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Alameda County  
Environmental Health

**P&D ENVIRONMENTAL, INC.**  
**55 Santa Clara Avenue, Suite 240**  
**Oakland, CA 94610**  
**(510) 658-6916**

March 12, 2010  
Report 0494.R1

Mr. Michael Roberts  
City Of Emeryville  
1333 Park Avenue  
Emeryville, CA 94608

**SUBJECT: UNDERGROUND STORAGE TANK REMOVAL REPORT**  
1550 Park Avenue  
Emeryville, CA

Dear Mr. Roberts:

P&D Environmental, Inc. (P&D) is pleased to present this report documenting the removal of one 1,400-gallon capacity underground storage tank (UST) from the subject site. Based on the type of petroleum hydrocarbons detected in and beneath the UST, the UST formerly contained heating oil. The UST was removed from the site on February 8, 2010. A Site Location Map (Figure 1), a Site Plan (Figure 2) and a Site Plan Detail (Figure 3) showing the locations of the UST at the site are attached with this report.

All sample collection was performed under the supervision of a professional geologist. This report is prepared in accordance with guidelines set forth in the document "Tri-Regional Board Staff Recommendations for Preliminary Evaluation and Investigation of Underground Tank Sites" dated August 10, 1990 and "Appendix A - Workplan for Initial Subsurface Investigation" dated August 20, 1991.

**BACKGROUND**

On or about November 6, 2009 an UST was discovered adjacent to the building located at 1550 Park Avenue in Emeryville, California during excavation for redevelopment and re-surfacing of the sidewalk and adjacent street. The street, curb and gutter adjacent to the south side of the UST were excavated to a depth of approximately four feet below grade as part of the redevelopment project. The top of the UST was encountered at a depth of approximately one foot below grade, and the UST was measured to be approximately 10 feet long. No pipes were observed to be connected to the UST. However, an opening in the top of the tank allowed access to the UST interior. The UST was measured to be approximately 5 feet in diameter. The UST was filled almost entirely with water and a layer of floating black, viscous fluid that exhibited a strong oily odor and that resembled Bunker C heating oil.

## **FIELD ACTIVITIES**

### **UST Content Characterization**

On December 9, 2009 approximately 700 gallons of oily water was pumped from the UST by Clearwater Environmental, Inc. (Clearwater) of Union City, California in preparation for UST removal. The fluid was hauled from the site as a non-RCRA hazardous waste liquid by Clearwater to the Clearwater Environmental disposal facility in Silver Springs, Nevada using uniform hazardous waste manifest # 004449810 JJK. Clearwater is a State-certified hazardous waste hauler. A copy of the manifest is attached with this report.

At the time that the liquids were pumped from the UST, a sample of the liquid designated as UST Oil was collected by P&D personnel for laboratory analysis. The sample was collected into two 40-milliliter VOA vials that were preserved with hydrochloric acid by inserting a rod into the UST and allowing the viscous liquid that coated the rod to flow off of the rod into the containers. The VOA vials were capped with Teflon-lined screw caps and stored in a cooler with ice pending delivery to the laboratory. Chain of custody procedures were observed for all sample handling.

The sample was analyzed for fuel fingerprint analysis using EPA Methods 3550C/8015B. The laboratory results identified the sample as consisting of fuel oil and possibly bunker oil, and the laboratory report included a chromatogram of the sample analysis. A copy of the laboratory report and chain of custody documentation is attached with this report.

### **Additional Liquid Removal**

Prior to removal of the UST, the area of excavation was marked with white paint, Underground Service Alert was notified for buried utility location, a permit application for UST removal was submitted and approved with the Alameda County Department of Environmental Health (ACDEH), the date of removal was scheduled with the ACDEH inspector and the City of Emeryville Fire Department inspector, and PG&E was scheduled to secure the utility pole located at the east end of the UST.

During January and early February 2010 substantial rain events filled the excavated area adjacent to the UST with water. In the days prior to the scheduled UST removal, the UST was observed to be filled with water to a height equivalent to the water level in the adjacent excavated area. On the morning of February 8, 2010 (the scheduled day for UST removal) Clearwater returned to the site and pumped 1375 gallons of water from the UST and the adjacent excavated area. The water was hauled from the site by Clearwater with non-hazardous waste manifest #7951 to the Alviso Independent Oil facility in Alviso, California. Clearwater returned to the site on February 8, 2010 and removed approximately 120 gallons of water from the UST and oily water from the bottom of the UST pit. The water was hauled from the site by Clearwater with non-hazardous waste manifest #6833 to the Alviso Independent Oil facility in Alviso, California. Copies of the non-hazardous waste manifests are attached with this report.

### **UST Removal and Soil Sample Collection**

On February 8, 2010 the west and south sides of the UST were excavated and the UST was removed from the UST pit by IMX, Inc. of Oakland, California (IMX). The soil excavated from around the UST was discolored blue-gray and exhibited a strong oily odor. Prior to removal of the UST from the pit, the UST atmosphere was inerted using dry ice. A LEL/oxygen meter was used to evaluate the UST atmosphere, and the meter readings showed 0% LEL and 12.8% oxygen. Inspector George Warren from the City of Emeryville Fire Department was onsite and approved removal of the UST from the UST pit.

At the time of UST removal, a high voltage electrical conduit associated with the utility pole located immediately at the east end of the UST was observed to be located on top of the northeast corner of the UST. It appeared that the top of the UST had been depressed to provide space for the placement of the conduit at the time that the conduit was installed.

Following removal of the UST from the pit, the UST was visually inspected. The UST was measured to be 5 feet in diameter and 10 feet in length with a calculated volume of approximately 1500 gallons. The UST was constructed of single wall bare steel with riveted seams. The exterior of the UST appeared to be in good condition, with rust scaling observed primarily around the entire UST exterior at an elevation midway between the top and the bottom of the UST. No evidence of holes, cracks, or pitting from substantial corrosion was observed. However, a hole was observed at the west end of the UST at the southwest corner where a rivet was observed to be missing at an elevation approximately midway between the top and the bottom of the UST. It was unclear if the rivet was dislodged during the UST removal activities. Mr. Barney Chan of the ACDEH was present at the site to observe the UST removal and the UST condition following removal.

Following removal of the UST from the pit, water with a discontinuous layer of black oil floating on the water was observed to be present in the UST pit at a depth of approximately 6 feet below the ground surface. Mr. Chan of the ACDEH determined that an inadequate amount of water was present in the bottom of the UST pit for water sample collection. As described above, the water was removed from the UST pit by Clearwater.

Following removal of the water from the bottom of the UST pit, loose fill surrounding the UST consisting of sand and gravel that had fallen into the pit from the pit walls was removed from the bottom of the UST pit and a total of two soil samples were collected from the pit bottom using a backhoe bucket (one soil sample was collected from each end of the pit). Soil sample T1 was collected from the west end of the pit at a depth of approximately 7 feet below grade and soil sample T2 was collected from the east end of the pit at a depth of approximately 6 feet below grade.

The soil from the pit bottom consisted of clayey silt. The soil samples were collected from relatively undisturbed soil in the backhoe bucket by removing loose soil from the vicinity of the teeth of the bucket and pushing a 2-inch diameter 6-inch long stainless steel tube into the relatively undisturbed soil. No odor was detected in the sampled soil. The tubes were filled entirely to ensure that no head space was present in the tubes. The ends of the tubes were then sequentially covered with aluminum foil and plastic end caps. The tubes were then labeled and stored in a cooler with ice pending delivery to the laboratory. Chain of custody procedures were observed for all sample handling. The sample collection locations are shown in Figure 3. A copy

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of the County of Alameda Underground Tank System Closure Inspection Report dated February 8, 2010 is attached with this report.

Following soil sample collection from the UST pit, the bottom one half foot of the construction excavation located to the south of the UST pit was excavated and stockpiled. The area of excavation is shown in Figure 3. All excavated soil from the UST pit and from the adjacent construction excavation was transported to a nearby City yard where it was stockpiled on a sheet of visqueen. A total of 4 stainless steel tubes were filled with soil from different locations in the stockpile by manually pushing the tubes into the soil for disposal characterization purposes. The samples were to be composited at the laboratory and were designated as SP1. The tubes were sealed, labeled and stored as described above. Following sample collection the stockpile was covered with plastic and secured, pending removal from the site.

Although a vent pipe was observed on the building wall immediately to the north of the east end of the UST, excavation at the base of the vent pipe revealed that the vent pipe was not connected to the UST. The vent pipe penetrated the building wall below the ground surface. The vent pipe was cut off at the building exterior and the pipe was capped.

Photographs showing the UST prior to removal, the construction excavation located to the south of the UST, the UST following removal, the missing rivet from the UST, and the oily water in the UST pit are attached with this report.

Following soil sample collection from the UST pit bottom, the UST pit was backfilled with material provided by the City of Emeryville and compacted. City of Emeryville Dennis McGowan was onsite to verify that backfilling and compaction was performed in accordance with City requirements.

### **UST Transportation and Destruction**

Following removal of soil from the UST exterior and removal of remaining liquids from the UST interior, the UST was loaded onto an Ecology Control Industries (ECI) truck and transported with uniform hazardous waste manifest # 002135627 JJK to the ECI facility in Richmond, California. ECI is a State-certified hazardous waste hauler, and the ECI Richmond facility is a State-certified Transport, Storage and Disposal Facility. The UST was subsequently cut and destroyed at the ECI facility. Copies of the manifest and certificate of destruction are attached with this report.

### **Unauthorized Release Report**

An Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report was subsequently completed by the City of Emeryville naming the property owner adjacent to the UST as the responsible party. A copy of the report was provided electronically to Mr. Chan at the ACDEH on March 8, 2010. A copy of the report is also attached with this report.

## **Soil Disposal**

On March 10, 2010 a total of 20.29 tons of soil was transported from the site by IMX to the Republic Services Vasco Road Landfill in Livermore, California with two non-numbered non-hazardous waste manifests. Copies of the manifests and the landfill WeighMaster Certificates are attached with this report.

## **LABORATORY ANALYSIS**

The two soil samples collected from the UST pit bottom (T1 and T2) and the composite sample collected from the soil stockpile (SP1) were analyzed for Total Petroleum Hydrocarbons as Diesel (TPH-D) using EPA Method 3550C in conjunction with modified EPA Method 8015C; and for benzene, toluene, ethylbenzene, and xylenes (BTEX) , 1,2-dibromomethane (EDB), and for 1,2-dichloroethane (1,2-DCA) by EPA Method 5030B in conjunction with EPA Method 8260B. In addition, the stockpile soil sample was also analyzed for LUFT 5 metals (cadmium, total chromium, lead, nickel and zinc) using EPA Methods 3050B in conjunction with EPA Method 6010B, and for STLC total chromium using California 22 WET extraction methods and EPA Method 6010B for disposal characterization purposes.

The laboratory analytical results of the tank pit bottom samples show that BTEX, EDB and 1,2-DCA were not detected in any of the samples. TPH-D was detected in the tank pit bottom samples T1 and T2 and in the soil stockpile composite sample at concentrations of 15, 5.8 and 830 milligrams per kilogram (mg/kg), respectively. In the composite soil stockpile sample the metals total chromium, lead, nickel and zinc were detected at concentrations of 54, 26, 57 and 110 mg/kg, respectively, and the STLC total chromium result was 0.23 mg/L. The tank pit bottom sample results are summarized in Table 1, and the soil stockpile sample results are summarized in Table 2. Copies of the laboratory reports and chain of custody documentation are attached with this report.

## **DISCUSSION AND RECOMMENDATIONS**

Visual observation of the groundwater in the UST pit and the results of the soil samples collected from beneath the UST show that soil and groundwater beneath the UST has been impacted by petroleum hydrocarbons. Based on the UST ownership being identified as the adjacent property owner at 1550 Park Avenue, P&D recommends that no further action be taken by the City of Emeryville.

