 4.0 ft below ground surface. All sample tubes were immediately sealed with Teflon sheeting and plastic caps and placed in an iced cooler for transport to the state-certified analytical laboratory.
- Analytical Laboratory:** NET in Santa Rosa, California.

***Analytical Methods:***

All soil samples were analyzed for total petroleum hydrocarbons as gasoline (TPH-G) by modified EPA Method 8015 and benzene, toluene, ethylbenzene and xylenes (BTEX) by EPA Method 8020. The certified analytical reports and chain-of-custody forms are included in Attachment A.

***Analytic Results:***

Soil sample D-2A contained 130 parts per million (ppm) TPH-G, 0.33 ppm toluene, 0.53 ppm ethylbenzene and 4.6 ppm xylenes. Benzene was below laboratory detection limits in this same sample. Soil sample L-1 contained 10 ppm TPH-G, 0.31 ppm benzene, 0.49 ppm toluene and 4.1 ppm xylenes. The area below sample L-1 was overexcavated and confirmation sample E-2 was collected. No TPH-G or BTEX was detected in sample E-2. Confirmation sample E-1 was collected below sample D-2B, which was not analyzed due to strong hydrocarbon odor and high PID readings. Sample E-1 contained no TPH-G or BTEX. The analytic results are summarized in Table 1.

***Excavated Soil Volume:***

A total of about 72 cubic yards of soil were excavated during all construction activities as shown in Figure 3. About 15 cubic yards of soil were overexcavated from below soil samples D-2B and L-1 in association with the dispenser and piping replacements. Approximately 57 cubic yards of hydrocarbon-bearing soil, including soil removed during the initial soil sampling, were overexcavated as shown in Figure 3.

***Maximum Excavation Depth:***

4.0 ft below ground surface.

***Lithology Encountered:***

Silty sand to about 4 ft depth.

***Ground Water Depth:***

No ground water was encountered.

**Soil Disposal**

***Stockpile Sampling:***

The soil stockpile was sampled by driving clean brass tubes at least 12 inches below the stockpile surface. The tubes were immediately capped and sealed with Teflon tape and refrigerated for transport to the analytical laboratory. The laboratory composited and analyzed the samples for TPH-G, BTEX and total characteristic leaching potential for metals by EPA Method 6010. The certified analytic report and chain-of custody form are included in Attachment A.

**Soil Transport and Disposal:** On November 7, 1995, Manley and Sons Trucking, Inc., in Sacramento, California transported about 72 cubic yards of soil to Redwood Landfill in Novato, California for disposal. The soil disposal confirmation is presented in Attachment B.

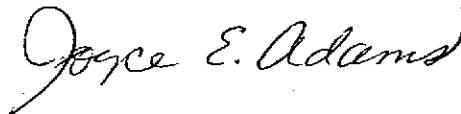
## Conclusions

Based on the sampling results, WA concludes that:

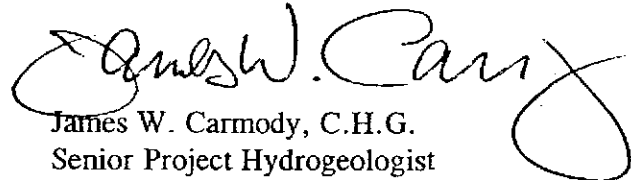
- Only one of five soil samples collected from beneath the four former dispensers contained more than 1.1 ppm TPH-G. No benzene was detected in any of the samples.
- The soil sample collected beneath the removed product line contained 10 ppm TPH-G and 0.31 ppm benzene. Soil was overexcavated in this area and a confirmation sample was collected. No TPH-G or BTEX was detected in the confirmation sample.
- Most of the hydrocarbon-bearing soil was removed from the site. About 20 cubic yards of soil were excavated from beneath one former dispenser and removed product piping.

WA trusts that this submittal meets your needs. Please call if you have any questions.

Sincerely,  
Weiss Associates



Joyce E. Adams  
Senior Staff Geologist



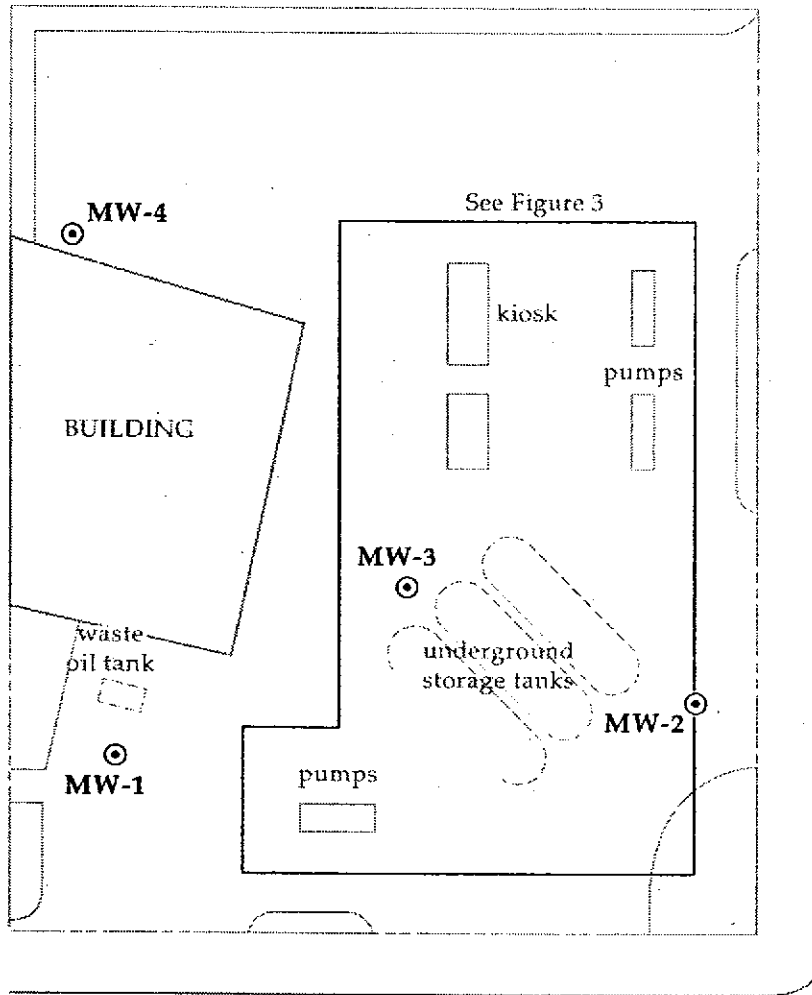
James W. Carmody, C.H.G.  
Senior Project Hydrogeologist

Attachments: Figures  
Tables  
A - Certified Analytical Reports and Chain-of-Custody Forms  
B - Soil Disposal Confirmation

cc: R. Jeff Granberry, Shell Oil Products Company, PO Box 4023, Concord, CA 94524  
Jeff Byram, Shell Oil Products Company, PO Box 4023, Concord, CA 94524  
Kevin Graves, Regional Water Quality Control Board - San Francisco Bay,  
2101 Webster Street, Suite 500, Oakland, CA 94612

JEA/JWC:all  
J:\SHELL\0413\REPORTS\0396DRS.DOC





ESTUDILLO AVENUE

BANCROFT AVENUE

**EXPLANATION**

⊙ MW-1 Monitoring well

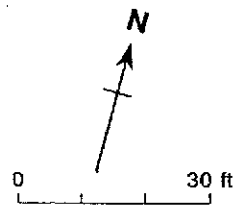
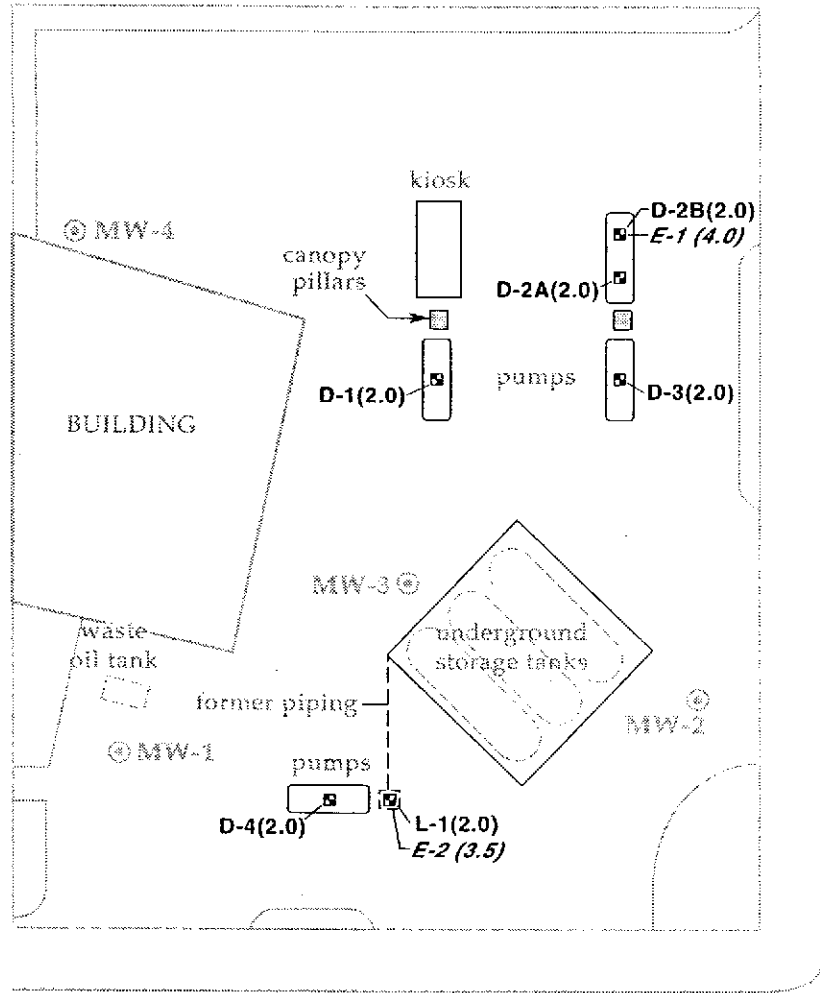


