

APPENDIX C2

Phase II Limited Surface Soil Sampling



17 May 2018

Ms. Anne P. Conner
Sr. Remediation Project Manager
Pacific Gas and Electric Company
3401 Crow Canyon Road
San Ramon, CA 94583

Subject: **Limited Surface Soil Sampling**
Santa Clara-Portwood Property
Santa Clara County APN: 701-58-048 and 701-48-057
San Jose, Santa Clara County, California

Dear Ms. Conner:

ERM-West, Inc. (ERM) has prepared this letter report on behalf of Pacific Gas and Electric Company ("PG&E") to summarize the findings of limited surface soil sampling at the Santa Clara-Portwood Property identified by San Joaquin County Assessor's Parcel Numbers (APN) 701-58-048 and 701-48-057. The parcels are located at an unaddressed property on Portwood Drive and Hampswood Way in San Jose, Santa Clara County, California (the "site" or "subject property"). This work was performed under ERM's Master Service Agreement (MSA) with PG&E #C1135 under the Alliance Framework.

The shallow composite sampling and analysis of the composite sample for potential compounds of concern including total petroleum hydrocarbons as diesel, motor oil and gasoline, organochlorine pesticides, polychlorinated biphenyls (PCBs), and metals, was completed to characterize onsite soils. The limited field investigation did not include sampling of soils at depths greater than 1 foot below ground surface (bgs); however, the findings of the Phase I ESA and limited soil investigation do not indicate reason to suspect that deeper soils have been significantly impacted by historical site operations. The scope of work and results are described in the sections below.

SCOPE OF WORK

ERM understands that Pacific Gas and Electric Company ("PG&E") is considering divesting the Site in Santa Clara County (APN: 701-58-048 and 701-48-057). The site is located on approximately 4.3 acres of land in four disconnected segments, composing two parcels. Each parcel is divided into

two pieces by roadways, and the two parcels are disconnected from each other by the Almaden Expressway. ERM understands that PG&E is conducting the limited surface soil sampling to support divesting the Site.

This limited soil investigation was conducted to determine if historical land use has impacted surface soil at the subject property. Findings from the April 2018 Phase I ESA identified that the subject property has been historically used for agricultural purposes and northern and central portion of the Site were topped with artificial fill material. The Subject Property was also developed with railroad tracks that spanned the Site. By 1940, the railroad tracks were no longer present and the Site was being used for agricultural purposes, including both orchards and row crops. The Site was subsequently occupied by various small structures, with the southern portion currently an asphalt paved lot after the removal of the row crops and orchards. Given the nature of current land use and the lack of regulatory scrutiny to date, potential chemicals of concern on site from historical and current operations may include residual agricultural chemicals in soil and potential impacts from the portions of the site topped with artificial fill. Sampling locations were selected to provide representative composite samples of the site.

SOIL SAMPLING

Representative soil sampling locations were selected during site reconnaissance. Soil samples were collected using a hand trowel. ERM referred to California Department of Toxic Substances Control (DTSC) Interim Guidance for Sampling Agricultural Properties, August 2008 when selecting sampling procedures.

ERM collected three four-point composite surface soil sample on each of the three northern unpaved sublots for a total of three composite samples. The locations of the soil borings were positioned to capture a representative view of the current conditions across the Site. Soil sampling locations are shown in Figure 2.

Each soil sample was collected advanced by removing the upper 0.25 feet of soil with a hand trowel. One soil sample was then collected from each location at a depth of 0.25 feet bgs. Each soil sample was collected with the hand trowel and placed in a lab-supplied 8 ounce glass jar. Each soil sample was labeled and packed in an ice-filled cooler.

The samples were hand delivered under standard chain-of-custody documentation to Curtis & Tompkins, a California-certified laboratory in Berkeley, California. The laboratory was instructed to analyze the composite soil samples for the following parameters:

- Total Petroleum Hydrocarbons as Diesel (TPH-d) and Total Petroleum Hydrocarbons as Motor Oil (TPH-mo) by USEPA Method 8015B;
- Total Petroleum Hydrocarbons as Gasoline (TPH-g) by USEPA Method 8260B;
- Polychlorinated biphenyls (PCBs) by USEPA Method 8082;
- Metals (California Title 22) by USEPA Method 6010/7000 series; and
- Organochlorine Pesticides by USEPA Method 8081A.

As the soil samples were collected at the near surface level, no waste soil was generated.

ANALYTICAL RESULTS

Soil analytical results are summarized on Tables 1 through 5 for each chemical class. Detectable concentrations are compared to compound-specific, risk-based Environmental Screening Levels (ESLs) established for residential shallow soil exposure and commercial/industrial shallow soil exposure by the San Francisco Bay Regional Water Quality Control Board in the February 2016 ESL Workbook.

The laboratory report is provided in Appendix A. The results for each chemical class are summarized below in the following subsections.

Total Petroleum Hydrocarbons as Diesel, Motor Oil and Gasoline in Site Soils

As shown on Table 1, TPH-d and TPH-mo were detected above the laboratory reporting limits at concentrations ranging from 12 mg/kg (COMP-3) to 100 mg/kg (COMP-2) and 50 mg/kg (COMP-3) to 290 mg/kg (COMP-2), respectively. TPH-g was not detected above the laboratory reporting limit in any sample. The TPH-d and TPH-mo concentrations detected are below the residential and commercial/industrial ESLs and are generally not considered a threat to human health or the environment under the relevant land use.

Metals in Site Soils

As shown on Table 2, 12 of the 17 metals analyzed were detected above the laboratory reporting limit in the composite soil samples. With the exception of cobalt, the concentrations of metals detected appear to be representative of background concentrations and are below the residential and commercial/industrial ESLs. Cobalt was detected at concentrations ranging from 27 mg/kg (COMP-1 and COMP-3) to 28 mg/kg (COMP-2). These detections are slightly above the residential ESL of 23 mg/kg but well below commercial/industrial ESL of 350 mg/kg.

Arsenic was detected at concentrations ranging from 3.9 mg/kg (COMP-3) to 5 mg/kg (COMP-1). Arsenic detections exceed the residential and commercial/industrial ESLs; however, as shown in Table 3, it is within the accepted background range of arsenic for California soils as defined by numerous background studies. Therefore, the arsenic concentrations detected in soil appear to be naturally occurring concentrations.

Organochlorine Pesticide Detections in Site Soils

As shown on Table 4, a low concentration of the organochlorine pesticides alpha-chlordane, 4,4'-DDD, 4,4'-DDT and gamma-chlordane was detected in the site soil sample at a concentration of 0.0035 mg/kg (COMP-2) to 0.0049 mg/kg (COMP-1), 0.0080 mg/kg (COMP-1) to 0.012 (COMP-2), 0.0082 mg/kg (COMP-2) and 0.0020 mg/kg (COMP-2) to 0.0036 mg/kg (COMP-1), respectively. These detections is well below the residential and commercial/industrial ESLs. Detections below the residential and commercial/industrial ESLs are not considered threats to human health or the environment under the relevant land use.

No other organochlorine pesticides were detected above the laboratory reporting limits. Reporting limits for the other pesticides that were not detected were well below the associated screening levels.

Polychlorinated Biphenols in Site Soils

As shown on Table 5, no PCBs were detected in site soils. The laboratory reporting limit for PCBs was well below the associated residential and commercial/industrial ESL. Detections below the residential and commercial/industrial ESLs are not considered threats to human health or the environment under the relevant land use.

SUMMARY AND CONCLUSIONS

Sampling locations were selected to demonstrate current soil conditions throughout the site. The results of the investigation were as follows:

- No visual or other evidence of impacts was observed during the field investigation.
- Screening levels residential shallow soil exposure and residential shallow soil exposure are considered to be the most appropriate basis for evaluating the results based on the nearby land use surrounding the site.
- TPH-d, TPH-mo and TPH-g concentrations were either nondetect or well below the residential ESLs and are not considered threats to human health or the environment under the relevant land use.
- All metals concentrations detected appear to be indicative of background concentrations, with the exception of cobalt that is slightly elevated above the residential ESL, but is well below the commercial/industrial ESL, and is therefore not considered a threat to human health or the environmental under the relevant land use.
- Pesticide concentration of alpha-chlordane, 4,4'-DDD, 4,4'-DDT and gamma-chlordane were detected at low concentrations below the residential ESLs. Detections below the residential ESLs are not considered threats to human health or the environment under the relevant land use.

Shallow composite soil samples were collected and analyzed for potential compounds of concern including petroleum hydrocarbons as diesel, motor oil and gasoline, organochlorine pesticides, PCBs and metals, was completed to screen shallow soil conditions at presumed representative locations across the Site. The results of the Phase I, the site visit and this limited surface soil investigation do not indicate obvious releases of the potential compounds of concern within the subject property. The limited field investigation did not include sampling of soils at depths greater than 1 foot bgs or comprehensive sampling across the Site; however, the findings of the Phase I ESA and limited soil investigation do not indicate reason to suspect that surface soils or deeper soils have been significantly impacted by historical site operations. This conclusion is based on 1) the nature of historical site operations; 2) the lack of visual evidence of impacts during the Phase I ESA and limited soil investigation site visits and from a review of historical resources of the subject property; and 3) the lack of elevated detections of suspected compounds of concern in the surface soils.

CLOSING

On behalf of the ERM project team, we appreciate the opportunity to support PG&E in meeting its goals for this project. If you have any questions, please call either of us at (925) 946-0455.

