#### Alameda County



#### MAR 1 4 2014

#### **Environmental Health**

Anke Neumann, Environmental Scientist Environmental Management 3401 Crow Canyon Road San Ramon, CA 94583

Phone: (925) 415-6302 Fax: (925) 415-6849 e-mail: axny@pge.com

Anke Neumann, Environmental Scientist PG&E Environmental Management, Distribution & Shared Services 3401 Crow Canyon Rd., MS 155-D San Ramon, CA 94583

Ms. Karel Detterman, PG Hazardous Materials Specialist Alameda County Environmental Health 1131 Harbor Bay Parkway Alameda, CA 94502

March 12, 2014

**RE:** Site Investigation Results and Closure Request Pacific Gas & Electric Company Transformer Non-PCB Mineral Oil Release 3160 Grove Ave., Castro Valley, CA 94946-6706

Dear Ms. Karel Detterman;

Pacific Gas & Electric Company (PG&E) has prepared this report to present the results of excavation and sampling activities performed in response to a subsurface mineral oil release from a PG&E transformer located at 3160 Grove Ave. in Castro Valley, CA and to request case closure for the site.

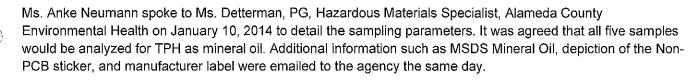
Occurring at an unknown date and time, a new transformer, staged inside the Castro Valley Substation, was vandalized. The vandals moved the transformer near a transmission tower (Photos 1 and 2) and dismantled it, resulting in the release of 12 gallons of mineral oil release onto grass and soil.

On January 7, 2014, the release was discovered by Robert Weston, Sr. Hazardous Materials Specialist with Alameda County Environmental Health during an inspection of a neighboring property owned by Verizon. He notified PG&E of the vandalism and also emailed a photo (Photo 1). On January 7, 2014, PG&E confirmed that oil did not contain PCBs and arranged a cleanup by a contractor (PSC) the following day.

OES was notified of the release per Agency request at 11:51 a.m. on January 8, 2014. The notification number is 14-0130.

PSC began cleanup of the location on January 8, 2014, cleared a grassy area, and excavated a 4' x 7' area to a depth of 6". Five drums of oily solids were generated and taken to Hayward SC for storage and disposal. PG&E directed further soil removal based on visual and odor cues. Excavation was completed at a 5.5' x 7' area to a depth of 2' on January 9, 2014 (Attachment 3 – Scaled Site Map). Attachment 2 provides an aerial view of the excavation location. Ten drums of oily solids were removed from the site and taken to the Hayward Service Center for storage and subsequent disposal. The 15 drums were shipped on a Non-Hazardous Waste Manifest on January 14, 2014 (Attachment 4). A sample was collected on all four side walls and at the center of the floor of excavation (Photo 3 and Photo 4).

		·
		•
,		



An additional request was received on January 13, 2014 by Ms. Detterman to analyze one of the samples for naphthalene and to submit a closure letter request. Samples were taken to Test America on January 13, 2014. All soil samples were tested for EPA Method 8015B (TPH as mineral oil), and one sample was additionally tested for EPA 8260B for naphthalene. Sample results for TPH – Mineral Oil and Naphthalene were received on January 14, 2104. Please see the attached laboratory report from Test America (Attachment 1).

The concentrations of TPH – Mineral Oil and Naphthalene are shown in the table below:

Summary					
Reporting Lab	Test America				
Location	3160 Grove	3160 Grove	3160 Grove	3160 Grove	3160 Grove Ave.,
Description	Ave., Castro	Ave., Castro	Ave., Castro	Ave., Castro	Castro Valley
	Valley	Valley	Valley	Valley	
Sample ID	720-54842-1	720-54842-2	720-54842-3	720-54842-4	720-54842-5
Date Sample	1-9-14	1-9-14	1-9-14	1-9-14	1-9-14
taken					
Mineral Oil	N/D	310 mg/kg	7800 mg/kg	430 mg/kg	N/D
Naphthalene	-	-	N/D		_

The concentration of TPH as mineral oil were non-detect (ND) in sample 720-54842-1 and sample 720-54842-5. The concentration of TPH as mineral oil were 310 mg/kg in sample 720-54842-2, 7800 mg/kg in sample 720-54842-3 (bottom of excavation) and 430 mg/kg in sample 720-54842-4. The concentration of naphthalene in sample 720-54842-3 was ND.

There are currently no federal or California screening levels available for the specific mineral oil used in PG&E transformers. However PG&E has developed a Soil Management Plan for Substations that specifically addresses mineral oil and other common impacts in substations. This document was prepared with DTSC collaboration and the final version has received SFBRWQCB concurrence.

Note that during excavation, substation grounding cable was unearthed and damaged. Considering that the excavation was near the footing of a tower, there was concern regarding stability of the tower footing. The second photo shows the proximity of the dismantled transformer and subsequent spill to the tower footing. The additional 2 photos document the location after cleanup and show sample locations.

Electrical substations are restricted facilities with fencing, controlled entry, and covered surfaces that limit the potential for public entry and reduce the opportunity for direct contact with soil. Land use at the majority of PG&E substations is not anticipated to change in the near future. Therefore, these substation screening levels were established to generally address potential occupational exposure to contaminated soil during subsurface activities. Occupational exposure is defined as typical work activities performed within PG&E substations by PG&E-trained and informed workers (including contractors) under PG&E worker safety policies. The substation screening levels were not intended for residential or unrestricted use applications. Any areas outside of the occupational setting will require further evaluation.

The screening levels for the above referenced Plan are as follows:

Arsenic: 200 mg/kgLead: 600 mg/kgPCBs: 25 mg/kg

Mineral oil: 16,000 mg/kg

The mineral oil used in PG&E substation electrical devices is a highly refined, technical-grade petroleum product that must meet the ASTM International (ASTM) Mineral Oil Production Standard. The ASTM Mineral Oil Production Standard requires removal of polar and aromatic compounds for proper performance of the oil. This refining process results in mineral oil with virtually no volatile organic compounds (VOCs) or polycyclic aromatic hydrocarbons (PAHs). VOCs such as benzene, toluene, ethyl benzene, and xylenes and PAHs are components of naturally occurring total petroleum hydrocarbons (TPH), but these contaminants are removed during the mineral oil refining process. Field and laboratory data confirm this (Tetra Tech, Inc. 1998).

The mineral oil used by PG&E and food-grade mineral oil is comparable. Similar to the food-grade mineral oils (light mineral oil, mineral oil, and white mineral oil) defined by the U.S. Food and Drug Administration (Title 21 CFR 172.878), Committee on Food Chemicals Codex Food and Nutrition Board (2004), and/or the U.S. Pharmacopeia National Formulary (2008), the mineral oil used by PG&E has a boiling point above 200 degrees Fahrenheit, is insoluble in water and in alcohol, and is readily carbonizable.

Ann-Marie Cardoso and Anke Neumann spoke to Karel Detterman with Alameda County Environmental Health on January 30, 2014. Concerns regarding the dangers of work around the transmission tower and the excavation location were presented. Additionally, analytical results were provided over the phone. The inspector approved the proposed additional one foot excavation and requested that the additional excavation activities and post sampling results be included in a closure letter.

Continuing the effort at the site, PSC completed another 12 inches of excavation on February 18, 2014 at the site. Approximately 6 drums were generated during the excavation event. These drums were taken to Hayward SC for storage and subsequent disposal as non-hazardous waste.

A soil sample was taken at the bottom of the excavation and analyzed for EPA Method 8015B (TPH as mineral oil). Please see the attached laboratory report from Torrent Laboratory (Attachment 1). The concentration of TPH as mineral oil were 170 mg/kg in sample 1402093-001A.

There is no shallow groundwater at the site. Groundwater is encountered at approximately 43 feet.

The excavation was back filled with clean soil.

Based on the conditions at the site, where non-toxic mineral oil impacts are confined to a limited area, where there is limited potential for exposure to the public, and which cannot be further excavated because of the proximity to the transmission tower footing, PG&E requests no further action and case closure for this site.