Figure 2. Site Layout - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California



ESTUDILLO AVENUE

BANCROFT AVENUE

**EXPLANATION**

- ⊙ MW-1 Monitoring well
- ▣ D-1 Soil sample collected 10/4/95
- ▣ E-1 Confirmation soil sample collected 10/9/95
- Excavated area

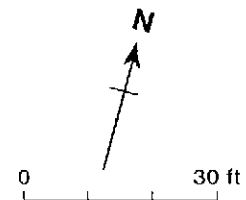


Figure 3. Site Sample Locations - October 4 and 9, 1995 - Shell Service Station WIC #204-6852-0703, 1285 Bancroft Avenue, San Leandro, California



**ATTACHMENT A**

**CERTIFIED ANALYTICAL REPORTS AND CHAIN OF CUSTODY FORMS**



NATIONAL  
ENVIRONMENTAL  
TESTING, INC.

Santa Rosa Division  
3636 North Laughlin Road  
Suite 110  
Santa Rosa, CA 95403-8226  
Tel: (707) 526-7200  
Fax: (707) 541-2333

Joyce Adams  
Weiss Associates  
5500 Shellmound St.  
Emeryville, CA 94608


Date: 10/12/1995  
NET Client Acct. No: 1809  
NET Job No: 95.03935  
Received: 10/06/1995

Client Reference Information

Shell 1285 Bancroft, San Leandro, CA/81-0423

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel free to call me at (707) 541-2305.

Submitted by:

  
\_\_\_\_\_  
Ginger Brinlee  
Project Coordinator

Enclosure (s)





NATIONAL  
ENVIRONMENTAL  
TESTING, INC.

Santa Rosa Division  
3636 North Laughlin Road  
Suite 110  
Santa Rosa, CA 95403-8226  
Tel: (707) 526-7200  
Fax: (707) 541-2333

Joyce Adams  
Weiss Associates  
5500 Shellmound St.  
Emeryville, CA 94608

Date: 10/19/1995  
NET Client Acct. No: 1809  
NET Job No: 95.03943-A  
Amended: 11/20/1995

Client Reference Information

Shell 1285 Bancroft, San Leandro, CA/81-0423

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel free to call me at (707) 541-2305.

Submitted by:

  
Ginger Brinlee  
Project Coordinator

Enclosure(s)





Client Name: Weiss Associates  
Client Acct: 1809  
NET Job No: 95.03943-A

Date: 10/19/1995  
ELAP Cert: 1386  
Page: 2

Ref: Shell 1285 Bancroft, San Leandro, CA/81-0423

SAMPLE DESCRIPTION: D-2A-2.0  
Date Taken: 10/04/1995  
Time Taken:  
NET Sample No: 252799

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	10						10/06/1995	1846
Purgeable TPH	130		1	mg/kg	5030/M8015		10/06/1995	1846
Carbon Range: C6 to C12	--						10/06/1995	1846
METHOD 8020 (GC, Solid)								
Benzene	ND		0.002	mg/kg	8020		10/06/1995	1846
Toluene	0.33		0.002	mg/kg	8020		10/06/1995	1846
Ethylbenzene	0.53		0.002	mg/kg	8020		10/06/1995	1846
Xylenes (Total)	4.6		0.002	mg/kg	8020		10/06/1995	1846
SURROGATE RESULTS								
Bromofluorobenzene (SURR)	124	MI		% Rec.	8020		10/06/1995	1846

MI : Matrix Interference Suspected.

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Weiss Associates  
Client Acct: 1809  
NET Job No: 95.03943-A

Date: 10/19/1995  
ELAP Cert: 1386  
Page: 3

Ref: Shell 1285 Bancroft, San Leandro, CA/81-0423

SAMPLE DESCRIPTION: D-1-2.0  
Date Taken: 10/04/1995  
Time Taken:  
NET Sample No: 252809

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						10/13/1995	1854
Purgeable TPH	1.1		1	mg/kg	5030/M8015		10/13/1995	1854
Carbon Range: C6 to C12	--						10/13/1995	1854
METHOD 8020 (GC, Solid)	--						10/13/1995	1854
Benzene	ND		0.0025	mg/kg	8020		10/13/1995	1854
Toluene	ND		0.0025	mg/kg	8020		10/13/1995	1854
Ethylbenzene	ND		0.0025	mg/kg	8020		10/13/1995	1854
Xylenes (Total)	ND		0.0025	mg/kg	8020		10/13/1995	1854
SURROGATE RESULTS	--						10/13/1995	1854
Bromofluorobenzene (SURR)	86			% Rec.	8020		10/13/1995	1854

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Weiss Associates  
Client Acct: 1809  
NET Job No: 95.03943-A

Date: 10/19/1995  
ELAP Cert: 1386  
Page: 4

Ref: Shell 1285 Bancroft, San Leandro, CA/81-0423

SAMPLE DESCRIPTION: D-3-2.0  
Date Taken: 10/04/1995  
Time Taken:  
NET Sample No: 252810

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						10/13/1995	1854
Purgeable TPH	ND		1	mg/kg	5030/M8015		10/13/1995	1854
Carbon Range: C6 to C12	--						10/13/1995	1854
METHOD 8020 (GC, Solid)	--						10/13/1995	1854
Benzene	ND		0.0025	mg/kg	8020		10/13/1995	1854
Toluene	ND		0.0025	mg/kg	8020		10/13/1995	1854
Ethylbenzene	ND		0.0025	mg/kg	8020		10/13/1995	1854
Xylenes (Total)	ND		0.0025	mg/kg	8020		10/13/1995	1854
SURROGATE RESULTS	--						10/13/1995	1854
Bromofluorobenzene (SURR)	78			% Rec.	8020		10/13/1995	1854

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Weiss Associates  
Client Acct: 1809  
NET Job No: 95.03943-A

Date: 10/19/1995  
ELAP Cert: 1386  
Page: 5

Ref: Shell 1285 Bancroft, San Leandro, CA/81-0423

SAMPLE DESCRIPTION: D-4-2.0  
Date Taken: 10/04/1995  
Time Taken:  
NET Sample No: 252811

Parameter	Results	Flags	Reporting		Units	Method	Date	Date	Run
			Limit				Extracted	Analyzed	Batch
METHOD 5030/8015-M (Shell)									
DILUTION FACTOR*	1						10/13/1995		1854
Purgeable TPH	1.1		1		mg/kg	5030/M8015	10/13/1995		1854
Carbon Range: C6 to C12	--						10/13/1995		1854
METHOD 8020 (GC, Solid)	--						10/13/1995		1854
Benzene	ND		0.0025		mg/kg	8020	10/13/1995		1854
Toluene	ND		0.0025		mg/kg	8020	10/13/1995		1854
Ethylbenzene	ND		0.0025		mg/kg	8020	10/13/1995		1854
Xylenes (Total)	0.0063		0.0025		mg/kg	8020	10/13/1995		1854
SURROGATE RESULTS	--						10/13/1995		1854
Bromofluorobenzene (SURR)	84				% Rec.	8020	10/13/1995		1854

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Weiss Associates  
Client Acct: 1809  
NET Job No: 95.03943-A

Date: 10/19/1995  
ELAP Cert: 1386  
Page: 6

Ref: Shell 1285 Bancroft, San Leandro, CA/81-0423

## CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV	CCV	CCV	Units	Date Analyzed	Analyst Initials	Run Batch Number
	Standard	Standard Amount Found	Standard Amount Expected				
METHOD 5030/8015-M (Shell)							
Purgeable TPH	98.0	2.45	2.50	mg/kg	10/06/1995	jlr	1846
Benzene	87.2	21.8	25.0	ug/kg	10/06/1995	jlr	1846
Toluene	88.4	22.1	25.0	ug/kg	10/06/1995	jlr	1846
Ethylbenzene	93.2	23.3	25.0	ug/kg	10/06/1995	jlr	1846
Xylenes (Total)	95.7	71.8	75.0	ug/kg	10/06/1995	jlr	1846
Bromofluorobenzene (SURR)	93.0	93	100	% Rec.	10/06/1995	jlr	1846
METHOD 5030/8015-M (Shell)							
Purgeable TPH	94.4	2.36	2.50	mg/kg	10/13/1995	lss	1854
Benzene	91.6	22.9	25.0	ug/kg	10/13/1995	lss	1854
Toluene	96.0	24.0	25.0	ug/kg	10/13/1995	lss	1854
Ethylbenzene	105.2	26.3	25.0	ug/kg	10/13/1995	lss	1854
Xylenes (Total)	103.2	77.4	75.0	ug/kg	10/13/1995	lss	1854
Bromofluorobenzene (SURR)	99.0	99	100	% Rec.	10/13/1995	lss	1854

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.