## **DISTRIBUTION**

A copy of this report should be sent to Mr. Barney Chan at the Alameda County Department of Environmental Health.

## **LIMITATIONS**

This report was prepared solely for the use of The City of Emeryville. The content and conclusions provided by P&D in this assessment are based on information collected during our investigation, which may include, but not be limited to, visual site inspections; interviews with the site owner,

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regulatory agencies and other pertinent individuals; review of available public documents; subsurface exploration and our professional judgment based on said information at the time of preparation of this document. Any subsurface sample results and observations presented herein are considered to be representative of the area of investigation; however, geological conditions may vary between borings and may not necessarily apply to the general site as a whole. If future subsurface or other conditions are revealed which vary from these findings, the newly revealed conditions must be evaluated and may invalidate the findings of this report.

This report is issued with the understanding that it is the responsibility of the owner, or his representative, to ensure that the information contained herein is brought to the attention of the appropriate regulatory agencies, where required by law. Additionally, it is the sole responsibility of the owner to properly dispose of any hazardous materials or hazardous wastes left onsite, in accordance with existing laws and regulations.

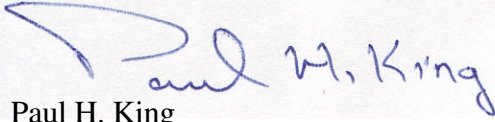
This report has been prepared in accordance with generally accepted practices using standards of care and diligence normally practiced by recognized consulting firms performing services of a similar nature. P&D is not responsible for the accuracy or completeness of information provided by other individuals or entities which is used in this report. This report presents our professional judgment based upon data and findings identified in this report and interpretation of such data based upon our experience and background, and no warranty, either express or implied, is made. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur.

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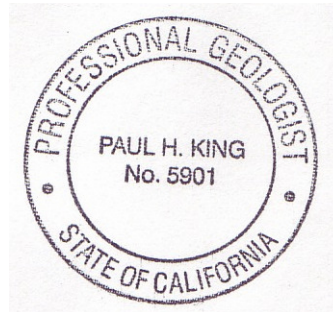
Should you have any questions, please do not hesitate to contact us at (510) 658-6916.

Sincerely,

P&D Environmental, Inc.



Paul H. King  
Professional Geologist #5901  
Expires: 12/31/11



Attachments:

Table 1 Summary of Pit Bottom Soil Sample Laboratory Analytical Results  
Table 2 Summary of Soil Stockpile Laboratory Analytical Results  
Site Location Map (Figure 1)  
Site Plan Aerial Photograph (Figure 2)  
Site Plan Detail Showing UST (Figure 3)  
Uniform Hazardous Waste Manifest #004449810 JJK dated 12/9/09 for liquid from UST  
Non-Hazardous Waste Manifest #7951 dated 2/8/10 for water from UST and UST Pit  
Non-Hazardous Waste Manifest #6833 dated 2/8/10 for water from UST and UST Pit  
Uniform Hazardous Waste Manifest #002135627 JJK dated 2/8/10 for UST disposal  
Certificate of Tank Destruction (1) for tank # 34019  
County of Alameda Underground Tank System Closure Inspection Report dated 2/8/10 (2 pp)  
Photographs  
Underground Storage Tank Unauthorized Release (Leak)/Contamination Site Report  
Non-Hazardous Waste Manifests dated 3/10/10 for soil stockpile disposal  
WeighMaster Certificates # 05769 and 05880  
Laboratory Analytical Reports and Chain of Custody Documentation

PHK  
0494.R1

# **TABLES**



## SUMMARY OF PIT BOTTOM SOIL SAMPLE ANALYTICAL RESULTS

<u>Sample ID</u>	<u>Sample Date</u>	<u>TPH-D</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Total Xylenes</u>	<u>EDB</u>	<u>1,2-DCA</u>
T1-7.0	2/8/2010	15, a	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.004	ND<0.004
T2-6.0	2/8/2010	5.8, b	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.004	ND<0.004

**NOTES**  
TPH-G = Total Petroleum Hydrocarbons as Gasoline.  
EDB = 1,2-Dibromoethane.  
1,2-DCA = 1,2-Dichloroethane.  
ND = Not Detected.  
a = Laboratory analytical note: diesel-range compounds are significant; no recognizable pattern.  
b = Laboratory analytical note: aged diesel is significant.  
All results reported in milligrams per kilogram (mg/kg) unless otherwise noted.

TABLE 2  
SUMMARY OF SOIL STOCKPILE SAMPLE ANALYTICAL RESULTS

<u>Sample ID</u>	<u>Sample Date</u>	<u>TPH-D</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethyl-benzene</u>	<u>Total Xylenes</u>	<u>EDB</u>	<u>1,2-DCA</u>
SP1	2/8/2010	830, c,d	ND<0.005	ND<0.005	ND<0.005	ND<0.005	ND<0.004	ND<0.004

**NOTES**

TPH-G = Total Petroleum Hydrocarbons as Gasoline.

EDB = 1,2-Dibromoethane.

1,2-DCA = 1,2-Dichloroethane.

ND = Not Detected.

c = Laboratory analytical note: unmodified or weakly modified diesel-range compounds are present.

d = Laboratory analytical note: Stoddard solvent/ mineral spirit(?)

The metals total chromium, lead, nickel, and zinc were detected at concentrations of 54, 26, 57, and 110 mg/kg, respectively. The total chromium STLC analysis result was 0.23 milligrams per liter (mg/l).

All results reported in milligrams per kilogram (mg/kg) unless otherwise noted.

# FIGURES



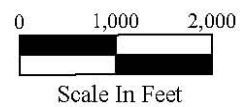


Figure 1  
 Site Location Map  
 City of Emeryville  
 1550 Park Avenue  
 Emeryville, California



Base Map From:  
 U.S. Geological Survey  
 Oakland West, California  
 7.5-Minute Quadrangle  
 Photorevised 1980

P&D Environmental, Inc.  
 55 Santa Clara Ave., Suite 240  
 Oakland, CA 94610





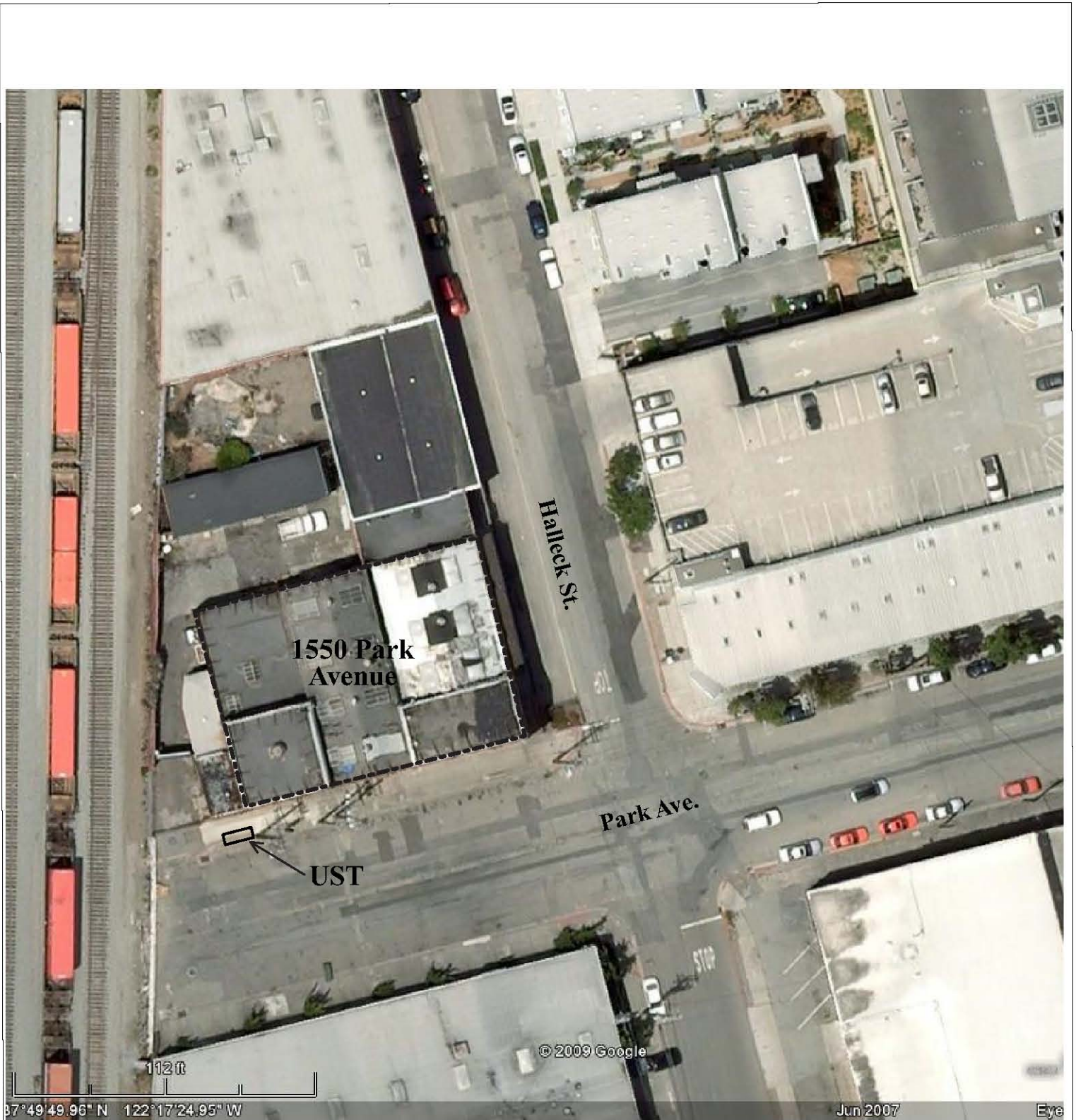
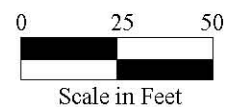


