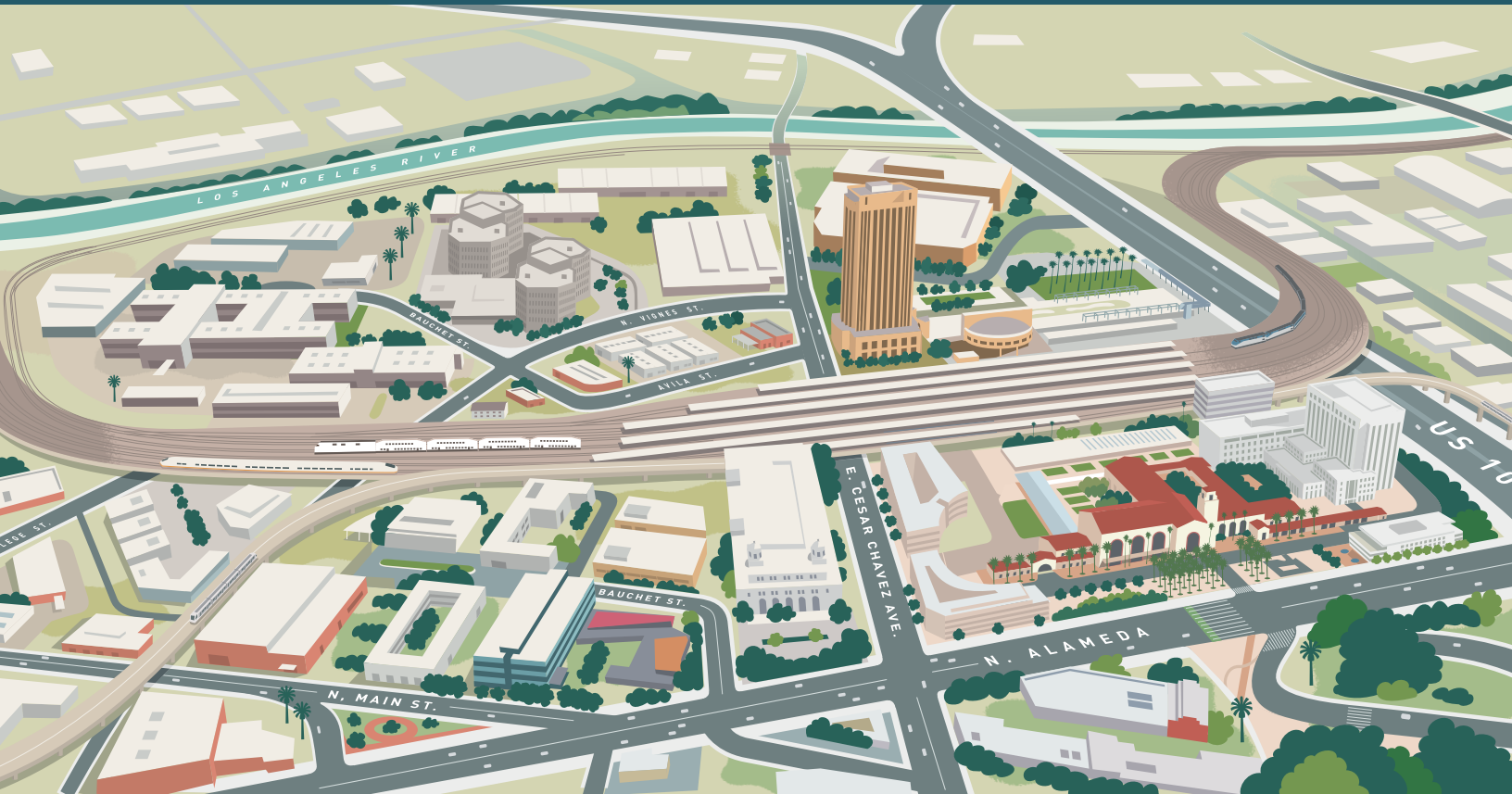


October 2016



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LOS ANGELES CITY FIRE DEPARTMENT
Division 5 Permit - Atmospheric Underground Tank

Fire Dept. Use Only

☐ Management Unit ☐ Installation ☐ Abandonment ☐ Repair	☐ Limited Program ☐ Full Program	☐ Station ☐ Fire Station	☐ Work on Site ☐ Work off Site

LOCATION INFORMATION

Doing Business As (DBA): TEXACO

EPA ID No.
 (not required for Installation or Monitoring)

Address: 500 S ALAMEDA ST

Phone No.: (213) 626-1250

City: LOS ANGELES

State: CA

Zip: 90013

PROPERTY OWNER

Name: PETER KARADIJIAN

Phone No.: (213) 626-1259

Address: 500 S ALAMEDA ST

City: LOS ANGELES

State: CA

Zip: 90013

Print Name: PETER KARADIJIAN

Signature:

for Peter Karadjian
Sergio Flores

CONTRACTOR INFORMATION

Company Name: MOLINA'S ENGINEERING COMPANY

Phone No.: (562) 251-5670

Address: 7625 ROSECRANS AV 16

City: PARAMOUNT

State: CA

Zip: 90723

City Business Number:
 726078

State Contractors Number/Expir. Date:
 736370 A-HAZ 05/22/2006

Work Comp Number/Expir. Date:
 1703796-02 04/15/2005

Print Name: SERGIO FLORES

Signature:

Sergio Flores

Title: AGENT

ITEM	QTY	NOTES:
() UST(s) Installation		INSTALL (4) NEW GILBARCO GAS DISPENSERS INSTALL (8) ENVIRON UDCS RE-INSTALL (4) GASBOY DIESEL DISPENSERS INSTALL NEW PIPING SUMPS NEW POMECO MANHOLES NEW TURBINE EZ-LIFT MANHOLES NEW A.O. SMITH PRODUCT, VENT VAPOR PIPING NEW VEEDEROOT OVERFILL ALARM PANEL APPROVED LOS ANGELES FIRE DEPARTMENT BUREAU OF FIRE PREVENTION BY <i>[Signature]</i>
() UST(s) Abandonment by Removal		
() UST(s) Abandonment-In-Place		
() UST(s) Tank Entry / Lining / Repair		
(X) UST(s) Add to / Alter: Monitor / Piping / Disp.		
() Site Assessment		
() Emergency Plan Check / Site Assessment		

Inspector Name: REITZELL

Inspector Signature:

**CITY OF LOS ANGELES****INVOICE****Los Angeles City Fire Department Unified Program
Underground Storage Tank Fees for Service****Applicant/Contractor Information:**

Name: SERGIO FLORES
Representing: MOLINA'S ENGINEERING COMPANY
(Company Name/Self)
Phone No.: (562) 251-5670
Address: 7625 ROSECRANS AV., RM. 16
PARAMOUNT, CA. 90723

Invoice Date: 10/27/2004

Permit No.: 12131

Invoice No.: 12131-1

Inspection District: 409
Plan Check Inspector: REITZELL
Enforcement Inspector: MARTINEZ

Site Information:

LAFD Facility ID No.: 0029647
Business Name (DBA): TEXACO
Site Address: 500 S ALAMEDA ST.
LOS ANGELES, CA. 90013

Permit Type	Tanks	Minimum Fee	Fee
UST ADD TO/ALTER: MONITOR/PIPING/DISP.		\$363.00	\$363.00
PENALTY:			0
TOTAL AMOUNT DUE:			\$363.00

Plan Check and Inspection services are calculated on a fee for service basis.
Each type of transaction has been assigned a charge based on the
estimated time required for the service.

If Plan Check/Inspection services exceeded the assigned hours, additional
charges will accrue in six minute increments. These additional charges will
be billed to the Responsible Party.

For Payments:

DATA MANAGEMENT UNIT
17TH FLOOR, ROOM 1780

ck # 1164 10/24/04

PAID

AMOUNT PAID \$ 363.00

SIGNATURE:

APPENDIX B

**LABORATORY REPORTS
FUEL DISPENSER AND FUEL PIPELINE REMOVAL
CONFIRMATORY SOIL SAMPLE ANALYSIS**

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

March 4, 2005

ELAP Certificate No: 2268

Mr. David Lesperance
Signal Geoscience
3125 S. Maddock Street
Santa Ana, CA 92704

Project: 500 S. Alameda
C&E ID: 50225I

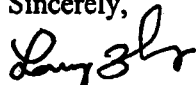
Dear Mr. Lesperance:

Enclosed please find an analytical report for the sample(s) received by Chemical & Environmental Laboratories, Inc. on February 25, 2005, and analyzed as indicated in the attached chain-of-custody.

Unless otherwise noted, no problems were encountered during the reception, preparation, or analysis of these samples.

Please contact me at (562) 921-8123 if you have any questions regarding this report.

Sincerely,



Larry Zhang, Ph.D.
Laboratory Director

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- M8015(Diesel) ---

Client Name: Signal Geoscience
Project Manager: David Lesperance
Project Name: 500 S. Alameda
Sample Matrix: Soil

Date Sampled: 02/25/05
Date Analyzed: 02/25/05
Date Reported: 03/03/05

SAMPLE INFORMATION			RESULT (mg/kg or ppm)	%
C&E ID	Sample ID	DF		Surrogate
50225I-16	SP1	1	ND	121
50225I-17	SP2	1	ND	106

ND = Not detected at the indicated detection limit , DF = Dilution Factor, MI = Matrix Interference, unquantifiable; coeluting organics in sample , Reporting Limit = DF x Detection Limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- M8015(Gasoline) ---

Client Name: Signal Geoscience
Project Manager: David Lesperance
Project Name: 500 S. Alameda
Sample Matrix: Soil

Date Sampled: 02/25/05
Date Analyzed: 02/25/05
Date Reported: 03/03/05

[illegible]

ND = Not detected at the indicated detection limit, DF = Dilution Factor, Reporting Limit = DF x Detection Limit

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- EPA 8260B(BTEX/Oxygenated Compounds) ---

Client Name: Signal Geoscience
 Project Manager: David Lesperance
 Project Name: 500 S. Alameda
 Sample Matrix: Soil

Date Sampled: 02/25/05
 Date Analyzed: 02/28/05
 Date Reported: 03/03/05

C&E ID		50225I-1	50225I-2	50225I-3	50225I-4	50225I-5
SAMPLE ID		D1	D2	D3	D4	D5
DF		1	1	1	500	50
COMPOUND	Detection Limit (µg/kg)	RESULT (µg/kg or ppb)				
Ethyl Tertiary Butyl Ether	5	ND	ND	ND	ND	ND
Tertiary Amyl Methyl Ether	5	ND	ND	ND	ND	ND
Diisopropyl Ether	5	ND	ND	ND	ND	ND
Tertiary Butyl Alcohol	20	ND	ND	ND	ND	ND
MTBE	5	ND	ND	ND	ND	ND
Benzene	2	ND	ND	ND	ND	ND
Toluene	2	ND	ND	ND	1453058	397
Ethylbenzene	2	18	ND	ND	180653	1171
Xylenes	2	75	ND	ND	1406569	693

% Surrogate Recoveries	70-130	MI	83	84	84	103

ND = Not detected at the indicated detection limit , DF = Dilution Factor , Reporting Limit = DF x Detection Limit

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- EPA 8260B(BTEX/Oxygenated Compounds) ---

Client Name: Signal Geoscience
Project Manager: David Lesperance
Project Name: 500 S. Alameda
Sample Matrix: Soil

Date Sampled: 02/25/05
Date Analyzed: 02/28/05
Date Reported: 03/03/05

C&E ID		50225I-6	50225I-7	50225I-8	50225I-9	50225I-10
SAMPLE ID		D6	D7	D8	P1	P2
DF		50	1	1	1	1
COMPOUND	Detection Limit (µg/kg)	RESULT (µg/kg or ppb)				
Ethyl Tertiary Butyl Ether	5	ND	ND	ND	ND	ND
Tertiary Amyl Methyl Ether	5	ND	ND	ND	ND	ND
Diisopropyl Ether	5	ND	ND	ND	ND	ND
Tertiary Butyl Alcohol	20	ND	ND	ND	ND	ND
MTBE	5	ND	ND	ND	ND	ND
Benzene	2	ND	ND	ND	ND	ND
Toluene	2	243	ND	ND	ND	ND
Ethylbenzene	2	869	ND	ND	ND	ND
Xylenes	2	137	ND	ND	ND	ND

% Surrogate Recoveries	70-130	129	86	78	103	100

ND = Not detected at the indicated detection limit , DF = Dilution Factor , Reporting Limit = DF x Detection Limit

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- EPA 8260B(BTEX/Oxygenated Compounds) ---

Client Name: Signal Geoscience
Project Manager: David Lesperance
Project Name: 500 S. Alameda
Sample Matrix: Soil

Date Sampled: 02/25/05
Date Analyzed: 02/28/05
Date Reported: 03/03/05

C&E ID		50225I-11	50225I-12	50225I-13	50225I-14	50225I-15
SAMPLE ID		P3	P4	P5	P6	P8
DF		100	1	1	1	1
COMPOUND	Detection Limit (µg/kg)	RESULT (µg/kg or ppb)				
Ethyl Tertiary Butyl Ether	5	ND	ND	ND	ND	ND
Tertiary Amyl Methyl Ether	5	ND	ND	ND	ND	ND
Diisopropyl Ether	5	ND	ND	ND	ND	ND
Tertiary Butyl Alcohol	20	ND	ND	ND	ND	ND
MTBE	5	ND	ND	ND	ND	ND
Benzene	2	ND	ND	ND	ND	ND
Toluene	2	2563	ND	ND	ND	ND
Ethylbenzene	2	1055	ND	ND	ND	ND
Xylenes	2	41674	ND	ND	ND	ND

% Surrogate Recoveries	70-130	89	103	111	109	97

ND = Not detected at the indicated detection limit , DF = Dilution Factor , Reporting Limit = DF x Detection Limit

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- EPA 8260B(BTEX/Oxygenated Compounds) ---

Client Name: Signal Geoscience
 Project Manager: David Lesperance
 Project Name: 500 S. Alameda
 Sample Matrix: Soil

Date Sampled: 02/25/05
 Date Analyzed: 02/25/05
 Date Reported: 03/03/05

C&E ID		50225I-16	50225I-17			
SAMPLE ID		SP1	SP2			
DF		1	1			
COMPOUND	Detection Limit (µg/kg)	RESULT (µg/kg or ppb)				
Ethyl Tertiary Butyl Ether	5	ND	ND			
Tertiary Amyl Methyl Ether	5	ND	ND			
Diisopropyl Ether	5	ND	ND			
Tertiary Butyl Alcohol	20	ND	ND			
MTBE	5	ND	ND			
Benzene	2	ND	ND			
Toluene	2	ND	ND			
Ethylbenzene	2	ND	ND			
Xylenes	2	ND	ND			
% Surrogate Recoveries	70-130	99	76			

ND = Not detected at the indicated detection limit, DF = Dilution Factor, Reporting Limit = DF x Detection Limit

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- EPA 8015(Methanol) ---

Client Name: Signal Geoscience
Project Manager: David Lesperance
Project Name: 500 S. Alameda
Sample Matrix: Soil

Date Sampled: 02/25/05
Date Analyzed: 02/28/05
Date Reported: 03/03/05

[illegible]

ND = Not detected at the indicated detection limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- EPA 8015(Ethanol) ---

Client Name: Signal Geoscience
Project Manager: David Lesperance
Project Name: 500 S. Alameda
Sample Matrix: Soil

Date Sampled: 02/25/05
Date Analyzed: 02/28/05
Date Reported: 03/03/05

SAMPLE INFORMATION		RESULT
C&E ID	Sample ID	(µg/kg or ppb)
50225I-1	D1	ND
50225I-2	D2	ND
50225I-3	D3	ND
50225I-4	D4	ND
50225I-9	P1	ND
50225I-10	P2	ND
50225I-11	P3	ND
50225I-12	P4	ND
50225I-13	P5	ND
50225I-14	P6	ND
50225I-15	P8	ND
50225I-16	SP1	ND
50225I-17	SP2	ND
Detection Limit:		1000

ND = Not detected at the indicated detection limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- M8015(Diesel) ---

Spike/Spike Duplicate

Date Performed: 02/25/05

QC Batch #: TPHD50225

Unit: mg/kg

ANALYTE	SPK CONC	MS	MS %	MSD	MSD %	RPD	ACP %MS	ACP RPD
Diesel	500	490.0	98.0	444.7	88.9	9.7	70-130	20

Method Blank

COMPOUND	Reporting Limit (mg/kg)	RESULT
Diesel	10	ND

ND = Not detected at the indicated reporting limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- M8015(Diesel) ---

Spike/Spike Duplicate

Date Performed: 02/28/05
QC Batch #: TPHD50228

Unit: mg/kg

ANALYTE	SPK CONC	MS	MS %	MSD	MSD %	RPD	ACP %MS	ACP RPD
Diesel	500	374.4	74.9	418.7	83.7	11.2	70-130	20

Method Blank

COMPOUND	Reporting Limit (mg/kg)	RESULT
Diesel	10	ND

ND = Not detected at the indicated reporting limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

--- EPA 8260B(BTEX/Oxygenated Compounds) ---

LCS/LCS Duplicate

Date Performed: 02/25/05

QC Batch #: B/O50225

Unit: ug/L

ANALYTE	SPK CONC	LCS	LCS %	LCSD	LCSD %	RPD	ACP %LCS	ACP RPD
DIPE	40	39.64	99.10	42.38	105.95	6.7	80-120	20
ETBE	40	36.92	92.30	39.60	99.00	7.0	80-120	20
Benzene	40	37.35	93.38	38.60	96.50	3.3	80-120	20
Toluene	40	44.52	111.30	43.01	107.53	3.5	80-120	20
Ethylbenzene	40	35.13	87.83	33.03	82.58	6.2	80-120	20
Xylenes	40	40.04	100.10	36.78	91.95	8.5	80-120	20

Method Blank

COMPOUND	Reporting Limit (ug/L)	RESULT
Ethyl Tertiary Butyl Ether	2	ND
Tertiary Amyl Methyl Ether	2	ND
Diisopropyl Ether	2	ND
Tertiary Butyl Alcohol	10	ND
MTBE	2	ND
Benzene	1	ND
Toluene	1	ND
Ethylbenzene	1	ND
Xylenes	1	ND

ND = Not detected at the indicated reporting limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

— EPA 8260B(BTEX/Oxygenated Compounds) —

LCS/LCS Duplicate

Date Performed: 02/28/05

QC Batch #: B/O50228

Unit: ug/L

ANALYTE	SPK CONC	LCS	LCS %	LCSD	LCSD %	RPD	ACP %LCS	ACP RPD
DIPE	40	42.39	105.98	37.66	94.15	11.8	80-120	20
ETBE	40	36.36	90.90	37.54	93.85	3.2	80-120	20
Benzene	40	32.39	80.98	32.48	81.20	0.3	80-120	20
Toluene	40	37.22	93.05	34.20	85.50	8.5	80-120	20
Ethylbenzene	40	37.38	93.45	35.29	88.23	5.8	80-120	20
Xylenes	40	33.50	83.75	32.33	80.83	3.6	80-120	20

Method Blank

COMPOUND	Reporting Limit (ug/L)	RESULT
Ethyl Tertiary Butyl Ether	2	ND
Tertiary Amyl Methyl Ether	2	ND
Diisopropyl Ether	2	ND
Tertiary Butyl Alcohol	10	ND
MTBE	2	ND
Benzene	1	ND
Toluene	1	ND
Ethylbenzene	1	ND
Xylenes	1	ND

ND = Not detected at the indicated reporting limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

-- EPA 8015(Ethanol)--

LCS/LCS Duplicate

Date Performed: 02/28/05

QC Batch #: ETHA50228

Unit: ug/L

ANALYTE	SPK CONC	LCS	LCS %	LCSD	LCSD %	RPD	ACP %LCS	ACP RPD
Ethanol	5000	5874	117.48	5754	115.08	2.1	80-120	20

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

14148 E. Firestone Blvd., Santa Fe Springs, CA 90670
Tel: (562) 921-8123

Fax: (562) 921-7974

C&E LAB ID 502251

Company Name: <u>SIGNAL GEOSCIENCE</u>		Site Address: <u>500 S. ALAMEDA</u>		Page <u>of</u>										
Project Manager: <u>DAVID LESPERANCE</u>		Project No./Name: <u>500 S. ALAMEDA</u>		Sample Conditions — Chilled — Seals Intact										
Tel: <u>714662 7614</u>		Fax: <u>714662 7672</u>		Turn Around Time Desired Normal / Same Day / 24hr / 48hr										
Sampled By: <u>DAVID LESPERANCE</u>														
SAMPLE ID	SAMPLING DATE	SAMPLING TIME	SAMPLE MATRIX (air/soil/water)	NO. OF CONTAINERS/ TYPE	8015M TPH-G	8015M TPH-D	8021B BTX MTBE	418.1 TRPH	8260B BTX OXY.	8260B VOC	CAM METALS	8270C SVOC	6010B LEAD	Notes
D1	2/25/05	11:31	501C	10" x 58" GAW	✓				✓					✓
D2		11:46			✓									✓
D3		11:54			✓									✓
D4		12:07			✓									✓
D5		12:16				✓								
D6		12:25				✓								
D7		12:40				✓								
D8		12:53				✓								
P2		13:19			✓									✓
P3		13:30			✓									✓
P4		13:37			✓									✓
P5		13:48			✓									✓
P6		14:00			✓									✓
P8		14:24			✓									✓
SP1		14:35			✓									✓
SP2		14:49			✓									✓
SP3		14:58			✓									✓
Date/Time: <u>2/25/05 18:15</u> Date/Time: <u>2/25/05 18:15</u> Received By: <u>Jane Dwyer</u> Received By: <u>Jane Dwyer</u> Relinquished By: <u>David Lesperance</u> Relinquished By: <u>David Lesperance</u>														

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

March 9, 2005

ELAP Certificate No: 2268

Mr. David Lesperance
Signal Geoscience
3125 S. Maddock Street
Santa Ana, CA 92704

Project: 500 S. Alameda
C&E ID: 50302D

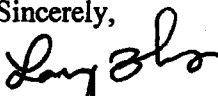
Dear Mr. Lesperance:

Enclosed please find an analytical report for the sample(s) received by Chemical & Environmental Laboratories, Inc. on March 2, 2005, and analyzed as indicated in the attached chain-of-custody.

Unless otherwise noted, no problems were encountered during the reception, preparation, or analysis of these samples.

Please contact me at (562) 921-8123 if you have any questions regarding this report.

Sincerely,



Larry Zhang, Ph.D.
Laboratory Director

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- M8015(Diesel) ---

Client Name: Signal Geoscience
Project Manager: David Lesperance
Project Name: 500 S. Alameda
Sample Matrix: Soil

Date Sampled: 03/02/05
Date Analyzed: 03/04/05
Date Reported: 03/07/05

[illegible]

ND = Not detected at the indicated detection limit , DF = Dilution Factor, MI = Matrix Interference, unquantifiable; coeluting organics in sample , Reporting Limit = DF x Detection Limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- M8015(Gasoline) ---

Client Name: Signal Geoscience
Project Manager: David Lesperance
Project Name: 500 S. Alameda
Sample Matrix: Soil

Date Sampled: 03/02/05
Date Analyzed: 03/03/05
Date Reported: 03/07/05

SAMPLE INFORMATION			RESULT
C&E ID	Sample ID	DF	(mg/kg or ppm)
50302D-2	P7	1	ND
Detection Limit:			0.1

ND = Not detected at the indicated detection limit , DF = Dilution Factor , Reporting Limit = DF x Detection Limit

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- EPA 8260B(BTEX/Oxygenated Compounds) ---

Client Name: Signal Geoscience
 Project Manager: David Lesperance
 Project Name: 500 S. Alameda
 Sample Matrix: Soil

Date Sampled: 03/02/05
 Date Analyzed: 03/03/05
 Date Reported: 03/07/05

C&E ID		50302D-1	50302D-2			
SAMPLE ID		P9	P7			
DF		1	1			
COMPOUND	Detection Limit (µg/kg)	RESULT (µg/kg or ppb)				
Ethyl Tertiary Butyl Ether	5	ND	ND			
Tertiary Amyl Methyl Ether	5	ND	ND			
Diisopropyl Ether	5	ND	ND			
Tertiary Butyl Alcohol	20	ND	ND			
MTBE	5	ND	ND			
Benzene	2	ND	ND			
Toluene	2	ND	ND			
Ethylbenzene	2	ND	ND			
Xylenes	2	ND	ND			

% Surrogate Recoveries	70-130	103	111			

ND = Not detected at the indicated detection limit, DF = Dilution Factor, Reporting Limit = DF x Detection Limit

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

ANALYTICAL REPORT

--- EPA 8015(Methanol) ---

Client Name: Signal Geoscience
Project Manager: David Lesperance
Project Name: 500 S. Alameda
Sample Matrix: Soil

Date Sampled: 03/02/05
Date Analyzed: 03/04/05
Date Reported: 03/07/05

SAMPLE INFORMATION		RESULT (µg/kg or ppb)
C&E ID	Sample ID	
50302D-2	P7	ND
Detection Limit:		1000

ND = Not detected at the indicated detection limit.

CHEMICAL & ENVIRONMENTAL LABORATORIES, INC.

QC REPORT

— M8015(Diesel) —

Spike/Spike Duplicate

Date Performed: 03/04/05

QC Batch #: TPHD50304

Unit: mg/kg

ANALYTE	SPK CONC	MS	MS %	MSD	MSD %	RPD	ACP %MS	ACP RPD
Diesel	500	392.9	78.6	400.8	80.2	2.0	70-130	20

Method Blank

COMPOUND	Reporting Limit (mg/kg)	RESULT
Diesel	10	ND

ND = Not detected at the indicated reporting limit.

8800 10672

10-27-04p

LA CITY FIRE DEPT. UNDERGROUND TANK ABANDONMENT REPORT

978 3712

B-a

FACILITY ADDRESS: 500 S. ALAM
PERMIT # 12131

Wello!

13

FULL REPORT DUE IN 30 DAYS CONSIST

- A. SOIL ANALYSIS, UTILIZING EPA PRE FROM ALL SAMPLES TAKEN ON THE
- B. PLOT PLAN, CLEARLY ILLUSTRATING SAMPLES WERE TAKEN FROM.
- C. CHAIN OF CUSTODY.
- D. UNIFORM MANIFEST FOR SOIL REM
- E. CERTIFICATE OF DISPOSAL FOR TA
- F. MARINE CHEMIST TANK CERT, RIN

Tell me if you want the master file! - the url is attached to the back of the report (2 copies of report) TA

- WORK PERTAINING TO THIS ABANDONMENT SITE.
- G. ALL REPORTS IN DUPLICATE, NO COMPOSITES. RESULTS IN PARTS PER BILLION, ALL SAMPLES TO BE TESTED FOR BTXE, MTBE, DIPE, ETBE, TAME, TBA, METHANOL AND ETHANOL.

GAS

8015 B (METHANOL, ETHANOL)
8260 B*
8015 M TPHg

DIESEL

8015 B (METHANOL, ETHANOL)
8260 B*
8015 M TPHd

WASTE OIL/OIL

8015 M TPHg
8260 B*

*FOR ALL COMPOUNDS LISTED IN "G" EXCEPT METHANOL AND ETHANOL.

PRODUCT
TANK 1 _____
TANK 2 _____
TANK 3 _____
TANK 4 _____
TANK 5 _____
TANK 6 _____
TANK 7 _____

OF SAMPLES

DISPENSER PITS

PIPE TRENCHES

SOIL PILES

BACKGROUND LEAD

WATER SAMPLE

8
9
2

TOTAL SAMPLES

19

MAIL TO INSPECTOR LISTED BELOW WITHIN 30 DAYS. IF SAMPLES EXCEED NON-DETECTION LEVELS INCLUDE A STATE UNAUTHORIZED RELEASE FORM, OR YOUR REPORT WILL NOT BE PROCESSED.



GLENN M. MARTINEZ
FIRE INSPECTOR
LOS ANGELES FIRE DEPARTMENT

Peter Karadjian
(213) 626-1259

BUREAU OF FIRE PREVENTION
UNDERGROUND TANK
ENFORCEMENT UNIT
200 N. MAIN STREET, SUITE 1700
LOS ANGELES, CA 90012

TEL: (213) 978-3705
FAX: (213) 978-3616

TABLE
FUEL DISPENSER AND PIPELINE REMOVAL CONFIRMATORY SOIL SAMPLES
FEBRUARY 25 and MARCH 2, 2005
500 S. ALAMEDA STREET, LOS ANGELES, CALIFORNIA

SAMPLE	TPH- DIESEL	TPH- GASOLINE	BENZENE	TOLUENE	ETHYL BENZENE	XYLENE	MIBK	OTHER FUEL OXYGENATES	ETHANOL METHANOL
D1	---	0.9 mg/kg	ND (2 µg/kg)	ND (2 µg/kg)	18 µg/kg	75 µg/kg	ND (5 µg/kg)	ND (5 to 20 µg/kg)	ND(1,000 µg/kg)
D2	---	ND (0.1 mg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (5 µg/kg)	ND (5 to 20 µg/kg)	ND(1,000 µg/kg)
D3	---	ND (0.1 mg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (5 µg/kg)	ND (5 to 20 µg/kg)	ND(1,000 µg/kg)
D4	---	8,071.5 mg/kg	ND (1,000 µg/kg)	1,453,058 µg/kg	180,653 µg/kg	1,406,569 µg/kg	ND (2,500 µg/kg)	ND (2500 to 10000 µg/kg)	ND(1,000 µg/kg)
D5	9,782 mg/kg	---	ND (100 µg/kg)	397 µg/kg	1,171 µg/kg	693 µg/kg	ND (250 µg/kg)	ND (250 to 1000 µg/kg)	---
D6	5,862 mg/kg	---	ND (100 µg/kg)	243 µg/kg	869 µg/kg	137 µg/kg	ND (250 µg/kg)	ND (250 to 1000 µg/kg)	---
D7	1,376 mg/kg	---	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (5 µg/kg)	ND (5 to 20 µg/kg)	---
D8	964 mg/kg	---	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (5 µg/kg)	ND (5 to 20 µg/kg)	---
P1	---	ND (0.1 mg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (5 µg/kg)	ND (5 to 20 µg/kg)	ND(1,000 µg/kg)
P2	---	ND (0.1 mg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (5 µg/kg)	ND (5 to 20 µg/kg)	ND(1,000 µg/kg)
P3	---	679.9 mg/kg	ND (200 µg/kg)	2,563 µg/kg	1,055 µg/kg	41,674 µg/kg	ND (500 µg/kg)	ND (500 to 2000 µg/kg)	ND(1,000 µg/kg)
P4	---	ND (0.1 mg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (5 µg/kg)	ND (5 to 20 µg/kg)	ND(1,000 µg/kg)
P5	---	ND (0.1 mg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (5 µg/kg)	ND (5 to 20 µg/kg)	ND(1,000 µg/kg)
P6	---	ND (0.1 mg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (5 µg/kg)	ND (5 to 20 µg/kg)	ND(1,000 µg/kg)
P7	---	ND (0.1 mg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (5 µg/kg)	ND (5 to 20 µg/kg)	ND(1,000 µg/kg)
P8	---	ND (0.1 mg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (5 µg/kg)	ND (5 to 20 µg/kg)	ND(1,000 µg/kg)
P9	ND (10 mg/kg)	---	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (5 µg/kg)	ND (5 to 20 µg/kg)	---
SP1	ND (10 mg/kg)	ND (0.1 mg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (5 µg/kg)	ND (5 to 20 µg/kg)	ND(1,000 µg/kg)
SP2	ND (10 mg/kg)	ND (0.1 mg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (2 µg/kg)	ND (5 µg/kg)	ND (5 to 20 µg/kg)	ND(1,000 µg/kg)

µg/kg Micrograms per kilograms (ppb, parts per billion)
mg/kg Milligrams per kilograms (ppm, parts per million)
ND Not Detected at the limits shown in parenthesis
--- Not Analyzed

ATTACHMENT D



Los Angeles Regional Water Quality Control Board

**CERTIFICATION DECLARATION
FOR COMPLIANCE WITH
FEE TITLE HOLDER NOTIFICATION REQUIREMENTS
(California Water Code Section 13307.1)**

Please Print or Type S.F.
 Fee Title Holder(s): SX Holding LTD.
 Mailing Address: 500 S. Alameda Street, Los Angeles, CA 90013
 Contact Person: Patrick Karadjian (aka Peter Karadjian)
 E-mail Address: mcatscale@gmail.com
 Telephone Number / Fax Number: 213-268-3716
 Site Name: Super Texaco
 Address: 500 S. Alameda Street, Los Angeles, CA 90013
 Contact Person: Patrick Karadjian (aka Peter Karadjian)
 Telephone Number / Fax Number: 213-268-3716
 File Number: R-09710

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations." (See attached page for who shall sign the Certification Declaration).

Patrick Karadjian
 Printed Name of Person Signing

Patrick Karadjian
 Signature

GENERAL
PARTNER
 Official Title

3-2-16
 Date Signed

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J-102 - Butterfield Property, 590 S. Santa Fe Avenue

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Ms. Jessy Fierro
Department of Toxic Substances Control
9211 Oakdale Avenue
Chatsworth, California 91311

Arcadis U.S., Inc.
320 Commerce
Suite 200
Irvine
California 92602
Tel 714 730 9052
Fax 714 730 9345
www.arcadis.com

Subject:
Completion Report
Removal of Underground Storage Tanks and
Excavation of Shallow Impacted Soil Areas (Excavations A, B, and C)
LOC 61S (Former Butterfield Property)
590 South Santa Fe Avenue
Los Angeles, California

ENVIRONMENT

Date:
March 21, 2016

Contact:
Phil Skorge

Phone:
714.508.2676

Email:
phil.skorge@arcadis.com

Our ref:
L0495301.0000

Dear Ms. Fierro:

On behalf of Los Angeles County Metropolitan Transportation Authority (LACMTA), Arcadis U.S., Inc. (Arcadis) is submitting this completion report to document underground storage tank (UST) removals, excavation of impacted soil areas, and confirmation sampling activities that were conducted at the LOC 61S (Butterfield Property) located at 590 South Santa Fe Avenue in Los Angeles, California (Site; Figure 1). The scope of work was conducted in accordance with the Department of Toxic Substances Control- (DTSC-) approved *Removal Action Work Plan* (RAW), dated August 28, 2015, and Los Angeles Fire Department (LAFD) UST closure regulations. The purpose of this completion report is to present the UST removal, soil excavation, and sampling data and request concurrence from DTSC that UST removal, soil remediation, and confirmation sampling activities were completed satisfactorily to allow the property to be redeveloped for future commercial and industrial land use.

Shallow soil cleanup goals were developed based on a human health risk assessment performed for the site and to ensure protection of groundwater. The chemicals of concern identified in shallow soil include metals (cadmium and lead), polynuclear aromatic hydrocarbons ([PAHs] naphthalene, benzo(a)anthracene, benzo(a)pyrene, benzo(a)fluoranthene, and chrysene), and total petroleum hydrocarbons (TPH). Cleanup goals for all chemicals of concern, with the exception of TPH, were based on their Commercial USEPA Region 9

Regional Screening Levels and the California alternate screening levels, where applicable (e.g., for benzo(a)pyrene, cadmium, and lead). Cleanup goals for TPH were based on a July 1, 2015 conference call between Arcadis, LACMTA, and the DTSC. The site-specific cleanup goals were presented in the RAW and are as follows:

Constituent	Cleanup Goal (mg/kg)
Lead	320
Cadmium	6.37
Naphthalene	17
Benzo(a)anthracene	2.9
Benzo(a)pyrene	0.13
Benzo(k)fluoranthene	29
Chrysene	290
TPH-g	2,200
TPH-d	440

Notes: mg/kg = milligrams per kilogram

A summary of the removal areas that are the subject of this report is presented below:

- Excavation A – The boundaries of the excavation are approximately 79 feet long by 56 feet across by 4 feet deep, with a total volume of approximately 653 cubic yards removed. The soil removed had PAHs, TPH-gasoline range (TPH-g), and TPH-diesel range (TPH-d) as the primary chemicals of concern (COCs).
- Excavation B – The boundaries of the excavation are approximately 112 feet long by 52 feet across and ranged from 2 to 6 feet deep, with a total volume of approximately 752 cubic yards removed. The soil removed had cadmium and lead as the primary COCs.
- Excavation C – The boundaries of the excavation were approximately 50 feet long by 35 feet across by 12.5 feet deep, with a total volume of approximately 810 cubic yards removed. The soil removed had TPH-g and TPH-d as the primary COCs.
- Northern USTs (USTs T1-T3) – The northern UST pit contained three 10,000-gallon USTs. The USTs previously contained petrochemical solvents.
- Central/Southern USTs (USTs T4-T10) – The central UST pit contained one 10,000-gallon UST. The southern UST pit contained four USTs ranging in sizes from a 500-gallon to 10,000-gallon USTs. The USTs previously contained petroleum hydrocarbon solvents.
- UST T5 Product Line – An approximately 175-foot-long product line trench was discovered near the central UST (T5) leading north to the former tank farm area. The product line trench contained six 2-inch steel product lines with a cumulative total of approximately 65 gallons of petrochemical product.

- Hoist Removal Area – A previously undiscovered, former hydraulic hoist was encountered in the central portion of the Site at approximately 3 feet below ground surface (bgs).

UST PREPARATION AND REMOVAL

The northern USTs T1 through T3 were found to be abandoned in place and contained a slurry backfill that needed to be removed prior to removal. The tanks were cut open and slurry was excavated and stockpiled on site for waste profiling and disposal. Slurry wastes were manifested and disposed of as non-hazardous waste at Simi Valley Landfill.

The USTs were excavated per the LAFD permit (Attachment A). On December 22, 2015, Able Environmental Services, Inc., used a pressure washer to triple rinse USTs T1 through T3 (Figure 2). Once the tanks had been decontaminated and water had been removed by a vacuum truck, the tanks were removed from the UST pit using a crane and placed on the ground surface. All of the tanks were certified clean by a Certified Industrial Hygienist. The USTs were in good condition and had no cracks or holes before the removal process. Soil underneath USTs T1 and T2 appeared to be non-impacted, with no stains or evidence of a release. Soil underneath UST T3 was dark and stained and had a noticeable odor. However, based on measurements taken with a photoionization detector (PID), no volatile organic compounds (VOCs) were detected around the excavation. The PID air monitoring logs are presented in Attachment B. The USTs were then loaded onto flat-bed trucks and hauled to U.S. Ecology for disposal. The tank rinsate was disposed of as non-RCRA hazardous waste at Crosby and Overton.

The central and southern USTs T4 through T10 were found to be abandoned in place and contained a slurry backfill that needed to be removed prior to removal with the exception of USTs T9 and T10. USTs T9 and T10 were found to be empty. The tanks were cut open and slurry was excavated and stockpiled on site for waste profiling and disposal. Slurry wastes were manifested and disposed of as non-hazardous waste at Simi Valley Landfill and/or South Yuma County Landfill.

The USTs were excavated per the LAFD permit (Attachment A). On December 15, 2015, Nieto & Sons used a pressure washer to triple rinse USTs T4 through T10 (Figure 2). Once the tanks had been decontaminated and water had been removed by a vacuum truck, the tanks were removed from the UST pit using a crane and placed on the ground surface. There was an exception to this process for USTs T9 and T10. For safety reasons, both of these tanks were first removed from the subsurface and then later decontaminated. UST T10 was removed during ongoing soil excavation activities at Excavation Area A. UST T9 was situated on top of UST T8 and was removed during the uncovering of USTs T6 through T8, which were all located in the same UST pit. All the tanks were certified clean by a Certified Industrial Hygienist. The USTs were in good condition and had no cracks or holes before the removal process. Soil underneath the USTs appeared to be non-impacted, with no stains or evidence of a release. The USTs were then loaded onto flat-bed trucks and hauled to U.S. Ecology for disposal. The tank rinsate was disposed of as non-RCRA hazardous waste at DeMenno Kerdoon.

Soils around the rest of the excavation were inspected, and no evidence of staining, odors, or other evidence of chemical impacts was observed. Based on measurements taken with a PID, no VOCs were detected around the excavation. The PID air monitoring log is presented in Attachment B.

Additionally, during site grading activities, an abandoned hydraulic hoist was discovered at approximately 3 feet bgs in the north-central portion of the property (Figure 2). The hoist was removed, triple rinsed, and disposed of off site as metal scrap. A sample of the native soil at approximately 7 feet bgs was collected and analyzed.

UST CONFIRMATION SOIL SAMPLING AND ANALYTICAL RESULTS

USTs T1- T3

Confirmation bottom soil samples were collected on December 22, 2015. Under the direction of LAFD inspector Mr. Bernard Sanchez, two bottom samples per UST were collected at depths ranging from 11 to 14 feet bgs and analyzed by United States Environmental Protection Agency (USEPA) Method 8260B/5035 for VOCs and Method 8015B/5035 for TPH-g and TPH-d. Laboratory results are presented in Attachment C.

Soil concentrations were compared to the site-specific cleanup goals established in the RAW. Tables 1a and 1b present a summary of the analytical data and compare concentrations to the cleanup goals. Soil removed from the UST pits was stockpiled in preparation for disposal. Stockpile samples were collected for waste profiling purposes. Waste characterization laboratory results are presented in Attachment D. Table 1c presents the soil stockpile results and compares concentrations to Site reuse criteria. The confirmation soil sampling data are summarized below.

VOC Concentrations in Soil

Benzene was detected in one of the six confirmation soil samples at a concentration of 1.3 micrograms per kilogram ($\mu\text{g/kg}$). All six confirmation samples reported benzene concentrations below the cleanup goal for groundwater protection of 18 $\mu\text{g/kg}$ and the cleanup goal for human health protection (industrial land use scenario) of 5,100 $\mu\text{g/kg}$.

Ethylbenzene was detected in two of the six confirmation soil samples at 1.1 and 1.4 $\mu\text{g/kg}$, respectively. All six confirmation samples reported ethylbenzene concentrations below the cleanup goal for groundwater protection of 27,000 $\mu\text{g/kg}$ and the cleanup goal for human health protection (industrial land use scenario) of 14,000 $\mu\text{g/kg}$.

Toluene was detected in two of the six confirmation soil samples at concentrations ranging from 0.94 to 1.5 $\mu\text{g/kg}$. All six confirmation samples reported toluene concentrations below the cleanup goal for groundwater protection of 5,000 $\mu\text{g/kg}$ and the cleanup goal for human health protection (industrial land use scenario) of 45,000,000 $\mu\text{g/kg}$.

Samples had trace concentrations of n-propylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes detected, all below their respective cleanup goal for groundwater protection and the cleanup goal for human health protection (industrial land use scenario).

TPH Concentrations in Soil

TPH-g was detected in one of the six confirmation soil samples at a concentration of 0.726 milligram per kilogram (mg/kg). All six confirmation samples reported TPH-g concentrations below the DTSC cleanup goal of 2,200 mg/kg.

TPH-d was detected in one of the six confirmation soil samples at a concentration of 6.78 mg/kg. All six confirmation samples reported TPH-d concentrations below the DTSC cleanup goal of 440 mg/kg.

Stockpile Soil Data

Native soil overburden was excavated from UST Pit 1 and segregated into clean and impacted stockpiles. Two stockpile soil samples (PIT1-NS and PIT1b-NS) were collected and analyzed for TPH-g, TPH-d, VOCs, and metals for waste characterization purposes. As presented in Table 1c, the stockpile sample for Pit-1 reported concentrations below their individual soil cleanup goal and hazardous waste criteria. Arcadis intends to reuse this soil as clean backfill on site. The stockpile sample for PIT-1b reported concentrations of TPH-d that exceeded the site cleanup goal of 440 mg/kg and was disposed of off site at Simi Valley Landfill. Waste characterization laboratory reports are presented in Attachment D.

USTs T4- T10

Confirmation bottom soil samples were collected on December 15, 2015. Under the direction of LAFD inspector Mr. Sanchez, up to two bottom samples per UST were collected and analyzed by USEPA Method 8260B/5035 for VOCs and Method 8015B/5035 for TPH-g and TPH-d. As discussed above, a soil sample was also collected from beneath the former hoist location, at approximately 7 feet bgs. In addition to VOCs, TPH-g, and TPH-d, the sample from the hoist location was also analyzed for California Assessment Manual (CAM) metals using USEPA Methods 6010B and 7471. In total, nine confirmation soil samples from the central and southern USTs and hoist location were collected for analysis.

Sample results from UST T6, collected at a depth of approximately 6 feet bgs, reported a concentration of TPH-d that slightly exceeded the site cleanup goal of 440 mg/kg. The UST T6 pit was further excavated to approximately 11 feet bgs on December 22, 2015, and a second confirmation bottom sample was collected, which reported a TPH-d concentration below the cleanup goal (see discussion below).

Soil concentrations were compared to the site-specific cleanup goals established in the RAW. Tables 2a and 2b present a summary of the analytical data and compare concentrations to the cleanup goals. Table 2c presents additional metals data for the sample collected beneath the former hoist. Soil removed from the UST pits was stockpiled in preparation for disposal. Stockpile samples were collected for waste profiling purposes. Table 2d presents the soil stockpile results and compares concentrations to site reuse criteria. Laboratory reports are presented in Attachment C. The confirmation soil sampling data are summarized below.

VOC Concentrations in Soil

Benzene was detected in six of the nine confirmation soil samples at concentrations ranging from 1.0 to 2.5 µg/kg. All nine confirmation samples reported benzene concentrations below the cleanup goal for groundwater protection of 18 µg/kg and the cleanup goal for human health protection (industrial land use scenario) of 5,100 µg/kg.

Ethylbenzene was detected in two of the nine confirmation soil samples at 1.8 and 10 µg/kg, respectively. All nine confirmation samples reported ethylbenzene concentrations below the cleanup goal for groundwater protection of 27,000 µg/kg and the cleanup goal for human health protection (industrial land use scenario) of 14,000 µg/kg.

Toluene was detected in six of the nine confirmation soil samples at concentrations ranging from 1.6 to 14 µg/kg. All nine confirmation samples reported toluene concentrations below the cleanup goal for groundwater protection of 5,000 µg/kg and the cleanup goal for human health protection (industrial land use scenario) of 45,000,000 µg/kg.

Trace concentrations of isopropylbenzene, 1,2,4-trimethylbenzene, 1,3,5-trimethylbenzene, and xylenes were detected in the samples, all below their respective cleanup goal for groundwater protection and the cleanup goal for human health protection (industrial land use scenario).

TPH Concentrations in Soil

TPH-g was detected in one of the nine confirmation soil samples at a concentration of 3.17 mg/kg. All nine confirmation samples reported TPH-g concentrations below the DTSC cleanup goal of 2,200 mg/kg.

TPH-d was detected in five of the nine confirmation soil samples at concentrations ranging from 7.14 to 498 mg/kg. The one sample that exceeded the cleanup goal (UST6-BS1-6) was removed when the UST pit was further excavated to approximately 11 feet bgs. Another bottom sample (UST6-BS2-11) was collected from the new excavation bottom and used to evaluate soil data to cleanup criteria. This sample was non-detect for TPH-d, which is below the cleanup goal of 440 mg/kg. The remaining seven soil confirmation samples collected beneath the other former USTs also reported TPH-d concentrations below the DTSC cleanup goal of 440 mg/kg.

Metals Concentrations in Soil

Low concentrations of arsenic, barium, cadmium, chromium, cobalt, copper, lead, nickel, vanadium, and zinc were detected in the sample collected beneath the former hoist (HOIST1-BS-7). All detected concentrations were below their respective screening criteria as presented in Table 2c.

SOIL EXCAVATION AND MONITORING

Soil remediation at Excavation Area A was conducted by removing soil with COCs exceeding the site-specific cleanup goals. The excavation boundaries were pre-marked in the field and cleared of utilities prior to intrusive activities. On November 5 through 7, 2015, Arcadis excavated Excavation Area A to a

total depth of 4 feet bgs (Figure 3). The boundaries of the excavation are approximately 79 feet long by 56 feet across with a total volume of approximately 653 cubic yards removed.

During excavation activities, an approximately 100-gallon steel UST (T4) was encountered at approximately 4 feet bgs. The tank measured approximately 26 inches wide by 48 inches long. The UST was removed from the excavation and placed on visquene. The UST was in good condition and had no noticeable cracks or holes. Soil underneath the UST appeared to be non-impacted, with no stains or evidence of a release. The UST was subsequently removed and the underlying soil was sampled, as described above.

Soils around the rest of the excavation were inspected, and no evidence of staining, odors, or other evidence of chemical impacts was observed. Based on measurements taken with a PID, VOCs were detected around the excavation. The PID air monitoring log is presented in Attachment B.

Soil remediation at Excavation Area B was conducted by removing soil with COCs (cadmium and lead) exceeding the site-specific cleanup goals. The excavation boundaries were pre-marked in the field and cleared of utilities prior to intrusive activities. On November 4 through 6, 2015, Arcadis excavated the northern portion of Excavation Area B to a total depth of 2 feet bgs and the southern portion to a depth of 6 feet bgs (Figure 3). The boundaries of the excavation are approximately 112 feet long by 52 feet across with a total volume of approximately 752 cubic yards removed. Soils were inspected during excavation, and no evidence of staining, odors, or other evidence of chemical impacts was observed.

Soil remediation at Excavation Area C was conducted by removing soil with COCs TPH-g and TPH-d exceeding site-specific cleanup goals. The excavation boundaries were pre-marked in the field and cleared of utilities prior to intrusive activities. On December 15 through 17, 2015, Arcadis excavated down to approximately 12.5 feet bgs (Figure 3). The boundaries of the excavation were approximately 50 feet long by 35 feet across with a total volume of approximately 810 cubic yards removed. Soils were inspected during excavation and intermittent dark petroleum staining was observed in the northern half of the excavation bottom. The petroleum staining in this area appeared to be discontinuous, highly degraded and hardened, implying it may have been related to fill materials reworked to greater depths at the Site by former operations.

Soils around the rest of the excavation were inspected, and no evidence of staining, odors, or other evidence of chemical impacts was observed. Based on measurements taken with a PID, no VOCs were detected around the excavation. The PID air monitoring log is presented in Attachment B.

EXCAVATIONS A, B, AND C CONFIRMATION SOIL SAMPLING AND ANALYTICAL RESULTS

Excavation A

Confirmation sidewall and bottom soil samples were collected on November 7, 2015. Per the RAW, four sidewall samples were collected at approximately 2 and 3 feet bgs and two bottom samples were collected at approximately 4 feet bgs. Soil samples were analyzed by USEPA Method 6010B for lead,

Method 8260B for VOCs, Method 8310 for PAHs, and Method 8015B for TPH-g and TPH-d. In addition, a soil sample was collected from beneath the UST location for laboratory analysis to determine if the UST had potentially leaked. The UST sample was analyzed for metals, VOCs, PAHs, and TPH. Laboratory results are presented in Attachment C.

Soil concentrations were compared to the site-specific cleanup goals established in the RAW. Tables 3a through 3d present a summary of the analytical data from Excavation Area A and compare concentrations to the cleanup goals. Tables 4a through 4d present a summary of UST sample analytical data and compare concentrations to the cleanup goals. The confirmation soil sampling data are summarized below.

Lead Concentrations in Soil

Lead was detected in all six confirmation soil samples at concentrations ranging from 2.3 to 34 mg/kg. All six confirmation samples reported lead concentrations below the cleanup goal of 320 mg/kg.

VOC Concentrations in Soil

Benzene was detected in five of the six confirmation soil samples at concentrations ranging from 1.0 to 3.0 µg/kg. All six confirmation samples reported benzene concentrations below the cleanup goal for groundwater protection of 18 µg/kg and the cleanup goal for human health protection (industrial land use scenario) of 5,100 µg/kg.

Toluene was detected in three of the six confirmation soil samples at concentrations ranging from 0.96 to 1.4 µg/kg. All six confirmation samples reported toluene concentrations below the cleanup goal for groundwater protection of 5,000 µg/kg and the cleanup goal for human health protection (industrial land use scenario) of 45,000,000 µg/kg.

PAH Concentrations in Soil

Sample EA-BS2-4 had the following detections:

- Anthracene at 0.0083 µg/kg
- Benzo(a)Anthracene at 0.0020 µg/kg
- Benzo(a)Pyrene at 0.022 µg/kg
- Benzo(k)Fluoranthene at 0.013 µg/kg
- Chrysene at 0.024 µg/kg
- Fluoranthene at 0.035 µg/kg
- Phenanthrene at 0.027 µg/kg

A benzo(a)pyrene concentration of 0.022 µg/kg was reported below the cleanup goal of 0.13 µg/kg.

Pyrene concentrations were detected in two of the six confirmation soil samples at concentrations of 0.0026 and 0.037 µg/kg, respectively.

TPH Concentrations in Soil

TPH-g and TPH-d were not detected in any of the six confirmation soil samples analyzed.

UST Sample Results

Trace concentrations of metals and PAHs were detected in the soil sample collected beneath the UST, all at concentrations below their respective cleanup goals for the Site. In addition, there were no detectable concentrations of VOCs and TPH.

Excavation B

Confirmation sidewall and bottom soil samples were collected on November 6, 2015. Six sidewall samples and three bottom samples were collected and analyzed by USEPA Method 6010B. Laboratory results are presented in Attachment C.

Soil concentrations were compared to the site-specific cleanup goals established in the RAW. Table 5 presents the analytical data and compares concentrations to the cleanup goals. The confirmation soil sampling data are summarized below.

Cadmium Concentrations in Soil

Cadmium was detected in all nine confirmation soil samples at concentrations ranging from 0.25 to 1.5 mg/kg. All confirmation soil samples reported cadmium concentrations below the cleanup goal of 6.37 mg/kg.

Lead Concentrations in Soil

Lead was detected in all nine confirmation soil samples at concentrations ranging from 1.8 to 340 mg/kg. Confirmation soil sample EB-ESW2-1 reported lead at a concentration of 340 mg/kg, which slightly exceeded the lead cleanup goal of 320 mg/kg. The other eight confirmation samples reported lead concentrations below the cleanup goal of 320 mg/kg.

Excavation C

Confirmation bottom soil samples were collected on December 19, 2015. Three sidewall samples and two bottom samples were collected and analyzed by USEPA Method 8015B/5035 for TPH-g and TPH-d, respectively. In total, five confirmation soil samples from Excavation C were collected for analysis. Laboratory results are presented in Attachment C.

Sample results from EC-BS1-12.5, collected at a depth of approximately 12.5 feet bgs, reported a concentration of TPH-d at 1,690 mg/kg, which exceeded the site cleanup criteria of 440 mg/kg. Excavation C was potholed further to approximately 18 feet bgs on January 4 and 5, 2016, and two additional confirmation bottom samples were collected, which reported a TPH-d concentration above the cleanup goal (see discussion below). Figure 4 presents a cross-section view of Excavation C.

Soil concentrations were compared to the site-specific cleanup goals established in the RAW. Tables 6a and 6b present a summary of the analytical data and compare concentrations to the cleanup goals. Soil removed from Excavation C was stockpiled in preparation for disposal. Stockpile samples were collected for waste profiling purposes. Table 7 presents the soil stockpile results and compares concentrations to site reuse criteria. Waste characterization laboratory reports are presented in Attachment D. The confirmation soil sampling data are summarized below.

TPH Concentrations in Soil

TPH-g was not detected in any of the five confirmation soil samples. All five confirmation samples reported TPH-g concentrations below the DTSC cleanup goal of 2,200 mg/kg.

TPH-d was detected in two of the five confirmation soil samples at concentrations ranging from 4.84 to 1,690 mg/kg. One sample (EC-BS1-12.5) exceeded the cleanup goal of 440 mg/kg. Potholing at this location was conducted and two additional samples were collected. Samples EC-BS1-15 and EC-BS1-18 reported TPH-d concentrations at 2,030 mg/kg and 1,770 mg/kg, respectively (Table 6b). In both samples, TPH concentrations were in the diesel to motor oil carbon-chain range (C17 and above), and the lab reported that the chromatograms do not match the diesel standard. The contamination appeared to be discontinuous, highly degraded and hardened, implying it was related to fill materials reworked at the site by former operations. Additionally, the TPH signatures indicate the contamination does not appear to be related to the deeper groundwater and free product plumes, which consist of light-end hydrocarbons. Due to the proximity of the excavation to the property boundary and South Santa Fe Avenue, additional excavation was not feasible. Therefore, the excavation was completed to the maximum feasible depth, and shallow soil remediation has been completed to the maximum practicable amount.

UST T5 PIPING REMOVAL, CONFIRMATION SOIL SAMPLING AND LIMITED SOIL EXCAVATION

During additional site grading activities, underground piping was discovered near former UST T5 (Figure 5). Six 2-inch product lines were discovered running from former UST T5 north toward the former aboveground storage tank area. Approximately 65 gallons of petrochemical product were drained from the product lines and placed into new 55-gallon drums. Then product lines were removed from the subsurface and transported off site for recycling. On January 29, 2016, Arcadis collected 11 bottom samples from the former piping trench at approximately 2 feet bgs. Soil samples were analyzed by USEPA Method 8260B/5035 for VOCs and Method 8015B for TPH-g and TPH-d. Laboratory results are presented in Attachment C.

Sample results from UST5-PP11-2, collected at a depth of approximately 2 feet bgs, reported a concentration of toluene at 120,000 µg/kg, which exceeded the cleanup criteria of 5,000 µg/kg. On February 4 and 5, 2016, the soil around this sample was excavated further to approximately 10 feet bgs (overall excavation dimensions of 6 ft. x 6ft. x 10ft.). Three additional confirmation samples were

collected, a bottom sample at 10 feet, and two sidewall samples at 5 feet bgs. All three samples reported toluene concentrations below the cleanup goal (see discussion below).

Soil concentrations were compared to the site-specific cleanup goals established in the RAW. Tables 8a and 8b present a summary of the analytical data from the former piping trench and compare concentrations to the cleanup goals. The confirmation soil sampling data are summarized below.

VOC Concentrations in Soil

Benzene was detected in 11 of the 14 confirmation soil samples at concentrations ranging from 0.89 to 5.9 µg/kg. All 14 confirmation samples reported benzene concentrations below the cleanup goal for groundwater protection of 18 µg/kg and the cleanup goal for human health protection (industrial land use scenario) of 5,100 µg/kg.

Ethylbenzene was detected in eight of the 14 confirmation soil samples at concentrations ranging from 1.3 to 15 µg/kg. All 14 confirmation samples reported ethylbenzene concentrations below the cleanup goal for groundwater protection of 14,000 µg/kg and the cleanup goal for human health protection (industrial land use scenario) of 27,000 µg/kg.

Toluene was detected in all 14 confirmation soil samples at concentrations ranging from 7.1 to 120,000 µg/kg. One sample (UST5-PP11-2) exceeded the cleanup goal of 5,000 µg/kg. Further excavation at this location was conducted and three additional samples were collected. One bottom sample (UST5-PP11-10) and two sidewall samples (UST5-PP11-NSW1-5 and UST5-PP11-SSW2-5) were collected at 10 feet bgs and 5 feet bgs, respectively. The maximum toluene concentration detected in the three confirmation samples was in sample UST5-PP11-NSW1-5 with a toluene concentration reported at 1,700 µg/kg (Table 8a). The remaining soil confirmation samples collected in the former piping trench reported toluene concentrations below the cleanup goal for groundwater protection of 5,000 µg/kg and the cleanup goal for human health protection (industrial land use scenario) of 45,000,000 µg/kg.

TPH Concentrations in Soil

TPH-g was detected in eight of the 14 confirmation soil samples at concentrations ranging from 0.187 to 448 mg/kg. All 14 confirmation samples collected in the former piping trench reported TPH-g concentrations below the DTSC cleanup goal of 2,200 mg/kg.

TPH-d was detected in 11 of the 14 confirmation soil samples at concentrations ranging from 2.87 to 242 mg/kg. All 14 soil confirmation samples collected in the former piping trench reported TPH-d concentrations below the DTSC cleanup goal of 440 mg/kg.

STOCKPILE SOIL DATA

Native soil overburden that was excavated from Pits 1 through 4 and product piping from UST 5 was sampled for TPH-g, TPH-d, VOCs, and metals for waste characterization purposes. As presented in Table 7, soil stockpile samples reported concentrations below their individual soil cleanup goal and hazardous waste criteria, with the exception of Pit 1b. Soil from stockpile Pit 1b exceeded cleanup goal

for TPH-d and was disposed of off site. Waste characterization laboratory results are presented in Attachment D. Arcadis intends to reuse this soil as clean backfill on site. Excavation Areas A, B, and C were all disposed of off site.

SUMMARY AND CONCLUSIONS

The UST removal, soil excavation, and confirmation soil sampling activities at the Site were conducted in accordance with the approved RAW and the LAFD permit. TPH concentrations reported in the high end carbon chain exceeding the cleanup goal were left in place in the northern portion of the Excavation C bottom. The sampling depths in this excavation ranged from 12.5 to 18 feet bgs. Due to the fact that the excavation is directly adjacent to South Santa Fe Avenue, further excavation would require additional shoring and major street disturbances. The additional costs and risks to perform further excavation in this area outweighs the benefits. Arcadis concludes that soil remediation activities are complete for the Site and, per the DTSC's e-mail approval on January 21, 2016, is in the process of backfilling former UST pits and shallow soil excavations with clean imported fill material and/or Site stockpile soil from former UST Pits 1 through 4 that was deemed clean for reuse. On behalf of LACMTA, Arcadis respectfully requests a letter from DTSC that states that all the shallow soil cleanup requirements have been met and the property may be developed for commercial and industrial land use.

If you have any questions regarding site activities, please contact Phil Skorge by phone at 714.508.2676 or by e-mail at Phil.Skorge@arcadis.com.

Sincerely,

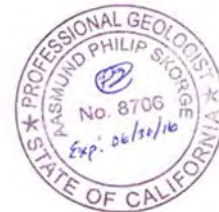
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Enclosures:

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Attachments

Attachment A – LAFD Permit
Attachment B – PID Monitoring Logs
Attachment C– Laboratory Reports
Attachment D – Waste Characterization Laboratory Reports

TABLES





Table 1a Summary of VOC Data in UST Soil Samples
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sample Depth (feet bgs)	Sample Date	Matrix	Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Chloroethane	1,1-Dichloroethane	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	Methyl Isobutyl Ketone (MIBK)	n-Propylbenzene	Styrene	Tetrachloroethene	1,1,2,2-Tetrachloroethane	Toluene	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	o-Xylene	p/m-Xylene
Screening Levels																											
RSL - Industrial Soil				670,000,000	5,100	190,000,000	58,000,000	100,000,000	100,000,000	3,700,000	61,000,000	17,000	27,000	11,000,000	NA	18,000	47,000,000	21,000,000	36,000,000	110,000	2,800	45,000,000	38,000,000	260,000	10,000,000	3,000,000	NA
Protection of GW SSLs - VLEACH - Upper (0-25')				NA	18	21,500	NA	NA	NA	NA	NA	65	14,000	NA	NA	23,500	1,050	NA	NA	NA	NA	5,000	NA	NA	NA	80,000	80,000
Confirmation Samples																											
UST1-BS1-11	11	12/22/2015	Soil	<18	<0.89	<18	<0.89	<0.89	<0.89	<4.5	<4.5	<0.89	1.4	<0.89	<0.89	<8.9	<18	2.2	<0.89	<0.89	<0.89	<0.89	<0.89	380	77	8.6	25
UST1-BS2-11	11	12/22/2015	Soil	<19	<0.93	<19	<0.93	<0.93	<0.93	<4.6	<4.6	<0.93	<0.93	<0.93	<0.93	<9.3	<19	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<1.9
UST2-BS1-11	11	12/22/2015	Soil	<18	1.3	<18	<0.91	<0.91	<0.91	<4.5	<4.5	<0.91	1.1	<0.91	<0.91	<9.1	<18	<0.91	<0.91	<0.91	<0.91	1.5	<0.91	51	13	1.7	5.6
UST2-BS2-11	11	12/22/2015	Soil	<19	<0.93	<19	<0.93	<0.93	<0.93	<4.6	<4.6	<0.93	<0.93	<0.93	<0.93	<9.3	<19	<0.93	<0.93	<0.93	<0.93	0.94	<0.93	<0.93	<0.93	<0.93	<1.9
UST3-BS1-14	14	12/22/2015	Soil	<19	<0.93	<19	<0.93	<0.93	<0.93	<4.6	<4.6	<0.93	<0.93	<0.93	<0.93	<9.3	<19	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<1.9
UST3-BS2-14	14	12/22/2015	Soil	<17	<0.85	<17	<0.85	<0.85	<0.85	<4.2	<4.2	<0.85	<0.85	<0.85	<0.85	<8.5	<17	<0.85	<0.85	<0.85	<0.85	<0.85	<0.85	<0.85	<0.85	<0.85	<1.7

Notes:
UST = underground storage tank
Units for soil are in micrograms per kilogram.
Bold type indicates reported at detectable concentration.
Highlighted cell indicates concentration exceeds applicable cleanup goal.
bgs = below ground surface
< Denotes not detected at the reporting limit indicated.
DTSC = Department of Toxic Substances Control
- - = not analyzed
GW SSL = groundwater soil screening level
NA = not applicable
RSL = Regional Screening Level
VLEACH = Vadose Zone Leaching
VOC = volatile organic compound



Table 1b

Summary of TPH Data in UST Soil Samples
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sample Depth (feet bgs)	Sample Date	TPH-g	TPH-d
Screening Levels				
DTSC Screening Level - Industrial Soil*			2,200	440
Confirmation Samples				
UST1-BS1-11	11	12/22/2015	0.726	<2.50
UST1-BS2-11	11	12/22/2015	<0.185	<2.50
UST2-BS1-11	11	12/22/2015	<0.185	<2.50
UST2-BS2-11	11	12/22/2015	<0.172	6.78
UST3-BS1-14	14	12/22/2015	<0.189	<2.50
UST3-BS2-14	14	12/22/2015	<0.192	<2.50

Notes:

UST = underground storage tank

*TPH cleanup goals were developed as part of the Removal Action Work Plan dated August 28, 2015

TPH-g = total petroleum hydrocarbons - gasoline range

TPH-d = total petroleum hydrocarbons - diesel range

-- = not applicable

Units for soil are in milligrams per kilogram.

Bold type indicates reported at detectable concentration.

< Denotes not detected at the reporting limit indicated.

bgs = below ground surface

DTSC = Department of Toxic Substances Control



Table 1c **Summary of Soil Stockpile Data**
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sample Date	TPH-g	TPH-d	Lead	STLC Lead (mg/L)	TCLP Lead (mg/L)	Cadmium	1,1- Dichloroethane	Benzene	Ethylbenzene	Naphthalene	Methyl Ethyl Ketone (MEK)	4-Methyl-2-Pentanone (MIBK)	Toluene	Total Xylenes
Screening Levels															
Soil Cleanup Goals- Upper		2200 ⁽¹⁾	440 ⁽¹⁾	320	--	--	6.37	0.065	0.018	14	23.5	21.5	1.05	5	80
Hazardous Waste Criteria**		--	--	50	5	5	10	--	10	--	--	4,000	--	--	--
Waste Confirmation Samples															
PIT1-NS	9/24/15	<0.200	--	29	--	--	0.56	<0.001	<0.001	<0.001	<0.01	<0.02	<0.02	<0.001	<0.003
PIT1b-NS	12/22/15	32.9	791	100	1.9	<0.080	0.62	<0.005	<0.005	0.270	<0.05	<0.10	<0.10	0.022	0.610

Notes:

Units for soil are in milligrams per kilogram unless otherwise noted.

TPH= total petroleum hydrocarbons

Bold type indicates reported at detectable concentration.

Highlighting = exceeds reuse criteria

-- = not analyzed

< Denotes not detected at the reporting limit indicated.

mg/L = milligrams per liter

Highlighting = exceeds reuse criteria

* = Goals from August 28, 2015 RAW

** = Regulatory levels from California Code of Regulations 662261.24

⁽¹⁾ = TPH cleanup goals were developed as part of the Removal Action Work Plan dated August 28, 2015



Table 2a Summary of VOC Data in UST Soil Samples
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sample Depth (feet bgs)	Sample Date	Matrix	Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Chloroethane	1,1-Dichloroethane	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	Methyl Isobutyl Ketone (MIBK)	n-Propylbenzene	Styrene	Tetrachloroethene	1,1,2,2-Tetrachloroethane	Toluene	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	o-Xylene	p/m-Xylene
Screening Levels																											
RSL - Industrial Soil				670,000,000	5,100	190,000,000	58,000,000	100,000,000	100,000,000	3,700,000	61,000,000	17,000	27,000	11,000,000	NA	18,000	47,000,000	21,000,000	36,000,000	110,000	2,800	45,000,000	38,000,000	260,000	10,000,000	3,000,000	NA
Protection of GW SSLs - VLEACH - Upper (0-25')				NA	18	21,500	NA	NA	NA	NA	NA	65	14,000	NA	NA	23,500	1,050	NA	NA	NA	NA	5,000	NA	NA	NA	80,000	80,000
Confirmation Samples																											
UST4-BS1-8	8	12/15/2015	Soil	<16	2.5	<16	<0.81	<0.81	<0.81	<4.0	<4.0	<0.81	10	1.9	<0.81	<8.1	<17	<0.81	<0.81	<0.81	<0.81	14	<0.81	<0.81	<0.81	20	46
UST4-BS2-8	8	12/15/2015	Soil	<17	1.9	<17	<0.85	<0.85	<0.85	<4.2	<4.2	<0.85	<0.85	<0.85	<0.85	<8.5	<16	<0.85	<0.85	<0.85	<0.85	1.6	<0.85	<0.85	<0.85	<0.85	<1.7
UST5-BS1-8	8	12/15/2015	Soil	<17	<0.86	<17	<0.86	<0.86	<0.86	<4.3	<4.3	<0.86	<0.86	<0.86	<0.86	<8.6	<17	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<1.7
UST5-BS2-8	8	12/15/2015	Soil	<18	1.2	<18	<0.91	<0.91	<0.91	<4.5	<4.5	<0.91	1.8	<0.91	<0.91	<9.1	<17	<0.91	<0.91	<0.91	<0.91	1.9	<0.91	<0.91	<0.91	4.1	7.8
UST6-BS1-6*	6	12/15/2015	Soil	<18	2.3	<18	<0.91	<0.91	<0.91	<4.5	<4.5	<0.91	<0.91	<0.91	<0.91	<9.1	<18	<0.91	<0.91	<0.91	<0.91	2.0	<0.91	3.4	2.0	<0.91	<1.8
UST6-BS2-11	11	12/22/2015	Soil	<17	<0.86	<17	<0.86	<0.86	<0.86	<4.3	<4.3	<0.86	<0.86	<0.86	<0.86	<8.6	<18	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<0.86	<1.7
UST7-BS1-5	5	12/15/2015	Soil	<17	1.0	<17	<0.83	<0.83	<0.83	<4.2	<4.2	<0.83	<0.83	<0.83	<0.83	<8.3	<17	<0.83	<0.83	<0.83	<0.83	2.6	<0.83	1.4	<0.83	<0.83	<1.7
UST8-BS1-4	4	12/15/2015	Soil	<18	2.2	<18	<0.91	<0.91	<0.91	<4.5	<4.5	<0.91	<0.91	<0.91	<0.91	<9.1	<17	<0.91	<0.91	<0.91	<0.91	2.2	<0.91	<0.91	<0.91	1.2	5.0
HOIST1-BS-7	7	12/10/2015	Soil	<20	<1.0	<20	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<10	<18	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.0

Notes:
UST = underground storage tank
Units for soil are in micrograms per kilogram.
Bold type indicates reported at detectable concentration.
Highlighted cell indicates concentration exceeds applicable cleanup goal.
bgs = below ground surface
< Denotes not detected at the reporting limit indicated.
DTSC = Department of Toxic Substances Control
* = sample removed during soil remediation/over-excavation activities
- - = not analyzed
GW SSL = groundwater soil screening level
NA = not applicable
RSL = Regional Screening Level
VLEACH = Vadose Zone Leaching
VOC = volatile organic compound



Table 2b

**Summary of TPH Data in UST Soil Samples
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California**

Sample ID	Sample Depth (feet bgs)	Sample Date	TPH-g	TPH-d
Screening Levels				
DTSC Screening Level - Industrial Soil*			2,200	440
Confirmation Samples				
UST4-BS1-8	8	12/15/2015	3.17	108
UST4-BS2-8	8	12/15/2015	<0.175	174
UST5-BS1-8	8	12/15/2015	<0.196	<2.50
UST5-BS2-8	8	12/15/2015	<0.200	<2.50
UST6-BS1-6**	6	12/15/2015	<0.182	498
UST6-BS2-11	11	12/22/2015	<0.189	<2.50
UST7-BS1-5	5	12/15/2015	<0.169	37.3
UST8-BS1-4	4	12/15/2015	<0.167	7.14
HOIST1-BS-7	7	12/10/2015	<0.200	<2.50

Notes:

UST = underground storage tank

* TPH cleanup goals were developed as part of the Removal Action Work Plan dated August 28, 2015

TPH-g = total petroleum hydrocarbons - gasoline range

TPH-d = total petroleum hydrocarbons - deisel range

** = sample removed during soil remediation/over-excavation activities

-- = not applicable

Units for soil are in milligrams per kilogram.

Bold type indicates reported at detectable concentration.

< Denotes not detected at the reporting limit indicated.

bgs = below ground surface

DTSC = Department of Toxic Substances Control



Table 2c Summary of Metals Data in Soil
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sampling Date	Sample Depth (feet)	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead	Mercury	Molybdenum	Nickel	Selenium	Silver	Thallium	Vanadium	Zinc
Screening Levels																			
USEPA Region 9 RSL - Industrial Soil			47	3	22,000	230	980	180,000	8,000	2,500	800	4	580	NA	580	580	NA	580	35,000
HOIST1-BS-7	12/10/2015	7	<1	2.9	76	<0.5	0.33	8.9	10	11	2.7	<0.1	<1	7.1	<1	<0.5	<2	27	35

Notes:
Units are in milligrams per kilogram.
Bold type indicates reported at detectable concentration.
USEPA = United States Environmental Protection Agency
< Denotes not detected at the reporting limit indicated.
RSL = Regional Screening Level



Table 2d

**Summary of Soil Stockpile Data
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California**

Sample ID	Associated UST's in Pit	Sample Date	TPH-g	TPH-d	Lead	STLC Lead (mg/L)	TCLP Lead (mg/L)	Cadmium	1,1- Dichloroethane	Benzene	Ethylbenzene	Naphthalene	Methyl Ethyl Ketone (MEK)	4-Methyl-2-Pentanone (MIBK)	Toluene	Total Xylenes
Screening Levels																
Soil Cleanup Goals- Upper Zone*			2200 ⁽¹⁾	440 ⁽¹⁾	320	--	--	6.37	0.065	0.018	14	23.5	21.5	1.05	5	80
Hazardous Waste Criteria**			--	--	50	5	5	10	--	10	--	--	4,000	--	--	--
Waste Confirmation Samples																
PIT3-NS	T5	9/24/15	<0.200	--	270	4.3	0.10	1.2	<0.001	<0.001	<0.001	<0.01	<0.02	<0.02	<0.001	<0.003
PIT2-NS	T4	11/30/15	<0.200	324	40	--	--	0.56	<0.001	<0.001	<0.001	<0.01	<0.02	<0.02	<0.001	<0.003
PIT4-NS	T6, T7, T8, T9	11/30/15	<0.200	17.3	62	2.2	--	0.61	<0.001	<0.001	<0.001	<0.01	<0.02	<0.02	<0.001	<0.003

Notes:

UST = underground storage tank

Units for soil are in milligrams per kilogram unless otherwise noted.

TPH= total petroleum hydrocarbons

Bold type indicates reported at detectable concentration.

-- = not analyzed

< Denotes not detected at the reporting limit indicated.

mg/L = milligrams per liter

Highlighting = exceeds reuse criteria

* = Goals from August 28, 2015 RAW

** = Regulatory levels from California Code of Regulations 662261.24

⁽¹⁾ = TPH cleanup goals were developed as part of the Removal Action Work Plan dated August 28, 2015



Table 3a **Summary of Lead Data in Excavation A Soil**
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sampling Date	Sample Depth (feet)	Lead
Screening Levels			
DTSC Screening Level - Industrial Soil			320
EA-NSW1-2	11/7/2015	2	34
EA-ESW2-2	11/7/2015	2	2.6
EA-SSW3-2	11/7/2015	2	18
EA-WSW4-3	11/7/2015	3	3.3
EA-BS1-4	11/7/2015	4	2.3
EA-BS2-4	11/7/2015	4	30

Notes:

Units are in milligrams per kilogram.

Bold type indicates reported at detectable concentration.

DTSC = Department of Toxic Substances Control



Table 3b Summary of VOC Data in Excavation A Soil
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sample Depth (feet bgs)	Sample Date	Matrix	Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Chloroethane	1,1-Dichloroethane	Ethanol	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	Methyl Isobutyl Ketone (MIBK)	n-Propylbenzene	Styrene	Tetrachloroethene	1,1,2,2-Tetrachloroethane	Toluene	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	o-Xylene	p/m-Xylene
Screening Levels																												
RSL - Industrial Soil				670,000,000	5,100	190,000,000	58,000,000	100,000,000	100,000,000	3,700,000	61,000,000	17,000	NA	27,000	11,000,000	NA	18,000	47,000,000	21,000,000	36,000,000	110,000	2,800	45,000,000	38,000,000	260,000	10,000,000	3,000,000	NA
Protection of GW SSLs - VLEACH - Upper (0-25')				NA	18	21,500	NA	NA	NA	NA	NA	65	NA	14,000	NA	NA	23,500	1,050	NA	NA	NA	NA	5,000	NA	NA	NA	80,000	80,000
Confirmation Samples																												
EA-NSW1-2	2	11/7/2015	Soil	<18	1.4	<18	<0.88	<0.88	<0.88	<4.4	<4.4	<0.88	--	<0.88	<0.88	<0.88	<8.8	--	<0.88	<0.88	<0.88	<0.88	0.96	<0.88	<0.88	<0.88	<0.88	<1.8
EA-ESW2-2	2	11/7/2015	Soil	<19	1.0	<19	<0.93	<0.93	<0.93	<4.6	<4.6	<0.93	--	<0.93	<0.93	<0.93	<9.3	--	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<1.9
EA-SSW3-2	2	11/7/2015	Soil	<16	1.8	<16	<0.78	<0.78	<0.78	<3.9	<3.9	<0.78	--	<0.78	<0.78	<0.78	<7.8	--	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78	<0.78	<1.6
EA-WSW4-3	3	11/7/2015	Soil	<16	2.2	<16	<0.78	<0.78	<0.78	<3.9	<3.9	<0.78	--	<0.78	<0.78	<0.78	<7.8	--	<0.78	<0.78	<0.78	<0.78	1.2	<0.78	<0.78	<0.78	<0.78	<1.6
EA-BS1-4	4	11/7/2015	Soil	<19	<0.93	<19	<0.93	<0.93	<0.93	<4.6	<4.6	<0.93	--	<0.93	<0.93	<0.93	<9.3	--	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<0.93	<1.9
EA-BS2-4	4	11/7/2015	Soil	<15	3.0	<15	<0.75	<0.75	<0.75	<3.7	<3.7	<0.75	--	<0.75	<0.75	<0.75	<7.5	--	<0.75	<0.75	<0.75	<0.75	1.4	<0.75	<0.75	<0.75	<0.75	<1.5

Notes:
Units for soil are in micrograms per kilogram.
Bold type indicates reported at detectable concentration.
Highlighted cell indicates concentration exceeds applicable cleanup goal.
bgs = below ground surface
< Denotes not detected at the reporting limit indicated.
DTSC = Department of Toxic Substances Control
-- = not analyzed
GW SSL = groundwater soil screening level
NA = not applicable
RSL = Regional Screening Level
VLEACH = Vadose Zone Leaching
VOC = volatile organic compound



Table 3c **Summary of PAH Data in Excavation A Soil**
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sample Depth (feet bgs)	Sample Date	Anthracene	Benzo(a)Anthracene	Benzo(a)Pyrene	Benzo(k)Fluoranthene	Chrysene	Fluoranthene	Naphthalene	Phenanthrene	Pyrene
Screening Levels											
DTSC Screening Level - Industrial Soil			NA	NA	0.13	NA	NA	NA	NA	NA	NA
Confirmation Samples											
EA-NSW1-2	2	11/7/2015	<2	<2	<2	<2	<2	<2	<5	<2	0.0026
EA-ESW2-2	2	11/7/2015	<2	<2	<2	<2	<2	<2	<5	<2	<2
EA-SSW3-2	2	11/7/2015	<2	<2	<2	<2	<2	<2	<5	<2	<2
EA-WSW4-3	3	11/7/2015	<2	<2	<2	<2	<2	<2	<5	<2	<2
EA-BS1-4	4	11/7/2015	<2	<2	<2	<2	<2	<2	<5	<2	<2
EA-BS2-4	4	11/7/2015	0.0083	0.020	0.022	0.013	0.024	0.035	<5	0.027	0.037

Notes:

PAH = polynuclear aromatic hydrocarbons

Units for soil are in milligrams per kilogram.

Bold type indicates reported at detectable concentration.

< Denotes not detected at the reporting limit indicated.

bgs = below ground surface

DTSC = Department of Toxic Substances Control



Table 3d

Summary of TPH Data in Excavation A Soil
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sample Depth (feet bgs)	Sample Date	TPH-g	TPH-d
Screening Levels				
DTSC Screening Level - Industrial Soil*			2,200	440
Confirmation Samples				
EA-NSW1-2	2	11/7/2015	<0.156	<2.48
EA-ESW2-2	2	11/7/2015	<0.179	<2.50
EA-SSW3-2	2	11/7/2015	<0.172	<2.50
EA-WSW4-3	3	11/7/2015	<0.159	<2.48
EA-BS1-4	4	11/7/2015	<0.182	<2.50
EA-BS2-4	4	11/7/2015	<0.147	<2.48

Notes:

*TPH cleanup goals were developed as part of the Removal Action Work Plan dated August 28, 2015

TPH-g = total petroleum hydrocarbons - gasoline range

TPH-d = total petroleum hydrocarbons - diesel range

Units for soil are in milligrams per kilogram.

Bold type indicates reported at detectable concentration.

< Denotes not detected at the reporting limit indicated.

bgs = below ground surface

DTSC = Department of Toxic Substances Control



Table 4a Summary of Metals Data in UST 10 Soil
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sampling Date	Sample Depth (feet)	Antimony	Arsenic	Barium	Beryllium	Cadmium	Chromium	Cobalt	Copper	Lead
Screening Levels											
DTSC Screening Level - Industrial Soil			NA	NA	NA	183.0	6.37	NA	NA	NA	320
UST-U-4	11/7/2015	4	<1.0	2.3	80	<0.50	0.26	6.4	4.3	7.3	28

Notes:

UST = underground storage tank

Units are in milligrams per kilogram.

Bold type indicates reported at detectable concentration.

DTSC = Department of Toxic Substances Control



Table 4b Summary of VOC Data in UST 10 Soil Sample
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sample Depth (feet bgs)	Sample Date	Matrix	Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Chloroethane	1,1-Dichloroethane	Ethanol	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	Methyl Isobutyl Ketone (MIBK)	n-Propylbenzene	Styrene	Tetrachloroethene	1,1,2,2-Tetrachloroethane	Toluene	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	o-Xylene	p/m-Xylene
Screening Levels																												
RSL - Industrial Soil				670,000,000	5,100	190,000,000	58,000,000	100,000,000	100,000,000	3,700,000	61,000,000	17,000	NA	27,000	11,000,000	NA	18,000	47,000,000	21,000,000	36,000,000	110,000	2,800	45,000,000	38,000,000	260,000	10,000,000	3,000,000	NA
Protection of GW SSLs - VLEACH - Upper (0-25')				NA	18	21,500	NA	NA	NA	NA	NA	65	NA	14,000	NA	NA	23,500	1,050	NA	NA	NA	NA	5,000	NA	NA	NA	80,000	80,000
Confirmation Samples																												
UST-U-4	4	11/7/2015	Soil	<20	<0.98	<20	<0.98	<0.98	<0.98	<4.9	<4.9	<0.98	--	<0.98	<0.98	<0.98	<9.8	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<0.98	<2.0

Notes:
UST = underground storage tank
Units for soil are in micrograms per kilogram.
Bold type indicates reported at detectable concentration.
Highlighted cell indicates concentration exceeds applicable cleanup goal.
bgs = below ground surface
< Denotes not detected at the reporting limit indicated.
DTSC = Department of Toxic Substances Control
-- = not analyzed
GW SSL = groundwater soil screening level
NA = not applicable
RSL = Regional Screening Level
VLEACH = Vadose Zone Leaching
VOC = volatile organic compound



Table 4c **Summary of PAH Data in UST 10 Soil**
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sample Depth (feet bgs)	Sample Date	Anthracene	Benzo(a)Anthracene	Benzo(a)Pyrene	Benzo(k)Fluoranthene	Chrysene	Fluoranthene	Naphthalene	Phenanthrene	Pyrene
Screening Levels											
DTSC Screening Level - Industrial			NA	NA	0.13	NA	NA	NA	NA	NA	NA
Confirmation Samples											
UST-U-4	4	11/7/2015	<2	0.0029	0.0038	0.0029	0.0	0.0042	<5	0.0039	0.0063

Notes:

PAH = polynuclear aromatic hydrocarbons

UST = underground storage tank

Units for soil are in micrograms per kilogram.

Bold type indicates reported at detectable concentration.

< Denotes not detected at the reporting limit indicated.

bgs = below ground surface

DTSC = Department of Toxic Substances Control



Table 4d

**Summary of TPH Data in UST 10 Soil
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California**

Sample ID	Sample Depth (feet bgs)	Sample Date	TPH-g (C6-C10)	TPH (C7-C40)
Screening Levels				
DTSC Screening Level - Industrial Soil*			2,200	--
Confirmation Samples				
UST-U-4	4	11/7/2015	<0.189	<2.50

Notes:

UST = underground storage tank

*TPH cleanup goals were developed as part of the Removal Action Work Plan dated August 28, 2015

TPH-g = total petroleum hydrocarbons - gasoline range

-- = not applicable

Units for soil are in milligrams per kilogram.

Bold type indicates reported at detectable concentration.

< Denotes not detected at the reporting limit indicated.

bgs = below ground surface

DTSC = Department of Toxic Substances Control



Table 5 **Summary of Metals Data in Excavation B Soil**
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sampling Date	Sample Depth (feet bgs)	Cadmium	Lead
Screening Levels				
DTSC Screening Level - Industrial Soil			6.37	320
EB-NSW-1-1	11/6/2015	1	0.39	3.7
EB-ESW2-1	11/6/2015	1	1.5	340
EB-ESW3-3	11/6/2015	3	0.29	2.5
EB-SSW4-3	11/6/2015	3	0.50	4.7
EB-WSW5-3	11/6/2015	3	0.48	3.7
EB-WSW6-1	11/6/2015	1	0.51	4.4
EB-BS1-2	11/6/2015	2	0.27	3.6
EB-BS2-2	11/6/2015	2	0.25	1.8
EB-BS3-6	11/6/2015	6	0.29	2.3

Notes:

Units are in milligrams per kilogram.

Bold type indicates reported at detectable concentration.

Highlighted cell indicates concentration exceeds applicable cleanup goal.

bgs = below ground surface

DTSC = Department of Toxic Substances Control



Table 6a

Summary of TPH Data in Excavation C Soil
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sample Depth (feet bgs)	Sample Date	TPH-g	TPH-d
Screening Levels				
DTSC Screening Level - Industrial Soil*			2,200	440
Confirmation Samples				
EC-NSW1-6	6	12/19/2015	<0.179	4.84
EC-ESW2-6	6	12/19/2015	<0.185	<2.50
EC-SSW3-6	6	12/19/2015	<0.164	<2.50
EC-BS1-12.5	12.5	12/19/2015	<0.185	1,690
EC-BS2-12.5	12.5	12/19/2015	<0.200	<2.50

Notes:

*TPH cleanup goals were developed as part of the Removal Action Work Plan dated August 28, 2015

TPH-g = total petroleum hydrocarbons - gasoline range

TPH-d = total petroleum hydrocarbons - diesel range

Units for soil are in milligrams per kilogram.

Bold type indicates reported at detectable concentration.

Highlighted cell indicates an exceedance of screening level

< Denotes not detected at the reporting limit indicated.

bgs = below ground surface

DTSC = Department of Toxic Substances Control



Table 6b **Summary of TPH Data in Excavation C Step Down Samples**
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sample Depth (feet bgs)	Sample Date	GRO C6-C10	DRO C10-C28	C7-C8	C9-C10	C11-C12	C13-C14	C15-C16	C17-C18	C19-C20	C21-C22	C23-C24	C25-C27	C28-C33	C34-C40
Screening Levels																
DTSC Screening Level - Industrial			2,200	440	--	--	--	--	--	--	--	--	--	--	--	--
Confirmation Samples																
EC-BS1-15	15.0	1/4/2016	<0.238	2,030	<125	<125	<125	<125	<125	202	272	338	377	582	1,590	980
EC-BS1-18	18.0	1/5/2016	<0.175	1,770	<25	<25	<25	<25	77.6	168	241	272	330	587	1,480	515

Notes:

*TPH cleanup goals were developed as part of the Removal Action Work Plan dated August 28, 2015

GRO = gasoline range organics

DRO = diesel range organics

Units for soil are in milligrams per kilogram.

Bold type indicates reported at detectable concentration.

Highlighted cell indicates an exceedance of screening level

< Denotes not detected at the reporting limit indicated.

bgs = below ground surface

DTSC = Department of Toxic Substances Control



Table 7 **Summary of Soil Stockpile Data**
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sample Date	TPH-g	TPH-d	Lead	STLC Lead (mg/L)	TCLP Lead (mg/L)	Cadmium	1,1- Dichloroethane	Benzene	Ethylbenzene	Naphthalene	Methyl Ethyl Ketone (MEK)	4-Methyl-2-Pentanone (MIBK)	Toluene	Total Xylenes
Screening Levels															
Soil Cleanup Goals- Upper		2200 ⁽¹⁾	440 ⁽¹⁾	320	--	--	6.37	0.065	0.018	14	23.5	21.5	1.05	5	80
Hazardous Waste Criteria**		--	--	50	5	5	10	--	10	--	--	4,000	--	--	--
Waste Confirmation Samples															
PIT1-NS	9/24/15	<0.200	--	29	--	--	0.56	<0.001	<0.001	<0.001	<0.01	<0.02	<0.02	<0.001	<0.003
PIT1b-NS	12/22/15	32.9	791	100	1.9	<0.080	0.62	<0.005	<0.005	0.270	<0.05	<0.10	<0.10	0.022	0.610
PIT3-NS	9/24/15	<0.200	--	270	4.3	0.10	1.2	<0.001	<0.001	<0.001	<0.01	<0.02	<0.02	<0.001	<0.003
EB-SP1-NS	11/6/15	<0.200	6.63	120	6.7	0.15	0.81	<0.001	<0.001	<0.001	<0.01	<0.02	<0.02	<0.001	<0.003
EB-SP2-NS	11/6/15	<0.200	40.6	98	4.4	--	0.70	<0.001	<0.001	<0.001	<0.01	<0.02	<0.02	<0.001	<0.003
EA-SP1-NS	11/7/15	<0.200	22	58	1.6	--	0.49	<0.001	<0.001	<0.001	<0.01	<0.02	<0.02	<0.001	<0.003
EA-SP2-NS	11/7/15	<0.200	16.9	85	4.5	--	0.51	<0.001	<0.001	<0.001	<0.01	<0.02	<0.02	<0.001	<0.003
PIT2-NS	11/30/15	<0.200	324	40	--	--	0.56	<0.001	<0.001	<0.001	<0.01	<0.02	<0.02	<0.001	<0.003
PIT4-NS	11/30/15	<0.200	17.3	62	2.2	--	0.61	<0.001	<0.001	<0.001	<0.01	<0.02	<0.02	<0.001	<0.003
EC-SP1-NS	12/19/15	0.483	1,960	7.1	--	--	0.32	<0.005	<0.005	<0.005	<0.05	<0.10	<0.10	<0.005	<0.015
EC-SP2-NS	12/19/15	<0.200	155	12	--	--	0.38	<0.001	<0.001	<0.001	<0.01	<0.02	<0.02	<0.001	<0.003
EC-SP3-NS	12/19/15	<0.200	174	58	2.2	--	0.72	<0.001	<0.001	<0.001	<0.01	<0.02	<0.02	<0.001	<0.003
UST5-PP-NS	2/3/16	1.90	3.91	21	--	--	0.37	<0.020	<0.020	0.031	<0.200	<0.400	<0.400	2.7	0.520

Notes:

Units for soil are in milligrams per kilogram unless otherwise noted.

TPH-g = total petroleum hydrocarbons- gasoline

TPH-d = total petroleum hydrocarbons- diesel

Bold type indicates reported at detectable concentration.

-- = not analyzed

< Denotes not detected at the reporting limit indicated.

mg/L = milligrams per liter

Highlighting = exceeds reuse criteria

* = Goals from August 28, 2015 RAW

** = Regulatory levels from California Code of Regulations 662261.24

⁽¹⁾ = TPH cleanup goals were developed as part of the Removal Action Work Plan dated August 28, 2015



Table 8a
Summary of VOC Data in UST 5 Product Piping Soil
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California

Sample ID	Sample Depth (feet bgs)	Sample Date	Matrix	Acetone	Benzene	2-Butanone	n-Butylbenzene	sec-Butylbenzene	tert-Butylbenzene	Carbon Disulfide	Chloroethane	1,1-Dichloroethane	Ethylbenzene	Isopropylbenzene	p-Isopropyltoluene	Naphthalene	Methyl Isobutyl Ketone (MIBK)	n-Propylbenzene	Styrene	Tetrachloroethene	1,1,2,2-Tetrachloroethane	Toluene	1,1,1-Trichloroethane	1,2,4-Trimethylbenzene	1,3,5-Trimethylbenzene	o-Xylene	p/m-Xylene
Screening Levels																											
RSL - Industrial Soil				670,000,000	5,100	190,000,000	58,000,000	100,000,000	100,000,000	3,700,000	61,000,000	17,000	27,000	11,000,000	NA	18,000	47,000,000	21,000,000	36,000,000	110,000	2,800	45,000,000	38,000,000	260,000	10,000,000	3,000,000	NA
Protection of GW SSLs - VLEACH - Upper (0-25')				NA	18	21,500	NA	NA	NA	NA	NA	65	14,000	NA	NA	23,500	1,050	NA	NA	NA	NA	5,000	NA	NA	NA	80,000	80,000
Confirmation Samples																											
UST5-PP1-2	2	1/29/2016	Soil	<14	4.2	<14	<0.72	<0.72	<0.72	<3.6	<3.6	<0.72	<0.72	<0.72	<0.72	<7.2	<14	<0.72	<0.72	<0.72	<0.72	23	<0.72	<0.72	<0.72	<0.72	<1.4
UST5-PP2-2	2	1/29/2016	Soil	<17	3.8	<17	<0.86	<0.86	<0.86	<4.3	<4.3	<0.86	1.3	<0.86	<0.86	<8.6	<17	<0.86	<0.86	<0.86	<0.86	7.1	<0.86	<0.86	<0.86	1.3	4.4
UST5-PP3-2	2	1/29/2016	Soil	<17	1.3	<17	<0.86	<0.86	<0.86	<4.3	<4.3	<0.86	2.9	<0.86	<0.86	<8.6	<17	<0.86	<0.86	<0.86	<0.86	6.7	<0.86	<0.86	<0.86	4.0	12
UST5-PP4-2	2	1/29/2016	Soil	<17	1.9	<17	<0.83	<0.83	<0.83	<4.2	<4.2	<0.83	15	<0.83	<0.83	<8.3	<17	<0.83	<0.83	<0.83	<0.83	65	<0.83	<0.83	<0.83	14	48
UST5-PP5-2	2	1/29/2016	Soil	<18	0.89	<18	<0.88	<0.88	<0.88	<4.4	<4.4	<0.88	1.4	<0.88	<0.88	<8.8	<18	<0.88	<0.88	<0.88	<0.88	8.6	<0.88	<0.88	<0.88	1.9	5.6
UST5-PP6-2	2	1/29/2016	Soil	<18	2.8	<18	<0.88	<0.88	<0.88	<4.4	<4.4	<0.88	<0.88	<0.88	<0.88	<8.8	<18	<0.88	<0.88	<0.88	<0.88	19	<0.88	<0.88	<0.88	1.3	3.4
UST5-PP7-2	2	1/29/2016	Soil	18	2.4	<18	<0.91	<0.91	<0.91	<4.5	<4.5	<0.91	3.6	<0.91	<0.91	<9.1	<18	<0.91	<0.91	<0.91	<0.91	45	<0.91	<0.91	<0.91	3.1	10
UST5-PP8-2	2	1/29/2016	Soil	<17	1.8	<17	<0.86	<0.86	<0.86	<4.3	<4.3	<0.86	10	<0.86	<0.86	<8.6	<17	<0.86	<0.86	<0.86	<0.86	74	<0.86	<0.86	<0.86	5.7	24
UST5-PP9-2	2	1/29/2016	Soil	<18	2.1	<18	<0.89	<0.89	<0.89	<4.5	<4.5	<0.89	1.6	<0.89	<0.89	<8.9	<18	<0.89	<0.89	<0.89	<0.89	3,000	<0.89	<0.89	<0.89	3.4	6.4
UST5-PP10-2	2	1/29/2016	Soil	21	3.8	<16	<0.78	<0.78	<0.78	<3.9	<3.9	<0.78	4.6	<0.78	<0.78	<7.8	<16	<0.78	<0.78	<0.78	<0.78	140	<0.78	<0.78	<0.78	14	38
UST5-PP11-2	2	1/29/2016	Soil	<41,000	<2,000	<41,000	<2,000	<2,000	<2,000	<10,000	<10,000	<2,000	<2,000	<2,000	<2,000	<20,000	<41,000	<2,000	<2,000	<2,000	<2,000	120,000	<2,000	<2,000	<2,000	3,400	8,800
UST5-PP11-10	10	2/4/2016	Soil	<20	<1.0	<20	<1.0	<1.0	<1.0	<5.1	<5.1	<1.0	<1.0	<1.0	<1.0	<10	<20	<1.0	<1.0	<1.0	<1.0	7.6	<1.0	<1.0	<1.0	<1.0	<2.0
UST5-PP11-NSW1-5	5	2/5/2016	Soil	<390	<20	<390	<20	<20	<20	<98	<98	<20	<20	<20	<20	<200	<390	<20	<20	<20	<20	1,700	<20	<20	<20	77	120
UST5-PP11-SSW2-5	5	2/5/2016	Soil	<19	5.9	<19	<0.96	<0.96	<0.96	<4.8	<4.8	<0.96	<0.96	<0.96	<0.96	<9.6	<19	<0.96	<0.96	<0.96	<0.96	800	<0.96	<0.96	<0.96	3.9	<1.9

Notes:
UST = underground storage tank
Units for soil are in micrograms per kilogram.
Bold type indicates reported at detectable concentration.
Highlighted cell indicates concentration exceeds applicable cleanup goal.
bgs = below ground surface
< Denotes not detected at the reporting limit indicated.
GW SSL = groundwater soil screening level
NA = not applicable
RSL = Regional Screening Level
VLEACH = Vadose Zone Leaching
VOC = volatile organic compound



Table 8b

**Summary of TPH Data in UST 5 Product Piping Soil
Butterfield Site
590 South Santa Fe Avenue
Los Angeles, California**

Sample ID	Sample Depth (feet bgs)	Sample Date	TPH-g	TPH-d
Screening Levels				
DTSC Screening Level - Industrial Soil*			2,200	440
Confirmation Samples				
UST5-PP1-2	2	1/29/2016	<0.152	<2.50
UST5-PP2-2	2	1/29/2016	<0.179	6.17
UST5-PP3-2	2	1/29/2016	<0.164	65.6
UST5-PP4-2	2	1/29/2016	0.388	63.0
UST5-PP5-2	2	1/29/2016	<0.189	29.1
UST5-PP6-2	2	1/29/2016	0.187	9.74
UST5-PP7-2	2	1/29/2016	<0.164	102
UST5-PP8-2	2	1/29/2016	0.381	34.9
UST5-PP9-2	2	1/29/2016	3.58	9.74
UST5-PP10-2	2	1/29/2016	0.189	242
UST5-PP11-2	2	1/29/2016	448	79.6
UST5-PP11-10	10	2/4/2016	<0.204	<2.50
UST5-PP11-NSW1-5	5	2/5/2016	2.81	2.87
UST5-PP11-SSW2-5	5	2/5/2016	0.424	<2.50

Notes:

UST = underground storage tank

*TPH cleanup goals were developed as part of the Removal Action Work Plan dated August 28, 2015

TPH-g = total petroleum hydrocarbons - gasoline range

TPH-d = total petroleum hydrocarbons - diesel range

-- = not applicable

Units for soil are in milligrams per kilogram.

Bold type indicates reported at detectable concentration.