Client Name: Weiss Associates  
Client Acct: 1809  
NET Job No: 95.03943-A

Date: 10/19/1995  
ELAP Cert: 1386  
Page: 7

Ref: Shell 1285 Bancroft, San Leandro, CA/81-0423

## METHOD BLANK REPORT

Parameter	Method	Reporting	Units	Date	Analyst	Run
	Blank					
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	1	mg/kg	10/06/1995	jlr	1846
Benzene	ND	2.5	ug/kg	10/06/1995	jlr	1846
Toluene	ND	2.5	ug/kg	10/06/1995	jlr	1846
Ethylbenzene	ND	2.5	ug/kg	10/06/1995	jlr	1846
Xylenes (Total)	ND	2.5	ug/kg	10/06/1995	jlr	1846
Bromofluorobenzene (SURR)	87		% Rec.	10/06/1995	jlr	1846
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	2.50	mg/kg	10/13/1995	lss	1854
Benzene	ND	25.0	ug/kg	10/13/1995	lss	1854
Toluene	ND	25.0	ug/kg	10/13/1995	lss	1854
Ethylbenzene	ND	25.0	ug/kg	10/13/1995	lss	1854
Xylenes (Total)	ND	75.0	ug/kg	10/13/1995	lss	1854
Bromofluorobenzene (SURR)	98	100	% Rec.	10/13/1995	lss	1854

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Weiss Associates  
Client Acct: 1809  
NET Job No: 95.03943-A

Date: 10/19/1995  
ELAP Cert: 1386  
Page: 8

Ref: Shell 1285 Bancroft, San Leandro, CA/81-0423

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike			Spike Amount	Sample Conc.	Matrix Spike			Date Analyzed	Run Batch	Sample Spiked
	Spike % Rec.	Dup % Rec.	RPD			Spike Conc.	Dup. Conc.	Units			
METHOD 5030/8015-M (Shell)											
Purgeable TPH	90.0	87.6	2.7	2.50	ND	2.25	2.19	mg/kg	10/06/1995	1846	252022
Benzene	94.4	92.5	2.0	37.4	ND	35.3	34.6	ug/kg	10/06/1995	1846	252022
Toluene	96.7	94.2	2.6	121	ND	117	114	ug/kg	10/06/1995	1846	252022
METHOD 5030/8015-M (Shell)											
Purgeable TPH	87.2	89.2	2.3	2.50	ND	2.18	2.23	mg/kg	10/13/1995	1854	252590
Benzene	88.5	89.6	1.2	36.4	ND	32.2	32.6	ug/kg	10/13/1995	1854	252590
Toluene	93.9	94.7	0.8	132	ND	124	125	ug/kg	10/13/1995	1854	252590

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



## KEY TO ABBREVIATIONS and METHOD REFERENCES

- < : Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
- \* : Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
- ICVS : Initial Calibration Verification Standard (External Standard).
- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference,  $100 \text{ [Value 1 - Value 2] / mean value}$ .
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

### Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

COOLER RECEIPT FORM

Project: 1285 Bancroft, San Leandro, CA Log No: 8181  
Cooler received on: 10/1/95 and checked on 10/1/95 by Bm Green  
[Signature]  
(signature)

- Were custody papers present?.....  YES NO
- Were custody papers properly filled out?.....  YES NO
- Were the custody papers signed?.....  YES NO
- Was sufficient ice used?.....  YES NO Temp 0°
- Did all bottles arrive in good condition (unbroken)?.....  YES NO
- Did bottle labels match COC?.....  YES NO
- Were proper bottles used for analysis indicated?.....  YES NO
- Correct preservatives used?.....  YES NO
- VOA vials checked for headspace bubbles?.....  YES NO

Note which voas (if any) had bubbles:\*

Sample descriptor:

Number of vials:

Tube labeled:

D-4A-2.0

COC descriptor:

D-4-2.0

\*All VOAs with headspace bubbles have been set aside so they will not be used for analysis.....YES NO

List here all other jobs received in the same cooler:

Client Job #

NET log #

(coolerrec)



**SHELL OIL COMPANY**  
RETAIL ENVIRONMENTAL ENGINEERING - WEST

**CHAIN OF CUSTODY RECORD**

Serial No: \_\_\_\_\_

Date: \_\_\_\_\_  
Page 1 of 1

Site Address: 1285 Bancroft San Leandro

**Analysis Required**

LAB: NET

WIC#: 204-6852-0703

Shell Engineer: Jeff Byram Phone No.: 675-6146  
Fax #: \_\_\_\_\_

Consultant Name & Address: WEISS ASSOCIATES  
5500 SHELLMOUND ST EMERYVILLE CA 94608

Consultant Contact: WA JOB # 81-0423 Phone No.: (510) 450-6000  
Fax #: 547-5043

Comments: \_\_\_\_\_

Sampled by: Joyce Adams

Printed Name: Joyce Adams

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
G.W. Monitoring <input type="checkbox"/>	4461	24 hours <input type="checkbox"/>
Site Investigation <input checked="" type="checkbox"/>	4441	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	4442	15 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

UST AGENCY: \_\_\_\_\_

Sample ID	Date	Sludge	Soil	Water	Air	No. of conds.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS	
D-1-2.0	10/4/95		X			1													
D-2A-2.0																			48 hr TAT
D-3-2.0																			
D-4-2.0																			
L-1-2.0																			48 hr TAT

**CUSTODY SEALED**  
Date: 10/5/95 Time: 1350 Initials: PS  
**SEAL INTACT?** Yes  No  Initials: [Signature]

Relinquished By (signature): <u>Joyce Adams</u>	Printed Name: <u>Joyce Adams</u>	Date: <u>10/5/95</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>Phyllis Smart</u>	Date: <u>10/5/95</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>Phyllis Smart</u>	Date: <u>10/5/95</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>PAUL GREENE</u>	Date: <u>10/5/95</u>
Relinquished By (signature): _____	Printed Name: _____	Date: _____	Received (signature): _____	Printed Name: _____	Date: _____

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

Store in a secure area overnight

VIA NCS



Client Name: Weiss Associates  
Client Acct: 1809  
NET Job No: 95.03935

Date: 10/12/1995  
ELAP Cert: 1386  
Page: 2

Ref: Shell 1285 Bancroft, San Leandro, CA/81-0423

SAMPLE DESCRIPTION: D-2A-2.0  
Date Taken: 10/04/1995  
Time Taken:  
NET Sample No: 252799

Parameter	Results	Flags	Reporting			Date	Date	Run
			Limit	Units	Method	Extracted	Analyzed	Batch
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	10						10/06/1995	1846
Purgeable TPH	130		1	mg/kg	5030/M8015		10/06/1995	1846
Carbon Range: C6 to C12	--						10/06/1995	1846
METHOD 8020 (GC, Solid)	--						10/06/1995	1846
Benzene	ND		0.002	mg/kg	8020		10/06/1995	1846
Toluene	0.33		0.002	mg/kg	8020		10/06/1995	1846
Ethylbenzene	0.53		0.002	mg/kg	8020		10/06/1995	1846
Xylenes (Total)	4.6		0.002	mg/kg	8020		10/06/1995	1846
SURROGATE RESULTS	--						10/06/1995	1846
Bromofluorobenzene (SDRR)	124	MI		% Rec.	8020		10/06/1995	1846

MI : Matrix Interference Suspected.