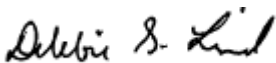
Sincerely,



Kevin Almestad
Project Geologist



Julia Smith
Senior Project Manager



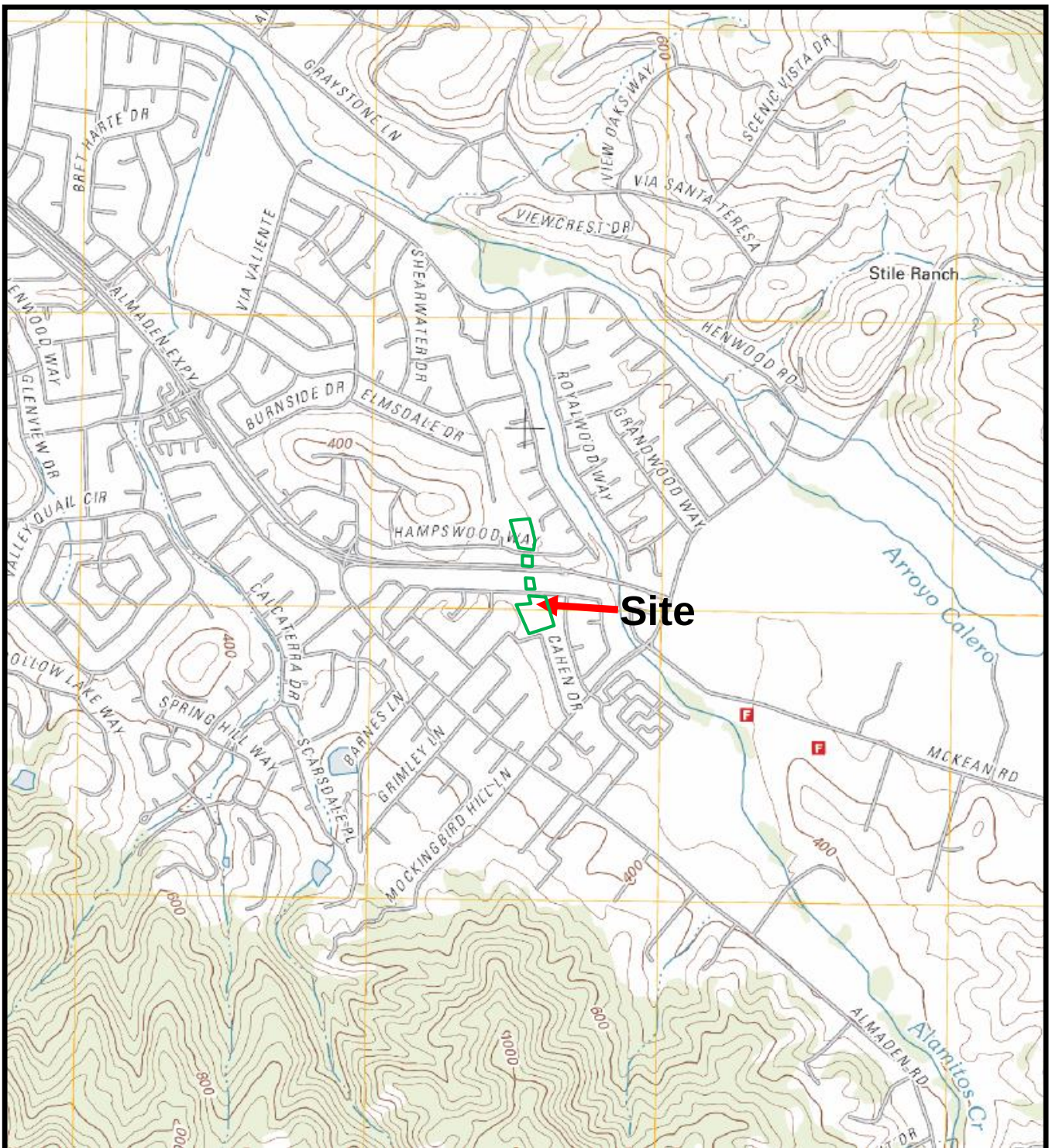
Debbie Lind, P.G.
Principal-in-Charge

enclosures: Attachment 1 Figures
 Attachment 2 Tables
 Attachment 3 Laboratory Report

REFERENCES

- Regional Water Quality Control Board, San Francisco Bay Region. 2016. *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater*. February (Revision 3).
- Department of Toxic Substances Control, 2008. *Interim Guidance for Sampling Agricultural Properties*. August (Revision 3).

Attachment 1
Figures



— Approximate Site Boundary

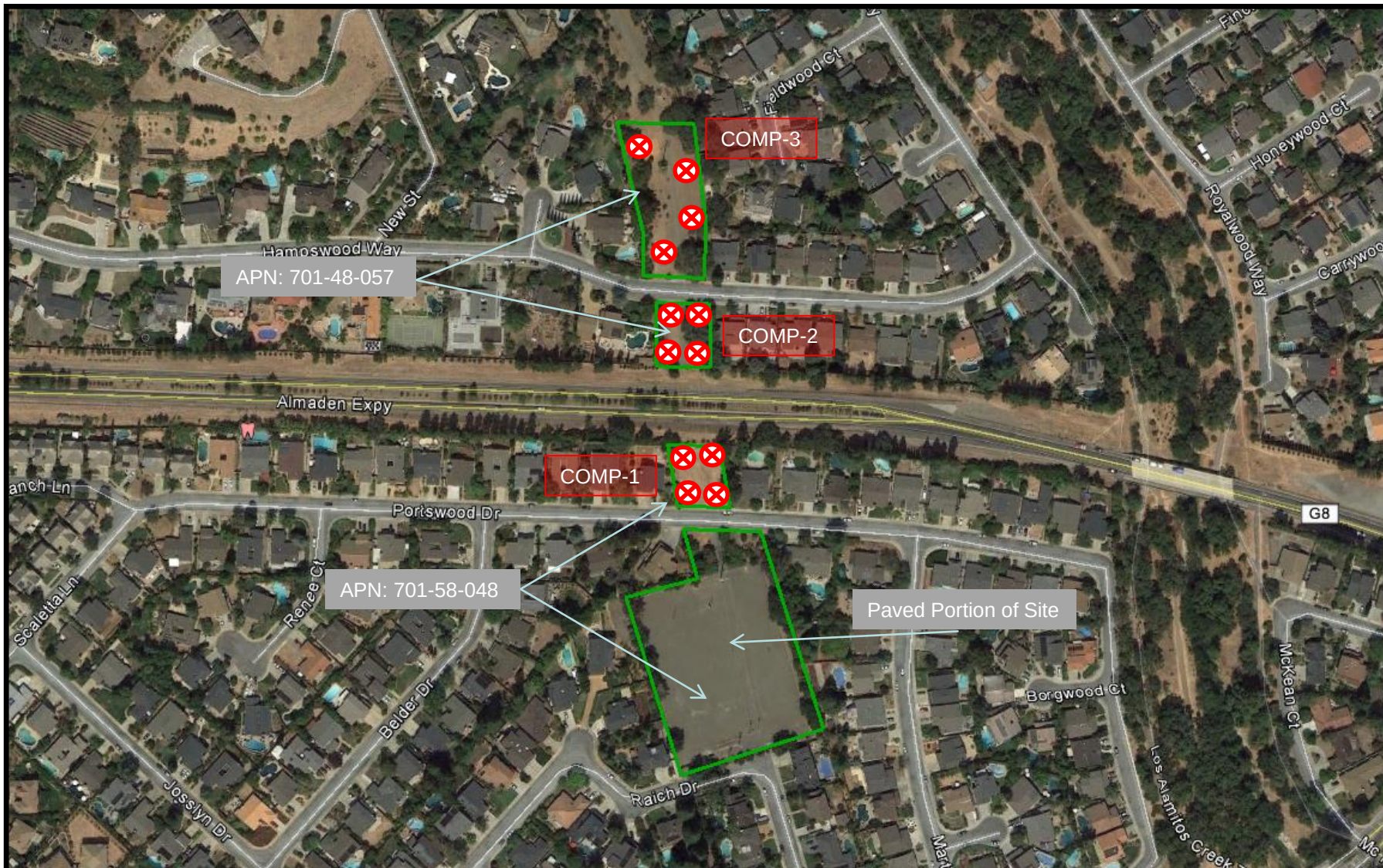
SOURCE: SANTA TERESA HILLS CA 7.5 MINUTE TOPOGRAPHIC QUADRANGLE, 2012

SCALE: 1:25,000



SITE LOCATION MAP
Portwood Drive and Hampswood Way
San Jose, California

Figure
1



— Approximate Site Boundary

⊗ Sample Location

Source: Google Earth Pro, 2017



SAMPLE LOCATION MAP
Portwood Drive and Hampswood Way
San Jose, California

Figure

2

Attachment 2
Tables

Table 1
Total Petroleum Hydrocarbons in Soil
Limited Site Investigation and Assessment
Santa Clara-Portswood Property
San Jose, Santa Clara County, California

Sample ID	Sample Depth (ft bgs)	Date Sampled	TPH-d	TPH-mo	TPH-g
<i>Residential: Shallow Soil Exposure</i>			230	11,000	740
<i>Commercial/Industrial: Shallow Soil Exposure</i>			1100	140,000	3,900
Comp-1	0.25	5/3/2018	88	230	<0.24*
Comp-2	0.25	5/3/2018	100	290	<0.24
Comp-3	0.25	5/3/2018	12	50	<0.24

Legend:

ft bgs = Feet below ground surface

TPH-d = Total petroleum hydrocarbons as diesel

TPH-mo = Total petroleum hydrocarbons as motor oil

ESL = Environmental Screening Level

< = Analyte not detected at or above the stated laboratory reporting limit

Lab Qualifier:

* - ISTD response or retention time outside acceptable limits.

Notes:

All concentrations reported in milligrams per kilogram (mg/kg).

TPH-g was analyzed by Environmental Protection Agency (USEPA) Method 8260B

TPH-d and TPH-mo were analyzed by Environmental Protection Agency (USEPA) Method 8015B.

Residential ESL = : Residential: Shallow Soil Exposure, San Francisco Bay Regional Water Quality Control Board, ESL Workbook, Summary of Soil ESLs Table, February 2016.

Commercial/Industrial ESL = Commercial/Industrial: Shallow Soil Exposure, San Francisco Bay Regional Water Quality Control Board, ESL Workbook, Summary of Soil ESLs Table, February 2016.

Bold values indicate detections at or above the laboratory reporting limit.

Table 2
Metals in Soil
Limited Site Investigation and Assessment
Santa Clara-Portwood Property
Princeton, Colusa County, California

Sample ID	Sample Depth (ft bgs)	Date Sampled	Antimony	Arsenic ^a	Barium	Beryllium	Cadmium	Chromium*	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
Residential: Shallow Soil Exposure			31	0.07	15,000	150	39	120,000	23	3,100	80	13	390	820	390	390	0.78	390	23,000
Commercial/Industrial: Shallow Soil Exposure			470	0.31	220,000	2200	580	1,800,000	350	47,000	320	190	5,800	11000	5,800	5,800	12	5800	350,000
COMP-1	0.25	5/3/2018	3.1	5	260	0.5	<0.31	160	27	43	25	0.03	<1.2	210	<2.5	<0.62	<1.2	80	98
COMP-2	0.25	5/3/2018	3	4.5	180	0.4	<0.34	140	28	37	18	2.8 F1 F2	<1.4	190	<2.8	<0.69	<1.4	78	89
COMP-3	0.25	5/3/2018	2.7	3.9	190	0.44	<0.29	120	27	32	11	1.7	<1.2	140	<2.4	<0.59	<1.2	81	73

Legend:

ft bgs = Feet below ground surface

ESL = Environmental Screening Level

* = Total chromium screening levels not established. The screening levels for chromium III were used.

< = Analyte not detected at or above the stated laboratory reporting limit.

^a = The screening levels for arsenic exceed the ESL; however, are below the background concentrations of arsenic of 3.5 to 12.0 mg/kg.

Lab Qualifiers:

F1 - MS and/or MSD Recovery is outside acceptable limits.

F2 - MS/MSD Relative Percent Difference exceeds control limits.

Notes:

All concentrations reported in milligrams per kilogram (mg/kg).

Samples were analyzed by United States Environmental Protection Agency (USEPA) Method 6010/7000 series.

Residential ESL = : Residential: Shallow Soil Exposure, San Francisco Bay Regional Water Quality Control Board, ESL Workbook, Summary of Soil ESLs Table, February 2016.

Commercial/Industrial ESL = Commercial/Industrial: Shallow Soil Exposure, San Francisco Bay Regional Water Quality Control Board, ESL Workbook, Summary of Soil ESLs Table, February 2016.

Bold values indicate detections at or above the laboratory reporting limit.