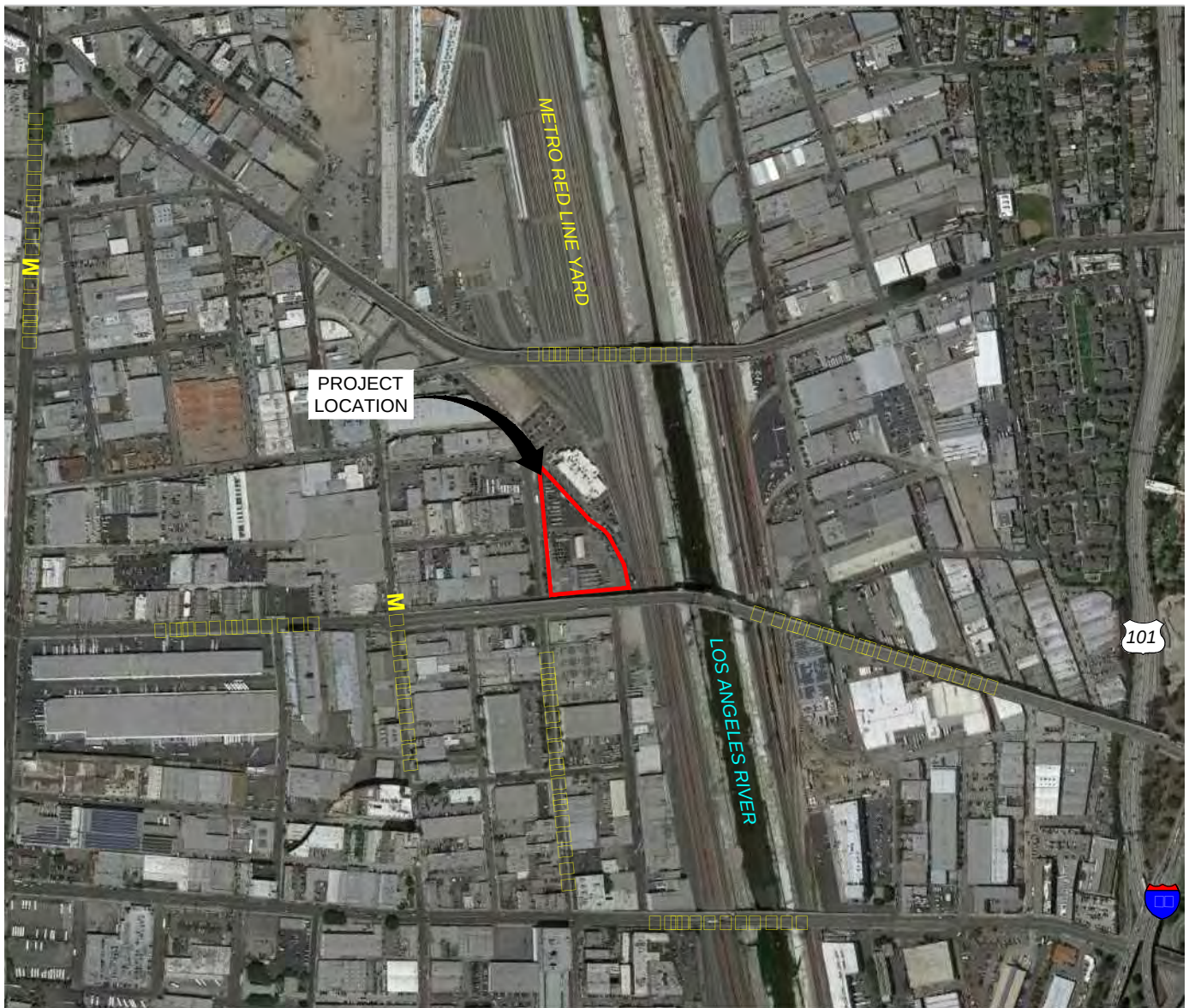
< Denotes not detected at the reporting limit indicated.

bgs = below ground surface

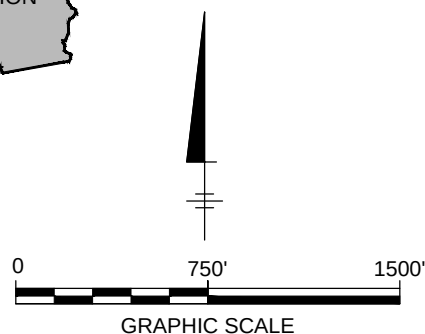
DTSC = Department of Toxic Substances Control

FIGURES



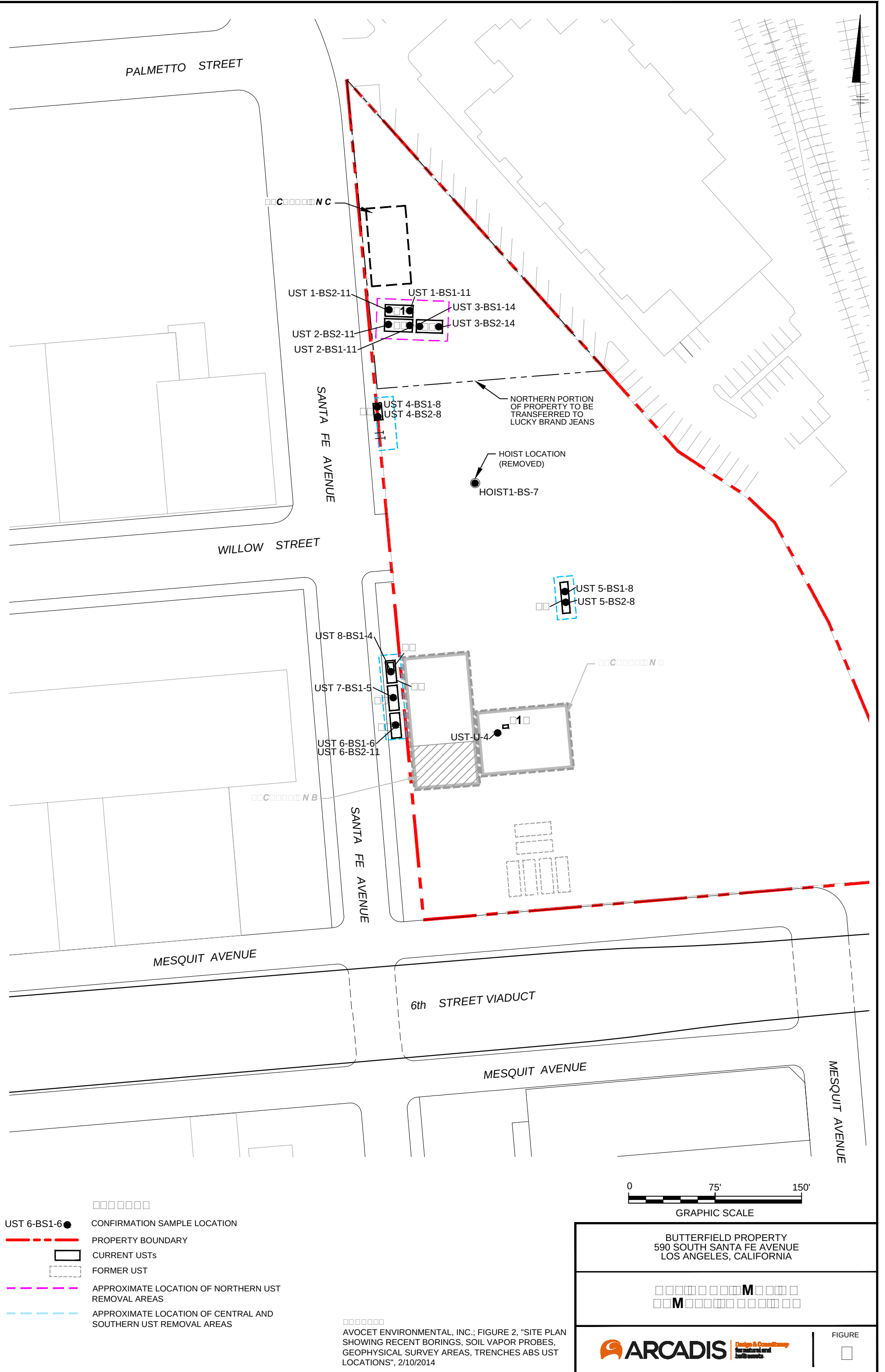


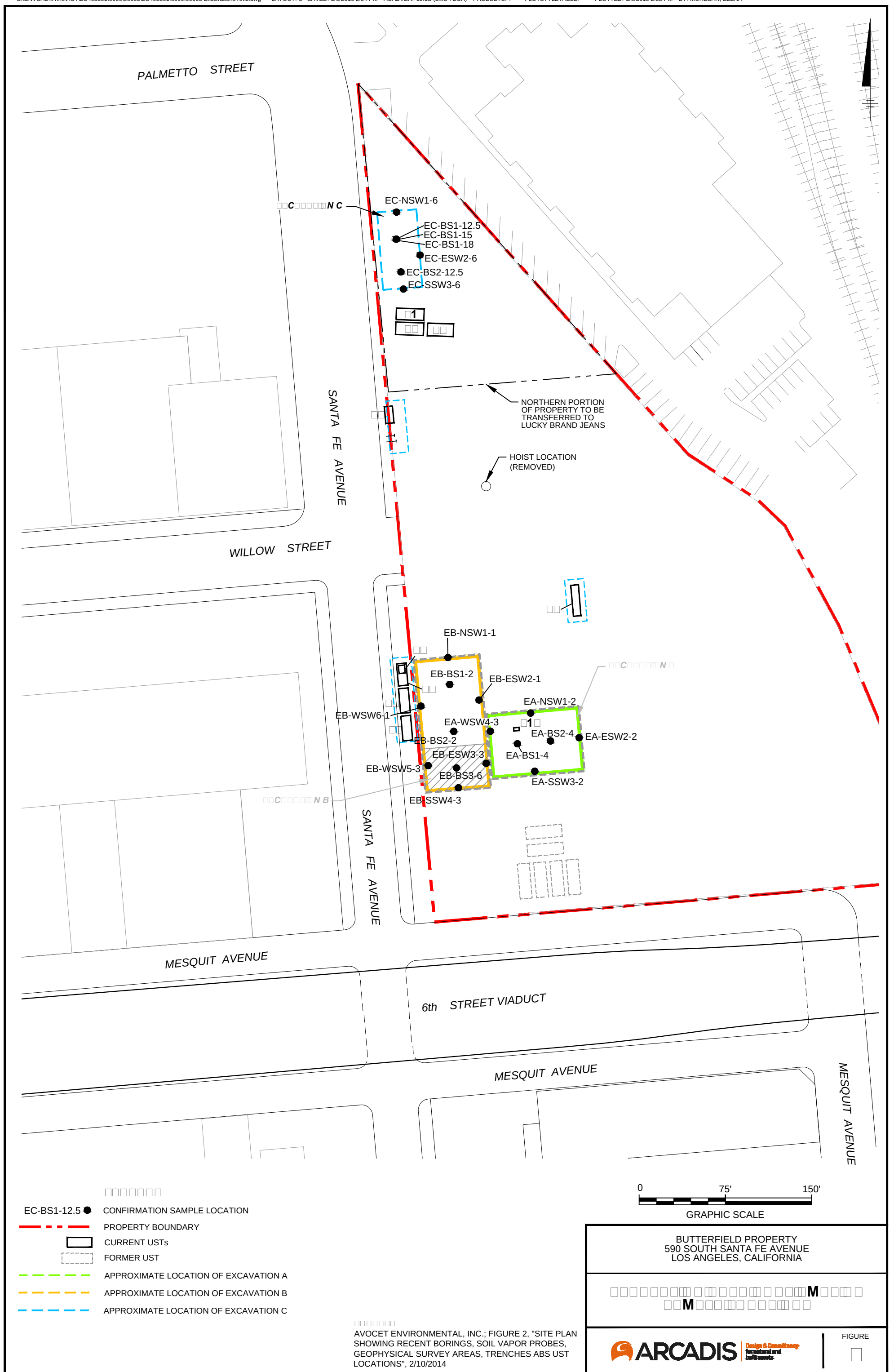
MAP SOURCE: Google Earth Pro® 2015, 34.040221°N, -118.229973°W

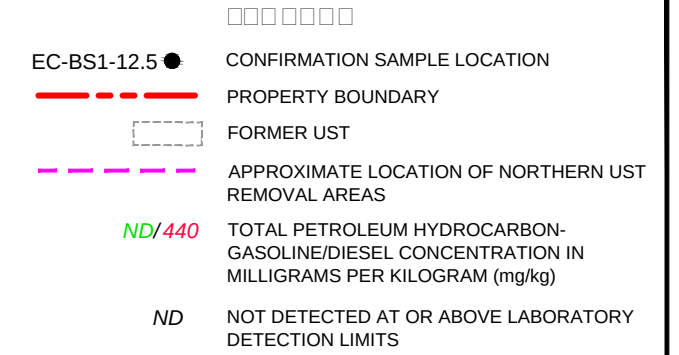


BUTTERFIELD PROPERTY
590 SOUTH SANTA FE AVENUE
LOS ANGELES, CALIFORNIA

□□□□□□□□□□M□□

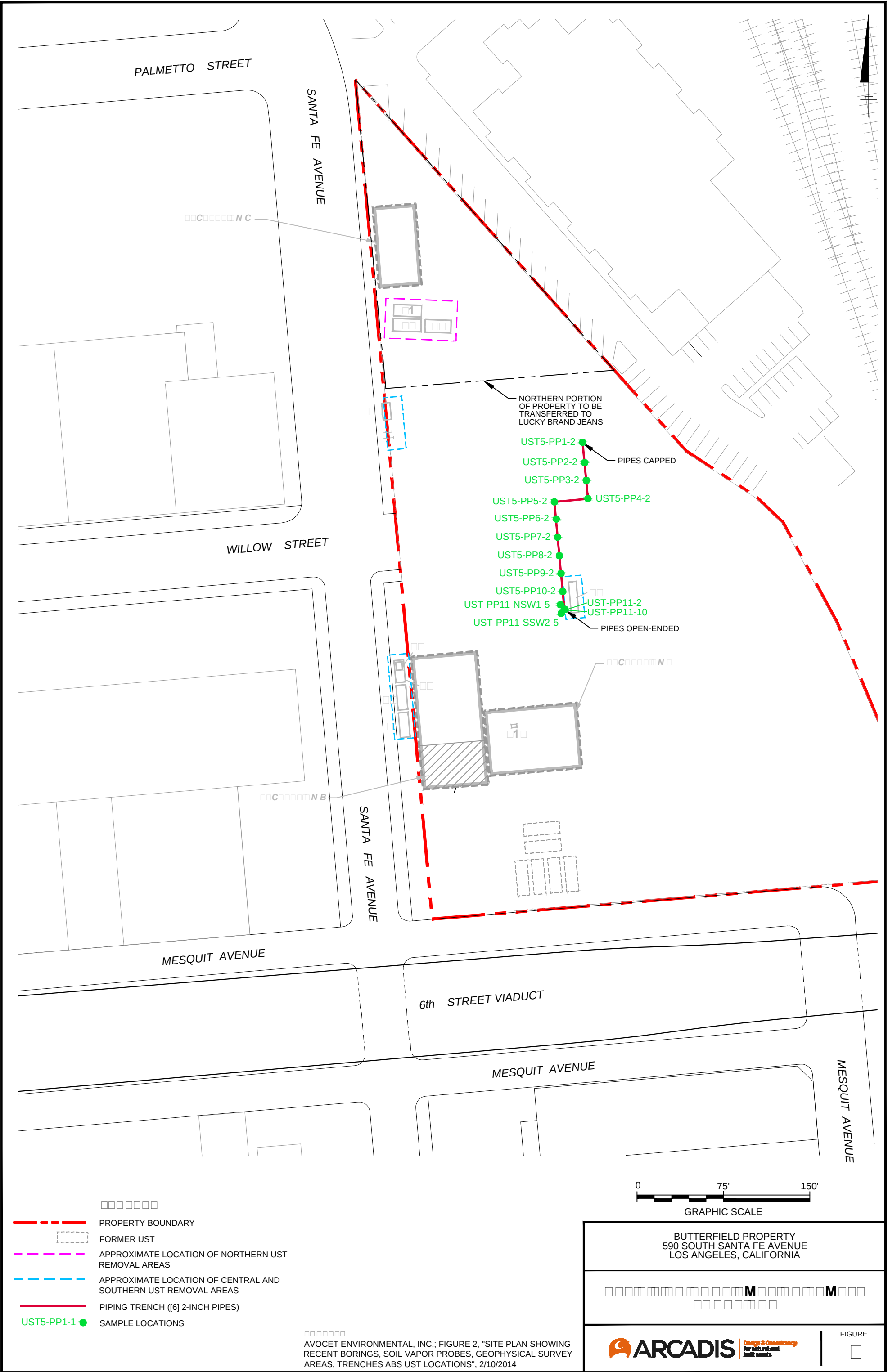






A site map of Santa Fe Avenue. The map shows a street layout with Santa Fe Avenue running vertically. A dashed line indicates a boundary or property line. Several monitoring points are marked with black dots and labeled: EC-NSW1-6, EC-BS1-12.5, EC-BS1-15, EC-BS1-18, EC-ESW2-6, EC-BS2-12.5, and EC-SSW3-6. A dashed line encloses a rectangular area containing a building footprint labeled '1'. A north arrow is located in the upper right corner. A graphic scale at the bottom indicates distances of 0, 75', and 150'.

BUTTERFIELD PROPERTY
590 SOUTH SANTA FE AVENUE
LOS ANGELES, CALIFORNIA



ATTACHMENT A

LAFD Permit



Los Angeles City Fire Department

Application for Division 5 Permit - Atmospheric Underground Tank

FIRE DEPT. USE ONLY

DATA MANAGEMENT UNIT ☐ Tanks are registered & Fees paid to date ☐ Fee exempt Signature	LAFD UNIFIED PROGRAM FACILITY ID: FA0021446	PERMIT NO.: SR0030775	DATE GRANTED: 8/3/2015	WORK MUST BEGIN BY: 2/3/2016	EXPIRATION DATE: 8/3/2016
ENFORCEMENT INSPECTOR BERNARD SANCHEZ () -		FIRE STATION # 017	PERMIT TYPE: UST TANK ABANDON BY REMOVAL		

LOCATION INFORMATION

DOING BUSINESS AS (DBA): MTA	EPA ID NO: (not required for installation or monitoring) CAR000252544
ADDRESS: 590 S SANTA FE AVE	PHONE NO: (213) 922-4887
CITY: LOS ANGELES	STATE: CA ZIP: 90013

PROPERTY OWNER

NAME: METROPOLITAN TRANSPORTATION AUTHORITY	PHONE NO: (213) 922-4887
ADDRESS: ONE GATEWAY PLAZA, 14TH FL	
CITY: LOS ANGELES	STATE: CA ZIP: 90012
PRINT NAME: Tom Kefalas	SIGNATURE:

LESSEE/FACILITY OWNER

NAME: METROPOLITAN TRANSPORTATION AUTHORITY	PHONE NO: (213) 922-4887
ADDRESS: ONE GATEWAY PLAZA, 14TH FL	
CITY: LOS ANGELES	STATE: CA ZIP: 90012
PRINT NAME:	SIGNATURE:

CONTRACTOR INFORMATION

NAME: J.C. PALOMAR CONSTRUCTION INC.	PHONE NO: (714) 754-6440
ADDRESS: 2627 S MAIN	
CITY: SANTA ANA	STATE: CA ZIP: 92707
CITY BUSINESS NUMBER: 750293-0001-1	STATE CONTRACTOR #: 781040
EXP. DATE: 6/30/2016	WORK COMP NUMBER - EXP. DATE: 90293982015 10/1/2016
PRINT NAME: VINCENT REYES	SIGNATURE:
TITLE:	

ITEM	PE	QTY	NOTES:
UST Installation	5100		INV# - IN0208636
UST Abandonment-In-Place	5200		** 11/24/15 - FOUND (2) MORE TANKS (1) 500 GALLON WASTE OIL AND (1) 1000 GALLON WASTE OIL **
[X] UST Abandonment by Removal	5201	7	
UST Add to/Alter: Monitor/Piping/Disp.	5300		
UST Tank Entry/Lining/Repair	5301		**11/12/15 - FOUND (1) 100 GALLON GASOLINE**
Site Assessment	5400		REMOVAL OF (7) USTs
Emergency Plan Check Site Assessment	5401		

INSPECTOR NAME: GREGORY STEVENS BY	INSPECTOR SIGNATURE: BY

BY

BY



LOS ANGELES FIRE DEPARTMENT

DIVISION 5 PERMIT STATEMENT

FIRE PREVENTION BUREAU TECHNICAL SECTION

INVOICE

221 North Figueroa Street, Suite 1500
Los Angeles, CA, 90012
Phone: (213) 482-7115
Fax: (213) 482-6529

Invoice Date: 8/3/2015
Permit No/RFI: SR0030775
Invoice No: IN0208636
Owner Name: METROPOLITAN TRANSPORTATION
Owner Address: ONE GATEWAY PLAZA, 14TH FL
LOS ANGELES, CA 90012
Owner Phone No: (213) 922-4887

CONTRACTOR (Company Name/Self):
J.C. PALOMAR CONSTRUCTION INC.

Site Address: 590 S SANTA FE AVE
FA0021446 LOS ANGELES, CA 90013

RECEIVED

15 NOV 24 PM 3:23

L.A. CITY FIRE DEPT
ACCOUNTS RECEIVABLE

ONE GATEWAY PLAZA, 14TH FL
LOS ANGELES, CA 90012

DATE	PE	DESCRIPTION	AMOUNT
CHARGES			
SERVICE: 8/3/2015	5201	PLAN CHECK - 1 hour(s) at \$178.00/HOUR	\$178.00
SERVICE: 11/12/2015	5201	PLAN CHECK - 1 hour(s) at \$178.00/HOUR	\$178.00
CHARGES SUBTOTAL:			\$356.00
PAYMENTS			
8/3/2015	9917	PRE-PAYMENT (D5)	(\$4,806.00)
11/12/2015	9917	PRE-PAYMENT (D5)	(\$534.00)
11/24/2015	9917	PRE-PAYMENT (D5)	(\$1,602.00)
PAYMENTS SUBTOTAL:			(\$6,942.00)
AMOUNT DUE:			\$2,818.00
CHARGES:			\$356.00
PENALTIES:			\$0.00
PAYMENTS:			(\$6,942.00)
ADJUSTMENTS:			\$0.00
INVOICE TOTAL DUE:			(\$6,586.00)
MOST RECENT BILLABLE ACTIVITY: 11/12/2015			
LAST PAYMENT: Check No:		CREDIT CARD	Check Date: 11/24/2015 Amount Paid: 1602.00

L.A. F. D.
Billing and Accounts Receivable Unit
P / NOV 24 2015
Date Received: 928
Received By: C. CARD \$1,602.00
Check Date/No: (\$2,818.00)

AMOUNT DUE:

\$

1602.00

PLEASE RETURN THE LOWER PORTION ALONG WITH YOUR PAYMENT
SEE REVERSE FOR BILLING INFO

To use your Credit Card to pay the Amount Due, please enter in the spaces provided below, the Credit Card Number, Expiration Date, and Card Holder Information.

CREDIT CARD #: []

EXP. DATE: [] [] / [] []

CHECK ONE: ☐ ☐ ☐ ☐

CARD HOLDER'S NAME: _____

SIGNATURE: _____

FACILITY NAME: MTA

FACILITY ID: FA0021446

INVOICE DATE: 8/3/2015

AMOUNT DUE: (\$6,586.00)

ACCOUNT ID: AR0064738

INVOICE NUMBER: IN0208636

AMOUNT ENCLOSED \$

MAKE CHECKS PAYABLE TO:
CITY OF LOS ANGELES FIRE DEPT.
PLEASE WRITE INVOICE NUMBER ON CHECK
THANK YOU FOR YOUR PROMPT PAYMENT

Fund 100 Dept #38 RevS. 3897

SEND PAYMENT TO:

City of Los Angeles Fire Dept. - C.U.P.A.
P.O. BOX 514267
Los Angeles, CA 90051-4267



SCOPE OF WORK:

- EXCAVATE TO TOP OF UST
- CUT OPEN SECTION OF UST TOP
- BREAKOUT/EXCAVATE SLURRY FROM UST
- TRIPLE RINSE UST
- REMOVE AND DISPOSE OF UST AT APPROVED WASTE RECIEVING FACILITY

SHEET INDEX:

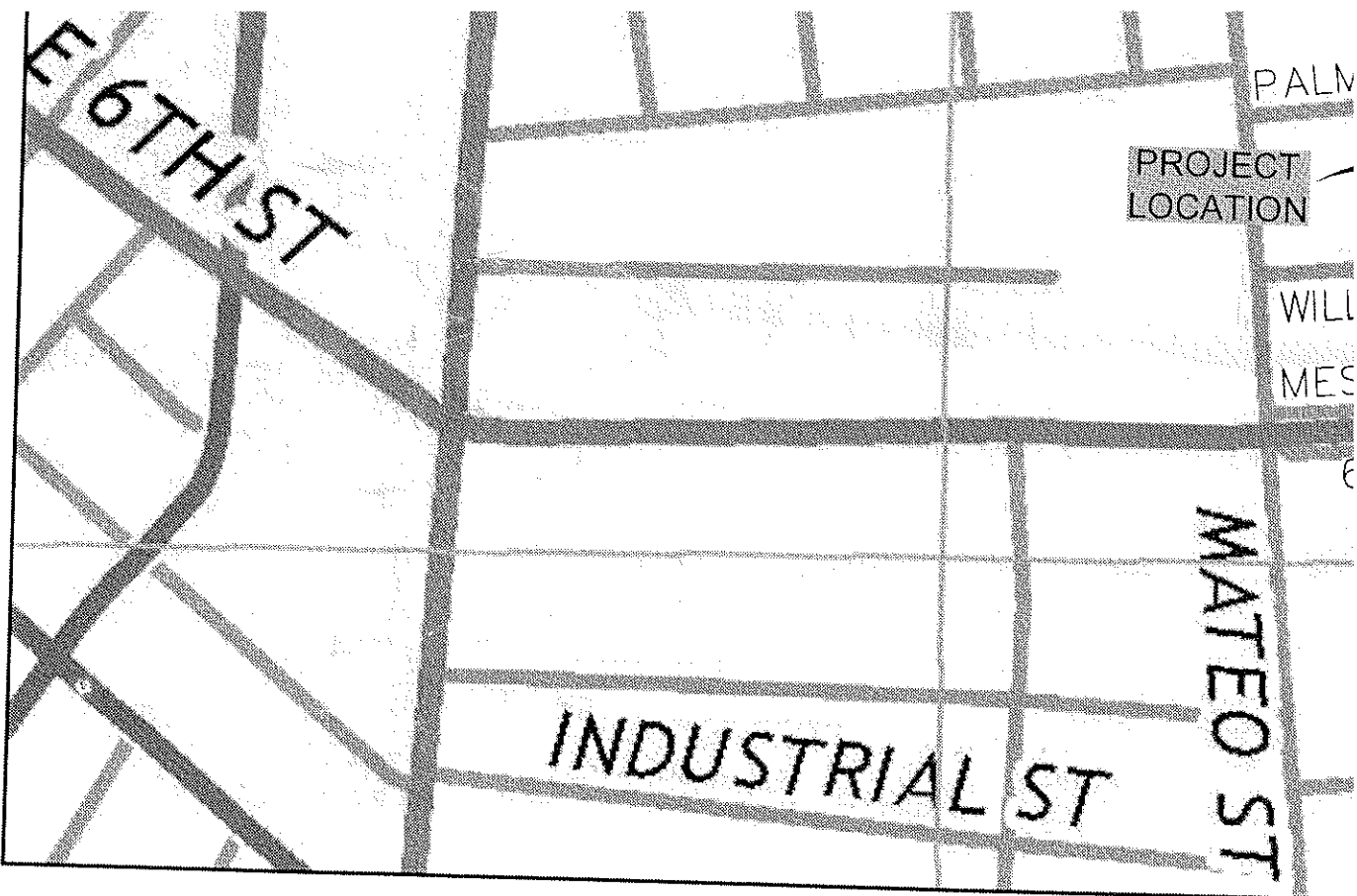
- S-1 SITE LOCATION MAP
- S-2 SITE PLAN
- S-3 NORTH AREA UST LOCATION
- S-4 NORTH AREA UST LOCATION
- S-5 CENTRAL AREA (EAST) UST LOCATION
- S-6 CENTRAL AREA (WEST) UST LOCATION
- S-7 CENTRAL AREA (SOUTH) UST LOCATION
- S-8 TYPICAL PETROLEUM SOLVENT UST

COLLECT CONFIRMATION SOIL SAMPLES PER LAFD REQUIRMENTS

APPROVAL / ACCEPTANCE

The following systems have been approved/accepted by the Los Angeles Fire Department CUPA for use in the city. (signature indicates approval)

PRIMARY CONTAINMENT SYSTEM	SIGNATURE	PRINT NAME	DATE
SECONDARY SYSTEM	SIGNATURE	PRINT NAME	DATE
MONITORING SYSTEM	SIGNATURE	PRINT NAME	DATE
OTHER: please print	SIGNATURE	PRINT NAME	DATE



SOURCE:

United States Geological Survey
7.5 Minute Topographic Map:
Los Angeles Quadrangle (2015)

APPROVED
ADDENDUM
LOS ANGELES FIRE DEPARTMENT
BUREAU OF FIRE PREVENTION

BY

5230775

11/24/18

THIS BAR REPRESENTS ONE INCH ON THE ORIGINAL DRAWING:

USE TO VERIFY FIGURE REPRODUCTION SCALE

THIS DRAWING IS THE PROPERTY OF THE ARCADIS ENTITY IDENTIFIED IN THE TITLE BLOCK AND MAY NOT BE REUSED OR ALTERED IN WHOLE OR IN PART WITHOUT THE EXPRESS WRITTEN PERMISSION OF SAME.

Professional Engineer's Name JACOB V. COLLINS		
Professional Engineer's No. C 78701		
State CA	Date Signed 6/19/15	Project Mgr. SB
Designed by KJ	Drawn by BAR	Checked by KJ



ARCADIS U.S., INC.

BUTTERFIELD PROPERTY

SITE

	SHEET NUMBER
STs AND (1) 5,000-GAL UST	S-2, S-3, S-4, S-8
T, (2) 1,000-GAL USTs, 00-GAL UST	S-2, S-5, S-6, S-7, S-8

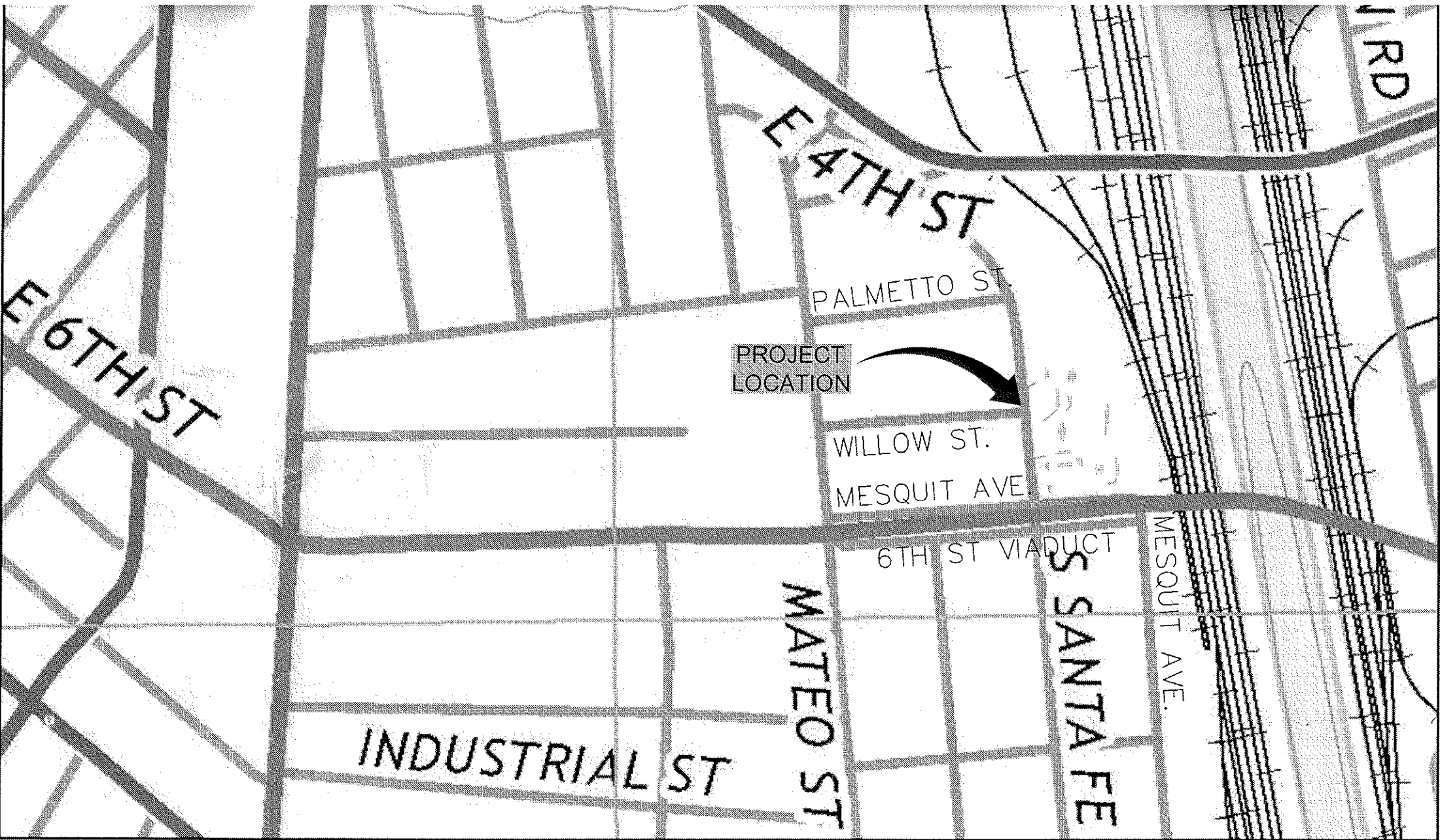
UST

PROVED WASTE RECIEVING FACILITY

V
IN
ON

SAMPLES PER LAFD REQUIRMENTS

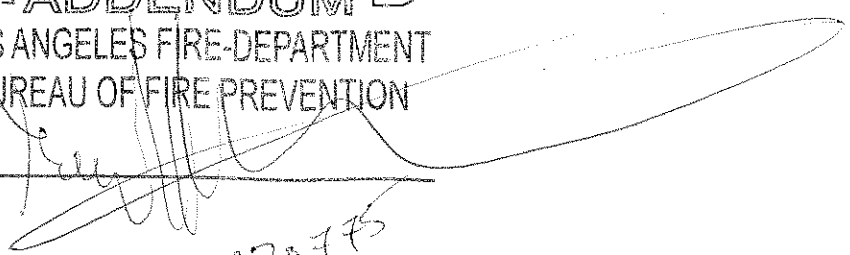
ACCEPTANCE		
red/accepted by the Los Angeles (signature indicates approval)		
PRINT NAME	DATE	
PRINT NAME	DATE	
PRINT NAME	DATE	
PRINT NAME	DATE	



SOURCE:

United States Geological Survey
7.5 Minute Topographic Map:
Los Angeles Quadrangle (2015)

APPROVED
ADDENDUM
LOS ANGELES FIRE-DEPARTMENT
BUREAU OF FIRE PREVENTION

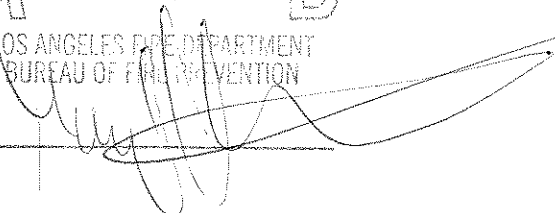
BY 

5230775

SUBJECT TO FIELD INSPECTION

The approval of these plans and/or specifications does not exempt them from strict compliance with all other pertinent Sections of the Municipal Code and other laws and regulations.

APPROVED
LOS ANGELES FIRE-DEPARTMENT
BUREAU OF FIRE PREVENTION

By 

11/24/15



Professional Engineer's
JACOB V. COLLINS
P.E.'s Number

ATTACHMENT B

PID Monitoring Logs



Air Monitoring Form

Field Activities: Excavating USTs 1-3

Instrument Type: PID or FID Instrument Used: Mini Rae

Background Level: 0.0 Background Location: Field Vehicle

[illegible]

Air Monitoring Form

Field Activities: UST removals

Recorded By: Zack Mason

Instrument Type: PID or FID

Instrument Used: Multi Rae

Background Level: 0.0

Calibration Location: Keld Vdyde

Background Time: 12:05

Background Location: Field Vehicle / Conex box

[illegible]

ARCADIS

Air Monitoring Form

Project Number: L0495201.0000 Project Name: Metro Loc 61S
 Date: 11/16/15 Recorded By: ZKM
 Weather: Clear/70°
 Field Activities: Excavation B soil removal

Instrument Identification

Instrument Type: PID or FID Instrument Used: MultiRae Plus

Calibration Information

Calibration Date/Time: 11/16/15 07:00 Calibration Location: Field Vehicle
 Calibration Information: Clear Air Calibrated
 Background Date: 11/16/15 Background Time: 07:15
 Background Level: 0.1 Background Location: South fence line

Field Air Monitoring Data

Time	Duration (minutes)	Reading (ppm)	Wind	Location	Comments
07:30		0.0	NA	Excavation B	
08:00		0.0			
08:30		0.1			
09:00		0.2			
09:30		0.0			
10:00		0.1			
10:30		0.2			
11:30		1.0			
12:00		1.8			
12:30		1.0			
13:00		1.2			
13:30		1.0		Excavation A	
14:00		1.1			
14:30		0.9			
15:00		0.2			
15:30		0.3			
16:00		0.1			
16:30		1.0			
17:00		1.1			

ATTACHMENT C

Laboratory Reports



November 12, 2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

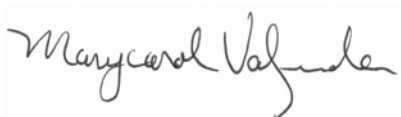
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P511007

Dear Zack Mason

Enclosed are the results of analyses for samples received by our laboratory on 11/9/2015. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

Table of Contents

Samples in Report	3
Sample Results	4
Quality Assurance Results	9
Qualifiers and Definitions	23
Chain of Custody PDFs	24

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P511007-01	UST-U-4	Solid	11/07/2015	11/09/2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Sample: UST-U-4

P511007-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: SG1109151)							
Antimony	<1.0	mg/kg	1	1	11/09/2015	EPA 6010B Metals	
Arsenic	2.3	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	
Barium	80	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	
Beryllium	<0.50	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	
Cadmium	0.26	mg/kg	1	0.2	11/09/2015	EPA 6010B Metals	
Chromium	6.4	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	
Cobalt	4.3	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	
Copper	7.3	mg/kg	1	2	11/09/2015	EPA 6010B Metals	
Lead	28	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	
Molybdenum	<1.0	mg/kg	1	1	11/09/2015	EPA 6010B Metals	
Nickel	4.4	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	
Selenium	<1.0	mg/kg	1	1	11/09/2015	EPA 6010B Metals	
Silver	<0.50	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	
Thallium	<2.0	mg/kg	1	2	11/09/2015	EPA 6010B Metals	
Vanadium	17	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	
Zinc	61	mg/kg	1	2	11/09/2015	EPA 6010B Metals	

Carbon Chain Analysis (C7-C40) (Batch ID: B5K0011)

C7-C8	ND	mg/kg	1	2.50	11/10/2015	EPA 8015B-M	
C9-C10	ND	mg/kg	1	2.50	11/10/2015	EPA 8015B-M	
C11-C12	ND	mg/kg	1	2.50	11/10/2015	EPA 8015B-M	
C13-C14	ND	mg/kg	1	2.50	11/10/2015	EPA 8015B-M	
C15-C16	ND	mg/kg	1	2.50	11/10/2015	EPA 8015B-M	
C17-C18	ND	mg/kg	1	2.50	11/10/2015	EPA 8015B-M	
C19-C20	ND	mg/kg	1	2.50	11/10/2015	EPA 8015B-M	
C21-C22	ND	mg/kg	1	2.50	11/10/2015	EPA 8015B-M	
C23-C24	ND	mg/kg	1	2.50	11/10/2015	EPA 8015B-M	
C25-C27	ND	mg/kg	1	2.50	11/10/2015	EPA 8015B-M	
C28-C33	ND	mg/kg	1	2.50	11/10/2015	EPA 8015B-M	
C34-C40	ND	mg/kg	1	2.50	11/10/2015	EPA 8015B-M	
Surrogate: n-Octacosane (c28)	91.9%			60-140	11/10/2015	EPA 8015B-M	

Gasoline Range Organics (C6-C10) (Batch ID: B5K0010)

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Sample: UST-U-4 (Continued)

P511007-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Gasoline Range Organics (C6-C10) (Batch ID: B5K0010) (Continued)

Gasoline Range Organics	ND	mg/kg	1	0.189	11/09/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	104%			60-140	11/09/2015	EPA 8015B	

Mercury_Subcontract (Batch ID: SG1109152)

Mercury	<0.10	mg/kg	1	0.1	11/09/2015	EPA 7471 Mercury	

Polynuclear Aromatic Hydrocarbons_Subcontract (Batch ID: IN1110152)

Acenaphthene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Acenaphthylene	<5	µg/kg	1	5	11/11/2015	EPA 8310 PAH	
Anthracene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (a) Anthracene	2.9	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (a) Pyrene	3.8	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (b) Fluoranthene	3.2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (g,h,i) Perylene	3.4	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (k) Fluoranthene	2.9	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Chrysene	4.0	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Dibenz (a,h) Anthracene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Fluoranthene	4.2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Fluorene	<10	µg/kg	1	10	11/11/2015	EPA 8310 PAH	
Indeno (1,2,3-c,d) Pyrene	3.1	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Naphthalene	<5	µg/kg	1	5	11/11/2015	EPA 8310 PAH	
Phenanthrene	3.9	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Pyrene	6.3	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Surrogate: Nitrobenzene-d5	87%			48-130	11/11/2015	EPA 8310 PAH	

Volatile Organic Compounds (Batch ID: B5K0009)

Acetone	ND	µg/Kg	1	20	11/09/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	20	11/09/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	

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Sample: UST-U-4 (Continued)
P511007-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0009) (Continued)							
Bromochloromethane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.9	11/09/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	11/09/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.9	11/09/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.9	11/09/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.9	11/09/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	

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Sample: UST-U-4 (Continued)

P511007-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0009) (Continued)							
Diethyl Ether	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	20	11/09/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.9	11/09/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	9.8	11/09/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	11/09/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	9.8	11/09/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	20	11/09/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25	11/09/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	

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Sample: UST-U-4 (Continued)

P511007-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5K0009) (Continued)

1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.98	11/09/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	2.0	11/09/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.9	11/09/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	87.1%			60-140	11/09/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	99.8%			60-140	11/09/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	111%			60-140	11/09/2015	EPA 8260B	
Surrogate: Toluene-d8	106%			60-140	11/09/2015	EPA 8260B	

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Quality Control

CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SG1109151

BLK (SG1109151 BLK)

Prepared & Analyzed: 11/09/2015

Antimony	<1		1	mg/kg				-		
Arsenic	<0.5		0.5	mg/kg				-		
Barium	<0.5		0.5	mg/kg				-		
Beryllium	<0.5		0.5	mg/kg				-		
Cadmium	<0.2		0.2	mg/kg				-		
Chromium	<0.5		0.5	mg/kg				-		
Cobalt	<0.5		0.5	mg/kg				-		
Copper	<2		2	mg/kg				-		
Lead	<0.5		0.5	mg/kg				-		
Molybdenum	<1		1	mg/kg				-		
Nickel	<0.5		0.5	mg/kg				-		
Selenium	<1		1	mg/kg				-		
Silver	<0.5		0.5	mg/kg				-		
Thallium	<2		2	mg/kg				-		
Vanadium	<0.5		0.5	mg/kg				-		
Zinc	<2		2	mg/kg				-		

BS (SG1109151 BS)

Prepared & Analyzed: 11/09/2015

Antimony	21.1			mg/kg	20		106	80-120	0	20
Arsenic	20.5			mg/kg	20		102	80-120	0	20
Barium	21.8			mg/kg	20		109	80-120	1	20
Beryllium	21.1			mg/kg	20		106	80-120	0	20
Cadmium	20.7			mg/kg	20		104	80-120	1	20
Chromium	21			mg/kg	20		105	80-120	1	20
Cobalt	20.6			mg/kg	20		103	80-120	1	20
Copper	23.3			mg/kg	20		116	80-120	1	20
Lead	21.2			mg/kg	20		106	80-120	1	20
Molybdenum	22.1			mg/kg	20		111	80-120	1	20
Nickel	21.2			mg/kg	20		106	80-120	0	20
Selenium	18.6			mg/kg	20		93	80-120	4	20
Silver	20.9			mg/kg	20		104	80-120	1	20
Thallium	19.7			mg/kg	20		99	80-120	1	20
Vanadium	20.8			mg/kg	20		104	80-120	0	20
Zinc	21.5			mg/kg	20		108	80-120	1	20

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Quality Control (Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SG1109151 (Continued)

BSD (SG1109151 BSD)

Prepared & Analyzed: 11/09/2015

Antimony	21.1			mg/kg	20		106	80-120	0	20
Arsenic	20.5			mg/kg	20		102	80-120	0	20
Barium	21.5			mg/kg	20		108	80-120	1	20
Beryllium	21.1			mg/kg	20		106	80-120	0	20
Cadmium	20.5			mg/kg	20		102	80-120	1	20
Chromium	20.8			mg/kg	20		104	80-120	1	20
Cobalt	20.3			mg/kg	20		101	80-120	1	20
Copper	23.1			mg/kg	20		115	80-120	1	20
Lead	20.9			mg/kg	20		104	80-120	1	20
Molybdenum	21.9			mg/kg	20		110	80-120	1	20
Nickel	21.1			mg/kg	20		106	80-120	0	20
Selenium	19.3			mg/kg	20		96	80-120	4	20
Silver	20.7			mg/kg	20		104	80-120	1	20
Thallium	19.5			mg/kg	20		98	80-120	1	20
Vanadium	20.7			mg/kg	20		104	80-120	0	20
Zinc	21.3			mg/kg	20		106	80-120	1	20

MS (SG1109151 MS)

Source: 20285-001

Prepared & Analyzed: 11/09/2015

Antimony	5.1	M2		mg/kg	20	0	25	75-125	6	20
Arsenic	23.9			mg/kg	20	3.8	100	75-125	2	20
Barium	211	M3		mg/kg	20	190	105	75-125	8	20
Beryllium	21.2			mg/kg	20	0	106	75-125	0	20
Cadmium	21.1			mg/kg	20	0.81	101	75-125	0	20
Chromium	37.4			mg/kg	20	16	107	75-125	8	20
Cobalt	26.9			mg/kg	20	8.6	91	75-125	0	20
Copper	42.4			mg/kg	20	20	112	75-125	2	20
Lead	171	M3		mg/kg	20	120	255	75-125	21	20
Molybdenum	19			mg/kg	20	0	95	75-125	1	20
Nickel	28.6			mg/kg	20	9.5	96	75-125	0	20
Selenium	20.1			mg/kg	20	0	100	75-125	0	20
Silver	20.1			mg/kg	20	0	100	75-125	0	20
Thallium	18.9			mg/kg	20	0	94	75-125	3	20
Vanadium	53.6			mg/kg	20	32	108	75-125	2	20
Zinc	311	M3		mg/kg	20	300	55	75-125	39	20

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Quality Control (Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG1109151 (Continued)										
MSD (SG1109151 MSD)			Source: 20285-001		Prepared & Analyzed: 11/09/2015					
Antimony	5.41	M2		mg/kg	20	0	27	75-125	6	20
Arsenic	24.3			mg/kg	20	3.8	102	75-125	2	20
Barium	195	M3		mg/kg	20	190	25	75-125	8	20
Beryllium	21.1			mg/kg	20	0	106	75-125	0	20
Cadmium	21.2			mg/kg	20	0.81	102	75-125	0	20
Chromium	34.5			mg/kg	20	16	93	75-125	8	20
Cobalt	26.8			mg/kg	20	8.6	91	75-125	0	20
Copper	43.1			mg/kg	20	20	115	75-125	2	20
Lead	139	M3		mg/kg	20	120	95	75-125	21	20
Molybdenum	19.2			mg/kg	20	0	96	75-125	1	20
Nickel	28.7			mg/kg	20	9.5	96	75-125	0	20
Selenium	20.1			mg/kg	20	0	100	75-125	0	20
Silver	20.1			mg/kg	20	0	100	75-125	0	20
Thallium	19.4			mg/kg	20	0	97	75-125	3	20
Vanadium	52.8			mg/kg	20	32	104	75-125	2	20
Zinc	461	M3		mg/kg	20	300	805	75-125	39	20

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Quality Control (Continued)

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0011										
Blank (B5K0011-BLK1)				Prepared & Analyzed: 11/10/2015						
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.77			mg/kg	2.00		88.6	60-140		
LCS (B5K0011-BS1)				Prepared & Analyzed: 11/10/2015						
Diesel	45.9		2.50	mg/kg	50.0		91.9	70-130		
Surrogate: n-Octacosane (c28)	1.66			mg/kg	2.00		83.2	60-140		
LCS Dup (B5K0011-BSD1)				Prepared & Analyzed: 11/10/2015						
Diesel	48.9		2.50	mg/kg	50.0		97.7	70-130	6.17	20
Surrogate: n-Octacosane (c28)	1.79			mg/kg	2.00		89.5	60-140		
Matrix Spike (B5K0011-MS1)				Source: P511007-01	Prepared & Analyzed: 11/10/2015					
Diesel	53.6		2.50	mg/kg	50.0	ND	107	70-130		
Surrogate: n-Octacosane (c28)	1.92			mg/kg	2.00		95.9	60-140		
Matrix Spike Dup (B5K0011-MSD1)				Source: P511007-01	Prepared & Analyzed: 11/10/2015					
Diesel	51.6		2.50	mg/kg	50.0	ND	103	70-130	3.75	20
Surrogate: n-Octacosane (c28)	1.96			mg/kg	2.00		98.2	60-140		

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Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0010										
Blank (B5K0010-BLK1)										
					Prepared & Analyzed: 11/09/2015					
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.262			mg/kg	0.250		105	60-140		
LCS (B5K0010-BS1)										
					Prepared & Analyzed: 11/09/2015					
Gasoline	8.75		0.200	mg/kg	10.0		87.5	70-130		
Surrogate: 4-Bromofluorobenzene	0.264			mg/kg	0.250		106	60-140		
LCS Dup (B5K0010-BSD1)										
					Prepared & Analyzed: 11/09/2015					
Gasoline	8.53		0.200	mg/kg	10.0		85.3	70-130	2.57	20
Surrogate: 4-Bromofluorobenzene	0.260			mg/kg	0.250		104	60-140		
Matrix Spike (B5K0010-MS1)										
			Source: P511005-02		Prepared & Analyzed: 11/09/2015					
Gasoline	7.61		0.200	mg/kg	10.0	ND	76.1	70-130		
Surrogate: 4-Bromofluorobenzene	0.275			mg/kg	0.250		110	60-140		
Matrix Spike Dup (B5K0010-MSD1)										
			Source: P511005-02		Prepared & Analyzed: 11/09/2015					
Gasoline	7.62		0.200	mg/kg	10.0	ND	76.2	70-130	0.118	20
Surrogate: 4-Bromofluorobenzene	0.269			mg/kg	0.250		108	60-140		

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Quality Control (Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG1109152										
BLK (SG1109152 BLK)										
Mercury	<0.1		0.1	mg/kg				-		
Prepared & Analyzed: 11/09/2015										
BS (SG1109152 BS)										
Mercury	1.16			mg/kg	1		116	80-120	2	20
Prepared & Analyzed: 11/09/2015										
BSD (SG1109152 BSD)										
Mercury	1.18			mg/kg	1		118	80-120	2	20
Prepared & Analyzed: 11/09/2015										
MS (SG1109152 MS)										
Mercury	1.45	M3	Source: 20285-001	mg/kg	1	1.5	0	80-120	8	20
Prepared & Analyzed: 11/09/2015										
MSD (SG1109152 MSD)										
Mercury	1.34	M3	Source: 20285-001	mg/kg	1	1.5	0	80-120	8	20
Prepared & Analyzed: 11/09/2015										

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Quality Control (Continued)

Polynuclear Aromatic Hydrocarbons_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: IN1110152										
BLK (IN1110152 BLK)				Prepared & Analyzed: 11/10/2015						
Acenaphthene	<2		2	µg/kg				-		
Acenaphthylene	<5		5	µg/kg				-		
Anthracene	<2		2	µg/kg				-		
Benzo (a) Anthracene	<2		2	µg/kg				-		
Benzo (a) Pyrene	<2		2	µg/kg				-		
Benzo (b) Fluoranthene	<2		2	µg/kg				-		
Benzo (g,h,i) Perylene	<2		2	µg/kg				-		
Benzo (k) Fluoranthene	<2		2	µg/kg				-		
Chrysene	<2		2	µg/kg				-		
Dibenz (a,h) Anthracene	<2		2	µg/kg				-		
Fluoranthene	<2		2	µg/kg				-		
Fluorene	<10		10	µg/kg				-		
Indeno (1,2,3-c,d) Pyrene	<2		2	µg/kg				-		
Naphthalene	<5		5	µg/kg				-		
Phenanthrene	<2		2	µg/kg				-		
Pyrene	<2		2	µg/kg				-		
Surrogate: Nitrobenzene-d5	ND			µg/kg			79	48-130		
BS (IN1110152 BS)										
				Prepared & Analyzed: 11/10/2015						
Acenaphthene	21.9			µg/kg	25		88	70-130	5	21
Anthracene	21.8			µg/kg	25		87	66-130	3	20
Benzo (a) Pyrene	22.1			µg/kg	25		88	57-130	2	21
Chrysene	21.3			µg/kg	25		85	70-130	2	20
Pyrene	21.5			µg/kg	25		86	70-130	3	20
Surrogate: Nitrobenzene-d5	ND			µg/kg			87	48-130		
BSD (IN1110152 BSD)										
				Prepared & Analyzed: 11/10/2015						
Acenaphthene	23			µg/kg	25		92	70-130	5	21
Anthracene	22.4			µg/kg	25		90	66-130	3	20
Benzo (a) Pyrene	22.6			µg/kg	25		90	57-130	2	21
Chrysene	21.7			µg/kg	25		87	70-130	2	20
Pyrene	22.1			µg/kg	25		88	70-130	3	20
Surrogate: Nitrobenzene-d5	ND			µg/kg			84	48-130		

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Quality Control
(Continued)

Polynuclear Aromatic Hydrocarbons_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: IN1110152 (Continued)										
MS (IN1110152 MS)			Source: 20289-006		Prepared & Analyzed: 11/10/2015					
Acenaphthene	21.8			µg/kg	25	0	87	64-136	10	22
Anthracene	26.1			µg/kg	25	8.3	71	65-130	3	20
Benzo (a) Pyrene	45.7			µg/kg	25	22	95	56-130	12	20
Chrysene	41.9			µg/kg	25	24	72	69-130	15	20
Pyrene	60	R2		µg/kg	25	37	92	64-130	29	20
Surrogate: Nitrobenzene-d5	ND			µg/kg			76	48-130		
MSD (IN1110152 MSD)										
MSD (IN1110152 MSD)			Source: 20289-006		Prepared & Analyzed: 11/10/2015					
Acenaphthene	19.7			µg/kg	25	0	79	64-136	10	22
Anthracene	27			µg/kg	25	8.3	75	65-130	3	20
Benzo (a) Pyrene	51.3			µg/kg	25	22	117	56-130	12	20
Chrysene	48.9			µg/kg	25	24	100	69-130	15	20
Pyrene	80.7	M1, R2		µg/kg	25	37	175	64-130	29	20
Surrogate: Nitrobenzene-d5	ND			µg/kg			71	48-130		

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Quality Control (Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0009										
Blank (B5K0009-BLK1)					Prepared & Analyzed: 11/09/2015					
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		20	µg/Kg						
Acrylonitrile	ND		1.0	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		1.0	µg/Kg						

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Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5K0009 (Continued)

Blank (B5K0009-BLK1)

Prepared & Analyzed: 11/09/2015

Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		1.0	µg/Kg						
Iodomethane	ND		20	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Phenanthrene	ND		1.0	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	48			µg/Kg	50.0		96.3	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		99.9	60-140		
Surrogate: 1,2-Dichloroethane-d4	56			µg/Kg	50.0		112	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.5	60-140		

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Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5K0009 (Continued)

LCS (B5K0009-BS1)

Prepared & Analyzed: 11/09/2015

Benzene	47		1.0	µg/Kg	50.0		94.9	70-130		
Bromobenzene	46		1.0	µg/Kg	50.0		92.3	70-130		
Bromodichloromethane	48		1.0	µg/Kg	50.0		95.4	70-130		
Bromoform	46		1.0	µg/Kg	50.0		92.2	70-130		
Chlorobenzene	48		1.0	µg/Kg	50.0		95.1	70-130		
Chloroethane	44		5.0	µg/Kg	50.0		87.7	70-130		
Chloroform	48		1.0	µg/Kg	50.0		96.1	70-130		
4-Chlorotoluene	48		1.0	µg/Kg	50.0		95.7	70-130		
Dibromomethane	51		1.0	µg/Kg	50.0		102	70-130		
1,2-Dichlorobenzene	45		1.0	µg/Kg	50.0		90.4	70-130		
1,1-Dichloroethene	52		1.0	µg/Kg	50.0		104	70-130		
1,2-Dichloropropane	46		1.0	µg/Kg	50.0		92.6	70-130		
2,2-Dichloropropane	54		1.0	µg/Kg	50.0		109	70-130		
1,1-Dichloropropene	51		1.0	µg/Kg	50.0		101	70-130		
Diethyl Ether	47		1.0	µg/Kg	50.0		94.5	70-130		
Diisopropyl Ether (DIPE)	45		1.0	µg/Kg	50.0		89.4	70-130		
Ethylbenzene	48		1.0	µg/Kg	50.0		95.3	70-130		
Hexachloro-1,3-Butadiene	44		1.0	µg/Kg	50.0		87.0	70-130		
Methylene Chloride	47		10	µg/Kg	50.0		95.0	70-130		
Methyl-t-Butyl Ether (MTBE)	51		1.0	µg/Kg	50.0		102	70-130		
Naphthalene	44		10	µg/Kg	50.0		88.0	70-130		
Styrene	47		1.0	µg/Kg	50.0		93.7	70-130		
tert-Butylbenzene	46		1.0	µg/Kg	50.0		92.9	70-130		
Tetrachloroethene	45		1.0	µg/Kg	50.0		90.1	70-130		
Toluene	47		1.0	µg/Kg	50.0		94.4	70-130		
1,2,3-Trichlorobenzene	44		1.0	µg/Kg	50.0		88.9	70-130		
Trichloroethene	50		1.0	µg/Kg	50.0		99.6	70-130		
1,3,5-Trimethylbenzene	49		1.0	µg/Kg	50.0		97.0	70-130		
Vinyl Chloride	50		1.0	µg/Kg	50.0		101	70-130		
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		99.2	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	54			µg/Kg	50.0		109	60-140		
Surrogate: Toluene-d8	51			µg/Kg	50.0		101	60-140		

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Quality Control
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Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0009 (Continued)										
LCS Dup (B5K0009-BSD1)				Prepared & Analyzed: 11/09/2015						
Benzene	46		1.0	µg/Kg	50.0		92.7	70-130	2.30	20
Bromobenzene	46		1.0	µg/Kg	50.0		91.0	70-130	1.42	20
Bromodichloromethane	48		1.0	µg/Kg	50.0		96.3	70-130	0.918	20
Bromoform	47		1.0	µg/Kg	50.0		93.2	70-130	1.04	20
Chlorobenzene	46		1.0	µg/Kg	50.0		92.9	70-130	2.36	20
Chloroethane	41		5.0	µg/Kg	50.0		82.5	70-130	6.11	20
Chloroform	47		1.0	µg/Kg	50.0		93.8	70-130	2.42	20
4-Chlorotoluene	47		1.0	µg/Kg	50.0		94.5	70-130	1.24	20
Dibromomethane	49		1.0	µg/Kg	50.0		97.4	70-130	4.75	20
1,2-Dichlorobenzene	45		1.0	µg/Kg	50.0		89.6	70-130	0.844	20
1,1-Dichloroethene	48		1.0	µg/Kg	50.0		96.4	70-130	7.68	20
1,2-Dichloropropane	46		1.0	µg/Kg	50.0		91.3	70-130	1.41	20
2,2-Dichloropropane	51		1.0	µg/Kg	50.0		102	70-130	6.07	20
1,1-Dichloropropene	49		1.0	µg/Kg	50.0		97.5	70-130	3.98	20
Diethyl Ether	47		1.0	µg/Kg	50.0		93.5	70-130	1.11	20
Diisopropyl Ether (DIPE)	45		1.0	µg/Kg	50.0		89.2	70-130	0.179	20
Ethylbenzene	46		1.0	µg/Kg	50.0		92.4	70-130	3.07	20
Hexachloro-1,3-Butadiene	43		1.0	µg/Kg	50.0		86.3	70-130	0.808	20
Methylene Chloride	47		10	µg/Kg	50.0		94.1	70-130	0.889	20
Methyl-t-Butyl Ether (MTBE)	51		1.0	µg/Kg	50.0		102	70-130	0.314	20
Naphthalene	42		10	µg/Kg	50.0		83.8	70-130	4.91	20
Styrene	45		1.0	µg/Kg	50.0		90.7	70-130	3.23	20
tert-Butylbenzene	47		1.0	µg/Kg	50.0		94.1	70-130	1.20	20
Tetrachloroethene	45		1.0	µg/Kg	50.0		90.0	70-130	0.0444	20
Toluene	46		1.0	µg/Kg	50.0		92.5	70-130	2.06	20
1,2,3-Trichlorobenzene	43		1.0	µg/Kg	50.0		86.1	70-130	3.18	20
Trichloroethene	48		1.0	µg/Kg	50.0		96.5	70-130	3.16	20
1,3,5-Trimethylbenzene	48		1.0	µg/Kg	50.0		95.6	70-130	1.47	20
Vinyl Chloride	48		1.0	µg/Kg	50.0		95.6	70-130	5.15	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		101	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		100	60-140		
Surrogate: 1,2-Dichloroethane-d4	55			µg/Kg	50.0		109	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		100	60-140		

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Quality Control
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Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0009 (Continued)										
Matrix Spike (B5K0009-MS1)			Source: P511005-02		Prepared & Analyzed: 11/09/2015					
Benzene	48		1.0	µg/Kg	50.0	ND	96.7	70-130		
Bromobenzene	43		1.0	µg/Kg	50.0	ND	85.9	70-130		
Bromodichloromethane	48		1.0	µg/Kg	50.0	ND	96.6	70-130		
Bromoform	45		1.0	µg/Kg	50.0	ND	89.8	70-130		
Chlorobenzene	44		1.0	µg/Kg	50.0	ND	87.9	70-130		
Chloroethane	46		5.0	µg/Kg	50.0	ND	91.8	70-130		
Chloroform	52		1.0	µg/Kg	50.0	ND	103	70-130		
4-Chlorotoluene	43		1.0	µg/Kg	50.0	ND	86.7	70-130		
Dibromomethane	53		1.0	µg/Kg	50.0	ND	105	70-130		
1,2-Dichlorobenzene	40		1.0	µg/Kg	50.0	ND	79.8	70-130		
1,1-Dichloroethene	54		1.0	µg/Kg	50.0	ND	109	70-130		
1,2-Dichloropropane	46		1.0	µg/Kg	50.0	ND	92.5	70-130		
2,2-Dichloropropane	55		1.0	µg/Kg	50.0	ND	109	70-130		
1,1-Dichloropropene	50		1.0	µg/Kg	50.0	ND	100	70-130		
Diethyl Ether	53		1.0	µg/Kg	50.0	ND	106	70-130		
Diisopropyl Ether (DIPE)	50		1.0	µg/Kg	50.0	ND	99.8	70-130		
Ethylbenzene	44		1.0	µg/Kg	50.0	ND	88.4	70-130		
Hexachloro-1,3-Butadiene	32	QM-05	1.0	µg/Kg	50.0	ND	63.1	70-130		
Methylene Chloride	51		10	µg/Kg	50.0	ND	101	70-130		
Methyl-t-Butyl Ether (MTBE)	57		1.0	µg/Kg	50.0	ND	115	70-130		
Naphthalene	36		10	µg/Kg	50.0	0.23	71.3	70-130		
Styrene	42		1.0	µg/Kg	50.0	ND	84.7	70-130		
tert-Butylbenzene	41		1.0	µg/Kg	50.0	ND	81.2	70-130		
Tetrachloroethene	42		1.0	µg/Kg	50.0	ND	83.6	70-130		
Toluene	47		1.0	µg/Kg	50.0	0.29	93.2	70-130		
1,2,3-Trichlorobenzene	36		1.0	µg/Kg	50.0	ND	71.1	70-130		
Trichloroethene	48		1.0	µg/Kg	50.0	ND	95.8	70-130		
1,3,5-Trimethylbenzene	44		1.0	µg/Kg	50.0	ND	88.2	70-130		
Vinyl Chloride	51		1.0	µg/Kg	50.0	ND	103	70-130		
Surrogate: Dibromofluoromethane	55			µg/Kg	50.0		110	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		103	60-140		
Surrogate: 1,2-Dichloroethane-d4	57			µg/Kg	50.0		115	60-140		
Surrogate: Toluene-d8	54			µg/Kg	50.0		107	60-140		

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Quality Control
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Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0009 (Continued)										
Matrix Spike Dup (B5K0009-MSD1)			Source: P511005-02		Prepared & Analyzed: 11/09/2015					
Benzene	45		1.0	µg/Kg	50.0	ND	90.1	70-130	7.02	20
Bromobenzene	42		1.0	µg/Kg	50.0	ND	84.1	70-130	2.02	20
Bromodichloromethane	47		1.0	µg/Kg	50.0	ND	94.8	70-130	1.88	20
Bromoform	44		1.0	µg/Kg	50.0	ND	88.7	70-130	1.28	20
Chlorobenzene	43		1.0	µg/Kg	50.0	ND	85.3	70-130	2.98	20
Chloroethane	42		5.0	µg/Kg	50.0	ND	83.6	70-130	9.33	20
Chloroform	47		1.0	µg/Kg	50.0	ND	93.5	70-130	9.74	20
4-Chlorotoluene	42		1.0	µg/Kg	50.0	ND	84.8	70-130	2.12	20
Dibromomethane	51		1.0	µg/Kg	50.0	ND	102	70-130	3.44	20
1,2-Dichlorobenzene	39		1.0	µg/Kg	50.0	ND	78.7	70-130	1.39	20
1,1-Dichloroethene	49		1.0	µg/Kg	50.0	ND	98.7	70-130	9.46	20
1,2-Dichloropropane	46		1.0	µg/Kg	50.0	ND	91.7	70-130	0.782	20
2,2-Dichloropropane	50		1.0	µg/Kg	50.0	ND	99.2	70-130	9.80	20
1,1-Dichloropropene	47		1.0	µg/Kg	50.0	ND	94.4	70-130	6.08	20
Diethyl Ether	45		1.0	µg/Kg	50.0	ND	90.3	70-130	16.0	20
Diisopropyl Ether (DIPE)	45		1.0	µg/Kg	50.0	ND	90.5	70-130	9.84	20
Ethylbenzene	43		1.0	µg/Kg	50.0	ND	86.4	70-130	2.31	20
Hexachloro-1,3-Butadiene	32	QM-05	1.0	µg/Kg	50.0	ND	64.4	70-130	1.95	20
Methylene Chloride	46		10	µg/Kg	50.0	ND	91.5	70-130	10.3	20
Methyl-t-Butyl Ether (MTBE)	53		1.0	µg/Kg	50.0	ND	106	70-130	7.63	20
Naphthalene	34	QM-05	10	µg/Kg	50.0	0.23	68.5	70-130	3.98	20
Styrene	42		1.0	µg/Kg	50.0	ND	84.6	70-130	0.0709	20
tert-Butylbenzene	42		1.0	µg/Kg	50.0	ND	83.6	70-130	2.86	20
Tetrachloroethene	43		1.0	µg/Kg	50.0	ND	85.7	70-130	2.48	20
Toluene	45		1.0	µg/Kg	50.0	0.29	89.5	70-130	4.05	20
1,2,3-Trichlorobenzene	34	QM-05	1.0	µg/Kg	50.0	ND	68.8	70-130	3.20	20
Trichloroethene	46		1.0	µg/Kg	50.0	ND	92.0	70-130	4.00	20
1,3,5-Trimethylbenzene	43		1.0	µg/Kg	50.0	ND	86.8	70-130	1.55	20
Vinyl Chloride	47		1.0	µg/Kg	50.0	ND	93.1	70-130	9.96	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		101	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		98.2	60-140		
Surrogate: 1,2-Dichloroethane-d4	56			µg/Kg	50.0		112	60-140		
Surrogate: Toluene-d8	52			µg/Kg	50.0		103	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Notes and Definitions

Item	Definition
R2	[Undefined]
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to spike level. The associated blank spike recovery was acceptable.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
R2	RPD/RSD exceeded the laboratory acceptance limit.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

page 1 of 1

PAL PID: PS11007

Client Name 5/11/15		ARCADIS		REQUESTED ANALYSES														
Project Manager		Phil Skorge		TPH-E (8015B) TPH-D (8015B) PAHs (8270C) VOCs (8260/8035) Lead (6010B)														
Email		Phil.Skorge@arcadis.com																
Phone		714.508.3676																
FAX		714.730.9345																
Project Name/Number		MTA Loc 615																
P.O. Number																		
Sampled By																		
Client Sample ID / Description		Sample Date	Sample Time	Sample Matrix*	Container													
					Quantity	Type												
1	UST-U-4	11/7/15	12:00	5	1/1	802/5035												
2																		
3																		
4																		
5																		
6																		
7																		
8																		
9																		
10																		
PAL Containers used:		☒ Yes	☐ No			RELINQUISHED BY												
Type of Ice used:		☒ Wet	☐ Blue	☐ None		Signature: <i>Zack Mason</i>							DATE: 11/7/15					
Sample Preservative:		☒ Yes	☐ No			Print: <i>Zack Mason</i>							TIME: 14:30					
Company:		ARCADIS				RECEIVED BY												
TAT Needed (circle one)		STD		RUSH		Signature: <i>M. Valenzuela</i>							DATE: 11/7/15					
		5 day		24		Print: <i>M. Valenzuela</i>							TIME: 14:30					
		48		72		Company: <i>PAL</i>												
EDD Required - Circle one:		☒ Yes		☐ No		RELINQUISHED BY												
Type of EDD:						Signature:							DATE:					
						Print:							TIME:					
						Company:												
* ON HOLD						RECEIVED BY												
						Signature:							DATE:					
						Print:							TIME:					
						Company:												
						RELINQUISHED BY												
						Signature:							DATE:					
						Print:							TIME:					
						Company:												
PAL Labeled Samples: _____																		

*PAL MATRIX CODES: (S= Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)

*PAL MATRIX CODES: (S= Soils); (P= Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)

SENDING LABORATORY:

Performance Analytical Laboratories
 2702 Willow St
 Signal Hill, CA 90755
 Phone: (310) 809-1041
 Fax: -
 Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Orange Coast Analytical, Inc
 3002 Dow Ave., Suite 532
 Tustin, CA 92780
 Phone: (714) 832-0064
 Fax: .

Analysis	Due	Comments
Sample ID: P511007-01 Matrix: Solid Sampled: 11/07/2015 12:00		
S_PAH 8310	11/12/2015 14:00	
S_Metals 6010B Title 22	11/12/2015 14:00	
S_Mercury 7471	11/12/2015 14:00	
Containers Supplied:		
Glass Jar, 4 oz (F)		

<i>M Valenzuela</i>	11/9/15	10:44	<i>Mark Martin</i>	11-9-15	1044	on ice 25°C
Released By	Date	Time	Received By	Date	Time	
Released By	Date	Time	Received By	Date	Time	

Work Order ID

P511007

SAMPLE RECEIPT FORM

Cooler ID :

Client

Arcadis

Date Received:

11/7/15

Total # of Samples:

1

COURIER INFORMATION☒ PALI☐ OTHER☐ FEDEX☐ CLIENT☐ UPS

Tracking #

TEMPERATURE

6.1 °C

☒ WET ICE☐ BLUE ICE☐ NO ICE☐ AMBIENT**CLIENT COC**☒ INCLUDED☒ SIGNED☐ NOT INCLUDED☐ NOT SIGNED☐ LIQUID☐ Composite at PALI, equal☐ Composite at PALI, flow-weighted☒ SOLID**SAMPLE MATRIX**☐ TISSUE☐ Homogenized☐ Unhomogenized☐ OTHER**CONDITION OF SAMPLES UPON VERIFICATION**

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

M.Valenzuela

Initials

Nov 7, 2015

Date

Initials

Date

Print Form

December 28, 2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

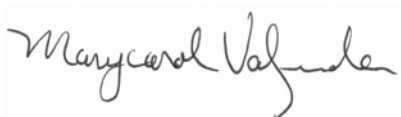
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P512009

Dear Phil Skorge

Enclosed are the results of analyses for samples received by our laboratory on 12/22/2015. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P512009-01	UST6-BS2-11	Solid	12/22/2015	12/22/2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST6-BS2-11

P512009-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0020)

Diesel Range Organics	ND	mg/kg	1	2.50	12/23/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	99.8%			60-140	12/23/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5L0019)

Gasoline Range Organics	ND	mg/kg	1	0.189	12/22/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	91.2%			60-140	12/22/2015	EPA 8015B	

Volatile Organic Compounds (Batch ID: B5L0018)

Acetone	ND	µg/Kg	1	17	12/22/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	17	12/22/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.3	12/22/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	12/22/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.3	12/22/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.3	12/22/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.3	12/22/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	

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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST6-BS2-11 (Continued)

P512009-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0018) (Continued)							
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	17	12/22/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.3	12/22/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	8.6	12/22/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	12/22/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	8.6	12/22/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	17	12/22/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	

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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST6-BS2-11 (Continued)

P512009-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0018) (Continued)							
Styrene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	29	µg/Kg	1	22	12/22/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.86	12/22/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.7	12/22/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.6	12/22/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	96.1%			60-140	12/22/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	99.1%			60-140	12/22/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	110%			60-140	12/22/2015	EPA 8260B	
Surrogate: Toluene-d8	101%			60-140	12/22/2015	EPA 8260B	

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320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control

Diesel Range Organics (C10-C28)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0020										
Blank (B5L0020-BLK1)										
					Prepared & Analyzed: 12/22/2015					
Diesel Range Organics	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	2.22			mg/kg	2.00		111	60-140		
LCS (B5L0020-BS1)										
					Prepared: 12/22/2015 Analyzed: 12/23/2015					
Diesel	47.5		2.50	mg/kg	50.0		95.1	70-130		
Surrogate: n-Octacosane (c28)	2.29			mg/kg	2.00		115	60-140		
LCS Dup (B5L0020-BSD1)										
					Prepared & Analyzed: 12/22/2015					
Diesel	45.4		2.50	mg/kg	50.0		90.8	70-130	4.64	20
Surrogate: n-Octacosane (c28)	1.38			mg/kg	2.00		69.2	60-140		
Matrix Spike (B5L0020-MS1)										
			Source: P512009-01		Prepared: 12/22/2015 Analyzed: 12/23/2015					
Diesel	35.5		2.50	mg/kg	50.0	ND	71.0	70-130		
Surrogate: n-Octacosane (c28)	1.94			mg/kg	2.00		96.8	60-140		
Matrix Spike Dup (B5L0020-MSD1)										
			Source: P512009-01		Prepared: 12/22/2015 Analyzed: 12/23/2015					
Diesel	32.3	QM-05	2.50	mg/kg	50.0	ND	64.6	70-130	9.33	20
Surrogate: n-Octacosane (c28)	1.78			mg/kg	2.00		88.8	60-140		

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320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0019										
Blank (B5L0019-BLK1)										
					Prepared & Analyzed: 12/22/2015					
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.241			mg/kg	0.250		96.4	60-140		
LCS (B5L0019-BS1)										
					Prepared & Analyzed: 12/22/2015					
Gasoline	9.28		0.200	mg/kg	10.0		92.8	70-130		
Surrogate: 4-Bromofluorobenzene	0.247			mg/kg	0.250		98.8	60-140		
LCS Dup (B5L0019-BSD1)										
					Prepared & Analyzed: 12/22/2015					
Gasoline	9.22		0.200	mg/kg	10.0		92.2	70-130	0.551	20
Surrogate: 4-Bromofluorobenzene	0.244			mg/kg	0.250		97.6	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0018										
Blank (B5L0018-BLK1)					Prepared & Analyzed: 12/22/2015					
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		20	µg/Kg						
Acrylonitrile	ND		1.0	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		1.0	µg/Kg						

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5L0018 (Continued)

Blank (B5L0018-BLK1)

Prepared & Analyzed: 12/22/2015

Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		1.0	µg/Kg						
Iodomethane	ND		20	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Phenanthrene	ND		1.0	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	53			µg/Kg	50.0		105	60-140		
Surrogate: 1,2-Dichloroethane-d4	55			µg/Kg	50.0		110	60-140		
Surrogate: Toluene-d8	54			µg/Kg	50.0		108	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5L0018 (Continued)

LCS (B5L0018-BS1)

Prepared & Analyzed: 12/22/2015

Benzene	44		1.0	µg/Kg	50.0		87.1	70-130		
Bromobenzene	46		1.0	µg/Kg	50.0		91.3	70-130		
Bromodichloromethane	50		1.0	µg/Kg	50.0		100	70-130		
Bromoform	49		1.0	µg/Kg	50.0		98.9	70-130		
Chlorobenzene	43		1.0	µg/Kg	50.0		86.1	70-130		
Chloroethane	42		5.0	µg/Kg	50.0		84.9	70-130		
Chloroform	44		1.0	µg/Kg	50.0		88.7	70-130		
4-Chlorotoluene	47		1.0	µg/Kg	50.0		93.9	70-130		
Dibromomethane	51		1.0	µg/Kg	50.0		101	70-130		
1,2-Dichlorobenzene	44		1.0	µg/Kg	50.0		88.2	70-130		
1,1-Dichloroethene	44		1.0	µg/Kg	50.0		87.1	70-130		
1,2-Dichloropropane	49		1.0	µg/Kg	50.0		97.0	70-130		
2,2-Dichloropropane	45		1.0	µg/Kg	50.0		91.0	70-130		
1,1-Dichloropropene	45		1.0	µg/Kg	50.0		90.4	70-130		
Diethyl Ether	46		1.0	µg/Kg	50.0		92.5	70-130		
Diisopropyl Ether (DIPE)	44		1.0	µg/Kg	50.0		88.8	70-130		
Ethylbenzene	45		1.0	µg/Kg	50.0		89.8	70-130		
Hexachloro-1,3-Butadiene	43		1.0	µg/Kg	50.0		86.5	70-130		
Methylene Chloride	45		10	µg/Kg	50.0		89.0	70-130		
Methyl-t-Butyl Ether (MTBE)	49		1.0	µg/Kg	50.0		97.4	70-130		
Naphthalene	42		10	µg/Kg	50.0		83.9	70-130		
Styrene	45		1.0	µg/Kg	50.0		90.4	70-130		
tert-Butylbenzene	43		1.0	µg/Kg	50.0		86.2	70-130		
Tetrachloroethene	39		1.0	µg/Kg	50.0		78.9	70-130		
Toluene	42		1.0	µg/Kg	50.0		84.9	70-130		
1,2,3-Trichlorobenzene	46		1.0	µg/Kg	50.0		91.4	70-130		
Trichloroethene	45		1.0	µg/Kg	50.0		90.0	70-130		
1,3,5-Trimethylbenzene	45		1.0	µg/Kg	50.0		89.4	70-130		
Vinyl Chloride	39		1.0	µg/Kg	50.0		78.2	70-130		
Surrogate: Dibromofluoromethane	48			µg/Kg	50.0		96.5	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		99.2	60-140		
Surrogate: 1,2-Dichloroethane-d4	49			µg/Kg	50.0		97.1	60-140		
Surrogate: Toluene-d8	47			µg/Kg	50.0		94.2	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0018 (Continued)										
LCS Dup (B5L0018-BSD1)				Prepared & Analyzed: 12/22/2015						
Benzene	48		1.0	µg/Kg	50.0		95.3	70-130	9.08	20
Bromobenzene	46		1.0	µg/Kg	50.0		92.9	70-130	1.76	20
Bromodichloromethane	53		1.0	µg/Kg	50.0		105	70-130	5.24	20
Bromoform	51		1.0	µg/Kg	50.0		102	70-130	3.15	20
Chlorobenzene	47		1.0	µg/Kg	50.0		94.1	70-130	8.90	20
Chloroethane	46		5.0	µg/Kg	50.0		91.8	70-130	7.77	20
Chloroform	51		1.0	µg/Kg	50.0		101	70-130	13.2	20
4-Chlorotoluene	51		1.0	µg/Kg	50.0		102	70-130	7.82	20
Dibromomethane	53		1.0	µg/Kg	50.0		106	70-130	4.48	20
1,2-Dichlorobenzene	47		1.0	µg/Kg	50.0		93.8	70-130	6.11	20
1,1-Dichloroethene	46		1.0	µg/Kg	50.0		91.5	70-130	4.99	20
1,2-Dichloropropane	48		1.0	µg/Kg	50.0		96.4	70-130	0.703	20
2,2-Dichloropropane	51		1.0	µg/Kg	50.0		101	70-130	10.5	20
1,1-Dichloropropene	47		1.0	µg/Kg	50.0		93.1	70-130	2.92	20
Diethyl Ether	50		1.0	µg/Kg	50.0		99.9	70-130	7.67	20
Diisopropyl Ether (DIPE)	47		1.0	µg/Kg	50.0		94.8	70-130	6.62	20
Ethylbenzene	47		1.0	µg/Kg	50.0		94.6	70-130	5.25	20
Hexachloro-1,3-Butadiene	45		1.0	µg/Kg	50.0		90.3	70-130	4.30	20
Methylene Chloride	48		10	µg/Kg	50.0		95.2	70-130	6.75	20
Methyl-t-Butyl Ether (MTBE)	52		1.0	µg/Kg	50.0		103	70-130	5.65	20
Naphthalene	47		10	µg/Kg	50.0		93.9	70-130	11.2	20
Styrene	47		1.0	µg/Kg	50.0		94.4	70-130	4.29	20
tert-Butylbenzene	47		1.0	µg/Kg	50.0		94.0	70-130	8.70	20
Tetrachloroethene	42		1.0	µg/Kg	50.0		85.0	70-130	7.39	20
Toluene	45		1.0	µg/Kg	50.0		90.4	70-130	6.25	20
1,2,3-Trichlorobenzene	49		1.0	µg/Kg	50.0		98.4	70-130	7.38	20
Trichloroethene	45		1.0	µg/Kg	50.0		89.2	70-130	0.893	20
1,3,5-Trimethylbenzene	48		1.0	µg/Kg	50.0		95.4	70-130	6.47	20
Vinyl Chloride	40		1.0	µg/Kg	50.0		80.2	70-130	2.55	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		97.9	60-140		
Surrogate: 1,2-Dichloroethane-d4	51			µg/Kg	50.0		101	60-140		
Surrogate: Toluene-d8	48			µg/Kg	50.0		96.7	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Notes and Definitions

Item	Definition
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

page 1 of 1

PAL PID: 1512009

Client Information						REQUESTED ANALYSES																	
Client Name 5/11/15		ARCADIS																					
Project Manager		Phil Skorge																					
Email		phil.skorge@arcadis.com																					
Phone		714.588.8676																					
FAX		714.730.9345																					
Project Name/Number		MTA Loc G/S																					
P.O. Number																							
Sampled By		Zack Mason																					
Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container		Quantity	Type	X	X	X													
				Quantity	Type																		
1 KSTG-BSD-11	12/21/15	13:35	S	1/1	902JW/5035	X	X	X															
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
PAL Containers used:	(Yes)	No																					
Type of Ice used:	(Wet)	Blue	(None)																				
Sample Preservative:	(Yes)	No																					
TAT Needed (circle one)	STD 5 day	RUSH 24	(48) 72																				
EDD Required - Circle one:	Yes	No																					
Type of EDD:																							
PAL Labeled Samples: _____																							
*PAL MATRIX CODES: (S= Soils); (P.= Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)					RELINQUISHED BY																		
					Signature: Zack Mason												DATE: 12/22/15						
					Print: Zack Mason												TIME: 15:05						
					Company: ARCADIS																		
					RECEIVED BY																		
					Signature: M Valenzuela												DATE: 12/22/15						
					Print: M Valenzuela												TIME: 15:05						
					Company: PAL																		
					RELINQUISHED BY																		
					Signature:												DATE:						
					Print:												TIME:						
					Company:																		
RECEIVED BY																							
Signature:												DATE:											
Print:												TIME:											
Company:																							

Work Order ID

P512009

SAMPLE RECEIPT FORM

Cooler ID :

Client Arcadis

Date Received: Dec 22, 2015

Total # of Samples: 1

COURIER INFORMATION

☒ PALI☐ OTHER☐ FEDEX☐ CLIENT☐ UPS

Tracking #

TEMPERATURE

3.6 °C

☒ WET ICE☐ BLUE ICE☐ NO ICE☐ AMBIENT

CLIENT COC

☒ INCLUDED☒ SIGNED☐ NOT INCLUDED☐ NOT SIGNED☐ LIQUID☐ Composite at PALI, equal☐ Composite at PALI, flow-weighted☒ SOLID

SAMPLE MATRIX

☐ TISSUE☐ Homogenized☐ Unhomogenized☐ OTHER

CONDITION OF SAMPLES UPON VERIFICATION

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

For UST6-BS2-11, 5035 samples were not labeled but were in a zip lock bag with the sample jar that was labeled. Client was notified and Picture of the bottles follows.

M.Valenzuela

Dec 22, 2015

Initials

Date

Initials

Date

Print Form

December 17, 2015

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Irvine, CA 92602

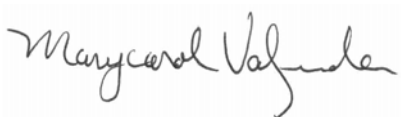
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P512003

Dear Zack Mason

Enclosed are the results of analyses for samples received by our laboratory on 12/16/2015. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P512003-01	UST4-BS1-8	Solid	12/15/2015	12/16/2015
P512003-02	UST4-BS2-8	Solid	12/15/2015	12/16/2015
P512003-03	UST5-BS1-8	Solid	12/15/2015	12/16/2015
P512003-04	UST5-BS2-8	Solid	12/15/2015	12/16/2015
P512003-05	UST6-BS1-6	Solid	12/15/2015	12/16/2015
P512003-06	UST7-BS1-5	Solid	12/15/2015	12/16/2015
P512003-07	UST8-BS1-4	Solid	12/15/2015	12/16/2015

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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Case Narrative

The result in this report for sample UST5-BS2-8 was reported without the 5035 bisulfate vial for gasoline. The 5035 Bisulfate vial was analyzed but the CCV for that run failed high and the sample needed to be reanalyzed. The kits did not have an extra bisulfate for re-analysis. A 5 gram sample was weighed using the 8 oz. jar that was provided for the DRO analysis.

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Sample: UST4-BS1-8

P512003-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0010)

Diesel Range Organics	108	mg/kg	1	2.50	12/16/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	97.5%			60-140	12/16/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5L0011)

Gasoline Range Organics (R)	3.17	mg/kg	1	0.154	12/16/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene (R)	90.0%			60-140	12/16/2015	EPA 8015B	

Volatile Organic Compounds (Batch ID: B5L0012)

Acetone	ND	µg/Kg	1	16	12/16/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	16	12/16/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Benzene	2.5	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.0	12/16/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	16	12/16/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.0	12/16/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.0	12/16/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.0	12/16/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	

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Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Sample: UST4-BS1-8 (Continued)

P512003-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0012) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Ethylbenzene	10	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	16	12/16/2015	EPA 8260B	
Isopropylbenzene	1.9	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.0	12/16/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	8.1	12/16/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	16	12/16/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	8.1	12/16/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	16	12/16/2015	EPA 8260B	

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Project Manager: Zack Mason

Sample: UST4-BS1-8 (Continued)

P512003-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5L0012) (Continued)

n-Propylbenzene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	20	12/16/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Toluene	14	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
o-Xylene	20	µg/Kg	1	0.81	12/16/2015	EPA 8260B	
p/m-Xylene	46	µg/Kg	1	1.6	12/16/2015	EPA 8260B	
Total Xylenes	66	µg/Kg	1	2.4	12/16/2015	EPA 8260B	

Surrogate: Dibromofluoromethane	91.5%			60-140	12/16/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	94.2%			60-140	12/16/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	107%			60-140	12/16/2015	EPA 8260B	
Surrogate: Toluene-d8	107%			60-140	12/16/2015	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
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Project Manager: Zack Mason

Sample: UST4-BS2-8

P512003-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0010)

Diesel Range Organics	174	mg/kg	1	2.50	12/17/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	106%			60-140	12/17/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5L0011)

Gasoline Range Organics	ND	mg/kg	1	0.175	12/16/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	98.4%			60-140	12/16/2015	EPA 8015B	

Volatile Organic Compounds (Batch ID: B5L0012)

Acetone	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Benzene	1.9	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.2	12/16/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.2	12/16/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.2	12/16/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.2	12/16/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	

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Sample: UST4-BS2-8 (Continued)

P512003-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0012) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.2	12/16/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	8.5	12/16/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	8.5	12/16/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	

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Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Sample: UST4-BS2-8 (Continued)

P512003-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0012) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	21	12/16/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Toluene	1.6	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.85	12/16/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.7	12/16/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.5	12/16/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	99.7%			60-140	12/16/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	98.9%			60-140	12/16/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	109%			60-140	12/16/2015	EPA 8260B	
Surrogate: Toluene-d8	107%			60-140	12/16/2015	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Sample: UST5-BS1-8

P512003-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0010)

Diesel Range Organics	ND	mg/kg	1	2.50	12/16/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	98.2%			60-140	12/16/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5L0011)

Gasoline Range Organics	ND	mg/kg	1	0.196	12/16/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	90.8%			60-140	12/16/2015	EPA 8015B	

Volatile Organic Compounds (Batch ID: B5L0012)

Acetone	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.3	12/16/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.3	12/16/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.3	12/16/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.3	12/16/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	

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Sample: UST5-BS1-8 (Continued)

P512003-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0012) (Continued)							
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.3	12/16/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	8.6	12/16/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	8.6	12/16/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	

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Sample: UST5-BS1-8 (Continued)

P512003-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0012) (Continued)							
Styrene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	22	12/16/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.86	12/16/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.7	12/16/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.6	12/16/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	95.5%			60-140	12/16/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	97.0%			60-140	12/16/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	107%			60-140	12/16/2015	EPA 8260B	
Surrogate: Toluene-d8	102%			60-140	12/16/2015	EPA 8260B	

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Project Manager: Zack Mason

Sample: UST5-BS2-8

P512003-04 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0010)

Diesel Range Organics	ND	mg/kg	1	2.50	12/16/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	93.8%			60-140	12/16/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5L0011)

Gasoline Range Organics (R)	ND	mg/kg	1	0.200	12/16/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene (R)	97.2%			60-140	12/16/2015	EPA 8015B	

Volatile Organic Compounds (Batch ID: B5L0012)

Acetone (R)	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
Acetonitrile (R)	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
Acrylonitrile (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Allyl Chloride (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Benzene (R)	1.2	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Bromobenzene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Bromochloromethane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Bromodichloromethane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Bromoform (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Bromomethane (R)	ND	µg/Kg	1	4.5	12/16/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK) (R)	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
n-Butylbenzene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Carbon Disulfide (R)	ND	µg/Kg	1	4.5	12/16/2015	EPA 8260B	
Carbon Tetrachloride (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Chlorobenzene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Chloroethane (R)	ND	µg/Kg	1	4.5	12/16/2015	EPA 8260B	
Chloroform (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Chloromethane (R)	ND	µg/Kg	1	4.5	12/16/2015	EPA 8260B	
Chloroprene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
2-Chlorotoluene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
4-Chlorotoluene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Dibromochloromethane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2-Dibromoethane (EDB) (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Dibromomethane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	

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Sample: UST5-BS2-8 (Continued)

P512003-04 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0012) (Continued)							
cis-1,4-dichloro-2-butene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2-Dichlorobenzene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,3-Dichlorobenzene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,4-Dichlorobenzene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12) (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1-Dichloroethane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2-Dichloroethane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1-Dichloroethene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
c-1,2-Dichloroethene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
c-1,3-Dichloropropene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
t-1,2-Dichloroethene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2-Dichloropropane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,3-Dichloropropane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
2,2-Dichloropropane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1-Dichloropropene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
t-1,3-Dichloropropene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Diethyl Ether (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Diisopropyl Ether (DIPE) (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Ethylbenzene (R)	1.8	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Ethyl Methacrylate (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE) (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Hexachloro-1,3-Butadiene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
2-Hexanone (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Iodomethane (R)	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
Isopropylbenzene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
p-Isopropyltoluene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Methacrylonitrile (R)	ND	µg/Kg	1	4.5	12/16/2015	EPA 8260B	
Methylene Chloride (R)	ND	µg/Kg	1	9.1	12/16/2015	EPA 8260B	
Methyl Methacrylate (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
4-Methyl-2-Pentanone (R)	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE) (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Naphthalene (R)	ND	µg/Kg	1	9.1	12/16/2015	EPA 8260B	
Phenanthrene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Propionitrile (R)	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
n-Propylbenzene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	

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Sample: UST5-BS2-8 (Continued)

P512003-04 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0012) (Continued)							
sec-Butylbenzene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Styrene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME) (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA) (R)	ND	µg/Kg	1	23	12/16/2015	EPA 8260B	
tert-Butylbenzene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Tetrachloroethene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Toluene (R)	1.9	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2,3-Trichlorobenzene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2,4-Trichlorobenzene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1,1-Trichloroethane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1,2-Trichloroethane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Trichloroethene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Trichlorofluoromethane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2,3-Trichloropropane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2,4-Trimethylbenzene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,3,5-Trimethylbenzene (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Vinyl Chloride (R)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
o-Xylene (R)	4.1	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
p/m-Xylene (R)	7.8	µg/Kg	1	1.8	12/16/2015	EPA 8260B	
Total Xylenes (R)	12	µg/Kg	1	2.7	12/16/2015	EPA 8260B	
Surrogate: Dibromofluoromethane (R)	101%			60-140	12/16/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene (R)	99.8%			60-140	12/16/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4 (R)	108%			60-140	12/16/2015	EPA 8260B	
Surrogate: Toluene-d8 (R)	109%			60-140	12/16/2015	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Sample: UST6-BS1-6

P512003-05 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0010)

Diesel Range Organics (R)	498	mg/kg	10	25.0	12/17/2015	EPA 8015B	
Surrogate: n-Octacosane (c28) (R)	177%			60-140	12/17/2015	EPA 8015B	S-03

Gasoline Range Organics (C6-C10) (Batch ID: B5L0011)

Gasoline Range Organics	ND	mg/kg	1	0.182	12/16/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	93.2%			60-140	12/16/2015	EPA 8015B	

Volatile Organic Compounds (Batch ID: B5L0012)

Acetone	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Benzene	2.3	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.5	12/16/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.5	12/16/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.5	12/16/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.5	12/16/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	

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Sample: UST6-BS1-6 (Continued)

P512003-05 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0012) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2-Dichloropropane	1.5	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.5	12/16/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	9.1	12/16/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	9.1	12/16/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Sample: UST6-BS1-6 (Continued)

P512003-05 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0012) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	23	12/16/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Toluene	2.0	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2,4-Trimethylbenzene	3.4	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,3,5-Trimethylbenzene	2.0	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.8	12/16/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.7	12/16/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	97.8%			60-140	12/16/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	97.1%			60-140	12/16/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	108%			60-140	12/16/2015	EPA 8260B	
Surrogate: Toluene-d8	105%			60-140	12/16/2015	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
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Project Manager: Zack Mason

Sample: UST7-BS1-5

P512003-06 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0010)

Diesel Range Organics	37.3	mg/kg	1	2.50	12/17/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	79.7%			60-140	12/17/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5L0011)

Gasoline Range Organics	ND	mg/kg	1	0.169	12/16/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	98.0%			60-140	12/16/2015	EPA 8015B	

Volatile Organic Compounds (Batch ID: B5L0012)

Acetone	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Benzene	1.0	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.2	12/16/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.2	12/16/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.2	12/16/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.2	12/16/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	

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Sample: UST7-BS1-5 (Continued)

P512003-06 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0012) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.2	12/16/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	8.3	12/16/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	8.3	12/16/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	17	12/16/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	

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Project Manager: Zack Mason

Sample: UST7-BS1-5 (Continued)

P512003-06 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0012) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	21	12/16/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Toluene	2.6	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,2,4-Trimethylbenzene	1.4	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.83	12/16/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.7	12/16/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.5	12/16/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	93.2%			60-140	12/16/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	95.0%			60-140	12/16/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	106%			60-140	12/16/2015	EPA 8260B	
Surrogate: Toluene-d8	104%			60-140	12/16/2015	EPA 8260B	

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Project Manager: Zack Mason

Sample: UST8-BS1-4

P512003-07 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0010)

Diesel Range Organics	7.14	mg/kg	1	2.50	12/17/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	108%			60-140	12/17/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5L0011)

Gasoline Range Organics	ND	mg/kg	1	0.167	12/16/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	94.0%			60-140	12/16/2015	EPA 8015B	

Volatile Organic Compounds (Batch ID: B5L0012)

Acetone	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Benzene	2.2	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.5	12/16/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.5	12/16/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.5	12/16/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.5	12/16/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	

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Sample: UST8-BS1-4 (Continued)

P512003-07 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0012) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.5	12/16/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	9.1	12/16/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	9.1	12/16/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	18	12/16/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	

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Sample: UST8-BS1-4 (Continued)

P512003-07 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0012) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	23	12/16/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Toluene	2.2	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
o-Xylene	1.2	µg/Kg	1	0.91	12/16/2015	EPA 8260B	
p/m-Xylene	5.0	µg/Kg	1	1.8	12/16/2015	EPA 8260B	
Total Xylenes	6.3	µg/Kg	1	2.7	12/16/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	96.5%			60-140	12/16/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	95.8%			60-140	12/16/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	108%			60-140	12/16/2015	EPA 8260B	
Surrogate: Toluene-d8	109%			60-140	12/16/2015	EPA 8260B	

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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Quality Control

Diesel Range Organics (C10-C28)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0010										
Blank (B5L0010-BLK1)										
					Prepared & Analyzed: 12/16/2015					
Diesel Range Organics	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.74			mg/kg	2.00		87.1	60-140		
LCS (B5L0010-BS1)										
					Prepared & Analyzed: 12/16/2015					
Diesel	38.5		2.50	mg/kg	50.0		77.0	70-130		
Surrogate: n-Octacosane (c28)	1.81			mg/kg	2.00		90.4	60-140		
LCS Dup (B5L0010-BSD1)										
					Prepared & Analyzed: 12/16/2015					
Diesel	37.5		2.50	mg/kg	50.0		75.1	70-130	2.60	20
Surrogate: n-Octacosane (c28)	1.81			mg/kg	2.00		90.4	60-140		
Matrix Spike (B5L0010-MS1)										
			Source: P512003-03		Prepared & Analyzed: 12/16/2015					
Diesel	41.8		2.50	mg/kg	50.0	ND	83.7	70-130		
Surrogate: n-Octacosane (c28)	1.83			mg/kg	2.00		91.4	60-140		
Matrix Spike Dup (B5L0010-MSD1)										
			Source: P512003-03		Prepared & Analyzed: 12/16/2015					
Diesel	40.5		2.50	mg/kg	50.0	ND	81.0	70-130	3.19	20
Surrogate: n-Octacosane (c28)	1.90			mg/kg	2.00		95.1	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0011										
Blank (B5L0011-BLK1)										
					Prepared & Analyzed: 12/16/2015					
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.238			mg/kg	0.250		95.2	60-140		
LCS (B5L0011-BS1)										
					Prepared & Analyzed: 12/16/2015					
Gasoline	9.54		0.200	mg/kg	10.0		95.4	70-130		
Surrogate: 4-Bromofluorobenzene	0.241			mg/kg	0.250		96.4	60-140		
LCS Dup (B5L0011-BSD1)										
					Prepared & Analyzed: 12/16/2015					
Gasoline	9.42		0.200	mg/kg	10.0		94.2	70-130	1.32	20
Surrogate: 4-Bromofluorobenzene	0.241			mg/kg	0.250		96.4	60-140		

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Project: LA Metro S61 - LA 8.2015
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Project Manager: Zack Mason

Quality Control (Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5L0012

Blank (B5L0012-BLK1)

Prepared & Analyzed: 12/16/2015

Acetone	ND		20	µg/Kg
Acetonitrile	ND		20	µg/Kg
Acrylonitrile	ND		1.0	µg/Kg
Allyl Chloride	ND		1.0	µg/Kg
Benzene	ND		1.0	µg/Kg
Bromobenzene	ND		1.0	µg/Kg
Bromochloromethane	ND		1.0	µg/Kg
Bromodichloromethane	ND		1.0	µg/Kg
Bromoform	ND		1.0	µg/Kg
Bromomethane	ND		5.0	µg/Kg
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg
n-Butylbenzene	ND		1.0	µg/Kg
Carbon Disulfide	ND		5.0	µg/Kg
Carbon Tetrachloride	ND		1.0	µg/Kg
Chlorobenzene	ND		1.0	µg/Kg
Chloroethane	ND		5.0	µg/Kg
Chloroform	ND		1.0	µg/Kg
Chloromethane	ND		5.0	µg/Kg
Chloroprene	ND		1.0	µg/Kg
2-Chlorotoluene	ND		1.0	µg/Kg
4-Chlorotoluene	ND		1.0	µg/Kg
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg
Dibromochloromethane	ND		1.0	µg/Kg
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg
Dibromomethane	ND		1.0	µg/Kg
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg
1,2-Dichlorobenzene	ND		1.0	µg/Kg
1,3-Dichlorobenzene	ND		1.0	µg/Kg
1,4-Dichlorobenzene	ND		1.0	µg/Kg
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg
1,1-Dichloroethane	ND		1.0	µg/Kg
1,2-Dichloroethane	ND		1.0	µg/Kg
1,1-Dichloroethene	ND		1.0	µg/Kg
c-1,2-Dichloroethene	ND		1.0	µg/Kg
c-1,3-Dichloropropene	ND		1.0	µg/Kg
t-1,2-Dichloroethene	ND		1.0	µg/Kg
1,2-Dichloropropane	ND		1.0	µg/Kg
1,3-Dichloropropane	ND		1.0	µg/Kg
2,2-Dichloropropane	ND		1.0	µg/Kg
1,1-Dichloropropene	ND		1.0	µg/Kg
t-1,3-Dichloropropene	ND		1.0	µg/Kg
Diethyl Ether	ND		1.0	µg/Kg

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5L0012 (Continued)

Blank (B5L0012-BLK1)

Prepared & Analyzed: 12/16/2015

Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		1.0	µg/Kg						
Iodomethane	ND		20	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Phenanthrene	ND		1.0	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	49			µg/Kg	50.0		98.6	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		97.7	60-140		
Surrogate: 1,2-Dichloroethane-d4	51			µg/Kg	50.0		102	60-140		
Surrogate: Toluene-d8	51			µg/Kg	50.0		102	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5L0012 (Continued)

LCS (B5L0012-BS1)

Prepared & Analyzed: 12/16/2015

Benzene	49		1.0	µg/Kg	50.0		98.9	70-130		
Bromobenzene	48		1.0	µg/Kg	50.0		96.5	70-130		
Bromodichloromethane	50		1.0	µg/Kg	50.0		101	70-130		
Bromoform	53		1.0	µg/Kg	50.0		106	70-130		
Chlorobenzene	49		1.0	µg/Kg	50.0		97.1	70-130		
Chloroethane	46		5.0	µg/Kg	50.0		92.8	70-130		
Chloroform	50		1.0	µg/Kg	50.0		100	70-130		
4-Chlorotoluene	51		1.0	µg/Kg	50.0		103	70-130		
Dibromomethane	53		1.0	µg/Kg	50.0		106	70-130		
1,2-Dichlorobenzene	49		1.0	µg/Kg	50.0		97.4	70-130		
1,1-Dichloroethene	46		1.0	µg/Kg	50.0		91.8	70-130		
1,2-Dichloropropane	48		1.0	µg/Kg	50.0		95.3	70-130		
2,2-Dichloropropane	51		1.0	µg/Kg	50.0		101	70-130		
1,1-Dichloropropene	48		1.0	µg/Kg	50.0		96.8	70-130		
Diethyl Ether	48		1.0	µg/Kg	50.0		95.9	70-130		
Diisopropyl Ether (DIPE)	48		1.0	µg/Kg	50.0		96.0	70-130		
Ethylbenzene	49		1.0	µg/Kg	50.0		98.6	70-130		
Hexachloro-1,3-Butadiene	46		1.0	µg/Kg	50.0		91.6	70-130		
Methylene Chloride	48		10	µg/Kg	50.0		96.4	70-130		
Methyl-t-Butyl Ether (MTBE)	51		1.0	µg/Kg	50.0		101	70-130		
Naphthalene	45		10	µg/Kg	50.0		90.9	70-130		
Styrene	48		1.0	µg/Kg	50.0		95.6	70-130		
tert-Butylbenzene	47		1.0	µg/Kg	50.0		94.1	70-130		
Tetrachloroethene	46		1.0	µg/Kg	50.0		91.5	70-130		
Toluene	50		1.0	µg/Kg	50.0		99.3	70-130		
1,2,3-Trichlorobenzene	49		1.0	µg/Kg	50.0		97.3	70-130		
Trichloroethene	46		1.0	µg/Kg	50.0		92.9	70-130		
1,3,5-Trimethylbenzene	49		1.0	µg/Kg	50.0		97.1	70-130		
Vinyl Chloride	42		1.0	µg/Kg	50.0		84.5	70-130		
Surrogate: Dibromofluoromethane	52			µg/Kg	50.0		103	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		97.2	60-140		
Surrogate: 1,2-Dichloroethane-d4	51			µg/Kg	50.0		101	60-140		
Surrogate: Toluene-d8	48			µg/Kg	50.0		95.1	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
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Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0012 (Continued)										
LCS Dup (B5L0012-BSD1)				Prepared & Analyzed: 12/16/2015						
Benzene	49		1.0	µg/Kg	50.0		98.7	70-130	0.283	20
Bromobenzene	47		1.0	µg/Kg	50.0		94.0	70-130	2.67	20
Bromodichloromethane	56		1.0	µg/Kg	50.0		111	70-130	10.2	20
Bromoform	52		1.0	µg/Kg	50.0		105	70-130	0.778	20
Chlorobenzene	48		1.0	µg/Kg	50.0		95.3	70-130	1.87	20
Chloroethane	48		5.0	µg/Kg	50.0		96.6	70-130	4.05	20
Chloroform	52		1.0	µg/Kg	50.0		104	70-130	3.37	20
4-Chlorotoluene	52		1.0	µg/Kg	50.0		104	70-130	0.988	20
Dibromomethane	56		1.0	µg/Kg	50.0		112	70-130	6.29	20
1,2-Dichlorobenzene	49		1.0	µg/Kg	50.0		97.2	70-130	0.226	20
1,1-Dichloroethene	47		1.0	µg/Kg	50.0		94.8	70-130	3.15	20
1,2-Dichloropropane	51		1.0	µg/Kg	50.0		103	70-130	7.67	20
2,2-Dichloropropane	51		1.0	µg/Kg	50.0		102	70-130	0.806	20
1,1-Dichloropropene	49		1.0	µg/Kg	50.0		98.1	70-130	1.35	20
Diethyl Ether	51		1.0	µg/Kg	50.0		102	70-130	5.81	20
Diisopropyl Ether (DIPE)	49		1.0	µg/Kg	50.0		98.7	70-130	2.73	20
Ethylbenzene	48		1.0	µg/Kg	50.0		97.0	70-130	1.62	20
Hexachloro-1,3-Butadiene	44		1.0	µg/Kg	50.0		88.6	70-130	3.33	20
Methylene Chloride	50		10	µg/Kg	50.0		100	70-130	3.96	20
Methyl-t-Butyl Ether (MTBE)	54		1.0	µg/Kg	50.0		107	70-130	5.37	20
Naphthalene	44		10	µg/Kg	50.0		87.4	70-130	3.88	20
Styrene	48		1.0	µg/Kg	50.0		96.3	70-130	0.667	20
tert-Butylbenzene	48		1.0	µg/Kg	50.0		96.1	70-130	2.06	20
Tetrachloroethene	46		1.0	µg/Kg	50.0		92.9	70-130	1.56	20
Toluene	52		1.0	µg/Kg	50.0		105	70-130	5.41	20
1,2,3-Trichlorobenzene	47		1.0	µg/Kg	50.0		93.1	70-130	4.41	20
Trichloroethene	47		1.0	µg/Kg	50.0		93.2	70-130	0.344	20
1,3,5-Trimethylbenzene	48		1.0	µg/Kg	50.0		96.3	70-130	0.848	20
Vinyl Chloride	44		1.0	µg/Kg	50.0		88.0	70-130	4.01	20
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		100	60-140		
Surrogate: 4-Bromofluorobenzene	48			µg/Kg	50.0		96.6	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		99.3	60-140		
Surrogate: Toluene-d8	54			µg/Kg	50.0		108	60-140		

