



## **WATERSTONE ENVIRONMENTAL, INC.**

2936 E. CORONADO STREET \* ANAHEIM \* CA 92806  
714-414-1122 \* FAX: 714-414-1166

December 17, 2015

Los Angeles Unified School District  
Office of Environmental Health and Safety  
333 South Beaudry Street, 21st Floor  
Los Angeles, California 90017-5156

**Re: Air Testing Results for Porter Ranch Community School in Porter Ranch,  
California**

Waterstone Environmental, Inc. (Waterstone) is pleased to submit this letter report detailing the results of recent air testing and sample collection at the Porter Ranch Community School located at 12450 Mason Avenue, Porter Ranch, California.

Waterstone has collected air samples and conducting real time air monitoring using various handheld monitors. This report summarizes the results of air sample analysis for samples collected on December 11, 2015.

***Sample Collection and Analysis***

Sample collection consisted of both grab samples (approximately 2 minute sample filling period) in tedlar bags as well as 8-hour samples collected in a summa canisters in the indoor school office. The summa canisters were placed in the breathing zone and allowed to sit undisturbed for a period of 8 hours.

One tedlar bag sample and one summa canister sample were delivered to Quantum Analytical Services Inc., a laboratory certified by the South Coast Air Quality Management District (SCAQMD) and the California Air Resources Board (CARB). Both samples were submitted for analysis of sulfur compounds by SCAQMD Method 307-91, and hydrocarbon speciation by modified EPA 18. The complete laboratory report with analysis results is attached.

Three tedlar bag samples and one summa canister sample were delivered to Air Technology Laboratories, Inc., a laboratory accredited by the National Environmental Laboratory Accreditation Program (NELAP). Samples were submitted for analysis of BTEX by EPA Method TO-15. The complete laboratory report with analysis results is attached.

Real time air monitoring was conducted in indoor and outdoor spaces using a Micro Flame Ionization Detector (FID) to measure volatile organic compounds (VOCs) as an indicator of the potential presence of methane, a Jerome J631X for hydrogen sulfide detection, a photo ionization detector (PID) to measure VOCs as an indicator of the potential presence of benzene, and dräger tubes for benzene, toluene, ethylbenzene, and xylenes.



## Analytical Results

The sample IDs created to refer to Porter Ranch Community School are designated with a “PR” in the sample ID. The analytical results for Porter Ranch Community School presented in the attached laboratory reports are summarized as follows:

- No sulfur compounds were detected at concentrations above laboratory detection limits.
- Methane was detected at a maximum concentration of 3,270 parts per billion by volume (ppbv) and below the environmental screening limits for methane of 500,000 ppbv used by the Department of Toxic Substances Control (DTSC) and 1,000,000 ppbv used by the National Institute for Occupational Safety (NIOSH). Additionally, methane was not detected at a concentration that requires a fire contingency plan (8,800,000 ppbv) as required by the Los Angeles County Building Code.
- No benzene was detected at concentrations above laboratory detection limits.
- The maximum concentration of toluene detected was 0.98 ppbv and below the environmental screening limits for toluene of 9,640 ppbv used by OEHHA for a 1-hour acute exposure.
- The maximum concentration of ethylbenzene detected was 0.22 ppbv and below the environmental screening limits for ethylbenzene of 450 ppbv used by OEHHA for a chronic (lifetime) exposure.
- The maximum concentration of xylene detected was 0.77 ppbv and below the environmental screening limits for xylene of 4,970 ppbv used by OEHHA for a 1-hour acute exposure.

Analyte	Maximum On-site Detection (ppbv)	Environmental Regulatory Limit (ppbv)	Environmental Regulatory Limit Description
Sulfide Compounds	None	30 (Hydrogen Sulfide)	California Ambient Air – 1 hour and OEHHA Acute REL (42 ug/m <sup>3</sup> )*
		7 (Hydrogen Sulfide)	OEHHA Chronic REL (10 ug/m <sup>3</sup> )*
Methane	3,270	500,000	DTSC Site-Specific Screening Level (for ambient indoor and outdoor air). <a href="http://www.hawaiidoh.org/references/CalEPA%202005b.pdf">http://www.hawaiidoh.org/references/CalEPA%202005b.pdf</a>
		1,000,000	NIOSH maximum recommended safe methane concentration for workers during an 8-hour period. <a href="http://www.cdc.gov/niosh/ipcsneng/neng0291.html">http://www.cdc.gov/niosh/ipcsneng/neng0291.html</a>
Ethane, Ethylene	None	1,000,000	NIOSH maximum recommended safe ethane concentration for workers during an 8-hour period. <a href="http://www.cdc.gov/niosh/ipcsneng/neng0266.html">http://www.cdc.gov/niosh/ipcsneng/neng0266.html</a>