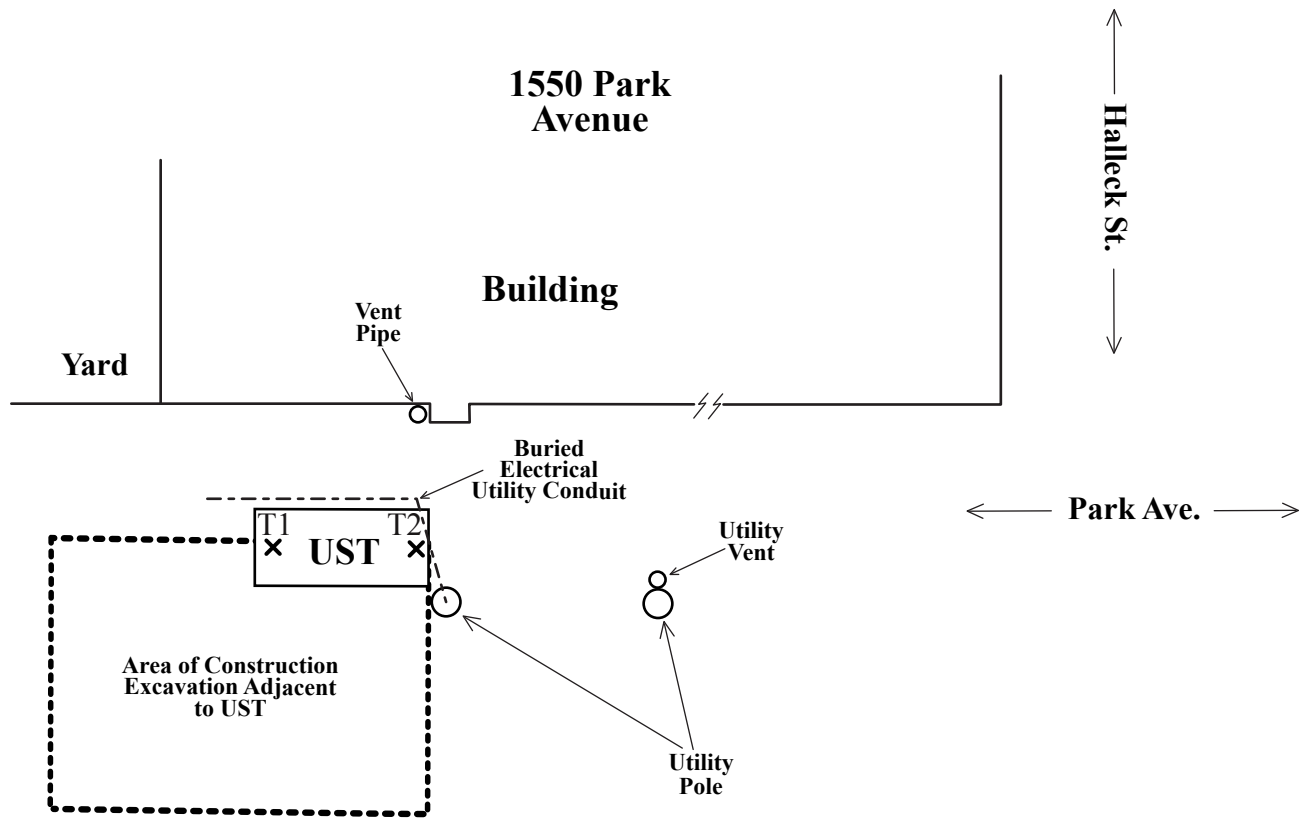
Figure 2  
 Site Plan Aerial Photograph  
 City of Emeryville  
 1550 Park Avenue  
 Emeryville, California



Aerial Photograph from  
 Google Earth, June 2007

P&D Environmental, Inc.  
 55 Santa Clara Ave., Suite 240  
 Oakland, CA 94610

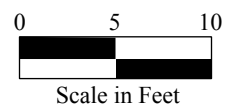




**LEGEND**

T2 × Soil Sample Collection Location

Figure 3  
 Site Plan Detail Showing UST  
 City of Emeryville  
 1550 Park Avenue  
 Emeryville, California



P&D Environmental, Inc.  
 55 Santa Clara Ave., Suite 240  
 Oakland, CA 94610

# **LIQUID AND UST MANIFESTS**



Job # 0494

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number <b>004449810 JJK</b>		
	5. Generator's Name and Mailing Address CITY OF EMERYVILLE 1333 PARK AVE EMERYVILLE CA 94608 Generator's Phone: 510 596-4333			Generator's Site Address (if different than mailing address) 1550 PARK AVE EMERYVILLE CA 94608		
6. Transporter 1 Company Name			U.S. EPA ID Number			
7. Transporter 2 Company Name			U.S. EPA ID Number			
8. Designated Facility Name and Site Address CLEARWATER ENVIRONMENTAL 2430 ALMOND DRIVE CLEARWATER SPRINGS NV 89429 Facility's Phone: 775 777 8011			U.S. EPA ID Number			
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No. Type		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes
1.	NON RCRA HAZARDOUS WASTE LIQUID	100 TT		700		223
2.						
3.						
4.						
14. Special Handling Instructions and Additional Information WEAR PPE, ERG # 171						
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.						
Generator's/Offeror's Printed/Typed Name			Signature		Month	Day Year
					12	09 01
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: Date leaving U.S.:						
17. Transporter Acknowledgment of Receipt of Materials						
Transporter 1 Printed/Typed Name			Signature		Month	Day Year
Transporter 2 Printed/Typed Name			Signature		Month	Day Year
18. Discrepancy						
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number:						
18b. Alternate Facility (or Generator)					U.S. EPA ID Number	
Facility's Phone:						
18c. Signature of Alternate Facility (or Generator)					Month	Day Year
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)						
1.	2.	3.	4.			
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a						
Printed/Typed Name			Signature		Month	Day Year



# NON-HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No.

2. Page 1 of 1

3. Document Number  
7951

4. Generator's Name and Mailing Address

Emeryville Redevelopment  
1333 Park Ave  
Emeryville, CA 94608  
Generator's Phone 510-596-4300

Site:  
1550 Park Ave  
Emeryville, CA 94608

5. Transporter Company Name

CLEARWATER ENVIRONMENTAL

6.

US EPA ID Number

CAR000007013

7. Transporter Phone

(510) 476-1740

8. Designated Facility Name and Site Address

ALVISO INDEPENDENT OIL  
5002 ARCHER STREET  
ALVISO, CA 95002

9.

US EPA ID Number

CAL000161743

10. Facility's Phone

(510) 476-1740

11. Waste Shipping Name and Description

a. Non-Hazardous waste, LIQUID

12. Containers

No.

Type

13. Total Quantity

14. Unit Wt/Vol

001 TT 0/375 G

15. Special Handling Instructions and Additional Information

Wear PPE  
Emergency Contact  
(510) 476-1740  
Attn: Kirk Hayward

Handling Codes for Wastes Listed Above

11a.

11b.

16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to state or federal regulations for reporting proper disposal of Hazardous Waste.

Printed/Typed Name

Signature

Paul H. King

Paul H. King

Month Day Year  
2 8 10

17. Transporter Acknowledgement of Receipt of Materials

Printed/Typed Name

Signature

MIKE STONE

Mike Stone

Month Day Year  
2 8 10

18. Discrepancy Indication Space

19. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 18.

Printed/Typed Name

Signature

Charles Seaton

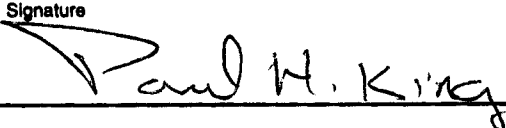
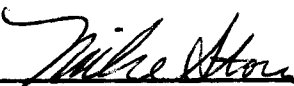
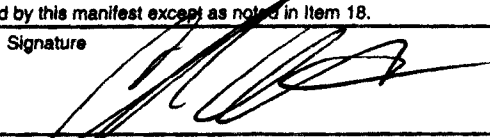
Charles Seaton

Month Day Year  
2 8 10

GENERATOR

TRANSPORTER

FACILITY

<b>NON-HAZARDOUS WASTE MANIFEST</b>		1. Generator's US EPA ID No.	2. Page 1 of 1	3. Document Number 6833
4. Generator's Name and Mailing Address EMERYVILLE REDEVELOPMENT 1333 PARK AVE. EMERYVILLE, CA. 94608 Generator's Phone (510) 596-4300		SITE: 1550 PARK AVE. EMERYVILLE, CA.		
5. Transporter Company Name CLEARWATER ENVIRONMENTAL	6. US EPA ID Number CAR000007013	7. Transporter Phone (510) 476-1740		
8. Designated Facility Name and Site Address ALVISO INDEPENDENT OIL 5002 ARCHER STREET ALVISO, CA 95002	9. US EPA ID Number CAL000161743	10. Facility's Phone (510) 476-1740		
11. Waste Shipping Name and Description	12. Containers	13. Total Quantity	14. Unit	
a. Non-Hazardous waste, LIQUID	No. Type		Unit	
b.				
11. Waste Shipping Name and Description		001 TT	120	G
15. Special Handling Instructions and Additional Information Wear PPE Emergency Contact (510) 476-1740 Attn: Kirk Hayward	Handling Codes for Wastes Listed Above			
	11a.	11b.		
16. GENERATOR'S CERTIFICATION: I certify the materials described above on this manifest are not subject to state or federal regulations for reporting proper disposal of Hazardous Waste.				
Printed/Typed Name Paul H. King		Signature 		Month Day Year 12   8   10
17. Transporter Acknowledgement of Receipt of Materials				
Printed/Typed Name Mike Stone		Signature 		Month Day Year 12   8   10
18. Discrepancy Indication Space				
19. Facility Owner or Operator: Certification of receipt of waste materials covered by this manifest except as noted in Item 18.				
Printed/Typed Name Charles Santos		Signature 		Month Day Year 12   8   10

GENERATOR

TRANSPORTER

FACILITY

<b>UNIFORM HAZARDOUS WASTE MANIFEST</b>		1. Generator ID Number CAC002648803	2. Page 1 of <b>1</b>	3. Emergency Response Phone <b>800-321-5479</b>		4. Manifest Tracking Number <b>002135627 JJK</b>				
		5. Generator's Name and Mailing Address CITY OF EMERYVILLE 1550 PARK AVE EMERYVILLE, CA 94608 ALAMEDA Generator's Phone: 510-596-4333					Generator's Site Address (if different than mailing address)			
6. Transporter 1 Company Name Ecology Control Industries					U.S. EPA ID Number CAD982030173					
7. Transporter 2 Company Name					U.S. EPA ID Number					
8. Designated Facility Name and Site Address ECOLGY CONTROL INDUSTRIES 255 PARR BOULEVARD RICHMOND, CA 94801 Facility's Phone: 510-235-1300					U.S. EPA ID Number CAD009486392					
9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers		11. Total Quantity	12. Unit Wt./Vol.	13. Waste Codes				
		No.	Type							
	1. NON RCRA HAZARDOUS WASTE SOLID (EMPTY STORAGE TANK)	001	TP	1000	P	512				
	2.			0						
	3.			0						
	4.			0						
14. Special Handling Instructions and Additional Information ECI JOB #52T4048 TANK #34010 WEAR PROPER PPE WHEN HANDLING										
15. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent. I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.										
Generator's/Offeror's Printed/Typed Name <b>ME Roberts for EPW</b>					Signature <i>ME Roberts</i>			Month Day Year <b>12   8   10</b>		
16. International Shipments <input type="checkbox"/> Import to U.S. <input type="checkbox"/> Export from U.S. Port of entry/exit: _____ Date leaving U.S.: _____ Transporter signature (for exports only): _____										
17. Transporter Acknowledgment of Receipt of Materials										
Transporter 1 Printed/Typed Name <b>STON SPENCE</b>					Signature <i>Ston Spence</i>			Month Day Year <b>12   8   10</b>		
Transporter 2 Printed/Typed Name					Signature			Month Day Year		
18. Discrepancy										
18a. Discrepancy Indication Space <input type="checkbox"/> Quantity <input type="checkbox"/> Type <input type="checkbox"/> Residue <input type="checkbox"/> Partial Rejection <input type="checkbox"/> Full Rejection Manifest Reference Number: _____										
18b. Alternate Facility (or Generator)					U.S. EPA ID Number					
Facility's Phone: _____										
18c. Signature of Alternate Facility (or Generator)							Month Day Year			
19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)										
1. <b>H129</b>		2.		3.		4.				
20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a										
Printed/Typed Name <b>James Wilcox</b>					Signature <i>James Wilcox</i>			Month Day Year <b>10   08   10</b>		

Tank Processing JOB #: 52T4048  
TANK CERTIFICATION

\*\*\*\*\* PART 1 - To be completed by the Customer\*\*\*\*\*

CUSTOMER: P&D ENV GENERATOR: CITY OF EMERYVILLE State Waste Codes: 512  
LOCATION: EMERYVILLE EPA I.D.# CAC002648803 EPA Waste Codes: \_\_\_\_\_  
TRANSPORTER: ECI MANIFEST # 002135630JJK

	TANK 1	TANK 2	TANK 3	TANK 4	TANK 5	TANK 6
TANK #:	34019	_____	_____	_____	_____	_____
CAPACITY:	<u>1500 G</u>	_____	_____	_____	_____	_____
DIAMETER:	<u>5</u>	_____	_____	_____	_____	_____
LENGTH:	<u>10</u>	_____	_____	_____	_____	_____
STEEL/GLASS:	<u>ST</u>	_____	_____	_____	_____	_____
LAST CONTAINED:	<u>FO</u>	_____	_____	_____	_____	_____

LG = Leaded Gas, UG = Unleaded Gas, D = Diesel, UO = Used Oil, FO = Fuel Oil  
Specify the material Last Contained if other than above.