Anke Neumann

Sincerely

Environmental Scientist

Pacific Gas & Electric Company

Office: 925-415-6302 Cell: 925-712-7112

			· .	
: :				
		·		

#### Photo 1



Photo 2



	·		
		·	

Photo 3



Photo 4



•			
			·



# <u>TestAmerica</u>

THE LEADER IN ENVIRONMENTAL TESTING

### **ANALYTICAL REPORT**

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton 1220 Quarry Lane Pleasanton, CA 94566 Tel: (925)484-1919

TestAmerica Job ID: 720-54842-1

Client Project/Site: Castro Valley Sub Spill

For:

PG&E Corporation 24300 Clawiter Road Hayward, California 94545

Attn: Ms. Anne Marie Cardoso

Shaema

Authorized for release by: 1/14/2014 3:03:27 PM

Dimple Sharma, Senior Project Manager (925)484-1919 dimple.sharma@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

3

Ę

Tey

8

2

	·		
	·		
	,		

1	2	2	

57.		
	D Bill	
	Y (S)	и
		н

		2		
		Ø	Ì	

Cover Page	1
Table of Contents	2
Definitions/Glossary	
Case Narrative	1
Detection Summary	5
Client Sample Results	3
000 0 - 1 B - 1	11
	12
I all of the second of the	13
	14
NA (1 - 1 6	15
	16
01 : (0 / 1	17
Receipt Checklists	18

					,	
					•	
				·		
	·					

#### **Definitions/Glossary**

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-1

#### 2

#### Qualifiers

#### GC Semi VOA

Qualifier	Qualifier Description	
D	Surrogate or matrix spike recoveries were not obtained because the extract was diluted for analysis; also compounds analyzed at	a
	dilution may be flagged with a D.	
X	Surrogate is outside control limits	





#### G

#### Glossary

TEF

TEQ

Toxicity Equivalent Factor (Dioxin)

Toxicity Equivalent Quotient (Dioxin)

Abbreviation	These commonly used abbreviations may or may not be present in this report.
n	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
	Quality Control
	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points



















		•		
			·	

#### **Case Narrative**

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-1

Job ID: 720-54842-1

Laboratory: TestAmerica Pleasanton

Job Narrative 720-54842-1

Comments

No additional comments.

Receipt

The samples were received on 1/13/2014 10:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 13.8° C.

Except:

All samples received out of temperature requirement. No ice.

GC Semi VOA

Method 8015B: Due to the level of dilution required for the following sample, surrogate recoveries are not reported: CASTRO VALLEY SUB 3 (720-54842-3), CASTRO VALLEY SUB 2 (720-54842-2), CASTRO VALLEY SUB 4 (720-54842-4).

No other analytical or quality issues were noted.

Organic Prep

No analytical or quality issues were noted.

			·	

#### **Detection Summary**

Client: PG&E Corporation

Analyte

Analyte

Mineral oil

No Detections.

Mineral oil

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-1

Lab Sample ID: 720-54842-1

Lab Sample ID: 720-54842-2



Client Sample ID: CASTRO VALLEY SUB 1 No Detections.

Client Sample ID: CASTRO VALLEY SUB 2

Client Sample ID: CASTRO VALLEY SUB 3

Client Sample ID: CASTRO VALLEY SUB 4

Client Sample ID: CASTRO VALLEY SUB 5

Result Qualifier Mineral oil 310

Result Qualifier

Result Qualifier

7800

430

RL MDL Unit 250

RL

5000

RL

250

mg/Kg

mg/Kg

mg/Kg

MDL Unit

MDL Unit

Lab Sample ID: 720-54842-3 Dil Fac D Method 100

8015B

Dil Fac D Method

8015B

5

Lab Sample ID: 720-54842-4 Dil Fac D Method Prep Type 8015B

Lab Sample ID: 720-54842-5

Total/NA

Prep Type

**Prep Type** 

Total/NA

Total/NA

This Detection Summary does not include radiochemical test results.

Client: PG&E Corporation

p-Terphenyl

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-1

2

Lab Sample ID: 720-54842-1

01/14/14 10:38

01/13/14 11:27

ciient Sample ID: CASTRO VALLEY SUB 1

Date Collected: 01/09/14 13:15 Date Received: 01/13/14 10:35 Matrix: Solid

ix: Solid

Dil Fac

Dil Fac

Method: 8015B - I	Diesel Range Org	anics (DRO)	(GC)						
Analyte	· ·	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed
Mineral oil	- 5	ND		50		mg/Kg		01/13/14 11:27	01/14/14 10:38
Surrogate		%Recovery	Qualifier	Limits				Prepared	Analyzed

40 - 130

82

5

6

7

(5)

9

		•	

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

Date Collected: 01/09/14 13:15

Date Received: 01/13/14 10:35

Mineral oil

crient Sample ID: CASTRO VALLEY SUB 2

Method: 8015B - Diesel Range Organics (DRO) (GC)

TestAmerica Job ID: 720-54842-1

Lab Sample ID: 720-54842-2

01/14/14 11:36

Matrix: Solid

			<del></del>
14 122	4		
D	Prepared	Analyzed	Dil Fac

01/13/14 11:27

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
p-Terphenyl	0	XD	40 - 130	01/13/14 11:27	01/14/14 11:36	5

RL

250

MDL Unit

mg/Kg

Result Qualifier

	•				
			·		
		·			
,					
,					

RL

5000

Limits

40 - 130

MDL Unit

mg/Kg

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

Date Collected: 01/09/14 13:15

Date Received: 01/13/14 10:35

Analyte

Mineral oil

Surrogate

p-Terphenyl

client Sample ID: CASTRO VALLEY SUB 3

Method: 8015B - Diesel Range Organics (DRO) (GC)

Result Qualifier

O XD

7800

%Recovery Qualifier

TestAmerica Job ID: 720-54842-1

2

Lab Sample ID: 720-54842-3

Analyzed

01/13/14 21:16

Analyzed

01/13/14 21:16

Prepared

01/13/14 11:27

Prepared

01/13/14 11:27

Matrix: Solid

100

100

Dil Fac

	ı			

	1007
	STATES OF
	-
Dil Fac	

6

	6	
	200	

9



2

13

TestAmerica Pleasanton

,	-		
			•
		·	
	•		
,			
•			

Client: PG&E Corporation

p-Terphenyl

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-1

2

client Sample ID: CASTRO VALLEY SUB 4

Date Collected: 01/09/14 13:15 Date Received: 01/13/14 10:35 Lab Sample ID: 720-54842-4

Matrix: Solid

4

Method: 8015B - Diesel Range Organics (DRO) (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mineral oil	430		250		mg/Kg		01/13/14 11:27	01/14/14 11:07	5
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

40 - 130

0 XD

 Prepared
 Analyzed
 Dil Fac

 01/13/14 11:27
 01/14/14 11:07
 5

(3)

0

[3]

(0)

12

	·				
ţ					
		÷			
•					

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

Date Collected: 01/09/14 13:15

Date Received: 01/13/14 10:35

p-Terphenyl

Gilent Sample ID: CASTRO VALLEY SUB 5

TestAmerica Job ID: 720-54842-1

01/13/14 11:27 01/13/14 18:20

Lab Sample ID: 720-54842-5 Matrix: Solid

Method: 8015B - Diesel Rang	ge Organics (DRO)	(GC)							
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mineral oil	ND	,	50		mg/Kg		01/13/14 11:27	01/13/14 18:20	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac

40 - 130

•		•				
			•			,
	•					
						•

Client: PG&E Corporation

Analysis Batch: 151547

Matrix: Solid

Analyte

[C10-C28]

[C10-C28]

Project/Site: Castro Valley Sub Spill

Lab Sample ID: MB 720-151538/1-A

Method: 8015B - Diesel Range Organics (DRO) (GC)

MB MB

Client Sample ID: Method Blank Prep Type: Total/NA

Prep Batch: 151538

Analyzed Dil Fac

Result Qualifier MDL Unit Prepared Mineral oil ND 50 01/13/14 09:04 01/13/14 23:41 mg/Kg MB MB

Surrogate %Recovery Qualifier Limits Prepared Analyzed Dil Fac p-Terphenyl 96 40 - 130 01/13/14 09:04 01/13/14 23:41