Analyte	Maximum On-site Detection (ppbv)	Environmental Regulatory Limit (ppbv)	Environmental Regulatory Limit Description
		2,000,000	NIOSH maximum recommended safe ethylene concentration for workers during an 8-hour period. <a href="http://www.cdc.gov/niosh/ipcsneng/neng0475.html">http://www.cdc.gov/niosh/ipcsneng/neng0475.html</a>
Other Hydrocarbon Speciations by EPA 18	None	1,950 (Hexane)	OEHHA Chronic REL (7,000 ug/m <sup>3</sup> )*
Benzene	None	8 1	OEHHA Acute REL (27 ug/m <sup>3</sup> )* 8-hour and chronic OEHHA RELs (3 ug/m <sup>3</sup> )*
Toluene	0.98	9,640 80	OEHHA Acute REL (37,000 ug/m <sup>3</sup> )* OEHHA Chronic REL (300 ug/m <sup>3</sup> )*
Ethylbenzene	0.22	450	OEHHA Chronic REL (2,000 ug/m <sup>3</sup> )*
Xylenes	0.77	4,970 160	OEHHA Acute REL (22,000 ug/m <sup>3</sup> )* OEHHA Chronic REL (700 ug/m <sup>3</sup> )*

\* OEHHA RELs listed in micrograms per cubic meter (ug/m<sup>3</sup>) have been converted to ppbv using the molecular weight of each specific chemical. <http://oehha.ca.gov/air/allrels.html>

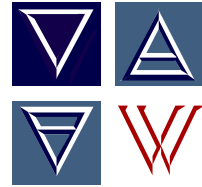
### ***Real Time Monitoring Results***

The real time monitoring logs are attached. In-field air monitoring results are summarized as follows:

- Methane (as indicated by total VOCs), hydrogen sulfide, benzene, toluene, ethylbenzene, and xylenes were not detected during field monitoring.
- VOCs were detected at concentration of 0.2 ppm. Although VOC readings measure all volatile constituents and are not chemical specific, to rule out the potential presence benzene, numerous samples were collected and submitted to the laboratory for benzene analysis. As indicated above, no benzene was detected in any of the samples submitted for laboratory analysis.

The majority of the regulatory limits we are comparing against are Reference Exposure Levels (RELs) developed and published by California's Office of Environmental Health Hazards (OEHHA). OEHHA is one of six agencies under the umbrella of the California Environmental Protection Agency (Cal/EPA). OEHHA's overall mission is to protect and enhance public health and the environment by scientific evaluation of risks posed by hazardous substances.

OEHHA evaluates health effects of chemicals found in indoor air, including developing Reference Exposure Levels for use with indoor air exposure scenarios. OEHHA participates in a number of inter-Agency activities designed to evaluate indoor air quality health issues and to move California toward safer indoor air quality. OEHHA provides health-related assistance to



the Air Resources Board, air pollution control districts, local health officers and environmental health officers.

Methane was compared to the DTSC Site-Specific Screening Level for ambient indoor and outdoor air as well as the NIOSH maximum recommended safe methane concentration for workers during an 8-hour period.

As shown in the table above, the maximum on-site detections are well below the published environmental regulatory limits.

