Fremont State Street Center, LLC
c/o SummerHill Homes LLC
3000 Executive Parkway, Suite 450
San Ramon, CA 94583

RECEIVED
By Alameda County Environmental Health 1:39 pm, Apr 12, 2017

April 11, 2017

Alameda County Environmental Health
1131 Harbor Bay Parkway
Alameda, CA 94502
Attention: Mr. Mark Detterman, PG, CEG

Subject: Cement Treated Base Investigation Report
39155 and 39183 State Street
Fremont, California

Dear Mr. Detterman:

Submitted herewith is the Cement Treated Base Investigation Report in regards to our State Street project for your reference and use.

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

Very truly yours,

Katia Kamangar

Katia Kamangar
Executive Vice President

PES Environmental, Inc.
Engineering & Environmental Services

April 5, 2017

220.003.05.005

A Report Prepared for:

Fremont State Street Center LLC
Attention: Ms. Denise Cunningham
3000 Executive Parkway, Suite 450
San Ramon, California 94583

For Submittal to Oversight Agency:

Alameda County Environmental Health
Attention: Mr. Mark Detterman, PG, CEG
1131 Harbor Bay Parkway
Alameda, California 94502

Received by: _____
Date: _____

Subject: Cement Treated Base Investigation Report
39155 and 39183 State Street
Fremont, California

Dear Ms. Cunningham:

On behalf of Fremont State Street Center LLC (FSSC), this report has been prepared by PES Environmental, Inc. (PES) to present the results of the investigation of cement treated base (CTB) materials located at the 39155 and 39183 State Street property in Fremont, California (the site or subject property). The site location and vicinity are shown on Plate 1. The subject property is being re-developed with residential and commercial buildings as outlined on Plate 2. The investigation was conducted in accordance with the January 17, 2017 *Work Plan for Soil Excavation Addendum*[1] (Work Plan) prepared by PES. The purpose of the sampling of the CTB material was to verify that the material is not contaminated.

As discussed in the Work Plan, a localized occurrence of soils containing benzene and petroleum hydrocarbons was remediated at the site via excavation and offsite disposal in July and August 2016, following a Work Plan approved by the Alameda County Department of Environmental Health (ACDEH)[2]. The remediation was documented in a PES report dated

[1] PES, 2017. *Work Plan for Soil Excavation Addendum, 39155 and 39183 State Street, Fremont, California*. January 17.

[2] PES, 2016a. *Work Plan for Soil Excavation and Well Destruction, 39155 and 39183 State Street, Fremont, California*. January 29 and ACDEH, 2016. *Conditional Work Plan Approval; Site Cleanup Program Case No. RO0003176 and Geotracker Global ID T10000007102, Fremont Plaza Shopping Center, 39155 and 39183 State Street, Fremont, CA 94538*. March 14.

September 1, 2016[3]. The remedial excavation identified the presence of CTB material of between 11 and 13 feet thick, beneath the benzene/petroleum hydrocarbon soils that were excavated. The location of the remedial area and the CTB is shown on Plate 2.

Subsequently, in September 2016 and prior to backfilling of the remedial excavation, the southwest quadrant of the site (known as Area #1) was further excavated above and adjacent to the CTB material and the soil was reused as fill at an offsite location. The location of Area #1 is shown on Plate 2. Approximately 3.5 feet of soil was excavated from Area #1 and the entire area was subsequently backfilled to elevations between 2 feet below and 1-foot above the pre-excavation grade. The details of this activity, including additional testing that was done and a review of the acceptability of this excavated material for use as imported engineered fill at the offsite location are presented in a report prepared by Engeo, which has been provided to ACDEH[4].

FIELD PLANNING ACTIVITIES AND CTB VERIFICATION SAMPLING AND ANALYTICAL METHODS

Field planning activities, and sampling and analytical methods and procedures for CTB verification sampling activities are presented below. As indicated on Plate 3, three CTB sample locations were sampled (i.e., CTB1, CTB2, and CTB3).

Field Planning Activities

Prior to conducting the proposed scope-of-work, PES:

- Coordinated for property access;
- Coordinated with the subcontractors;
- Obtained a drilling permit from the Alameda County Water District (ACWD) for the sampling activities. A copy of the permit is included in Appendix A; and
- Contacted Underground Service Alert to schedule visits by public and private utility companies to locate their underground utilities.

[3] PES, 2016b. *Soil Excavation Implementation Report, 39155 and 39183 State Street, Fremont, California.* September 1.

[4] Engeo, 2016. *Review of Potential Import Fill Material from State Street Project*. December 5.

PES' existing Site-specific Health and Safety Plan, which complies with applicable federal and California Occupational Safety and Health Administration (OSHA) guidelines, was used during the implementation of this work.

CTB Sampling and Analytical Methods and Procedures

The CTB samples were collected using a concrete coring machine operated by Pacific Coast Cutters, Inc., of Petaluma, California. However, in order to core through the CTB, the coring machine needed to be bolted to the surface of the CTB, which was covered by approximately 3 to 4 feet of backfill material. Therefore, prior to conducting the coring activities the backfill material at each sample location was removed using FSSC's backhoe operator, J & M, Inc. The soil was stockpiled adjacent to each sample location and reused as backfill after sampling activities were completed. The backhoe cleared an approximate 6 feet by 6 feet area with one side sloped at a 1:1 grade to allow for access into and out of each excavation.

A 3-inch diameter core hole was cut through the entire thickness of the CTB at each sample location to assess whether the material was heterogeneous in nature and/or if visual, olfactory, or instrumental evidence of contamination was present. The coring and sampling activities were conducted under the supervision of a California-registered geologist and a PES geologist observed the coring activities and prepared a log for each sample location. The logs are included in Appendix B. The CTB material was field-screened for volatile organic compounds (VOCs) using a photoionization detector (PID). The PID readings are recorded on the log.

As indicated on the logs, two CTB samples were collected at each location. The shallow samples were collected at depths of either 1 to 1.5 or 2.5 to 3 feet below the top of the CTB and the deeper samples at each location were collected at a depth of 4 to 4.5 feet below the top of the CTB. Based on an anticipated CTB thickness of between 11 and 13 feet thick, the Work Plan proposed sample depths of approximately 2 and 9 feet below the surface of the CTB material. However, as discussed below, the CTB thickness at the three samples locations ranged from 5 to 6 feet. Therefore, the sample depths were adjusted because the thickness of the CTB was less than anticipated. The CTB samples were analyzed for the following chemical constituents:

- Total petroleum hydrocarbons as gasoline (TPHg), total petroleum hydrocarbons as diesel (TPHd), and total petroleum hydrocarbons as motor oil (TPHmo) using U.S. Environmental Protection Agency (U.S. EPA) Test Method 8015B;
- VOCs, including MTBE, using U.S. EPA Test Method 8260B;
- Semivolatile organic compounds (SVOCs) using U.S. EPA Test Method 8270C; and
- Title 22 Metals using U.S. EPA Test Method 7471A.

Following collection, the CTB samples were placed in a sealed Ziploc bag, and the Ziploc bag was labeled for identification, and immediately placed in a chilled, thermally-insulated cooler containing bagged ice. The samples were transported under chain-of-custody protocol to Curtis and Tompkins, Ltd. (C&T) in Berkeley, California. C&T is a California state-certified laboratory.

Upon completion of sampling activities, the core holes were grouted to the surface with neat cement in the presence of an ACWD inspector. At the completion of sampling, each sample area was backfilled with the stockpiled soil material. The backfill material was placed in 8-inch lifts and compacted to a relative density of at least 90 percent, and brought to grade. FSSC's geotechnical consultant, Rockridge Geotechnical, Inc., conducted compaction testing during the backfill operations. CTB material generated during coring activities was temporarily stored on-site in a 5-gallon bucket until arrangements were made for disposal.

CTB CONDITIONS AND VERIFICATION SAMPLING RESULTS

CTB Conditions

As indicated above, the CTB material was overlain by approximately 3 to 4 feet of backfill material, which consisted of clayey sand with gravel. The CTB material encountered at the three sample locations was homogeneous and consisted of poorly-graded gravel (up to 1-inch in diameter) in a matrix of sand and cement. As indicated on the boring logs included in Appendix B, the thickness of the CTB material at locations CTB1, CBT2, and CTB3 was 5 feet, 5.5 feet, and 6 feet, respectively, and the PID readings ranged from 0.2 to 4.1 parts per million (ppm). No visual or olfactory evidence of contamination was noted during the sampling activities. In general, the CTB material fell apart during coring. However, intact core samples were retrieved at the following depths:

- CTB1: At 0 to 0.5, 1 to 1.5, and 4 to 4.5 feet below the top of the CTB material;
- CTB2: At 1.5 to 2, 2.5 to 3, and 4.5 to 5 feet below the top of the CTB material; and
- CTB3: At 1.5 to 2, 4 to 4.5, and 5.5 to 6 feet below the top of the CTB material.

As indicated on the boring logs, intact cores were submitted to the laboratory for chemical analysis.

CTB Verification Sampling Results

Laboratory analytical results for the CTB samples are summarized on Table 1 (petroleum hydrocarbons, VOCs, and SVOCs) and Table 2 (metals). Copies of the laboratory analytical reports are included as Appendix C.

Organic Constituents

As indicated on Table 1, TPHd, TPHmo, and the VOC acetone were the only organic constituents detected in the CTB samples. The maximum concentrations of these constituents were 40 milligrams per kilogram (mg/kg), 250 mg/kg, and 86 micrograms per kilogram (μg/kg), respectively. These concentrations are below their respective Regional Water Quality Control Board, San Francisco Bay Region (RWQCB) Tier 1 Environmental Screening Levels (ESLs[5]) values of 230 mg/kg, 5,100 mg/kg, and 500 μg/kg, respectively. TPHg and SVOCs were not detected in the samples.

Metals

As indicated on Table 2, the arsenic results, which range from 2.2 mg/kg to 5.1 mg/kg, are the only results above soil Tier 1 ESLs. However, the arsenic concentrations are below the background value of 11 mg/kg for arsenic in soil established by the RWQCB[6]. Consequently, the arsenic detections represent background condition.

RECOMMENDATIONS

Based on the homogeneous nature of the CTB material, the absence of visual, olfactory, or instrumental evidence of contamination during the coring activities, and sample results below ESLs or background levels, no further assessment of the CTB material is recommended, and the benzene/hydrocarbon remediation conducted at this area is considered complete. PES respectfully requests a no further action letter for the benzene and petroleum hydrocarbon remediation.

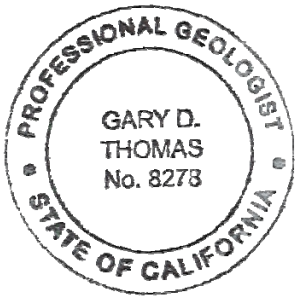
[5] February 2016 (Rev. 3) Regional Water Quality Control Board, San Francisco Bay Region (SFRWQCB) Environmental Screening Levels (ESLs).

[6] http://www.swrcb.ca.gov/rwqcb2/water_issues/programs/ESL/2011_Arsenic_Background_Duverge.pdf

We trust that this is the information you require at this time. Please call either of the undersigned if you have any questions.

Yours very truly,

PES ENVIRONMENTAL, INC.



Gary Thomas, P.G.
Associate Geologist

Carl J. Michelsen, P.G., C.HG.
Principal Geochemist

Attachments:

Table 1 – Summary of Analytical Results - Petroleum Hydrocarbons, VOCs, and SVOCs
Table 2 – Summary of Analytical Results – Metals

Plate 1 – Site Location and Vicinity
Plate 2 – Excavation Areas
Plate 3 –CTB Sample Locations

Appendix A – ACWD Drilling Permit
Appendix B – Boring Logs
Appendix C – Laboratory Analytical Reports and Chain-of-Custody Documentation

TABLES

Table 1
Summary of Analytical Results - Petroleum Hydrocarbons, VOCs, and SVOCs
39155 and 39183 State Street
Fremont, California

				Petroleum Hydrocarbons			VOCs	
Sample Location	**Sample Identification**	**Sample Depth (feet bgs)**	**Sample Date**	**TPHg (mg/kg)**	**TPHd (mg/kg)**	**TPHmo (mg/kg)**	**Acetone (µg/kg)**	**SVOCs**
CTB1	CTB1-1-1.5	1 to 1.5	3/13/2017	< 1.0	**25 Y**	**120**	**85**	All ND
	CTB1-4-4.5	4 to 4.5	3/13/2017	< 0.96	**19 Y**	**130**	**86**	All ND
CTB2	CTB2-2.5-3	2.5 to 3	3/13/2017	< 1.0	**27 Y**	**150**	< 20	All ND
	CTB2-4.5-5	4.5 to 5	3/13/2017	< 0.99	**29 Y**	**180**	< 19	All ND
CTB3	CTB3-1.5-2	1.5 to 2	3/14/2017	< 1.1	**21 Y**	**140**	**42**	All ND
	CTB3-4-4.5	4 to 4.5	3/14/2017	< 1.1	**40 Y**	**250**	**58**	All ND
Soil Tier 1 ESL (note 1)				100	230	5,100	500	N/A

Detections are shown in **bold**.
Results equal to or exceeding the Tier 1 soil ESLs are shaded.

Abbreviations:

bgs = Below ground surface.
TPHg = Total petroleum hydrocarbons quantified as gasoline.
TPHd = Total petroleum hydrocarbons quantified as diesel.
TPHmo = Total petroleum hydrocarbons quantified as motor oil.
VOCs = Volatile organic compounds.
SVOCs = Semi-volatile organic compounds.
mg/kg = Milligrams per kilogram.
µg/kg = Micrograms per kilogram.
< 1.0 = Not detected at or above the specified laboratory reporting limit.
N/A = Not applicable.
Y = Sample exhibits chromatographic pattern which does not resemble standard.

Notes:

1. ESL = February 2016 (Rev. 3) Regional Water Quality Control Board, San Francisco Bay Region (SFRWQCB) soil Tier 1 Environmental Screening Levels (ESLs).

Table 2
Summary Analytical Results - Metals
39155 and 39183 State Street
Fremont, California

Sample Location	Sample Identification	Sample Depth (feet bgs)	Sample Date	Antimony (mg/kg)	Arsenic (mg/kg)	Barium (mg/kg)	Beryllium (mg/kg)	Cadmium (mg/kg)	Chromium (mg/kg)	Cobalt (mg/kg)	Copper (mg/kg)	Lead (mg/kg)	Mercury (mg/kg)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)
CTB1	CTB1-1-1.5	1 to 1.5	3/13/2017	< 2.0	**3.9**	**110**	**0.26**	< 0.26	**33**	**11**	**41**	**6.5**	**0.31**	**0.39**	**41**	< 2.0	**15**	< 0.51	**32**	**75**
	CTB1-4-4.5	4 to 4.5	3/13/2017	< 2.0	**3.1**	**130**	**0.28**	< 0.26	**45**	**7.3**	**33**	**6.7**	**0.28**	**0.34**	**39**	< 2.0	< 0.26	< 0.52	**42**	**68**
CTB2	CTB2-2.5-3	2.5 to 3	3/13/2017	< 2.0	**5.1**	**110**	**0.26**	< 0.26	**44**	**6.9**	**30**	**14**	**0.24**	**0.35**	**41**	< 2.0	< 0.26	< 0.51	**34**	**65**
	CTB2-4.5-5	4.5 to 5	3/13/2017	< 2.0	**3.6**	**120**	**0.27**	**0.40**	**39**	**6.7**	**31**	**7.9**	**0.37**	**0.28**	**41**	< 2.0	< 0.25	< 0.51	**41**	**67**
CTB3	CTB3-1.5-2	1.5 to 2	3/14/2017	< 1.9	**2.2**	**130**	**0.36**	< 0.24	**46**	**7.4**	**29**	**6.3**	**0.19**	**0.57**	**41**	< 1.9	< 0.24	< 0.47	**40**	**58**
	CTB3-4-4.5	4 to 4.5	3/14/2017	< 1.9	**3.0**	**170**	**0.33**	< 0.24	**120**	**7.8**	**31**	**16**	**0.25**	**0.33**	**46**	< 1.9	< 0.24	< 0.49	**44**	**67**
Soil Tier 1 ESL (note 1)				31	0.067	3,000	42	39	12,000	23	3,100	80	13	390	86	390	390	0.78	390	23,000

Detections are shown in **bold**.
Results equal to or exceeding the Tier 1 soil ESLs are shaded.

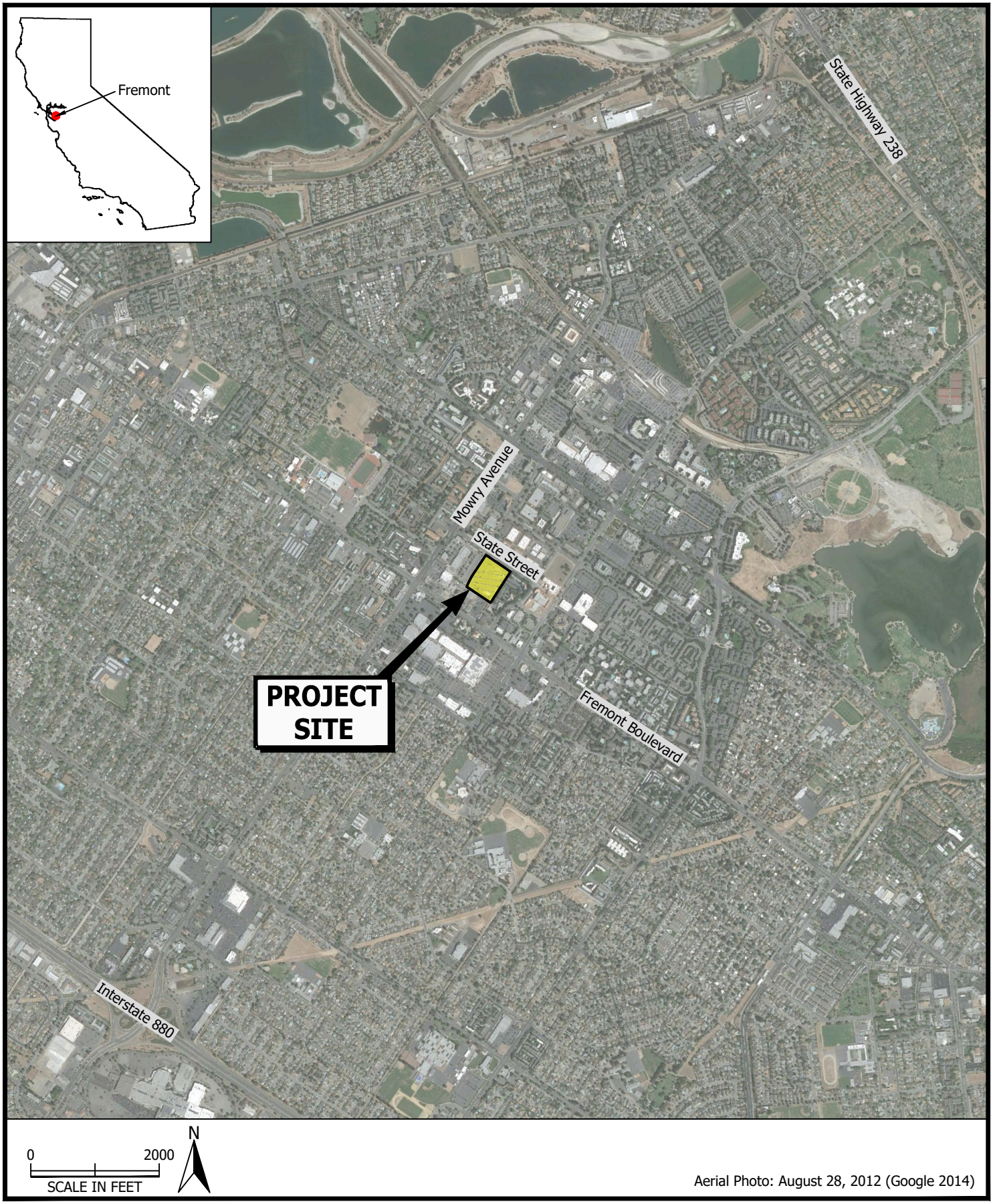
Abbreviations:

mg/kg = Milligrams per kilogram.
bgs = below ground surface.
< 2.0 = not detected at or above the specified laboratory reporting limit.

Notes:

1. ESL = February 2016 (Rev. 3) Regional Water Quality Control Board, San Francisco Bay Region (SFRWQCB) soil Tier 1 Environmental Screening Levels (ESLs).

PLATES



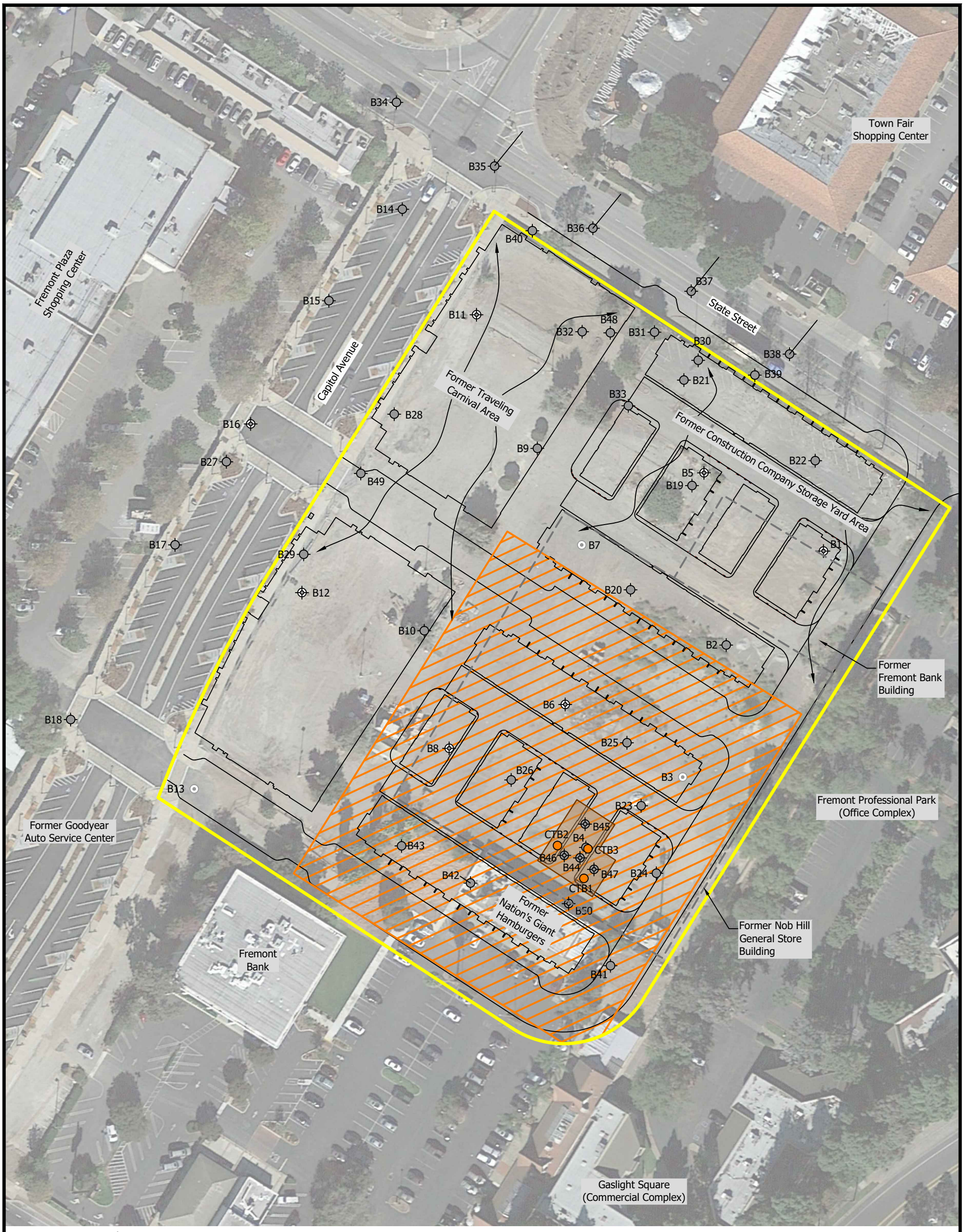
Aerial Photo: August 28, 2012 (Google 2014)

PES Environmental, Inc.
Engineering & Environmental Services

Site Location and Vicinity
Cement Treated Base Investigation Report
39155, 39180, and 39183 State Street
Fremont, California

PLATE
1

220.003.05.005	22000305005_CTB_1	CJM	4/17
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE



Explanation

- Approximate Property Boundary
- Proposed Development Plan
- Approximate Former Building Location
- B17 — Soil Vapor Sampling Location (PES)
- B6 — Soil Vapor and Soil Sampling Location (PES)
- B13 — Soil Sampling Location (PES)
- CTB1 — Cement Treated Base (CTB) Sample Location
- Benzene and Petroleum Hydrocarbon Excavation Area (July/August 2016)
- Area 1: Excavation and filling completed in September 2016 as part of site grading and construction activities (Engeo, 2016). Soil was excavated down 3.5 feet from preconstruction grades and offhauled. Fill subsequently placed 2 feet below to 1 foot above preconstruction grades.