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Project: LA Metro S61 - LA 8.2015
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Project Manager: Zack Mason

Notes and Definitions

Item	Definition
S-03	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

page 1 of

PAL PID: 0512003

Client Information						REQUESTED ANALYSES														
Client Name 5/11/15		ARCADIS																		
Project Manager		Phil Skorge																		
Email		Phil.Skorge@arcadis.com																		
Phone		714.508-2676																		
FAX		714.730.9345																		
Project Name/Number		MTA Loc G1S																		
P.O. Number																				
Sampled By		Zack Mason																		
Client Sample ID / Description		Sample Date	Sample Time	Sample Matrix*	Container															
					Quantity	Type														
1	UST4-B51-8	12/15/15	14:45	S	1/1	9oz Jar / 5035	X	X	X											
2	UST4-B52-8		15:00				X	X	X											
3	UST5-B51-8		17:20				X	X	X											
4	UST5-B52-8		17:35				X	X	X											
5	UST6-B51-6		16:00				X	X	X											
6	UST7-B51-5		15:45				X	X	X											
7	UST8-B51-4		15:30				X	X	X											
8																				
9																				
10																				
PAL Containers used:		Yes	No			RELINQUISHED BY														
Type of Ice used:		Wet	Blue	None		Signature: Zack Mason					DATE: 12/16/15									
Sample Preservative:		Yes	No			Print: Zack Mason					TIME: 08:35									
TAT Needed (circle one)		STD	RUSH			Company: ARCADIS					RECEIVED BY									
		5 day	24	(48)	72		Signature: M Valenzuela					DATE: 12/16/15								
EDD Required - Circle one:		Yes	No			Print: M Valenzuela					TIME: 8:35									
Type of EDD:						Company: PAL					RELINQUISHED BY									
						Signature:					DATE:									
						Print:					TIME:									
						Company:					RECEIVED BY									
						Signature:					DATE:									
						Print:					TIME:									
						Company:					RELINQUISHED BY									
						Signature:					DATE:									
						Print:					TIME:									
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						Company:					RELINQUISHED BY									
						Signature:					DATE:									
						Print:					TIME:									
						Company:					RELINQUISHED BY									

Work Order ID

P512003

SAMPLE RECEIPT FORM

Cooler ID :

Client Arcadis

Date Received: Dec 16, 2015

Total # of Samples: 7

COURIER INFORMATION

☒ PALI ☐ OTHER ☐ FEDEX
☐ CLIENT ☐ UPS

Tracking #

TEMPERATURE

2.6 °C ☒ WET ICE ☐ BLUE ICE ☐ NO ICE
☐ AMBIENT

CLIENT COC

☒ INCLUDED ☒ SIGNED
☐ NOT INCLUDED ☐ NOT SIGNED

SAMPLE MATRIX

☐ LIQUID ☐ TISSUE
☐ Composite at PALI, equal ☐ Homogenized
☐ Composite at PALI, flow-weighted ☐ Unhomogenized

☒ SOLID ☐ OTHER

CONDITION OF SAMPLES UPON VERIFICATION

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☐	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

M.Valenzuela

Dec 16, 2015

Initials

Date

Date

Print Form

December 29, 2015

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320 Commerce, Suite 200
Irvine, CA 92602

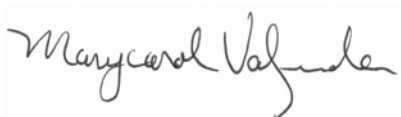
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P512008

Dear Phil Skorge

Enclosed are the results of analyses for samples received by our laboratory on 12/22/2015. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P512008-01	UST1-BS1-11	Solid	12/22/2015	12/22/2015
P512008-02	UST1-BS2-11	Solid	12/22/2015	12/22/2015
P512008-03	UST2-BS1-11	Solid	12/22/2015	12/22/2015
P512008-04	UST2-BS2-11	Solid	12/22/2015	12/22/2015
P512008-05	UST3-BS1-14	Solid	12/22/2015	12/22/2015
P512008-06	UST3-BS2-14	Solid	12/22/2015	12/22/2015

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST1-BS1-11

P512008-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0021)

Diesel Range Organics (R)	ND	mg/kg	1	2.50	12/28/2015	EPA 8015B	
Surrogate: n-Octacosane (c28) (R)	78.4%			60-140	12/28/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5L0019)

Gasoline Range Organics (R)	0.726	mg/kg	1	0.175	12/22/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene (R)	91.6%			60-140	12/22/2015	EPA 8015B	

Volatile Organic Compounds (Batch ID: B5L0018)

Acetone	ND	µg/Kg	1	18	12/22/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	18	12/22/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.5	12/22/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	18	12/22/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.5	12/22/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.5	12/22/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.5	12/22/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST1-BS1-11 (Continued)

P512008-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0018) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Ethylbenzene	1.4	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	18	12/22/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.5	12/22/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	8.9	12/22/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	18	12/22/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	8.9	12/22/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	18	12/22/2015	EPA 8260B	

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Sample: UST1-BS1-11 (Continued)

P512008-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5L0018) (Continued)

n-Propylbenzene	2.2	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	22	12/22/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
1,2,4-Trimethylbenzene (R)	380	µg/Kg	25	23	12/22/2015	EPA 8260B	
1,3,5-Trimethylbenzene	77	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
o-Xylene	8.6	µg/Kg	1	0.89	12/22/2015	EPA 8260B	
p/m-Xylene	25	µg/Kg	1	1.8	12/22/2015	EPA 8260B	
Total Xylenes	34	µg/Kg	1	2.7	12/22/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	94.9%			60-140	12/22/2015	EPA 8260B	
Surrogate: Dibromofluoromethane (R)	89.3%			60-140	12/22/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	105%			60-140	12/22/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene (R)	96.2%			60-140	12/22/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	105%			60-140	12/22/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4 (R)	96.5%			60-140	12/22/2015	EPA 8260B	
Surrogate: Toluene-d8	101%			60-140	12/22/2015	EPA 8260B	
Surrogate: Toluene-d8 (R)	100%			60-140	12/22/2015	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST1-BS2-11

P512008-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0020)

Diesel Range Organics	ND	mg/kg	1	2.50	12/23/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	99.2%			60-140	12/23/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5L0019)

Gasoline Range Organics	ND	mg/kg	1	0.185	12/22/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	89.6%			60-140	12/22/2015	EPA 8015B	

Volatile Organic Compounds (Batch ID: B5L0018)

Acetone	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.6	12/22/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.6	12/22/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.6	12/22/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.6	12/22/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST1-BS2-11 (Continued)

P512008-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0018) (Continued)							
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.6	12/22/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	9.3	12/22/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	9.3	12/22/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
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Sample: UST1-BS2-11 (Continued)

P512008-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5L0018) (Continued)

Styrene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	23	12/22/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.9	12/22/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.8	12/22/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	93.9%			60-140	12/22/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	98.3%			60-140	12/22/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	107%			60-140	12/22/2015	EPA 8260B	
Surrogate: Toluene-d8	102%			60-140	12/22/2015	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST2-BS1-11

P512008-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0020)

Diesel Range Organics	ND	mg/kg	1	2.50	12/23/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	85.6%			60-140	12/23/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5L0019)

Gasoline Range Organics	ND	mg/kg	1	0.185	12/22/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	91.6%			60-140	12/22/2015	EPA 8015B	

Volatile Organic Compounds (Batch ID: B5L0018)

Acetone	ND	µg/Kg	1	18	12/22/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	18	12/22/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Benzene	1.3	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.5	12/22/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	18	12/22/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.5	12/22/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.5	12/22/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.5	12/22/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST2-BS1-11 (Continued)

P512008-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0018) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Ethylbenzene	1.1	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	18	12/22/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.5	12/22/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	9.1	12/22/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	18	12/22/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	9.1	12/22/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	18	12/22/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	

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Sample: UST2-BS1-11 (Continued)

P512008-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0018) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	23	12/22/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Toluene	1.5	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,2,4-Trimethylbenzene	51	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
1,3,5-Trimethylbenzene	13	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
o-Xylene	1.7	µg/Kg	1	0.91	12/22/2015	EPA 8260B	
p/m-Xylene	5.6	µg/Kg	1	1.8	12/22/2015	EPA 8260B	
Total Xylenes	7.3	µg/Kg	1	2.7	12/22/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	95.3%			60-140	12/22/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	95.9%			60-140	12/22/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	107%			60-140	12/22/2015	EPA 8260B	
Surrogate: Toluene-d8	96.3%			60-140	12/22/2015	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST2-BS2-11

P512008-04 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0020)

Diesel Range Organics	6.78	mg/kg	1	2.50	12/23/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	89.8%			60-140	12/23/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5L0019)

Gasoline Range Organics	ND	mg/kg	1	0.172	12/22/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	89.2%			60-140	12/22/2015	EPA 8015B	

Volatile Organic Compounds (Batch ID: B5L0018)

Acetone	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.6	12/22/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.6	12/22/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.6	12/22/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.6	12/22/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	

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Sample: UST2-BS2-11 (Continued)

P512008-04 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0018) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.6	12/22/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	9.3	12/22/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	9.3	12/22/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	

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Sample: UST2-BS2-11 (Continued)

P512008-04 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0018) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	35	µg/Kg	1	23	12/22/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Toluene	0.94	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.9	12/22/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.8	12/22/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	92.7%			60-140	12/22/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	92.8%			60-140	12/22/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	105%			60-140	12/22/2015	EPA 8260B	
Surrogate: Toluene-d8	99.6%			60-140	12/22/2015	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST3-BS1-14

P512008-05 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0020)

Diesel Range Organics	ND	mg/kg	1	2.50	12/23/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	92.7%			60-140	12/23/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5L0019)

Gasoline Range Organics	ND	mg/kg	1	0.189	12/22/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	90.8%			60-140	12/22/2015	EPA 8015B	

Volatile Organic Compounds (Batch ID: B5L0018)

Acetone	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.6	12/22/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.6	12/22/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.6	12/22/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.6	12/22/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	

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Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST3-BS1-14 (Continued)

P512008-05 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0018) (Continued)							
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.6	12/22/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	9.3	12/22/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	9.3	12/22/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	19	12/22/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	

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Sample: UST3-BS1-14 (Continued)

P512008-05 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5L0018) (Continued)

Styrene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	23	12/22/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.93	12/22/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.9	12/22/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.8	12/22/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	93.9%			60-140	12/22/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	92.1%			60-140	12/22/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	104%			60-140	12/22/2015	EPA 8260B	
Surrogate: Toluene-d8	99.8%			60-140	12/22/2015	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST3-BS2-14

P512008-06 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0020)

Diesel Range Organics	ND	mg/kg	1	2.50	12/23/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	97.3%			60-140	12/23/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5L0019)

Gasoline Range Organics	ND	mg/kg	1	0.192	12/22/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	90.4%			60-140	12/22/2015	EPA 8015B	

Volatile Organic Compounds (Batch ID: B5L0018)

Acetone	ND	µg/Kg	1	17	12/22/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	17	12/22/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.2	12/22/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	12/22/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.2	12/22/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.2	12/22/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.2	12/22/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	

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Sample: UST3-BS2-14 (Continued)

P512008-06 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0018) (Continued)							
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	17	12/22/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.2	12/22/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	8.5	12/22/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	12/22/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	8.5	12/22/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	17	12/22/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	

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Sample: UST3-BS2-14 (Continued)

P512008-06 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5L0018) (Continued)

Styrene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	21	12/22/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.85	12/22/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.7	12/22/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.5	12/22/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	92.5%			60-140	12/22/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	94.0%			60-140	12/22/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	107%			60-140	12/22/2015	EPA 8260B	
Surrogate: Toluene-d8	101%			60-140	12/22/2015	EPA 8260B	

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Quality Control

Diesel Range Organics (C10-C28)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0020										
Blank (B5L0020-BLK1)										
					Prepared & Analyzed: 12/22/2015					
Diesel Range Organics	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	2.22			mg/kg	2.00		111	60-140		
LCS (B5L0020-BS1)										
					Prepared: 12/22/2015 Analyzed: 12/23/2015					
Diesel	47.5		2.50	mg/kg	50.0		95.1	70-130		
Surrogate: n-Octacosane (c28)	2.29			mg/kg	2.00		115	60-140		
LCS Dup (B5L0020-BSD1)										
					Prepared & Analyzed: 12/22/2015					
Diesel	45.4		2.50	mg/kg	50.0		90.8	70-130	4.64	20
Surrogate: n-Octacosane (c28)	1.38			mg/kg	2.00		69.2	60-140		
Matrix Spike (B5L0020-MS1)										
			Source: P512009-01		Prepared: 12/22/2015 Analyzed: 12/23/2015					
Diesel	35.5		2.50	mg/kg	50.0	ND	71.0	70-130		
Surrogate: n-Octacosane (c28)	1.94			mg/kg	2.00		96.8	60-140		
Matrix Spike Dup (B5L0020-MSD1)										
			Source: P512009-01		Prepared: 12/22/2015 Analyzed: 12/23/2015					
Diesel	32.3	QM-05	2.50	mg/kg	50.0	ND	64.6	70-130	9.33	20
Surrogate: n-Octacosane (c28)	1.78			mg/kg	2.00		88.8	60-140		
Batch: B5L0021										
Blank (B5L0021-BLK1)										
					Prepared & Analyzed: 12/28/2015					
Diesel Range Organics	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.49			mg/kg	2.00		74.3	60-140		
LCS (B5L0021-BS1)										
					Prepared & Analyzed: 12/28/2015					
Diesel	41.3		2.50	mg/kg	50.0		82.6	70-130		
Surrogate: n-Octacosane (c28)	1.82			mg/kg	2.00		91.0	60-140		

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Quality Control (Continued)

Diesel Range Organics (C10-C28) (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0021 (Continued)										
LCS Dup (B5L0021-BSD1)										
Prepared & Analyzed: 12/28/2015										
Diesel	40.5		2.50	mg/kg	50.0		81.0	70-130	2.01	20
Surrogate: n-Octacosane (c28)	1.62			mg/kg	2.00		81.0	60-140		

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Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0019										
Blank (B5L0019-BLK1)										
					Prepared & Analyzed: 12/22/2015					
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.241			mg/kg	0.250		96.4	60-140		
LCS (B5L0019-BS1)										
					Prepared & Analyzed: 12/22/2015					
Gasoline	9.28		0.200	mg/kg	10.0		92.8	70-130		
Surrogate: 4-Bromofluorobenzene	0.247			mg/kg	0.250		98.8	60-140		
LCS Dup (B5L0019-BSD1)										
					Prepared & Analyzed: 12/22/2015					
Gasoline	9.22		0.200	mg/kg	10.0		92.2	70-130	0.551	20
Surrogate: 4-Bromofluorobenzene	0.244			mg/kg	0.250		97.6	60-140		

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Quality Control (Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0018										
Blank (B5L0018-BLK1)					Prepared & Analyzed: 12/22/2015					
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		20	µg/Kg						
Acrylonitrile	ND		1.0	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		1.0	µg/Kg						

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0018 (Continued)										
Blank (B5L0018-BLK1)				Prepared & Analyzed: 12/22/2015						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		1.0	µg/Kg						
Iodomethane	ND		20	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Phenanthrene	ND		1.0	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	53			µg/Kg	50.0		105	60-140		
Surrogate: 1,2-Dichloroethane-d4	55			µg/Kg	50.0		110	60-140		
Surrogate: Toluene-d8	54			µg/Kg	50.0		108	60-140		

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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

**Quality Control
(Continued)**

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5L0018 (Continued)

LCS (B5L0018-BS1)

Prepared & Analyzed: 12/22/2015

Benzene	44		1.0	µg/Kg	50.0		87.1	70-130		
Bromobenzene	46		1.0	µg/Kg	50.0		91.3	70-130		
Bromodichloromethane	50		1.0	µg/Kg	50.0		100	70-130		
Bromoform	49		1.0	µg/Kg	50.0		98.9	70-130		
Chlorobenzene	43		1.0	µg/Kg	50.0		86.1	70-130		
Chloroethane	42		5.0	µg/Kg	50.0		84.9	70-130		
Chloroform	44		1.0	µg/Kg	50.0		88.7	70-130		
4-Chlorotoluene	47		1.0	µg/Kg	50.0		93.9	70-130		
Dibromomethane	51		1.0	µg/Kg	50.0		101	70-130		
1,2-Dichlorobenzene	44		1.0	µg/Kg	50.0		88.2	70-130		
1,1-Dichloroethene	44		1.0	µg/Kg	50.0		87.1	70-130		
1,2-Dichloropropane	49		1.0	µg/Kg	50.0		97.0	70-130		
2,2-Dichloropropane	45		1.0	µg/Kg	50.0		91.0	70-130		
1,1-Dichloropropene	45		1.0	µg/Kg	50.0		90.4	70-130		
Diethyl Ether	46		1.0	µg/Kg	50.0		92.5	70-130		
Diisopropyl Ether (DIPE)	44		1.0	µg/Kg	50.0		88.8	70-130		
Ethylbenzene	45		1.0	µg/Kg	50.0		89.8	70-130		
Hexachloro-1,3-Butadiene	43		1.0	µg/Kg	50.0		86.5	70-130		
Methylene Chloride	45		10	µg/Kg	50.0		89.0	70-130		
Methyl-t-Butyl Ether (MTBE)	49		1.0	µg/Kg	50.0		97.4	70-130		
Naphthalene	42		10	µg/Kg	50.0		83.9	70-130		
Styrene	45		1.0	µg/Kg	50.0		90.4	70-130		
tert-Butylbenzene	43		1.0	µg/Kg	50.0		86.2	70-130		
Tetrachloroethene	39		1.0	µg/Kg	50.0		78.9	70-130		
Toluene	42		1.0	µg/Kg	50.0		84.9	70-130		
1,2,3-Trichlorobenzene	46		1.0	µg/Kg	50.0		91.4	70-130		
Trichloroethene	45		1.0	µg/Kg	50.0		90.0	70-130		
1,3,5-Trimethylbenzene	45		1.0	µg/Kg	50.0		89.4	70-130		
Vinyl Chloride	39		1.0	µg/Kg	50.0		78.2	70-130		
Surrogate: Dibromofluoromethane	48			µg/Kg	50.0		96.5	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		99.2	60-140		
Surrogate: 1,2-Dichloroethane-d4	49			µg/Kg	50.0		97.1	60-140		
Surrogate: Toluene-d8	47			µg/Kg	50.0		94.2	60-140		

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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0018 (Continued)										
LCS Dup (B5L0018-BSD1)				Prepared & Analyzed: 12/22/2015						
Benzene	48		1.0	µg/Kg	50.0		95.3	70-130	9.08	20
Bromobenzene	46		1.0	µg/Kg	50.0		92.9	70-130	1.76	20
Bromodichloromethane	53		1.0	µg/Kg	50.0		105	70-130	5.24	20
Bromoform	51		1.0	µg/Kg	50.0		102	70-130	3.15	20
Chlorobenzene	47		1.0	µg/Kg	50.0		94.1	70-130	8.90	20
Chloroethane	46		5.0	µg/Kg	50.0		91.8	70-130	7.77	20
Chloroform	51		1.0	µg/Kg	50.0		101	70-130	13.2	20
4-Chlorotoluene	51		1.0	µg/Kg	50.0		102	70-130	7.82	20
Dibromomethane	53		1.0	µg/Kg	50.0		106	70-130	4.48	20
1,2-Dichlorobenzene	47		1.0	µg/Kg	50.0		93.8	70-130	6.11	20
1,1-Dichloroethene	46		1.0	µg/Kg	50.0		91.5	70-130	4.99	20
1,2-Dichloropropane	48		1.0	µg/Kg	50.0		96.4	70-130	0.703	20
2,2-Dichloropropane	51		1.0	µg/Kg	50.0		101	70-130	10.5	20
1,1-Dichloropropene	47		1.0	µg/Kg	50.0		93.1	70-130	2.92	20
Diethyl Ether	50		1.0	µg/Kg	50.0		99.9	70-130	7.67	20
Diisopropyl Ether (DIPE)	47		1.0	µg/Kg	50.0		94.8	70-130	6.62	20
Ethylbenzene	47		1.0	µg/Kg	50.0		94.6	70-130	5.25	20
Hexachloro-1,3-Butadiene	45		1.0	µg/Kg	50.0		90.3	70-130	4.30	20
Methylene Chloride	48		10	µg/Kg	50.0		95.2	70-130	6.75	20
Methyl-t-Butyl Ether (MTBE)	52		1.0	µg/Kg	50.0		103	70-130	5.65	20
Naphthalene	47		10	µg/Kg	50.0		93.9	70-130	11.2	20
Styrene	47		1.0	µg/Kg	50.0		94.4	70-130	4.29	20
tert-Butylbenzene	47		1.0	µg/Kg	50.0		94.0	70-130	8.70	20
Tetrachloroethene	42		1.0	µg/Kg	50.0		85.0	70-130	7.39	20
Toluene	45		1.0	µg/Kg	50.0		90.4	70-130	6.25	20
1,2,3-Trichlorobenzene	49		1.0	µg/Kg	50.0		98.4	70-130	7.38	20
Trichloroethene	45		1.0	µg/Kg	50.0		89.2	70-130	0.893	20
1,3,5-Trimethylbenzene	48		1.0	µg/Kg	50.0		95.4	70-130	6.47	20
Vinyl Chloride	40		1.0	µg/Kg	50.0		80.2	70-130	2.55	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		97.9	60-140		
Surrogate: 1,2-Dichloroethane-d4	51			µg/Kg	50.0		101	60-140		
Surrogate: Toluene-d8	48			µg/Kg	50.0		96.7	60-140		

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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Notes and Definitions

Item	Definition
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

page 1 of 1

PAL PID: PS12008

Client Name 5/11/15						REQUESTED ANALYSES															
Project Manager Phil Skorge						TPH-G 1805B/535 TPH-D (801B) VOCs (8260B) 535															
Email Phil.Skorge@arcadis.com																					
Phone 714.588.2676																					
FAX 714.736.9345																					
Project Name/Number MTA Lac Gas																					
P.O. Number																					
Sampled By Zack Mason																					
Client Sample ID / Description		Sample Date	Sample Time	Sample Matrix*	Container																
					Quantity	Type															
1	UST 1-BS1-11	12/22/15	14:00	S	1/1	902Jus/5035	X	X	X												
2	UST 1-BS2-11		14:15				X	X	X												
3	UST 2-BS1-11		13:00				X	X	X												
4	UST 2-BS2-11		13:15				X	X	X												
5	UST 3-BS1-14		14:30				X	X	X												
6	UST 3-BS2-14		14:45				X	X	X												
7																					
8																					
9																					
10																					
PAL Containers used:						RELINQUISHED BY															
Type of Ice used:						Signature: Zack Mason				DATE: 12/22/15											
Sample Preservative:						Print: Zack Mason				TIME: 15:05											
						Company: ARCADIS															
TAT Needed (circle one)						RECEIVED BY															
STD						Signature: M Valenzuela				DATE: 12/22/15											
5 day						Print: M Valenzuela				TIME: 15:05											
24						Company: FA															
(48)																					
72																					
RUSH						RELINQUISHED BY															
						Signature:				DATE:											
						Print:				TIME:											
						Company:															
RECEIVED BY																					
Signature:										DATE:											
Print:										TIME:											
Company:																					
PAL Labeled Samples:																					
*PAL MATRIX CODES: (S= Soils); (P = Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)																					

3.8°C
(P)

Work Order ID

P512008

SAMPLE RECEIPT FORM

Cooler ID :

Client Arcadis

Date Received: Dec 22, 2015

Total # of Samples: 6

COURIER INFORMATION

☒ PALI☐ OTHER☐ FEDEX☐ CLIENT☐ UPS

Tracking #

TEMPERATURE

3.6 °C

☒ WET ICE☐ BLUE ICE☐ NO ICE☐ AMBIENT

CLIENT COC

☒ INCLUDED☒ SIGNED☐ NOT INCLUDED☐ NOT SIGNED☐ LIQUID☐ Composite at PALI, equal☐ Composite at PALI, flow-weighted☒ SOLID

SAMPLE MATRIX

☐ TISSUE☐ Homogenized☐ Unhomogenized☐ OTHER

CONDITION OF SAMPLES UPON VERIFICATION

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

Sample UST3-BS1-14 had 3 bottles labeled UST1-BS1-14 and 3 bottles labeled UST3-BS1-14. The client was notified and the samples were labeled to match the COC. Attached is the picture of the bottles as received.

M.Valenzuela

Dec 22, 2015

Initials

Date

Date

Print Form

2si smart solutions

40 Savage Rd, Charleston SC 29407
Tel: 843-763-4884 Fax: 843-766-9182
www.o2si.com

Date/Time collected: 12/22/15 / 14:30

Sample ID: UST3-BSI-14

Project Code:

Chain of Custody



642358



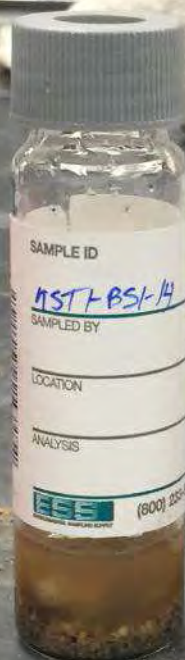
642358



642358

**Econo 5035 sample smart
Kit instructions**

- 1) Remove the caps from all vials
- 2) Immediately, with the plunger seated in the handle, push the core into the soil to be collected until the chamber is full. This is approximately 5 grams of soil.
- 3) Using the core, dispense full chamber (5 g of soil) into each vial.
- 4) Wipe dirt from threads of vials.
- 5) Tightly cap all vials.
- 6) Complete the collection information on the label provided.
- 7) Place the kit **UPRIGHT** in a cooler @ 4° C or less for shipment to lab.



November 12, 2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

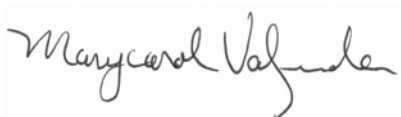
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P511006

Dear Zack Mason

Enclosed are the results of analyses for samples received by our laboratory on 11/7/2015. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US
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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P511006-01	EA-NSW1-2	Solid	11/07/2015	11/07/2015
P511006-02	EA-ESW2-2	Solid	11/07/2015	11/07/2015
P511006-03	EA-SSW3-2	Solid	11/07/2015	11/07/2015
P511006-04	EA-WSW4-3	Solid	11/07/2015	11/07/2015
P511006-05	EA-BS1-4	Solid	11/07/2015	11/07/2015
P511006-06	EA-BS2-4	Solid	11/07/2015	11/07/2015

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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Sample: EA-NSW1-2

P511006-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG1109151)

Lead	34	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	

Diesel Range Organics (C10-C28) (Batch ID: B5K0008)

Diesel Range Organics	ND	mg/kg	1	2.48	11/08/2015	EPA 8015B	

Surrogate: n-Octacosane (c28)	107%			60-140	11/08/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5K0010)

Gasoline Range Organics	ND	mg/kg	1	0.156	11/09/2015	EPA 8015B	

Surrogate: 4-Bromofluorobenzene	106%			60-140	11/09/2015	EPA 8015B	

Polynuclear Aromatic Hydrocarbons_Subcontract (Batch ID: IN1110152)

Acenaphthene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	

Acenaphthylene	<5	µg/kg	1	5	11/10/2015	EPA 8310 PAH	

Anthracene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	

Benzo (a) Anthracene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	

Benzo (a) Pyrene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	

Benzo (b) Fluoranthene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	

Benzo (g,h,i) Perylene	2.6	µg/kg	1	2	11/10/2015	EPA 8310 PAH	

Benzo (k) Fluoranthene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	

Chrysene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	

Dibenz (a,h) Anthracene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	

Fluoranthene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	

Fluorene	<10	µg/kg	1	10	11/10/2015	EPA 8310 PAH	

Indeno (1,2,3-c,d) Pyrene	2.2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	

Naphthalene	<5	µg/kg	1	5	11/10/2015	EPA 8310 PAH	

Phenanthrene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	

Pyrene	2.6	µg/kg	1	2	11/10/2015	EPA 8310 PAH	

Surrogate: Nitrobenzene-d5	65%			48-130	11/10/2015	EPA 8310 PAH	

Volatile Organic Compounds (Batch ID: B5K0009)

Acetone	ND	µg/Kg	1	18	11/09/2015	EPA 8260B	

Acetonitrile	ND	µg/Kg	1	18	11/09/2015	EPA 8260B	

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320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Sample: EA-NSW1-2 (Continued)

P511006-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0009) (Continued)							
Acrylonitrile	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Benzene	1.4	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.4	11/09/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	18	11/09/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.4	11/09/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.4	11/09/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.4	11/09/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	

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Sample: EA-NSW1-2 (Continued)

P511006-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0009) (Continued)							
1,3-Dichloropropane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	18	11/09/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.4	11/09/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	8.8	11/09/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	18	11/09/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	8.8	11/09/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	18	11/09/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	22	11/09/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Toluene	0.96	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	

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Sample: EA-NSW1-2 (Continued)

P511006-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5K0009) (Continued)

Trichloroethene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.88	11/09/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.8	11/09/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.6	11/09/2015	EPA 8260B	

Surrogate: Dibromofluoromethane	100%			60-140	11/09/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	90.8%			60-140	11/09/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	113%			60-140	11/09/2015	EPA 8260B	
Surrogate: Toluene-d8	106%			60-140	11/09/2015	EPA 8260B	

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Sample: EA-ESW2-2

P511006-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG1109151)

Lead	2.6	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	

Diesel Range Organics (C10-C28) (Batch ID: B5K0008)

Diesel Range Organics	ND	mg/kg	1	2.50	11/08/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	102%			60-140	11/08/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5K0010)

Gasoline Range Organics	ND	mg/kg	1	0.179	11/09/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	106%			60-140	11/09/2015	EPA 8015B	

Polynuclear Aromatic Hydrocarbons_Subcontract (Batch ID: IN1110152)

Acenaphthene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Acenaphthylene	<5	µg/kg	1	5	11/10/2015	EPA 8310 PAH	
Anthracene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Benzo (a) Anthracene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Benzo (a) Pyrene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Benzo (b) Fluoranthene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Benzo (g,h,i) Perylene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Benzo (k) Fluoranthene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Chrysene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Dibenz (a,h) Anthracene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Fluoranthene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Fluorene	<10	µg/kg	1	10	11/10/2015	EPA 8310 PAH	
Indeno (1,2,3-c,d) Pyrene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Naphthalene	<5	µg/kg	1	5	11/10/2015	EPA 8310 PAH	
Phenanthrene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Pyrene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Surrogate: Nitrobenzene-d5	77%			48-130	11/10/2015	EPA 8310 PAH	

Volatile Organic Compounds (Batch ID: B5K0009)

Acetone	ND	µg/Kg	1	19	11/09/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	19	11/09/2015	EPA 8260B	

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Sample: EA-ESW2-2 (Continued)

P511006-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5K0009) (Continued)

Acrylonitrile	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Benzene	1.0	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.6	11/09/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	19	11/09/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.6	11/09/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.6	11/09/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.6	11/09/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	

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Sample: EA-ESW2-2 (Continued)

P511006-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0009) (Continued)							
1,3-Dichloropropane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	19	11/09/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.6	11/09/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	9.3	11/09/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	19	11/09/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	9.3	11/09/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	19	11/09/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	23	11/09/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	

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Sample: EA-ESW2-2 (Continued)

P511006-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5K0009) (Continued)

Trichloroethene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.9	11/09/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.8	11/09/2015	EPA 8260B	

Surrogate: Dibromofluoromethane	101%			60-140	11/09/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	101%			60-140	11/09/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	123%			60-140	11/09/2015	EPA 8260B	
Surrogate: Toluene-d8	94.6%			60-140	11/09/2015	EPA 8260B	

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Project Manager: Zack Mason

Sample: EA-SSW3-2

P511006-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG1109151)

Lead	18	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	

Diesel Range Organics (C10-C28) (Batch ID: B5K0008)

Diesel Range Organics	ND	mg/kg	1	2.50	11/08/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	108%			60-140	11/08/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5K0010)

Gasoline Range Organics	ND	mg/kg	1	0.172	11/09/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	106%			60-140	11/09/2015	EPA 8015B	

Polynuclear Aromatic Hydrocarbons_Subcontract (Batch ID: IN1110152)

Acenaphthene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Acenaphthylene	<5	µg/kg	1	5	11/11/2015	EPA 8310 PAH	
Anthracene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (a) Anthracene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (a) Pyrene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (b) Fluoranthene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (g,h,i) Perylene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (k) Fluoranthene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Chrysene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Dibenz (a,h) Anthracene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Fluoranthene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Fluorene	<10	µg/kg	1	10	11/11/2015	EPA 8310 PAH	
Indeno (1,2,3-c,d) Pyrene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Naphthalene	<5	µg/kg	1	5	11/11/2015	EPA 8310 PAH	
Phenanthrene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Pyrene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Surrogate: Nitrobenzene-d5	63%			48-130	11/11/2015	EPA 8310 PAH	

Volatile Organic Compounds (Batch ID: B5K0009)

Acetone	ND	µg/Kg	1	16	11/09/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	16	11/09/2015	EPA 8260B	

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Project Manager: Zack Mason

Sample: EA-SSW3-2 (Continued)

P511006-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0009) (Continued)							
Acrylonitrile	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Benzene	1.8	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	3.9	11/09/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	16	11/09/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	3.9	11/09/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	3.9	11/09/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	3.9	11/09/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	

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Sample: EA-SSW3-2 (Continued)

P511006-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0009) (Continued)							
1,3-Dichloropropane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	16	11/09/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	3.9	11/09/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	7.8	11/09/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	16	11/09/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	7.8	11/09/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	16	11/09/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	20	11/09/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	

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Sample: EA-SSW3-2 (Continued)

P511006-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5K0009) (Continued)

Trichloroethene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.6	11/09/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.3	11/09/2015	EPA 8260B	

Surrogate: Dibromofluoromethane	96.8%			60-140	11/09/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	101%			60-140	11/09/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	121%			60-140	11/09/2015	EPA 8260B	
Surrogate: Toluene-d8	103%			60-140	11/09/2015	EPA 8260B	

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Sample: EA-WSW4-3

P511006-04 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG1109151)

Lead	3.3	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	

Diesel Range Organics (C10-C28) (Batch ID: B5K0008)

Diesel Range Organics	ND	mg/kg	1	2.48	11/08/2015	EPA 8015B	

Surrogate: n-Octacosane (c28)	94.9%			60-140	11/08/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5K0010)

Gasoline Range Organics	ND	mg/kg	1	0.159	11/09/2015	EPA 8015B	

Surrogate: 4-Bromofluorobenzene	105%			60-140	11/09/2015	EPA 8015B	

Polynuclear Aromatic Hydrocarbons_Subcontract (Batch ID: IN1110152)

Acenaphthene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Acenaphthylene	<5	µg/kg	1	5	11/11/2015	EPA 8310 PAH	
Anthracene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (a) Anthracene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (a) Pyrene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (b) Fluoranthene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (g,h,i) Perylene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (k) Fluoranthene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Chrysene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Dibenz (a,h) Anthracene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Fluoranthene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Fluorene	<10	µg/kg	1	10	11/11/2015	EPA 8310 PAH	
Indeno (1,2,3-c,d) Pyrene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Naphthalene	<5	µg/kg	1	5	11/11/2015	EPA 8310 PAH	
Phenanthrene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Pyrene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	

Surrogate: Nitrobenzene-d5	78%			48-130	11/11/2015	EPA 8310 PAH	

Volatile Organic Compounds (Batch ID: B5K0009)

Acetone	ND	µg/Kg	1	16	11/09/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	16	11/09/2015	EPA 8260B	

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Sample: EA-WSW4-3 (Continued)

P511006-04 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0009) (Continued)							
Acrylonitrile	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Benzene	2.2	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	3.9	11/09/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	16	11/09/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	3.9	11/09/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	3.9	11/09/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	3.9	11/09/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	

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Sample: EA-WSW4-3 (Continued)

P511006-04 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0009) (Continued)							
1,3-Dichloropropane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	16	11/09/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	3.9	11/09/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	7.8	11/09/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	16	11/09/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	7.8	11/09/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	16	11/09/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	20	11/09/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Toluene	1.2	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	

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Sample: EA-WSW4-3 (Continued)

P511006-04 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0009) (Continued)							
Trichloroethene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.78	11/09/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.6	11/09/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.3	11/09/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	98.5%			60-140	11/09/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	104%			60-140	11/09/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	122%			60-140	11/09/2015	EPA 8260B	
Surrogate: Toluene-d8	104%			60-140	11/09/2015	EPA 8260B	

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Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Sample: EA-BS1-4

P511006-05 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG1109151)

Lead	2.3	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	

Diesel Range Organics (C10-C28) (Batch ID: B5K0008)

Diesel Range Organics	ND	mg/kg	1	2.50	11/08/2015	EPA 8015B	

Surrogate: n-Octacosane (c28)	105%			60-140	11/08/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5K0010)

Gasoline Range Organics	ND	mg/kg	1	0.182	11/09/2015	EPA 8015B	

Surrogate: 4-Bromofluorobenzene	104%			60-140	11/09/2015	EPA 8015B	

Polynuclear Aromatic Hydrocarbons_Subcontract (Batch ID: IN1110152)

Acenaphthene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Acenaphthylene	<5	µg/kg	1	5	11/11/2015	EPA 8310 PAH	
Anthracene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (a) Anthracene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (a) Pyrene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (b) Fluoranthene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (g,h,i) Perylene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Benzo (k) Fluoranthene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Chrysene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Dibenz (a,h) Anthracene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Fluoranthene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Fluorene	<10	µg/kg	1	10	11/11/2015	EPA 8310 PAH	
Indeno (1,2,3-c,d) Pyrene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Naphthalene	<5	µg/kg	1	5	11/11/2015	EPA 8310 PAH	
Phenanthrene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	
Pyrene	<2	µg/kg	1	2	11/11/2015	EPA 8310 PAH	

Surrogate: Nitrobenzene-d5	85%			48-130	11/11/2015	EPA 8310 PAH	

Volatile Organic Compounds (Batch ID: B5K0009)

Acetone	ND	µg/Kg	1	19	11/09/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	19	11/09/2015	EPA 8260B	

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Sample: EA-BS1-4 (Continued)

P511006-05 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5K0009) (Continued)

Acrylonitrile	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.6	11/09/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	19	11/09/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.6	11/09/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.6	11/09/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.6	11/09/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	

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Sample: EA-BS1-4 (Continued)

P511006-05 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0009) (Continued)							
1,3-Dichloropropane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	19	11/09/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.6	11/09/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	9.3	11/09/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	19	11/09/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	9.3	11/09/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	19	11/09/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	23	11/09/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	

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Sample: EA-BS1-4 (Continued)

P511006-05 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5K0009) (Continued)

Trichloroethene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.93	11/09/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.9	11/09/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.8	11/09/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	111%			60-140	11/09/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	102%			60-140	11/09/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	126%			60-140	11/09/2015	EPA 8260B	
Surrogate: Toluene-d8	102%			60-140	11/09/2015	EPA 8260B	

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Sample: EA-BS2-4

P511006-06 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG1109151)

Lead	30	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	

Diesel Range Organics (C10-C28) (Batch ID: B5K0008)

Diesel Range Organics	12.6	mg/kg	1	2.48	11/08/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	100%			60-140	11/08/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5K0010)

Gasoline Range Organics	ND	mg/kg	1	0.147	11/09/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	108%			60-140	11/09/2015	EPA 8015B	

Polynuclear Aromatic Hydrocarbons_Subcontract (Batch ID: IN1110152)

Acenaphthene	<2	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Acenaphthylene	<5	µg/kg	1	5	11/10/2015	EPA 8310 PAH	
Anthracene	8.3	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Benzo (a) Anthracene	20	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Benzo (a) Pyrene	22	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Benzo (b) Fluoranthene	17	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Benzo (g,h,i) Perylene	19	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Benzo (k) Fluoranthene	13	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Chrysene	24	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Dibenz (a,h) Anthracene	2.9	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Fluoranthene	35	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Fluorene	<10	µg/kg	1	10	11/10/2015	EPA 8310 PAH	
Indeno (1,2,3-c,d) Pyrene	21	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Naphthalene	<5	µg/kg	1	5	11/10/2015	EPA 8310 PAH	
Phenanthrene	27	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Pyrene	37	µg/kg	1	2	11/10/2015	EPA 8310 PAH	
Surrogate: Nitrobenzene-d5	77%			48-130	11/10/2015	EPA 8310 PAH	

Volatile Organic Compounds (Batch ID: B5K0009)

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Sample: EA-BS2-4 (Continued)

P511006-06 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0009) (Continued)							
Acetone	ND	µg/Kg	1	15	11/09/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	15	11/09/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Benzene	3.0	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	3.7	11/09/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	15	11/09/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	3.7	11/09/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	3.7	11/09/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	3.7	11/09/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	

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Sample: EA-BS2-4 (Continued)

P511006-06 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0009) (Continued)							
t-1,2-Dichloroethene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	15	11/09/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	3.7	11/09/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	7.5	11/09/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	15	11/09/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	7.5	11/09/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	15	11/09/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	19	11/09/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Toluene	1.4	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	

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Sample: EA-BS2-4 (Continued)

P511006-06 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5K0009) (Continued)

1,1,1-Trichloroethane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.75	11/09/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.5	11/09/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.2	11/09/2015	EPA 8260B	

Surrogate: Dibromofluoromethane	98.5%			60-140	11/09/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	99.5%			60-140	11/09/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	120%			60-140	11/09/2015	EPA 8260B	
Surrogate: Toluene-d8	102%			60-140	11/09/2015	EPA 8260B	

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Quality Control

CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG1109151										
BLK (SG1109151 BLK)										
Lead	<0.5		0.5	mg/kg				-		
Prepared & Analyzed: 11/09/2015										
BS (SG1109151 BS)										
Lead	21.2			mg/kg	20		106	80-120	1	20
Prepared & Analyzed: 11/09/2015										
BSD (SG1109151 BSD)										
Lead	20.9			mg/kg	20		104	80-120	1	20
Prepared & Analyzed: 11/09/2015										
MS (SG1109151 MS)										
Lead	171	M3	Source: 20285-001	mg/kg	20	120	255	75-125	21	20
Prepared & Analyzed: 11/09/2015										
MSD (SG1109151 MSD)										
Lead	139	M3	Source: 20285-001	mg/kg	20	120	95	75-125	21	20
Prepared & Analyzed: 11/09/2015										

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Quality Control (Continued)

Diesel Range Organics (C10-C28)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0008										
Blank (B5K0008-BLK1)					Prepared: 11/07/2015 Analyzed: 11/08/2015					
Diesel Range Organics	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.98			mg/kg	2.00		98.8	60-140		
LCS (B5K0008-BS1)					Prepared & Analyzed: 11/07/2015					
Diesel	39.2		2.50	mg/kg	50.0		78.3	70-130		
Diesel	ND		2.50	mg/kg				70-130		
Surrogate: n-Octacosane (c28)	1.88			mg/kg	2.00		94.0	60-140		
Surrogate: n-Octacosane (c28)	0.00			mg/kg	2.00			60-140		
LCS Dup (B5K0008-BSD2)					Prepared: 11/07/2015 Analyzed: 11/12/2015					
Diesel	ND		2.50	mg/kg				70-130		20
Diesel	42.9		2.50	mg/kg	50.0		85.9	70-130	9.18	20
Surrogate: n-Octacosane (c28)	1.90			mg/kg	2.00		94.9	60-140		
Surrogate: n-Octacosane (c28)	0.00			mg/kg	2.00			60-140		
Matrix Spike (B5K0008-MS1)					Source: P511005-01		Prepared: 11/07/2015 Analyzed: 11/08/2015			
Diesel	58.6		2.48	mg/kg	49.5	22.0	73.9	70-130		
Surrogate: n-Octacosane (c28)	2.58			mg/kg	1.98		130	60-140		
Matrix Spike Dup (B5K0008-MSD1)					Source: P511005-01		Prepared: 11/07/2015 Analyzed: 11/08/2015			
Diesel	45.7	QM-01	2.50	mg/kg	50.0	22.0	47.4	70-130	24.8	20
Surrogate: n-Octacosane (c28)	2.22			mg/kg	2.00		111	60-140		

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Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0010										
Blank (B5K0010-BLK1)										
					Prepared & Analyzed: 11/09/2015					
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.262			mg/kg	0.250		105	60-140		
LCS (B5K0010-BS1)										
					Prepared & Analyzed: 11/09/2015					
Gasoline	8.75		0.200	mg/kg	10.0		87.5	70-130		
Surrogate: 4-Bromofluorobenzene	0.264			mg/kg	0.250		106	60-140		
LCS Dup (B5K0010-BSD1)										
					Prepared & Analyzed: 11/09/2015					
Gasoline	8.53		0.200	mg/kg	10.0		85.3	70-130	2.57	20
Surrogate: 4-Bromofluorobenzene	0.260			mg/kg	0.250		104	60-140		
Matrix Spike (B5K0010-MS1)										
			Source: P511005-02		Prepared & Analyzed: 11/09/2015					
Gasoline	7.61		0.200	mg/kg	10.0	ND	76.1	70-130		
Surrogate: 4-Bromofluorobenzene	0.275			mg/kg	0.250		110	60-140		
Matrix Spike Dup (B5K0010-MSD1)										
			Source: P511005-02		Prepared & Analyzed: 11/09/2015					
Gasoline	7.62		0.200	mg/kg	10.0	ND	76.2	70-130	0.118	20
Surrogate: 4-Bromofluorobenzene	0.269			mg/kg	0.250		108	60-140		

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Quality Control (Continued)

Polynuclear Aromatic Hydrocarbons_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: IN1110152										
BLK (IN1110152 BLK)				Prepared & Analyzed: 11/10/2015						
Acenaphthene	<2		2	µg/kg				-		
Acenaphthylene	<5		5	µg/kg				-		
Anthracene	<2		2	µg/kg				-		
Benzo (a) Anthracene	<2		2	µg/kg				-		
Benzo (a) Pyrene	<2		2	µg/kg				-		
Benzo (b) Fluoranthene	<2		2	µg/kg				-		
Benzo (g,h,i) Perylene	<2		2	µg/kg				-		
Benzo (k) Fluoranthene	<2		2	µg/kg				-		
Chrysene	<2		2	µg/kg				-		
Dibenz (a,h) Anthracene	<2		2	µg/kg				-		
Fluoranthene	<2		2	µg/kg				-		
Fluorene	<10		10	µg/kg				-		
Indeno (1,2,3-c,d) Pyrene	<2		2	µg/kg				-		
Naphthalene	<5		5	µg/kg				-		
Phenanthrene	<2		2	µg/kg				-		
Pyrene	<2		2	µg/kg				-		
Surrogate: Nitrobenzene-d5	ND			µg/kg			79	48-130		
BS (IN1110152 BS)										
				Prepared & Analyzed: 11/10/2015						
Acenaphthene	21.9			µg/kg	25		88	70-130	5	21
Anthracene	21.8			µg/kg	25		87	66-130	3	20
Benzo (a) Pyrene	22.1			µg/kg	25		88	57-130	2	21
Chrysene	21.3			µg/kg	25		85	70-130	0	20
Pyrene	21.5			µg/kg	25		86	70-130	3	20
Surrogate: Nitrobenzene-d5	ND			µg/kg			87	48-130		
BSD (IN1110152 BSD)										
				Prepared & Analyzed: 11/10/2015						
Acenaphthene	23			µg/kg	25		92	70-130	5	21
Anthracene	22.4			µg/kg	25		90	66-130	3	20
Benzo (a) Pyrene	22.6			µg/kg	25		90	57-130	2	21
Chrysene	21.4			µg/kg	25		86	70-130	0	20
Pyrene	22.1			µg/kg	25		88	70-130	3	20
Surrogate: Nitrobenzene-d5	ND			µg/kg			84	48-130		

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Quality Control
(Continued)

Polynuclear Aromatic Hydrocarbons_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: IN1110152 (Continued)										
MS (IN1110152 MS)			Source: P511006-06		Prepared & Analyzed: 11/10/2015					
Acenaphthene	21.8			µg/kg	25	0	87	64-136	10	22
Anthracene	26.1			µg/kg	25	8.3	71	65-130	3	20
Benzo (a) Pyrene	45.7			µg/kg	25	22	95	56-130	12	20
Chrysene	41.9			µg/kg	25	24	72	69-130	15	20
Pyrene	60	R2		µg/kg	25	37	92	64-130	29	20
Surrogate: Nitrobenzene-d5	ND			µg/kg			76	48-130		
MSD (IN1110152 MSD)			Source: P511006-06		Prepared & Analyzed: 11/10/2015					
Acenaphthene	19.7			µg/kg	25	0	79	64-136	10	22
Anthracene	27			µg/kg	25	8.3	75	65-130	3	20
Benzo (a) Pyrene	51.3			µg/kg	25	22	117	56-130	12	20
Chrysene	48.9			µg/kg	25	24	100	69-130	15	20
Pyrene	80.7	M1, R2		µg/kg	25	37	175	64-130	29	20
Surrogate: Nitrobenzene-d5	ND			µg/kg			71	48-130		

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Quality Control (Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0009										
Blank (B5K0009-BLK1)					Prepared & Analyzed: 11/09/2015					
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		20	µg/Kg						
Acrylonitrile	ND		1.0	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		1.0	µg/Kg						

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Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5K0009 (Continued)

Blank (B5K0009-BLK1)

Prepared & Analyzed: 11/09/2015

Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		1.0	µg/Kg						
Iodomethane	ND		20	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Phenanthrene	ND		1.0	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	48			µg/Kg	50.0		96.3	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		99.9	60-140		
Surrogate: 1,2-Dichloroethane-d4	56			µg/Kg	50.0		112	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.5	60-140		

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Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5K0009 (Continued)

LCS (B5K0009-BS1)

Prepared & Analyzed: 11/09/2015

Benzene	47		1.0	µg/Kg	50.0		94.9	70-130		
Bromobenzene	46		1.0	µg/Kg	50.0		92.3	70-130		
Bromodichloromethane	48		1.0	µg/Kg	50.0		95.4	70-130		
Bromoform	46		1.0	µg/Kg	50.0		92.2	70-130		
Chlorobenzene	48		1.0	µg/Kg	50.0		95.1	70-130		
Chloroethane	44		5.0	µg/Kg	50.0		87.7	70-130		
Chloroform	48		1.0	µg/Kg	50.0		96.1	70-130		
4-Chlorotoluene	48		1.0	µg/Kg	50.0		95.7	70-130		
Dibromomethane	51		1.0	µg/Kg	50.0		102	70-130		
1,2-Dichlorobenzene	45		1.0	µg/Kg	50.0		90.4	70-130		
1,1-Dichloroethene	52		1.0	µg/Kg	50.0		104	70-130		
1,2-Dichloropropane	46		1.0	µg/Kg	50.0		92.6	70-130		
2,2-Dichloropropane	54		1.0	µg/Kg	50.0		109	70-130		
1,1-Dichloropropene	51		1.0	µg/Kg	50.0		101	70-130		
Diethyl Ether	47		1.0	µg/Kg	50.0		94.5	70-130		
Diisopropyl Ether (DIPE)	45		1.0	µg/Kg	50.0		89.4	70-130		
Ethylbenzene	48		1.0	µg/Kg	50.0		95.3	70-130		
Hexachloro-1,3-Butadiene	44		1.0	µg/Kg	50.0		87.0	70-130		
Methylene Chloride	47		10	µg/Kg	50.0		95.0	70-130		
Methyl-t-Butyl Ether (MTBE)	51		1.0	µg/Kg	50.0		102	70-130		
Naphthalene	44		10	µg/Kg	50.0		88.0	70-130		
Styrene	47		1.0	µg/Kg	50.0		93.7	70-130		
tert-Butylbenzene	46		1.0	µg/Kg	50.0		92.9	70-130		
Tetrachloroethene	45		1.0	µg/Kg	50.0		90.1	70-130		
Toluene	47		1.0	µg/Kg	50.0		94.4	70-130		
1,2,3-Trichlorobenzene	44		1.0	µg/Kg	50.0		88.9	70-130		
Trichloroethene	50		1.0	µg/Kg	50.0		99.6	70-130		
1,3,5-Trimethylbenzene	49		1.0	µg/Kg	50.0		97.0	70-130		
Vinyl Chloride	50		1.0	µg/Kg	50.0		101	70-130		
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		99.2	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	54			µg/Kg	50.0		109	60-140		
Surrogate: Toluene-d8	51			µg/Kg	50.0		101	60-140		

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Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0009 (Continued)										
LCS Dup (B5K0009-BSD1)				Prepared & Analyzed: 11/09/2015						
Benzene	46		1.0	µg/Kg	50.0		92.7	70-130	2.30	20
Bromobenzene	46		1.0	µg/Kg	50.0		91.0	70-130	1.42	20
Bromodichloromethane	48		1.0	µg/Kg	50.0		96.3	70-130	0.918	20
Bromoform	47		1.0	µg/Kg	50.0		93.2	70-130	1.04	20
Chlorobenzene	46		1.0	µg/Kg	50.0		92.9	70-130	2.36	20
Chloroethane	41		5.0	µg/Kg	50.0		82.5	70-130	6.11	20
Chloroform	47		1.0	µg/Kg	50.0		93.8	70-130	2.42	20
4-Chlorotoluene	47		1.0	µg/Kg	50.0		94.5	70-130	1.24	20
Dibromomethane	49		1.0	µg/Kg	50.0		97.4	70-130	4.75	20
1,2-Dichlorobenzene	45		1.0	µg/Kg	50.0		89.6	70-130	0.844	20
1,1-Dichloroethene	48		1.0	µg/Kg	50.0		96.4	70-130	7.68	20
1,2-Dichloropropane	46		1.0	µg/Kg	50.0		91.3	70-130	1.41	20
2,2-Dichloropropane	51		1.0	µg/Kg	50.0		102	70-130	6.07	20
1,1-Dichloropropene	49		1.0	µg/Kg	50.0		97.5	70-130	3.98	20
Diethyl Ether	47		1.0	µg/Kg	50.0		93.5	70-130	1.11	20
Diisopropyl Ether (DIPE)	45		1.0	µg/Kg	50.0		89.2	70-130	0.179	20
Ethylbenzene	46		1.0	µg/Kg	50.0		92.4	70-130	3.07	20
Hexachloro-1,3-Butadiene	43		1.0	µg/Kg	50.0		86.3	70-130	0.808	20
Methylene Chloride	47		10	µg/Kg	50.0		94.1	70-130	0.889	20
Methyl-t-Butyl Ether (MTBE)	51		1.0	µg/Kg	50.0		102	70-130	0.314	20
Naphthalene	42		10	µg/Kg	50.0		83.8	70-130	4.91	20
Styrene	45		1.0	µg/Kg	50.0		90.7	70-130	3.23	20
tert-Butylbenzene	47		1.0	µg/Kg	50.0		94.1	70-130	1.20	20
Tetrachloroethene	45		1.0	µg/Kg	50.0		90.0	70-130	0.0444	20
Toluene	46		1.0	µg/Kg	50.0		92.5	70-130	2.06	20
1,2,3-Trichlorobenzene	43		1.0	µg/Kg	50.0		86.1	70-130	3.18	20
Trichloroethene	48		1.0	µg/Kg	50.0		96.5	70-130	3.16	20
1,3,5-Trimethylbenzene	48		1.0	µg/Kg	50.0		95.6	70-130	1.47	20
Vinyl Chloride	48		1.0	µg/Kg	50.0		95.6	70-130	5.15	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		101	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		100	60-140		
Surrogate: 1,2-Dichloroethane-d4	55			µg/Kg	50.0		109	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		100	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0009 (Continued)										
Matrix Spike (B5K0009-MS1)			Source: P511005-02		Prepared & Analyzed: 11/09/2015					
Benzene	48		1.0	µg/Kg	50.0	ND	96.7	70-130		
Bromobenzene	43		1.0	µg/Kg	50.0	ND	85.9	70-130		
Bromodichloromethane	48		1.0	µg/Kg	50.0	ND	96.6	70-130		
Bromoform	45		1.0	µg/Kg	50.0	ND	89.8	70-130		
Chlorobenzene	44		1.0	µg/Kg	50.0	ND	87.9	70-130		
Chloroethane	46		5.0	µg/Kg	50.0	ND	91.8	70-130		
Chloroform	52		1.0	µg/Kg	50.0	ND	103	70-130		
4-Chlorotoluene	43		1.0	µg/Kg	50.0	ND	86.7	70-130		
Dibromomethane	53		1.0	µg/Kg	50.0	ND	105	70-130		
1,2-Dichlorobenzene	40		1.0	µg/Kg	50.0	ND	79.8	70-130		
1,1-Dichloroethene	54		1.0	µg/Kg	50.0	ND	109	70-130		
1,2-Dichloropropane	46		1.0	µg/Kg	50.0	ND	92.5	70-130		
2,2-Dichloropropane	55		1.0	µg/Kg	50.0	ND	109	70-130		
1,1-Dichloropropene	50		1.0	µg/Kg	50.0	ND	100	70-130		
Diethyl Ether	53		1.0	µg/Kg	50.0	ND	106	70-130		
Diisopropyl Ether (DIPE)	50		1.0	µg/Kg	50.0	ND	99.8	70-130		
Ethylbenzene	44		1.0	µg/Kg	50.0	ND	88.4	70-130		
Hexachloro-1,3-Butadiene	32	QM-05	1.0	µg/Kg	50.0	ND	63.1	70-130		
Methylene Chloride	51		10	µg/Kg	50.0	ND	101	70-130		
Methyl-t-Butyl Ether (MTBE)	57		1.0	µg/Kg	50.0	ND	115	70-130		
Naphthalene	36		10	µg/Kg	50.0	0.23	71.3	70-130		
Styrene	42		1.0	µg/Kg	50.0	ND	84.7	70-130		
tert-Butylbenzene	41		1.0	µg/Kg	50.0	ND	81.2	70-130		
Tetrachloroethene	42		1.0	µg/Kg	50.0	ND	83.6	70-130		
Toluene	47		1.0	µg/Kg	50.0	0.29	93.2	70-130		
1,2,3-Trichlorobenzene	36		1.0	µg/Kg	50.0	ND	71.1	70-130		
Trichloroethene	48		1.0	µg/Kg	50.0	ND	95.8	70-130		
1,3,5-Trimethylbenzene	44		1.0	µg/Kg	50.0	ND	88.2	70-130		
Vinyl Chloride	51		1.0	µg/Kg	50.0	ND	103	70-130		
Surrogate: Dibromofluoromethane	55			µg/Kg	50.0		110	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		103	60-140		
Surrogate: 1,2-Dichloroethane-d4	57			µg/Kg	50.0		115	60-140		
Surrogate: Toluene-d8	54			µg/Kg	50.0		107	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0009 (Continued)										
Matrix Spike Dup (B5K0009-MSD1)			Source: P511005-02		Prepared & Analyzed: 11/09/2015					
Benzene	45		1.0	µg/Kg	50.0	ND	90.1	70-130	7.02	20
Bromobenzene	42		1.0	µg/Kg	50.0	ND	84.1	70-130	2.02	20
Bromodichloromethane	47		1.0	µg/Kg	50.0	ND	94.8	70-130	1.88	20
Bromoform	44		1.0	µg/Kg	50.0	ND	88.7	70-130	1.28	20
Chlorobenzene	43		1.0	µg/Kg	50.0	ND	85.3	70-130	2.98	20
Chloroethane	42		5.0	µg/Kg	50.0	ND	83.6	70-130	9.33	20
Chloroform	47		1.0	µg/Kg	50.0	ND	93.5	70-130	9.74	20
4-Chlorotoluene	42		1.0	µg/Kg	50.0	ND	84.8	70-130	2.12	20
Dibromomethane	51		1.0	µg/Kg	50.0	ND	102	70-130	3.44	20
1,2-Dichlorobenzene	39		1.0	µg/Kg	50.0	ND	78.7	70-130	1.39	20
1,1-Dichloroethene	49		1.0	µg/Kg	50.0	ND	98.7	70-130	9.46	20
1,2-Dichloropropane	46		1.0	µg/Kg	50.0	ND	91.7	70-130	0.782	20
2,2-Dichloropropane	50		1.0	µg/Kg	50.0	ND	99.2	70-130	9.80	20
1,1-Dichloropropene	47		1.0	µg/Kg	50.0	ND	94.4	70-130	6.08	20
Diethyl Ether	45		1.0	µg/Kg	50.0	ND	90.3	70-130	16.0	20
Diisopropyl Ether (DIPE)	45		1.0	µg/Kg	50.0	ND	90.5	70-130	9.84	20
Ethylbenzene	43		1.0	µg/Kg	50.0	ND	86.4	70-130	2.31	20
Hexachloro-1,3-Butadiene	32	QM-05	1.0	µg/Kg	50.0	ND	64.4	70-130	1.95	20
Methylene Chloride	46		10	µg/Kg	50.0	ND	91.5	70-130	10.3	20
Methyl-t-Butyl Ether (MTBE)	53		1.0	µg/Kg	50.0	ND	106	70-130	7.63	20
Naphthalene	34	QM-05	10	µg/Kg	50.0	0.23	68.5	70-130	3.98	20
Styrene	42		1.0	µg/Kg	50.0	ND	84.6	70-130	0.0709	20
tert-Butylbenzene	42		1.0	µg/Kg	50.0	ND	83.6	70-130	2.86	20
Tetrachloroethene	43		1.0	µg/Kg	50.0	ND	85.7	70-130	2.48	20
Toluene	45		1.0	µg/Kg	50.0	0.29	89.5	70-130	4.05	20
1,2,3-Trichlorobenzene	34	QM-05	1.0	µg/Kg	50.0	ND	68.8	70-130	3.20	20
Trichloroethene	46		1.0	µg/Kg	50.0	ND	92.0	70-130	4.00	20
1,3,5-Trimethylbenzene	43		1.0	µg/Kg	50.0	ND	86.8	70-130	1.55	20
Vinyl Chloride	47		1.0	µg/Kg	50.0	ND	93.1	70-130	9.96	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		101	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		98.2	60-140		
Surrogate: 1,2-Dichloroethane-d4	56			µg/Kg	50.0		112	60-140		
Surrogate: Toluene-d8	52			µg/Kg	50.0		103	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Notes and Definitions

Item	Definition
R2	[Undefined]
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to spike level. The associated blank spike recovery was acceptable.
QM-01	The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
R2	RPD/RSD exceeded the laboratory acceptance limit.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL PID: P511006

Client Name 5/11/15 Project Manager Email Phone FAX Project Name/Number P.O. Number Sampled By ARCADIS Phil Skorge Phil.Skorge@arcadis.com 714.508.2676 714.730.9345 MTA Loc 615 Zack Mason				TPH-G (8015B/5035) TPH-D (8015B) PAHs (8270C) VOCs (8260/5035) Lead (6010B)																	
Client Sample ID / Description		Sample Date	Sample Time	Sample Matrix*	Container																
					Quantity	Type															
1	EA-NSW1-2	11/7/15	12:20	S	1/1	8oz./5035	X	X	X	X	X										
2	EA-ESW2-2		13:35				X	X	X	X	X										
3	EA-SSW3-2		12:40				X	X	X	X	X										
4	EA-WSW4-3		13:20				X	X	X	X	X										
5	EA-BS1-4		13:10				X	X	X	X	X										
6	EA-BS2-4		12:50				X	X	X	X	X										
7																					
8																					
9																					
10																					

PAL Containers used: Yes No Type of Ice used: Wet Blue None Sample Preservative: Yes No				RELINQUISHED BY Signature: <i>Zack Mason</i> Print: <i>Zack Mason</i> Company: <i>ARCADIS</i> DATE: <i>11/7/15</i> TIME: <i>14:30</i>			
TAT Needed (circle one) STD 5 day 24 RUSH 48 72 				RECEIVED BY Signature: <i>M Volenzweber</i> Print: <i>M Volenzweber</i> Company: <i>PAL</i> DATE: <i>11/7/15</i> TIME: <i>14:30</i>			
EDD Required - Circle one: Type of EDD: Yes No				RELINQUISHED BY Signature: Print: Company: DATE: TIME:			
PAL Labeled Samples:				RECEIVED BY Signature: Print: Company: DATE: TIME:			

*PAL MATRIX CODES: (S= Soils); (P= Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)

3 days TAT

Work Order ID: P511006

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Orange Coast Analytical, Inc
3002 Dow Ave., Suite 532
Tustin, CA 92780
Phone: (714) 832-0064
Fax: .

Analysis	Due	Comments
Sample ID: P511006-01 Matrix: Solid Sampled: 11/07/2015 12:20		
S_PAH 8310	11/10/2015 14:00	
S_Metals 6010B Individual Ele:	11/10/2015 14:00	Lead
Containers Supplied:		
Glass Jar, 4 oz (F)		
Sample ID: P511006-02 Matrix: Solid Sampled: 11/07/2015 13:35		
S_PAH 8310	11/10/2015 14:00	
S_Metals 6010B Individual Ele:	11/10/2015 14:00	Lead
Containers Supplied:		
Glass Jar, 4 oz (F)		
Sample ID: P511006-03 Matrix: Solid Sampled: 11/07/2015 12:40		
S_PAH 8310	11/10/2015 14:00	
S_Metals 6010B Individual Ele:	11/10/2015 14:00	Lead
Containers Supplied:		
Glass Jar, 4 oz (F)		
Sample ID: P511006-04 Matrix: Solid Sampled: 11/07/2015 13:20		
S_PAH 8310	11/10/2015 14:00	
S_Metals 6010B Individual Ele:	11/10/2015 14:00	Lead
Containers Supplied:		
Glass Jar, 4 oz (F)		
Sample ID: P511006-05 Matrix: Solid Sampled: 11/07/2015 13:10		
S_PAH 8310	11/10/2015 14:00	
S_Metals 6010B Individual Ele:	11/10/2015 14:00	Lead
Containers Supplied:		
Glass Jar, 4 oz (F)		

M Valenzuela 11/9/15 10:44 Mark Gorman 0LA, CA 11-9-15 1044 on ice 25°C

Released By Date Time Received By Date Time

Work Order ID: P511006

Analysis	Due	Comments
Sample ID: P511006-06 Matrix: Solid Sampled: 11/07/2015 12:50		
S_PAH 8310	11/10/2015 14:00	
S_Metals 6010B Individual Ele	11/10/2015 14:00	Lead
Containers Supplied:		
Glass Jar, 4 oz (F)		

<i>M. Vazquez</i>	11/9/15	10:44	<i>Mark Moran</i>	11-9-15	1044	2015
Released By	Date	Time	Received By	Date	Time	Time
						2015

Work Order ID

P511006

SAMPLE RECEIPT FORM

Cooler ID :

Client

Arcadis

Date Received:

11/7/15

Total # of Samples:

6

COURIER INFORMATION☒ PALI☐ OTHER☐ FEDEX☐ CLIENT☐ UPS

Tracking #

TEMPERATURE

6.1 °C

☒ WET ICE☐ BLUE ICE☐ NO ICE☐ AMBIENT**CLIENT COC**☒ INCLUDED☒ SIGNED☐ NOT INCLUDED☐ NOT SIGNED☐ LIQUID☐ Composite at PALI, equal☐ Composite at PALI, flow-weighted☒ SOLID**SAMPLE MATRIX**☐ TISSUE☐ Homogenized☐ Unhomogenized☐ OTHER**CONDITION OF SAMPLES UPON VERIFICATION**

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

M.Valenzuela

Initials

Nov 7, 2015

Date

Initials

Date

Print Form

December 14, 2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

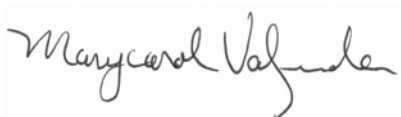
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P512002

Dear Zack Mason

Enclosed are the results of analyses for samples received by our laboratory on 12/10/2015. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P512002-01	HOIST1-BS-7	Solid	12/10/2015	12/10/2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Sample: HOIST1-BS-7

P512002-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0009)

Diesel Range Organics	ND	mg/kg	1	2.50	12/11/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	76.9%			60-140	12/11/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5L0008)

Gasoline Range Organics	ND	mg/kg	1	0.200	12/10/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	93.2%			60-140	12/10/2015	EPA 8015B	

Mercury_Subcontract (Batch ID: SL1210154)

Mercury	ND	mg/kg	1	0.1	12/14/2015	EPA 7471 Mercury	

Metal_Single Element_Subcontract (Batch ID: SL1211151)

Antimony	ND	mg/kg	1	1	12/14/2015	EPA 6010B	
Arsenic	2.9	mg/kg	1	0.5	12/14/2015	EPA 6010B	
Barium	76	mg/kg	1	0.5	12/14/2015	EPA 6010B	
Beryllium	ND	mg/kg	1	0.5	12/14/2015	EPA 6010B	
Cadmium	0.33	mg/kg	1	0.2	12/14/2015	EPA 6010B	
Chromium	8.9	mg/kg	1	0.5	12/14/2015	EPA 6010B	
Cobalt	10	mg/kg	1	0.5	12/14/2015	EPA 6010B	
Copper	11	mg/kg	1	2	12/14/2015	EPA 6010B	
Lead	2.7	mg/kg	1	0.5	12/14/2015	EPA 6010B	
Molybdenum	ND	mg/kg	1	1	12/14/2015	EPA 6010B	
Nickel	7.1	mg/kg	1	0.5	12/14/2015	EPA 6010B	
Selenium	ND	mg/kg	1	1	12/14/2015	EPA 6010B	
Silver	ND	mg/kg	1	0.5	12/14/2015	EPA 6010B	
Thallium	ND	mg/kg	1	2	12/14/2015	EPA 6010B	
Vanadium	27	mg/kg	1	0.5	12/14/2015	EPA 6010B	
Zinc	35	mg/kg	1	2	12/14/2015	EPA 6010B	

Volatile Organic Compounds (Batch ID: B5L0007)

Acetone	ND	µg/Kg	1	20	12/10/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	20	12/10/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	

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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Sample: HOIST1-BS-7 (Continued)

P512002-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0007) (Continued)							
Allyl Chloride	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	5.0	12/10/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	12/10/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	5.0	12/10/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	5.0	12/10/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	5.0	12/10/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	

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Sample: HOIST1-BS-7 (Continued)

P512002-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0007) (Continued)							
2,2-Dichloropropane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	20	12/10/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	5.0	12/10/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	10	12/10/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	12/10/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	10	12/10/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	20	12/10/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25	12/10/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	

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Sample: HOIST1-BS-7 (Continued)

P512002-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5L0007) (Continued)

Trichlorofluoromethane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	1.0	12/10/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	2.0	12/10/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	3.0	12/10/2015	EPA 8260B	

Surrogate: Dibromofluoromethane	100%			60-140	12/10/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	98.9%			60-140	12/10/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	102%			60-140	12/10/2015	EPA 8260B	
Surrogate: Toluene-d8	105%			60-140	12/10/2015	EPA 8260B	

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Quality Control

Diesel Range Organics (C10-C28)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0009										
Blank (B5L0009-BLK1)					Prepared & Analyzed: 12/11/2015					
Diesel Range Organics	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.45			mg/kg	2.00		72.5	60-140		
LCS (B5L0009-BS1)					Prepared & Analyzed: 12/11/2015					
Diesel	41.5		2.50	mg/kg	50.0		83.0	70-130		
Surrogate: n-Octacosane (c28)	1.47			mg/kg	2.00		73.5	60-140		
LCS Dup (B5L0009-BSD1)					Prepared & Analyzed: 12/11/2015					
Diesel	43.7		2.50	mg/kg	50.0		87.3	70-130	5.07	20
Surrogate: n-Octacosane (c28)	1.50			mg/kg	2.00		75.1	60-140		
Matrix Spike (B5L0009-MS1)					Prepared & Analyzed: 12/11/2015					
Diesel	49.0		2.50	mg/kg	50.0	2.19	93.6	70-130		
Surrogate: n-Octacosane (c28)	1.60			mg/kg	2.00		80.0	60-140		
Matrix Spike Dup (B5L0009-MSD1)					Prepared & Analyzed: 12/11/2015					
Diesel	47.2		2.50	mg/kg	50.0	2.19	89.9	70-130	3.81	20
Surrogate: n-Octacosane (c28)	1.50			mg/kg	2.00		74.9	60-140		

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Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0008										
Blank (B5L0008-BLK1)				Prepared & Analyzed: 12/10/2015						
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.238			mg/kg	0.250		95.2	60-140		
LCS (B5L0008-BS1)				Prepared & Analyzed: 12/10/2015						
Gasoline	9.28		0.200	mg/kg	10.0		92.8	70-130		
Surrogate: 4-Bromofluorobenzene	0.248			mg/kg	0.250		99.2	60-140		
LCS Dup (B5L0008-BSD1)				Prepared & Analyzed: 12/10/2015						
Gasoline	9.08		0.200	mg/kg	10.0		90.8	70-130	2.21	20
Surrogate: 4-Bromofluorobenzene	0.233			mg/kg	0.250		93.2	60-140		
Matrix Spike (B5L0008-MS1)				Source: P512002-01		Prepared & Analyzed: 12/10/2015				
Gasoline	9.20		0.200	mg/kg	10.0	0.0330	91.6	70-130		
Surrogate: 4-Bromofluorobenzene	0.249			mg/kg	0.250		99.6	60-140		
Matrix Spike Dup (B5L0008-MSD1)				Source: P512002-01		Prepared & Analyzed: 12/10/2015				
Gasoline	8.75		0.200	mg/kg	10.0	0.0330	87.2	70-130	4.98	20
Surrogate: 4-Bromofluorobenzene	0.251			mg/kg	0.250		100	60-140		

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Quality Control (Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SL1210154										
BLK (SL1210154 BLK)										
Mercury	ND		0.1	mg/kg				-		
Prepared: 12/10/2015 Analyzed: 12/14/2015										
BS (SL1210154 BS)										
Mercury	0.857			mg/kg	1		86	80-120	6	20
Prepared: 12/10/2015 Analyzed: 12/14/2015										
BSD (SL1210154 BSD)										
Mercury	0.81			mg/kg	1		81	80-120	6	20
Prepared: 12/10/2015 Analyzed: 12/14/2015										
MS (SL1210154 MS)										
Mercury	0.752	M2	Source: 20350-001	mg/kg	1	0	75	80-120	5	20
Prepared: 12/10/2015 Analyzed: 12/14/2015										
MSD (SL1210154 MSD)										
Mercury	0.794	M2	Source: 20350-001	mg/kg	1	0	79	80-120	5	20
Prepared: 12/10/2015 Analyzed: 12/14/2015										

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Quality Control (Continued)

Metal_Single Element_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SL1211151

BLK (SL1211151 BLK)

Prepared & Analyzed: 12/11/2015

Antimony	ND		1	mg/kg				-		
Arsenic	ND		0.5	mg/kg				-		
Barium	ND		0.5	mg/kg				-		
Beryllium	ND		0.5	mg/kg				-		
Cadmium	ND		0.2	mg/kg				-		
Chromium	ND		0.5	mg/kg				-		
Cobalt	ND		0.5	mg/kg				-		
Copper	ND		2	mg/kg				-		
Lead	ND		0.5	mg/kg				-		
Molybdenum	ND		1	mg/kg				-		
Nickel	ND		0.5	mg/kg				-		
Selenium	ND		1	mg/kg				-		
Silver	ND		0.5	mg/kg				-		
Thallium	ND		2	mg/kg				-		
Vanadium	ND		0.5	mg/kg				-		
Zinc	ND		2	mg/kg				-		

BS (SL1211151 BS)

Prepared & Analyzed: 12/11/2015

Antimony	20.6			mg/kg	20		103	80-120	1	20
Arsenic	20			mg/kg	20		100	80-120	1	20
Barium	20.3			mg/kg	20		101	80-120	1	20
Beryllium	19.2			mg/kg	20		96	80-120	3	20
Cadmium	19.4			mg/kg	20		97	80-120	2	20
Chromium	19.5			mg/kg	20		98	80-120	3	20
Cobalt	19.1			mg/kg	20		96	80-120	2	20
Copper	21.6			mg/kg	20		108	80-120	2	20
Lead	20.3			mg/kg	20		101	80-120	1	20
Molybdenum	21.2			mg/kg	20		106	80-120	4	20
Nickel	20.1			mg/kg	20		100	80-120	3	20
Selenium	19.3			mg/kg	20		96	80-120	0	20
Silver	19.6			mg/kg	20		98	80-120	3	20
Thallium	18.9			mg/kg	20		94	80-120	1	20
Vanadium	19.5			mg/kg	20		98	80-120	3	20
Zinc	22.5			mg/kg	20		112	80-120	3	20

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Quality Control
(Continued)

Metal_Single Element_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SL1211151 (Continued)

BSD (SL1211151 BSD)

Prepared & Analyzed: 12/11/2015

Antimony	20.9			mg/kg	20		104	80-120	1	20
Arsenic	20.2			mg/kg	20		101	80-120	1	20
Barium	20.6			mg/kg	20		103	80-120	1	20
Beryllium	19.7			mg/kg	20		99	80-120	3	20
Cadmium	19.8			mg/kg	20		99	80-120	2	20
Chromium	20.1			mg/kg	20		100	80-120	3	20
Cobalt	19.4			mg/kg	20		97	80-120	2	20
Copper	22.1			mg/kg	20		111	80-120	2	20
Lead	20.6			mg/kg	20		103	80-120	1	20
Molybdenum	20.4			mg/kg	20		102	80-120	4	20
Nickel	20.7			mg/kg	20		104	80-120	3	20
Selenium	19.3			mg/kg	20		96	80-120	0	20
Silver	20.1			mg/kg	20		100	80-120	3	20
Thallium	19.1			mg/kg	20		96	80-120	1	20
Vanadium	20			mg/kg	20		100	80-120	3	20
Zinc	23.2			mg/kg	20		116	80-120	3	20

MS (SL1211151 MS)

Source: 20380-001

Prepared & Analyzed: 12/11/2015

Antimony	3.76	M2		mg/kg	20	0	19	75-125	3	20
Arsenic	24.8			mg/kg	20	4.7	100	75-125	1	20
Barium	154			mg/kg	20	130	120	75-125	2	20
Beryllium	19.5			mg/kg	20	0	98	75-125	1	20
Cadmium	20.6			mg/kg	20	0.65	100	75-125	0	20
Chromium	37.7			mg/kg	20	16	109	75-125	4	20
Cobalt	28.2			mg/kg	20	11	86	75-125	1	20
Copper	50.4	M3		mg/kg	20	23	137	75-125	8	20
Lead	99.8	M3		mg/kg	20	27	364	75-125	43	20
Molybdenum	18.4			mg/kg	20	0	92	75-125	1	20
Nickel	31.6			mg/kg	20	12	98	75-125	1	20
Selenium	20.8			mg/kg	20	0	104	75-125	2	20
Silver	19.8			mg/kg	20	0	99	75-125	1	20
Thallium	18.4			mg/kg	20	0	92	75-125	2	20
Vanadium	61.2			mg/kg	20	41	101	75-125	1	20
Zinc	189	M3		mg/kg	20	99	450	75-125	27	20

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Quality Control (Continued)

Metal_Single Element_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SL1211151 (Continued)

MSD (SL1211151 MSD)

Source: 20380-001

Prepared & Analyzed: 12/11/2015

Antimony	3.86	M2		mg/kg	20	0	19	75-125	3	20
Arsenic	24.6			mg/kg	20	4.7	100	75-125	1	20
Barium	151			mg/kg	20	130	105	75-125	2	20
Beryllium	19.7			mg/kg	20	0	99	75-125	1	20
Cadmium	20.6			mg/kg	20	0.65	100	75-125	0	20
Chromium	36.4			mg/kg	20	16	102	75-125	4	20
Cobalt	27.9			mg/kg	20	11	84	75-125	1	20
Copper	46.3	M3		mg/kg	20	23	116	75-125	8	20
Lead	64.8	M3		mg/kg	20	27	189	75-125	43	20
Molybdenum	18.3			mg/kg	20	0	91	75-125	1	20
Nickel	31.4			mg/kg	20	12	97	75-125	1	20
Selenium	20.4			mg/kg	20	0	102	75-125	2	20
Silver	19.6			mg/kg	20	0	98	75-125	1	20
Thallium	18.7			mg/kg	20	0	94	75-125	2	20
Vanadium	61.7			mg/kg	20	41	104	75-125	1	20
Zinc	144	M3		mg/kg	20	99	225	75-125	27	20

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Quality Control (Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0007										
Blank (B5L0007-BLK1)					Prepared & Analyzed: 12/10/2015					
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		20	µg/Kg						
Acrylonitrile	ND		1.0	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		1.0	µg/Kg						

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5L0007 (Continued)

Blank (B5L0007-BLK1)

Prepared & Analyzed: 12/10/2015

Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		1.0	µg/Kg						
Iodomethane	ND		20	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Phenanthrene	ND		1.0	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	49			µg/Kg	50.0		98.4	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		98.0	60-140		
Surrogate: 1,2-Dichloroethane-d4	51			µg/Kg	50.0		102	60-140		
Surrogate: Toluene-d8	54			µg/Kg	50.0		108	60-140		

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Project: LA Metro S61 - LA 8.2015
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Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5L0007 (Continued)

LCS (B5L0007-BS1)

Prepared & Analyzed: 12/10/2015

Benzene	51		1.0	µg/Kg	50.0		102	70-130		
Bromobenzene	50		1.0	µg/Kg	50.0		99.8	70-130		
Bromodichloromethane	49		1.0	µg/Kg	50.0		98.7	70-130		
Bromoform	55		1.0	µg/Kg	50.0		110	70-130		
Chlorobenzene	52		1.0	µg/Kg	50.0		103	70-130		
Chloroethane	48		5.0	µg/Kg	50.0		95.8	70-130		
Chloroform	50		1.0	µg/Kg	50.0		101	70-130		
4-Chlorotoluene	55		1.0	µg/Kg	50.0		110	70-130		
Dibromomethane	52		1.0	µg/Kg	50.0		103	70-130		
1,2-Dichlorobenzene	51		1.0	µg/Kg	50.0		103	70-130		
1,1-Dichloroethene	47		1.0	µg/Kg	50.0		94.2	70-130		
1,2-Dichloropropane	49		1.0	µg/Kg	50.0		97.1	70-130		
2,2-Dichloropropane	52		1.0	µg/Kg	50.0		103	70-130		
1,1-Dichloropropene	50		1.0	µg/Kg	50.0		99.2	70-130		
Diethyl Ether	49		1.0	µg/Kg	50.0		98.7	70-130		
Diisopropyl Ether (DIPE)	47		1.0	µg/Kg	50.0		94.1	70-130		
Ethylbenzene	52		1.0	µg/Kg	50.0		104	70-130		
Hexachloro-1,3-Butadiene	49		1.0	µg/Kg	50.0		98.8	70-130		
Methylene Chloride	48		10	µg/Kg	50.0		95.8	70-130		
Methyl-t-Butyl Ether (MTBE)	51		1.0	µg/Kg	50.0		102	70-130		
Naphthalene	49		10	µg/Kg	50.0		97.3	70-130		
Styrene	51		1.0	µg/Kg	50.0		101	70-130		
tert-Butylbenzene	50		1.0	µg/Kg	50.0		99.3	70-130		
Tetrachloroethene	47		1.0	µg/Kg	50.0		93.4	70-130		
Toluene	51		1.0	µg/Kg	50.0		101	70-130		
1,2,3-Trichlorobenzene	51		1.0	µg/Kg	50.0		102	70-130		
Trichloroethene	49		1.0	µg/Kg	50.0		97.1	70-130		
1,3,5-Trimethylbenzene	52		1.0	µg/Kg	50.0		103	70-130		
Vinyl Chloride	44		1.0	µg/Kg	50.0		88.5	70-130		
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		100	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	49			µg/Kg	50.0		97.9	60-140		
Surrogate: Toluene-d8	48			µg/Kg	50.0		95.2	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
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Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0007 (Continued)										
LCS Dup (B5L0007-BSD1)										
Prepared & Analyzed: 12/10/2015										
Benzene	48		1.0	µg/Kg	50.0		96.1	70-130	6.09	20
Bromobenzene	45		1.0	µg/Kg	50.0		90.8	70-130	9.42	20
Bromodichloromethane	48		1.0	µg/Kg	50.0		96.6	70-130	2.11	20
Bromoform	50		1.0	µg/Kg	50.0		99.0	70-130	10.9	20
Chlorobenzene	46		1.0	µg/Kg	50.0		91.6	70-130	11.8	20
Chloroethane	46		5.0	µg/Kg	50.0		91.9	70-130	4.24	20
Chloroform	50		1.0	µg/Kg	50.0		99.1	70-130	1.88	20
4-Chlorotoluene	48		1.0	µg/Kg	50.0		95.6	70-130	14.1	20
Dibromomethane	49		1.0	µg/Kg	50.0		97.8	70-130	5.63	20
1,2-Dichlorobenzene	45		1.0	µg/Kg	50.0		89.1	70-130	14.1	20
1,1-Dichloroethene	46		1.0	µg/Kg	50.0		91.4	70-130	2.95	20
1,2-Dichloropropane	46		1.0	µg/Kg	50.0		93.0	70-130	4.40	20
2,2-Dichloropropane	49		1.0	µg/Kg	50.0		99.0	70-130	4.39	20
1,1-Dichloropropene	47		1.0	µg/Kg	50.0		93.4	70-130	6.02	20
Diethyl Ether	47		1.0	µg/Kg	50.0		93.7	70-130	5.24	20
Diisopropyl Ether (DIPE)	45		1.0	µg/Kg	50.0		90.0	70-130	4.48	20
Ethylbenzene	47		1.0	µg/Kg	50.0		94.1	70-130	9.55	20
Hexachloro-1,3-Butadiene	45		1.0	µg/Kg	50.0		89.1	70-130	10.3	20
Methylene Chloride	46		10	µg/Kg	50.0		91.2	70-130	4.88	20
Methyl-t-Butyl Ether (MTBE)	49		1.0	µg/Kg	50.0		97.4	70-130	4.10	20
Naphthalene	46		10	µg/Kg	50.0		91.7	70-130	5.90	20
Styrene	46		1.0	µg/Kg	50.0		91.8	70-130	9.56	20
tert-Butylbenzene	42		1.0	µg/Kg	50.0		84.6	70-130	16.0	20
Tetrachloroethene	44		1.0	µg/Kg	50.0		87.5	70-130	6.50	20
Toluene	48		1.0	µg/Kg	50.0		95.3	70-130	5.99	20
1,2,3-Trichlorobenzene	47		1.0	µg/Kg	50.0		94.9	70-130	7.05	20
Trichloroethene	45		1.0	µg/Kg	50.0		90.0	70-130	7.61	20
1,3,5-Trimethylbenzene	46		1.0	µg/Kg	50.0		91.4	70-130	12.1	20
Vinyl Chloride	42		1.0	µg/Kg	50.0		83.5	70-130	5.84	20
Surrogate: Dibromofluoromethane	52			µg/Kg	50.0		104	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		98.7	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		101	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		98.9	60-140		

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Project: LA Metro S61 - LA 8.2015
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Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0007 (Continued)										
Matrix Spike (B5L0007-MS1)			Source: P512002-01		Prepared & Analyzed: 12/10/2015					
Benzene	47		1.0	µg/Kg	50.0	ND	94.5	70-130		
Bromobenzene	46		1.0	µg/Kg	50.0	ND	91.3	70-130		
Bromodichloromethane	46		1.0	µg/Kg	50.0	ND	91.2	70-130		
Bromoform	49		1.0	µg/Kg	50.0	ND	97.9	70-130		
Chlorobenzene	46		1.0	µg/Kg	50.0	ND	92.5	70-130		
Chloroethane	43		5.0	µg/Kg	50.0	ND	86.6	70-130		
Chloroform	47		1.0	µg/Kg	50.0	ND	95.0	70-130		
4-Chlorotoluene	48		1.0	µg/Kg	50.0	ND	96.5	70-130		
Dibromomethane	49		1.0	µg/Kg	50.0	ND	97.1	70-130		
1,2-Dichlorobenzene	45		1.0	µg/Kg	50.0	ND	90.5	70-130		
1,1-Dichloroethene	43		1.0	µg/Kg	50.0	ND	85.2	70-130		
1,2-Dichloropropane	46		1.0	µg/Kg	50.0	ND	92.3	70-130		
2,2-Dichloropropane	45		1.0	µg/Kg	50.0	ND	90.8	70-130		
1,1-Dichloropropene	45		1.0	µg/Kg	50.0	ND	89.5	70-130		
Diethyl Ether	46		1.0	µg/Kg	50.0	ND	91.8	70-130		
Diisopropyl Ether (DIPE)	44		1.0	µg/Kg	50.0	ND	88.1	70-130		
Ethylbenzene	47		1.0	µg/Kg	50.0	ND	94.0	70-130		
Hexachloro-1,3-Butadiene	40		1.0	µg/Kg	50.0	ND	80.1	70-130		
Methylene Chloride	44		10	µg/Kg	50.0	0.37	88.0	70-130		
Methyl-t-Butyl Ether (MTBE)	47		1.0	µg/Kg	50.0	ND	93.6	70-130		
Naphthalene	37		10	µg/Kg	50.0	0.32	73.8	70-130		
Styrene	46		1.0	µg/Kg	50.0	ND	91.0	70-130		
tert-Butylbenzene	44		1.0	µg/Kg	50.0	ND	87.5	70-130		
Tetrachloroethene	52		1.0	µg/Kg	50.0	ND	105	70-130		
Toluene	45		1.0	µg/Kg	50.0	0.24	89.6	70-130		
1,2,3-Trichlorobenzene	41		1.0	µg/Kg	50.0	ND	81.8	70-130		
Trichloroethene	44		1.0	µg/Kg	50.0	ND	87.8	70-130		
1,3,5-Trimethylbenzene	46		1.0	µg/Kg	50.0	ND	91.4	70-130		
Vinyl Chloride	40		1.0	µg/Kg	50.0	ND	80.0	70-130		
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		101	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		98.6	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		99.6	60-140		
Surrogate: Toluene-d8	48			µg/Kg	50.0		96.7	60-140		

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Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0007 (Continued)										
Matrix Spike Dup (B5L0007-MSD1)			Source: P512002-01		Prepared & Analyzed: 12/10/2015					
Benzene	50		1.0	µg/Kg	50.0	ND	101	70-130	6.27	20
Bromobenzene	44		1.0	µg/Kg	50.0	ND	88.9	70-130	2.66	20
Bromodichloromethane	52		1.0	µg/Kg	50.0	ND	105	70-130	14.0	20
Bromoform	47		1.0	µg/Kg	50.0	ND	94.2	70-130	3.81	20
Chlorobenzene	45		1.0	µg/Kg	50.0	ND	90.2	70-130	2.47	20
Chloroethane	49		5.0	µg/Kg	50.0	ND	98.0	70-130	12.4	20
Chloroform	52		1.0	µg/Kg	50.0	ND	105	70-130	9.76	20
4-Chlorotoluene	47		1.0	µg/Kg	50.0	ND	93.8	70-130	2.84	20
Dibromomethane	51		1.0	µg/Kg	50.0	ND	103	70-130	5.62	20
1,2-Dichlorobenzene	43		1.0	µg/Kg	50.0	ND	86.6	70-130	4.43	20
1,1-Dichloroethene	48		1.0	µg/Kg	50.0	ND	96.1	70-130	12.0	20
1,2-Dichloropropane	48		1.0	µg/Kg	50.0	ND	95.8	70-130	3.72	20
2,2-Dichloropropane	51		1.0	µg/Kg	50.0	ND	102	70-130	11.1	20
1,1-Dichloropropene	50		1.0	µg/Kg	50.0	ND	99.8	70-130	10.9	20
Diethyl Ether	45		1.0	µg/Kg	50.0	ND	89.8	70-130	2.16	20
Diisopropyl Ether (DIPE)	49		1.0	µg/Kg	50.0	ND	98.2	70-130	10.8	20
Ethylbenzene	46		1.0	µg/Kg	50.0	ND	93.0	70-130	1.09	20
Hexachloro-1,3-Butadiene	40		1.0	µg/Kg	50.0	ND	80.9	70-130	1.09	20
Methylene Chloride	49		10	µg/Kg	50.0	0.37	97.2	70-130	9.90	20
Methyl-t-Butyl Ether (MTBE)	52		1.0	µg/Kg	50.0	ND	104	70-130	10.4	20
Naphthalene	42		10	µg/Kg	50.0	0.32	82.6	70-130	11.1	20
Styrene	45		1.0	µg/Kg	50.0	ND	89.8	70-130	1.33	20
tert-Butylbenzene	43		1.0	µg/Kg	50.0	ND	86.0	70-130	1.82	20
Tetrachloroethene	55		1.0	µg/Kg	50.0	ND	111	70-130	5.30	20
Toluene	52		1.0	µg/Kg	50.0	0.24	104	70-130	15.2	20
1,2,3-Trichlorobenzene	44		1.0	µg/Kg	50.0	ND	87.6	70-130	6.80	20
Trichloroethene	48		1.0	µg/Kg	50.0	ND	95.3	70-130	8.26	20
1,3,5-Trimethylbenzene	46		1.0	µg/Kg	50.0	ND	91.3	70-130	0.175	20
Vinyl Chloride	45		1.0	µg/Kg	50.0	ND	89.3	70-130	10.9	20
Surrogate: Dibromofluoromethane	57			µg/Kg	50.0		113	60-140		
Surrogate: 4-Bromofluorobenzene	48			µg/Kg	50.0		96.6	60-140		
Surrogate: 1,2-Dichloroethane-d4	56			µg/Kg	50.0		111	60-140		
Surrogate: Toluene-d8	57			µg/Kg	50.0		115	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Notes and Definitions

Item	Definition
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to spike level. The associated blank spike recovery was acceptable.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL PID: P512002

Client Name 5/11/15 ARCADIS				REQUESTED ANALYSES																			
Project Manager Phil Skorge				TPH-G TPH-D VOCs (B260B) Metals (6061)																			
Email Phil.Skorge@arcadis.com																							
Phone 714.508.2676																							
FAX 714.730.9345																							
Project Name/Number MTA Loc 615																							
P.O. Number																							
Sampled By Zack Mason																							
Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container																			
				Quantity	Type																		
1 HOIST1-B5-7	12/10/15	12:50	J	1	8 oz-Jar	X	X	X	X														
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
PAL Containers used:		☒ Yes	☐ No																				
Type of Ice used:		☒ Wet	☐ Blue	☐ None																			
Sample Preservative:		☐ Yes	☒ No																				
TAT Needed (circle one)		STD		RUSH																			
		5 day		48		72																	
EDD Required - Circle one:		☐ Yes		☐ No																			
Type of EDD:																							
PAL Labeled Samples: _____				RELINQUISHED BY																			
				Signature: Zack Mason												DATE: 12/10/15							
				Print: Zack Mason												TIME: 13:10							
				Company: ARCADIS																			
				RECEIVED BY																			
				Signature: M. Venzuela												DATE: 12/10/15							
				Print: M. Venzuela												TIME: 13:10							
				Company: PAL																			
				RELINQUISHED BY																			
				Signature:												DATE:							
				Print:												TIME:							
				Company:																			
RECEIVED BY																							
Signature:												DATE:											
Print:												TIME:											
Company:																							

*PAL MATRIX CODES: (S= Soils); (P= Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)

Work Order ID

P512002

SAMPLE RECEIPT FORM

Cooler ID :

Client Arcadis

Date Received: Dec 10, 2015

Total # of Samples: 1

COURIER INFORMATION☒ PALI☐ OTHER☐ FEDEX☐ CLIENT☐ UPS

Tracking #

TEMPERATURE

3

°C

☒ WET ICE☐ BLUE ICE☐ NO ICE☐ AMBIENT**CLIENT COC**☒ INCLUDED☒ SIGNED☐ NOT INCLUDED☐ NOT SIGNED☐ LIQUID☐ Composite at PALI, equal☐ Composite at PALI, flow-weighted☒ SOLID☐ OTHER☐ TISSUE☐ Homogenized☐ Unhomogenized**CONDITION OF SAMPLES UPON VERIFICATION**

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

M.Valenzuela

12/10/2015

Initials

Date

Initials

Date

Print Form

20376

Work Order ID: P512002

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Orange Coast Analytical, Inc
3002 Dow Ave., Suite 532
Tustin, CA 92780
Phone: (714) 832-0064
Fax: .