LAND DISPOSAL RESTRICTION NOTIFICATION FORM

The waste represented on this manifest is not generated by a chemical manufacturing plant, coke-by product recovery plant of petroleum refinery. As such, it is not regulated under 40 CFR Part 61, Subpart FF (NESHAPS for Benzene Operations).

\_\_\_\_ Pursuant to 40 CFR 268.7 I am notifying Ecology Control Industries that the material described by the above manifest is a nonwastewater, Non-RCRA solid hazardous waste and not currently subject to EPA Land Disposal Restrictions.

\_\_\_\_ Pursuant to CCR 22 66268.7 I am notifying Ecology Control Industries that the material described by the manifest is a metal containing Non-RCRA solid hazardous waste (66268.29(g)), and an organics containing Non-RCRA solid hazardous waste (66268.29(k)). The treatment standards for these wastes have been repealed. This waste is no longer subject to land disposal restrictions.

I am an authorized agent/representative of the generator. I certify that all information submitted in this and associated documents is complete and accurate to the best of my knowledge. The tanks on the transport equipment have been numbered to correspond with the information provided above. In the event that the tanks do not correspond to the form, I will pay any and all costs incurred in rectifying the discrepancies between the tank(s) and the form. In the event that the tank(s) contain excessive solids or liquids, I agree to pay the cost of preparation, transportation and disposal/recycling of the excess material according to the schedule of charges in effect at the time of receipt of the tank(s). Further, I will not hold Ecology Control Industries responsible for any damage to tanks which occurs after the tanks are removed from the ground.

AUTHORIZED REPRESENTATIVE

SIGNATURE: ME Roberts  
PRINT NAME: ME Roberts

DATE: 2/8/10  
TITLE: SR. Civil Eng.

# **CERTIFICATE OF TANK DESTRUCTION**

**CERTIFICATE**  
**CERTIFIED SERVICES COMPANY**  
255 Parr Boulevard · Richmond, California 94801  
Phone # 510-235-1393

**CUSTOMER:** P & D ENVIRONMENTAL, INC    **JOB NO:** 52T4048

**GENERATOR:** CITY OF EMERYVILLE  
1550 PARK AVE, EMERYVILLE, CA 94608

**FOR:** ECOLOGY CONTROL INDUSTRIES    **TANK NO.:** 34019

**LOCATION:** RICHMOND    **DATE:** 2/25/10

**LAST PRODUCT:** FUEL OIL    **TEST METHOD:** VISUAL GASTECH/1314 SMPN

This is to certify that I have personally determined that this is in accordance with the American Petroleum Institute and have found the condition to be in accordance with its assigned designation. This certificate is based on conditions existing at the time the inspection herein set forth was completed and is issued subject to compliance with all qualifications and instructions.

**TANK SIZE:** 1,500 GALLONS

**CONDITION:** SAFE FOR FIRE

**REMARKS:**

OXYGEN 20.9% LOWER EXPLOSIVE LIMIT LESS THAN 0.1% ECOLOGY CONTROL INDUSTRIES

HEREBY CERTIFIES THAT THE ABOVE NUMBERED TANK HAS BEEN CUT OPEN, PROCESSED

AND THEREFORE, DESTROYED AT OUR PERMITTED HAZARDOUS WASTE FACILITY.

ECOLOGY CONTROL INDUSTRIES HAS THE APPROPRIATE PERMITS FOR AND HAS ACCEPTED

THE TANK SHIPPED TO US FOR PROCESSING.

In the event of any physical or atmospheric changes affecting the gas-free conditions of the above tanks, or if in any doubt, immediately stop all hot work and contact the undersigned. This permit is valid for 24 hours if no physical or atmospheric changes occur.

**STANDARD SAFETY DESIGNATION**

**SAFE FOR MEN:** Means that in the compartment or space so designated (a) The oxygen content of the atmosphere is at least 19.5 percent by volume; and that (b) Toxic materials in the atmosphere are within permissible concentrations; and (c) In the judgment of the Inspector's certificate.

**SAFE FOR FIRE:** Means that in the compartment so designated (a) The concentration of flammable materials in the atmosphere is below 10 percent of the lower explosive limit; and that (b) in the judgment of the Inspector, the residues are not capable of producing a higher concentration than permitted under existing atmospheric conditions in the presence of fire and while maintained as directed on the Inspector's certificate, and further, (c) All adjacent spaces have either been cleaned sufficiently to prevent the spread of fire, are satisfactorily inerted, or in the case of fuel tanks, have been treated as deemed necessary by the Inspector.

The undersigned representative acknowledges receipt of this certificate and understands the conditions and limitations under which it was issued.

James Wilcox  
REPRESENTATIVE

TITLE

James A. ...  
INSPECTOR

# **COUNTY INSPECTION REPORT**

# COUNTY OF ALAMEDA UNDERGROUND TANK SYSTEM CLOSURE INSPECTION REPORT

For Use By the County of Alameda, Environmental Health

[ ]

Facility Name: City of Emeryville Contractor's name: IMX Inc  
 Address: 1550 Park Ave City: Emeryville Zip: 94608  
 Project Contact: Michael Roberts Phone No.: 570-596-4333  
Paul King Phone No.: 570-658-6916

Tank ID No.	#1				
Size	~1500 GALLONS				
Construction Material	Steel				
Single/Double Wall					
Backfill Type	gravel/clay/silt				
Oxygen <10%	12.9				
LEL <20%	0.0				
Tank Condition	rusty covered top isn't no holes observed				
Soil/Groundwater Condition	GW appears impervious w/ ptc				
Soil Sample Depth	7' bgs + 6' bgs				
Number and Description of Soil/Groundwater Samples (Indicate Sample Locations on Site Plan.)	<p>T1 ~ 7' bgs T2 ~ 6' bgs 3 spoils</p>				

Disposition of Tank Contents: unknown None None  
 Tank & Piping Transport:  Shipped on Manifest;  Transporter Name Same as on Application. Piping:  Rinsed/Tested/Capped. Rinsate:  Shipped on Manifest.  
 Sampling:  Evidence Tape;  Chain of Custody;  Samples Refrigerated; Pipeline Samples Taken  Yes,  No (If no, explain why in Comments.)  
 Soil:  Soil Stored on ~~Borned~~ Plastic & Covered;  Soil Returned to Excavation. Site Plan:  Attached. *drawn no piping seen observed*

Comments/Special Conditions: Stockpiled soils taken to nearby City site for security. Tank pit will be backfilled w/ per gravel + secured.

Inspector: Barney Chan Agency: AEDHT Date: 2-8-10 Start Time: 12:00 Stop Time: [ ]

Signature of Contractor/Authorized Agent: Paul M. King Date: 2-8-10 Page      of



ALAMEDA COUNTY DEPARTMENT OF ENVIRONMENTAL HEALTH

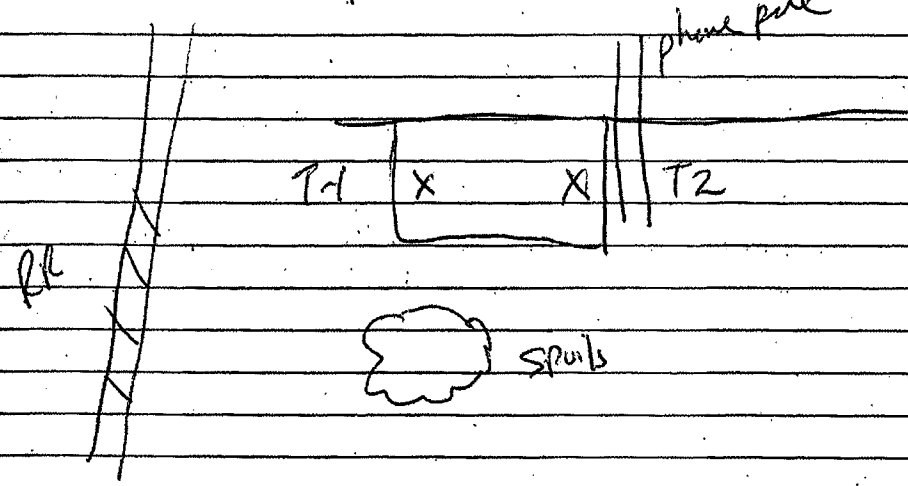
Certified Unified Program Agency (CUPA)  
1131 Harbor Bay Parkway, Alameda, CA 94502-6577  
Phone (510) 567-6700; Fax (510) 337-9335

INSPECTION NOTES

1550 Park Ave Emeryville - Barney Chan of ACDEH  
Onsite to observe the removal of 1 - approx 1000 gal  
UST. Assumed to be a fuel oil tank  
Tank located adjacent to power line being supported  
by PG&E truck w/ brace  
Consultant: Paul King + Michael Deschone  
City of Emeryville: Michael ~~Deschone~~ Roberts  
Emeryville PD present: G. Warren OKed removal

Apparent GW w/ foaming/oily sheen indicating an  
unauthorized release had occurred  
As much GW as possible was pumped from the tank pit.  
Tank dewatered by ECF, Unwaste - gw tanker hauler  
No observed holes in tank  
GW did not recharge enough to sample.  
An unauthorized tank report should be submitted

↑ N



Spills to be transported to City yard for ~~the~~ storage prior to disposal  
T-1 ~ 7' bgs West end moist silty clay, no odors observed  
T-2 ~ 6' bgs East end " " " " " "  
4 discrete samples of the stockpile taken to be composited + run at the lab

2-810 X Paul H. King

# **PHOTOGRAPHS**

- **UST prior to removal**
- **Construction excavation located to the south of UST**
- **UST following removal**
- **Missing rivet from UST**
- **Oily water in UST pit**



UST prior to removal





Construction excavation located to the south of UST





UST following removal





Missing rivet from UST





Oily water in UST pit

# **UNAUTHORIZED RELEASE FORM**





# **SOIL DISPOSAL DOCUMENTATION**



NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

CUSTOMER/BILLING INFORMATION

Generator Name: EMERYVILLE REDEVELOPMENT AGENCY
Billing Name: P&D ENVIRONMENTAL
Address: 1333 PARK AVE.
Address: 55 SANTA CLARA AVE. STE. 200
City: EMERYVILLE County:
City: OAKLAND County:
State: CA Zip: 94608
State: CA Zip: 94611
Site Location (if different): 1333 PARK BLVD, EMERYVILLE

Table with 5 columns: Republic Services Approval #, Description of Waste, Volume/Weight, Expiration Date, Container Type. Row 1: 3850102938, CONTAMINATED SOIL-ADC, 20/TONS, 12/31/2010.

\*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Generator/Authorized Agent Name: Martin Castillo
Signature: Martin Castillo
Date Shipped: 3/10/10

TRANSPORTER INFORMATION

Transporter Name: IMA inc DOT#: 60421
Transporter Address: 850 5TH AVE
oakland ca. 94806
Truck Number: 009
Phone Number: 510-530-9368

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Name of Authorized Agent: Martin Castillo
Signature: Martin Castillo
Date Delivered: 3/10/10

DISPOSAL SITE INFORMATION

Site Name: VASCO ROAD LANDFILL Phone No: 925 447 0491
Site Address: 4001 VASCO ROAD LIVERMORE, CA

I hereby acknowledge receipt of the above described materials.