 = Values shaded gray indicate concentrations detected above screening levels.

Table 3
Background Concentrations of Arsenic in California Soils
Limited Site Investigation and Assessment
Colusa Property
Princeton, Colusa County, California

Source	Number of Soil Samples In Study	Arsenic Range (mg/kg)	Arsenic Average (mg/kg)
Southern California (Chernoff et al., 2005)	1,086	0.15 - 19.63	12*
California (Bradford et al., 1996)	50	0.6 - 11	3.5
Northern California (Diamond et al., 2009)	1,395	0.3 - 42	5.5
Western United States (Shacklette and Boerngen, 1984)	730 (arsenic) 778 (vanadium)	<0.10 - 97	5.5

Source:

California Department of Toxic Substances Control.

Bradford, G.R., A.C. Chang, A.L. Page, D. Bakhtar, J.A. Frampton, and H. Wright. 1996. *Background Concentrations of Trace and Major Elements in California Soils*. Kearney Foundation Special Report. University of California, Division of Agriculture and Natural Resources, Kearney Foundation of Soil Science. March 1996.

Diamond, D., D. Baskin, D. Brown, L. Lund, J. Najita, and I. Javandel. 2002. *Analysis of Background Distributions of Metals in the Soil at Lawrence Berkeley National Laboratory*. Lawrence Berkeley National Laboratory Environmental Restoration Program. June 2002, Revised April 2009.

Shacklette, H.T., and J.G. Boerngen. 1984. *Element Concentrations in Soils and Other Surficial Materials of the Conterminous United States*. U.S. Geological Survey Professional Paper 1270.

Table 3
Organochlorine Pesticides in Soil
Limited Site Investigation and Assessment
Santa Clara-Portswood Property
San Jose, Santa Clara County, California

Sample ID	Sample Depth (ft bgs)	Date Sampled	Aldrin	Alpha-BHC	Beta-BHC	Alpha-Chlordane*	Chlordane	4,4'-DDD	4,4'-DDE	4,4'-DDT	Delta-BHC	Dieldrin	Endosulfan I**	Endosulfan II**	Endosulfan** Sulfate	Endrin	Endrin Aldehyde	Endrin Ketone	Gamma-BHC	Gamma-Chlordane*	Heptachlor	Heptachlor Epoxide	Methoxychlor	Toxaphene
Residential ESLs			0.036	—	—	0.48	0.48	2.7	1.9	1.9	—	0.038	420	420	420	21	—	—	—	—	—	—	—	—
Commercial/Industrial ESLs			0.16	—	—	2.2	2.2	12	8.5	8.5	—	0.17	5,800	5,800	5,800	290	—	—	—	—	—	—	—	—
COMP-1	0.25	5/3/2018	<0.0020	<0.0020	<0.0020	0.0049 p	<0.039	0.0080	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0036	<0.0020	<0.0020	<0.0020	<0.039
COMP-2	0.25	5/3/2018	<0.0020	<0.0020	<0.0020	0.0035 p	<0.040	0.012	<0.0020	0.0082	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	<0.0020	0.0020 p	<0.0020	<0.0020	<0.0020	<0.040
COMP-3	0.25	5/3/2018	<0.0039	<0.0039	<0.0039	<0.0039	<0.079	0.0092	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.0039	<0.079

Legend:

ft bgs = Feet below ground surface
BHC = Hexachlorocyclohexane
DDD = Dichlorodiphenyldichloroethane
DDE = Dichlorodiphenyldichloroethylene
DDT = Dichlorodiphenyltrichloroethane
ESL = Environmental Screening Level

* = Alpha-Chlordane and Gamma-Chlordane individual screening levels not established. The screening level for Chlordane, not specific to a particular isomer, was used.
**= Endosulfan I, Endosulfan II and Endosulfan Sulfate individual screening levels not established. The screening level for Endosulfan, not specific to a particular isomer, was used.

--- = No screening level established
< = Analyte not detected at or above the stated laboratory reporting limit

Lab Qualifier:

p - The Relative Percent Difference between the primary and confirmation column/detector is >40%. The lower value has been reported.

Notes:

All concentrations reported in micrograms per kilogram (mg/kg).
Samples were analyzed by United States Environmental Protection Agency (USEPA) Method 8081A.
Residential ESL = : Residential: Shallow Soil Exposure, San Francisco Bay Regional Water Quality Control Board, ESL Workbook, Summary of Soil ESLs Table, February 2016.
Commercial/Industrial ESL = Commercial/Industrial: Shallow Soil Exposure, San Francisco Bay Regional Water Quality Control Board, ESL Workbook, Summary of Soil ESLs Table, February 2016.
Bold values indicate detections at or above the laboratory reporting limit.

*Table 3
Organochlorine Pesticides in Soil
Limited Site Investigation and Assessment
Santa Clara-Portswood Property
San Jose, Santa Clara County, California*

Sample ID	Sample Depth (ft bgs)	Date Sampled	Aroclor-1016	Aroclor-1221	Aroclor-1232	Aroclor-1242	Aroclor-1248	Aroclor-1254	Aroclor-1260
<i>Residential ESLs</i>			0.25	0.25	0.25	0.25	0.25	0.25	0.25
<i>Commercial/Industrial ESLs</i>			1	1	1	1	1	1	1
COMP-1	0.25	5/3/2018	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049
COMP-2	0.25	5/3/2018	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050	<0.050
COMP-3	0.25	5/3/2018	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049	<0.049

Legend:

ft bgs = Feet below ground surface

PCB= Polychlorinated Biphenyl

ESLs = Environmental Screening Levels

--- = No screening level established

< = Analyte not detected at or above the stated laboratory reporting limit

Notes:

All concentrations reported in micrograms per kilogram (mg/Kg).

Samples were analyzed by United States Environmental Protection Agency (USEPA) Method 8082

Residential ESL = : Residential: Shallow Soil Exposure, San Francisco Bay Regional Water Quality Control Board, ESL Workbook, Summary of Soil ESLs Table, February 2016.

Commercial/Industrial ESL = Commercial/Industrial: Shallow Soil Exposure, San Francisco Bay Regional Water Quality Control Board, ESL Workbook, Summary of Soil ESLs Table, February 2016.

Attachment 3
Laboratory Report

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.

TestAmerica Pleasanton

1220 Quarry Lane

Pleasanton, CA 94566

Tel: (925)484-1919

TestAmerica Job ID: 720-86290-1

Client Project/Site: Santa Clara Portswood Site

For:

ERM-West

114 Sansome Street, Suite 750

San Francisco, California 94104

Attn: Julia Smith



Authorized for release by:

5/14/2018 4:54:46 PM

Afsaneh Salimpour, Senior Project Manager

(925)484-1919

afsaneh.salimpour@testamericainc.com

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

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

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15

Table of Contents

Cover Page	1
Table of Contents	2
Definitions/Glossary	3
Case Narrative	4
Detection Summary	5
Client Sample Results	7
Surrogate Summary	13
QC Sample Results	15
QC Association Summary	24
Lab Chronicle	28
Certification Summary	30
Method Summary	31
Sample Summary	32
Chain of Custody	33
Receipt Checklists	34

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

Definitions/Glossary

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Qualifiers

GC/MS VOA

Qualifier	Qualifier Description
*	ISTD response or retention time outside acceptable limits

GC Semi VOA

Qualifier	Qualifier Description
p	The %RPD between the primary and confirmation column/detector is >40%. The lower value has been reported.

Metals

Qualifier	Qualifier Description
F1	MS and/or MSD Recovery is outside acceptance limits.
F2	MS/MSD RPD exceeds control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
α	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Case Narrative

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Job ID: 720-86290-1

Laboratory: TestAmerica Pleasanton

Narrative

Job Narrative 720-86290-1

Comments

No additional comments.

Receipt

The samples were received on 5/3/2018 4:45 PM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 1.8° C.

GC/MS VOA

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA

Method(s) 8081A: The %RPD between the primary and confirmation column exceeded 40% for cis-Chlordane for the following sample: COMP-1 (720-86290-5). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

Method(s) 8081A: The %RPD between the primary and confirmation column exceeded 40% for cis-Chlordane & trans-Chlordane for the following samples: COMP-2 (720-86290-10) . The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

Method(s) 8082: The following sample required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: COMP-1 (720-86290-5).

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: COMP-3 (720-86290-15), (LCS 720-243818/2-A), (MB 720-243818/1-A), (720-86290-A-15-F MS) and (720-86290-A-15-G MSD).

Method(s) 8082: The following samples required a tetrabutylammonium sulfite (TBA) clean-up to reduce matrix interferences caused by sulfur: COMP-2 (720-86290-10) .

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Metals

Method(s) 6010B: The following samples were diluted due to the abundance of non-target analytes : COMP-1 (720-86290-5), COMP-2 (720-86290-10) and COMP-3 (720-86290-15). Elevated reporting limits (RLs) are provided.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Detection Summary

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Client Sample ID: COMP-1

Lab Sample ID: 720-86290-5

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	88		2.0		mg/Kg	1		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	230		50		mg/Kg	1		8015B	Total/NA
4,4'-DDE	0.0080		0.0020		mg/Kg	1		8081A	Total/NA
cis-Chlordane	0.0049	p	0.0020		mg/Kg	1		8081A	Total/NA
trans-Chlordane	0.0036		0.0020		mg/Kg	1		8081A	Total/NA
Antimony	3.1		1.2		mg/Kg	4		6010B	Total/NA
Arsenic	5.0		2.5		mg/Kg	4		6010B	Total/NA
Barium	260		1.2		mg/Kg	4		6010B	Total/NA
Beryllium	0.50		0.25		mg/Kg	4		6010B	Total/NA
Chromium	160		1.2		mg/Kg	4		6010B	Total/NA
Cobalt	27		0.50		mg/Kg	4		6010B	Total/NA
Copper	43		3.7		mg/Kg	4		6010B	Total/NA
Lead	25		1.2		mg/Kg	4		6010B	Total/NA
Nickel	210		1.2		mg/Kg	4		6010B	Total/NA
Vanadium	80		1.2		mg/Kg	4		6010B	Total/NA
Zinc	98		3.7		mg/Kg	4		6010B	Total/NA
Mercury	0.030		0.017		mg/Kg	1		7471A	Total/NA

Client Sample ID: COMP-2

Lab Sample ID: 720-86290-10

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	100		2.0		mg/Kg	1		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	290		49		mg/Kg	1		8015B	Total/NA
4,4'-DDT	0.0082		0.0020		mg/Kg	1		8081A	Total/NA
4,4'-DDE	0.012		0.0020		mg/Kg	1		8081A	Total/NA
cis-Chlordane	0.0035	p	0.0020		mg/Kg	1		8081A	Total/NA
trans-Chlordane	0.0020	p	0.0020		mg/Kg	1		8081A	Total/NA
Antimony	3.0		1.4		mg/Kg	4		6010B	Total/NA
Arsenic	4.5		2.8		mg/Kg	4		6010B	Total/NA
Barium	180		1.4		mg/Kg	4		6010B	Total/NA
Beryllium	0.40		0.28		mg/Kg	4		6010B	Total/NA
Chromium	140		1.4		mg/Kg	4		6010B	Total/NA
Cobalt	28		0.55		mg/Kg	4		6010B	Total/NA
Copper	37		4.1		mg/Kg	4		6010B	Total/NA
Lead	18		1.4		mg/Kg	4		6010B	Total/NA
Nickel	190		1.4		mg/Kg	4		6010B	Total/NA
Vanadium	78		1.4		mg/Kg	4		6010B	Total/NA
Zinc	89		4.1		mg/Kg	4		6010B	Total/NA
Mercury	2.8	F1 F2	0.16		mg/Kg	10		7471A	Total/NA