Analysis	Due	Comments
Sample ID: P512002-01 Matrix: Solid Sampled: 12/10/2015 12:50		
S_Metals 6010B Title 22	12/14/2015 14:00	
S_Mercury 7471	12/14/2015 14:00	
<i>Containers Supplied:</i> Glass Jar, 4 oz (B)		

Released By	Date	Time	Received By	Date	Time
<i>M. Valenzuela</i>	12/10/15	15:25	<i>OCA</i>	12/10/15	15:25
Released By	Date	Time	Received By	Date	Time

Sample Receipt Report

Laboratory Reference **PAL 20376**

Logged in by **MM**

Received: 12/10/15 15:25 Company Name: Performance Analytical Laboratories, I
Method of Shipment: Hand Delivered Project Manager: Ms. Marycarol Valenzuela
Shipping Container: Cooler Project Name: P512002
Shipping Containers: 1 Project #: _____

Sample Quantity
1 Solid

Chain of Custody	Complete ☒	Incomplete ☐	None ☐
Samples On Ice	Yes, Wet ☒	Yes, Blue ☐	No ☐
Temperature	<u>3°C</u>		
Shipping Intact	Yes ☐	N/A ☒	No ☐
Shipping Custody Seals Intact	Yes ☐	N/A ☒	No ☐
Samples Intact	Yes ☒		No ☐
Sample Custody Seals Intact	Yes ☐	N/A ☒	No ☐
Custody Seals Signed & Dated	Yes ☐	N/A ☒	No ☐
Proper Test Containers	Yes ☒		No ☐
Proper Test Preservations	Yes ☒		No ☐
Samples Within Hold Times	Yes ☒		No ☐
VOAs Have Zero Headspace	Yes ☐	N/A ☒	No ☐
Sample Labels	Complete ☒	Incomplete ☐	None ☐
Sample Information Matches COC	Yes ☒	N/A ☐	No ☐

Notes

Client Notified _____ By _____ On _____

November 10, 2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

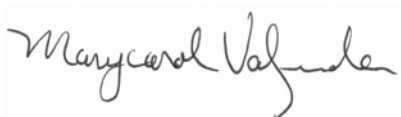
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P511004

Dear Lawrence Browne

Enclosed are the results of analyses for samples received by our laboratory on 11/6/2015. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US

320 Commerce, Suite 200

Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015

Project Number: LA Metro S61 - LA 8.2015

Project Manager: Lawrence Browne

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Lawrence Browne

Sample: EB-NSW1-1

P511004-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG1109151)

Cadmium	0.39	mg/kg	1	0.2	11/09/2015	EPA 6010B Metals	
Lead	3.7	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	

Sample: EB-ESW2-1

P511004-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG1109151)

Cadmium	1.5	mg/kg	1	0.2	11/09/2015	EPA 6010B Metals	
Lead	340	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	

Sample: EB-ESW3-3

P511004-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG1109151)

Cadmium	0.29	mg/kg	1	0.2	11/09/2015	EPA 6010B Metals	
Lead	2.5	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	

Sample: EB-SSW4-3

P511004-04 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG1109151)

Cadmium	0.50	mg/kg	1	0.2	11/09/2015	EPA 6010B Metals	
Lead	4.7	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Lawrence Browne

Sample: EB-WSW5-3

P511004-05 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG1109151)

Cadmium	0.48	mg/kg	1	0.2	11/09/2015	EPA 6010B Metals	
Lead	3.7	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	

Sample: EB-WSW6-1

P511004-06 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG1109151)

Cadmium	0.51	mg/kg	1	0.2	11/09/2015	EPA 6010B Metals	
Lead	4.4	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	

Sample: EB-BS1-2

P511004-07 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG1109151)

Cadmium	0.27	mg/kg	1	0.2	11/09/2015	EPA 6010B Metals	
Lead	3.6	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	

Sample: EB-BS2-2

P511004-08 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG1109151)

Cadmium	0.25	mg/kg	1	0.2	11/09/2015	EPA 6010B Metals	
Lead	1.8	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Lawrence Browne

Sample: EB-BS3-6

P511004-09 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG1109151)

Cadmium	0.29	mg/kg	1	0.2	11/09/2015	EPA 6010B Metals	
Lead	2.3	mg/kg	1	0.5	11/09/2015	EPA 6010B Metals	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Lawrence Browne

Quality Control

CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG1109151										
BLK (SG1109151 BLK)				Prepared & Analyzed: 11/09/2015						
Cadmium	<0.2		0.2	mg/kg				-		
Lead	<0.5		0.5	mg/kg				-		
BS (SG1109151 BS)				Prepared & Analyzed: 11/09/2015						
Cadmium	20.7			mg/kg	20		104	80-120	1	20
Lead	21.2			mg/kg	20		106	80-120	1	20
BSD (SG1109151 BSD)				Prepared & Analyzed: 11/09/2015						
Cadmium	20.5			mg/kg	20		102	80-120	1	20
Lead	20.9			mg/kg	20		104	80-120	1	20
MS (SG1109151 MS)				Source: 20285-001		Prepared & Analyzed: 11/09/2015				
Cadmium	21.1			mg/kg	20	0.81	101	75-125	0	20
Lead	171	M3		mg/kg	20	124	235	75-125	21	20
MSD (SG1109151 MSD)				Source: 20285-001		Prepared & Analyzed: 11/09/2015				
Cadmium	21.2			mg/kg	20	0.81	102	75-125	0	20
Lead	139	M3		mg/kg	20	124	75	75-125	21	20

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Lawrence Browne

Notes and Definitions

Item	Definition
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to spike level. The associated blank spike recovery was acceptable.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

page / of

PAL PID: PS11004

[illegible]

Work Order ID

P511004

SAMPLE RECEIPT FORM

Cooler ID :

Client

Arcadis

Date Received:

11/6/15

Total # of Samples:

9

COURIER INFORMATION☒ PALI☐ OTHER☐ FEDEX☐ CLIENT☐ UPS

Tracking #

TEMPERATURE

1.7 °C

☒ WET ICE☐ BLUE ICE☐ NO ICE☐ AMBIENT**CLIENT COC**☒ INCLUDED☒ SIGNED☐ NOT INCLUDED☐ NOT SIGNED☐ LIQUID☐ Composite at PALI, equal☐ Composite at PALI, flow-weighted☒ SOLID**SAMPLE MATRIX**☐ TISSUE☐ Homogenized☐ Unhomogenized☐ OTHER**CONDITION OF SAMPLES UPON VERIFICATION**

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

Initials

Date

Initials

Date

Print Form

December 28, 2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

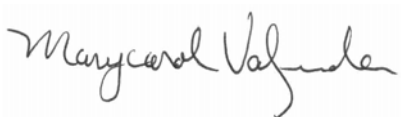
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P512006

Dear Phil Skorge

Enclosed are the results of analyses for samples received by our laboratory on 12/20/2015. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P512006-01	EC-SP1-NS	Solid	12/19/2015	12/20/2015
P512006-02	EC-SP2-NS	Solid	12/19/2015	12/20/2015
P512006-03	EC-SP3-NS	Solid	12/19/2015	12/20/2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: EC-SP1-NS

P512006-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: SG1221152)							
Antimony	<1.0	mg/kg	1	1	12/22/2015	EPA 6010B	
Arsenic	4.0	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Barium	98	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Beryllium	<0.50	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Cadmium	0.32	mg/kg	1	0.2	12/22/2015	EPA 6010B	
Chromium	13	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Cobalt	8.4	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Copper	14	mg/kg	1	2	12/22/2015	EPA 6010B	
Lead	7.1	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Molybdenum	<1.0	mg/kg	1	1	12/22/2015	EPA 6010B	
Nickel	9.6	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Selenium	<1.0	mg/kg	1	1	12/22/2015	EPA 6010B	
Silver	<0.50	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Thallium	<2.0	mg/kg	1	2	12/22/2015	EPA 6010B	
Vanadium	37	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Zinc	50	mg/kg	1	2	12/22/2015	EPA 6010B	

Diesel Range Organics (C10-C28) (Batch ID: B5L0017)

Diesel Range Organics	1960	mg/kg	2	25.0	12/23/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	183%			60-140	12/23/2015	EPA 8015B	S-03

Gasoline Range Organics (C6-C10) (Batch ID: B5L0013)

Gasoline Range Organics	0.483	mg/kg	1	0.200	12/21/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	83.2%			60-140	12/21/2015	EPA 8015B	

Mercury_Subcontract (Batch ID: SG1221156)

Mercury	0.12	mg/kg	1	0.1	12/22/2015	EPA 7471 Mercury	

Oil Range Organics (C23-C32) (Batch ID: B5L0017)

Oil Range Organics (R)	2660	mg/kg	10	250	12/23/2015	EPA 8015B-M	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: EC-SP1-NS (Continued)
P512006-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Oil Range Organics (C23-C32) (Batch ID: B5L0017) (Continued)

Surrogate: n-Octacosane (c28) (R)	169%			60-140	12/23/2015	EPA 8015B-M	S-03

Volatile Organic Compounds (Batch ID: B5L0014)

Acetone	ND	µg/Kg	1	100	12/21/2015	EPA 8260B	X
Acetonitrile	ND	µg/Kg	1	100	12/21/2015	EPA 8260B	X
Acrylonitrile	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Allyl Chloride	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Benzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Bromobenzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Bromochloromethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Bromodichloromethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Bromoform	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Bromomethane	ND	µg/Kg	1	25	12/21/2015	EPA 8260B	X
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	100	12/21/2015	EPA 8260B	X
n-Butylbenzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Carbon Disulfide	ND	µg/Kg	1	25	12/21/2015	EPA 8260B	X
Carbon Tetrachloride	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Chlorobenzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Chloroethane	ND	µg/Kg	1	25	12/21/2015	EPA 8260B	X
Chloroform	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Chloromethane	ND	µg/Kg	1	25	12/21/2015	EPA 8260B	X
Chloroprene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
2-Chlorotoluene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
4-Chlorotoluene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Dibromochloromethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Dibromomethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,2-Dichlorobenzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,3-Dichlorobenzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,4-Dichlorobenzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,1-Dichloroethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: EC-SP1-NS (Continued)

P512006-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0014) (Continued)							
1,2-Dichloroethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,1-Dichloroethene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
c-1,2-Dichloroethene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
c-1,3-Dichloropropene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
t-1,2-Dichloroethene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,2-Dichloropropane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,3-Dichloropropane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
2,2-Dichloropropane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,1-Dichloropropene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
t-1,3-Dichloropropene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Diethyl Ether	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Ethylbenzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Ethyl Methacrylate	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
2-Hexanone	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Iodomethane	ND	µg/Kg	1	100	12/21/2015	EPA 8260B	X
Isopropylbenzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
p-Isopropyltoluene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Methacrylonitrile	ND	µg/Kg	1	25	12/21/2015	EPA 8260B	X
Methylene Chloride	ND	µg/Kg	1	50	12/21/2015	EPA 8260B	X
Methyl Methacrylate	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
4-Methyl-2-Pentanone	ND	µg/Kg	1	100	12/21/2015	EPA 8260B	X
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Naphthalene	ND	µg/Kg	1	50	12/21/2015	EPA 8260B	X
Phenanthrene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Propionitrile	ND	µg/Kg	1	100	12/21/2015	EPA 8260B	X
n-Propylbenzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
sec-Butylbenzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Styrene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	120	12/21/2015	EPA 8260B	X
tert-Butylbenzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: EC-SP1-NS (Continued)

P512006-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0014) (Continued)							
Tetrachloroethene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Toluene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,2,3-Trichlorobenzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,2,4-Trichlorobenzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,1,1-Trichloroethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,1,2-Trichloroethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Trichloroethene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Trichlorofluoromethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,2,3-Trichloropropane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,2,4-Trimethylbenzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
1,3,5-Trimethylbenzene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
Vinyl Chloride	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
o-Xylene	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	X
p/m-Xylene	ND	µg/Kg	1	10	12/21/2015	EPA 8260B	X
Total Xylenes	ND	µg/Kg	1	15	12/21/2015	EPA 8260B	X
Surrogate: Dibromofluoromethane	98.4%			60-140	12/21/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	102%			60-140	12/21/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	105%			60-140	12/21/2015	EPA 8260B	
Surrogate: Toluene-d8	110%			60-140	12/21/2015	EPA 8260B	

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Project Manager: Phil Skorge

Sample: EC-SP2-NS

P512006-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: SG1221152)							
Antimony	<1.0	mg/kg	1	1	12/22/2015	EPA 6010B	
Arsenic	4.0	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Barium	100	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Beryllium	<0.50	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Cadmium	0.38	mg/kg	1	0.2	12/22/2015	EPA 6010B	
Chromium	14	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Cobalt	9.3	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Copper	16	mg/kg	1	2	12/22/2015	EPA 6010B	
Lead	12	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Molybdenum	<1.0	mg/kg	1	1	12/22/2015	EPA 6010B	
Nickel	10	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Selenium	<1.0	mg/kg	1	1	12/22/2015	EPA 6010B	
Silver	<0.50	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Thallium	<2.0	mg/kg	1	2	12/22/2015	EPA 6010B	
Vanadium	38	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Zinc	59	mg/kg	1	2	12/22/2015	EPA 6010B	

Diesel Range Organics (C10-C28) (Batch ID: B5L0017)

Diesel Range Organics	155	mg/kg	1	3.75	12/23/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	40.7%			60-140	12/23/2015	EPA 8015B	S-03

Gasoline Range Organics (C6-C10) (Batch ID: B5L0013)

Gasoline Range Organics	ND	mg/kg	1	0.200	12/21/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	95.2%			60-140	12/21/2015	EPA 8015B	

Mercury_Subcontract (Batch ID: SG1221156)

Mercury	<0.10	mg/kg	1	0.1	12/22/2015	EPA 7471 Mercury	

Oil Range Organics (C23-C32) (Batch ID: B5L0017)

Oil Range Organics (R)	1090	mg/kg	5	37.5	12/23/2015	EPA 8015B-M	
Surrogate: n-Octacosane (c28) (R)	90.3%			60-140	12/23/2015	EPA 8015B-M	

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Sample: EC-SP2-NS (Continued)

P512006-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5L0014)

Acetone	ND	µg/Kg	1	20	12/21/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	20	12/21/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	12/21/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	

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Sample: EC-SP2-NS (Continued)
P512006-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0014) (Continued)							
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	20	12/21/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	10	12/21/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	12/21/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	10	12/21/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	20	12/21/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25	12/21/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	

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Sample: EC-SP2-NS (Continued)

P512006-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0014) (Continued)							
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	2.0	12/21/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	3.0	12/21/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	85.5%			60-140	12/21/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	95.3%			60-140	12/21/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	99.1%			60-140	12/21/2015	EPA 8260B	
Surrogate: Toluene-d8	100%			60-140	12/21/2015	EPA 8260B	

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Sample: EC-SP3-NS

P512006-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: SG1221152)							
Antimony	<1.0	mg/kg	1	1	12/22/2015	EPA 6010B	
Arsenic	3.5	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Barium	130	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Beryllium	<0.50	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Cadmium	0.72	mg/kg	1	0.2	12/22/2015	EPA 6010B	
Chromium	14	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Cobalt	7.6	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Copper	20	mg/kg	1	2	12/22/2015	EPA 6010B	
Lead	58	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Molybdenum	<1.0	mg/kg	1	1	12/22/2015	EPA 6010B	
Nickel	9.1	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Selenium	<1.0	mg/kg	1	1	12/22/2015	EPA 6010B	
Silver	<0.50	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Thallium	<2.0	mg/kg	1	2	12/22/2015	EPA 6010B	
Vanadium	32	mg/kg	1	0.5	12/22/2015	EPA 6010B	
Zinc	130	mg/kg	1	2	12/22/2015	EPA 6010B	

Diesel Range Organics (C10-C28) (Batch ID: B5L0017)

Diesel Range Organics	174	mg/kg	1	3.75	12/23/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	76.5%			60-140	12/23/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5L0013)

Gasoline Range Organics	ND	mg/kg	1	0.200	12/21/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	92.4%			60-140	12/21/2015	EPA 8015B	

Mercury_Subcontract (Batch ID: SG1221156)

Mercury	0.15	mg/kg	1	0.1	12/22/2015	EPA 7471 Mercury	

Oil Range Organics (C23-C32) (Batch ID: B5L0017)

Oil Range Organics (R)	632	mg/kg	5	37.5	12/23/2015	EPA 8015B-M	
Surrogate: n-Octacosane (c28) (R)	122%			60-140	12/23/2015	EPA 8015B-M	

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Sample: EC-SP3-NS (Continued)

P512006-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5L0014)

Acetone	ND	µg/Kg	1	20	12/21/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	20	12/21/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	12/21/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	

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Sample: EC-SP3-NS (Continued)

P512006-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0014) (Continued)							
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	20	12/21/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	5.0	12/21/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	10	12/21/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	12/21/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	10	12/21/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	20	12/21/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25	12/21/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	

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Sample: EC-SP3-NS (Continued)

P512006-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0014) (Continued)							
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	1.0	12/21/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	2.0	12/21/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	3.0	12/21/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	93.7%			60-140	12/21/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	97.0%			60-140	12/21/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	108%			60-140	12/21/2015	EPA 8260B	
Surrogate: Toluene-d8	103%			60-140	12/21/2015	EPA 8260B	

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Quality Control

CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SG1221152

BLK (MBSG1221152)

Prepared: 12/21/2015 Analyzed: 12/22/2015

Antimony	<1		1	mg/kg				-		
Arsenic	<0.5		0.5	mg/kg				-		
Barium	<0.5		0.5	mg/kg				-		
Beryllium	<0.5		0.5	mg/kg				-		
Cadmium	<0.2		0.2	mg/kg				-		
Chromium	<0.5		0.5	mg/kg				-		
Cobalt	<0.5		0.5	mg/kg				-		
Copper	<2		2	mg/kg				-		
Lead	<0.5		0.5	mg/kg				-		
Molybdenum	<1		1	mg/kg				-		
Nickel	<0.5		0.5	mg/kg				-		
Selenium	<1		1	mg/kg				-		
Silver	<0.5		0.5	mg/kg				-		
Thallium	<2		2	mg/kg				-		
Vanadium	<0.5		0.5	mg/kg				-		
Zinc	<2		2	mg/kg				-		

BS (LCSSG1221152)

Prepared: 12/21/2015 Analyzed: 12/22/2015

Antimony	20.4			mg/kg	20		102	80-120	1	20
Arsenic	19.6			mg/kg	20		98	80-120	2	20
Barium	20.8			mg/kg	20		104	80-120	1	20
Beryllium	19.1			mg/kg	20		96	80-120	2	20
Cadmium	19.7			mg/kg	20		99	80-120	2	20
Chromium	20			mg/kg	20		100	80-120	1	20
Cobalt	19.5			mg/kg	20		98	80-120	2	20
Copper	21.6			mg/kg	20		108	80-120	1	20
Lead	20.9			mg/kg	20		104	80-120	1	20
Molybdenum	20.8			mg/kg	20		104	80-120	0	20
Nickel	20.6			mg/kg	20		103	80-120	0	20
Selenium	19.7			mg/kg	20		99	80-120	3	20
Silver	19.9			mg/kg	20		100	80-120	1	20
Thallium	19.6			mg/kg	20		98	80-120	2	20
Vanadium	19.8			mg/kg	20		99	80-120	2	20
Zinc	22			mg/kg	20		110	80-120	1	20

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**Quality Control
(Continued)**

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SG1221152 (Continued)

BSD (LCSDSG1221152)

Prepared: 12/21/2015 Analyzed: 12/22/2015

Antimony	20.1			mg/kg	20		100	80-120	1	20
Arsenic	19.2			mg/kg	20		96	80-120	2	20
Barium	21.1			mg/kg	20		106	80-120	1	20
Beryllium	18.8			mg/kg	20		94	80-120	2	20
Cadmium	20			mg/kg	20		100	80-120	2	20
Chromium	20.3			mg/kg	20		101	80-120	1	20
Cobalt	19.8			mg/kg	20		99	80-120	2	20
Copper	21.9			mg/kg	20		110	80-120	1	20
Lead	20.6			mg/kg	20		103	80-120	1	20
Molybdenum	20.9			mg/kg	20		104	80-120	0	20
Nickel	20.7			mg/kg	20		104	80-120	0	20
Selenium	19.2			mg/kg	20		96	80-120	3	20
Silver	20.2			mg/kg	20		101	80-120	1	20
Thallium	19.9			mg/kg	20		100	80-120	2	20
Vanadium	20.1			mg/kg	20		100	80-120	2	20
Zinc	22.2			mg/kg	20		111	80-120	1	20

MS (MS20420-001)

Source: 20420-001

Prepared: 12/21/2015 Analyzed: 12/22/2015

Antimony	3.41	M2		mg/kg	20	0	17	75-125	19	20
Arsenic	30.4			mg/kg	20	9.6	104	75-125	2	20
Barium	218	M3		mg/kg	20	190	140	75-125	6	20
Beryllium	18.5			mg/kg	20	0	93	75-125	2	20
Cadmium	20.5			mg/kg	20	0.98	98	75-125	1	20
Chromium	67.1			mg/kg	20	51	80	75-125	9	20
Cobalt	26.9			mg/kg	20	10	84	75-125	0	20
Copper	155	M3		mg/kg	20	77	390	75-125	20	20
Lead	137	M3		mg/kg	20	78	295	75-125	21	20
Molybdenum	18.6			mg/kg	20	0	93	75-125	2	20
Nickel	37.5			mg/kg	20	22	77	75-125	1	20
Selenium	20.4			mg/kg	20	0	102	75-125	3	20
Silver	19.7			mg/kg	20	0	99	75-125	1	20
Thallium	17.6			mg/kg	20	0	88	75-125	1	20
Vanadium	62.9			mg/kg	20	44	95	75-125	3	20
Zinc	252	M3		mg/kg	20	230	110	75-125	24	20

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Quality Control (Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG1221152 (Continued)										
MSD (MSD20420-001)			Source: 20420-001							
Antimony	4.12	M2		mg/kg	20	0	21	75-125	19	20
Arsenic	29.8			mg/kg	20	9.6	101	75-125	2	20
Barium	206	M3		mg/kg	20	190	80	75-125	6	20
Beryllium	18.2			mg/kg	20	0	91	75-125	2	20
Cadmium	20.3			mg/kg	20	0.98	97	75-125	1	20
Chromium	73.5			mg/kg	20	51	112	75-125	9	20
Cobalt	26.8			mg/kg	20	10	84	75-125	0	20
Copper	127	M3		mg/kg	20	77	250	75-125	20	20
Lead	111	M3		mg/kg	20	78	165	75-125	21	20
Molybdenum	18.3			mg/kg	20	0	91	75-125	2	20
Nickel	37.3			mg/kg	20	22	76	75-125	1	20
Selenium	21			mg/kg	20	0	105	75-125	3	20
Silver	19.5			mg/kg	20	0	98	75-125	1	20
Thallium	17.4			mg/kg	20	0	87	75-125	1	20
Vanadium	60.9			mg/kg	20	44	85	75-125	3	20
Zinc	320	M3		mg/kg	20	230	450	75-125	24	20

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Quality Control (Continued)

Diesel Range Organics (C10-C28)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0017										
Blank (B5L0017-BLK1)					Prepared: 12/21/2015 Analyzed: 12/22/2015					
Diesel Range Organics	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.83			mg/kg	2.00		91.3	60-140		
LCS (B5L0017-BS1)					Prepared & Analyzed: 12/21/2015					
Diesel	39.9		2.50	mg/kg	50.0		79.9	70-130		
Surrogate: n-Octacosane (c28)	1.87			mg/kg	2.00		93.6	60-140		
LCS Dup (B5L0017-BSD1)					Prepared & Analyzed: 12/21/2015					
Diesel	44.2		2.50	mg/kg	50.0		88.5	70-130	10.2	20
Surrogate: n-Octacosane (c28)	1.92			mg/kg	2.00		95.8	60-140		
Matrix Spike (B5L0017-MS1)					Source: P512005-05		Prepared & Analyzed: 12/21/2015			
Diesel	33.9	QM-01	2.50	mg/kg	50.0	ND	67.8	70-130		
Surrogate: n-Octacosane (c28)	1.68			mg/kg	2.00		84.2	60-140		
Matrix Spike Dup (B5L0017-MSD1)					Source: P512005-05		Prepared & Analyzed: 12/21/2015			
Diesel	35.9		2.50	mg/kg	50.0	ND	71.9	70-130	5.79	20
Surrogate: n-Octacosane (c28)	1.76			mg/kg	2.00		87.8	60-140		

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Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0013										
Blank (B5L0013-BLK1)				Prepared & Analyzed: 12/21/2015						
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.240			mg/kg	0.250		96.0	60-140		
LCS (B5L0013-BS1)				Prepared & Analyzed: 12/21/2015						
Gasoline	9.37		0.200	mg/kg	10.0		93.7	70-130		
Surrogate: 4-Bromofluorobenzene	0.245			mg/kg	0.250		98.0	60-140		
LCS Dup (B5L0013-BSD1)				Prepared & Analyzed: 12/21/2015						
Gasoline	8.60		0.200	mg/kg	10.0		86.0	70-130	8.52	20
Surrogate: 4-Bromofluorobenzene	0.245			mg/kg	0.250		98.0	60-140		
Matrix Spike (B5L0013-MS1)				Source: P512006-03		Prepared & Analyzed: 12/21/2015				
Gasoline	7.80		0.200	mg/kg	10.0	0.0350	77.6	70-130		
Surrogate: 4-Bromofluorobenzene	0.241			mg/kg	0.250		96.4	60-140		
Matrix Spike Dup (B5L0013-MSD1)				Source: P512006-03		Prepared & Analyzed: 12/21/2015				
Gasoline	7.21		0.200	mg/kg	10.0	0.0350	71.8	70-130	7.77	20
Surrogate: 4-Bromofluorobenzene	0.246			mg/kg	0.250		98.4	60-140		

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Quality Control (Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG1221156										
BLK (MBSG1221156)										
Mercury	<0.1		0.1	mg/kg				-		
Prepared: 12/21/2015 Analyzed: 12/22/2015										
BS (LCSSG1221156)										
Mercury	1.09			mg/kg	1		109	80-120	1	20
Prepared: 12/21/2015 Analyzed: 12/22/2015										
BSD (LCSDSG1221156)										
Mercury	1.08			mg/kg	1		108	80-120	1	20
Prepared: 12/21/2015 Analyzed: 12/22/2015										
MS (MS20420-001)										
Mercury	3.63	M3	Source: 20420-001	mg/kg	1	2.3	133	80-120	1	20
Prepared: 12/21/2015 Analyzed: 12/22/2015										
MSD (MSD20420-001)										
Mercury	3.65	M3	Source: 20420-001	mg/kg	1	2.3	135	80-120	1	20
Prepared: 12/21/2015 Analyzed: 12/22/2015										

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Quality Control (Continued)

Oil Range Organics (C23-C32)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0017										
Blank (B5L0017-BLK1)					Prepared: 12/21/2015 Analyzed: 12/22/2015					
Oil Range Organics	ND		5.00	mg/kg						
Surrogate: n-Octacosane (c28)	1.44			mg/kg	2.00		72.2	60-140		
LCS (B5L0017-BS2)					Prepared: 12/21/2015 Analyzed: 12/22/2015					
Oil Range Organics	49.0		5.00	mg/kg	50.0		97.9	70-130		
Surrogate: n-Octacosane (c28)	1.50			mg/kg	2.00		74.9	60-140		
LCS Dup (B5L0017-BSD2)					Prepared: 12/21/2015 Analyzed: 12/22/2015					
Oil Range Organics	51.3		5.00	mg/kg	50.0		103	70-130	4.67	20
Surrogate: n-Octacosane (c28)	1.44			mg/kg	2.00		72.2	60-140		
Matrix Spike (B5L0017-MS2)					Source: P512005-05		Prepared: 12/21/2015 Analyzed: 12/22/2015			
Oil Range Organics	48.6		5.00	mg/kg	50.0	2.28	92.6	70-130		
Surrogate: n-Octacosane (c28)	1.69			mg/kg	2.00		84.6	60-140		
Matrix Spike Dup (B5L0017-MSD2)					Source: P512005-05		Prepared: 12/21/2015 Analyzed: 12/23/2015			
Oil Range Organics	51.2		5.00	mg/kg	50.0	2.28	97.9	70-130	5.30	20
Surrogate: n-Octacosane (c28)	1.79			mg/kg	2.00		89.6	60-140		

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Quality Control (Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5L0014

Blank (B5L0014-BLK1)

Prepared & Analyzed: 12/21/2015

Acetone	ND		20	µg/Kg
Acetonitrile	ND		20	µg/Kg
Acrylonitrile	ND		1.0	µg/Kg
Allyl Chloride	ND		1.0	µg/Kg
Benzene	ND		1.0	µg/Kg
Bromobenzene	ND		1.0	µg/Kg
Bromochloromethane	ND		1.0	µg/Kg
Bromodichloromethane	ND		1.0	µg/Kg
Bromoform	ND		1.0	µg/Kg
Bromomethane	ND		5.0	µg/Kg
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg
n-Butylbenzene	ND		1.0	µg/Kg
Carbon Disulfide	ND		5.0	µg/Kg
Carbon Tetrachloride	ND		1.0	µg/Kg
Chlorobenzene	ND		1.0	µg/Kg
Chloroethane	ND		5.0	µg/Kg
Chloroform	ND		1.0	µg/Kg
Chloromethane	ND		5.0	µg/Kg
Chloroprene	ND		1.0	µg/Kg
2-Chlorotoluene	ND		1.0	µg/Kg
4-Chlorotoluene	ND		1.0	µg/Kg
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg
Dibromochloromethane	ND		1.0	µg/Kg
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg
Dibromomethane	ND		1.0	µg/Kg
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg
1,2-Dichlorobenzene	ND		1.0	µg/Kg
1,3-Dichlorobenzene	ND		1.0	µg/Kg
1,4-Dichlorobenzene	ND		1.0	µg/Kg
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg
1,1-Dichloroethane	ND		1.0	µg/Kg
1,2-Dichloroethane	ND		1.0	µg/Kg
1,1-Dichloroethene	ND		1.0	µg/Kg
c-1,2-Dichloroethene	ND		1.0	µg/Kg
c-1,3-Dichloropropene	ND		1.0	µg/Kg
t-1,2-Dichloroethene	ND		1.0	µg/Kg
1,2-Dichloropropane	ND		1.0	µg/Kg
1,3-Dichloropropane	ND		1.0	µg/Kg
2,2-Dichloropropane	ND		1.0	µg/Kg
1,1-Dichloropropene	ND		1.0	µg/Kg
t-1,3-Dichloropropene	ND		1.0	µg/Kg
Diethyl Ether	ND		1.0	µg/Kg

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Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5L0014 (Continued)

Blank (B5L0014-BLK1)

Prepared & Analyzed: 12/21/2015

Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		1.0	µg/Kg						
Iodomethane	ND		20	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Phenanthrene	ND		1.0	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	47			µg/Kg	50.0		94.5	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		100	60-140		
Surrogate: 1,2-Dichloroethane-d4	51			µg/Kg	50.0		102	60-140		
Surrogate: Toluene-d8	51			µg/Kg	50.0		103	60-140		

ARCADIS US
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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5L0014 (Continued)

LCS (B5L0014-BS1)

Prepared & Analyzed: 12/21/2015

Benzene	49		1.0	µg/Kg	50.0		97.5	70-130		
Bromobenzene	47		1.0	µg/Kg	50.0		94.5	70-130		
Bromodichloromethane	52		1.0	µg/Kg	50.0		105	70-130		
Bromoform	51		1.0	µg/Kg	50.0		101	70-130		
Chlorobenzene	49		1.0	µg/Kg	50.0		97.5	70-130		
Chloroethane	46		5.0	µg/Kg	50.0		92.9	70-130		
Chloroform	49		1.0	µg/Kg	50.0		98.9	70-130		
4-Chlorotoluene	51		1.0	µg/Kg	50.0		103	70-130		
Dibromomethane	53		1.0	µg/Kg	50.0		106	70-130		
1,2-Dichlorobenzene	48		1.0	µg/Kg	50.0		96.3	70-130		
1,1-Dichloroethene	46		1.0	µg/Kg	50.0		91.6	70-130		
1,2-Dichloropropane	50		1.0	µg/Kg	50.0		99.8	70-130		
2,2-Dichloropropane	50		1.0	µg/Kg	50.0		100	70-130		
1,1-Dichloropropene	47		1.0	µg/Kg	50.0		94.3	70-130		
Diethyl Ether	46		1.0	µg/Kg	50.0		92.4	70-130		
Diisopropyl Ether (DIPE)	45		1.0	µg/Kg	50.0		90.4	70-130		
Ethylbenzene	48		1.0	µg/Kg	50.0		95.7	70-130		
Hexachloro-1,3-Butadiene	47		1.0	µg/Kg	50.0		93.2	70-130		
Methylene Chloride	47		10	µg/Kg	50.0		94.2	70-130		
Methyl-t-Butyl Ether (MTBE)	48		1.0	µg/Kg	50.0		96.9	70-130		
Naphthalene	45		10	µg/Kg	50.0		89.6	70-130		
Styrene	48		1.0	µg/Kg	50.0		95.7	70-130		
tert-Butylbenzene	47		1.0	µg/Kg	50.0		93.8	70-130		
Tetrachloroethene	44		1.0	µg/Kg	50.0		87.1	70-130		
Toluene	48		1.0	µg/Kg	50.0		95.9	70-130		
1,2,3-Trichlorobenzene	48		1.0	µg/Kg	50.0		96.4	70-130		
Trichloroethene	47		1.0	µg/Kg	50.0		95.0	70-130		
1,3,5-Trimethylbenzene	49		1.0	µg/Kg	50.0		98.4	70-130		
Vinyl Chloride	42		1.0	µg/Kg	50.0		83.3	70-130		
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		103	60-140		
Surrogate: 4-Bromofluorobenzene	46			µg/Kg	50.0		92.9	60-140		
Surrogate: 1,2-Dichloroethane-d4	49			µg/Kg	50.0		98.8	60-140		
Surrogate: Toluene-d8	51			µg/Kg	50.0		101	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0014 (Continued)										
LCS Dup (B5L0014-BSD1)				Prepared & Analyzed: 12/21/2015						
Benzene	47		1.0	µg/Kg	50.0		93.4	70-130	4.25	20
Bromobenzene	46		1.0	µg/Kg	50.0		92.6	70-130	2.01	20
Bromodichloromethane	49		1.0	µg/Kg	50.0		97.3	70-130	7.33	20
Bromoform	49		1.0	µg/Kg	50.0		98.8	70-130	2.30	20
Chlorobenzene	48		1.0	µg/Kg	50.0		95.4	70-130	2.20	20
Chloroethane	43		5.0	µg/Kg	50.0		86.0	70-130	7.80	20
Chloroform	48		1.0	µg/Kg	50.0		97.0	70-130	1.96	20
4-Chlorotoluene	47		1.0	µg/Kg	50.0		94.4	70-130	8.56	20
Dibromomethane	50		1.0	µg/Kg	50.0		100	70-130	5.31	20
1,2-Dichlorobenzene	45		1.0	µg/Kg	50.0		89.4	70-130	7.50	20
1,1-Dichloroethene	44		1.0	µg/Kg	50.0		87.1	70-130	5.01	20
1,2-Dichloropropane	47		1.0	µg/Kg	50.0		94.2	70-130	5.86	20
2,2-Dichloropropane	48		1.0	µg/Kg	50.0		95.3	70-130	5.01	20
1,1-Dichloropropene	46		1.0	µg/Kg	50.0		92.7	70-130	1.65	20
Diethyl Ether	45		1.0	µg/Kg	50.0		89.5	70-130	3.15	20
Diisopropyl Ether (DIPE)	43		1.0	µg/Kg	50.0		86.4	70-130	4.53	20
Ethylbenzene	45		1.0	µg/Kg	50.0		90.2	70-130	5.96	20
Hexachloro-1,3-Butadiene	42		1.0	µg/Kg	50.0		84.6	70-130	9.72	20
Methylene Chloride	44		10	µg/Kg	50.0		87.8	70-130	7.08	20
Methyl-t-Butyl Ether (MTBE)	46		1.0	µg/Kg	50.0		91.3	70-130	5.91	20
Naphthalene	42		10	µg/Kg	50.0		83.5	70-130	7.07	20
Styrene	47		1.0	µg/Kg	50.0		93.8	70-130	1.98	20
tert-Butylbenzene	43		1.0	µg/Kg	50.0		85.7	70-130	9.05	20
Tetrachloroethene	45		1.0	µg/Kg	50.0		89.6	70-130	2.85	20
Toluene	48		1.0	µg/Kg	50.0		96.0	70-130	0.0208	20
1,2,3-Trichlorobenzene	44		1.0	µg/Kg	50.0		88.8	70-130	8.21	20
Trichloroethene	45		1.0	µg/Kg	50.0		89.4	70-130	6.01	20
1,3,5-Trimethylbenzene	46		1.0	µg/Kg	50.0		92.0	70-130	6.70	20
Vinyl Chloride	40		1.0	µg/Kg	50.0		80.0	70-130	3.99	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		101	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	52			µg/Kg	50.0		103	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.9	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0014 (Continued)										
Matrix Spike (B5L0014-MS1)			Source: P512006-03		Prepared & Analyzed: 12/21/2015					
Benzene	42		1.0	µg/Kg	50.0	ND	84.6	70-130		
Bromobenzene	36		1.0	µg/Kg	50.0	ND	71.7	70-130		
Bromodichloromethane	45		1.0	µg/Kg	50.0	ND	89.2	70-130		
Bromoform	41		1.0	µg/Kg	50.0	ND	82.8	70-130		
Chlorobenzene	40		1.0	µg/Kg	50.0	ND	80.2	70-130		
Chloroethane	45		5.0	µg/Kg	50.0	ND	90.2	70-130		
Chloroform	45		1.0	µg/Kg	50.0	ND	89.7	70-130		
4-Chlorotoluene	39		1.0	µg/Kg	50.0	ND	78.5	70-130		
Dibromomethane	47		1.0	µg/Kg	50.0	ND	94.8	70-130		
1,2-Dichlorobenzene	34		1.0	µg/Kg	50.0	ND	67.1	70-130		
1,1-Dichloroethene	41		1.0	µg/Kg	50.0	ND	81.3	70-130		
1,2-Dichloropropane	46		1.0	µg/Kg	50.0	ND	92.3	70-130		
2,2-Dichloropropane	46		1.0	µg/Kg	50.0	ND	91.2	70-130		
1,1-Dichloropropene	38		1.0	µg/Kg	50.0	ND	75.9	70-130		
Diethyl Ether	46		1.0	µg/Kg	50.0	ND	91.1	70-130		
Diisopropyl Ether (DIPE)	44		1.0	µg/Kg	50.0	ND	87.5	70-130		
Ethylbenzene	39		1.0	µg/Kg	50.0	ND	78.8	70-130		
Hexachloro-1,3-Butadiene	23		1.0	µg/Kg	50.0	ND	46.2	70-130		
Methylene Chloride	43		10	µg/Kg	50.0	ND	86.6	70-130		
Methyl-t-Butyl Ether (MTBE)	46		1.0	µg/Kg	50.0	ND	91.4	70-130		
Naphthalene	26		10	µg/Kg	50.0	0.30	50.6	70-130		
Styrene	37		1.0	µg/Kg	50.0	ND	74.7	70-130		
tert-Butylbenzene	34		1.0	µg/Kg	50.0	ND	67.2	70-130		
Tetrachloroethene	46		1.0	µg/Kg	50.0	ND	91.9	70-130		
Toluene	42		1.0	µg/Kg	50.0	0.28	82.7	70-130		
1,2,3-Trichlorobenzene	25		1.0	µg/Kg	50.0	0.25	48.6	70-130		
Trichloroethene	42		1.0	µg/Kg	50.0	ND	83.2	70-130		
1,3,5-Trimethylbenzene	35		1.0	µg/Kg	50.0	ND	70.7	70-130		
Vinyl Chloride	38		1.0	µg/Kg	50.0	ND	75.3	70-130		
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		101	60-140		
Surrogate: 4-Bromofluorobenzene	48			µg/Kg	50.0		95.9	60-140		
Surrogate: 1,2-Dichloroethane-d4	49			µg/Kg	50.0		97.7	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		97.5	60-140		

ARCADIS US
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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0014 (Continued)										
Matrix Spike Dup (B5L0014-MSD1)			Source: P512006-03		Prepared & Analyzed: 12/21/2015					
Benzene	45		1.0	µg/Kg	50.0	ND	90.5	70-130	6.81	20
Bromobenzene	39		1.0	µg/Kg	50.0	ND	77.2	70-130	7.33	20
Bromodichloromethane	47		1.0	µg/Kg	50.0	ND	94.7	70-130	6.05	20
Bromoform	44		1.0	µg/Kg	50.0	ND	88.1	70-130	6.23	20
Chlorobenzene	42		1.0	µg/Kg	50.0	ND	84.4	70-130	5.06	20
Chloroethane	45		5.0	µg/Kg	50.0	ND	90.4	70-130	0.221	20
Chloroform	47		1.0	µg/Kg	50.0	ND	93.5	70-130	4.10	20
4-Chlorotoluene	44		1.0	µg/Kg	50.0	ND	87.0	70-130	10.2	20
Dibromomethane	50		1.0	µg/Kg	50.0	ND	99.8	70-130	5.10	20
1,2-Dichlorobenzene	37		1.0	µg/Kg	50.0	ND	73.5	70-130	9.19	20
1,1-Dichloroethene	44		1.0	µg/Kg	50.0	ND	87.0	70-130	6.77	20
1,2-Dichloropropane	48		1.0	µg/Kg	50.0	ND	95.4	70-130	3.26	20
2,2-Dichloropropane	46		1.0	µg/Kg	50.0	ND	91.5	70-130	0.350	20
1,1-Dichloropropene	43		1.0	µg/Kg	50.0	ND	86.3	70-130	12.8	20
Diethyl Ether	43		1.0	µg/Kg	50.0	ND	85.4	70-130	6.42	20
Diisopropyl Ether (DIPE)	45		1.0	µg/Kg	50.0	ND	89.5	70-130	2.24	20
Ethylbenzene	41		1.0	µg/Kg	50.0	ND	81.8	70-130	3.66	20
Hexachloro-1,3-Butadiene	26		1.0	µg/Kg	50.0	ND	51.1	70-130	9.99	20
Methylene Chloride	44		10	µg/Kg	50.0	ND	87.9	70-130	1.54	20
Methyl-t-Butyl Ether (MTBE)	47		1.0	µg/Kg	50.0	ND	93.3	70-130	2.14	20
Naphthalene	25		10	µg/Kg	50.0	0.30	49.2	70-130	2.89	20
Styrene	40		1.0	µg/Kg	50.0	ND	79.6	70-130	6.35	20
tert-Butylbenzene	38		1.0	µg/Kg	50.0	ND	75.8	70-130	11.9	20
Tetrachloroethene	49		1.0	µg/Kg	50.0	ND	97.5	70-130	5.93	20
Toluene	43		1.0	µg/Kg	50.0	0.28	85.8	70-130	3.63	20
1,2,3-Trichlorobenzene	25		1.0	µg/Kg	50.0	0.25	49.0	70-130	0.731	20
Trichloroethene	44		1.0	µg/Kg	50.0	ND	87.3	70-130	4.81	20
1,3,5-Trimethylbenzene	37		1.0	µg/Kg	50.0	ND	73.9	70-130	4.40	20
Vinyl Chloride	39		1.0	µg/Kg	50.0	ND	77.9	70-130	3.39	20
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		101	60-140		
Surrogate: 4-Bromofluorobenzene	48			µg/Kg	50.0		96.6	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		99.2	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.4	60-140		

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320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Notes and Definitions

Item	Definition
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to spike level. The associated blank spike recovery was acceptable.
QM-01	The spike recovery for this QC sample is outside of established control limits due to sample matrix interference.
S-03	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
X	Sample required a dilution due to a high concentration of heavy hydrocarbons present in the sample
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL PID: 0512006

Client Name 5/11/15 ARCADIS					REQUESTED ANALYSES															
Project Manager Phil Skorge					TPH-G (8015B/5025) TPH-D (805B) VOCs (8260B) TPH-Oil CAM 17 Metals (6008)															
Email Phil.Skorge@arcadis.com																				
Phone 714.58-2676																				
FAX 714.736.9345																				
Project Name/Number MTA Loc GIS																				
P.O. Number																				
Sampled By Zack Mason																				
Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container																
				Quantity	Type															
1 EC-SP1-NS	12/19/15	11:15	S	2	9oz Jar	X	X	X	X	X										
2 EC-SP2-NS	↓	11:30	↓	↓	↓	X	X	X	X	X										
3 EC-SP3-NS	↓	11:45	↓	↓	↓	X	X	X	X	X										
4																				
5																				
6																				
7																				
8																				
9																				
10																				

PAL Containers used: ☒ Yes ☐ No			Type of Ice used: ☒ Wet ☐ Blue ☐ None			Sample Preservative: ☒ Yes ☐ No		
TAT Needed (circle one) STD 5 day			RUSH 24			(48) 72		
EDD Required - Circle one: Type of EDD:			Yes			No		
2 4-point composite samples								
PAL Labeled Samples: _____								

RELINQUISHED BY		DATE: 12/19/15
Signature: Zack Mason		
Print: Zack Mason		
Company: ARCADIS		TIME: 11:54
RECEIVED BY		
Signature: M Valenzuela		
Print: M Valenzuela		DATE: 12/19/15
Company: PAL		TIME: 11:54
RELINQUISHED BY		
Signature:		DATE:
Print:		TIME:
Company:		
RECEIVED BY		
Signature:		DATE:
Print:		TIME:
Company:		

*PAL MATRIX CODES: (S= Soils); (P= Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)

Work Order ID

P512006

SAMPLE RECEIPT FORM

Cooler ID :

Client Arcadis

Date Received: Dec 19, 2015

Total # of Samples: 3

COURIER INFORMATION☒ PALI☐ OTHER☐ FEDEX☐ CLIENT☐ UPS

Tracking #

TEMPERATURE

0.7 °C

☒ WET ICE☐ BLUE ICE☐ NO ICE☐ AMBIENT**CLIENT COC**☒ INCLUDED☐ SIGNED☐ NOT INCLUDED☐ NOT SIGNED**SAMPLE MATRIX**☐ LIQUID☐ Composite at PALI, equal☐ Composite at PALI, flow-weighted☐ TISSUE☐ Homogenized☐ Unhomogenized☒ SOLID☐ OTHER**CONDITION OF SAMPLES UPON VERIFICATION**

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

M.Valenzuela

Dec 21, 2015

Initials

Date

Date

Print Form

January 05, 2016

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

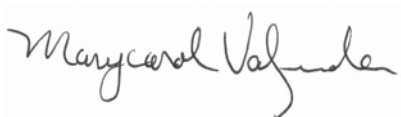
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P601001

Dear Phil Skorge

Enclosed are the results of analyses for samples received by our laboratory on 1/4/2016. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P601001-01	EC-BS1-15	Solid	01/04/2016	01/04/2016

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Case Narrative

This sample has organic matter that was reportable in the diesel range but is not diesel because it does not match the standard pattern. The loss of surrogate standard for both the gasoline and diesel also support that the sample is made up of organic matter. The chromatogram has been added to this report for your review.

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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: EC-BS1-15

P601001-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B6A0002)

Diesel Range Organics (R)	3060	mg/kg	10	125	01/04/2016	EPA 8015B	
Surrogate: n-Octacosane (c28) (R)	290%			60-140	01/04/2016	EPA 8015B	S-01

Gasoline Range Organics (C6-C10) (Batch ID: B6A0001)

Gasoline Range Organics (R)	ND	mg/kg	1	0.238	01/04/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene (R)	53.2%			60-140	01/04/2016	EPA 8015B	S-03, S-04

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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control

Diesel Range Organics (C10-C28)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6A0002										
Blank (B6A0002-BLK1)										
					Prepared & Analyzed: 01/04/2016					
Diesel Range Organics	ND		25.0	mg/kg						
Surrogate: n-Octacosane (c28)	18.5			mg/kg	20.0		92.5	60-140		
LCS (B6A0002-BS1)										
					Prepared & Analyzed: 01/04/2016					
Diesel	393		25.0	mg/kg	500		78.7	70-130		
Surrogate: n-Octacosane (c28)	18.4			mg/kg	20.0		92.1	60-140		
LCS Dup (B6A0002-BSD1)										
					Prepared & Analyzed: 01/04/2016					
Diesel	434		25.0	mg/kg	500		86.7	70-130	9.78	20
Surrogate: n-Octacosane (c28)	18.9			mg/kg	20.0		94.5	60-140		
Matrix Spike (B6A0002-MS1)										
			Source: P601001-01RE1		Prepared & Analyzed: 01/04/2016					
Diesel	3170	QM-05	125	mg/kg	50.0	3060	204	70-130		
Surrogate: n-Octacosane (c28)	6.78	S-01		mg/kg	2.00		339	60-140		
Matrix Spike Dup (B6A0002-MSD1)										
			Source: P601001-01RE1		Prepared & Analyzed: 01/04/2016					
Diesel	3590	QM-05	125	mg/kg	50.0	3060	0	70-130	12.6	20
Surrogate: n-Octacosane (c28)	6.64	S-01		mg/kg	2.00		332	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6A0001										
Blank (B6A0001-BLK1)										
					Prepared & Analyzed: 01/04/2016					
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.235			mg/kg	0.250		94.0	60-140		
LCS (B6A0001-BS1)										
					Prepared & Analyzed: 01/04/2016					
Gasoline	9.08		0.200	mg/kg	10.0		90.8	70-130		
Surrogate: 4-Bromofluorobenzene	0.240			mg/kg	0.250		96.0	60-140		
LCS Dup (B6A0001-BSD1)										
					Prepared & Analyzed: 01/04/2016					
Gasoline	8.84		0.200	mg/kg	10.0		88.4	70-130	2.69	20
Surrogate: 4-Bromofluorobenzene	0.239			mg/kg	0.250		95.6	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Notes and Definitions

Item	Definition
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
S-01	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference's.
S-03	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
S-04	Re-analysis confirmed surrogate failure due to matrix effects.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of

PAL PID: P601001

Client Name 5/11/15				Arcadis				REQUESTED ANALYSES																		
Project Manager				Phil Skorge				TPAC (8015B/5035) TPH-D (8015B)																		
Email				Phil.Skorge@arcadis.com																						
Phone				714.508.2676																						
FAX				714.730.9345																						
Project Name/Number				MTA Loc Q15																						
P.O. Number																										
Sampled By				Zack Mason																						
Client Sample ID / Description				Sample Date	Sample Time	Sample Matrix*	Container Quantity Type																			
1	EC-BSI-15			1/4/16	14:15	S	1/1	902 Jar K035	X	X																
2																										
3																										
4																										
5																										
6																										
7																										
8																										
9																										
10																										
PAL Containers used:				☒ Yes	No			RELINQUISHED BY																		
Type of Ice used:				☒ Wet	Blue	None			Signature: Zack Mason																	
Sample Preservative:				☒ Yes	No			Print: Zack Mason																		
TAT Needed (circle one)				STD 5 day	☒ 24	RUSH 48	72	Company: Arcadis																		
EDD Required - Circle one:				Yes	No			RECEIVED BY																		
Type of EDD:								Signature: M Valenzuela																		
								Print: M Valenzuela																		
								Company: PAL																		
								RELINQUISHED BY																		
								Signature:																		
								Print:																		
								Company:																		
								RECEIVED BY																		
								Signature:																		
								Print:																		
								Company:																		
PAL Labeled Samples: _____								DATE:																		
								TIME:																		
								DATE:																		
								TIME:																		

*PAL MATRIX CODES: (S= Soils); (P.= Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)

Work Order ID

P601001

SAMPLE RECEIPT FORM

Cooler ID :

Client

Arcadis

Date Received: 01/04/2016

Total # of Samples: 1

COURIER INFORMATION☒ PALI☐ OTHER☐ FEDEX☐ CLIENT☐ UPS

Tracking #

TEMPERATURE

3.4 °C

☒ WET ICE☐ BLUE ICE☐ NO ICE☐ AMBIENT**CLIENT COC**☒ INCLUDED☒ SIGNED☐ NOT INCLUDED☐ NOT SIGNED**SAMPLE MATRIX**☐ LIQUID☐ TISSUE☐ Composite at PALI, equal☐ Homogenized☐ Composite at PALI, flow-weighted☐ Unhomogenized☒ SOLID☐ OTHER**CONDITION OF SAMPLES UPON VERIFICATION**

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

R.Parish

Jan 4, 2016

Initials

Date

Initials

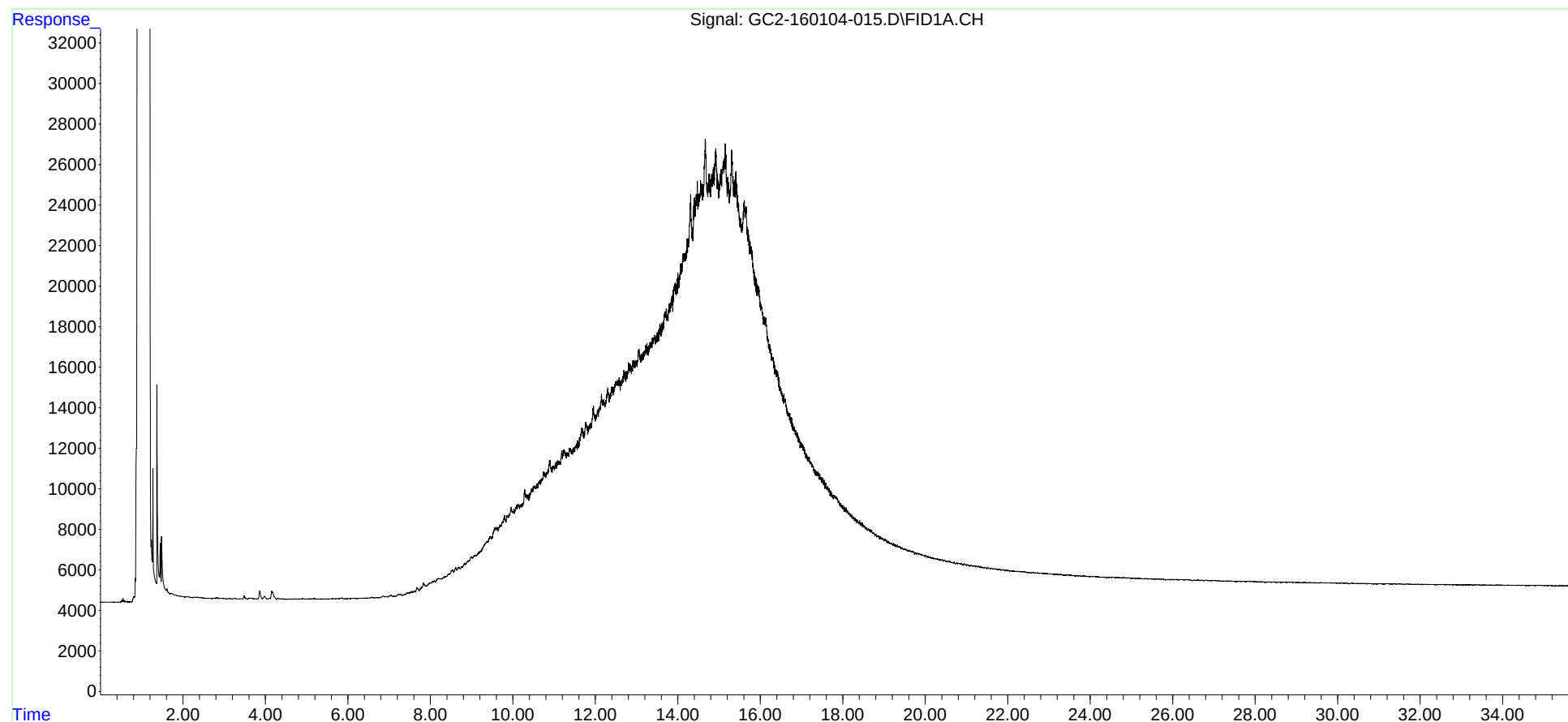
Date

Print Form

InstName : HP G1530A
Data Path : C:\msdchem\1\GC 2 DATA\160104\
Data File : GC2-160104-015.D
Signal(s) : FID1A.CH
Acq On : 04 Jan 2016 7:13 pm
Operator : JY
Sample : P601001-01RE1
Misc : 10X,D, 10G:5ML
ALS Vial : 8 Sample Multiplier: 1
DataAcq Meth:FRONT INLET-45C-3MLPERMIN-CC2.M

Integration File: DR0.E
Quant Time: Jan 05 07:26:16 2016
Quant Method : C:\msdchem\1\METHODS\Calculation Methods\Calc-DR0-151230.M
Quant Title : TPH by 8015 GC/FID
QLast Update : Mon Jan 04 09:33:04 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



January 06, 2016

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

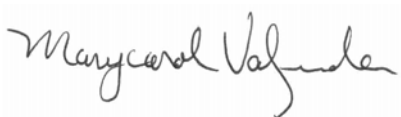
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P601002

Dear Phil Skorge

Enclosed are the results of analyses for samples received by our laboratory on 1/5/2016. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US

320 Commerce, Suite 200

Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015

Project Number: LA Metro S61 - LA 8.2015

Project Manager: Phil Skorge

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P601002-01	EC-BS1-18	Solid	01/05/2016	01/05/2016

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: EC-BS1-18

P601002-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Carbon Chain Analysis C7-C40 w/Silica gel Cleanup (Batch ID: B6A0004)

C7-C8 (R)	ND	mg/kg	1	25.0	01/05/2016	EPA 8015B-M	
C9-C10 (R)	ND	mg/kg	1	25.0	01/05/2016	EPA 8015B-M	
C11-C12 (R)	ND	mg/kg	1	25.0	01/05/2016	EPA 8015B-M	
C13-C14 (R)	ND	mg/kg	1	25.0	01/05/2016	EPA 8015B-M	
C15-C16 (R)	77.6	mg/kg	1	25.0	01/05/2016	EPA 8015B-M	
C17-C18 (R)	168	mg/kg	1	25.0	01/05/2016	EPA 8015B-M	
C19-C20 (R)	241	mg/kg	1	25.0	01/05/2016	EPA 8015B-M	
C21-C22 (R)	272	mg/kg	1	25.0	01/05/2016	EPA 8015B-M	
C23-C24 (R)	330	mg/kg	1	25.0	01/05/2016	EPA 8015B-M	
C25-C27 (R)	587	mg/kg	1	25.0	01/05/2016	EPA 8015B-M	
C28-C33 (R)	1480	mg/kg	1	25.0	01/05/2016	EPA 8015B-M	
C34-C40 (R)	515	mg/kg	1	25.0	01/05/2016	EPA 8015B-M	

Surrogate: n-Octacosane (c28) (R)	105%			60-140	01/05/2016	EPA 8015B-M	

Diesel Range Organics (C10-C28) Silica Gel Cleanup (Batch ID: B6A0004)

Diesel Range Organics (R)	1770	mg/kg	1	25.0	01/05/2016	EPA 8015B	D-02

Surrogate: n-Octacosane (c28) (R)	120%			60-140	01/05/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6A0003)

Gasoline Range Organics	ND	mg/kg	1	0.175	01/05/2016	EPA 8015B	

Surrogate: 4-Bromofluorobenzene	62.8%			60-140	01/05/2016	EPA 8015B	

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control

Carbon Chain Analysis C7-C40 w/Silica gel Cleanup

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6A0004										
Blank (B6A0004-BLK1)										
Prepared & Analyzed: 01/05/2016										
C7-C8	ND		2.50	mg/kg						
C9-C10	ND		2.50	mg/kg						
C11-C12	ND		2.50	mg/kg						
C13-C14	ND		2.50	mg/kg						
C15-C16	ND		2.50	mg/kg						
C17-C18	ND		2.50	mg/kg						
C19-C20	ND		2.50	mg/kg						
C21-C22	ND		2.50	mg/kg						
C23-C24	ND		2.50	mg/kg						
C25-C27	ND		2.50	mg/kg						
C28-C33	ND		2.50	mg/kg						
C34-C40	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.69			mg/kg	2.00		84.6	60-140		
LCS (B6A0004-BS1)										
Prepared & Analyzed: 01/05/2016										
Diesel	37.6			mg/kg	50.0		75.2	70-130		
Surrogate: n-Octacosane (c28)	1.73			mg/kg	2.00		86.6	60-140		
LCS Dup (B6A0004-BSD1)										
Prepared & Analyzed: 01/05/2016										
Diesel	35.4			mg/kg	50.0		70.8	70-130	6.02	20
Surrogate: n-Octacosane (c28)	1.67			mg/kg	2.00		83.3	60-140		
Matrix Spike (B6A0004-MS1)										
Source: P601002-01RE3 Prepared & Analyzed: 01/05/2016										
Diesel	1500	QM-05		mg/kg	50.0	1690	0	70-130		
Surrogate: n-Octacosane (c28)	3.92	S-01		mg/kg	2.00		196	60-140		
Matrix Spike Dup (B6A0004-MSD1)										
Source: P601002-01RE3 Prepared & Analyzed: 01/05/2016										
Diesel	2070	QM-05, QR-03		mg/kg	50.0	1690	765	70-130	32.2	20
Surrogate: n-Octacosane (c28)	5.34	S-01		mg/kg	2.00		267	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Diesel Range Organics (C10-C28) Silica Gel Cleanup

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6A0004										
Blank (B6A0004-BLK1)					Prepared & Analyzed: 01/05/2016					
Diesel Range Organics	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.69			mg/kg	2.00		84.6	60-140		
LCS (B6A0004-BS1)					Prepared & Analyzed: 01/05/2016					
Diesel	37.6		2.50	mg/kg	50.0		75.2	70-130		
Surrogate: n-Octacosane (c28)	1.73			mg/kg	2.00		86.6	60-140		
LCS Dup (B6A0004-BSD1)					Prepared & Analyzed: 01/05/2016					
Diesel	35.4		2.50	mg/kg	50.0		70.8	70-130	6.02	20
Surrogate: n-Octacosane (c28)	1.67			mg/kg	2.00		83.3	60-140		
Matrix Spike (B6A0004-MS1)					Source: P601002-01RE3 Prepared & Analyzed: 01/05/2016					
Diesel	1500	QM-05	125	mg/kg	50.0	1690	0	70-130		
Surrogate: n-Octacosane (c28)	3.94	S-01		mg/kg	2.00		197	60-140		
Matrix Spike Dup (B6A0004-MSD1)					Source: P601002-01RE3 Prepared & Analyzed: 01/05/2016					
Diesel	2070	QM-05, QR-03	125	mg/kg	50.0	1690	766	70-130	32.2	20
Surrogate: n-Octacosane (c28)	5.08	S-01		mg/kg	2.00		254	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6A0003										
Blank (B6A0003-BLK1)										
					Prepared & Analyzed: 01/05/2016					
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.236			mg/kg	0.250		94.4	60-140		
LCS (B6A0003-BS1)										
					Prepared & Analyzed: 01/05/2016					
Gasoline	9.40		0.200	mg/kg	10.0		94.0	70-130		
Surrogate: 4-Bromofluorobenzene	0.250			mg/kg	0.250		100	60-140		
LCS Dup (B6A0003-BSD1)										
					Prepared & Analyzed: 01/05/2016					
Gasoline	9.04		0.200	mg/kg	10.0		90.4	70-130	3.88	20
Surrogate: 4-Bromofluorobenzene	0.244			mg/kg	0.250		97.6	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Notes and Definitions

Item	Definition
D-02	Hydrocarbon pattern present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
S-01	The surrogate recovery for this sample is not available due to sample dilution required from high analyte concentration and/or matrix interference's.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

CHAIN-OF-CUSTODY

page / of

PAL PID: 9601002

PAL Form		PALEID: P001002																		
Client Name 5/11/15	Arcadis		REQUESTED ANALYSES TPH-G (005B) SOCS TPH-D (005B) W/sec																	
Project Manager	Phil Skorge																			
Email	phil.skorge@arcadis.com																			
Phone	714.508.2676																			
FAX	714.730.9345																			
Project Name/Number	MTA Loc G15																			
P.O. Number																				
Sampled By	Zack Mason																			
Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container																
				Quantity	Type															
1 EC-B51-18	1/5/16	10:35	S	1/1	9cc Jar/SOCS	X	X													
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
PAL Containers used:		☒ Yes	No			RELINQUISHED BY														
Type of Ice used:		☒ Wet	Blue			Signature:		Zack Mason				DATE:		1/5/16						
Sample Preservative:		☒ Yes	No			Print:		Zack Mason				TIME:								
TAT Needed (circle one)		STD 5 day	☒ 24	RUSH 48 72	Company:		Arcadis				RECEIVED BY									
ADD Required - Circle one:		Yes	No	Signature:		M Varyanaka				DATE:		1/5/16								
Type of EDD:				Print:		M Varyanaka				TIME:		11:35								
				Company:		PAL				RELINQUISHED BY										
ON HOLD				Signature:						DATE:										
				Print:						TIME:										
				Company:						RECEIVED BY										
				Signature:						DATE:										
				Print:						TIME:										
				Company:						RELINQUISHED BY										
				Signature:						DATE:										
				Print:						TIME:										
PAL Labeled Samples:				Company:						DATE:										
				Company:						TIME:										

***PAL MATRIX CODES:** (S= Soils); (P.= Product); (SED = Sediment); (**FW** = Freshwater); (**WW** = Wastewater); (**STRMW** = Stormwater); (W = other Water)

Work Order ID

P601002

SAMPLE RECEIPT FORM

Cooler ID :

Client Arcadis

Date Received: Jan 5, 2016

Total # of Samples: 1

COURIER INFORMATION☒ PALI☐ OTHER☐ FEDEX☐ CLIENT☐ UPS

Tracking #

TEMPERATURE

6

°C

☒ WET ICE☐ BLUE ICE☐ NO ICE☐ AMBIENT**CLIENT COC**☒ INCLUDED☒ SIGNED☐ NOT INCLUDED☐ NOT SIGNED☐ LIQUID☐ Composite at PALI, equal☐ Composite at PALI, flow-weighted☒ SOLID☐ OTHER☐ TISSUE☐ Homogenized☐ Unhomogenized**CONDITION OF SAMPLES UPON VERIFICATION**

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

M.Valenzuela

Jan 5, 2016

Initials

Date

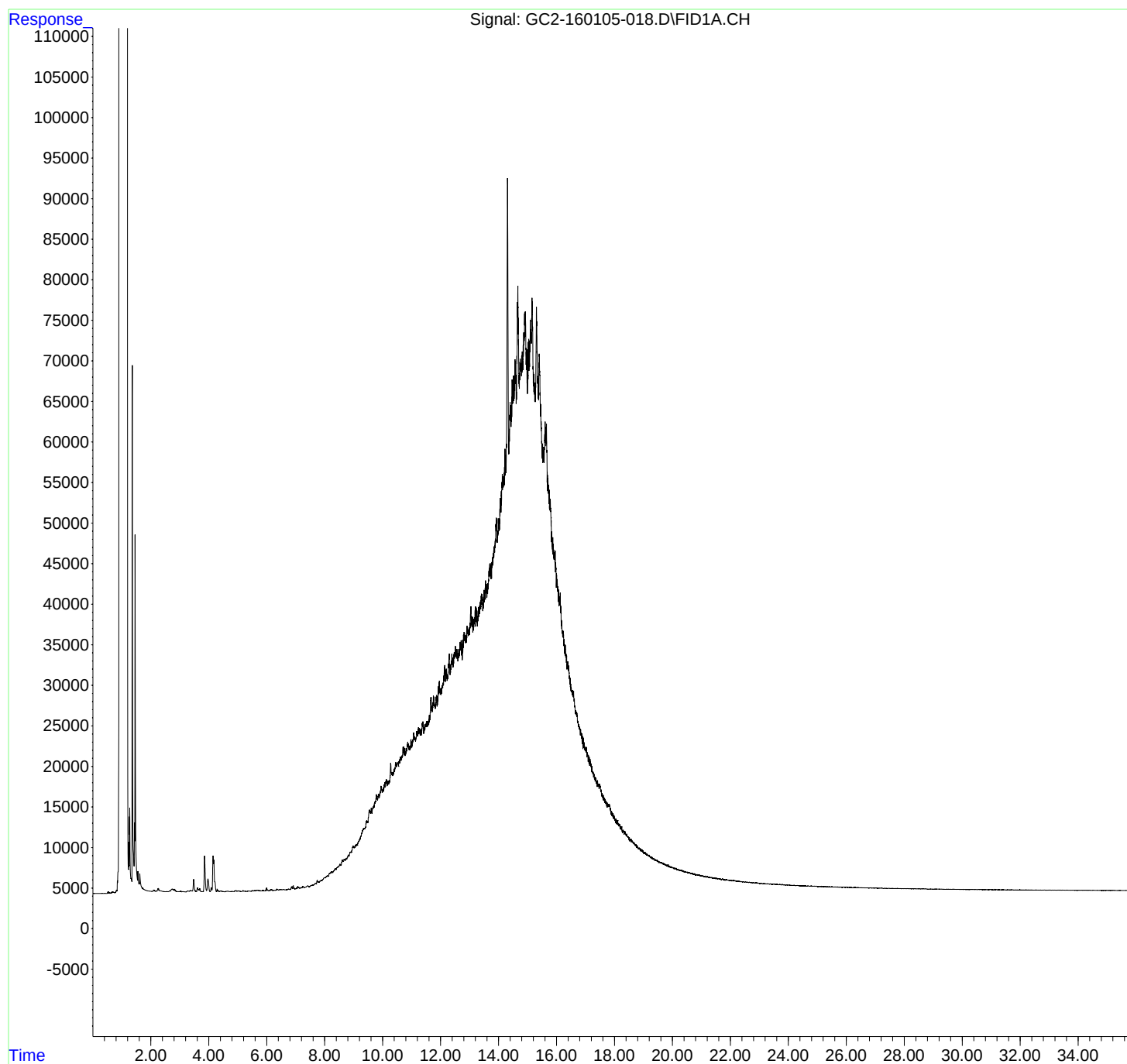
Date

Print Form

InstName : HP G1530A
Data Path : C:\msdchem\1\GC 2 DATA\160105\
Data File : GC2-160105-018.D
Signal(s) : FID1A.CH
Acq On : 05 Jan 2016 9:09 pm
Operator : JY
Sample : P601002-01RE1
Misc : 1X, 1.5G->1.5ML
ALS Vial : 7 Sample Multiplier: 1
DataAcq Meth:FRONT INLET-45C-3MLPERMIN-CC1.M

Integration File: DR0.E
Quant Time: Jan 06 07:56:31 2016
Quant Method : C:\msdchem\1\METHODS\Calculation Methods\Calc-CarbonChain-151230.M
Quant Title : TPH by 8015 GC/FID
QLast Update : Mon Jan 04 10:05:22 2016
Response via : Initial Calibration
Integrator: ChemStation 6890 Scale Mode: Small noise peaks clipped

Volume Inj. :
Signal Phase :
Signal Info :



February 01, 2016

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

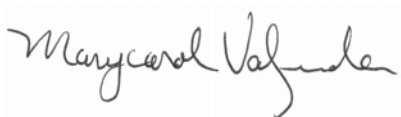
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P601008

Dear Phil Skorge

Enclosed are the results of analyses for samples received by our laboratory on 1/29/2016. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P601008-01	UST5-PP1-2	Solid	01/29/2016	01/29/2016
P601008-02	UST5-PP2-2	Solid	01/29/2016	01/29/2016
P601008-03	UST5-PP3-2	Solid	01/29/2016	01/29/2016
P601008-04	UST5-PP4-2	Solid	01/29/2016	01/29/2016
P601008-05	UST5-PP5-2	Solid	01/29/2016	01/29/2016
P601008-06	UST5-PP6-2	Solid	01/29/2016	01/29/2016
P601008-07	UST5-PP7-2	Solid	01/29/2016	01/29/2016
P601008-08	UST5-PP8-2	Solid	01/29/2016	01/29/2016
P601008-09	UST5-PP9-2	Solid	01/29/2016	01/29/2016
P601008-10	UST5-PP10-2	Solid	01/29/2016	01/29/2016
P601008-11	UST5-PP11-2	Solid	01/29/2016	01/29/2016

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST5-PP1-2

P601008-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B6A0016)

Diesel Range Organics	ND	mg/kg	1	2.50	01/29/2016	EPA 8015B	D-02
Surrogate: n-Octacosane (c28)	87.1%			60-140	01/29/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6A0017)

Gasoline Range Organics	ND	mg/kg	1	0.152	01/29/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	98.0%			60-140	01/29/2016	EPA 8015B	

Volatile Organic Compounds (Batch ID: B6A0015)

Acetone	ND	µg/Kg	1	14	01/29/2016	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	14	01/29/2016	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Benzene	4.2	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Bromomethane	ND	µg/Kg	1	3.6	01/29/2016	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	14	01/29/2016	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	3.6	01/29/2016	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Chloroethane	ND	µg/Kg	1	3.6	01/29/2016	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Chloromethane	ND	µg/Kg	1	3.6	01/29/2016	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP1-2 (Continued)

P601008-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Iodomethane	ND	µg/Kg	1	14	01/29/2016	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	3.6	01/29/2016	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	7.2	01/29/2016	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	14	01/29/2016	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Naphthalene	ND	µg/Kg	1	7.2	01/29/2016	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Propionitrile	ND	µg/Kg	1	14	01/29/2016	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP1-2 (Continued)

P601008-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Styrene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Toluene	23	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
o-Xylene	ND	µg/Kg	1	0.72	01/29/2016	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.4	01/29/2016	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	2.2	01/29/2016	EPA 8260B	
Surrogate: Dibromofluoromethane	98.6%			60-140	01/29/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	112%			60-140	01/29/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	121%			60-140	01/29/2016	EPA 8260B	
Surrogate: Toluene-d8	103%			60-140	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP2-2

P601008-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B6A0016)

Diesel Range Organics	6.17	mg/kg	1	2.53	01/29/2016	EPA 8015B	D-02
Surrogate: n-Octacosane (c28)	93.2%			60-140	01/29/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6A0017)

Gasoline Range Organics	ND	mg/kg	1	0.179	01/29/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	93.6%			60-140	01/29/2016	EPA 8015B	

Volatile Organic Compounds (Batch ID: B6A0015)

Acetone	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Benzene	3.8	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.3	01/29/2016	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.3	01/29/2016	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.3	01/29/2016	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.3	01/29/2016	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	

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Sample: UST5-PP2-2 (Continued)

P601008-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Ethylbenzene	1.3	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Iodomethane	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.3	01/29/2016	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	8.6	01/29/2016	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Naphthalene	ND	µg/Kg	1	8.6	01/29/2016	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Propionitrile	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP2-2 (Continued)

P601008-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Styrene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	22	01/29/2016	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Toluene	7.1	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
o-Xylene	1.3	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
p/m-Xylene	4.4	µg/Kg	1	1.7	01/29/2016	EPA 8260B	
Total Xylenes	5.7	µg/Kg	1	2.6	01/29/2016	EPA 8260B	
Surrogate: Dibromofluoromethane	101%			60-140	01/29/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	98.2%			60-140	01/29/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	119%			60-140	01/29/2016	EPA 8260B	
Surrogate: Toluene-d8	105%			60-140	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP3-2

P601008-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B6A0016)

Diesel Range Organics	65.6	mg/kg	1	12.5	01/30/2016	EPA 8015B	D-02
Surrogate: n-Octacosane (c28)	110%			60-140	01/30/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6A0017)

Gasoline Range Organics	ND	mg/kg	1	0.164	01/29/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	93.6%			60-140	01/29/2016	EPA 8015B	

Volatile Organic Compounds (Batch ID: B6A0015)

Acetone	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Benzene	1.3	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.3	01/29/2016	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.3	01/29/2016	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.3	01/29/2016	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.3	01/29/2016	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST5-PP3-2 (Continued)

P601008-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Ethylbenzene	2.9	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Iodomethane	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.3	01/29/2016	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	8.6	01/29/2016	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Naphthalene	ND	µg/Kg	1	8.6	01/29/2016	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Propionitrile	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	

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Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST5-PP3-2 (Continued)

P601008-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Styrene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	22	01/29/2016	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Toluene	6.7	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
o-Xylene	4.0	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
p/m-Xylene	12	µg/Kg	1	1.7	01/29/2016	EPA 8260B	
Total Xylenes	16	µg/Kg	1	2.6	01/29/2016	EPA 8260B	
Surrogate: Dibromofluoromethane	98.8%			60-140	01/29/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	106%			60-140	01/29/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	115%			60-140	01/29/2016	EPA 8260B	
Surrogate: Toluene-d8	102%			60-140	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP4-2

P601008-04 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B6A0016)

Diesel Range Organics	63.0	mg/kg	1	12.5	01/30/2016	EPA 8015B	D-02
Surrogate: n-Octacosane (c28)	118%			60-140	01/30/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6A0017)

Gasoline Range Organics	0.388	mg/kg	1	0.169	01/29/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	90.8%			60-140	01/29/2016	EPA 8015B	

Volatile Organic Compounds (Batch ID: B6A0015)

Acetone	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Benzene	1.9	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.2	01/29/2016	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.2	01/29/2016	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.2	01/29/2016	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.2	01/29/2016	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	

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Sample: UST5-PP4-2 (Continued)

P601008-04 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B6A0015) (Continued)

cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Ethylbenzene	15	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Iodomethane	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.2	01/29/2016	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	8.3	01/29/2016	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Naphthalene	ND	µg/Kg	1	8.3	01/29/2016	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Propionitrile	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP4-2 (Continued)

P601008-04 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B6A0015) (Continued)

sec-Butylbenzene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Styrene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	21	01/29/2016	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Toluene	65	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
o-Xylene	14	µg/Kg	1	0.83	01/29/2016	EPA 8260B	
p/m-Xylene	48	µg/Kg	1	1.7	01/29/2016	EPA 8260B	
Total Xylenes	62	µg/Kg	1	2.5	01/29/2016	EPA 8260B	
Surrogate: Dibromofluoromethane	96.5%			60-140	01/29/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	95.9%			60-140	01/29/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	117%			60-140	01/29/2016	EPA 8260B	
Surrogate: Toluene-d8	116%			60-140	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP5-2

P601008-05 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B6A0016)

Diesel Range Organics	29.1	mg/kg	1	12.5	01/30/2016	EPA 8015B	D-02
Surrogate: n-Octacosane (c28)	101%			60-140	01/30/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6A0017)

Gasoline Range Organics	ND	mg/kg	1	0.189	01/29/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	90.4%			60-140	01/29/2016	EPA 8015B	

Volatile Organic Compounds (Batch ID: B6A0015)

Acetone	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Benzene	0.89	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.4	01/29/2016	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.4	01/29/2016	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.4	01/29/2016	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.4	01/29/2016	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP5-2 (Continued)

P601008-05 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Ethylbenzene	1.4	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Iodomethane	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.4	01/29/2016	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	8.8	01/29/2016	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Naphthalene	ND	µg/Kg	1	8.8	01/29/2016	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Propionitrile	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST5-PP5-2 (Continued)

P601008-05 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Styrene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	22	01/29/2016	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Toluene	8.6	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
o-Xylene	1.9	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
p/m-Xylene	5.6	µg/Kg	1	1.8	01/29/2016	EPA 8260B	
Total Xylenes	7.5	µg/Kg	1	2.6	01/29/2016	EPA 8260B	
Surrogate: Dibromofluoromethane	98.9%			60-140	01/29/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	95.7%			60-140	01/29/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	119%			60-140	01/29/2016	EPA 8260B	
Surrogate: Toluene-d8	104%			60-140	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP6-2

P601008-06 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B6A0016)

Diesel Range Organics	9.74	mg/kg	1	2.50	01/30/2016	EPA 8015B	D-02
Surrogate: n-Octacosane (c28)	93.8%			60-140	01/30/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6A0017)

Gasoline Range Organics	0.187	mg/kg	1	0.169	01/29/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	86.4%			60-140	01/29/2016	EPA 8015B	

Volatile Organic Compounds (Batch ID: B6A0015)

Acetone	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Benzene	2.8	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.4	01/29/2016	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.4	01/29/2016	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.4	01/29/2016	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.4	01/29/2016	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP6-2 (Continued)

P601008-06 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Iodomethane	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.4	01/29/2016	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	8.8	01/29/2016	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Naphthalene	ND	µg/Kg	1	8.8	01/29/2016	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Propionitrile	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP6-2 (Continued)

P601008-06 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Styrene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	22	01/29/2016	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Toluene	19	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
o-Xylene	1.3	µg/Kg	1	0.88	01/29/2016	EPA 8260B	
p/m-Xylene	3.4	µg/Kg	1	1.8	01/29/2016	EPA 8260B	
Total Xylenes	4.7	µg/Kg	1	2.6	01/29/2016	EPA 8260B	
Surrogate: Dibromofluoromethane	104%			60-140	01/29/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	110%			60-140	01/29/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	121%			60-140	01/29/2016	EPA 8260B	
Surrogate: Toluene-d8	103%			60-140	01/29/2016	EPA 8260B	

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Sample: UST5-PP7-2

P601008-07 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B6A0016)

Diesel Range Organics	102	mg/kg	1	25.0	01/30/2016	EPA 8015B	D-02
Surrogate: n-Octacosane (c28)	119%			60-140	01/30/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6A0017)

Gasoline Range Organics	ND	mg/kg	1	0.164	01/29/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	94.0%			60-140	01/29/2016	EPA 8015B	

Volatile Organic Compounds (Batch ID: B6A0015)

Acetone	18	µg/Kg	1	18	01/29/2016	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Benzene	2.4	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.5	01/29/2016	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.5	01/29/2016	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.5	01/29/2016	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.5	01/29/2016	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	

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Sample: UST5-PP7-2 (Continued)

P601008-07 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Ethylbenzene	3.6	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Iodomethane	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.5	01/29/2016	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	9.1	01/29/2016	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Naphthalene	ND	µg/Kg	1	9.1	01/29/2016	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Propionitrile	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST5-PP7-2 (Continued)

P601008-07 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B6A0015) (Continued)

sec-Butylbenzene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Styrene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	23	01/29/2016	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Toluene	45	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
o-Xylene	3.1	µg/Kg	1	0.91	01/29/2016	EPA 8260B	
p/m-Xylene	10	µg/Kg	1	1.8	01/29/2016	EPA 8260B	
Total Xylenes	13	µg/Kg	1	2.7	01/29/2016	EPA 8260B	
Surrogate: Dibromofluoromethane	91.2%			60-140	01/29/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	89.6%			60-140	01/29/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	120%			60-140	01/29/2016	EPA 8260B	
Surrogate: Toluene-d8	101%			60-140	01/29/2016	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST5-PP8-2

P601008-08 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B6A0016)

Diesel Range Organics	34.9	mg/kg	1	12.5	01/30/2016	EPA 8015B	D-02
Surrogate: n-Octacosane (c28)	104%			60-140	01/30/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6A0017)

Gasoline Range Organics	0.381	mg/kg	1	0.179	01/29/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	92.8%			60-140	01/29/2016	EPA 8015B	

Volatile Organic Compounds (Batch ID: B6A0015)

Acetone	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Benzene	1.8	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.3	01/29/2016	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.3	01/29/2016	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.3	01/29/2016	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.3	01/29/2016	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST5-PP8-2 (Continued)

P601008-08 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Ethylbenzene	10	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Iodomethane	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.3	01/29/2016	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	8.6	01/29/2016	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Naphthalene	ND	µg/Kg	1	8.6	01/29/2016	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Propionitrile	ND	µg/Kg	1	17	01/29/2016	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	

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Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST5-PP8-2 (Continued)

P601008-08 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B6A0015) (Continued)

sec-Butylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Styrene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	22	01/29/2016	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Toluene	74	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
o-Xylene	5.7	µg/Kg	1	0.86	01/29/2016	EPA 8260B	
p/m-Xylene	24	µg/Kg	1	1.7	01/29/2016	EPA 8260B	
Total Xylenes	30	µg/Kg	1	2.6	01/29/2016	EPA 8260B	
Surrogate: Dibromofluoromethane	82.2%			60-140	01/29/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	98.3%			60-140	01/29/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	111%			60-140	01/29/2016	EPA 8260B	
Surrogate: Toluene-d8	101%			60-140	01/29/2016	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
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Project Manager: Phil Skorge

Sample: UST5-PP9-2

P601008-09 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B6A0016)

Diesel Range Organics	9.74	mg/kg	1	2.50	01/30/2016	EPA 8015B	D-02
Surrogate: n-Octacosane (c28)	99.4%			60-140	01/30/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6A0017)

Gasoline Range Organics	3.58	mg/kg	1	0.182	01/29/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	95.6%			60-140	01/29/2016	EPA 8015B	

Volatile Organic Compounds (Batch ID: B6A0015)

Acetone	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Benzene	2.1	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.5	01/29/2016	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.5	01/29/2016	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.5	01/29/2016	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.5	01/29/2016	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP9-2 (Continued)

P601008-09 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Ethylbenzene	1.6	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Iodomethane	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.5	01/29/2016	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	8.9	01/29/2016	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Naphthalene	ND	µg/Kg	1	8.9	01/29/2016	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Propionitrile	ND	µg/Kg	1	18	01/29/2016	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP9-2 (Continued)

P601008-09 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Styrene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Tert-Butyl Alcohol (TBA)	78	µg/Kg	1	22	01/29/2016	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Toluene (R)	3000	µg/Kg	25	22	01/29/2016	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
o-Xylene	3.4	µg/Kg	1	0.89	01/29/2016	EPA 8260B	
p/m-Xylene	6.4	µg/Kg	1	1.8	01/29/2016	EPA 8260B	
Total Xylenes	9.9	µg/Kg	1	2.7	01/29/2016	EPA 8260B	
Surrogate: Dibromofluoromethane	94.1%			60-140	01/29/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	97.0%			60-140	01/29/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	115%			60-140	01/29/2016	EPA 8260B	
Surrogate: Toluene-d8	112%			60-140	01/29/2016	EPA 8260B	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST5-PP10-2

P601008-10 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B6A0016)

Diesel Range Organics	242	mg/kg	1	25.3	01/30/2016	EPA 8015B	D-02
Surrogate: n-Octacosane (c28)	116%			60-140	01/30/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6A0017)

Gasoline Range Organics	0.189	mg/kg	1	0.172	01/29/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	95.6%			60-140	01/29/2016	EPA 8015B	

Volatile Organic Compounds (Batch ID: B6A0015)

Acetone	21	µg/Kg	1	16	01/29/2016	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	16	01/29/2016	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Benzene	3.8	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Bromomethane	ND	µg/Kg	1	3.9	01/29/2016	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	16	01/29/2016	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	3.9	01/29/2016	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Chloroethane	ND	µg/Kg	1	3.9	01/29/2016	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Chloromethane	ND	µg/Kg	1	3.9	01/29/2016	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP10-2 (Continued)

P601008-10 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Ethylbenzene	4.6	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Iodomethane	ND	µg/Kg	1	16	01/29/2016	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	3.9	01/29/2016	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	7.8	01/29/2016	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	16	01/29/2016	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Naphthalene	ND	µg/Kg	1	7.8	01/29/2016	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Propionitrile	ND	µg/Kg	1	16	01/29/2016	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	

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Sample: UST5-PP10-2 (Continued)

P601008-10 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
sec-Butylbenzene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Styrene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	20	01/29/2016	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Toluene	140	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
o-Xylene	14	µg/Kg	1	0.78	01/29/2016	EPA 8260B	
p/m-Xylene	38	µg/Kg	1	1.6	01/29/2016	EPA 8260B	
Total Xylenes	52	µg/Kg	1	2.3	01/29/2016	EPA 8260B	
Surrogate: Dibromofluoromethane	95.6%			60-140	01/29/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	98.1%			60-140	01/29/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	120%			60-140	01/29/2016	EPA 8260B	
Surrogate: Toluene-d8	112%			60-140	01/29/2016	EPA 8260B	

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Project Manager: Phil Skorge

Sample: UST5-PP11-2

P601008-11 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B6A0016)

Diesel Range Organics	79.6	mg/kg	1	12.5	01/30/2016	EPA 8015B	D-02
Surrogate: n-Octacosane (c28)	119%			60-140	01/30/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6A0017)

Gasoline Range Organics	448	mg/kg	25	4.03	01/29/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	133%			60-140	01/29/2016	EPA 8015B	

Volatile Organic Compounds (Batch ID: B6A0015)

Acetone	ND	µg/Kg	2500	41000	01/29/2016	EPA 8260B	
Acetonitrile	ND	µg/Kg	2500	41000	01/29/2016	EPA 8260B	
Acrylonitrile	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Allyl Chloride	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Benzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Bromobenzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Bromochloromethane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Bromoform	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Bromomethane	ND	µg/Kg	2500	10000	01/29/2016	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	2500	41000	01/29/2016	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	2500	10000	01/29/2016	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Chlorobenzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Chloroethane	ND	µg/Kg	2500	10000	01/29/2016	EPA 8260B	
Chloroform	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Chloromethane	ND	µg/Kg	2500	10000	01/29/2016	EPA 8260B	
Chloroprene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Dibromomethane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	

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Sample: UST5-PP11-2 (Continued)

P601008-11 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Diethyl Ether	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Ethylbenzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
2-Hexanone	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Iodomethane	ND	µg/Kg	2500	41000	01/29/2016	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	2500	10000	01/29/2016	EPA 8260B	
Methylene Chloride	ND	µg/Kg	2500	20000	01/29/2016	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	2500	41000	01/29/2016	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Naphthalene	ND	µg/Kg	2500	20000	01/29/2016	EPA 8260B	
Phenanthrene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Propionitrile	ND	µg/Kg	2500	41000	01/29/2016	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	

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Sample: UST5-PP11-2 (Continued)

P601008-11 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6A0015) (Continued)							
sec-Butylbenzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Styrene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	2500	51000	01/29/2016	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Toluene	120000	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Trichloroethene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
o-Xylene	3400	µg/Kg	2500	2000	01/29/2016	EPA 8260B	
p/m-Xylene	8800	µg/Kg	2500	4100	01/29/2016	EPA 8260B	
Total Xylenes	12000	µg/Kg	2500	6100	01/29/2016	EPA 8260B	
Surrogate: Dibromofluoromethane	87.7%			60-140	01/29/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	96.7%			60-140	01/29/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	103%			60-140	01/29/2016	EPA 8260B	
Surrogate: Toluene-d8	93.9%			60-140	01/29/2016	EPA 8260B	

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Quality Control

Diesel Range Organics (C10-C28)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6A0016										
Blank (B6A0016-BLK1)										
					Prepared & Analyzed: 01/29/2016					
Diesel Range Organics	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	2.01			mg/kg	2.00		101	60-140		
LCS (B6A0016-BS1)										
					Prepared & Analyzed: 01/29/2016					
Diesel	38.4		2.50	mg/kg	50.0		76.8	70-130		
Surrogate: n-Octacosane (c28)	1.91			mg/kg	2.00		95.5	60-140		
LCS Dup (B6A0016-BSD1)										
					Prepared & Analyzed: 01/29/2016					
Diesel	37.6		2.50	mg/kg	50.0		75.1	70-130	2.23	20
Surrogate: n-Octacosane (c28)	1.92			mg/kg	2.00		96.1	60-140		
Matrix Spike (B6A0016-MS1)										
			Source: P601008-01		Prepared & Analyzed: 01/29/2016					
Diesel	37.3		2.50	mg/kg	50.0	ND	74.5	70-130		
Surrogate: n-Octacosane (c28)	1.94			mg/kg	2.00		97.1	60-140		
Matrix Spike Dup (B6A0016-MSD1)										
			Source: P601008-01		Prepared & Analyzed: 01/29/2016					
Diesel	35.4		2.48	mg/kg	49.5	ND	71.6	70-130	5.05	20
Surrogate: n-Octacosane (c28)	1.76			mg/kg	1.98		88.7	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6A0017										
Blank (B6A0017-BLK1)										
					Prepared & Analyzed: 01/29/2016					
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.236			mg/kg	0.250		94.4	60-140		
LCS (B6A0017-BS1)										
					Prepared & Analyzed: 01/29/2016					
Gasoline	8.72		0.200	mg/kg	10.0		87.2	70-130		
Surrogate: 4-Bromofluorobenzene	0.242			mg/kg	0.250		96.8	60-140		
LCS Dup (B6A0017-BSD1)										
					Prepared & Analyzed: 01/29/2016					
Gasoline	8.67		0.200	mg/kg	10.0		86.7	70-130	0.598	20
Surrogate: 4-Bromofluorobenzene	0.235			mg/kg	0.250		94.0	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B6A0015

Blank (B6A0015-BLK1)

Prepared & Analyzed: 01/29/2016

Acetone	ND		20	µg/Kg						
Acetonitrile	ND		20	µg/Kg						
Acrylonitrile	ND		1.0	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		1.0	µg/Kg						

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B6A0015 (Continued)

Blank (B6A0015-BLK1)

Prepared & Analyzed: 01/29/2016

Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		1.0	µg/Kg						
Iodomethane	ND		20	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Phenanthrene	ND		1.0	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	47			µg/Kg	50.0		94.1	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		97.8	60-140		
Surrogate: 1,2-Dichloroethane-d4	55			µg/Kg	50.0		110	60-140		
Surrogate: Toluene-d8	49			µg/Kg	50.0		98.7	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B6A0015 (Continued)

LCS (B6A0015-BS1)

Prepared & Analyzed: 01/29/2016

Benzene	43		1.0	µg/Kg	50.0		85.1	70-130		
Bromobenzene	48		1.0	µg/Kg	50.0		96.3	70-130		
Bromodichloromethane	52		1.0	µg/Kg	50.0		103	70-130		
Bromoform	51		1.0	µg/Kg	50.0		102	70-130		
Chlorobenzene	44		1.0	µg/Kg	50.0		88.0	70-130		
Chloroethane	41		5.0	µg/Kg	50.0		82.1	70-130		
Chloroform	45		1.0	µg/Kg	50.0		90.1	70-130		
4-Chlorotoluene	46		1.0	µg/Kg	50.0		92.3	70-130		
Dibromomethane	52		1.0	µg/Kg	50.0		104	70-130		
1,2-Dichlorobenzene	46		1.0	µg/Kg	50.0		91.9	70-130		
1,1-Dichloroethene	43		1.0	µg/Kg	50.0		86.3	70-130		
1,2-Dichloropropane	48		1.0	µg/Kg	50.0		95.9	70-130		
2,2-Dichloropropane	43		1.0	µg/Kg	50.0		85.2	70-130		
1,1-Dichloropropene	43		1.0	µg/Kg	50.0		85.2	70-130		
Diethyl Ether	40		1.0	µg/Kg	50.0		80.4	70-130		
Diisopropyl Ether (DIPE)	39		1.0	µg/Kg	50.0		77.3	70-130		
Ethylbenzene	46		1.0	µg/Kg	50.0		91.8	70-130		
Hexachloro-1,3-Butadiene	48		1.0	µg/Kg	50.0		95.0	70-130		
Methylene Chloride	43		10	µg/Kg	50.0		86.4	70-130		
Methyl-t-Butyl Ether (MTBE)	46		1.0	µg/Kg	50.0		92.9	70-130		
Naphthalene	39		10	µg/Kg	50.0		78.1	70-130		
Styrene	48		1.0	µg/Kg	50.0		95.7	70-130		
tert-Butylbenzene	44		1.0	µg/Kg	50.0		88.0	70-130		
Tetrachloroethene	41		1.0	µg/Kg	50.0		81.4	70-130		
Toluene	43		1.0	µg/Kg	50.0		86.4	70-130		
1,2,3-Trichlorobenzene	47		1.0	µg/Kg	50.0		93.5	70-130		
Trichloroethene	45		1.0	µg/Kg	50.0		90.4	70-130		
1,3,5-Trimethylbenzene	49		1.0	µg/Kg	50.0		98.1	70-130		
Vinyl Chloride	42		1.0	µg/Kg	50.0		83.5	70-130		
Surrogate: Dibromofluoromethane	46			µg/Kg	50.0		91.2	60-140		
Surrogate: 4-Bromofluorobenzene	52			µg/Kg	50.0		104	60-140		
Surrogate: 1,2-Dichloroethane-d4	53			µg/Kg	50.0		105	60-140		
Surrogate: Toluene-d8	45			µg/Kg	50.0		89.7	60-140		

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Project Manager: Phil Skorge

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6A0015 (Continued)										
LCS Dup (B6A0015-BSD1)				Prepared & Analyzed: 01/29/2016						
Benzene	48		1.0	µg/Kg	50.0		96.4	70-130	12.5	20
Bromobenzene	49		1.0	µg/Kg	50.0		97.6	70-130	1.34	20
Bromodichloromethane	53		1.0	µg/Kg	50.0		106	70-130	2.93	20
Bromoform	50		1.0	µg/Kg	50.0		101	70-130	1.65	20
Chlorobenzene	46		1.0	µg/Kg	50.0		92.0	70-130	4.40	20
Chloroethane	43		5.0	µg/Kg	50.0		85.3	70-130	3.85	20
Chloroform	50		1.0	µg/Kg	50.0		99.2	70-130	9.57	20
4-Chlorotoluene	48		1.0	µg/Kg	50.0		95.4	70-130	3.33	20
Dibromomethane	54		1.0	µg/Kg	50.0		107	70-130	2.95	20
1,2-Dichlorobenzene	47		1.0	µg/Kg	50.0		94.0	70-130	2.22	20
1,1-Dichloroethene	40		1.0	µg/Kg	50.0		81.0	70-130	6.36	20
1,2-Dichloropropane	48		1.0	µg/Kg	50.0		96.9	70-130	1.06	20
2,2-Dichloropropane	49		1.0	µg/Kg	50.0		98.7	70-130	14.7	20
1,1-Dichloropropene	47		1.0	µg/Kg	50.0		94.5	70-130	10.3	20
Diethyl Ether	42		1.0	µg/Kg	50.0		84.8	70-130	5.28	20
Diisopropyl Ether (DIPE)	44		1.0	µg/Kg	50.0		88.6	70-130	13.6	20
Ethylbenzene	48		1.0	µg/Kg	50.0		96.2	70-130	4.66	20
Hexachloro-1,3-Butadiene	48		1.0	µg/Kg	50.0		95.1	70-130	0.0631	20
Methylene Chloride	43		10	µg/Kg	50.0		85.6	70-130	0.907	20
Methyl-t-Butyl Ether (MTBE)	47		1.0	µg/Kg	50.0		93.1	70-130	0.193	20
Naphthalene	42		10	µg/Kg	50.0		84.4	70-130	7.68	20
Styrene	44		1.0	µg/Kg	50.0		88.8	70-130	7.50	20
tert-Butylbenzene	46		1.0	µg/Kg	50.0		92.6	70-130	5.07	20
Tetrachloroethene	40		1.0	µg/Kg	50.0		80.8	70-130	0.690	20
Toluene	45		1.0	µg/Kg	50.0		90.2	70-130	4.24	20
1,2,3-Trichlorobenzene	48		1.0	µg/Kg	50.0		95.5	70-130	2.16	20
Trichloroethene	48		1.0	µg/Kg	50.0		95.5	70-130	5.44	20
1,3,5-Trimethylbenzene	50		1.0	µg/Kg	50.0		101	70-130	2.46	20
Vinyl Chloride	45		1.0	µg/Kg	50.0		90.3	70-130	7.85	20
Surrogate: Dibromofluoromethane	53			µg/Kg	50.0		107	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		100	60-140		
Surrogate: 1,2-Dichloroethane-d4	53			µg/Kg	50.0		106	60-140		
Surrogate: Toluene-d8	48			µg/Kg	50.0		96.3	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Notes and Definitions

Item	Definition
D-02	Hydrocarbon pattern present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

page

1 of 2

PAL PID: P601008

Client Name 5/11/15		Arcadis		REQUESTED ANALYSES																
Project Manager		Phil Skorge																		
Email		Phil.Skorge@arcadis.com																		
Phone		714.508.2676																		
FAX		714.730.9345																		
Project Name/Number		MTA Loc C&S																		
P.O. Number																				
Sampled By		Zack Mason																		
Client Sample ID / Description				Sample Date	Sample Time	Sample Matrix*	Container													
							Quantity	Type												
1	UST5-PP1-2			1/29/16	09:15	S	1/1	90 Jar / 5035	X	X	X									
2	UST5-PP2-2				09:22				X	X	X									
3	UST5-PP3-2				09:45				X	X	X									
4	UST5-PP4-2				10:00				X	X	X									
5	UST5-PP5-2				10:08				X	X	X									
6	UST5-PP6-2				10:30				X	X	X									
7	UST5-PP7-2				10:45				X	X	X									
8	UST5-PP8-2				11:00				X	X	X									
9	UST5-PP9-2				11:10				X	X	X									
10	UST5-PP10-2				11:20				X	X	X									
PAL Containers used:				☒ Yes	No															
Type of Ice used:				☒ Wet	Blue	None														
Sample Preservative:				☒ Yes	No															
TAT Needed (circle one)				STD 5 day	<u>24</u>	RUSH 48 72														
EDD Required - Circle one:				Yes	No															
Type of EDD:																				
PAL Labeled Samples:																				
*PAL MATRIX CODES: (S= Soils); (P.= Product); (SED = Sediment); (<u>FW</u> = Freshwater); (<u>WW</u> = Wastewater); (<u>STRMW</u> = Stormwater); (W = other Water)																				

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310-809-1041

page 2 of 2

PAL PID: P601008

PAL PID: P601008																				
Client Name 5/11/15		Arcadis					REQUESTED ANALYSES													
Project Manager Email Phone FAX Project Name/Number P.O. Number Sampled By		Phil Skorge Phil.skorge@arcadis.com 714.508.2676 714.730.9345 MTA Loc GLS Zack Mason					TPH-G (EUS/SO3S) TPH-D (EUS/B) VOCs (E260B/SO3S)													
Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container																
				Quantity	Type															
1 UST5-PP10-2	1/29/16	11:30	S	1/1	925mL SO3S	X	X	X												
2																				
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
PAL Containers used:		☒ Yes	No																	
Type of Ice used:		☒ Wet	Blue	None																
Sample Preservative:		☒ Yes	No																	
TAT Needed (circle one)	STD	RUSH																		
	5 day	(24) 48 72																		
EDD Required - Circle one:		Yes	No																	
Type of EDD:																				
PAL Labeled Samples: _____																				
						RELINQUISHED BY														
						Signature: Zack Mason					DATE: 1/29/16									
						Print: Zack Mason					TIME: 12:17									
						Company: Arcadis														
						RECEIVED BY														
						Signature: Anthony Valenzuela					DATE: 1/29/16									
						Print: ANTHONY VALENZUELA					TIME: 12:17									
						Company: PAL														
						RELINQUISHED BY														
						Signature: Anthony Valenzuela					DATE: 1/29/16									
						Print: ANTHONY VALENZUELA					TIME: 13:05									
						Company: PAL														
						RECEIVED BY														
						Signature: M Valenzuela					DATE: 1/29/16									
						Print: M Valenzuela					TIME: 13:05									
						Company: PAL														
*PAL MATRIX CODES: (S= Soils); (P.= Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)																				

SAMPLE RECEIPT FORM

Cooler ID :

Client

Date Received:

Total # of Samples:

COURIER INFORMATION

☒ PALI ☐ OTHER ☐ FEDEX
☐ CLIENT ☐ UPS

Tracking #

TEMPERATURE

°C ☒ WET ICE ☐ BLUE ICE ☐ NO ICE
☐ AMBIENT

CLIENT COC

☒ INCLUDED ☒ SIGNED
☐ NOT INCLUDED ☐ NOT SIGNED

SAMPLE MATRIX

☐ LIQUID ☐ TISSUE
☐ Composite at PALI, equal ☐ Homogenized
☐ Composite at PALI, flow-weighted ☐ Unhomogenized
☒ SOLID ☐ OTHER

CONDITION OF SAMPLES UPON VERIFICATION

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒
Samples outside temperature criteria but received on ice/chilled on same day of sampling	☐	☐	☒

NOTES

Initials

Date

Initials

Date

Print Form

February 08, 2016

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320 Commerce, Suite 200
Irvine, CA 92602

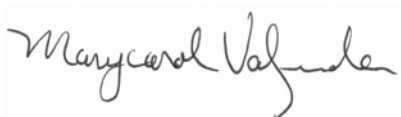
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P602007

Dear Phil Skorge

Enclosed are the results of analyses for samples received by our laboratory on 2/5/2016. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P602007-01	UST5-PP11-NSW1-5	Solid	02/05/2016	02/05/2016
P602007-02	UST5-PP11-SSW2-5	Solid	02/05/2016	02/05/2016

ARCADIS US
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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST5-PP11-NSW1-5

P602007-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B6B0008)

Diesel Range Organics	2.87	mg/kg	1	2.48	02/06/2016	EPA 8015B	
Surrogate: n-Octacosane (c28)	83.1%			60-140	02/06/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6B0010)

Gasoline Range Organics	2.81	mg/kg	1	0.185	02/08/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	87.2%			60-140	02/08/2016	EPA 8015B	

Volatile Organic Compounds (Batch ID: B6B0009)

Acetone	ND	µg/Kg	20	390	02/08/2016	EPA 8260B	
Acetonitrile	ND	µg/Kg	20	390	02/08/2016	EPA 8260B	
Acrylonitrile	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Allyl Chloride	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Benzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Bromobenzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Bromochloromethane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Bromoform	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Bromomethane	ND	µg/Kg	20	98	02/08/2016	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	20	390	02/08/2016	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	20	98	02/08/2016	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Chlorobenzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Chloroethane	ND	µg/Kg	20	98	02/08/2016	EPA 8260B	
Chloroform	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Chloromethane	ND	µg/Kg	20	98	02/08/2016	EPA 8260B	
Chloroprene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Dibromomethane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	

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Sample: UST5-PP11-NSW1-5 (Continued)

P602007-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6B0009) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Diethyl Ether	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Ethylbenzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
2-Hexanone	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Iodomethane	ND	µg/Kg	20	390	02/08/2016	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	20	98	02/08/2016	EPA 8260B	
Methylene Chloride	ND	µg/Kg	20	200	02/08/2016	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	20	390	02/08/2016	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Naphthalene	ND	µg/Kg	20	200	02/08/2016	EPA 8260B	
Phenanthrene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Propionitrile	ND	µg/Kg	20	390	02/08/2016	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	

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Sample: UST5-PP11-NSW1-5 (Continued)

P602007-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6B0009) (Continued)							
sec-Butylbenzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Styrene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	20	490	02/08/2016	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Toluene	1700	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Trichloroethene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	20	20	02/08/2016	EPA 8260B	
o-Xylene	77	µg/Kg	20	20	02/08/2016	EPA 8260B	
p/m-Xylene	120	µg/Kg	20	39	02/08/2016	EPA 8260B	
Total Xylenes	190	µg/Kg	20	59	02/08/2016	EPA 8260B	
Surrogate: Dibromofluoromethane	82.0%			60-140	02/08/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	98.0%			60-140	02/08/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	107%			60-140	02/08/2016	EPA 8260B	
Surrogate: Toluene-d8	102%			60-140	02/08/2016	EPA 8260B	

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Sample: UST5-PP11-SSW2-5

P602007-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B6B0008)

Diesel Range Organics	ND	mg/kg	1	2.50	02/06/2016	EPA 8015B	
Surrogate: n-Octacosane (c28)	85.6%			60-140	02/06/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6B0010)

Gasoline Range Organics	0.424	mg/kg	1	0.179	02/08/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	91.6%			60-140	02/08/2016	EPA 8015B	

Volatile Organic Compounds (Batch ID: B6B0009)

Acetone	ND	µg/Kg	1	19	02/08/2016	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	19	02/08/2016	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Benzene	5.9	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Bromoform	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Bromomethane	ND	µg/Kg	1	4.8	02/08/2016	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	19	02/08/2016	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	4.8	02/08/2016	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Chloroethane	ND	µg/Kg	1	4.8	02/08/2016	EPA 8260B	
Chloroform	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Chloromethane	ND	µg/Kg	1	4.8	02/08/2016	EPA 8260B	
Chloroprene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	

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Sample: UST5-PP11-SSW2-5 (Continued)

P602007-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6B0009) (Continued)							
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Iodomethane	ND	µg/Kg	1	19	02/08/2016	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	4.8	02/08/2016	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	9.6	02/08/2016	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	19	02/08/2016	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Naphthalene	ND	µg/Kg	1	9.6	02/08/2016	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Propionitrile	ND	µg/Kg	1	19	02/08/2016	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	

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Sample: UST5-PP11-SSW2-5 (Continued)

P602007-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B6B0009) (Continued)

sec-Butylbenzene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Styrene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	24	02/08/2016	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Toluene (R)	800	µg/Kg	20	19	02/08/2016	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
o-Xylene	3.9	µg/Kg	1	0.96	02/08/2016	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	1.9	02/08/2016	EPA 8260B	
Total Xylenes	5.6	µg/Kg	1	2.9	02/08/2016	EPA 8260B	
Surrogate: Dibromofluoromethane	94.4%			60-140	02/08/2016	EPA 8260B	
Surrogate: Dibromofluoromethane (R)	85.0%			60-140	02/08/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	98.2%			60-140	02/08/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene (R)	97.0%			60-140	02/08/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	120%			60-140	02/08/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4 (R)	109%			60-140	02/08/2016	EPA 8260B	
Surrogate: Toluene-d8	99.6%			60-140	02/08/2016	EPA 8260B	
Surrogate: Toluene-d8 (R)	103%			60-140	02/08/2016	EPA 8260B	

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Quality Control

Diesel Range Organics (C10-C28)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6B0008										
Blank (B6B0008-BLK1)					Prepared: 02/05/2016 Analyzed: 02/06/2016					
Diesel Range Organics	ND		2.48	mg/kg						
Surrogate: n-Octacosane (c28)	1.71			mg/kg	1.98		86.6	60-140		
LCS (B6B0008-BS1)					Prepared: 02/05/2016 Analyzed: 02/06/2016					
Diesel	39.6		2.50	mg/kg	50.0		79.3	70-130		
Surrogate: n-Octacosane (c28)	1.63			mg/kg	2.00		81.4	60-140		
LCS Dup (B6B0008-BSD1)					Prepared: 02/05/2016 Analyzed: 02/06/2016					
Diesel	41.0		2.50	mg/kg	50.0		82.1	70-130	3.47	20
Surrogate: n-Octacosane (c28)	1.71			mg/kg	2.00		85.7	60-140		
Matrix Spike (B6B0008-MS1)					Source: P602007-01		Prepared: 02/05/2016 Analyzed: 02/06/2016			
Diesel	45.7		2.50	mg/kg	50.0	2.87	85.7	70-130		
Surrogate: n-Octacosane (c28)	1.83			mg/kg	2.00		91.4	60-140		
Matrix Spike Dup (B6B0008-MSD1)					Source: P602007-01		Prepared: 02/05/2016 Analyzed: 02/06/2016			
Diesel	35.7	QM-05, QR-03	2.48	mg/kg	49.5	2.87	66.4	70-130	24.6	20
Surrogate: n-Octacosane (c28)	1.66			mg/kg	1.98		83.7	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6B0010										
Blank (B6B0010-BLK1)										
					Prepared & Analyzed: 02/08/2016					
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.237			mg/kg	0.250		94.8	60-140		
LCS (B6B0010-BS1)										
					Prepared & Analyzed: 02/08/2016					
Gasoline	8.65		0.200	mg/kg	10.0		86.5	70-130		
Surrogate: 4-Bromofluorobenzene	0.237			mg/kg	0.250		94.8	60-140		
LCS Dup (B6B0010-BSD1)										
					Prepared & Analyzed: 02/08/2016					
Gasoline	9.05		0.200	mg/kg	10.0		90.5	70-130	4.46	20
Surrogate: 4-Bromofluorobenzene	0.246			mg/kg	0.250		98.4	60-140		