Name (Print or Type): Jason
Signature: [Signature]
Date Received: 3-10-10



NON-HAZARDOUS WASTE MANIFEST

GENERATOR INFORMATION

CUSTOMER/BILLING INFORMATION

EMERYVILLE  
 Generator Name: REDEVELOPMENT AGENCY Billing Name: P&D ENVIRONMENTAL  
 Address 1333 PARK AVE. Address 55 SANTA CLARA AVE. STE. 200  
 City: EMERYVILLE County: \_\_\_\_\_ City: OAKLAND County: \_\_\_\_\_  
 State CA Zip: 94608 State: CA Zip: 94611  
 Site Location (if different): 1333 PARK BLVD, EMERYVILLE

Republic Services Approval #	Description of Waste	Volume/Weight	Expiration Date	Container Type
3850102938	CONTAMINATED SOIL-ADC	20/TONS	12/31/2010	

\*Attach Additional Sheet if necessary

I hereby certify that the above described materials are non-hazardous wastes as defined by 40 CFR 261 or any applicable state law. Further, that the above named materials are properly classified, described, packaged, marked and labeled, and are in proper condition for transportation according to the applicable regulations of the Department of Transportation.

Martin Castillo [Signature] 3/10/09  
 Generator/Authorized Agent Name Signature Date Shipped

TRANSPORTER INFORMATION

Transporter Name: TMA inc DOT# 60421  
 Transporter Address: 850 5TH AVE Truck Number: 009  
OAKLAND CA 94606 Phone Number: 570-530-9368

I certify no hazardous waste or other regulated substance was knowingly introduced to the waste while in my custody. The waste transported in this vehicle is the waste identified above, to the best of my knowledge.

Martin Castillo [Signature] 3/10/10  
 Name of Authorized Agent Signature Date Delivered

DISPOSAL SITE INFORMATION

Site Name: VASCO ROAD LANDFILL Phone No. 925 447 0491  
 Site Address: 4001 VASCO ROAD LIVERMORE, CA

I hereby acknowledge receipt of the above described materials.

[Signature] [Signature] 3-10-10  
 Name (Print or Type) Signature Date Received



# REPUBLIC SERVICES

## VASCO ROAD LANDFILL

4001 N. Vasco Road, Livermore, CA 94551

(925) 447-0491

05769

SITE	TICKET	GRID
01	047470	0000
WEIGHMASTER		
JASON V		
DATE IN	TIME IN	
10 March 2010	10:07 am	
DATE OUT	TIME OUT	
10 March 2010	10:50 am	
VEHICLE		
9		
REFERENCE	ORIGIN	
	EMERYVILLE	

021260

P&D ENVIRONMENTAL

55 SANTA CLARA AVE., STE. 200  
OAKLAND, CA 94611

Contract: 3850102938

01 Gross Weight: 47,040.00 lb  
 Tare Weight: 25,980.00 lb  
 Net Weight: 21,060.00 lb 10.53 TN

Inbound - SCALE TICKET

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
10.53	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				

**WARNING:** Transporting any unauthorized hazardous waste to this facility for disposal is prohibited by law. Persons violating this prohibition are subject to civil and criminal prosecution. All children must remain in vehicles. Absolutely no salvaging allowed.

### WEIGHMASTER CERTIFICATE

THIS IS TO CERTIFY that the following described commodity was weighed, measured, or counted by a weighmaster, whose signature is on this certificate, who is a recognized authority of accuracy, as prescribed by Chapter 7 (commencing with Section 12700) of Division 5 of the California Business and Professions Code, administered by the division of Measurement Standards of the California Department of Food & Agriculture.

NET AMOUNT
TENDERED
CHANGE

Driver: \_\_\_\_\_

Weighmaster: \_\_\_\_\_

**CUSTOMER**





# REPUBLIC SERVICES

## VASCO ROAD LANDFILL

4001 N, Vasco Road, Livermore, CA 94551  
(925) 447-0491

# 05880

021260

P&D ENVIRONMENTAL

55 SANTA CLARA AVE, STE. 200  
OAKLAND, CA 94611

Contract: 3850102938

SITE	TICKET	GRID
01	047570	0000
WEIGHMASTER		
JASON U		
DATE IN	TIME IN	
10 March 2010	2:32 pm	
DATE OUT	TIME OUT	
10 March 2010	3:08 pm	
VEHICLE		
1		
REFERENCE	ORIGIN	
	EMERYVILLE	

Gross Weight 45,300.00 lb  
 Tare Weight 25,780.00 lb  
 Net Weight 19,520.00 lb 9.76 TN

Inbound - SCALE TICKET

QTY.	UNIT	DESCRIPTION	RATE	EXTENSION	TAX	TOTAL
9.76	TN	SW-CONT SOIL				
1.00	LD	ENVIRONMENTAL FEE				
1.00	LD	FUEL RECOVERY FEE				

**WARNING:** Transporting any unauthorized hazardous waste to this facility for disposal is prohibited by law. Persons violating this prohibition are subject to civil and criminal prosecution. All children must remain in vehicles. Absolutely no salvaging allowed.

### WEIGHMASTER CERTIFICATE

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NET AMOUNT

TENDERED

CHANGE

Driver: \_\_\_\_\_

Weighmaster: \_\_\_\_\_

**CUSTOMER**

## **LABORATORY ANALYTICAL REPORTS**

- **McC Campbell work order #0912246 - UST contents sample**
- **McC Campbell work order #1002229 - UST pit bottom soil samples**
- **McC Campbell work order #1002217 - stock pile soil sample organics results**
- **McC Campbell work order #1002217 addon A - stock pile soil sample LUFT 5 metals results**
- **McC Campbell work order #1002217 addon B - stock pile soil sample Total Chromium STLC results**



**McC Campbell Analytical, Inc.**

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental 55 Santa Clara, Ste.240 Oakland, CA 94610	Client Project ID: #0494; City of Emeryville	Date Sampled: 12/09/09
		Date Received: 12/09/09
	Client Contact: Paul King	Date Reported: 12/10/09
	Client P.O.:	Date Completed: 12/10/09

**WorkOrder: 0912246**

December 10, 2009

Dear Paul:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **#0494; City of Emeryville,**
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.



0912246

**RUSH**

CHAIN OF CUSTODY RECORD

PROJECT NUMBER: <b>0494</b>		PROJECT NAME: <b>CITY OF EMERYVILLE 1550 PARK AVE EMERYVILLE</b>		ANALYSIS(ES): <i>Fuel Finger print</i>	NUMBER OF CONTAINERS	PRESERVATIVE	REMARKS	
SAMPLED BY: (PRINTED AND SIGNATURE) <b>MICHAEL DESCHENES <i>Michael Deschenes</i></b>								
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION	NUMBER OF CONTAINERS	ANALYSIS(ES)	PRESERVATIVE	REMARKS
<b>WST OIL</b>	<b>12/9/09</b>	<b>0930</b>	<b>oil</b>		<b>2</b>	<b>X</b>	<b>ICE</b>	<b>24 hr RUSH Turnaround Time</b>
RELINQUISHED BY: (SIGNATURE) <i>Michael Deschenes</i>		DATE <b>12/9/09</b>	TIME	RECEIVED BY: (SIGNATURE)	TOTAL NO. OF SAMPLES (THIS SHIPMENT) <b>1</b>	LABORATORY: <b>Mc CAMPBELL HASLITZ &amp; CO</b>		
RELINQUISHED BY: (SIGNATURE)		DATE <b>12/9/09</b>	TIME <b>1400</b>	RECEIVED BY: (SIGNATURE) <i>Michael Deschenes</i>	TOTAL NO. OF CONTAINERS (THIS SHIPMENT) <b>2</b>	LABORATORY CONTACT: <b>ANGELA RYDELINS</b> LABORATORY PHONE NUMBER: <b>(925) 252-9262</b>		
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (X) NO			
Results and billing to: P&D Environmental, Inc. lob@pdenviro.com				REMARKS: <b>2 VOA's</b>		ICE / I: <b>7.2</b> GOOD CONDITION <input checked="" type="checkbox"/> APPROPRIATE CONTAINERS HEAD SPACE ABSENT <input checked="" type="checkbox"/> PRESERVED IN LAB DECHLORINATED IN LAB <input checked="" type="checkbox"/> PRESERVED IN LAB PRESERVATION VOAS (O&G) METALS OTHER		

# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: 0912246

ClientCode: PDEO

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

Report to:	Paul King	Email: lab@pdenviro.com	Bill to:	Accounts Payable	Requested TAT: 1 day
	P & D Environmental	cc:		P & D Environmental	
	55 Santa Clara, Ste.240	PO:		55 Santa Clara, Ste.240	Date Received: 12/09/2009
	Oakland, CA 94610	ProjectNo: #0494; City of Emeryville		Oakland, CA 94610	Date Printed: 12/09/2009
	(510) 658-6916 FAX 510-834-0152				

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)													
					1	2	3	4	5	6	7	8	9	10	11	12		
0912246-001	UST OIL	Oil	12/9/2009 9:30	<input type="checkbox"/>	A													

**Test Legend:**

1	G-MBTX Oil	2		3		4		5	
6		7		8		9		10	
11		12							

The following SampID: 001A contains testgroup.

**Prepared by: Maria Venegas**

Comments: 24hr Rush

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



### Sample Receipt Checklist

Client Name: **P & D Environmental**

Date and Time Received: **12/9/2009 2:44:44 PM**

Project Name: **#0494; City of Emeryville**

Checklist completed and reviewed by: **Maria Venegas**

WorkOrder N°: **0912246** Matrix Oil

Carrier: Rob Pringle (MAI Courier)

#### Chain of Custody (COC) Information

- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Sample IDs noted by Client on COC? Yes  No
- Date and Time of collection noted by Client on COC? Yes  No
- Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes  No  NA
- Shipping container/cooler in good condition? Yes  No
- Samples in proper containers/bottles? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes  No
  - Container/Temp Blank temperature Cooler Temp: 7.2°C NA
  - Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
  - Sample labels checked for correct preservation? Yes  No
  - Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA
  - Samples Received on Ice? Yes  No
- (Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



# McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mccampbell.com E-mail: main@mccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental  55 Santa Clara, Ste.240  Oakland, CA 94610	Client Project ID: #0494; City of Emeryville	Date Sampled: 12/09/09
	Client Contact: Paul King	Date Received: 12/09/09
	Client P.O.:	Date Analyzed 12/10/09
		Date Extracted: 12/09/09

