

APPENDIX E ANALYTICAL LABORATORY TEST RESULTS

Appendix E

Figure E-1: Analytical Laboratory Test Results of Vapor Samples (ACE Phase)

Figure E-2: Analytical Laboratory Test Results of Vapor Samples (Adv. PE Phase)

Figure E-3: Analytical Laboratory Test Results of Groundwater Samples (Adv. PE Phase)



31 August 2009

Mr. Curt Welty
MACTEC Engineering & Consulting
5628 East Slauson Avenue
Los Angeles, CA 90040-2922
RE: MAC081909-11

Enclosed are the results of analyses for samples received by the laboratory on 18-Aug-09 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in dark ink, reading 'J. Villarreal', with a stylized, cursive script.

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

Figure E-1.1





MACTEC Engineering & Consulting
5628 East Slauson Avenue
Los Angeles, CA 90040-2922

Project: MAC081909-11
Project Number: Westside Extension
Project Manager: Mr. Curt Welty

Reported:
31-Aug-09 09:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M-17-15	E908058-08	Vapor	18-Aug-09	18-Aug-09



MACTEC Engineering & Consulting
5628 East Slauson Avenue
Los Angeles, CA 90040-2922

Project: MAC081909-11
Project Number: Westside Extension
Project Manager: Mr. Curt Welty

Reported:
31-Aug-09 09:58

Soil Gas and Vapor Analysis

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
M-2-15 (E908058-01) Vapor	Sampled: 18-Aug-09	Received: 18-Aug-09							
Methane	15	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-2-25 (E908058-02) Vapor	Sampled: 18-Aug-09	Received: 18-Aug-09							
Methane	ND	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-3-15 (E908058-03) Vapor	Sampled: 18-Aug-09	Received: 18-Aug-09							
Methane	3500	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-14-15 (E908058-04) Vapor	Sampled: 18-Aug-09	Received: 18-Aug-09							
Methane	280	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-14-25 (E908058-05) Vapor	Sampled: 18-Aug-09	Received: 18-Aug-09							
Methane	7400	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-15-15 (E908058-06) Vapor	Sampled: 18-Aug-09	Received: 18-Aug-09							
Methane	ND	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-15-25 (E908058-07) Vapor	Sampled: 18-Aug-09	Received: 18-Aug-09							
Methane	15	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-17-15 (E908058-08) Vapor	Sampled: 18-Aug-09	Received: 18-Aug-09							
Methane	410	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-25-15 (E908058-09) Vapor	Sampled: 18-Aug-09	Received: 18-Aug-09							
Methane	12	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	

Figure E-1.3



MACTEC Engineering & Consulting
5628 East Slauson Avenue
Los Angeles, CA 90040-2922

Project: MAC081909-11
Project Number: Westside Extension
Project Manager: Mr. Curt Welty

Reported:
31-Aug-09 09:58

Soil Gas and Vapor Analysis - Quality Control
H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
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Batch EH91909 - GC

Blank (EH91909-BLK1)

Prepared & Analyzed: 19-Aug-09

Methane	ND	10	ppmv
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MACTEC Engineering & Consulting
5628 East Slauson Avenue
Los Angeles, CA 90040-2922

Project: MAC081909-11
Project Number: Westside Extension
Project Manager: Mr. Curt Welty

Reported:
31-Aug-09 09:58

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference

Chain of Custody Record

Date: 8-18-2009



☐ 2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159
☐ 3825 Industry Avenue, Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

H&P Project # MAC081909-11
 Outside Lab: _____

Client: MACTEC Engineering & Consulting, Inc

Address: 5628 E. Stinson Ave.

Los Angeles, CA 90040

Email: cmwelty@mactec.com Phone: 323-919-1080

Collector: KDS

Client Project # Westside Expansion

Location: _____

Fax: _____

Page: 1

of 2

Project Contact: Curt Welty

Turn around time: 24 Hour

EDF: Yes ☐ No ☐

Global ID: _____

Sample Receipt

Intact: ☒ Yes ☐ No
 Seal Intact: ☐ Yes ☐ No ☒ N/A
 Cold: ☐ Yes ☐ No ☒ RT
 N/A (Received on Site)

Special Instructions:

Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type	TPH ☐ gasoline ☐ diesel ☐ ext	418.1 TRPH	8021 for BTEX/MTBE	BTEX / Oxygenates	TPH gas	VOC's	DTSC/LRWCB	Ketones	Full List	BTEX/MTBE	LCC (specify)	Naphthalene ☐ 8260B ☐ TO-15	Fixed Gases ☐ CO2 ☐ O2 ☐ N2	Total # of containers	
A1-2-15			1001	9/10	VAPOR	TRDOR															
A1-2-25			1010																		
A1-3-15			1045																		
A1-14-15			1155																		
A1-14-25			1200																		
A1-15-15			1221																		
A1-15-25			1225																		
A1-17-15			1305																		
A1-25-15			1426																		
A1-21-15			1540																		
Relinquished by: (Signature) Curt Welty	MACTEC																				
Relinquished by: (Signature)																					
Relinquished by: (Signature)																					

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction:

☐ Disposal @ \$2.00 each☐ Return to client☐ Pickup

Chain of Custody Record

Date: 2-28-2009

2470 Impala Dr., Carlsbad, CA 92010 • ph 760.804.9678 • fax 760.804.9159

H&P Project # MAC81909-11

3825 Industry Avenue Lakewood, CA 90712 • ph 562.426.6991 • fax 562.426.6995

Outside Lab:

Client: <u>MACTEC Engineering & Consulting, Inc.</u>		Collector: <u>KDS</u>	Page: <u>2</u> of <u>2</u>			
Address: <u>5628 E. Flanigan Ave.</u>		Client Project # <u>Westside Extension</u>	Project Contact: <u>Curt Wc/ky</u>			
Email: <u>Cmwe/ky@mactec.com</u>		Location: <u>Los Angeles CA 90040</u>				
Phone: <u>323-919-1080</u>		Turn around time: <u>24 HOUR</u>				
EDF: Yes ☐ No ☐						
Global ID: _____						
Special Instructions: <u>* M-21-25: MINIMAL SAMPLE IN TEOLAR</u>						
Sample Name	Field Point Name	Purge Vol	Time	Date	Sample Type	Container Type
<u>M-21-25</u>			<u>1545</u>	<u>8/18</u>	<u>VARIABLE</u>	<u>TEOLAR</u>
8021 for BTEX/MTBE						
418.1 TRPH						
TPH ☐ gasoline ☐ diesel ☐ ext						
8260B						
TO-15						
BTEX / Oxygenates						
TPH gas						
VOC's						
DTSC/LARWQCB						
Ketones						
Full List						
BTEX/MTBE						
LCC (specify)						
Naphthalene ☐ 8260B ☐ TO-15						
Fixed Gases ☐ CO2 ☐ O2 ☐ N2						
Total # of containers						

Relinquished by: (Signature) <u>[Signature]</u>	(company) <u>MACTEC</u>	Received by: (Signature) <u>[Signature]</u>	(company) <u>HP</u>	Date: <u>8/18/2007</u>	Time: <u>1600</u>
Relinquished by: (Signature) <u>[Signature]</u>	(company)	Received by: (Signature) <u>[Signature]</u>	(company) <u>HP</u>	Date: <u>8/19/07</u>	Time: <u>0800</u>
Relinquished by: (Signature)	(company)	Received by: (Signature)	(company)	Date:	Time:

Figure E-1-7

*Signature constitutes authorization to proceed with analysis and acceptance of condition on back.

Sample disposal instruction:

☐ Disposal @ \$2.00 each☐ *Return to client*☐ *Pickup*



31 August 2009

Mr. Curt Welty
MACTEC Engineering & Consulting
5628 East Slauson Avenue
Los Angeles, CA 90040-2922
RE: MAC081909-11

Enclosed are the results of analyses for samples received by the laboratory on 18-Aug-09 . If you have any questions concerning this report, please feel free to contact me.

Sincerely,

A handwritten signature in dark ink, reading 'J. Villarreal', with a stylized, cursive script.

Janis Villarreal
Laboratory Director

H&P Mobile Geochemistry operates under CA Environmental Lab Accreditation Program Numbers 1317, 1561, 1667, 1745, 1746, 2088, 2278, 2543, 2579 and 2595. National Environmental Laboratory Accreditation Conference (NELAC) Standards Lab #11845

Figure E-1.8





MACTEC Engineering & Consulting
5628 East Slauson Avenue
Los Angeles, CA 90040-2922

Project: MAC081909-11
Project Number: Westside Extension
Project Manager: Mr. Curt Welty

Reported:
31-Aug-09 09:58

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M-17-15	E908058-08	Vapor	18-Aug-09	18-Aug-09



MACTEC Engineering & Consulting
5628 East Slauson Avenue
Los Angeles, CA 90040-2922

Project: MAC081909-11
Project Number: Westside Extension
Project Manager: Mr. Curt Welty

Reported:
31-Aug-09 09:58

Soil Gas and Vapor Analysis

H&P Mobile Geochemistry

Analyte	Result	Reporting Limit	Units	Dilution Factor	Batch	Prepared	Analyzed	Method	Notes
M-2-15 (E908058-01) Vapor Sampled: 18-Aug-09 Received: 18-Aug-09									
Methane	15	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-2-25 (E908058-02) Vapor Sampled: 18-Aug-09 Received: 18-Aug-09									
Methane	ND	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-3-15 (E908058-03) Vapor Sampled: 18-Aug-09 Received: 18-Aug-09									
Methane	3500	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-14-15 (E908058-04) Vapor Sampled: 18-Aug-09 Received: 18-Aug-09									
Methane	280	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-14-25 (E908058-05) Vapor Sampled: 18-Aug-09 Received: 18-Aug-09									
Methane	7100	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-15-15 (E908058-06) Vapor Sampled: 18-Aug-09 Received: 18-Aug-09									
Methane	ND	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-15-25 (E908058-07) Vapor Sampled: 18-Aug-09 Received: 18-Aug-09									
Methane	15	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-17-15 (E908058-08) Vapor Sampled: 18-Aug-09 Received: 18-Aug-09									
Methane	410	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	
M-25-15 (E908058-09) Vapor Sampled: 18-Aug-09 Received: 18-Aug-09									
Methane	12	10	ppmv	1	EH91909	19-Aug-09	19-Aug-09	EPA 8015M	

Figure E-1.10



MACTEC Engineering & Consulting
5628 East Slauson Avenue
Los Angeles, CA 90040-2922

Project: MAC081909-11
Project Number: Westside Extension
Project Manager: Mr. Curt Welty

Reported:
31-Aug-09 09:58

Notes and Definitions

DET	Analyte DETECTED
ND	Analyte NOT DETECTED at or above the reporting limit
NR	Not Reported
dry	Sample results reported on a dry weight basis
RPD	Relative Percent Difference



April 21, 2015

Ron Lopez
Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles, CA 90040
Tel: (323) 889-5300
Fax: (323) 721-6700

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1501260
Client Reference : MTA Westside, 4953-11-1423

Enclosed are the results for sample(s) received on April 08, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue rectangular background.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

***3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040
www.atlglobal.com***



Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 04/21/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M-407 @ 65' (probe)	1501260-01	Air	4/08/15 10:46	4/08/15 15:35
M-407 @ 70' (probe)	1501260-02	Air	4/08/15 11:02	4/08/15 15:35
M-407 @ 75' (probe)	1501260-03	Air	4/08/15 11:33	4/08/15 15:35
M-407 @ 60'	1501260-04	Air	4/08/15 9:53	4/08/15 15:35
M-407 @ 90'	1501260-05	Air	4/08/15 10:22	4/08/15 15:35
M-408 @ 40' (probe)	1501260-06	Air	4/08/15 13:08	4/08/15 15:35
M-408 @ 70' (probe)	1501260-07	Air	4/08/15 13:24	4/08/15 15:35
M-408 @ 95' (probe)	1501260-08	Air	4/08/15 13:41	4/08/15 15:35
M-408 @ 60'	1501260-09	Air	4/08/15 12:19	4/08/15 15:35
M-408 @ 90'	1501260-10	Air	4/08/15 12:40	4/08/15 15:35

CASE NARRATIVE

The samples for Methane, H₂S (15/16) and Fixed Gases (ASTM D1946) were subcontracted to Air Technology Laboratories.