0 80
SCALE IN FEET

N

Aerial Photo: October 30, 2015 (Google 2016)

PES Environmental, Inc.
Engineering & Environmental Services

Excavation Areas
Cement Treated Base Investigation Report
39155, 39180, and 39183 State Street
Fremont, California

PLATE
2

220.003.05.005	22000305005_CTB_2	CJM	4/17
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

Explanation

- Approximate Property Boundary
- Proposed Development Plan
- B17 — Soil Vapor Sampling Location (PES)
- B6 — Soil Vapor and Soil Sampling Location (PES)
- Excavation Sidewall Sample Location
- Excavation Bottom Sample Location
- CTB1 — Cement Treated Base (CTB) Sample Location

July/August 2016 Excavation Depths

- 3 Feet Below Ground Surface (Exposed Top of CTB Material)
- 5 Feet Below Ground Surface
- 6 Feet Below Ground Surface
- 14 Feet Below Ground Surface
- 15 Feet Below Ground Surface
- 16 Feet Below Ground Surface

N

0 20

SCALE IN FEET

Aerial Photo: October 30, 2015 (Google 2016)

PES Environmental, Inc.
Engineering & Environmental Services

Proposed CTB Sample Locations
Cement Treated Base Investigation Report
39155, 39180, and 39183 State Street
Fremont, California

PLATE 3

220.003.05.005	22000305005_CTB_3	CJM	4/17
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

APPENDIX A

ACWD DRILLING PERMIT

ALAMEDA COUNTY WATER DISTRICT
43885 South Grimmer Blvd. • P.O. Box 5110
Fremont, CA 94537-5110
Permitting & Scheduling (510) 668-4460

APPLICATION FOR DRILLING PERMIT

ACWD ORDINANCE NO. 2010-01

Application Received Date: 2/13/17 By: PM | Permit Issued Date: 3/9/17 | Permit Expiration Date: 5/9/17 | Job No. 1460 | Permit No. 2017-0105 | Well No. N/A

JOB ADDRESS: 39155 and 39183 State Street, Fremont California

PROPERTY OWNER
NAME: Fremont State Street Center LLC
ADDRESS: 3000 Executive Parkway, Suite 450, San Ramon California 94583
TELEPHONE: 925-244-7500

CONSULTING ENGINEER
NAME: PES Environmental, Inc.
ADDRESS: 7665 Redwood Blvd., Suite 200, Novato, CA 94945
TELEPHONE: 415-899-1600 RG/CEG/RCE NO. P.G. No. 8278 Gary Thomas

DRILLING CONTRACTOR
NAME: Pacific Coast Cutters, Inc.
ADDRESS: 450 Lakeville Street, Petaluma, CA 94952
E-MAIL ADDRESS: johnharris@pacificcoastcutters.com
TELEPHONE: 707-765-0661 STATE LIC. NO. 628194 (Contractor License #)

When properly signed

THIS APPLICATION IS A VALID PERMIT

*to perform only work described below at the given job address, in accordance with ACWD Ordinance No. 2010-01 and all other applicable laws and regulations. Discontinuation of work may result in revocation of permit. **Permittee must schedule the work in advance with ACWD.** ACWD's approval of drawings, designs, specifications, work plans, reports or incidental work and materials shall not relieve the permittee of responsibility for the technical adequacy of the work. Except for special circumstances, all work to be inspected must be performed within ACWD work hours – 7:00 a.m. to 4:30 p.m., Monday through Friday.*

PLEASE CHECK TYPE OF PROPOSED WORK

Each well or other excavation requires a separate permit application form unless otherwise indicated.
Only one specific type of work can be checked per permit application.

WELLS
☐ CONSTRUCTION ☐ REPAIR ☐ DESTRUCTION
☐ Water Well
Monitoring Well:
☐ Chemical Investigation
☐ Injection Well (for Chemical Cleanup)
☐ Geotechnical Investigation
☐ Geothermal Heat Exchange Well
☐ Dewatering Well *(Multiple dewatering wells may be grouped together on the same permit application form)*
Quantity: ____

EXPLORATORY HOLES
☒ CONSTRUCT./DESTRUCT.
Multiple exploratory holes of the same type may be grouped together on the same permit application form.
☒ Chemical Investigation
☐ Injection Boreholes
☐ Soil Vapor Sampling
☐ Geotechnical Investigation
Quantity: 3

OTHER EXCAVATIONS
☒ CONSTRUCTION ☐ REPAIR ☐ DESTRUCTION
☐ Cathodic Protection Well ☐ Inclinometer
☐ Vibrating Wire Piezometer ☐ Elevator Shaft
Multiple other excavations of the same type may be grouped together on the same permit application form for the following:
☒ Cleanup Site Excavation(s) ☐ Wick Drains
☐ Shaft, Tunnel, or Directional Borehole (s) ☐ Support Piers, Piles, or Caissons
☐ Other: ____ Quantity: 3

DESCRIPTION OF PROPOSED WORK:
Core through cement treated base (CTB) material, which is approximately 11 to 13 feet thick, at the three locations shown on Plate 3 of the attached Work Plan. At each location, two samples of the CTB material will be collected for laboratory analysis.

TOTAL ESTIMATED COST $ 24,350

PERMIT CONDITIONS:
Clean up site excavations / Backfill to comply with ACWD guidelines

FEES: ☒ Private ☐ City ☐ Governmental Agency
GUARANTEE OF PERFORMANCE: ☐ Cash Deposit ☐ Bond
REFUND: Amount $ ____ Reason: ____

FEES/DEPOSIT: Date Received 2/13/17 Estimated Amount $ 430
Check No. 55463 Actual Amount $ 430
Cash ____ Difference $ 0

ACWD SITE NO. 0690
APPROVED FOR SCHEDULING BY: SZ DATE: 3/1/2017 APPROVED BY: SZ for MAM DATE: 3/1/2017

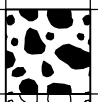
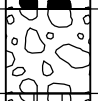
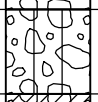
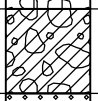
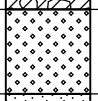
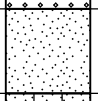
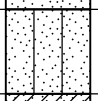
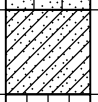
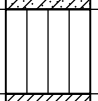
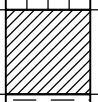
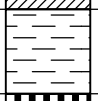
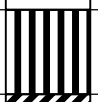
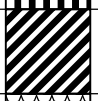
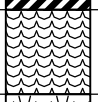
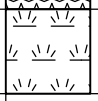
I hereby agree to comply with all conditions of this permit in accordance with ACWD Ordinance No. 2010-01 and to furnish the District a completed copy of D.W.R. Drillers Report (form 188) within sixty (60) days after completion as well as any chemical testing results within thirty (30) days after completion.

Title: Associate Geologist Signature: [signature] Date: 2/10/17
Representing: PES Environmental, Inc. Name (printed): Gary Thomas

ACWD #458 11-12

APPENDIX B

BORING LOGS

MAJOR DIVISIONS					TYPICAL NAMES
COARSE-GRAINED SOILS MORE THAN HALF IS COARSER THAN NO. 200 SIEVE	GRAVELS MORE THAN HALF COARSE FRACTION IS LARGER THAN NO. 4 SIEVE	CLEAN GRAVELS WITH LESS THAN 15% FINES	GW		WELL-GRADED GRAVELS WITH OR WITHOUT SAND
			GP		POORLY-GRADED GRAVELS WITH OR WITHOUT SAND
		GRAVELS WITH 15% OR MORE FINES	GM		SILTY GRAVELS WITH OR WITHOUT SAND
			GC		CLAYEY GRAVELS WITH OR WITHOUT SAND
	SANDS MORE THAN HALF COARSE FRACTION IS FINER THAN NO. 4 SIEVE SIZE	CLEAN SANDS WITH LESS THAN 15% FINES	SW		WELL-GRADED SANDS WITH OR WITHOUT GRAVEL
			SP		POORLY-GRADED SANDS WITH OR WITHOUT GRAVEL
		SANDS WITH 15% OR MORE FINES	SM		SILTY SANDS WITH OR WITHOUT GRAVEL
			SC		CLAYEY SANDS WITH OR WITHOUT GRAVEL
FINE-GRAINED SOILS MORE THAN HALF IS FINER THAN NO. 200 SIEVE	SILTS AND CLAYS LIQUID LIMIT 50% OR LESS		ML		INORGANIC SILTS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
			CL		INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
			OL		ORGANIC SILTS OR CLAYS OF LOW TO MEDIUM PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
	SILTS AND CLAYS LIQUID LIMIT GREATER THAN 50%		MH		INORGANIC SILTS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
			CH		INORGANIC CLAYS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
			OH		ORGANIC SILTS OR CLAYS OF HIGH PLASTICITY WITH OR WITHOUT SAND OR GRAVEL
HIGHLY ORGANIC SOILS			PT		PEAT AND OTHER HIGHLY ORGANIC SOILS

ABBREVIATION KEY

PID (PPM) - Photo Ionization Detector readings in parts per million from field headspace sample screening.

BLOWS/6" - Blows required to drive sampler 6 inches as indicated on the logs using sample drive hammer weight of 140 pounds falling 30 inches.

2.5YR 6/2 - Soil Color according to Munsell Soil Color Charts (1994 Revised Edition)

feet MSL - feet above Mean Seal Level

feet BGS - feet below ground surface

SYMBOLS KEY

- No Soil Sample Recovered
- Partial Soil Sample Recovered
- Undisturbed Soil Sample Recovered
- Soil Sample Submitted for Laboratory Analysis
- Hydropunch Sample
- First Encountered Groundwater Level
- Piezometric Groundwater level

USCS CHART1 CTB CORINGS STATE ST.GPJ PES_ENV.GDT 3/30/17

PES Environmental, Inc.
Engineering & Environmental Services

Unified Soil Classification System Chart
SummerHill
39155 & 39183 State Street, Freemont, CA

PLATE
B-0

220.003.02.006	USCS CHART1	GDT	3/17
JOB NUMBER	DRAWING NUMBER	REVIEWED BY	DATE

PES Environmental, Inc.
Engineering & Environmental Services

LOG OF BORING CTB1

PID (ppm)	BLOWS/6IN	DEPTH (FT)	GRAPHICS	MATERIALS DESCRIPTION
				BROWN CLAYEY SAND WITH GRAVEL (SC) (10YR 4/3), moist, very fine- to medium-grained sand, subangular to subrounded gravel up to 0.75-inch diameter, (20% gravel, 60% sand, 20% fines), fill Fill material excavated with a backhoe to create working area to mount coring machine to top of cement treated base material.
3.6				GRAY CEMENT TREATED BASE MATERIAL 80% subangular to subrounded poorly-graded gravel up to 1-inch diameter in sand and cement matrix
2.0				*Collect sample CTB1-1-1.5*
		5		
4.1				*Collect sample CTB1-4-4.5* Material being cored became softer at 8 feet bgs, color change in coring/cutting water from LIGHT GRAY to LIGHT BROWN
				BROWN SANDY SILT (ML) (10YR 5/3), moist, soft, very fine-to fine-grained sand, (0% gravel, 30% sand, 70% fines) No recovery from 8.5 to 12 feet bgs
		10		
				Bottom of boring at 12 feet bgs. Boring backfilled with neat cement grout. Excavated fill material was then placed above cement treated base material in 8-inch lifts and compacted to a relative denisty of at least 90% and brought to grade.
		15		

PROJECT	SummerHill	DIAMETER OF HOLE	3 inches
LOCATION	39155 & 39183 State Street, Freemont, CA	TOTAL DEPTH OF HOLE	12 feet
JOB NUMBER	220.003.02.006	DRILL RIG	
LOGGED BY	Chris Pollio	DATE STARTED	3/13/17
REVIEWED BY	GDT	DATE COMPLETED	3/13/17

PLATE

B-1

LOG OF BORING/WELL CTB CORINGS STATE ST.GPJ PES_ENV.GDT 3/30/17

PES Environmental, Inc.
Engineering & Environmental Services

LOG OF BORING CTB2

PID (ppm)	BLOWS/6IN	DEPTH (FT)	GRAPHICS	MATERIALS DESCRIPTION
				BROWN CLAYEY SAND WITH GRAVEL (SC) (10YR 4/3), moist, very fine- to medium-grained sand, subangular to subrounded gravel up to 0.75-inch diameter, (20% gravel, 60% sand, 20% fines), fill Fill material excavated with a backhoe to create working area to mount coring machine to top of cement treated base material.
				GRAY CEMENT TREATED BASE MATERIAL 80% subangular to subrounded poorly-graded gravel up to 1-inch diameter in sand and cement matrix
		5		
2.0				*Collect sample CTB2-2.5-3*
2.0				*Collect sample CTB2-4.5-5*
		10		Material being cored became softer at 9.5 feet bgs, color change in coring/cutting water from LIGHT GRAY to LIGHT BROWN. No recovery from 9.5 to 11 feet bgs.
				Bottom of boring at 11 feet bgs. Boring backfilled with neat cement grout. Excavated fill material was then placed above cement treated base material in 8-inch lifts and compacted to a relative denisty of at least 90% and brought to grade.
		15		

LOG OF BORING/WELL CTB CORINGS STATE ST.GPJ PES_ENV.GDT 3/30/17

PROJECT	SummerHill	DIAMETER OF HOLE	3 inches
LOCATION	39155 & 39183 State Street, Freemont, CA	TOTAL DEPTH OF HOLE	11 feet
JOB NUMBER	220.003.02.006	DRILL RIG	
LOGGED BY	Chris Pollio	DATE STARTED	3/13/17
REVIEWED BY	GDT	DATE COMPLETED	3/13/17

PLATE

B-2

PES Environmental, Inc.
Engineering & Environmental Services

LOG OF BORING CTB3

PID (ppm)	BLOWS/6IN	DEPTH (FT)	GRAPHICS	MATERIALS DESCRIPTION
				BROWN CLAYEY SAND WITH GRAVEL (SC) (10YR 4/3), moist, very fine- to medium-grained sand, subangular to subrounded gravel up to 0.75-inch diameter, (20% gravel, 60% sand, 20% fines), fill Fill material excavated with a backhoe to create working area to mount coring machine to top of cement treated base material.
				GRAY CEMENT TREATED BASE MATERIAL 80% subangular to subrounded poorly-graded gravel up to 1-inch diameter in sand and cement matrix
0.2		5		*Collect sample CTB3-1.5-2*
1.0				*Collect sample CTB3-4-4.5*
1.3				Material being cored became softer at 9 bgs, color change in coring/cutting water from LIGHT GRAY to LIGHT BROWN
				BROWN SANDY SILT (ML) (10YR 5/3), moist, medium stiff, very fine-to fine-grained sand, (0% gravel, 30% sand, 70% fines)
		10		Hand augered from 10.5 to 13 feet bgs
1.6				
1.8				
				Bottom of boring at 13 bgs. Boring backfilled with neat cement grout. Excavated fill material was then placed above cement treated base material in 8-inch lifts and compacted to a relative denisty of at least 90% and brought to grade.
		15		

PROJECT	SummerHill	DIAMETER OF HOLE	3 inches
LOCATION	39155 & 39183 State Street, Freemont, CA	TOTAL DEPTH OF HOLE	13 feet
JOB NUMBER	220.003.02.006	DRILL RIG	
LOGGED BY	Chris Pollio	DATE STARTED	3/14/17
REVIEWED BY	GDT	DATE COMPLETED	3/14/17

PLATE

B-3

LOG OF BORING/WELL CTB CORINGS STATE ST.GPJ PES_ENV.GDT 3/30/17

APPENDIX C

LABORATORY ANALYTICAL REPORTS AND CHAIN-OF-CUSTODY DOCUMENTATION


Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 286981
ANALYTICAL REPORT

PES Environmental, Inc.	Project : 220.003.04.002
7665 Redwood Boulevard	Location : 39155 & 39183 State Street
Novato, CA 94945	Level : II

Sample ID	Lab ID
CTB1-1-1.5	286981-001
CTB1-4-4.5	286981-002
CTB2-2.5-3	286981-003
CTB2-4.5-5	286981-004

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Tracy Babjar Date: 03/24/2017

Tracy Babjar
Project Manager
tracy.babjar@ctberk.com
(510) 204-2226 Ext 13107

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**286981**
Client:	**PES Environmental, Inc.**
Project:	**220.003.04.002**
Location:	**39155 & 39183 State Street**
Request Date:	**03/13/17**
Samples Received:	**03/13/17**

This data package contains sample and QC results for four concrete samples, requested for the above referenced project on 03/13/17. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
A number of samples were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
Low surrogate recoveries were observed for dibromofluoromethane in CTB2-2.5-3 (lab # 286981-003) and CTB2-4.5-5 (lab # 286981-004). No other analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):
A number of samples were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):
No analytical problems were encountered.

Sample Size Reduction (CRUSH):
No analytical problems were encountered.

PES Environmental, Inc.
Engineering & Environmental Services

286981

CHAIN OF CUSTODY RECORD

7665 Redwood Boulevard, Suite 200
Novato, California 94945
(415) 899-1600 FAX (415) 899-1601

LABORATORY: Curtis & Tompkins
SAMPLERS: Chris Pollio
JOB NUMBER: 220.003.04.001
NAME / LOCATION: 39155 & 39183 State St, Fremont
PROJECT MANAGER: Carl Michelson
RECORDER: Chris Pollio

DATE YR	MO	DY	TIME	SAMPLE NUMBER / DESIGNATION	MATRIX: Vapor	Water	Soil	Sedim't	CTB	# of Containers & Preservatives: Unpres.	EnCore	H_2SO_4	HNO_3	HCl	DEPTH IN FEET	EPA 5035/8010	EPA 5035/8021	EPA 5035/8260B (VOCs)	TPHg by 5035/8015M	TPHd by 8015M	TPHmo by 8015M	EPA 8270C (SVOCs)	MNA Parameters (see notes)	Title 22 metals (6010B/7471A)
17	03	13	1025	CTB1-1-1.5					X	X								X	X	X	X	X	X	
17	03	13	1110	CTB1-4-4.5					X	X								X	X	X	X	X	X	
17	03	13	1400	CTB2-2.5-3					X	X								X	X	X	X	X	X	
17	03	13	1425	CTB2-4.5-5					X	X								X	X	X	X	X	X	

NOTES

Turn Around Time: Standard TAT

Page 1 of 1

CHAIN OF CUSTODY RECORD

		DATE	TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	3/13	18:20
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	3/13	17:58
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME
DISPATCHED BY: (Signature) DATE TIME	RECEIVED FOR LAB BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:			

WHITE-Laboratory COPY YELLOW-Project Office Copy PINK-Field or Office Copy

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 28698 Date Received 3/13/17 Number of coolers 1
Client PES Project 220.003.004.001

Date Opened 3/13 By (print) DTN (sign) [signature]
Date Logged in 3/14 By (print) ↓ (sign) ↓
Date Labeled ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) YES (NO)
   Shipping info
2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples (NO)
   How many Name Date
2B. Were custody seals intact upon arrival? YES NO N/A
3. Were custody papers dry and intact when received? (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO
6. Indicate the packing in cooler: (if other, describe)

☐ Bubble Wrap ☐ Foam blocks ☒ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C)

☐ Temperature blank(s) included? ☐ Thermometer# ☐ IR Gun#

☒ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES (NO)
   If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? (YES) NO
10. Are there any missing / extra samples? YES (NO)
11. Are samples in the appropriate containers for indicated tests? (YES) NO
12. Are sample labels present, in good condition and complete? (YES) NO
13. Do the sample labels agree with custody papers? (YES) NO
14. Was sufficient amount of sample sent for tests requested? (YES) NO
15. Are the samples appropriately preserved? YES NO (N/A)
16. Did you check preservatives for all bottles for each sample? YES NO (N/A)
17. Did you document your preservative check? (pH strip lot#) YES NO (N/A)
18. Did you change the hold time in LIMS for unpreserved VOAs? YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? YES NO (N/A)
20. Are bubbles > 6mm absent in VOA samples? YES NO (N/A)
21. Was the client contacted concerning this sample delivery? YES (NO)
   If YES, Who was called? By Date:

COMMENTS

Curtis & Tompkins, Ltd.

Detections Summary for 286981

Results for any subcontracted analyses are not included in this summary.

Client : PES Environmental, Inc.
Project : 220.003.04.002
Location : 39155 & 39183 State Street

Client Sample ID : CTB1-1-1.5 Laboratory Sample ID : 286981-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	25	Y	3.0	mg/Kg	As Recd	3.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	120		15	mg/Kg	As Recd	3.000	EPA 8015B	EPA 3550B
Acetone	85		19	ug/Kg	As Recd	0.9671	EPA 8260B	EPA 5030B
Arsenic	3.9		0.62	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	110		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.26		0.10	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	33		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	11		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	41		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	6.5		0.51	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Mercury	0.31		0.018	mg/Kg	As Recd	1.000	EPA 7471A	METHOD
Molybdenum	0.39		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	41		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Silver	15		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	32		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	75		1.0	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : CTB1-4-4.5 Laboratory Sample ID : 286981-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	19	Y	3.0	mg/Kg	As Recd	3.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	130		15	mg/Kg	As Recd	3.000	EPA 8015B	EPA 3550B
Acetone	86		19	ug/Kg	As Recd	0.9328	EPA 8260B	EPA 5030B
Arsenic	3.1		0.63	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	130		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.28		0.10	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	45		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	7.3		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	33		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	6.7		0.52	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Mercury	0.28		0.016	mg/Kg	As Recd	1.000	EPA 7471A	METHOD
Molybdenum	0.34		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	39		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	42		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	68		1.0	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Curtis & Tompkins, Ltd.

Client Sample ID : CTB2-2.5-3 Laboratory Sample ID : 286981-003

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	27	Y	3.0	mg/Kg	As Recd	3.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	150		15	mg/Kg	As Recd	3.000	EPA 8015B	EPA 3550B
Arsenic	5.1		0.62	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	110		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.26		0.10	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	44		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	6.9		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	30		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	14		0.51	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Mercury	0.24		0.017	mg/Kg	As Recd	1.000	EPA 7471A	METHOD
Molybdenum	0.35		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	41		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	34		0.26	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	65		1.0	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : CTB2-4.5-5 Laboratory Sample ID : 286981-004

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	29	Y	3.0	mg/Kg	As Recd	3.000	EPA 8015B	EPA 3550B
Motor Oil C24-C36	180		15	mg/Kg	As Recd	3.000	EPA 8015B	EPA 3550B
Arsenic	3.6		0.61	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	120		0.25	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.27		0.10	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cadmium	0.40		0.25	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	39		0.25	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	6.7		0.25	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	31		0.25	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	7.9		0.51	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Mercury	0.37		0.017	mg/Kg	As Recd	1.000	EPA 7471A	METHOD
Molybdenum	0.28		0.25	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	41		0.25	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	41		0.25	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	67		1.0	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Y = Sample exhibits chromatographic pattern which does not resemble standard

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8015B
Units:	mg/Kg	Sampled:	03/13/17
Basis:	as received	Received:	03/13/17
Diln Fac:	1.000	Analyzed:	03/16/17
Batch#:	245571		

Field ID: CTB1-1-1.5 Lab ID: 286981-001
Type: SAMPLE Matrix: Miscell.