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Weiss Associates  
Client Acct: 1809  
NET Job No: 95.03935

Date: 10/12/1995  
ELAP Cert: 1386  
Page: 3

Ref: Shell 1285 Bancroft, San Leandro, CA/81-0423

SAMPLE DESCRIPTION: L-1-2.0  
Date Taken: 10/04/1995  
Time Taken:  
NET Sample No: 252800

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						10/06/1995	1846
Purgeable TPH	10		1	mg/kg	5030/M8015		10/09/1995	1850
Carbon Range: C6 to C12	--						10/06/1995	1846
METHOD 8020 (GC, Solid)	--						10/06/1995	1846
Benzene	0.31	FC	0.025	mg/kg	8020		10/06/1995	1846
Toluene	0.49	FC	0.025	mg/kg	8020		10/06/1995	1846
Ethylbenzene	ND		0.0025	mg/kg	8020		10/09/1995	1850
Xylenes (Total)	1.4	FC	0.025	mg/kg	8020		10/06/1995	1846
SURROGATE RESULTS	--						10/06/1995	1846
Bromofluorobenzene (SURR)	96			% Rec.	8020		10/06/1995	1846

FC : Compound quantitated at a 10X dilution factor.

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Weiss Associates  
Client Acct: 1809  
NET Job No: 95.03935

Date: 10/12/1995  
ELAP Cert: 1386  
Page: 4

Ref: Shell 1285 Bancroft, San Leandro, CA/81-0423

## CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV	CCV	CCV	Units	Date Analyzed	Analyst Initials	Run Batch Number
	Standard % Recovery	Standard Amount Found	Standard Amount Expected				
METHOD 5030/8015-M (Shell)							
Purgeable TPH	98.0	2.45	2.50	mg/kg	10/06/1995	jlr	1846
Benzene	87.2	21.8	25.0	ug/kg	10/06/1995	jlr	1846
Toluene	88.4	22.1	25.0	ug/kg	10/06/1995	jlr	1846
Ethylbenzene	93.2	23.3	25.0	ug/kg	10/06/1995	jlr	1846
Xylenes (Total)	95.7	71.8	75.0	ug/kg	10/06/1995	jlr	1846
Bromofluorobenzene (SURR)	93.0	93	100	% Rec.	10/06/1995	jlr	1846
METHOD 5030/8015-M (Shell)							
Purgeable TPH	94.4	2.36	2.50	mg/kg	10/09/1995	lss	1850
Benzene	93.2	23.3	25.0	ug/kg	10/09/1995	lss	1850
Toluene	93.2	23.3	25.0	ug/kg	10/09/1995	lss	1850
Ethylbenzene	97.2	24.3	25.0	ug/kg	10/09/1995	lss	1850
Xylenes (Total)	97.1	72.8	75.0	ug/kg	10/09/1995	lss	1850
Bromofluorobenzene (SURR)	95.0	95	100	% Rec.	10/09/1995	lss	1850

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.





Client Name: Weiss Associates  
Client Acct: 1809  
NET Job No: 95.03935

Date: 10/12/1995  
ELAP Cert: 1386  
Page: 5

Ref: Shell 1285 Bancroft, San Leandro, CA/81-0423

## METHOD BLANK REPORT

Parameter	Method	Reporting	Units	Date	Analyst	Run
	Blank					
	Amount	Limit		Analyzed	Initials	Number
	Found					
METHOD 8030/8015-M (Shell)						
Purgeable TPH	ND	1	mg/kg	10/06/1995	jlr	1846
Benzene	ND	2.5	ug/kg	10/06/1995	jlr	1846
Toluene	ND	2.5	ug/kg	10/06/1995	jlr	1846
Ethylbenzene	ND	2.5	ug/kg	10/06/1995	jlr	1846
Xylenes (Total)	ND	2.5	ug/kg	10/06/1995	jlr	1846
Bromofluorobenzene (SURR)	87		% Rec.	10/06/1995	jlr	1846
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	1	mg/kg	10/09/1995	lss	1850
Benzene	ND	2.5	ug/kg	10/09/1995	lss	1850
Toluene	ND	2.5	ug/kg	10/09/1995	lss	1850
Ethylbenzene	ND	2.5	ug/kg	10/09/1995	lss	1850
Xylenes (Total)	ND	2.5	ug/kg	10/09/1995	lss	1850
Bromofluorobenzene (SURR)	99		% Rec.	10/09/1995	lss	1850

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Weiss Associates  
Client Acct: 1809  
NET Job No: 95.03935

Date: 10/12/1995  
ELAP Cert: 1386  
Page: 6

Ref: Shell 1285 Bancroft, San Leandro, CA/81-0423

## MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike			Sample Conc.	Matrix Spike			Units	Date Analyzed	Run Batch	Sample Spiked
	Matrix Spike % Rec.	Matrix Spike Dup % Rec.	RPD		Matrix Spike Conc.	Matrix Spike Dup. Conc.	RPD				
METHOD 5030/8015-M (Shell)											
Purgeable TPH	90.0	87.6	2.7	2.50	ND	2.25	2.19	mg/kg	10/06/1995	1846	252022
Benzene	94.4	92.5	2.0	37.4	ND	35.3	34.6	ug/kg	10/06/1995	1846	252022
Toluene	96.7	94.2	2.6	121	ND	117	114	ug/kg	10/06/1995	1846	252022
METHOD 5030/8015-M (Shell)											
Purgeable TPH	109.6	104.4	4.9	2.50	ND	2.74	2.61	mg/kg	10/09/1995	1850	252179
Benzene	100.0	93.1	7.0	34.8	ND	34.8	32.4	ug/kg	10/09/1995	1850	252179
Toluene	100.8	88.4	13.0	121	ND	122	107	ug/kg	10/09/1995	1850	252179

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



## KEY TO ABBREVIATIONS and METHOD REFERENCES

- < : Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
- \* : Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
- ICVS : Initial Calibration Verification Standard (External Standard).
- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference,  $100 \text{ [Value 1 - Value 2]}/\text{mean value}$ .
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

### Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

COOLER RECEIPT FORM

Project: 1285 Bancroft, San Leandro, CA, Log No: 8165  
Cooler received on: 10/6/95 and checked on 10/6/95 by [Signature]  
(signature)

- Were custody papers present?.....  YES NO
- Were custody papers properly filled out?.....  YES NO
- Were the custody papers signed?.....  YES NO
- Was sufficient ice used?.....  YES NO TEMP: 0c,
- Did all bottles arrive in good condition (unbroken)?.....  YES NO
- Did bottle labels match COC?..... YES  NO ↓
- Were proper bottles used for analysis indicated?.....  YES NO
- Correct preservatives used?.....  YES NO
- VOA vials checked for headspace bubbles?..... NA... YES NO

Note which voas (if any) had bubbles:\*

Sample descriptor:	Number of vials:
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

TUBE LABELED:  
D-4A-2.0  
COC DESCRIPTOR:  
D-4-2.0

\*All VOAs with headspace bubbles have been set aside so they will not be used for analysis..... YES NO

List here all other jobs received in the same cooler:

Client Job #	NET log #
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

(coolerrec)



**SHELL OIL COMPANY**  
**RETAIL ENVIRONMENTAL ENGINEERING - WEST**

**CHAIN OF CUSTODY RECORD**

Serial No: \_\_\_\_\_

Date: \_\_\_\_\_

Page 1 of 1

Site Address: 1285 Bancroft San Leandro

WIC#: 204-6852-0703

Shell Engineer: Jeff Byram Phone No.: 675-6146  
 Fax #: \_\_\_\_\_

Consultant Name & Address: WEISS ASSOCIATES  
5500 SHELLMOUND ST EMERYVILLE CA 94608

Consultant Contact: WA JOB # 81-0423 Phone No.: (510) 450-6000  
 Fax #: 547-5043

Comments: \_\_\_\_\_

Sampled by: Joyce Adams  
 Printed Name: Joyce Adams

**Analysis Required**

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N

LAB: NET

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
G.W. Monitoring <input type="checkbox"/>	4461	24 hours <input type="checkbox"/>
Site Investigation <input checked="" type="checkbox"/>	4441	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	4442	15 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

NOTE: Notify Lab as soon as possible of 24/48 hrs. TAT.

UST AGENCY: \_\_\_\_\_

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS	
D-1-2.0	10/4/95		X			1						f							
D-2A-2.0																			48 hr TAT
D-3-2.0																			
D-4-2.0																			
L-1-2.0																			48 hr TAT

**CUSTODY SEALED**  
 Date: 10/5/95 Time: 1350 Initials: PS  
**SEAL INTACT?**  
 Yes  No  Initials: [Signature]

Relinquished By (signature): <u>Joyce Adams</u>	Printed Name: <u>Joyce Adams</u>	Date: <u>10/5/95</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>Phyllis Smart</u>	Date: <u>10/5/95</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>Phyllis Smart</u>	Date: <u>10/5/95</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>PAUL GREENE</u>	Date: <u>10/6/95</u>
Relinquished By (signature): _____	Printed Name: _____	Date: _____	Received (signature): _____	Printed Name: _____	Date: _____

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

lock in a secure area overnight

VIA NCS



NATIONAL  
ENVIRONMENTAL  
TESTING, INC.