Client Sample ID: COMP-3

Lab Sample ID: 720-86290-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Diesel Range Organics [C10-C28]	12		2.0		mg/Kg	1		8015B	Total/NA
Motor Oil Range Organics [C24-C36]	50		50		mg/Kg	1		8015B	Total/NA
4,4'-DDE	0.0092		0.0039		mg/Kg	1		8081A	Total/NA
Antimony	2.7		1.2		mg/Kg	4		6010B	Total/NA
Arsenic	3.9		2.4		mg/Kg	4		6010B	Total/NA
Barium	190		1.2		mg/Kg	4		6010B	Total/NA
Beryllium	0.44		0.24		mg/Kg	4		6010B	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Detection Summary

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Client Sample ID: COMP-3 (Continued)

Lab Sample ID: 720-86290-15

Analyte	Result	Qualifier	RL	MDL	Unit	Dil	Fac	D	Method	Prep Type
Chromium	120		1.2		mg/Kg	4			6010B	Total/NA
Cobalt	27		0.47		mg/Kg	4			6010B	Total/NA
Copper	32		3.5		mg/Kg	4			6010B	Total/NA
Lead	11		1.2		mg/Kg	4			6010B	Total/NA
Nickel	140		1.2		mg/Kg	4			6010B	Total/NA
Vanadium	81		1.2		mg/Kg	4			6010B	Total/NA
Zinc	73		3.5		mg/Kg	4			6010B	Total/NA
Mercury	1.7		0.17		mg/Kg	10			7471A	Total/NA

This Detection Summary does not include radiochemical test results.

TestAmerica Pleasanton

Client Sample Results

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Client Sample ID: COMP-1

Date Collected: 05/03/18 11:15

Date Received: 05/03/18 16:45

Lab Sample ID: 720-86290-5

Matrix: Solid

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C4-C12	ND		240		ug/Kg		05/04/18 14:43	05/09/18 03:30	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	94	*	45 - 131				05/04/18 14:43	05/09/18 03:30	1
1,2-Dichloroethane-d4 (Surr)	137		60 - 140				05/04/18 14:43	05/09/18 03:30	1
Toluene-d8 (Surr)	94		58 - 140				05/04/18 14:43	05/09/18 03:30	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	88		2.0		mg/Kg		05/09/18 10:52	05/10/18 11:40	1
Motor Oil Range Organics [C24-C36]	230		50		mg/Kg		05/09/18 10:52	05/10/18 11:40	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	127		40 - 130				05/09/18 10:52	05/10/18 11:40	1

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
Dieldrin	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
Endrin aldehyde	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
Endrin	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
Endrin ketone	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
Heptachlor	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
Heptachlor epoxide	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
4,4'-DDT	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
4,4'-DDE	0.0080		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
4,4'-DDD	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
Endosulfan I	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
Endosulfan II	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
alpha-BHC	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
beta-BHC	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
gamma-BHC (Lindane)	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
delta-BHC	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
Endosulfan sulfate	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
Methoxychlor	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
Toxaphene	ND		0.039		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
Chlordane (technical)	ND		0.039		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
cis-Chlordane	0.0049	p	0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
trans-Chlordane	0.0036		0.0020		mg/Kg		05/09/18 13:04	05/10/18 17:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	87		21 - 145				05/09/18 13:04	05/10/18 17:54	1
DCB Decachlorobiphenyl	75		21 - 136				05/09/18 13:04	05/10/18 17:54	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		49		ug/Kg		05/09/18 13:08	05/10/18 00:29	1
PCB-1221	ND		49		ug/Kg		05/09/18 13:08	05/10/18 00:29	1
PCB-1232	ND		49		ug/Kg		05/09/18 13:08	05/10/18 00:29	1

TestAmerica Pleasanton

Client Sample Results

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Client Sample ID: COMP-1

Lab Sample ID: 720-86290-5

Date Collected: 05/03/18 11:15

Matrix: Solid

Date Received: 05/03/18 16:45

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	ND		49		ug/Kg		05/09/18 13:08	05/10/18 00:29	1
PCB-1248	ND		49		ug/Kg		05/09/18 13:08	05/10/18 00:29	1
PCB-1254	ND		49		ug/Kg		05/09/18 13:08	05/10/18 00:29	1
PCB-1260	ND		49		ug/Kg		05/09/18 13:08	05/10/18 00:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	74		45 - 132				05/09/18 13:08	05/10/18 00:29	1
DCB Decachlorobiphenyl	79		42 - 146				05/09/18 13:08	05/10/18 00:29	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.1		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:35	4
Arsenic	5.0		2.5		mg/Kg		05/07/18 08:34	05/08/18 10:35	4
Barium	260		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:35	4
Beryllium	0.50		0.25		mg/Kg		05/07/18 08:34	05/08/18 10:35	4
Cadmium	ND		0.31		mg/Kg		05/07/18 08:34	05/08/18 10:35	4
Chromium	160		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:35	4
Cobalt	27		0.50		mg/Kg		05/07/18 08:34	05/08/18 10:35	4
Copper	43		3.7		mg/Kg		05/07/18 08:34	05/08/18 10:35	4
Lead	25		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:35	4
Molybdenum	ND		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:35	4
Nickel	210		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:35	4
Selenium	ND		2.5		mg/Kg		05/07/18 08:34	05/08/18 10:35	4
Silver	ND		0.62		mg/Kg		05/07/18 08:34	05/08/18 10:35	4
Thallium	ND		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:35	4
Vanadium	80		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:35	4
Zinc	98		3.7		mg/Kg		05/07/18 08:34	05/08/18 10:35	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.030		0.017		mg/Kg		05/08/18 08:35	05/08/18 13:55	1

TestAmerica Pleasanton

Client Sample Results

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Client Sample ID: COMP-2

Date Collected: 05/03/18 11:25

Date Received: 05/03/18 16:45

Lab Sample ID: 720-86290-10

Matrix: Solid

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C4-C12	ND		240		ug/Kg		05/04/18 14:43	05/09/18 14:01	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	86		45 - 131				05/04/18 14:43	05/09/18 14:01	1
1,2-Dichloroethane-d4 (Surr)	121		60 - 140				05/04/18 14:43	05/09/18 14:01	1
Toluene-d8 (Surr)	95		58 - 140				05/04/18 14:43	05/09/18 14:01	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	100		2.0		mg/Kg		05/09/18 10:52	05/10/18 11:16	1
Motor Oil Range Organics [C24-C36]	290		49		mg/Kg		05/09/18 10:52	05/10/18 11:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	110		40 - 130				05/09/18 10:52	05/10/18 11:16	1

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
Dieldrin	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
Endrin aldehyde	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
Endrin	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
Endrin ketone	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
Heptachlor	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
Heptachlor epoxide	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
4,4'-DDT	0.0082		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
4,4'-DDE	0.012		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
4,4'-DDD	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
Endosulfan I	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
Endosulfan II	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
alpha-BHC	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
beta-BHC	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
gamma-BHC (Lindane)	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
delta-BHC	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
Endosulfan sulfate	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
Methoxychlor	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
Toxaphene	ND		0.040		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
Chlordane (technical)	ND		0.040		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
cis-Chlordane	0.0035	p	0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
trans-Chlordane	0.0020	p	0.0020		mg/Kg		05/10/18 15:42	05/11/18 17:16	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		21 - 145				05/10/18 15:42	05/11/18 17:16	1
DCB Decachlorobiphenyl	104		21 - 136				05/10/18 15:42	05/11/18 17:16	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		50		ug/Kg		05/10/18 14:24	05/10/18 19:54	1
PCB-1221	ND		50		ug/Kg		05/10/18 14:24	05/10/18 19:54	1
PCB-1232	ND		50		ug/Kg		05/10/18 14:24	05/10/18 19:54	1

TestAmerica Pleasanton

Client Sample Results

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Client Sample ID: COMP-2

Lab Sample ID: 720-86290-10

Date Collected: 05/03/18 11:25

Matrix: Solid

Date Received: 05/03/18 16:45

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	ND		50		ug/Kg		05/10/18 14:24	05/10/18 19:54	1
PCB-1248	ND		50		ug/Kg		05/10/18 14:24	05/10/18 19:54	1
PCB-1254	ND		50		ug/Kg		05/10/18 14:24	05/10/18 19:54	1
PCB-1260	ND		50		ug/Kg		05/10/18 14:24	05/10/18 19:54	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	108		45 - 132				05/10/18 14:24	05/10/18 19:54	1
DCB Decachlorobiphenyl	97		42 - 146				05/10/18 14:24	05/10/18 19:54	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	3.0		1.4		mg/Kg		05/07/18 08:34	05/08/18 10:40	4
Arsenic	4.5		2.8		mg/Kg		05/07/18 08:34	05/08/18 10:40	4
Barium	180		1.4		mg/Kg		05/07/18 08:34	05/08/18 10:40	4
Beryllium	0.40		0.28		mg/Kg		05/07/18 08:34	05/08/18 10:40	4
Cadmium	ND		0.34		mg/Kg		05/07/18 08:34	05/08/18 10:40	4
Chromium	140		1.4		mg/Kg		05/07/18 08:34	05/08/18 10:40	4
Cobalt	28		0.55		mg/Kg		05/07/18 08:34	05/08/18 10:40	4
Copper	37		4.1		mg/Kg		05/07/18 08:34	05/08/18 10:40	4
Lead	18		1.4		mg/Kg		05/07/18 08:34	05/08/18 10:40	4
Molybdenum	ND		1.4		mg/Kg		05/07/18 08:34	05/08/18 10:40	4
Nickel	190		1.4		mg/Kg		05/07/18 08:34	05/08/18 10:40	4
Selenium	ND		2.8		mg/Kg		05/07/18 08:34	05/08/18 10:40	4
Silver	ND		0.69		mg/Kg		05/07/18 08:34	05/08/18 10:40	4
Thallium	ND		1.4		mg/Kg		05/07/18 08:34	05/08/18 10:40	4
Vanadium	78		1.4		mg/Kg		05/07/18 08:34	05/08/18 10:40	4
Zinc	89		4.1		mg/Kg		05/07/18 08:34	05/08/18 10:40	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	2.8	F1 F2	0.16		mg/Kg		05/08/18 08:24	05/08/18 16:09	10

TestAmerica Pleasanton

Client Sample Results

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Client Sample ID: COMP-3

Date Collected: 05/03/18 11:35

Date Received: 05/03/18 16:45

Lab Sample ID: 720-86290-15

Matrix: Solid

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C4-C12	ND		240		ug/Kg		05/04/18 14:43	05/09/18 14:29	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	96		45 - 131				05/04/18 14:43	05/09/18 14:29	1
1,2-Dichloroethane-d4 (Surr)	117		60 - 140				05/04/18 14:43	05/09/18 14:29	1
Toluene-d8 (Surr)	98		58 - 140				05/04/18 14:43	05/09/18 14:29	1