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	98	70-138

Field ID: CTB1-4-4.5 Lab ID: 286981-002
Type: SAMPLE Matrix: Miscell.

Analyte	Result	RL
Gasoline C7-C12	ND	0.96

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	98	70-138

Field ID: CTB2-2.5-3 Lab ID: 286981-003
Type: SAMPLE Matrix: Miscell.

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	98	70-138

Field ID: CTB2-4.5-5 Lab ID: 286981-004
Type: SAMPLE Matrix: Miscell.

Analyte	Result	RL
Gasoline C7-C12	ND	0.99

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	99	70-138

Type: BLANK Matrix: Soil
Lab ID: QC877113

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	92	70-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC877110	Batch#:	245571
Matrix:	Soil	Analyzed:	03/16/17
Units:	mg/Kg		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.045	104	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	97	70-138

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8015B
Field ID:	CTB1-1-1.5	Diln Fac:	1.000
MSS Lab ID:	286981-001	Batch#:	245571
Matrix:	Miscell.	Sampled:	03/13/17
Units:	mg/Kg	Received:	03/13/17
Basis:	as received	Analyzed:	03/17/17

Type: MS Lab ID: QC877111

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1130	10.42	7.827	74	49-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	100	70-138

Type: MSD Lab ID: QC877112

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.434	7.097	74	49-120	0	32

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	101	70-138

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8015B
Units:	mg/Kg	Received:	03/13/17
Basis:	as received	Prepared:	03/17/17
Batch#:	245632	Analyzed:	03/20/17
Sampled:	03/13/17		

Field ID: CTB1-1-1.5 Matrix: Miscell.
Type: SAMPLE Diln Fac: 3.000
Lab ID: 286981-001

Analyte	Result	RL
Diesel C10-C24	25 Y	3.0
Motor Oil C24-C36	120	15

Surrogate	%REC	Limits
o-Terphenyl	131	58-136

Field ID: CTB1-4-4.5 Matrix: Miscell.
Type: SAMPLE Diln Fac: 3.000
Lab ID: 286981-002

Analyte	Result	RL
Diesel C10-C24	19 Y	3.0
Motor Oil C24-C36	130	15

Surrogate	%REC	Limits
o-Terphenyl	104	58-136

Field ID: CTB2-2.5-3 Matrix: Miscell.
Type: SAMPLE Diln Fac: 3.000
Lab ID: 286981-003

Analyte	Result	RL
Diesel C10-C24	27 Y	3.0
Motor Oil C24-C36	150	15

Surrogate	%REC	Limits
o-Terphenyl	114	58-136

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8015B
Units:	mg/Kg	Received:	03/13/17
Basis:	as received	Prepared:	03/17/17
Batch#:	245632	Analyzed:	03/20/17
Sampled:	03/13/17		

Field ID:	CTB2-4.5-5	Matrix:	Miscell.
Type:	SAMPLE	Diln Fac:	3.000
Lab ID:	286981-004		

Analyte	Result	RL
Diesel C10-C24	29 Y	3.0
Motor Oil C24-C36	180	15

Surrogate	%REC	Limits
o-Terphenyl	107	58-136

Type:	BLANK	Matrix:	Soil
Lab ID:	QC877364	Diln Fac:	1.000

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	62	58-136

Y= Sample exhibits chromatographic pattern which does not resemble standard
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC877365	Batch#:	245632
Matrix:	Soil	Prepared:	03/17/17
Units:	mg/Kg	Analyzed:	03/20/17

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.99	51.04	102	56-135

Surrogate	%REC	Limits
o-Terphenyl	104	58-136

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	245632
MSS Lab ID:	286880-014	Sampled:	03/10/17
Matrix:	Soil	Received:	03/10/17
Units:	mg/Kg	Prepared:	03/17/17
Basis:	as received	Analyzed:	03/20/17
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3630C
Lab ID: QC877366

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	0.7061	49.83	42.68	84	35-143

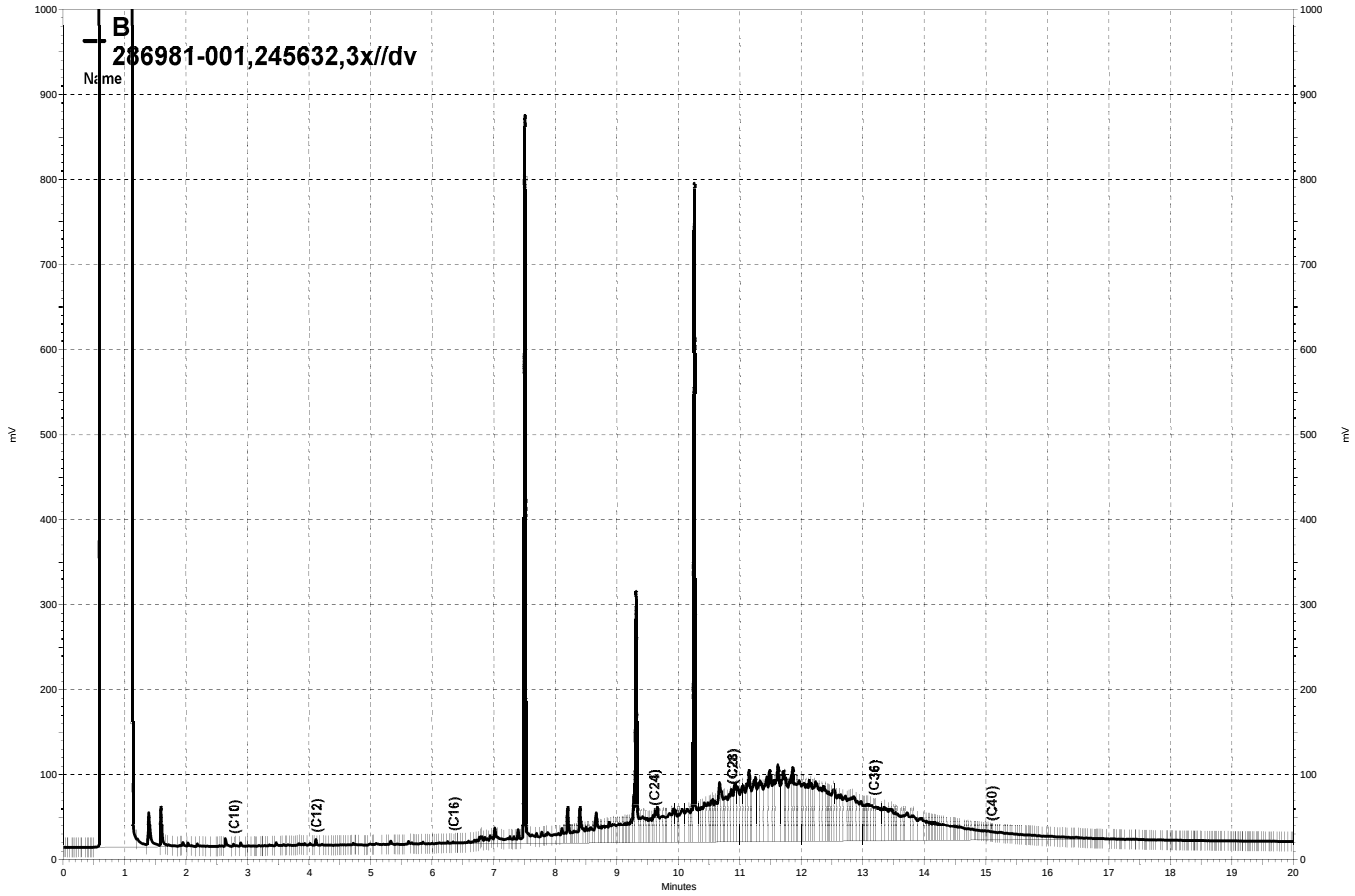
Surrogate	%REC	Limits
o-Terphenyl	94	58-136

Type: MSD Cleanup Method: EPA 3630C
Lab ID: QC877367

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.07	37.63	74	35-143	13	59

Surrogate	%REC	Limits
o-Terphenyl	82	58-136

RPD= Relative Percent Difference



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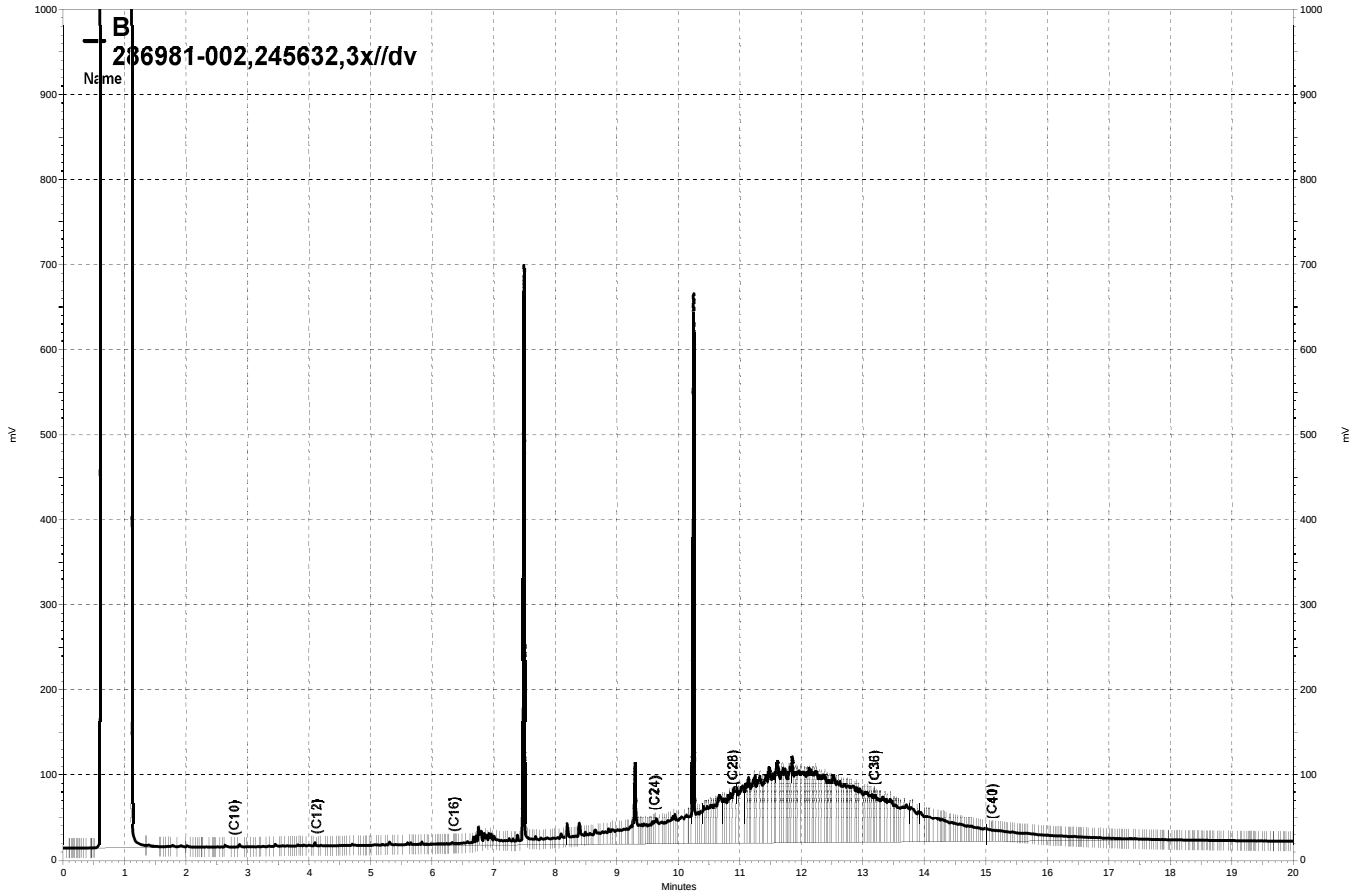

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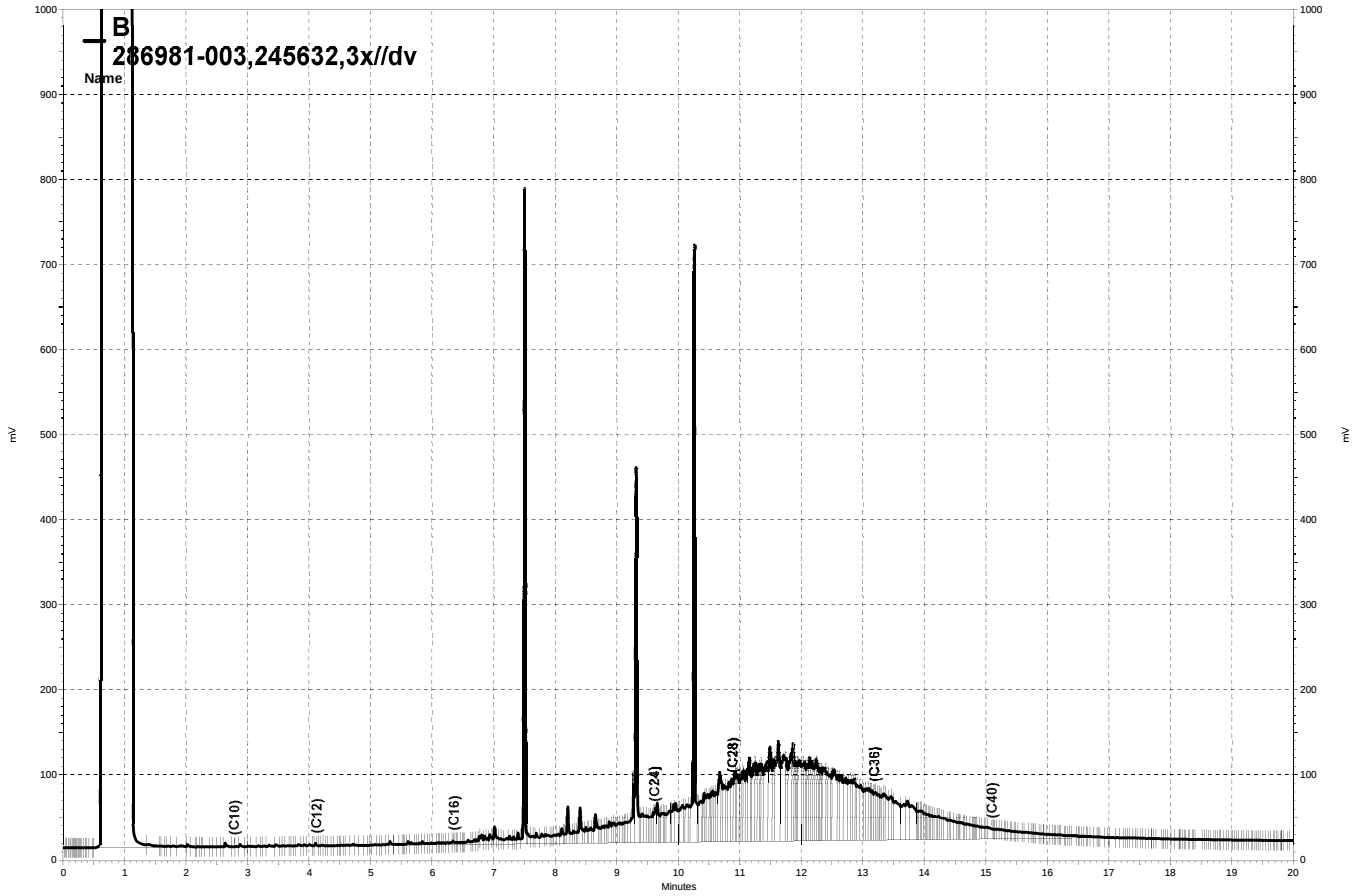

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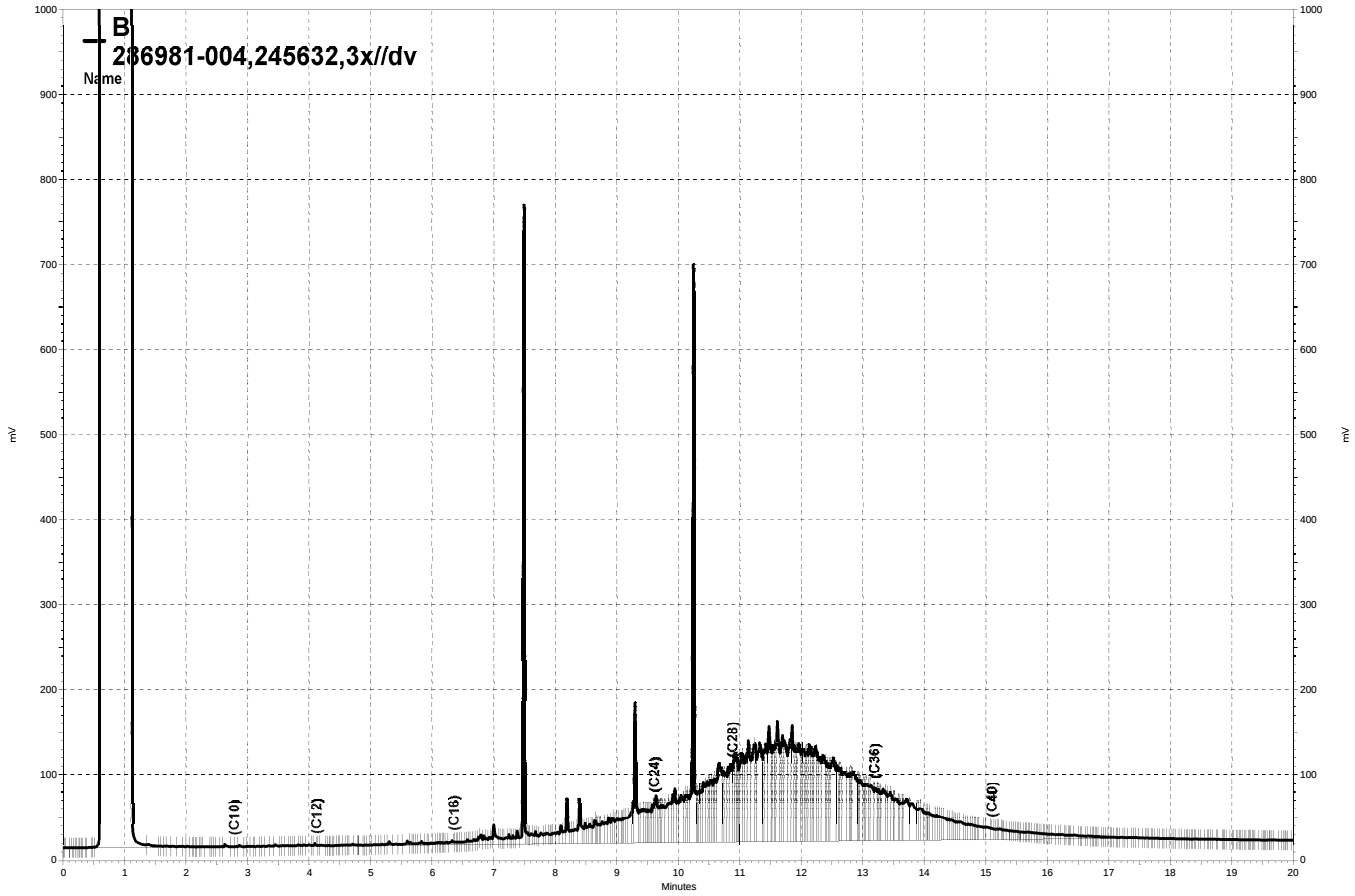

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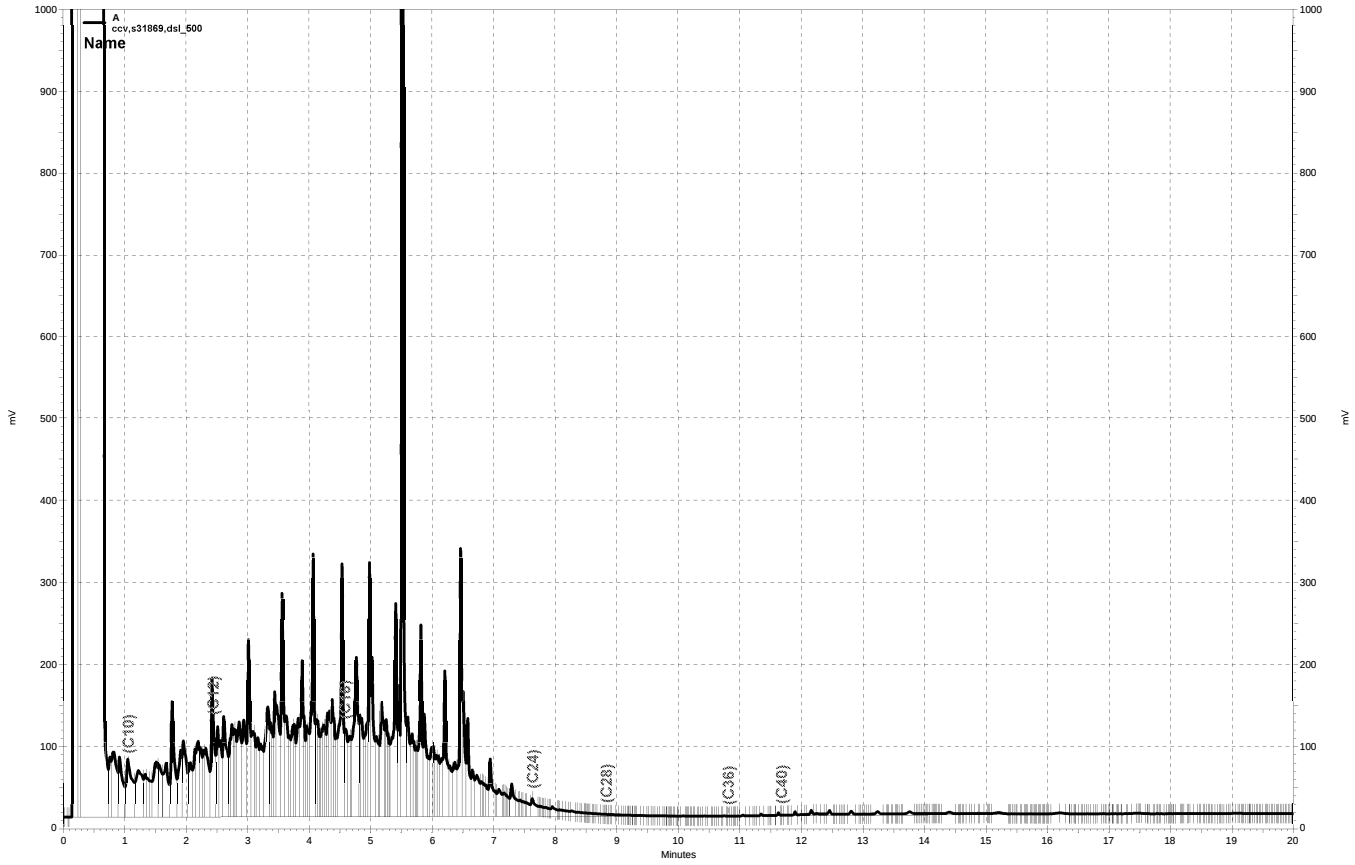