Sincerely,

Elizabeth Gonzalez, P.E.  
Principal Engineer  
**Waterstone Environmental, Inc.**

Grace M. Rinck, CIH  
Vice-President  
**Aurora Industrial Hygiene, Inc.**

Attachments




**CLIENT** Waterstone Environmental  
**PROJECT NO:** LAUSD - SoCal Gas  
**LABORATORY NO:** 15-978  
**SAMPLING DATE:** December 11, 2015  
**RECEIVING DATE:** December 11, 2015  
**ANALYSIS DATE:** December 12, 2015  
**REPORT DATE:** December 14, 2015

### Laboratory Analysis Report

Analysis Method	SCAQMD 307-91				
Detection Limits	5.0 PPBV				
	Client ID	PR-Summa-10 (Tk 105)	PR-10 (Bag)	CB-10 (Bag)	CB-Summa-10 (Tk 106)
	Sampling Time	0637	1113	1257	1429
	Sampling Date	12/11/15	12/11/15	12/11/15	12/11/15
	Lab ID	34515-29	34515-30	34515-31	34515-32
	Units	PPBV	PPBV	PPBV	PPBV
Analyte					
Hydrogen Sulfide	<5.0				
Carbonyl Sulfide	<5.0				
Methyl Mercaptan	<5.0				
Ethyl Mercaptan	<5.0				
Carbon Disulfide	<5.0				
t- Butyle Mercaptan	<5.0				
Tetra hydro-thiophene	<5.0				
Un-Identified S Compounds	<5.0				
TRS as H <sub>2</sub> S	<40.0				

TRS: Total Reduced Sulfur as Hydrogen Sulfide

PPBV: Parts Per Billion-Volume

  
 Dr. Andrew Kitto  
 President

**CLIENT** Waterstone Environmental  
**CLIENT PROJECT:** LAUSD - SoCal Gas  
**LAB PROJ NO:** 15-978  
**SAMPLING DATE:** December 11, 2015  
**RECEIVING DATE:** December 11, 2015  
**ANALYSIS DATE:** December 12, 2015  
**REPORT DATE:** December 14, 2015

## Quality Assurance Report


### Duplicate Analysis

Sample ID: CB-Summa-10 (Tk 106)

LAB ID: 34515-32

Analysis Method		SCAQMD 307-91		
Detection Limit		5.0 PPBV		
Analyte	Aver. Conc. PPBV	Dil. Factor Ambient Air	DF*A/CF PPBV	% Sample Recovery
Hydrogen Sulfide	<5.0	1	<5.0	N/A
Carbonyl Sulfide	<5.0	1	<5.0	N/A
Methyl Mercaptan	<5.0	1	<5.0	N/A
Ethyl Mercaptan	<5.0	1	<5.0	N/A
Carbon Disulfide	<5.0	1	<5.0	N/A
t- Butyle Mercaptan	<5.0	1	<5.0	N/A
Tetra hydro-thiophene	<5.0	1	<5.0	N/A
Unidentified S Compounds	<5.0	1	<5.0	N/A
Total Sulfur as H <sub>2</sub> S	<40.0	1	<40.0	N/A

N/A: Not Applicable



Dr. Andrew Kitto  
 President

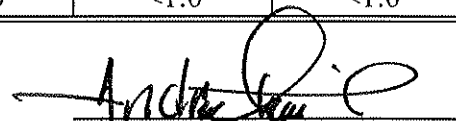
**CLIENT** Waterstone Environmental  
**CLIENT PROJECT:** LAUSD - SoCal Gas  
**LAB PROJ NO:** 15-978  
**SAMPLING DATE:** December 11, 2015  
**RECEIVING DATE:** December 11, 2015  
**ANALYSIS DATE:** December 12, 2015  
**REPORT DATE:** December 14, 2015

### Laboratory Analysis Report (1 of 4)

Analysis Method	EPA 18				
Detection Limits	0.2 PPMV				
	Sample ID	PR-Summa-10 (Tk 105)	PR-10 (Bag)	CB-10 (Bag)	CB-Summa-10 (Tk 106)
	Sample Time	0637	1113	1257	1429
	Sampling Date	12/11/15	12/11/15	12/11/15	12/11/15
	Lab ID	34515-29	34515-30	34515-31	34515-32
	Units	PPMV	PPMV	PPMV	PPMV
ANALYTE					
C1 - Methane		3.27	2.99	2.91	4.46
C2 - Ethane, Ethylene		<0.2	<0.2	<0.2	<0.2
C3 - Propane		<0.2	<0.2	<0.2	<0.2
Iso Butane		<0.2	<0.2	<0.2	<0.2
n- Butane		<0.2	<0.2	<0.2	<0.2
Iso-Pentane		<0.2	<0.2	<0.2	<0.2
n-Pentane		<0.2	<0.2	<0.2	<0.2
C6 - Hexanes		<0.2	<0.2	<0.2	<0.2
C6+		<0.2	<0.2	<0.2	<0.2
TNMHC		<1.0	<1.0	<1.0	<1.0