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

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Diesel Range Organics [C10-C28]	12		2.0		mg/Kg		05/09/18 10:57	05/10/18 10:52	1
Motor Oil Range Organics [C24-C36]	50		50		mg/Kg		05/09/18 10:57	05/10/18 10:52	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
p-Terphenyl	93		40 - 130				05/09/18 10:57	05/10/18 10:52	1

Method: 8081A - Organochlorine Pesticides (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
Dieldrin	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
Endrin aldehyde	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
Endrin	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
Endrin ketone	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
Heptachlor	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
Heptachlor epoxide	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
4,4'-DDT	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
4,4'-DDE	0.0092		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
4,4'-DDD	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
Endosulfan I	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
Endosulfan II	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
alpha-BHC	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
beta-BHC	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
gamma-BHC (Lindane)	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
delta-BHC	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
Endosulfan sulfate	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
Methoxychlor	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
Toxaphene	ND		0.079		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
Chlordane (technical)	ND		0.079		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
cis-Chlordane	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
trans-Chlordane	ND		0.0039		mg/Kg		05/09/18 13:04	05/10/18 19:22	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	136		21 - 145				05/09/18 13:04	05/10/18 19:22	1
DCB Decachlorobiphenyl	132		21 - 136				05/09/18 13:04	05/10/18 19:22	1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		49		ug/Kg		05/09/18 13:08	05/10/18 11:04	1
PCB-1221	ND		49		ug/Kg		05/09/18 13:08	05/10/18 11:04	1
PCB-1232	ND		49		ug/Kg		05/09/18 13:08	05/10/18 11:04	1

TestAmerica Pleasanton

Client Sample Results

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Client Sample ID: COMP-3

Lab Sample ID: 720-86290-15

Date Collected: 05/03/18 11:35

Matrix: Solid

Date Received: 05/03/18 16:45

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	ND		49		ug/Kg		05/09/18 13:08	05/10/18 11:04	1
PCB-1248	ND		49		ug/Kg		05/09/18 13:08	05/10/18 11:04	1
PCB-1254	ND		49		ug/Kg		05/09/18 13:08	05/10/18 11:04	1
PCB-1260	ND		49		ug/Kg		05/09/18 13:08	05/10/18 11:04	1
Surrogate	%Recovery	Qualifier	Limits				Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	72		45 - 132				05/09/18 13:08	05/10/18 11:04	1
DCB Decachlorobiphenyl	87		42 - 146				05/09/18 13:08	05/10/18 11:04	1

Method: 6010B - Metals (ICP)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	2.7		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:45	4
Arsenic	3.9		2.4		mg/Kg		05/07/18 08:34	05/08/18 10:45	4
Barium	190		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:45	4
Beryllium	0.44		0.24		mg/Kg		05/07/18 08:34	05/08/18 10:45	4
Cadmium	ND		0.29		mg/Kg		05/07/18 08:34	05/08/18 10:45	4
Chromium	120		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:45	4
Cobalt	27		0.47		mg/Kg		05/07/18 08:34	05/08/18 10:45	4
Copper	32		3.5		mg/Kg		05/07/18 08:34	05/08/18 10:45	4
Lead	11		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:45	4
Molybdenum	ND		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:45	4
Nickel	140		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:45	4
Selenium	ND		2.4		mg/Kg		05/07/18 08:34	05/08/18 10:45	4
Silver	ND		0.59		mg/Kg		05/07/18 08:34	05/08/18 10:45	4
Thallium	ND		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:45	4
Vanadium	81		1.2		mg/Kg		05/07/18 08:34	05/08/18 10:45	4
Zinc	73		3.5		mg/Kg		05/07/18 08:34	05/08/18 10:45	4

Method: 7471A - Mercury (CVAA)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	1.7		0.17		mg/Kg		05/08/18 08:24	05/08/18 16:12	10

TestAmerica Pleasanton

Surrogate Summary

Client: ERM-West
Project/Site: Santa Clara Portwood Site

TestAmerica Job ID: 720-86290-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		BFB (45-131)	DCA (60-140)	TOL (58-140)
720-86290-5	COMP-1	94 *	137	94
720-86290-10	COMP-2	86	121	95
720-86290-15	COMP-3	96	117	98
LCS 720-243761/7	Lab Control Sample	100	104	105
LCS 720-243784/7	Lab Control Sample	97	109	105
LCSD 720-243761/8	Lab Control Sample Dup	95	106	100
LCSD 720-243784/8	Lab Control Sample Dup	99	108	103
MB 720-243761/4	Method Blank	100	106	101
MB 720-243784/9	Method Blank	97	103	102

Surrogate Legend

BFB = 4-Bromofluorobenzene
DCA = 1,2-Dichloroethane-d4 (Surr)
TOL = Toluene-d8 (Surr)

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

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)		
		TPH1 (40-130)		
720-86290-5	COMP-1	127		
720-86290-10	COMP-2	110		
720-86290-15	COMP-3	93		
LCS 720-243803/2-A	Lab Control Sample	105		
MB 720-243803/1-A	Method Blank	104		

Surrogate Legend

TPH = p-Terphenyl

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX1 (21-145)	DCBP1 (21-136)
720-86290-5	COMP-1	87	75
720-86290-10	COMP-2	81	104
720-86290-15	COMP-3	136	132
LCS 720-243817/2-A	Lab Control Sample	78	104

Surrogate Legend

TCX = Tetrachloro-m-xylene
DCBP = DCB Decachlorobiphenyl

Surrogate Summary

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Method: 8081A - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)	
Lab Sample ID	Client Sample ID	TCX2 (21-145)	DCBP2 (21-136)
LCS 720-243908/2-A	Lab Control Sample	86	95
MB 720-243817/1-A	Method Blank	82	104 p
MB 720-243908/1-A	Method Blank	85	86
Surrogate Legend			
TCX = Tetrachloro-m-xylene			
DCBP = DCB Decachlorobiphenyl			

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

		Percent Surrogate Recovery (Acceptance Limits)							
Lab Sample ID	Client Sample ID	TCX1 (45-132)	TCX1 (45-132)	TCX1 (45-132)	TCX1 (45-132)	DCBP1 (42-146)	DCBP1 (42-146)	DCBP1 (42-146)	DCBP1 (42-146)
720-86290-5	COMP-1	74	74	74	74	79	79	79	79
720-86290-10	COMP-2	108	108	108	108	97	97	97	97
720-86290-15	COMP-3	72	72	72	72	87	87	87	87
720-86290-15 MS	COMP-3	69	69	69	69	86	86	86	86
720-86290-15 MSD	COMP-3	74	74	74	74	86	86	86	86
LCS 720-243818/2-A	Lab Control Sample	80	80	80	80	95	95	95	95
LCS 720-243902/2-A	Lab Control Sample	92	92	92	92	56	56	56	56
MB 720-243818/1-A	Method Blank	81	81	81	81	98	98	98	98
MB 720-243902/1-A	Method Blank	96	96	96	96	104	104	104	104
Surrogate Legend									
TCX = Tetrachloro-m-xylene									
DCBP = DCB Decachlorobiphenyl									

QC Sample Results

Client: ERM-West
Project/Site: Santa Clara Portwood Site

TestAmerica Job ID: 720-86290-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS

Lab Sample ID: MB 720-243761/4

Matrix: Solid

Analysis Batch: 243761

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C4-C12	ND		250		ug/Kg	-		05/08/18 19:21	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	100		45 - 131					05/08/18 19:21	1
1,2-Dichloroethane-d4 (Surr)	106		60 - 140					05/08/18 19:21	1
Toluene-d8 (Surr)	101		58 - 140					05/08/18 19:21	1

Lab Sample ID: LCS 720-243761/7

Matrix: Solid

Analysis Batch: 243761

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits		
Gasoline Range Organics (GRO) -C4-C12	1000	958		ug/Kg	-	96	70 - 122		
Surrogate	LCS %Recovery	LCS Qualifier	Limits						
4-Bromofluorobenzene	100		45 - 131						
1,2-Dichloroethane-d4 (Surr)	104		60 - 140						
Toluene-d8 (Surr)	105		58 - 140						

Lab Sample ID: LCSD 720-243761/8

Matrix: Solid

Analysis Batch: 243761

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Gasoline Range Organics (GRO) -C4-C12	1000	973		ug/Kg	-	97	70 - 122	2	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits						
4-Bromofluorobenzene	95		45 - 131						
1,2-Dichloroethane-d4 (Surr)	106		60 - 140						
Toluene-d8 (Surr)	100		58 - 140						

Lab Sample ID: MB 720-243784/9

Matrix: Solid

Analysis Batch: 243784

Client Sample ID: Method Blank

Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline Range Organics (GRO) -C4-C12	ND		250		ug/Kg	-		05/09/18 10:12	1
Surrogate	MB %Recovery	MB Qualifier	Limits				Prepared	Analyzed	Dil Fac
4-Bromofluorobenzene	97		45 - 131					05/09/18 10:12	1
1,2-Dichloroethane-d4 (Surr)	103		60 - 140					05/09/18 10:12	1
Toluene-d8 (Surr)	102		58 - 140					05/09/18 10:12	1

TestAmerica Pleasanton

QC Sample Results

Client: ERM-West
Project/Site: Santa Clara Portwood Site

TestAmerica Job ID: 720-86290-1

Method: 8260B/CA_LUFTMS - 8260B / CA LUFT MS (Continued)

Lab Sample ID: LCS 720-243784/7

Matrix: Solid

Analysis Batch: 243784

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Analyte			Spike	LCS	LCS			%Rec.		
			Added	Result	Qualifier	Unit	D	%Rec	Limits	
Gasoline Range Organics (GRO) -C4-C12			1000	1090		ug/Kg		109	70 - 122	
Surrogate	LCS	LCS	Limits							
	%Recovery	Qualifier								
4-Bromofluorobenzene	97		45 - 131							
1,2-Dichloroethane-d4 (Surr)	109		60 - 140							
Toluene-d8 (Surr)	105		58 - 140							

Lab Sample ID: LCSD 720-243784/8

Matrix: Solid

Analysis Batch: 243784

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte			Spike	LCSD	LCSD	Unit	D	%Rec	%Rec.	RPD	RPD
			Added	Result	Qualifier				Limits		Limit
Gasoline Range Organics (GRO) -C4-C12			1000	1100		ug/Kg		110	70 - 122	1	20
Surrogate	LCSD %Recovery	LCSD Qualifier	Limits								
4-Bromofluorobenzene	99		45 - 131								
1,2-Dichloroethane-d4 (Surr)	108		60 - 140								
Toluene-d8 (Surr)	103		58 - 140								