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Quality Control (Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6B0009										
Blank (B6B0009-BLK1)										
Prepared & Analyzed: 02/08/2016										
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		20	µg/Kg						
Acrylonitrile	ND		1.0	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		1.0	µg/Kg						

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B6B0009 (Continued)

Blank (B6B0009-BLK1)

Prepared & Analyzed: 02/08/2016

Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		1.0	µg/Kg						
Iodomethane	ND		20	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Phenanthrene	ND		1.0	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	46			µg/Kg	50.0		91.9	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	55			µg/Kg	50.0		110	60-140		
Surrogate: Toluene-d8	51			µg/Kg	50.0		103	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
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Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B6B0009 (Continued)

LCS (B6B0009-BS1)

Prepared & Analyzed: 02/08/2016

Benzene	46		1.0	µg/Kg	50.0		91.6	70-130		
Bromobenzene	45		1.0	µg/Kg	50.0		90.6	70-130		
Bromodichloromethane	52		1.0	µg/Kg	50.0		105	70-130		
Bromoform	48		1.0	µg/Kg	50.0		96.6	70-130		
Chlorobenzene	45		1.0	µg/Kg	50.0		89.0	70-130		
Chloroethane	50		5.0	µg/Kg	50.0		99.9	70-130		
Chloroform	48		1.0	µg/Kg	50.0		96.1	70-130		
4-Chlorotoluene	48		1.0	µg/Kg	50.0		95.0	70-130		
Dibromomethane	54		1.0	µg/Kg	50.0		107	70-130		
1,2-Dichlorobenzene	45		1.0	µg/Kg	50.0		90.3	70-130		
1,1-Dichloroethene	45		1.0	µg/Kg	50.0		90.2	70-130		
1,2-Dichloropropane	45		1.0	µg/Kg	50.0		90.4	70-130		
2,2-Dichloropropane	49		1.0	µg/Kg	50.0		98.0	70-130		
1,1-Dichloropropene	45		1.0	µg/Kg	50.0		90.9	70-130		
Diethyl Ether	41		1.0	µg/Kg	50.0		82.4	70-130		
Diisopropyl Ether (DIPE)	41		1.0	µg/Kg	50.0		82.8	70-130		
Ethylbenzene	46		1.0	µg/Kg	50.0		92.6	70-130		
Hexachloro-1,3-Butadiene	46		1.0	µg/Kg	50.0		92.3	70-130		
Methylene Chloride	44		10	µg/Kg	50.0		87.0	70-130		
Methyl-t-Butyl Ether (MTBE)	48		1.0	µg/Kg	50.0		96.7	70-130		
Naphthalene	42		10	µg/Kg	50.0		83.1	70-130		
Styrene	46		1.0	µg/Kg	50.0		91.6	70-130		
tert-Butylbenzene	43		1.0	µg/Kg	50.0		86.2	70-130		
Tetrachloroethene	44		1.0	µg/Kg	50.0		87.8	70-130		
Toluene	47		1.0	µg/Kg	50.0		94.7	70-130		
1,2,3-Trichlorobenzene	45		1.0	µg/Kg	50.0		90.7	70-130		
Trichloroethene	44		1.0	µg/Kg	50.0		88.9	70-130		
1,3,5-Trimethylbenzene	48		1.0	µg/Kg	50.0		95.8	70-130		
Vinyl Chloride	41		1.0	µg/Kg	50.0		81.9	70-130		
Surrogate: Dibromofluoromethane	52			µg/Kg	50.0		105	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		98.8	60-140		
Surrogate: 1,2-Dichloroethane-d4	59			µg/Kg	50.0		117	60-140		
Surrogate: Toluene-d8	51			µg/Kg	50.0		101	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6B0009 (Continued)										
LCS Dup (B6B0009-BSD1)				Prepared & Analyzed: 02/08/2016						
Benzene	47		1.0	µg/Kg	50.0		94.1	70-130	2.67	20
Bromobenzene	47		1.0	µg/Kg	50.0		93.9	70-130	3.62	20
Bromodichloromethane	55		1.0	µg/Kg	50.0		111	70-130	5.35	20
Bromoform	51		1.0	µg/Kg	50.0		103	70-130	6.37	20
Chlorobenzene	46		1.0	µg/Kg	50.0		92.9	70-130	4.29	20
Chloroethane	51		5.0	µg/Kg	50.0		101	70-130	1.49	20
Chloroform	50		1.0	µg/Kg	50.0		99.8	70-130	3.78	20
4-Chlorotoluene	48		1.0	µg/Kg	50.0		95.7	70-130	0.755	20
Dibromomethane	54		1.0	µg/Kg	50.0		108	70-130	1.00	20
1,2-Dichlorobenzene	46		1.0	µg/Kg	50.0		92.8	70-130	2.73	20
1,1-Dichloroethene	46		1.0	µg/Kg	50.0		91.7	70-130	1.63	20
1,2-Dichloropropane	47		1.0	µg/Kg	50.0		94.0	70-130	3.91	20
2,2-Dichloropropane	50		1.0	µg/Kg	50.0		99.5	70-130	1.52	20
1,1-Dichloropropene	49		1.0	µg/Kg	50.0		98.1	70-130	7.68	20
Diethyl Ether	43		1.0	µg/Kg	50.0		86.0	70-130	4.30	20
Diisopropyl Ether (DIPE)	42		1.0	µg/Kg	50.0		83.6	70-130	0.937	20
Ethylbenzene	48		1.0	µg/Kg	50.0		95.7	70-130	3.23	20
Hexachloro-1,3-Butadiene	48		1.0	µg/Kg	50.0		95.4	70-130	3.37	20
Methylene Chloride	44		10	µg/Kg	50.0		88.5	70-130	1.75	20
Methyl-t-Butyl Ether (MTBE)	49		1.0	µg/Kg	50.0		98.0	70-130	1.42	20
Naphthalene	44		10	µg/Kg	50.0		88.1	70-130	5.93	20
Styrene	45		1.0	µg/Kg	50.0		90.1	70-130	1.63	20
tert-Butylbenzene	44		1.0	µg/Kg	50.0		88.6	70-130	2.77	20
Tetrachloroethene	46		1.0	µg/Kg	50.0		91.6	70-130	4.28	20
Toluene	48		1.0	µg/Kg	50.0		96.6	70-130	1.99	20
1,2,3-Trichlorobenzene	49		1.0	µg/Kg	50.0		98.3	70-130	8.08	20
Trichloroethene	46		1.0	µg/Kg	50.0		92.1	70-130	3.60	20
1,3,5-Trimethylbenzene	48		1.0	µg/Kg	50.0		95.9	70-130	0.0626	20
Vinyl Chloride	43		1.0	µg/Kg	50.0		85.4	70-130	4.16	20
Surrogate: Dibromofluoromethane	50			µg/Kg	50.0		100	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		98.9	60-140		
Surrogate: 1,2-Dichloroethane-d4	57			µg/Kg	50.0		115	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		101	60-140		

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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Notes and Definitions

Item	Definition
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL PID: F602007

Client Name 5/11/15		Arcadis				REQUESTED ANALYSES														
Project Manager		Phil Skorge				TPH-G (6015/5035)	TPH-D (6015B)	VOCs (6060B/5035)												
Email		Phil.Skorge@arcadis.com																		
Phone		714.508.3676																		
FAX		714.730.9345																		
Project Name/Number		MTA Loc 615																		
P.O. Number																				
Sampled By		Zack Mason																		
Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Container																
				Quantity	Type															
1 UST5-PP11-NSW1-5	2/5/16	08:10	S	1/1	762 Sw/5035	X	X	X												
2 UST5-PP11-SSW2-5	↓	08:20	↓	↓	↓	X	X	X												
3																				
4																				
5																				
6																				
7																				
8																				
9																				
10																				
PAL Containers used:		☒ Yes	☐ No			RELINQUISHED BY														
Type of Ice used:		☒ Wet	☐ Blue	☐ None		Signature: Zack Mason		DATE: 2/5/16												
Sample Preservative:		☒ Yes	☐ No			Print: Zack Mason		TIME: 10:15												
Company:		Arcadis				Signature: Anthony Valenzuela		DATE: 2/5/16												
TAT Needed (circle one)		STD 5 day		☒ 24		RUSH 48		72		Print: ANTHONY VALENZUELA		TIME: 10:16								
Company:		PAL				Signature: Anthony Valenzuela		DATE: 2/5/16												
EDD Required - Circle one:		☐ Yes		☐ No		Print: ANTHONY VALENZUELA		TIME: 10:50												
Type of EDD:						Signature: Anthony Valenzuela		DATE: 2/5/16												
Company:		PAL				Print: ANTHONY VALENZUELA		TIME: 10:50												
PAL Labeled Samples:						Signature: M Valenzuela		DATE: 2/5/16												
Company:		PAL				Print: M Valenzuela		TIME: 10:50												

*PAL MATRIX CODES: (S= Soils); (P= Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)

SAMPLE RECEIPT FORM

Cooler ID :

Client

Date Received:

Total # of Samples:

COURIER INFORMATION

☒ PALI ☐ OTHER ☐ FEDEX
☐ CLIENT ☐ UPS

Tracking #

TEMPERATURE

°C ☒ WET ICE ☐ BLUE ICE ☐ NO ICE
☐ AMBIENT

CLIENT COC

☒ INCLUDED ☒ SIGNED
☐ NOT INCLUDED ☐ NOT SIGNED

SAMPLE MATRIX

☐ LIQUID ☐ TISSUE
☐ Composite at PALI, equal ☐ Homogenized
☐ Composite at PALI, flow-weighted ☐ Unhomogenized

☒ SOLID ☐ OTHER

CONDITION OF SAMPLES UPON VERIFICATION

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒
Samples outside temperature criteria but received on ice/chilled on same day of sampling	☐	☐	☒

NOTES

Initials

Date

Initials

Date

Print Form

February 08, 2016

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

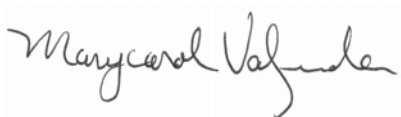
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P602005

Dear Phil Skorge

Enclosed are the results of analyses for samples received by our laboratory on 2/4/2016. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P602005-01	UST5-P11-10	Solid	02/04/2016	02/04/2016

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST5-P11-10

P602005-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B6B0005)

Diesel Range Organics	ND	mg/kg	1	2.50	02/05/2016	EPA 8015B	
Surrogate: n-Octacosane (c28)	87.8%			60-140	02/05/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6B0007)

Gasoline Range Organics	ND	mg/kg	1	0.204	02/04/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	89.2%			60-140	02/04/2016	EPA 8015B	

Volatile Organic Compounds (Batch ID: B6B0006)

Acetone	ND	µg/Kg	1	20	02/04/2016	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	20	02/04/2016	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Benzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Bromoform	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Bromomethane	ND	µg/Kg	1	5.1	02/04/2016	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	02/04/2016	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	5.1	02/04/2016	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Chloroethane	ND	µg/Kg	1	5.1	02/04/2016	EPA 8260B	
Chloroform	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Chloromethane	ND	µg/Kg	1	5.1	02/04/2016	EPA 8260B	
Chloroprene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	

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Sample: UST5-P11-10 (Continued)

P602005-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6B0006) (Continued)							
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Iodomethane	ND	µg/Kg	1	20	02/04/2016	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	5.1	02/04/2016	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	10	02/04/2016	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	02/04/2016	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Naphthalene	ND	µg/Kg	1	10	02/04/2016	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Propionitrile	ND	µg/Kg	1	20	02/04/2016	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	

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Sample: UST5-P11-10 (Continued)

P602005-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6B0006) (Continued)							
Styrene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	26	02/04/2016	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Toluene	7.6	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
o-Xylene	ND	µg/Kg	1	1.0	02/04/2016	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	2.0	02/04/2016	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	3.1	02/04/2016	EPA 8260B	
Surrogate: Dibromofluoromethane	97.0%			60-140	02/04/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	99.5%			60-140	02/04/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	121%			60-140	02/04/2016	EPA 8260B	
Surrogate: Toluene-d8	105%			60-140	02/04/2016	EPA 8260B	

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Quality Control

Diesel Range Organics (C10-C28)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6B0005										
Blank (B6B0005-BLK1)					Prepared: 02/04/2016 Analyzed: 02/05/2016					
Diesel Range Organics	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.77			mg/kg	2.00		88.3	60-140		
LCS (B6B0005-BS1)					Prepared: 02/04/2016 Analyzed: 02/05/2016					
Diesel	40.6		2.50	mg/kg	50.0		81.2	70-130		
Surrogate: n-Octacosane (c28)	1.86			mg/kg	2.00		93.1	60-140		
LCS Dup (B6B0005-BSD1)					Prepared: 02/04/2016 Analyzed: 02/05/2016					
Diesel	41.6		2.50	mg/kg	50.0		83.3	70-130	2.52	20
Surrogate: n-Octacosane (c28)	1.89			mg/kg	2.00		94.5	60-140		
Matrix Spike (B6B0005-MS1)					Source: P602005-01		Prepared: 02/04/2016 Analyzed: 02/05/2016			
Diesel	43.8		2.50	mg/kg	50.0	ND	87.6	70-130		
Surrogate: n-Octacosane (c28)	1.85			mg/kg	2.00		92.6	60-140		
Matrix Spike Dup (B6B0005-MSD1)					Source: P602005-01		Prepared: 02/04/2016 Analyzed: 02/05/2016			
Diesel	40.0		2.50	mg/kg	50.0	ND	80.1	70-130	8.98	20
Surrogate: n-Octacosane (c28)	1.75			mg/kg	2.00		87.4	60-140		

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Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6B0007										
Blank (B6B0007-BLK1)										
					Prepared & Analyzed: 02/04/2016					
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.243			mg/kg	0.250		97.2	60-140		
LCS (B6B0007-BS1)										
					Prepared & Analyzed: 02/04/2016					
Gasoline	9.80		0.200	mg/kg				70-130		
Surrogate: 4-Bromofluorobenzene	0.240			mg/kg	0.250		96.0	60-140		
LCS Dup (B6B0007-BSD1)										
					Prepared & Analyzed: 02/04/2016					
Gasoline	9.68		0.200	mg/kg				70-130	1.31	20
Surrogate: 4-Bromofluorobenzene	0.283			mg/kg	0.250		113	60-140		

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Quality Control (Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6B0006										
Blank (B6B0006-BLK1)				Prepared & Analyzed: 02/04/2016						
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		20	µg/Kg						
Acrylonitrile	ND		1.0	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		1.0	µg/Kg						

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Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B6B0006 (Continued)

Blank (B6B0006-BLK1)

Prepared & Analyzed: 02/04/2016

Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		1.0	µg/Kg						
Iodomethane	ND		20	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Phenanthrene	ND		1.0	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	48			µg/Kg	50.0		95.1	60-140		
Surrogate: 4-Bromofluorobenzene	48			µg/Kg	50.0		96.6	60-140		
Surrogate: 1,2-Dichloroethane-d4	54			µg/Kg	50.0		109	60-140		
Surrogate: Toluene-d8	52			µg/Kg	50.0		103	60-140		

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Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B6B0006 (Continued)

LCS (B6B0006-BS1)

Prepared & Analyzed: 02/04/2016

Benzene	44		1.0	µg/Kg	50.0		88.0	70-130		
Bromobenzene	45		1.0	µg/Kg	50.0		90.1	70-130		
Bromodichloromethane	52		1.0	µg/Kg	50.0		103	70-130		
Bromoform	48		1.0	µg/Kg	50.0		96.3	70-130		
Chlorobenzene	45		1.0	µg/Kg	50.0		90.2	70-130		
Chloroethane	45		5.0	µg/Kg	50.0		89.5	70-130		
Chloroform	46		1.0	µg/Kg	50.0		92.4	70-130		
4-Chlorotoluene	48		1.0	µg/Kg	50.0		95.5	70-130		
Dibromomethane	50		1.0	µg/Kg	50.0		99.7	70-130		
1,2-Dichlorobenzene	44		1.0	µg/Kg	50.0		87.5	70-130		
1,1-Dichloroethene	42		1.0	µg/Kg	50.0		84.8	70-130		
1,2-Dichloropropane	44		1.0	µg/Kg	50.0		88.0	70-130		
2,2-Dichloropropane	49		1.0	µg/Kg	50.0		97.3	70-130		
1,1-Dichloropropene	44		1.0	µg/Kg	50.0		88.8	70-130		
Diethyl Ether	41		1.0	µg/Kg	50.0		81.8	70-130		
Diisopropyl Ether (DIPE)	39		1.0	µg/Kg	50.0		77.4	70-130		
Ethylbenzene	46		1.0	µg/Kg	50.0		91.6	70-130		
Hexachloro-1,3-Butadiene	45		1.0	µg/Kg	50.0		89.6	70-130		
Methylene Chloride	41		10	µg/Kg	50.0		81.1	70-130		
Methyl-t-Butyl Ether (MTBE)	45		1.0	µg/Kg	50.0		90.3	70-130		
Naphthalene	40		10	µg/Kg	50.0		80.4	70-130		
Styrene	45		1.0	µg/Kg	50.0		90.0	70-130		
tert-Butylbenzene	42		1.0	µg/Kg	50.0		84.3	70-130		
Tetrachloroethene	39		1.0	µg/Kg	50.0		77.6	70-130		
Toluene	45		1.0	µg/Kg	50.0		89.1	70-130		
1,2,3-Trichlorobenzene	46		1.0	µg/Kg	50.0		92.1	70-130		
Trichloroethene	44		1.0	µg/Kg	50.0		88.4	70-130		
1,3,5-Trimethylbenzene	46		1.0	µg/Kg	50.0		92.9	70-130		
Vinyl Chloride	39		1.0	µg/Kg	50.0		77.7	70-130		
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		98.5	60-140		
Surrogate: 1,2-Dichloroethane-d4	55			µg/Kg	50.0		110	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.1	60-140		

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Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6B0006 (Continued)										
LCS Dup (B6B0006-BSD1)				Prepared & Analyzed: 02/04/2016						
Benzene	50		1.0	µg/Kg	50.0		100	70-130	12.9	20
Bromobenzene	48		1.0	µg/Kg	50.0		96.9	70-130	7.32	20
Bromodichloromethane	58		1.0	µg/Kg	50.0		116	70-130	11.3	20
Bromoform	52		1.0	µg/Kg	50.0		103	70-130	6.88	20
Chlorobenzene	48		1.0	µg/Kg	50.0		95.8	70-130	6.02	20
Chloroethane	50		5.0	µg/Kg	50.0		99.0	70-130	10.1	20
Chloroform	54		1.0	µg/Kg	50.0		108	70-130	15.5	20
4-Chlorotoluene	52		1.0	µg/Kg	50.0		105	70-130	9.19	20
Dibromomethane	56		1.0	µg/Kg	50.0		113	70-130	12.4	20
1,2-Dichlorobenzene	49		1.0	µg/Kg	50.0		98.7	70-130	11.9	20
1,1-Dichloroethene	49		1.0	µg/Kg	50.0		97.6	70-130	14.1	20
1,2-Dichloropropane	51		1.0	µg/Kg	50.0		101	70-130	14.0	20
2,2-Dichloropropane	53		1.0	µg/Kg	50.0		106	70-130	8.91	20
1,1-Dichloropropene	52		1.0	µg/Kg	50.0		104	70-130	15.5	20
Diethyl Ether	45		1.0	µg/Kg	50.0		90.2	70-130	9.72	20
Diisopropyl Ether (DIPE)	44		1.0	µg/Kg	50.0		88.6	70-130	13.4	20
Ethylbenzene	49		1.0	µg/Kg	50.0		97.1	70-130	5.79	20
Hexachloro-1,3-Butadiene	50		1.0	µg/Kg	50.0		101	70-130	11.9	20
Methylene Chloride	46		10	µg/Kg	50.0		92.8	70-130	13.4	20
Methyl-t-Butyl Ether (MTBE)	52		1.0	µg/Kg	50.0		105	70-130	14.7	20
Naphthalene	46		10	µg/Kg	50.0		91.0	70-130	12.4	20
Styrene	48		1.0	µg/Kg	50.0		95.0	70-130	5.38	20
tert-Butylbenzene	48		1.0	µg/Kg	50.0		96.8	70-130	13.9	20
Tetrachloroethene	44		1.0	µg/Kg	50.0		87.0	70-130	11.5	20
Toluene	50		1.0	µg/Kg	50.0		100	70-130	11.6	20
1,2,3-Trichlorobenzene	51		1.0	µg/Kg	50.0		102	70-130	10.3	20
Trichloroethene	51		1.0	µg/Kg	50.0		102	70-130	13.9	20
1,3,5-Trimethylbenzene	49		1.0	µg/Kg	50.0		98.7	70-130	6.05	20
Vinyl Chloride	45		1.0	µg/Kg	50.0		89.5	70-130	14.1	20
Surrogate: Dibromofluoromethane	54			µg/Kg	50.0		107	60-140		
Surrogate: 4-Bromofluorobenzene	48			µg/Kg	50.0		96.8	60-140		
Surrogate: 1,2-Dichloroethane-d4	58			µg/Kg	50.0		117	60-140		
Surrogate: Toluene-d8	52			µg/Kg	50.0		104	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Notes and Definitions

Item	Definition
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL PID: P62005

Client Name		REQUESTED ANALYSES				
5/11/15 Arcadis						
Project Manager Phil Skorge						
Email Phil.Skorge@arcadis.com						
Phone 714.508.2676						
FAX 714.730.9345						
Project Name/Number MTA Loc 615						
P.O. Number						
Sampled By Zack Mason						
Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Quantity	Container Type	
1 UST5-PP11-10	2/4/16	13:00	S	1/1	902 Jar/5035	X X X
2 UST5-PP11-12	↓	13:15	S	↓	↓	ON HOLD
3						
4						
5						
6						
7						
8						
9						
10						
PAL Containers used: ☒ Yes ☐ No		RELINQUISHED BY				
Type of Ice used: ☒ Wet ☐ Blue ☐ None		Signature: Zack Mason				
Sample Preservative: ☒ Yes ☐ No		Print: Zack Mason				
TAT Needed (circle one) STD 5 day ☒ RUSH 48 72		Company: Arcadis				
Date Required - Circle one: Yes ☐ No ☐		RECEIVED BY				
Type of EDD:		Signature: Anthony Valenzuela				
		Print: Anthony Valenzuela				
		Company: PAL				
		DATE: 2/4/16				
		TIME: 15:12				
		RELINQUISHED BY				
		Signature: Anthony Valenzuela				
		Print: Anthony Valenzuela				
		Company: PAL				
		DATE: 2/4/16				
		TIME: 16:04				
		RECEIVED BY				
		Signature: M Valenzuela				
		Print: M Valenzuela				
		Company: PAL				
		DATE: 2/4/16				
		TIME: 16:04				

5.4°C

PAL Labeled Samples: _____

*PAL MATRIX CODES: (S= Soils); (P= Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)

SAMPLE RECEIPT FORM

Cooler ID :

Client

Date Received:

Total # of Samples:

COURIER INFORMATION

☒ PALI ☐ OTHER ☐ FEDEX
☐ CLIENT ☐ UPS

Tracking #

TEMPERATURE

°C ☒ WET ICE ☐ BLUE ICE ☐ NO ICE
☐ AMBIENT

CLIENT COC

☒ INCLUDED ☒ SIGNED
☐ NOT INCLUDED ☐ NOT SIGNED

SAMPLE MATRIX

☐ LIQUID ☐ TISSUE
☐ Composite at PALI, equal ☐ Homogenized
☐ Composite at PALI, flow-weighted ☐ Unhomogenized

☒ SOLID ☐ OTHER

CONDITION OF SAMPLES UPON VERIFICATION

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒
Samples outside temperature criteria but received on ice/chilled on same day of sampling	☐	☐	☒

NOTES

Initials

Date

Initials

Date

Print Form

ATTACHMENT D

Waste Characterization Laboratory Reports



October 02, 2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

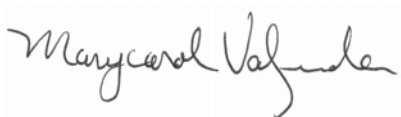
Re: LA Metro Soil Testing LA 8.2015
Project No. : LO493901.0001
Work Order: P509008

Dear Lawrence Browne

Enclosed are the results of analyses for samples received by our laboratory on 9/24/2015. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US

320 Commerce, Suite 200

Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015

Project Number: LO493901.0001

Project Manager: Lawrence Browne

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P509008-01	PIT1-NS	Solid	09/24/2015	09/24/2015
P509008-02	PIT3-NS	Solid	09/24/2015	09/24/2015
P509008-03	PIT1-S	Solid	09/24/2015	09/24/2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Sample: PIT1-NS

P509008-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: SG0925151)							
Antimony	<1.0	mg/kg	1	1	09/25/2015	EPA 6010B Metals	
Arsenic	3.8	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Barium	110	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Beryllium	<0.50	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Cadmium	0.56	mg/kg	1	0.2	09/25/2015	EPA 6010B Metals	
Chromium	15	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Cobalt	8.8	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Copper	20	mg/kg	1	2	09/25/2015	EPA 6010B Metals	
Lead	29	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Molybdenum	<1.0	mg/kg	1	1	09/25/2015	EPA 6010B Metals	
Nickel	10	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Selenium	<1.0	mg/kg	1	1	09/25/2015	EPA 6010B Metals	
Silver	<0.50	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Thallium	<2.0	mg/kg	1	2	09/25/2015	EPA 6010B Metals	
Vanadium	37	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Zinc	100	mg/kg	1	2	09/25/2015	EPA 6010B Metals	

Carbon Chain Analysis (C7-C40) (Batch ID: B5I0016)

C7-C8	ND	mg/kg	1	12.5	09/26/2015	EPA 8015B-M	
C9-C10	ND	mg/kg	1	12.5	09/26/2015	EPA 8015B-M	
C11-C12	ND	mg/kg	1	12.5	09/26/2015	EPA 8015B-M	
C13-C14	ND	mg/kg	1	12.5	09/26/2015	EPA 8015B-M	
C15-C16	ND	mg/kg	1	12.5	09/26/2015	EPA 8015B-M	
C17-C18	13.6	mg/kg	1	12.5	09/26/2015	EPA 8015B-M	
C19-C20	21.4	mg/kg	1	12.5	09/26/2015	EPA 8015B-M	
C21-C22	26.8	mg/kg	1	12.5	09/26/2015	EPA 8015B-M	
C23-C24	35.4	mg/kg	1	12.5	09/26/2015	EPA 8015B-M	
C25-C27	67.0	mg/kg	1	12.5	09/26/2015	EPA 8015B-M	
C28-C33	190	mg/kg	1	12.5	09/26/2015	EPA 8015B-M	
C34-C40	138	mg/kg	1	12.5	09/26/2015	EPA 8015B-M	
Surrogate: n-Octacosane (c28)	133%			60-140	09/26/2015	EPA 8015B-M	

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Sample: PIT1-NS (Continued)
P509008-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Gasoline Range Organics (C6-C10) (Batch ID: B5I0014)

Gasoline Range Organics	ND	mg/kg	1	0.200	09/25/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	103%			60-140	09/25/2015	EPA 8015B	

Mercury_Subcontract (Batch ID: SG0928151)

Mercury	0.20	mg/kg	1	0.1	09/29/2015	EPA 7471 Mercury	

Volatile Organic Compounds (Batch ID: B5I0015)

Acetone	ND	µg/Kg	1	5.0	09/25/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	20	09/25/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	5.0	09/25/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	09/25/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	5.0	09/25/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	5.0	09/25/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	

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320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Sample: PIT1-NS (Continued)
P509008-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5I0015) (Continued)							
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	20	09/25/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	5.0	09/25/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	10	09/25/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	09/25/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	10	09/25/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	20	09/25/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	

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320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Sample: PIT1-NS (Continued)

P509008-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5I0015) (Continued)

Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25	09/25/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	2.0	09/25/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	3.0	09/25/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	107%			60-140	09/25/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	101%			60-140	09/25/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	120%			60-140	09/25/2015	EPA 8260B	
Surrogate: Toluene-d8	100%			60-140	09/25/2015	EPA 8260B	

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Sample: PIT3-NS

P509008-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG0925151)

Antimony	1.6	mg/kg	1	1	09/25/2015	EPA 6010B Metals	
Arsenic	4.6	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Barium	730	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Beryllium	<0.50	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Cadmium	1.2	mg/kg	1	0.2	09/25/2015	EPA 6010B Metals	
Chromium	23	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Cobalt	11	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Copper	20	mg/kg	1	2	09/25/2015	EPA 6010B Metals	
Lead	270	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Molybdenum	<1.0	mg/kg	1	1	09/25/2015	EPA 6010B Metals	
Nickel	9.8	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Selenium	<1.0	mg/kg	1	1	09/25/2015	EPA 6010B Metals	
Silver	<0.50	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Thallium	<2.0	mg/kg	1	2	09/25/2015	EPA 6010B Metals	
Vanadium	39	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Zinc	270	mg/kg	1	2	09/25/2015	EPA 6010B Metals	

Carbon Chain Analysis (C7-C40) (Batch ID: B5I0016)

C7-C8	ND	mg/kg	1	2.50	09/26/2015	EPA 8015B-M	
C9-C10	ND	mg/kg	1	2.50	09/26/2015	EPA 8015B-M	
C11-C12	ND	mg/kg	1	2.50	09/26/2015	EPA 8015B-M	
C13-C14	ND	mg/kg	1	2.50	09/26/2015	EPA 8015B-M	
C15-C16	ND	mg/kg	1	2.50	09/26/2015	EPA 8015B-M	
C17-C18	4.35	mg/kg	1	2.50	09/26/2015	EPA 8015B-M	
C19-C20	6.16	mg/kg	1	2.50	09/26/2015	EPA 8015B-M	
C21-C22	13.2	mg/kg	1	2.50	09/26/2015	EPA 8015B-M	
C23-C24	10.5	mg/kg	1	2.50	09/26/2015	EPA 8015B-M	
C25-C27	20.8	mg/kg	1	2.50	09/26/2015	EPA 8015B-M	
C28-C33	39.5	mg/kg	1	2.50	09/26/2015	EPA 8015B-M	
C34-C40	16.7	mg/kg	1	2.50	09/26/2015	EPA 8015B-M	

Surrogate: n-Octacosane (c28) 118% 60-140 09/26/2015 EPA 8015B-M

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Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Sample: PIT3-NS (Continued)
P509008-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Gasoline Range Organics (C6-C10) (Batch ID: B5I0014)

Gasoline Range Organics	ND	mg/kg	1	0.200	09/25/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	104%			60-140	09/25/2015	EPA 8015B	

Mercury_Subcontract (Batch ID: SG0928151)

Mercury	0.26	mg/kg	1	0.1	09/29/2015	EPA 7471 Mercury	

Volatile Organic Compounds (Batch ID: B5I0015)

Acetone	ND	µg/Kg	1	5.0	09/25/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	20	09/25/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	5.0	09/25/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	09/25/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	5.0	09/25/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	5.0	09/25/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	

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Project Manager: Lawrence Browne

Sample: PIT3-NS (Continued)

P509008-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5I0015) (Continued)							
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	20	09/25/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	5.0	09/25/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	10	09/25/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	09/25/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	10	09/25/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	20	09/25/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	

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Project Number: LO493901.0001
Project Manager: Lawrence Browne

Sample: PIT3-NS (Continued)

P509008-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5I0015) (Continued)

Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25	09/25/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	2.0	09/25/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	3.0	09/25/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	107%			60-140	09/25/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	98.9%			60-140	09/25/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	119%			60-140	09/25/2015	EPA 8260B	
Surrogate: Toluene-d8	102%			60-140	09/25/2015	EPA 8260B	

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Project Number: LO493901.0001
Project Manager: Lawrence Browne

Sample: PIT1-S

P509008-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
CA Title 22 Metals_Subcontract (Batch ID: SG0925151)							
Antimony	<1.0	mg/kg	1	1	09/25/2015	EPA 6010B Metals	
Arsenic	3.9	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Barium	63	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Beryllium	<0.50	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Cadmium	0.30	mg/kg	1	0.2	09/25/2015	EPA 6010B Metals	
Chromium	12	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Cobalt	5.6	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Copper	14	mg/kg	1	2	09/25/2015	EPA 6010B Metals	
Lead	14	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Molybdenum	<1.0	mg/kg	1	1	09/25/2015	EPA 6010B Metals	
Nickel	8.1	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Selenium	<1.0	mg/kg	1	1	09/25/2015	EPA 6010B Metals	
Silver	<0.50	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Thallium	<2.0	mg/kg	1	2	09/25/2015	EPA 6010B Metals	
Vanadium	20	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Zinc	69	mg/kg	1	2	09/25/2015	EPA 6010B Metals	

Diesel Range Organics (C10-C28) (Batch ID: B5I0016)

Diesel Range Organics	12.5	mg/kg	1	2.48	09/26/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	155%			60-140	09/26/2015	EPA 8015B	S-03

Gasoline Range Organics (C6-C10) (Batch ID: B5I0014)

Gasoline Range Organics	0.306	mg/kg	1	0.200	09/25/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	106%			60-140	09/25/2015	EPA 8015B	

Mercury_Subcontract (Batch ID: SG0928151)

Mercury	<0.10	mg/kg	1	0.1	09/29/2015	EPA 7471 Mercury	

Oil Range Organics (C23-C32) (Batch ID: B5I0016)

Oil Range Organics	35.8	mg/kg	1	4.95	09/26/2015	EPA 8015B-M	
Surrogate: n-Octacosane (c28)	136%			60-140	09/26/2015	EPA 8015B-M	

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Project Number: LO493901.0001
Project Manager: Lawrence Browne

Sample: PIT1-S (Continued)

P509008-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5I0015)

Acetone	14	µg/Kg	1	5.0	09/25/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	20	09/25/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	5.0	09/25/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	09/25/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	5.0	09/25/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	5.0	09/25/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	

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Project Manager: Lawrence Browne

Sample: PIT1-S (Continued)

P509008-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5I0015) (Continued)							
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	20	09/25/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	5.0	09/25/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	10	09/25/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	09/25/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	10	09/25/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	20	09/25/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25	09/25/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Toluene	130	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	

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Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Sample: PIT1-S (Continued)

P509008-03 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5I0015) (Continued)							
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	1.0	09/25/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	2.0	09/25/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	3.0	09/25/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	105%			60-140	09/25/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	104%			60-140	09/25/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	122%			60-140	09/25/2015	EPA 8260B	
Surrogate: Toluene-d8	104%			60-140	09/25/2015	EPA 8260B	

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CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SG0925151

BLK (MBSG0925151)

Prepared & Analyzed: 09/25/2015

Antimony	<1		1	mg/kg				-		
Arsenic	<0.5		0.5	mg/kg				-		
Barium	<0.5		0.5	mg/kg				-		
Beryllium	<0.5		0.5	mg/kg				-		
Cadmium	<0.2		0.2	mg/kg				-		
Chromium	<0.5		0.5	mg/kg				-		
Cobalt	<0.5		0.5	mg/kg				-		
Copper	<2		2	mg/kg				-		
Lead	<0.5		0.5	mg/kg				-		
Molybdenum	<1		1	mg/kg				-		
Nickel	<0.5		0.5	mg/kg				-		
Selenium	<1		1	mg/kg				-		
Silver	<0.5		0.5	mg/kg				-		
Thallium	<2		2	mg/kg				-		
Vanadium	<0.5		0.5	mg/kg				-		
Zinc	<2		2	mg/kg				-		

BS (LCSSG0925151)

Prepared & Analyzed: 09/25/2015

Antimony	20.9			mg/kg	20		104	80-120	1	20
Arsenic	19.6			mg/kg	20		98	80-120	1	20
Barium	21.3			mg/kg	20		106	80-120	1	20
Beryllium	20.9			mg/kg	20		104	80-120	1	20
Cadmium	20			mg/kg	20		100	80-120	1	20
Chromium	20.3			mg/kg	20		101	80-120	0	20
Cobalt	20			mg/kg	20		100	80-120	1	20
Copper	22.8			mg/kg	20		114	80-120	1	20
Lead	21			mg/kg	20		105	80-120	0	20
Molybdenum	20.2			mg/kg	20		101	80-120	1	20
Nickel	20.8			mg/kg	20		104	80-120	1	20
Selenium	19.8			mg/kg	20		99	80-120	3	20
Silver	20.2			mg/kg	20		101	80-120	1	20
Thallium	19.9			mg/kg	20		100	80-120	1	20
Vanadium	20.5			mg/kg	20		102	80-120	1	20
Zinc	22			mg/kg	20		110	80-120	5	20

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Quality Control
(Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SG0925151 (Continued)

BSD (LCSDSG0925151)

Prepared & Analyzed: 09/25/2015

Antimony	20.7			mg/kg	20		104	80-120	1	20
Arsenic	19.5			mg/kg	20		98	80-120	1	20
Barium	21.1			mg/kg	20		106	80-120	1	20
Beryllium	21.1			mg/kg	20		106	80-120	1	20
Cadmium	19.9			mg/kg	20		100	80-120	1	20
Chromium	20.2			mg/kg	20		101	80-120	0	20
Cobalt	19.8			mg/kg	20		99	80-120	1	20
Copper	22.5			mg/kg	20		112	80-120	1	20
Lead	20.9			mg/kg	20		104	80-120	0	20
Molybdenum	20			mg/kg	20		100	80-120	1	20
Nickel	20.6			mg/kg	20		103	80-120	1	20
Selenium	19.3			mg/kg	20		96	80-120	3	20
Silver	20			mg/kg	20		100	80-120	1	20
Thallium	19.7			mg/kg	20		99	80-120	1	20
Vanadium	20.3			mg/kg	20		101	80-120	1	20
Zinc	20.9			mg/kg	20		104	80-120	5	20

MS (MS20207-001)

Source: 20207-001

Prepared & Analyzed: 09/25/2015

Antimony	4.4	M2		mg/kg	20	0	22	75-125	2	20
Arsenic	24.2			mg/kg	20	4.8	97	75-125	3	20
Barium	120			mg/kg	20	100	100	75-125	3	20
Beryllium	20.4			mg/kg	20	0	102	75-125	0	20
Cadmium	20.3			mg/kg	20	0.97	97	75-125	0	20
Chromium	37.2			mg/kg	20	18	96	75-125	3	20
Cobalt	26.1			mg/kg	20	8.3	89	75-125	0	20
Copper	42.8			mg/kg	20	22	104	75-125	1	20
Lead	48.3			mg/kg	20	29	96	75-125	2	20
Molybdenum	19.1			mg/kg	20	1.2	89	75-125	1	20
Nickel	31			mg/kg	20	16	75	75-125	3	20
Selenium	19.3			mg/kg	20	1.3	90	75-125	4	20
Silver	19			mg/kg	20	0	95	75-125	0	20
Thallium	18.4			mg/kg	20	0	92	75-125	1	20
Vanadium	56.5			mg/kg	20	36	102	75-125	4	20
Zinc	138	M3		mg/kg	20	130	40	75-125	3	20

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Quality Control (Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG0925151 (Continued)										
MSD (MSD20207-001)			Source: 20207-001		Prepared & Analyzed: 09/25/2015					
Antimony	4.32	M2		mg/kg	20	0	22	75-125	2	20
Arsenic	24.9			mg/kg	20	4.8	100	75-125	3	20
Barium	124			mg/kg	20	100	120	75-125	3	20
Beryllium	20.5			mg/kg	20	0	102	75-125	0	20
Cadmium	20.4			mg/kg	20	0.97	97	75-125	0	20
Chromium	38.2			mg/kg	20	18	101	75-125	3	20
Cobalt	26.1			mg/kg	20	8.3	89	75-125	0	20
Copper	43.3			mg/kg	20	22	106	75-125	1	20
Lead	49.1			mg/kg	20	29	100	75-125	2	20
Molybdenum	18.9			mg/kg	20	1.2	88	75-125	1	20
Nickel	31.8			mg/kg	20	16	79	75-125	3	20
Selenium	20.1			mg/kg	20	1.3	94	75-125	4	20
Silver	19			mg/kg	20	0	95	75-125	0	20
Thallium	18.5			mg/kg	20	0	93	75-125	1	20
Vanadium	58.7			mg/kg	20	36	113	75-125	4	20
Zinc	142	M3		mg/kg	20	130	60	75-125	3	20

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Quality Control (Continued)

Carbon Chain Analysis (C7-C40)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5I0016										
Blank (B5I0016-BLK1)				Prepared: 09/25/2015 Analyzed: 09/26/2015						
C7-C8	ND		2.48	mg/kg						
C9-C10	ND		2.48	mg/kg						
C11-C12	ND		2.48	mg/kg						
C13-C14	ND		2.48	mg/kg						
C15-C16	ND		2.48	mg/kg						
C17-C18	ND		2.48	mg/kg						
C19-C20	ND		2.48	mg/kg						
C21-C22	ND		2.48	mg/kg						
C23-C24	ND		2.48	mg/kg						
C25-C27	ND		2.48	mg/kg						
C28-C33	ND		2.48	mg/kg						
C34-C40	ND		2.48	mg/kg						
Surrogate: n-Octacosane (c28)	1.93			mg/kg	1.98		97.5	60-140		
LCS (B5I0016-BS1)										
				Prepared & Analyzed: 09/25/2015						
Diesel	36.0		2.48	mg/kg	49.5		72.8	70-130		
Surrogate: n-Octacosane (c28)	1.80			mg/kg	1.98		91.0	60-140		
LCS Dup (B5I0016-BSD1)										
				Prepared & Analyzed: 09/25/2015						
Diesel	37.7		2.50	mg/kg	50.0		75.4	70-130	4.62	20
Surrogate: n-Octacosane (c28)	1.82			mg/kg	2.00		91.1	60-140		
Matrix Spike (B5I0016-MS1)										
			Source: P509008-01		Prepared: 09/25/2015 Analyzed: 09/26/2015					
Diesel	117	QM-05	12.4	mg/kg	49.5	176	0	70-130		
Surrogate: n-Octacosane (c28)	1.16	S-03		mg/kg	1.98		58.6	60-140		
Matrix Spike Dup (B5I0016-MSD1)										
			Source: P509008-01		Prepared: 09/25/2015 Analyzed: 09/26/2015					
Diesel	235	QR-03	12.5	mg/kg	50.0	176	118	70-130	66.9	20
Surrogate: n-Octacosane (c28)	11.6	S-03		mg/kg	2.00		580	60-140		

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Quality Control (Continued)

Diesel Range Organics (C10-C28)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5I0016										
Blank (B5I0016-BLK1)					Prepared: 09/25/2015 Analyzed: 09/26/2015					
Diesel Range Organics	ND		2.48	mg/kg						
Surrogate: n-Octacosane (c28)	1.93			mg/kg	1.98		97.7	60-140		
LCS (B5I0016-BS1)					Prepared & Analyzed: 09/25/2015					
Diesel	36.0		2.48	mg/kg	49.5		72.7	70-130		
Surrogate: n-Octacosane (c28)	1.86			mg/kg	1.98		93.8	60-140		
LCS Dup (B5I0016-BSD1)					Prepared & Analyzed: 09/25/2015					
Diesel	37.8		2.50	mg/kg	50.0		75.5	70-130	4.85	20
Surrogate: n-Octacosane (c28)	1.80			mg/kg	2.00		89.8	60-140		
Matrix Spike (B5I0016-MS1)					Source: P509008-01		Prepared: 09/25/2015 Analyzed: 09/26/2015			
Diesel	117	QM-05	12.4	mg/kg	49.5	176	0	70-130		
Surrogate: n-Octacosane (c28)	1.36	S-03		mg/kg	1.98		68.5	60-140		
Matrix Spike Dup (B5I0016-MSD1)					Source: P509008-01		Prepared: 09/25/2015 Analyzed: 09/26/2015			
Diesel	244	QR-03	12.5	mg/kg	50.0	176	136	70-130	70.3	20
Surrogate: n-Octacosane (c28)	2.90	S-03		mg/kg	2.00		145	60-140		

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Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5I0014										
Blank (B5I0014-BLK1)										
					Prepared & Analyzed: 09/25/2015					
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.254			mg/kg	0.250		102	60-140		
LCS (B5I0014-BS1)										
					Prepared & Analyzed: 09/25/2015					
Gasoline	8.66		0.200	mg/kg	10.0		86.6	70-130		
Surrogate: 4-Bromofluorobenzene	0.254			mg/kg	0.250		102	60-140		
LCS Dup (B5I0014-BSD1)										
					Prepared & Analyzed: 09/25/2015					
Gasoline	8.48		0.200	mg/kg	10.0		84.8	70-130	2.09	20
Surrogate: 4-Bromofluorobenzene	0.255			mg/kg	0.250		102	60-140		
Matrix Spike (B5I0014-MS1)										
			Source: P509008-01		Prepared & Analyzed: 09/25/2015					
Gasoline	5.46	QM-05	0.200	mg/kg	10.0	0.0250	54.3	70-130		
Surrogate: 4-Bromofluorobenzene	0.250			mg/kg	0.250		100	60-140		
Matrix Spike Dup (B5I0014-MSD1)										
			Source: P509008-01		Prepared & Analyzed: 09/25/2015					
Gasoline	4.96	QM-05	0.200	mg/kg	10.0	0.0250	49.4	70-130	9.54	20
Surrogate: 4-Bromofluorobenzene	0.255			mg/kg	0.250		102	60-140		

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Quality Control (Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG0928151										
BLK (MBSG0928151)										
Mercury	<0.1		0.1	mg/kg				-		
Prepared: 09/28/2015 Analyzed: 09/29/2015										
BS (LCSSG0928151)										
Mercury	1.09			mg/kg	1		109	80-120	4	20
Prepared: 09/28/2015 Analyzed: 09/29/2015										
BSD (LCSDSG0928151)										
Mercury	1.14			mg/kg	1		114	80-120	4	20
Prepared: 09/28/2015 Analyzed: 09/29/2015										
MS (MS20202-001)										
Mercury	1.24		Source: P509008-01	mg/kg	1	0.2	104	80-120	3	20
Prepared: 09/28/2015 Analyzed: 09/29/2015										
MSD (MSD20202-001)										
Mercury	1.2		Source: P509008-01	mg/kg	1	0.2	100	80-120	3	20
Prepared: 09/28/2015 Analyzed: 09/29/2015										

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Quality Control (Continued)

Oil Range Organics (C23-C32)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5I0016										
Blank (B5I0016-BLK1)					Prepared: 09/25/2015 Analyzed: 09/26/2015					
Oil Range Organics	ND		4.95	mg/kg						
Surrogate: n-Octacosane (c28)	1.69			mg/kg	1.98		85.5	60-140		
LCS (B5I0016-BS2)					Prepared: 09/25/2015 Analyzed: 09/26/2015					
Oil Range Organics	48.8		5.00	mg/kg	50.0		97.5	70-130		
Surrogate: n-Octacosane (c28)	1.87			mg/kg	2.00		93.7	60-140		
LCS Dup (B5I0016-BSD2)					Prepared: 09/25/2015 Analyzed: 09/26/2015					
Oil Range Organics	44.2		4.95	mg/kg	49.5		89.2	70-130	9.92	20
Surrogate: n-Octacosane (c28)	1.73			mg/kg	1.98		87.3	60-140		
Matrix Spike (B5I0016-MS2)					Source: P509008-02		Prepared: 09/25/2015 Analyzed: 09/26/2015			
Oil Range Organics	148	QM-05	4.90	mg/kg	49.0	137	22.1	70-130		
Surrogate: n-Octacosane (c28)	2.06			mg/kg	1.96		105	60-140		
Matrix Spike Dup (B5I0016-MSD2)					Source: P509008-02		Prepared: 09/25/2015 Analyzed: 09/26/2015			
Oil Range Organics	122	QM-05	5.00	mg/kg	50.0	137	0	70-130	19.0	20
Surrogate: n-Octacosane (c28)	1.83			mg/kg	2.00		91.7	60-140		

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Quality Control (Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5I0015										
Blank (B5I0015-BLK1)					Prepared & Analyzed: 09/25/2015					
Acetone	ND		5.0	µg/Kg						
Acetonitrile	ND		20	µg/Kg						
Acrylonitrile	ND		1.0	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		1.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		1.0	µg/Kg						

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Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5I0015 (Continued)

Blank (B5I0015-BLK1)

Prepared & Analyzed: 09/25/2015

Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		1.0	µg/Kg						
Iodomethane	ND		20	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Phenanthrene	ND		1.0	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	52			µg/Kg	50.0		104	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		100	60-140		
Surrogate: 1,2-Dichloroethane-d4	58			µg/Kg	50.0		116	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.5	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5I0015 (Continued)

LCS (B5I0015-BS1)

Prepared & Analyzed: 09/25/2015

Benzene	52		1.0	µg/Kg	50.0		104	70-130		
Bromobenzene	50		1.0	µg/Kg	50.0		101	70-130		
Bromodichloromethane	57		1.0	µg/Kg	50.0		115	70-130		
Bromoform	55		1.0	µg/Kg	50.0		109	70-130		
Chlorobenzene	52		1.0	µg/Kg	50.0		103	70-130		
Chloroethane	56		5.0	µg/Kg				70-130		
Chloroform	57		1.0	µg/Kg	50.0		114	70-130		
4-Chlorotoluene	51		1.0	µg/Kg	50.0		102	70-130		
Dibromomethane	55		1.0	µg/Kg	50.0		111	70-130		
1,2-Dichlorobenzene	48		1.0	µg/Kg	50.0		95.8	70-130		
1,1-Dichloroethene	56		1.0	µg/Kg	50.0		113	70-130		
1,2-Dichloropropane	53		1.0	µg/Kg	50.0		107	70-130		
2,2-Dichloropropane	57		1.0	µg/Kg	50.0		114	70-130		
1,1-Dichloropropene	52		1.0	µg/Kg	50.0		105	70-130		
Diethyl Ether	56		1.0	µg/Kg	50.0		111	70-130		
Diisopropyl Ether (DIPE)	51		1.0	µg/Kg	50.0		103	70-130		
Ethylbenzene	53		1.0	µg/Kg	50.0		105	70-130		
Hexachloro-1,3-Butadiene	32		1.0	µg/Kg	50.0		64.8	70-130		
Methylene Chloride	53		10	µg/Kg	50.0		105	70-130		
Methyl-t-Butyl Ether (MTBE)	57		1.0	µg/Kg	50.0		114	70-130		
Naphthalene	48		10	µg/Kg	50.0		96.0	70-130		
Styrene	51		1.0	µg/Kg	50.0		102	70-130		
tert-Butylbenzene	44		1.0	µg/Kg	50.0		88.9	70-130		
Tetrachloroethene	42		1.0	µg/Kg	50.0		84.1	70-130		
Toluene	52		1.0	µg/Kg	50.0		104	70-130		
1,2,3-Trichlorobenzene	44		1.0	µg/Kg	50.0		87.3	70-130		
Trichloroethene	51		1.0	µg/Kg	50.0		103	70-130		
1,3,5-Trimethylbenzene	49		1.0	µg/Kg	50.0		98.6	70-130		
Vinyl Chloride	50		1.0	µg/Kg				70-130		
Surrogate: Dibromofluoromethane	54			µg/Kg	50.0		108	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		103	60-140		
Surrogate: 1,2-Dichloroethane-d4	59			µg/Kg	50.0		117	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		101	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5I0015 (Continued)										
LCS Dup (B5I0015-BSD1)				Prepared & Analyzed: 09/25/2015						
Benzene	50		1.0	µg/Kg	50.0		99.5	70-130	4.15	20
Bromobenzene	48		1.0	µg/Kg	50.0		96.1	70-130	4.61	20
Bromodichloromethane	55		1.0	µg/Kg	50.0		111	70-130	3.76	20
Bromoform	54		1.0	µg/Kg	50.0		107	70-130	1.98	20
Chlorobenzene	49		1.0	µg/Kg	50.0		98.5	70-130	4.87	20
Chloroethane	52		5.0	µg/Kg				70-130	7.77	20
Chloroform	55		1.0	µg/Kg	50.0		111	70-130	3.03	20
4-Chlorotoluene	49		1.0	µg/Kg	50.0		97.0	70-130	5.08	20
Dibromomethane	55		1.0	µg/Kg	50.0		110	70-130	0.652	20
1,2-Dichlorobenzene	46		1.0	µg/Kg	50.0		92.4	70-130	3.61	20
1,1-Dichloroethene	52		1.0	µg/Kg	50.0		104	70-130	8.36	20
1,2-Dichloropropane	52		1.0	µg/Kg	50.0		103	70-130	3.54	20
2,2-Dichloropropane	55		1.0	µg/Kg	50.0		110	70-130	3.33	20
1,1-Dichloropropene	51		1.0	µg/Kg	50.0		101	70-130	3.40	20
Diethyl Ether	54		1.0	µg/Kg	50.0		108	70-130	2.90	20
Diisopropyl Ether (DIPE)	50		1.0	µg/Kg	50.0		100	70-130	2.15	20
Ethylbenzene	48		1.0	µg/Kg	50.0		96.6	70-130	8.45	20
Hexachloro-1,3-Butadiene	32		1.0	µg/Kg	50.0		64.3	70-130	0.743	20
Methylene Chloride	51		10	µg/Kg	50.0		102	70-130	3.36	20
Methyl-t-Butyl Ether (MTBE)	56		1.0	µg/Kg	50.0		112	70-130	1.78	20
Naphthalene	46		10	µg/Kg	50.0		92.4	70-130	3.89	20
Styrene	48		1.0	µg/Kg	50.0		95.6	70-130	6.36	20
tert-Butylbenzene	41		1.0	µg/Kg	50.0		81.0	70-130	9.30	20
Tetrachloroethene	41		1.0	µg/Kg	50.0		81.3	70-130	3.46	20
Toluene	49		1.0	µg/Kg	50.0		98.6	70-130	5.48	20
1,2,3-Trichlorobenzene	40		1.0	µg/Kg	50.0		79.5	70-130	9.38	20
Trichloroethene	48		1.0	µg/Kg	50.0		95.7	70-130	6.90	20
1,3,5-Trimethylbenzene	42		1.0	µg/Kg	50.0		83.9	70-130	16.2	20
Vinyl Chloride	47		1.0	µg/Kg				70-130	6.58	20
Surrogate: Dibromofluoromethane	54			µg/Kg	50.0		109	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	58			µg/Kg	50.0		116	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.4	60-140		

ARCADIS US
320 Commerce, Suite 200
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Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5I0015 (Continued)										
Matrix Spike (B5I0015-MS1)			Source: P509008-02		Prepared & Analyzed: 09/25/2015					
Benzene	47		1.0	µg/Kg	50.0	ND	93.4	70-130		
Bromobenzene	42		1.0	µg/Kg	50.0	ND	83.5	70-130		
Bromodichloromethane	53		1.0	µg/Kg	50.0	ND	106	70-130		
Bromoform	48		1.0	µg/Kg	50.0	ND	96.2	70-130		
Chlorobenzene	45		1.0	µg/Kg	50.0	ND	89.4	70-130		
Chloroethane	51		5.0	µg/Kg		ND		70-130		
Chloroform	53		1.0	µg/Kg	50.0	ND	105	70-130		
4-Chlorotoluene	43		1.0	µg/Kg	50.0	ND	85.8	70-130		
Dibromomethane	50		1.0	µg/Kg	50.0	ND	99.4	70-130		
1,2-Dichlorobenzene	39		1.0	µg/Kg	50.0	ND	78.7	70-130		
1,1-Dichloroethene	51		1.0	µg/Kg	50.0	ND	101	70-130		
1,2-Dichloropropane	49		1.0	µg/Kg	50.0	ND	97.3	70-130		
2,2-Dichloropropane	52		1.0	µg/Kg	50.0	ND	103	70-130		
1,1-Dichloropropene	47		1.0	µg/Kg	50.0	ND	94.7	70-130		
Diethyl Ether	52		1.0	µg/Kg	50.0	ND	103	70-130		
Diisopropyl Ether (DIPE)	48		1.0	µg/Kg	50.0	ND	95.9	70-130		
Ethylbenzene	45		1.0	µg/Kg	50.0	ND	90.5	70-130		
Hexachloro-1,3-Butadiene	24	QM-05	1.0	µg/Kg	50.0	ND	47.7	70-130		
Methylene Chloride	48		10	µg/Kg	50.0	ND	95.5	70-130		
Methyl-t-Butyl Ether (MTBE)	53		1.0	µg/Kg	50.0	ND	106	70-130		
Naphthalene	36		10	µg/Kg	50.0	0.15	71.0	70-130		
Styrene	44		1.0	µg/Kg	50.0	ND	87.7	70-130		
tert-Butylbenzene	39		1.0	µg/Kg	50.0	ND	78.9	70-130		
Tetrachloroethene	39		1.0	µg/Kg	50.0	ND	79.0	70-130		
Toluene	46		1.0	µg/Kg	50.0	0.21	92.1	70-130		
1,2,3-Trichlorobenzene	33	QM-05	1.0	µg/Kg	50.0	ND	66.3	70-130		
Trichloroethene	45		1.0	µg/Kg	50.0	ND	90.8	70-130		
1,3,5-Trimethylbenzene	41		1.0	µg/Kg	50.0	ND	81.8	70-130		
Vinyl Chloride	47		1.0	µg/Kg		ND		70-130		
Surrogate: Dibromofluoromethane	54			µg/Kg	50.0		109	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	58			µg/Kg	50.0		115	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.4	60-140		

ARCADIS US
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Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5I0015 (Continued)										
Matrix Spike Dup (B5I0015-MSD1)			Source: P509008-02		Prepared & Analyzed: 09/25/2015					
Benzene	45		1.0	µg/Kg	50.0	ND	89.1	70-130	4.76	20
Bromobenzene	40		1.0	µg/Kg	50.0	ND	80.2	70-130	4.03	20
Bromodichloromethane	50		1.0	µg/Kg	50.0	ND	99.5	70-130	6.52	20
Bromoform	46		1.0	µg/Kg	50.0	ND	92.5	70-130	3.96	20
Chlorobenzene	42		1.0	µg/Kg	50.0	ND	83.8	70-130	6.51	20
Chloroethane	48		5.0	µg/Kg		ND		70-130	4.82	20
Chloroform	49		1.0	µg/Kg	50.0	ND	98.4	70-130	6.66	20
4-Chlorotoluene	38		1.0	µg/Kg	50.0	ND	76.3	70-130	11.7	20
Dibromomethane	49		1.0	µg/Kg	50.0	ND	97.4	70-130	2.05	20
1,2-Dichlorobenzene	35	QM-05	1.0	µg/Kg	50.0	ND	69.6	70-130	12.2	20
1,1-Dichloroethene	48		1.0	µg/Kg	50.0	ND	95.0	70-130	6.54	20
1,2-Dichloropropane	46		1.0	µg/Kg	50.0	ND	91.5	70-130	6.17	20
2,2-Dichloropropane	48		1.0	µg/Kg	50.0	ND	96.6	70-130	6.86	20
1,1-Dichloropropene	44		1.0	µg/Kg	50.0	ND	88.4	70-130	6.91	20
Diethyl Ether	50		1.0	µg/Kg	50.0	ND	99.6	70-130	3.76	20
Diisopropyl Ether (DIPE)	47		1.0	µg/Kg	50.0	ND	93.3	70-130	2.77	20
Ethylbenzene	41		1.0	µg/Kg	50.0	ND	82.5	70-130	9.22	20
Hexachloro-1,3-Butadiene	17	QM-05, QR-03	1.0	µg/Kg	50.0	ND	34.7	70-130	31.6	20
Methylene Chloride	47		10	µg/Kg	50.0	ND	93.2	70-130	2.42	20
Methyl-t-Butyl Ether (MTBE)	52		1.0	µg/Kg	50.0	ND	103	70-130	2.59	20
Naphthalene	27	QR-03	10	µg/Kg	50.0	0.15	53.9	70-130	27.2	20
Styrene	40		1.0	µg/Kg	50.0	ND	79.1	70-130	10.4	20
tert-Butylbenzene	35	QM-05	1.0	µg/Kg	50.0	ND	69.4	70-130	12.7	20
Tetrachloroethene	37		1.0	µg/Kg	50.0	ND	73.6	70-130	7.08	20
Toluene	43		1.0	µg/Kg	50.0	0.21	85.7	70-130	7.19	20
1,2,3-Trichlorobenzene	28	QM-05	1.0	µg/Kg	50.0	ND	55.5	70-130	17.7	20
Trichloroethene	41		1.0	µg/Kg	50.0	ND	82.8	70-130	9.21	20
1,3,5-Trimethylbenzene	37		1.0	µg/Kg	50.0	ND	73.1	70-130	11.3	20
Vinyl Chloride	44		1.0	µg/Kg		ND		70-130	6.13	20
Surrogate: Dibromofluoromethane	55			µg/Kg	50.0		111	60-140		
Surrogate: 4-Bromofluorobenzene	51			µg/Kg	50.0		102	60-140		
Surrogate: 1,2-Dichloroethane-d4	58			µg/Kg	50.0		117	60-140		
Surrogate: Toluene-d8	51			µg/Kg	50.0		102	60-140		

ARCADIS US
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Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Notes and Definitions

Item	Definition
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to spike level. The associated blank spike recovery was acceptable.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
S-03	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755

310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1 2.4°C

PAL PID: P509008

Client Name ARCADIS-US, INC. Address 320 Commerce #200 IRVINE, CA 92602 Project Manager Jacob Collins Email Jacob.Collins@ARCADIS-US.com Phone 714-508-2668 FAX 714-730-9345 Project Name/Number METRO LOC-61s P.O. Number L0495201-0000 Sampled By M. LEDESMA				REQUESTED ANALYSES TPH g/di/mo CAM 17 metals Voc's By B260 Voc's METALS Full RANGE TPH																
Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Quantity	Container Type															
1 PIT1-NS	9/24/15	0700	Soil	2	4oz Jar															
2 PIT3-NS	↓	0710	Soil	2	↓															
3 PIT1-S	↓	0720	CONCRETE	2	↓	X	X	X												
4																				
5																				
6																				
7																				
8																				
9																				
10																				

PAL Containers used:		Yes	No	
Type of Ice used:		Wet	Blue	None
Sample Preservative:		Yes	No	

TAT Needed (circle one)	STD		RUSH	
	5 day	24	(48)	72

EDD Required - Circle one:	Yes	No
Type of EDD:		

Signature: [Signature]		RELINQUISHED BY
Print: MARCO A. LEDESMA		DATE: 9-24-15
Company: ARCADIS-US, INC.		TIME: 0800

Signature: Anthony Valenzuela		RECEIVED BY
Print: Anthony Valenzuela		DATE: 9/24/15
Company: PAL		TIME: 1230

Signature: Anthony Valenzuela		RELINQUISHED BY
Print: ANTHONY VALENZUELA		DATE: 9/24/15
Company: PAL		TIME: 1326

Signature: John Yodanis		RECEIVED BY
Print: JOHN YODANIS		DATE: 9/24/15
Company: PAL		TIME: 1324

PAL Labeled Samples: _____

*PAL MATRIX CODES: (S= Soils); (P= Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)

SAMPLE RECEIPT FORM

Cooler ID : _____

CLIENT:

Date Received:

Total # of Samples:

COURIER INFORMATION

☒ PALI ☐ OTHER ☐ FEDEX
☐ CLIENT ☐ UPS

Tracking #

TEMPERATURE

°C ☒ WET ICE ☐ BLUE ICE ☐ NO ICE
☐ AMBIENT

CLIENT COC

☐ INCLUDED ☐ SIGNED
☐ NOT INCLUDED ☐ NOT SIGNED

SAMPLE MATRIX

☐ LIQUID ☐ TISSUE
☐ Composite at PALI, equal ☐ Homogenized
☐ Composite at PALI, flow-weighted ☐ Unhomogenized
☒ SOLID ☐ OTHER _____

CONDITION OF SAMPLES UPON VERIFICATION

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

Signature Field Text
Initials Date

Signature Field Text
Initials Date

Print Form

December 28, 2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

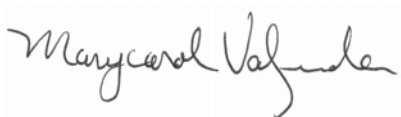
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P512007

Dear Phil Skorge

Enclosed are the results of analyses for samples received by our laboratory on 12/22/2015. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P512007-01	PIT 1b-NS	Solid	12/22/2015	12/22/2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: PIT 1b-NS

P512007-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5L0020)

Diesel Range Organics	791	mg/kg	2	25.0	12/24/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	148%			60-140	12/24/2015	EPA 8015B	S-03

Gasoline Range Organics (C6-C10) (Batch ID: B5L0019)

Gasoline Range Organics	32.9	mg/kg	1	1.00	12/22/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	117%			60-140	12/22/2015	EPA 8015B	

Mercury_Subcontract (Batch ID: SG1223152)

Mercury	0.13	mg/kg	1	0.1	12/24/2015	EPA 7471 Mercury	

Metal_Single Element_Subcontract (Batch ID: SG1223151)

Antimony	1.5	mg/kg	1	1	12/24/2015	EPA 6010B	
Arsenic	5.6	mg/kg	1	0.5	12/24/2015	EPA 6010B	
Barium	110	mg/kg	1	0.5	12/24/2015	EPA 6010B	
Beryllium	ND	mg/kg	1	0.5	12/24/2015	EPA 6010B	
Cadmium	0.62	mg/kg	1	0.2	12/24/2015	EPA 6010B	
Chromium	20	mg/kg	1	0.5	12/24/2015	EPA 6010B	
Cobalt	8.7	mg/kg	1	0.5	12/24/2015	EPA 6010B	
Copper	44	mg/kg	1	2	12/24/2015	EPA 6010B	
Lead	100	mg/kg	1	0.5	12/24/2015	EPA 6010B	
Molybdenum	3.6	mg/kg	1	1	12/24/2015	EPA 6010B	
Nickel	12	mg/kg	1	0.5	12/24/2015	EPA 6010B	
Selenium	2.0	mg/kg	1	1	12/24/2015	EPA 6010B	
Silver	ND	mg/kg	1	0.5	12/24/2015	EPA 6010B	
Thallium	ND	mg/kg	1	2	12/24/2015	EPA 6010B	
Vanadium	35	mg/kg	1	0.5	12/24/2015	EPA 6010B	
Zinc	160	mg/kg	1	2	12/24/2015	EPA 6010B	

Oil Range Organics (C23-C32) (Batch ID: B5L0020)

Oil Range Organics	1360	mg/kg	2	50.0	12/24/2015	EPA 8015B-M	

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Sample: PIT 1b-NS (Continued)
P512007-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Oil Range Organics (C23-C32) (Batch ID: B5L0020) (Continued)

Surrogate: n-Octacosane (c28)	127%			60-140	12/24/2015	EPA 8015B-M	

Volatile Organic Compounds (Batch ID: B5L0018)

Acetone	ND	µg/Kg	1	100	12/22/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	100	12/22/2015	EPA 8260B	
Acrylonitrile	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	25	12/22/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	100	12/22/2015	EPA 8260B	
n-Butylbenzene	11	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	25	12/22/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	25	12/22/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	25	12/22/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	

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Sample: PIT 1b-NS (Continued)

P512007-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0018) (Continued)							
1,2-Dichloroethane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Ethylbenzene	270	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	100	12/22/2015	EPA 8260B	
Isopropylbenzene	27	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	25	12/22/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	50	12/22/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	100	12/22/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	50	12/22/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	100	12/22/2015	EPA 8260B	
n-Propylbenzene	12	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	120	12/22/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	

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Sample: PIT 1b-NS (Continued)

P512007-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5L0018) (Continued)							
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Toluene	22	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Trichloroethene	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,2,4-Trimethylbenzene	42	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
1,3,5-Trimethylbenzene	9.8	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
o-Xylene	49	µg/Kg	1	5.0	12/22/2015	EPA 8260B	
p/m-Xylene	560	µg/Kg	1	10	12/22/2015	EPA 8260B	
Total Xylenes	610	µg/Kg	1	15	12/22/2015	EPA 8260B	
Surrogate: Dibromofluoromethane	88.6%			60-140	12/22/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	93.6%			60-140	12/22/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	93.8%			60-140	12/22/2015	EPA 8260B	
Surrogate: Toluene-d8	106%			60-140	12/22/2015	EPA 8260B	

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Quality Control

Diesel Range Organics (C10-C28)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0020										
Blank (B5L0020-BLK1)										
					Prepared & Analyzed: 12/22/2015					
Diesel Range Organics	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	2.22			mg/kg	2.00		111	60-140		
LCS (B5L0020-BS1)										
					Prepared: 12/22/2015 Analyzed: 12/23/2015					
Diesel	47.5		2.50	mg/kg	50.0		95.1	70-130		
Surrogate: n-Octacosane (c28)	2.29			mg/kg	2.00		115	60-140		
LCS Dup (B5L0020-BSD1)										
					Prepared & Analyzed: 12/22/2015					
Diesel	45.4		2.50	mg/kg	50.0		90.8	70-130	4.64	20
Surrogate: n-Octacosane (c28)	1.38			mg/kg	2.00		69.2	60-140		
Matrix Spike (B5L0020-MS1)										
			Source: P512009-01		Prepared: 12/22/2015 Analyzed: 12/23/2015					
Diesel	35.5		2.50	mg/kg	50.0	ND	71.0	70-130		
Surrogate: n-Octacosane (c28)	1.94			mg/kg	2.00		96.8	60-140		
Matrix Spike Dup (B5L0020-MSD1)										
			Source: P512009-01		Prepared: 12/22/2015 Analyzed: 12/23/2015					
Diesel	32.3	QM-05	2.50	mg/kg	50.0	ND	64.6	70-130	9.33	20
Surrogate: n-Octacosane (c28)	1.78			mg/kg	2.00		88.8	60-140		

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Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0019										
Blank (B5L0019-BLK1)										
					Prepared & Analyzed: 12/22/2015					
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.241			mg/kg	0.250		96.4	60-140		
LCS (B5L0019-BS1)										
					Prepared & Analyzed: 12/22/2015					
Gasoline	9.28		0.200	mg/kg	10.0		92.8	70-130		
Surrogate: 4-Bromofluorobenzene	0.247			mg/kg	0.250		98.8	60-140		
LCS Dup (B5L0019-BSD1)										
					Prepared & Analyzed: 12/22/2015					
Gasoline	9.22		0.200	mg/kg	10.0		92.2	70-130	0.551	20
Surrogate: 4-Bromofluorobenzene	0.244			mg/kg	0.250		97.6	60-140		

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Quality Control (Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG1223152										
BLK (SG1223152 BLK)										
Mercury	ND		0.1	mg/kg				-		
Prepared: 12/23/2015 Analyzed: 12/24/2015										
BS (SG1223152 BS)										
Mercury	1.03			mg/kg	1		103	80-120	2	20
Prepared: 12/23/2015 Analyzed: 12/24/2015										
BSD (SG1223152 BSD)										
Mercury	1.05			mg/kg	1		105	80-120	2	20
Prepared: 12/23/2015 Analyzed: 12/24/2015										
MS (SG1223152 MS)										
Mercury	2.75	M1, R2	Source: P512007-01	mg/kg	1	0.13	262	80-120	85	20
Prepared: 12/23/2015 Analyzed: 12/24/2015										
MSD (SG1223152 MSD)										
Mercury	1.11	R2	Source: P512007-01	mg/kg	1	0.13	98	80-120	85	20
Prepared: 12/23/2015 Analyzed: 12/24/2015										

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Quality Control (Continued)

Metal_Single Element_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG1223151										
BLK (SG1223151 BLK)										
Prepared: 12/23/2015 Analyzed: 12/24/2015										
Antimony	ND		1	mg/kg				-		
Arsenic	ND		0.5	mg/kg				-		
Barium	ND		0.5	mg/kg				-		
Beryllium	ND		0.5	mg/kg				-		
Cadmium	ND		0.2	mg/kg				-		
Chromium	ND		0.5	mg/kg				-		
Cobalt	ND		0.5	mg/kg				-		
Copper	ND		2	mg/kg				-		
Lead	ND		0.5	mg/kg				-		
Molybdenum	ND		1	mg/kg				-		
Nickel	ND		0.5	mg/kg				-		
Selenium	ND		1	mg/kg				-		
Silver	ND		0.5	mg/kg				-		
Thallium	ND		2	mg/kg				-		
Vanadium	ND		0.5	mg/kg				-		
Zinc	ND		2	mg/kg				-		
BS (SG1223151 BS)										
Prepared: 12/23/2015 Analyzed: 12/24/2015										
Antimony	18.3			mg/kg	20		91	80-120	9	20
Arsenic	17.7			mg/kg	20		89	80-120	9	20
Barium	18.9			mg/kg	20		94	80-120	9	20
Beryllium	18			mg/kg	20		90	80-120	8	20
Cadmium	17.7			mg/kg	20		89	80-120	9	20
Chromium	17.9			mg/kg	20		89	80-120	10	20
Cobalt	17.6			mg/kg	20		88	80-120	9	20
Copper	20.2			mg/kg	20		101	80-120	10	20
Lead	18.2			mg/kg	20		91	80-120	11	20
Molybdenum	19.1			mg/kg	20		96	80-120	10	20
Nickel	18.5			mg/kg	20		93	80-120	9	20
Selenium	17.7			mg/kg	20		89	80-120	10	20
Silver	18.3			mg/kg	20		91	80-120	8	20
Thallium	17.5			mg/kg	20		88	80-120	9	20
Vanadium	18			mg/kg	20		90	80-120	10	20
Zinc	20.4			mg/kg	20		102	80-120	10	20

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**Quality Control
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Metal_Single Element_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SG1223151 (Continued)

BSD (SG1223151 BSD)

Prepared: 12/23/2015 Analyzed: 12/24/2015

Antimony	20			mg/kg	20		100	80-120	9	20
Arsenic	19.3			mg/kg	20		96	80-120	9	20
Barium	20.6			mg/kg	20		103	80-120	9	20
Beryllium	19.5			mg/kg	20		98	80-120	8	20
Cadmium	19.4			mg/kg	20		97	80-120	9	20
Chromium	19.7			mg/kg	20		99	80-120	10	20
Cobalt	19.2			mg/kg	20		96	80-120	9	20
Copper	22.4			mg/kg	20		112	80-120	10	20
Lead	20.3			mg/kg	20		101	80-120	11	20
Molybdenum	21.2			mg/kg	20		106	80-120	10	20
Nickel	20.2			mg/kg	20		101	80-120	9	20
Selenium	19.6			mg/kg	20		98	80-120	10	20
Silver	19.8			mg/kg	20		99	80-120	8	20
Thallium	19.2			mg/kg	20		96	80-120	9	20
Vanadium	19.8			mg/kg	20		99	80-120	10	20
Zinc	22.6			mg/kg	20		113	80-120	10	20

MS (SG1223151 MS)

Source: P512007-01

Prepared: 12/23/2015 Analyzed: 12/24/2015

Antimony	4.95	M2		mg/kg	20	1.5	17	75-125	10	20
Arsenic	25			mg/kg	20	5.6	97	75-125	1	20
Barium	133			mg/kg	20	110	115	75-125	3	20
Beryllium	18.8			mg/kg	20	0	94	75-125	1	20
Cadmium	19.2			mg/kg	20	0.62	93	75-125	3	20
Chromium	36.3			mg/kg	20	20	81	75-125	10	20
Cobalt	25.8			mg/kg	20	8.7	85	75-125	0	20
Copper	101	M3		mg/kg	20	44	285	75-125	39	20
Lead	66.5	M3		mg/kg	20	100	0	75-125	0	20
Molybdenum	20.9			mg/kg	20	3.6	86	75-125	2	20
Nickel	28.4			mg/kg	20	12	82	75-125	2	20
Selenium	20.4			mg/kg	20	2	92	75-125	2	20
Silver	18.8			mg/kg	20	0	94	75-125	4	20
Thallium	18.2			mg/kg	20	0	91	75-125	2	20
Vanadium	54.2			mg/kg	20	35	96	75-125	0	20
Zinc	189	M3		mg/kg	20	160	145	75-125	20	20

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Quality Control
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Metal_Single Element_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SG1223151 (Continued)

MSD (SG1223151 MSD)

Source: P512007-01

Prepared: 12/23/2015 Analyzed: 12/24/2015

Antimony	5.46	M2		mg/kg	20	1.5	20	75-125	10	20
Arsenic	24.7			mg/kg	20	5.6	96	75-125	1	20
Barium	129			mg/kg	20	110	95	75-125	3	20
Beryllium	19			mg/kg	20	0	95	75-125	1	20
Cadmium	19.8			mg/kg	20	0.62	96	75-125	3	20
Chromium	40.1			mg/kg	20	20	100	75-125	10	20
Cobalt	25.9			mg/kg	20	8.7	86	75-125	0	20
Copper	67.9	M3		mg/kg	20	44	120	75-125	39	20
Lead	66.7	M3		mg/kg	20	100	0	75-125	0	20
Molybdenum	21.3			mg/kg	20	3.6	88	75-125	2	20
Nickel	29			mg/kg	20	12	85	75-125	2	20
Selenium	19.9			mg/kg	20	2	89	75-125	2	20
Silver	19.6			mg/kg	20	0	98	75-125	4	20
Thallium	18.5			mg/kg	20	0	93	75-125	2	20
Vanadium	54.1			mg/kg	20	35	95	75-125	0	20
Zinc	230	M3		mg/kg	20	160	350	75-125	20	20

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Quality Control (Continued)

Oil Range Organics (C23-C32)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0020										
Blank (B5L0020-BLK1)										
					Prepared & Analyzed: 12/22/2015					
Oil Range Organics	ND		5.00	mg/kg						
Surrogate: n-Octacosane (c28)	1.75			mg/kg	2.00		87.3	60-140		
LCS (B5L0020-BS2)										
					Prepared: 12/22/2015 Analyzed: 12/23/2015					
Oil Range Organics	47.5		5.00	mg/kg	50.0		95.0	70-130		
Surrogate: n-Octacosane (c28)	1.78			mg/kg	2.00		89.2	60-140		
LCS Dup (B5L0020-BSD2)										
					Prepared: 12/22/2015 Analyzed: 12/23/2015					
Oil Range Organics	50.3		5.00	mg/kg	50.0		101	70-130	5.66	20
Surrogate: n-Octacosane (c28)	1.95			mg/kg	2.00		97.5	60-140		
Matrix Spike (B5L0020-MS2)										
			Source: P512009-01		Prepared & Analyzed: 12/23/2015					
Oil Range Organics	40.6	QM-05	5.00	mg/kg	50.0	0.536	80.1	70-130		
Surrogate: n-Octacosane (c28)	1.16	S-03		mg/kg	2.00		57.9	60-140		
Matrix Spike Dup (B5L0020-MSD2)										
			Source: P512009-01		Prepared & Analyzed: 12/23/2015					
Oil Range Organics	51.0	QM-05, QR-03	5.00	mg/kg	50.0	0.536	101	70-130	22.9	20
Surrogate: n-Octacosane (c28)	1.51			mg/kg	2.00		75.5	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0018										
Blank (B5L0018-BLK1)					Prepared & Analyzed: 12/22/2015					
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		20	µg/Kg						
Acrylonitrile	ND		1.0	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		1.0	µg/Kg						

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0018 (Continued)										
Blank (B5L0018-BLK1)				Prepared & Analyzed: 12/22/2015						
Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		1.0	µg/Kg						
Iodomethane	ND		20	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Phenanthrene	ND		1.0	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	53			µg/Kg	50.0		105	60-140		
Surrogate: 1,2-Dichloroethane-d4	55			µg/Kg	50.0		110	60-140		
Surrogate: Toluene-d8	54			µg/Kg	50.0		108	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

**Quality Control
(Continued)**

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5L0018 (Continued)

LCS (B5L0018-BS1)

Prepared & Analyzed: 12/22/2015

Benzene	44		1.0	µg/Kg	50.0		87.1	70-130		
Bromobenzene	46		1.0	µg/Kg	50.0		91.3	70-130		
Bromodichloromethane	50		1.0	µg/Kg	50.0		100	70-130		
Bromoform	49		1.0	µg/Kg	50.0		98.9	70-130		
Chlorobenzene	43		1.0	µg/Kg	50.0		86.1	70-130		
Chloroethane	42		5.0	µg/Kg	50.0		84.9	70-130		
Chloroform	44		1.0	µg/Kg	50.0		88.7	70-130		
4-Chlorotoluene	47		1.0	µg/Kg	50.0		93.9	70-130		
Dibromomethane	51		1.0	µg/Kg	50.0		101	70-130		
1,2-Dichlorobenzene	44		1.0	µg/Kg	50.0		88.2	70-130		
1,1-Dichloroethene	44		1.0	µg/Kg	50.0		87.1	70-130		
1,2-Dichloropropane	49		1.0	µg/Kg	50.0		97.0	70-130		
2,2-Dichloropropane	45		1.0	µg/Kg	50.0		91.0	70-130		
1,1-Dichloropropene	45		1.0	µg/Kg	50.0		90.4	70-130		
Diethyl Ether	46		1.0	µg/Kg	50.0		92.5	70-130		
Diisopropyl Ether (DIPE)	44		1.0	µg/Kg	50.0		88.8	70-130		
Ethylbenzene	45		1.0	µg/Kg	50.0		89.8	70-130		
Hexachloro-1,3-Butadiene	43		1.0	µg/Kg	50.0		86.5	70-130		
Methylene Chloride	45		10	µg/Kg	50.0		89.0	70-130		
Methyl-t-Butyl Ether (MTBE)	49		1.0	µg/Kg	50.0		97.4	70-130		
Naphthalene	42		10	µg/Kg	50.0		83.9	70-130		
Styrene	45		1.0	µg/Kg	50.0		90.4	70-130		
tert-Butylbenzene	43		1.0	µg/Kg	50.0		86.2	70-130		
Tetrachloroethene	39		1.0	µg/Kg	50.0		78.9	70-130		
Toluene	42		1.0	µg/Kg	50.0		84.9	70-130		
1,2,3-Trichlorobenzene	46		1.0	µg/Kg	50.0		91.4	70-130		
Trichloroethene	45		1.0	µg/Kg	50.0		90.0	70-130		
1,3,5-Trimethylbenzene	45		1.0	µg/Kg	50.0		89.4	70-130		
Vinyl Chloride	39		1.0	µg/Kg	50.0		78.2	70-130		
Surrogate: Dibromofluoromethane	48			µg/Kg	50.0		96.5	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		99.2	60-140		
Surrogate: 1,2-Dichloroethane-d4	49			µg/Kg	50.0		97.1	60-140		
Surrogate: Toluene-d8	47			µg/Kg	50.0		94.2	60-140		

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5L0018 (Continued)										
LCS Dup (B5L0018-BSD1)				Prepared & Analyzed: 12/22/2015						
Benzene	48		1.0	µg/Kg	50.0		95.3	70-130	9.08	20
Bromobenzene	46		1.0	µg/Kg	50.0		92.9	70-130	1.76	20
Bromodichloromethane	53		1.0	µg/Kg	50.0		105	70-130	5.24	20
Bromoform	51		1.0	µg/Kg	50.0		102	70-130	3.15	20
Chlorobenzene	47		1.0	µg/Kg	50.0		94.1	70-130	8.90	20
Chloroethane	46		5.0	µg/Kg	50.0		91.8	70-130	7.77	20
Chloroform	51		1.0	µg/Kg	50.0		101	70-130	13.2	20
4-Chlorotoluene	51		1.0	µg/Kg	50.0		102	70-130	7.82	20
Dibromomethane	53		1.0	µg/Kg	50.0		106	70-130	4.48	20
1,2-Dichlorobenzene	47		1.0	µg/Kg	50.0		93.8	70-130	6.11	20
1,1-Dichloroethene	46		1.0	µg/Kg	50.0		91.5	70-130	4.99	20
1,2-Dichloropropane	48		1.0	µg/Kg	50.0		96.4	70-130	0.703	20
2,2-Dichloropropane	51		1.0	µg/Kg	50.0		101	70-130	10.5	20
1,1-Dichloropropene	47		1.0	µg/Kg	50.0		93.1	70-130	2.92	20
Diethyl Ether	50		1.0	µg/Kg	50.0		99.9	70-130	7.67	20
Diisopropyl Ether (DIPE)	47		1.0	µg/Kg	50.0		94.8	70-130	6.62	20
Ethylbenzene	47		1.0	µg/Kg	50.0		94.6	70-130	5.25	20
Hexachloro-1,3-Butadiene	45		1.0	µg/Kg	50.0		90.3	70-130	4.30	20
Methylene Chloride	48		10	µg/Kg	50.0		95.2	70-130	6.75	20
Methyl-t-Butyl Ether (MTBE)	52		1.0	µg/Kg	50.0		103	70-130	5.65	20
Naphthalene	47		10	µg/Kg	50.0		93.9	70-130	11.2	20
Styrene	47		1.0	µg/Kg	50.0		94.4	70-130	4.29	20
tert-Butylbenzene	47		1.0	µg/Kg	50.0		94.0	70-130	8.70	20
Tetrachloroethene	42		1.0	µg/Kg	50.0		85.0	70-130	7.39	20
Toluene	45		1.0	µg/Kg	50.0		90.4	70-130	6.25	20
1,2,3-Trichlorobenzene	49		1.0	µg/Kg	50.0		98.4	70-130	7.38	20
Trichloroethene	45		1.0	µg/Kg	50.0		89.2	70-130	0.893	20
1,3,5-Trimethylbenzene	48		1.0	µg/Kg	50.0		95.4	70-130	6.47	20
Vinyl Chloride	40		1.0	µg/Kg	50.0		80.2	70-130	2.55	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		97.9	60-140		
Surrogate: 1,2-Dichloroethane-d4	51			µg/Kg	50.0		101	60-140		
Surrogate: Toluene-d8	48			µg/Kg	50.0		96.7	60-140		

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320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Notes and Definitions

Item	Definition
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to spike level. The associated blank spike recovery was acceptable.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
R2	RPD/RSD exceeded the laboratory acceptance limit.
S-03	The surrogate recovery for this sample is outside of established control limits due to a sample matrix effect.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

PAL PID: P51200

Client Name 5/11/15						REQUESTED ANALYSES																	
Project Manager Phil Skorge																							
Email phil.skorge@arcadis.com																							
Phone 714.588.2676																							
FAX 714.730.9345																							
Project Name/Number MTA Loc G15																							
P.O. Number																							
Sampled By Zack Mason																							
Client Sample ID / Description						Sample Date		Sample Time		Sample Matrix*		Container Quantity Type											
1 PIT 1b-NS						12/22/15		15:00		S		2 9oz Jar											
2																							
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
PAL Containers used:						Yes		No						RELINQUISHED BY									
Type of Ice used:						Wet		Blue		None				Signature: Zack Mason									
Sample Preservative:						Yes		NO						Print: Zack Mason									
TAT Needed (circle one)						STD		RUSH				72		Company: ARCADIS									
EDD Required - Circle one:						Yes		No						RECEIVED BY									
Type of EDD:														Signature: M. Valenzuela									
														Print: M. Valenzuela									
														Company: PAL									
														RELINQUISHED BY									
														Signature:									
														Print:									
														Company:									
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*PAL MATRIX CODES: (S= Soils); (P= Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)

Work Order ID

P512007

SAMPLE RECEIPT FORM

Cooler ID :

Client Arcadis

Date Received: Dec 22, 2015

Total # of Samples: 1

COURIER INFORMATION☒ PALI☐ OTHER☐ FEDEX☐ CLIENT☐ UPS

Tracking #

TEMPERATURE

3.6 °C

☒ WET ICE☐ BLUE ICE☐ NO ICE☐ AMBIENT**CLIENT COC**☒ INCLUDED☒ SIGNED☐ NOT INCLUDED☐ NOT SIGNED☐ LIQUID☐ Composite at PALI, equal☐ Composite at PALI, flow-weighted☒ SOLID**SAMPLE MATRIX**☐ TISSUE☐ Homogenized☐ Unhomogenized☐ OTHER**CONDITION OF SAMPLES UPON VERIFICATION**

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

M.Valenzuela

Dec 22, 2015

Initials

Date

Date

Print Form

January 04, 2016

Change Order Report

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

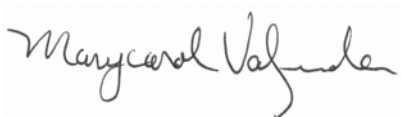
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P512007

Dear Phil Skorge

Enclosed are the results of analyses for samples received by our laboratory on 12/22/2015. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: PIT 1b-NS

P512007-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Metal_STLC_Subcontract (Batch ID: SG1231155)

Lead	1.9	mg/L	1	0.2	01/04/2016	EPA 6010B	

Metal_TCLP_Subcontract (Batch ID: SG1231154)

Lead	<0.080	mg/L	1	0.08	01/04/2016	EPA 6010B	

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Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control

Metal_STLC_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG1231155										
BLK (SG1231155 BLK)										
Lead	<0.2		0.2	mg/L				-		
BS (SG1231155 BS)										
Lead	0.954			mg/L	1		95	80-120	6	20
BSD (SG1231155 BSD)										
Lead	1.01			mg/L	1		101	80-120	6	20
MS (SG1231155 MS)										
Lead	3.07		Source: 20437-003	mg/L	1	2.2	87	75-125	1	20
MSD (SG1231155 MSD)										
Lead	3.1		Source: 20437-003	mg/L	1	2.2	90	75-125	1	20

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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control (Continued)

Metal_TCLP_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG1231154										
BLK (SG1231154 BLK)										
Lead	<0.08		0.08	mg/L				-		
Prepared: 12/31/2015 Analyzed: 01/04/2016										
BS (SG1231154 BS)										
Lead	0.401			mg/L	0.4		100	80-120	1	20
Prepared: 12/31/2015 Analyzed: 01/04/2016										
BSD (SG1231154 BSD)										
Lead	0.407			mg/L	0.4		102	80-120	1	20
Prepared: 12/31/2015 Analyzed: 01/04/2016										
MS (SG1231154 MS)										
Lead	0.373		Source: AZ9857-001	mg/L	0.4	0	93	75-125	1	20
Prepared: 12/31/2015 Analyzed: 01/04/2016										
MSD (SG1231154 MSD)										
Lead	0.377		Source: AZ9857-001	mg/L	0.4	0	94	75-125	1	20
Prepared: 12/31/2015 Analyzed: 01/04/2016										

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Notes and Definitions

Item	Definition
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Work Order ID

P512007

SAMPLE RECEIPT FORM

Cooler ID :

Client Arcadis

Date Received: Dec 22, 2015

Total # of Samples: 1

COURIER INFORMATION☒ PALI☐ OTHER☐ FEDEX☐ CLIENT☐ UPS

Tracking #

TEMPERATURE

3.6 °C

☒ WET ICE☐ BLUE ICE☐ NO ICE☐ AMBIENT**CLIENT COC**☒ INCLUDED☒ SIGNED☐ NOT INCLUDED☐ NOT SIGNED☐ LIQUID☐ Composite at PALI, equal☐ Composite at PALI, flow-weighted☒ SOLID**SAMPLE MATRIX**☐ TISSUE☐ Homogenized☐ Unhomogenized☐ OTHER**CONDITION OF SAMPLES UPON VERIFICATION**

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

M.Valenzuela

Dec 22, 2015

Initials

Date

Date

Print Form

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Orange Coast Analytical, Inc
3002 Dow Ave., Suite 532
Tustin, CA 92780
Phone : (714) 832-0064
Fax: .