April 21, 2015

Advanced Technology Laboratories
ATTN: Rachelle Arada
3275 Walnut Ave.
Signal Hill, CA 90755



ADE-1461
EPA Methods TO-3,
TO14A, TO15 SIM & Scan,
ASTM D1946



LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-09-TX
EPA Methods TO14A, TO15

UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 1501260
Lab Number: G040901-01/10

Enclosed are results for sample(s) received 4/09/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1501260
Date Received: 04/09/15
Matrix: Air
Reporting Units: % v/v

Page 2 of 9
 G040901

ASTM D1946

Lab No.:	G040901-01	G040901-02	G040901-03	G040901-04					
Client Sample I.D.:	1501260-01 / M-407 @ 65' (probe)	1501260-02 / M-407 @ 70' (probe)	1501260-03 / M-407 @ 75' (probe)	1501260-04 / M-407 @ 60' (probe)					
Date/Time Sampled:	4/8/15 10:46	4/8/15 11:02	4/8/15 11:33	4/8/15 9:53					
Date/Time Analyzed:	4/9/15 12:23	4/9/15 12:38	4/9/15 12:53	4/9/15 13:07					
QC Batch No.:	150409GC8A1	150409GC8A1	150409GC8A1	150409GC8A1					
Analyst Initials:	AS	AS	AS	AS					
Dilution Factor:	1.0	1.0	1.0	1.0					
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	
	Carbon Dioxide	8.4	0.010	8.4	0.010	8.3	0.010	0.45	0.010
	Oxygen/Argon	1.7	0.50	1.8	0.50	1.6	0.50	16	0.50
	Nitrogen	75	1.0	74	1.0	67	1.0	81	1.0
	Methane	14	0.0010	15	0.0010	23	0.0010	3.2	0.0010

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____


 Mark Johnson
 Operations Manager

Date _____

4/21/15

The cover letter is an integral part of this analytical report



Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1501260
Date Received: 04/09/15
Matrix: Air
Reporting Units: % v/v

Page 3 of 9
 G040901

ASTM D1946

Lab No.:	G040901-05	G040901-06	G040901-07	G040901-08					
Client Sample I.D.:	1501260-05 / M-407 @ 90' (probe)	1501260-06 / M-408 @ 40' (probe)	1501260-07 / M-408 @ 70' (probe)	1501260-08 / M-408 @ 95' (probe)					
Date/Time Sampled:	4/8/15 10:22	4/8/15 13:08	4/8/15 13:24	4/8/15 13:41					
Date/Time Analyzed:	4/9/15 13:22	4/9/15 13:37	4/9/15 15:20	4/9/15 14:06					
QC Batch No.:	150409GC8A1	150409GC8A1	150409GC8A1	150409GC8A1					
Analyst Initials:	AS	AS	AS	AS					
Dilution Factor:	1.0	1.0	1.0	1.0					
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	
	Carbon Dioxide	2.9	0.010	3.1	0.010	5.9	0.010	1.5	0.010
	Oxygen/Argon	12	0.50	9.2	0.50	3.9	0.50	0.51	0.50
	Nitrogen	62	1.0	88	1.0	90	1.0	4.1	1.0
	Methane	22	0.0010	0.0038	0.0010	0.52	0.0010	92	0.0010

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____


 Mark Johnson
 Operations Manager

Date: _____

4/21/15

The cover letter is an integral part of this analytical report



Client: Advanced Technology Laboratories
 Attn: Rachelle Arada
 Project Name: NA
 Project No.: 1501260
 Date Received: 04/09/15
 Matrix: Air
 Reporting Units: % v/v

Page 4 of 9
 G040901

ASTM D1946

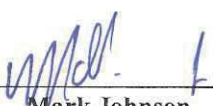
Lab No.:	G040901-09	G040901-10						
Client Sample I.D.:	1501260-09 / M-408 @ 60' (probe)	1501260-10 / M-408 @ 90' (probe)						
Date/Time Sampled:	4/8/15 12:19	4/8/15 12:40						
Date/Time Analyzed:	4/9/15 14:20	4/9/15 15:06						
QC Batch No.:	150409GC8A1	150409GC8A1						
Analyst Initials:	AS	AS						
Dilution Factor:	1.0	1.0						
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v				
	Carbon Dioxide	1.1	0.010	0.32	0.010			
	Oxygen/Argon	17	0.50	16	0.50			
	Nitrogen	81	1.0	83	1.0			
	Methane	0.026	0.0010	0.22	0.0010			

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____


 Mark Johnson
 Operations Manager

Date: 4/21/15

The cover letter is an integral part of this analytical report



QC Batch No.: 150409GC8A1

Matrix: Air

Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank	LCS	LCSD					
Date/Time Analyzed:	4/9/15 10:36	4/9/15 9:37	4/9/15 10:07					
Analyst Initials:	AS	AS	AS					
Datafile:	09apr010	09apr006	09apr008					
Dilution Factor:	1.0	1.0	1.0					
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Carbon Dioxide	ND	0.010	96	70-130%	96	70-130%	0.0	<30
Oxygen/Argon	ND	0.50	98	70-130%	98	70-130%	0.0	<30
Nitrogen	ND	1.0	99	70-130%	99	70-130%	0.2	<30
Methane	ND	0.0010	105	70-130%	104	70-130%	0.5	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____


 Mark J. Johnson
 Operations Manager

Date: 4/21/15

The cover letter is an integral part of this analytical report.



AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91744 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1501260
Date Received: 04/09/15
Matrix: Air
Reporting Units: ppmv

Page 6 of 9
 G040901

EPA 15/16

Lab No.:	G040901-01	G040901-02	G040901-03	G040901-04					
Client Sample I.D.:	1501260-01 / M-407 @ 65' (probe)	1501260-02 / M-407 @ 70' (probe)	1501260-03 / M-407 @ 75' (probe)	1501260-04 / M-407 @ 60' (probe)					
Date/Time Sampled:	4/8/15 10:46	4/8/15 11:02	4/8/15 11:33	4/8/15 9:53					
Date/Time Analyzed:	4/9/15 11:15	4/9/15 11:27	4/9/15 11:38	4/9/15 11:54					
QC Batch No.:	150409GC3A1	150409GC3A1	150409GC3A1	150409GC3A1					
Analyst Initials:	AS	AS	AS	AS					
Dilution Factor:	1.0	1.0	1.0	1.0					
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	
	Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20	ND	0.20

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____


 Mark Johnson
 Operations Manager

Date _____

4/20/15

The cover letter is an integral part of this analytical report



Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1501260
Date Received: 04/09/15
Matrix: Air
Reporting Units: ppmv

Page 7 of 9
 G040901

EPA 15/16

Lab No.:	G040901-05	G040901-06	G040901-07	G040901-08				
Client Sample I.D.:	1501260-05 / M-407 @ 90' (probe)	1501260-06 / M-408 @ 40' (probe)	1501260-07 / M-408 @ 70' (probe)	1501260-08 / M-408 @ 95' (probe)				
Date/Time Sampled:	4/8/15 10:22	4/8/15 13:08	4/8/15 13:24	4/8/15 13:41				
Date/Time Analyzed:	4/9/15 12:05	4/9/15 12:18	4/9/15 12:30	4/9/15 13:12				
QC Batch No.:	150409GC3A1	150409GC3A1	150409GC3A1	150409GC3A1				
Analyst Initials:	AS	AS	AS	AS				
Dilution Factor:	1.0	1.0	1.0	10				
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
	Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20	11

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____


 Mark Johnson
 Operations Manager

Date _____

4/20/15

The cover letter is an integral part of this analytical report



Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1501260
Date Received: 04/09/15
Matrix: Air
Reporting Units: ppmv

EPA 15/16

Lab No.:	G040901-09	G040901-10		
Client Sample I.D.:	1501260-09 / M-408 @ 60' (probe)	1501260-10 / M-408 @ 90' (probe)		
Date/Time Sampled:	4/8/15 12:19	4/8/15 12:40		
Date/Time Analyzed:	4/9/15 13:24	4/9/15 13:35		
QC Batch No.:	150409GC3A1	150409GC3A1		
Analyst Initials:	AS	AS		
Dilution Factor:	1.0	1.0		
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	ND	0.20	ND	0.20

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____


 Mark Johnson
 Operations Manager

Date _____

4/20/15

The cover letter is an integral part of this analytical report



QC Batch No.: 150409GC3A1
 Matrix: Air
 Units: ppmv

Page 9 of 9
 G040901

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	4/9/15 9:00		4/9/15 9:45		4/9/15 9:57			
Analyst Initials:	AS		AS		AS			
Datafile:	09apr001		09apr004		09apr005			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	103	70-130%	103	70-130%	0.1	<30

ND = Not Detected (Below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark J. 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

Figure E-2.11

ADVANCED TECHNOLOGY
 LABORATORIES
SUBCONTRACT ORDER
Work Order: 1501260

G040901-01/6

SENDING LABORATORY:

Advanced Technology Laboratories
 3275 Walnut Avenue
 Signal Hill, CA 90755
 Phone: 562.989.4045
 Fax: 562.989.6348
 Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Air Technology Laboratories, Inc.
 18501 E. Gale Ave, Suite 130
 City of Industry, CA 91748
 Phone : (626) 964-4032
 Fax: (626) 964-5832
 PO#: SC09501-STANDARD TAT

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
<p>01 ATL Lab#: 1501260-01 / M-407 @ 65' (probe)</p> <p>D1946_T [Fixed Gases]</p> <p>15_16_H2S_T_SUB [Hydrogen Sulfide]</p> <p>2-Tedlar Bag</p>	04/15/15 17:00	04/11/15 10:46	04/08/15 10:46	Pls. report fixed gases - Nitrogen, Oxygen, Carbon Dioxide and Methane
<p>02 ATL Lab#: 1501260-02 / M-407 @ 70' (probe)</p> <p>15_16_H2S_T_SUB [Hydrogen Sulfide]</p> <p>D1946_T [Fixed Gases]</p>	04/15/15 17:00	04/11/15 11:02	04/08/15 11:02	
<p>03 ATL Lab#: 1501260-03 / M-407 @ 75' (probe)</p> <p>15_16_H2S_T_SUB [Hydrogen Sulfide]</p> <p>D1946_T [Fixed Gases]</p>	04/15/15 17:00	04/11/15 11:33	04/08/15 11:33	

Released By 	Date <u>4/9/15</u>	Received By <u>907</u> 	Date <u>4/9/15</u>
Released By <u>/</u>	Date	Received By	Date

4/8/15

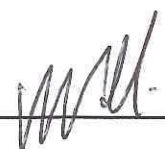
ADVANCED TECHNOLOGY
 LABORATORIES

SUBCONTRACT ORDER

Work Order: 1501260

G040701-01/10

Analysis	Due	Expires	Sampled	Comments
04 ATL Lab#: 1501260-04 / M-407 @ 60'		Air	04/08/15 09:53	
15_16_H2S_T_SUB [Hydrogen Sulfide]	04/15/15 17:00	04/11/15 09:53		
D1946_T [Fixed Gases]	04/15/15 17:00	04/11/15 09:53		
05 ATL Lab#: 1501260-05 / M-407 @ 90'		Air	04/08/15 10:22	
D1946_T [Fixed Gases]	04/15/15 17:00	04/11/15 10:22		
15_16_H2S_T_SUB [Hydrogen Sulfide]	04/15/15 17:00	04/11/15 10:22		
06 ATL Lab#: 1501260-06 / M-408 @ 40' (probe)		Air	04/08/15 13:08	
D1946_T [Fixed Gases]	04/15/15 17:00	04/11/15 13:08		
15_16_H2S_T_SUB [Hydrogen Sulfide]	04/15/15 17:00	04/11/15 13:08		
07 ATL Lab#: 1501260-07 / M-408 @ 70' (probe)		Air	04/08/15 13:24	
15_16_H2S_T_SUB [Hydrogen Sulfide]	04/15/15 17:00	04/11/15 13:24		
D1946_T [Fixed Gases]	04/15/15 17:00	04/11/15 13:24		
08 ATL Lab#: 1501260-08 / M-408 @ 95' (probe)		Air	04/08/15 13:41	
15_16_H2S_T_SUB [Hydrogen Sulfide]	04/15/15 17:00	04/11/15 13:41		
D1946_T [Fixed Gases]	04/15/15 17:00	04/11/15 13:41		

			
Released By	Date	Received By	Date

Released By	Date	Received By	Date

ADVANCED TECHNOLOGY
 LABORATORIES
SUBCONTRACT ORDER
Work Order: 1501260

G040901-01/10

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1501260-09 / M-408 @ 60' Air 04/08/15 12:19				
15_16_H2S_T_SUB [Hydrogen Sulfide]	04/15/15 17:00	04/11/15 12:19		
D1946_T [Fixed Gases]	04/15/15 17:00	04/11/15 12:19		
 ATL Lab#: 1501260-10 / M-408 @ 90' Air 04/08/15 12:40				
D1946_T [Fixed Gases]	04/15/15 17:00	04/11/15 12:40		
15_16_H2S_T_SUB [Hydrogen Sulfide]	04/15/15 17:00	04/11/15 12:40		

~	4/9/15	907	[Signature]
Released By	Date	Received By	Date

Released By	Date	Received By	Date



June 01, 2015

Ron Lopez
Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles, CA 90040
Tel: (323) 889-5300
Fax: (323) 721-6700

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1501690
Client Reference : MTA WESTSIDE, 4953-11-1423

Enclosed are the results for sample(s) received on May 13, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'E Rodriguez', is placed over a light blue rectangular background.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040
www.atlglobal.com



Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA WESTSIDE, 4953-11-1423

Report To : Ron Lopez

Reported : 06/01/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M-407 Standpipe @ 60'	1501690-01	Air	5/13/15 9:57	5/13/15 14:56
M-407 Probe @75'	1501690-02	Air	5/13/15 10:18	5/13/15 14:56
M-408 Standpipe @90'	1501690-03	Air	5/13/15 11:00	5/13/15 14:56
M-408 Probe @ 95'	1501690-04	Air	5/13/15 11:25	5/13/15 14:56
M-119 Standpipe @ 50'	1501690-05	Air	5/13/15 12:10	5/13/15 14:56
M-119 Standpipe @ 75'	1501690-06	Air	5/13/15 12:55	5/13/15 14:56
M-119 Probe @ 25'	1501690-07	Air	5/13/15 12:45	5/13/15 14:56

CASE NARRATIVE

The samples for Methane, H2S (15/16) and Fixed Gases (ASTM D1946) were subcontracted to Air Technology Laboratories.