Lab Sample ID: LCS 720-151538/2-A Client Sample ID: Lab Control Sample Matrix: Solid Prep Type: Total/NA

Analysis Batch: 151547 Prep Batch: 151538 Spike LCS LCS %Rec. Analyte Added Result Qualifier Unit %Rec Limits 83.2 Diesel Range Organics 76.3 mg/Kg 92 50 - 150

LCS LCS Surrogate %Recovery Qualifier Limits p-Terphenyl 113 40 - 130

Lab Sample ID: LCSD 720-151538/3-A Client Sample ID: Lab Control Sample Dup Matrix: Solid Prep Type: Total/NA

analysis Batch: 151547 Prep Batch: 151538 Spike LCSD LCSD %Rec. RPD Analyte Added Result Qualifier Limits Limit Unit D %Rec RPD Diesel Range Organics 83.1 81.4 98 50 - 150 6 35 mg/Kg

LCSD LCSD Surrogate %Recovery Qualifier Limits p-Terphenyl 120 40 - 130

1/14/2014

	·	

#### **QC Association Summary**

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-1

#### GC Semi VOA

Prep E	Batch:	151	1538
--------	--------	-----	------

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-54842-1	CASTRO VALLEY SUB 1	Total/NA	Solid	3546	
720-54842-2	CASTRO VALLEY SUB 2	Total/NA	Solid	3546	
720-54842-3	CASTRO VALLEY SUB 3	Total/NA	Solid	3546	
720-54842-4	CASTRO VALLEY SUB 4	Total/NA	Solid	3546	
720-54842-5	CASTRO VALLEY SUB 5	Total/NA	Solid	3546	
LCS 720-151538/2-A	Lab Control Sample	Total/NA	Solid	3546	
LCSD 720-151538/3-A	Lab Control Sample Dup	Total/NA	Solid	3546	
MB 720-151538/1-A	Method Blank	Total/NA	Solid	3546	

## 176

#### Analysis Batch: 151547

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-54842-3	CASTRO VALLEY SUB 3	Total/NA	Solid	8015B	151538
720-54842-5	CASTRO VALLEY SUB 5	Total/NA	Solid	8015B	151538
LCS 720-151538/2-A	Lab Control Sample	Total/NA	Solid	8015B	151538
LCSD 720-151538/3-A	Lab Control Sample Dup	Total/NA	Solid	8015B	151538
MB 720-151538/1-A	Method Blank	Total/NA	Solid	8015B	151538

## 10

#### Analysis Batch: 151607

_					
Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-54842-1	CASTRO VALLEY SUB 1	Total/NA	Solid	8015B	151538
720-54842-2	CASTRO VALLEY SUB 2	Total/NA	Solid	8015B	151538
720-54842-4	CASTRO VALLEY SUB 4	Total/NA	Solid	8015B	151538

				·
			· .	

#### Lab Chronicle

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-1

Client Sample ID: CASTRO VALLEY SUB 1

Client Sample ID: CASTRO VALLEY SUB 2

Client Sample ID: CASTRO VALLEY SUB 3

Analysis

Client Sample ID: CASTRO VALLEY SUB 4

Date Collected: 01/09/14 13:15 Date Received: 01/13/14 10:35

Lab Sample ID: 720-54842-1

Matrix: Solid

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3546		·	151538	01/13/14 11:27	MRP	TAL PLS
Total/NA	Analysis	8015B		1	151607	01/14/14 10:38	DCH	TAL PLS

Lab Sample ID: 720-54842-2

Matrix: Solid

Date Collected: 01/09/14 13:15 Date Received: 01/13/14 10:35

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3546			151538	01/13/14 11:27	MRP	TAL PLS
Total/NA	Analysis	8015B		5	151607	01/14/14 11:36	DCH	TAL PLS

Lab Sample ID: 720-54842-3

Matrix: Solid

Date Collected: 01/09/14 13:15 Date Received: 01/13/14 10:35

Batch Batch Dilution Batch Prepared Prep Type Method Type Run Factor Number or Analyzed Analyst Lab Prep Total/NA 3546 151538 01/13/14 11:27 MRP TAL PLS 'al/NA 8015B

100

151547

01/13/14 21:16 DCH

Lab Sample ID: 720-54842-4

TAL PLS

Matrix: Solid

Date Collected: 01/09/14 13:15 Date Received: 01/13/14 10:35

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3546		*	151538	01/13/14 11:27	MRP	TAL PLS
Total/NA	Analysis	8015B		5	151607	01/14/14 11:07	DCH	TAL PLS

Client Sample ID: CASTRO VALLEY SUB 5

Date Collected: 01/09/14 13:15 Date Received: 01/13/14 10:35

Lab Sample ID: 720-54842-5

Matrix: Solid

T is	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Туре	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	3546		0 ==== 0,===	151538	01/13/14 11:27	MRP	TAL PLS
Total/NA	Analysis	8015B		1	151547	01/13/14 18:20	DCH	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

TestAmerica Pleasanton

	·				
		,			
•					
				·	

# **Certification Summary**

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-1

2

boratory: TestAmerica Pleasanton

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
California	State Program	9	2496	01-31-16

(4)

5

(6)

10

*6					
		,		÷	
				·	

### **Method Summary**

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

Client: PG&E Corporation

Laboratory References:

Method

8015B

Project/Site: Castro Valley Sub Spill

**Method Description** 

Diesel Range Organics (DRO) (GC)

TestAmerica Job ID: 720-54842-1

Laboratory

TAL PLS

Protocol

SW846

TestAmerica Pleasanton

	•				
				•	
					•
•					
		·			
•					
			,		

## **Sample Summary**

Matrix

Solid

Solid

Solid

Solid

Solid

Client: PG&E Corporation

Lab Sample ID

720-54842-1

720-54842-2

720-54842-3

720-54842-4

720-54842-5

Project/Site: Castro Valley Sub Spill

Client Sample ID

CASTRO VALLEY SUB 1

CASTRO VALLEY SUB 2

**CASTRO VALLEY SUB 3** 

CASTRO VALLEY SUB 4

CASTRO VALLEY SUB 5

TestAmerica Job ID: 720-54842-1

Collected

01/09/14 13:15

01/09/14 13:15

01/09/14 13:15

01/09/14 13:15

01/09/14 13:15

Received

01/13/14 10:35

01/13/14 10:35

01/13/14 10:35

01/13/14 10:35

01/13/14 10:35

4)

5

6

7

8

9

11

12

13

		•			
		,			
					÷
	•				
					÷
				•	
:					
1					



/5/137 62-1174 (Rev 2/99 Environmental Affair

# /14/2014



# 720-54842

# **Chain of Custody Record**

chain of Custody i	VECOIL	4									01	<b>c</b> ‡	0 1	Ana	re	out a	& les	mperf	ure
From: Pacific Gas & I Address or Loc City: Costro Contact Name/	ation:_	3160 Hay	Grove w	G&E Facility A (Zip) 945 395	□ Sample	e Site	Sh	ip To	A Ci Pi	ddres ity: ione	ame:					, CA (Zi			- -
□ NORMAL (10 days or les □ TELEPHONE □ FAX Project Name: Castro Valley Sab Sampled by: (Signature)	K Give	Results to	AKCBE No inpervisor (Name	PGE.COM  me  me/Phone No.):	PWFAX				T. T					sis R	eques	ted /			
Sample No./ Equipment Serial No.  CASTRO Valley Sub 1 Castro Valley Sub 2 Castro Valley Sub 3 Castro Valley Sub 4	Date	Time	Sample	Type/Description	Con No.	tainers Size	XXXX	<i>y</i>			/		/ 			Rem	arks		
Casho Valley Subs			Chain of Cus	tody			×												
1. 2. Relinquished by (Name&Dept.)	Vera	Ι	Date&Ti		Received by (	Name&Dept	20				1	Date&1	ime:	16	35	Ship Via:			
Relinquished by (Name&Dept.) Relinquished by (Name&Dept.) SAP Accounting Data:	•		Date&Ti	me:	Received by (	Name&Dept	i.):	Rillin	ıg Addro	9664	1	Date&T	Time:			Bill of Lad	_	No.: .82	
		1 2	ang Contact.					Butti	P VROIG	·									

Notes:

- 1. Samples are discarded by the laboratory 90 days after results are reported unless other arrangements are made.
- 2. File a copy of this Chain of Custody Record, complete with appropriate laboratory signatures, with the test analysis results.
- 3. The first "Relinquished by/Date" is the shipping date unless otherwise noted.
- 4. The final PCB results will be the cumulative results added together for each PCB.
- 5. When this form is computer-generated, send the completed original to the laboratory, and make copies for the originator and sampler.