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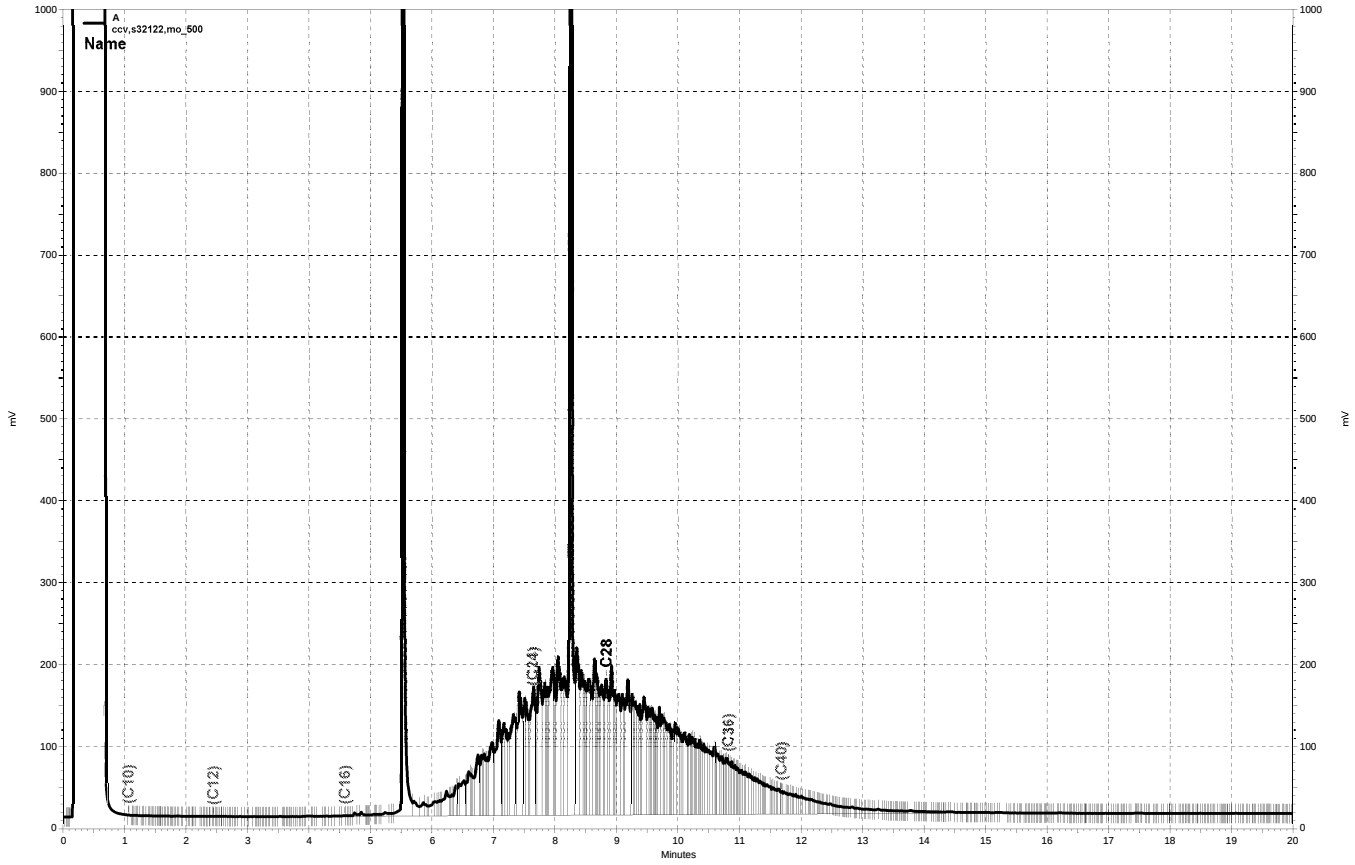

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Field ID:	CTB1-1-1.5	Diln Fac:	0.9671
Lab ID:	286981-001	Batch#:	245578
Matrix:	Miscell.	Sampled:	03/13/17
Units:	ug/Kg	Received:	03/13/17
Basis:	as received	Analyzed:	03/16/17

Analyte	Result	RL
Freon 12	ND	9.7
Chloromethane	ND	9.7
Vinyl Chloride	ND	9.7
Bromomethane	ND	9.7
Chloroethane	ND	9.7
Trichlorofluoromethane	ND	4.8
Acetone	85	19
Freon 113	ND	4.8
1,1-Dichloroethene	ND	4.8
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.8
MTBE	ND	4.8
trans-1,2-Dichloroethene	ND	4.8
Vinyl Acetate	ND	48
1,1-Dichloroethane	ND	4.8
2-Butanone	ND	9.7
cis-1,2-Dichloroethene	ND	4.8
2,2-Dichloropropane	ND	4.8
Chloroform	ND	4.8
Bromochloromethane	ND	4.8
1,1,1-Trichloroethane	ND	4.8
1,1-Dichloropropene	ND	4.8
Carbon Tetrachloride	ND	4.8
1,2-Dichloroethane	ND	4.8
Benzene	ND	4.8
Trichloroethene	ND	4.8
1,2-Dichloropropane	ND	4.8
Bromodichloromethane	ND	4.8
Dibromomethane	ND	4.8
4-Methyl-2-Pentanone	ND	9.7
cis-1,3-Dichloropropene	ND	4.8
Toluene	ND	4.8
trans-1,3-Dichloropropene	ND	4.8
1,1,2-Trichloroethane	ND	4.8
2-Hexanone	ND	9.7
1,3-Dichloropropane	ND	4.8
Tetrachloroethene	ND	4.8

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Field ID:	CTB1-1-1.5	Diln Fac:	0.9671
Lab ID:	286981-001	Batch#:	245578
Matrix:	Miscell.	Sampled:	03/13/17
Units:	ug/Kg	Received:	03/13/17
Basis:	as received	Analyzed:	03/16/17

Analyte	Result	RL
Dibromochloromethane	ND	4.8
1,2-Dibromoethane	ND	4.8
Chlorobenzene	ND	4.8
1,1,1,2-Tetrachloroethane	ND	4.8
Ethylbenzene	ND	4.8
m,p-Xylenes	ND	4.8
o-Xylene	ND	4.8
Styrene	ND	4.8
Bromoform	ND	4.8
Isopropylbenzene	ND	4.8
1,1,2,2-Tetrachloroethane	ND	4.8
1,2,3-Trichloropropane	ND	4.8
Propylbenzene	ND	4.8
Bromobenzene	ND	4.8
1,3,5-Trimethylbenzene	ND	4.8
2-Chlorotoluene	ND	4.8
4-Chlorotoluene	ND	4.8
tert-Butylbenzene	ND	4.8
1,2,4-Trimethylbenzene	ND	4.8
sec-Butylbenzene	ND	4.8
para-Isopropyl Toluene	ND	4.8
1,3-Dichlorobenzene	ND	4.8
1,4-Dichlorobenzene	ND	4.8
n-Butylbenzene	ND	4.8
1,2-Dichlorobenzene	ND	4.8
1,2-Dibromo-3-Chloropropane	ND	4.8
1,2,4-Trichlorobenzene	ND	4.8
Hexachlorobutadiene	ND	4.8
Naphthalene	ND	4.8
1,2,3-Trichlorobenzene	ND	4.8

Surrogate	%REC	Limits
Dibromofluoromethane	81	80-128
1,2-Dichloroethane-d4	116	80-136
Toluene-d8	89	80-120
Bromofluorobenzene	107	80-132

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Field ID:	CTB1-4-4.5	Diln Fac:	0.9328
Lab ID:	286981-002	Batch#:	245578
Matrix:	Miscell.	Sampled:	03/13/17
Units:	ug/Kg	Received:	03/13/17
Basis:	as received	Analyzed:	03/16/17

Analyte	Result	RL
Freon 12	ND	9.3
Chloromethane	ND	9.3
Vinyl Chloride	ND	9.3
Bromomethane	ND	9.3
Chloroethane	ND	9.3
Trichlorofluoromethane	ND	4.7
Acetone	86	19
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.7
MTBE	ND	4.7
trans-1,2-Dichloroethene	ND	4.7
Vinyl Acetate	ND	47
1,1-Dichloroethane	ND	4.7
2-Butanone	ND	9.3
cis-1,2-Dichloroethene	ND	4.7
2,2-Dichloropropane	ND	4.7
Chloroform	ND	4.7
Bromochloromethane	ND	4.7
1,1,1-Trichloroethane	ND	4.7
1,1-Dichloropropene	ND	4.7
Carbon Tetrachloride	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Trichloroethene	ND	4.7
1,2-Dichloropropane	ND	4.7
Bromodichloromethane	ND	4.7
Dibromomethane	ND	4.7
4-Methyl-2-Pentanone	ND	9.3
cis-1,3-Dichloropropene	ND	4.7
Toluene	ND	4.7
trans-1,3-Dichloropropene	ND	4.7
1,1,2-Trichloroethane	ND	4.7
2-Hexanone	ND	9.3
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	ND	4.7

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Field ID:	CTB1-4-4.5	Diln Fac:	0.9328
Lab ID:	286981-002	Batch#:	245578
Matrix:	Miscell.	Sampled:	03/13/17
Units:	ug/Kg	Received:	03/13/17
Basis:	as received	Analyzed:	03/16/17

Analyte	Result	RL
Dibromochloromethane	ND	4.7
1,2-Dibromoethane	ND	4.7
Chlorobenzene	ND	4.7
1,1,1,2-Tetrachloroethane	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7
Styrene	ND	4.7
Bromoform	ND	4.7
Isopropylbenzene	ND	4.7
1,1,2,2-Tetrachloroethane	ND	4.7
1,2,3-Trichloropropane	ND	4.7
Propylbenzene	ND	4.7
Bromobenzene	ND	4.7
1,3,5-Trimethylbenzene	ND	4.7
2-Chlorotoluene	ND	4.7
4-Chlorotoluene	ND	4.7
tert-Butylbenzene	ND	4.7
1,2,4-Trimethylbenzene	ND	4.7
sec-Butylbenzene	ND	4.7
para-Isopropyl Toluene	ND	4.7
1,3-Dichlorobenzene	ND	4.7
1,4-Dichlorobenzene	ND	4.7
n-Butylbenzene	ND	4.7
1,2-Dichlorobenzene	ND	4.7
1,2-Dibromo-3-Chloropropane	ND	4.7
1,2,4-Trichlorobenzene	ND	4.7
Hexachlorobutadiene	ND	4.7
Naphthalene	ND	4.7
1,2,3-Trichlorobenzene	ND	4.7

Surrogate	%REC	Limits
Dibromofluoromethane	81	80-128
1,2-Dichloroethane-d4	120	80-136
Toluene-d8	89	80-120
Bromofluorobenzene	106	80-132

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Field ID:	CTB2-2.5-3	Dil'n Fac:	0.9881
Lab ID:	286981-003	Batch#:	245622
Matrix:	Miscell.	Sampled:	03/13/17
Units:	ug/Kg	Received:	03/13/17
Basis:	as received	Analyzed:	03/17/17

Analyte	Result	RL
Freon 12	ND	9.9
Chloromethane	ND	9.9
Vinyl Chloride	ND	9.9
Bromomethane	ND	9.9
Chloroethane	ND	9.9
Trichlorofluoromethane	ND	4.9
Acetone	ND	20
Freon 113	ND	4.9
1,1-Dichloroethene	ND	4.9
Methylene Chloride	ND	20
Carbon Disulfide	ND	4.9
MTBE	ND	4.9
trans-1,2-Dichloroethene	ND	4.9
Vinyl Acetate	ND	49
1,1-Dichloroethane	ND	4.9
2-Butanone	ND	9.9
cis-1,2-Dichloroethene	ND	4.9
2,2-Dichloropropane	ND	4.9
Chloroform	ND	4.9
Bromochloromethane	ND	4.9
1,1,1-Trichloroethane	ND	4.9
1,1-Dichloropropene	ND	4.9
Carbon Tetrachloride	ND	4.9
1,2-Dichloroethane	ND	4.9
Benzene	ND	4.9
Trichloroethene	ND	4.9
1,2-Dichloropropane	ND	4.9
Bromodichloromethane	ND	4.9
Dibromomethane	ND	4.9
4-Methyl-2-Pentanone	ND	9.9
cis-1,3-Dichloropropene	ND	4.9
Toluene	ND	4.9
trans-1,3-Dichloropropene	ND	4.9
1,1,2-Trichloroethane	ND	4.9
2-Hexanone	ND	9.9
1,3-Dichloropropane	ND	4.9
Tetrachloroethene	ND	4.9
Dibromochloromethane	ND	4.9
1,2-Dibromoethane	ND	4.9
Chlorobenzene	ND	4.9
1,1,1,2-Tetrachloroethane	ND	4.9
Ethylbenzene	ND	4.9
m,p-Xylenes	ND	4.9
o-Xylene	ND	4.9
Styrene	ND	4.9
Bromoform	ND	4.9
Isopropylbenzene	ND	4.9
1,1,2,2-Tetrachloroethane	ND	4.9
1,2,3-Trichloropropane	ND	4.9
Propylbenzene	ND	4.9
Bromobenzene	ND	4.9
1,3,5-Trimethylbenzene	ND	4.9
2-Chlorotoluene	ND	4.9

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Field ID:	CTB2-2.5-3	Dil'n Fac:	0.9881
Lab ID:	286981-003	Batch#:	245622
Matrix:	Miscell.	Sampled:	03/13/17
Units:	ug/Kg	Received:	03/13/17
Basis:	as received	Analyzed:	03/17/17

Analyte	Result	RL
4-Chlorotoluene	ND	4.9
tert-Butylbenzene	ND	4.9
1,2,4-Trimethylbenzene	ND	4.9
sec-Butylbenzene	ND	4.9
para-Isopropyl Toluene	ND	4.9
1,3-Dichlorobenzene	ND	4.9
1,4-Dichlorobenzene	ND	4.9
n-Butylbenzene	ND	4.9
1,2-Dichlorobenzene	ND	4.9
1,2-Dibromo-3-Chloropropane	ND	4.9
1,2,4-Trichlorobenzene	ND	4.9
Hexachlorobutadiene	ND	4.9
Naphthalene	ND	4.9
1,2,3-Trichlorobenzene	ND	4.9

Surrogate	%REC	Limits
Dibromofluoromethane	79 *	80-128
1,2-Dichloroethane-d4	117	80-136
Toluene-d8	93	80-120
Bromofluorobenzene	105	80-132

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Field ID:	CTB2-4.5-5	Dil'n Fac:	0.9416
Lab ID:	286981-004	Batch#:	245578
Matrix:	Miscell.	Sampled:	03/13/17
Units:	ug/Kg	Received:	03/13/17
Basis:	as received	Analyzed:	03/16/17

Analyte	Result	RL
Freon 12	ND	9.4
Chloromethane	ND	9.4
Vinyl Chloride	ND	9.4
Bromomethane	ND	9.4
Chloroethane	ND	9.4
Trichlorofluoromethane	ND	4.7
Acetone	ND	19
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.7
MTBE	ND	4.7
trans-1,2-Dichloroethene	ND	4.7
Vinyl Acetate	ND	47
1,1-Dichloroethane	ND	4.7
2-Butanone	ND	9.4
cis-1,2-Dichloroethene	ND	4.7
2,2-Dichloropropane	ND	4.7
Chloroform	ND	4.7
Bromochloromethane	ND	4.7
1,1,1-Trichloroethane	ND	4.7
1,1-Dichloropropene	ND	4.7
Carbon Tetrachloride	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Trichloroethene	ND	4.7
1,2-Dichloropropane	ND	4.7
Bromodichloromethane	ND	4.7
Dibromomethane	ND	4.7
4-Methyl-2-Pentanone	ND	9.4
cis-1,3-Dichloropropene	ND	4.7
Toluene	ND	4.7
trans-1,3-Dichloropropene	ND	4.7
1,1,2-Trichloroethane	ND	4.7
2-Hexanone	ND	9.4
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	ND	4.7
Dibromochloromethane	ND	4.7
1,2-Dibromoethane	ND	4.7
Chlorobenzene	ND	4.7
1,1,1,2-Tetrachloroethane	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7
Styrene	ND	4.7
Bromoform	ND	4.7
Isopropylbenzene	ND	4.7
1,1,2,2-Tetrachloroethane	ND	4.7
1,2,3-Trichloropropane	ND	4.7
Propylbenzene	ND	4.7
Bromobenzene	ND	4.7
1,3,5-Trimethylbenzene	ND	4.7
2-Chlorotoluene	ND	4.7

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Field ID:	CTB2-4.5-5	Dil'n Fac:	0.9416
Lab ID:	286981-004	Batch#:	245578
Matrix:	Miscell.	Sampled:	03/13/17
Units:	ug/Kg	Received:	03/13/17
Basis:	as received	Analyzed:	03/16/17

Analyte	Result	RL
4-Chlorotoluene	ND	4.7
tert-Butylbenzene	ND	4.7
1,2,4-Trimethylbenzene	ND	4.7
sec-Butylbenzene	ND	4.7
para-Isopropyl Toluene	ND	4.7
1,3-Dichlorobenzene	ND	4.7
1,4-Dichlorobenzene	ND	4.7
n-Butylbenzene	ND	4.7
1,2-Dichlorobenzene	ND	4.7
1,2-Dibromo-3-Chloropropane	ND	4.7
1,2,4-Trichlorobenzene	ND	4.7
Hexachlorobutadiene	ND	4.7
Naphthalene	ND	4.7
1,2,3-Trichlorobenzene	ND	4.7

Surrogate	%REC	Limits
Dibromofluoromethane	67 *	80-128
1,2-Dichloroethane-d4	107	80-136
Toluene-d8	93	80-120
Bromofluorobenzene	98	80-132

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC877145	Batch#:	245578
Matrix:	Soil	Analyzed:	03/16/17
Units:	ug/Kg		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC877145	Batch#:	245578
Matrix:	Soil	Analyzed:	03/16/17
Units:	ug/Kg		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-128
1,2-Dichloroethane-d4	109	80-136
Toluene-d8	94	80-120
Bromofluorobenzene	109	80-132

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	245578
Units:	ug/Kg	Analyzed:	03/16/17
Diln Fac:	1.000		

Type: BS Lab ID: QC877146

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	12.50	12.64	101	65-127
Benzene	12.50	13.77	110	75-124
Trichloroethene	12.50	13.70	110	76-122
Toluene	12.50	12.14	97	77-120
Chlorobenzene	12.50	12.01	96	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	109	80-128
1,2-Dichloroethane-d4	109	80-136
Toluene-d8	95	80-120
Bromofluorobenzene	99	80-132

Type: BSD Lab ID: QC877147

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	12.50	12.25	98	65-127	3	28
Benzene	12.50	13.64	109	75-124	1	25
Trichloroethene	12.50	12.49	100	76-122	9	26
Toluene	12.50	12.15	97	77-120	0	25
Chlorobenzene	12.50	11.79	94	80-120	2	24

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-128
1,2-Dichloroethane-d4	104	80-136
Toluene-d8	93	80-120
Bromofluorobenzene	97	80-132

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	245578
MSS Lab ID:	287005-001	Sampled:	03/15/17
Matrix:	Soil	Received:	03/15/17
Units:	ug/Kg	Analyzed:	03/16/17
Basis:	as received		

Type: MS Diln Fac: 0.9980
Lab ID: QC877216

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.8782	49.90	38.56	77	65-131
Benzene	<0.8433	49.90	45.83	92	68-123
Trichloroethene	<0.7805	49.90	41.84	84	60-136
Toluene	<0.6648	49.90	36.66	73	64-120
Chlorobenzene	<0.6412	49.90	33.91	68	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-128
1,2-Dichloroethane-d4	106	80-136
Toluene-d8	91	80-120
Bromofluorobenzene	93	80-132

Type: MSD Diln Fac: 0.9901
Lab ID: QC877217

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	49.50	40.36	82	65-131	5	33
Benzene	49.50	42.93	87	68-123	6	30
Trichloroethene	49.50	40.44	82	60-136	3	34
Toluene	49.50	35.07	71	64-120	4	31
Chlorobenzene	49.50	33.56	68	59-120	0	33

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-128
1,2-Dichloroethane-d4	100	80-136
Toluene-d8	92	80-120
Bromofluorobenzene	91	80-132

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC877322	Batch#:	245622
Matrix:	Soil	Analyzed:	03/17/17
Units:	ug/Kg		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC877322	Batch#:	245622
Matrix:	Soil	Analyzed:	03/17/17
Units:	ug/Kg		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	102	80-128
1,2-Dichloroethane-d4	107	80-136
Toluene-d8	94	80-120
Bromofluorobenzene	103	80-132

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	245622
Units:	ug/Kg	Analyzed:	03/17/17
Diln Fac:	1.000		

Type: BS Lab ID: QC877323

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	12.50	11.75	94	65-127
Benzene	12.50	14.78	118	75-124
Trichloroethene	12.50	13.05	104	76-122
Toluene	12.50	13.25	106	77-120
Chlorobenzene	12.50	12.77	102	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-128
1,2-Dichloroethane-d4	105	80-136
Toluene-d8	94	80-120
Bromofluorobenzene	95	80-132

Type: BSD Lab ID: QC877324

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	12.50	11.41	91	65-127	3	28
Benzene	12.50	13.67	109	75-124	8	25
Trichloroethene	12.50	12.63	101	76-122	3	26
Toluene	12.50	12.06	97	77-120	9	25
Chlorobenzene	12.50	12.29	98	80-120	4	24

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-128
1,2-Dichloroethane-d4	104	80-136
Toluene-d8	94	80-120
Bromofluorobenzene	95	80-132

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	245622
MSS Lab ID:	287068-005	Sampled:	03/16/17
Matrix:	Soil	Received:	03/16/17
Units:	ug/Kg	Analyzed:	03/17/17
Basis:	as received		

Type: MS Diln Fac: 0.9671
Lab ID: QC877399

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.9158	48.36	38.85	80	65-131
Benzene	<0.8794	48.36	46.84	97	68-123
Trichloroethene	<0.8140	48.36	42.49	88	60-136
Toluene	<0.6933	48.36	39.18	81	64-120
Chlorobenzene	<0.6687	48.36	35.48	73	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	101	80-128
1,2-Dichloroethane-d4	103	80-136
Toluene-d8	92	80-120
Bromofluorobenzene	90	80-132

Type: MSD Diln Fac: 0.9804
Lab ID: QC877400

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	49.02	38.46	78	65-131	2	33
Benzene	49.02	42.05	86	68-123	12	30
Trichloroethene	49.02	38.94	79	60-136	10	34
Toluene	49.02	36.42	74	64-120	9	31
Chlorobenzene	49.02	32.03	65	59-120	12	33

Surrogate	%REC	Limits
Dibromofluoromethane	100	80-128
1,2-Dichloroethane-d4	100	80-136
Toluene-d8	94	80-120
Bromofluorobenzene	91	80-132