June 1, 2015

Advanced Technology Laboratories
ATTN: Rachelle Arada
3275 Walnut Ave.
Signal Hill, CA 90755



ADE-1461
EPA Methods TO-3,
TO14A, TO15 SIM & Scan,
ASTM D1946



LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-09-TX
EPA Methods TO14A, TO15

UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 1501690
Lab Number: G051402-01/07

Enclosed are results for sample(s) received 5/14/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1501690
Date Received: 05/14/15
Matrix: Air
Reporting Units: % v/v

Page 2 of 7
 G051402

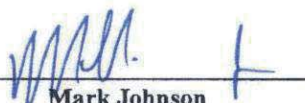
ASTM D1946								
Lab No.:	G051402-01		G051402-02		G051402-03		G051402-04	
Client Sample I.D.:	1501690-01 / M-407 Standpipe @60'		1501690-02 / M-407 probe @75'		1501690-03 / M-408 Standpipe @90'		1501690-04 / M-408 probe @95'	
Date/Time Sampled:	5/13/15 9:57		5/13/15 10:18		5/13/15 11:00		5/13/15 11:25	
Date/Time Analyzed:	5/15/15 10:36		5/15/15 10:51		5/15/15 11:05		5/15/15 11:20	
QC Batch No.:	150515GC8A1		150515GC8A1		150515GC8A1		150515GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Carbon Dioxide	6.9	0.010	7.8	0.010	5.6	0.010	1.4	0.010
Oxygen/Argon	2.9	0.50	1.9	0.50	5.8	0.50	0.59	0.50
Nitrogen	53	1.0	46	1.0	53	1.0	2.3	1.0
Methane	36	0.0010	43	0.0010	5.3	0.0010	94	0.0010

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____


 Mark Johnson
 Operations Manager

Date _____


 5/21/15

The cover letter is an integral part of this analytical report



Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1501690
Date Received: 05/14/15
Matrix: Air
Reporting Units: % v/v

Page 3 of 7
 G051402

ASTM D1946							
Lab No.:	G051402-05	G051402-06	G051402-07				
Client Sample I.D.:	1501690-05 / M-119 Standpipe @50'	1501690-06 / M-119 Standpipe @75'	1501690-07 / M-119 probe @25'				
Date/Time Sampled:	5/13/15 12:10	5/13/15 12:55	5/13/15 12:45				
Date/Time Analyzed:	5/15/15 11:34	5/15/15 12:04	5/15/15 12:19				
QC Batch No.:	150515GC8A1	150515GC8A1	150515GC8A1				
Analyst Initials:	AS	AS	AS				
Dilution Factor:	1.0	1.0	1.0				
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	
Carbon Dioxide	1.9	0.010	6.7	0.010	3.1	0.010	
Oxygen/Argon	14	0.50	4.8	0.50	2.6	0.50	
Nitrogen	84	1.0	83	1.0	94	1.0	
Methane	0.24	0.0010	5.2	0.0010	0.043	0.0010	

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
 Operations Manager

Date 5/31/15

The cover letter is an integral part of this analytical report



QC Batch No.: 150515GC8A1

Matrix: Air

Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	5/15/15 10:21		5/15/15 9:37		5/15/15 9:52			
Analyst Initials:	AS		AS		AS			
Datafile:	15may007		15may004		15may005			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Carbon Dioxide	ND	0.010	97	70-130%	96	70-130%	1.0	<30
Oxygen/Argon	ND	0.50	97	70-130%	96	70-130%	0.9	<30
Nitrogen	ND	1.0	99	70-130%	98	70-130%	0.9	<30
Methane	ND	0.0010	116	70-130%	113	70-130%	2.6	<30

ND = Not Detected (Below RL)

Reviewed/Approved By:

Mark J. Johnson
Operations Manager

Date:

5/15/15

The cover letter is an integral part of this analytical report.



Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1501690
Date Received: 05/14/15
Matrix: Air
Reporting Units: ppmv

Page 5 of 7
 G051402

EPA 15/16								
Lab No.:	G051402-01		G051402-02		G051402-03		G051402-04	
Client Sample I.D.:	1501690-01 / M-407 Standpipe @60'		1501690-02 / M-407 probe @75'		1501690-03 / M-408 Standpipe @90'		1501690-04 / M-408 probe @95'	
Date/Time Sampled:	5/13/15 9:57		5/13/15 10:18		5/13/15 11:00		5/13/15 11:25	
Date/Time Analyzed:	5/14/15 13:37		5/14/15 13:50		5/14/15 14:02		5/14/15 14:25	
QC Batch No.:	150514GC3A1		150514GC3A1		150514GC3A1		150514GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		100	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20	290	20

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____


 Mark Johnson
 Operations Manager

Date _____



The cover letter is an integral part of this analytical report.



Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1501690
Date Received: 05/14/15
Matrix: Air
Reporting Units: ppmv

Page 6 of 7
 G051402

EPA 15/16							
Lab No.:	G051402-05		G051402-06		G051402-07		
Client Sample I.D.:	1501690-05 / M-119 Standpipe @50'		1501690-06 / M-119 Standpipe @75'		1501690-07 / M-119 probe @25'		
Date/Time Sampled:	5/13/15 12:10		5/13/15 12:55		5/13/15 12:45		
Date/Time Analyzed:	5/14/15 14:36		5/14/15 14:47		5/14/15 14:58		
QC Batch No.:	150514GC3A1		150514GC3A1		150514GC3A1		
Analyst Initials:	AS		AS		AS		
Dilution Factor:	1.0		1.0		1.0		
ANALYTE	Result	RL	Result	RL	Result	RL	
	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv	
Hydrogen Sulfide	ND	0.20	0.52	0.20	ND	0.20	

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____


 Mark Johnson
 Operations Manager

Date _____

5/31/15

The cover letter is an integral part of this analytical report



QC Batch No.: 150514GC3A1
Matrix: Air
Units: ppmv

Page 7 of 7
G051402

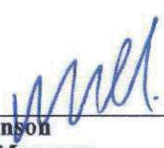
QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	5/14/15 9:49		5/14/15 9:20		5/14/15 9:31			
Analyst Initials:	AS		AS		AS			
Datafile:	14may003		14may001		14may002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	92	70-130%	91	70-130%	1.2	<30

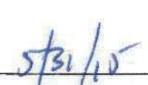
ND = Not Detected (Below RL)

RL = Reporting Limit

Reviewed/Approved By: _____


Mark J. Johnson
Operations Manager

Date: _____



The cover letter is an integral part of this analytical report.



ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1501690

C091402-01/07

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Air Technology Laboratories, Inc.
18501 E. Gale Ave, Suite 130
City of Industry, CA 91748
Phone: (626) 964-4032
Fax: (626) 964-5832
PO#: SC09584-STANDARD TAT

RA

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1501690-01 / M-407 Standpipe @60'				
Air			05/13/15 09:57	D1946-Carbon Dioxide, Oxygen, Nitrogen, Methane
D1946_T [Fixed Gases]	05/29/15 17:00	05/16/15 09:57		
15_16_H2S_T_SUB [Hydrogen Sulfide]	05/29/15 17:00	05/16/15 09:57		
2-Tedlar Bag				
ATL Lab#: 1501690-02 / M-407 probe @75'				
Air			05/13/15 10:18	
D1946_T [Fixed Gases]	05/29/15 17:00	05/16/15 10:18		
15_16_H2S_T_SUB [Hydrogen Sulfide]	05/29/15 17:00	05/16/15 10:18		
2-Tedlar Bag				
ATL Lab#: 1501690-03 / M-408 Standpipe @90'				
Air			05/13/15 11:00	
D1946_T [Fixed Gases]	05/29/15 17:00	05/16/15 11:00		
15_16_H2S_T_SUB [Hydrogen Sulfide]	05/29/15 17:00	05/16/15 11:00		
2-Tedlar Bag				

Released By

Date

Received By

Date

Released By

Date

Received By

Date

 ADVANCED TECHNOLOGY
 LABORATORIES

SUBCONTRACT ORDER

Work Order: 1501690

G051402-01/07

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1501690-04 / M-488 probe @25'				
Air				05/13/15 11:25
ca D1946_T	05/29/15 17:00	05/16/15 11:25		
[Fixed Gases]				
15_16_H2S_T_SUB	05/29/15 17:00	05/16/15 11:25		
[Hydrogen Sulfide]				
2-Tedlar Bag				
ATL Lab#: 1501690-05 / M-119 Standpipe @50'				
Air				05/13/15 12:10
ca D1946_T	05/29/15 17:00	05/16/15 12:10		
[Fixed Gases]				
15_16_H2S_T_SUB	05/29/15 17:00	05/16/15 12:10		
[Hydrogen Sulfide]				
2-Tedlar Bag				
ATL Lab#: 1501690-06 / M-119 Standpipe @75'				
Air				05/13/15 12:55
ca D1946_T	05/29/15 17:00	05/16/15 12:55		
[Fixed Gases]				
15_16_H2S_T_SUB	05/29/15 17:00	05/16/15 12:55		
[Hydrogen Sulfide]				
2-Tedlar Bag				
ATL Lab#: 1501690-07 / M-119 probe @25'				
Air				05/13/15 12:45
ca D1946_T	05/29/15 17:00	05/16/15 12:45		
[Fixed Gases]				
15_16_H2S_T_SUB	05/29/15 17:00	05/16/15 12:45		
[Hydrogen Sulfide]				
2-Tedlar Bag				

Released By

Date

Received By

Date

Released By

Date

Received By

Date

CHAIN OF CUSTODY RECORD

Page of

Instruction: Complete all shaded areas.

For Laboratory Use Only
 ATLCC Ver: 20130715

Method of Transport		Simple Conditions Upon Receipt	
☒ Client	☐ ATL	Condition	Y N
☐ FedEx	☐ OnTrac	1. CHILLED	☐ Y ☐ N
☐ GSO	☐ GSO	2. HEADSPACE (VDA)	☐ Y ☐ N
☐ Other:	☐ Other:	3. CONTAINER INTACT	☐ Y ☐ N
		4. SEALED	☐ Y ☐ N

Company: **AmeC Foster Wheeler** Address: **6001 Rickenbacker Rd** Tel: **323 889 5300**
 City: **Los Angeles** State: **CA** Zip: **90040** Fax: **323 889 6700**
 Attn: **Ron Lopez** Email: **RON.LOPEZ@AMEC.COM**
 Company: **AmeC Foster Wheeler** Address: **AmeC Foster Wheeler**
 City: **San Francisco** State: **CA** Zip: **94103**

Project Name: **MTA Westside** Quote No: **4953-11-1423**
 Project No.: **4953-11-1423** PO #: **4953-11-1423**
 Sampler: **Diego Sepillato**

ITEM	Lab No.	Sample ID / Location	Sample Description		Date	Time	Encircle or Wipe Requested Analysis	Encircle Sample Matrix						Container	QA/QC		
			Sample ID	Location				Soil / Sediment / Sludge	Solids / Wipe / Filter	Water - Drinking / Ground	Water - Storm / Waste	Aqueous / Layered - Oil	TAT				
1	1901640-1	M-407 Standpipe @ 60'			5/13/15	9:57	ASTM D1946 * EPA 15/16 TO-15 6010 / 7000 (Title 22 Metals) 8082 (PCBs) 8081 (Organochlorine Pesticides) 8270 (Semi-volatiles) 8015 (GRO) 8015 (DRO)							2	62	Material: 1-Glass, 2-Plastic, 3-Metal Type: 1-Tube, 2-Vial, 3-Canister, 4-Pint, 5-Gal, 6-Tedlar, 7-Canister Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-HCl, 5-Zn (Ac2), 6-NH4OH, 7-NH42S2O3	☐ Routine ☐ Caltrans ☐ Legal ☐ RW/QCB ☐ Level IV
2	1	M-407 Probe @ 75'			5/13/15	10:18	ASTM D1946 * EPA 15/16 TO-15 6010 / 7000 (Title 22 Metals) 8082 (PCBs) 8081 (Organochlorine Pesticides) 8270 (Semi-volatiles) 8015 (GRO) 8015 (DRO)							2	62		
3	3	M-408 Standpipe @ 90'			5/13/15	11:00	ASTM D1946 * EPA 15/16 TO-15 6010 / 7000 (Title 22 Metals) 8082 (PCBs) 8081 (Organochlorine Pesticides) 8270 (Semi-volatiles) 8015 (GRO) 8015 (DRO)							2	62		
4	4	M-408 Probe @ 95'			5/13/15	11:25	ASTM D1946 * EPA 15/16 TO-15 6010 / 7000 (Title 22 Metals) 8082 (PCBs) 8081 (Organochlorine Pesticides) 8270 (Semi-volatiles) 8015 (GRO) 8015 (DRO)							2	62		
5	5	M-119 Standpipe @ 50'			5/13/15	12:10	ASTM D1946 * EPA 15/16 TO-15 6010 / 7000 (Title 22 Metals) 8082 (PCBs) 8081 (Organochlorine Pesticides) 8270 (Semi-volatiles) 8015 (GRO) 8015 (DRO)							2	62		
6	6	M-119 Standpipe @ 75'			5/13/15	12:55	ASTM D1946 * EPA 15/16 TO-15 6010 / 7000 (Title 22 Metals) 8082 (PCBs) 8081 (Organochlorine Pesticides) 8270 (Semi-volatiles) 8015 (GRO) 8015 (DRO)							2	62		
7	7	M-119 Probe @ 25'			5/13/15	12:45	ASTM D1946 * EPA 15/16 TO-15 6010 / 7000 (Title 22 Metals) 8082 (PCBs) 8081 (Organochlorine Pesticides) 8270 (Semi-volatiles) 8015 (GRO) 8015 (DRO)							2	62		
8																	
9																	
10																	

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: **Diego Sepillato** Submitter Print Name: **Diego Sepillato**

Date: **5/13/15** Time: **14:56**

Received by: (Signature and Printed Name) **Diego Sepillato** Date: **5/13/15** Time: **2:56pm**

Relinquished by: (Signature and Printed Name) **Diego Sepillato** Date: **5/13/15** Time: **2:56pm**

Relinquished by: (Signature and Printed Name) **Diego Sepillato** Date: **5/13/15** Time: **2:56pm**

Relinquished by: (Signature and Printed Name) **Diego Sepillato** Date: **5/13/15** Time: **2:56pm**

Figure E-2.27



June 11, 2015

Ron Lopez
Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles, CA 90040
Tel: (323) 889-5300
Fax: (323) 721-6700

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No.: T104704502

Re: ATL Work Order Number : 1501894

Client Reference : MTA WES Constellation Station, 4953-11-1423

Enclosed are the results for sample(s) received on May 28, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue rectangular background.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040
www.atlglobal.com



Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA WES Constellation Station, 4953-11

Report To : Ron Lopez

Reported : 06/11/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M-407 Standpipe @ 60'	1501894-01	Air	5/28/15 9:50	5/28/15 15:03
M-407 Standpipe @ 90'	1501894-02	Air	5/28/15 10:00	5/28/15 15:03
M-408 Probe @ 95'	1501894-03	Air	5/28/15 12:05	5/28/15 15:03
M-408 Standpipe @ 90'	1501894-04	Air	5/28/15 11:30	5/28/15 15:03
M-119 Standpipe @ 75'	1501894-05	Air	5/28/15 13:25	5/28/15 15:03

CASE NARRATIVE

The samples for Methane, H₂S (15/16) and Fixed Gases (ASTM D1946) were subcontracted to Air Technology Laboratories.