Santa Rosa Division  
3636 North Laughlin Road  
Suite 110  
Santa Rosa, CA 95403-8226  
Tel: (707) 526-7200  
Fax: (707) 541-2333

Tim Utterback  
Weiss Associates  
5500 Shellmound St.  
Emeryville, CA 94608

Date: 11/01/1995  
NET Client Acct. No: 1809  
NET Job No: 95.03993  
Received: 10/11/1995

Client Reference Information

Shell 1285 Bancroft Ave., San Leandro, CA/81-0423-08

Sample analysis in support of the project referenced above has been completed and results are presented on the following pages. Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety. Please refer to the enclosed "Key to Abbreviations" for definition of terms. Should you have questions regarding procedures or results, please feel free to call me at (707) 541-2305.

Submitted by:

  
\_\_\_\_\_

Ginger Brinlee  
Project Coordinator

Enclosure(s)





Client Name: Weiss Associates  
Client Acct: 1809  
NET Job No: 95.03993

Date: 11/01/1995  
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Ref: Shell 1285 Bancroft Ave., San Leandro, CA/81-0423-08

SAMPLE DESCRIPTION: SP-1  
Date Taken: 10/09/1995  
Time Taken:  
NET Sample No: 253312

Parameter	Results	Flags	Reporting		Method	Date	Date	Run
			Limit	Units		Extracted	Analyzed	Batch
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						10/19/1995	1861
Purgeable TPH	ND		1	mg/kg	5030/M6015		10/19/1995	1861
Carbon Range: C6 to C12	--						10/19/1995	1861
METHOD 8020 (GC, Solid)	--						10/19/1995	1861
Benzene	ND		0.0025	mg/kg	8020		10/19/1995	1861
Toluene	ND		0.0025	mg/kg	8020		10/19/1995	1861
Ethylbenzene	ND		0.0025	mg/kg	8020		10/19/1995	1861
Xylenes (Total)	ND		0.0025	mg/kg	8020		10/19/1995	1861
SURROGATE RESULTS	--						10/19/1995	1861
Bromofluorobenzene (SURR)	78			% Rec.	8020		10/19/1995	1861

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



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Ref: Shell 1285 Bancroft Ave., San Leandro, CA/81-0423-08

SAMPLE DESCRIPTION: SP-2  
Date Taken: 10/09/1995  
Time Taken:  
NET Sample No: 253313

Parameter	Results	Flags	Reporting			Date	Date	Run
			Limit	Units	Method	Extracted	Analyzed	Batch
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						10/26/1995	1870
Purgeable TPH	ND		1	mg/kg	5030/M8015		10/26/1995	1870
Carbon Range: C6 to C12	--						10/26/1995	1870
METHOD 8020 (GC, Solid)	--						10/26/1995	1870
Benzene	ND		0.0025	mg/kg	8020		10/26/1995	1870
Toluene	ND		0.0025	mg/kg	8020		10/26/1995	1870
Ethylbenzene	ND		0.0025	mg/kg	8020		10/26/1995	1870
Xylenes (Total)	ND		0.0025	mg/kg	8020		10/26/1995	1870
SURROGATE RESULTS	--							
Bromofluorobenzene (SURR)	82			% Rec.	8020		10/26/1995	1870

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.





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Ref: Shell 1285 Bancroft Ave., San Leandro, CA/81-0423-08

SAMPLE DESCRIPTION: SP-3  
Date Taken: 10/09/1995  
Time Taken:  
NET Sample No: 253314

Parameter	Results	Flags	Reporting			Date	Date	Run
			Limit	Units	Method	Extracted	Analyzed	Batch
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						10/20/1995	1865
Purgeable TPH	ND		1	mg/kg	5030/M8015		10/20/1995	1865
Carbon Range: C6 to C12	--						10/20/1995	1865
METHOD 8020 (GC, Solid)	--						10/20/1995	1865
Benzene	ND		0.0025	mg/kg	8020		10/20/1995	1865
Toluene	ND		0.0025	mg/kg	8020		10/20/1995	1865
Ethylbenzene	ND		0.0025	mg/kg	8020		10/20/1995	1865
Xylenes (Total)	ND		0.0025	mg/kg	8020		10/20/1995	1865
SURROGATE RESULTS	--						10/20/1995	1865
Bromofluorobenzene (SURR)	81			% Rec.	8020		10/20/1995	1865

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



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Ref: Shell 1285 Bancroft Ave., San Leandro, CA/81-0423-08

SAMPLE DESCRIPTION: SP-4

Date Taken: 10/09/1995

Time Taken:

NET Sample No: 253315

Parameter	Results	Flags	Reporting			Date		Run Batch No.
			Limit	Units	Method	Extracted	Analyzed	
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						10/20/1995	1865
Purgeable TPH	2.7		1	mg/kg	5030/M8015		10/20/1995	1865
Carbon Range: C6 to C12	--						10/20/1995	1865
METHOD 8020 (GC, Solid)	--						10/20/1995	1865
Benzene	0.0096		0.0025	mg/kg	8020		10/20/1995	1865
Toluene	0.0032		0.0025	mg/kg	8020		10/20/1995	1865
Ethylbenzene	0.0048		0.0025	mg/kg	8020		10/20/1995	1865
Xylenes (Total)	0.006		0.0025	mg/kg	8020		10/20/1995	1865
SURROGATE RESULTS	--						10/20/1995	1865
Bromofluorobenzene (SURR)	92			% Rec.	8020		10/20/1995	1865

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



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SAMPLE DESCRIPTION: SP-1,SP-2,SP-3,SP-4  
Date Taken: 10/09/1995  
Time Taken:  
NET Sample No: 253316

Parameter	Results	Flags	Reporting			Date		Run Batch No.
			Limit	Units	Method	Extracted	Analyzed	
ICP METALS SOLID							10/20/1995	710
Antimony (ICP)	ND		10	mg/kg	EPA 6010	10/19/1995	10/20/1995	779
Arsenic (GFAA)	4.3		0.5	mg/kg	EPA 7060	10/19/1995	10/19/1995	544
Barium (ICP)	150		2.0	mg/kg	EPA 6010	10/19/1995	10/20/1995	782
Beryllium (ICP)	ND		2.0	mg/kg	EPA 6010	10/19/1995	10/20/1995	782
Cadmium (ICP)	ND		2.0	mg/kg	EPA 6010	10/19/1995	10/20/1995	633
Chromium (ICP)	38		2.0	mg/kg	EPA 6010	10/19/1995	10/20/1995	644
Chromium+6 (Color)	ND	CNA	0.05	mg/kg	SW7196			9
Cobalt (ICP)	8.5		5.0	mg/kg	EPA 6010	10/19/1995	10/20/1995	781
Copper (ICP)	29		2.0	mg/kg	EPA 6010	10/19/1995	10/20/1995	526
Lead (GFAA)	13		0.2	mg/kg	EPA 7421	10/19/1995	10/19/1995	714
Mercury (CVAA)	0.07		0.02	mg/kg	EPA 7471	10/17/1995	10/18/1995	342
Molybdenum (ICP)	ND		5.0	mg/kg	EPA 6010	10/19/1995	10/20/1995	580
Nickel (ICP)	42		5.0	mg/kg	EPA 6010	10/19/1995	10/20/1995	537
Selenium (GFAA)	ND	MSA	0.5	mg/kg	EPA 7740	10/19/1995	10/19/1995	470
Silver (ICP)	ND		2.0	mg/kg	EPA 6010	10/19/1995	10/20/1995	781
Thallium (ICP)	ND		20	mg/kg	EPA 6010	10/19/1995	10/20/1995	409
Vanadium (ICP)	31		5.0	mg/kg	EPA 6010	10/19/1995	10/20/1995	454
Zinc (ICP)	86		5.0	mg/kg	EPA 6010	10/19/1995	10/20/1995	582

CNA : Cr+6 not analyzed; Total Chromium conc. below Cr+6 regulatory level.  
MSA : Value determined by the Method of Standard Additions.