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Field ID:	CTB1-1-1.5	Batch#:	245542
Lab ID:	286981-001	Sampled:	03/13/17
Matrix:	Miscell.	Received:	03/13/17
Units:	ug/Kg	Prepared:	03/16/17
Basis:	as received	Analyzed:	03/22/17
Diln Fac:	10.00		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	3,300
Phenol	ND	3,300
bis(2-Chloroethyl)ether	ND	3,300
2-Chlorophenol	ND	3,300
1,3-Dichlorobenzene	ND	3,300
1,4-Dichlorobenzene	ND	3,300
Benzyl alcohol	ND	3,300
1,2-Dichlorobenzene	ND	3,300
2-Methylphenol	ND	3,300
bis(2-Chloroisopropyl) ether	ND	3,300
4-Methylphenol	ND	3,300
N-Nitroso-di-n-propylamine	ND	3,300
Hexachloroethane	ND	3,300
Nitrobenzene	ND	3,300
Isophorone	ND	3,300
2-Nitrophenol	ND	6,600
2,4-Dimethylphenol	ND	3,300
Benzoic acid	ND	16,000
bis(2-Chloroethoxy)methane	ND	3,300
2,4-Dichlorophenol	ND	3,300
1,2,4-Trichlorobenzene	ND	3,300
Naphthalene	ND	660
4-Chloroaniline	ND	3,300
Hexachlorobutadiene	ND	3,300
4-Chloro-3-methylphenol	ND	3,300
2-Methylnaphthalene	ND	660
Hexachlorocyclopentadiene	ND	16,000
2,4,6-Trichlorophenol	ND	3,300
2,4,5-Trichlorophenol	ND	3,300
2-Chloronaphthalene	ND	3,300
2-Nitroaniline	ND	6,600
Dimethylphthalate	ND	3,300
Acenaphthylene	ND	660
2,6-Dinitrotoluene	ND	3,300
3-Nitroaniline	ND	6,600
Acenaphthene	ND	660
2,4-Dinitrophenol	ND	16,000
4-Nitrophenol	ND	6,600
Dibenzofuran	ND	3,300
2,4-Dinitrotoluene	ND	3,300
Diethylphthalate	ND	3,300
Fluorene	ND	660
4-Chlorophenyl-phenylether	ND	3,300
4-Nitroaniline	ND	6,600
4,6-Dinitro-2-methylphenol	ND	16,000
N-Nitrosodiphenylamine	ND	3,300
Azobenzene	ND	3,300
4-Bromophenyl-phenylether	ND	3,300
Hexachlorobenzene	ND	3,300
Pentachlorophenol	ND	6,600
Phenanthrene	ND	660
Anthracene	ND	660

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Field ID:	CTB1-1-1.5	Batch#:	245542
Lab ID:	286981-001	Sampled:	03/13/17
Matrix:	Miscell.	Received:	03/13/17
Units:	ug/Kg	Prepared:	03/16/17
Basis:	as received	Analyzed:	03/22/17
Diln Fac:	10.00		

Analyte	Result	RL
Di-n-butylphthalate	ND	3,300
Fluoranthene	ND	660
Pyrene	ND	660
Butylbenzylphthalate	ND	3,300
3,3'-Dichlorobenzidine	ND	6,600
Benzo(a)anthracene	ND	660
Chrysene	ND	660
bis(2-Ethylhexyl)phthalate	ND	3,300
Di-n-octylphthalate	ND	3,300
Benzo(b)fluoranthene	ND	660
Benzo(k)fluoranthene	ND	660
Benzo(a)pyrene	ND	660
Indeno(1,2,3-cd)pyrene	ND	660
Dibenz(a,h)anthracene	ND	660
Benzo(g,h,i)perylene	ND	660

Surrogate	%REC	Limits
2-Fluorophenol	DO	28-120
Phenol-d5	DO	29-120
2,4,6-Tribromophenol	DO	26-120
Nitrobenzene-d5	DO	38-120
2-Fluorobiphenyl	DO	41-120
Terphenyl-d14	DO	43-120

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Field ID:	CTB1-4-4.5	Batch#:	245542
Lab ID:	286981-002	Sampled:	03/13/17
Matrix:	Miscell.	Received:	03/13/17
Units:	ug/Kg	Prepared:	03/16/17
Basis:	as received	Analyzed:	03/22/17
Diln Fac:	10.00		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	3,300
Phenol	ND	3,300
bis(2-Chloroethyl)ether	ND	3,300
2-Chlorophenol	ND	3,300
1,3-Dichlorobenzene	ND	3,300
1,4-Dichlorobenzene	ND	3,300
Benzyl alcohol	ND	3,300
1,2-Dichlorobenzene	ND	3,300
2-Methylphenol	ND	3,300
bis(2-Chloroisopropyl) ether	ND	3,300
4-Methylphenol	ND	3,300
N-Nitroso-di-n-propylamine	ND	3,300
Hexachloroethane	ND	3,300
Nitrobenzene	ND	3,300
Isophorone	ND	3,300
2-Nitrophenol	ND	6,700
2,4-Dimethylphenol	ND	3,300
Benzoic acid	ND	17,000
bis(2-Chloroethoxy)methane	ND	3,300
2,4-Dichlorophenol	ND	3,300
1,2,4-Trichlorobenzene	ND	3,300
Naphthalene	ND	670
4-Chloroaniline	ND	3,300
Hexachlorobutadiene	ND	3,300
4-Chloro-3-methylphenol	ND	3,300
2-Methylnaphthalene	ND	670
Hexachlorocyclopentadiene	ND	17,000
2,4,6-Trichlorophenol	ND	3,300
2,4,5-Trichlorophenol	ND	3,300
2-Chloronaphthalene	ND	3,300
2-Nitroaniline	ND	6,700
Dimethylphthalate	ND	3,300
Acenaphthylene	ND	670
2,6-Dinitrotoluene	ND	3,300
3-Nitroaniline	ND	6,700
Acenaphthene	ND	670
2,4-Dinitrophenol	ND	17,000
4-Nitrophenol	ND	6,700
Dibenzofuran	ND	3,300
2,4-Dinitrotoluene	ND	3,300
Diethylphthalate	ND	3,300
Fluorene	ND	670
4-Chlorophenyl-phenylether	ND	3,300
4-Nitroaniline	ND	6,700
4,6-Dinitro-2-methylphenol	ND	17,000
N-Nitrosodiphenylamine	ND	3,300
Azobenzene	ND	3,300
4-Bromophenyl-phenylether	ND	3,300
Hexachlorobenzene	ND	3,300
Pentachlorophenol	ND	6,700
Phenanthrene	ND	670
Anthracene	ND	670

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Field ID:	CTB1-4-4.5	Batch#:	245542
Lab ID:	286981-002	Sampled:	03/13/17
Matrix:	Miscell.	Received:	03/13/17
Units:	ug/Kg	Prepared:	03/16/17
Basis:	as received	Analyzed:	03/22/17
Diln Fac:	10.00		

Analyte	Result	RL
Di-n-butylphthalate	ND	3,300
Fluoranthene	ND	670
Pyrene	ND	670
Butylbenzylphthalate	ND	3,300
3,3'-Dichlorobenzidine	ND	6,700
Benzo(a)anthracene	ND	670
Chrysene	ND	670
bis(2-Ethylhexyl)phthalate	ND	3,300
Di-n-octylphthalate	ND	3,300
Benzo(b)fluoranthene	ND	670
Benzo(k)fluoranthene	ND	670
Benzo(a)pyrene	ND	670
Indeno(1,2,3-cd)pyrene	ND	670
Dibenz(a,h)anthracene	ND	670
Benzo(g,h,i)perylene	ND	670

Surrogate	%REC	Limits
2-Fluorophenol	DO	28-120
Phenol-d5	DO	29-120
2,4,6-Tribromophenol	DO	26-120
Nitrobenzene-d5	DO	38-120
2-Fluorobiphenyl	DO	41-120
Terphenyl-d14	DO	43-120

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Field ID:	CTB2-2.5-3	Batch#:	245542
Lab ID:	286981-003	Sampled:	03/13/17
Matrix:	Miscell.	Received:	03/13/17
Units:	ug/Kg	Prepared:	03/16/17
Basis:	as received	Analyzed:	03/22/17
Diln Fac:	10.00		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	3,300
Phenol	ND	3,300
bis(2-Chloroethyl)ether	ND	3,300
2-Chlorophenol	ND	3,300
1,3-Dichlorobenzene	ND	3,300
1,4-Dichlorobenzene	ND	3,300
Benzyl alcohol	ND	3,300
1,2-Dichlorobenzene	ND	3,300
2-Methylphenol	ND	3,300
bis(2-Chloroisopropyl) ether	ND	3,300
4-Methylphenol	ND	3,300
N-Nitroso-di-n-propylamine	ND	3,300
Hexachloroethane	ND	3,300
Nitrobenzene	ND	3,300
Isophorone	ND	3,300
2-Nitrophenol	ND	6,600
2,4-Dimethylphenol	ND	3,300
Benzoic acid	ND	17,000
bis(2-Chloroethoxy)methane	ND	3,300
2,4-Dichlorophenol	ND	3,300
1,2,4-Trichlorobenzene	ND	3,300
Naphthalene	ND	660
4-Chloroaniline	ND	3,300
Hexachlorobutadiene	ND	3,300
4-Chloro-3-methylphenol	ND	3,300
2-Methylnaphthalene	ND	660
Hexachlorocyclopentadiene	ND	17,000
2,4,6-Trichlorophenol	ND	3,300
2,4,5-Trichlorophenol	ND	3,300
2-Chloronaphthalene	ND	3,300
2-Nitroaniline	ND	6,600
Dimethylphthalate	ND	3,300
Acenaphthylene	ND	660
2,6-Dinitrotoluene	ND	3,300
3-Nitroaniline	ND	6,600
Acenaphthene	ND	660
2,4-Dinitrophenol	ND	17,000
4-Nitrophenol	ND	6,600
Dibenzofuran	ND	3,300
2,4-Dinitrotoluene	ND	3,300
Diethylphthalate	ND	3,300
Fluorene	ND	660
4-Chlorophenyl-phenylether	ND	3,300
4-Nitroaniline	ND	6,600
4,6-Dinitro-2-methylphenol	ND	17,000
N-Nitrosodiphenylamine	ND	3,300
Azobenzene	ND	3,300
4-Bromophenyl-phenylether	ND	3,300
Hexachlorobenzene	ND	3,300
Pentachlorophenol	ND	6,600
Phenanthrene	ND	660
Anthracene	ND	660

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Field ID:	CTB2-2.5-3	Batch#:	245542
Lab ID:	286981-003	Sampled:	03/13/17
Matrix:	Miscell.	Received:	03/13/17
Units:	ug/Kg	Prepared:	03/16/17
Basis:	as received	Analyzed:	03/22/17
Diln Fac:	10.00		

Analyte	Result	RL
Di-n-butylphthalate	ND	3,300
Fluoranthene	ND	660
Pyrene	ND	660
Butylbenzylphthalate	ND	3,300
3,3'-Dichlorobenzidine	ND	6,600
Benzo(a)anthracene	ND	660
Chrysene	ND	660
bis(2-Ethylhexyl)phthalate	ND	3,300
Di-n-octylphthalate	ND	3,300
Benzo(b)fluoranthene	ND	660
Benzo(k)fluoranthene	ND	660
Benzo(a)pyrene	ND	660
Indeno(1,2,3-cd)pyrene	ND	660
Dibenz(a,h)anthracene	ND	660
Benzo(g,h,i)perylene	ND	660

Surrogate	%REC	Limits
2-Fluorophenol	DO	28-120
Phenol-d5	DO	29-120
2,4,6-Tribromophenol	DO	26-120
Nitrobenzene-d5	DO	38-120
2-Fluorobiphenyl	DO	41-120
Terphenyl-d14	DO	43-120

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Field ID:	CTB2-4.5-5	Batch#:	245542
Lab ID:	286981-004	Sampled:	03/13/17
Matrix:	Miscell.	Received:	03/13/17
Units:	ug/Kg	Prepared:	03/16/17
Basis:	as received	Analyzed:	03/22/17
Diln Fac:	25.00		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	8,400
Phenol	ND	8,400
bis(2-Chloroethyl)ether	ND	8,400
2-Chlorophenol	ND	8,400
1,3-Dichlorobenzene	ND	8,400
1,4-Dichlorobenzene	ND	8,400
Benzyl alcohol	ND	8,400
1,2-Dichlorobenzene	ND	8,400
2-Methylphenol	ND	8,400
bis(2-Chloroisopropyl) ether	ND	8,400
4-Methylphenol	ND	8,400
N-Nitroso-di-n-propylamine	ND	8,400
Hexachloroethane	ND	8,400
Nitrobenzene	ND	8,400
Isophorone	ND	8,400
2-Nitrophenol	ND	17,000
2,4-Dimethylphenol	ND	8,400
Benzoic acid	ND	42,000
bis(2-Chloroethoxy)methane	ND	8,400
2,4-Dichlorophenol	ND	8,400
1,2,4-Trichlorobenzene	ND	8,400
Naphthalene	ND	1,700
4-Chloroaniline	ND	8,400
Hexachlorobutadiene	ND	8,400
4-Chloro-3-methylphenol	ND	8,400
2-Methylnaphthalene	ND	1,700
Hexachlorocyclopentadiene	ND	42,000
2,4,6-Trichlorophenol	ND	8,400
2,4,5-Trichlorophenol	ND	8,400
2-Chloronaphthalene	ND	8,400
2-Nitroaniline	ND	17,000
Dimethylphthalate	ND	8,400
Acenaphthylene	ND	1,700
2,6-Dinitrotoluene	ND	8,400
3-Nitroaniline	ND	17,000
Acenaphthene	ND	1,700
2,4-Dinitrophenol	ND	42,000
4-Nitrophenol	ND	17,000
Dibenzofuran	ND	8,400
2,4-Dinitrotoluene	ND	8,400
Diethylphthalate	ND	8,400
Fluorene	ND	1,700
4-Chlorophenyl-phenylether	ND	8,400
4-Nitroaniline	ND	17,000
4,6-Dinitro-2-methylphenol	ND	42,000
N-Nitrosodiphenylamine	ND	8,400
Azobenzene	ND	8,400
4-Bromophenyl-phenylether	ND	8,400
Hexachlorobenzene	ND	8,400
Pentachlorophenol	ND	17,000
Phenanthrene	ND	1,700
Anthracene	ND	1,700

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Field ID:	CTB2-4.5-5	Batch#:	245542
Lab ID:	286981-004	Sampled:	03/13/17
Matrix:	Miscell.	Received:	03/13/17
Units:	ug/Kg	Prepared:	03/16/17
Basis:	as received	Analyzed:	03/22/17
Diln Fac:	25.00		

Analyte	Result	RL
Di-n-butylphthalate	ND	8,400
Fluoranthene	ND	1,700
Pyrene	ND	1,700
Butylbenzylphthalate	ND	8,400
3,3'-Dichlorobenzidine	ND	17,000
Benzo(a)anthracene	ND	1,700
Chrysene	ND	1,700
bis(2-Ethylhexyl)phthalate	ND	8,400
Di-n-octylphthalate	ND	8,400
Benzo(b)fluoranthene	ND	1,700
Benzo(k)fluoranthene	ND	1,700
Benzo(a)pyrene	ND	1,700
Indeno(1,2,3-cd)pyrene	ND	1,700
Dibenz(a,h)anthracene	ND	1,700
Benzo(g,h,i)perylene	ND	1,700

Surrogate	%REC	Limits
2-Fluorophenol	DO	28-120
Phenol-d5	DO	29-120
2,4,6-Tribromophenol	DO	26-120
Nitrobenzene-d5	DO	38-120
2-Fluorobiphenyl	DO	41-120
Terphenyl-d14	DO	43-120

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC876992	Batch#:	245542
Matrix:	Soil	Prepared:	03/15/17
Units:	ug/Kg	Analyzed:	03/16/17

Analyte	Result	RL
N-Nitrosodimethylamine	ND	330
Phenol	ND	330
bis(2-Chloroethyl)ether	ND	330
2-Chlorophenol	ND	330
1,3-Dichlorobenzene	ND	330
1,4-Dichlorobenzene	ND	330
Benzyl alcohol	ND	330
1,2-Dichlorobenzene	ND	330
2-Methylphenol	ND	330
bis(2-Chloroisopropyl) ether	ND	330
4-Methylphenol	ND	330
N-Nitroso-di-n-propylamine	ND	330
Hexachloroethane	ND	330
Nitrobenzene	ND	330
Isophorone	ND	330
2-Nitrophenol	ND	670
2,4-Dimethylphenol	ND	330
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	330
2,4-Dichlorophenol	ND	330
1,2,4-Trichlorobenzene	ND	330
Naphthalene	ND	67
4-Chloroaniline	ND	330
Hexachlorobutadiene	ND	330
4-Chloro-3-methylphenol	ND	330
2-Methylnaphthalene	ND	67
Hexachlorocyclopentadiene	ND	1,700
2,4,6-Trichlorophenol	ND	330
2,4,5-Trichlorophenol	ND	330
2-Chloronaphthalene	ND	330
2-Nitroaniline	ND	670
Dimethylphthalate	ND	330
Acenaphthylene	ND	67
2,6-Dinitrotoluene	ND	330
3-Nitroaniline	ND	670
Acenaphthene	ND	67
2,4-Dinitrophenol	ND	1,700
4-Nitrophenol	ND	670
Dibenzofuran	ND	330
2,4-Dinitrotoluene	ND	330
Diethylphthalate	ND	330
Fluorene	ND	67
4-Chlorophenyl-phenylether	ND	330
4-Nitroaniline	ND	670
4,6-Dinitro-2-methylphenol	ND	1,700
N-Nitrosodiphenylamine	ND	330
Azobenzene	ND	330
4-Bromophenyl-phenylether	ND	330
Hexachlorobenzene	ND	330
Pentachlorophenol	ND	670
Phenanthrene	ND	67
Anthracene	ND	67
Di-n-butylphthalate	ND	330
Fluoranthene	ND	67

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC876992	Batch#:	245542
Matrix:	Soil	Prepared:	03/15/17
Units:	ug/Kg	Analyzed:	03/16/17

Analyte	Result	RL
Pyrene	ND	67
Butylbenzylphthalate	ND	330
3,3'-Dichlorobenzidine	ND	670
Benzo(a)anthracene	ND	67
Chrysene	ND	67
bis(2-Ethylhexyl)phthalate	ND	330
Di-n-octylphthalate	ND	330
Benzo(b)fluoranthene	ND	67
Benzo(k)fluoranthene	ND	67
Benzo(a)pyrene	ND	67
Indeno(1,2,3-cd)pyrene	ND	67
Dibenz(a,h)anthracene	ND	67
Benzo(g,h,i)perylene	ND	67

Surrogate	%REC	Limits
2-Fluorophenol	106	28-120
Phenol-d5	67	29-120
2,4,6-Tribromophenol	69	26-120
Nitrobenzene-d5	96	38-120
2-Fluorobiphenyl	61	41-120
Terphenyl-d14	87	43-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC876993	Batch#:	245542
Matrix:	Soil	Prepared:	03/15/17
Units:	ug/Kg	Analyzed:	03/17/17

Analyte	Spiked	Result	%REC	Limits
Phenol	2,654	1,976	74	45-120
2-Chlorophenol	2,654	2,030	76	55-120
1,4-Dichlorobenzene	2,654	2,039	77	58-120
N-Nitroso-di-n-propylamine	2,654	1,743	66	29-122
1,2,4-Trichlorobenzene	2,654	2,127	80	61-120
4-Chloro-3-methylphenol	2,654	2,101	79	56-131
Acenaphthene	995.4	762.9	77	57-120
4-Nitrophenol	2,654	2,033	77	42-120
2,4-Dinitrotoluene	2,654	2,081	78	58-120
Pentachlorophenol	2,654	1,598	60	23-120
Pyrene	995.4	721.5	72	58-121

Surrogate	%REC	Limits
2-Fluorophenol	70	28-120
Phenol-d5	67	29-120
2,4,6-Tribromophenol	75	26-120
Nitrobenzene-d5	72	38-120
2-Fluorobiphenyl	69	41-120
Terphenyl-d14	67	43-120

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Field ID:	ZZZZZZZZZZ	Batch#:	245542
MSS Lab ID:	286954-004	Sampled:	03/13/17
Matrix:	Soil	Received:	03/14/17
Units:	ug/Kg	Prepared:	03/15/17
Basis:	as received	Analyzed:	03/16/17
Diln Fac:	1.000		

Type: MS Lab ID: QC876994

Analyte	MSS Result	Spiked	Result	%REC	Limits
Phenol	25.49	2,697	1,989	73	41-120
2-Chlorophenol	<16.27	2,697	2,553	95	48-120
1,4-Dichlorobenzene	<10.00	2,697	2,445	91	46-120
N-Nitroso-di-n-propylamine	<32.66	2,697	1,316	49	29-120
1,2,4-Trichlorobenzene	<9.556	2,697	2,666	99	53-120
4-Chloro-3-methylphenol	<14.54	2,697	2,993	111	52-123
Acenaphthene	<11.88	1,011	868.6	86	48-120
4-Nitrophenol	<67.98	2,697	1,808	67	35-120
2,4-Dinitrotoluene	17.24	2,697	2,017	74	54-120
Pentachlorophenol	<146.7	2,697	859.0	32	13-120
Pyrene	<9.257	1,011	824.9	82	50-125

Surrogate	%REC	Limits
2-Fluorophenol	81	28-120
Phenol-d5	63	29-120
2,4,6-Tribromophenol	74	26-120
Nitrobenzene-d5	86	38-120
2-Fluorobiphenyl	69	41-120
Terphenyl-d14	68	43-120

Type: MSD Lab ID: QC876995

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Phenol	2,646	1,757	65	41-120	10	47
2-Chlorophenol	2,646	2,366	89	48-120	6	51
1,4-Dichlorobenzene	2,646	2,290	87	46-120	5	45
N-Nitroso-di-n-propylamine	2,646	1,135	43	29-120	13	62
1,2,4-Trichlorobenzene	2,646	2,528	96	53-120	3	43
4-Chloro-3-methylphenol	2,646	2,857	108	52-123	3	38
Acenaphthene	992.1	815.4	82	48-120	4	50
4-Nitrophenol	2,646	1,728	65	35-120	3	52
2,4-Dinitrotoluene	2,646	2,276	85	54-120	14	47
Pentachlorophenol	2,646	818.4	31	13-120	3	72
Pyrene	992.1	762.2	77	50-125	6	50

Surrogate	%REC	Limits
2-Fluorophenol	76	28-120
Phenol-d5	57	29-120
2,4,6-Tribromophenol	72	26-120
Nitrobenzene-d5	83	38-120
2-Fluorobiphenyl	65	41-120
Terphenyl-d14	65	43-120

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	286981	Project#:	220.003.04.002
Client:	PES Environmental, Inc.	Location:	39155 & 39183 State Street
Field ID:	CTB1-1-1.5	Basis:	as received
Lab ID:	286981-001	Diln Fac:	1.000
Matrix:	Miscell.	Sampled:	03/13/17
Units:	mg/Kg	Received:	03/13/17

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.0	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Arsenic	3.9	0.62	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Barium	110	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Beryllium	0.26	0.10	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Cadmium	ND	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Chromium	33	0.26	245530	03/15/17	03/16/17	EPA 3050B	EPA 6010B
Cobalt	11	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Copper	41	0.26	245530	03/15/17	03/16/17	EPA 3050B	EPA 6010B
Lead	6.5	0.51	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Mercury	0.31	0.018	245663	03/18/17	03/19/17	METHOD	EPA 7471A
Molybdenum	0.39	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Nickel	41	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Selenium	ND	2.0	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Silver	15	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Thallium	ND	0.51	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Vanadium	32	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Zinc	75	1.0	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	286981	Project#:	220.003.04.002
Client:	PES Environmental, Inc.	Location:	39155 & 39183 State Street
Field ID:	CTB1-4-4.5	Basis:	as received
Lab ID:	286981-002	Diln Fac:	1.000
Matrix:	Miscell.	Sampled:	03/13/17
Units:	mg/Kg	Received:	03/13/17

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.0	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Arsenic	3.1	0.63	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Barium	130	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Beryllium	0.28	0.10	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Cadmium	ND	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Chromium	45	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Cobalt	7.3	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Copper	33	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Lead	6.7	0.52	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Mercury	0.28	0.016	245663	03/18/17	03/19/17	METHOD	EPA 7471A
Molybdenum	0.34	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Nickel	39	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Selenium	ND	2.0	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Silver	ND	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Thallium	ND	0.52	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Vanadium	42	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Zinc	68	1.0	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	286981	Project#:	220.003.04.002
Client:	PES Environmental, Inc.	Location:	39155 & 39183 State Street
Field ID:	CTB2-2.5-3	Basis:	as received
Lab ID:	286981-003	Diln Fac:	1.000
Matrix:	Miscell.	Sampled:	03/13/17
Units:	mg/Kg	Received:	03/13/17