June 8, 2015

Advanced Technology Laboratories
ATTN: Rachelle Arada
3275 Walnut Ave.
Signal Hill, CA 90755



ADE-1461
EPA Methods TO-3,
TO14A, TO15 SIM & Scan,
ASTM D1946



LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-09-TX
EPA Methods TO14A, TO15

UT Cert CA0133332014-1
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 1501894
Lab Number: G052901-01/05

Enclosed are results for sample(s) received 5/29/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "M. Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1501894
Date Received: 05/29/15
Matrix: Air
Reporting Units: % v/v

Page 2 of 7
 G052901

ASTM D1946								
Lab No.:	G052901-01		G052901-02		G052901-03		G052901-04	
Client Sample I.D.:	1501894-01 / M-407 Standpipe @ 60'		1501894-02 / M-407 Standpipe @ 90'		1501894-03 / M-408 Probe @ 95'		1501894-04 / M-408 Standpipe @ 90'	
Date/Time Sampled:	5/28/15 9:50		5/28/15 10:00		5/28/15 12:05		5/28/15 11:30	
Date/Time Analyzed:	5/29/15 14:18		5/29/15 14:33		5/29/15 14:47		5/29/15 15:02	
QC Batch No.:	150529GC8A1		150529GC8A1		150529GC8A1		150529GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Carbon Dioxide	6.9	0.010	5.6	0.010	1.1	0.010	4.9	0.010
Oxygen/Argon	5.1	0.50	7.4	0.50	5.1	0.50	8.1	0.50
Nitrogen	77	1.0	51	1.0	19	1.0	81	1.0
Methane	10	0.0010	35	0.0010	73	0.0010	5.5	0.0010

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
 Operations Manager

Date 6/8/15

The cover letter is an integral part of this analytical report



Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1501894
Date Received: 05/29/15
Matrix: Air
Reporting Units: % v/v

Page 3 of 7
 G052901

ASTM D1946							
Lab No.:	G052901-05						
Client Sample I.D.:	1501894-05 / M-119 Standpipe @ 75'						
Date/Time Sampled:	5/28/15 13:25						
Date/Time Analyzed:	5/29/15 15:16						
QC Batch No.:	150529GC8A1						
Analyst Initials:	JS						
Dilution Factor:	1.0						
ANALYTE	Result % v/v	RL % v/v					
Carbon Dioxide	2.2	0.010					
Oxygen/Argon	15	0.50					
Nitrogen	81	1.0					
Methane	1.4	0.0010					

Results normalized including non-methane hydrocarbons
 ND = Not Detected (below RL)
 RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
 Operations Manager

Date 6/8/15

The cover letter is an integral part of this analytical report



QC Batch No.: 150529GC8A1

Matrix: Air

Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank	LCS	LCS D					
Date/Time Analyzed:	5/29/15 14:02	5/29/15 12:49	5/29/15 13:04					
Analyst Initials:	AS	AS	AS					
Datafile:	29may011	29may006	29may007					
Dilution Factor:	1.0	1.0	1.0					
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Carbon Dioxide	ND	0.010	89	70-130%	88	70-130%	1.1	<30
Oxygen/Argon	ND	0.50	101	70-130%	100	70-130%	0.7	<30
Nitrogen	ND	1.0	101	70-130%	100	70-130%	0.7	<30
Methane	ND	0.0010	119	70-130%	120	70-130%	0.5	<30

ND = Not Detected (Below RL)

Reviewed/Approved By:

Mark J. Johnson
Operations Manager

Date:

6/8/15

The cover letter is an integral part of this analytical report.



Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1501894
Date Received: 05/29/15
Matrix: Air
Reporting Units: ppmv

Page 5 of 7
 G052901

EPA 15/16								
Lab No.:	G052901-01		G052901-02		G052901-03		G052901-04	
Client Sample I.D.:	1501894-01 / M-407 Standpipe @ 60'		1501894-02 / M-407 Standpipe @ 90'		1501894-03 / M-408 Probe @ 95'		1501894-04 / M-408 Standpipe @ 90'	
Date/Time Sampled:	5/28/15 9:50		5/28/15 10:00		5/28/15 12:05		5/28/15 11:30	
Date/Time Analyzed:	5/29/15 11:29		5/29/15 11:41		5/29/15 12:03		5/29/15 12:14	
QC Batch No.:	150529GC3A1		150529GC3A1		150529GC3A1		150529GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		100		1.0	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	ND	0.20	ND	0.20	330	20	ND	0.20

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 6/8/15

The cover letter is an integral part of this analytical report



Air TECHNOLOGY Laboratories, Inc.

18501 E. Gale Avenue, Suite 130 • City of Indianapolis, IN 46224 • Ph: (626) 964-4032 • Fx: (626) 964-5832

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1501894
Date Received: 05/29/15
Matrix: Air
Reporting Units: ppmv

Page 6 of 7
 G052901

EPA 15/16							
Lab No.:	G052901-05						
Client Sample I.D.:	1501894-05 / M-119 Standpipe @ 75'						
Date/Time Sampled:	5/28/15 13:25						
Date/Time Analyzed:	5/29/15 12:26						
QC Batch No.:	150529 GC3A1						
Analyst Initials:	AS						
Dilution Factor:	1.0						
ANALYTE	Result ppmv	RL ppmv					
Hydrogen Sulfide	ND	0.20					

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

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 6/8/15

The cover letter is an integral part of this analytical report



QC Batch No.: 150529GC3A1
Matrix: Air
Units: ppmv

Page 7 of 7
G052901

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	5/29/15 9:15		5/29/15 8:38		12/5/13 9:01			
Analyst Initials:	AS		AS		AS			
Datafile:	29may003		29may001		29may002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	77	70-130%	81	70-130%	3.9	<30

ND = Not Detected (Below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark J. 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 Indianapolis ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

G052901-01/05

SUBCONTRACT ORDER

Work Order: 1501894

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Air Technology Laboratories, Inc.
18501 E. Gale Ave, Suite 130
City of Industry, CA 91748
Phone : (626) 964-4032
Fax: (626) 964-5832
PO#: SC09647-STANDARD TAT

CA

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
01 ATL Lab#: 1501894-01 / M-407 Standpipe @ 60'		Air	05/28/15 09:50	D1946-please report Carbon Dioxide, Oxygen, Nitrogen, Methane
D1946_T [Fixed Gases]	06/11/15 17:00	05/31/15 09:50		
15_16_H2S_T_SUB [Hydrogen Sulfide] 2-Tedlar Bag	06/11/15 17:00	05/31/15 09:50		
02 ATL Lab#: 1501894-02 / M-407 Standpipe @ 90'		Air	05/28/15 10:00	
D1946_T [Fixed Gases]	06/11/15 17:00	05/31/15 10:00		
15_16_H2S_T_SUB [Hydrogen Sulfide] 2-Tedlar Bag	06/11/15 17:00	05/31/15 10:00		
03 ATL Lab#: 1501894-03 / M-408 Probe @ 95'		Air	05/28/15 12:05	
D1946_T [Fixed Gases]	06/11/15 17:00	05/31/15 12:05		
15_16_H2S_T_SUB [Hydrogen Sulfide] 2-Tedlar Bag	06/11/15 17:00	05/31/15 12:05		

Released By

Date

Received By

Date

Released By

Date

Received By

Date

ADVANCED TECHNOLOGY
LABORATORIES

G052901-01/05

SUBCONTRACT ORDER

Work Order: 1501894

Analysis	Due	Expires	Sampled	Comments
04 ATL Lab#: 1501894-04 / M-408 Standpipe @ 90'		Air	05/28/15 11:30	
D1946_T	06/11/15 17:00	05/31/15 11:30		
[Fixed Gases]				
15_16_H2S_T_SUB	06/11/15 17:00	05/31/15 11:30		
[Hydrogen Sulfide]				
2-Tedlar Bag				
05 ATL Lab#: 1501894-05 / M-119 Standpipe @ 75'		Air	05/28/15 13:25	
D1946_T	06/11/15 17:00	05/31/15 13:25		
[Fixed Gases]				
15_16_H2S_T_SUB	06/11/15 17:00	05/31/15 13:25		
[Hydrogen Sulfide]				
2-Tedlar Bag				

Released By MSD/MC/ML Date 5/24/15 841 Received By [Signature] Date 5/29/15 841

Released By _____ Date _____ Received By _____ Date _____

CHAIN OF CUSTODY RECORD

Page 1 of 1

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCOG Ver: 20130715

Method of Transport	Condition	Y	N	Condition	Y	N
☒ Client	☐ ATL	☐	☒	☐ 5. # OF SAMPLES MATCH CDC	☐	☒
☐ FedEx	☐ OnTrac	☐	☐	☐ 6. PRESERVED	☐	☐
☐ GSO	☐	☐	☐	☐ 7. COOLER TEMP. deg C:	☐	☐
☐ Other:	☐	☐	☐	☐	☐	☐

Company: AmeC Foster Wheeler	Address: 6001 Rickenbacker Rd	Tel: 223 889 5300
Attn: Ron Lopez	City: Los Angeles	Fax: 323 271 6700
Company: Same	State: CA	Zip: 90040
Address: Same	SEND INVOICE TO: ☐ same as SEND REPORT TO	
City: Same	State: CA	Zip: 90040

ITEM	Lab No.	Sample ID / Location	Sample Description	Special Instructions/Comments:	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	1501844-1	M407 Standpipe @ 60'	5/28/15 9:50	* Oxygen, CO2 & Nitrogen	TO-15 8260 / 624 (Volatiles) 8015 (GRO) 8015 (DRO) 8270 (Semi-volatiles) 8081 (Organochlorine Pesticides) 8082 (PCBs) 6010 / 7000 (Title 22 Metals)	AQUEOUS / LAYERED - OIL WATER - STORM / WASTE WATER - DRINKING / GROUND SOLIDS / WIPE / FILTER SOIL / SEDIMENT / SLUDGE	Type: 1-Tube; 2-VOC; 3-H2SO4; 4-Plut; 5-Jar; 6-Tedlar; 7 - Canister	Preservative: 1-HCl; 2-HNO3; 3-H2SO4; 4 - H2O2 (1%); 5-NaOH; 7-NAS2O3
2	1501844-2	M407 Standpipe @ 90'	5/28/15 10:00				262	
3	1501844-3	M408 Standpipe @ 95'	5/28/15 12:05p				262	
4	1501844-4	M408 Standpipe @ 70'	5/28/15 11:30				262	
5	1501844-5	M408 Standpipe @ 75'	5/28/15 1:55p				262	
6								
7								
8								
9								
10								

<p>1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday, Saturday 8:00 AM to 12:00 PM.</p> <p>2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.</p> <p>3. The following turnaround time conditions apply:</p> <p>TAT = 0: 100% Surcharge. SAME BUSINESS DAY if received by 9:00 AM</p> <p>TAT = 1: 50% Surcharge. 2ND BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 2: 50% Surcharge. 3RD BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 3: 30% Surcharge. 4TH BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 4: 20% Surcharge. 5TH BUSINESS DAY (COB 5:00 PM)</p> <p>TAT = 5: NO SURCHARGE. 5TH BUSINESS DAY (COB 5:00 PM)</p> <p>4. Weekend, holiday, after-hours work - ask for quote.</p> <p>5. Subcontract TAT is 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge.</p> <p>6. Liquid & solid samples: Complimentary storage for receipt of samples; \$20/sample/week if extended storage is requested.</p> <p>7. Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$35 per reprocesed EDD.</p> <p>10. Ruth TUP/STIC samples: add 2 days to analysis TAT for extraction on procedure.</p> <p>11. Unanalyzed samples will incur a disposal fee of \$7 per sample.</p>	<p>As the authorized agent of the company above, hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p> <p>Diego Scapellato Submitter Print Name</p> <p>Diego Scapellato Signature</p> <p>Date: 5/28/15 Time: 15:03</p> <p>Date: 5/28/15 Time: 15:03</p> <p>Date: 5/28/15 Time: 15:03</p>
--	--



November 12, 2015

Ron Lopez
Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles, CA 90040
Tel: (323) 889-5300
Fax: (323) 721-6700

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1503722
Client Reference : MTA Westside, 4953-11-1423

Enclosed are the results for sample(s) received on October 29, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040
www.atlglobal.com



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/12/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M402 @ 105'	1503722-01	Air	10/29/15 10:17	10/29/15 16:06
M402 @ 55'	1503722-02	Air	10/29/15 10:41	10/29/15 16:06
M402 @ 105' (cylinders)	1503722-03	Groundwater	10/29/15 13:00	10/29/15 16:06
M402 @ 55' (cylinders)	1503722-04	Groundwater	10/29/15 13:15	10/29/15 16:06
G407 @ 38'	1503722-05	Air	10/29/15 14:17	10/29/15 16:06

CASE NARRATIVE

The air samples for Methane, H₂S (15/16) and Fixed Gases (ASTM D1946) were subcontracted to Air Technology Laboratories.