Analysis	Due	Comments
Sample ID: P512007-01 Matrix: Solid Sampled: 12/22/2015 15:00		
S_Metals 6010B Title 22	12/24/2015 14:00	
S_Mercury 7471	12/24/2015 14:00	
<i>Containers Supplied:</i>		
Glass Jar, 8 oz (B)		

Marycarol Valenzuela 12/23/15 9:46 [Signature] 12/23/15 0946 on ice @ 3°C

Released By

Date

Time

Received By

Date

Time

Released By

Date

Time

Received By

Date

Time

Sample Receipt Report

Laboratory Reference **PAL 20446**

Logged in by **MM**

Received: **12/23/15 09:46**

Company Name: **Performance Analytical Laboratories, I**

Method of Shipment: **Hand Delivered**

Project Manager: **Ms. Marycarol Valenzuela**

Shipping Container: **Cooler**

Project Name: **P512007**

Shipping Containers: **1**

Project #:

Sample Quantity

1 Solid

Chain of Custody	Complete ☒	Incomplete ☐	None ☐
Samples On Ice	Yes, Wet ☒	Yes, Blue ☐	No ☐
Temperature	<u>3°C</u>		
Shipping Intact	Yes ☐	N/A ☒	No ☐
Shipping Custody Seals Intact	Yes ☐	N/A ☒	No ☐
Samples Intact	Yes ☒		No ☐
Sample Custody Seals Intact	Yes ☐	N/A ☒	No ☐
Custody Seals Signed & Dated	Yes ☐	N/A ☒	No ☐
Proper Test Containers	Yes ☒		No ☐
Proper Test Preservations	Yes ☒		No ☐
Samples Within Hold Times	Yes ☒		No ☐
VOAs Have Zero Headspace	Yes ☐	N/A ☒	No ☐
Sample Labels	Complete ☒	Incomplete ☐	None ☐
Sample Information Matches COC	Yes ☒	N/A ☐	No ☐

Notes

Client Notified

By

On

October 13, 2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

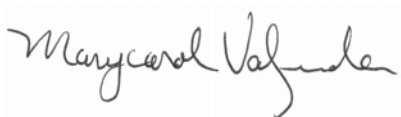
Re: LA Metro Soil Testing LA 8.2015
Project No. : LO493901.0001
Work Order: P509008

Dear Lawrence Browne

Enclosed are the results of analyses for samples received by our laboratory on 9/24/2015. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US

320 Commerce, Suite 200

Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015

Project Number: LO493901.0001

Project Manager: Lawrence Browne

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Sample: PIT3-NS

P509008-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG0925151)

Antimony	1.6	mg/kg	1	1	09/25/2015	EPA 6010B Metals	
Arsenic	4.6	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Barium	730	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Beryllium	<0.50	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Cadmium	1.2	mg/kg	1	0.2	09/25/2015	EPA 6010B Metals	
Chromium	23	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Cobalt	11	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Copper	20	mg/kg	1	2	09/25/2015	EPA 6010B Metals	
Lead	270	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Molybdenum	<1.0	mg/kg	1	1	09/25/2015	EPA 6010B Metals	
Nickel	9.8	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Selenium	<1.0	mg/kg	1	1	09/25/2015	EPA 6010B Metals	
Silver	<0.50	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Thallium	<2.0	mg/kg	1	2	09/25/2015	EPA 6010B Metals	
Vanadium	39	mg/kg	1	0.5	09/25/2015	EPA 6010B Metals	
Zinc	270	mg/kg	1	2	09/25/2015	EPA 6010B Metals	

Mercury_Subcontract (Batch ID: SG0928151)

Mercury	0.26	mg/kg	1	0.1	09/29/2015	EPA 7471 Mercury	

Metal_STLC_Subcontract (Batch ID: SG1008151)

Lead	4.3	mg/L	1	0.2	10/12/2015	EPA 6010B Metals	

Metal_TCLP_Subcontract (Batch ID: SG1006154)

Lead	0.10	mg/L	1	0.08	10/07/2015	EPA 6010B Metals	

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Quality Control

CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SG0925151

BLK (MBSG0925151)

Prepared & Analyzed: 09/25/2015

Antimony	<1		1	mg/kg				-		
Arsenic	<0.5		0.5	mg/kg				-		
Barium	<0.5		0.5	mg/kg				-		
Beryllium	<0.5		0.5	mg/kg				-		
Cadmium	<0.2		0.2	mg/kg				-		
Chromium	<0.5		0.5	mg/kg				-		
Cobalt	<0.5		0.5	mg/kg				-		
Copper	<2		2	mg/kg				-		
Lead	<0.5		0.5	mg/kg				-		
Molybdenum	<1		1	mg/kg				-		
Nickel	<0.5		0.5	mg/kg				-		
Selenium	<1		1	mg/kg				-		
Silver	<0.5		0.5	mg/kg				-		
Thallium	<2		2	mg/kg				-		
Vanadium	<0.5		0.5	mg/kg				-		
Zinc	<2		2	mg/kg				-		

BS (LCSSG0925151)

Prepared & Analyzed: 09/25/2015

Antimony	20.9			mg/kg	20		104	80-120	1	20
Arsenic	19.6			mg/kg	20		98	80-120	1	20
Barium	21.3			mg/kg	20		106	80-120	1	20
Beryllium	20.9			mg/kg	20		104	80-120	1	20
Cadmium	20			mg/kg	20		100	80-120	1	20
Chromium	20.3			mg/kg	20		101	80-120	0	20
Cobalt	20			mg/kg	20		100	80-120	1	20
Copper	22.8			mg/kg	20		114	80-120	1	20
Lead	21			mg/kg	20		105	80-120	0	20
Molybdenum	20.2			mg/kg	20		101	80-120	1	20
Nickel	20.8			mg/kg	20		104	80-120	1	20
Selenium	19.8			mg/kg	20		99	80-120	3	20
Silver	20.2			mg/kg	20		101	80-120	1	20
Thallium	19.9			mg/kg	20		100	80-120	1	20
Vanadium	20.5			mg/kg	20		102	80-120	1	20
Zinc	22			mg/kg	20		110	80-120	5	20

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

**Quality Control
(Continued)**

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SG0925151 (Continued)

BSD (LCSDSG0925151)

Prepared & Analyzed: 09/25/2015

Antimony	20.7			mg/kg	20		104	80-120	1	20
Arsenic	19.5			mg/kg	20		98	80-120	1	20
Barium	21.1			mg/kg	20		106	80-120	1	20
Beryllium	21.1			mg/kg	20		106	80-120	1	20
Cadmium	19.9			mg/kg	20		100	80-120	1	20
Chromium	20.2			mg/kg	20		101	80-120	0	20
Cobalt	19.8			mg/kg	20		99	80-120	1	20
Copper	22.5			mg/kg	20		112	80-120	1	20
Lead	20.9			mg/kg	20		104	80-120	0	20
Molybdenum	20			mg/kg	20		100	80-120	1	20
Nickel	20.6			mg/kg	20		103	80-120	1	20
Selenium	19.3			mg/kg	20		96	80-120	3	20
Silver	20			mg/kg	20		100	80-120	1	20
Thallium	19.7			mg/kg	20		99	80-120	1	20
Vanadium	20.3			mg/kg	20		101	80-120	1	20
Zinc	20.9			mg/kg	20		104	80-120	5	20

MS (MS20207-001)

Source: 20207-001

Prepared & Analyzed: 09/25/2015

Antimony	4.4	M2		mg/kg	20	0	22	75-125	2	20
Arsenic	24.2			mg/kg	20	4.8	97	75-125	3	20
Barium	120			mg/kg	20	100	100	75-125	3	20
Beryllium	20.4			mg/kg	20	0	102	75-125	0	20
Cadmium	20.3			mg/kg	20	0.97	97	75-125	0	20
Chromium	37.2			mg/kg	20	18	96	75-125	3	20
Cobalt	26.1			mg/kg	20	8.3	89	75-125	0	20
Copper	42.8			mg/kg	20	22	104	75-125	1	20
Lead	48.3			mg/kg	20	29	96	75-125	2	20
Molybdenum	19.1			mg/kg	20	1.2	89	75-125	1	20
Nickel	31			mg/kg	20	16	75	75-125	3	20
Selenium	19.3			mg/kg	20	1.3	90	75-125	4	20
Silver	19			mg/kg	20	0	95	75-125	0	20
Thallium	18.4			mg/kg	20	0	92	75-125	1	20
Vanadium	56.5			mg/kg	20	36	102	75-125	4	20
Zinc	138	M3		mg/kg	20	130	40	75-125	3	20

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Quality Control (Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG0925151 (Continued)										
MSD (MSD20207-001)			Source: 20207-001		Prepared & Analyzed: 09/25/2015					
Antimony	4.32	M2		mg/kg	20	0	22	75-125	2	20
Arsenic	24.9			mg/kg	20	4.8	100	75-125	3	20
Barium	124			mg/kg	20	100	120	75-125	3	20
Beryllium	20.5			mg/kg	20	0	102	75-125	0	20
Cadmium	20.4			mg/kg	20	0.97	97	75-125	0	20
Chromium	38.2			mg/kg	20	18	101	75-125	3	20
Cobalt	26.1			mg/kg	20	8.3	89	75-125	0	20
Copper	43.3			mg/kg	20	22	106	75-125	1	20
Lead	49.1			mg/kg	20	29	100	75-125	2	20
Molybdenum	18.9			mg/kg	20	1.2	88	75-125	1	20
Nickel	31.8			mg/kg	20	16	79	75-125	3	20
Selenium	20.1			mg/kg	20	1.3	94	75-125	4	20
Silver	19			mg/kg	20	0	95	75-125	0	20
Thallium	18.5			mg/kg	20	0	93	75-125	1	20
Vanadium	58.7			mg/kg	20	36	113	75-125	4	20
Zinc	142	M3		mg/kg	20	130	60	75-125	3	20

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Quality Control (Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG0928151										
BLK (MBSG0928151)										
Mercury	<0.1		0.1	mg/kg				-		
Prepared: 09/28/2015 Analyzed: 09/29/2015										
BS (LCSSG0928151)										
Mercury	1.09			mg/kg	1		109	80-120	4	20
Prepared: 09/28/2015 Analyzed: 09/29/2015										
BSD (LCSDSG0928151)										
Mercury	1.14			mg/kg	1		114	80-120	4	20
Prepared: 09/28/2015 Analyzed: 09/29/2015										
MS (MS20202-001)										
Mercury	1.24		Source: 20202-001	mg/kg	1	0.2	104	80-120	3	20
Prepared: 09/28/2015 Analyzed: 09/29/2015										
MSD (MSD20202-001)										
Mercury	1.2		Source: 20202-001	mg/kg	1	0.2	100	80-120	3	20
Prepared: 09/28/2015 Analyzed: 09/29/2015										

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Quality Control (Continued)

Metal_STLC_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG1008151										
BLK (MBSG1008151)										
Lead	<0.2		0.2	mg/L				-		
BS (LCSSG1008151)										
Lead	0.944			mg/L	1		94	80-120	3	20
BSD (LCSDSG1008151)										
Lead	0.915			mg/L	1		92	80-120	3	20
MS (MS20208-010)										
Lead	6.21	M3	Source: 20208-010	mg/L	1	5.9	31	75-125	4	20
MSD (MSD20208-010)										
Lead	5.99	M3	Source: 20208-010	mg/L	1	5.9	9	75-125	4	20

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015
Project Number: LO493901.0001
Project Manager: Lawrence Browne

Quality Control (Continued)

Metal_TCLP_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG1006154										
BLK (MBSG1006154)										
Lead	<0.08		0.08	mg/L				-		
Prepared: 10/06/2015 Analyzed: 10/07/2015										
BS (LCSSG1006154)										
Lead	0.418			mg/L	0.4		104	80-120	2	20
Prepared: 10/06/2015 Analyzed: 10/07/2015										
BSD (LCSDSG1006154)										
Lead	0.411			mg/L	0.4		103	80-120	2	20
Prepared: 10/06/2015 Analyzed: 10/07/2015										
MS (MS20202-002)										
Lead	0.478		Source: P509008-02	mg/L	0.4	0.1	94	75-125	0	20
Prepared: 10/06/2015 Analyzed: 10/07/2015										
MSD (MSD20202-002)										
Lead	0.48		Source: P509008-02	mg/L	0.4	0.1	95	75-125	0	20
Prepared: 10/06/2015 Analyzed: 10/07/2015										

ARCADIS US

320 Commerce, Suite 200

Irvine, CA 92602

Project: LA Metro Soil Testing LA 8.2015

Project Number: LO493901.0001

Project Manager: Lawrence Browne

Notes and Definitions

Item	Definition
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to spike level. The associated blank spike recovery was acceptable.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755

310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1 2.4°C

PAL PID: P509008

Client Name ARCADIS-US, INC. Address 320 Commerce #200 IRVINE, CA 92602 Project Manager Jacob Collins Email Jacob.Collins@ARCADIS-US.com Phone 714-508-2668 FAX 714-730-9345 Project Name/Number METRO LOC-61s P.O. Number L0495201-0000 Sampled By M. LEDESMA				REQUESTED ANALYSES TPH g/di/mo CAM 17 metals Voc's By B260 Voc's METALS Full RANGE TPH																
Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Quantity	Container Type															
1 PIT1-NS	9/24/15	0700	Soil	2	4oz Jar															
2 PIT3-NS	↓	0710	Soil	2	↓															
3 PIT1-S	↓	0720	CONCRETE	2	↓	X	X	X												
4																				
5																				
6																				
7																				
8																				
9																				
10																				

PAL Containers used:		Yes	No	
Type of Ice used:		Wet	Blue	None
Sample Preservative:		Yes	No	

TAT Needed (circle one)	STD		RUSH	
	5 day	24	(48)	72

EDD Required - Circle one:	Yes	No
Type of EDD:		

Signature: [Signature]		RELINQUISHED BY
Print: MARCO A. LEDESMA		DATE: 9-24-15
Company: ARCADIS-US, INC.		TIME: 0800

Signature: Anthony Valenzuela		RECEIVED BY
Print: Anthony Valenzuela		DATE: 9/24/15
Company: PAL		TIME: 1230

Signature: Anthony Valenzuela		RELINQUISHED BY
Print: ANTHONY VALENZUELA		DATE: 9/24/15
Company: PAL		TIME: 1326

Signature: John Yodanis		RECEIVED BY
Print: JOHN YODANIS		DATE: 9/24/15
Company: PAL		TIME: 1324

PAL Labeled Samples: _____

*PAL MATRIX CODES: (S= Soils); (P= Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)

SAMPLE RECEIPT FORM

Cooler ID : _____

CLIENT:

Date Received:

Total # of Samples:

COURIER INFORMATION

☒ PALI ☐ OTHER ☐ FEDEX
☐ CLIENT ☐ UPS

Tracking #

TEMPERATURE

°C ☒ WET ICE ☐ BLUE ICE ☐ NO ICE
☐ AMBIENT

CLIENT COC

☐ INCLUDED ☐ SIGNED
☐ NOT INCLUDED ☐ NOT SIGNED

SAMPLE MATRIX

☐ LIQUID ☐ TISSUE
☐ Composite at PALI, equal ☐ Homogenized
☐ Composite at PALI, flow-weighted ☐ Unhomogenized
☒ SOLID ☐ OTHER _____

CONDITION OF SAMPLES UPON VERIFICATION

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

Signature Field Text
Initials Date

Signature Field Text
Initials Date

Print Form

December 01, 2015

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

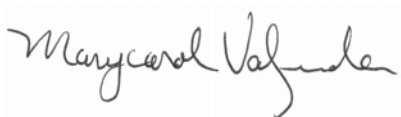
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P511012

Dear Zack Mason

Enclosed are the results of analyses for samples received by our laboratory on 11/30/2015. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P511012-01	PIT2-NS	Solid	11/30/2015	11/30/2015
P511012-02	PIT4-NS	Solid	11/30/2015	11/30/2015

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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Sample: PIT2-NS

P511012-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5K0027)

Diesel Range Organics	324	mg/kg	1.5	5.57	11/30/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	271%			60-140	11/30/2015	EPA 8015B	S-02

Gasoline Range Organics (C6-C10) (Batch ID: B5K0025)

Gasoline Range Organics	ND	mg/kg	1	0.200	11/30/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	91.6%			60-140	11/30/2015	EPA 8015B	

Mercury_Subcontract (Batch ID: SG1130152)

Mercury	0.13	mg/kg	1	0.1	12/01/2015	EPA 7471 Mercury	

Metal_Single Element_Subcontract (Batch ID: SG1130151)

Antimony	<1.0	mg/kg	1	1	12/01/2015	EPA 6010B	
Arsenic	4.8	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Barium	120	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Beryllium	0.51	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Cadmium	0.56	mg/kg	1	0.2	12/01/2015	EPA 6010B	
Chromium	19	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Cobalt	11	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Copper	24	mg/kg	1	2	12/01/2015	EPA 6010B	
Lead	40	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Molybdenum	<1.0	mg/kg	1	1	12/01/2015	EPA 6010B	
Nickel	13	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Selenium	1.2	mg/kg	1	1	12/01/2015	EPA 6010B	
Silver	<0.50	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Thallium	<2.0	mg/kg	1	2	12/01/2015	EPA 6010B	
Vanadium	44	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Zinc	100	mg/kg	1	2	12/01/2015	EPA 6010B	

Volatile Organic Compounds (Batch ID: B5K0026)

Acetone	ND	µg/Kg	1	20	11/30/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	20	11/30/2015	EPA 8260B	

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Project Number: LA Metro S61 - LA 8.2015
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Sample: PIT2-NS (Continued)

P511012-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5K0026) (Continued)

Acrylonitrile	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	5.0	11/30/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	11/30/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	5.0	11/30/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	5.0	11/30/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	5.0	11/30/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	

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Sample: PIT2-NS (Continued)
P511012-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0026) (Continued)							
1,3-Dichloropropane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	20	11/30/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	5.0	11/30/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	10	11/30/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	11/30/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	10	11/30/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	20	11/30/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25	11/30/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	

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Sample: PIT2-NS (Continued)

P511012-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5K0026) (Continued)

Trichloroethene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	2.0	11/30/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	3.0	11/30/2015	EPA 8260B	

Surrogate: Dibromofluoromethane	103%			60-140	11/30/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	98.5%			60-140	11/30/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	108%			60-140	11/30/2015	EPA 8260B	
Surrogate: Toluene-d8	97.5%			60-140	11/30/2015	EPA 8260B	

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Sample: PIT4-NS

P511012-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Diesel Range Organics (C10-C28) (Batch ID: B5K0027)

Diesel Range Organics	17.3	mg/kg	1	2.50	11/30/2015	EPA 8015B	
Surrogate: n-Octacosane (c28)	82.8%			60-140	11/30/2015	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B5K0025)

Gasoline Range Organics	ND	mg/kg	1	0.200	11/30/2015	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	96.8%			60-140	11/30/2015	EPA 8015B	

Mercury_Subcontract (Batch ID: SG1130152)

Mercury	0.10	mg/kg	1	0.1	12/01/2015	EPA 7471 Mercury	

Metal_Single Element_Subcontract (Batch ID: SG1130151)

Antimony	<1.0	mg/kg	1	1	12/01/2015	EPA 6010B	
Arsenic	3.8	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Barium	140	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Beryllium	<0.50	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Cadmium	0.61	mg/kg	1	0.2	12/01/2015	EPA 6010B	
Chromium	15	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Cobalt	8.2	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Copper	17	mg/kg	1	2	12/01/2015	EPA 6010B	
Lead	62	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Molybdenum	<1.0	mg/kg	1	1	12/01/2015	EPA 6010B	
Nickel	8.8	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Selenium	1.5	mg/kg	1	1	12/01/2015	EPA 6010B	
Silver	<0.50	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Thallium	<2.0	mg/kg	1	2	12/01/2015	EPA 6010B	
Vanadium	33	mg/kg	1	0.5	12/01/2015	EPA 6010B	
Zinc	190	mg/kg	1	2	12/01/2015	EPA 6010B	

Volatile Organic Compounds (Batch ID: B5K0026)

Acetone	ND	µg/Kg	1	20	11/30/2015	EPA 8260B	
Acetonitrile	ND	µg/Kg	1	20	11/30/2015	EPA 8260B	

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Sample: PIT4-NS (Continued)

P511012-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0026) (Continued)							
Acrylonitrile	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Allyl Chloride	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Benzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Bromobenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Bromochloromethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Bromoform	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Bromomethane	ND	µg/Kg	1	5.0	11/30/2015	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	1	20	11/30/2015	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	1	5.0	11/30/2015	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Chlorobenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Chloroethane	ND	µg/Kg	1	5.0	11/30/2015	EPA 8260B	
Chloroform	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Chloromethane	ND	µg/Kg	1	5.0	11/30/2015	EPA 8260B	
Chloroprene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Dibromomethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
c-1,3-Dichloropropene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	

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Sample: PIT4-NS (Continued)
P511012-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B5K0026) (Continued)							
1,3-Dichloropropane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Diethyl Ether	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Ethylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
2-Hexanone	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Iodomethane	ND	µg/Kg	1	20	11/30/2015	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	1	5.0	11/30/2015	EPA 8260B	
Methylene Chloride	ND	µg/Kg	1	10	11/30/2015	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	1	20	11/30/2015	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Naphthalene	ND	µg/Kg	1	10	11/30/2015	EPA 8260B	
Phenanthrene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Propionitrile	ND	µg/Kg	1	20	11/30/2015	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Styrene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	1	25	11/30/2015	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Toluene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2,3-Trichlorobenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	

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Sample: PIT4-NS (Continued)

P511012-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B5K0026) (Continued)

Trichloroethene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
o-Xylene	ND	µg/Kg	1	1.0	11/30/2015	EPA 8260B	
p/m-Xylene	ND	µg/Kg	1	2.0	11/30/2015	EPA 8260B	
Total Xylenes	ND	µg/Kg	1	3.0	11/30/2015	EPA 8260B	

Surrogate: Dibromofluoromethane	95.5%			60-140	11/30/2015	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	99.0%			60-140	11/30/2015	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	106%			60-140	11/30/2015	EPA 8260B	
Surrogate: Toluene-d8	101%			60-140	11/30/2015	EPA 8260B	

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Quality Control

Diesel Range Organics (C10-C28)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0027										
Blank (B5K0027-BLK1)										
					Prepared & Analyzed: 11/30/2015					
Diesel Range Organics	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.72			mg/kg	2.00		86.1	60-140		
LCS (B5K0027-BS1)										
					Prepared & Analyzed: 11/30/2015					
Diesel	36.2		2.50	mg/kg	50.0		72.4	70-130		
Surrogate: n-Octacosane (c28)	1.55			mg/kg	2.00		77.6	60-140		
LCS Dup (B5K0027-BSD1)										
					Prepared & Analyzed: 11/30/2015					
Diesel	36.9		2.50	mg/kg	50.0		73.8	70-130	1.95	20
Surrogate: n-Octacosane (c28)	1.72			mg/kg	2.00		86.1	60-140		
Matrix Spike (B5K0027-MS1)										
			Source: P511012-02		Prepared & Analyzed: 11/30/2015					
Diesel	49.6	QM-05	2.50	mg/kg	50.0	17.3	64.6	70-130		
Surrogate: n-Octacosane (c28)	1.94			mg/kg	2.00		96.8	60-140		
Matrix Spike Dup (B5K0027-MSD1)										
			Source: P511012-02		Prepared & Analyzed: 11/30/2015					
Diesel	49.5	QM-05	2.50	mg/kg	50.0	17.3	64.5	70-130	0.154	20
Surrogate: n-Octacosane (c28)	1.73			mg/kg	2.00		86.7	60-140		

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Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0025										
Blank (B5K0025-BLK1)					Prepared & Analyzed: 11/30/2015					
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.241			mg/kg	0.250		96.4	60-140		
LCS (B5K0025-BS1)					Prepared & Analyzed: 11/30/2015					
Gasoline	9.47		0.200	mg/kg	10.0		94.7	70-130		
Surrogate: 4-Bromofluorobenzene	0.246			mg/kg	0.250		98.4	60-140		
LCS Dup (B5K0025-BSD1)					Prepared & Analyzed: 11/30/2015					
Gasoline	9.31		0.200	mg/kg	10.0		93.1	70-130	1.71	20
Surrogate: 4-Bromofluorobenzene	0.246			mg/kg	0.250		98.4	60-140		
Matrix Spike (B5K0025-MS1)					Prepared & Analyzed: 11/30/2015					
Gasoline	8.20		0.200	mg/kg	10.0	ND	82.0	70-130		
Surrogate: 4-Bromofluorobenzene	0.254			mg/kg	0.250		102	60-140		
Matrix Spike Dup (B5K0025-MSD1)					Prepared & Analyzed: 11/30/2015					
Gasoline	8.40		0.200	mg/kg	10.0	ND	84.0	70-130	2.37	20
Surrogate: 4-Bromofluorobenzene	0.251			mg/kg	0.250		100	60-140		

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Quality Control (Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG1130152										
BLK (SG1130152 BLK)										
Mercury	<0.1		0.1	mg/kg				-		
Prepared: 11/30/2015 Analyzed: 12/01/2015										
BS (SG1130152 BS)										
Mercury	1.15			mg/kg	1		115	80-120	0	20
Prepared: 11/30/2015 Analyzed: 12/01/2015										
BSD (SG1130152 BSD)										
Mercury	1.15			mg/kg	1		115	80-120	0	20
Prepared: 11/30/2015 Analyzed: 12/01/2015										
MS (SG1130152 MS)										
Mercury	1.35	M1	Source: P511012-01	mg/kg	1	0.13	122	80-120	0	20
Prepared: 11/30/2015 Analyzed: 12/01/2015										
MSD (SG1130152 MSD)										
Mercury	1.35	M1	Source: P511012-01	mg/kg	1	0.13	122	80-120	0	20
Prepared: 11/30/2015 Analyzed: 12/01/2015										

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Quality Control (Continued)

Metal_Single Element_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SG1130151

BLK (SG1130151 BLK)

Prepared: 11/30/2015 Analyzed: 12/01/2015

Antimony	<1		1	mg/kg				-		
Arsenic	<0.5		0.5	mg/kg				-		
Barium	<0.5		0.5	mg/kg				-		
Beryllium	<0.5		0.5	mg/kg				-		
Cadmium	<0.2		0.2	mg/kg				-		
Chromium	<0.5		0.5	mg/kg				-		
Cobalt	<0.5		0.5	mg/kg				-		
Copper	<2		2	mg/kg				-		
Lead	<0.5		0.5	mg/kg				-		
Molybdenum	<1		1	mg/kg				-		
Nickel	<0.5		0.5	mg/kg				-		
Selenium	<1		1	mg/kg				-		
Silver	<0.5		0.5	mg/kg				-		
Thallium	<2		2	mg/kg				-		
Vanadium	<0.5		0.5	mg/kg				-		
Zinc	<2		2	mg/kg				-		

BS (SG1130151 BS)

Prepared: 11/30/2015 Analyzed: 12/01/2015

Antimony	20			mg/kg	20		100	80-120	0	20
Arsenic	19.1			mg/kg	20		96	80-120	2	20
Barium	20.3			mg/kg	20		101	80-120	1	20
Beryllium	19.8			mg/kg	20		99	80-120	1	20
Cadmium	19.4			mg/kg	20		97	80-120	1	20
Chromium	20			mg/kg	20		100	80-120	0	20
Cobalt	19.2			mg/kg	20		96	80-120	1	20
Copper	21.8			mg/kg	20		109	80-120	1	20
Lead	20.1			mg/kg	20		100	80-120	0	20
Molybdenum	20.5			mg/kg	20		102	80-120	1	20
Nickel	20.3			mg/kg	20		101	80-120	0	20
Selenium	19.4			mg/kg	20		97	80-120	2	20
Silver	20			mg/kg	20		100	80-120	0	20
Thallium	18.9			mg/kg	20		94	80-120	0	20
Vanadium	19.8			mg/kg	20		99	80-120	1	20
Zinc	21.5			mg/kg	20		108	80-120	1	20

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**Quality Control
(Continued)**

Metal_Single Element_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SG1130151 (Continued)

BSD (SG1130151 BSD)

Prepared: 11/30/2015 Analyzed: 12/01/2015

Antimony	20			mg/kg	20		100	80-120	0	20
Arsenic	19.5			mg/kg	20		98	80-120	2	20
Barium	20.5			mg/kg	20		102	80-120	1	20
Beryllium	19.9			mg/kg	20		100	80-120	1	20
Cadmium	19.6			mg/kg	20		98	80-120	1	20
Chromium	20.1			mg/kg	20		100	80-120	0	20
Cobalt	19.4			mg/kg	20		97	80-120	1	20
Copper	22			mg/kg	20		110	80-120	1	20
Lead	20.2			mg/kg	20		101	80-120	0	20
Molybdenum	20.7			mg/kg	20		104	80-120	1	20
Nickel	20.3			mg/kg	20		101	80-120	0	20
Selenium	19.7			mg/kg	20		99	80-120	2	20
Silver	20.1			mg/kg	20		100	80-120	0	20
Thallium	18.9			mg/kg	20		94	80-120	0	20
Vanadium	19.9			mg/kg	20		100	80-120	1	20
Zinc	21.7			mg/kg	20		109	80-120	1	20

MS (SG1130151 MS)

Source: P511012-01

Prepared: 11/30/2015 Analyzed: 12/01/2015

Antimony	3.87	M2		mg/kg	20	0	19	75-125	7	20
Arsenic	24.1			mg/kg	20	4.8	96	75-125	4	20
Barium	129	M3		mg/kg	20	120	45	75-125	5	20
Beryllium	19.6			mg/kg	20	0.51	95	75-125	0	20
Cadmium	20.1			mg/kg	20	0.56	98	75-125	0	20
Chromium	36.2			mg/kg	20	19	86	75-125	1	20
Cobalt	27.3			mg/kg	20	11	81	75-125	2	20
Copper	41.7			mg/kg	20	24	89	75-125	2	20
Lead	64	M3		mg/kg	20	40	120	75-125	54	20
Molybdenum	17.9			mg/kg	20	0	89	75-125	3	20
Nickel	29.6			mg/kg	20	13	83	75-125	1	20
Selenium	20.4			mg/kg	20	1.2	96	75-125	3	20
Silver	19.8			mg/kg	20	0	99	75-125	1	20
Thallium	18.4			mg/kg	20	0	92	75-125	1	20
Vanadium	59.9			mg/kg	20	44	80	75-125	1	20
Zinc	161	M3		mg/kg	20	100	305	75-125	30	20

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Quality Control (Continued)

Metal_Single Element_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG1130151 (Continued)										
MSD (SG1130151 MSD)			Source: P511012-01		Prepared: 11/30/2015 Analyzed: 12/01/2015					
Antimony	4.14	M2		mg/kg	20	0	21	75-125	7	20
Arsenic	23.2			mg/kg	20	4.8	92	75-125	4	20
Barium	135	M3		mg/kg	20	120	75	75-125	5	20
Beryllium	19.6			mg/kg	20	0.51	95	75-125	0	20
Cadmium	20.2			mg/kg	20	0.56	98	75-125	0	20
Chromium	36.7			mg/kg	20	19	89	75-125	1	20
Cobalt	27.8			mg/kg	20	11	84	75-125	2	20
Copper	42.6			mg/kg	20	24	93	75-125	2	20
Lead	111	M3		mg/kg	20	40	355	75-125	54	20
Molybdenum	18.5			mg/kg	20	0	93	75-125	3	20
Nickel	29.9			mg/kg	20	13	84	75-125	1	20
Selenium	19.7			mg/kg	20	1.2	93	75-125	3	20
Silver	20			mg/kg	20	0	100	75-125	1	20
Thallium	18.2			mg/kg	20	0	91	75-125	1	20
Vanadium	60.3			mg/kg	20	44	81	75-125	1	20
Zinc	119	M3		mg/kg	20	100	95	75-125	30	20

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Quality Control (Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5K0026

Blank (B5K0026-BLK1)

Prepared & Analyzed: 11/30/2015

Acetone	ND		20	µg/Kg
Acetonitrile	ND		20	µg/Kg
Acrylonitrile	ND		1.0	µg/Kg
Allyl Chloride	ND		1.0	µg/Kg
Benzene	ND		1.0	µg/Kg
Bromobenzene	ND		1.0	µg/Kg
Bromochloromethane	ND		1.0	µg/Kg
Bromodichloromethane	ND		1.0	µg/Kg
Bromoform	ND		1.0	µg/Kg
Bromomethane	ND		5.0	µg/Kg
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg
n-Butylbenzene	ND		1.0	µg/Kg
Carbon Disulfide	ND		5.0	µg/Kg
Carbon Tetrachloride	ND		1.0	µg/Kg
Chlorobenzene	ND		1.0	µg/Kg
Chloroethane	ND		5.0	µg/Kg
Chloroform	ND		1.0	µg/Kg
Chloromethane	ND		5.0	µg/Kg
Chloroprene	ND		1.0	µg/Kg
2-Chlorotoluene	ND		1.0	µg/Kg
4-Chlorotoluene	ND		1.0	µg/Kg
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg
Dibromochloromethane	ND		1.0	µg/Kg
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg
Dibromomethane	ND		1.0	µg/Kg
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg
1,2-Dichlorobenzene	ND		1.0	µg/Kg
1,3-Dichlorobenzene	ND		1.0	µg/Kg
1,4-Dichlorobenzene	ND		1.0	µg/Kg
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg
1,1-Dichloroethane	ND		1.0	µg/Kg
1,2-Dichloroethane	ND		1.0	µg/Kg
1,1-Dichloroethene	ND		1.0	µg/Kg
c-1,2-Dichloroethene	ND		1.0	µg/Kg
c-1,3-Dichloropropene	ND		1.0	µg/Kg
t-1,2-Dichloroethene	ND		1.0	µg/Kg
1,2-Dichloropropane	ND		1.0	µg/Kg
1,3-Dichloropropane	ND		1.0	µg/Kg
2,2-Dichloropropane	ND		1.0	µg/Kg
1,1-Dichloropropene	ND		1.0	µg/Kg
t-1,3-Dichloropropene	ND		1.0	µg/Kg
Diethyl Ether	ND		1.0	µg/Kg

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Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5K0026 (Continued)

Blank (B5K0026-BLK1)

Prepared & Analyzed: 11/30/2015

Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		1.0	µg/Kg						
Iodomethane	ND		20	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Phenanthrene	ND		1.0	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		103	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		98.2	60-140		
Surrogate: 1,2-Dichloroethane-d4	52			µg/Kg	50.0		105	60-140		
Surrogate: Toluene-d8	54			µg/Kg	50.0		109	60-140		

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Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B5K0026 (Continued)

LCS (B5K0026-BS1)

Prepared & Analyzed: 11/30/2015

Benzene	53		1.0	µg/Kg	50.0		105	70-130		
Bromobenzene	49		1.0	µg/Kg	50.0		98.2	70-130		
Bromodichloromethane	55		1.0	µg/Kg	50.0		109	70-130		
Bromoform	51		1.0	µg/Kg	50.0		103	70-130		
Chlorobenzene	49		1.0	µg/Kg	50.0		98.9	70-130		
Chloroethane	53		5.0	µg/Kg	50.0		105	70-130		
Chloroform	56		1.0	µg/Kg	50.0		112	70-130		
4-Chlorotoluene	54		1.0	µg/Kg	50.0		108	70-130		
Dibromomethane	54		1.0	µg/Kg	50.0		109	70-130		
1,2-Dichlorobenzene	49		1.0	µg/Kg	50.0		98.0	70-130		
1,1-Dichloroethene	53		1.0	µg/Kg	50.0		106	70-130		
1,2-Dichloropropane	50		1.0	µg/Kg	50.0		99.4	70-130		
2,2-Dichloropropane	57		1.0	µg/Kg	50.0		115	70-130		
1,1-Dichloropropene	55		1.0	µg/Kg	50.0		110	70-130		
Diethyl Ether	55		1.0	µg/Kg	50.0		110	70-130		
Diisopropyl Ether (DIPE)	52		1.0	µg/Kg	50.0		104	70-130		
Ethylbenzene	51		1.0	µg/Kg	50.0		102	70-130		
Hexachloro-1,3-Butadiene	50		1.0	µg/Kg	50.0		100	70-130		
Methylene Chloride	52		10	µg/Kg	50.0		104	70-130		
Methyl-t-Butyl Ether (MTBE)	55		1.0	µg/Kg	50.0		109	70-130		
Naphthalene	48		10	µg/Kg	50.0		96.3	70-130		
Styrene	49		1.0	µg/Kg	50.0		98.5	70-130		
tert-Butylbenzene	49		1.0	µg/Kg	50.0		98.4	70-130		
Tetrachloroethene	44		1.0	µg/Kg	50.0		88.4	70-130		
Toluene	56		1.0	µg/Kg	50.0		112	70-130		
1,2,3-Trichlorobenzene	50		1.0	µg/Kg	50.0		100	70-130		
Trichloroethene	48		1.0	µg/Kg	50.0		96.4	70-130		
1,3,5-Trimethylbenzene	50		1.0	µg/Kg	50.0		100	70-130		
Vinyl Chloride	50		1.0	µg/Kg	50.0		101	70-130		
Surrogate: Dibromofluoromethane	55			µg/Kg	50.0		111	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		100	60-140		
Surrogate: 1,2-Dichloroethane-d4	55			µg/Kg	50.0		109	60-140		
Surrogate: Toluene-d8	57			µg/Kg	50.0		114	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0026 (Continued)										
LCS Dup (B5K0026-BSD1)				Prepared & Analyzed: 11/30/2015						
Benzene	49		1.0	µg/Kg	50.0		98.3	70-130	6.76	20
Bromobenzene	51		1.0	µg/Kg	50.0		102	70-130	4.13	20
Bromodichloromethane	52		1.0	µg/Kg	50.0		104	70-130	4.39	20
Bromoform	55		1.0	µg/Kg	50.0		109	70-130	6.00	20
Chlorobenzene	49		1.0	µg/Kg	50.0		98.1	70-130	0.873	20
Chloroethane	47		5.0	µg/Kg	50.0		94.4	70-130	10.7	20
Chloroform	49		1.0	µg/Kg	50.0		97.5	70-130	14.2	20
4-Chlorotoluene	51		1.0	µg/Kg	50.0		102	70-130	5.81	20
Dibromomethane	53		1.0	µg/Kg	50.0		106	70-130	2.41	20
1,2-Dichlorobenzene	47		1.0	µg/Kg	50.0		94.6	70-130	3.61	20
1,1-Dichloroethene	47		1.0	µg/Kg	50.0		93.8	70-130	12.6	20
1,2-Dichloropropane	50		1.0	µg/Kg	50.0		99.3	70-130	0.0805	20
2,2-Dichloropropane	50		1.0	µg/Kg	50.0		99.2	70-130	14.5	20
1,1-Dichloropropene	47		1.0	µg/Kg	50.0		94.5	70-130	15.2	20
Diethyl Ether	47		1.0	µg/Kg	50.0		94.8	70-130	14.7	20
Diisopropyl Ether (DIPE)	46		1.0	µg/Kg	50.0		92.0	70-130	12.3	20
Ethylbenzene	50		1.0	µg/Kg	50.0		100	70-130	2.45	20
Hexachloro-1,3-Butadiene	41		1.0	µg/Kg	50.0		82.4	70-130	19.3	20
Methylene Chloride	46		10	µg/Kg	50.0		92.2	70-130	11.6	20
Methyl-t-Butyl Ether (MTBE)	49		1.0	µg/Kg	50.0		98.5	70-130	10.5	20
Naphthalene	46		10	µg/Kg	50.0		92.8	70-130	3.62	20
Styrene	51		1.0	µg/Kg	50.0		101	70-130	2.59	20
tert-Butylbenzene	43		1.0	µg/Kg	50.0		86.6	70-130	12.8	20
Tetrachloroethene	45		1.0	µg/Kg	50.0		89.4	70-130	1.06	20
Toluene	49		1.0	µg/Kg	50.0		97.8	70-130	13.8	20
1,2,3-Trichlorobenzene	45		1.0	µg/Kg	50.0		89.7	70-130	11.2	20
Trichloroethene	48		1.0	µg/Kg	50.0		95.7	70-130	0.749	20
1,3,5-Trimethylbenzene	48		1.0	µg/Kg	50.0		95.4	70-130	5.11	20
Vinyl Chloride	42		1.0	µg/Kg	50.0		84.8	70-130	17.4	20
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		103	60-140		
Surrogate: 4-Bromofluorobenzene	52			µg/Kg	50.0		104	60-140		
Surrogate: 1,2-Dichloroethane-d4	50			µg/Kg	50.0		101	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.9	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0026 (Continued)										
Matrix Spike (B5K0026-MS1)			Source: P511012-02		Prepared & Analyzed: 11/30/2015					
Benzene	43		1.0	µg/Kg	50.0	ND	86.7	70-130		
Bromobenzene	40		1.0	µg/Kg	50.0	ND	79.6	70-130		
Bromodichloromethane	49		1.0	µg/Kg	50.0	ND	98.3	70-130		
Bromoform	46		1.0	µg/Kg	50.0	ND	92.1	70-130		
Chlorobenzene	43		1.0	µg/Kg	50.0	ND	86.4	70-130		
Chloroethane	41		5.0	µg/Kg	50.0	ND	82.3	70-130		
Chloroform	44		1.0	µg/Kg	50.0	ND	88.3	70-130		
4-Chlorotoluene	41		1.0	µg/Kg	50.0	ND	81.9	70-130		
Dibromomethane	50		1.0	µg/Kg	50.0	ND	99.1	70-130		
1,2-Dichlorobenzene	37		1.0	µg/Kg	50.0	ND	73.5	70-130		
1,1-Dichloroethene	42		1.0	µg/Kg	50.0	ND	84.1	70-130		
1,2-Dichloropropane	47		1.0	µg/Kg	50.0	ND	93.3	70-130		
2,2-Dichloropropane	46		1.0	µg/Kg	50.0	ND	91.8	70-130		
1,1-Dichloropropene	42		1.0	µg/Kg	50.0	ND	83.8	70-130		
Diethyl Ether	44		1.0	µg/Kg	50.0	ND	87.9	70-130		
Diisopropyl Ether (DIPE)	43		1.0	µg/Kg	50.0	ND	85.4	70-130		
Ethylbenzene	44		1.0	µg/Kg	50.0	ND	87.6	70-130		
Hexachloro-1,3-Butadiene	28	QM-05	1.0	µg/Kg	50.0	ND	55.7	70-130		
Methylene Chloride	42		10	µg/Kg	50.0	0.27	84.1	70-130		
Methyl-t-Butyl Ether (MTBE)	46		1.0	µg/Kg	50.0	ND	91.9	70-130		
Naphthalene	30	QM-05	10	µg/Kg	50.0	0.26	59.5	70-130		
Styrene	42		1.0	µg/Kg	50.0	ND	84.3	70-130		
tert-Butylbenzene	36		1.0	µg/Kg	50.0	ND	72.1	70-130		
Tetrachloroethene	37		1.0	µg/Kg	50.0	ND	73.8	70-130		
Toluene	40		1.0	µg/Kg	50.0	0.20	80.1	70-130		
1,2,3-Trichlorobenzene	28	QM-05	1.0	µg/Kg	50.0	ND	56.9	70-130		
Trichloroethene	43		1.0	µg/Kg	50.0	ND	85.7	70-130		
1,3,5-Trimethylbenzene	41		1.0	µg/Kg	50.0	ND	81.2	70-130		
Vinyl Chloride	39		1.0	µg/Kg	50.0	ND	78.2	70-130		
Surrogate: Dibromofluoromethane	49			µg/Kg	50.0		98.1	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	52			µg/Kg	50.0		103	60-140		
Surrogate: Toluene-d8	48			µg/Kg	50.0		95.4	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B5K0026 (Continued)										
Matrix Spike Dup (B5K0026-MSD1)			Source: P511012-02		Prepared & Analyzed: 11/30/2015					
Benzene	43		1.0	µg/Kg	50.0	ND	85.1	70-130	1.93	20
Bromobenzene	39		1.0	µg/Kg	50.0	ND	77.2	70-130	3.06	20
Bromodichloromethane	45		1.0	µg/Kg	50.0	ND	89.1	70-130	9.76	20
Bromoform	43		1.0	µg/Kg	50.0	ND	85.6	70-130	7.30	20
Chlorobenzene	41		1.0	µg/Kg	50.0	ND	82.3	70-130	4.91	20
Chloroethane	46		5.0	µg/Kg	50.0	ND	92.4	70-130	11.6	20
Chloroform	46		1.0	µg/Kg	50.0	ND	93.0	70-130	5.10	20
4-Chlorotoluene	40		1.0	µg/Kg	50.0	ND	79.7	70-130	2.80	20
Dibromomethane	50		1.0	µg/Kg	50.0	ND	99.5	70-130	0.342	20
1,2-Dichlorobenzene	34	QM-05	1.0	µg/Kg	50.0	ND	68.6	70-130	6.92	20
1,1-Dichloroethene	45		1.0	µg/Kg	50.0	ND	89.3	70-130	6.09	20
1,2-Dichloropropane	45		1.0	µg/Kg	50.0	ND	90.3	70-130	3.25	20
2,2-Dichloropropane	47		1.0	µg/Kg	50.0	ND	93.6	70-130	1.92	20
1,1-Dichloropropene	45		1.0	µg/Kg	50.0	ND	90.1	70-130	7.34	20
Diethyl Ether	48		1.0	µg/Kg	50.0	ND	96.0	70-130	8.81	20
Diisopropyl Ether (DIPE)	45		1.0	µg/Kg	50.0	ND	89.7	70-130	4.91	20
Ethylbenzene	42		1.0	µg/Kg	50.0	ND	84.7	70-130	3.41	20
Hexachloro-1,3-Butadiene	20	QM-05	1.0	µg/Kg	50.0	ND	40.1	70-130	32.5	20
Methylene Chloride	44		10	µg/Kg	50.0	0.27	87.9	70-130	4.34	20
Methyl-t-Butyl Ether (MTBE)	48		1.0	µg/Kg	50.0	ND	95.9	70-130	4.28	20
Naphthalene	27	QM-05	10	µg/Kg	50.0	0.26	54.0	70-130	9.54	20
Styrene	41		1.0	µg/Kg	50.0	ND	81.2	70-130	3.80	20
tert-Butylbenzene	36		1.0	µg/Kg	50.0	ND	72.1	70-130	0.0277	20
Tetrachloroethene	37		1.0	µg/Kg	50.0	ND	73.6	70-130	0.244	20
Toluene	46		1.0	µg/Kg	50.0	0.20	92.3	70-130	14.1	20
1,2,3-Trichlorobenzene	21	QM-05	1.0	µg/Kg	50.0	ND	42.6	70-130	28.7	20
Trichloroethene	43		1.0	µg/Kg	50.0	ND	86.4	70-130	0.837	20
1,3,5-Trimethylbenzene	37		1.0	µg/Kg	50.0	ND	74.5	70-130	8.53	20
Vinyl Chloride	42		1.0	µg/Kg	50.0	ND	84.1	70-130	7.27	20
Surrogate: Dibromofluoromethane	54			µg/Kg	50.0		108	60-140		
Surrogate: 4-Bromofluorobenzene	50			µg/Kg	50.0		101	60-140		
Surrogate: 1,2-Dichloroethane-d4	51			µg/Kg	50.0		101	60-140		
Surrogate: Toluene-d8	53			µg/Kg	50.0		106	60-140		

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Notes and Definitions

Item	Definition
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
M2	Matrix spike recovery was low, the associated blank spike recovery was acceptable.
M3	The spike recovery value is unusable since the analyte concentration in the sample is disproportionate to spike level. The associated blank spike recovery was acceptable.
QM-05	The spike recovery was outside acceptance limits for the MS and/or MSD due to matrix interference. The LCS and/or LCSD were within acceptance limits showing that the laboratory is in control and the data is acceptable.
S-02	The surrogate recovery for this sample cannot be accurately quantified due to interference from coeluting organic compounds present in the sample extract.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL PID: P511012

Client Name 5/11/15		ARCADIS					REQUESTED ANALYSES																		
Project Manager		Phil Skerger					TPH-G (8015B)	TPH-D (8015B)	VOCs (8300B)																
Email		Phil.Skerger@arcadis.com																							
Phone		714.508.2676																							
FAX		714.730.9345																							
Project Name/Number		MTA Loc 615																							
P.O. Number																									
Sampled By		Zack Mason																							
Client Sample ID / Description		Sample Date	Sample Time	Sample Matrix*	Container Quantity Type																				
1	PIT2-NS	11/3/15	08:25	S	1	8oz Jar	X	X	X																
2	PIT4-NS	↓	08:45	↓	↓	↓	X	X	X																
3																									
4																									
5																									
6																									
7																									
8																									
9																									
10																									
PAL Containers used:		☒ Yes	☐ No																						
Type of Ice used:		☒ Wet	☐ Blue	☐ None																					
Sample Preservative:		☐ Yes	☒ No																						
TAT Needed (circle one)		STD 5 day		☒ 24		RUSH 48 72																			
EDD Required - Circle one:		☐ Yes	☐ No																						
Type of EDD:																									
* 4-point Composite Samples PAL Labeled Samples: _____														RELINQUISHED BY Signature: Zack Mason Print: Zack Mason Company: ARCADIS DATE: 11/30/15 TIME: 10:30											
														RECEIVED BY Signature: M. Valenzuela Print: M. Valenzuela Company: PAL DATE: 11/30/15 TIME: 10:30											
														RELINQUISHED BY - Ryan Parish Signature: Ryan Parish Print: Ryan Parish Company: PAL DATE: 11/30/15 TIME: 11:05											
														RECEIVED BY Signature: _____ Print: _____ Company: _____ DATE: _____ TIME: _____											

*PAL MATRIX CODES: (S= Soils); (P.= Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)

36°C

Work Order ID

P11012

SAMPLE RECEIPT FORM

Cooler ID :

Client Arcadis

Date Received: Nov 30, 2015

Total # of Samples: 2

COURIER INFORMATION

☒ PALI ☐ OTHER ☐ FEDEX
☐ CLIENT ☐ UPS

Tracking #

TEMPERATURE

3.6 °C ☒ WET ICE ☐ BLUE ICE ☐ NO ICE
☐ AMBIENT

CLIENT COC

☒ INCLUDED ☒ SIGNED
☐ NOT INCLUDED ☐ NOT SIGNED

SAMPLE MATRIX

☐ LIQUID ☐ TISSUE
☐ Composite at PALI, equal ☐ Homogenized
☐ Composite at PALI, flow-weighted ☐ Unhomogenized

☒ SOLID ☐ OTHER

CONDITION OF SAMPLES UPON VERIFICATION

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

M.Valenzuela

Initials

Nov 30, 2015

Date

Initials

Date

Print Form

20328

Work Order ID: P511012

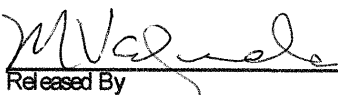
SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Orange Coast Analytical, Inc
3002 Dow Ave., Suite 532
Tustin, CA 92780
Phone: (714) 832-0064
Fax: .

Analysis	Due	Comments
Sample ID: P511012-01 Matrix: Solid Sampled: 11/30/2015 08:25		
S_Metals 6010B Title 22	12/01/2015 14:00	
S_Mercury 7471	12/01/2015 14:00	
Containers Supplied:		
Glass Jar, 4 oz (B)		
Sample ID: P511012-02 Matrix: Solid Sampled: 11/30/2015 08:25		
S_Metals 6010B Title 22	12/01/2015 14:00	
S_Mercury 7471	12/01/2015 14:00	
Containers Supplied:		
Glass Jar, 4 oz (B)		

	11/30/15	13:46		11/20/15	13:46	on ice @ 4°C
Released By	Date	Time	Received By	Date	Time	

Released By	Date	Time	Received By	Date	Time

Sample Receipt Report

Laboratory Reference **PAL 20328**

Logged in by **MM**

Received: 11/30/15 13:46 Company Name: Performance Analytical Laboratories, I
Method of Shipment: Hand Delivered Project Manager: Ms. Marycarol Valenzuela
Shipping Container: Cooler Project Name: P511012
Shipping Containers: 1 Project #: _____

Sample Quantity

2 Soil

Chain of Custody	Complete ☒	Incomplete ☐	None ☐
Samples On Ice	Yes, Wet ☒	Yes, Blue ☐	No ☐
Temperature	4°C		
Shipping Intact	Yes ☐	N/A ☒	No ☐
Shipping Custody Seals Intact	Yes ☐	N/A ☒	No ☐
Samples Intact	Yes ☒		No ☐
Sample Custody Seals Intact	Yes ☐	N/A ☒	No ☐
Custody Seals Signed & Dated	Yes ☐	N/A ☒	No ☐
Proper Test Containers	Yes ☒		No ☐
Proper Test Preservations	Yes ☒		No ☐
Samples Within Hold Times	Yes ☒		No ☐
VOAs Have Zero Headspace	Yes ☐	N/A ☒	No ☐
Sample Labels	Complete ☒	Incomplete ☐	None ☐
Sample Information Matches COC	Yes ☒	N/A ☐	No ☐

Notes

Client Notified

By

On

December 04, 2015

Change Order Report

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

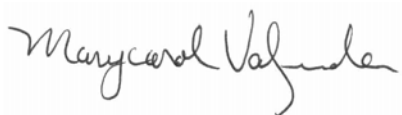
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P511012

Dear Zack Mason

Enclosed are the results of analyses for samples received by our laboratory on 11/30/2015. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US

320 Commerce, Suite 200

Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015

Project Number: LA Metro S61 - LA 8.2015

Project Manager: Zack Mason

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Sample: PIT4-NS

P511012-02 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Metal_STLC_Subcontract (Batch ID: SG1203152)

Lead	2.2	mg/L	1	0.2	12/04/2015	EPA 6010B	

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Quality Control

Metal_STLC_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG1203152										
BLK (SG1203152 BLK)										
Lead	<0.2		0.2	mg/L				-		
BS (SG1203152 BS)										
Lead	0.967			mg/L	1		97	80-120	1	20
BSD (SG1203152 BSD)										
Lead	0.972			mg/L	1		97	80-120	1	20
MS (SG1203152 MS)										
Lead	0.984		Source: 20337-001	mg/L	1	0	98	75-125	2	20
MSD (SG1203152 MSD)										
Lead	1		Source: 20337-001	mg/L	1	0	100	75-125	2	20

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Zack Mason

Notes and Definitions

Item	Definition
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

Performance Analytical Laboratories, Inc.

2702 East Willow Street, Signal Hill, CA 90755
310-809-1041

CHAIN-OF-CUSTODY

page 1 of 1

PAL PID: P511012

Client Name 5/11/15		ARCADIS					REQUESTED ANALYSES																
Project Manager		Phil Skerger					TPH-G (80158)	TPH-D (80158)	VOCs (83008)														
Email		Phil.Skerger@arcadis.com																					
Phone		714.508.2676																					
FAX		714.730.9345																					
Project Name/Number		MTA Loc 615																					
P.O. Number																							
Sampled By		Zack Mason																					
Client Sample ID / Description		Sample Date	Sample Time	Sample Matrix*	Container Quantity Type																		
1	PIT2-NS	11/3/15	08:25	S	1	8oz Jar	X	X	X														
2	PIT4-NS	↓	08:45	↓	↓	↓	X	X	X														
3																							
4																							
5																							
6																							
7																							
8																							
9																							
10																							
PAL Containers used:		☒ Yes	☐ No																				
Type of Ice used:		☒ Wet	☐ Blue	☐ None																			
Sample Preservative:		☐ Yes	☒ No																				
TAT Needed (circle one)		STD 5 day		☒ 24		RUSH 48		72															
EDD Required - Circle one:		☐ Yes	☐ No																				
Type of EDD:																							
* 4-point Composite Samples PAL Labeled Samples: _____														RELINQUISHED BY Signature: Zack Mason Print: Zack Mason Company: ARCADIS DATE: 11/30/15 TIME: 10:30									
														RECEIVED BY Signature: M. Valenzuela Print: M. Valenzuela Company: PAL DATE: 11/30/15 TIME: 10:30									
														RELINQUISHED BY - Ryan Parish Signature: Ryan Parish Print: Ryan Parish Company: PAL DATE: 11/30/15 TIME: 11:05									
														RECEIVED BY Signature: Print: Company: DATE: TIME:									

*PAL MATRIX CODES: (S= Soils); (P.= Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)

36°C

Work Order ID

P11012

SAMPLE RECEIPT FORM

Cooler ID :

Client Arcadis

Date Received: Nov 30, 2015

Total # of Samples: 2

COURIER INFORMATION

☒ PALI ☐ OTHER ☐ FEDEX
☐ CLIENT ☐ UPS

Tracking #

TEMPERATURE

3.6 °C ☒ WET ICE ☐ BLUE ICE ☐ NO ICE
☐ AMBIENT

CLIENT COC

☒ INCLUDED ☒ SIGNED
☐ NOT INCLUDED ☐ NOT SIGNED

SAMPLE MATRIX

☐ LIQUID ☐ TISSUE
☐ Composite at PALI, equal ☐ Homogenized
☐ Composite at PALI, flow-weighted ☐ Unhomogenized

☒ SOLID ☐ OTHER

CONDITION OF SAMPLES UPON VERIFICATION

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒

NOTES

M.Valenzuela

Initials

Nov 30, 2015

Date

Initials

Date

Print Form

20328

Work Order ID: P511012

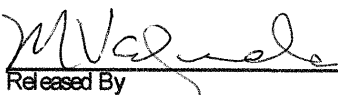
SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Orange Coast Analytical, Inc
3002 Dow Ave., Suite 532
Tustin, CA 92780
Phone: (714) 832-0064
Fax: .

Analysis	Due	Comments
Sample ID: P511012-01 Matrix: Solid Sampled: 11/30/2015 08:25		
S_Metals 6010B Title 22	12/01/2015 14:00	
S_Mercury 7471	12/01/2015 14:00	
Containers Supplied:		
Glass Jar, 4 oz (B)		
Sample ID: P511012-02 Matrix: Solid Sampled: 11/30/2015 08:25		
S_Metals 6010B Title 22	12/01/2015 14:00	
S_Mercury 7471	12/01/2015 14:00	
Containers Supplied:		
Glass Jar, 4 oz (B)		

 11/30/15 13:46
  11/20/15 13:46 on ice @ 4°C
 Released By Date Time Received By Date Time

Released By Date Time Received By Date Time

Sample Receipt Report

Laboratory Reference **PAL 20328**

Logged in by **MM**

Received: 11/30/15 13:46 Company Name: Performance Analytical Laboratories, I
Method of Shipment: Hand Delivered Project Manager: Ms. Marycarol Valenzuela
Shipping Container: Cooler Project Name: P511012
Shipping Containers: 1 Project #: _____

Sample Quantity

2 Soil

Chain of Custody	Complete ☒	Incomplete ☐	None ☐
Samples On Ice	Yes, Wet ☒	Yes, Blue ☐	No ☐
Temperature	4°C		
Shipping Intact	Yes ☐	N/A ☒	No ☐
Shipping Custody Seals Intact	Yes ☐	N/A ☒	No ☐
Samples Intact	Yes ☒		No ☐
Sample Custody Seals Intact	Yes ☐	N/A ☒	No ☐
Custody Seals Signed & Dated	Yes ☐	N/A ☒	No ☐
Proper Test Containers	Yes ☒		No ☐
Proper Test Preservations	Yes ☒		No ☐
Samples Within Hold Times	Yes ☒		No ☐
VOAs Have Zero Headspace	Yes ☐	N/A ☒	No ☐
Sample Labels	Complete ☒	Incomplete ☐	None ☐
Sample Information Matches COC	Yes ☒	N/A ☐	No ☐

Notes

Client Notified

By

On

February 10, 2016

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

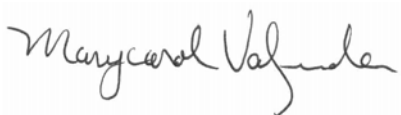
Re: LA Metro S61 - LA 8.2015
Project No. : LA Metro S61 - LA 8.2015
Work Order: P602006

Dear Phil Skorge

Enclosed are the results of analyses for samples received by our laboratory on 2/4/2016. The contents of this report apply to the sample(s) analyzed in accordance with the chain-of-custody document supplied with the sample(s).

No duplication of this report is allowed, except in its entirety. Please do not hesitate to call if you have any questions and thank you very much for using Performance Analytical Laboratories for your analytical needs.

Regards,



Marycarol Valenzuela
Project Manager

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ARCADIS US

320 Commerce, Suite 200

Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015

Project Number: LA Metro S61 - LA 8.2015

Project Manager: Phil Skorge

Samples in this Report

Lab ID	Sample	Matrix	Date Sampled	Date Received
P602006-01	UST5-PP-NS	Solid	02/03/2016	02/04/2016

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST5-PP-NS

P602006-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

CA Title 22 Metals_Subcontract (Batch ID: SG0208161)

Antimony	ND	mg/kg	1	1	02/08/2016	EPA 6010B	
Arsenic	ND	mg/kg	1	0.5	02/08/2016	EPA 6010B	
Barium	95	mg/kg	1	0.5	02/08/2016	EPA 6010B	
Beryllium	ND	mg/kg	1	0.5	02/08/2016	EPA 6010B	
Cadmium	0.37	mg/kg	1	0.2	02/08/2016	EPA 6010B	
Chromium	13	mg/kg	1	0.5	02/08/2016	EPA 6010B	
Cobalt	8.1	mg/kg	1	0.5	02/08/2016	EPA 6010B	
Copper	13	mg/kg	1	2	02/08/2016	EPA 6010B	
Lead	21	mg/kg	1	0.5	02/08/2016	EPA 6010B	
Molybdenum	ND	mg/kg	1	1	02/08/2016	EPA 6010B	
Nickel	7.9	mg/kg	1	0.5	02/08/2016	EPA 6010B	
Selenium	ND	mg/kg	1	1	02/08/2016	EPA 6010B	
Silver	ND	mg/kg	1	0.5	02/08/2016	EPA 6010B	
Thallium	ND	mg/kg	1	2	02/08/2016	EPA 6010B	
Vanadium	35	mg/kg	1	0.5	02/08/2016	EPA 6010B	
Zinc	76	mg/kg	1	2	02/08/2016	EPA 6010B	

Diesel Range Organics (C10-C28) (Batch ID: B6B0005)

Diesel Range Organics	3.91	mg/kg	1	2.50	02/05/2016	EPA 8015B	
Surrogate: n-Octacosane (c28)	92.9%			60-140	02/05/2016	EPA 8015B	

Gasoline Range Organics (C6-C10) (Batch ID: B6B0007)

Gasoline Range Organics	1.90	mg/kg	1	0.200	02/04/2016	EPA 8015B	
Surrogate: 4-Bromofluorobenzene	106%			60-140	02/04/2016	EPA 8015B	

Mercury_Subcontract (Batch ID: SG0209161)

Mercury	0.12	mg/kg	1	0.1	02/10/2016	EPA 7471 Mercury	

Oil Range Organics (C23-C32) (Batch ID: B6B0011)

Oil Range Organics	16.0	mg/kg	1	5.00	02/08/2016	EPA 8015B-M	
Surrogate: n-Octacosane (c28)	100%			60-140	02/08/2016	EPA 8015B-M	

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST5-PP-NS (Continued)

P602006-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B6B0006)

Acetone	ND	µg/Kg	20	400	02/04/2016	EPA 8260B	
Acetonitrile	ND	µg/Kg	20	400	02/04/2016	EPA 8260B	
Acrylonitrile	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Allyl Chloride	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Benzene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Bromobenzene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Bromochloromethane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Bromodichloromethane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Bromoform	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Bromomethane	ND	µg/Kg	20	100	02/04/2016	EPA 8260B	
2-Butanone (Methyl Ethyl Ketone - MEK)	ND	µg/Kg	20	400	02/04/2016	EPA 8260B	
n-Butylbenzene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Carbon Disulfide	ND	µg/Kg	20	100	02/04/2016	EPA 8260B	
Carbon Tetrachloride	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Chlorobenzene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Chloroethane	ND	µg/Kg	20	100	02/04/2016	EPA 8260B	
Chloroform	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Chloromethane	ND	µg/Kg	20	100	02/04/2016	EPA 8260B	
Chloroprene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
2-Chlorotoluene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
4-Chlorotoluene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,2-Dibromo-3-Chloropropane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Dibromochloromethane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,2-Dibromoethane (EDB)	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Dibromomethane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
cis-1,4-dichloro-2-butene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
t-1,4-Dichloro-2-Butene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,2-Dichlorobenzene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,3-Dichlorobenzene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,4-Dichlorobenzene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Dichlorodifluoromethane (Freon 12)	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,1-Dichloroethane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,2-Dichloroethane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,1-Dichloroethene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
c-1,2-Dichloroethene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST5-PP-NS (Continued)

P602006-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual
Volatile Organic Compounds (Batch ID: B6B0006) (Continued)							
c-1,3-Dichloropropene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
t-1,2-Dichloroethene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,2-Dichloropropane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,3-Dichloropropane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
2,2-Dichloropropane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,1-Dichloropropene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
t-1,3-Dichloropropene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Diethyl Ether	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Diisopropyl Ether (DIPE)	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Ethylbenzene	31	µg/Kg	20	20	02/04/2016	EPA 8260B	
Ethyl Methacrylate	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Ethyl-tert-butyl-ether (ETBE)	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Hexachloro-1,3-Butadiene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
2-Hexanone	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Iodomethane	ND	µg/Kg	20	400	02/04/2016	EPA 8260B	
Isopropylbenzene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
p-Isopropyltoluene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Methacrylonitrile	ND	µg/Kg	20	100	02/04/2016	EPA 8260B	
Methylene Chloride	ND	µg/Kg	20	200	02/04/2016	EPA 8260B	
Methyl Methacrylate	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
4-Methyl-2-Pentanone	ND	µg/Kg	20	400	02/04/2016	EPA 8260B	
Methyl-t-Butyl Ether (MTBE)	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Naphthalene	ND	µg/Kg	20	200	02/04/2016	EPA 8260B	
Phenanthrene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Propionitrile	ND	µg/Kg	20	400	02/04/2016	EPA 8260B	
n-Propylbenzene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
sec-Butylbenzene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Styrene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Tert-amyl-Methyl Ether (TAME)	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Tert-Butyl Alcohol (TBA)	ND	µg/Kg	20	500	02/04/2016	EPA 8260B	
tert-Butylbenzene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,1,1,2-Tetrachloroethane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,1,2,2-Tetrachloroethane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Tetrachloroethene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Toluene	2700	µg/Kg	20	20	02/04/2016	EPA 8260B	

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Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Sample: UST5-PP-NS (Continued)

P602006-01 (Solid)

Analyte	Result	Units	DF	Reporting Limit	Date Analyzed	Method	Qual

Volatile Organic Compounds (Batch ID: B6B0006) (Continued)

1,2,3-Trichlorobenzene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,2,4-Trichlorobenzene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,1,1-Trichloroethane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,1,2-Trichloroethane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Trichloroethene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Trichlorofluoromethane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,2,3-Trichloropropane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,2,4-Trimethylbenzene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
1,3,5-Trimethylbenzene	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
Vinyl Chloride	ND	µg/Kg	20	20	02/04/2016	EPA 8260B	
o-Xylene	180	µg/Kg	20	20	02/04/2016	EPA 8260B	
p/m-Xylene	350	µg/Kg	20	40	02/04/2016	EPA 8260B	
Total Xylenes	520	µg/Kg	20	60	02/04/2016	EPA 8260B	
Surrogate: Dibromofluoromethane	84.8%			60-140	02/04/2016	EPA 8260B	
Surrogate: 4-Bromofluorobenzene	97.1%			60-140	02/04/2016	EPA 8260B	
Surrogate: 1,2-Dichloroethane-d4	110%			60-140	02/04/2016	EPA 8260B	
Surrogate: Toluene-d8	104%			60-140	02/04/2016	EPA 8260B	

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

Quality Control

CA Title 22 Metals_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SG0208161

BLK (SG0208161 BLK)

Prepared & Analyzed: 02/08/2016

Antimony	ND		1	mg/kg				-		
Arsenic	ND		0.5	mg/kg				-		
Barium	ND		0.5	mg/kg				-		
Beryllium	ND		0.5	mg/kg				-		
Cadmium	ND		0.2	mg/kg				-		
Chromium	ND		0.5	mg/kg				-		
Cobalt	ND		0.5	mg/kg				-		
Copper	ND		2	mg/kg				-		
Lead	ND		0.5	mg/kg				-		
Molybdenum	ND		1	mg/kg				-		
Nickel	ND		0.5	mg/kg				-		
Selenium	ND		1	mg/kg				-		
Silver	ND		0.5	mg/kg				-		
Thallium	ND		2	mg/kg				-		
Vanadium	ND		0.5	mg/kg				-		
Zinc	2.1	B7	2	mg/kg				-		

BS (SG0208161 BS)

Prepared & Analyzed: 02/08/2016

Antimony	21			mg/kg	20		105	80-120	1	20
Arsenic	20.2			mg/kg	20		101	80-120	1	20
Barium	20.7			mg/kg	20		104	80-120	1	20
Beryllium	20.1			mg/kg	20		100	80-120	2	20
Cadmium	19.6			mg/kg	20		98	80-120	0	20
Chromium	20.4			mg/kg	20		102	80-120	1	20
Cobalt	19.7			mg/kg	20		99	80-120	1	20
Copper	20.8			mg/kg	20		104	80-120	1	20
Lead	20.7			mg/kg	20		104	80-120	2	20
Molybdenum	20.3			mg/kg	20		101	80-120	2	20
Nickel	20.8			mg/kg	20		104	80-120	2	20
Selenium	19.6			mg/kg	20		98	80-120	1	20
Silver	20.4			mg/kg	20		102	80-120	3	20
Thallium	19.4			mg/kg	20		97	80-120	1	20
Vanadium	20.3			mg/kg	20		101	80-120	1	20
Zinc	23.5			mg/kg	20		117	80-120	2	20

ARCADIS US
320 Commerce, Suite 200
Irvine, CA 92602

Project: LA Metro S61 - LA 8.2015
Project Number: LA Metro S61 - LA 8.2015
Project Manager: Phil Skorge

**Quality Control
(Continued)**

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: SG0208161 (Continued)

BSD (SG0208161 BSD)

Prepared & Analyzed: 02/08/2016

Antimony	20.7			mg/kg	20		104	80-120	1	20
Arsenic	19.9			mg/kg	20		100	80-120	1	20
Barium	20.4			mg/kg	20		102	80-120	1	20
Beryllium	19.7			mg/kg	20		99	80-120	2	20
Cadmium	19.6			mg/kg	20		98	80-120	0	20
Chromium	20.2			mg/kg	20		101	80-120	1	20
Cobalt	19.5			mg/kg	20		98	80-120	1	20
Copper	21.1			mg/kg	20		106	80-120	1	20
Lead	20.3			mg/kg	20		101	80-120	2	20
Molybdenum	20.7			mg/kg	20		104	80-120	2	20
Nickel	21.2			mg/kg	20		106	80-120	2	20
Selenium	19.4			mg/kg	20		97	80-120	1	20
Silver	19.8			mg/kg	20		99	80-120	3	20
Thallium	19.3			mg/kg	20		96	80-120	1	20
Vanadium	20			mg/kg	20		100	80-120	1	20
Zinc	24			mg/kg	20		120	80-120	2	20

MS (SG0208161 MS)

Source: AZ9917-001

Prepared & Analyzed: 02/08/2016

Antimony	21			mg/kg	20	0	105	75-125	5	20
Arsenic	20.6			mg/kg	20	1.3	97	75-125	4	20
Barium	20.3			mg/kg	20	0	101	75-125	4	20
Beryllium	19.5			mg/kg	20	0	98	75-125	2	20
Cadmium	19.7			mg/kg	20	0	99	75-125	4	20
Chromium	115			mg/kg	20	97	90	75-125	1	20
Cobalt	20.3			mg/kg	20	1.3	95	75-125	2	20
Copper	24			mg/kg	20	1.5	112	75-125	1	20
Lead	20.5			mg/kg	20	0	102	75-125	4	20
Molybdenum	29.6			mg/kg	20	9.2	102	75-125	3	20
Nickel	61.9			mg/kg	20	41	105	75-125	1	20
Selenium	20.2			mg/kg	20	1.1	96	75-125	5	20
Silver	19.9			mg/kg	20	0	100	75-125	4	20
Thallium	19.2			mg/kg	20	0	96	75-125	3	20
Vanadium	19.8			mg/kg	20	0	99	75-125	4	20
Zinc	24.7			mg/kg	20	0	124	75-125	2	20

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Quality Control (Continued)

CA Title 22 Metals_Subcontract (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG0208161 (Continued)										
MSD (SG0208161 MSD)		Source: AZ9917-001		Prepared & Analyzed: 02/08/2016						
Antimony	22			mg/kg	20	0	110	75-125	5	20
Arsenic	21.4			mg/kg	20	1.3	100	75-125	4	20
Barium	21.2			mg/kg	20	0	106	75-125	4	20
Beryllium	19.9			mg/kg	20	0	100	75-125	2	20
Cadmium	20.6			mg/kg	20	0	103	75-125	4	20
Chromium	116			mg/kg	20	97	95	75-125	1	20
Cobalt	20.8			mg/kg	20	1.3	98	75-125	2	20
Copper	24.3			mg/kg	20	1.5	114	75-125	1	20
Lead	21.3			mg/kg	20	0	106	75-125	4	20
Molybdenum	30.5			mg/kg	20	9.2	106	75-125	3	20
Nickel	61.3			mg/kg	20	41	101	75-125	1	20
Selenium	21.2			mg/kg	20	1.1	100	75-125	5	20
Silver	20.8			mg/kg	20	0	104	75-125	4	20
Thallium	19.8			mg/kg	20	0	99	75-125	3	20
Vanadium	20.6			mg/kg	20	0	103	75-125	4	20
Zinc	25.3	M1		mg/kg	20	0	126	75-125	2	20

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Quality Control (Continued)

Diesel Range Organics (C10-C28)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6B0005										
Blank (B6B0005-BLK1)					Prepared: 02/04/2016 Analyzed: 02/05/2016					
Diesel Range Organics	ND		2.50	mg/kg						
Surrogate: n-Octacosane (c28)	1.77			mg/kg	2.00		88.3	60-140		
LCS (B6B0005-BS1)					Prepared: 02/04/2016 Analyzed: 02/05/2016					
Diesel	40.6		2.50	mg/kg	50.0		81.2	70-130		
Surrogate: n-Octacosane (c28)	1.86			mg/kg	2.00		93.1	60-140		
LCS Dup (B6B0005-BSD1)					Prepared: 02/04/2016 Analyzed: 02/05/2016					
Diesel	41.6		2.50	mg/kg	50.0		83.3	70-130	2.52	20
Surrogate: n-Octacosane (c28)	1.89			mg/kg	2.00		94.5	60-140		
Matrix Spike (B6B0005-MS1)					Source: P602005-01		Prepared: 02/04/2016 Analyzed: 02/05/2016			
Diesel	43.8		2.50	mg/kg	50.0	ND	87.6	70-130		
Surrogate: n-Octacosane (c28)	1.85			mg/kg	2.00		92.6	60-140		
Matrix Spike Dup (B6B0005-MSD1)					Source: P602005-01		Prepared: 02/04/2016 Analyzed: 02/05/2016			
Diesel	40.0		2.50	mg/kg	50.0	ND	80.1	70-130	8.98	20
Surrogate: n-Octacosane (c28)	1.75			mg/kg	2.00		87.4	60-140		

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Quality Control (Continued)

Gasoline Range Organics (C6-C10)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6B0007										
Blank (B6B0007-BLK1)										
					Prepared & Analyzed: 02/04/2016					
Gasoline Range Organics	ND		0.200	mg/kg						
Surrogate: 4-Bromofluorobenzene	0.243			mg/kg	0.250		97.2	60-140		
LCS (B6B0007-BS1)										
					Prepared & Analyzed: 02/04/2016					
Gasoline	9.80		0.200	mg/kg				70-130		
Surrogate: 4-Bromofluorobenzene	0.240			mg/kg	0.250		96.0	60-140		
LCS Dup (B6B0007-BSD1)										
					Prepared & Analyzed: 02/04/2016					
Gasoline	9.68		0.200	mg/kg				70-130	1.31	20
Surrogate: 4-Bromofluorobenzene	0.283			mg/kg	0.250		113	60-140		

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Quality Control (Continued)

Mercury_Subcontract

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: SG0209161										
BLK (SG0209161 BLK)										
Mercury	ND		0.1	mg/kg				-		
BS (SG0209161 BS)										
Mercury	0.993			mg/kg	1		99	80-120	2	20
BSD (SG0209161 BSD)										
Mercury	1.01			mg/kg	1		101	80-120	2	20
MS (SG0209161 MS)										
Mercury	1.42		Source: AZ9916-001	mg/kg	1	0.55	87	80-120	4	20
MSD (SG0209161 MSD)										
Mercury	1.48		Source: AZ9916-001	mg/kg	1	0.55	93	80-120	4	20

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Quality Control (Continued)

Oil Range Organics (C23-C32)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6B0011										
Blank (B6B0011-BLK1)				Prepared & Analyzed: 02/08/2016						
Oil Range Organics	ND		5.00	mg/kg						
Surrogate: n-Octacosane (c28)	1.82			mg/kg	2.00		91.1	60-140		
LCS (B6B0011-BS1)				Prepared & Analyzed: 02/08/2016						
Oil Range Organics	42.6		5.00	mg/kg	50.0		85.1	70-130		
Surrogate: n-Octacosane (c28)	1.90			mg/kg	2.00		95.2	60-140		
LCS Dup (B6B0011-BSD1)				Prepared & Analyzed: 02/08/2016						
Oil Range Organics	38.6		5.00	mg/kg	50.0		77.1	70-130	9.86	20
Surrogate: n-Octacosane (c28)	1.79			mg/kg	2.00		89.3	60-140		
Matrix Spike (B6B0011-MS1)				Source: P602006-01		Prepared & Analyzed: 02/08/2016				
Oil Range Organics	66.5		5.00	mg/kg	50.0	16.0	101	70-130		
Surrogate: n-Octacosane (c28)	1.97			mg/kg	2.00		98.6	60-140		
Matrix Spike Dup (B6B0011-MSD1)				Source: P602006-01		Prepared & Analyzed: 02/08/2016				
Oil Range Organics	86.9	QM-06, QR-03	5.00	mg/kg	50.0	16.0	142	70-130	26.6	20
Surrogate: n-Octacosane (c28)	2.03			mg/kg	2.00		101	60-140		

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Quality Control (Continued)

Volatile Organic Compounds

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6B0006										
Blank (B6B0006-BLK1)					Prepared & Analyzed: 02/04/2016					
Acetone	ND		20	µg/Kg						
Acetonitrile	ND		20	µg/Kg						
Acrylonitrile	ND		1.0	µg/Kg						
Allyl Chloride	ND		1.0	µg/Kg						
Benzene	ND		1.0	µg/Kg						
Bromobenzene	ND		1.0	µg/Kg						
Bromochloromethane	ND		1.0	µg/Kg						
Bromodichloromethane	ND		1.0	µg/Kg						
Bromoform	ND		1.0	µg/Kg						
Bromomethane	ND		5.0	µg/Kg						
2-Butanone (Methyl Ethyl Ketone - MEK)	ND		20	µg/Kg						
n-Butylbenzene	ND		1.0	µg/Kg						
Carbon Disulfide	ND		5.0	µg/Kg						
Carbon Tetrachloride	ND		1.0	µg/Kg						
Chlorobenzene	ND		1.0	µg/Kg						
Chloroethane	ND		5.0	µg/Kg						
Chloroform	ND		1.0	µg/Kg						
Chloromethane	ND		5.0	µg/Kg						
Chloroprene	ND		1.0	µg/Kg						
2-Chlorotoluene	ND		1.0	µg/Kg						
4-Chlorotoluene	ND		1.0	µg/Kg						
1,2-Dibromo-3-Chloropropane	ND		1.0	µg/Kg						
Dibromochloromethane	ND		1.0	µg/Kg						
1,2-Dibromoethane (EDB)	ND		1.0	µg/Kg						
Dibromomethane	ND		1.0	µg/Kg						
cis-1,4-dichloro-2-butene	ND		1.0	µg/Kg						
t-1,4-Dichloro-2-Butene	ND		1.0	µg/Kg						
1,2-Dichlorobenzene	ND		1.0	µg/Kg						
1,3-Dichlorobenzene	ND		1.0	µg/Kg						
1,4-Dichlorobenzene	ND		1.0	µg/Kg						
Dichlorodifluoromethane (Freon 12)	ND		1.0	µg/Kg						
1,1-Dichloroethane	ND		1.0	µg/Kg						
1,2-Dichloroethane	ND		1.0	µg/Kg						
1,1-Dichloroethene	ND		1.0	µg/Kg						
c-1,2-Dichloroethene	ND		1.0	µg/Kg						
c-1,3-Dichloropropene	ND		1.0	µg/Kg						
t-1,2-Dichloroethene	ND		1.0	µg/Kg						
1,2-Dichloropropane	ND		1.0	µg/Kg						
1,3-Dichloropropane	ND		1.0	µg/Kg						
2,2-Dichloropropane	ND		1.0	µg/Kg						
1,1-Dichloropropene	ND		1.0	µg/Kg						
t-1,3-Dichloropropene	ND		1.0	µg/Kg						
Diethyl Ether	ND		1.0	µg/Kg						

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Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B6B0006 (Continued)

Blank (B6B0006-BLK1)

Prepared & Analyzed: 02/04/2016

Diisopropyl Ether (DIPE)	ND		1.0	µg/Kg						
Ethylbenzene	ND		1.0	µg/Kg						
Ethyl Methacrylate	ND		1.0	µg/Kg						
Ethyl-tert-butyl-ether (ETBE)	ND		1.0	µg/Kg						
Hexachloro-1,3-Butadiene	ND		1.0	µg/Kg						
2-Hexanone	ND		1.0	µg/Kg						
Iodomethane	ND		20	µg/Kg						
Isopropylbenzene	ND		1.0	µg/Kg						
p-Isopropyltoluene	ND		1.0	µg/Kg						
Methacrylonitrile	ND		5.0	µg/Kg						
Methylene Chloride	ND		10	µg/Kg						
Methyl Methacrylate	ND		1.0	µg/Kg						
4-Methyl-2-Pentanone	ND		20	µg/Kg						
Methyl-t-Butyl Ether (MTBE)	ND		1.0	µg/Kg						
Naphthalene	ND		10	µg/Kg						
Phenanthrene	ND		1.0	µg/Kg						
Propionitrile	ND		20	µg/Kg						
n-Propylbenzene	ND		1.0	µg/Kg						
sec-Butylbenzene	ND		1.0	µg/Kg						
Styrene	ND		1.0	µg/Kg						
Tert-amyl-Methyl Ether (TAME)	ND		1.0	µg/Kg						
Tert-Butyl Alcohol (TBA)	ND		25	µg/Kg						
tert-Butylbenzene	ND		1.0	µg/Kg						
1,1,1,2-Tetrachloroethane	ND		1.0	µg/Kg						
1,1,2,2-Tetrachloroethane	ND		1.0	µg/Kg						
Tetrachloroethene	ND		1.0	µg/Kg						
Toluene	ND		1.0	µg/Kg						
1,2,3-Trichlorobenzene	ND		1.0	µg/Kg						
1,2,4-Trichlorobenzene	ND		1.0	µg/Kg						
1,1,1-Trichloroethane	ND		1.0	µg/Kg						
1,1,2-Trichloroethane	ND		1.0	µg/Kg						
Trichloroethene	ND		1.0	µg/Kg						
Trichlorofluoromethane	ND		1.0	µg/Kg						
1,2,3-Trichloropropane	ND		1.0	µg/Kg						
1,1,2-Trichloro-1,2,2-Trifluoroethane	ND		1.0	µg/Kg						
1,2,4-Trimethylbenzene	ND		1.0	µg/Kg						
1,3,5-Trimethylbenzene	ND		1.0	µg/Kg						
Vinyl Chloride	ND		1.0	µg/Kg						
o-Xylene	ND		1.0	µg/Kg						
p/m-Xylene	ND		2.0	µg/Kg						
Total Xylenes	ND		3.0	µg/Kg						
Surrogate: Dibromofluoromethane	48			µg/Kg	50.0		95.1	60-140		
Surrogate: 4-Bromofluorobenzene	48			µg/Kg	50.0		96.6	60-140		
Surrogate: 1,2-Dichloroethane-d4	54			µg/Kg	50.0		109	60-140		
Surrogate: Toluene-d8	52			µg/Kg	50.0		103	60-140		

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Quality Control (Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit

Batch: B6B0006 (Continued)

LCS (B6B0006-BS1)

Prepared & Analyzed: 02/04/2016

Benzene	44		1.0	µg/Kg	50.0		88.0	70-130		
Bromobenzene	45		1.0	µg/Kg	50.0		90.1	70-130		
Bromodichloromethane	52		1.0	µg/Kg	50.0		103	70-130		
Bromoform	48		1.0	µg/Kg	50.0		96.3	70-130		
Chlorobenzene	45		1.0	µg/Kg	50.0		90.2	70-130		
Chloroethane	45		5.0	µg/Kg	50.0		89.5	70-130		
Chloroform	46		1.0	µg/Kg	50.0		92.4	70-130		
4-Chlorotoluene	48		1.0	µg/Kg	50.0		95.5	70-130		
Dibromomethane	50		1.0	µg/Kg	50.0		99.7	70-130		
1,2-Dichlorobenzene	44		1.0	µg/Kg	50.0		87.5	70-130		
1,1-Dichloroethene	42		1.0	µg/Kg	50.0		84.8	70-130		
1,2-Dichloropropane	44		1.0	µg/Kg	50.0		88.0	70-130		
2,2-Dichloropropane	49		1.0	µg/Kg	50.0		97.3	70-130		
1,1-Dichloropropene	44		1.0	µg/Kg	50.0		88.8	70-130		
Diethyl Ether	41		1.0	µg/Kg	50.0		81.8	70-130		
Diisopropyl Ether (DIPE)	39		1.0	µg/Kg	50.0		77.4	70-130		
Ethylbenzene	46		1.0	µg/Kg	50.0		91.6	70-130		
Hexachloro-1,3-Butadiene	45		1.0	µg/Kg	50.0		89.6	70-130		
Methylene Chloride	41		10	µg/Kg	50.0		81.1	70-130		
Methyl-t-Butyl Ether (MTBE)	45		1.0	µg/Kg	50.0		90.3	70-130		
Naphthalene	40		10	µg/Kg	50.0		80.4	70-130		
Styrene	45		1.0	µg/Kg	50.0		90.0	70-130		
tert-Butylbenzene	42		1.0	µg/Kg	50.0		84.3	70-130		
Tetrachloroethene	39		1.0	µg/Kg	50.0		77.6	70-130		
Toluene	45		1.0	µg/Kg	50.0		89.1	70-130		
1,2,3-Trichlorobenzene	46		1.0	µg/Kg	50.0		92.1	70-130		
Trichloroethene	44		1.0	µg/Kg	50.0		88.4	70-130		
1,3,5-Trimethylbenzene	46		1.0	µg/Kg	50.0		92.9	70-130		
Vinyl Chloride	39		1.0	µg/Kg	50.0		77.7	70-130		
Surrogate: Dibromofluoromethane	51			µg/Kg	50.0		102	60-140		
Surrogate: 4-Bromofluorobenzene	49			µg/Kg	50.0		98.5	60-140		
Surrogate: 1,2-Dichloroethane-d4	55			µg/Kg	50.0		110	60-140		
Surrogate: Toluene-d8	50			µg/Kg	50.0		99.1	60-140		

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Quality Control
(Continued)

Volatile Organic Compounds (Continued)

Analyte	Result	Qual	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch: B6B0006 (Continued)										
LCS Dup (B6B0006-BSD1)				Prepared & Analyzed: 02/04/2016						
Benzene	50		1.0	µg/Kg	50.0		100	70-130	12.9	20
Bromobenzene	48		1.0	µg/Kg	50.0		96.9	70-130	7.32	20
Bromodichloromethane	58		1.0	µg/Kg	50.0		116	70-130	11.3	20
Bromoform	52		1.0	µg/Kg	50.0		103	70-130	6.88	20
Chlorobenzene	48		1.0	µg/Kg	50.0		95.8	70-130	6.02	20
Chloroethane	50		5.0	µg/Kg	50.0		99.0	70-130	10.1	20
Chloroform	54		1.0	µg/Kg	50.0		108	70-130	15.5	20
4-Chlorotoluene	52		1.0	µg/Kg	50.0		105	70-130	9.19	20
Dibromomethane	56		1.0	µg/Kg	50.0		113	70-130	12.4	20
1,2-Dichlorobenzene	49		1.0	µg/Kg	50.0		98.7	70-130	11.9	20
1,1-Dichloroethene	49		1.0	µg/Kg	50.0		97.6	70-130	14.1	20
1,2-Dichloropropane	51		1.0	µg/Kg	50.0		101	70-130	14.0	20
2,2-Dichloropropane	53		1.0	µg/Kg	50.0		106	70-130	8.91	20
1,1-Dichloropropene	52		1.0	µg/Kg	50.0		104	70-130	15.5	20
Diethyl Ether	45		1.0	µg/Kg	50.0		90.2	70-130	9.72	20
Diisopropyl Ether (DIPE)	44		1.0	µg/Kg	50.0		88.6	70-130	13.4	20
Ethylbenzene	49		1.0	µg/Kg	50.0		97.1	70-130	5.79	20
Hexachloro-1,3-Butadiene	50		1.0	µg/Kg	50.0		101	70-130	11.9	20
Methylene Chloride	46		10	µg/Kg	50.0		92.8	70-130	13.4	20
Methyl-t-Butyl Ether (MTBE)	52		1.0	µg/Kg	50.0		105	70-130	14.7	20
Naphthalene	46		10	µg/Kg	50.0		91.0	70-130	12.4	20
Styrene	48		1.0	µg/Kg	50.0		95.0	70-130	5.38	20
tert-Butylbenzene	48		1.0	µg/Kg	50.0		96.8	70-130	13.9	20
Tetrachloroethene	44		1.0	µg/Kg	50.0		87.0	70-130	11.5	20
Toluene	50		1.0	µg/Kg	50.0		100	70-130	11.6	20
1,2,3-Trichlorobenzene	51		1.0	µg/Kg	50.0		102	70-130	10.3	20
Trichloroethene	51		1.0	µg/Kg	50.0		102	70-130	13.9	20
1,3,5-Trimethylbenzene	49		1.0	µg/Kg	50.0		98.7	70-130	6.05	20
Vinyl Chloride	45		1.0	µg/Kg	50.0		89.5	70-130	14.1	20
Surrogate: Dibromofluoromethane	54			µg/Kg	50.0		107	60-140		
Surrogate: 4-Bromofluorobenzene	48			µg/Kg	50.0		96.8	60-140		
Surrogate: 1,2-Dichloroethane-d4	58			µg/Kg	50.0		117	60-140		
Surrogate: Toluene-d8	52			µg/Kg	50.0		104	60-140		

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Notes and Definitions

Item	Definition
B7	Target analyte detected in method blank at or above method reporting limit. Concentration found in the sample was 10 times above the concentration found in the method blank.
M1	Matrix spike recovery was high, the associated blank spike recovery was acceptable.
QM-06	Due to noted non-homogeneity of the QC sample matrix, the MS/MSD did not provide reliable results for accuracy and precision. Sample results for the QC batch were accepted based on LCS/LCSD percent recoveries and RPD values.
QR-03	The RPD value for the sample duplicate or MS/MSD was outside of QC acceptance limits due to matrix interference. QC batch accepted based on LCS and/or LCSD recovery and/or RPD values.
Dry	Sample results reported on a dry weight basis.
ND	Analyte NOT DETECTED at or above the reporting limit.
RPD	Relative Percent Difference
%REC	Percent Recovery
Source	Sample that was matrix spiked or duplicated.
(R)	Re-run for dilution or confirmation.

CHAIN-OF-CUSTODY

page 1 of 1

PAL PID: R602006

Client Information				Requested Analyses				
Client Name		5/11/15		Arcadis				
Project Manager		Phil Skorge						
Email		Phil.Skorge@arcadis.com						
Phone		714.508.3135						
FAX		714.730.9345						
Project Name/Number		MTA Loc 6015						
P.O. Number								
Sampled By		Zack Mason						
Client Sample ID / Description	Sample Date	Sample Time	Sample Matrix*	Quantity	Container Type	TPH-G, -D, -O (805B)	CAM 17 Metals (6000/4mm)	VOCs (8270B)
1 USTS-PP-NS	2/4/16	13:30	S	2	9oz Jar	X	X	X
2								
3								
4								
5								
6								
7								
8								
9								
10								

PAL Containers used:			
Type of Ice used:	Wet	Blue	None
Sample Preservative:	Yes	No	
TAT Needed (circle one)	STD 5 day	24	RUSH 48
EDD Required - Circle one:	Yes	No	

4-point composite sample

5.42

PAL Labeled Samples: _____

*PAL MATRIX CODES: (S= Soils); (P= Product); (SED = Sediment); (FW = Freshwater); (WW = Wastewater); (STRMW = Stormwater); (W = other Water)

Signature:		Zack Mason	
Print:		Zack Mason	
Company:		Arcadis	
Signature:		Anthony Valverde	
Print:		Anthony Valverde	
Company:		PAL	

Signature:		Anthony Valverde	
Print:		Anthony Valverde	
Company:		PAL	
DATE:	2/4/16	TIME:	15:12
DATE:	2/4/16	TIME:	16:04
DATE:	2/4/16	TIME:	16:04

SAMPLE RECEIPT FORM

Cooler ID :

Client

Date Received:

Total # of Samples:

COURIER INFORMATION

☒ PALI ☐ OTHER ☐ FEDEX
☐ CLIENT ☐ UPS

Tracking #

TEMPERATURE

°C ☒ WET ICE ☐ BLUE ICE ☐ NO ICE
☐ AMBIENT

CLIENT COC

☒ INCLUDED ☒ SIGNED
☐ NOT INCLUDED ☐ NOT SIGNED

SAMPLE MATRIX

☐ LIQUID ☐ TISSUE
☐ Composite at PALI, equal ☐ Homogenized
☐ Composite at PALI, flow-weighted ☐ Unhomogenized

☒ SOLID ☐ OTHER

CONDITION OF SAMPLES UPON VERIFICATION

	Yes	No	NA
All sample containers received intact and in good condition.....	☒	☐	☐
Custody Seals intact.....	☐	☐	☒
All samples listed on COC(s) are present.....	☒	☐	☐
All sample IDs on containers are consistent with sample IDs on COC(s).....	☒	☐	☐
Correct containers and sufficient volume for analyses requested.....	☒	☐	☐
All samples received within method holding time.....	☒	☐	☐
Volatile analysis containers free of headspace larger than 6mm.....	☐	☐	☒
Samples outside temperature criteria but received on ice/chilled on same day of sampling	☐	☐	☒

NOTES

Initials

Date

Initials

Date

Print Form

20666

Work Order ID: P602006

SENDING LABORATORY:

Performance Analytical Laboratories
2702 Willow St
Signal Hill, CA 90755
Phone: (310) 809-1041
Fax: -
Project Manager: Marycarol Valenzuela

RECEIVING LABORATORY:

Orange Coast Analytical, Inc
3002 Dow Ave., Suite 532
Tustin, CA 92780
Phone : (714) 832-0064
Fax: .

Analysis	Due	Comments
Sample ID: P602006-01 Matrix: Solid Sampled: 02/03/2016 13:30		
S_Metals 6010B Title 22	02/11/2016 14:00	
S_Mercury 7471	02/11/2016 14:00	
<i>Containers Supplied:</i> Glass Jar, 8 oz (B)		

Released By	Anthony Valenzuela	Date	2/5/16	Time	11:42	Received By	[Signature]	Date	2/5/16	Time	1142	an ice @ 12

Sample Receipt Report

Laboratory Reference **PAL 20666**

Logged in by **MM**

Received: 02/05/16 11:42 Company Name: Performance Analytical Laboratories, I
Method of Shipment: Hand Delivered Project Manager: Ms. Marycarol Valenzuela
Shipping Container: Cooler Project Name: P602006
Shipping Containers: 1 Project #: _____

Sample Quantity

1 Solid

Chain of Custody	Complete ☒	Incomplete ☐	None ☐
Samples On Ice	Yes, Wet ☒	Yes, Blue ☐	No ☐
Temperature	<u>1°C</u>		
Shipping Intact	Yes ☐	N/A ☒	No ☐
Shipping Custody Seals Intact	Yes ☐	N/A ☒	No ☐
Samples Intact	Yes ☒		No ☐
Sample Custody Seals Intact	Yes ☐	N/A ☒	No ☐
Custody Seals Signed & Dated	Yes ☐	N/A ☒	No ☐
Proper Test Containers	Yes ☒		No ☐
Proper Test Preservations	Yes ☒		No ☐
Samples Within Hold Times	Yes ☒		No ☐
VOAs Have Zero Headspace	Yes ☐	N/A ☒	No ☐
Sample Labels	Complete ☒	Incomplete ☐	None ☐
Sample Information Matches COC	Yes ☒	N/A ☐	No ☐

Notes

Client Notified _____

By _____

On _____

J-105 - At Matteo, 555 Mateo Street

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**DRAFT REMOVAL ACTION COMPLETION REPORT
AT MATEO
555 MATEO STREET
LOS ANGELES, CALIFORNIA 90013
KLEINFELDER PROJECT NO. 20154388.001A**

MARCH 9, 2016

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DRAFT



Prepared for:

EDGE Architectural Planning
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Newport Beach, California 92660

**DRAFT REMOVAL ACTION COMPLETION REPORT
AT MATEO
555 MATEO STREET
LOS ANGELES, CALIFORNIA 90013**

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March 9, 2016
Kleinfelder Project No. 20154388.001A

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1 INTRODUCTION

On behalf of EDGE Architectural Planning (EDGE), Kleinfelder has prepared this *Removal Action Completion Report* (RACR) to document soil removal activities performed at the At Mateo project site (Site) located at 555 Mateo Street in Los Angeles, California (Figure 1). The removal action (RA) was performed on November 12 and 13 and December 9, 15, and 18, 2015 under the oversight of the California Environmental Protection agency (Cal/EPA) Department of Toxic Substances Control (DTSC) in accordance with a Draft Remedial Action Work Plan (RAW) prepared by Kleinfelder (2016). A draft of the RAW was submitted to the DTSC on August 21, 2015. DTSC reviewed the Draft RAW pursuant to a California Land Reuse and Revitalization Act Agreement (Docket No. HSA-FY 14/15-035). DTSC approved the Draft RAW with no modifications in a letter dated January 8, 2016, after which the Final RAW was submitted to DTSC on January 12, 2016.

1.1 PURPOSE

The purpose of this RACR is to document that the actions proposed in the DTSC-approved Final RAW have been completed and the RA objectives (RAOs) were met.

1.2 REMOVAL ACTION OBJECTIVES

The soil RA at the Site focused on the removal and disposal of defined areas primarily containing lead concentrations above the current lead Screening Level (SL) for Residential Soil used by the California Environmental Protection Agency (Cal/EPA) Department of Toxic Substances Control (DTSC), and/or total petroleum hydrocarbon (TPH) constituents at concentrations above the Maximum Soil Screening Levels (MSSLs) issued by the Los Angeles Regional Water Quality Control Board (LARWQCB).

RAOs were established to be protective of human health and the environment. The RAOs were based upon the current environmental conditions and current and anticipated future uses of the Site. The RAOs, as presented in the approved Final RAW, were to:

- Remediate soil containing concentrations of constituents of concern (COCs), specifically lead and TPH, to reduce the potential health risk associated with direct contact and ingestion pathways to acceptable thresholds suitable for residential Site use.
- Obtain an unrestricted Site use determination from the DTSC.

- Eliminate the need for long term operation and monitoring.

1.3 SCOPE

The completed RA combined excavation of primarily lead- and TPH-impacted soil with off-Site disposal of the impacted soils. The activities performed to implement the RA are summarized below and described in greater detail in subsequent sections of this report.

- Initiated pre-excavation activities by marking out an exclusion zone.
- Marked proposed excavation boundaries using stakes and caution tape.
- Excavated lead- and TPH-impacted soil from Excavation Areas EA-1 through EA-4 pursuant to the DTSC-approved Final RAW.
- Performed post-excavation soil sampling for Excavation Areas EA-1 through EA-4.
- Added Excavation Area EA-5 to the soil excavation plan based on analytical results of soil samples collected by Tetra Tech, Inc. (Tetra Tech) from five test pits excavated in the area of the Site's proposed subterranean parking level, and excavated TPH-impacted soil there, pursuant to Section 6.5.5 (Contingency Plan) of the DTSC-approved Final RAW and the DTSC's authorization provided in an electronic mail from Mr. Jose Diaz of DTSC (Diaz, 8 Dec. 2015 E-mail).
- Performed post-excavation confirmation soil sampling of Excavation Area EA-5.
- Performed air and meteorological monitoring during excavation activities.
- Pre-characterized soil for off-Site disposal using soil analytical data.
- Loaded and transported excavated soil off-Site to a licensed disposal facility.

RA activities were performed in accordance with a Site-specific Health and Safety Plan prepared by Kleinfelder (see Appendix D of the Final RAW) and a Transportation Plan (see Section 6.6 of the Final RAW).

2 SITE BACKGROUND AND PHYSICAL SETTING

This section provides a description of the topographic, hydrologic, geologic, and hydrogeologic settings of the Site. Additionally, this section provides information concerning the Site's operational history, environmental assessments and results, and current status. These descriptions were developed from a review of the published literature cited in the text and data gathered during previous investigations of the Site.

2.1 SITE LOCATION AND SETTING

The Site presently has the address of 555 Mateo Street, Los Angeles, California, and is undergoing commercial redevelopment. Until recently, the Site had addresses of 561 to 585 Mateo Street and 1248 to 1264 Palmetto Street; and it was previously developed with various warehouse buildings and paved loading/parking areas. The Site location is shown on Figure 1.

2.2 OPERATIONAL HISTORY AND CURRENT STATUS

The Site's industrial use dates back to the early 1900s. Phase I and Limited Phase II Environmental Site Assessment (ESA) reports concerning the Site indicate it was historically as a tool and foundry works, bulk oil plant, and die cutting facility (ENVIRON, 2012a and 2012b; and Environmental Management Group [EMG], 2014). Businesses historically operating at the Site reportedly include American Engineering and Foundry (1906), Union Oil Tool Company (1906), Union Well Supply (1906), Union Oil (1920s through 1950s), and Acme Spring Company (1960s). Additionally, a rail spur was formerly located on the northern part of the Site. Furthermore, the uppermost approximately 2 feet to 5 feet of subsurface soil at the Site was identified to consist of fill and disturbed soil from previous Site development (Kleinfelder, 2014).

Warehouse buildings formerly present on the northern portion of the Site have been demolished in preparation for redevelopment, and this northern Site area is presently vacant of structures. The proposed Site commercial redevelopment will consist of a multi-level retail facility and parking structure with three levels above grade and one subterranean level. The redevelopment will include construction of the subterranean parking level and new buildings on new concrete pads, along with the remodeling of the existing warehouse building (with former addresses of 561 to 585 Mateo Street) that remains on the southern portion of the Site.

2.3 SITE AND REGIONAL TOPOGRAPHY

Site surface elevations are above Mean Sea Level, ranging from approximately 255 feet near the southern Site boundary to approximately 258 feet near the northern Site boundary. The topographic gradient at the Site is relatively flat, having a gentle downward slope to the south. The surrounding regional topography slopes gently downward to the southeast, toward Los Angeles River (ENVIRON International Corporation [ENVIRON], 2012a).

2.4 GEOLOGY AND HYDROGEOLOGY

The Site is located on the Central Plain of the greater Los Angeles Basin (Yerkes et al, 1965). The Los Angeles Basin, which lies within the Peninsular Ranges geomorphic province, represents the transition between the Peninsular Ranges province and the Transverse Ranges geomorphic provinces (California Geological Survey [CGS], 2002). The Transverse Ranges province is characterized by roughly east-west trending, convergent structural features in contrast to the predominant northwest-southeast structural trend of the Peninsular Ranges and other geomorphic provinces in California.

The Los Angeles Basin is further divided into structural blocks separated by physiographic features. The Site is situated on the Central Block of the Los Angeles Basin (Yerkes et al, 1965). Structurally, the Central Block is bounded on the north by the Santa Monica-Hollywood-Raymond faults and the adjacent Santa Monica Mountains, on the east by the Whittier Fault and Elysian Park Fault Zone, and on the west by the Newport-Inglewood Fault Zone. The Central Block extends southward to the San Joaquin Hills of Orange County. The Site is located approximately 5.5 miles south of the Raymond Fault and approximately 7 miles east of the Newport-Inglewood Fault Zone. Both of these faults are considered active by the State of California (Cao, et al., 2003).

The Site is in an area mapped as having Quaternary alluvium at the ground surface. These alluvial soils were deposited by the Los Angeles River and consist generally of silt, sand, and gravel (Kleinfelder, 2014). Available information indicates historical high groundwater levels in the general Site area are deeper than 100 feet below surface (CGS, 1998). Fluctuations of the groundwater level, localized zones of perched water, and increased soil moisture content should be anticipated during and following the rainy season. Irrigation of landscaped areas on or adjacent to the Site may also cause fluctuation of local groundwater levels (Kleinfelder, 2014).

2.4.1 Regional Geology

Regional soils in the Site vicinity are classified as urban land, which contains disturbed soils without classification (ENVIRON, 2012a).

2.4.2 Site Soil Types and Hydrogeology

Subsurface soils at the Site consist of approximately 2 feet to 5 feet of fill and disturbed earth from previous development. The fill is undocumented and not considered suitable for structural support (Kleinfelder, 2014). Underlying the fill are alluvial soils consisting primarily of sand and gravel. Within the sand and gravel deposits are relatively thin, discontinuous layers of clay and silt. These soils are consistent with the types of sedimentary deposits mapped for the Site area (Kleinfelder, 2014).

2.5 CURRENT USE OF SURROUNDING PROPERTIES

The current uses of properties adjacent to the Site are generally as follows:

- North of Site – Palmetto Street, beyond which are warehouse buildings and residential buildings consisting of multi-tenant condominium and apartment buildings. Railroad tracks were observed on Palmetto Street.
- East of Site – Mateo Street, beyond which are commercial buildings occupied by Interstate Seafood (a seafood packaging company), Handsome Coffee Roasters (a coffee producer/roaster), and other unspecified businesses. No apparent exterior manufacturing or chemical storage operations were observed.
- South of Site – A commercial building with unspecified occupant and the Pear Garden restaurant. No apparent exterior manufacturing or chemical storage operations were observed.
- West of Site – Commercial and warehouse buildings with unspecified occupants. No apparent exterior manufacturing or chemical storage operations were observed.

2.6 SUMMARY OF ENVIRONMENTAL CONDITIONS AND PREVIOUS ACTIVITIES

Phase I and Limited Phase II Environmental Site Assessment (ESA) reports for the Site indicate that since the early 1900s, it was used by various businesses for industrial purposes, including a tool and foundry works, bulk oil plant, and die cutting facility (ENVIRON, 2012a and 2012b; and Environmental Management Group [EMG], 2014). Businesses historically operating at the Site

reportedly included Acme Spring Company, American Engineering and Foundry, Union Oil, Union Oil Tool Company, and Union Well Supply. Additionally, a rail spur was formerly located on the northern part of the Site. Furthermore, the uppermost approximately 2 feet to 5 feet of subsurface soil at the Site has been identified to consist of fill and disturbed soil from previous Site development (Kleinfelder, 2014).

In October 2012, to assess potential environmental concerns identified by its Phase I ESA, ENVIRON advanced and sampled 18 soil bores, installed 24 soil vapor probes, and collected soil vapor samples at the Site. Soil samples were collected to a maximum depth of approximately 10 feet below ground surface (bgs) and soil vapor samples were collected from an approximate depth of 5 feet bgs. The soil vapor samples were analyzed for volatile organic compounds (VOCs), and the soil samples were analyzed for VOCs, semi-volatile organic compounds (SVOCs), TPH, metals, and/or pesticides and polychlorinated biphenyls (PCBs), depending on the area from which a given soil sample was collected (ENVIRON, 2012b). Figure 2 shows the previous sampling locations. Analytical results of the soil vapor samples indicated only benzene and tetrachloroethylene (PCE) were detected at concentrations at or above the reporting limits. Analytical results of the soil sample indicated TPH in the diesel carbon range (TPH-d) and oil carbon range (TPH-o) were detected in several samples, and the pesticide 4,4'-dichlorodiphenyltrichloroethane (4,4'-DDT) was detected in one soil sample. Additionally, several metals were detected in the analyzed samples, but most of the detected metals concentrations did not exceed respective screening levels. ENVIRON concluded that the VOC concentrations detected in the soil vapor samples were below their respective screening levels, and except for arsenic in the samples in which it was analyzed and TPH-d and TPH-o in one soil sample, no other detected analyzed compounds in the soil samples were present at concentrations exceeding their screening values. It was determined that the arsenic concentrations were similar to background levels.

Kleinfelder performed methane survey field activities at the Site in December 2014, during which 13 shallow soil gas probes (SV-1 through SV-13), screened at approximately 5 feet bgs, were installed in an approximately even-spaced grid-like pattern across the Site. The shallow probes were monitored for pressure and methane with hand-held instruments. Methane was not detected by the survey (Kleinfelder, 2015a).

In February 2015, at which time the At Mateo Project-related demolition of warehouse buildings at the Site had commenced in preparation for redevelopment, Kleinfelder was requested by EDGE to collect and analyze surface soil samples from an area of the Site where a slight petroleum odor in soil was noted by the demolition contractor. On February 25, 2015, Kleinfelder collected three near-surface soil samples, designated KLF-01 through KLF-03, from the Site area of concern (Kleinfelder, 2015b). The samples consisted of soil collected between the ground surface and approximately 2 feet bgs from potholes excavated by the demolition contractor. The samples were submitted for laboratory analysis of TPH by carbon range (quantified as gasoline-range TPH [TPH-g] with the carbon range C4 to C10, diesel-range TPH [TPH-d] with the carbon range C11 to C22, and oil-range TPH [TPH-o] with the carbon range C23 to C35), VOCs, and CCR Title 22 Metals, including soluble metals as warranted. The analytical results for TPH, VOCs, and metals are discussed below:

- The analytical results indicated TPH-d and TPH-o were detected in Sample KLF-02 at respective concentrations of 4,390 milligrams per kilogram (mg/kg) and 37,100 mg/kg. This TPH-d concentration exceeds both the Aliphatic Medium and Aromatic Medium RSLs, and the TPH-o concentration exceeds the Aromatic High RSL. Additionally, the TPH-d and TPH-o concentrations in Sample KLF-02 exceed their respective MSSSLs of 1,000 mg/kg and 10,000 mg/kg. Samples KLF-01 and KLF-03 contained reported TPH-d and TPH-o concentrations below their respective MSSSLs, but the detected TPH-d concentration of Sample KLF-03 exceeds the residential Aliphatic Medium RSL. The laboratory flagged the TPH-d results with a qualifier that indicated that the pattern of the diesel-range hydrocarbons in the samples' chromatograms did not match the pattern of the chromatogram of the diesel standard.
- The VOC analytical results of the three samples indicated acetone and 1,3,5-trimethylbenzene were detected in Sample KLF-02 at respective concentrations of 0.158 mg/kg and 0.010 mg/kg, which are substantially lower than the VOCs' respective United States Environmental Protection Agency (US EPA) Regional Screening Level (RSL) values for Residential Soil of 61,000 mg/kg and 780 mg/kg (US EPA, 2015a). Other VOCs were not detected at concentrations equal to or above their respective practical quantitation limits (PQLs).
- The metals arsenic, barium, cadmium, chromium, cobalt, copper, lead, mercury, nickel, vanadium, and zinc were detected in one or more of the three samples, but the detected concentrations of most of these metals were below their respective Residential Soil SLs

or RSLs (as applicable to the given metal), with only concentrations of arsenic (in each sample), cadmium (in one sample), lead (in two samples), and nickel (in two samples) exceeding their respective SLs. The maximum detected arsenic concentration (10.9 mg/kg) was below the upper range of the Los Angeles County average soil background level for arsenic (with overall range of 8 mg/kg to 12 mg/kg) developed by the DTSC's school unit (Chernoff, et al., 2008). The nickel concentrations also appear to represent background values, based on Kleinfelder's experience with other properties in the Central Block of the Los Angeles Basin, but concentrations of barium, chromium, lead, and zinc appeared in Kleinfelder's opinion to potentially be above regional background levels (although of these, only lead concentrations exceeded its screening level [SL]).

In summary, the February 25, 2015 sampling analytical results revealed Site environmental impact by primarily TPH and lead. The specific source of the impact is unclear, but based on review of the two reports prepared by ENVIRON (2012a and 2012b), it is suspected to be a consequence of the Site's past industrial use dating back to the early 1900s. In response to these results, Kleinfelder developed and implemented a scope of work to assess the lateral and vertical extent of the TPH and metals impact to near-surface soils at the Site. Soil sampling was performed by Kleinfelder at the Site on March 30 and April 23, 2015, as further discussed below:

- On March 30, 2015, 112 soil samples were collected from 28 locations (KLF-04 through KLF-31) placed using an approximate 50-foot grid. This sampling was performed to address data gaps and facilitate assessment of the lateral and vertical extent of TPH and metals impact. It was planned to collect soil samples from bores at approximate depths of 0.5 foot (i.e., near-surface), 2 feet, 4 feet, and 5 feet bgs, but a prevalence of cobbles and debris in the uppermost 3 feet resulted in hand auger refusal. Instead, the At Mateo Project demolition contractor excavated potholes to an approximate depth of 5 feet bgs, and Kleinfelder collected relatively undisturbed samples from the pothole sidewalls at these approximate depths.
- Based on the interpretation of the analytical results of the March 30, 2015 soil samples, 117 soil samples were collected on April 23, 2015 from 39 step-out locations (KLF-02A through KLF-24H) placed at approximate distances of 10 feet and 25 feet outward in the northern, eastern, southern, and western directions from selected previously-sampled locations. The demolition contractor potholed each new sampling location to an approximate depth of 3 feet bgs, and soil samples were collected from the pothole

sidewalls at approximate depths of 0.5 foot (near-surface), 2 feet, and 3 feet bgs by pushing laboratory-provided glass containers into the undisturbed soil in the sidewalls of the excavations.

Based on the results of the February 25, 2015 sample analyses, the March 30, 2015 samples were analyzed for TPH-g, TPH-d, TPH-o, and the metals barium, chromium, lead, and zinc. Based on the results of these analyses, most of the April 23, 2015 step-out samples were analyzed for lead only, although six of these samples were subsequently analyzed for TPH at the request of the DTSC.

Of the March 30 and April 23, 2015 samples, one (KLF-09-2') contained a TPH-g concentration that exceeds the residential TPH Aliphatic and Aromatic Low RSLs, and several contain TPH-d and TPH-o concentrations that exceed the Aliphatic and/or Aromatic Medium and High RSLs, respectively. However, only the TPH-g concentration of 1,850 mg/kg and the TPH-d concentration of 1,130 mg/kg in the 2-foot bgs sample collected from Location KLF-09 exceed their MSSSLs of 500 mg/kg and 1,000 mg/kg, respectively. The laboratory flagged these and the other sample's TPH-g and TPH-d results with qualifiers indicating the pattern of hydrocarbons in the sample's chromatogram did not match the patterns in the chromatograms of the gasoline or diesel standards. The detected TPH-o concentrations in the March 30 and April 23, 2015 samples were below the TPH-o MSSSL. Figure 2 shows the previous sampling locations.