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.0	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Arsenic	5.1	0.62	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Barium	110	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Beryllium	0.26	0.10	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Cadmium	ND	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Chromium	44	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Cobalt	6.9	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Copper	30	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Lead	14	0.51	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Mercury	0.24	0.017	245663	03/18/17	03/19/17	METHOD	EPA 7471A
Molybdenum	0.35	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Nickel	41	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Selenium	ND	2.0	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Silver	ND	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Thallium	ND	0.51	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Vanadium	34	0.26	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Zinc	65	1.0	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	286981	Project#:	220.003.04.002
Client:	PES Environmental, Inc.	Location:	39155 & 39183 State Street
Field ID:	CTB2-4.5-5	Basis:	as received
Lab ID:	286981-004	Diln Fac:	1.000
Matrix:	Miscell.	Sampled:	03/13/17
Units:	mg/Kg	Received:	03/13/17

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	2.0	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Arsenic	3.6	0.61	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Barium	120	0.25	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Beryllium	0.27	0.10	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Cadmium	0.40	0.25	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Chromium	39	0.25	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Cobalt	6.7	0.25	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Copper	31	0.25	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Lead	7.9	0.51	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Mercury	0.37	0.017	245663	03/18/17	03/19/17	METHOD	EPA 7471A
Molybdenum	0.28	0.25	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Nickel	41	0.25	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Selenium	ND	2.0	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Silver	ND	0.25	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Thallium	ND	0.51	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Vanadium	41	0.25	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B
Zinc	67	1.0	245530	03/15/17	03/15/17	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	220.003.04.002	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC876939	Batch#:	245530
Matrix:	Soil	Prepared:	03/15/17
Units:	mg/Kg	Analyzed:	03/15/17

Analyte	Result	RL
Antimony	ND	2.0
Arsenic	ND	0.66
Barium	ND	0.27
Beryllium	ND	0.11
Cadmium	ND	0.27
Chromium	ND	0.27
Cobalt	ND	0.27
Copper	ND	0.27
Lead	ND	0.54
Molybdenum	ND	0.27
Nickel	ND	0.27
Selenium	ND	2.0
Silver	ND	0.27
Thallium	ND	0.54
Vanadium	ND	0.27
Zinc	ND	1.1

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	220.003.04.002	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	245530
Units:	mg/Kg	Prepared:	03/15/17
Diln Fac:	1.000		

Type: BS Lab ID: QC876940

Analyte	Spiked	Result	%REC	Limits	Analyzed
Antimony	53.19	55.08	104	80-120	03/15/17
Arsenic	53.19	54.94	103	80-120	03/15/17
Barium	53.19	52.90	99	80-120	03/15/17
Beryllium	26.60	27.50	103	80-120	03/15/17
Cadmium	53.19	54.36	102	80-120	03/15/17
Chromium	53.19	58.78	110	80-120	03/15/17
Cobalt	53.19	55.08	104	80-120	03/15/17
Copper	53.19	48.14	91	80-120	03/16/17
Lead	53.19	54.64	103	80-120	03/15/17
Molybdenum	53.19	55.08	104	80-120	03/15/17
Nickel	53.19	54.60	103	80-120	03/15/17
Selenium	53.19	52.56	99	80-120	03/15/17
Silver	5.319	5.061	95	80-120	03/15/17
Thallium	53.19	52.18	98	80-120	03/15/17
Vanadium	53.19	58.87	111	80-120	03/15/17
Zinc	53.19	54.00	102	80-120	03/15/17

Type: BSD Lab ID: QC876941

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	47.17	47.89	102	80-120	2	20	03/15/17
Arsenic	47.17	47.77	101	80-120	2	20	03/15/17
Barium	47.17	45.90	97	80-120	2	20	03/15/17
Beryllium	23.58	23.90	101	80-120	2	20	03/15/17
Cadmium	47.17	47.78	101	80-120	1	20	03/15/17
Chromium	47.17	51.83	110	80-120	1	20	03/15/17
Cobalt	47.17	48.40	103	80-120	1	20	03/15/17
Copper	47.17	42.04	89	80-120	2	20	03/16/17
Lead	47.17	48.86	104	80-120	1	20	03/15/17
Molybdenum	47.17	48.83	104	80-120	0	20	03/15/17
Nickel	47.17	48.20	102	80-120	0	20	03/15/17
Selenium	47.17	46.07	98	80-120	1	20	03/15/17
Silver	4.717	4.425	94	80-120	1	20	03/15/17
Thallium	47.17	45.45	96	80-120	2	20	03/15/17
Vanadium	47.17	51.90	110	80-120	1	20	03/15/17
Zinc	47.17	48.54	103	80-120	1	20	03/15/17

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	220.003.04.002	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Dil'n Fac:	1.000
MSS Lab ID:	286943-001	Batch#:	245530
Matrix:	Soil	Sampled:	03/13/17
Units:	mg/Kg	Received:	03/13/17
Basis:	as received	Prepared:	03/15/17

Type: MS Lab ID: QC876942

Analyte	MSS Result	Spiked	Result	%REC	Limits	Analyzed
Antimony	<0.1358	53.76	12.21	23	1-120	03/15/17
Arsenic	1.913	53.76	54.29	97	69-129	03/16/17
Barium	26.62	53.76	79.82	99	43-156	03/15/17
Beryllium	0.2044	26.88	26.79	99	80-120	03/15/17
Cadmium	0.3586	53.76	54.42	101	73-122	03/15/17
Chromium	37.63	53.76	94.05	105	63-135	03/15/17
Cobalt	5.176	53.76	54.31	91	66-121	03/15/17
Copper	95.87	53.76	149.8	100	72-133	03/16/17
Lead	48.33	53.76	92.67	82	50-131	03/15/17
Molybdenum	0.3718	53.76	48.44	89	67-120	03/15/17
Nickel	34.59	53.76	84.04	92	56-135	03/15/17
Selenium	1.118	53.76	53.27	97	57-123	03/15/17
Silver	<0.05155	5.376	4.030	75	34-136	03/15/17
Thallium	<0.1552	53.76	43.97	82	57-121	03/15/17
Vanadium	31.70	53.76	88.36	105	70-131	03/15/17
Zinc	95.04	53.76	140.8	85	48-143	03/15/17

Type: MSD Lab ID: QC876943

Analyte	Spiked	Result	%REC	Limits	RPD	Lim	Analyzed
Antimony	50.00	11.45	23	1-120	1	43	03/15/17
Arsenic	50.00	52.12	100	69-129	3	30	03/16/17
Barium	50.00	78.27	103	43-156	3	40	03/15/17
Beryllium	25.00	25.50	101	80-120	2	20	03/15/17
Cadmium	50.00	52.15	104	73-122	3	28	03/15/17
Chromium	50.00	92.81	110	63-135	3	34	03/15/17
Cobalt	50.00	52.11	94	66-121	2	30	03/15/17
Copper	50.00	152.0	112	72-133	4	40	03/16/17
Lead	50.00	93.33	90	50-131	4	48	03/15/17
Molybdenum	50.00	45.96	91	67-120	2	20	03/15/17
Nickel	50.00	82.80	96	56-135	3	33	03/15/17
Selenium	50.00	51.06	100	57-123	3	29	03/15/17
Silver	5.000	3.745	75	34-136	0	39	03/15/17
Thallium	50.00	42.22	84	57-121	3	23	03/15/17
Vanadium	50.00	86.29	109	70-131	2	28	03/15/17
Zinc	50.00	145.8	101	48-143	6	33	03/15/17

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	220.003.04.002	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	245663
Lab ID:	QC877466	Prepared:	03/18/17
Matrix:	Soil	Analyzed:	03/19/17
Units:	mg/Kg		

Result	RL
ND	0.016

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	220.003.04.002	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	245663
Matrix:	Soil	Prepared:	03/18/17
Units:	mg/Kg	Analyzed:	03/19/17
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC877467	0.2119	0.2215	105	79-129		
BSD	QC877468	0.1923	0.2000	104	79-129	1	40

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	286981	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	220.003.04.002	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	245663
MSS Lab ID:	286896-001	Sampled:	03/13/17
Matrix:	Soil	Received:	03/13/17
Units:	mg/Kg	Prepared:	03/18/17
Basis:	as received	Analyzed:	03/19/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC877469	<0.005085	0.2155	0.2374	110	63-149		
MSD	QC877470		0.2083	0.2475	119	63-149	8	69

RPD= Relative Percent Difference


Curtis & Tompkins, Ltd.
Analytical Laboratories, Since 1878

Curtis & Tompkins, Ltd., Analytical Laboratories, Since 1878
2323 Fifth Street, Berkeley, CA 94710, Phone (510) 486-0900

Laboratory Job Number 286987
ANALYTICAL REPORT

PES Environmental, Inc.	Project : 220.003.04.002
7665 Redwood Boulevard	Location : 39155 & 39183 State Street
Novato, CA 94945	Level : II

Sample ID	Lab ID
CTB3-1.5-2	286987-001
CTB3-4-4.5	286987-002

This data package has been reviewed for technical correctness and completeness. Release of this data has been authorized by the Laboratory Manager or the Manager's designee, as verified by the following signature. The results contained in this report meet all requirements of NELAC and pertain only to those samples which were submitted for analysis. This report may be reproduced only in its entirety.

Signature: Tracy Babjar Date: 03/23/2017

Tracy Babjar
Project Manager
tracy.babjar@ctberk.com
(510) 204-2226 Ext 13107

CA ELAP# 2896, NELAP# 4044-001

Curtis & Tompkins, Ltd.

CASE NARRATIVE

Laboratory number:	**286987**
Client:	**PES Environmental, Inc.**
Project:	**220.003.04.002**
Location:	**39155 & 39183 State Street**
Request Date:	**03/14/17**
Samples Received:	**03/14/17**

This data package contains sample and QC results for two concrete samples, requested for the above referenced project on 03/14/17. The samples were received cold and intact.

TPH-Purgeables and/or BTXE by GC (EPA 8015B):
No analytical problems were encountered.

TPH-Extractables by GC (EPA 8015B):
CTB3-1.5-2 (lab # 286987-001) and CTB3-4-4.5 (lab # 286987-002) were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

Volatile Organics by GC/MS (EPA 8260B):
Low surrogate recoveries were observed for dibromofluoromethane in CTB3-1.5-2 (lab # 286987-001) and CTB3-4-4.5 (lab # 286987-002). No other analytical problems were encountered.

Semivolatile Organics by GC/MS (EPA 8270C):
CTB3-1.5-2 (lab # 286987-001) and CTB3-4-4.5 (lab # 286987-002) were diluted due to the dark and viscous nature of the sample extracts. No other analytical problems were encountered.

Metals (EPA 6010B and EPA 7471A):
High recovery was observed for mercury in the MSD for batch 245786; the parent sample was not a project sample, and the associated RPD was within limits. No other analytical problems were encountered.

Sample Size Reduction (CRUSH):
No analytical problems were encountered.

286987

PES Environmental, Inc.
Engineering & Environmental Services

CHAIN OF CUSTODY RECORD

7665 Redwood Boulevard, Suite 200
Novato, California 94945
(415) 899-1600 FAX (415) 899-1601

LABORATORY: Curtis & Tompkins
SAMPLERS: Chris Pollio
JOB NUMBER: 220.003.04.001
NAME / LOCATION: 39155 & 39183 State St, Fremont
PROJECT MANAGER: Carl Michelson
RECORDER: Chris Pollio

DATE YR	MO	DY	TIME	SAMPLE NUMBER / DESIGNATION	MATRIX: Vapor	Water	Soil	Sedim't	CTB	# of Containers & Preservatives: Unpres.	EnCore	H_2SO_4	HNO_3	HCl	DEPTH IN FEET	EPA 5035/8010	EPA 5035/8021	EPA 5035/8260B (VOCs)	TPHg by 5035/8015M	TPHd by 8015M	TPHmo by 8015M	EPA 8270C (SVOCs)	MNA Parameters (see notes)	Title 22 Metals (6010B/7471A
17	03	14	0745	CTB3-1.5-2					X	X								X	X	X	X	X	X	
17	03	14	0835	CTB3-4-4.5					X	X								X	X	X	X	X	X	

NOTES

Turn Around Time: Standard TAT

Page 1 of 1

CHAIN OF CUSTODY RECORD

		DATE	TIME
RELINQUISHED BY: (Signature) Christine N. Pollio	RECEIVED BY: (Signature)	3/14	15:20
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	3/14	18:00
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME
RELINQUISHED BY: (Signature)	RECEIVED BY: (Signature)	DATE	TIME
DISPATCHED BY: (Signature) DATE TIME	RECEIVED FOR LAB BY: (Signature)	DATE	TIME
METHOD OF SHIPMENT:			

WHITE-Laboratory COPY YELLOW-Project Office Copy PINK-Field or Office Copy

COOLER RECEIPT CHECKLIST

Curtis & Tompkins, Ltd.

Login # 246986 Date Received 3/14/17 Number of coolers 1
Client PES Project 220.003.04.001

Date Opened 3/14 By (print) DTN (sign) [signature]
Date Logged in ↓ By (print) ↓ (sign) ↓
Date Labeled ↓ By (print) ↓ (sign) ↓

1. Did cooler come with a shipping slip (airbill, etc) YES (NO)
Shipping info

2A. Were custody seals present? .... ☐ YES (circle) on cooler on samples ☒ NO
How many Name Date
2B. Were custody seals intact upon arrival? YES NO N/A
3. Were custody papers dry and intact when received? (YES) NO
4. Were custody papers filled out properly (ink, signed, etc)? (YES) NO
5. Is the project identifiable from custody papers? (If so fill out top of form) (YES) NO
6. Indicate the packing in cooler: (if other, describe)

☐ Bubble Wrap ☐ Foam blocks ☒ Bags ☐ None
☐ Cloth material ☐ Cardboard ☐ Styrofoam ☐ Paper towels

7. Temperature documentation: * Notify PM if temperature exceeds 6°C

Type of ice used: ☒ Wet ☐ Blue/Gel ☐ None Temp(°C)

☐ Temperature blank(s) included? ☐ Thermometer# ☐ IR Gun#

☑ Samples received on ice directly from the field. Cooling process had begun

8. Were Method 5035 sampling containers present? YES (NO)
If YES, what time were they transferred to freezer?
9. Did all bottles arrive unbroken/unopened? (YES) NO
10. Are there any missing / extra samples? YES (NO)
11. Are samples in the appropriate containers for indicated tests? (YES) NO
12. Are sample labels present, in good condition and complete? (YES) NO
13. Do the sample labels agree with custody papers? (YES) NO
14. Was sufficient amount of sample sent for tests requested? (YES) NO
15. Are the samples appropriately preserved? YES NO (N/A)
16. Did you check preservatives for all bottles for each sample? YES NO (N/A)
17. Did you document your preservative check? (pH strip lot#) YES NO (N/A)
18. Did you change the hold time in LIMS for unpreserved VOAs? YES NO (N/A)
19. Did you change the hold time in LIMS for preserved terracores? YES NO (N/A)
20. Are bubbles > 6mm absent in VOA samples? YES NO (N/A)
21. Was the client contacted concerning this sample delivery? YES (NO)
If YES, Who was called? By Date:

COMMENTS

Curtis & Tompkins, Ltd.

Detections Summary for 286987

Results for any subcontracted analyses are not included in this summary.

Client : PES Environmental, Inc.
Project : 220.003.04.002
Location : 39155 & 39183 State Street

Client Sample ID : CTB3-1.5-2 Laboratory Sample ID : 286987-001

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	21	Y	10	mg/Kg	As Recd	10.00	EPA 8015B	EPA 3550B
Motor Oil C24-C36	140		50	mg/Kg	As Recd	10.00	EPA 8015B	EPA 3550B
Acetone	42		19	ug/Kg	As Recd	0.9416	EPA 8260B	EPA 5030B
Arsenic	2.2		0.57	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	130		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.36		0.094	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	46		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	7.4		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	29		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	6.3		0.47	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Mercury	0.19		0.016	mg/Kg	As Recd	1.000	EPA 7471A	METHOD
Molybdenum	0.57		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	41		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	40		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	58		0.94	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Client Sample ID : CTB3-4-4.5 Laboratory Sample ID : 286987-002

Analyte	Result	Flags	RL	Units	Basis	IDF	Method	Prep Method
Diesel C10-C24	40	Y	10	mg/Kg	As Recd	10.00	EPA 8015B	EPA 3550B
Motor Oil C24-C36	250		50	mg/Kg	As Recd	10.00	EPA 8015B	EPA 3550B
Acetone	58		19	ug/Kg	As Recd	0.9381	EPA 8260B	EPA 5030B
Arsenic	3.0		0.59	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Barium	170		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Beryllium	0.33		0.097	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Chromium	120		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Cobalt	7.8		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Copper	31		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Lead	16		0.49	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Mercury	0.25		0.016	mg/Kg	As Recd	1.000	EPA 7471A	METHOD
Molybdenum	0.33		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Nickel	46		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Vanadium	44		0.24	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B
Zinc	67		0.97	mg/Kg	As Recd	1.000	EPA 6010B	EPA 3050B

Y = Sample exhibits chromatographic pattern which does not resemble standard

Curtis & Tompkins, Ltd.

Total Volatile Hydrocarbons

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8015B
Units:	mg/Kg	Sampled:	03/14/17
Basis:	as received	Received:	03/14/17
Diln Fac:	1.000	Analyzed:	03/16/17
Batch#:	245571		

Field ID: CTB3-1.5-2 Lab ID: 286987-001
Type: SAMPLE Matrix: Miscell.

Analyte	Result	RL
Gasoline C7-C12	ND	1.1

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	99	70-138

Field ID: CTB3-4-4.5 Lab ID: 286987-002
Type: SAMPLE Matrix: Miscell.

Analyte	Result	RL
Gasoline C7-C12	ND	1.1

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	99	70-138

Type: BLANK Matrix: Soil
Lab ID: QC877113

Analyte	Result	RL
Gasoline C7-C12	ND	1.0

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	92	70-138

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC877110	Batch#:	245571
Matrix:	Soil	Analyzed:	03/16/17
Units:	mg/Kg		

Analyte	Spiked	Result	%REC	Limits
Gasoline C7-C12	1.000	1.045	104	80-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	97	70-138

Curtis & Tompkins, Ltd.

Batch QC Report

Total Volatile Hydrocarbons

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8015B
Field ID:	CTB1-1-1.5	Diln Fac:	1.000
MSS Lab ID:	286981-001	Batch#:	245571
Matrix:	Miscell.	Sampled:	03/13/17
Units:	mg/Kg	Received:	03/13/17
Basis:	as received	Analyzed:	03/17/17

Type: MS Lab ID: QC877111

Analyte	MSS Result	Spiked	Result	%REC	Limits
Gasoline C7-C12	0.1130	10.42	7.827	74	49-120

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	100	70-138

Type: MSD Lab ID: QC877112

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Gasoline C7-C12	9.434	7.097	74	49-120	0	32

Surrogate	%REC	Limits
Bromofluorobenzene (FID)	101	70-138

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Total Extractable Hydrocarbons

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8015B
Units:	mg/Kg	Sampled:	03/14/17
Basis:	as received	Received:	03/14/17
Batch#:	245632	Prepared:	03/17/17

Field ID:	CTB3-1.5-2	Matrix:	Miscell.
Type:	SAMPLE	Diln Fac:	10.00
Lab ID:	286987-001	Analyzed:	03/21/17

Analyte	Result	RL
Diesel C10-C24	21 Y	10
Motor Oil C24-C36	140	50

Surrogate	%REC	Limits
o-Terphenyl	DO	58-136

Field ID:	CTB3-4-4.5	Matrix:	Miscell.
Type:	SAMPLE	Diln Fac:	10.00
Lab ID:	286987-002	Analyzed:	03/21/17

Analyte	Result	RL
Diesel C10-C24	40 Y	10
Motor Oil C24-C36	250	50

Surrogate	%REC	Limits
o-Terphenyl	DO	58-136

Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC877364	Analyzed:	03/20/17
Matrix:	Soil		

Analyte	Result	RL
Diesel C10-C24	ND	1.0
Motor Oil C24-C36	ND	5.0

Surrogate	%REC	Limits
o-Terphenyl	62	58-136

Y= Sample exhibits chromatographic pattern which does not resemble standard
DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8015B
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC877365	Batch#:	245632
Matrix:	Soil	Prepared:	03/17/17
Units:	mg/Kg	Analyzed:	03/20/17

Cleanup Method: EPA 3630C

Analyte	Spiked	Result	%REC	Limits
Diesel C10-C24	49.99	51.04	102	56-135

Surrogate	%REC	Limits
o-Terphenyl	104	58-136

Curtis & Tompkins, Ltd.