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/12/2015

Client Sample ID M402 @ 105' (cylinders)

Lab ID: 1503722-03

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	1	B5K0039	11/03/2015	11/03/15 10:56	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	1	B5J0867	10/30/2015	10/30/15 15:38	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/12/2015

Client Sample ID M402 @ 55' (cylinders)

Lab ID: 1503722-04

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	1	B5K0039	11/03/2015	11/03/15 11:18	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	1	B5J0867	10/30/2015	10/30/15 15:38	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/12/2015

QUALITY CONTROL SECTION

Dissolved Gases in Water - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5K0039 - No_Prep_RSK_W									
Blank (B5K0039-BLK1)				Prepared: 11/3/2015 Analyzed: 11/3/2015					
Methane	ND	1.0			NR				
LCS (B5K0039-BS1)				Prepared: 11/3/2015 Analyzed: 11/3/2015					
Methane	44.1200	1.0	48.1000		91.7	70 - 130			
LCS Dup (B5K0039-BSD1)				Prepared: 11/3/2015 Analyzed: 11/3/2015					
Methane	40.3400	1.0	48.1000		83.9	70 - 130	8.95	20	
Duplicate (B5K0039-DUP1)				Prepared: 11/3/2015 Analyzed: 11/3/2015					
Methane	ND	1.0		ND	NR			20	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/12/2015

Sulfide, Total by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B5J0867 - Prep_WC3_W

Blank (B5J0867-BLK1)

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total ND 0.010 NR

LCS (B5J0867-BS1)

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total 0.0957 0.010 0.100000 95.7 80 - 120

Matrix Spike (B5J0867-MS1)

Source: 1503667-04

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total 0.103200 0.010 0.100000 ND 103 70 - 120

Matrix Spike Dup (B5J0867-MSD1)

Source: 1503667-04

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total 0.103400 0.010 0.100000 ND 103 70 - 120 0.194 20



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/12/2015

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.



November 12, 2015

Advanced Technology Laboratories
ATTN: Rachelle Arada
3275 Walnut Ave.
Signal Hill, CA 90755



ADE-1461
EPA Methods TO-3,
TO14A, TO15 SIM & Scan,
ASTM D1946



LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 1503722
Lab Number: G103004-01/03

Enclosed are results for sample(s) received 10/30/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503722
Date Received: 10/30/15
Matrix: Air
Reporting Units: % v/v

Page 2 of 5
 G103004

ASTM D1946							
Lab No.:	G103004-01	G103004-02	G103004-03				
Client Sample I.D.:	1503722-01 / M402 @105'	1503722-02 / M402 @55'	1503722-05 / G407 @38'				
Date/Time Sampled:	10/29/15 10:17	10/29/15 10:41	10/29/15 14:17				
Date/Time Analyzed:	10/30/15 10:33	10/30/15 10:47	10/30/15 11:02				
QC Batch No.:	151030GC8A1	151030GC8A1	151030GC8A1				
Analyst Initials:	AS	AS	AS				
Dilution Factor:	1.0	1.0	1.0				
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	
Carbon Dioxide	0.047	0.010	0.087	0.010	0.27	0.010	
Oxygen/Argon	22	0.50	22	0.50	20	0.50	
Nitrogen	78	1.0	78	1.0	80	1.0	
Methane	ND	0.0010	ND	0.0010	ND	0.0010	

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark Johnson
 Operations Manager

Date 11-12-15

The cover letter is an integral part of this analytical report

page 1 of 1



AirTECHNOLOGY Laboratories, Inc.

Figure E-2.48

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

Page 9 of 14

QC Batch No.: 151030GC8A1

Matrix: Air

Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank	LCS		LCSD				
Date/Time Analyzed:	10/30/15 10:17	10/30/15 9:33		10/30/15 9:47				
Analyst Initials:	AS	AS		AS				
Datafile:	30oct009	30oct006		30oct007				
Dilution Factor:	1.0	1.0		1.0				
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Carbon Dioxide	ND	0.010	87	70-130%	87	70-130%	0.1	<30
Oxygen/Argon	ND	0.50	101	70-130%	101	70-130%	0.0	<30
Nitrogen	ND	1.0	98	70-130%	98	70-130%	0.1	<30
Methane	ND	0.0010	100	70-130%	99	70-130%	0.7	<30

ND = Not Detected (Below RL)

Reviewed/Approved By:



Mark J. Johnson
Operations Manager

Date: 11-12-15

The cover letter is an integral part of this analytical report.



Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503722
Date Received: 10/30/15
Matrix: Air
Reporting Units: ppmv

Page 4 of 5
 G103004

EPA 15/16								
Lab No.:	G103004-01		G103004-02		G103004-03			
Client Sample I.D.:	1503722-01 / M402 @105'		1503722-02 / M402 @55'		1503722-05 / G407 @38'			
Date/Time Sampled:	10/29/15 10:17		10/29/15 10:41		10/29/15 14:17			
Date/Time Analyzed:	10/30/15 10:39		10/30/15 10:50		10/30/15 11:02			
QC Batch No.:	151030GC3A1		151030GC3A1		151030GC3A1			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv		
Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20		

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:



Mark Johnson
 Operations Manager

Date

11-12-15

The cover letter is an integral part of this analytical report



AirTECHNOLOGY Laboratories, Inc.

Figure E-2.50

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

QC Batch No.: 151030GC3A1
Matrix: Air
Units: ppmv

Page 5 of 5
G103004

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank	LCS	LCS					
Date/Time Analyzed:	10/30/15 10:28	10/30/15 8:14	10/30/15 8:33					
Analyst Initials:	AS	AS	AS					
Datafile:	30oct004	30oct001	30oct002					
Dilution Factor:	1.0	1.0	1.0					
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	98	70-130%	100	70-130%	1.8	<30

ND = Not Detected (Below RL)

RL = Reporting Limit

Reviewed/Approved By:


Mark J. Johnson
Operations Manager

Date: 11-12-15

The cover letter is an integral part of this analytical report.



ADVANCED TECHNOLOGY
 LABORATORIES

SUBCONTRACT ORDER

Work Order: 1503722

C103004-01/03

SENDING LABORATORY:

Advanced Technology Laboratories
 3275 Walnut Avenue
 Signal Hill, CA 90755
 Phone: 562.989.4045
 Fax: 562.989.6348
 Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Air Technology Laboratories, Inc.
 18501 E. Gale Ave, Suite 130
 City of Industry, CA 91748
 Phone : (626) 964-4032
 Fax: (626) 964-5832
 PO#: SC09991- STANDARD TAT

RA

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1503722-01 / M402 @ 105'				
Air			10/29/15 10:17	D1946-pls report Carbon Dioxide, Oxygen/Argon, Nitrogen, Methane
D1946_T [Fixed Gases]	11/12/15 17:00	11/01/15 10:17		
15_16_H2S_T_SUB [Hydrogen Sulfide]	11/12/15 17:00	11/01/15 10:17		
2-Tedlar Bag				
ATL Lab#: 1503722-02 / M402 @ 55'				
Air			10/29/15 10:41	
D1946_T [Fixed Gases]	11/12/15 17:00	11/01/15 10:41		
15_16_H2S_T_SUB [Hydrogen Sulfide]	11/12/15 17:00	11/01/15 10:41		
2-Tedlar Bag				
ATL Lab#: 1503722-05 / G407 @ 38'				
Air			10/29/15 14:17	
D1946_T [Fixed Gases]	11/12/15 17:00	11/01/15 14:17		
15_16_H2S_T_SUB [Hydrogen Sulfide]	11/12/15 17:00	11/01/15 14:17		
2-Tedlar Bag				

Released By <i>ASG/IN MFW (2/17/15)</i>	Date <i>10/30/15 9:05</i>	Received By <i>[Signature]</i>	Date <i>10/30/15 9:05</i>
Released By	Date	Received By	Date

ADVANCED TECHNOLOGY
LABORATORIES
3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

CHAIN OF CUSTODY RECORD

Page 1 of 1

Instruction: Complete all shaded areas.

For Laboratory Use Only

ATLCOC Ver: 20130715

Method of Transport

☒ Client
☐ ATL
☐ FedEx
☐ GSO
☐ Other:

Sample Conditions Upon Receipt

Condition

Y

N

Condition

Y

N

1. CHILLED

☐

2. HEADSPACE (NDA)

☒

3. CONTAINER INTACT

☒

4. SEALED

☒

5. # OF SAMPLES MATCH COC

☒

6. PRESERVED

☒

7. COOLER TEMP. deg. C

☒

Company: Amec Foster Wheeler

Attn: Ron Lopez

City: Los Angeles

State: CA

Zip: 90041

Address: 6001 Rickenbacker

City: Los Angeles

State: CA

Zip: 90041

City: Same as SEND REPORT TO

State: Same as SEND REPORT TO

Zip: Same as SEND REPORT TO

SEND REPORT TO:

SEND INVOICE TO:

Attn:

Company:

Address:

City:

State:

Zip:

Project Name: MTA Westside

Project No.: 4953-11-1423

Sampler: Diego Sapiola

Quote No:

PO #:

Special Instructions/Comments:

Lab No.

Sample ID / Location

Sample Description

Date

Time

ITEM

1

1503722-1

M402 @ 105'

10/29/15

10:17

2

1503722-2

M402 @ 55'

10/29/15

10:41

3

1503722-3

M402 @ 105' (cylinders)

10/29/15

1:00

4

1503722-4

M402 @ 55' (cylinders)

10/29/15

1:15

5

1503722-5

G407 @ 28'

10/29/15

2:17

6

7

8

9

10

Encircle or Write Requested Analysis

8260 / 624 (Volatiles)

8015 (GRO)

8015 (DRO)

8270 (Semi-Volatiles)

8081 (Organochlorine Pesticides)

8082 (PCBs)

6010 / 7000 (Title 22 Metals)

TO-15

Methane

H2S

Fixed gases

Total sulfide

Encircle Sample Matrix

SOIL / SEDIMENT / SLUDGE

SOLIDS / WIPE / FILTER

WATER - DRINKING / GROUND

WATER - STORM / WASTE

AQUEOUS / LAYERED - OIL

Container

Type: 1=Tube; 2=VDA; 3=Other; 4=Pinpoint

Material: 1=Glass; 2=Plastic; 3=Metal

Preservative: 1=HCl; 2=HNO3; 3=H2SO4; 4=H2O2

5=Zn (Ac2); 6=NaOH; 7=NA2S2O3

QA/QC

☐ Routine

☐ Caltrans

☐ Legal

☐ RWQCB

☐ Level IV

TERMS

1. Samples received hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM
2. Samples submitted after 3:00 PM, are considered received the following business day at 8:00 AM.
3. The following turnaround time conditions apply:
TAT = 0: 100% Surcharge SAME BUSINESS DAY if received by 9:00 AM
TAT = 1: 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)
TAT = 2: 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)
TAT = 3: 25% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)
TAT = 4: 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM)
TAT = 5: NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subject to the subcontract lab - 10-15 business days. Projects requiring shorter TATs will incur a surcharge.
6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.
7. Extended storage charges will be assessed for five (5) years from report date.
8. Hard copy and regenerated reports/EDOs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$35 per reproducible EDO.
9. Storage and Report Fees:
- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
10. Rush TAT/STC samples: add 2 days to analysis TAT for extraction on procedure.
11. Unanalyzed samples will incur a disposal fee of \$7 per sample.

Relinquished by: (Signature and Printed Name)

Relinquished by: (Signature and Printed Name)

Relinquished by: (Signature and Printed Name)

As the authorized agent of the company above, hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature

Submitter Print Name

Date: 10/29/15

Date: 10/29/15

Date: 10/29/15

Time: 4:06 PM

Time: 4:06 PM

Time: 4:06 PM

Figure E-2.53



November 25, 2015

Ron Lopez
Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles, CA 90040
Tel: (323) 889-5300
Fax: (323) 721-6700

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1503888
Client Reference : MTA Westside, 4953-11-1423

Enclosed are the results for sample(s) received on November 11, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040
www.atlglobal.com



Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/25/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M-402 @ 55'	1503888-01	Air	11/11/15 10:25	11/11/15 16:05
M-402 @ 105	1503888-02	Air	11/11/15 10:25	11/11/15 16:05
M-403 @ 110'	1503888-03	Air	11/11/15 12:20	11/11/15 16:05
M-403 @ 45'	1503888-04	Air	11/11/15 12:20	11/11/15 16:05
G-139 @ 50'	1503888-05	Air	11/11/15 13:40	11/11/15 16:05
G-407 @ 38'	1503888-06	Air	11/11/15 14:45	11/11/15 16:05
M-403 @ 38'	1503888-07	Air	11/11/15 12:45	11/11/15 16:05
G-139 @ 90'	1503888-08	Air	11/11/15 13:45	11/11/15 16:05

CASE NARRATIVE

The air samples for Methane, H2S (15/16) and Fixed Gases (ASTM D1946) were subcontracted to Air Technology Laboratories.