TNMHC - Total Non-Methane HydroCarbon

PPMV: Parts Per Million-Volume

  
 Dr. Andrew Kitto  
 President

**CLIENT** Waterstone Environmental  
**LAB PROJ NO:** 15-978  
**SAMPLING DATE:** December 11, 2015  
**RECEIVING DATE:** December 11, 2015  
**ANALYSIS DATE:** December 12, 2015  
**REPORT DATE:** December 14, 2015

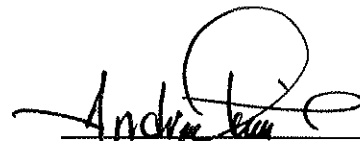
## EPA 18 - Laboratory Analysis Report (QA-QC)

Sample ID: CB-Summa-10 (Tk 106)

Sample ID: 34515-32

Analyte	Analysis #1 PPMV	Analysis #2 PPMV	Mean PPMV	% Difference from the Mean*
C1 - Methane	4.46	4.36	4.41	1.1
C2 - Ethane, Ethylene	<0.2	<0.2	<0.2	N/A
C3 - Propane	<0.2	<0.2	<0.2	N/A
iso-Butane	<0.2	<0.2	<0.2	N/A
n-Butane	<0.2	<0.2	<0.2	N/A
iso- Pentane	<0.2	<0.2	<0.2	N/A
n-Pentane	<0.2	<0.2	<0.2	N/A
C6 - Hexanes	<0.2	<0.2	<0.2	N/A
C6+	<0.2	<0.2	<0.2	N/A

N/A: Not Applicable

 \*:Must be  $\leq 10\%$ 


Dr. Andrew Kitto  
 President



**CLIENT** Waterstone Environmental  
**LAB PROJ NO:** 15-978  
**SAMPLING DATE:** December 11, 2015  
**RECEIVING DATE:** December 11, 2015  
**ANALYSIS DATE:** December 12, 2015  
**REPORT DATE:** December 14, 2015

### Quality Control/Quality Assurance Report

#### I- Blank

Lab ID	Results PPMV
C1 - Methane	<0.2
C2 - Ethane	<0.2
C3 - Propane	<0.2
C4 - Butane	<0.2
C5 - Pentane	<0.2
C6 - Hexane	<0.2

#### II- Initial Calibration Verification Standard (ICV)


Lab ID	Theoretical Value PPMV	Tested Value PPMV	% Recovery*
C1 - Methane	14.99	15.20	101%
C2 - Ethane	15.12	14.74	97%
C3 - Propane	15.27	15.06	99%
C4 - Butane	15.04	14.78	98%
C5 - Pentane	15.04	14.43	96%
C6 - Hexane	14.95	13.70	92%

\* Must be  $\pm 10\%$

#### III- Closing Calibration Verification Standard (CCV)

Lab ID	Theoretical Value PPMV	Tested Value PPMV	% Recovery*
C1 - Methane	3.00	3.04	101%
C2 - Ethane	3.02	3.01	100%
C3 - Propane	3.05	3.19	105%
C4 - Butane	3.00	3.10	103%
C5 - Pentane	3.00	3.03	101%
C6 - Hexane	2.99	3.02	101%

\* Must be  $\pm 10\%$

  
 Dr. Andrew Kitto  
 President



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1210 E. 223rd Street, Suite #314 • Carson, California 90745

Page: 1 of: 2

Client: WATERSTONE ENVIRONMENTAL INC.		Project No.: 15-20Z		Analysis EPA 18 SEAQUIND METHOD 307-91		Turnaround Time:	
		Project Name: LAUSD				<input type="checkbox"/> Same Day	
Contact Person:		Project Manager: Egonzalez				<input type="checkbox"/> 24 Hours	
tel: 714 414 1122		P.O. Number:				<input checked="" type="checkbox"/> 48 Hours	
fax:						<input type="checkbox"/> Normal	
Client Sample ID	Tag #	Date	Time	Lab ID Number			Remarks
PR-SUMMA -10	105	12-11-15	0637	34515-29	X	X	624.8 819.4
PR-10		12-11-15	1113	-30	X	X	1.31x
Relinquished by: (signature)	Date/Time	Received by: (signature)		Date/time			
[Signature]	12-11-15 / 1700	[Signature]		12/11/15 @ 1700			
Relinquished by: (signature)	Date/Time	Received by: (signature)		Date/time			
Relinquished by: (signature)	Date/Time	Received by: (signature)		Date/time			