Based on the analytical results of soil samples collected by ENVIRON and Kleinfelder, it appears that TPH-o impact is limited to the uppermost 4 feet of soil beneath the Site, and that TPH-g and TPH-d impact is limited to the uppermost 2 feet bgs in the vicinity of Locations KLF-02 and KLF-09. The TPH-g, TPH-d, and TPH-o concentrations appear to attenuate with depth. The assessment results indicate cadmium and lead impact in excess of the Residential Soil SLs is limited to the uppermost approximate 2 feet of soil. Except for arsenic and nickel, the maximum concentrations of the other metals detected in the soil samples are below their respective Residential Soil SL or RSL (as applicable for the given metal), and the detected arsenic and nickel concentrations appear to represent background values. With the exception of lead concentrations in two soil samples (1,000 mg/kg in the sample from Location KLF-02 and 2,300 mg/kg in the near-surface sample from Location KLF-24B), the maximum concentration of each detected metal is below its CCR Total Threshold Limit Concentration (TTLC) value. Waste Extraction Test (WET) Soluble Threshold Limit Concentration (STLC) lead results for 18 of the 40 sample analyzed for

soluble lead exceed the lead STLC value of 5 mg/L, but soluble chromium WET STLC results are below the hexavalent chromium STLC value of 5 mg/L. Toxicity Characteristic Leaching Procedure (TCLP) results of the samples analyzed for barium, chromium, and/or lead using this test are below these metals' respective TCLP values of 100 mg/L, 5 mg/L, and 5 mg/L. Thus, the analyzed soil samples with lead concentrations exceeding the lead TTLC and soluble lead concentrations exceeding the lead STLC are representative of California-hazardous waste but not representative of a Resource Conservation and Recovery Act (RCRA)-hazardous waste. To further assess the nature of the soluble lead, Kleinfelder requested laboratory analysis of 16 soil samples containing STLC lead concentrations exceeding 5 mg/L using the De-Ionized Water WET (DI-WET). The DI-WET soluble lead concentration in only one of the 16 samples tested exceeded 5 mg/L (Sample KLF-23-Surface, which had a STLC-WET result of 19.5 mg/L but a DI-WET result of only 6.94 mg/L). The DTSC was provided these results for review, and indicated in a subsequent August 6, 2015 electronic mail that based on the testing results it would be acceptable to re-use soil represented by the 16 samples on-Site and that such re-use would not be a basis for restricting Site land use.

2.7 IMPACT ON HUMAN HEALTH AND/OR THE ENVIRONMENT

As stated in the previous section, the soil sampling performed recently by Kleinfelder at the Site identified the presence, in surface and near-surface soils, of TPH at concentrations exceeding US EPA RSLs and LARWQCB MSSLS and the metals arsenic, cadmium, lead, and nickel at concentrations exceeding their respective SLs, although the detected arsenic and nickel concentrations appear to represent background values. Based on the analytical results of the soil samples collected by ENVIRON and Kleinfelder, it appeared that TPH-d and TPH-o impact was limited to the uppermost 4 feet of soil beneath certain portions of the Site and that TPH-g impact was limited to the uppermost 2 feet bgs in the vicinity of one sample location (KLF-09) only. The TPH-g, TPH-d, and TPH-o concentrations appeared to attenuate with depth. Additionally, cadmium and lead concentrations above the Residential Soil SLs were limited to the uppermost approximately 2 feet of soil.

2.8 NATURE AND EXTENT OF CONTAMINATION

This section summarizes the nature and extent of the contamination identified at the Site. Contaminant concentrations in the samples discussed were compared to screening values including the DTSC's SLs for residential land use presented in Human Health Risk Assessment

(HHRA) Note No. 3 issued in October 2015 by the DTSC's Office of Human and Ecological Risk (HERO), if such values were available, and to the US EPA's current (November 2015) RSLs for residential land use (for Hazard Quotient of 1.0) for those compounds without published HERO screening values. TPH concentrations in soil were also compared to the LARWQCB's TPH MSSSLs for a depth to groundwater beneath the sample ranging from 20 feet to 150 feet.

Site potential areas of concern contained soil concentrations of lead that exceeded the DTSC's lead SL for residential soil of 80 mg/kg (DTSC, 2015) and/or soil concentrations of TPH that exceeded the US EPA's residential TPH Aliphatic and Aromatic RSLs (US EPA, 2015a). Additionally, TPH concentrations in two soil samples (KLF-02 and KLF-09-2') exceeded the LARWQCB MSSSLs for TPH-g, TPH-d, and TPH-o of 500 mg/kg, 1,000 mg/kg, and 10,000 mg/kg, respectively (LARWQCB, 2004).

2.8.1 Lead-Affected Shallow Soil

Soil sampling was performed as necessary to assess the extent of areas with concentrations exceeding the lead SL, with step-out samples collected as warranted. The extent of lead-impacted soil with concentrations exceeding the lead SL for residential soil was thus assessed. Lead concentrations in 20 soil samples collected during Site assessment exceeded the SL for residential soil of 80 mg/kg. The soil samples exceeding the lead residential soil SL were collected at depths ranging from the surface to approximately 2 feet bgs, and lead concentrations exceeding the SL ranged from 80.1 mg/kg (Sample KLF-24C-Surface) to 2,300 mg/kg (Sample KLF-24B-Surface).

A statistical evaluation of the full lead data set for the Site was performed by estimating a 95-percent upper confidence level (UCL) soil concentration using the US EPA's ProUCL™ software, Version 5.0. The results indicated a Site-wide, 95-percent UCL lead concentration of 148.8 mg/kg, which is above the lead SL of 80 mg/kg. DTSC has noted that the 80-mg/kg lead screening level is not intended to be used as a "bright-line," not to exceed value. With the two samples containing the highest lead concentrations (specifically KLF-02, with a lead concentration of 1,000 mg/kg, and KLF-24B-Surface, with a lead concentration of 2,300 mg/kg) removed from the data set, the Site-wide 95-percent UCL soil concentration of lead became 59.59 mg/kg, which is well below the 80 mg/kg SL for unrestricted land use. Based upon this evaluation, it was concluded that only soil at the locations of Samples KLF-02 and KLF-24B-Surface contained lead concentrations warranting remedial action.

2.8.2 Cadmium-Affected Shallow Soil

A cadmium concentration in one Site assessment soil sample (KLF-02, which contained a cadmium concentration of 7.01 mg/kg) exceeded the SL for residential soil of 4.5 mg/kg.

2.8.3 TPH-Affected Shallow Soil

Concentrations of TPH constituents (gas, diesel, and motor oil) in several of the soil samples collected at the Site by ENVIRON and Kleinfelder exceeded the US EPA's lowest RSLs for residential land use and/or LARWQCB MSSLS. As with lead, statistical evaluations of the full TPH-g, TPH-d, and TPH-o data sets for the Site were performed by estimating 95-percent UCL soil concentrations using the US EPA's ProUCL software. The Site-wide 95-percent UCL concentrations of TPH-d and TPH-o were 664.3 mg/kg and 2,738 mg/kg, respectively. Removing the three samples containing the highest TPH-d and TPH-o concentrations (specifically, Samples SB-16-2, KLF-02, and KLF-09-2'), the Site-wide 95-percent UCL soil concentrations of TPH-d and TPH-o became 74.7 mg/kg and 713.7 mg/kg, respectively. The ProUCL output sheets are provided in Appendix B of the Final RAW. Based upon this evaluation, soil at the locations of Samples SB-16-2, KLF-02, and KLF-09-2' contained hydrocarbon concentrations warranting remedial action.

2.8.4 Estimated Volume of Lead- and TPH-Impacted Shallow Soil

Four Site areas (designated EA-1 through EA-4) contained reported lead concentrations (and cadmium concentrations for Area EA-1) exceeding the residential SL, and/or reported TPH concentrations exceeding the lowest residential RSL and/or LARWQCB MSSLS. The approximate areas and estimated volumes of contaminated soil were as follows:

Area Name	Soil Sample Location Driving Remediation (Contaminant)	Area Affected (square feet)	Depth of Area (feet)	Estimated Volume of Affected Soil (cubic feet)	Estimated Volume of Affected Soil (cubic yards)
EA-1	KLF-02 (TPH/lead/cadmium)	305	2	610	22.6
EA-2	SB-16 (TPH)	100	2	200	7.4
EA-3	KLF-24B (lead)	207	2	414	15.3
EA-4	KLF-09 (TPH/lead)	267	4	1,068	39.6
TOTAL		879	--	2,292	84.9

2.9 SCREENING HUMAN HEALTH RISK ASSESSMENT AND REMEDIAL ACTION OBJECTIVES

A Tier I human health screening evaluation (HHSE) was performed using the Site assessment data collected by ENVIRON (2012b) and Kleinfelder (2015). To evaluate detected concentrations of TPH, VOCs, SVOCs, organochlorine pesticides (OCPs), PCBs, and metals, they were compared to the DTSC's SLs for residential land use presented in HERO's HHRA Note No. 3, issued in May 2015, if such values were available, and to the US EPA's current (revised June 2015) RSLs for residential land use (for Hazard Quotient of 1.0) for those compounds without published HERO SLs. TPH concentrations in soil were also compared to the LARWQCB's TPH MSSSLs for a depth to groundwater beneath the sample ranging from 20 feet to 150 feet.

2.9.1 HUMAN HEALTH AND RISK EVALUATION

Soil Vapor

ENVIRON installed and sampled 5-foot deep temporary soil vapor probes at 24 Site locations, including six soil vapor probes placed using a Site-wide grid in order to evaluate non-specific historical use areas and provide better spatial coverage. Analytical results of ENVIRON's soil vapor sampling indicated only the VOCs benzene and PCE were detected, in seven samples and four samples, respectively. The maximum detected benzene and PCE concentration were 0.0369 microgram per liter ($\mu\text{g/L}$) and 0.154 $\mu\text{g/L}$, respectively. The maximum detected concentration of benzene (0.0369 $\mu\text{g/L}$) and PCE (0.154 $\mu\text{g/L}$) was below its corresponding residential scenario soil vapor screening level (0.097 $\mu\text{g/L}$ for benzene and 0.480 $\mu\text{g/L}$ for PCE), calculated as described in HERO's HHRA Note No. 3, issued May 2015, using the DTSC-modified

residential air screening level for the compound in concert with the 0.001 attenuation factor for a future residential building as discussed in the DTSC's October 2011 guidance document (DTSC, 2011). Based on these results, VOCs in soil vapor were not identified as Site constituents of concern (COCs).

Soil

VOCs – Ten soil samples collected at depths of 2 and 5 feet bgs were analyzed for VOCs, although three of the samples were analyzed only for benzene, toluene, ethylbenzene, and total xylenes (BTEX). VOCs were not detected above the laboratory reporting limit in the analyzed soil samples, with the exception of acetone and 1,3,5-trimethylbenzene, which were detected in Sample KLF-02 at respective concentrations of 0.158 mg/kg and 0.010 mg/kg. These detected concentrations were below the US EPA's acetone RSL for residential soil of 61,000 mg/kg and 1,3,5-trimethylbenzene RSL for residential soil of 780 mg/kg. Based on these results and in conjunction with the soil vapor sampling results described previously in Section 4.1.1, VOCs in soil were not identified as Site COCs.

SVOCs – Four soil samples collected by ENVIRON were analyzed for SVOCs. The analytical results indicate that SVOCs were not detected above the laboratory reporting limit. Based on these results, SVOCs are not identified as Site COCs.

OCPs – Four soil samples collected by ENVIRON were analyzed for OCPs. The pesticide 4,4'-DDT was detected in one sample (SB-8), which contained a reported concentration of 8.27 µg/kg. The detected concentration of 4,4-DDT is below the 4,4-DDT residential RSL of 1,900 µg/kg. Based on these results, OCPs were not identified as Site COCs.

PCBs – Four soil samples collected by ENVIRON were analyzed for PCBs. The analytical results indicate that PCBs were not detected above the laboratory reporting limit. Based on these results, PCBs were not identified as Site COCs.

TPH – In 2012, ENVIRON drilled and sampled 18 soil bores for TPH at targeted sampling locations, to depths of 5 feet to 10 feet bgs, depending on the nature of the targeted feature. In 2015, Kleinfelder sampled 32 locations for TPH, to depths of 2 to 4 feet bgs. As previously discussed, based on a statistical evaluation of the Site assessment TPH-d and TPH-o data sets

and use of the US EPA RSLs for TPH Aliphatic and Aromatic Low, Medium, and High, soil at the locations of Samples SB-16-2, KLF-02, and KLF-09-2' contained hydrocarbon concentrations warranting remedial action. Additionally, the TPH-g concentration of one of these soil samples (KLF-09-2') exceeded the TPH-g MSSL of 500 mg/kg, the TPH-d concentrations of three soil samples (SB-16-2, KLF-02, and KLF-09-2') exceeded the LARWQCB TPH-d MSSL of 1,000 mg/kg, and the TPH-o concentrations of two samples (SB-16-2 and KLF-02) exceeded the TPH-o MSSL of 10,000 mg/kg. Based on these results, TPH was identified as a COC.

Metals – Other than arsenic, cadmium, lead, and nickel, the maximum concentrations of metals detected in the soil samples were below their respective DTSC HERO residential soil SLs and US EPA residential and soil screening values, as applicable. Note that the detected arsenic and nickel concentrations appear to represent background values. Cadmium and lead were detected at respective concentrations of 7.01 mg/kg and 1,000 mg/kg in the sample from Location KLF-02, exceeding these metals' respective DTSC HERO SLs for residential soil of 4.58 mg/kg and 80 mg/kg. Additionally, lead was detected at a concentration of 2,300 mg/kg in the surface sample collected at Location KLF-24B. Lead concentrations in 17 additional samples also exceed the lead residential soil SL. As previously discussed, based on a statistical evaluation of the Site lead data set and use of the lead residential SL, soil at the locations of Samples KLF-02 and KLF-24B contained lead concentrations warranting remedial action. Based on these results, cadmium and lead were identified as Site COCs.

2.9.2 ECOLOGICAL RISK EVALUATION

The Site is located in a highly urbanized and completely developed area within the City of Los Angeles (Kleinfelder, 2015b). Streets, sidewalks, and commercial/industrial structures consistent with urban commercial land uses occupy the area adjoining to the Site, and there is no habitat suitable for ecological receptors within or near the Site. Redevelopment activities at the Site and the surrounding area are consistent with continued commercial/industrial land use. Therefore, an ecological risk assessment was not proposed.

3 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS

Previous investigations on Site indicated the presence of lead and TPH in soil exceeding its residential SLs. The most effective remedial action was determined to be soil excavation and off-Site disposal of soil containing COC concentrations exceeding remedial goals. This section discusses the applicable or relevant and appropriate requirements for the soil excavation and off-Site disposal activities performed.

3.1 PUBLIC PARTICIPATION

The public participation requirements and activities during the RA process included:

- The development of a community profile.
- Performing community interviews.
- Publishing a notice of the availability of the Draft RAW for public review and comments (upon which the public comment period occurred from November 13 to December 18, 2015).
- Making the Draft RAW and other supporting documents available at DTSC's office and in a local information repository.
- Responding to public comments received on the Draft RAW and California Environmental Quality Act (CEQA) documents.
- Sending a community update to the Site mailing list describing the Site, the proposed RA, and the RAW implementation schedule.
- Preparing final documents in electronic format and uploading them to DTSC's publicly-accessible EnviroStor database.

3.2 CALIFORNIA ENVIRONMENTAL QUALITY ACT (CEQA) DOCUMENTATION

As the lead oversight agency, DTSC is responsible for making discretionary decisions in approving the RAW. DTSC evaluated and prepared the appropriate CEQA documentation for the RA, which coincided with the RAW public comment period.

3.3 HAZARDOUS WASTE MANAGEMENT

Based on then-existing soil data before soil removal activities commenced, lead was detected at a maximum concentration of 2,300 mg/kg, in a soil sample collected in the area of proposed

Excavation Area EA-3. In addition, the California Soluble Threshold Limit Concentration for hazardous waste classification is 5 mg/L for soluble lead. As a result, lead- and TPH-impacted soils excavated from Excavation Areas EA-1 through EA-4 were handled as non-RCRA hazardous waste.

Analytical results of soil samples collected by Tetra Tech on December 2, 2015 from five test pits excavated within the footprint of the proposed subterranean parking level were used to evaluate appropriate off-Site disposal options for soil excavated for its construction. Based on the analytical results, the TPH-impacted soil from Excavation Area EA-5 was disposed as non-hazardous waste.

3.4 STORM WATER POLLUTION PREVENTION PLAN

R.A. Smith National, Inc. prepared a project SWPPP (included in Appendix C of the Final RAW) that described construction stormwater pollution management and best management practices (BMP) that were implemented during the remedial activities. BMPs included those published by the California Department of Transportation (Caltrans, 2003). The SWPPP specified measures to be undertaken to limit stormwater impact to the Site, including reducing the sediment load in stormwater runoff during Site cleanup activities and preventing accidental spills caused or exacerbated by stormwater. The contractor filed a Notice of Intent (NOI) with the SWRCB prior to initiation of Site cleanup activities.

The Contractor prepared an addendum to the SWPPP, which was prepared by a Qualified SWPPP Developer in accordance with the General Permit requirements for the project Risk Level determined for the Site. The addendum included the following:

- A copy of the NOI and receipt letter.
- Determination of the Risk Level for the Site.
- Material Safety Data Sheets for chemicals used or stored on the Site during construction.
- An example BMP inspection form.
- Emergency contact information.
- Proposed deviations from the procedures specified in the SWPPP.

The Contractor was responsible for implementing the SWPPP, as approved by the DTSC.

3.5 SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

The South Coast Air Quality Management District (SCAQMD) has two rules addressing excavation, Rules 1150 and 1166, along with Rule 403, which addresses Fugitive Dust. Rule 1150 applies to excavation of sanitary landfills and is not relevant to this project. Rule 1166 applies to the excavation of soil containing VOCs. Although VOCs have not been identified as Site COCs, as a precaution soil generated by remedial excavation activities was screened for the presence of total volatile organic vapors at the Site, using a photoionization detector (PID) equipped with a 10.6-electron volt and calibrated to a 100-part per million by volume (ppmv) hexane standard with a detection limit of 0.1 ppmv.

Several elements of Rule 403, such as protocols to mitigate potential fugitive dust emissions (SCAQMD, 2005), were incorporated into the RAW. Excavation, loading, and transport of impacted soils were performed in compliance with Rule 403's prevention, reduction, and mitigation measures for fugitive dust emissions. However, notification of SCAQMD is required only for large operations. For this project, no notification or filing of a Fugitive Dust Emission Control Plan was required, due to the project's size.

3.6 HEALTH AND SAFETY PLAN

All contractors were responsible for operating in accordance with the most current requirements of Title 8, California Code of Regulations (CCR), Section 5192 (8 CCR 5192) and Title 29, Code of Federal Regulations (CFR), Section 1910.120 (29 CFR 1910.120), Standards for Hazardous Waste Operations and Emergency Response. On-Site personnel were responsible for performing work in accordance with all applicable regulations of the Occupational Safety and Health Administration (OSHA) outlined in 8 CCR (General Industry Standards), as well as other applicable federal, state and local laws and regulations.

A Site-Specific Health and Safety Plan (SSHSP) was prepared for the Site and was used during the execution of the RAW. The SSHSP is included in Appendix D of the Final RAW.

The provisions of the SSHSP were mandatory for Kleinfelder personnel. Non-Kleinfelder personnel, including the contractor selected to perform the remedial activities, were required to implement their own SSHSP reflecting their organizations' respective development/construction activities during the remedial activities. Such programs were required to meet or exceed the

requirements set forth in Kleinfelder's SSHSP. On-Site personnel read the SSHSP and signed a log provided by Kleinfelder's Site Health and Safety Officer before initiating activities at the Site.

4 REMOVAL ACTION WORK ACTIVITIES

Impacted soil removal activities for Excavation Areas EA-1 through EA-4 were performed on November 12 and 13, 2015, whereas impacted soil removal activities for Excavation Area EA-5 were performed on December 9, 15, and 18, 2015. Soils were excavated using a Link-Belt™ excavator (Model 135).

Removal, transportation, and disposal were performed in accordance with applicable Federal, State, and local laws, regulations, and ordinances. Soil handling and disposal practices were described in the project Transportation Plan (presented in Section 6.6 of the DTSC-approved Final RAW and summarized in Section 4.7 herein).

Figure 3 depicts Excavation Areas EA-1 through EA-5. Figure 4A depicts the extents of Excavation Areas EA-1 through EA-4 along with their post-excavation sample locations. Figure 4B depicts locations of five test pits sampled by Tetra Tech within the area of the Site's proposed subterranean parking level, along with the extent of Excavation Area EA-5. Figure 4C depicts the Excavation Area EA-5 post-excavation sample locations. Figure 5 shows the air and weather monitoring locations. Figure 6 depicts the truck routes used to transport excavated non-hazardous and non-RCRA hazardous soils off-Site. A photographic log documenting each day of RA activities is included in Appendix A.

4.1 SITE PREPARATION

Prior to equipment mobilization for the proposed excavation activities, Site preparation activities were performed, including surveying, utility clearance, and provision of Site control and security measures. These activities are discussed further below.

4.1.1 Surveying

Hennon Surveying and Mapping, Inc. performed a topographic survey of the Site and prepared a map, dated March 30, 2014, of the then-existing Site conditions (Hennon Surveying and Mapping, Inc., 2014). Four proposed Excavation Areas, designated EA-1 through EA-4, were subsequently marked in the field by Kleinfelder using stakes and caution tape.

Prior to the initiation of field work, coordinates of the historic soil sample locations were entered into a hand-held global positioning system (GPS) unit. The GPS unit was then used to mark out

the boundaries of Excavation Areas EA-1 through EA-4. Exclusion zones were established around each proposed excavation area to accommodate staging of transport vehicles and movement of contractor equipment.

4.1.2 Utility Clearance

Prior to commencement of excavation, Kleinfelder notified Underground Service Alert of Southern California (USASC) of its intent to perform excavation, in accordance with California State law (Assembly Bill AB 73).

4.1.3 Site Control and Security Measures

At the time of the RA the Site was not open to unauthorized vehicular traffic, and the property was securely fenced and locked. Persons requesting Site access were required to have pre-access authorization and demonstrate a valid purpose for access. If access to work was planned, visitors were briefed regarding the SSHASP (see Appendix D of the Final RAW).

4.2 SOIL EXCAVATION ACTIVITIES

This section discusses the field tasks performed during soil excavation work and identifies the excavation areas and approximate quantity of impacted soil excavated and removed from each area.

Soil excavation activities at four Site locations (EA-1 through EA-4) were performed on November 12 and 13, 2015, as proposed in the DTSC-approved Final RAW (Kleinfelder, 2016). Excavation Areas EA-1 through EA-3 were each excavated to an approximate depth of 2 feet bgs, whereas Excavation Area EA-4 was excavated to an approximate depth of 4 feet bgs. The approximate lateral extents of Excavations EA-1 through EA-4 are depicted on Figure 3. Approximately 22.6 cubic yards (yd³) of soil was removed from Excavation Area EA-1, approximately 7.3 yd³ of soil was removed from Excavation Area EA-2, approximately 22 yd³ of soil was removed from Excavation Area EA-3, and approximately 39.6 yd³ of soil was removed from Excavation Area EA-4. The excavated impacted soils from Excavation Areas EA-1 through EA-4 were transferred directly from the excavator's bucket into dump trucks for off-Site disposal.

On December 2, 2015, Tetra Tech collected soil samples for laboratory analysis from five test pits (designated Test Pits S-1 through S-5), to accommodate export profiling of soils to be excavated

from the area of the Site's proposed subterranean parking level. Two soil samples were collected from each test pit at approximate depths of 5 feet and 10 feet bgs. On December 7, 2015, Kleinfelder was informed that two apparent old oil conveyance pipes were encountered during grading work in the proposed subterranean parking area. The pipes were removed, and one pipe was found to contain oil residue whereas the other pipe was dry. Also on December 7, 2015, Kleinfelder was provided the laboratory report of results of the soil samples collected by Tetra Tech on December 2, 2015. The results indicated the two samples from Test Pit S-3 contained reported TPH concentrations exceeding the TPH residential SLs (Tables 3 and 4). Consequently, an additional excavation area (EA-5) was added to the soil excavation, sampling, and analysis plan in order to remove this TPH-impacted soil from at and around Test Pit S-3 (Figure 4B). Excavation Area EA-5 was added pursuant to Section 6.5.5 (Contingency Plan) of the DTSC-approved Final RAW, and this modification to the RAW was approved by Mr. Jose Diaz of the DTSC via a December 23, 2015 electronic mail (DTSC, 2015b). Excavation Area EA-5 was subsequently excavated on December 9, 15, and 18, 2015, with soil removed to a maximum approximate depth of 20 feet bgs over much of the area and to as deep as 37 feet bgs at the location of a pothole excavated deeper to assess TPH vertical extent (Tables 5 and 6). The approximate extent of Excavation Area EA-5 is depicted on Figure 4C. Approximately 1,110 cy³ of soil was removed from Excavation Area EA-5. The excavated soil was temporarily stockpiled on Site on 10-mil plastic sheeting and securely covered with plastic sheeting.

4.3 AIR AND METEOROLOGICAL MONITORING

Air and meteorological monitoring were performed to achieve the following goals:

- Identify and measure particulate matter generated during the soil removal and decontamination activities, to assign the appropriate personal protective equipment (PPE) and safety systems specified for those activities.
- Provide feedback to Site operations personnel regarding potential hazards from exposure to hazardous air contaminants generated through excavation activities.
- Identify and measure particulate matter at points outside of the soil removal and exclusion zones.

Four air monitoring stations and one weather station were placed around the perimeters of the exclusion zone at the approximate locations depicted on Figure 5. The air monitoring and weather

stations were calibrated and checked prior to commencement of the excavation activities to minimize disruptions and down time.

4.3.1 Air Monitoring

Air monitoring was performed during excavation activities involving disturbance and/or handling of impacted or potentially-impacted soils, and included the following:

- Monitoring dust levels around the perimeter of the Exclusion Zone (fenced area) at the approximate locations depicted on Figure 5. The monitoring results indicated dust levels did not exceed the Site dust action level of 22 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$).
- Monitoring for the presence of total organic vapors in the excavation area and exclusion zone, with a PID, to assess the appropriate level of PPE. If total organic vapor readings equaled or exceeded 5 ppmv above background levels sustained over 1 minute, the work area was evacuated temporarily to allow for the air to stabilize for resampling (see the SSHSP provided in Appendix D of the Final RAW). If total organic vapor readings equaled or exceeded 25 ppmv above background levels sustained over 1 minute, work was stopped and the SSO was notified. Additionally, dust and PM_{10} were monitored as described in Section 4.4. The level of respiratory protection did not need to be upgraded during excavation activities.
- Routine perimeter monitoring to assess the levels of airborne contaminants at the perimeter of the exclusion zone and demonstrate that the community was not being exposed to organic vapors.

4.3.2 Meteorological Monitoring

On-Site ambient weather conditions (wind speed and direction, and relative humidity) were monitored using the following: an on-Site meteorological station, real-time weather websites, and the National Weather Service website. On-Site meteorological monitoring was performed by Kleinfelder on November 12 and 13, 2015 during the excavation activities at Excavation Areas EA-1 through EA-4. Weather conditions did not adversely impact the excavation activities.

4.4 DUST CONTROL

Dust control measures were implemented during soil excavation activities to prevent potential air transport of excavated soil and dust to adjacent areas. Applicable BMPs were implemented to

control airborne dusts generated by the soil RA. Dust and particulate matter (PM₁₀) were periodically monitored during metals-impacted soil excavation work at Excavation Areas EA-1 through EA-4 using a miniRAM™ dust monitor (or functional equivalent). Dust levels were not measured greater than the 22 µg/m³ PM₁₀ dust limit.

4.5 POST-EXCAVATION SOIL SAMPLING

Post-excavation soil samples were collected, as specified in the DTSC-approved Final RAW, from Excavation Areas EA-1 through EA-4, and a post-excavation soil sampling plan was added for Excavation Areas EA-5. The post-excavation soil samples were collected as follows:

- From the sidewalls of each excavation, at a frequency of approximately each 25 linear feet (with a minimum of one sample per sidewall).
 - At a discrete depth of approximately 1 foot bgs per side wall location for 2-foot deep Excavation Areas (EA-1 through EA-3) (Figure 4A and Tables 1 and 2).
 - At discrete depths of approximately 1 foot and 3 feet bgs per side wall location for 4-foot deep Excavation Areas (EA-4) (Figure 4A and Tables 1 and 2).
 - At discrete depths of approximately 5 feet, 10 feet, and 16 feet per side wall location for Excavation Area EA-5 (Figure 4C and Tables 5 and 6).
- At a frequency of one sample per each 225 square feet (or less) of excavation floor (for Excavation Areas EA-1 through EA-5, plus at selected deeper depths beneath the floor of Excavation Area EA-5 to assess the vertical extent of TPH).

Where practicable, Excavation Area EA-5 locations with initial post-excavation sampling TPH results exceeding US EPA residential SLs for TPH were further excavated, and new post-excavation soil samples were then collected. The excavation work continued to the vertical and lateral extents practicable. Note that the areas further excavated include several samples listed in Tables 3 through 5 that were removed by the subsequent overexcavation work. Samples that were subsequently overexcavated/removed are Tetra Tech's Samples S3 @ 5' and S3 @ 10' (see Tables 3 and 4) and Kleinfelder's Samples EA-5-N1-27-5, EA-5-N1-28-10, EA-5-N1-29-16, EA-5-N2-30-5, EA-5-N2-31-10, EA-5-S1-33-5, EA-5-S1-34-10, EA-5-S1-35-16, EA-5-S2-36-5, and EA-5-S3-37-10 (see Table 5). The excavation work had to eventually be terminated laterally to the south and west due to a potential for undermining the existing structures that adjoin to the south of the Site work area and west of the Site, and vertically due to slope stability concerns and limitations of the excavator.

Each post-excavation soil sample was collected with a new, disposable plastic scoop. Immediately following collection, each sample was placed in a laboratory-provided, wide mouth glass container that was promptly sealed with its lid. Although VOCs have not been identified as Site COCs, as a precaution excavated soil was screened in the field for the presences of total volatile organic vapors using a PID equipped with a 10.6-electron volt detector lamp. The PID was calibrated to a 100-ppmv hexane standard and had a detection limit of 0.1 ppmv. To perform the screening, soil from a given location was placed in a clean, unused, re-sealable plastic bag that was then sealed for approximately 10 minutes to allow volatile organic vapors, if present, to volatilize into the bag's headspace. Then, the seal of the bag was opened slightly, the tip of the PID was placed into the bag, and the observed PID reading was recorded on a field log. Sample handling and chain-of-custody procedures for soil sampling were performed consistent with US EPA SW-846 protocols (US EPA, 2015b).

Kleinfelder's post-excavation soil samples were transported in an ice-chilled cooler under proper chain-of-custody to Enviro-Chem, Inc. of Pomona, California, a California Environmental Laboratory Accreditation Program (ELAP)-accredited laboratory. Soil samples collected from Excavation Areas EA-1 through EA-4 were analyzed for lead using US EPA Method 6010B and for TPH with carbon range analysis using US EPA Method 8015B. The TPH carbon range analysis quantifies TPH-g (C4 to C10), TPH-d (C11 to C22), and TPH-o (C23 to C35). Soil samples collected from Excavation Area EA-5 were analyzed for TPH with carbon range analysis using US EPA Method 8015B. Additionally, two soil samples collected from the bottom of Excavation Area EA-5 were analyzed for VOCs using US EPA Method 8260B, and two soil samples collected from the west wall of Excavation Area EA-5 were analyzed for polynuclear aromatic hydrocarbons (PAHs) using US EPA Method 8310. The two soil samples analyzed for VOCs were preserved in the field pursuant to US EPA Method 5035.

Two field duplicate soil samples (i.e., co-located samples) were collected from Excavation Areas EA-1 and EA-2 and analyzed for lead, using US EPA Method 6010B, and TPH with carbon range analysis, using US EPA Method 8015B. Two field duplicate soil samples were collected from Excavation Area EA-5 and analyzed for TPH with carbon range analysis using US EPA Method 8015B.

A unique sample identification number was typically assigned to each soil sample that was tied to the sample's location and depth. This number was typically an alphanumeric sequence that

served as an acronym to identify the sample. The alphanumeric sequence reflected the given excavation area, and is as follows:

EA-X-Y-ZZ-AA: EA = Excavation Area; X = EA area number (1 through 7); Y = (use one of the following, as appropriate) N = north wall, S = south wall, E = east wall, W = west wall, or B = bottom of excavation); ZZ = sample number; and AA = depth (in feet bgs).

When a duplicate (i.e., co-located) sample was collected, a “D” was affixed to the end of the sample number, preceded by a hyphen (e.g., EA-X-Y-ZZ-AA-D).

Including field duplicates, 67 post-excavation soil samples were collected. The laboratory analytical reports for the post-excavation soil samples are provided in Appendix B.

4.6 EQUIPMENT CLEANING

Entry to the excavation area was fenced off, and access was limited to avoid unnecessary exposure and limit the potential for cross contamination. Each post-excavation soil sample was collected with a new, disposable plastic scoop, and disposable equipment was packaged after use for appropriate off-Site disposal. Trucks were visually inspected before leaving the Exclusion Zone, and dirt (if any) adhering to the exterior surfaces was brushed off and collected on Visqueen.

4.7 LOADING, TRANSPORTATION, AND DISPOSAL OF EXCAVATED SOIL

Excavated soil was either temporarily stockpiled or directly loaded onto trucks for transport off Site. The excavator was primarily used to load soil into the trucks. At the end of each day, stockpiled soil (if present) was covered with plastic sheeting, and straw wattles and/or gravel bags were placed around the perimeter of the stockpile until the soil was transported off Site for proper disposal.

Based on pre-profiling using analytical results (see Section 3.3), excavated soils from within Excavation Areas EA-1 through EA-4 were classified as non-RCRA hazardous waste, whereas excavated soil from within Excavation Area EA-5 was classified as non-hazardous waste. Based on soil disposal manifests and landfill receipt tickets, approximately 143.9 tons of excavated soil

was properly transported to and disposed under hazardous waste manifest at South Yuma County Landfill located in Yuma, Arizona. Based on soil disposal manifests and landfill receipt tickets, approximately 1,441.36 tons of excavated soil was properly transported to and disposed under non-hazardous waste manifest at Chiquita Canyon Landfill, in Castaic, California. The removed old oil conveyance piping was disposed of at Chiquita Canyon Landfill, in Castaic, California. Copies of the transportation and disposal manifests are included in Appendix C. Truck routes to the respective landfills are depicted on Figure 6.

4.8 BACKFILL AND SITE RESTORATION

Backfilling of the Excavation Areas is being completed as part of the on-going Site redevelopment work, which will include construction of three buildings, including two constructed at grade and one that will have a subterranean parking level. The redevelopment work is to result in a net export of soil, and no import of soil is thus expected to be required.

5 EVALUATION OF ANALYTICAL RESULTS

In total, 67 post-excavation soil samples were collected by Kleinfelder from the walls and floors of the remedial excavations within Excavation Areas EA-1 through EA-5, although soil represented by 10 of the Excavation Area EA-5 post-excavation soil samples was removed via subsequent overexcavation activities, as was discussed in Section 4.5. The sample numbers for these 10 subsequently-removed soil samples are highlighted in yellow in Table 5 in order to distinguish them from the other post-excavation soil samples, which represent soil remaining on Site.

Qualitative data validation of the laboratory data reported by Enviro-Chem, Inc. was performed by Kleinfelder. Based on the review, the overall data quality is considered acceptable and the data are concluded to meet the data quality objectives for this project. Based on the review results, the data are usable for the intended purposes. The laboratory's data quality assurance and quality control (QA/QC) summary reports for the analytical methods performed on the soil samples collected during the RA activities are presented in Appendix B.

5.1 RESULTS FOR EXCAVATION AREAS EA-1 THROUGH EA-4

For Excavation Areas EA-1 through EA-4, the analytical results indicate one soil sample (EA-4-N-17-1, collected at an approximate depth of 1 foot bgs from the north wall of the Excavation Area EA-4 excavation) contains reported TPH-d and TPH-o concentrations of 393 mg/kg and 3,690 mg/kg, which exceed their respective residential soil lowest RSLs of 96 mg/kg and 2,500 mg/kg (see Table 1). Additionally, one soil sample (EA-3-S-13-1, collected at an approximate depth of 1 foot bgs from the south wall of the Excavation Area EA-3 excavation) contains a reported lead concentration of 250 mg/kg, which exceeds the lead residential soil SL of 80 mg/kg (see Table 2). TPH and lead concentrations reported in each of the post-excavation samples collected from Excavation Areas EA-1 and EA-2 and in each remaining post-excavation sample collected from Excavation Areas EA-3 and EA-4 are below their screening values. Kleinfelder performed statistical evaluations of the TPH-d, TPH-o, and lead results using the full post-excavation sample data set for Excavation Areas EA-1 through EA-4 (i.e., the results for the 29 post-excavation samples listed in Tables 1 and 2), conservatively assigning the PQL as a detected concentration for non-detect TPH-d and TPH-o results (note that the lead results were all detects). Kleinfelder used the US EPA's ProUCL™ software, Version 5.0, which evaluate the various UCLs that it calculates and provides a "Suggested UCL to Use." The ProUCL output

sheets are provided in Appendix D. The “Suggested UCL to Use” for the 95 percent UCL of the mean for each of the three Site COCs remaining in Excavation Areas EA-1 through EA-4 is as follows:

- TPH-d – 95 percent Chebyshev UCL – 97.29 mg/kg (versus lowest residential soil RSL of 96 mg/kg).
- TPH-o – 95 percent Chebyshev UCL – 1,010 mg/kg (versus lowest residential soil RSL of 2,500 mg/kg).
- Lead – 95 percent H-UCL – 42.14 mg/kg (versus residential soil SL of 80 mg/kg).

Although the TPH-d 95 percent Chebyshev UCL of 97.29 mg/kg very slightly exceeds the US EPA’s June 2015 aliphatic medium TPH residential RSL of 96 mg/kg, it is below the US EPA’s aromatic medium TPH residential RSL of 110 mg/kg. Furthermore, the analytical laboratory flagged each of the C11-C22 TPH-d detects with a qualifier indicating that the diesel-range peaks on the samples’ chromatograms are atypical of the diesel-range standard. Mr. Curtis Desilets of Enviro-Chem informed Kleinfelder that the detected diesel-range hydrocarbons in the samples represent the lower-carbon fraction of a much heavier hydrocarbon, pointing out that over 90 percent of the hydrocarbon mass appears to be in the heavier oil carbon range.

The results of Kleinfelder’s evaluation for Excavation Areas EA-1 through EA-4 were transmitted to the DTSC via electronic mail on November 17, 2015. Based on the results, the DTSC’s approval to proceed with planned rough grading of the Site was requested. Upon completion of the DTSC’s review, Mr. Jose Diaz of the DTSC responded with the DTSC’s concurrence in a November 23, 2015 electronic mail (DTSC, 2015a).

5.2 RESULTS FOR EXCAVATION AREA EA-5

As previously described herein, soil sampling to accommodate export profiling of soils to be excavated from the Site’s proposed subterranean parking level was subsequently performed by Tetra Tech, and the analytical results indicated TPH-impacted soil was present in the southwest portion of the proposed subterranean parking area. Consequently, additional Excavation Area EA-5 was added to the soil excavation, sampling, and analysis plan in order to remove that TPH-impacted soil. Excavation Area EA-5 was subsequently excavated on December 9, 15, and 18, 2015, with soil removed to a maximum approximate depth of 20 feet bgs over much of the area. The excavation work continued to the vertical and lateral extents practicable. Ultimately

the excavation work had to be terminated laterally to the south and west, due to a potential for undermining the existing structures that adjoin to the south of the Site work area and west of the Site, and vertically due to slope stability concerns and limitations of the excavator.

During and after completion of the excavation of Excavation Area EA-5, post-excavation soil samples were collected from the sidewalls and floor of the excavation. Soil samples were collected from as deep as 37 feet bgs (at the location of a pothole further excavated within the excavation floor to assess the vertical extent of TPH). Based on the analytical results for the 28 post-excavation samples not subsequently removed by further overexcavation, 10 soil samples contain reported TPH-d concentrations exceeding the lowest TPH-d residential soil RSL (96 mg/kg) and eight soil samples contain reported TPH-o concentrations exceeding the lowest TPH-o residential soil RSL (2,500 mg/kg), as shown in Table 5. The maximum respective TPH-d and TPH-o concentrations measured in these samples were 4,410 mg/kg (in Sample EA-5-B-45-19, which was collected from an approximate depth of 19 feet bgs) and 26,100 mg/kg (in Sample EA-5-S2-38-16, which was collected from an approximate depth of 16 feet bgs). The TPH concentrations measured in the remaining post-excavation samples collected from Excavation Area EA-5 are below their screening values. Using the US EPA's ProUCL™ software, Version 5.0, Kleinfelder performed statistical evaluations of the post-excavation TPH-d and TPH-o data set (i.e., using the results for the 28 post-excavation samples that are not highlighted in yellow in Table 5), conservatively assigning the PQL as a detected concentration for non-detect TPH-d and TPH-o results. These ProUCL output sheets are also provided in Appendix D. The "Suggested UCL to Use" for both TPH-d and TPH-o is again a Chebyshev UCL. The 95 percent Chebyshev UCLs of the means for TPH-d and TPH-o remaining in Excavation Area EA-5 are as follows:

- TPH-d – 1,492 mg/kg (versus lowest residential soil RSL of 96 mg/kg).
- TPH-o – 9,798 mg/kg (versus lowest residential soil RSL of 2,500 mg/kg).

Note that these exceedances of the RSLs by the calculated 95 percent UCLs are driven mostly by the results of four post-excavation soil samples collected from approximate depths of 16 feet bgs to 19 feet bgs beneath the southwestern portion of the proposed subterranean parking level (Samples EA-5-N2-32-16, EA-5-S2-38-16, EA-5-B-45-19, and EA-5-B-46-17) and three post-excavation soil samples collected from depths of 5 feet bgs to 10 feet bgs to the west of the southwestern portion of the proposed subterranean parking level (Samples EA-5-W-42-5,

EA-5-W-43-10, and EA-5-W-43-10D). With the results of these seven samples excluded from the data set, the calculated 95 percent Chebyshev UCLs of the means for TPH-d and TPH-o remaining in Excavation Area EA-5 are as follows:

- TPH-d – 118.9 mg/kg (versus lowest residential soil RSL of 96 mg/kg).
- TPH-o – 1,195 mg/kg (versus lowest residential soil RSL of 2,500 mg/kg).

This calculated 95 percent Chebyshev UCL of the mean for TPH-d minimally exceeds the lowest TPH-d residential soil RSL and is below the lowest TPH-d industrial soil RSL, whereas the calculated 95 percent Chebyshev UCL of the mean for TPH-o is below the lowest TPH-o residential soil RSL. These ProUCL output sheets are also provided in Appendix D.

These results indicate a small quantity of hydrocarbon-impacted soil remains on Site beneath and adjoining to the west of the southwestern portion of the Site's proposed subterranean parking level. Hydrocarbon-impacted soil within the proposed subterranean parking level footprint has been removed to beneath the deepest depth of excavation expected to be necessary for the construction work, however. As previously noted, the analytical laboratory flagged each C11-C22 TPH-d detect with a qualifier indicating that the diesel-range peaks on the samples' chromatograms are atypical of the diesel-range standard. Mr. Curtis Desilets of Enviro-Chem further informed Kleinfelder that the detected diesel-range hydrocarbons in the samples represent the lower-carbon fraction of a much heavier hydrocarbon, pointing out that over 90 percent of the hydrocarbon mass appears to be in the heavier oil carbon range. As indicated in Table 5, VOCs were not detected in the two Excavation Area EA-5 post-excavation soil samples that were analyzed for VOCs (i.e., Samples EA-5-B-45-19, which was the sample containing the highest TPH-d concentration, and Sample EA-5-B-46-17). Additionally, the 5-foot and 10-foot bgs samples containing the highest TPH-d and TPH-o concentrations of the samples collected at those respective depths (Samples EA-5-W-42-5 and EA-5-W-43-10) were analyzed for PAHs, and (as indicated in Table 6) the results indicate the measured concentrations of most detected PAHs are below their residential soil RSLs, whereas those measured concentrations of the three detected PAHs that exceed their residential RSLs – benzo(b)fluoranthene, benzo(a)pyrene, and dibenz(a,h)anthracene – are considerably below their respective industrial RSLs. Furthermore, as indicated in Table 5, the analytical results of the deepest Excavation Area EA-5 post-excavation confirmation samples are below their lowest residential soil RSLs for TPH-d and TPH-o and the LARWQCB's MSSSLs. Note also that the Site will be completely covered by

buildings once it has been redeveloped, and the City of Los Angeles is requiring the installation of a methane vapor barrier with underlying passive ventilation system beneath the new buildings. These measures will eliminate potential human exposure pathways.

6 SUMMARY AND CONCLUSIONS

The purpose of the RA was to remove shallow soils from four previously-identified Site areas containing primarily lead and TPH concentrations above the DTSC's SLs for residential land use presented in HHRA Note No. 3 issued in October 2015 by the DTSC's Office of HERO, if such values were available, and to the US EPA's current (November 2015) RSLs for residential land use (for Hazard Quotient of 1.0) for those compounds without published HERO screening values. TPH concentrations in soil were also compared to the LARWQCB's TPH MSSLS for a depth to groundwater beneath the sample ranging from 20 feet to 150 feet.

Soil excavation activities at the Site within Excavation Areas EA-1 through EA-4 were performed on November 12 and 13, 2015, as proposed in the DTSC-approved Final RAW. However, analytical results of soil sampling subsequently performed by Tetra Tech, to accommodate export profiling of soils excavated from the Site's proposed subterranean parking level, indicated TPH-impacted soil was present in the southwest portion of the proposed subterranean parking area. Excavation Area EA-5 was then added to the scope of the RA, and the performance of remedial excavation within it was approved by the DTSC. Excavation Area EA-5 was subsequently excavated on December 9, 15, and 18, 2015, with soil removed to a maximum approximate depth of 20 feet bgs over much of the area.

Based on analytical results of post-excavation soil samples, the RA objective was achieved at the five Site excavation areas, except for the southernmost and westernmost portions of Excavation Area EA-5, where further excavation laterally had to be terminated due to the potential for undermining existing structures that adjoin to the south of the Site work area and west of the Site, and further excavation vertically had to be terminated due to slope stability concerns and excavator limitations. Although a small quantity of hydrocarbon-impacted soil remains on Site beneath and adjoining to the west of the southwestern portion of the Site's proposed subterranean parking level, hydrocarbon-impacted soil within the proposed subterranean parking level footprint has been removed to beneath the deepest depth of excavation expected to be necessary for the construction work. Removal of shallow soil containing TPH concentrations above the lowest RSLs and MSSLS for residential soil at the Site has thus been achieved to the extent practicable. Note also that the Site will be completely covered by buildings once it has been redeveloped, and the City of Los Angeles is requiring the installation of a methane vapor barrier with underlying passive ventilation system beneath the new Site buildings. These measures will eliminate potential human exposure pathways.

Approximately 144 tons of soil was excavated from Excavation Areas EA-1 through EA-4 and transported off Site, under hazardous waste manifest, for disposal at South Yuma County Landfill, Inc., located in Yuma, Arizona. Approximately 1,441 tons of soil was excavated from Excavation Area EA-5 and transported off Site, under non-hazardous manifest, for disposal at the Chiquita Landfill located in Castaic, California. Copies of the manifests are provided in Appendix C.

Based on these facts, it is Kleinfelder's opinion that the Site has been adequately remediated. It is Kleinfelder's further opinion that closure of the Site environmental case by the DTSC with an unrestricted Site use determination is warranted.

7 LIMITATIONS

This report was prepared in a manner consistent with that level of care and skill ordinarily exercised by other members of Kleinfelder's profession practicing in the same locality, under similar conditions and at the date the services were provided. Kleinfelder's conclusions, opinions, and recommendations are based on a limited number of observations and data. It is possible that conditions may vary between or beyond the data evaluated. Kleinfelder makes no other representation, guarantee, or warranty, express or implied, regarding the services, communication (oral or written), report, opinion, or instrument of service provided.

This report may be used only by EDGE and the registered design professional in responsible charge and only for the purposes stated for this specific engagement within a reasonable time from its issuance, but in no event later than 2 years from the date of the report. Provided however, Kleinfelder understands and consents that this report may be submitted to an appropriate regulatory agency for its review.

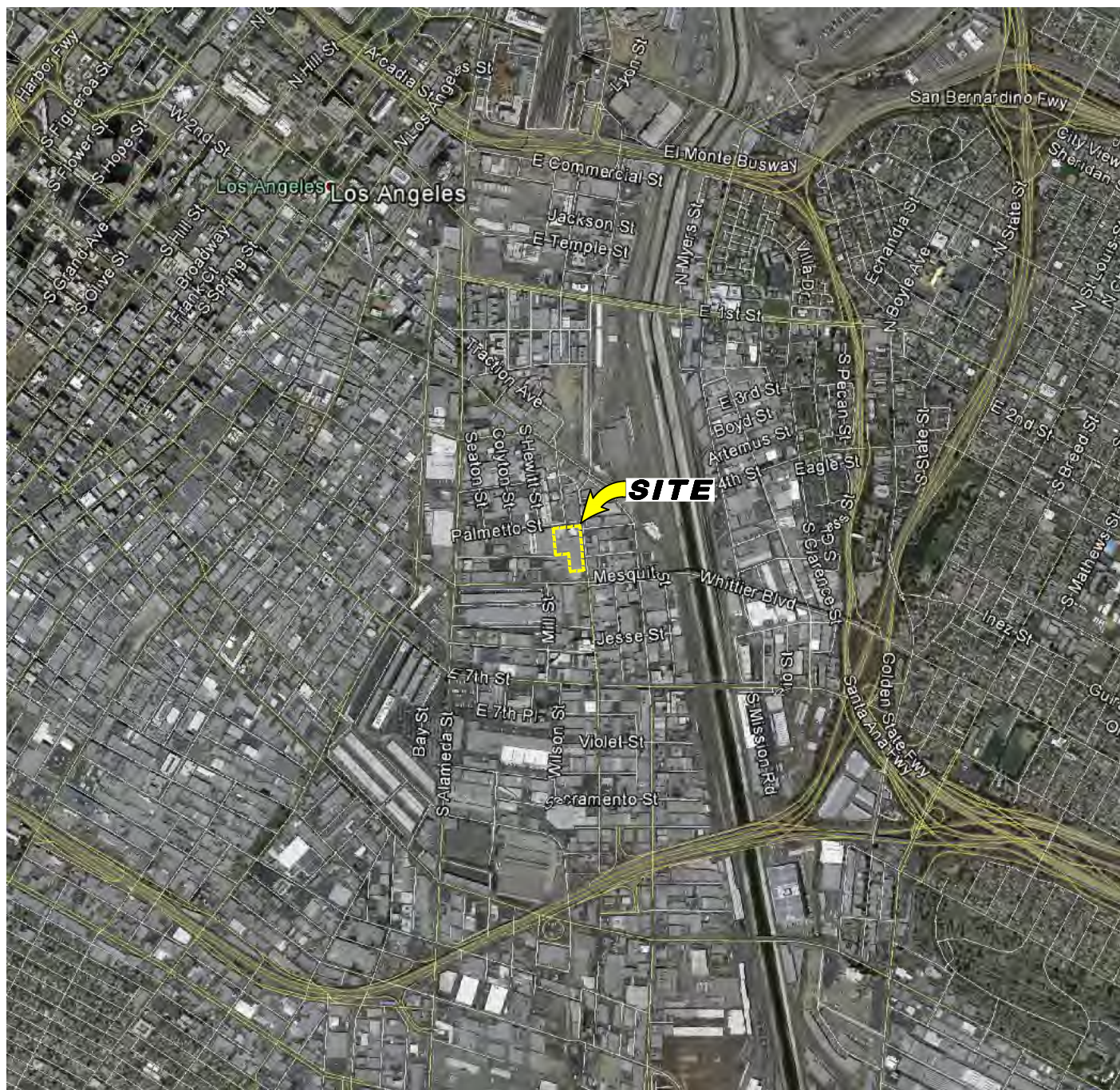
The scope of services described here is not intended to be all-inclusive, to identify all potential concerns, or to eliminate the possibility of other environmental problems. Within current technology, no level of assessment can show conclusively that a property or its structures are completely free of hazardous substances. Therefore, Kleinfelder cannot offer a certification that the property is free of environmental liability. Kleinfelder will assume no responsibility or liability whatsoever for any claim, loss of property value, damage, or injury which results from pre-existing hazardous materials being encountered or present on the Site, or from the discovery of such hazardous materials.

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FIGURES



SOURCE: GOOGLE EARTH PRO 2014, IMAGE DATE 4/16/13.



2,000 1,000 0 2,000
APPROXIMATE SCALE (feet)

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PROJECT NO.	20154388
DRAWN:	02/2016
DRAWN BY:	DMF
CHECKED BY:	AH
FILE NAME:	20154388_F1.dwg

SITE LOCATION FIGURE

AT MATEO
555 MATEO STREET
LOS ANGELES, CALIFORNIA

FIGURE

1

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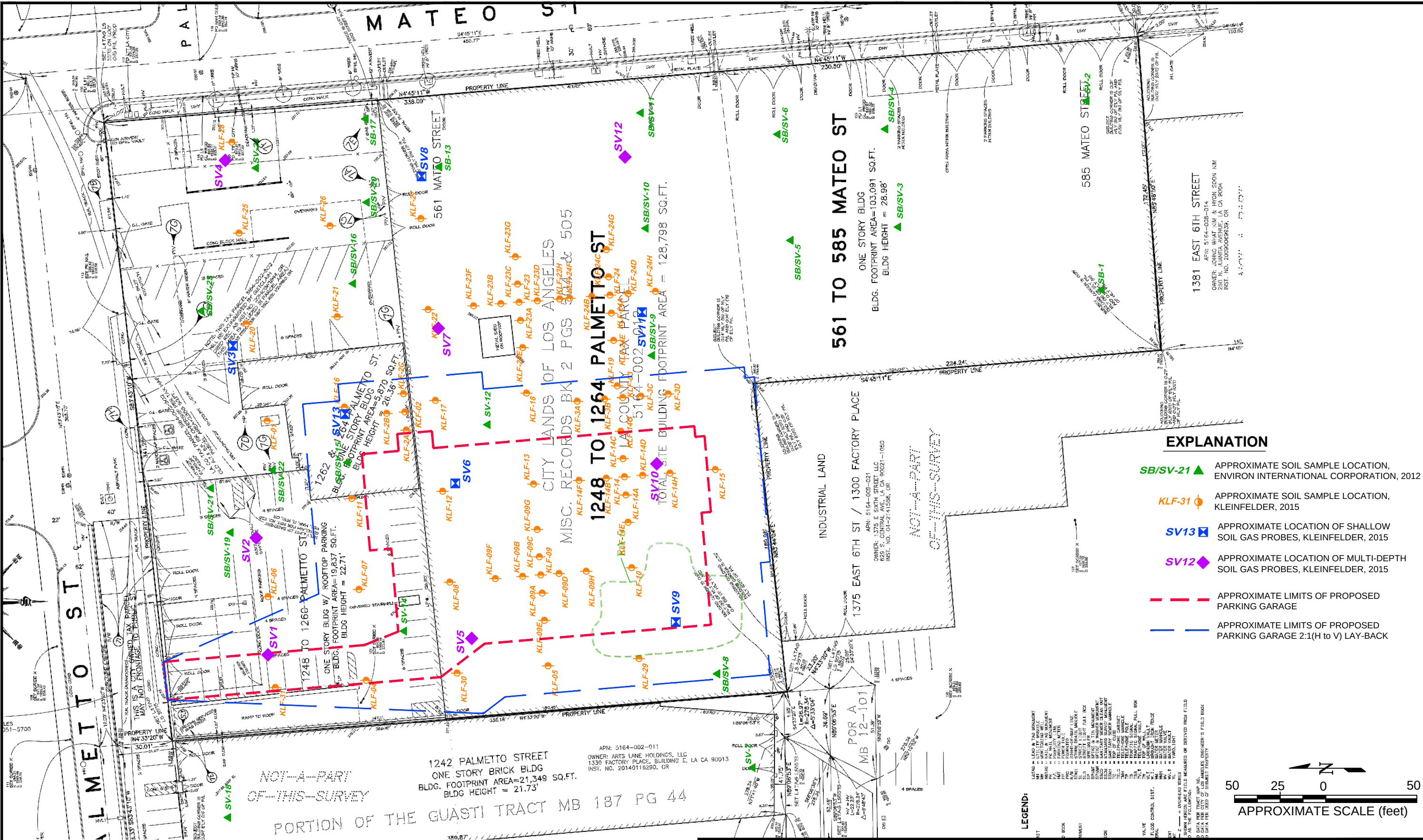
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DATED 03/30/2014.



PROJECT NO.	20154388
DRAWN:	02/2016
DRAWN BY:	DMF
CHECKED BY:	AH
FILE NAME:	20154388_Excav.dwg

SITE PLAN SHOWING
PREVIOUS SAMPLING LOCATIONS

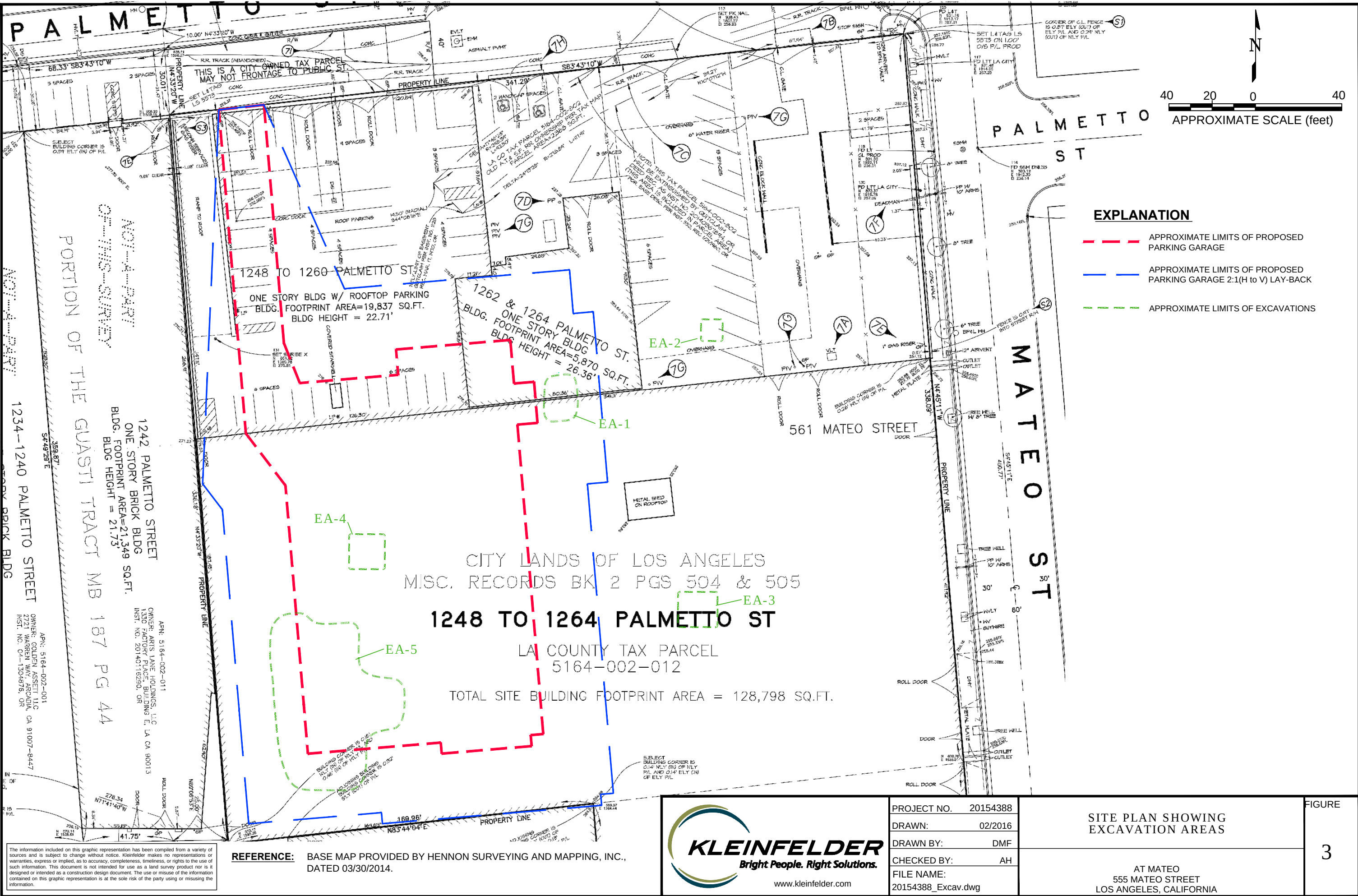
AT MATEO
555 MATEO STREET
LOS ANGELES, CALIFORNIA



ATTACHED IMAGES:
ATTACHED XREFS:
RIVERSIDE, CA

PLOTTED: 23 Feb 2016, 3:33pm, dfahrney

LAYOUT: 3
CAD FILE: 19102-2016CADD120154388RACR_02-20161910217



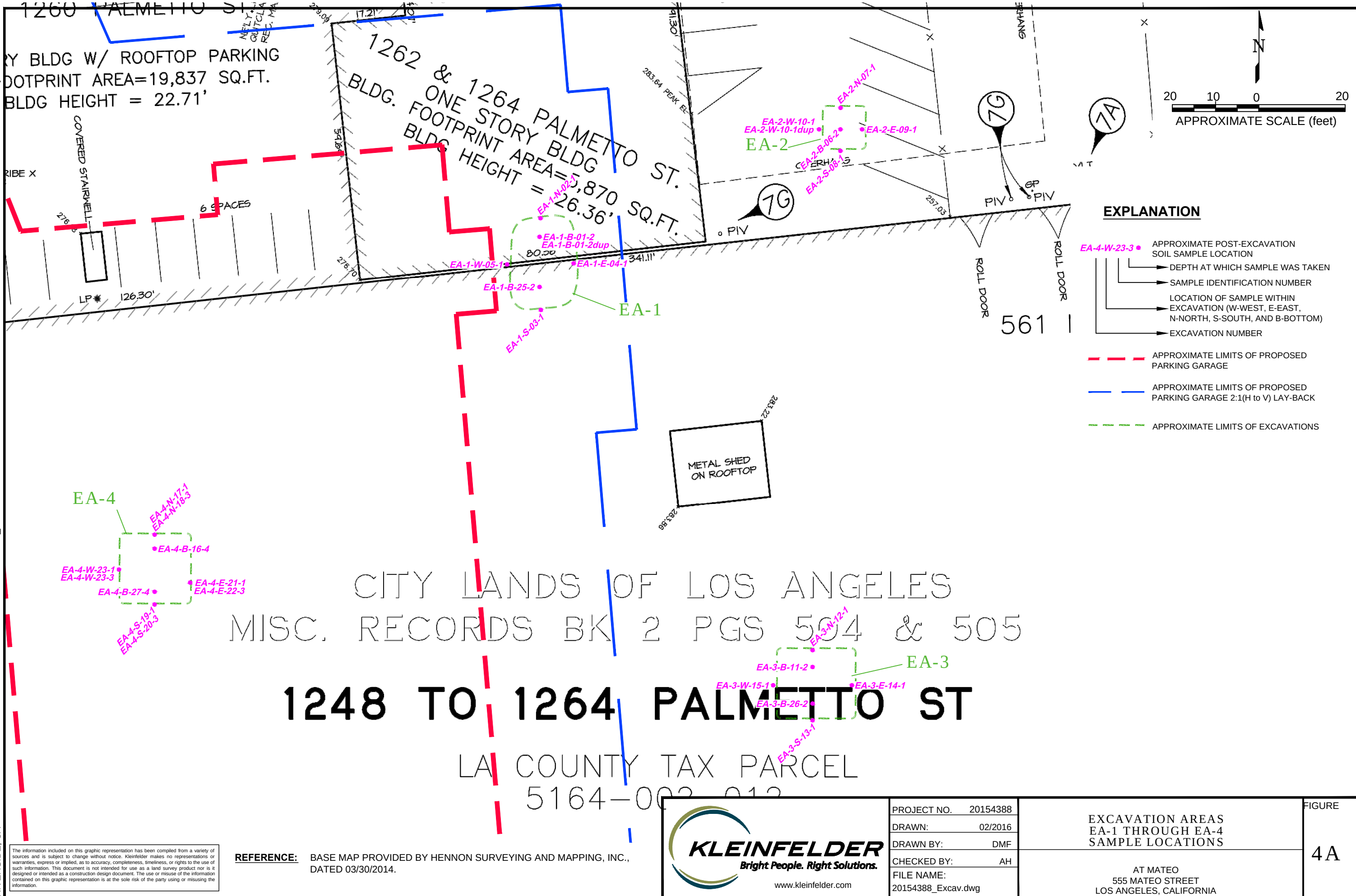
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ATTACHED IMAGES:
ATTACHED XREFS:
RIVERSIDE, CA



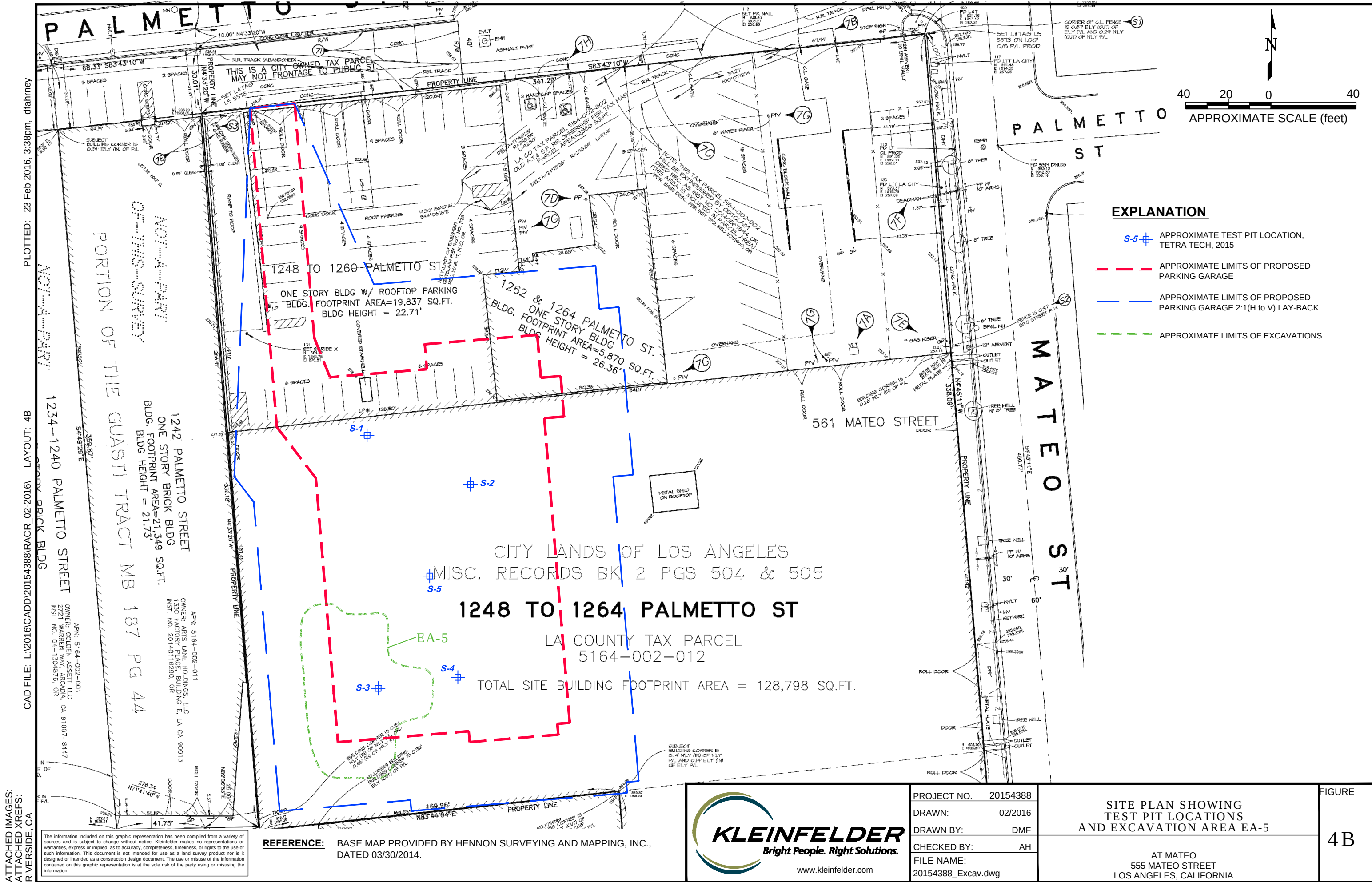
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PROJECT NO.	20154388	EXCAVATION AREAS EA-1 THROUGH EA-4 SAMPLE LOCATIONS	FIGURE 4A
DRAWN:	02/2016		
DRAWN BY:	DMF	AT MATEO 555 MATEO STREET LOS ANGELES, CALIFORNIA	
CHECKED BY:	AH		
FILE NAME:	20154388_Excav.dwg		



ATTACHED IMAGES:
ATTACHED XREFS:
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PLOTTED: 23 Feb 2016, 3:40pm, dfahrney

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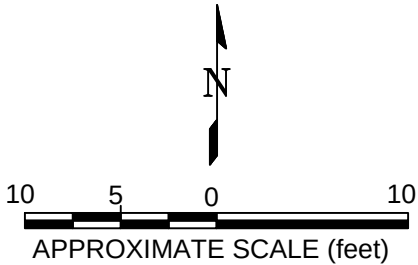


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PROJECT NO.	20154388
DRAWN:	02/2016
DRAWN BY:	DMF
CHECKED BY:	AH
FILE NAME:	20154388_Excav.dwg

EXCAVATION AREA EA-5 SAMPLE LOCATIONS	
AT MATEO 555 MATEO STREET LOS ANGELES, CALIFORNIA	

FIGURE
4C



EXPLANATION

- EA-5-B-62-37 •

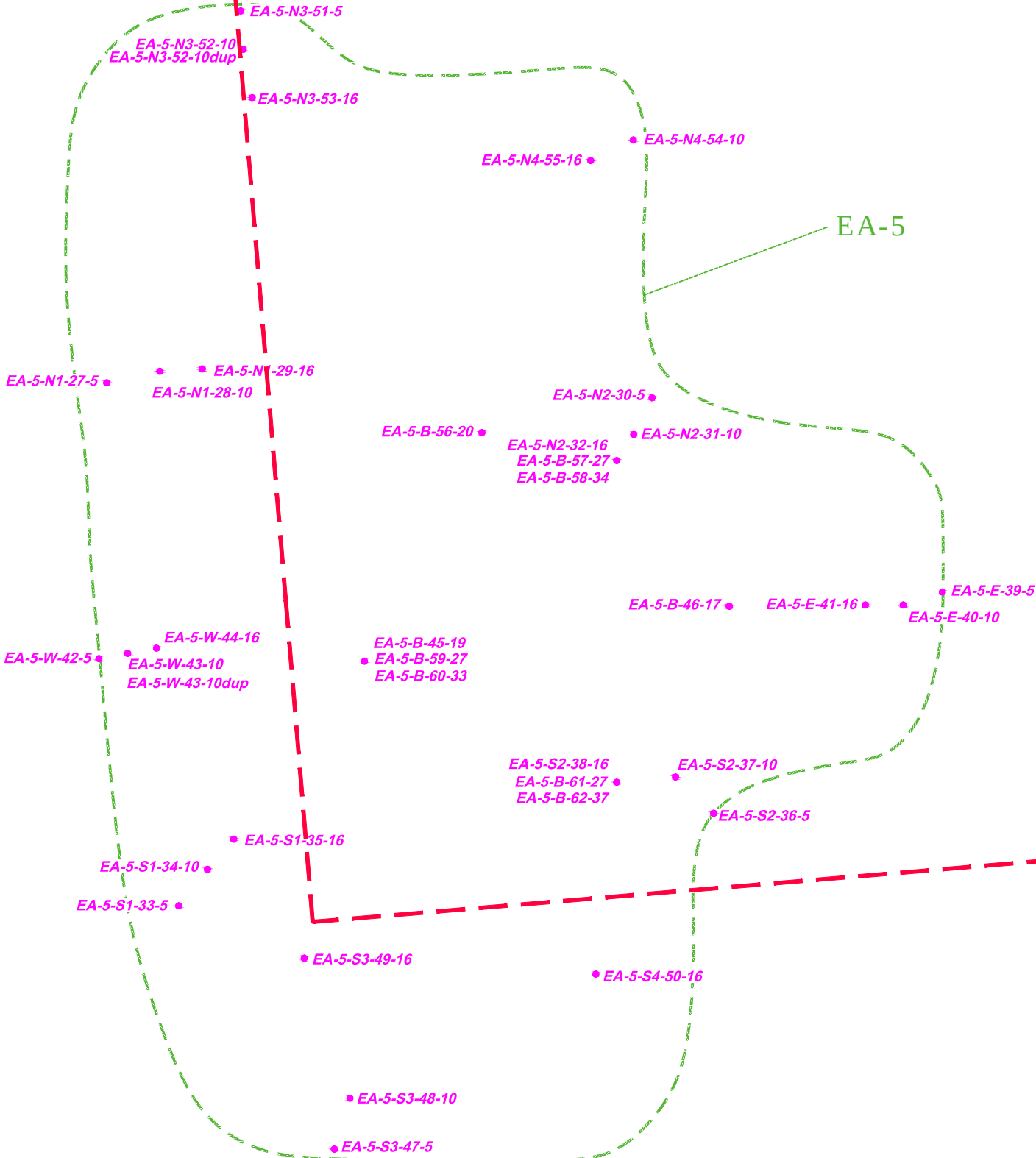
APPROXIMATE POST-EXCAVATION
SOIL SAMPLE LOCATION

DEPTH AT WHICH SAMPLE WAS TAKEN

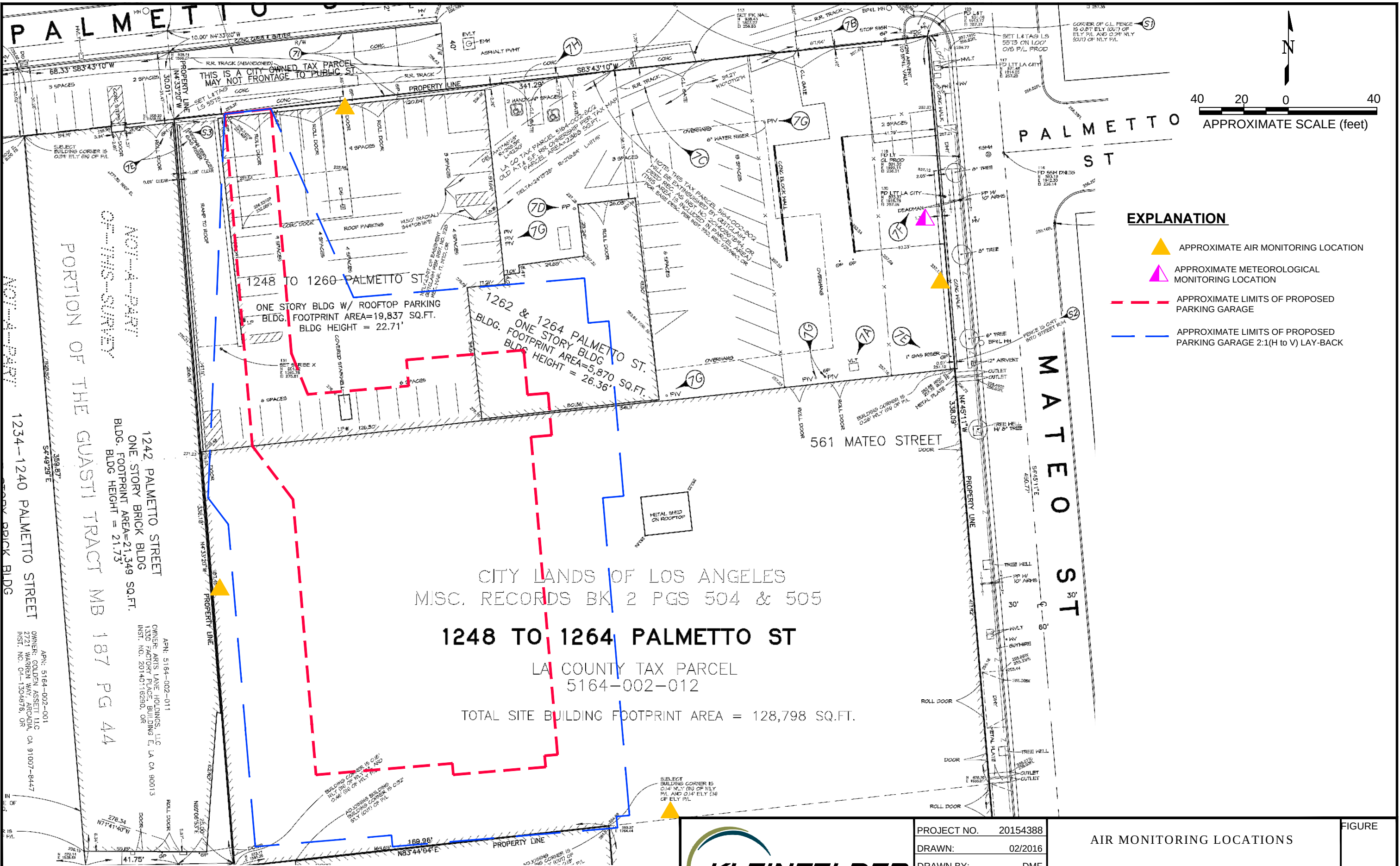
SAMPLE IDENTIFICATION NUMBER

LOCATION OF SAMPLE WITHIN
EXCAVATION (W-WEST, E-EAST,
N-NORTH, S-SOUTH, AND B-BOTTOM)

EXCAVATION NUMBER
- APPROXIMATE LIMITS OF PROPOSED
PARKING GARAGE
- APPROXIMATE LIMITS OF PROPOSED
PARKING GARAGE 2:1(H to V) LAY-BACK
- APPROXIMATE LIMITS OF EXCAVATIONS



ATTACHED IMAGES: PLOTTED: 22 Feb 2016, 4:23pm, dfahrney
ATTACHED XREFS: LAYOUT: 5
RIVERSIDE, CA CAD FILE: \\2016\\CADD\\20154388\\RACR_02-2016\\19101619102\\1



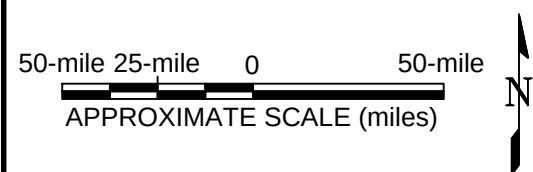
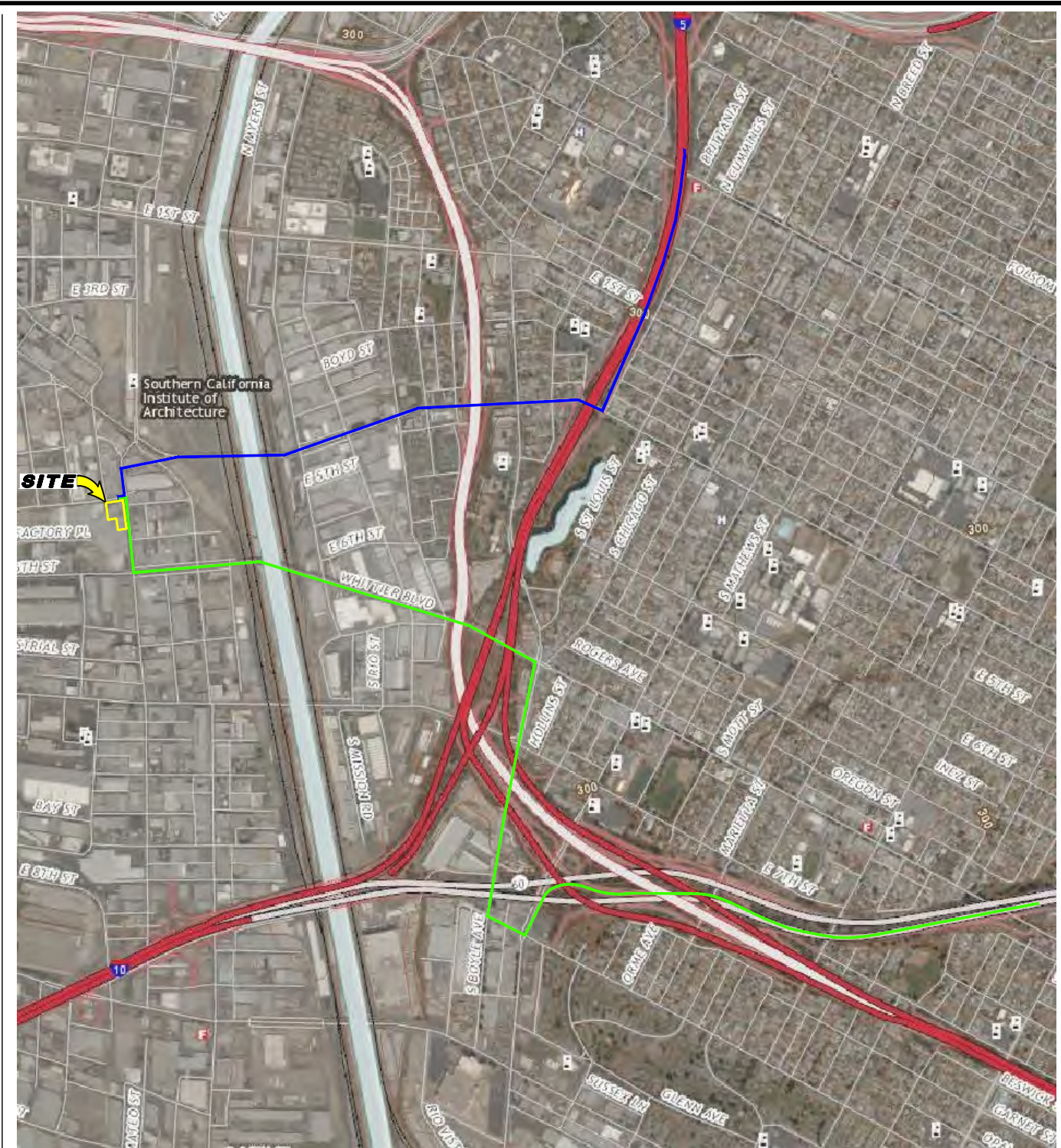
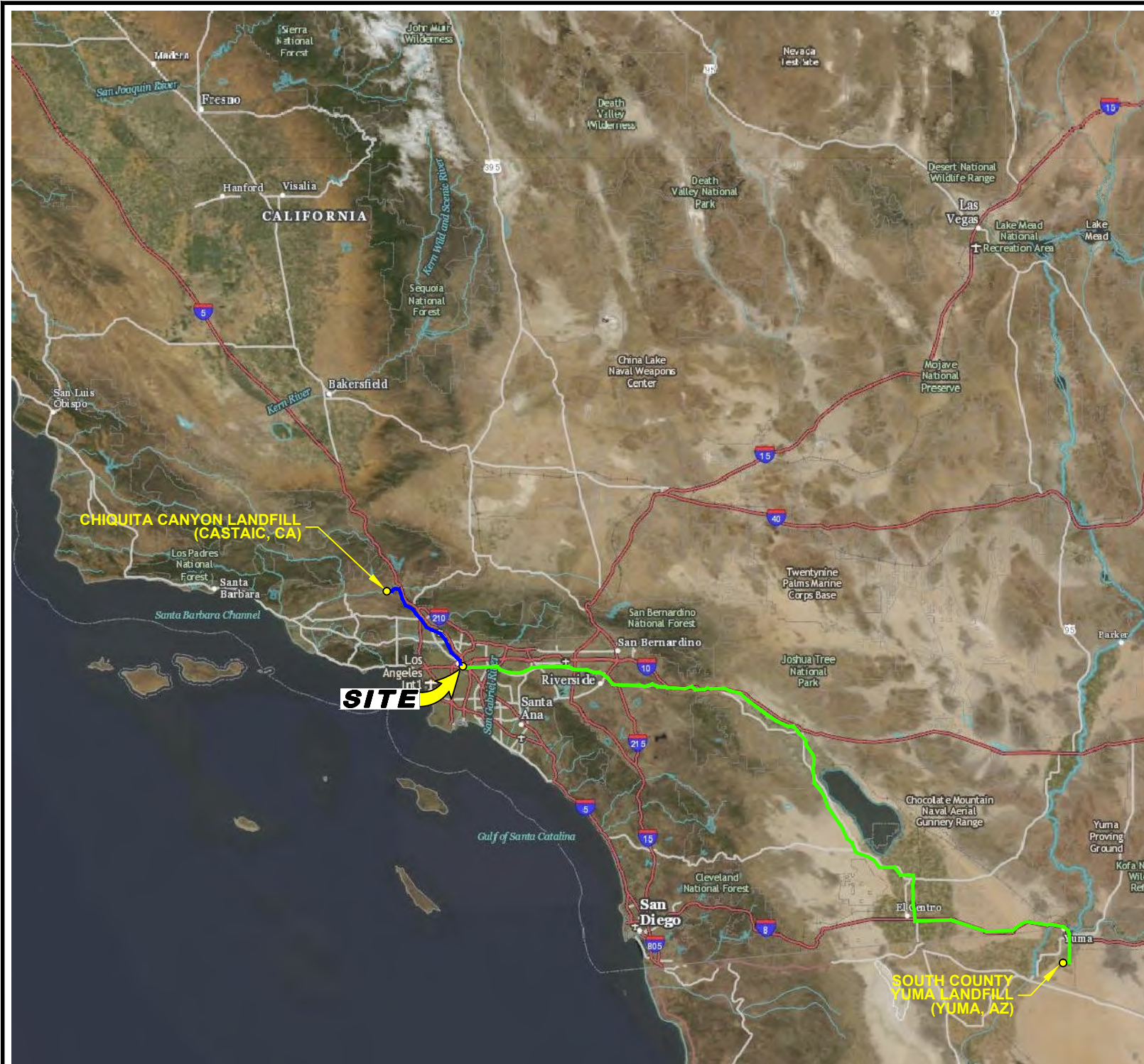
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REFERENCE: BASE MAP PROVIDED BY HENNON SURVEYING AND MAPPING, INC., DATED 03/30/2014.



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PROJECT NO.	20154388	AIR MONITORING LOCATIONS	FIGURE 5
DRAWN:	02/2016		
DRAWN BY:	DMF	AT MATEO 555 MATEO STREET LOS ANGELES, CALIFORNIA	
CHECKED BY:	AH		
FILE NAME:	20154388_Excav.dwg		

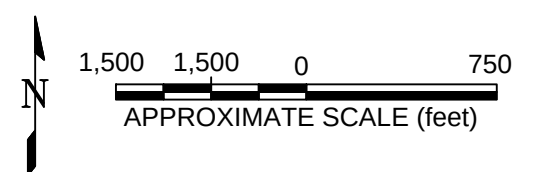


EXPLANATION

 TRUCK ROUTE TO CHIQUITA CANYON LANDFILL (CASTAIC, CA)
 TRUCK ROUTE TO SOUTH COUNTY YUMA LANDFILL (YUMA, AZ)



 TRUCK ROUTE FROM SITE TO INTERSTATE 5N
 TRUCK ROUTE FROM SITE TO HIGHWAY 60E



PROJECT NO. 20154388	TRUCK ROUTES AT MATEO 555 MATEO STREET LOS ANGELES, CALIFORNIA	FIGURE 6
DRAWN: 02/2016		
DRAWN BY: DMF		
CHECKED BY: AH		
FILE NAME: 20154388_F6.dwg		

TABLES

Table 1
Summary of Soil Analytical Results for Excavation Areas EA-1 through EA-4 – TPH
 Mateo Palmetto
 555 Mateo Street
 Los Angeles, California 90013



Excavation Area	Sample	Date Collected	Location	Depth (feet bgs)	TPH-g C4-C10 (mg/kg)	TPH-d C11-C22 (mg/kg)	TPH-o C23-C35 (mg/kg)
					US EPA Method 8015B		
EA-1	EA-1-B-01-2	11/12/2015	Excavation Floor	2	ND (5)	ND (5)	ND (25)
	EA-1-B-01-2D	11/12/2015		2	ND (5)	8.58*	62.5
	EA-1-B-25-2	11/12/2015		2	ND (5)	ND (5)	ND (25)
	EA-1-N-02-1	11/12/2015	North Sidewall	1	ND (5)	ND (5)	ND (25)
	EA-1-S-03-1	11/12/2015	South Sidewall	1	ND (5)	ND (5)	ND (25)
	EA-1-E-04-1	11/12/2015	East Sidewall	1	ND (5)	10.4*	82.1
EA-2	EA-1-W-05-1	11/12/2015	West Sidewall	1	ND (5)	10.1*	87.7
	EA-2-B-06-2	11/13/2015	Excavation Floor	2	ND (5)	13.7*	148
	EA-2-N-07-1	11/13/2015	North Sidewall	1	ND (5)	55.2*	565
	EA-2-S-08-1	11/13/2015	South Sidewall	1	ND (5)	ND (5)	ND (25)
	EA-2-E-09-1	11/13/2015	East Sidewall	1	ND (5)	20.4*	241
	EA-2-W-10-1	11/13/2015	West Sidewall	1	ND (5)	13.6*	182
EA-2-W-10-1D	11/13/2015	1		ND (5)	9.62*	140	
EA-3	EA-3-B-11-2	11/12/2015	Excavation Floor	2	ND (5)	31.8*	153
	EA-3-B-26-2	11/12/2015		2	ND (5)	ND (5)	ND (25)
	EA-3-N-12-1	11/12/2015	North Sidewall	1	ND (5)	ND (5)	ND (25)
	EA-3-S-13-1	11/12/2015	South Sidewall	1	ND (5)	ND (5)	514
	EA-3-E-14-1	11/12/2015	East Sidewall	1	ND (5)	ND (5)	1,470
EA-4	EA-3-W-15-1	11/12/2015	West Sidewall	1	ND (5)	ND (5)	ND (25)
	EA-4-B-16-4	11/12/2015	Excavation Floor	4	ND (5)	86.4*	818
	EA-4-B-27-4	11/12/2015		4	ND (5)	ND (5)	ND (25)
	EA-4-N-17-1	11/12/2015	North Sidewall	1	ND (5)	393*	3,690
	EA-4-N-18-3	11/12/2015		3	ND (5)	ND (5)	ND (25)
	EA-4-S-19-1	11/12/2015	South Sidewall	1	ND (5)	85.4*	1,260
	EA-4-S-20-3	11/12/2015		3	ND (5)	ND (5)	ND (25)
	EA-4-E-21-1	11/12/2015	East Sidewall	1	ND (5)	73.9*	983
	EA-4-E-22-3	11/12/2015		3	ND (5)	15.9*	222
	EA-4-W-23-1	11/12/2015	West Sidewall	1	ND (5)	54.1*	789
EA-4-W-23-3	11/12/2015	3		ND (5)	ND (5)	ND (25)	
RSL - Residential (mg/kg)					82	96	2,500
RSL - Industrial (mg/kg)					420	440	33,000
LARWQCB MSSL (mg/kg)					500	1,000	10,000

Notes:

TPH = Total petroleum hydrocarbons

TPH-d = Diesel-range TPH

TPH-g = Gasoline-range TPH

TPH-o = Motor oil-range TPH

C#-C# = TPH carbon range

mg/kg = Milligrams per kilogram

bgs = Below ground surface

US EPA = United States Environmental Protection Agency

8015B = US EPA analytical method number

ND = Not detected at or above the practical quantitation limit, which is shown in parentheses

* = Laboratory reported that the chromatograph of the sample contains peaks in the gasoline or diesel range (as indicated), but the peaks do not match the peaks on the chromatograph of the gasoline or diesel standard

RSL = US EPA November 2015 Regional Screening Level, in mg/kg; note that the RSL values used for TPH-g, TPH-d, and TPH-o are the lower of the Aliphatic or Aromatic values for TPH Low, Medium, and High, respectively

LARWQCB MSSL = Los Angeles Regional Water Quality Control Board, Maximum Soil Screening Level (2004, revised 2006); MSSL used is for depth to groundwater beneath sample ranging from 20 feet to 150 feet bgs

Result in bold font indicates detected concentration is above Residential RSL

Table 2
Summary of Soil Analytical Results for Excavation Areas
EA-1 through EA-4 – TTLC Lead
 Mateo Palmetto
 555 Mateo Street
 Los Angeles, California 90013



Excavation Area	Sample	Date Collected	Location	Depth (feet bgs)	Lead (mg/kg)
					US EPA Method 6010B
EA-1	EA-1-B-01-2	11/12/2015	Excavation Floor	2	4.69
	EA-1-B-01-2D	11/12/2015		2	6.15
	EA-1-B-25-2	11/12/2015		2	6.03
	EA-1-N-02-1	11/12/2015	North Sidewall	1	6.22
	EA-1-S-03-1	11/12/2015	South Sidewall	1	1.15
	EA-1-E-04-1	11/12/2015	East Sidewall	1	7.03
	EA-1-W-05-1	11/12/2015	West Sidewall	1	7.93
EA-2	EA-2-B-06-2	11/13/2015	Excavation Floor	2	11.5
	EA-2-N-07-1	11/13/2015	North Sidewall	1	14.1
	EA-2-S-08-1	11/13/2015	South Sidewall	1	4.64
	EA-2-E-09-1	11/13/2015	East Sidewall	1	16.4
	EA-2-W-10-1	11/13/2015	West Sidewall	1	28.5
	EA-2-W-10-1D	11/13/2015		1	24.2
EA-3	EA-3-B-11-2	11/12/2015	Excavation Floor	2	9.05
	EA-3-B-26-2	11/12/2015		2	5.32
	EA-3-N-12-1	11/12/2015	North Sidewall	1	1.66
	EA-3-S-13-1	11/12/2015	South Sidewall	1	250
	EA-3-E-14-1	11/12/2015	East Sidewall	1	5.62
	EA-3-W-15-1	11/12/2015	West Sidewall	1	17.6
EA-4	EA-4-B-16-4	11/12/2015	Excavation Floor	4	30.8
	EA-4-B-27-4	11/12/2015		4	1.49
	EA-4-N-17-1	11/12/2015	North Sidewall	1	3.02
	EA-4-N-18-3	11/12/2015		3	1.32
	EA-4-S-19-1	11/12/2015	South Sidewall	1	55.1
	EA-4-S-20-3	11/12/2015		3	1.19
	EA-4-E-21-1	11/12/2015	East Sidewall	1	71.1
	EA-4-E-22-3	11/12/2015		3	37.5
	EA-4-W-23-1	11/12/2015	West Sidewall	1	7.60
	EA-4-W-23-3	11/12/2015		3	1.38
TTLC (mg/kg)					1,000
STLC (mg/L)					5
TCLP Value (mg/L)					5
RSL - Residential (mg/kg)					80*
RSL - Industrial (mg/kg)					320*
				10 x STLC	50
				20 x TCLP	100

Notes:

mg/kg = Milligrams per kilogram

bgs = Below ground surface

US EPA = United States Environmental Protection Agency

6010B = US EPA analytical method number

TTLC = California Code of Regulations Title 22 Total Threshold Limit Concentration

STLC = California Code of Regulations Title 22 Soluble Threshold Limit Concentration

mg/L = Milligrams per liter

TCLP = Toxicity Characteristic Leaching Procedure

RSL = US EPA November 2015 Regional Screening Level (in mg/kg); note that RSLs with an asterisk (*) are instead alternate soil screening levels provided in the California Office of Human and Ecological Risk's Human Health Risk Assessment Note No. 3, dated January 2016

Bolded result indicates concentration above residential RSL

Table 3
Summary of Soil Analytical Results for Parking Garage Test Pits – TPH and VOCs
 Mateo Palmetto
 555 Mateo Street
 Los Angeles, California 90013



Test Pit	Sample	Date Collected	Depth (feet bgs)	TPH-g C4-C12 (mg/kg)	TPH-d C13-C22 (mg/kg)	TPH-o C23-C32 (mg/kg)	TPH C33-C36 (mg/kg)	VOCs (mg/kg)
				US EPA Method 8015B				US EPA Method 8260B
S-1	S-1 @ 5'	12/2/2015	5	ND (0.500)	3.02	ND (100)	ND (100)	ND (0.002 to 0.080)
	S-1 @ 10'	12/2/2015	10	ND (0.500)	ND (2.50)	ND (100)	ND (100)	ND (0.002 to 0.080)
S-2	S-2 @ 5'	12/2/2015	5	ND (0.500)	16.0	107	ND (100)	ND (0.002 to 0.080)
	S-2 @ 10'	12/2/2015	10	ND (0.500)	3.27	ND (100)	ND (100)	ND (0.002 to 0.080)
S-3	S-3 @ 5'	12/2/2015	5	ND (0.500)	1,460	4,940	324	ND (0.002 to 0.080)
	S-3 @ 10'	12/2/2015	10	ND (0.500)	3,970	12,700	554	ND (0.002 to 0.080)
S-4	S-4 @ 5'	12/2/2015	5	ND (0.500)	ND (2.50)	ND (100)	ND (100)	ND (0.002 to 0.080)
	S-4 @ 10'	12/2/2015	10	ND (0.500)	ND (2.50)	ND (100)	ND (100)	ND (0.002 to 0.080)
S-5	S-5 @ 5'	12/2/2015	5	ND (0.500)	ND (2.50)	ND (100)	ND (100)	ND (0.002 to 0.080)
	S-5 @ 10'	12/2/2015	10	ND (0.500)	3.78	ND (100)	ND (100)	ND (0.002 to 0.080)
RSL - Residential (mg/kg)				82	96	2,500		Vary or NV
RSL - Industrial (mg/kg)				420	440	33,000		Vary or NV
LARWQCB MSSSL (mg/kg)				500	1,000	10,000		Vary or NV

Notes:

TPH = Total petroleum hydrocarbons

TPH-d = Diesel-range TPH

TPH-g = Gasoline-range TPH

TPH-o = Motor oil-range TPH

C#-C# = TPH carbon range

VOCs = Volatile organic compounds

mg/kg = Milligrams per kilogram

bgs = Below ground surface

US EPA = United States Environmental Protection Agency

8015B / 8260B = US EPA analytical method number

ND = Not detected at or above the practical quantitation limit, which is shown in parentheses

RSL = US EPA November 2015 Regional Screening Level, in mg/kg; note that the RSL values used for TPH-g, TPH-d, and TPH-o are the lower of the

Aliphatic or Aromatic values for TPH Low, Medium, and High, respectively

NV = No published value

LARWQCB MSSSL = Los Angeles Regional Water Quality Control Board, Maximum Soil Screening Level (2004, revised 2006); MSSSL used is for depth to groundwater beneath sample ranging from 20 feet to 150 feet bgs

VOCs were not detected in the samples, so the range of practical quantitation limits for the various VOCs is indicated

Result in bold font indicates detected concentration is above Residential RSL**S-3 @ 5'** Highlighted cell indicates subject sample was removed by subsequent overexcavation

Table 4
Summary of Soil Analytical Results for Parking Garage Test Pits – TTLC Metals
Mateo Palmetto
555 Mateo Street
Los Angeles, California 90013



Test Pit	Sample	Date Collected	Depth (feet bgs)	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)	Molybdenum (mg/kg)	Nickel (mg/kg)	Selenium (mg/kg)	Silver (mg/kg)	Thallium (mg/kg)	Vanadium (mg/kg)	Zinc (mg/kg)	Mercury (mg/kg)
				US EPA Method 6010B																US EPA 7471A
S-1	S-1 @ 5'	12/2/2015	5	ND (2.50)	1.59	62.3	ND (1.00)	ND (1.00)	8.30	5.48	8.42	5.87	ND (1.00)	8.71	ND (1.00)	ND (1.00)	ND (1.00)	22.7	37.2	0.215
	S-1 @ 10'	12/2/2015	10	ND (2.50)	1.44	57.2	ND (1.00)	ND (1.00)	6.81	4.68	7.32	4.83	ND (1.00)	5.51	ND (1.00)	ND (1.00)	ND (1.00)	19.1	33.6	0.122
S-2	S-2 @ 5'	12/2/2015	5	ND (2.50)	2.89	128	ND (1.00)	ND (1.00)	11.2	5.94	26.30	67.8	ND (1.00)	12.7	ND (1.00)	ND (1.00)	ND (1.00)	25.9	181	ND (0.100)
	S-2 @ 10'	12/2/2015	10	ND (2.50)	1.19	44.0	ND (1.00)	ND (1.00)	5.18	3.99	6.30	4.32	ND (1.00)	3.91	ND (1.00)	ND (1.00)	ND (1.00)	16.4	25.5	ND (0.100)
S-3	S-3 @ 5'	12/2/2015	5	ND (2.50)	1.29	46.9	ND (1.00)	ND (1.00)	7.52	4.71	6.60	1.55	ND (1.00)	4.75	ND (1.00)	ND (1.00)	ND (1.00)	21.5	23.0	ND (0.100)
	S-3 @ 10'	12/2/2015	10	ND (2.50)	1.22	62.0	ND (1.00)	ND (1.00)	8.82	5.75	7.89	2.13	ND (1.00)	5.99	ND (1.00)	ND (1.00)	ND (1.00)	22.1	28.0	ND (0.100)
S-4	S-4 @ 5'	12/2/2015	5	ND (2.50)	2.26	90.3	ND (1.00)	ND (1.00)	13.6	8.34	11.5	2.67	ND (1.00)	8.56	ND (1.00)	ND (1.00)	ND (1.00)	34.3	38.4	ND (0.100)
	S-4 @ 10'	12/2/2015	10	ND (2.50)	1.58	69.0	ND (1.00)	ND (1.00)	9.19	6.47	8.66	2.77	ND (1.00)	5.99	ND (1.00)	ND (1.00)	ND (1.00)	25.7	30.4	ND (0.100)
S-5	S-5 @ 5'	12/2/2015	5	ND (2.50)	1.82	61.1	ND (1.00)	ND (1.00)	9.57	5.48	8.17	7.02	ND (1.00)	6.32	ND (1.00)	ND (1.00)	ND (1.00)	27.1	37.0	ND (0.100)
	S-5 @ 10'	12/2/2015	10	ND (2.50)	2.35	112	ND (1.00)	ND (1.00)	13.6	8.65	13.7	10.5	ND (1.00)	10.2	ND (1.00)	ND (1.00)	ND (1.00)	31.8	55.3	ND (0.100)
TTLC (mg/kg)				500	500	10,000	75	100	2,500	8,000	2,500	1,000	3,500	2,000	100	500	700	2,400	5,000	20
STLC (mg/L)				15	5	100	0.75	1	5	80	25	5	350	20	1	5	7	24	250	0.2
TCLP Value (mg/L)				NV	5	100	NV	1	5	NV	NV	5	NV	NV	1	5	NV	NV	NV	0.2
RSL - Residential (mg/kg)				31	0.067*	15,000	15*	5.2*	36,000*	23	3,100	80*	390	490*	390	390	0.78	390	23,000	1.0*
RSL - Industrial (mg/kg)				470	0.25*	220,000	210*	7.3*	170,000*	350	47,000	320*	5,800	3,100*	1,500	1,500*	12	1,000*	350,000	4.5*
			10 x STLC	150	50	1,000	7.5	10	50	800	250	50	3,500	200	10	50	70	240	2,500	2
			20 x TCLP	NV	100	2,000	NV	20	100	NV	NV	100	NV	NV	20	100	NV	NV	NV	4

Notes:
mg/kg = Milligrams per kilogram
bgs = Below ground surface
US EPA = United States Environmental Protection Agency
6010B / 7471A = US EPA analytical method number
ND = Not detected at or above the practical quantitation limit, which is shown in parentheses
TTLC = California Code of Regulations Title 22 Total Threshold Limit Concentration
STLC = California Code of Regulations Title 22 Soluble Threshold Limit Concentration
mg/L = Milligrams per liter
TCLP = Toxicity Characteristic Leaching Procedure
NV = No published value
RSL = US EPA November 2015 Regional Screening Level (in mg/kg); note that RSLs with an asterisk (*) are instead alternate soil screening levels that are provided in the California Office of Human and Ecological Risk's Human Health Risk Assessment Note No. 3, dated January 2016
Result in bold font indicates detected concentration is above Residential RSL
S-3 @ 5' Highlighted cell indicates subject sample was removed by subsequent overexcavation

Table 5
Summary of Soil Analytical Results for Excavation Area EA-5 – TPH and VOCs
 Mateo Palmetto
 555 Mateo Street
 Los Angeles, California 90013



Excavation Area	Sample	Map Location Identifier	Date Collected	Transect	Depth (feet bgs)	TPH-g C4-C10 (mg/kg)	TPH-d C11-C22 (mg/kg)	TPH-o C23-C35 (mg/kg)	VOCs (mg/kg)
						US EPA Method 8015B			US EPA Method 8260B
EA-5	EA-5-N1-27-5	27	12/9/2015	North #1	5	ND (100)	274*	1,310	NA
	EA-5-N1-28-10	28	12/9/2015		10	240	386*	3,100	NA
	EA-5-N1-29-16	29	12/9/2015	North #2	16	ND (200)	800*	5,060	NA
	EA-5-N2-30-5	30	12/9/2015		5	ND (10)	18.0*	196	NA
	EA-5-N2-31-10	31	12/9/2015		10	3,120*	6,300*	33,900	NA
	EA-5-N2-32-16	32	12/9/2015	South #1	16	ND (1,000)	2,820*	21,800	NA
	EA-5-S1-33-5	33	12/9/2015		5	ND (100)	396*	3,120	NA
	EA-5-S1-34-10	34	12/9/2015		10	ND (100)	404*	3,570	NA
	EA-5-S1-35-16	35	12/9/2015	South #2	16	ND (100)	183*	1,980	NA
	EA-5-S2-36-5	36	12/9/2015		5	ND (100)	109*	1,300	NA
	EA-5-S2-37-10	37	12/9/2015		10	ND (10)	13.6*	102	NA
	EA-5-S2-38-16	38	12/9/2015	East	16	ND (1,000)	3,930*	26,100	NA
	EA-5-E-39-5	39	12/9/2015		5	ND (100)	223*	1,400	NA
	EA-5-E-40-10	40	12/9/2015		10	ND (10)	ND (10)	73.5	NA
	EA-5-E-41-16	41	12/9/2015	West	16	ND (100)	ND (100)	ND (500)	NA
	EA-5-W-42-5	42	12/9/2015		5	ND (100)	563*	4,270	NA
	EA-5-W-43-10	43	12/9/2015		10	ND (200)	866*	7,380	NA
	EA-5-W-43-10D	43	12/9/2015	Bottom	10	ND (200)	686*	6,210	NA
	EA-5-W-44-16	44	12/9/2015		16	ND (100)	ND (100)	1,110	NA
	EA-5-B-45-19	45	12/9/2015		19	ND (1,000)	4,410*	23,700	ND (0.005 to 0.020)
	EA-5-B-46-17	46	12/9/2015	South #3	17	ND (100)	457*	4,290	ND (0.005 to 0.020)
	EA-5-S3-47-5	47	12/15/2015		5	ND (100)	115*	2,190	NA
	EA-5-S3-48-10	48	12/15/2015		10	ND (10)	ND (10)	ND (50)	NA
	EA-5-S3-49-16	49	12/15/2015	Bottom	16	ND (10)	ND (10)	ND (50)	NA
	EA-5-S4-50-16	50	12/15/2015		16	ND (100)	255*	2,780	NA
	EA-5-N3-51-5	51	12/15/2015		16	ND (100)	255*	2,780	NA
	EA-5-N3-52-10	52	12/15/2015	North #3	5	ND (10)	ND (10)	ND (50)	NA
	EA-5-N3-52-10D	52	12/15/2015		10	ND (10)	ND (10)	ND (50)	NA
	EA-5-N3-53-16	53	12/15/2015		10	ND (10)	ND (10)	ND (50)	NA
	EA-5-N4-54-10	54	12/15/2015	Bottom	16	ND (10)	11.8*	91.8	NA
	EA-5-N4-55-16	55	12/15/2015		10	ND (10)	ND (10)	ND (50)	NA
	EA-5-B-56-20	56	12/15/2015		16	ND (10)	ND (10)	ND (50)	NA
	EA-5-B-57-27	57	12/18/2015	Bottom Pothole #1	20	ND (10)	ND (10)	ND (50)	NA
	EA-5-B-58-34	58	12/18/2015		27	ND (10)	37.7*	221	NA
	EA-5-B-59-27	59	12/18/2015	Bottom Pothole #2	34	ND (10)	ND (10)	ND (50)	NA
	EA-5-B-60-33	60	12/18/2015		27	ND (10)	ND (10)	ND (50)	NA
	EA-5-B-61-27	61	12/18/2015	Bottom Pothole #3	33	ND (10)	10.4*	76.9	NA
	EA-5-B-62-37	62	12/18/2015		27	ND (10)	50.5*	472	NA
					37	ND (10)	56.9*	293	NA
RSL - Residential (mg/kg)						82	96	2,500	Vary or NV
RSL - Industrial (mg/kg)						420	440	33,000	Vary or NV
LARWQCB MSSL (mg/kg)						500	1,000	10,000	Vary or NV

Notes:

TPH = Total petroleum hydrocarbons

TPH-d = Diesel-range TPH

TPH-g = Gasoline-range TPH

TPH-o = Motor oil-range TPH

C#-C# = TPH carbon range

VOCs = Volatile organic compounds

mg/kg = Milligrams per kilogram

bgs = Below ground surface

US EPA = United States Environmental Protection Agency

8015B / 8260B = US EPA analytical method number

ND = Not detected at or above the practical quantitation limit, which is shown in parentheses

NA = Sample not analyzed for this analyte

NV = No published value

* = Laboratory reported that the chromatograph of the sample contains peaks in the gasoline or diesel range (as indicated), but the peaks do not match the peaks on the chromatograph of the gasoline or diesel standard

RSL = US EPA November 2015 Regional Screening Level, in mg/kg; note that the RSL values used for TPH-g, TPH-d, and TPH-o are the lower of the Aliphatic or Aromatic values for TPH Low, Medium, and High, respectively

LARWQCB MSSL = Los Angeles Regional Water Quality Control Board, Maximum Soil Screening Level (2004, revised 2006); MSSL used is for depth to groundwater beneath sample ranging from 20 feet to 150 feet bgs

VOCs were not detected in either analyzed sample, so the range of practical quantitation limits for the various VOCs is indicated

Result in bold font indicates detected concentration is above Residential RSL**EA-5-N1-28-10** Highlighted cell indicates subject sample was removed by subsequent overexcavation

Table 6
Summary of Soil Analytical Results for Excavation Area EA-5 – PAHs
Mateo Palmetto
555 Mateo Street
Los Angeles, California 90013



	Map Location Identifier	Date Collected	Transect	Depth (feet bgs)	Acenaph- thene (mg/kg)	Acenaph- thylene (mg/kg)	Anthracene (mg/kg)	Benzo(a) anthracene (mg/kg)	Benzo(b) fluoranthene (mg/kg)	Benzo(k) fluoranthene (mg/kg)	Benzo(g,h,i) perylene (mg/kg)	Benzo(a) pyrene (mg/kg)	Chrysene (mg/kg)	Dibenz(a,h) anthracene (mg/kg)	Fluor- anthene (mg/kg)	Fluorene (mg/kg)	Indeno (1,2,3-c,d) pyrene (mg/kg)	Naph- thalene (mg/kg)	Phenan- threne (mg/kg)	Pyrene (mg/kg)
Sample					US EPA Method 8310															
EA-5-W-42-5	42	12/9/2015	West	5	0.500	0.110	0.018	0.044	0.180	0.110	0.280	0.150	0.012	0.110	0.058	ND (0.010)	0.029	0.300	0.046	0.027
EA-5-W-43-10	43	12/9/2015		10	ND (0.015)	ND (0.030)	0.024	0.067	0.200	0.250	ND (0.010)	0.230	0.190	0.180	0.048	ND (0.010)	0.023	ND (0.015)	0.140	0.016
RSL - Residential (mg/kg)					3,600	NV	18,000	0.16	0.16	1.6	NV	0.016	16	0.016	2,400	2,400	0.16	3.8	NV	1,800
RSL - Industrial (mg/kg)					45,000	NV	230,000	2.9	2.9	29	NV	0.29	290	0.29	30,000	30,000	2.9	17	NV	23,000

Notes:

PAHs = Polynuclear aromatic hydrocarbons

mg/kg = Milligrams per kilogram

bgs = Below ground surface

US EPA = United States Environmental Protection Agency

8310 = US EPA analytical method number

ND = Not detected at or above the reporting limit, which is shown in parentheses

RSL = US EPA November 2015 Regional Screening Level, in mg/kg (note that the PAHs do not have alternate soil screening levels provided in the California Office of Human and Ecological Risk’s Human Health Risk Assesment Note No. 3 dated January 2016)

NV = No published value

Result in bold font indicates detected concentration is above Residential RSL

*

APPENDIX A

Site Photographs

APPENDIX A SITE PHOTOGRAPHS



Photograph 1 – View looking north on November 12, 2015 at the northern dust monitor (on fence).