Distribution (See note #5)

White: Laboratory Canary: Originator Pink: Sampler

**OPG&E** 

November, 1998

Page 17 of 18

		•		
				T.
•	•			
•				

#### Login Sample Receipt Checklist



Client: PG&E Corporation

Login Number: 54842

List Number: 1

MS/MSDs

<6mm (1/4").

Multiphasic samples are not present.

Residual Chlorine Checked.

Samples do not require splitting or compositing.

Job Number: 720-54842-1

List Source: TestAmerica Pleasanton

		1000000
		10000
		1
		1000
		Ę
		100000
		17,000,000

-		









Answer	Comment
N/A	
N/A	
N/A	
True	
False	
False	
True	
	N/A  N/A  N/A  True  False  False  True  True



There is sufficient vol. for all requested analyses, incl. any requested

Containers requiring zero headspace have no headspace or bubble is

True

True

True

True

True

	*				
				1	
			,		
	·				
				1	
樓					



# **TestAmerica**

THE LEADER IN ENVIRONMENTAL TESTING

# ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton 1220 Quarry Lane Pleasanton, CA 94566 Tel: (925)484-1919

TestAmerica Job ID: 720-54842-2

Client Project/Site: Castro Valley Sub Spill

For:

PG&E Corporation 24300 Clawiter Road Hayward, California 94545

Attn: Ms. Anne Marie Cardoso

Shaema

Authorized for release by: 1/15/2014 2:59:15 PM

Dimple Sharma, Senior Project Manager (925)484-1919 dimple.sharma@testamericainc.com

ž

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

1

3

(6)

7

0

(9)

10

	4		

# **Table of Contents**

Cover Page
Table of Contents
Definitions/Glossary
Case Narrative
Detection Summary
Client Sample Results 6
QC Sample Results
QC Association Summary
Lab Chronicle
Certification Summary
Method Summary
Sample Summary
Chain of Custody
Receipt Checklists



		•		
			•	
•				
			•	
				•

### **Definitions/Glossary**

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-2

#### Qualifiers

#### GC/MS VOA

Qualifier **Qualifier Description** 

ISTD response or retention time outside acceptable limits

# Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
--------------	---

Listed under the "D" column to designate that the result is reported on a dry weight basis

%R Percent Recovery CNF Contains no Free Liquid

DER Duplicate error ratio (normalized absolute difference)

Dil Fac Dilution Factor

DL, RA, RE, IN Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample

DLC Decision level concentration MDA Minimum detectable activity EDL Estimated Detection Limit MDC Minimum detectable concentration

MDL Method Detection Limit ML Minimum Level (Dioxin)

NC Not Calculated

ND Not detected at the reporting limit (or MDL or EDL if shown)

PQL Practical Quantitation Limit

QC Quality Control RER Relative error ratio

RLReporting Limit or Requested Limit (Radiochemistry)

RPD Relative Percent Difference, a measure of the relative difference between two points

ΞF Toxicity Equivalent Factor (Dioxin) TEQ Toxicity Equivalent Quotient (Dioxin)

	•			
		•		
	•			
	•			

#### **Case Narrative**

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-2

lob ID: 720-54842-2

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-54842-2

Comments

No additional comments.

Receipt

The samples were received on 1/13/2014 10:35 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 13.8° C.

GC/MS VOA

Method 8260B: Internal standard response for the following sample exceeded the lower control limit: CASTRO VALLEY SUB 3 (720-54842-3). This is confirmed by reanlaysis.

No other analytical or quality issues were noted.

GC VOA

No analytical or quality issues were noted.

		•

## **Detection Summary**

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-2

2

Lab Sample ID: 720-54842-3

Client Sample ID: CASTRO VALLEY SUB 3

No Detections.

5

9

2

3

		·	

# **Client Sample Results**

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-2

STANSON S

Client Sample ID: CASTRO VALLEY SUB 3

Date Collected: 01/09/14 13:15

Lab Sample ID: 720-54842-3

Matrix: Solid

Date Received: 01/13/14 10:35

Analyte	· 8260B / CA LUF1 Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND	*	25		ug/Kg	===	01/15/14 11:00	01/15/14 12:49	
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	80		45 - 131				01/15/14 11:00	01/15/14 12:49	
1,2-Dichloroethane-d4 (Surr)	116		60 - 140				01/15/14 11:00	01/15/14 12:49	1
Toluene-d8 (Surr)	80		58 - 140				01/15/14 11:00	01/15/14 12:49	

6

8

(2)

·			
		÷	
		÷	
	St.		
·			i.
		·	

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

Method: 8260B/CA\_LUFTMS - 8260B / CA LUFT MS

Client Sample ID: Method Blank Prep Type: Total/NA

Client Sample ID: Lab Control Sample

4

Lab Sample ID: MB 720-151685/4 Matrix: Solid

Analysis Batch: 151685

	MB	MB						1.0	
Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Naphthalene	ND		10		ug/Kg			01/15/14 08:52	1

7

	MB	MB					
Surrogate	%Recovery	Qualifier	Limits		Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	91	2	45 131	*.	¥	01/15/14 08:52	1
1,2-Dichloroethane-d4 (Surr)	109		60 - 140			01/15/14 08:52	1
Toluene-d8 (Surr)	90		58 - 140			01/15/14 08:52	1

Lab Sample ID: LCS 720-151685/5

Matrix: Solid

Analysis Batch: 151685

	Spike	LCS	LCS				%Rec.	
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	
Naphthalene	50.0	44.8		ug/Kg		90	60 - 147	10 to

 Surrogate
 %Recovery
 Qualifier
 Limits

 4-Bromofluorobenzene
 101
 45 - 131

 1,2-Dichloroethane-d4 (Surr)
 105
 60 - 140

 Toluene-d8 (Surr)
 95
 58 - 140

12

Lab Sample ID: LCSD 720-151685/6

Matrix: Solid

Analysis Batch: 151685

Client Sample ID:	Lab	<b>Control Sample Dup</b>
		Pren Tyne: Total/NA

Prep Type: Total/NA

Prep Type: Total/NA

	Spike	LCSD	LCSD				%Rec.		RPD
Analyte	Added	Result	Qualifier	Unit	D	%Rec	Limits	RPD	Limit
Naphthalene	50.0	45.5	-	ug/Kg		91	60 - 147	2	20

	LCSD	LCSD	
Surrogate	%Recovery	Qualifier	Limits
4-Bromofluorobenzene	98		45 - 131
1,2-Dichloroethane-d4 (Surr)	104		60 - 140
Toluene-d8 (Surr)	95		58 - 140

·					
			1		
				6	

# **QC Association Summary**

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-2

# GC/MS VOA

#### Analysis Batch: 151685

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-54842-3	CASTRO VALLEY SUB 3	Total/NA	Solid	8260B/CA_LUFT MS	151704
LCS 720-151685/5	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT	
LCSD 720-151685/6	Lab Control Sample Dup	Total/NA	Solid	MS 8260B/CA_LUFT MS	
MB 720-151685/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	tor represent the r

#### Prep Batch: 151704

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-54842-3	CASTRO VALLEY SUB 3	Total/NA	Solid	5030B	

		٠		
			. *	
·			,	

#### Lab Chronicle

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-2

Slient Sample ID: CASTRO VALLEY SUB 3

Date Collected: 01/09/14 13:15 Date Received: 01/13/14 10:35

Lab Sample ID: 720-54842-3

Matrix: Solid

	Batch	Batch		Dilution	Batch	Prepared		
Prep Type	Type	Method	Run	Factor	Number	or Analyzed	Analyst	Lab
Total/NA	Prep	5030B		_ 18	151704	01/15/14 11:00	PDR	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	151685	01/15/14 12:49	PDR	TAL PLS

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

			•
		•	

# **Certification Summary**

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-2

Laboratory: TestAmerica Pleasanton

certifications held by this laboratory are listed. Not all certifications are applicable to this report.