15-978

No 7952

310/830-2226 • Fax 310/830-2227 • www.quantumairlab.com

1210 E. 223rd Street, Suite #314 • Carson, California 90745

# CHAIN OF CUSTODY

 Page: 2 of: 2

Client: <u>Waterstone Environmental</u> <u>2936 E Coronado Street</u>		Project No.: <u>15-202</u> Project Name: <u>LUSD Porter Ranch</u> Project Manager: <u>E Gonzalez</u> P.O. Number: _____		<b>Analysis</b> <div style="border: 1px solid black; padding: 5px; transform: rotate(-45deg); display: inline-block;">         EPA 18          Standard          Method 307-91       </div>				Turnaround Time: <input type="checkbox"/> Same Day <input type="checkbox"/> 24 Hours <input checked="" type="checkbox"/> 48 Hours <input type="checkbox"/> Normal				
Contact Person: tel: _____ fax: _____												
Client Sample ID	Tag #	Date	Time	Lab ID Number								Remarks
CB-10		12/11/15	1257	34515-31	X	X						Plant Manager office
CB-Summ2-10	106	12/11/15	1429	-32	X	X						595.7 824.6
												1.35x
Relinquished by: (signature)		Date/Time		Received by: (signature)				Date/time				
<u>Mindy Leg</u>		12/11/15 1700		<u>[Signature]</u>				12/11/15 @ 1700				
Relinquished by: (signature)		Date/Time		Received by: (signature)				Date/time				
Relinquished by: (signature)		Date/Time		Received by: (signature)				Date/time				



7440 Lincoln Way, Garden Grove, CA 92841-1427 • (714) 895-5494

For courier service / sample drop off information, contact [us26\\_sales@eurofinsus.com](mailto:us26_sales@eurofinsus.com) or call us.

## CHAIN-OF-CUSTODY RECORD

DATE: 12-11-15

PAGE: 1 OF 1

[illegible]

**Client:** Waterstone Environmental, Inc.  
**Attn:** Elizabeth Gonzalez  
**Project Name:** LAUSD Porter Ranch  
**Project No.:** 15-202  
**Date Received:** 12/11/15  
**Matrix:** Air  
**Reporting Units:** ppbv

**EPA Method TO15**

<b>Lab No.:</b>	<b>G121106-01</b>	<b>G121106-02</b>		
<b>Client Sample I.D.:</b>	<b>PR-SUMMA -10</b>	<b>PR-10</b>		
<b>Date/Time Sampled:</b>	<b>12/11/15 6:38</b>	<b>12/11/15 11:13</b>		
<b>Date/Time Analyzed:</b>	<b>12/12/15 7:11</b>	<b>12/12/15 7:53</b>		
<b>QC Batch No.:</b>	<b>151211MS2A1</b>	<b>151211MS2A1</b>		
<b>Analyst Initials:</b>	<b>DT</b>	<b>DT</b>		
<b>Dilution Factor:</b>	<b>0.20</b>	<b>0.20</b>		
<b>ANALYTE</b>	<b>Result ppbv</b>	<b>RL ppbv</b>	<b>Result ppbv</b>	<b>RL ppbv</b>
Benzene	ND	0.20	ND	0.20
Toluene	ND	0.20	0.92	0.20
Ethylbenzene	ND	0.20	0.20	0.20
p,&m-Xylene	ND	0.20	0.77	0.20
o-Xylene	0.66	0.20	0.33	0.20

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson  
 Mark Johnson  
 Operations Manager

Date 12/14/15

The cover letter is an integral part of this analytical report



**Client:** Waterstone Environmental, Inc.  
**Attn:** Elizabeth Gonzalez  
**Project Name:** LAUSD Porter Ranch  
**Project No.:** 15-202  
**Date Received:** 12/11/15  
**Matrix:** Air  
**Reporting Units:** ppbv