November 25, 2015

Advanced Technology Laboratories
ATTN: Rachelle Arada
3275 Walnut Ave.
Signal Hill, CA 90755



ADE-1461
EPA Methods TO3,
TO14A, TO15 SIM & SCAN
ASTM D1946



LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 1503888
Lab Number: G111201-01/08

Enclosed are results for sample(s) received 11/12/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503888
Date Received: 11/12/15
Matrix: Air
Reporting Units: % v/v

Page 2 of 7
 G111201

ASTM D1946								
Lab No.:	G111201-01		G111201-02		G111201-03		G111201-04	
Client Sample I.D.:	1503888-01 / M-402 @ 55'		1503888-02 / M-402 @ 105'		1503888-03 / M-403 @ 110'		1503888-04 / M-403 @ 45'	
Date/Time Sampled:	11/11/15 10:25		11/11/15 10:25		11/11/15 12:20		11/11/15 12:20	
Date/Time Analyzed:	11/12/15 15:51		11/12/15 16:06		11/12/15 16:20		11/12/15 16:35	
QC Batch No.:	151112GC8A2		151112GC8A2		151112GC8A2		151112GC8A2	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result	RL	Result	RL	Result	RL	Result	RL
	% v/v	% v/v	% v/v	% v/v	% v/v	% v/v	% v/v	% v/v
Carbon Dioxide	0.054	0.010	0.054	0.010	0.066	0.010	0.34	0.010
Oxygen/Argon	22	0.50	22	0.50	22	0.50	21	0.50
Nitrogen	78	1.0	78	1.0	78	1.0	79	1.0
Methane	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark Johnson
 Operations Manager

Date

11-24-15

The cover letter is an integral part of this analytical report



AirTECHNOLOGY Laboratories, Inc.

page 1 of 1

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

Figure E-2.57

Page 4 of 12

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503888
Date Received: 11/12/15
Matrix: Air
Reporting Units: % v/v

Page 3 of 7
 G111201

ASTM D1946								
Lab No.:	G111201-05		G111201-06		G111201-07		G111201-08	
Client Sample I.D.:	1503888-05 / G-139 @ 50'		1503888-06 / G-407 @ 38'		1503888-07 / M-403 @ 38'		1503888-08 / G-139 @ 90'	
Date/Time Sampled:	11/11/15 13:40		11/11/15 14:45		11/11/15 12:45		11/11/15 13:45	
Date/Time Analyzed:	11/12/15 16:50		11/12/15 17:04		11/12/15 17:19		11/12/15 17:33	
QC Batch No.:	151112GC8A2		151112GC8A2		151112GC8A2		151112GC8A2	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Carbon Dioxide	2.9	0.010	0.92	0.010	2.7	0.010	0.11	0.010
Oxygen/Argon	19	0.50	14	0.50	17	0.50	22	0.50
Nitrogen	78	1.0	85	1.0	80	1.0	78	1.0
Methane	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark Johnson
 Operations Manager

Date

11-24-15

The cover letter is an integral part of this analytical report



AirTECHNOLOGY Laboratories, Inc.

page 1 of 1

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

Figure E-2.58

Page 5 of 12

QC Batch No.: 151112GC8A2

Matrix: Air

Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	11/12/15 14:38		11/12/15 11:41		11/12/15 12:12			
Analyst Initials:	AS		AS		AS			
Datafile:	12nov032		12nov022		12nov024			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Carbon Dioxide	ND	0.010	95	70-130%	95	70-130%	0.5	<30
Oxygen/Argon	ND	0.50	101	70-130%	101	70-130%	0.1	<30
Nitrogen	ND	1.0	100	70-130%	100	70-130%	0.7	<30
Methane	ND	0.0010	111	70-130%	114	70-130%	1.9	<30

ND = Not Detected (Below RL)

Reviewed/Approved By:



Mark J. Johnson
Operations Manager

Date: 11-24-15

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: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503888
Date Received: 11/12/15
Matrix: Air
Reporting Units: ppmv

Page 5 of 7
 G111201

EPA 15/16								
Lab No.:	G111201-01		G111201-02		G111201-03		G111201-04	
Client Sample I.D.:	1503888-01 / M-402 @ 55'		1503888-02 / M-402 @ 105'		1503888-03 / M-403 @ 110'		1503888-04 / M-403 @ 45'	
Date/Time Sampled:	11/11/15 10:25		11/11/15 10:25		11/11/15 12:20		11/11/15 12:20	
Date/Time Analyzed:	11/12/15 11:50		11/12/15 12:01		11/12/15 12:43		11/12/15 12:54	
QC Batch No.:	151112GC3A1		151112GC3A1		151112GC3A1		151112GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result	RL	Result	RL	Result	RL	Result	RL
	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv
Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20	ND	0.20

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____



Mark Johnson
 Operations Manager

Date 11-24-15

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

page 1 of 1

Page 7 of 12

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503888
Date Received: 11/12/15
Matrix: Air
Reporting Units: ppmv

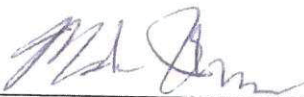
Page 6 of 7
 G111201

EPA 15/16								
Lab No.:	G111201-05		G111201-06		G111201-07		G111201-08	
Client Sample I.D.:	1503888-05 / G-139 @ 50'		1503888-06 / G-407 @ 38'		1503888-07 / M-403 @ 38'		1503888-08 / G-139 @ 90'	
Date/Time Sampled:	11/11/15 13:40		11/11/15 14:45		11/11/15 12:45		11/11/15 13:45	
Date/Time Analyzed:	11/12/15 13:09		11/12/15 13:20		11/12/15 13:31		11/12/15 13:43	
QC Batch No.:	151112GC3A1		151112GC3A1		151112GC3A1		151112GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20	ND	0.20

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____



Mark Johnson
 Operations Manager

Date

11-24-15

The cover letter is an integral part of this analytical report



AirTECHNOLOGY Laboratories, Inc.

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page 1 of 1

Page 8 of 12

Figure E-2.61

QC Batch No.: 151112GC3A1
Matrix: Air
Units: ppmv

Page 7 of 7
G111201

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank	LCS	LCS	LCS	LCS	LCS	LCS	LCS
Date/Time Analyzed:	11/12/15 11:39	11/12/15 11:10	11/12/15 11:28					
Analyst Initials:	AS	AS	AS					
Datafile:	12nov004	12nov002	12nov003					
Dilution Factor:	1.0	1.0	1.0					
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	84	70-130%	83	70-130%	1.0	<30

ND = Not Detected (Below RL)

RL = Reporting Limit

Reviewed/Approved By:



Mark J. Johnson
Operations Manager

Date: 11-24-15

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

ADVANCED TECHNOLOGY
 LABORATORIES

SUBCONTRACT ORDER

Work Order: 1503888

G111201-01/08

SENDING LABORATORY:

Advanced Technology Laboratories
 3275 Walnut Avenue
 Signal Hill, CA 90755
 Phone: 562.989.4045
 Fax: 562.989.6348
 Project Manager: Rachelle Arada (Rachelle@atfglobal.com)

RECEIVING LABORATORY:

Air Technology Laboratories, Inc.
 18501 E. Gale Ave, Suite 130
 City of Industry, CA 91748
 Phone : (626) 964-4032
 Fax: (626) 964-5832
 PO#: SC10012- STANDARD TAT

RA

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1503888-01 / M-402 @ 55'				
01 D1946_T	11/25/15 17:00	11/14/15 10:25	11/11/15 10:25	D1946-pls report Carbon Dioxide, Oxygen/Argon, Nitrogen, Methane
[Fixed Gases]				
15_16_H2S_T_SUB	11/25/15 17:00	11/14/15 10:25		
[Hydrogen Sulfide]				
2-Tedlar Bag				
ATL Lab#: 1503888-02 / M-402 @ 105				
02 15_16_H2S_T_SUB	11/25/15 17:00	11/14/15 10:25	11/11/15 10:25	
[Hydrogen Sulfide]				
D1946_T	11/25/15 17:00	11/14/15 10:25		
[Fixed Gases]				
2-Tedlar Bag				
ATL Lab#: 1503888-03 / M-403 @ 110'				
03 15_16_H2S_T_SUB	11/25/15 17:00	11/14/15 12:20	11/11/15 12:20	
[Hydrogen Sulfide]				
D1946_T	11/25/15 17:00	11/14/15 12:20		
[Fixed Gases]				
2-Tedlar Bag				

Released By <i>A.340 on</i>	Date <i>11/12/15</i>	Received By <i>[Signature]</i>	Date <i>11/12/15 830a</i>
Released By	Date	Received By	Date

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1503888

G 11/20/15-01/08

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1503888-04 / M-403 @ 45'		Air	11/11/15 12:20	
D1946_T [Fixed Gases]	11/25/15 17:00	11/14/15 12:20		
15_16_H2S_T_SUB [Hydrogen Sulfide]	11/25/15 17:00	11/14/15 12:20		
2-Tedlar Bag				
ATL Lab#: 1503888-05 / G-139 @ 50'		Air	11/11/15 13:40	
D1946_T [Fixed Gases]	11/25/15 17:00	11/14/15 13:40		
15_16_H2S_T_SUB [Hydrogen Sulfide]	11/25/15 17:00	11/14/15 13:40		
2-Tedlar Bag				
ATL Lab#: 1503888-06 / G-407 @ 38'		Air	11/11/15 14:45	
15_16_H2S_T_SUB [Hydrogen Sulfide]	11/25/15 17:00	11/14/15 14:45		
D1946_T [Fixed Gases]	11/25/15 17:00	11/14/15 14:45		
2-Tedlar Bag				
ATL Lab#: 1503888-07 / M-403 @ 38'		Air	11/11/15 12:45	
15_16_H2S_T_SUB [Hydrogen Sulfide]	11/25/15 17:00	11/14/15 12:45		
D1946_T [Fixed Gases]	11/25/15 17:00	11/14/15 12:45		
2-Tedlar Bag				
ATL Lab#: 1503888-08 / G-139 @ 90'		Air	11/11/15 13:45	
D1946_T [Fixed Gases]	11/25/15 17:00	11/14/15 13:45		
15_16_H2S_T_SUB [Hydrogen Sulfide]	11/25/15 17:00	11/14/15 13:45		
2-Tedlar Bag				

Released By <i>[Signature]</i>	Date 11/12/15	Received By <i>[Signature]</i>	Date 11/12/15 830a
--------------------------------	---------------	--------------------------------	--------------------

Released By	Date	Received By	Date
-------------	------	-------------	------

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

For Laboratory Use Only

ATLCOCC Ver: 20130715

Method of Transport

Condition

1. CHILLED ☒ ATL ☐ FedEx ☐ GSO ☐ Other: _____

2. HEADSPACE (VOA) ☐ 5. # OF SAMPLES MATCH COC ☐ 6. PRESERVED ☐ 7. COOLER TEMP, deg C: _____

3. CONTAINER INTACT ☐ 4. SEALED ☐

Instruction: Complete all shaded areas.

Company: **Avec Foster Wheeler** Address: **6001 Pickenbaker** Tel: _____

City: **Los Angeles** State: **CA** Zip: **90041**

Attn: **Ron Lopez** Email: _____

Company: **Avec Foster Wheeler** Address: **Same** City: _____ State: _____ Zip: _____

Project Name: **MTA Westside** Quote No: _____

Project No.: **4953-11-1423** PO #: _____

Sampler: **Diego Saeillabo**

ITEM	Lab No.	Sample ID / Location	Date	Time	Encircle or Write Requested Analysis	Encircle Sample Matrix	Container	QA/QC
1	1503888-1	M-402 @ 55'	11/11/15	10:25am	Fixed gases	Aqueous / Layered - Oil	262	Preservative: 1-HCl, 2-HNO3, 3-H2SO4, 4-H3PO4; 5-Zn ((Ac)2); 6-NaOH; 7-Na2S2O3
2	"	M-402 @ 105'	11/11/15	10:25am	Methane	Water - Storm / Waste	262	
3	-3	M-403 @ 110'	11/11/15	12:20pm		Water - Drinking / Ground	262	
4	-4	M-403 @ 45'	11/11/15	12:20pm		Solids / Wipe / Filter	262	
5	-5	G-139 @ 50'	11/11/15	1:40pm		Soil / Sediment / Sludge	262	
6	-6	G-407 @ 38'	11/11/15	2:45pm			262	
7	-7	M-403 @ 38'	11/11/15	12:45pm			262	
8	-8	G-139 @ 90'	11/11/15	1:45pm			262	
9								
10								

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: **Diego Saeillabo** Date: **11/11/15** Time: **1:05pm**

Submitter Print Name: _____

Received by: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____

Relinquished by: (Signature and Printed Name) _____ Date: _____ Time: _____



November 23, 2015

Ron Lopez
Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles, CA 90040
Tel: (323) 889-5300
Fax: (323) 721-6700

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1503927
Client Reference : MTA Westside, 4953-11-1423

Enclosed are the results for sample(s) received on November 13, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez".

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

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Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/23/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M-403 @ 110'	1503927-01	Groundwater	11/13/15 11:15	11/13/15 17:30
G-139 @ 90'	1503927-02	Groundwater	11/13/15 13:20	11/13/15 17:30
M-402 @ 55'	1503927-03	Groundwater	11/13/15 15:10	11/13/15 17:30
M-402 @ 105'	1503927-04	Groundwater	11/13/15 14:55	11/13/15 17:30



Certificate of Analysis

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Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/23/2015

Client Sample ID M-403 @ 110'

Lab ID: 1503927-01

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	76	1.0	1	B5K0421	11/16/2015	11/16/15 12:16	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	1	B5K0460	11/17/2015	11/18/15 08:41	



Certificate of Analysis

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Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/23/2015

Client Sample ID G-139 @ 90'

Lab ID: 1503927-02

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	6.8	1.0	1	B5K0421	11/16/2015	11/16/15 12:53	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	0.084	0.050	5	B5K0460	11/17/2015	11/18/15 08:41	



Certificate of Analysis

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6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/23/2015

Client Sample ID M-402 @ 55'

Lab ID: 1503927-03

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	1	B5K0421	11/16/2015	11/16/15 15:55	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	0.019	0.010	1	B5K0460	11/17/2015	11/18/15 08:41	



Certificate of Analysis

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Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/23/2015

Client Sample ID M-402 @ 105'

Lab ID: 1503927-04

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	1	B5K0421	11/16/2015	11/16/15 16:20	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	1	B5K0460	11/17/2015	11/18/15 08:41	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/23/2015

QUALITY CONTROL SECTION

Dissolved Gases in Water - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5K0421 - No_Prep_RSK_W									
Blank (B5K0421-BLK1)				Prepared: 11/16/2015 Analyzed: 11/16/2015					
Methane	ND	1.0			NR				
LCS (B5K0421-BS1)				Prepared: 11/16/2015 Analyzed: 11/16/2015					
Methane	41.4600	1.0	48.1000		86.2	70 - 130			
LCS Dup (B5K0421-BSD1)				Prepared: 11/16/2015 Analyzed: 11/16/2015					
Methane	43.8100	1.0	48.1000		91.1	70 - 130	5.51	20	
Duplicate (B5K0421-DUP1)				Prepared: 11/16/2015 Analyzed: 11/16/2015					
Methane	ND	1.0		ND	NR			20	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/23/2015

Sulfide, Total by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B5K0460 - Prep_WC3_W

Blank (B5K0460-BLK1)

Prepared: 11/17/2015 Analyzed: 11/18/2015

Sulfide, Total ND 0.010 NR

LCS (B5K0460-BS1)