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SAMPLE DESCRIPTION: E-1-4ft  
Date Taken: 10/09/1995  
Time Taken:  
NET Sample No: 253317

Parameter	Results	Flags	Reporting			Date	Date	Run
			Limit	Units	Method	Extracted	Analyzed	Batch No.
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						10/18/1995	1860
Purgeable TPH	ND		1	mg/kg	5030/M8015		10/18/1995	1860
Carbon Range: C6 to C12	--						10/18/1995	1860
METHOD 8020 (GC, Solid)	--						10/18/1995	1860
Benzene	ND		0.0025	mg/kg	8020		10/18/1995	1860
Toluene	ND		0.0025	mg/kg	8020		10/18/1995	1860
Ethylbenzene	ND		0.0025	mg/kg	8020		10/18/1995	1860
Xylenes (Total)	ND		0.0025	mg/kg	8020		10/18/1995	1860
SURROGATE RESULTS	--						10/18/1995	1860
Bromofluorobenzene (SURRE)	75			% Rec.	8020		10/18/1995	1860

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



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SAMPLE DESCRIPTION: E-2-3.5  
Date Taken: 10/09/1995  
Time Taken:  
NET Sample No: 253318

Parameter	Results	Flags	Reporting			Date	Date	Run
			Limit	Units	Method	Extracted	Analyzed	Batch
METHOD 5030/8015-M (Shell)								
DILUTION FACTOR*	1						10/18/1995	1860
Purgeable TPH	ND		1	mg/kg	5030/M8015		10/18/1995	1860
Carbon Range: C6 to C12	--						10/18/1995	1860
METHOD 8020 (GC, Solid)	--						10/18/1995	1860
Benzene	ND		0.0025	mg/kg	8020		10/18/1995	1860
Toluene	ND		0.0025	mg/kg	8020		10/18/1995	1860
Ethylbenzene	ND		0.0025	mg/kg	8020		10/18/1995	1860
Xylenes (Total)	ND		0.0025	mg/kg	8020		10/18/1995	1860
SURROGATE RESULTS	--						10/18/1995	1860
Bromofluorobenzene (SURR)	71			% Rec.	8020		10/18/1995	1860

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## CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV		CCV		Units	Date Analyzed	Analyst Initials	Run Batch Number
	Standard Amount	% Recovery	Standard Amount	Standard Expected				
ICP METALS SOLID								
Antimony (ICP)	100.7	100.7	10.07	10.0	mg/kg	10/20/1995	jeo	710
Arsenic (GFAA)	103.3	103.3	0.05165	0.0500	mg/kg	10/19/1995	ket	544
Barium (ICP)	103.1	103.1	1.031	1.00	mg/kg	10/20/1995	jeo	782
Beryllium (ICP)	102.6	102.6	1.026	1.00	mg/kg	10/20/1995	jeo	782
Cadmium (ICP)	98.0	98.0	0.9795	1.00	mg/kg	10/20/1995	jeo	633
Chromium (ICP)	102.0	102.0	1.020	1.00	mg/kg	10/20/1995	jeo	644
Chromium+6 (Color)	102.7	102.7	0.1027	0.100	mg/kg	10/21/1995	ket	9
Cobalt (ICP)	98.0	98.0	0.9803	1.00	mg/kg	10/20/1995	jeo	781
Copper (ICP)	98.2	98.2	0.9819	1.00	mg/kg	10/20/1995	jeo	526
Lead (GFAA)	103.4	103.4	0.02586	0.0250	mg/kg	10/19/1995	ket	714
Mercury (CVAA)	107.5	107.5	0.010751	0.0100	mg/kg	10/18/1995	ket	342
Molybdenum (ICP)	96.7	96.7	0.9670	1.00	mg/kg	10/20/1995	jeo	580
Nickel (ICP)	99.6	99.6	0.9957	1.00	mg/kg	10/20/1995	jeo	537
Selenium (GFAA)	99.1	99.1	0.02477	0.0250	mg/kg	10/19/1995	ket	470
Silver (ICP)	100.9	100.9	1.009	1.00	mg/kg	10/20/1995	jeo	781
Thallium (ICP)	102.6	102.6	10.26	10.0	mg/kg	10/20/1995	jeo	409
Vanadium (ICP)	100.3	100.3	1.003	1.00	mg/kg	10/20/1995	jeo	454
Zinc (ICP)	97.6	97.6	0.9759	1.00	mg/kg	10/20/1995	jeo	582
METHOD 5030/8015-M (Shell)								
Purgeable TPH	109.6	109.6	2.74	2.50	mg/kg	10/18/1995	dat3	1860
Benzene	100.4	100.4	25.1	25.0	ug/kg	10/18/1995	dat3	1860
Toluene	98.4	98.4	24.6	25.0	ug/kg	10/18/1995	dat3	1860
Ethylbenzene	100.8	100.8	25.2	25.0	ug/kg	10/18/1995	dat3	1860
Xylenes (Total)	100.5	100.5	75.4	75.0	ug/kg	10/18/1995	dat3	1860
Bromofluorobenzene (SURR)	102.0	102.0	102	100	% Rec.	10/18/1995	dat3	1860
METHOD 5030/8015-M (Shell)								
Purgeable TPH	97.6	97.6	2.44	2.50	mg/kg	10/19/1995	dat3	1861
Benzene	95.2	95.2	23.8	25.0	ug/kg	10/19/1995	dat3	1861
Toluene	96.0	96.0	24.0	25.0	ug/kg	10/19/1995	dat3	1861
Ethylbenzene	97.2	97.2	24.3	25.0	ug/kg	10/19/1995	dat3	1861
Xylenes (Total)	99.7	99.7	74.8	75.0	ug/kg	10/19/1995	dat3	1861
Bromofluorobenzene (SURR)	99.0	99.0	99	100	% Rec.	10/19/1995	dat3	1861
METHOD 5030/8015-M (Shell)								
Purgeable TPH	94.8	94.8	2.37	2.50	mg/kg	10/20/1995	dat3	1865
Benzene	88.0	88.0	22.0	25.0	ug/kg	10/20/1995	dat3	1865
Toluene	90.8	90.8	22.7	25.0	ug/kg	10/20/1995	dat3	1865
Ethylbenzene	94.0	94.0	23.5	25.0	ug/kg	10/20/1995	dat3	1865
Xylenes (Total)	95.2	95.2	71.4	75.0	ug/kg	10/20/1995	dat3	1865
Bromofluorobenzene (SURR)	95.0	95.0	95	100	% Rec.	10/20/1995	dat3	1865

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## CONTINUING CALIBRATION VERIFICATION STANDARD REPORT

Parameter	CCV	CCV	Units	Date Analyzed	Analyst Initials	Run Batch Number
	Standard % Recovery	Standard Amount Found				
METHOD 5030/8015-M (Shell)						
Purgeable TPH	95.2	2.38	2.50	mg/kg	dld	1870
Benzene	94.8	23.7	25.0	ug/kg	dld	1870
Toluene	90.4	22.6	25.0	ug/kg	dld	1870
Ethylbenzene	94.8	23.7	25.0	ug/kg	dld	1870
Xylenes (Total)	95.7	71.8	75.0	ug/kg	dld	1870
Bromofluorobenzene (SURR)	94.0	94	100	% Rec.	dld	1870

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## METHOD BLANK REPORT

Parameter	Method			Date	Analyst	Run
	Blank	Reporting	Units			
	Amount	Limit		Analyzed	Initials	Batch
	Found					Number
Antimony (ICP)	ND	10	mg/kg	10/20/1995	jeo	779
Arsenic (GFAA)	ND	0.5	mg/kg	10/19/1995	ket	544
Barium (ICP)	ND	2.0	mg/kg	10/20/1995	jeo	782
Beryllium (ICP)	ND	2.0	mg/kg	10/20/1995	jeo	782
Cadmium (ICP)	ND	2.0	mg/kg	10/20/1995	jeo	633
Chromium (ICP)	ND	2.0	mg/kg	10/20/1995	jeo	644
Chromium+6 (Color)	ND	0.05	mg/kg	10/21/1995	ket	9
Cobalt (ICP)	ND	5.0	mg/kg	10/20/1995	jeo	781
Copper (ICP)	ND	2.0	mg/kg	10/20/1995	jeo	526
Lead (GFAA)	ND	0.2	mg/kg	10/19/1995	ket	714
Mercury (CVAA)	ND	0.02	mg/kg	10/18/1995	ket	342
Molybdenum (ICP)	ND	5.0	mg/kg	10/20/1995	jeo	580
Nickel (ICP)	ND	5.0	mg/kg	10/20/1995	jeo	537
Selenium (GFAA)	ND	0.5	mg/kg	10/19/1995	ket	470
Silver (ICP)	ND	2.0	mg/kg	10/20/1995	jeo	781
Thallium (ICP)	ND	20	mg/kg	10/20/1995	jeo	409
Vanadium (ICP)	ND	5.0	mg/kg	10/20/1995	jeo	454
Zinc (ICP)	ND	5.0	mg/kg	10/20/1995	jeo	582
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	1	mg/kg	10/18/1995	dat3	1860
Benzene	ND	2.5	ug/kg	10/18/1995	dat3	1860
Toluene	ND	2.5	ug/kg	10/18/1995	dat3	1860
Ethylbenzene	ND	2.5	ug/kg	10/18/1995	dat3	1860
Xylenes (Total)	ND	2.5	ug/kg	10/18/1995	dat3	1860
Bromofluorobenzene (SURR)	97		% Rec.	10/18/1995	dat3	1860
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	1	mg/kg	10/19/1995		1861
Benzene	ND	2.5	ug/kg	10/19/1995		1861
Toluene	ND	2.5	ug/kg	10/19/1995		1861
Ethylbenzene	ND	2.5	ug/kg	10/19/1995		1861
Xylenes (Total)	ND	2.5	ug/kg	10/19/1995		1861
Bromofluorobenzene (SURR)	93		% Rec.	10/19/1995		1861
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	1	mg/kg	10/20/1995	dat3	1865
Benzene	ND	2.5	ug/kg	10/20/1995	dat3	1865
Toluene	ND	2.5	ug/kg	10/20/1995	dat3	1865
Ethylbenzene	ND	2.5	ug/kg	10/20/1995	dat3	1865
Xylenes (Total)	ND	2.5	ug/kg	10/20/1995	dat3	1865
Bromofluorobenzene (SURR)	91		% Rec.	10/20/1995	dat3	1865
METHOD 5030/8015-M (Shell)						
Purgeable TPH	ND	1	mg/kg	10/26/1995	dld	1870
Benzene	ND	2.5	ug/kg	10/26/1995	dld	1870
Toluene	ND	2.5	ug/kg	10/26/1995	dld	1870
Ethylbenzene	ND	2.5	ug/kg	10/26/1995	dld	1870
Xylenes (Total)	ND	2.5	ug/kg	10/26/1995	dld	1870
Bromofluorobenzene (SURR)	95		% Rec.	10/26/1995	dld	1870

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.