**EPA Method TO15**

<b>Lab No.:</b>	METHOD BLANK			
<b>Client Sample I.D.:</b>	-			
<b>Date/Time Sampled:</b>	-			
<b>Date/Time Analyzed:</b>	12/11/15 21:48			
<b>QC Batch No.:</b>	151211MS2A1			
<b>Analyst Initials:</b>	DT			
<b>Dilution Factor:</b>	0.20			

ANALYTE	Result ppbv	RL ppbv						
Benzene	ND	0.20						
Toluene	ND	0.20						
Ethylbenzene	ND	0.20						
p,&m-Xylene	ND	0.20						
o-Xylene	ND	0.20						

ND = Not Detected (below RL)  
 RL = Reporting Limit

Reviewed/Approved By: Mark Johnson  
 Operations Manager

Date 12/14/15

The cover letter is an integral part of this analytical report





# LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 151211MS2A1

Matrix: Air

EPA Method TO-14/TO-15											
Lab No:	Method Blank		LCS		LCSD			<div>Limits</div>			
Date/Time Analyzed:	12/11/15 21:48		12/11/15 20:29		12/11/15 21:07						
Data File ID:	11DEC007.D		11DEC005.D		11DEC006.D						
Analyst Initials:	DT		DT		DT						
Dilution Factor:	0.2		1.0		1.0						
ANALYTE	Result ppbv	Spike Amount	Result ppbv	% Rec	Result ppbv	% Rec	RPD	Low %Rec	High %Rec	Max. RPD	Pass/ Fail
1,1-Dichloroethene	0.0	10.0	10.4	104	10.2	102	2.5	70	130	30	Pass
Methylene Chloride	0.0	10.0	11.1	111	10.8	108	3.0	70	130	30	Pass
Trichloroethene	0.0	10.0	10.6	106	10.3	103	2.8	70	130	30	Pass
Toluene	0.0	10.0	10.5	105	10.2	102	2.9	70	130	30	Pass
1,1,2,2-Tetrachloroethane	0.0	10.0	11.1	111	10.7	107	3.6	70	130	30	Pass

RPD = Relative Percent Difference

Reviewed/Approved By: \_\_\_\_\_

Mark Johnson  
Operations Manager

Date: \_\_\_\_\_

The cover letter is an integral part of this analytical report



**AirTECHNOLOGY Laboratories, Inc.**

18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91748 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832





**Client:** Waterstone Environmental, Inc.  
**Attn:** Elizabeth Gonzalez  
**Project Name:** LAUSD Porter Ranch  
**Project No.:** 15-202  
**Date Received:** 12/11/15  
**Matrix:** Air  
**Reporting Units:** ppbv

**EPA Method TO15**

<b>Lab No.:</b>	<b>G121105-01</b>	<b>G121105-02</b>		
<b>Client Sample I.D.:</b>	<b>PR-10-L</b>	<b>PR-10-B</b>		
<b>Date/Time Sampled:</b>	<b>12/11/15 7:40</b>	<b>12/11/15 7:55</b>		
<b>Date/Time Analyzed:</b>	<b>12/11/15 23:48</b>	<b>12/12/15 0:29</b>		
<b>QC Batch No.:</b>	<b>151211MS2A1</b>	<b>151211MS2A1</b>		
<b>Analyst Initials:</b>	<b>DT</b>	<b>DT</b>		
<b>Dilution Factor:</b>	<b>0.20</b>	<b>0.20</b>		
<b>ANALYTE</b>	<b>Result ppbv</b>	<b>RL ppbv</b>	<b>Result ppbv</b>	<b>RL ppbv</b>
Benzene	ND	0.20	ND	0.20
Toluene	0.90	0.20	0.98	0.20
Ethylbenzene	0.21	0.20	0.22	0.20
p,&m-Xylene	0.75	0.20	0.76	0.20
o-Xylene	0.31	0.20	0.32	0.20

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:   
 Mark Johnson  
 Operations Manager

Date 12/14/15

The cover letter is an integral part of this analytical report



**Client:** Waterstone Environmental, Inc.  
**Attn:** Elizabeth Gonzalez  
**Project Name:** LAUSD Porter Ranch  
**Project No.:** 15-202  
**Date Received:** 12/11/15  
**Matrix:** Air  
**Reporting Units:** ppbv