### Fuel FingerPrint \*

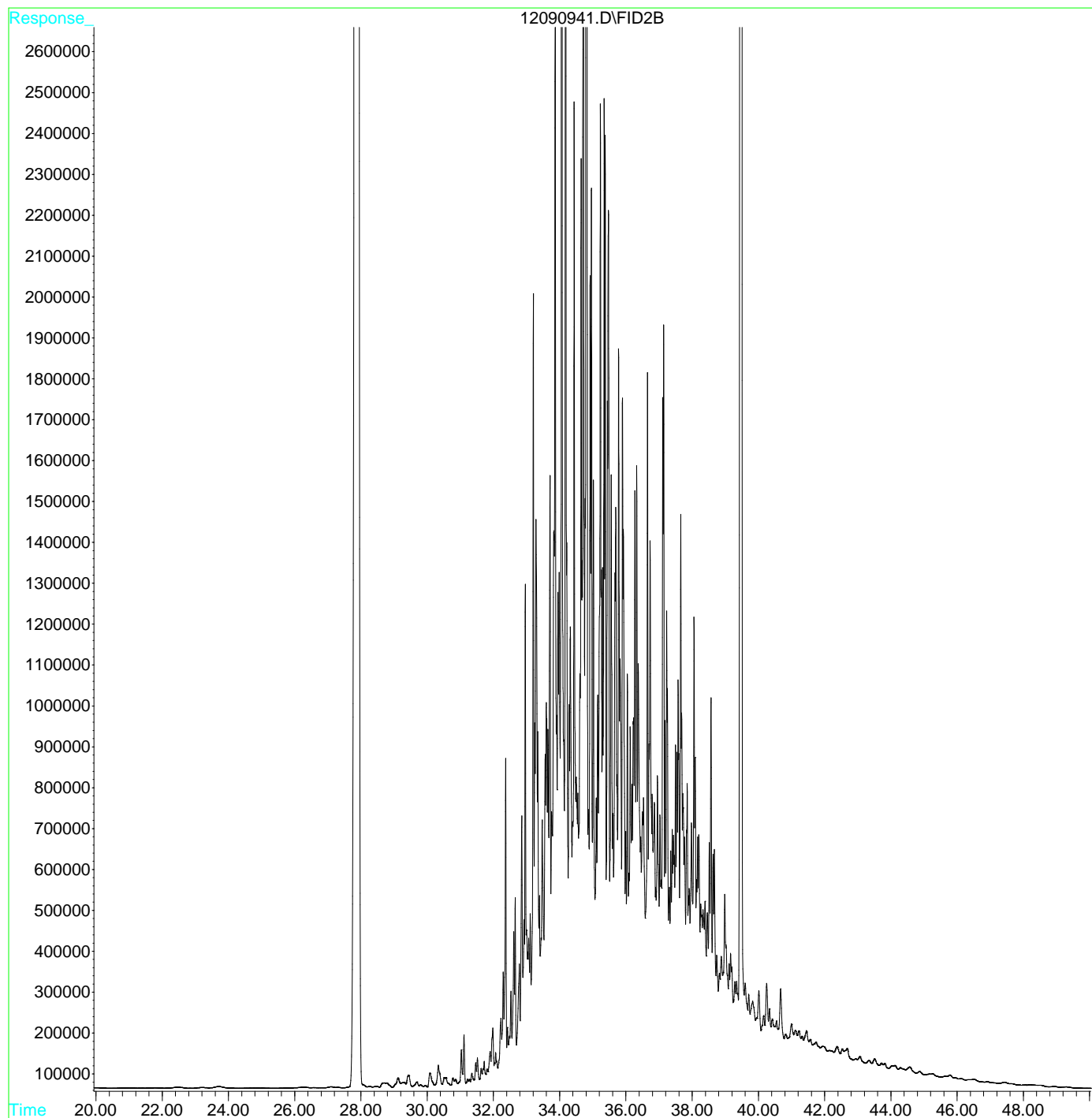
Extraction method SW3550C

Analytical methods SW8015B

Work Order: 0912246

Lab ID	Client ID	Matrix	Fuel Fingerprint
0912246-001A	UST OIL	O	This sample shows a significant hydrocarbon pattern that resembles fuel oil, possibly bunker oil. Chromatograms enclosed.

File : D:\HPCHEM\GC11\DATAB\12090941.D  
Operator : Thu  
Acquired : 10 Dec 2009 9:59 am using AcqMethod GC11AW.M  
Instrument : GC-11  
Sample Name: 0912246-001A OIL RE  
Misc Info : TPH(FF)\_O  
Vial Number: 71





**QC SUMMARY REPORT FOR SW8015B**

W.O. Sample Matrix: Oil

QC Matrix: Soil

BatchID: 47521

WorkOrder 0912246

EPA Method SW8015B		Extraction SW3550C							Spiked Sample ID: 0912243-012A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	ND	20	101	101	0	111	112	0.888	70 - 130	30	70 - 130	30
%SS:	105	50	101	101	0	95	97	2.56	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

BATCH 47521 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0912246-001A	12/09/09 9:30 AM	12/09/09	12/10/09 9:59 AM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



**McC Campbell Analytical, Inc.**

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1534 Willow Pass Road, Pittsburg, CA 94565-1701  
Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental  55 Santa Clara, Ste.240  Oakland, CA 94610	Client Project ID: #0494; City of Emeryville	Date Sampled: 02/08/10
		Date Received: 02/09/10
	Client Contact: Paul King	Date Reported: 02/11/10
	Client P.O.:	Date Completed: 02/11/10

**WorkOrder: 1002229**

February 11, 2010

Dear Paul:

Enclosed within are:

- 1) The results of the **2** analyzed samples from your project: **#0494; City of Emeryville,**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.



**CHAIN OF CUSTODY RECORD**

1002229

PROJECT NUMBER: <b>0494</b>		PROJECT NAME: <b>CITY OF EMERYVILLE 1550 PARK AVE. EMERYVILLE, CA</b>			NUMBER OF CONTAINERS	ANALYSIS(ES): TPH-D BTEX, CDB, EDC, B&B&O	PRESERVATIVE	REMARKS
SAMPLED BY: (PRINTED AND SIGNATURE) <b>Michael Deschenes Michael Deschenes</b>								
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION				
T1-7.0	2/8/10	13:35	SIL		1	XX	ICE NORMAL TURN AROUND	
T2-6.0	2/8/10	14:00	SIL		1	XX	" " "	
ICE <sup>a</sup> <b>1.4°C</b> GOOD CONDITION <input checked="" type="checkbox"/> APPROPRIATE CONTAINERS <input checked="" type="checkbox"/> HEADSPACE ABSENT <input checked="" type="checkbox"/> PRESERVED IN LAB <input checked="" type="checkbox"/> DECONTAMINATED IN LAB <input type="checkbox"/> PRESERVED IN LAB <input type="checkbox"/> PRESERVATION: VOCs <input type="checkbox"/> O&G <input type="checkbox"/> METALS <input type="checkbox"/> OTHER <input type="checkbox"/>								
RELINQUISHED BY: (SIGNATURE) <b>Michael Deschenes</b>	DATE <b>2/9/10</b>	TIME <b>350</b>	RECEIVED BY: (SIGNATURE) <b>[Signature]</b>	TOTAL NO. OF SAMPLES (THIS SHIPMENT) <b>2</b>	LABORATORY: <b>MC CAMPBELL ANALYTICAL</b>			
RELINQUISHED BY: (SIGNATURE) <b>[Signature]</b>	DATE <b>2/9/10</b>	TIME <b>530</b>	RECEIVED BY: (SIGNATURE) <b>[Signature]</b>	TOTAL NO. OF CONTAINERS (THIS SHIPMENT) <b>2</b>	LABORATORY CONTACT: <b>ANGELA RYDELINS</b>			
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	LABORATORY PHONE NUMBER: <b>(877) 252-9262</b>				
Results and billing to: P&D Environmental, Inc. lab@pdenviro.com			REMARKS: <b>SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (X) NO</b>					



# McC Campbell Analytical, Inc.



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Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1002229**

**ClientCode: PDEO**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

<b>Report to:</b>	Paul King	Email: lab@pdenviro.com	<b>Bill to:</b>	Accounts Payable	<b>Requested TAT: 5 days</b>
	P & D Environmental	cc:		P & D Environmental	<i>Date Received: 02/09/2010</i>
	55 Santa Clara, Ste.240	PO:		55 Santa Clara, Ste.240	<i>Date Printed: 02/09/2010</i>
	Oakland, CA 94610	ProjectNo: #0494; City of Emeryville		Oakland, CA 94610	
	(510) 658-6916    FAX 510-834-0152				

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1002229-001	T1 - 7.0	Soil	2/8/2010 13:35	<input type="checkbox"/>	A	A											
1002229-002	T2 - 6.0	Soil	2/8/2010 14:00	<input type="checkbox"/>	A	A											

**Test Legend:**

1	MBTEXOXY-8260B_S	2	TPH(D)_S	3		4		5	
6		7		8		9		10	
11		12							

**Prepared by: Shino Hamilton**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



### Sample Receipt Checklist

Client Name: **P & D Environmental**

Date and Time Received: **2/9/2010 8:02:10 PM**

Project Name: **#0494; City of Emeryville**

Checklist completed and reviewed by: **Shino Hamilton**

WorkOrder N°: **1002229** Matrix Soil

Carrier: Rob Pringle (MAI Courier)

#### Chain of Custody (COC) Information

- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Sample IDs noted by Client on COC? Yes  No
- Date and Time of collection noted by Client on COC? Yes  No
- Sampler's name noted on COC? Yes  No

#### Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes  No  NA
- Shipping container/cooler in good condition? Yes  No
- Samples in proper containers/bottles? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No

#### Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes  No
  - Container/Temp Blank temperature Cooler Temp: 1.4°C NA
  - Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
  - Sample labels checked for correct preservation? Yes  No
  - Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA
  - Samples Received on Ice? Yes  No
- (Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



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Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental  55 Santa Clara, Ste.240  Oakland, CA 94610	Client Project ID: #0494; City of Emeryville	Date Sampled: 02/08/10
	Client Contact: Paul King	Date Received: 02/09/10
	Client P.O.:	Date Extracted: 02/09/10
		Date Analyzed: 02/10/10

### BTEX + EDB and 1,2-DCA by GC/MS\*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1002229

Lab ID	1002229-001A	1002229-002A			Reporting Limit for DF =1
Client ID	T1 - 7.0	T2 - 6.0			
Matrix	S	S			
DF	1	1			

Compound	Concentration				mg/kg	ug/L
	Benzene	ND	ND			0.005
1,2-Dibromoethane (EDB)	ND	ND			0.004	NA
1,2-Dichloroethane (1,2-DCA)	ND	ND			0.004	NA
Ethylbenzene	ND	ND			0.005	NA
Toluene	ND	ND			0.005	NA
Xylenes	ND	ND			0.005	NA

### Surrogate Recoveries (%)

%SS1:	116	117		
%SS2:	105	104		

### Comments

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.





### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 48557

WorkOrder 1002229

Analyte	Extraction SW3550C		Spiked Sample ID: 1002172-001A							Acceptance Criteria (%)			
	Sample mg/Kg	Spiked mg/Kg	MS % Rec.	MSD % Rec.	MS-MSD % RPD	LCS % Rec.	LCSD % Rec.	LCS-LCSD % RPD	MS / MSD	RPD	LCS/LCSD	RPD	
TPH-Diesel (C10-C23)	120	40	109	113	1.14	104	106	1.66	70 - 130	30	70 - 130	30	
%SS:	101	25	95	108	12.9	95	97	1.95	70 - 130	30	70 - 130	30	

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 48557 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1002229-001A	02/08/10 1:35 PM	02/09/10	02/09/00 9:36 PM	1002229-002A	02/08/10 2:00 PM	02/09/10	02/10/10 6:02 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 48587

WorkOrder 1002229

Analyte	Extraction SW5030B		Spiked Sample ID: 1002201-004a						Acceptance Criteria (%)			
	Sample mg/Kg	Spiked mg/Kg	MS % Rec.	MSD % Rec.	MS-MSD % RPD	LCS % Rec.	LCSD % Rec.	LCS-LCSD % RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	75.9	77.2	1.68	86.2	80.3	7.02	70 - 130	30	70 - 130	30
Benzene	ND	0.050	94.4	98.7	4.42	105	100	4.93	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	84.8	81.9	3.52	95.1	89.2	6.37	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	98.4	101	2.13	115	106	7.46	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	93.2	96.4	3.32	106	100	5.55	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	89	91.5	2.83	103	94	9.03	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	90.3	92.9	2.82	103	95	7.83	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	85.3	87.9	2.95	98.1	91.5	6.96	70 - 130	30	70 - 130	30
Toluene	ND	0.050	105	107	1.36	118	112	5.86	70 - 130	30	70 - 130	30
%SS1:	103	0.13	111	112	1.08	113	112	0.775	70 - 130	30	70 - 130	30
%SS2:	121	0.13	111	112	0.523	113	114	0.0106	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 48587 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1002229-001A	02/08/10 1:35 PM	02/09/10	02/10/10 8:33 PM	1002229-002A	02/08/10 2:00 PM	02/09/10	02/10/10 9:12 PM

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



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Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental  55 Santa Clara, Ste.240  Oakland, CA 94610	Client Project ID: #0494; City of Emeryville	Date Sampled: 02/08/10
		Date Received: 02/09/10
	Client Contact: Paul King	Date Reported: 02/11/10
	Client P.O.:	Date Completed: 02/11/10

**WorkOrder: 1002217**

February 11, 2010

Dear Paul:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **#0494; City of Emeryville,**
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.