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## MATRIX SPIKE / MATRIX SPIKE DUPLICATE

Parameter	Matrix Spike		RPD	Spike Amount	Sample Conc.	Matrix Spike		Units	Date Analyzed	Run Batch	Sample Spiked
	% Rec.	% Rec.				Spike Conc.	Conc.				
ICP METALS SOLID											
Antimony (ICP)	53.5	48.1	10.6	1,940	ND	1,040	710	mg/kg	10/20/1995	710	251873
Arsenic (GFAA)	93.5	79.4	16.3	9.80	ND	9.16	5.94	mg/kg	10/19/1995	544	251873
Barium (ICP)	102.9	102.1	0.8	194	71	271	222	mg/kg	10/20/1995	782	251873
Beryllium (ICP)	97.3	97.3	0.0	194	ND	189	144	mg/kg	10/20/1995	782	251873
Cadmium (ICP)	93.4	93.1	0.3	194	ND	181	137	mg/kg	10/20/1995	633	251873
Chromium (ICP)	99.1	99.0	0.1	92.59	5.0	197	151	mg/kg	10/20/1995	644	251873
Chromium+6 (Color)	97.9	103.1	5.1	1.00	ND	0.979	1.031	mg/kg	10/21/1995	9	251734
Cobalt (ICP)	93.3	93.5	0.2	92.59	12	193	150	mg/kg	10/20/1995	781	251873
Copper (ICP)	94.9	94.5	0.4	92.59	59	243	198	mg/kg	10/20/1995	526	251873
Lead (GFAA)	79.5	73.0	8.5	4.90	3.4	7.24	6.09	mg/kg	10/19/1995	714	251873
Mercury (CVAA)	107.2	104.5	2.6	0.781	ND	0.837	0.792	mg/kg	10/18/1995	342	253192
Mercury (CVAA)	109.1	114.4	4.7	0.781	ND	0.852	0.841	mg/kg	10/18/1995	342	253361
Mercury (CVAA)	104.4	109.6	4.9	0.833	0.03	0.900	0.886	mg/kg	10/18/1995	342	253513
Molybdenum (ICP)	92.7	93.5	0.9	92.59	ND	180	138	mg/kg	10/20/1995	580	251873
Nickel (ICP)	99.0	100.1	1.0	92.59	ND	192	148	mg/kg	10/20/1995	537	251873
Selenium (GFAA)	77.4	78.6	1.5	4.90	ND	3.79	2.94	mg/kg	10/19/1995	470	251873
Silver (ICP)	96.8	97.6	0.8	92.59	ND	188	144	mg/kg	10/20/1995	781	251873
Thallium (ICP)	99.4	98.9	0.5	925.9	ND	1,930	1,460	mg/kg	10/20/1995	409	251873
Vanadium (ICP)	102.2	97.4	4.7	92.59	88	286	232	mg/kg	10/20/1995	454	251873
Zinc (ICP)	92.1	90.2	2.1	92.59	59	238	192	mg/kg	10/20/1995	582	251873
METHOD 5030/8015-M (Shell)											
Purgeable TPH	101.6	94.0	7.7	2.5	ND	2.54	2.35	mg/kg	10/18/1995	1860	252588
Benzene	98.6	91.0	8.0	43.3	ND	42.7	39.4	ug/kg	10/18/1995	1860	252588
Toluene	94.7	87.4	8.0	151	ND	143	132	ug/kg	10/18/1995	1860	252588
METHOD 5030/8015-M (Shell)											
Purgeable TPH	90.4	83.2	8.3	2.50	ND	2.26	2.08	mg/kg	10/19/1995	1861	253488
Benzene	94.5	89.4	5.5	41.6	ND	39.3	37.2	ug/kg	10/19/1995	1861	253488
Toluene	94.7	90.0	5.1	150	ND	142	135	ug/kg	10/19/1995	1861	253488
METHOD 5030/8015-M (Shell)											
Purgeable TPH	60.4	62.0	2.6	2.50	ND	1.51	1.55	mg/kg	10/20/1995	1865	253651
Benzene	75.4	81.0	7.2	35.8	ND	27.0	29.0	ug/kg	10/20/1995	1865	253651
Toluene	78.2	85.7	9.2	133	ND	104	114	ug/kg	10/20/1995	1865	253651
METHOD 5030/8015-M (Shell)											
Purgeable TPH	87.2	89.6	2.7	2.50	ND	2.18	2.24	mg/kg	10/26/1995	1870	253650
Benzene	94.8	94.8	0.0	38.8	ND	36.8	36.8	ug/kg	10/26/1995	1870	253650
Toluene	93.1	93.8	0.7	130	ND	121	122	ug/kg	10/26/1995	1870	253650

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



Client Name: Weiss Associates  
Client Acct: 1809  
NET Job No: 95.03993

Date: 11/01/1995  
ELAP Cert: 1386  
Page: 13

Ref: Shell 1285 Bancroft Ave., San Leandro, CA/81-0423-08

## LABORATORY CONTROL SAMPLE REPORT

Parameter	Duplicate			Duplicate		Units	Date Analyzed	Analyst Initials	Run Batch
	LCS % Recovery	LCS % Recovery	RPD	LCS Amount Found	LCS Amount Expected				
Antimony (ICP)	98.6			986.3	1000	mg/kg	10/20/1995	jeo	779
Arsenic (GFAA)	100.0			5.000	5.00	mg/kg	10/19/1995	ket	544
Barium (ICP)	102.9			102.9	100	mg/kg	10/20/1995	jeo	782
Beryllium (ICP)	97.9			97.9	100	mg/kg	10/20/1995	jeo	782
Cadmium (ICP)	95.2			95.2	100	mg/kg	10/20/1995	jeo	633
Chromium (ICP)	100.5			100.5	100	mg/kg	10/20/1995	jeo	644
Chromium+6 (Color)	101.4			1.014	1.00	mg/kg	10/21/1995	ket	9
Cobalt (ICP)	95.7			95.7	100	mg/kg	10/20/1995	jeo	781
Copper (ICP)	96.3			96.3	100	mg/kg	10/20/1995	jeo	526
Lead (GFAA)	96.0			2.401	2.50	mg/kg	10/19/1995	ket	714
Mercury (CVAA)	101.2			0.8433	0.8333	mg/kg	10/18/1995	ket	342
Molybdenum (ICP)	95.8			95.8	100	mg/kg	10/20/1995	jeo	580
Nickel (ICP)	96.3			96.3	100	mg/kg	10/20/1995	jeo	537
Selenium (GFAA)	90.2			2.256	2.50	mg/kg	10/19/1995	ket	470
Silver (ICP)	99.3			99.3	100	mg/kg	10/20/1995	jeo	781
Thallium (ICP)	100.9			1009.3	1000	mg/kg	10/20/1995	jeo	409
Vanadium (ICP)	99.5			99.5	100	mg/kg	10/20/1995	jeo	454
Zinc (ICP)	95.3			95.3	100	mg/kg	10/20/1995	jeo	582

NOTE: Results apply only to the samples analyzed. Reproduction of this report is permitted only in its entirety.



## KEY TO ABBREVIATIONS and METHOD REFERENCES

- < : Less than; When appearing in results column indicates analyte not detected at the value following. This datum supercedes the listed Reporting Limit.
- \* : Reporting Limits are a function of the dilution factor for any given sample. To obtain the actual reporting limits for this sample, multiply the stated Reporting Limits by the dilution factor (but do not multiply reported values).
- ICVS : Initial Calibration Verification Standard (External Standard).
- mean : Average; sum of measurements divided by number of measurements.
- mg/Kg (ppm) : Concentration in units of milligrams of analyte per kilogram of sample, wet-weight basis (parts per million).
- mg/L : Concentration in units of milligrams of analyte per liter of sample.
- mL/L/hr : Milliliters per liter per hour.
- MPN/100 mL : Most probable number of bacteria per one hundred milliliters of sample.
- N/A : Not applicable.
- NA : Not analyzed.
- ND : Not detected; the analyte concentration is less than applicable listed reporting limit.
- NTU : Nephelometric turbidity units.
- RPD : Relative percent difference,  $100 \text{ (Value 1 - Value 2) / mean value}$ .
- SNA : Standard not available.
- ug/Kg (ppb) : Concentration in units of micrograms of analyte per kilogram of sample, wet-weight basis (parts per billion).
- ug/L : Concentration in units of micrograms of analyte per liter of sample.
- umhos/cm : Micromhos per centimeter.