## EPA Method TO15

Lab No.:	METHOD BLANK				
Client Sample I.D.:	-				
Date/Time Sampled:	-				
Date/Time Analyzed:	12/11/15 21:48				
QC Batch No.:	151211MS2A1				
Analyst Initials:	DT				
Dilution Factor:	0.20				
ANALYTE	Result ppbv	RL ppbv			
Benzene	ND	0.20			
Toluene	ND	0.20			
Ethylbenzene	ND	0.20			
p,&m-Xylene	ND	0.20			
o-Xylene	ND	0.20			

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson  
Mark Johnson  
Operations Manager

Date 12/14/15

The cover letter is an integral part of this analytical report

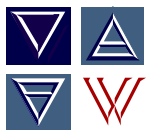


# LCS/LCSD Recovery and RPD Summary Report

QC Batch #: 151211MS2A1

Matrix: Air

EPA Method TO-14/TO-15											
Lab No:	Method Blank		LCS		LCSD			<div>Limits</div>			
Date/Time Analyzed:	12/11/15 21:48		12/11/15 20:29		12/11/15 21:07						
Data File ID:	11DEC007.D		11DEC005.D		11DEC006.D						
Analyst Initials:	DT		DT		DT						
Dilution Factor:	0.2		1.0		1.0						
ANALYTE	Result ppbv	Spike Amount	Result ppbv	% Rec	Result ppbv	% Rec	RPD	Low %Rec	High %Rec	Max. RPD	Pass/ Fail
1,1-Dichloroethene	0.0	10.0	10.4	104	10.2	102	2.5	70	130	30	Pass
Methylene Chloride	0.0	10.0	11.1	111	10.8	108	3.0	70	130	30	Pass
Trichloroethene	0.0	10.0	10.6	106	10.3	103	2.8	70	130	30	Pass
Toluene	0.0	10.0	10.5	105	10.2	102	2.9	70	130	30	Pass
1,1,2,2-Tetrachloroethane	0.0	10.0	11.1	111	10.7	107	3.6	70	130	30	Pass



# DIRECT READING AIR MONITORING LOG

CLIENT: Los Angeles Unified School District      DATE: 12/11/15      PAGE 1 of 2  
ADDRESS: Porter Ranch Community School      BY: Robert Pitzer

INSTRUMENT: Photo Ionization Detector (PID)  
CALIBRATION VALUE (benzene) 5.0 ppmv      CALIBRATION READING (benzene) 5.0 ppmv  
INSTRUMENT: Flame Ionization Detector (FID)  
CALIBRATION VALUE (methane) 50 ppmv      CALIBRATION READING (methane) 50 ppmv  
INSTRUMENT: Hydrogen Sulfide Jerome J631X Meter

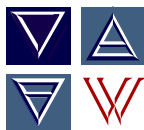
CALIBRATION VALUE				Factory Calibrated				CALIBRATION READING		Manufacturer Calibration Only
TIME	VOCs (ppmv) Methane indicator	Hydrogen Sulfide (ppmv)	VOCs (ppmv) benzene indicator	Draeger Tubes						Location
				Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylene (ppmv)			
0653	0.0	0.000	0.1	--	--	--	--			Inside Classroom #34
0705	0.0	0.000	0.1	--	--	--	--			N.E. Corner of B.B. Crt.
0709	0.0	0.000	0.1	--	--	--	--			Founders Park Area
0711	0.0	0.000	0.1	--	--	--	--			Lunch area (Outside)
0719	0.0	0.000	0.1	--	--	--	--			Corner of Mason Avenue and Sesnon
0803	0.0	0.000	0.1	--	--	--	--			E.S. Bldg. 2 <sup>nd</sup> Fl North End
0814	0.0	0.000	0.1	--	--	--	--			E.S. Bldg 2 <sup>nd</sup> Fl @ Elevator
0821	0.0	0.000	0.1	--	--	--	--			Main Office
0826	0.0	0.000	0.1	--	--	--	--			"Kinder Yard"
0900	--	--	--	ND	ND	ND	ND			Lunch Area (Outside)
0928	0.0	0.000	0.1	--	--	--	--			Middle School Office
0934	0.0	0.000	0.2	--	--	--	--			M.S. Bldg. 2 <sup>nd</sup> Fl East Landing
0938	0.0	0.000	0.1	--	--	--	--			Founders Park Area
0948	0.0	0.000	0.1	--	--	--	--			Main Office
1030	0.0	0.000	0.2	--	--	--	--			M.S. Bldg 2 <sup>nd</sup> Floor East End