Prepared: 11/17/2015 Analyzed: 11/18/2015

Sulfide, Total 0.108300 0.010 0.100000 108 80 - 120

Matrix Spike (B5K0460-MS1)

Source: 1503905-08

Prepared: 11/17/2015 Analyzed: 11/18/2015

Sulfide, Total 0.106000 0.010 0.100000 ND 106 70 - 120

Matrix Spike Dup (B5K0460-MSD1)

Source: 1503905-08

Prepared: 11/17/2015 Analyzed: 11/18/2015

Sulfide, Total 0.105000 0.010 0.100000 ND 105 70 - 120 0.948 20



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/23/2015

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page ____ of ____

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOG Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
☒ Client ☐ FedEx ☐ GSO ☐ Other:	☐ AIL ☐ OnTrac	Condition ☐ Y ☐ N	Condition ☐ Y ☐ N
1. CHILLED 2. HEADSPACE (VDA) ☒ 3/4 3. CONTAINER INTACT ☒ 4. SEALED ☒		5. # OF SAMPLES MATCH COC ☒ 6. PRESERVED ☐ 7. COOLER TEMP. deg C: ☐ 8. OTHER: ☐	

Company: Amec Foster Wheeler		Tel: _____	
Address: 6001 Rickenbacker		State: FL Zip: 33141	
City: Los Angeles		Fax: _____	
Attn: Ron R. Lopez		Email: _____	
Company: RAY R. LOPEZ @ AMEC.COM		SEND INVOICE TO: _____	
Address: _____		State: _____ Zip: _____	
City: _____		State: _____ Zip: _____	

Project Name: MTA Westside		Quote No: _____		Special Instructions/Comments:	
Project No.: 4953-11-1423		PO #: _____			
Sampler: Diego Scapillato					
ITEM	Lab No.	Sample ID / Location	Date	Time	Encircle or Write Requested Analysis
1	1503927 -1	M-403 @ 110'	11/13/15	11:15am	TO-15 8260 (Volatiles) 8015 (GRO) 8015 (DRO) 8270 (Semi-volatiles) 8081 (Organochlorine Pesticides) 8082 (PCBs) 6010 / 7000 (Total 22 Metals)
2	-2	G-139 @ 90'	11/13/15	1:20p	TO-15 8260 (Volatiles) 8015 (GRO) 8015 (DRO) 8270 (Semi-volatiles) 8081 (Organochlorine Pesticides) 8082 (PCBs) 6010 / 7000 (Total 22 Metals)
3	-3	M-402 @ 55'	11/13/15	3:10pm	TO-15 8260 (Volatiles) 8015 (GRO) 8015 (DRO) 8270 (Semi-volatiles) 8081 (Organochlorine Pesticides) 8082 (PCBs) 6010 / 7000 (Total 22 Metals)
4	-4	M-402 @ 105'	11/13/15	2:55pm	TO-15 8260 (Volatiles) 8015 (GRO) 8015 (DRO) 8270 (Semi-volatiles) 8081 (Organochlorine Pesticides) 8082 (PCBs) 6010 / 7000 (Total 22 Metals)
5					
6					
7					
8					
9					
10					

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM. 2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM. 3. The following turnaround time conditions apply: TAT = 1 : 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM) TAT = 2 : 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM) TAT = 3 : 30% Surcharge 3RD BUSINESS DAY (COB 5:00 PM) TAT = 4 : 20% Surcharge 4TH BUSINESS DAY (COB 5:00 PM) TAT = 5 : NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM) 4. Weekend, holiday, after-hours work - ask for quote. 5. Samples received after 3:00 PM, are considered received the following Business day at 8:00 AM. 6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples. 7. Electronic records maintained for five (5) years from report date. 8. Hard copy reports will be disposed of after 45 calendar days from report date. 9. Storage and Report Fees: - Liquid & solid samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/month if extended storage or hold is requested. - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested. 10. Rush TAT/STLC samples: add 2 days to analysis TAT for extraction on procedure. 11. Unanalyzed samples will incur a disposal fee of \$7 per sample.		As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted. Submitter Print Name: W.A. Kelly Signature: W.A. Kelly Date: 11/13/15 Time: 3:20
Relinquished by: (Signature and Printed Name) W.A. Kelly Date: 11/13/15 Time: 5:30	Relinquished by: (Signature and Printed Name) W.A. Kelly Date: 11/13/15 Time: 5:30	Relinquished by: (Signature and Printed Name) W.A. Kelly Date: 11/13/15 Time: 5:30

Figure E-2.75



November 12, 2015

Ron Lopez
Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles, CA 90040
Tel: (323) 889-5300
Fax: (323) 721-6700

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1503703
Client Reference : MTA Westside, 4953-11-1423

Enclosed are the results for sample(s) received on October 28, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez".

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

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www.atlglobal.com



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/12/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M 404 @105'	1503703-01	Air	10/28/15 10:22	10/28/15 15:44
M 404 @87'	1503703-02	Air	10/28/15 10:21	10/28/15 15:44
M 404 @50' (probe)	1503703-03	Air	10/28/15 11:15	10/28/15 15:44
M 404 @40' (probe)	1503703-04	Air	10/28/15 11:15	10/28/15 15:44
M 404 @105' (tube)	1503703-05	Groundwater	10/28/15 11:30	10/28/15 15:44
M 404 @87' (tube)	1503703-06	Groundwater	10/28/15 11:20	10/28/15 15:44
M 404 @30'	1503703-07	Air	10/28/15 12:10	10/28/15 15:44
M 403 @110'	1503703-08	Air	10/28/15 13:35	10/28/15 15:44
M 403 @45'	1503703-09	Air	10/28/15 13:35	10/28/15 15:44
M 403 @38'	1503703-10	Air	10/28/15 14:24	10/28/15 15:44

CASE NARRATIVE

The air samples for Methane, H2S (15/16) and Fixed Gases (ASTM D1946) were subcontracted to Air Technology Laboratories.



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/12/2015

Client Sample ID M 404 @105' (tube)

Lab ID: 1503703-05

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	1	B5K0039	11/03/2015	11/03/15 09:15	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	1	B5J0867	10/30/2015	10/30/15 15:38	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/12/2015

Client Sample ID M 404 @87' (tube)

Lab ID: 1503703-06

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	1	B5K0039	11/03/2015	11/03/15 09:55	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	1	B5J0867	10/30/2015	10/30/15 15:38	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/12/2015

QUALITY CONTROL SECTION

Dissolved Gases in Water - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5K0039 - No_Prep_RSK_W									
Blank (B5K0039-BLK1)				Prepared: 11/3/2015 Analyzed: 11/3/2015					
Methane	ND	1.0			NR				
LCS (B5K0039-BS1)				Prepared: 11/3/2015 Analyzed: 11/3/2015					
Methane	44.1200	1.0	48.1000		91.7	70 - 130			
LCS Dup (B5K0039-BSD1)				Prepared: 11/3/2015 Analyzed: 11/3/2015					
Methane	40.3400	1.0	48.1000		83.9	70 - 130	8.95	20	
Duplicate (B5K0039-DUP1)				Prepared: 11/3/2015 Analyzed: 11/3/2015					
Methane	ND	1.0		ND	NR			20	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423
Report To : Ron Lopez
Reported : 11/12/2015

Sulfide, Total by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B5J0867 - Prep_WC3_W

Blank (B5J0867-BLK1)

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total ND 0.010 NR

LCS (B5J0867-BS1)

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total 0.0957 0.010 0.100000 95.7 80 - 120

Matrix Spike (B5J0867-MS1)

Source: 1503667-04

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total 0.103200 0.010 0.100000 ND 103 70 - 120

Matrix Spike Dup (B5J0867-MSD1)

Source: 1503667-04

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total 0.103400 0.010 0.100000 ND 103 70 - 120 0.194 20



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/12/2015

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

November 12, 2015

Advanced Technology Laboratories
ATTN: Rachelle Arada
3275 Walnut Ave.
Signal Hill, CA 90755



ADE-1461
EPA Methods TO-3,
TO14A, TO15 SIM & Scan,
ASTM D1946



LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450—14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 1503703
Lab Number: G102905-01/08

Enclosed are results for sample(s) received 10/29/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503703
Date Received: 10/29/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	G102905-01	G102905-02	G102905-03	G102905-04
Client Sample I.D.:	1503703-01 / M 404 @105'	1503703-02 / M 404 @87'	1503703-03 / M 404 @50' (probe)	1503703-04 / M 404 @40' (probe)
Date/Time Sampled:	10/28/15 10:22	10/28/15 10:21	10/28/15 11:15	10/28/15 11:15
Date/Time Analyzed:	10/29/15 12:03	10/29/15 12:18	10/29/15 12:32	10/29/15 12:47
QC Batch No.:	151029GC8A1	151029GC8A1	151029GC8A1	151029GC8A1
Analyst Initials:	AS	AS	AS	AS
Dilution Factor:	1.0	1.0	1.0	1.0

ANALYTE	Result	RL	Result	RL	Result	RL	Result	RL
	% v/v	% v/v	% v/v	% v/v	% v/v	% v/v	% v/v	% v/v
Carbon Dioxide	0.065	0.010	0.068	0.010	1.8	0.010	1.8	0.010
Oxygen/Argon	22	0.50	22	0.50	18	0.50	18	0.50
Nitrogen	78	1.0	78	1.0	80	1.0	80	1.0
Methane	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:



Mark Johnson
Operations Manager

Date

11-12-15

The cover letter is an integral part of this analytical report



Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503703
Date Received: 10/29/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946								
Lab No.:	G102905-05		G102905-06		G102905-07		G102905-08	
Client Sample I.D.:	1503703-07 / M 404 @30'		1503703-08 / M 403 @110'		1503703-09 / M 403 @45'		1503703-10 / M 403 @38'	
Date/Time Sampled:	10/28/15 12:10		10/28/15 13:35		10/28/15 13:35		10/28/15 14:24	
Date/Time Analyzed:	10/29/15 13:01		10/29/15 13:16		10/29/15 13:31		10/29/15 13:46	
QC Batch No.:	151029GC8A1		151029GC8A1		151029GC8A1		151029GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Carbon Dioxide	3.0	0.010	0.060	0.010	0.56	0.010	0.97	0.010
Oxygen/Argon	19	0.50	22	0.50	20	0.50	21	0.50
Nitrogen	78	1.0	78	1.0	80	1.0	78	1.0
Methane	ND	0.0010	ND	0.0010	0.0023	0.0010	ND	0.0010

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark Johnson
Operations Manager

Date 11-12-15

The cover letter is an integral part of this analytical report



QC Batch No.: 151029GC8A1

Matrix: Air

Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	10/29/15 10:33		10/29/15 9:33		10/29/15 9:47			
Analyst Initials:	AS		AS		AS			
Datafile:	29oct009		29oct006		29oct007			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Carbon Dioxide	ND	0.010	89	70-130%	88	70-130%	0.8	<30
Oxygen/Argon	ND	0.50	97	70-130%	97	70-130%	0.5	<30
Nitrogen	ND	1.0	96	70-130%	96	70-130%	0.5	<30
Methane	ND	0.0010	97	70-130%	96	70-130%	0.8	<30

ND = Not Detected (Below RL)

Reviewed/Approved By:



Mark J. Johnson
Operations Manager

Date:

11-12-15

The cover letter is an integral part of this analytical report.



AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91746 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Advanced Technology Laboratories
 Attn: Rachelle Arada
 Project Name: NA
 Project No.: 1503703
 Date Received: 10/29/15
 Matrix: Air
 Reporting Units: ppmv

Page 5 of 7
 G102905

EPA 15/16									
Lab No.:	G102905-01		G102905-02		G102905-03		G102905-04		
Client Sample I.D.:	1503703-01 / M 404 @105'		1503703-02 / M 404 @87'		1503703-03 / M 404 @50' (probe)		1503703-04 / M 404 @40' (probe)		
Date/Time Sampled:	10/28/15 10:22		10/28/15 10:21		10/28/15 11:15		10/28/15 11:15		
Date/Time Analyzed:	10/29/15 12:57		10/29/15 13:09		10/29/15 13:20		10/29/15 13:32		
QC Batch No.:	151029GC3A1		151029GC3A1		151029GC3A1		151029GC3A1		
Analyst Initials:	AS		AS		AS		AS		
Dilution Factor:	1.0		1.0		1.0		1.0		
ANALYTE	Result	RL	Result	RL	Result	RL	Result	RL	
	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv	
Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20	ND	0.20	

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson

Mark Johnson
 Operations Manager

Date 11-2-15

The cover letter is an integral part of this analytical report



Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503703
Date Received: 10/29/15
Matrix: Air
Reporting Units: ppmv

EPA 15/16								
Lab No.:	G102905-05		G102905-06		G102905-07		G102905-08	
Client Sample I.D.:	1503703-07 / M 404 @30'		1503703-08 / M 403 @110'		1503703-09 / M 403 @45'		1503703-10 / M 403 @38'	
Date/Time Sampled:	10/28/15 12:10		10/28/15 13:35		10/28/15 13:35		10/28/15 14:24	
Date/Time Analyzed:	10/29/15 13:44		10/29/15 13:56		10/29/15 14:07		10/29/15 14:18	
QC Batch No.:	151029GC3A1		151029GC3A1		151029GC3A1		151029GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20	ND	0.20

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By:



Mark Johnson
Operations Manager

Date 11-12-15

The cover letter is an integral part of this analytical report



QC Batch No.: 151029GC3A1
Matrix: Air
Units: ppmv

Page 7 of 7
G102905

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	10/29/15 9:19		10/29/15 8:55		10/29/15 9:07			
Analyst Initials:	AS		AS		AS			
Datafile:	29oct004		29oct002		29oct003			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	107	70-130%	105	70-130%	1.8	<30

ND = Not Detected (Below RL)

RL = Reporting Limit

Reviewed/Approved By:


Mark J. Johnson
Operations Manager

Date: 11-12-15

The cover letter is an integral part of this analytical report.