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

Lab Sample ID: MB 720-243803/1-A

Matrix: Solid

Analysis Batch: 243859

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 243803

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Diesel Range Organics [C10-C28]	ND		2.0		mg/Kg		05/09/18 10:52	05/10/18 10:52	1
Motor Oil Range Organics [C24-C36]	ND		50		mg/Kg		05/09/18 10:52	05/10/18 10:52	1
Surrogate	MB	MB	Limits				Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier							
p-Terphenyl	104		40 - 130				05/09/18 10:52	05/10/18 10:52	1

Lab Sample ID: LCS 720-243803/2-A

Matrix: Solid

Analysis Batch: 243859

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 243803

			Spike	LCS	LCS					
Analyte			Added	Result	Qualifier	Unit	D	%Rec	%Rec.	Limits
Diesel Range Organics			167	154		mg/Kg		92	50 - 150	
[C10-C28]										
			LCS	LCS						
Surrogate	%Recovery	Qualifier	Limits							
p-Terphenyl	105		40 - 130							

TestAmerica Pleasanton

QC Sample Results

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Method: 8081A - Organochlorine Pesticides (GC)

Lab Sample ID: MB 720-243817/1-A

Matrix: Solid

Analysis Batch: 243869

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 243817

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
Dieldrin	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
Endrin aldehyde	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
Endrin	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
Endrin ketone	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
Heptachlor	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
Heptachlor epoxide	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
4,4'-DDT	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
4,4'-DDE	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
4,4'-DDD	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
Endosulfan I	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
Endosulfan II	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
alpha-BHC	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
beta-BHC	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
gamma-BHC (Lindane)	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
delta-BHC	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
Endosulfan sulfate	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
Methoxychlor	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
Toxaphene	ND		0.040		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
Chlordane (technical)	ND		0.040		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
cis-Chlordane	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1
trans-Chlordane	ND		0.0020		mg/Kg		05/09/18 13:04	05/10/18 13:49	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	82		21 - 145	05/09/18 13:04	05/10/18 13:49	1
DCB Decachlorobiphenyl	104	p	21 - 136	05/09/18 13:04	05/10/18 13:49	1

Lab Sample ID: LCS 720-243817/2-A

Matrix: Solid

Analysis Batch: 243869

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 243817

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	0.0167	0.0130		mg/Kg		78	65 - 120
Dieldrin	0.0167	0.0159		mg/Kg		95	72 - 120
Endrin aldehyde	0.0167	0.0175		mg/Kg		105	68 - 120
Endrin	0.0167	0.0165		mg/Kg		99	68 - 120
Endrin ketone	0.0167	0.0173		mg/Kg		104	75 - 136
Heptachlor	0.0167	0.0140		mg/Kg		84	69 - 120
Heptachlor epoxide	0.0167	0.0156		mg/Kg		94	68 - 120
4,4'-DDT	0.0167	0.0155		mg/Kg		93	63 - 127
4,4'-DDE	0.0167	0.0159		mg/Kg		95	76 - 126
4,4'-DDD	0.0167	0.0165		mg/Kg		99	75 - 128
Endosulfan I	0.0167	0.0160		mg/Kg		96	62 - 120
Endosulfan II	0.0167	0.0170		mg/Kg		102	65 - 120
alpha-BHC	0.0167	0.0127		mg/Kg		76	46 - 122
beta-BHC	0.0167	0.0162		mg/Kg		97	78 - 136
gamma-BHC (Lindane)	0.0167	0.0138		mg/Kg		83	72 - 120
delta-BHC	0.0167	0.0135		mg/Kg		81	43 - 125

TestAmerica Pleasanton

QC Sample Results

Client: ERM-West
Project/Site: Santa Clara Portwood Site

TestAmerica Job ID: 720-86290-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 720-243817/2-A

Matrix: Solid

Analysis Batch: 243869

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 243817

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Endosulfan sulfate	0.0167	0.0168		mg/Kg		101	72 - 121
Methoxychlor	0.0167	0.0174		mg/Kg		104	71 - 132
cis-Chlordane	0.0167	0.0158		mg/Kg		95	70 - 120
trans-Chlordane	0.0167	0.0156		mg/Kg		94	68 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	78		21 - 145
DCB Decachlorobiphenyl	104		21 - 136

Lab Sample ID: MB 720-243908/1-A

Matrix: Solid

Analysis Batch: 243949

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 243908

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Aldrin	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
Dieldrin	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
Endrin aldehyde	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
Endrin	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
Endrin ketone	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
Heptachlor	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
Heptachlor epoxide	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
4,4'-DDT	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
4,4'-DDE	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
4,4'-DDD	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
Endosulfan I	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
Endosulfan II	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
alpha-BHC	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
beta-BHC	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
gamma-BHC (Lindane)	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
delta-BHC	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
Endosulfan sulfate	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
Methoxychlor	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
Toxaphene	ND		0.040		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
Chlordane (technical)	ND		0.040		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
cis-Chlordane	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1
trans-Chlordane	ND		0.0020		mg/Kg		05/10/18 15:42	05/11/18 16:44	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	85		21 - 145	05/10/18 15:42	05/11/18 16:44	1
DCB Decachlorobiphenyl	86		21 - 136	05/10/18 15:42	05/11/18 16:44	1

Lab Sample ID: LCS 720-243908/2-A

Matrix: Solid

Analysis Batch: 243949

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 243908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Aldrin	0.0167	0.0148		mg/Kg		89	65 - 120
Dieldrin	0.0167	0.0157		mg/Kg		94	72 - 120

TestAmerica Pleasanton

QC Sample Results

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Method: 8081A - Organochlorine Pesticides (GC) (Continued)

Lab Sample ID: LCS 720-243908/2-A

Matrix: Solid

Analysis Batch: 243949

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 243908

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Endrin aldehyde	0.0167	0.0167		mg/Kg		100	68 - 120
Endrin	0.0167	0.0173		mg/Kg		104	68 - 120
Endrin ketone	0.0167	0.0166		mg/Kg		99	75 - 136
Heptachlor	0.0167	0.0157		mg/Kg		94	69 - 120
Heptachlor epoxide	0.0167	0.0162		mg/Kg		97	68 - 120
4,4'-DDT	0.0167	0.0135		mg/Kg		81	63 - 127
4,4'-DDE	0.0167	0.0160		mg/Kg		96	76 - 126
4,4'-DDD	0.0167	0.0165		mg/Kg		99	75 - 128
Endosulfan I	0.0167	0.0160		mg/Kg		96	62 - 120
Endosulfan II	0.0167	0.0164		mg/Kg		98	65 - 120
alpha-BHC	0.0167	0.0147		mg/Kg		88	46 - 122
beta-BHC	0.0167	0.0173		mg/Kg		104	78 - 136
gamma-BHC (Lindane)	0.0167	0.0151		mg/Kg		91	72 - 120
delta-BHC	0.0167	0.0150		mg/Kg		90	43 - 125
Endosulfan sulfate	0.0167	0.0153		mg/Kg		92	72 - 121
Methoxychlor	0.0167	0.0149		mg/Kg		89	71 - 132
cis-Chlordane	0.0167	0.0159		mg/Kg		96	70 - 120
trans-Chlordane	0.0167	0.0160		mg/Kg		96	68 - 120

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	86		21 - 145
DCB Decachlorobiphenyl	95		21 - 136

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Lab Sample ID: MB 720-243818/1-A

Matrix: Solid

Analysis Batch: 243863

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 243818

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		50		ug/Kg		05/09/18 13:08	05/10/18 10:30	1
PCB-1221	ND		50		ug/Kg		05/09/18 13:08	05/10/18 10:30	1
PCB-1232	ND		50		ug/Kg		05/09/18 13:08	05/10/18 10:30	1
PCB-1242	ND		50		ug/Kg		05/09/18 13:08	05/10/18 10:30	1
PCB-1248	ND		50		ug/Kg		05/09/18 13:08	05/10/18 10:30	1
PCB-1254	ND		50		ug/Kg		05/09/18 13:08	05/10/18 10:30	1
PCB-1260	ND		50		ug/Kg		05/09/18 13:08	05/10/18 10:30	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	81		45 - 132	05/09/18 13:08	05/10/18 10:30	1
DCB Decachlorobiphenyl	98		42 - 146	05/09/18 13:08	05/10/18 10:30	1

TestAmerica Pleasanton

QC Sample Results

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: LCS 720-243818/2-A

Matrix: Solid

Analysis Batch: 243863

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 243818

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
PCB-1016	133	110		ug/Kg		82	65 - 121
PCB-1260	133	121		ug/Kg		91	68 - 127
Surrogate	%Recovery	LCS Qualifier	Limits				
Tetrachloro-m-xylene	80		45 - 132				
DCB Decachlorobiphenyl	95		42 - 146				

Lab Sample ID: 720-86290-15 MS

Matrix: Solid

Analysis Batch: 243863

Client Sample ID: COMP-3

Prep Type: Total/NA

Prep Batch: 243818

Analyte	Sample	Sample	Spike	MS	MS	Unit	D	%Rec.	Limits		
	Result	Qualifier	Added	Result	Qualifier			%Rec			
PCB-1016	ND		130	103		ug/Kg		79	69 - 120		
PCB-1016	ND		130	103		ug/Kg		79	69 - 120		
PCB-1260	ND		130	107		ug/Kg		82	73 - 114		
PCB-1260	ND		130	107		ug/Kg		82	73 - 114		
Surrogate	MS	MS	Limits								
	%Recovery	Qualifier									
Tetrachloro-m-xylene	69		45 - 132								
Tetrachloro-m-xylene	69		45 - 132								
DCB Decachlorobiphenyl	86		42 - 146								
DCB Decachlorobiphenyl	86		42 - 146								

Lab Sample ID: 720-86290-15 MSD

Matrix: Solid

Analysis Batch: 243863

Client Sample ID: COMP-3

Prep Type: Total/NA

Prep Batch: 243818

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	Limits	RPD	Limit
PCB-1016	ND		131	108		ug/Kg		83	69 - 120	4	20
PCB-1016	ND		131	108		ug/Kg		83	69 - 120	4	20
PCB-1260	ND		131	108		ug/Kg		83	73 - 114	1	20
PCB-1260	ND		131	108		ug/Kg		83	73 - 114	1	20
Surrogate	%Recovery	MSD Qualifier	Limits								
Tetrachloro-m-xylene	74		45 - 132								
Tetrachloro-m-xylene	74		45 - 132								
DCB Decachlorobiphenyl	86		42 - 146								
DCB Decachlorobiphenyl	86		42 - 146								

Lab Sample ID: MB 720-243902/1-A

Matrix: Solid

Analysis Batch: 243863

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 243902

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	ND		50		ug/Kg		05/10/18 14:24	05/10/18 19:04	1
PCB-1221	ND		50		ug/Kg		05/10/18 14:24	05/10/18 19:04	1
PCB-1232	ND		50		ug/Kg		05/10/18 14:24	05/10/18 19:04	1

TestAmerica Pleasanton

QC Sample Results

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Method: 8082 - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Lab Sample ID: MB 720-243902/1-A