Weather Conditions: Partly Cloudy      Wind Speed: 9 mph      Wind Direction: NNW      Temperature: 51 ° F

**Comments:** The PID is used for measuring VOCs as an indicator of the potential presence of benzene. The Jerome J631X is used for measuring Hydrogen Sulfide. The FID is used for measuring VOC as an indicator of the potential presence of methane. Draeger tubes are used for measuring Benzene, Toluene, Xylene and Ethylbenzene. VOC readings are an indicator of all volatile constituents and are not chemical specific. Real time readings are used to guide sample collection. Samples collected daily are submitted to a laboratory for analyses.

**ND** = Not Detected; **ppmv** = parts per million by volume; **N/A** = Not Applicable -- = No Reading (no measurement taken at this time)

Odor of diesel exhaust from Heavy Equipment at 0700; Recalibrated PID at 1030; E.S. = Elementary School; M.S. = Middle School



# DIRECT READING AIR MONITORING LOG

CLIENT: Los Angeles Unified School District	DATE: 12/11/15	PAGE <u>2</u> of <u>2</u>
ADDRESS: Porter Ranch Community School	BY: Robert Pitzer	

INSTRUMENT: <u>Photo Ionization Detector (PID)</u>								
CALIBRATION VALUE <u>(benzene) 5.0</u> ppmv				CALIBRATION READING <u>(benzene) 5.0</u> ppmv				
INSTRUMENT: <u>Flame Ionization Detector (FID)</u>								
CALIBRATION VALUE <u>(methane) 50</u> ppmv				CALIBRATION READING <u>(methane) 50</u> ppmv				
INSTRUMENT: <u>Hydrogen Sulfide Jerome J631X Meter</u>								
CALIBRATION VALUE			N/A	Factory Calibrated		CALIBRATION READING		Manufacturer Calibration Only

TIME	VOCs (ppmv) Methane indicator	Hydrogen Sulfide (ppmv)	VOCs (ppmv) benzene indicator	Draeger Tubes				Location
				Benzene (ppmv)	Toluene (ppmv)	Ethylbenzene (ppmv)	Xylene (ppmv)	
1058	--	--	--	ND	ND	ND	ND	M.S. Bldg. 2 <sup>nd</sup> Fl East End
1200	--	0.000	0.0	--	--	--	--	Middle School Office
1210	--	0.000	0.0	--	--	--	--	M.S. Bldg. 2 <sup>nd</sup> Floor East Stairway
1213	--	0.000	0.0	--	--	--	--	M.S. Bldg. 1 <sup>st</sup> Fl East Stairway
1306	--	--	--	ND	ND	ND	ND	Main Office
1330	--	--	--	ND	ND	ND	ND	Kinder Yard
1339	0.0	0.000	0.0	--	--	--	--	M.S. Bldg. 2 <sup>nd</sup> Floor East Stairway
1343	0.0	0.000	0.0	--	--	--	--	M.S. Bldg. 1 <sup>st</sup> Floor East Stairway
1346	0.0	0.000	0.0	--	--	--	--	Founders Park Area
1351	0.0	0.000	0.0	--	--	--	--	N.E. Corner of BB Courts
1355	0.0	0.000	0.0	--	--	--	--	Library
1431	0.0	0.000	0.0	--	--	--	--	Middle School Office
1440	0.0	0.000	0.0	--	--	--	--	Founders Park Area
1443	0.0	0.000	0.0	--	--	--	--	N.E. Corner of BB Courts.

Weather Conditions: Partly cloudy      Wind Speed: 9 mph      Wind Direction: NNW      Temperature: 51 ° F

**Comments:** The PID is used for measuring VOCs as an indicator of the potential presence of benzene. The Jerome J631X is used for measuring Hydrogen Sulfide. The FID is used for measuring VOC as an indicator of the potential presence of methane. Draeger tubes are used for measuring Benzene, Toluene, Xylene and Ethylbenzene. VOC readings are an indicator of all volatile constituents and are not chemical specific. Real time readings are used to guide sample collection. Samples collected daily are submitted to a laboratory for analyses.

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