CHAIN OF CUSTODY RECORD

1002217

PROJECT NUMBER: <b>0494</b>		PROJECT NAME: <b>CITY OF EMERYVILLE 1550 PARK AVE EMERYVILLE, CA</b>			NUMBER OF CONTAINERS	ANALYSIS(ES): <b>TFH-B BTEX, EDB, EX-BL, BGD</b>	PRESERVATIVE	REMARKS
SAMPLED BY: (PRINTED AND SIGNATURE) <b>Michael Deschenes</b> <i>Michael Deschenes</i>								
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION				
<b>SP1</b>	<b>2/8/10</b>	<b>14:30</b>	<b>SOIL</b>	<b>SOIL EXCAVATED FROM - HST REMOVAL EXCAVATION</b>	<b>4</b>	<b>X</b>	<b>X</b>	<b>ICE NORMAL TURN AROUND</b>
ICE/° <b>1.4°C</b> ✓ GOOD CONDITION _____ APPROPRIATE CONTAINERS _____ ✓ HEAD SPACE ABSENT _____ PRESERVED IN LAB _____ DECHLORINATED IN LAB _____ PRESERVATION: VOCAS   O&G   METALS   OTHER								
RELINQUISHED BY: (SIGNATURE) <i>Michael Deschenes</i>		DATE <b>2/9/10</b>	TIME <b>3:50</b>	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>		TOTAL NO. OF SAMPLES (THIS SHIPMENT) <b>1</b>	LABORATORY: <b>MC CAMPBELL ANALYTICAL</b>	
RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>		DATE <b>2/9/10</b>	TIME <b>5:30</b>	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>		TOTAL NO. OF CONTAINERS (THIS SHIPMENT) <b>4</b>	LABORATORY CONTACT: <b>ANGELA RYDEKINS</b> LABORATORY PHONE NUMBER: <b>(877) 252-9262</b>	
RELINQUISHED BY: (SIGNATURE)		DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)		SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (X) NO		
Results and billing to: P&D Environmental, Inc. lab@pdenviro.com				REMARKS: <b>PLEASE COMPOSITE CONTAINERS SP1 PRIOR TO ANALYSIS.</b>				



# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

# CHAIN-OF-CUSTODY RECORD

**WorkOrder: 1002217**

**ClientCode: PDEO**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

<b>Report to:</b>	Paul King	Email: lab@pdenviro.com	<b>Bill to:</b>	Accounts Payable	<b>Requested TAT:</b>	<b>5 days</b>
	P & D Environmental	cc:		P & D Environmental	<b>Date Received:</b>	<b>02/09/2010</b>
	55 Santa Clara, Ste.240	PO:		55 Santa Clara, Ste.240	<b>Date Printed:</b>	<b>02/09/2010</b>
	Oakland, CA 94610	ProjectNo: #0494; City of Emeryville		Oakland, CA 94610		
	(510) 658-6916    FAX 510-834-0152					

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
1002217-001	SP1	Soil	2/8/2010 14:30	<input type="checkbox"/>	A	A											

**Test Legend:**

1	MBTEXOXY-8260B_S	2	TPH(D)_S	3		4		5	
6		7		8		9		10	
11		12							

**Prepared by: Shino Hamilton**

**Comments:**

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



**Sample Receipt Checklist**

Client Name: **P & D Environmental**

Date and Time Received: **2/9/2010 6:34:36 PM**

Project Name: **#0494; City of Emeryville**

Checklist completed and reviewed by: **Shino Hamilton**

WorkOrder N°: **1002217** Matrix Soil

Carrier: Rob Pringle (MAI Courier)

**Chain of Custody (COC) Information**

- Chain of custody present? Yes  No
- Chain of custody signed when relinquished and received? Yes  No
- Chain of custody agrees with sample labels? Yes  No
- Sample IDs noted by Client on COC? Yes  No
- Date and Time of collection noted by Client on COC? Yes  No
- Sampler's name noted on COC? Yes  No

**Sample Receipt Information**

- Custody seals intact on shipping container/cooler? Yes  No  NA
- Shipping container/cooler in good condition? Yes  No
- Samples in proper containers/bottles? Yes  No
- Sample containers intact? Yes  No
- Sufficient sample volume for indicated test? Yes  No

**Sample Preservation and Hold Time (HT) Information**

- All samples received within holding time? Yes  No
  - Container/Temp Blank temperature Cooler Temp: 1.4°C NA
  - Water - VOA vials have zero headspace / no bubbles? Yes  No  No VOA vials submitted
  - Sample labels checked for correct preservation? Yes  No
  - Metal - pH acceptable upon receipt (pH<2)? Yes  No  NA
  - Samples Received on Ice? Yes  No
- (Ice Type: WET ICE )

\* NOTE: If the "No" box is checked, see comments below.

-----

Client contacted:

Date contacted:

Contacted by:

Comments:



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Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental  55 Santa Clara, Ste.240  Oakland, CA 94610	Client Project ID: #0494; City of Emeryville	Date Sampled: 02/08/10
	Client Contact: Paul King	Date Received: 02/09/10
	Client P.O.:	Date Extracted: 02/09/10
		Date Analyzed: 02/10/10

### BTEX + EDB and 1,2-DCA by GC/MS\*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 1002217

Lab ID	1002217-001A				Reporting Limit for DF =1	
Client ID	SP1					
Matrix	S					
DF	1					

Compound	Concentration				mg/kg	ug/L
Benzene	ND				0.005	NA
1,2-Dibromoethane (EDB)	ND				0.004	NA
1,2-Dichloroethane (1,2-DCA)	ND				0.004	NA
Ethylbenzene	ND				0.005	NA
Toluene	ND				0.005	NA
Xylenes	ND				0.005	NA

### Surrogate Recoveries (%)

%SS1:	107				
%SS2:	84				

### Comments

\* water and vapor samples are reported in µg/L, soil/sludge/solid samples in mg/kg, product/oil/non-aqueous liquid samples and all TCLP & SPLP extracts are reported in mg/L, wipe samples in µg/wipe.

ND means not detected above the reporting limit/method detection limit; N/A means analyte not applicable to this analysis.

# surrogate diluted out of range or coelutes with another peak; &) low surrogate due to matrix interference.



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Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental  55 Santa Clara, Ste.240  Oakland, CA 94610	Client Project ID: #0494; City of Emeryville	Date Sampled: 02/08/10
	Client Contact: Paul King	Date Received: 02/09/10
	Client P.O.:	Date Extracted: 02/09/10
		Date Analyzed 02/10/10

### Total Extractable Petroleum Hydrocarbons\*

Extraction method SW3550C

Analytical methods: SW8015B

Work Order: 1002217

Lab ID	Client ID	Matrix	TPH-Diesel (C10-C23)	DF	% SS	Comments
1002217-001A	SP1	S	830	10	103	e1,e11


Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	NA	NA
	S	1.0	mg/Kg

\* water samples are reported in µg/L, wipe samples in µg/wipe, soil/solid/sludge samples in mg/kg, product/oil/non-aqueous liquid samples in mg/L, and all DISTLC / STLC / SPLP / TCLP extracts are reported in µg/L.

# cluttered chromatogram resulting in coeluted surrogate and sample peaks, or; surrogate peak is on elevated baseline, or; surrogate has been diminished by dilution of original extract.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

e1) unmodified or weakly modified diesel is significant  
e11) stoddard solvent/mineral spirit (?)

 Angela Rydelius, Lab Manager



### QC SUMMARY REPORT FOR SW8015B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 48557

WorkOrder 1002217

Analyte	EPA Method SW8015B		Extraction SW3550C						Spiked Sample ID: 1002172-001A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH-Diesel (C10-C23)	120	40	109	113	1.14	104	106	1.66	70 - 130	30	70 - 130	30
%SS:	101	25	95	108	12.9	95	97	1.95	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 48557 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1002217-001A	02/08/10 2:30 PM	02/09/10	02/10/10 7:13 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery =  $100 * (MS - Sample) / (Amount\ Spiked)$ ; RPD =  $100 * (MS - MSD) / ((MS + MSD) / 2)$ .

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



### QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 48587

WorkOrder 1002217

Analyte	Extraction SW5030B		Spiked Sample ID: 1002201-004a						Acceptance Criteria (%)			
	Sample mg/Kg	Spiked mg/Kg	MS % Rec.	MSD % Rec.	MS-MSD % RPD	LCS % Rec.	LCSD % Rec.	LCS-LCSD % RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	0.050	75.9	77.2	1.68	86.2	80.3	7.02	70 - 130	30	70 - 130	30
Benzene	ND	0.050	94.4	98.7	4.42	105	100	4.93	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	0.25	84.8	81.9	3.52	95.1	89.2	6.37	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	0.050	98.4	101	2.13	115	106	7.46	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	0.050	93.2	96.4	3.32	106	100	5.55	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	0.050	89	91.5	2.83	103	94	9.03	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	0.050	90.3	92.9	2.82	103	95	7.83	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	0.050	85.3	87.9	2.95	98.1	91.5	6.96	70 - 130	30	70 - 130	30
Toluene	ND	0.050	105	107	1.36	118	112	5.86	70 - 130	30	70 - 130	30
%SS1:	103	0.13	111	112	1.08	113	112	0.775	70 - 130	30	70 - 130	30
%SS2:	121	0.13	111	112	0.523	113	114	0.0106	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 48587 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1002217-001A	02/08/10 2:30 PM	02/09/10	02/10/10 7:55 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



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Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental  55 Santa Clara, Ste.240  Oakland, CA 94610	Client Project ID: #0494; City of Emeryville	Date Sampled: 02/08/10
		Date Received: 02/09/10
	Client Contact: Paul King	Date Reported: 02/11/10
	Client P.O.:	Date Completed: 02/18/10

**WorkOrder: 1002217**

February 22, 2010

Dear Paul:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **#0494; City of Emeryville,**
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.