Batch QC Report

Total Extractable Hydrocarbons

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8015B
Field ID:	ZZZZZZZZZZ	Batch#:	245632
MSS Lab ID:	286880-014	Sampled:	03/10/17
Matrix:	Soil	Received:	03/10/17
Units:	mg/Kg	Prepared:	03/17/17
Basis:	as received	Analyzed:	03/20/17
Diln Fac:	1.000		

Type: MS Cleanup Method: EPA 3630C
Lab ID: QC877366

Analyte	MSS Result	Spiked	Result	%REC	Limits
Diesel C10-C24	0.7061	49.83	42.68	84	35-143

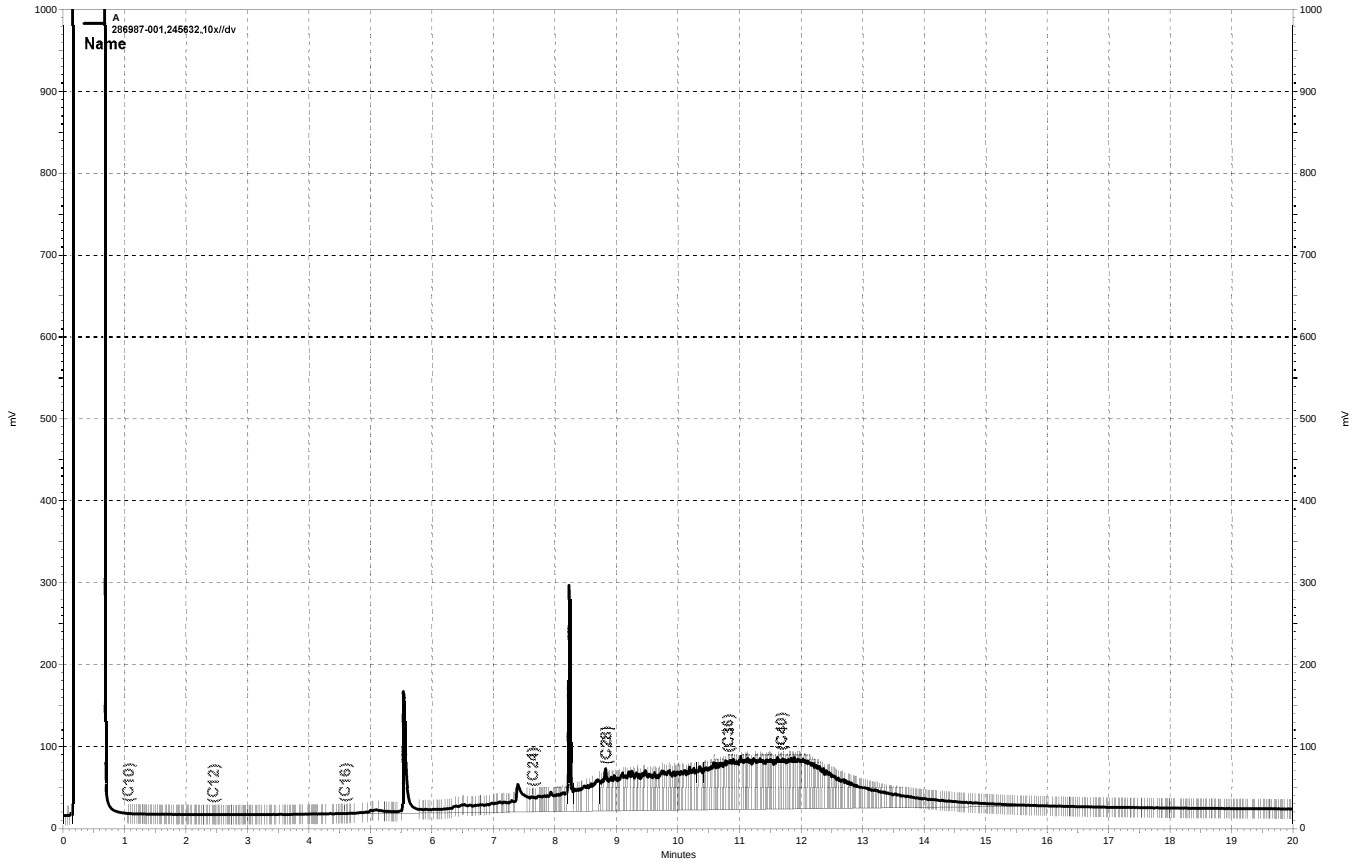
Surrogate	%REC	Limits
o-Terphenyl	94	58-136

Type: MSD Cleanup Method: EPA 3630C
Lab ID: QC877367

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Diesel C10-C24	50.07	37.63	74	35-143	13	59

Surrogate	%REC	Limits
o-Terphenyl	82	58-136

RPD= Relative Percent Difference



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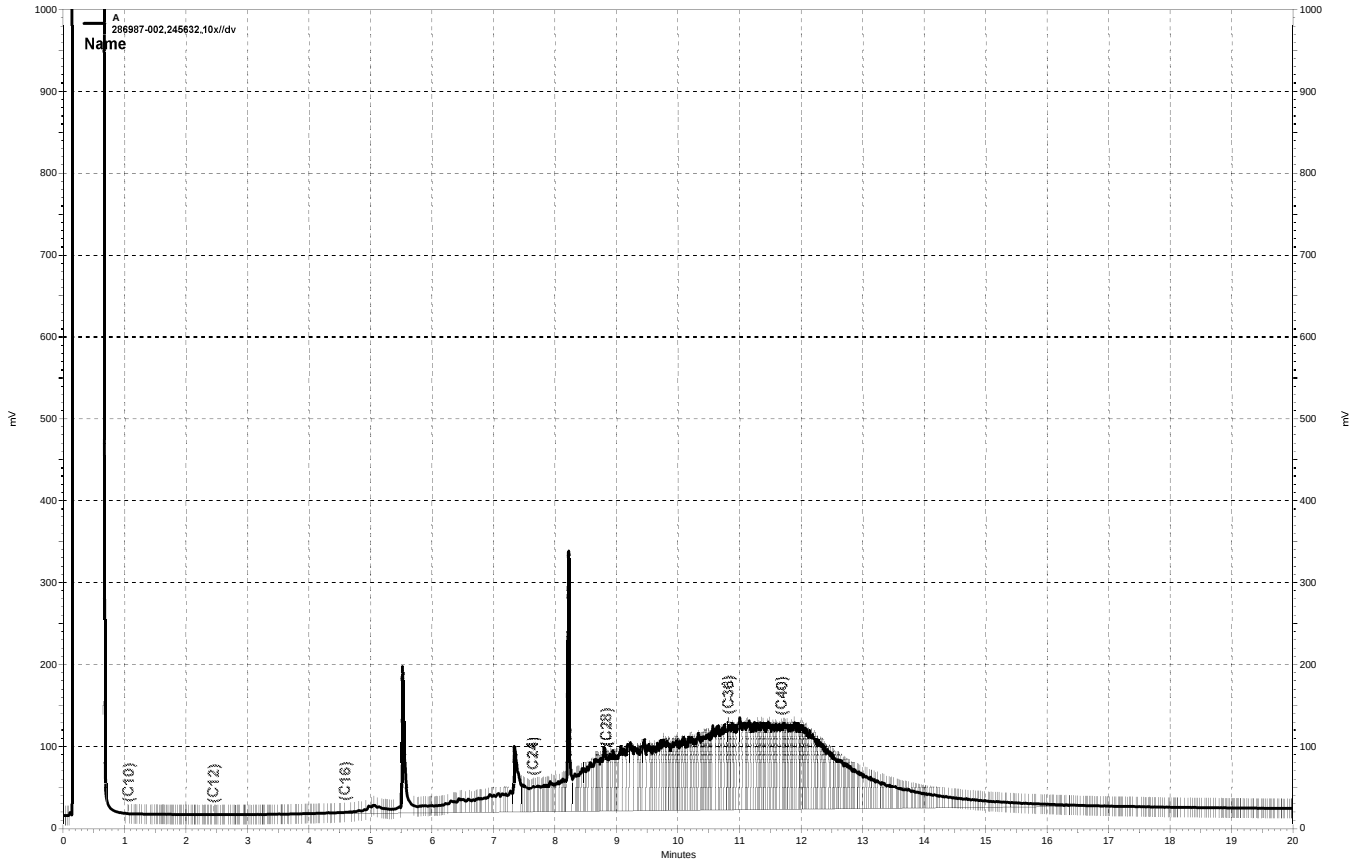

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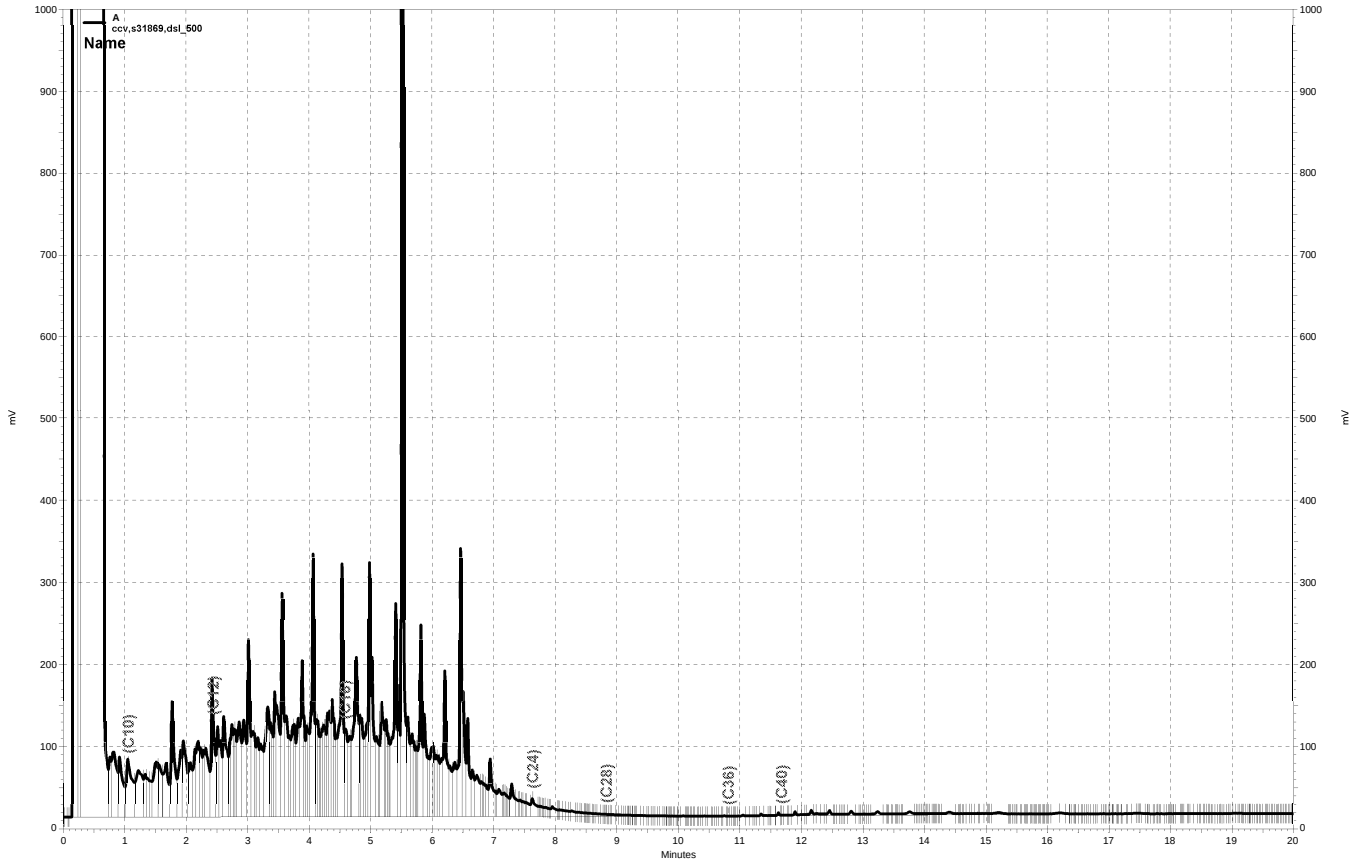

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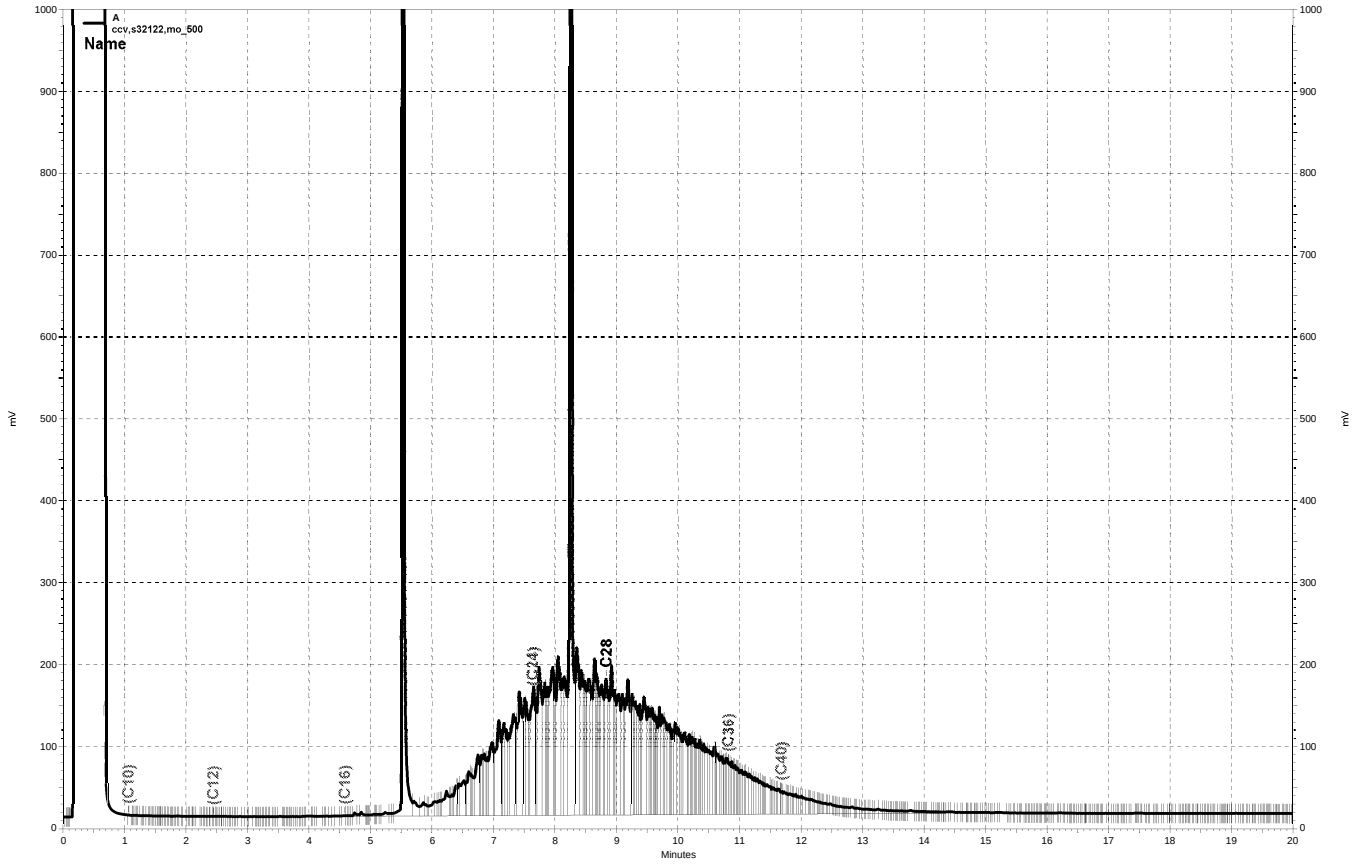

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Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Field ID:	CTB3-1.5-2	Dil'n Fac:	0.9416
Lab ID:	286987-001	Batch#:	245578
Matrix:	Miscell.	Sampled:	03/14/17
Units:	ug/Kg	Received:	03/14/17
Basis:	as received	Analyzed:	03/16/17

Analyte	Result	RL
Freon 12	ND	9.4
Chloromethane	ND	9.4
Vinyl Chloride	ND	9.4
Bromomethane	ND	9.4
Chloroethane	ND	9.4
Trichlorofluoromethane	ND	4.7
Acetone	42	19
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.7
MTBE	ND	4.7
trans-1,2-Dichloroethene	ND	4.7
Vinyl Acetate	ND	47
1,1-Dichloroethane	ND	4.7
2-Butanone	ND	9.4
cis-1,2-Dichloroethene	ND	4.7
2,2-Dichloropropane	ND	4.7
Chloroform	ND	4.7
Bromochloromethane	ND	4.7
1,1,1-Trichloroethane	ND	4.7
1,1-Dichloropropene	ND	4.7
Carbon Tetrachloride	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Trichloroethene	ND	4.7
1,2-Dichloropropane	ND	4.7
Bromodichloromethane	ND	4.7
Dibromomethane	ND	4.7
4-Methyl-2-Pentanone	ND	9.4
cis-1,3-Dichloropropene	ND	4.7
Toluene	ND	4.7
trans-1,3-Dichloropropene	ND	4.7
1,1,2-Trichloroethane	ND	4.7
2-Hexanone	ND	9.4
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	ND	4.7
Dibromochloromethane	ND	4.7
1,2-Dibromoethane	ND	4.7
Chlorobenzene	ND	4.7
1,1,1,2-Tetrachloroethane	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7
Styrene	ND	4.7
Bromoform	ND	4.7
Isopropylbenzene	ND	4.7
1,1,2,2-Tetrachloroethane	ND	4.7
1,2,3-Trichloropropane	ND	4.7
Propylbenzene	ND	4.7
Bromobenzene	ND	4.7
1,3,5-Trimethylbenzene	ND	4.7
2-Chlorotoluene	ND	4.7

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Field ID:	CTB3-1.5-2	Diln Fac:	0.9416
Lab ID:	286987-001	Batch#:	245578
Matrix:	Miscell.	Sampled:	03/14/17
Units:	ug/Kg	Received:	03/14/17
Basis:	as received	Analyzed:	03/16/17

Analyte	Result	RL
4-Chlorotoluene	ND	4.7
tert-Butylbenzene	ND	4.7
1,2,4-Trimethylbenzene	ND	4.7
sec-Butylbenzene	ND	4.7
para-Isopropyl Toluene	ND	4.7
1,3-Dichlorobenzene	ND	4.7
1,4-Dichlorobenzene	ND	4.7
n-Butylbenzene	ND	4.7
1,2-Dichlorobenzene	ND	4.7
1,2-Dibromo-3-Chloropropane	ND	4.7
1,2,4-Trichlorobenzene	ND	4.7
Hexachlorobutadiene	ND	4.7
Naphthalene	ND	4.7
1,2,3-Trichlorobenzene	ND	4.7

Surrogate	%REC	Limits
Dibromofluoromethane	63 *	80-128
1,2-Dichloroethane-d4	108	80-136
Toluene-d8	93	80-120
Bromofluorobenzene	104	80-132

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Field ID:	CTB3-4-4.5	Diln Fac:	0.9381
Lab ID:	286987-002	Batch#:	245578
Matrix:	Miscell.	Sampled:	03/14/17
Units:	ug/Kg	Received:	03/14/17
Basis:	as received	Analyzed:	03/16/17

Analyte	Result	RL
Freon 12	ND	9.4
Chloromethane	ND	9.4
Vinyl Chloride	ND	9.4
Bromomethane	ND	9.4
Chloroethane	ND	9.4
Trichlorofluoromethane	ND	4.7
Acetone	58	19
Freon 113	ND	4.7
1,1-Dichloroethene	ND	4.7
Methylene Chloride	ND	19
Carbon Disulfide	ND	4.7
MTBE	ND	4.7
trans-1,2-Dichloroethene	ND	4.7
Vinyl Acetate	ND	47
1,1-Dichloroethane	ND	4.7
2-Butanone	ND	9.4
cis-1,2-Dichloroethene	ND	4.7
2,2-Dichloropropane	ND	4.7
Chloroform	ND	4.7
Bromochloromethane	ND	4.7
1,1,1-Trichloroethane	ND	4.7
1,1-Dichloropropene	ND	4.7
Carbon Tetrachloride	ND	4.7
1,2-Dichloroethane	ND	4.7
Benzene	ND	4.7
Trichloroethene	ND	4.7
1,2-Dichloropropane	ND	4.7
Bromodichloromethane	ND	4.7
Dibromomethane	ND	4.7
4-Methyl-2-Pentanone	ND	9.4
cis-1,3-Dichloropropene	ND	4.7
Toluene	ND	4.7
trans-1,3-Dichloropropene	ND	4.7
1,1,2-Trichloroethane	ND	4.7
2-Hexanone	ND	9.4
1,3-Dichloropropane	ND	4.7
Tetrachloroethene	ND	4.7
Dibromochloromethane	ND	4.7
1,2-Dibromoethane	ND	4.7
Chlorobenzene	ND	4.7
1,1,1,2-Tetrachloroethane	ND	4.7
Ethylbenzene	ND	4.7
m,p-Xylenes	ND	4.7
o-Xylene	ND	4.7
Styrene	ND	4.7
Bromoform	ND	4.7
Isopropylbenzene	ND	4.7
1,1,2,2-Tetrachloroethane	ND	4.7
1,2,3-Trichloropropane	ND	4.7
Propylbenzene	ND	4.7
Bromobenzene	ND	4.7
1,3,5-Trimethylbenzene	ND	4.7
2-Chlorotoluene	ND	4.7

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Purgeable Organics by GC/MS

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Field ID:	CTB3-4-4.5	Dil'n Fac:	0.9381
Lab ID:	286987-002	Batch#:	245578
Matrix:	Miscell.	Sampled:	03/14/17
Units:	ug/Kg	Received:	03/14/17
Basis:	as received	Analyzed:	03/16/17

Analyte	Result	RL
4-Chlorotoluene	ND	4.7
tert-Butylbenzene	ND	4.7
1,2,4-Trimethylbenzene	ND	4.7
sec-Butylbenzene	ND	4.7
para-Isopropyl Toluene	ND	4.7
1,3-Dichlorobenzene	ND	4.7
1,4-Dichlorobenzene	ND	4.7
n-Butylbenzene	ND	4.7
1,2-Dichlorobenzene	ND	4.7
1,2-Dibromo-3-Chloropropane	ND	4.7
1,2,4-Trichlorobenzene	ND	4.7
Hexachlorobutadiene	ND	4.7
Naphthalene	ND	4.7
1,2,3-Trichlorobenzene	ND	4.7

Surrogate	%REC	Limits
Dibromofluoromethane	55 *	80-128
1,2-Dichloroethane-d4	109	80-136
Toluene-d8	92	80-120
Bromofluorobenzene	98	80-132

*= Value outside of QC limits; see narrative
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC877145	Batch#:	245578
Matrix:	Soil	Analyzed:	03/16/17
Units:	ug/Kg		

Analyte	Result	RL
Freon 12	ND	10
Chloromethane	ND	10
Vinyl Chloride	ND	10
Bromomethane	ND	10
Chloroethane	ND	10
Trichlorofluoromethane	ND	5.0
Acetone	ND	20
Freon 113	ND	5.0
1,1-Dichloroethene	ND	5.0
Methylene Chloride	ND	20
Carbon Disulfide	ND	5.0
MTBE	ND	5.0
trans-1,2-Dichloroethene	ND	5.0
Vinyl Acetate	ND	50
1,1-Dichloroethane	ND	5.0
2-Butanone	ND	10
cis-1,2-Dichloroethene	ND	5.0
2,2-Dichloropropane	ND	5.0
Chloroform	ND	5.0
Bromochloromethane	ND	5.0
1,1,1-Trichloroethane	ND	5.0
1,1-Dichloropropene	ND	5.0
Carbon Tetrachloride	ND	5.0
1,2-Dichloroethane	ND	5.0
Benzene	ND	5.0
Trichloroethene	ND	5.0
1,2-Dichloropropane	ND	5.0
Bromodichloromethane	ND	5.0
Dibromomethane	ND	5.0
4-Methyl-2-Pentanone	ND	10
cis-1,3-Dichloropropene	ND	5.0
Toluene	ND	5.0
trans-1,3-Dichloropropene	ND	5.0
1,1,2-Trichloroethane	ND	5.0
2-Hexanone	ND	10
1,3-Dichloropropane	ND	5.0
Tetrachloroethene	ND	5.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC877145	Batch#:	245578
Matrix:	Soil	Analyzed:	03/16/17
Units:	ug/Kg		

Analyte	Result	RL
Dibromochloromethane	ND	5.0
1,2-Dibromoethane	ND	5.0
Chlorobenzene	ND	5.0
1,1,1,2-Tetrachloroethane	ND	5.0
Ethylbenzene	ND	5.0
m,p-Xylenes	ND	5.0
o-Xylene	ND	5.0
Styrene	ND	5.0
Bromoform	ND	5.0
Isopropylbenzene	ND	5.0
1,1,2,2-Tetrachloroethane	ND	5.0
1,2,3-Trichloropropane	ND	5.0
Propylbenzene	ND	5.0
Bromobenzene	ND	5.0
1,3,5-Trimethylbenzene	ND	5.0
2-Chlorotoluene	ND	5.0
4-Chlorotoluene	ND	5.0
tert-Butylbenzene	ND	5.0
1,2,4-Trimethylbenzene	ND	5.0
sec-Butylbenzene	ND	5.0
para-Isopropyl Toluene	ND	5.0
1,3-Dichlorobenzene	ND	5.0
1,4-Dichlorobenzene	ND	5.0
n-Butylbenzene	ND	5.0
1,2-Dichlorobenzene	ND	5.0
1,2-Dibromo-3-Chloropropane	ND	5.0
1,2,4-Trichlorobenzene	ND	5.0
Hexachlorobutadiene	ND	5.0
Naphthalene	ND	5.0
1,2,3-Trichlorobenzene	ND	5.0

Surrogate	%REC	Limits
Dibromofluoromethane	104	80-128
1,2-Dichloroethane-d4	109	80-136
Toluene-d8	94	80-120
Bromofluorobenzene	109	80-132

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Matrix:	Soil	Batch#:	245578
Units:	ug/Kg	Analyzed:	03/16/17
Diln Fac:	1.000		

Type: BS Lab ID: QC877146

Analyte	Spiked	Result	%REC	Limits
1,1-Dichloroethene	12.50	12.64	101	65-127
Benzene	12.50	13.77	110	75-124
Trichloroethene	12.50	13.70	110	76-122
Toluene	12.50	12.14	97	77-120
Chlorobenzene	12.50	12.01	96	80-120

Surrogate	%REC	Limits
Dibromofluoromethane	109	80-128
1,2-Dichloroethane-d4	109	80-136
Toluene-d8	95	80-120
Bromofluorobenzene	99	80-132

Type: BSD Lab ID: QC877147

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	12.50	12.25	98	65-127	3	28
Benzene	12.50	13.64	109	75-124	1	25
Trichloroethene	12.50	12.49	100	76-122	9	26
Toluene	12.50	12.15	97	77-120	0	25
Chlorobenzene	12.50	11.79	94	80-120	2	24