	Authority	Program	EPA Region	Certification ID	<b>Expiration Date</b>
ı	California	State Program	9	2496	01-31-16

4

5

9

10

10

13

1.4

•				
				•
			Ø.	
			÷	
		e e		
	•			
	•			

# **Method Summary**

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-2

lethod Method Description Laboratory Protocol 8260B / CA LUFT MS SW846 8260B/CA\_LUFTM TAL PLS

Protocol References:

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

Laboratory References:

TAL PLS = TestAmerica Pleasanton, 1220 Quarry Lane, Pleasanton, CA 94566, TEL (925)484-1919

·			

# Sample Summary

Client: PG&E Corporation

Project/Site: Castro Valley Sub Spill

TestAmerica Job ID: 720-54842-2

2

ab Sample ID	Client Sample ID	Matrix	Collected	Received
720-54842-3	CASTRO VALLEY SUB 3	Solid	01/09/14 13:15	01/13/14 10:35

E

6

7

8

3)

		?
	•	



PSC 1802 Shelton Dr Hollister, California 95023 Tel: 800-321-1030

RE: A1

Work Order No.: 1402093

Dear Paul Morales:

Torrent Laboratory, Inc. received 1 sample(s) on February 18, 2014 for the analyses presented in the following Report.

All data for associated QC met EPA or laboratory specification(s) except where noted in the case narrative.

Torrent Laboratory, Inc. is certified by the State of California, ELAP #1991. If you have any questions regarding these test results, please feel free to contact the Project Management Team at (408)263-5258; ext 204.

Callsa

Patti Sandrock QA Officer February 18, 2014

Date



Date: 2/18/2014

Client: PSC Project: A1

Work Order: 1402093

#### **CASE NARRATIVE**

No issues encountered with the receiving, preparation, analysis or reporting of the results associated with this work order.

Unless otherwise indicated in the following narrative, no results have been method and/or field blank corrected.

Reported results relate only to the items/samples tested by the laboratory.

This report shall not be reproduced, except in full, without the written approval of Torrent Analytical, Inc.

Total Page Count: 11 Page 2 of 11



## Sample Result Summary

Report prepared for:

**A1** 

Paul Morales

Date Received: 02/18/14

PSC

Date Reported: 02/18/14

1402093-001

Parameters:	Analysis Method	<u>DF</u>	MDL	PQL	Results	<u>Unit</u>
TPH as Mineral Oil	SW8015B	4	5.40	41	170	mg/Kg

Total Page Count: 11

Page 3 of 11



#### **SAMPLE RESULTS**

Report prepared for:

Paul Morales

PSC

Date Received: 02/18/14

Date Reported: 02/18/14

Client Sample ID:

Α1

Lab Sample ID:

1402093-001A

Project Name/Location:

Project Number:

A1

Sample Matrix:

Soil

Date/Time Sampled:

02/18/14 / 10:30

Tag Number:

Parameters:	Analysis Method	Prep Date	Date Analyzed	DF	MDL	PQL	Results	Lab Qualifier	Unit	Analytical Batch	Prep Batch
TPH as Mineral Oil	SW8015B	2/18/14	02/18/14	4	5.40	41	170	Х	mg/Kg	419274	10811
Pentacosane (S)	SW8015B	2/18/14	02/18/14	4	53.3	124	91.2		%	419274	10811

NOTE: x - Chromatographic pattern does not resemble typical mineral oil reference standard pattern but reported values is wihtin mineral oil quantitation range.

483 Sinclair Frontage Rd., Milpitas, CA 95035 | tel: 408.263.5258 | tex: 408.263.8293 | www.torrentlab.com

Page 4 of 11 Total Page Count: 11



## **MB Summary Report**

Work Order:	1402093	Prep Method:	3546_TPH	Prep Date:	02/18/14	Prep Batch:	10811
Matrix:	Soil	Analytical	SW8015B	Analyzed Date:	02/18/14	Analytical	419274
Units:	mg/Kg	Method:				Batch:	

Parameters	MDL	PQL	Method Blank Conc.	Lab Qualifier	
TPH as Diesel	0.575	2.0	ND		
TPH as Mineral Oil	1.35	10	ND		
TPH as Motor Oil	1.4	10	2.4		
Pentacosane (S)			95.7		

Total Page Count: 11 Page 5 of 11



## **LCS/LCSD Summary Report**

Raw values are used in quality control assessment.

02/18/14 10811 Work Order: Prep Method: 3546\_TPH Prep Date: Prep Batch: 1402093 Analytical Batch: Analytical Method: SW8015B 02/18/14 419274 Matrix: Soil Analyzed Date: Units: mg/Kg

Parameters	MDL	PQL	Method Blank Conc.	Spike Conc.	LCS % Recovery	LCSD % Recovery	LCS/LCSD % RPD	% Recovery Limits	% RPD Limits	Lab Qualifier
TPH as Diesel	0.57	2.0	ND	25	73.0	75.0	2.65	50.8 - 111	30	+
Pentacosane (S)			ND	100	98.3	97.8		61.5 - 133		

Total Page Count: 11 Page 6 of 11



## **Laboratory Qualifiers and Definitions**

#### **DEFINITIONS:**

Accuracy/Bias (% Recovery) - The closeness of agreement between an observed value and an accepted reference value.

Blank (Method/Preparation Blank) -MB/PB - An analyte-free matrix to which all reagents are added in the same volumes/proportions as used in sample processing. The method blank is used to document contamination resulting from the analytical process.

**Duplicate** - a field sample and/or laboratory QC sample prepared in duplicate following all of the same processes and procedures used on the original sample (sample duplicate, LCSD, MSD)

Laboratory Control Sample (LCS ad LCSD) - A known matrix spiked with compounds representative of the target analyte(s). This is used to document laboratory performance.

Matrix - the component or substrate that contains the analyte of interest (e.g., - groundwater, sediment, soil, waste water, etc)

Matrix Spike (MS/MSD) - Client sample spiked with identical concentrations of target analyte (s). The spiking occurs prior to the sample preparation and analysis. They are used to document the precision and bias of a method in a given sample matrix.

Method Detection Limit (MDL) - the minimum concentration of a substance that can be measured and reported with a 99% confidence that the analyte concentration is greater than zero

Practical Quantitation Limit (PQL) - a laboratory determined value at 2 to 5 times above the MDL that can be reproduced in a manner that results in a 99% confidence level that the result is both accurate and precise. PQLs reflect all preparation factors and/or dilution factors that have been applied to the sample during the preparation and/or analytical processes.

Precision (%RPD) - The agreement among a set of replicate/duplicate measurements without regard to known value of the replicates

rrogate (S) or (Surr) - An organic compound which is similar to the target analyte(s) in chemical composition and behavior in the analytical process, but with is not normally found in environmental samples. Surrogates are used in most organic analysis to demonstrate matrix compatibility with the chosen method of analysis

**Tentatively Identified Compound (TIC)** - A compound not contained within the analytical calibration standards but present in the GCMS library of defined compounds. When the library is searched for an unknown compound, it can frequently give a tentative identification to the compound based on retention time and primary and secondary ion match. TiCs are reported as estimates and are candidates for further investigation.