PROJECT NUMBER: <b>0494</b>		PROJECT NAME: <b>CITY OF EMERYVILLE 1550 PARK AVE EMERYVILLE, CA</b>		NUMBER OF CONTAINERS <b>4</b>	ANALYSIS(ES): <b>TPH-B BTEX EDB EX BY 8260 4 of 5 metals collected 2/12/10</b>	PRESERVATIVE <b>ICE</b>	REMARKS <b>NORMAL TURN AROUND</b>
SAMPLED BY: (PRINTED AND SIGNATURE) <b>Michael Deschenes</b>							
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION			
<b>SP1</b>	<b>2/8/10</b>	<b>14:30</b>	<b>SIL</b>	<b>SOIL EXCAVATED FROM WST. REMOVAL EXCAVATION</b>			
ICE: <b>1.4°C</b> GOOD CONDITION <input checked="" type="checkbox"/> HEAD SPACE ABSENT <input checked="" type="checkbox"/> DECHLORINATED IN LAB <input checked="" type="checkbox"/> PRESERVATION: <input type="checkbox"/> VOAS <input type="checkbox"/> O&G <input type="checkbox"/> METALS <input type="checkbox"/> OTHER							
RELINQUISHED BY: (SIGNATURE) <b>Michael Deschenes</b>	DATE <b>2/9/10</b>	TIME <b>5:30</b>	RECEIVED BY: (SIGNATURE) <b>[Signature]</b>	TOTAL NO. OF SAMPLES (THIS SHIPMENT) <b>1</b>	LABORATORY: <b>MC CAMPBELL ANALYTICAL</b>		
RELINQUISHED BY: (SIGNATURE) <b>[Signature]</b>	DATE <b>2/9/10</b>	TIME <b>5:30</b>	RECEIVED BY: (SIGNATURE) <b>[Signature]</b>	TOTAL NO. OF CONTAINERS (THIS SHIPMENT) <b>4</b>	LABORATORY CONTACT: <b>ANGELA RYDELINS (877) 252-9262</b>		
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)	SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (X) NO			
Results and billing to: P&D Environmental, Inc. lab@pdenviro.com				REMARKS: <b>PLEASE COMPOSITE CONTAINERS SP1 PRIOR TO ANALYSIS.</b>			

**McC Campbell Analytical, Inc.**



1534 Willow Pass Rd  
 Pittsburg, CA 94565-1701  
 (925) 252-9262

**CHAIN-OF-CUSTODY RECORD**

**WorkOrder: 100221 A ClientCode: PDEO**

WaterTrax  WriteOn  EDF  Excel  Fax  Email  HardCopy  ThirdParty  J-flag

**Report to:**

Paul King  
 P & D Environmental  
 55 Santa Clara, Ste.240  
 Oakland, CA 94610  
 (510) 658-6916 FAX 510-834-0152

Email: lab@pdenviro.com  
 cc:  
 PO:  
 ProjectNo: #0494; City of Emeryville

**Bill to:**

Accounts Payable  
 P & D Environmental  
 55 Santa Clara, Ste.240  
 Oakland, CA 94610

**Requested TAT: 5 days**

**Date Received: 02/09/2010**

**Date Add-On: 02/17/2010**

**Date Printed: 02/17/2010**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)													
					1	2	3	4	5	6	7	8	9	10	11	12		
1002217-001	SP1	Soil	2/8/2010 14:30	<input type="checkbox"/>	A													

**Test Legend:**

1	LUFT_S	2		3		4		5	
6		7		8		9		10	
11		12							

**Prepared by: Shino Hamilton**

**Comments:** Luft added 2/17/10 per email 5 day

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
 Hazardous samples will be returned to client or disposed of at client expense.



# McC Campbell Analytical, Inc.

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 Web: www.mcccampbell.com E-mail: main@mcccampbell.com  
 Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental  55 Santa Clara, Ste.240  Oakland, CA 94610	Client Project ID: #0494; City of Emeryville	Date Sampled: 02/08/10
	Client Contact: Paul King	Date Received: 02/09/10
	Client P.O.:	Date Extracted: 02/17/10
		Date Analyzed: 02/18/10

### LUFT 5 Metals\*

Extraction method: SW3050B

Analytical methods: SW6010B

Work Order: 1002217

Lab ID	Client ID	Matrix	Extraction Type	Cadmium	Chromium	Lead	Nickel	Zinc	DF	% SS	Comments
001A	SPI	S	TOTAL	ND	54	26	57	110	1	101	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	NA	NA	NA	NA	NA	NA	NA
	S	TOTAL	1.5	1.5	5.0	1.5	5.0	mg/Kg	

\*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

# means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

TOTAL = Hot acid digestion of a representative sample aliquot.  
 TRM = Total recoverable metals is the "direct analysis" of a sample aliquot taken from its acid-preserved container.  
 DISS = Dissolved metals by direct analysis of 0.45 µm filtered and acidified sample.

 Angela Rydelius, Lab Manager



### QC SUMMARY REPORT FOR 6010C

W.O. Sample Matrix: Soil

QC Matrix: Soil

WorkOrder 1002217

EPA Method SW6010B		Extraction SW3050B				BatchID: 48824			Spiked Sample ID: 1002217-001A				
Analyte	Sample	Spiked	MS	MSD	MS-MSD	Spiked	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/Kg	mg/Kg	% Rec.	% Rec.	% RPD	mg/Kg	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Cadmium	ND	50	99.2	98.3	0.861	10	92.4	100	8.22	75 - 125	25	75 - 125	25
Chromium	54	50	NR	NR	NR	10	78.9	89.6	12.7	75 - 125	25	75 - 125	25
Lead	26	50	87	79.8	5.36	10	84.3	84.3	0	75 - 125	25	75 - 125	25
Nickel	57	50	NR	NR	NR	10	83.1	93.2	11.5	75 - 125	25	75 - 125	25
Zinc	110	500	94.8	94.4	0.387	100	89.4	88.4	1.10	75 - 125	25	75 - 125	25
%SS:	101	250	101	100	1.18	250	94	101	6.39	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 48824 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1002217-001A	02/08/10 2:30 PM	02/17/10	02/18/10 1:51 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 \* (MS-Sample) / (Amount Spiked); RPD = 100 \* (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.



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Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental  55 Santa Clara, Ste.240  Oakland, CA 94610	Client Project ID: #0494; City of Emeryville	Date Sampled: 02/08/10
		Date Received: 02/09/10
	Client Contact: Paul King	Date Reported: 03/03/10
	Client P.O.:	Date Completed: 03/03/10

**WorkOrder: 1002217**

March 03, 2010

Dear Paul:

Enclosed within are:

- 1) The results of the **1** analyzed sample from your project: **#0494; City of Emeryville,**
- 2) A QC report for the above sample,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing

McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius  
Laboratory Manager  
McC Campbell Analytical, Inc.



PROJECT NUMBER: <b>0494</b>		PROJECT NAME: <b>CITY OF EMERYVILLE 1550 PARK AVE EMERYVILLE, CA</b>			ANALYSIS(ES): <b>TFH-B BTEX, EDB, EX BY 8360 w/ 5 metals added 2/11/10 X STC Cr 24hr added 3/1/10 per email</b>	NUMBER OF CONTAINERS	PRESERVATIVE	REMARKS
SAMPLED BY: (PRINTED AND SIGNATURE) <b>Michael Deschenes</b> <i>Michael Deschenes</i>								
SAMPLE NUMBER	DATE	TIME	TYPE	SAMPLE LOCATION				
<b>SP1</b>	<b>2/8/10</b>	<b>14:30</b>	<b>Soil</b>	<b>SOIL EXCAVATED FROM - LIST REMOVAL EXCAVATION</b>	<b>4</b>	<b>X</b>	<b>ICE</b>	<b>NORMAL TURN AROUND</b>
ICH/° <b>1.4°C</b> ✓ GOOD CONDITION ✓ HEAD SPACE ABSENT ✓ DECHLORINATED IN LAB ✓ APPROPRIATE CONTAINERS ✓ PRESERVED IN LAB ✓ PRESERVATION: <input type="checkbox"/> VCAS <input type="checkbox"/> O&G <input type="checkbox"/> METALS <input type="checkbox"/> OTHER					TOTAL NO. OF SAMPLES (THIS SHIPMENT) <b>1</b> TOTAL NO. OF CONTAINERS (THIS SHIPMENT) <b>4</b>		LABORATORY: <b>MC CAMPBELL ANALYTICAL</b> LABORATORY CONTACT: <b>ANGELA RYDEWIS</b> LABORATORY PHONE NUMBER: <b>(877) 252-9262</b>	
RELINQUISHED BY: (SIGNATURE) <i>Michael Deschenes</i>		DATE <b>2/9/10</b>	TIME <b>5:30</b>	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>		SAMPLE ANALYSIS REQUEST SHEET ATTACHED: ( ) YES (X) NO		
RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>		DATE <b>2/9/10</b>	TIME <b>5:30</b>	RECEIVED BY: (SIGNATURE) <i>[Signature]</i>		LABORATORY PHONE NUMBER: <b>(877) 252-9262</b>		
RELINQUISHED BY: (SIGNATURE) <i>[Signature]</i>		DATE	TIME	RECEIVED FOR LABORATORY BY: (SIGNATURE)				
Results and billing to: P&D Environmental, Inc. lab@pdenviro.com				REMARKS: <b>PLEASE COMPOSITE CONTAINERS SP1 PRIOR TO ANALYSIS.</b>				

# McC Campbell Analytical, Inc.



1534 Willow Pass Rd  
Pittsburg, CA 94565-1701  
(925) 252-9262

# CHAIN-OF-CUSTODY RECORD

WorkOrder: **100221 B** ClientCode: **PDEO**

WaterTrax   
  WriteOn   
  EDF   
  Excel   
  Fax   
 Email   
 HardCopy   
 ThirdParty   
 J-flag

**Report to:**

Paul King  
P & D Environmental  
55 Santa Clara, Ste.240  
Oakland, CA 94610  
(510) 658-6916    FAX 510-834-0152

Email: lab@pdenviro.com  
cc:  
PO:  
ProjectNo: #0494; City of Emeryville

**Bill to:**

Accounts Payable  
P & D Environmental  
55 Santa Clara, Ste.240  
Oakland, CA 94610

**Requested TAT: 5 days**

**Date Received: 02/09/2010**

**Date Add-On: 03/01/2010**

**Date Printed: 03/01/2010**

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)													
					1	2	3	4	5	6	7	8	9	10	11	12		
1002217-001	SP1	Soil	2/8/2010 14:30	<input type="checkbox"/>	A													

**Test Legend:**

1	STLC_METALS_S	2		3		4		5	
6		7		8		9		10	
11		12							

**Prepared by: Shino Hamilton**

**Comments:** Luft added 2/17/10 per email 5 day. STLC Cr (24hr) added 03/01/10 per email.

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).  
Hazardous samples will be returned to client or disposed of at client expense.



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Telephone: 877-252-9262 Fax: 925-252-9269

P & D Environmental  55 Santa Clara, Ste.240  Oakland, CA 94610	Client Project ID: #0494; City of Emeryville	Date Sampled: 02/08/10
	Client Contact: Paul King	Date Received: 02/09/10
	Client P.O.:	Date Extracted: 03/01/10-03/03/10
		Date Analyzed: 03/03/10

### ICP Metals\*

Extraction method: CA Title 22

Analytical methods: SW6010B

Work Order: 1002217

Lab ID	Client ID	Matrix	Extraction Type	Chromium	DF	% SS	Comments
1002217-001A	SP1	S	WET	0.23	1	N/A	

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	TOTAL	NA	µg/L
	S	WET	0.05	mg/L

\*water samples are reported in µg/L, product/oil/non-aqueous liquid samples and all TCLP / STLC / DISTLC / SPLP extracts are reported in mg/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, filter samples in µg/filter.

# means surrogate diluted out of range; ND means not detected above the reporting limit/method detection limit; N/A means not applicable to this sample or instrument.

WET = Waste Extraction Test, i.e., STLC (Soluble Threshold Limit Concentration).  
DI WET = Waste Extraction Test using DI water (DI STLC).



### QC SUMMARY REPORT FOR SW6010B

W.O. Sample Matrix: Soil

QC Matrix: Soil

BatchID: 48971

WorkOrder 1002217

EPA Method SW6010B		Extraction CA Title 22							Spiked Sample ID: N/A			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	mg/L	mg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
Chromium	N/A	1	N/A	N/A	N/A	94.3	95.4	1.16	N/A	N/A	75 - 125	25

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:  
NONE

#### BATCH 48971 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
1002217-001A	02/08/10 2:30 PM	03/01/10	03/03/10 5:18 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

$\% \text{ Recovery} = 100 * (\text{MS-Sample}) / (\text{Amount Spiked}); \text{RPD} = 100 * (\text{MS} - \text{MSD}) / ((\text{MS} + \text{MSD}) / 2).$

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

N/A = not applicable to this method.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.