Surrogate	%REC	Limits
Dibromofluoromethane	106	80-128
1,2-Dichloroethane-d4	104	80-136
Toluene-d8	93	80-120
Bromofluorobenzene	97	80-132

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

Purgeable Organics by GC/MS

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 5030B
Project#:	220.003.04.002	Analysis:	EPA 8260B
Field ID:	ZZZZZZZZZZ	Batch#:	245578
MSS Lab ID:	287005-001	Sampled:	03/15/17
Matrix:	Soil	Received:	03/15/17
Units:	ug/Kg	Analyzed:	03/16/17
Basis:	as received		

Type: MS Diln Fac: 0.9980
Lab ID: QC877216

Analyte	MSS Result	Spiked	Result	%REC	Limits
1,1-Dichloroethene	<0.8782	49.90	38.56	77	65-131
Benzene	<0.8433	49.90	45.83	92	68-123
Trichloroethene	<0.7805	49.90	41.84	84	60-136
Toluene	<0.6648	49.90	36.66	73	64-120
Chlorobenzene	<0.6412	49.90	33.91	68	59-120

Surrogate	%REC	Limits
Dibromofluoromethane	96	80-128
1,2-Dichloroethane-d4	106	80-136
Toluene-d8	91	80-120
Bromofluorobenzene	93	80-132

Type: MSD Diln Fac: 0.9901
Lab ID: QC877217

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
1,1-Dichloroethene	49.50	40.36	82	65-131	5	33
Benzene	49.50	42.93	87	68-123	6	30
Trichloroethene	49.50	40.44	82	60-136	3	34
Toluene	49.50	35.07	71	64-120	4	31
Chlorobenzene	49.50	33.56	68	59-120	0	33

Surrogate	%REC	Limits
Dibromofluoromethane	98	80-128
1,2-Dichloroethane-d4	100	80-136
Toluene-d8	92	80-120
Bromofluorobenzene	91	80-132

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Field ID:	CTB3-1.5-2	Batch#:	245613
Lab ID:	286987-001	Sampled:	03/14/17
Matrix:	Miscell.	Received:	03/14/17
Units:	ug/Kg	Prepared:	03/17/17
Basis:	as received	Analyzed:	03/20/17
Diln Fac:	10.00		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	3,300
Phenol	ND	3,300
bis(2-Chloroethyl)ether	ND	3,300
2-Chlorophenol	ND	3,300
1,3-Dichlorobenzene	ND	3,300
1,4-Dichlorobenzene	ND	3,300
Benzyl alcohol	ND	3,300
1,2-Dichlorobenzene	ND	3,300
2-Methylphenol	ND	3,300
bis(2-Chloroisopropyl) ether	ND	3,300
4-Methylphenol	ND	3,300
N-Nitroso-di-n-propylamine	ND	3,300
Hexachloroethane	ND	3,300
Nitrobenzene	ND	3,300
Isophorone	ND	3,300
2-Nitrophenol	ND	6,700
2,4-Dimethylphenol	ND	3,300
Benzoic acid	ND	17,000
bis(2-Chloroethoxy)methane	ND	3,300
2,4-Dichlorophenol	ND	3,300
1,2,4-Trichlorobenzene	ND	3,300
Naphthalene	ND	670
4-Chloroaniline	ND	3,300
Hexachlorobutadiene	ND	3,300
4-Chloro-3-methylphenol	ND	3,300
2-Methylnaphthalene	ND	670
Hexachlorocyclopentadiene	ND	17,000
2,4,6-Trichlorophenol	ND	3,300
2,4,5-Trichlorophenol	ND	3,300
2-Chloronaphthalene	ND	3,300
2-Nitroaniline	ND	6,700
Dimethylphthalate	ND	3,300
Acenaphthylene	ND	670
2,6-Dinitrotoluene	ND	3,300
3-Nitroaniline	ND	6,700
Acenaphthene	ND	670
2,4-Dinitrophenol	ND	17,000
4-Nitrophenol	ND	6,700
Dibenzofuran	ND	3,300
2,4-Dinitrotoluene	ND	3,300
Diethylphthalate	ND	3,300
Fluorene	ND	670
4-Chlorophenyl-phenylether	ND	3,300
4-Nitroaniline	ND	6,700
4,6-Dinitro-2-methylphenol	ND	17,000
N-Nitrosodiphenylamine	ND	3,300
Azobenzene	ND	3,300
4-Bromophenyl-phenylether	ND	3,300
Hexachlorobenzene	ND	3,300
Pentachlorophenol	ND	6,700
Phenanthrene	ND	670
Anthracene	ND	670

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Field ID:	CTB3-1.5-2	Batch#:	245613
Lab ID:	286987-001	Sampled:	03/14/17
Matrix:	Miscell.	Received:	03/14/17
Units:	ug/Kg	Prepared:	03/17/17
Basis:	as received	Analyzed:	03/20/17
Diln Fac:	10.00		

Analyte	Result	RL
Di-n-butylphthalate	ND	3,300
Fluoranthene	ND	670
Pyrene	ND	670
Butylbenzylphthalate	ND	3,300
3,3'-Dichlorobenzidine	ND	6,700
Benzo(a)anthracene	ND	670
Chrysene	ND	670
bis(2-Ethylhexyl)phthalate	ND	3,300
Di-n-octylphthalate	ND	3,300
Benzo(b)fluoranthene	ND	670
Benzo(k)fluoranthene	ND	670
Benzo(a)pyrene	ND	670
Indeno(1,2,3-cd)pyrene	ND	670
Dibenz(a,h)anthracene	ND	670
Benzo(g,h,i)perylene	ND	670

Surrogate	%REC	Limits
2-Fluorophenol	DO	28-120
Phenol-d5	DO	29-120
2,4,6-Tribromophenol	DO	26-120
Nitrobenzene-d5	DO	38-120
2-Fluorobiphenyl	DO	41-120
Terphenyl-d14	DO	43-120

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Field ID:	CTB3-4-4.5	Batch#:	245613
Lab ID:	286987-002	Sampled:	03/14/17
Matrix:	Miscell.	Received:	03/14/17
Units:	ug/Kg	Prepared:	03/17/17
Basis:	as received	Analyzed:	03/20/17
Diln Fac:	10.00		

Analyte	Result	RL
N-Nitrosodimethylamine	ND	3,300
Phenol	ND	3,300
bis(2-Chloroethyl)ether	ND	3,300
2-Chlorophenol	ND	3,300
1,3-Dichlorobenzene	ND	3,300
1,4-Dichlorobenzene	ND	3,300
Benzyl alcohol	ND	3,300
1,2-Dichlorobenzene	ND	3,300
2-Methylphenol	ND	3,300
bis(2-Chloroisopropyl) ether	ND	3,300
4-Methylphenol	ND	3,300
N-Nitroso-di-n-propylamine	ND	3,300
Hexachloroethane	ND	3,300
Nitrobenzene	ND	3,300
Isophorone	ND	3,300
2-Nitrophenol	ND	6,700
2,4-Dimethylphenol	ND	3,300
Benzoic acid	ND	17,000
bis(2-Chloroethoxy)methane	ND	3,300
2,4-Dichlorophenol	ND	3,300
1,2,4-Trichlorobenzene	ND	3,300
Naphthalene	ND	670
4-Chloroaniline	ND	3,300
Hexachlorobutadiene	ND	3,300
4-Chloro-3-methylphenol	ND	3,300
2-Methylnaphthalene	ND	670
Hexachlorocyclopentadiene	ND	17,000
2,4,6-Trichlorophenol	ND	3,300
2,4,5-Trichlorophenol	ND	3,300
2-Chloronaphthalene	ND	3,300
2-Nitroaniline	ND	6,700
Dimethylphthalate	ND	3,300
Acenaphthylene	ND	670
2,6-Dinitrotoluene	ND	3,300
3-Nitroaniline	ND	6,700
Acenaphthene	ND	670
2,4-Dinitrophenol	ND	17,000
4-Nitrophenol	ND	6,700
Dibenzofuran	ND	3,300
2,4-Dinitrotoluene	ND	3,300
Diethylphthalate	ND	3,300
Fluorene	ND	670
4-Chlorophenyl-phenylether	ND	3,300
4-Nitroaniline	ND	6,700
4,6-Dinitro-2-methylphenol	ND	17,000
N-Nitrosodiphenylamine	ND	3,300
Azobenzene	ND	3,300
4-Bromophenyl-phenylether	ND	3,300
Hexachlorobenzene	ND	3,300
Pentachlorophenol	ND	6,700
Phenanthrene	ND	670
Anthracene	ND	670

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Semivolatile Organics by GC/MS

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Field ID:	CTB3-4-4.5	Batch#:	245613
Lab ID:	286987-002	Sampled:	03/14/17
Matrix:	Miscell.	Received:	03/14/17
Units:	ug/Kg	Prepared:	03/17/17
Basis:	as received	Analyzed:	03/20/17
Diln Fac:	10.00		

Analyte	Result	RL
Di-n-butylphthalate	ND	3,300
Fluoranthene	ND	670
Pyrene	ND	670
Butylbenzylphthalate	ND	3,300
3,3'-Dichlorobenzidine	ND	6,700
Benzo(a)anthracene	ND	670
Chrysene	ND	670
bis(2-Ethylhexyl)phthalate	ND	3,300
Di-n-octylphthalate	ND	3,300
Benzo(b)fluoranthene	ND	670
Benzo(k)fluoranthene	ND	670
Benzo(a)pyrene	ND	670
Indeno(1,2,3-cd)pyrene	ND	670
Dibenz(a,h)anthracene	ND	670
Benzo(g,h,i)perylene	ND	670

Surrogate	%REC	Limits
2-Fluorophenol	DO	28-120
Phenol-d5	DO	29-120
2,4,6-Tribromophenol	DO	26-120
Nitrobenzene-d5	DO	38-120
2-Fluorobiphenyl	DO	41-120
Terphenyl-d14	DO	43-120

DO= Diluted Out
ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC877286	Batch#:	245613
Matrix:	Soil	Prepared:	03/17/17
Units:	ug/Kg	Analyzed:	03/17/17

Analyte	Result	RL
N-Nitrosodimethylamine	ND	340
Phenol	ND	340
bis(2-Chloroethyl)ether	ND	340
2-Chlorophenol	ND	340
1,3-Dichlorobenzene	ND	340
1,4-Dichlorobenzene	ND	340
Benzyl alcohol	ND	340
1,2-Dichlorobenzene	ND	340
2-Methylphenol	ND	340
bis(2-Chloroisopropyl) ether	ND	340
4-Methylphenol	ND	340
N-Nitroso-di-n-propylamine	ND	340
Hexachloroethane	ND	340
Nitrobenzene	ND	340
Isophorone	ND	340
2-Nitrophenol	ND	680
2,4-Dimethylphenol	ND	340
Benzoic acid	ND	1,700
bis(2-Chloroethoxy)methane	ND	340
2,4-Dichlorophenol	ND	340
1,2,4-Trichlorobenzene	ND	340
Naphthalene	ND	68
4-Chloroaniline	ND	340
Hexachlorobutadiene	ND	340
4-Chloro-3-methylphenol	ND	340
2-Methylnaphthalene	ND	68
Hexachlorocyclopentadiene	ND	1,700
2,4,6-Trichlorophenol	ND	340
2,4,5-Trichlorophenol	ND	340
2-Chloronaphthalene	ND	340
2-Nitroaniline	ND	680
Dimethylphthalate	ND	340
Acenaphthylene	ND	68
2,6-Dinitrotoluene	ND	340
3-Nitroaniline	ND	680
Acenaphthene	ND	68
2,4-Dinitrophenol	ND	1,700
4-Nitrophenol	ND	680
Dibenzofuran	ND	340
2,4-Dinitrotoluene	ND	340
Diethylphthalate	ND	340
Fluorene	ND	68
4-Chlorophenyl-phenylether	ND	340
4-Nitroaniline	ND	680
4,6-Dinitro-2-methylphenol	ND	1,700
N-Nitrosodiphenylamine	ND	340
Azobenzene	ND	340
4-Bromophenyl-phenylether	ND	340
Hexachlorobenzene	ND	340
Pentachlorophenol	ND	680
Phenanthrene	ND	68
Anthracene	ND	68
Di-n-butylphthalate	ND	340
Fluoranthene	ND	68

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC877286	Batch#:	245613
Matrix:	Soil	Prepared:	03/17/17
Units:	ug/Kg	Analyzed:	03/17/17

Analyte	Result	RL
Pyrene	ND	68
Butylbenzylphthalate	ND	340
3,3'-Dichlorobenzidine	ND	680
Benzo(a)anthracene	ND	68
Chrysene	ND	68
bis(2-Ethylhexyl)phthalate	ND	340
Di-n-octylphthalate	ND	340
Benzo(b)fluoranthene	ND	68
Benzo(k)fluoranthene	ND	68
Benzo(a)pyrene	ND	68
Indeno(1,2,3-cd)pyrene	ND	68
Dibenz(a,h)anthracene	ND	68
Benzo(g,h,i)perylene	ND	68

Surrogate	%REC	Limits
2-Fluorophenol	75	28-120
Phenol-d5	77	29-120
2,4,6-Tribromophenol	61	26-120
Nitrobenzene-d5	76	38-120
2-Fluorobiphenyl	75	41-120
Terphenyl-d14	72	43-120

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

Semivolatile Organics by GC/MS

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3550B
Project#:	220.003.04.002	Analysis:	EPA 8270C
Type:	LCS	Diln Fac:	1.000
Lab ID:	QC877287	Batch#:	245613
Matrix:	Soil	Prepared:	03/17/17
Units:	ug/Kg	Analyzed:	03/20/17

Analyte	Spiked	Result	%REC	Limits
Phenol	2,649	2,048	77	45-120
2-Chlorophenol	2,649	2,108	80	55-120
1,4-Dichlorobenzene	2,649	2,080	79	58-120
N-Nitroso-di-n-propylamine	2,649	1,825	69	29-122
1,2,4-Trichlorobenzene	2,649	2,132	80	61-120
4-Chloro-3-methylphenol	2,649	2,145	81	56-131
Acenaphthene	993.4	756.7	76	57-120
4-Nitrophenol	2,649	1,979	75	42-120
2,4-Dinitrotoluene	2,649	2,067	78	58-120
Pentachlorophenol	2,649	1,567	59	23-120
Pyrene	993.4	727.7	73	58-121

Surrogate	%REC	Limits
2-Fluorophenol	71	28-120
Phenol-d5	71	29-120
2,4,6-Tribromophenol	77	26-120
Nitrobenzene-d5	74	38-120
2-Fluorobiphenyl	71	41-120
Terphenyl-d14	68	43-120

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	286987	Project#:	220.003.04.002
Client:	PES Environmental, Inc.	Location:	39155 & 39183 State Street
Field ID:	CTB3-1.5-2	Basis:	as received
Lab ID:	286987-001	Diln Fac:	1.000
Matrix:	Miscell.	Sampled:	03/14/17
Units:	mg/Kg	Received:	03/14/17

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	1.9	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Arsenic	2.2	0.57	245605	03/16/17	03/20/17	EPA 3050B	EPA 6010B
Barium	130	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Beryllium	0.36	0.094	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Cadmium	ND	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Chromium	46	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Cobalt	7.4	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Copper	29	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Lead	6.3	0.47	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Mercury	0.19	0.016	245786	03/22/17	03/22/17	METHOD	EPA 7471A
Molybdenum	0.57	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Nickel	41	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Selenium	ND	1.9	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Silver	ND	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Thallium	ND	0.47	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Vanadium	40	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Zinc	58	0.94	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

California Title 22 Metals

Lab #:	286987	Project#:	220.003.04.002
Client:	PES Environmental, Inc.	Location:	39155 & 39183 State Street
Field ID:	CTB3-4-4.5	Basis:	as received
Lab ID:	286987-002	Diln Fac:	1.000
Matrix:	Miscell.	Sampled:	03/14/17
Units:	mg/Kg	Received:	03/14/17

Analyte	Result	RL	Batch#	Prepared	Analyzed	Prep	Analysis
Antimony	ND	1.9	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Arsenic	3.0	0.59	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Barium	170	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Beryllium	0.33	0.097	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Cadmium	ND	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Chromium	120	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Cobalt	7.8	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Copper	31	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Lead	16	0.49	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Mercury	0.25	0.016	245786	03/22/17	03/22/17	METHOD	EPA 7471A
Molybdenum	0.33	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Nickel	46	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Selenium	ND	1.9	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Silver	ND	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Thallium	ND	0.49	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Vanadium	44	0.24	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B
Zinc	67	0.97	245605	03/16/17	03/17/17	EPA 3050B	EPA 6010B

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	220.003.04.002	Analysis:	EPA 6010B
Type:	BLANK	Diln Fac:	1.000
Lab ID:	QC877262	Batch#:	245605
Matrix:	Soil	Prepared:	03/16/17
Units:	mg/Kg	Analyzed:	03/17/17

Analyte	Result	RL
Antimony	ND	2.0
Arsenic	ND	0.60
Barium	ND	0.25
Beryllium	ND	0.10
Cadmium	ND	0.25
Chromium	ND	0.25
Cobalt	ND	0.25
Copper	ND	0.25
Lead	ND	0.50
Molybdenum	ND	0.25
Nickel	ND	0.25
Selenium	ND	2.0
Silver	ND	0.25
Thallium	ND	0.50
Vanadium	ND	0.25
Zinc	ND	1.0

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	220.003.04.002	Analysis:	EPA 6010B
Matrix:	Soil	Batch#:	245605
Units:	mg/Kg	Prepared:	03/16/17
Diln Fac:	1.000	Analyzed:	03/17/17

Type: BS Lab ID: QC877263

Analyte	Spiked	Result	%REC	Limits
Antimony	46.30	49.13	106	80-120
Arsenic	46.30	47.54	103	80-120
Barium	46.30	49.14	106	80-120
Beryllium	23.15	24.85	107	80-120
Cadmium	46.30	47.35	102	80-120
Chromium	46.30	48.05	104	80-120
Cobalt	46.30	47.13	102	80-120
Copper	46.30	46.43	100	80-120
Lead	46.30	47.36	102	80-120
Molybdenum	46.30	48.06	104	80-120
Nickel	46.30	48.02	104	80-120
Selenium	46.30	45.95	99	80-120
Silver	4.630	4.555	98	80-120
Thallium	46.30	49.06	106	80-120
Vanadium	46.30	48.51	105	80-120
Zinc	46.30	47.74	103	80-120

Type: BSD Lab ID: QC877264

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	51.02	54.66	107	80-120	1	20
Arsenic	51.02	53.00	104	80-120	1	20
Barium	51.02	53.65	105	80-120	1	20
Beryllium	25.51	27.49	108	80-120	0	20
Cadmium	51.02	52.56	103	80-120	1	20
Chromium	51.02	53.56	105	80-120	1	20
Cobalt	51.02	52.13	102	80-120	0	20
Copper	51.02	51.56	101	80-120	1	20
Lead	51.02	52.33	103	80-120	0	20
Molybdenum	51.02	53.23	104	80-120	0	20
Nickel	51.02	53.05	104	80-120	0	20
Selenium	51.02	51.56	101	80-120	2	20
Silver	5.102	5.032	99	80-120	0	20
Thallium	51.02	54.51	107	80-120	1	20
Vanadium	51.02	53.96	106	80-120	1	20
Zinc	51.02	52.58	103	80-120	0	20

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	EPA 3050B
Project#:	220.003.04.002	Analysis:	EPA 6010B
Field ID:	ZZZZZZZZZZ	Batch#:	245605
MSS Lab ID:	286838-007	Sampled:	03/07/17
Matrix:	Soil	Received:	03/09/17
Units:	mg/Kg	Prepared:	03/16/17
Basis:	as received	Analyzed:	03/17/17
Diln Fac:	1.000		

Type: MS Lab ID: QC877265

Analyte	MSS Result	Spiked	Result	%REC	Limits
Antimony	<0.1208	51.02	24.04	47	1-120
Arsenic	0.4464	51.02	55.14	107	69-129
Barium	42.61	51.02	102.1	117	43-156
Beryllium	0.1536	25.51	30.07	117	80-120
Cadmium	0.09861	51.02	55.86	109	73-122
Chromium	42.98	51.02	98.29	108	63-135
Cobalt	6.073	51.02	56.61	99	66-121
Copper	4.676	51.02	63.46	115	72-133
Lead	2.005	51.02	56.20	106	50-131
Molybdenum	<0.05066	51.02	50.78	100	67-120
Nickel	38.23	51.02	91.11	104	56-135
Selenium	0.3022	51.02	53.89	105	57-123
Silver	<0.04587	5.102	4.002	78	34-136
Thallium	<0.1382	51.02	50.94	100	57-121
Vanadium	32.96	51.02	88.82	109	70-131
Zinc	19.08	51.02	73.57	107	48-143

Type: MSD Lab ID: QC877266

Analyte	Spiked	Result	%REC	Limits	RPD	Lim
Antimony	50.00	22.82	46	1-120	3	43
Arsenic	50.00	52.87	105	69-129	2	30
Barium	50.00	95.58	106	43-156	6	40
Beryllium	25.00	28.90	115	80-120	2	20
Cadmium	50.00	54.43	109	73-122	1	28
Chromium	50.00	99.57	113	63-135	2	34
Cobalt	50.00	55.02	98	66-121	1	30
Copper	50.00	61.82	114	72-133	1	40
Lead	50.00	54.48	105	50-131	1	48
Molybdenum	50.00	50.15	100	67-120	1	20
Nickel	50.00	89.03	102	56-135	1	33
Selenium	50.00	52.47	104	57-123	1	29
Silver	5.000	3.869	77	34-136	1	39
Thallium	50.00	49.26	99	57-121	1	23
Vanadium	50.00	83.79	102	70-131	5	28
Zinc	50.00	72.00	106	48-143	1	33

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	220.003.04.002	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Type:	BLANK	Batch#:	245786
Lab ID:	QC877966	Prepared:	03/22/17
Matrix:	Soil	Analyzed:	03/22/17
Units:	mg/Kg		

Result	RL
ND	0.018

ND= Not Detected
RL= Reporting Limit

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	220.003.04.002	Analysis:	EPA 7471A
Analyte:	Mercury	Batch#:	245786
Matrix:	Soil	Prepared:	03/22/17
Units:	mg/Kg	Analyzed:	03/22/17
Diln Fac:	1.000		

Type	Lab ID	Spiked	Result	%REC	Limits	RPD	Lim
BS	QC877967	0.2193	0.2209	101	79-129		
BSD	QC877968	0.2155	0.2183	101	79-129	1	40

RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	220.003.04.002	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	245786
MSS Lab ID:	286977-001	Sampled:	03/14/17
Matrix:	Soil	Received:	03/14/17
Units:	mg/Kg	Prepared:	03/22/17
Basis:	as received	Analyzed:	03/22/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC877969	0.1520	0.2016	0.3015	74	63-149		
MSD	QC877970		0.1953	0.4469	151 *	63-149	41	69

*= Value outside of QC limits; see narrative
RPD= Relative Percent Difference

Curtis & Tompkins, Ltd.

Batch QC Report

California Title 22 Metals

Lab #:	286987	Location:	39155 & 39183 State Street
Client:	PES Environmental, Inc.	Prep:	METHOD
Project#:	220.003.04.002	Analysis:	EPA 7471A
Analyte:	Mercury	Diln Fac:	1.000
Field ID:	ZZZZZZZZZZ	Batch#:	245786
MSS Lab ID:	287012-007	Sampled:	03/14/17
Matrix:	Soil	Received:	03/15/17
Units:	mg/Kg	Prepared:	03/22/17
Basis:	as received	Analyzed:	03/22/17

Type	Lab ID	MSS Result	Spiked	Result	%REC	Limits	RPD	Lim
MS	QC877971	0.04511	0.2083	0.2245	86	63-149		
MSD	QC877972		0.2083	0.2288	88	63-149	2	69

RPD= Relative Percent Difference