Units: the unit of measure used to express the reported result - mg/L and mg/Kg (equivalent to PPM - parts per million in liquid and solid), ug/L and ug/Kg (equivalent to PPB - parts per billion in liquid and solid), ug/m3, mg.m3, ppbv and ppmv (all units of measure for reporting concentrations in air), % (equivalent to 10000 ppm or 1,000,000 ppb), ug/Wipe (concentration found on the surface of a single Wipe usually taken over a 100cm2 surface)

#### LABORATORY QUALIFIERS:

- B Indicates when the anlayte is found in the associated method or preparation blank
- D Surrogate is not recoverable due to the necessary dilution of the sample
- E Indicates the reportable value is outside of the calibration range of the instrument but within the linear range of the instrument (unless otherwise noted) Values reported with an E qualifier should be considered as estimated.
- H- Indicates that the recommended holding time for the analyte or compound has been exceeded
- J- Indicates a value between the method MDL and PQL and that the reported concentration should be considered as estimated rather the quantitative
- NA Not Analyzed
- N/A Not Applicable
- NR Not recoverable a matrix spike concentration is not recoverable due to a concentration within the original sample that is greater than four times the spike concentration added
- R- The % RPD between a duplicate set of samples is outside of the absolute values established by laboratory control charts
- S- Spike recovery is outside of established method and/or laboratory control limits. Further explanation of the use of this qualifier should be included within a case parative
- X -Used to indicate that a value based on pattern identification is within the pattern range but not typical of the pattern found in standards. Further explanation may or may not be provided within the sample footnote and/or the case narrative.



Total Page Count: 11 Page 7 of 11



## Sample Receipt Checklist

Client Name: PSC

Date and Time Received: 2/18/2014 11:38

Project Name: A1

Received By: mi

\_\_\_\_

Work Order No.: 1402093

Physically Logged By: ng

Checklist Completed By: ng

Carrier Name: Client Drop Off

Chain of Custody (COC) Information

Chain of custody present?

<u>Yes</u>

Chain of custody signed when relinquished and received?

<u>Yes</u>

Chain of custody agrees with sample labels?

<u>Yes</u>

Custody seals intact on sample bottles?

Not Present

Sample Receipt Information

Custody seals intact on shipping container/cooler?

Not Present

Shipping Container/Cooler In Good Condition?

<u>Yes</u>

Samples in proper container/bottle?

Yes

Samples containers intact?

Voo

samples contamore interes

<u>Yes</u>

Sufficient sample volume for indicated test?

<u>Yes</u>

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

All samples received within holding time?

<u>Yes</u>

Container/Temp Blank temperature in compliance?

No

Temperature:

°C

17

Water-VOA vials have zero headspace?

No VOA vials submitted

Water-pH acceptable upon receipt?

N/A

pH Checked by: na

pH Adjusted by: na

Total Page Count: 11 Page 8 of 11



### **Login Summary Report**

Client ID:

TL5372

**PSC** 

QC Level:

**Project Name:** 

Α1

**TAT Requested:** 

Same Day:200

Project #:

Date Received:

2/18/2014

Report Due Date:

2/18/2014

Time Received:

11:38

Comments:

Please call Paul Morales with results at 408-595-6241. Also email results to Jesus.Saucedo@pscnow.com.

Work Order #:

1402093

WO Sample ID

Client Sample ID Collection Date/Time

<u>Matrix</u>

Scheduled Sample <u>Disposal</u>

<u>Test</u> On Hold On Hold Requested Subbed

1402093-001A

Α1

02/18/14 10:30 Soil

08/17/14

S\_TEPH

<u>Tests</u>

Sample Note:

RUSH same day!!! TPH mineral oil.



П					
/ 1	$T_{\Lambda}$	PP	Δ	n	+
	10		C	n	Ļ
	LABO	RAT	ORY	. IN	C,

483 Sinclair Frontage Road Milpitas, CA 95035 Phone: 408.263,5258 FAX: 408.263,8293

# **CHAIN OF CUSTODY**

LAB WORK ORDER NO

• NOTE: SHADED AREAS ARE FOR TORRENT LAB USE ONL)

	LABO	RATORY, INC. Y	www.torrentlab.com	1	* 141									ANL, I,	12/	4-0	201	<u> </u>
ompar	y Name:	PSC-				C Énv [	lH 🔲	r		<u>L:-</u>							,,	
ddress	: 18	02 Shel	Ton Dr		, establish		./	Purpos	se: 🥄	Jes	U.S.	) ا م	)a	ع ین	<u>. 90</u>	(a)	PSC no	الم
ity:	Hal/1		State: ( /)	Zip	Code:	2 to	23	Specia	i Instru	ictions /	Comm	ents:	C (4)	46.	Pe.	<u> </u>	Wara	_{ €
elepho	n <del>e:</del> 40 ()	3 7 3 · (3 6 3 f · · · )	FAX:			· .		(L)	14	R,	<u>2</u> 5.	11	$Q_{i}$	<u>oy)</u>	521	-6	241	
EPORT		w/ Mondes	SAMPLER: 5	\$US		المزيج بمر	7	P,O.#		,			E	MAIL:	T	<u>.</u>		
IRNAF	OUND TIME	:	SAMPLE TYPE	:	REPORT	FORMAT:		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,			.i .				 	1		
] 10 Wo	rk Days	4 Work Days 1 Work Day	Storm Water	Air	OC L	evel IV		5									ANALYSIS EQUESTEI	
] 7 Wor		3 Work Days 🔲 Noon - Nxt O	<ul> <li>ET LETOURG VYRIEF</li> </ul>	Other	Excel	LEDO		1									EGOESTE	,
] 5 Wor	k Days 🔲	2 Work Days 2 - 8 Hours	y 🔯 Soli		-			2								\   \		
AB ID	CANISTER I.D.	CLIENT'S SAMPLE I.D.	DATE / TIME SAMPLED	MATRIX	# OF CONT	CONT TYPE		Jan Sport								R	EMARKS	
	A1		2/28/18	:	1	gless		X		·								
	سلم 17		76200		(	.,9											NA Mari	
z Wy															ļ	7 - 7	<u>Profesio</u> Profes	
										,								
																	: -: - 	
E.		an and grade and the second		···			-::	:										
						- :	ese j	٠.										
							ļ									11. 1. 1		
													gives 1	190	611			
;; .								1		7	. i . i							
								-		l					d for an			
				<u></u>			1=			<u> </u>		<u></u>		I	<u> </u>	T		
Relin	guished By:	Print:	Date: 2	8/14	Time:	y } :	Recor	ved By:	Spir		Print:	V)		Date:	lieli	7   "	me: //:31	
	quished By:	Print	Date:		Time:		Recei	ved By:			Print:			Date:	ų <sup>2</sup>		me:	
oro Co	malaa Ora	red in Good Condition?	Ivac [] NO S	amniae sa i	L V	os 📝 Mr	Melbo	d of Ship	medi	7	10		<u> </u>	amole s	eals inte	ıcl2 🗍 Vı	es 🔲 NO 🛭	I N/A
		Jare discarded by the labora						d or simp		-b	1.12	Temp		cC		77	)61 <u>/</u>	
11.	CALEST 12	' alagori	Dale:			viewed By: _					D;	ile:	6.00	. –	1 45	J**		
KE	~ <u>{\{\</u>	S LBLA'S LIR	•															





	Confirmation Number []
Date   2/18/2014	
Company   PSC	For Torrent Lab Use Only
Ordered By I Paul Morales	Project Name   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
Email   xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx	Project Number
(for Rush report)	Order Taken By   XXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXXX
Project Details	Accounting I
TAT Requested (please check one)	
Same Day One Day 2  (2-8 Hours) Noon 2	Day 3 Day 4 Day Noon Noon
Number of Samples   1	
Matrix   Soil (i.e., sample type: Is your sample soil, water, etc?)	
	•
Analysis   TPH Mineral Oil	
Weekend work required (refer to chart be	clow for respective surcharge)
	rush services requested on the chain-of-custody. Please contact <i>Torrem Express</i> <sup>aa</sup> h the subject line "Rush TAT Cancellation" If you do not want the analysis(es) se subject to a cancellation fee.
	forrent Laboratory at least 24 hours in advance for any Torrent Expression service.

All Torrent Express<sup>M</sup> Same Day and Next Day rush services will be charged a \$250,00 minimum (excluding certain fees) plus the respective surcharge(s); all other Torrent Express<sup>M</sup> rush services will be charged a \$150,00 minimum (excluding certain fees) plus the respective surcharge(s).

Sample(s) must be received or scheduled for pick-up before 5:00 pm in order to be processed that day; all samples received after 5:00 pm will

The following table briefly describes Torrent Laboratory's Torrent Expression surcharge pricing structure, please refer to your company specific price list for the precise surcharges.