Photograph 2 – View looking west on November 12, 2015 at the western dust monitor (on brick wall).



Photograph 3 – View looking south on November 12, 2015 at the southern dust monitor (on concrete wall).



Photograph 4 – View looking northeast on November 12, 2015 at the eastern dust monitor (on fence) and weather station (toward the left).



Photograph 5 – View looking north on November 12, 2015 at Excavation Area EA-2 prior to its excavation.



Photograph 6 – View looking south on November 12, 2015 at Excavation Area EA-3 prior to its excavation.



Photograph 7 – View on November 12, 2015 looking west at Excavation Area EA-4 prior to its excavation.



Photograph 8 – View on November 12, 2015 looking north at Excavation Area EA-1 prior to its excavation.



Photograph 9 – View on November 12, 2015 looking southeast at excavation and loading activities at Excavation Area EA-4.



Photograph 10 – View on November 12, 2015 looking northeast at Excavation Area EA-4 excavation.



Photograph 11 – View on November 12, 2015 looking north at excavation activities at Excavation Area EA-3.



Photograph 12 – View on November 12, 2015 looking northwest at Excavation Area EA-3 after its excavation.



Photograph 13 – View looking northwest on November 12, 2015 of the collection of post-excitation Sample EA-4-W-23-1.



Photograph 14 – View looking northeast on November 12, 2015 at excavation activities at Excavation Area EA-1.



Photograph 15 – View looking northeast on November 12, 2015 at Excavation Area EA-1 excavation.



Photograph 16 – View looking northeast on November 12, 2015 of excavation activities at Excavation Area EA-2.



Photograph 17 – View looking southeast on November 13, 2015 at Excavation Area EA-2 after its excavation.



Photograph 18 – View looking toward southeast on December 9, 2015 at Excavation Area EA-5 and stockpiled soil from it after its partial excavation.



Photograph 19 – View on December 7, 2015 of old oil piping encountered near the Site surface.



Photograph 20 – View on December 7, 2015 of removed old oil piping and small amount of stockpiled soil before their placement onto plastic sheeting.



Photograph 21 – View on December 9, 2015 of removed oil piping being placed on plastic sheeting.



Photograph 22 – View on December 9, 2015 of the southwest corner of extended Excavation Area EA-5.



Photograph 23 – View looking east on December 9, 2015 at Excavation Area EA-5.



Photograph 24 – View looking northwest on December 9, 2015 from the southeast corner of Excavation Area EA-5.



Photograph 25 – Overview looking west on December 15, 2015 of Excavation Area EA-5.



Photograph 26 – View looking north on December 15, 2015 at the bottom of Excavation Area EA-5.



Photograph 27 – View looking northeast on December 18, 2015 of the excavator at the bottom of Excavation Area EA-5.



Photograph 28 – View on December 18, 2015 looking at bottom of pothole excavated in floor of Excavation Area EA-5 to approximately 34 feet below ground surface.



Photograph 29 – View looking south on December 18, 2015 at floor of Excavation Area EA-5.



Photograph 30 – View looking west on December 18, 2015 at floor of Excavation Area EA-5 and pothole excavated for collection of post-excitation Sample EA-5-B-61-27.

APPENDIX B

Laboratory Reports

Enviro - Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: November 16, 2015

Mr. George Johnson
Kleinfelder
3880 Lemon Street, Suite 300
Riverside, CA 92501
Tel (951) 801-3681 E-Mail: GJohnson@Kleinfelder.com

Project: **AT Mateo - Raw**
Project No.: **20154388**
Lab I.D.: **151113-1 through -29**

Dear Mr. Johnson:

The **analytical results** for the soil samples, received by our lab on November 13, 2015, are attached. The samples were received chilled, intact and accompanying chain of custody.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,


Curtis Desilets
Vice President/Program Manager

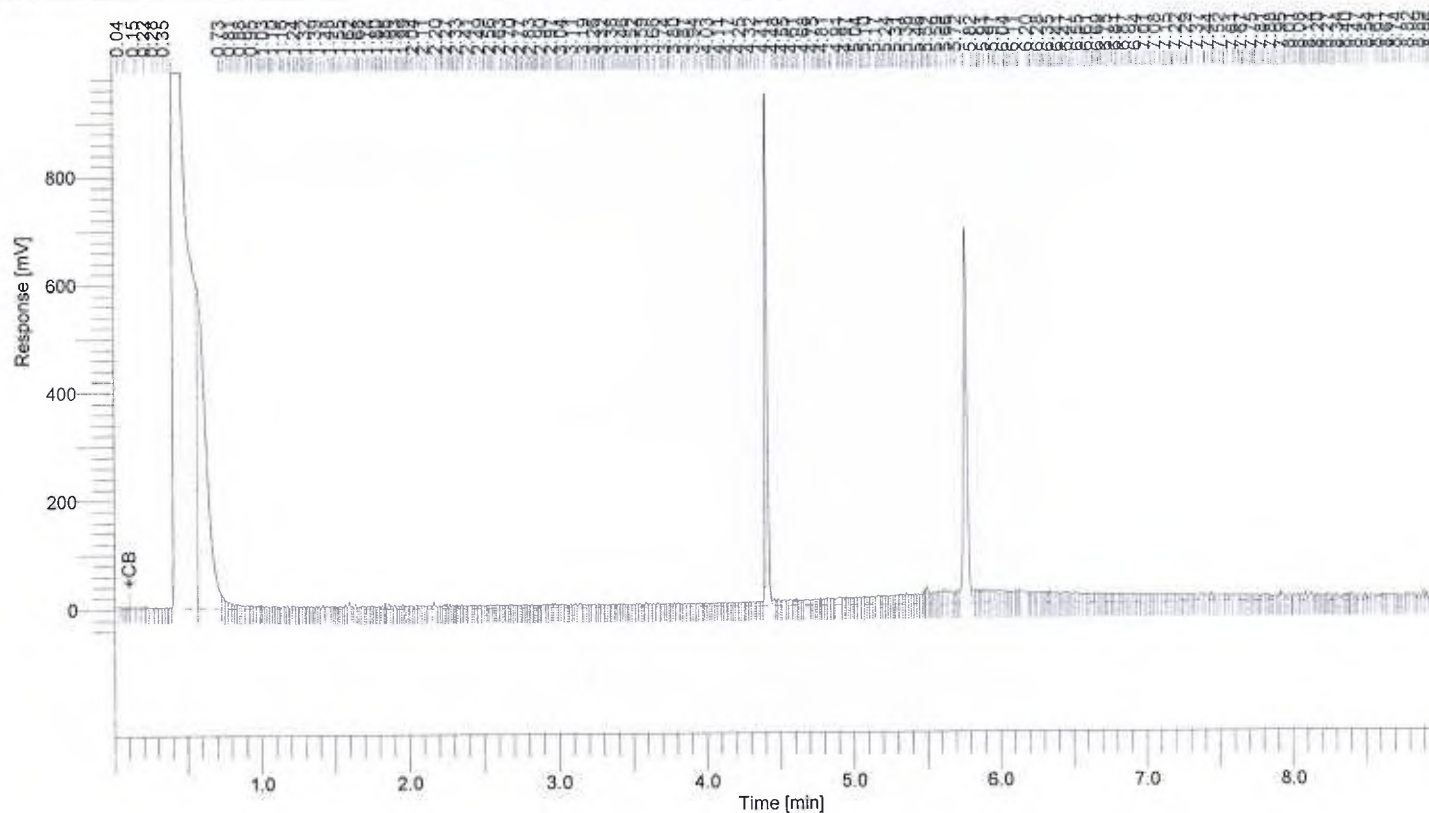

Andy Wang
Laboratory Manager

Software Version : 6.3.2.0646
Sample Name : 151113-2 20/2 KF R24
Instrument Name : GC-I
Rack/Vial : 0/10
Sample Amount : 1.000000
Cycle : 1

Date : 11/17/2015 11:52:57 AM
Data Acquisition Time : 11/13/2015 2:03:14 PM
Channel : A
Operator : GC
Dilution Factor : 1.000000

Result File :
Sequence File : D:\GC DATA\GC-M02015\151113\151113\151113.seq

EA-1-B-01-2D



8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C4-C10	481772	322.9
C11-C22	1810129	206.2
C23-C35	4068994	875.8
	6360895	1404.9

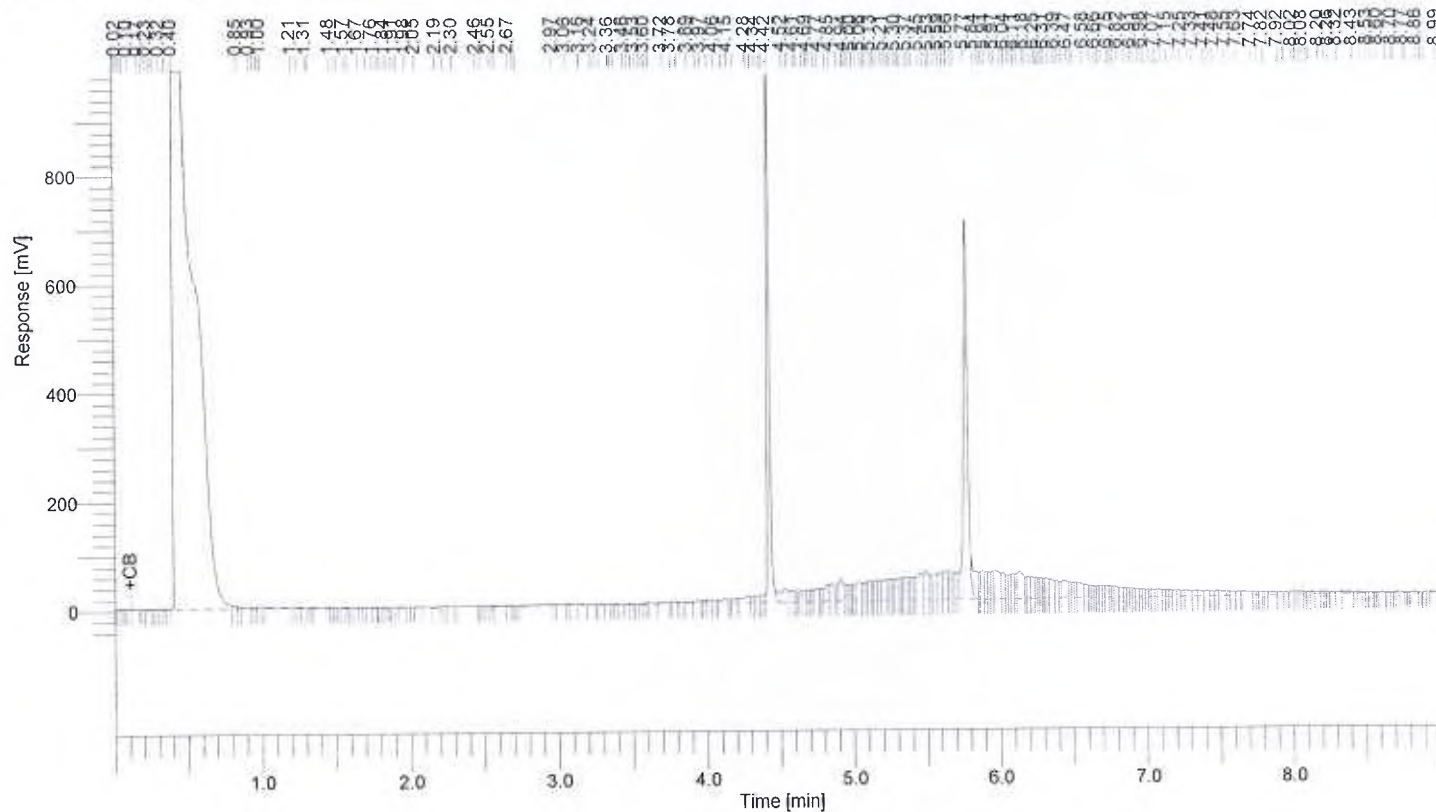
Software Version : 6.3.2.0646
 Sample Name : 151113-6 20/2 KF R24
 Instrument Name : GC-I
 Rack/Vial : 0/14
 Sample Amount : 1.000000
 Cycle : 1

Date : 11/16/2015 10:42:43 AM
 Data Acquisition Time : 11/13/2015 3:00:10 PM
 Channel : A
 Operator : GC
 Dilution Factor : 1.000000

(EA-1-E-04-1)

Result File :

Sequence File : D:\GC DATA\GC-1\02015\15111\151113\151113.seq



8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C4-C10	37458	246.2
C11-C22	2087298	230.4
C23-C35	5471810	1105.0
	7596566	1581.6

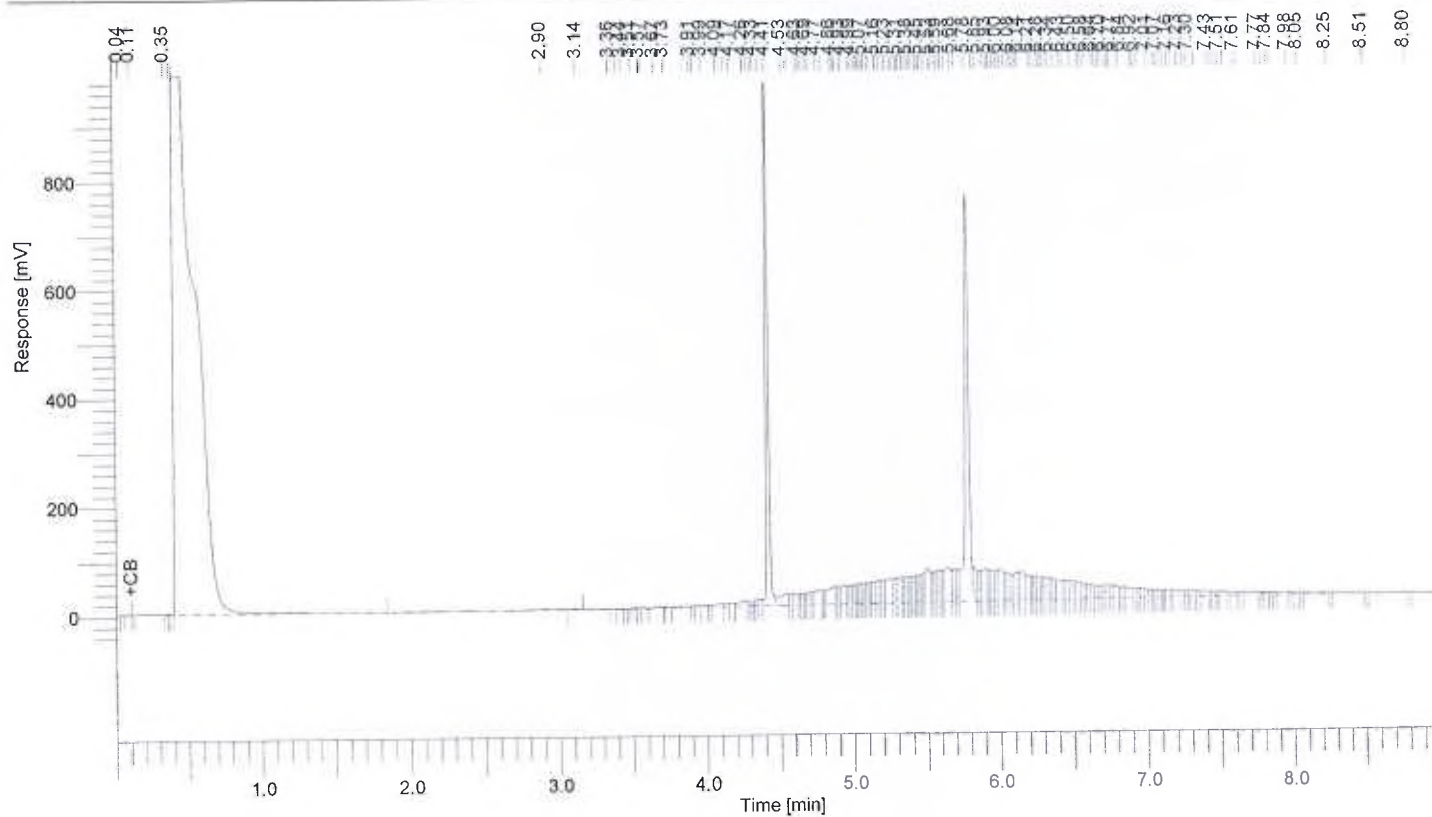
Software Version : 6.3.2.0646
 Sample Name : 151113-7 20/2 KF R24
 Instrument Name : GC-I
 Rack/Vial : 0/15
 Sample Amount : 1.000000
 Cycle : 1

Date : 11/16/2015 10:42:50 AM
 Data Acquisition Time : 11/13/2015 3:12:07 PM
 Channel : A
 Operator : GC
 Dilution Factor : 1.000000

(EA-1-W-05.1)

Result File :

Sequence File : D:\GC DATA\GC-NO2015\151113\151113V151113.seq



8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C4-C10	9115	241.3
C11-C22	2016759	224.2
C23-C35	5819470	1161.8
	7845344	1627.3

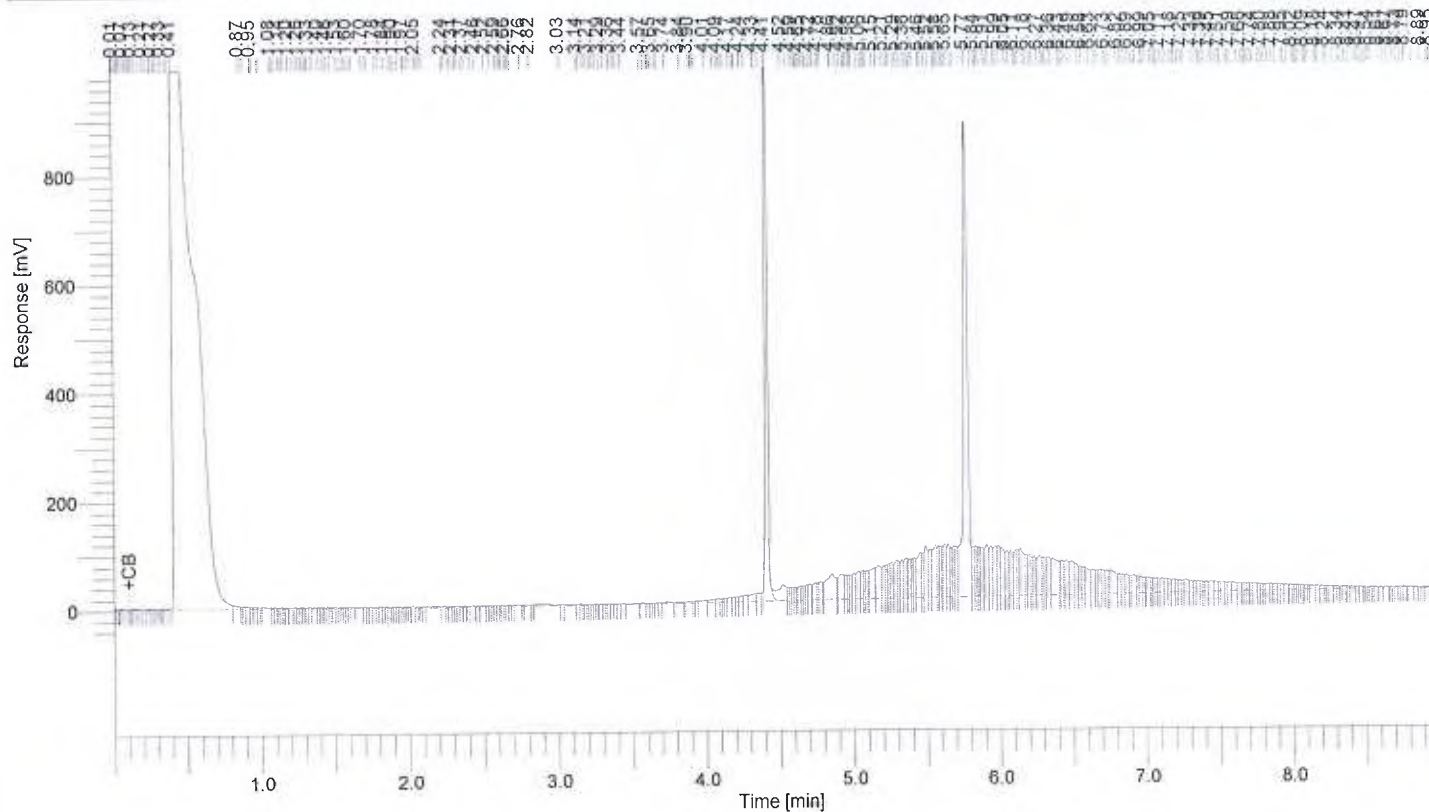
Software Version : 6.3.2.0646
 Sample Name : 151113-8 20/2 KF R24
 Instrument Name : GC-1
 Rack/Vial : 0/16
 Sample Amount : 1.000000
 Cycle : 1

Date : 11/16/2015 10:42:53 AM
 Data Acquisition Time : 11/13/2015 3:24:03 PM
 Channel : A
 Operator : GC
 Dilution Factor : 1.000000

(EA-2-B-05-2)

Result File :

Sequence File : D:\GC DATA\GC-1\02015\15111\151113\151113.seq



8015 Results

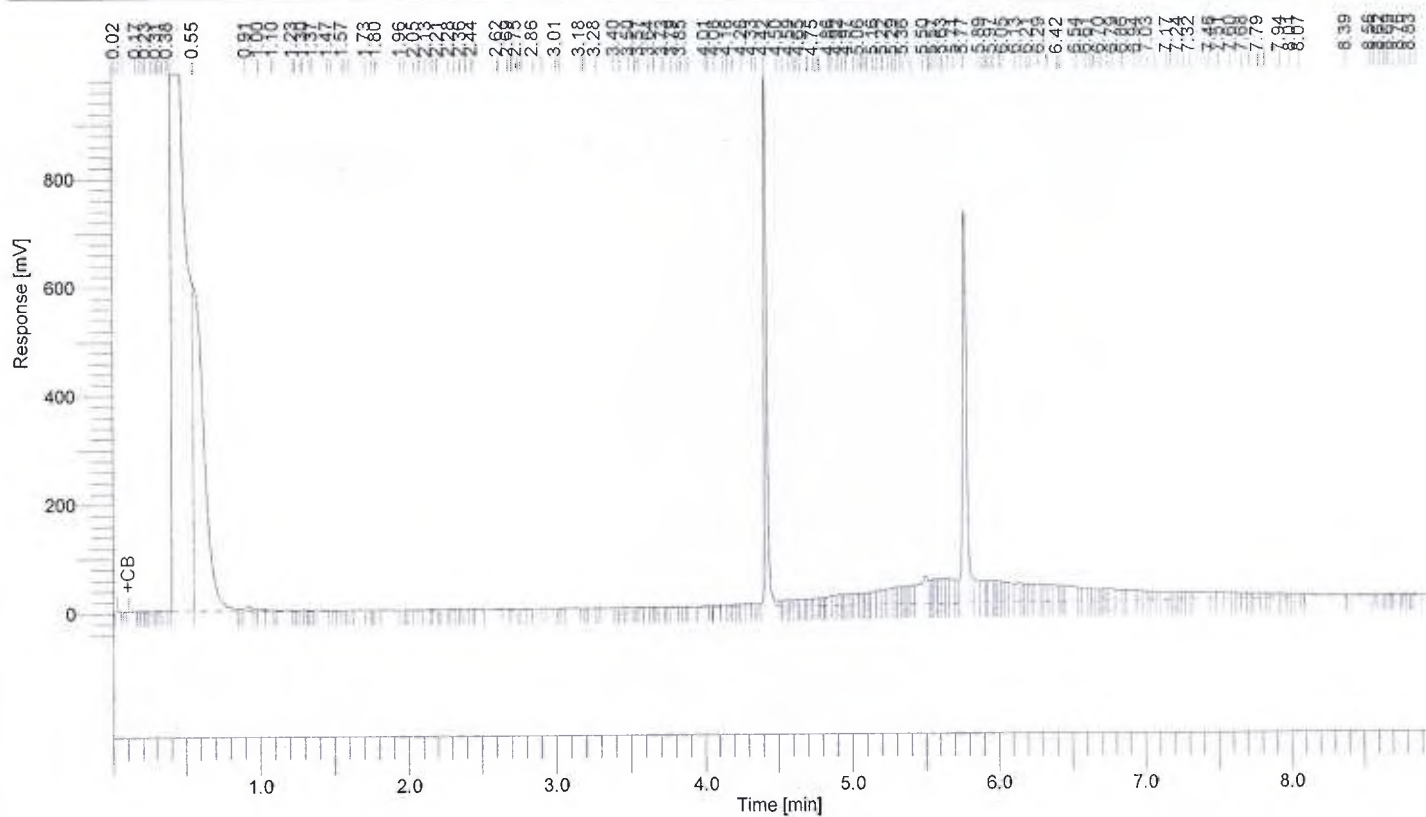
Component Name	Area [uV*sec]	Adjusted Amount
C4-C10	127847	261.8
C11-C22	2591494	274.4
C23-C35	9866597	1823.2
	12585938	2359.4

Software Version : 6.3.2.0646
Sample Name : 151113-9 20/20*** KF R24
Instrument Name : GC-1
Rack/Vial : 0/17
Sample Amount : 1.000000
Cycle : 1

Date	11/17/2015 11:53:12 AM
Data Acquisition Time	11/13/2015 3:36:01 PM
Channel	A
Operator	GC
Dilution Factor	1.000000

Result File :
Sequence File : D:\IGC DATA\IGC-IN02015\1511\151113\151113.seq

(EA-2-N-07-1



8015 Results

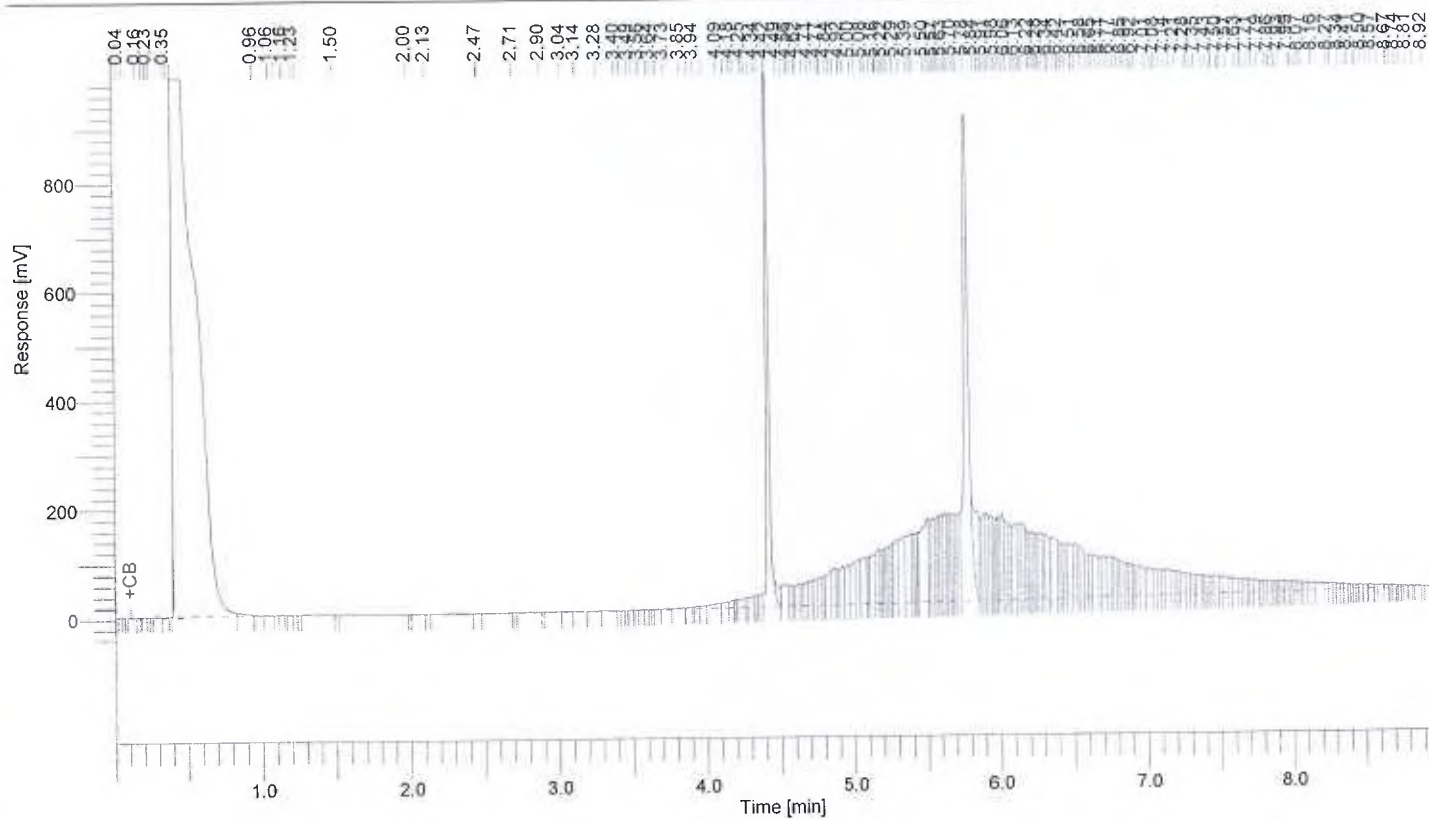
Component Name	Area [uV*sec]	Adjusted Amount
C4-C10	30352	244.9
C11-C22	1645478	191.8
C23-C35	4104225	881.5
	5780055	1318.3

Software Version : 6.3.2.0646
 Sample Name : 151113-11 20/2 KF R24
 Instrument Name : GC-I
 Rack/Vial : 0/19
 Sample Amount : 1.000000
 Cycle : 1

Date : 11/16/2015 10:43:11 AM
 Data Acquisition Time : 11/13/2015 4:11:58 PM
 Channel : A
 Operator : GC
 Dilution Factor : 1.000000

(EA-2-E-07.1)

Result File :
 Sequence File : D:\GC DATA\GC-IV02015\151113\151113V151113.seq



8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C4-C10	4551	240.5
C11-C22	3357304	341.2
C23-C35	15839658	2799.3
	19201513	3381.0

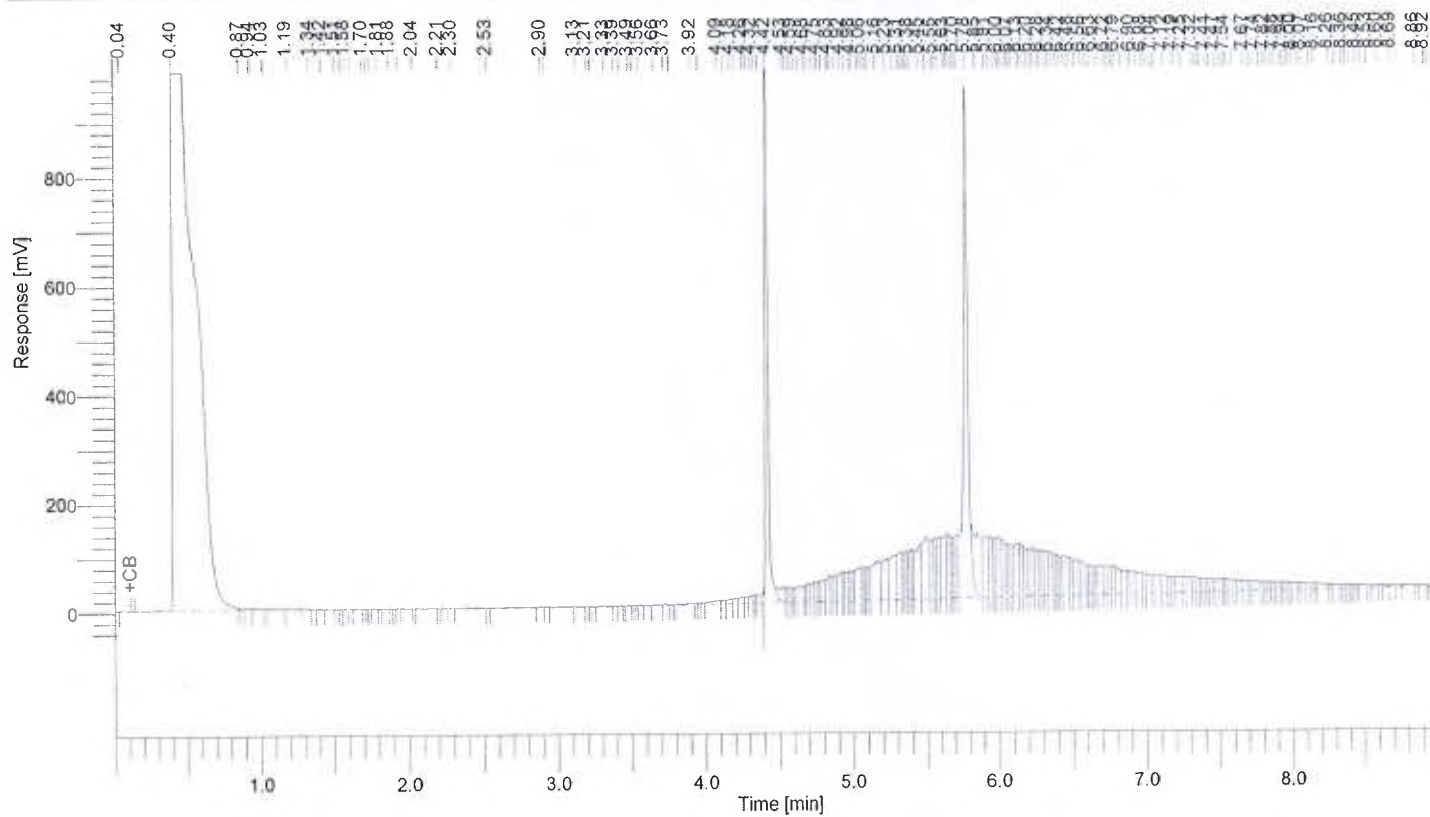
Software Version : 6.3.2.0646
 Sample Name : 151113-12 20/2 KF R24
 Instrument Name : GC-I
 Rack/Vial : 0/20
 Sample Amount : 1.000000
 Cycle : 1

Date : 11/16/2015 10:43:14 AM
 Data Acquisition Time : 11/13/2015 4:24:00 PM
 Channel : A
 Operator : GC
 Dilution Factor : 1.000000

(EA-2-W-10-1)

Result File :

Sequence File : D:\GC DATA\GC-1102015\151113\151113\151113.seq



8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C4-C10	15457	242.4
C11-C22	2658348	280.2
C23-C35	12118557	2191.2

14792362 2713.8

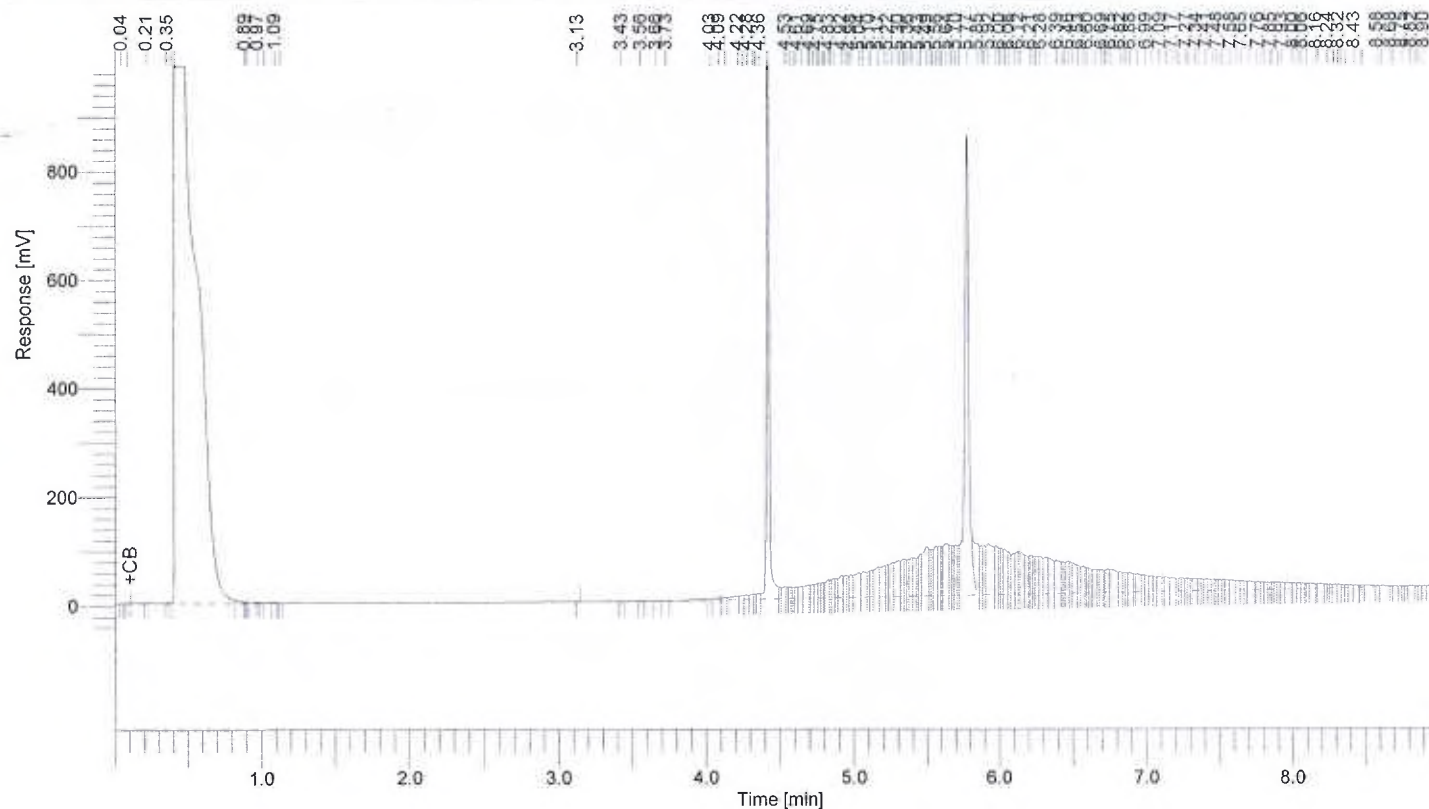
Software Version : 6.3.2.0646
 Sample Name : 151113-13 20/2 KF R24
 Instrument Name : GC-I
 Rack/Vial : 0/21
 Sample Amount : 1.000000
 Cycle : 1

Date : 11/17/2015 11:53:24 AM
 Data Acquisition Time : 11/13/2015 4:36:00 PM
 Channel : A
 Operator : GC
 Dilution Factor : 1.000000

(EA-2-W-10-1-D)

Result File :

Sequence File : D:\GC DATA\GC-IN02015\151113\151113\151113.seq



8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C11-C22	2160057	236.7
C23-C35	9328544	1735.3
	11488600	1972.0

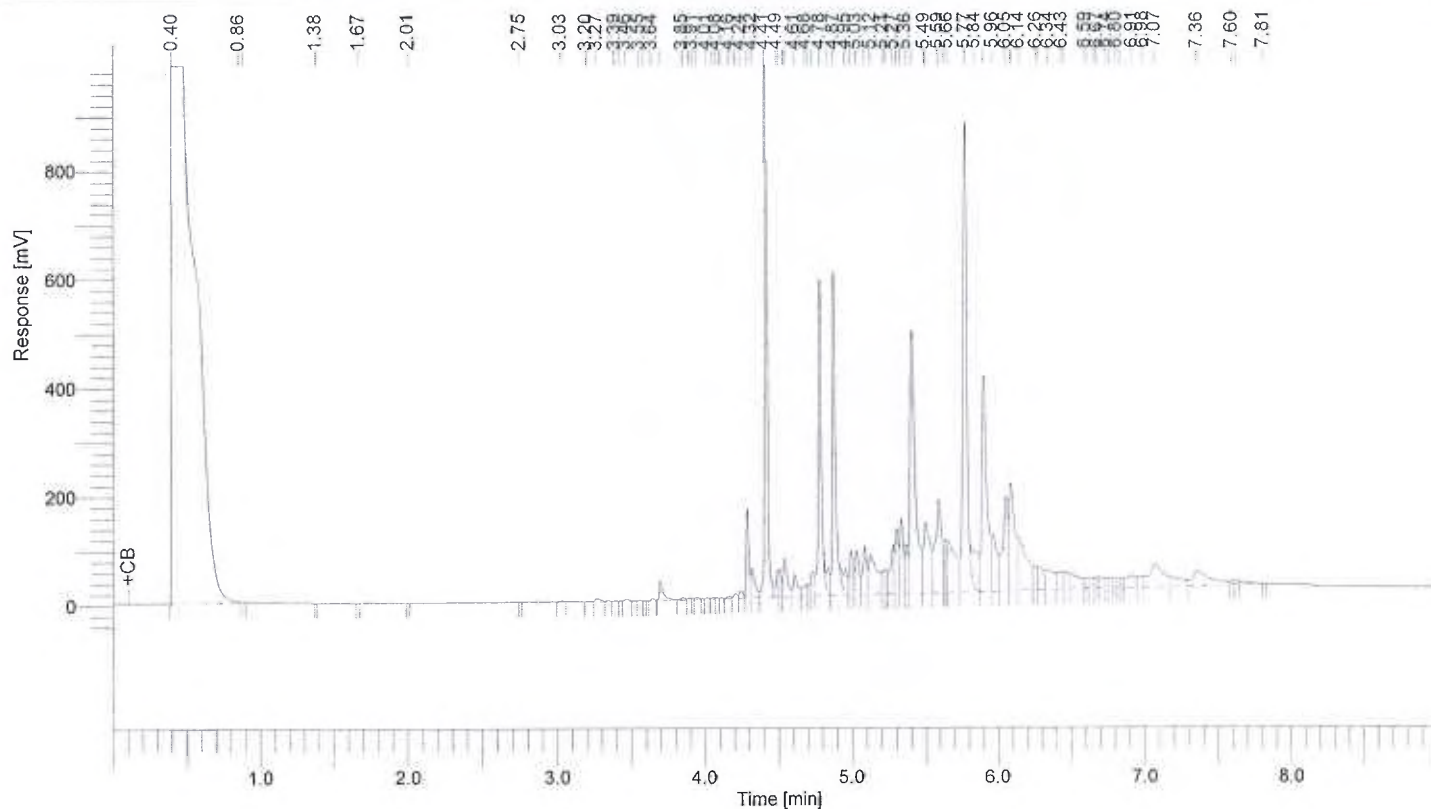
Software Version : 6.3.2.0646
 Sample Name : 151113-14 20/2 KF R24
 Instrument Name : GC-I
 Rack/Vial : 0/22
 Sample Amount : 1.000000
 Cycle : 1

Date : 11/16/2015 10:43:22 AM
 Data Acquisition Time : 11/13/2015 4:47:58 PM
 Channel : A
 Operator : GC
 Dilution Factor : 1.000000

(EA-3-B-11-2)

Result File :

Sequence File : D:\GC DATA\GC-IN02015\151113\151113\151113.seq



8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C4-C10	660	239.8
C11-C22	4554613	445.7
C23-C35	10020530	1848.4
	14575803	2533.9

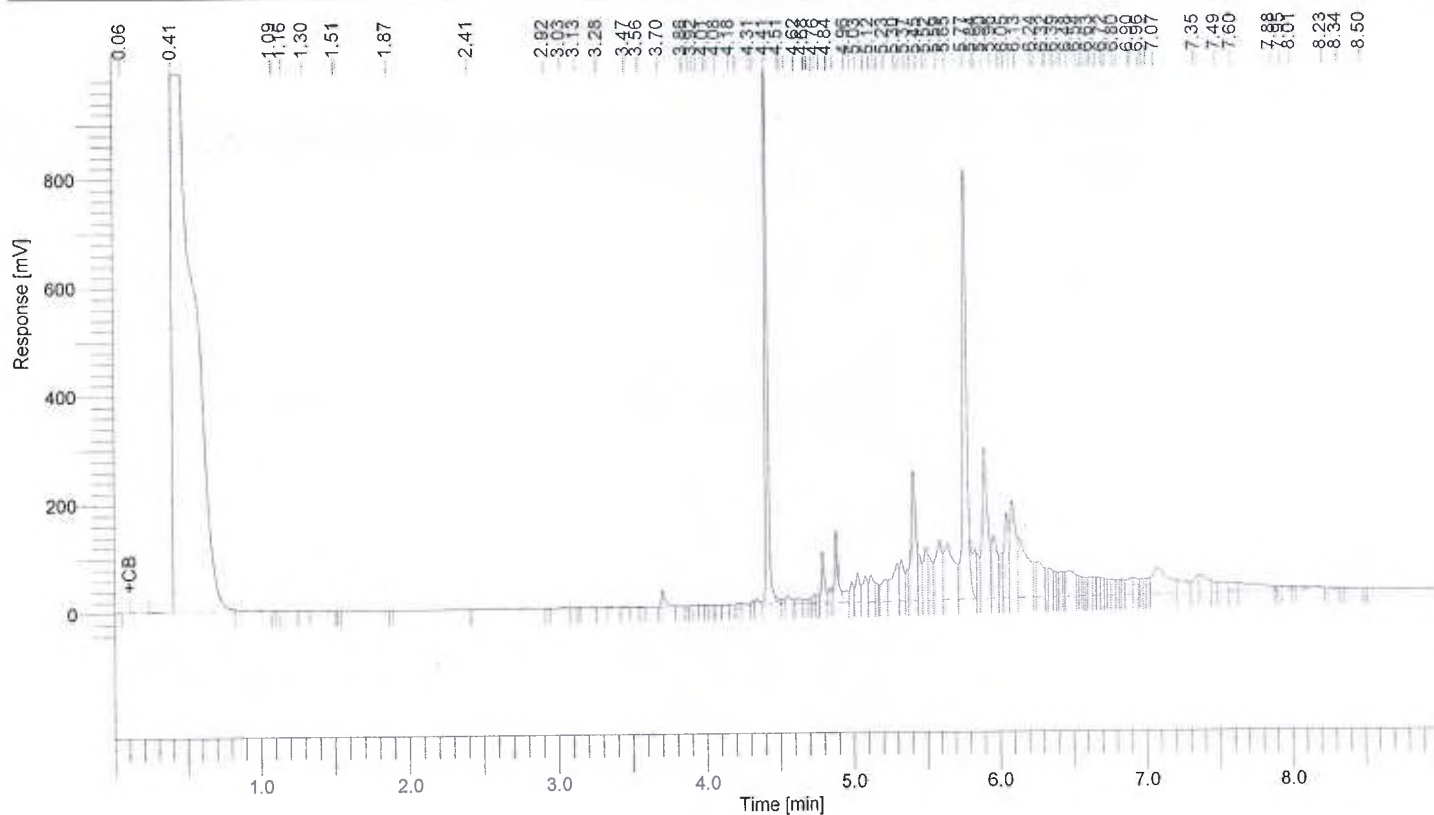
Software Version : 6.3.2.0646
 Sample Name : 151113-18 20/20*** KF R24
 Instrument Name : GC-I
 Rack/Vial : 0/26
 Sample Amount : 1.000000
 Cycle : 1

Date : 11/17/2015 11:53:44 AM
 Data Acquisition Time : 11/13/2015 5:36:20 PM
 Channel : A
 Operator : GC
 Dilution Factor : 1.000000

(EA-3-E-14-1)

Result File :

Sequence File : D:\GC DATA\GC-1102015\151113\151113\151113.seq



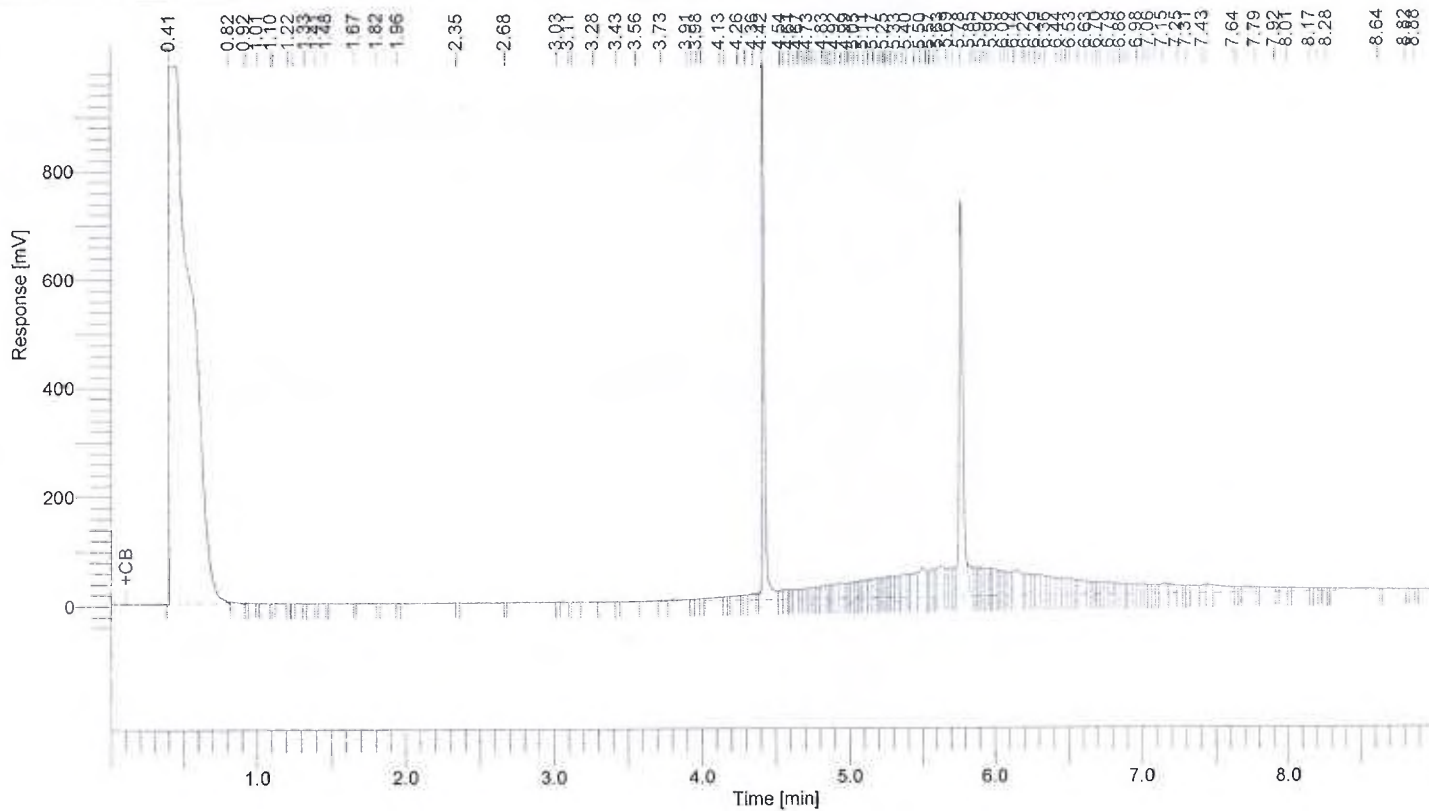
Software Version : 6.3.2.0646
 Sample Name : 151113-20 20/20*** KF R24
 Instrument Name : GC-1
 Rack/Vial : 0/28
 Sample Amount : 1.000000
 Cycle : 1

Date : 11/17/2015 11:53:51 AM
 Data Acquisition Time : 11/13/2015 6:00:36 PM
 Channel : A
 Operator : GC
 Dilution Factor : 1.000000

(EA-4-B-15-4)

Result File :

Sequence File : D:\GC DATA\GC-1\02015\151113\151113\151113.seq



8015 Results

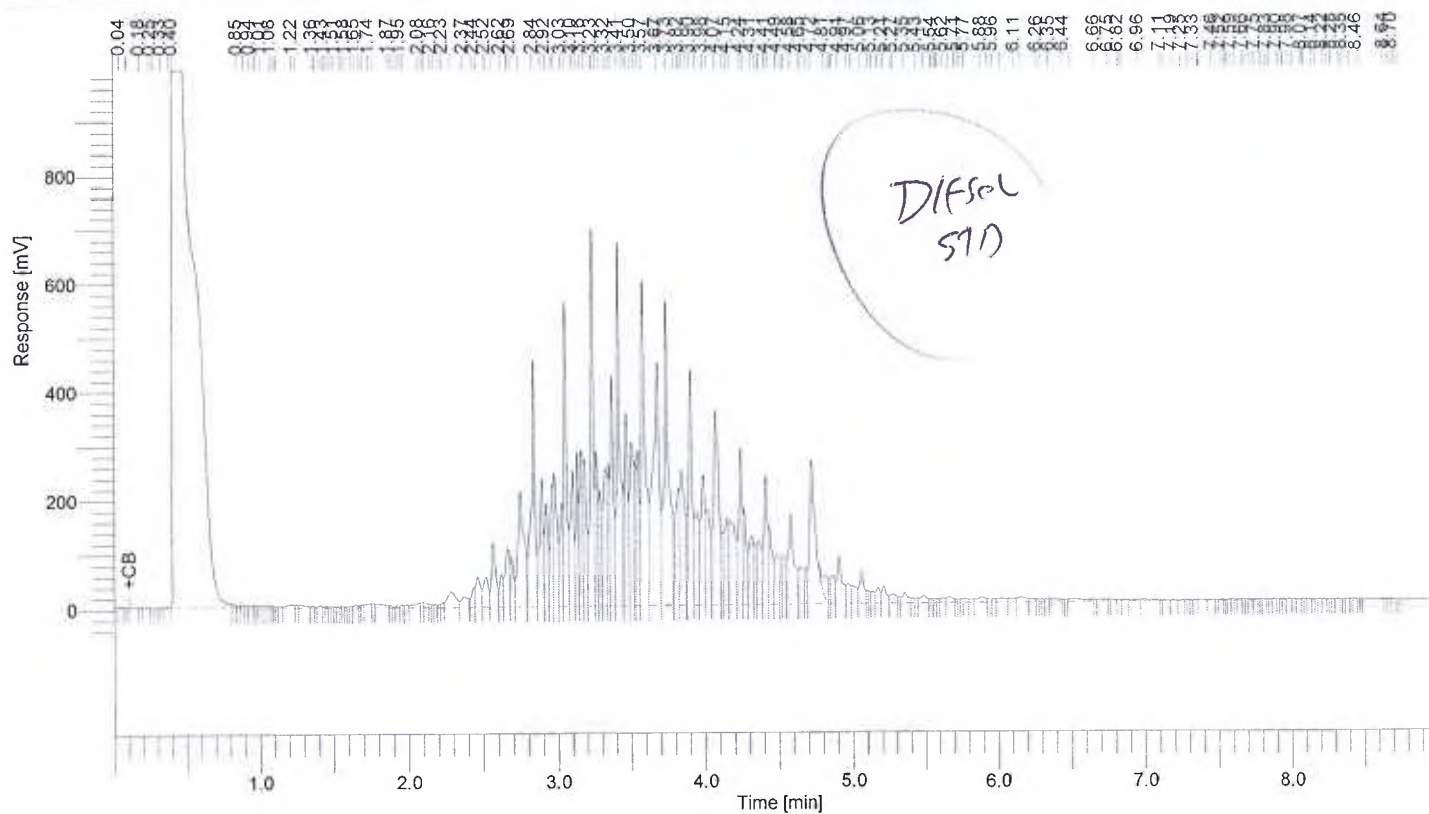
Component Name	Area [uV*sec]	Adjusted Amount
C4-C10	2561	240.1
C11-C22	1976096	220.7
C23-C35	5466555	1104.2
	7445211	1565.0

Software Version : 6.3.2.0646
 Sample Name : DIESEL CCV 2000PPM (GC-3207)
 Instrument Name : GC-1
 Rack/Vial : 0/3
 Sample Amount : 1.000000
 Cycle : 1

Date : 11/16/2015 10:41:31 AM
 Data Acquisition Time : 11/13/2015 1:15:28 PM
 Channel : A
 Operator : GC
 Dilution Factor : 1.000000

Result File :

Sequence File : D:\GC DATA\GC-1\02015\11\15\1113\1151113.seq



8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C4-C10	3231229	797.7
C11-C22	22591376	2019.6
C23-C35	833815	347.1
	26656420	3164.4

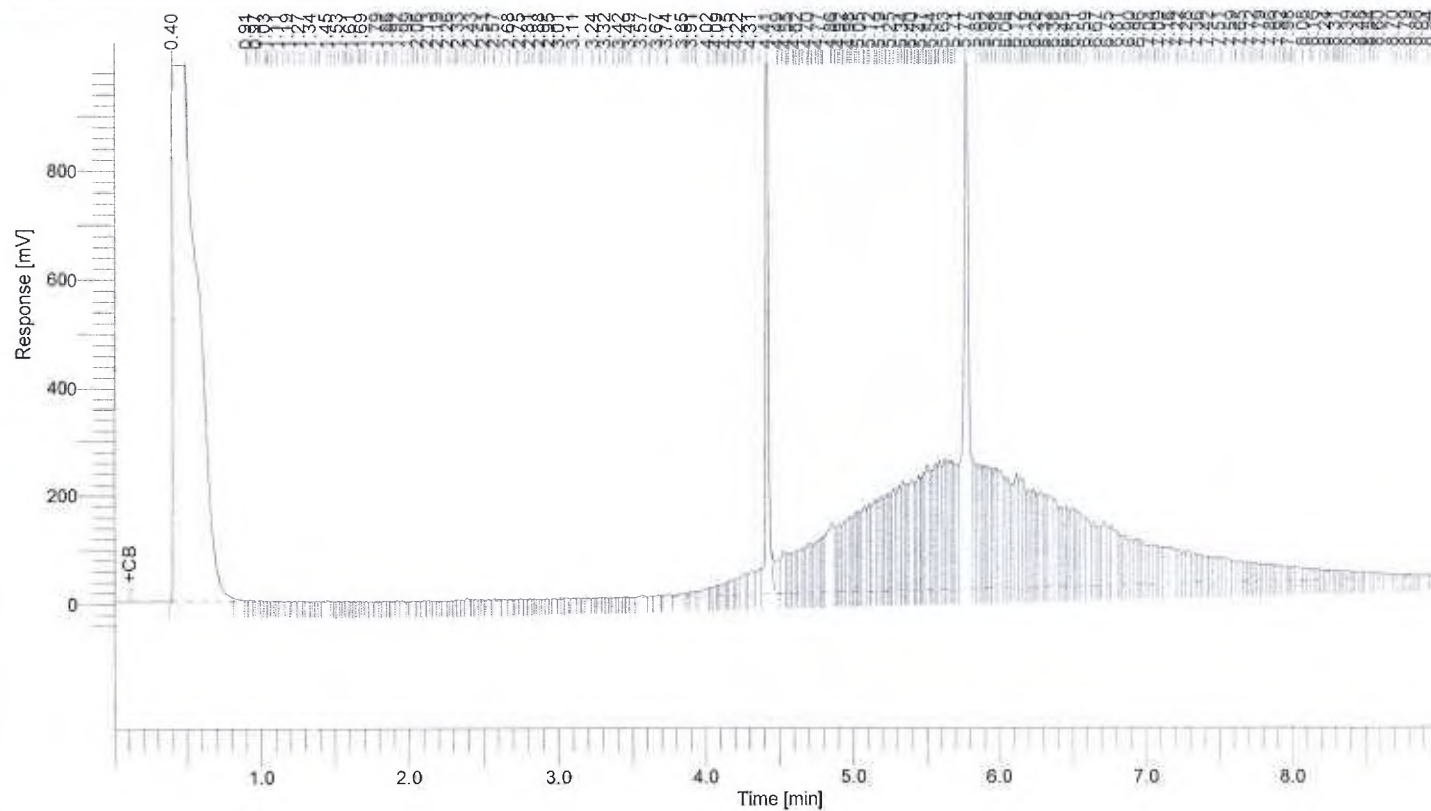
Software Version : 6.3.2.0646
 Sample Name : 151113-22 20/20*** KF R24
 Instrument Name : GC-I
 Rack/Vial : 0/35
 Sample Amount : 1.000000
 Cycle : 1

Date : 11/16/2015 10:43:54 AM
 Data Acquisition Time : 11/13/2015 8:48:48 PM
 Channel : A
 Operator : GC
 Dilution Factor : 1.000000

(EA-4-N-17-1)

Result File :

Sequence File : D:\GC DATA\GC-1\02015\151113\151113\151113.seq



8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C4-C10	163042	267.9
C11-C22	5566434	534.0
C23-C35	24183215	4162.8
	29912692	4964.6

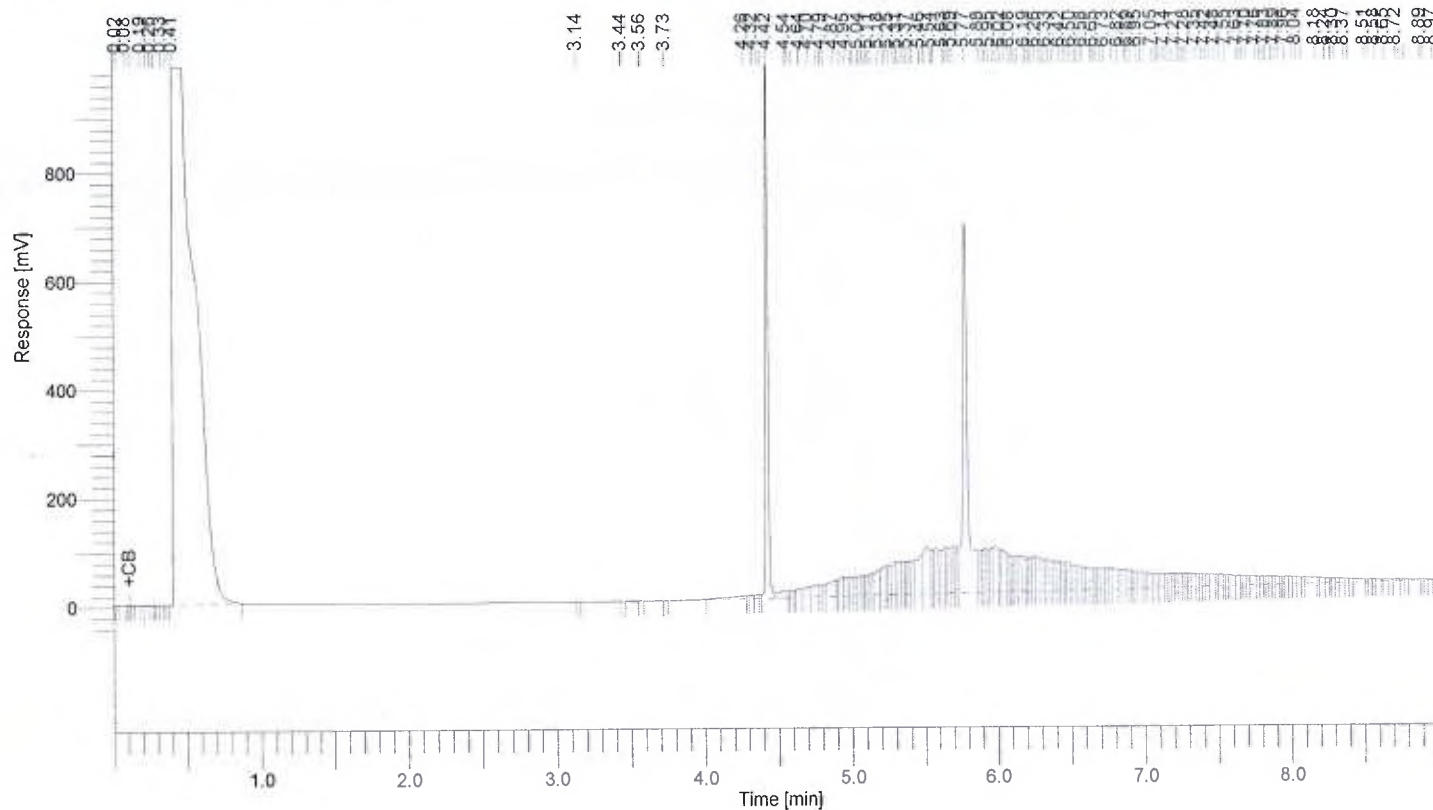
Software Version : 6.3.2.0646
Sample Name : 151113-24 20/20*** KF R24
Instrument Name : GC-I
Rack/Vial : 0/36
Sample Amount : 1.000000
Cycle : 1

Date : 11/17/2015 11:54:27 AM
Data Acquisition Time : 11/13/2015 9:00:48 PM
Channel : A
Operator : GC
Dilution Factor : 1.000000

(EA-4-S-A-1)

Result File :

Sequence File : D:\GC DATA\GC-1102015\1511\151113\151113.seq



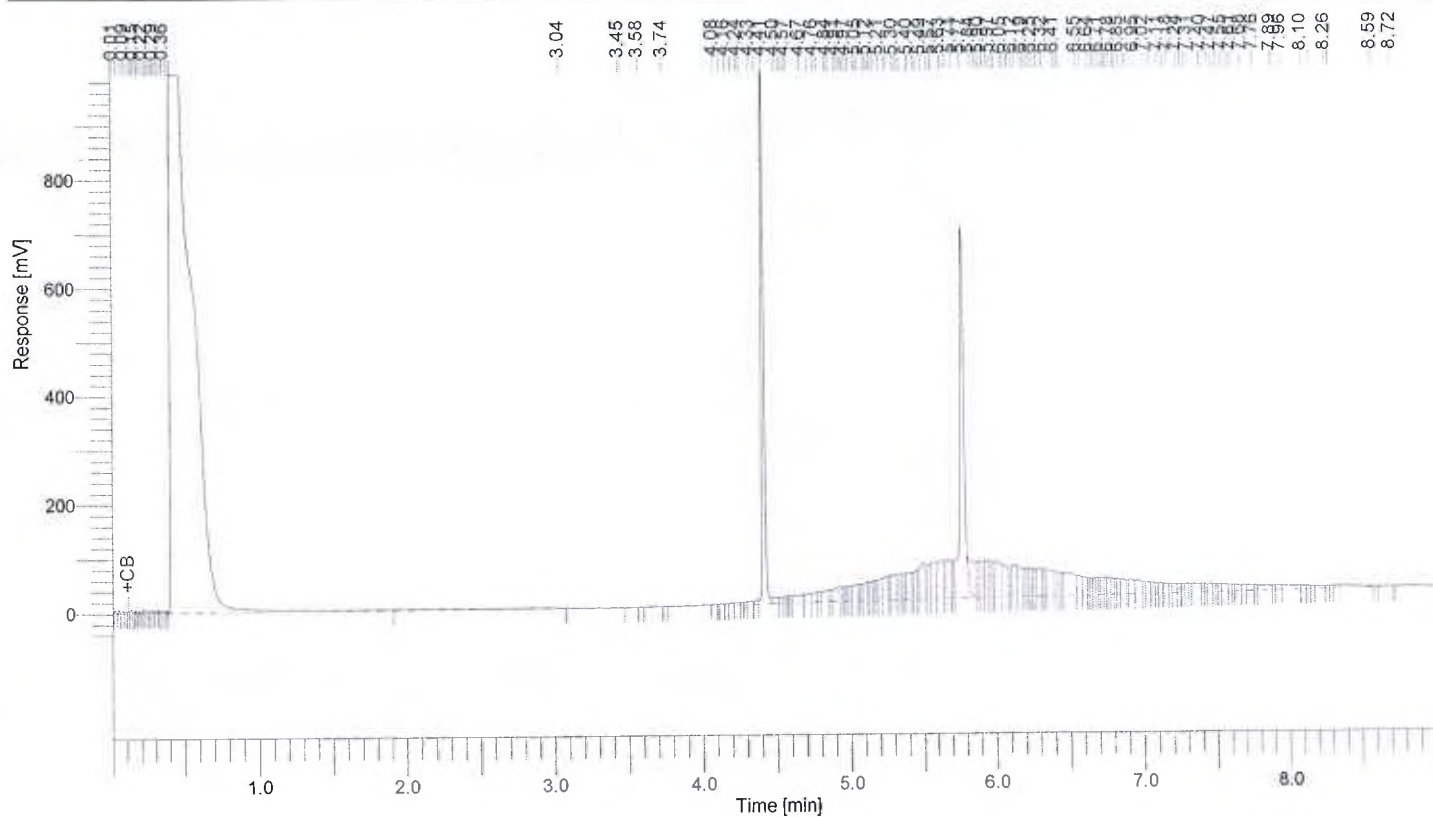
8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C11-C22	1922863	216.0
C23-C35	8312516	1569.2
	10235379	1785.3

Software Version : 6.3.2.0646
Sample Name : 151113-26 20/20*** KF R24
Instrument Name : GC-I
Rack/Vial : 0/37
Sample Amount : 1.000000
Cycle : 1

Date : 11/17/2015 11:54:33 AM
Data Acquisition Time : 11/13/2015 9:12:48 PM
Channel : A
Operator : GC
Dilution Factor : 1.000000

Result File :
Sequence File : D:\GC DATA\GC-N02015\1511\151113\151113.seq



8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C11-C22	1810158	206.2
C23-C35	6404458	1257.4
	8214617	1463.6

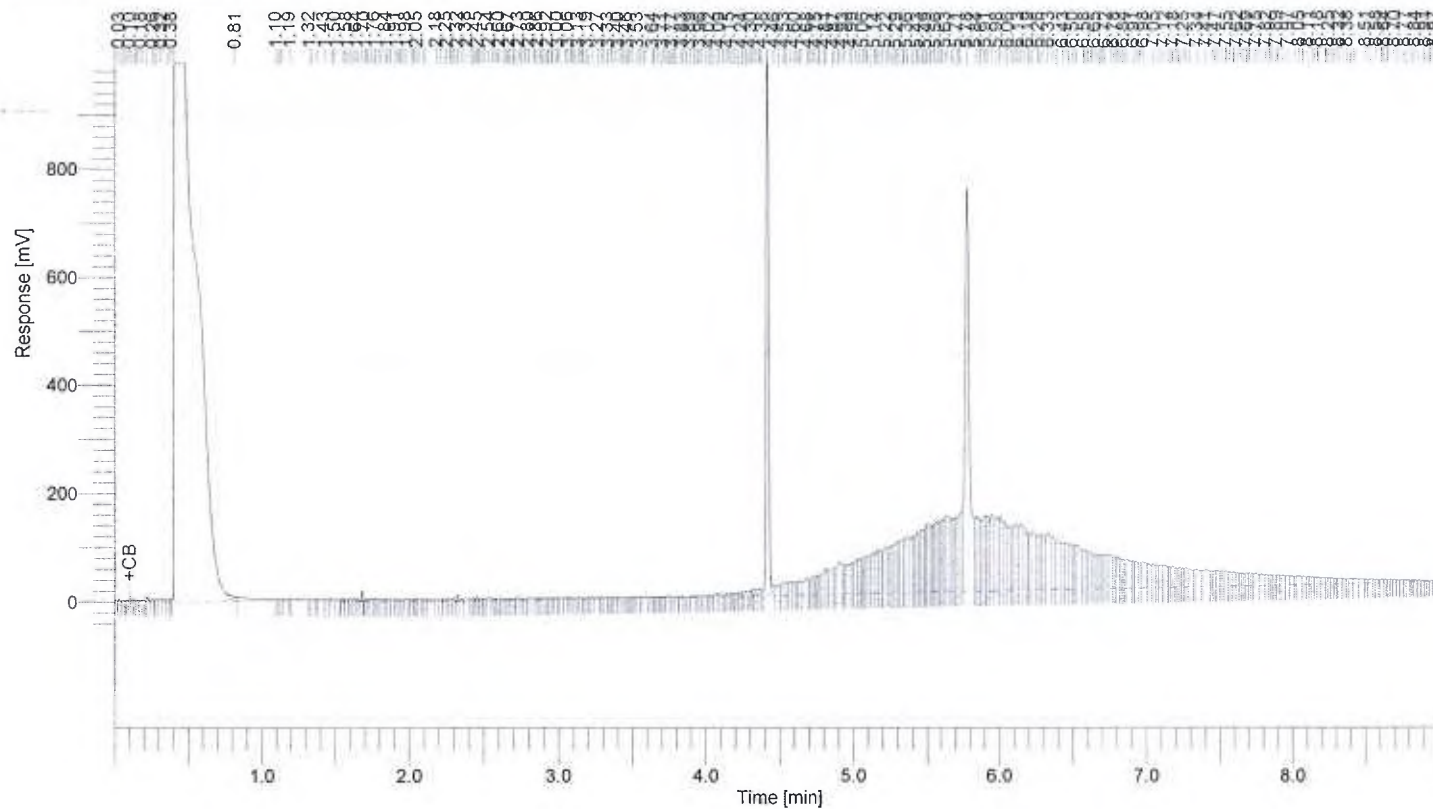
Software Version : 6.3.2.0646
Sample Name : 151113-27 20/2 KF R24
Instrument Name : GC-I
Rack/Vial : 0/38
Sample Amount : 1.000000
Cycle : 1

Date : 11/17/2015 11:55:04 AM
Data Acquisition Time : 11/13/2015 9:24:47 PM
Channel : A
Operator : GC
Dilution Factor : 1.000000

(EA-4-E-22-3)

Result File :

Sequence File : D:\GC DATA\GC-1\02015\1511\151113\151113.seq



8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C4-C10	316067	294.3
C11-C22	2705952	284.4
C23-C35	14139007	2521.4
	17161026	3100.0

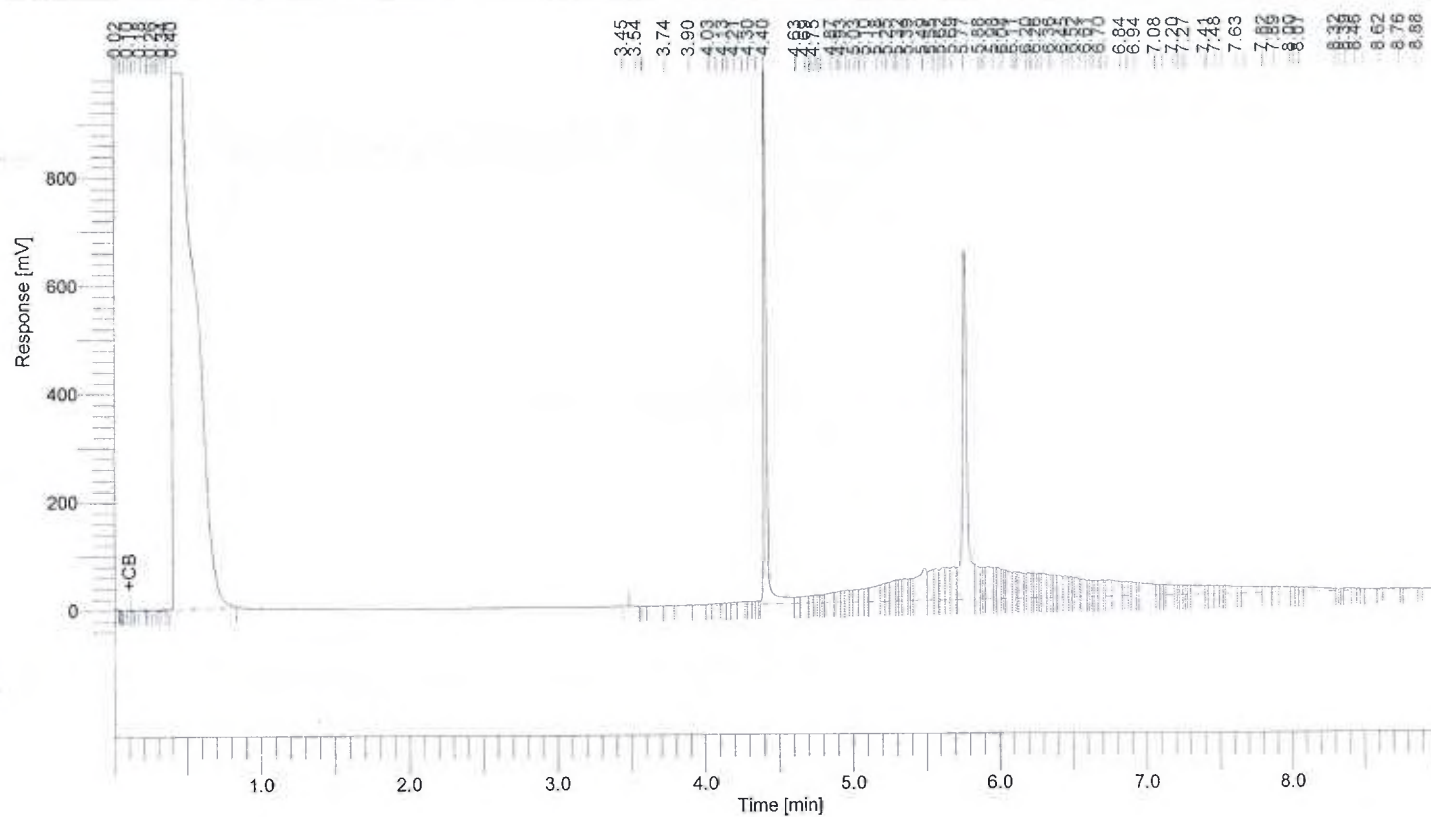
Software Version : 6.3.2.0646
 Sample Name : 151113-28 20/20*** KF R24
 Instrument Name : GC-I
 Rack/Vial : 0/39
 Sample Amount : 1.000000
 Cycle : 1

Date : 11/17/2015 11:54:44 AM
 Data Acquisition Time : 11/13/2015 9:36:45 PM
 Channel : A
 Operator : GC
 Dilution Factor : 1.000000

(EA-4-W-23-1)

Result File :

Sequence File : D:\GC DATA\GC-1\02015\1511\151113\151113.seq



8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C11-C22	1758510	201.7
C23-C35	5320413	1080.3
	7078923	1282.0

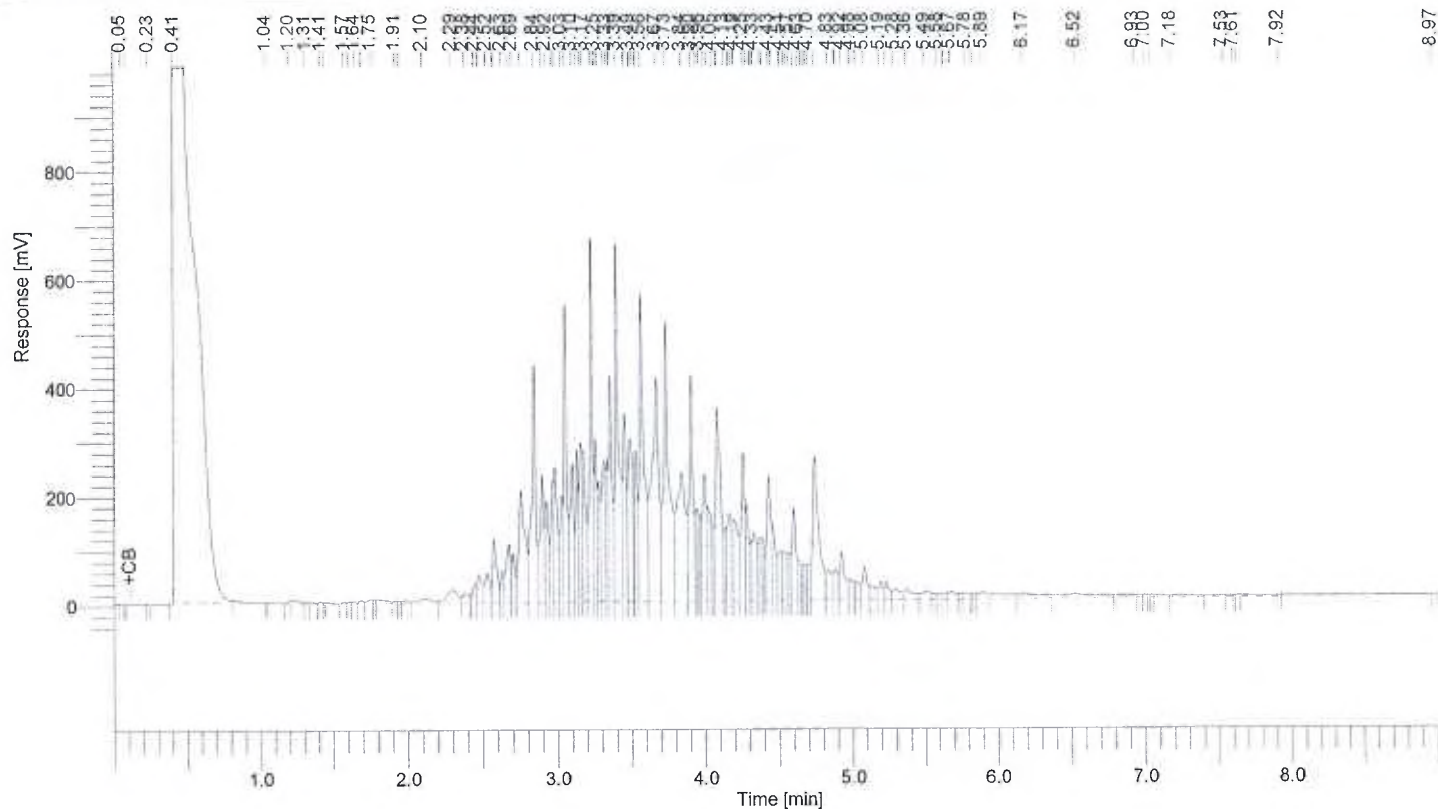
Software Version : 6.3.2.0646
 Sample Name : DIESEL CCV 2000PPM (GC-3207)
 Instrument Name : GC-I
 Rack/Vial : 0/3
 Sample Amount : 1.000000
 Cycle : 1

Date : 11/16/2015 10:41:41 AM
 Data Acquisition Time : 11/13/2015 7:24:29 PM
 Channel : A
 Operator : GC
 Dilution Factor : 1.000000

(DIESEL STD)

Result File :

Sequence File : D:\GC DATA\GC-1102015\115111\151113\151113.seq



8015 Results

Component Name	Area [uV*sec]	Adjusted Amount
C4-C10	3078169	771.2
C11-C22	22729695	2031.7
C23-C35	1052254	382.8
	26860117	3185.7



Page 1 of 2

PROJECT NO.		PROJECT NAME		ANALYSIS		RECEIVING LAB	
20154388		AT MAREO - RAW		LEAD/ENR TPH Cadmium Copper Zinc Mn Pb Ni Cr Hg As Se Mo Co V Mg Ca Fe Al Si K Na S Cl F Br I B P Sb Sn Ba Sr Zr Hf Ta Nb Ti Zn Cu Ag Au Pt Pd Rh Ru Ni Co Fe Mn Cr V Mg Ca Fe Al Si K Na S Cl F Br I B P Sb Sn Ba Sr Zr Hf Ta Nb Ti		ENVIRONMENTAL	
LR NO. (PO. NO.)	SAMPLES: (Signature/Number)	DATE		TYPE OF CONTAINERS		INSTRUCTIONS/REMARKS	
MM/DD/YY	SAMPLE I.D. HH-MM-SS	SAMPLE I.D.	MATRIX	NO. OF CONTAINERS	TYPE OF CONTAINERS		
1 11/12/15	1436	EA-1-B-01-2	Soil	1	40L JAR	X	15113-
2	1436	EA-1-B-01-2D					-2
3	1436 38	EA-1-B-25-2					-3
4	1445	EA-1-N-02-1					-4
5	1440	EA-1-S-03-1					-5
6	1448	EA-1-E-04-1					-6
7	1442	EA-1-W-05-1					-7
8 11/13/15	0714	EA-2-B-06-2					-8
9 11/13/15	0725	EA-2-N-07-2					-9
10 11/13/15	0720	EA-2-S-08-1					-10
11 11/13/15	0722	EA-2-E-09-1					-11
12 11/13/15	0718	EA-2-W-10-1					-12
13 11/13/15	0718	EA-2-W-10-1D					-13
14 11/12/15	1354	EA-3-B-11-2					-14
15	1352	EA-3-B-26-2					-15
16	1400	EA-3-N-12-1					-16
17	1410	EA-3-S-13-1					-17
18	1412	EA-3-E-14-1					-18
19	1465	EA-3-W-15-1					-19
20	0956	EA-4-B-16-4					-20

Relinquished by: (Signature)	Date/Time	Received by: (Signature)	Instructions/Remarks	Send Results To:
	11/13/15 0900		24 hr TAT	Griffiths Brewer Hobson e kwh@hobson.com
Relinquished by: (Signature)	Date/Time	Received by: (Signature)		
Relinquished by: (Signature)	Date/Time	Received for Laboratory by: (Signature)		



Night People Right Solutions.

Page 2 of 2

PROJECT NO.		PROJECT NAME		RECEIVING LAB:	
2015-4388		AT MARY-KAW		ENVIRONMENTAL	
L.P. NO. (P.O. NO.)	SAMPLERS: (Signature/Number)	DATE MM/DD/YY	SAMPLE ID, TIME HH-MM-SS	MATRIX	
1	111215	0952	EA-4-B-27-24	S.O.I	X X
2	1012		EA-4-N-17-1		
3	1615		EA-4-N-18-3		
4	0958		EA-4-S-19-1		
5	1000		EA-4-S-20-3		
6	1002		EA-4-E-21-1		
7	1004		EA-4-E-22-3		
8	1008		EA-4-W-23-1		
9	1010		EA-4-W-23-3		
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					

INSTRUCTIONS/REMARKS

24 hr TAT

15/11/3-21
-22
-23
-24
-25
-26
-27
-28
-29

Relinquished by: (Signature) _____ Date/Time 11/15/15 0900

Received by: (Signature) _____

Instructions/Remarks: 24 hr TAT

Send Results To: G-Johnson
B Reese
Hobbs

Attrn:

Enviro - Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: November 16, 2015

Mr. George Johnson
Kleinfelder
3880 Lemon Street, Suite 300
Riverside, CA 92501
Tel(951)801-3681 E-Mail: GJohnson@Kleinfelder.com

Project: **AT Mateo - Raw**
Project No.: **20154388**
Lab I.D.: **151113-1 through -29**

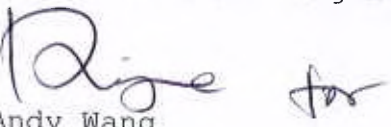
Dear Mr. Johnson:

The **analytical results** for the soil samples, received by our lab on November 13, 2015, are attached. The samples were received chilled, intact and accompanying chain of custody.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,


Curtis Desilets
Vice President/Program Manager


Andy Wang
Laboratory Manager

LABORATORY REPORT

CUSTOMER: Kleinfelder

3880 Lemon Street, Suite 300, Riverside, CA 92501
Tel (951) 801-3681 Fax (951) 682-0192

PROJECT: AT Mateo - RAW

PROJECT No.: 20154388

MATRIX: SOIL

DATE SAMPLED: 11/12-13/15

REPORT TO: Mr. GEORGE JOHNSON

DATE RECEIVED: 11/13/15

DATE ANALYZED: 11/13/15

DATE REPORTED: 11/16/15

EPA 6010B FOR TOTAL LEAD; PAGE 1 OF 2
UNITS: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	TOTAL LEAD RESULT	DF
EA-1-B-01-2	151113-1	4.69	1
EA-1-B-01-2D	151113-2	6.15	1
EA-1-B-25-2	151113-3	6.03	1
EA-1-N-02-1	151113-4	6.22	1
EA-1-S-03-1	151113-5	1.15	1
EA-1-E-04-1	151113-6	7.03	1
EA-1-W-05-1	151113-7	7.93	1
EA-2-B-06-2	151113-8	11.5	1
EA-2-N-07-1	151113-9	14.1	1
EA-2-S-08-1	151113-10	4.64	1
EA-2-E-09-1	151113-11	16.4	1
EA-2-W-10-1	151113-12	28.5	1
EA-2-W-10-1D	151113-13	24.2	1
EA-3-B-11-2	151113-14	9.05	1
EA-3-B-26-2	151113-15	5.32	1
EA-3-N-12-1	151113-16	1.66	1
EA-3-S-13-1	151113-17	250	1
EA-3-E-14-1	151113-18	5.62	1
EA-3-W-15-1	151113-19	17.6	1
EA-4-B-16-4	151113-20	30.8	1
Method Blank	---	ND	1

PQL

0.50

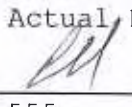
COMMENTS:

DF = Dilution Factor

PQL = Practical Quantitation Limit

Actual Detection Limit = DF X PQL

ND = Non-Detected or below the Actual Detection Limit

Data Reviewed and Approved by: 

CAL-DHS ELAP CERTIFICATE No.: 1555

LABORATORY REPORT

CUSTOMER: Kleinfelder
3880 Lemon Street, Suite 300, Riverside, CA 92501
Tel (951) 801-3681 Fax (951) 682-0192

PROJECT: AT Mateo - RAW

PROJECT No.: 20154388

MATRIX: SOIL

DATE SAMPLED: 11/12/15

REPORT TO: Mr. GEORGE JOHNSON

DATE RECEIVED: 11/13/15

DATE ANALYZED: 11/13/15

DATE REPORTED: 11/16/15

EPA 6010B FOR TOTAL LEAD; PAGE 2 OF 2
UNITS: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	TOTAL LEAD RESULT	DF
EA-4-B-27-4	151113-21	1.49	1
EA-4-N-17-1	151113-22	3.02	1
EA-4-N-18-3	151113-23	1.32	1
EA-4-S-19-1	151113-24	55.1	1
EA-4-S-20-3	151113-25	1.19	1
EA-4-E-21-1	151113-26	71.1	1
EA-4-E-22-3	151113-27	37.5	1
EA-4-W-23-1	151113-28	7.60	1
EA-4-W-23-3	151113-29	1.38	1
Method Blank	---	ND	1

PQL

0.50

COMMENTS:

DF = Dilution Factor

PQL = Practical Quantitation Limit

Actual Detection Limit = DF X PQL

ND = Non-Detected or below the Actual Detection Limit

Data Reviewed and Approved by: 

CAL-DHS ELAP CERTIFICATE No.: 1555

QA/QC for Metals Analysis--TTLC--SOLID/SOIL MATRIX

Matrix Spike/ Matrix Spike Duplicate/ LCS :

ANALYSIS DATE: 11/13/2015

UNIT : <u>Mg/KG(ppm)</u>											
Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD
Lead (Pb)	151113-10	1.00	106	PASS	4.64	50.0	52.2	95%	52.7	96%	1%

ANALYSIS DATE. :

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD	% RPD

MS/MSD Status:

Analysis	%MS	%MSD	%LCS	%RPD
Lead (Pb)	PASS	PASS	PASS	PASS
Accepted Range	75 ~ 125	75 ~ 125	85 ~ 115	0 ~ 20

Batch For Samples:151113-1~20

ANALYST: 

FINAL REVIEWER: 

*=Fail due to matrix interference
Note:LCS is in control therefore results are in control

PAGE 2 of 2

QA/QC for Metals Analysis--TTLC--SOLID/SOIL MATRIX

Matrix Spike/ Matrix Spike Duplicate/ LCS :

ANALYSIS DATE: 11/13/2015

Unit : <u>Mg/KG(ppm)</u>										
Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD
Lead (Pb)	151113-21	1.00	106	PASS	1.49	50.0	48.8	95%	49.1	95%
										1%

ANALYSIS DATE. :

Analysis	Spk.Sample ID	LCS CONC.	LCS %Rec.	LCS STATUS	Sample Result	Spike Conc.	MS	% Rec MS	MSD	% Rec MSD

MS/MSD Status:

Analysis	%MS	%MSD	%LCS	%RPD
Lead (Pb)	PASS	PASS	PASS	PASS
Accepted Range	75 ~ 125	75 ~ 125	85 ~ 115	0 ~ 20

Batch For Samples:151113-21~~29

ANALYST: _____

FINAL REVIEWER: _____

*=Fail due to matrix interference
Note:LCS is in control therefore results are in control

LABORATORY REPORT

CUSTOMER: Kleinfelder

3880 Lemon Street, Suite 300, Riverside, CA 92501

Tel (951) 801-3681 Fax (951) 682-0192

PROJECT: AT Mateo - RAW

PROJECT No.: 20154388

MATRIX: SOIL

DATE SAMPLED: 11/12-13/15

REPORT TO: Mr. GEORGE JOHNSON

DATE RECEIVED: 11/13/15

DATE EXTRACTED: 11/13/15

DATE ANALYZED: 11/13/15

DATE REPORTED: 11/16/15

TOTAL PETROLEUM HYDROCARBONS (TPH) - CARBON CHAIN ANALYSIS

METHOD: EPA 8015B; PAGE 1 OF 2

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	C4-C10	C11-C22	C23-C35	DF
EA-1-B-01-2	151113-1	ND	ND	ND	1
EA-1-B-01-2D	151113-2	ND	8.58 *	62.5	1
EA-1-B-25-2	151113-3	ND	ND	ND	1
EA-1-N-02-1	151113-4	ND	ND	ND	1
EA-1-S-03-1	151113-5	ND	ND	ND	1
EA-1-E-04-1	151113-6	ND	10.4 *	82.1	1
EA-1-W-05-1	151113-7	ND	10.1 *	87.7	1
EA-2-B-06-2	151113-8	ND	13.7 *	148	1
EA-2-N-07-1	151113-9	ND	55.2 *	565	10
EA-2-S-08-1	151113-10	ND	ND	ND	1
EA-2-E-09-1	151113-11	ND	20.4 *	241	1
EA-2-W-10-1	151113-12	ND	13.6 *	182	1
EA-2-W-10-1D	151113-13	ND	9.62 *	140	1
EA-3-B-11-2	151113-14	ND	31.8 *	153	1
EA-3-B-26-2	151113-15	ND	ND	ND	1
EA-3-N-12-1	151113-16	ND	ND	ND	1
EA-3-S-13-1	151113-17	ND	ND	514	10
EA-3-E-14-1	151113-18	ND	90.5 *	1470	10
EA-3-W-15-1	151113-19	ND	ND	ND	1
EA-4-B-16-4	151113-20	ND	86.4 *	818	10
METHOD BLANK		ND	ND	ND	1
	PQL	5	5	25	

COMMENTS

C4-C10 = GASOLINE RANGE

C11-C22 = DIESEL RANGE

C23-C35 = MOTOR OIL RANGE

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = DF X PQL

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

* = PEAKS IN DIESEL RANGE BUT CHROMATOGRAM DOES NOT MATCH THAT OF DIESEL STANDARD

Data Reviewed and Approved by: 

CAL-DHS ELAP CERTIFICATE No.: 1555

LABORATORY REPORT

CUSTOMER: **Kleinfelder**
3880 Lemon Street, Suite 300, Riverside, CA 92501
Tel (951) 801-3681 Fax (951) 682-0192

PROJECT: **AT Mateo - RAW**

PROJECT No.: **20154388**

MATRIX: SOIL

DATE SAMPLED: 11/12/15

REPORT TO: Mr. GEORGE JOHNSON

DATE RECEIVED: 11/13/15

DATE EXTRACTED: 11/13/15

DATE ANALYZED: 11/13/15

DATE REPORTED: 11/16/15

TOTAL PETROLEUM HYDROCARBONS (TPH) - CARBON CHAIN ANALYSIS

METHOD: EPA 8015B; PAGE 2 OF 2

UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	C4-C10	C11-C22	C23-C35	DF
EA-4-B-27-4	151113-21	ND	ND	ND	1
EA-4-N-17-1	151113-22	ND	393 *	3690	10
EA-4-N-18-3	151113-23	ND	ND	ND	1
EA-4-S-19-1	151113-24	ND	85.4 *	1260	10
EA-4-S-20-3	151113-25	ND	ND	ND	1
EA-4-E-21-1	151113-26	ND	73.9 *	983	10
EA-4-E-22-3	151113-27	ND	15.9 *	222	1
EA-4-W-23-1	151113-28	ND	54.1 *	789	10
EA-4-W-23-3	151113-29	ND	ND	ND	1
METHOD BLANK		ND	ND	ND	1
PQL		5	5	25	

COMMENTS

C4-C10 = GASOLINE RANGE

C11-C22 = DIESEL RANGE

C23-C35 = MOTOR OIL RANGE

DF = DILUTION FACTOR

PQL = PRACTICAL QUANTITATION LIMIT

ACTUAL DETECTION LIMIT = DF X PQL

ND = NON-DETECTED OR BELOW THE ACTUAL DETECTION LIMIT

* = PEAKS IN DIESEL RANGE BUT CHROMATOGRAM DOES NOT MATCH THAT OF DIESEL STANDARD

Data Reviewed and Approved by: 
CAL-DHS ELAP CERTIFICATE No.: 1555