Matrix: Solid

Analysis Batch: 243863

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 243902

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1242	ND		50		ug/Kg		05/10/18 14:24	05/10/18 19:04	1
PCB-1248	ND		50		ug/Kg		05/10/18 14:24	05/10/18 19:04	1
PCB-1254	ND		50		ug/Kg		05/10/18 14:24	05/10/18 19:04	1
PCB-1260	ND		50		ug/Kg		05/10/18 14:24	05/10/18 19:04	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	96		45 - 132	05/10/18 14:24	05/10/18 19:04	1
DCB Decachlorobiphenyl	104		42 - 146	05/10/18 14:24	05/10/18 19:04	1

Lab Sample ID: LCS 720-243902/2-A

Matrix: Solid

Analysis Batch: 243863

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 243902

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
PCB-1016	133	125		ug/Kg		94	65 - 121
PCB-1260	133	138		ug/Kg		103	68 - 127

Surrogate	LCS %Recovery	LCS Qualifier	Limits
Tetrachloro-m-xylene	92		45 - 132
DCB Decachlorobiphenyl	56		42 - 146

Method: 6010B - Metals (ICP)

Lab Sample ID: MB 720-243620/1-A

Matrix: Solid

Analysis Batch: 243739

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 243620

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Antimony	ND		0.50		mg/Kg		05/07/18 08:34	05/08/18 09:25	1
Arsenic	ND		1.0		mg/Kg		05/07/18 08:34	05/08/18 09:25	1
Barium	ND		0.50		mg/Kg		05/07/18 08:34	05/08/18 09:25	1
Beryllium	ND		0.10		mg/Kg		05/07/18 08:34	05/08/18 09:25	1
Cadmium	ND		0.13		mg/Kg		05/07/18 08:34	05/08/18 09:25	1
Chromium	ND		0.50		mg/Kg		05/07/18 08:34	05/08/18 09:25	1
Cobalt	ND		0.20		mg/Kg		05/07/18 08:34	05/08/18 09:25	1
Copper	ND		1.5		mg/Kg		05/07/18 08:34	05/08/18 09:25	1
Lead	ND		0.50		mg/Kg		05/07/18 08:34	05/08/18 09:25	1
Molybdenum	ND		0.50		mg/Kg		05/07/18 08:34	05/08/18 09:25	1
Nickel	ND		0.50		mg/Kg		05/07/18 08:34	05/08/18 09:25	1
Selenium	ND		1.0		mg/Kg		05/07/18 08:34	05/08/18 09:25	1
Silver	ND		0.25		mg/Kg		05/07/18 08:34	05/08/18 09:25	1
Thallium	ND		0.50		mg/Kg		05/07/18 08:34	05/08/18 09:25	1
Vanadium	ND		0.50		mg/Kg		05/07/18 08:34	05/08/18 09:25	1
Zinc	ND		1.5		mg/Kg		05/07/18 08:34	05/08/18 09:25	1

TestAmerica Pleasanton

QC Sample Results

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Method: 6010B - Metals (ICP) (Continued)

Lab Sample ID: LCS 720-243620/2-A

Matrix: Solid

Analysis Batch: 243739

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 243620

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Antimony	50.0	48.7		mg/Kg		97	80 - 120
Arsenic	50.0	45.6		mg/Kg		91	80 - 120
Barium	50.0	51.1		mg/Kg		102	80 - 120
Beryllium	50.0	50.3		mg/Kg		101	80 - 120
Cadmium	50.0	50.1		mg/Kg		100	80 - 120
Chromium	50.0	49.9		mg/Kg		100	80 - 120
Cobalt	50.0	50.3		mg/Kg		101	80 - 120
Copper	50.0	49.2		mg/Kg		98	80 - 120
Lead	50.0	49.7		mg/Kg		99	80 - 120
Molybdenum	50.0	49.4		mg/Kg		99	80 - 120
Nickel	50.0	48.8		mg/Kg		98	80 - 120
Selenium	50.0	47.6		mg/Kg		95	80 - 120
Silver	25.0	25.7		mg/Kg		103	80 - 120
Thallium	50.0	49.5		mg/Kg		99	80 - 120
Vanadium	50.0	50.5		mg/Kg		101	80 - 120
Zinc	50.0	46.5		mg/Kg		93	80 - 120

Method: 7471A - Mercury (CVAA)

Lab Sample ID: MB 720-243644/1-A

Matrix: Solid

Analysis Batch: 243743

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 243644

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.017		mg/Kg		05/08/18 08:35	05/08/18 10:04	1

Lab Sample ID: LCS 720-243644/2-A

Matrix: Solid

Analysis Batch: 243743

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 243644

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.833	0.776		mg/Kg		93	80 - 120

Lab Sample ID: MB 720-243707/1-A

Matrix: Solid

Analysis Batch: 243751

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 243707

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	ND		0.017		mg/Kg		05/08/18 08:24	05/08/18 15:01	1

Lab Sample ID: LCS 720-243707/2-A

Matrix: Solid

Analysis Batch: 243751

Client Sample ID: Lab Control Sample

Prep Type: Total/NA

Prep Batch: 243707

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Mercury	0.833	0.713		mg/Kg		86	80 - 120

TestAmerica Pleasanton

QC Sample Results

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Method: 7471A - Mercury (CVAA) (Continued)

Lab Sample ID: 720-86290-10 MS

Matrix: Solid

Analysis Batch: 243751

Client Sample ID: COMP-2

Prep Type: Total/NA

Prep Batch: 243707

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Mercury	2.8	F1 F2	0.769	2.94	F1	mg/Kg	—	16	75 - 125

Lab Sample ID: 720-86290-10 MSD

Matrix: Solid

Analysis Batch: 243751

Client Sample ID: COMP-2

Prep Type: Total/NA

Prep Batch: 243707

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Mercury	2.8	F1 F2	0.758	2.33	F1 F2	mg/Kg	—	-64	75 - 125	23	20

TestAmerica Pleasanton

QC Association Summary

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

GC/MS VOA

Prep Batch: 243561

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-5	COMP-1	Total/NA	Solid	5030B	
720-86290-10	COMP-2	Total/NA	Solid	5030B	
720-86290-15	COMP-3	Total/NA	Solid	5030B	

Analysis Batch: 243761

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-5	COMP-1	Total/NA	Solid	8260B/CA_LUFT MS	243561
MB 720-243761/4	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 720-243761/7	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 720-243761/8	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	

Analysis Batch: 243784

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-10	COMP-2	Total/NA	Solid	8260B/CA_LUFT MS	243561
720-86290-15	COMP-3	Total/NA	Solid	8260B/CA_LUFT MS	243561
MB 720-243784/9	Method Blank	Total/NA	Solid	8260B/CA_LUFT MS	
LCS 720-243784/7	Lab Control Sample	Total/NA	Solid	8260B/CA_LUFT MS	
LCSD 720-243784/8	Lab Control Sample Dup	Total/NA	Solid	8260B/CA_LUFT MS	

GC Semi VOA

Prep Batch: 243803

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-5	COMP-1	Total/NA	Solid	3546	
720-86290-10	COMP-2	Total/NA	Solid	3546	
720-86290-15	COMP-3	Total/NA	Solid	3546	
MB 720-243803/1-A	Method Blank	Total/NA	Solid	3546	
LCS 720-243803/2-A	Lab Control Sample	Total/NA	Solid	3546	

Analysis Batch: 243804

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-5	COMP-1	Total/NA	Solid	8082	243818

Prep Batch: 243817

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-5	COMP-1	Total/NA	Solid	3546	
720-86290-15	COMP-3	Total/NA	Solid	3546	
MB 720-243817/1-A	Method Blank	Total/NA	Solid	3546	
LCS 720-243817/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 243818

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-5	COMP-1	Total/NA	Solid	3546	
720-86290-15	COMP-3	Total/NA	Solid	3546	

TestAmerica Pleasanton

QC Association Summary

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

GC Semi VOA (Continued)

Prep Batch: 243818 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-243818/1-A	Method Blank	Total/NA	Solid	3546	
LCS 720-243818/2-A	Lab Control Sample	Total/NA	Solid	3546	
720-86290-15 MS	COMP-3	Total/NA	Solid	3546	
720-86290-15 MSD	COMP-3	Total/NA	Solid	3546	

Analysis Batch: 243859

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
MB 720-243803/1-A	Method Blank	Total/NA	Solid	8015B	243803
LCS 720-243803/2-A	Lab Control Sample	Total/NA	Solid	8015B	243803

Analysis Batch: 243860

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-5	COMP-1	Total/NA	Solid	8015B	243803
720-86290-10	COMP-2	Total/NA	Solid	8015B	243803
720-86290-15	COMP-3	Total/NA	Solid	8015B	243803

Analysis Batch: 243863

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-15	COMP-3	Total/NA	Solid	8082	243818
MB 720-243818/1-A	Method Blank	Total/NA	Solid	8082	243818
MB 720-243902/1-A	Method Blank	Total/NA	Solid	8082	243902
LCS 720-243818/2-A	Lab Control Sample	Total/NA	Solid	8082	243818
LCS 720-243902/2-A	Lab Control Sample	Total/NA	Solid	8082	243902
720-86290-15 MS	COMP-3	Total/NA	Solid	8082	243818
720-86290-15 MSD	COMP-3	Total/NA	Solid	8082	243818

Analysis Batch: 243864

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-10	COMP-2	Total/NA	Solid	8082	243902

Analysis Batch: 243869

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-5	COMP-1	Total/NA	Solid	8081A	243817
720-86290-15	COMP-3	Total/NA	Solid	8081A	243817
MB 720-243817/1-A	Method Blank	Total/NA	Solid	8081A	243817
LCS 720-243817/2-A	Lab Control Sample	Total/NA	Solid	8081A	243817

Prep Batch: 243902

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-10	COMP-2	Total/NA	Solid	3546	
MB 720-243902/1-A	Method Blank	Total/NA	Solid	3546	
LCS 720-243902/2-A	Lab Control Sample	Total/NA	Solid	3546	

Prep Batch: 243908

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-10	COMP-2	Total/NA	Solid	3546	
MB 720-243908/1-A	Method Blank	Total/NA	Solid	3546	
LCS 720-243908/2-A	Lab Control Sample	Total/NA	Solid	3546	

TestAmerica Pleasanton

QC Association Summary

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

GC Semi VOA (Continued)

Analysis Batch: 243949

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-10	COMP-2	Total/NA	Solid	8081A	243908
MB 720-243908/1-A	Method Blank	Total/NA	Solid	8081A	243908
LCS 720-243908/2-A	Lab Control Sample	Total/NA	Solid	8081A	243908

Metals

Prep Batch: 243620

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-5	COMP-1	Total/NA	Solid	3050B	
720-86290-10	COMP-2	Total/NA	Solid	3050B	
720-86290-15	COMP-3	Total/NA	Solid	3050B	
MB 720-243620/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 720-243620/2-A	Lab Control Sample	Total/NA	Solid	3050B	

Prep Batch: 243644

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-5	COMP-1	Total/NA	Solid	7471A	
MB 720-243644/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 720-243644/2-A	Lab Control Sample	Total/NA	Solid	7471A	

Prep Batch: 243707

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-10	COMP-2	Total/NA	Solid	7471A	
720-86290-15	COMP-3	Total/NA	Solid	7471A	
MB 720-243707/1-A	Method Blank	Total/NA	Solid	7471A	
LCS 720-243707/2-A	Lab Control Sample	Total/NA	Solid	7471A	
720-86290-10 MS	COMP-2	Total/NA	Solid	7471A	
720-86290-10 MSD	COMP-2	Total/NA	Solid	7471A	