	Same Day	Next Day*	2 Day*	3 Day*	4 Day*
Regular Rush	300%	150%	75%	50%	37.5%
Noon	-	200%	100%	62.5%	50%
Weekend	300%	300%	_	. —	-

<sup>\*</sup>business day(s)

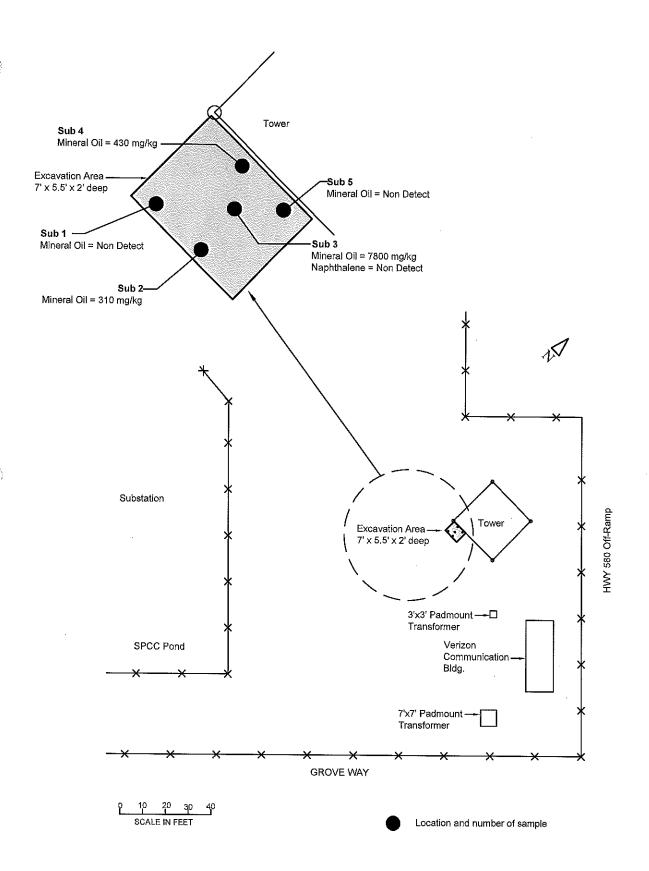
be processed the following day.

483 Sinclair Frontage Rd., Milpitas, CA 95035 | tól: 408.263.5258 | féx: 408.263.8293 | www.torrentlab.com

	•			
	·			

Attachment 2. Aerial view of excavation location

	-					
					:	
		*				
÷						



Attachment 3. Locations of shallow soil confirmation samples taken at Castro Valley Substation non-PCB transformer oil release