### Method References

Methods 100 through 493: see "Methods for Chemical Analysis of Water & Wastes", U.S. EPA, 600/4-79-020, rev. 1983.

Methods 601 through 625: see "Guidelines Establishing Test Procedures for the Analysis of Pollutants" U.S. EPA, 40 CFR, Part 136, rev. 1988.

Methods 1000 through 9999: see "Test Methods for Evaluating Solid Waste", U.S. EPA SW-846, 3rd edition, 1986.

SM: see "Standard Methods for the Examination of Water & Wastewater, 17th Edition, APHA, 1989.

COOLER RECEIPT FORM

Project: 81-0423-08

Log No: 8830

Cooler received on: 10/11/95 and checked on 10/11/95 by Edm Greene  
(signature)

Were custody papers present?..... YES NO

Were custody papers properly filled out?..... YES NO

Were the custody papers signed?..... YES NO

Was sufficient ice used?..... YES NO Temp 5°

Did all bottles arrive in good condition (unbroken)?..... YES NO

Did bottle labels match COC?..... YES NO

Were proper bottles used for analysis indicated?..... YES NO

Correct preservatives used?.....YES NO N/A

VOA vials checked for headspace bubbles?.....YES NO N/A

Note which voas (if any) had bubbles:\*

Sample descriptor:

Number of vials:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
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\_\_\_\_\_  
\_\_\_\_\_

\*All VOAs with headspace bubbles have been set aside so they will not be used for analysis.....YES NO

List here all other jobs received in the same cooler:

Client Job # ..... NET log # .....

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(coolerrec)

#8830



# SHELL OIL COMPANY

RETAIL ENVIRONMENTAL ENGINEERING - WEST

## CHAIN OF CUSTODY RECORD

Date: 10/09/95  
Page 1 of 1

Site Address: 1285 Bancroft

WIC#: 204-6852-0703

Shell Engineer: Jeff Bryan  
Phone No.: 675-6146  
Fax #:

Consultant Name & Address: WEISS ASSOCIATES  
5500 SHELLMOUND ST EMERYVILLE CA 94608

Consultant Contact: WA JOB # 81-0423 -08  
Phone No.: (510) 450-6000  
Fax #: 547-5043

Comments:

Sampled by: Joyce Adams

Printed Name: Joyce Adams

### Analysis Required

TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal <u>6/16/2011</u>	Combination TPH 8015 & BTEX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N
-------------------------	----------------------------	---------------------	------------------------------	------------------------------------	----------------------------------	----------	----------------	------------------	---------------

LAB: WEST

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
G.W. Monitoring <input type="checkbox"/>	4461	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	4441	48 hours <input checked="" type="checkbox"/>
Soil Classify/Disposal <input checked="" type="checkbox"/>	4442	15 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

NOTE: Notify Lab as soon as possible of 24/48 hrs. TAT.

UST AGENCY:

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.	TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N	MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS	
SP-1	10/10/95		X			1					X	see Joyce to JL							Composite
SP-2	↓		↓			↓					↓								all samples
SP-3	↓		↓			↓					↓								before analyzing
SP-4	↓		↓			↓					↓								

### CUSTODY SEALED

Date: 10/10/95 Time: 15:50 Initials: PS

### SEAL INTACT?

Yes:  No:  Initials: PS

Relinquished By (signature): <u>Joyce Adams</u>	Printed Name: <u>Joyce Adams</u>	Date: <u>10/10/95</u>	Time: <u>10:18</u>	Received (signature): <u>Phyllis Smart</u>	Printed Name: <u>Phyllis Smart</u>	Date: <u>10/10/95</u>	Time: <u>15:18</u>
Relinquished By (signature): <u>Phyllis Smart</u>	Printed Name: <u>Phyllis Smart</u>	Date: <u>10/10/95</u>	Time: <u>15:50</u>	Received (signature): <u>Pam Greene</u>	Printed Name: <u>Pam Greene</u>	Date: <u>10/11/95</u>	Time: <u>08:00</u>
Relinquished By (signature):	Printed Name:	Date:	Time:	Received (signature):	Printed Name:	Date:	Time:

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS



# SHELL OIL COMPANY

RETAIL ENVIRONMENTAL ENGINEERING - WEST

## CHAIN OF CUSTODY RECORD

Serial No: \_\_\_\_\_

Date: 10/09/95  
Page | of |

Site Address: 1285 Bancroft Ave, San Leandro

WIC#: 204-6852-0403

Shell Engineer: Jeff Granberry  
Phone No.: 675-6167  
Fax #: \_\_\_\_\_

Consultant Name & Address: WEISS ASSOCIATES  
5500 SHELLMOUND ST EMERYVILLE CA 94608

Consultant Contact: WA JOB # 81-0473-08  
Phone No.: (510) 450-6000  
Fax #: 547-5043

Comments: \_\_\_\_\_

Sampled by: Joyce Adams

Printed Name: Joyce Adams

Sample ID	Date	Sludge	Soil	Water	Air	No. of conts.
E-1-4ft	10/9/95		↓			↓
E-2-3.5	↓		↓			↓

Analysis Required									
TPH (EPA 8015 Mod. Gas)	TPH (EPA 8015 Mod. Diesel)	BTEX (EPA 8020/602)	Volatile Organics (EPA 8240)	Test for Disposal	Combination TPH 8015 & BTEX 8020	Asbestos	Container Size	Preparation Used	Composite Y/N
					X				

LAB: NET

CHECK ONE (1) BOX ONLY	CT/DT	TURN AROUND TIME
G.W. Monitoring <input type="checkbox"/>	4461	24 hours <input type="checkbox"/>
Site Investigation <input type="checkbox"/>	4441	48 hours <input type="checkbox"/>
Soil Classify/Disposal <input type="checkbox"/>	4442	15 days <input checked="" type="checkbox"/> (Normal)
Water Classify/Disposal <input type="checkbox"/>	4443	Other <input type="checkbox"/>
Soil/Air Rem. or Sys. O & M <input type="checkbox"/>	4452	
Water Rem. or Sys. O & M <input type="checkbox"/>	4453	
Other <input type="checkbox"/>		

NOTE: Notify Lab as soon as Possible of 24/48 hrs. TAT.

UST AGENCY: \_\_\_\_\_

MATERIAL DESCRIPTION	SAMPLE CONDITION/ COMMENTS

**CUSTODY SEALED**  
 Date: 10/10/95 Time: 10:50 Initials: JS  
**SEAL INTACT?**  
 Yes  No  Initials: JS

Relinquished By (signature): <u>Joyce Adams</u>	Printed Name: <u>Joyce Adams</u>	Date: <u>10/10/95</u> Time: <u>1:45</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>[Name]</u>	Date: <u>10/10/95</u> Time: <u>10:18</u>
Relinquished By (signature): <u>[Signature]</u>	Printed Name: <u>Phyllis Smart</u>	Date: <u>10/16/95</u> Time: <u>10:50</u>	Received (signature): <u>[Signature]</u>	Printed Name: <u>PAM GREENE</u>	Date: <u>10/11/95</u> Time: <u>09:00</u>
Relinquished By (signature): _____	Printed Name: _____	Date: _____ Time: _____	Received (signature): _____	Printed Name: _____	Date: _____ Time: _____

THE LABORATORY MUST PROVIDE A COPY OF THIS CHAIN-OF-CUSTODY WITH INVOICE AND RESULTS

**ATTACHMENT B**

**SOIL DISPOSAL CONFIRMATION**

## DISPOSAL CONFIRMATION

Consultant:	WEISS ASSOCIATES
Contact:	FAITH DAVERIN
Phone/Fax:	(510) 547-5420 FAX (510) 547-5043
Client:	SHELL OIL CO.- JEFF BRYAM/JEFF GRANBERRY
Station #/Wic #:	204-6852-0703
Site Address:	1285 BANCROFT AVENUE
City/State:	SAN LEANDRO, CA
Estimated YD/Ton:	130 YARDS
Actual YD/Ton:	72 YARDS
Disposal Facility:	REDWOOD LANDFILL
Disposal Date:	NOVEMBER 7, 1995
Contact:	WHITNEY KING
Phone #:	(415) 892-2851
Hauler:	MANLEY & SONS TRUCKING, INC.
Contact:	TIM A. MANLEY
Phone #:	(916) 381-6864
Fax #:	(916) 381-1573

Date & Time Faxed

4027

11-21-95 1:40