Analysis Batch: 243739

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-5	COMP-1	Total/NA	Solid	6010B	243620
720-86290-10	COMP-2	Total/NA	Solid	6010B	243620
720-86290-15	COMP-3	Total/NA	Solid	6010B	243620
MB 720-243620/1-A	Method Blank	Total/NA	Solid	6010B	243620
LCS 720-243620/2-A	Lab Control Sample	Total/NA	Solid	6010B	243620

Analysis Batch: 243743

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-5	COMP-1	Total/NA	Solid	7471A	243644
MB 720-243644/1-A	Method Blank	Total/NA	Solid	7471A	243644
LCS 720-243644/2-A	Lab Control Sample	Total/NA	Solid	7471A	243644

Analysis Batch: 243751

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-10	COMP-2	Total/NA	Solid	7471A	243707
720-86290-15	COMP-3	Total/NA	Solid	7471A	243707
MB 720-243707/1-A	Method Blank	Total/NA	Solid	7471A	243707
LCS 720-243707/2-A	Lab Control Sample	Total/NA	Solid	7471A	243707
720-86290-10 MS	COMP-2	Total/NA	Solid	7471A	243707

TestAmerica Pleasanton

QC Association Summary

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Metals (Continued)

Analysis Batch: 243751 (Continued)

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
720-86290-10 MSD	COMP-2	Total/NA	Solid	7471A	243707

Lab Chronicle

Client: ERM-West
Project/Site: Santa Clara Portwood Site

TestAmerica Job ID: 720-86290-1

Client Sample ID: COMP-1

Date Collected: 05/03/18 11:15

Date Received: 05/03/18 16:45

Lab Sample ID: 720-86290-5

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			243561	05/04/18 14:43	LRC	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	243761	05/09/18 03:30	JRM	TAL PLS
Total/NA	Prep	3546			243803	05/09/18 10:52	MSA	TAL PLS
Total/NA	Analysis	8015B		1	243860	05/10/18 11:40	JXL	TAL PLS
Total/NA	Prep	3546			243817	05/09/18 13:04	NDU	TAL PLS
Total/NA	Analysis	8081A		1	243869	05/10/18 17:54	JZT	TAL PLS
Total/NA	Prep	3546			243818	05/09/18 13:08	NDU	TAL PLS
Total/NA	Analysis	8082		1	243804	05/10/18 00:29	DCH	TAL PLS
Total/NA	Prep	3050B			243620	05/07/18 08:34	JNG	TAL PLS
Total/NA	Analysis	6010B		4	243739	05/08/18 10:35	BKR	TAL PLS
Total/NA	Prep	7471A			243644	05/08/18 08:35	MAG	TAL PLS
Total/NA	Analysis	7471A		1	243743	05/08/18 13:55	JNG	TAL PLS

Client Sample ID: COMP-2

Date Collected: 05/03/18 11:25

Date Received: 05/03/18 16:45

Lab Sample ID: 720-86290-10

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			243561	05/04/18 14:43	LRC	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	243784	05/09/18 14:01	JRM	TAL PLS
Total/NA	Prep	3546			243803	05/09/18 10:52	MSA	TAL PLS
Total/NA	Analysis	8015B		1	243860	05/10/18 11:16	JXL	TAL PLS
Total/NA	Prep	3546			243908	05/10/18 15:42	JLA	TAL PLS
Total/NA	Analysis	8081A		1	243949	05/11/18 17:16	JZT	TAL PLS
Total/NA	Prep	3546			243902	05/10/18 14:24	JLA	TAL PLS
Total/NA	Analysis	8082		1	243864	05/10/18 19:54	DCH	TAL PLS
Total/NA	Prep	3050B			243620	05/07/18 08:34	JNG	TAL PLS
Total/NA	Analysis	6010B		4	243739	05/08/18 10:40	BKR	TAL PLS
Total/NA	Prep	7471A			243707	05/08/18 08:24	MAG	TAL PLS
Total/NA	Analysis	7471A		10	243751	05/08/18 16:09	JNG	TAL PLS

Client Sample ID: COMP-3

Date Collected: 05/03/18 11:35

Date Received: 05/03/18 16:45

Lab Sample ID: 720-86290-15

Matrix: Solid

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			243561	05/04/18 14:43	LRC	TAL PLS
Total/NA	Analysis	8260B/CA_LUFTMS		1	243784	05/09/18 14:29	JRM	TAL PLS
Total/NA	Prep	3546			243803	05/09/18 10:57	MSA	TAL PLS
Total/NA	Analysis	8015B		1	243860	05/10/18 10:52	JXL	TAL PLS
Total/NA	Prep	3546			243817	05/09/18 13:04	NDU	TAL PLS
Total/NA	Analysis	8081A		1	243869	05/10/18 19:22	JZT	TAL PLS
Total/NA	Prep	3546			243818	05/09/18 13:08	NDU	TAL PLS

TestAmerica Pleasanton

Lab Chronicle

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Client Sample ID: COMP-3

Lab Sample ID: 720-86290-15

Date Collected: 05/03/18 11:35

Matrix: Solid

Date Received: 05/03/18 16:45

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	8082		1	243863	05/10/18 11:04	DCH	TAL PLS
Total/NA	Prep	3050B			243620	05/07/18 08:34	JNG	TAL PLS
Total/NA	Analysis	6010B		4	243739	05/08/18 10:45	BKR	TAL PLS
Total/NA	Prep	7471A			243707	05/08/18 08:24	MAG	TAL PLS
Total/NA	Analysis	7471A		10	243751	05/08/18 16:12	JNG	TAL PLS

Laboratory References:

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

Accreditation/Certification Summary

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Laboratory: TestAmerica Pleasanton

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

Authority	Program	EPA Region	Identification Number	Expiration Date
California	State Program	9	2496	01-31-20
USDA	Federal		P330-17-00380	12-11-20

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

Method Summary

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Method	Method Description	Protocol	Laboratory
8260B/CA_LUFTMS	8260B / CA LUFT MS	SW846	TAL PLS
8015B	Diesel Range Organics (DRO) (GC)	SW846	TAL PLS
8081A	Organochlorine Pesticides (GC)	SW846	TAL PLS
8082	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	TAL PLS
6010B	Metals (ICP)	SW846	TAL PLS
7471A	Mercury (CVAA)	SW846	TAL PLS
3050B	Preparation, Metals	SW846	TAL PLS
3546	Microwave Extraction	SW846	TAL PLS
5030B	Purge and Trap	SW846	TAL PLS
7471A	Preparation, Mercury	SW846	TAL PLS

Protocol References:

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

Laboratory References:

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

Sample Summary

Client: ERM-West
Project/Site: Santa Clara Portswood Site

TestAmerica Job ID: 720-86290-1

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
720-86290-5	COMP-1	Solid	05/03/18 11:15	05/03/18 16:45
720-86290-10	COMP-2	Solid	05/03/18 11:25	05/03/18 16:45
720-86290-15	COMP-3	Solid	05/03/18 11:35	05/03/18 16:45

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

720-86290

TESTAMERICA Pleasanton Chain of Custody

1220 Quarry Lane • Pleasanton CA 94566-4756
 Phone: (925) 484-1919 • Fax: (925) 600-3002

183143

Reference #:

Date 5/3/18 Page 1 of 1

5/14/2018

Report To

Attn: JULIA SMITH

Company: GRM-WEST INC.

Address: 1277 TRENT BLVD, STE 500, 94597

Email: julia.smith@erm.com

PO# Below Sampled By: Kevin Almestad

Phone:

Analysis Request

Sample ID	Date	Time	Mat	Preserv
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Volatile Organics GC/MS (VOCs) ☐ EPA 8260B	HVOCs by ☐ EPA 8260B	EPA 8260B: ☒ Gas ☐ BTEX ☐ 5 Oxygenates ☐ DCA, EDB ☐ Ethanol	TEPH EPA 8015B ☐ Silica Gel ☒ Diesel ☒ Motor Oil ☒ Other Gas	SemiVolatile Organics GC/MS ☐ EPA 8270C	PNA/PAH's by ☐ 8270C ☐ 8270C SIM	Oil and Grease ☐ Petroleum (EPA 1664/9071) ☐ Total	Pesticides ☒ EPA 8081 ☒ EPA 8082	CAM17 Metals (EPA 6010/7470/7471)	Metals: ☐ 6010B ☐ 200.7 ☐ Lead ☐ LUFT ☐ RCRA ☐ Other:	Metals: ☐ 6020 ☐ 200.8 (ICP-MS):	☐ W.E.T (STLC) ☐ W.E.T (DI) ☐ TCLP	Hex Chrom by ☐ EPA 7196 ☐ or EPA 7199	pH ☐ 9040 ☐ SM4500	☐ Spec. Cond. ☐ Alkalinity ☐ TSS ☐ SS ☐ TDS	Anions: ☐ Cl ☐ SO ₄ ☐ NO ₃ ☐ F ☐ Br ☐ NO ₂ ☐ PO ₄	☐ Perchlorate by EPA 314.0	COD ☐ EPA 410.4 ☐ SM5220D ☐ Turbidity
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Project Info

Sample Receipt

Project Name: SANTA CLARA PARTSWOOD SITE

of Containers: 12

Head Space:

Temp: 1.8°C

PO#: 0400830-02A.04E

Y/N: If yes, please call with payment information ASAP

T	A	10	5	4	3	2	1	Other:
	Day	Day	Day	Day	Day	Day	Day	

Report: ☒ Routine ☐ Level 3 ☐ Level 4 ☐ EDD ☐ EDF

Special Instructions / Comments: COMPOSITE IN LAB

See Terms and Conditions on reverse

1) Relinquished by:

Signature: [Signature] Time: 1645

Printed Name: MIKHIL CHEMBURZHIY Time: 5/3/18

Company: GRM-WEST, INC.

2) Relinquished by:

Signature: _____ Time: _____

Printed Name: _____ Date: _____

Company: _____

3) Relinquished by:

Signature: _____ Time: _____

Printed Name: _____ Date: _____

Company: _____

1) Received by:

Signature: [Signature] Time: 1645

Printed Name: JANE Date: 5/3/18

Company: TA720

2) Received by:

Signature: _____ Time: _____

Printed Name: _____ Date: _____

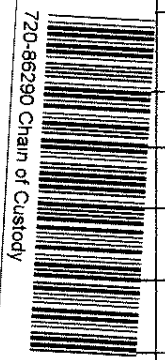
Company: _____

3) Received by:

Signature: _____ Time: _____

Printed Name: _____ Date: _____

Company: _____



720-86290 Chain of Custody

Login Sample Receipt Checklist

Client: ERM-West

Job Number: 720-86290-1

Login Number: 86290

List Source: TestAmerica Pleasanton

List Number: 1

Creator: Bullock, Tracy

Question	Answer	Comment
Radioactivity wasn't checked or is $\leq$ background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	N/A	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	N/A	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is $<6\text{mm}$ (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	