	-				
			•		
		·			
u				y	
			•		
				•	

## NON-HAZARDOUS WASTE MANIFEST

se print or type (Form designed for use on elite	(12 pitch) typewriter)							
NON-HAZARDOUS	1. Generator's US EPA ID No.		Manifest Document	no.Shipoo		2. Page 1		
WASTE MANIFEST CAO 98/388036				000	1800-1	of (		
3. Generator's Name and Mailing Address FIGE Manife's F PO Box 7640	Hayward SERVICE	e center						
3. Generator's Name and Malling Address FAE: Manite's T PO Box 7640 SAN France, SCO CA 94120 Heyruged CA 94645								
Generator's Phone () (510) 784-3208			1					
5. Transporter 1 Company Name	6 LIS EPA ID Number		A Ctata Tor					
Milip WEST Industrial Services CAR DOOL 77527			A. State Transporter's IB. Transporter 1 Phone					
7. Transporter 2 Company Name	8. US EPA ID Number	561	C. State Transporter's 1 800) 321-103					
and the second s				D. Transporter 2 Phone				
9. Designated Facility Name and Site Address	10. US EPA ID Number		E. State Faci		Ti Andreas			
GEM of Rincho Core 11855 white Rock B	lova LLC		I was sure or a second	•				
Rancha Carl va an	F. Facility's Phone							
RANCHO Cordo VA CA 95742   CAD 986884183				(916) 351-0980				
WASTE DESCRIPTION			ntainers	10	-0780			
a MON HAZArdous	Sell of Carl 2	No.	Туре	Tota	l .	14. Unit Wt./Vol.		
1 (	(Soil, Rock)		1			Wt./Vol.		
		15	DM	16~	ا م	P		
b.				600	00	5		
						****		
					- 1			
c.	3				l l			
						7		
d.								
					- 1			
G. Additional Descriptions for Materials Listed Above								
IIA) profile # 110	`		N Handling O.	A STATE OF THE STA				
	2207 16 VEC		n. nanuing Co	odes for Wastes Liste	ed Above			
111) (1.01.00)	2207 15×55		n. nanoling Co	odes for Wastes Liste	ed Above			
111) [1-1/ 49	2307 15 x55	n	n. Harloling Co	odes for Wastes Liste	ed Above	-		
		\$1	n. Haroling Co	odes for Wastes Liste	ed Above	0)		
CleAN UP SITE	Appress 3160 Grove Ave Co	isho liallev	n. Haroling Co	odes for Wa <b>stes</b> Liste	ed Above			
	Appress 3160 Grove Ave Co	isho Valley	n. narolling Co	odes for <b>Wastes</b> Liste	ed Above	62		
CleAN UP SITE  15. Special Handling Instructions and Additional Infor	ADDress 3160 Grove Ave G		2	odes for Wastes Liste	ed Above			
CleAN UP SITE  15. Special Handling Instructions and Additional Infor	ADDress 3160 Grove Ave G		2	odes for Wastes Liste	ad Above			
CleAN UP SITE  15. Special Handling Instructions and Additional Infor	ADDress 3160 Grove Ave G		2	odes for Wastes Liste	Above			
CleAN UP SITE  15. Special Handling Instructions and Additional Infor	ADDress 3160 Grove Ave G		2	odes for Wastes Liste	Above	40		
Clean up SITE  15. Special Handling Instructions and Additional Infor  WORN Protects  24 Emergency	Modern 3160 Grove Ave Command Ever Contact (877) 57	enear 7.266	39	odes for Wastes Liste	Above			
Clean up SITE  15. Special Handling Instructions and Additional Infor  WORN Protects  24 Emergency	Modern 3160 Grove Ave Command Ever Contact (877) 57	enear 7.266	39	odes for Wastes Liste	Above	7/		
Clean up SITE  15. Special Handling Instructions and Additional Infor  WORN Protects  24 Emergency	ADDress 3160 Grove Ave G	enear 7.266	39	odes for Wastes Liste	Above	7/		
Clean up site  15. Special Handling Instructions and Additional Infor  WIGHT Protection  24 Emergency  16. GENERATOR'S CERTIFICATION: I hereby certifing proper condition for transport. The materials decorated in proper condition for transport.	mallon.  The Clothing and Eye Contact (877) 57  Ty that the contents of this shipment are fully and accurately decision that manifest are not subject to federal hazardous with the contents of this shipment are fully and accurately decision that the contents of this shipment are fully and accurately decision that the contents of this shipment are fully and accurately decision that the contents of this shipment are fully and accurately decision.	CNEAR 7. QGG scribed and are in a aste regulations.	d respects					
Clean up SITE  15. Special Handling Instructions and Additional Infor  WATH PROTECTI  24 Emergency  16. GENERATOR'S CERTIFICATION: I hereby certif in proper condition for transport. The materials de-	Mooress 3160 Grove Ave Comation.  The Clothing and Eye Contact (877) 87  Contact (877) 87  Ty that the contents of this shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of this shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on the shipment are fully accurately ac	enear 7.266	d respects		Date			
CIEAN UP SITE  15. Special Handling Instructions and Additional Infor  WITH PROTECT!  24 Emergency  16. GENERATOR'S CERTIFICATION: I hereby certif in proper condition for transport. The materials des	Moderness 3160 Grove Ave Commation.  The Clothing and Eye Contact (877) 87  Contact (877) 87  Ity that the contents of this shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of this shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of th	CNEAR 7. QGG scribed and are in a aste regulations.	d respects	he	Date Month Day	Year		
Clean up SITE  15. Special Handling Instructions and Additional Infor  WATH PROTECTI  24 Emergency  16. GENERATOR'S CERTIFICATION: I hereby certif in proper condition for transport. The materials des	mation.  The Clothing and Every Contact (\$77) \$7  That the contents of this shipment are fully and accurately desistribed on this manifest are not subject to federal hazardous waterials	CNEAR 7. QGG scribed and are in a aste regulations.	d respects	he	Date Month Day	Year		
Clean up SITE  15. Special Handling Instructions and Additional Infor  LIGHT ProTECT  24 Emergency  16. GENERATOR'S CERTIFICATION: I hereby certif in proper condition for transport. The materials des	Moderness 3160 Grove Ave Commation.  The Clothing and Eye Contact (877) 87  Contact (877) 87  Ity that the contents of this shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of this shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately described on this manifest are not subject to federal hazardous with the contents of th	CNEAR 7. QGG scribed and are in a aste regulations.	d respects	The C	Date  Month Day  Date	14		
Clean up SITE  15. Special Handling Instructions and Additional Infor  WIGHT ProTCETT  24 Emergency  16. GENERATOR'S CERTIFICATION: I hereby certif in proper condition for transport. The materials des	mallon.  The Clothing and Every Contact (877) 57  Ty that the contents of this shipment are fully and accurately decisoribed on this manifest are not subject to federal hazardous with the contents of this shipment are fully and accurately decisoribed on this manifest are not subject to federal hazardous with the contents of this shipment are fully and accurately decisoribed on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately decision.  Signature Signature Signature	CNEAR 7. QGG scribed and are in a aste regulations.	d respects	The C	Date  Month Day  Date	Year		
Clean up SITE  15. Special Handling Instructions and Additional Infor  WITH Protects  24 Emergency  16. GENERATOR'S CERTIFICATION: I hereby certif in proper condition for transport. The materials des  Printed/Typed Name  Chors Sanas  17. Transporter 1 Acknowledgement of Receipt of Ma  Printed/Typed Name  GENERATOR'S CERTIFICATION: I hereby certif in proper condition for transport. The materials des  17. Transporter 1 Acknowledgement of Receipt of Ma  18. Transporter 2 Acknowledgement of Receipt of Ma	mallon.  The Clothing and Every Contact (877) 57  Ty that the contents of this shipment are fully and accurately decisoribed on this manifest are not subject to federal hazardous with the contents of this shipment are fully and accurately decisoribed on this manifest are not subject to federal hazardous with the contents of this shipment are fully and accurately decisoribed on this manifest are not subject to federal hazardous with the contents of the shipment are fully and accurately decision.  Signature Signature Signature	CNEAR 7. QGG scribed and are in a aste regulations.	d respects	The C	Date Month Day Date Month Day	14		
Clean up SITE  15. Special Handling Instructions and Additional Infor  WITH Protects  24 Emergency  16. GENERATOR'S CERTIFICATION: I hereby certif in proper condition for transport. The materials des  Printed/Typed Name  Chors Sanas  17. Transporter 1 Acknowledgement of Receipt of Ma  Printed/Typed Name  GENERATOR'S CERTIFICATION: I hereby certif in proper condition for transport. The materials des  17. Transporter 1 Acknowledgement of Receipt of Ma  8. Transporter 2 Acknowledgement of Receipt of Ma	Moderns 3160 Grove Ave Commation.  The Clothing and Every Contract (877) Structure (877) Struc	CNEAR 7. QGG scribed and are in a aste regulations.	d respects	The C	Date Month Day  Month Day  Month Day	14		
Clean up SITE  15. Special Handling Instructions and Additional Infor  WATH PROTECTS  24 Emergency  16. GENERATOR'S CERTIFICATION: I hereby certif in proper condition for transport. The materials de:  Printed/Typed Name  Charles  17. Transporter 1 Acknowledgement of Receipt of Ma  Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Ma  Printed/Typed Name	Moderns 3160 Grove Ave Commation.  The Clothing and Every Contract (877) Structure (877) Struc	CNEAR 7. QGG scribed and are in a aste regulations.	d respects	The C	Date Month Day On the Month Day On the Month Day On the Month Day On the Month Day	14 Year 14		
Clean up site  15. Special Handling Instructions and Additional Infor  WIGHT Protects  24 Emergency  16. GENERATOR'S CERTIFICATION: I hereby certif in proper condition for transport. The materials des  17. Transporter 1 Acknowledgement of Receipt of Ma  Printed/Typed Name  Character  Acknowledgement of Receipt of Ma  Printed/Typed Name  Gestine  Gestine  Gestine	Moderns 3160 Grove Ave Commation.  The Clothing and Every Contract (877) Structure (877) Struc	CNEAR 7. QGG scribed and are in a aste regulations.	d respects	The C	Date Month Day On the Month Day On the Month Day On the Month Day On the Month Day	14 Year 14		
Clean up SITE  15. Special Handling Instructions and Additional Infor  WITH Protects  24 Emergency  16. GENERATOR'S CERTIFICATION: I hereby certif in proper condition for transport. The materials de:  Printed/Typed Name  Chots   Quadration of Receipt of Ma  Printed/Typed Name  18. Transporter 1 Acknowledgement of Receipt of Ma  Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Ma  Printed/Typed Name  19. Discrepancy Indication Space	Appress 3166 Grove Ave Commation.  The Clothing and Every Contract (877) Strong	CNEAR  2 266  3 266  3 aste regulations.	d respects	The C	Date Month Day On the Month Day On the Month Day On the Month Day On the Month Day	14 Year 14		
Clean up SITE  15. Special Handling Instructions and Additional Infor  WITH Protects  24 Emergency  16. GENERATOR'S CERTIFICATION: I hereby certif in proper condition for transport. The materials de:  Printed/Typed Name  Chots   Quadration of Receipt of Ma  Printed/Typed Name  18. Transporter 1 Acknowledgement of Receipt of Ma  Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Ma  Printed/Typed Name  19. Discrepancy Indication Space	Moderns 3160 Grove Ave Commation.  The Clothing and Every Contract (877) Structure (877) Struc	CNEAR  2 266  3 266  3 aste regulations.	d respects	The C	Date Month Day On the Month Day On the Month Day On the Month Day On the Month Day	14 Year 14		
Clean up SITE  15. Special Handling Instructions and Additional Infor  WIGHT ProTCETT  24 Emergency  16. GENERATOR'S CERTIFICATION: I hereby certifing proper condition for transport. The materials design in proper condition for transporter 1 Acknowledgement of Receipt of Materials. Transporter 2 Acknowledgement of Receipt of Materials.	Appress 3166 Grove Ave Commation.  The Clothing and Every Contract (877) Strong	CNEAR  2 266  3 266  3 aste regulations.	d respects	The C	Date Month Day On the Month Day On the Month Day On the Month Day On the Month Day	14 Year 14		
Clean up SITE  15. Special Handling Instructions and Additional Infor  WITH Protects  24 Emergency  16. GENERATOR'S CERTIFICATION: I hereby certif in proper condition for transport. The materials de:  Printed/Typed Name  Chots   Quadration of Receipt of Ma  Printed/Typed Name  18. Transporter 1 Acknowledgement of Receipt of Ma  Printed/Typed Name  18. Transporter 2 Acknowledgement of Receipt of Ma  Printed/Typed Name  19. Discrepancy Indication Space	Appress 3166 Grove Ave Commation.  The Clothing and Every Contract (877) Strong	CNEAR  2 266  3 266  3 aste regulations.	d respects	The C	Date Month Day On the Month Day On the Month Day On the Month Day On the Month Day	14 Year 14		
Clean up SITE  15. Special Handling Instructions and Additional Infor  WIGHT ProTCETT  24 Emergency  16. GENERATOR'S CERTIFICATION: I hereby certifing proper condition for transport. The materials design in proper condition for transporter 1 Acknowledgement of Receipt of Materials. Transporter 2 Acknowledgement of Receipt of Materials.	mation.  The Clothing and Every Contact (877) ST	CNEAR  2 266  3 266  3 aste regulations.	d respects	The S	Date Month Day  Of I Y  Date Month Day  Onth Date Month Day	14 Year 14		

			·						
							•		
•									
							, ·		
							;		
			·						
	,	·							
							·		
			,						
						•			
						•			