 ADVANCED TECHNOLOGY
 LABORATORIES

SUBCONTRACT ORDER

Work Order: 1503703

G102909-01/08

SENDING LABORATORY:

Advanced Technology Laboratories
 3275 Walnut Avenue
 Signal Hill, CA 90755
 Phone: 562.989.4045
 Fax: 562.989.6348
 Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Air Technology Laboratories, Inc.
 18501 E. Gale Ave, Suite 130
 City of Industry, CA 91748
 Phone : (626) 964-4032
 Fax: (626) 964-5832
 PO#: SC09986-STANDARD TAT

RA

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1503703-01 / M 404 @105' 01 D1946_T [Fixed Gases] 15_16_H2S_T_SUB [Hydrogen Sulfide] 2-Tedlar Bag	11/11/15 17:00	10/31/15 10:22	10/28/15 10:22	D1946-pls report Carbon Dioxide, Oxygen/Argon, Nitrogen, Methane
ATL Lab#: 1503703-02 / M 404 @87' 02 15_16_H2S_T_SUB [Hydrogen Sulfide] D1946_T [Fixed Gases] 2-Tedlar Bag	11/11/15 17:00	10/31/15 10:21	10/28/15 10:21	
ATL Lab#: 1503703-03 / M 404 @50' (probe) 03 15_16_H2S_T_SUB [Hydrogen Sulfide] D1946_T [Fixed Gases] 2-Tedlar Bag	11/11/15 17:00	10/31/15 11:15	10/28/15 11:15	

Released By ASB/ML Date 10/24/15 09:21 Received By [Signature] Date 10/29/15 09:20

Released By _____ Date _____ Received By _____ Date _____

RA

ADVANCED TECHNOLOGY
 LABORATORIES

SUBCONTRACT ORDER

Work Order: 1503703

G102905-01/08

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1503703-04 / M 404 @40' (probe)				
D1946_T	11/11/15 17:00	10/31/15 11:15	10/28/15 11:15	
[Fixed Gases]				
15_16_H2S_T_SUB	11/11/15 17:00	10/31/15 11:15		
[Hydrogen Sulfide]				
2-Tedlar Bag				
ATL Lab#: 1503703-07 / M 404 @30'				
D1946_T	11/11/15 17:00	10/31/15 12:10	10/28/15 12:10	
[Fixed Gases]				
15_16_H2S_T_SUB	11/11/15 17:00	10/31/15 12:10		
[Hydrogen Sulfide]				
2-Tedlar Bag				
ATL Lab#: 1503703-08 / M 403 @110'				
15_16_H2S_T_SUB	11/11/15 17:00	10/31/15 13:35	10/28/15 13:35	
[Hydrogen Sulfide]				
D1946_T	11/11/15 17:00	10/31/15 13:35		
[Fixed Gases]				
2-Tedlar Bag				
ATL Lab#: 1503703-09 / M 403 @45'				
15_16_H2S_T_SUB	11/11/15 17:00	10/31/15 13:35	10/28/15 13:35	
[Hydrogen Sulfide]				
D1946_T	11/11/15 17:00	10/31/15 13:35		
[Fixed Gases]				
2-Tedlar Bag				
ATL Lab#: 1503703-10 / M 403 @38'				
D1946_T	11/11/15 17:00	10/31/15 14:24	10/28/15 14:24	
[Fixed Gases]				
15_16_H2S_T_SUB	11/11/15 17:00	10/31/15 14:24		
[Hydrogen Sulfide]				
2-Tedlar Bag				

Released By <i>Arson</i>	Date <i>10/29/15</i>	Received By <i>[Signature]</i>	Date <i>10/29/15</i>
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Released By	Date	Received By	Date
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November 02, 2015

Ron Lopez
Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles, CA 90040
Tel: (323) 889-5300
Fax: (323) 721-6700

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1503663
Client Reference : MTA Westside, 4953-11-1423

Enclosed are the results for sample(s) received on October 23, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040
www.atlglobal.com



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/02/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M403 @ 110'	1503663-01	Groundwater	10/23/15 13:06	10/23/15 16:47



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/02/2015

Client Sample ID M403 @ 110'

Lab ID: 1503663-01

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	78	1.0	1	B5J0728	10/27/2015	10/27/15 12:24	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	0.058	0.010	1	B5J0716	10/26/2015	10/26/15 13:45	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/02/2015

QUALITY CONTROL SECTION

Dissolved Gases in Water - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5J0728 - No_Prep_RSK_W									
Blank (B5J0728-BLK1)				Prepared: 10/27/2015 Analyzed: 10/27/2015					
Methane	ND	1.0			NR				
LCS (B5J0728-BS1)				Prepared: 10/27/2015 Analyzed: 10/27/2015					
Methane	42.4300	1.0	48.1000		88.2	70 - 130			
LCS Dup (B5J0728-BSD1)				Prepared: 10/27/2015 Analyzed: 10/27/2015					
Methane	40.7100	1.0	48.1000		84.6	70 - 130	4.14	20	
Duplicate (B5J0728-DUP1)				Prepared: 10/27/2015 Analyzed: 10/27/2015					
Methane	ND	1.0		ND	NR			20	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/02/2015

Sulfide, Total by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B5J0716 - Prep_WC3_W

Blank (B5J0716-BLK1)

Prepared: 10/26/2015 Analyzed: 10/26/2015

Sulfide, Total ND 0.010 NR

LCS (B5J0716-BS1)

Prepared: 10/26/2015 Analyzed: 10/26/2015

Sulfide, Total 0.0936 0.010 0.100000 93.6 80 - 120

Matrix Spike (B5J0716-MS1)

Source: 1503609-01

Prepared: 10/26/2015 Analyzed: 10/26/2015

Sulfide, Total 0.0937 0.010 0.100000 ND 93.7 70 - 120

Matrix Spike Dup (B5J0716-MSD1)

Source: 1503609-01

Prepared: 10/26/2015 Analyzed: 10/26/2015

Sulfide, Total 0.0899 0.010 0.100000 ND 89.9 70 - 120 4.14 20



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/02/2015

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

CHAIN OF CUSTODY RECORD

Page of

Instruction: Complete all shaded areas.

For Laboratory Use Only		ATLCOG Ver: 20130715	
Method of Transport		Sample Conditions Upon Receipt	
☒ Client ☐ FedEx ☐ GSO ☐ Other:	Condition ☐ CHILLED ☐ HEADSPACE (VOA) ☒ CONTAINER INTACT ☐ SEALED	☐ Y ☐ N ☐ Y ☐ N ☐ Y ☐ N ☐ Y ☐ N	Condition ☐ 5. # OF SAMPLES MATCH COC ☐ 6. PRESERVED ☒ 7. COOLER TEMP. deg C: ☐ 4. SEALED

Company: <u>Avec Foster Wheeler</u>		Address: <u>1001 Rickenbacker Rd</u>		Tel: <u> </u>	
Attn: <u>Ron Lopez</u>		City: <u>Los Angeles</u>		State: <u>CA</u> Zip: <u>90040</u>	
Company: <u>Ron Lopez</u>		Email: <u>RON.LOPEZ@Avec.com</u>		Fax: <u> </u>	
Address: <u>Avec Foster Wheeler</u>		Attn: <u> </u>		SEND INVOICE TO: <u>same as SEND REPORT TO</u>	
City: <u>Same</u>		State: <u> </u>		Email: <u> </u>	

Project Name: <u>MTA Westside</u>		Quote No: <u> </u>	Special Instructions/Comments:	
Project No: <u>4953-11-1423</u>		PO #: <u> </u>		
Sampler: <u>Diego Saezillo</u>				
ITEM	Lab No.	Sample ID / Location	Sample Description	Time
1	1503CC3 - 01	M403 @ 110'		10/23/15 1:06pm
2				
3				
4				
5				
6				
7				
8				
9				
10				

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM. 2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM. 3. The following turnaround time conditions apply: TAT = 0: 300% Surcharge SAME BUSINESS DAY if received by 9:00 AM TAT = 1: 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM) TAT = 2: 50% Surcharge 3RD BUSINESS DAY (COB 5:00 PM) TAT = 3: 30% Surcharge 4TH BUSINESS DAY (COB 5:00 PM) TAT = 4: 20% Surcharge 5TH BUSINESS DAY (COB 5:00 PM) TAT = 5: NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM) 4. Weekend and holiday, after-hours work - ask for quote. 5. Expedited TAT is 10-15 business days. Projects requiring shorter TATs will incur a surcharge. 6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples. 7. Electronic records maintained for five (5) years from report date. 8. Hard copy reports will be disposed of after 45 calendar days from report date. 9. Storage and Report Fees: - Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested. - Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested. - Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma? ed report; \$35 per reproduced EDD. 10. Rush TAT/24H samples: add 2 days to analysis TAT for extraction on procedure. 11. Unanalyzed samples will incur a disposal fee of \$7 per sample.		As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.	
Relinquished by: <u>Diego Saezillo</u> Date: <u>10/23/15</u> Time: <u>4:49 PM</u>		Signature: <u> </u> Submitter Print Name: <u> </u> Date: <u>10/23/15</u> Time: <u>1:47</u>	
Relinquished by: <u> </u> Date: <u> </u> Time: <u> </u>		Date: <u> </u> Time: <u> </u>	

Figure E-2.99



November 30, 2015

Ron Lopez
Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles, CA 90040
Tel: (323) 889-5300
Fax: (323) 721-6700

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1503905
Client Reference : MTA Westside, 4953-11-1423

Enclosed are the results for sample(s) received on November 12, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040
www.atlglobal.com



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/30/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
G-11 @ 32.5'	1503905-01	Air	11/12/15 10:05	11/12/15 15:04
G-11 @ 60'	1503905-02	Air	11/12/15 10:10	11/12/15 15:04
M-404 @ 87'	1503905-03	Air	11/12/15 11:25	11/12/15 15:04
M-404 @ 105'	1503905-04	Air	11/12/15 11:35	11/12/15 15:04
M-404 @ 30'	1503905-05	Air	11/12/15 11:40	11/12/15 15:04
M-404 @ 40'	1503905-06	Air	11/12/15 11:50	11/12/15 15:04
M-404 @ 50'	1503905-07	Air	11/12/15 12:00	11/12/15 15:04
M-404 @ 87'	1503905-08	Groundwater	11/12/15 13:00	11/12/15 15:04
M-404 @ 105'	1503905-09	Groundwater	11/12/15 13:30	11/12/15 15:04

CASE NARRATIVE

The air samples for Methane, H₂S (15/16) and Fixed Gases (ASTM D1946) were subcontracted to Air Technology Laboratories.



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/30/2015

Client Sample ID M-404 @ 87'

Lab ID: 1503905-08

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	0.73	1	B5K0421	11/16/2015	11/16/15 11:11	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	0.004	1	B5K0460	11/17/2015	11/18/15 08:41	



Certificate of Analysis

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Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/30/2015

Client Sample ID M-404 @ 105'

Lab ID: 1503905-09

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	0.73	1	B5K0421	11/16/2015	11/16/15 11:57	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	0.004	1	B5K0460	11/17/2015	11/18/15 08:41	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/30/2015

QUALITY CONTROL SECTION

Dissolved Gases in Water - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5K0421 - No_Prep_RSK_W									
Blank (B5K0421-BLK1)				Prepared: 11/16/2015 Analyzed: 11/16/2015					
Methane	ND	1.0			NR				
LCS (B5K0421-BS1)				Prepared: 11/16/2015 Analyzed: 11/16/2015					
Methane	41.4600	1.0	48.1000		86.2	70 - 130			
LCS Dup (B5K0421-BSD1)				Prepared: 11/16/2015 Analyzed: 11/16/2015					
Methane	43.8100	1.0	48.1000		91.1	70 - 130	5.51	20	
Duplicate (B5K0421-DUP1)				Prepared: 11/16/2015 Analyzed: 11/16/2015					
Methane	ND	1.0		ND	NR			20	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/30/2015

Sulfide, Total by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B5K0460 - Prep_WC3_W

Blank (B5K0460-BLK1)

Prepared: 11/17/2015 Analyzed: 11/18/2015

Sulfide, Total ND 0.010 NR

LCS (B5K0460-BS1)

Prepared: 11/17/2015 Analyzed: 11/18/2015

Sulfide, Total 0.108300 0.010 0.100000 108 80 - 120

Matrix Spike (B5K0460-MS1)

Source: 1503905-08

Prepared: 11/17/2015 Analyzed: 11/18/2015

Sulfide, Total 0.106000 0.010 0.100000 ND 106 70 - 120

Matrix Spike Dup (B5K0460-MSD1)

Source: 1503905-08

Prepared: 11/17/2015 Analyzed: 11/18/2015

Sulfide, Total 0.105000 0.010 0.100000 ND 105 70 - 120 0.948 20



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/30/2015

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

November 25, 2015

Advanced Technology Laboratories
ATTN: Rachelle Arada
3275 Walnut Ave.
Signal Hill, CA 90755



ADE-1461
EPA Methods TO3,
TO14A, TO15 SIM & SCAN
ASTM D1946



LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 1503905
Lab Number: G111302-01/07

Enclosed are results for sample(s) received 11/13/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503905
Date Received: 11/13/15
Matrix: Air
Reporting Units: % v/v

Page 2 of 7
 G111302

ASTM D1946								
Lab No.:	G111302-01		G111302-02		G111302-03		G111302-04	
Client Sample I.D.:	1503905-01 / G-11 @ 32.5'		1503905-02 / G-11 @ 60'		1503905-03 / M-404 @ 87'		1503905-04 / M-404 @ 105'	
Date/Time Sampled:	11/12/15 10:05		11/12/15 10:10		11/12/15 11:25		11/12/15 11:35	
Date/Time Analyzed:	11/13/15 11:54		11/13/15 12:09		11/13/15 12:24		11/13/15 12:38	
QC Batch No.:	151113GC8A2		151113GC8A2		151113GC8A2		151113GC8A2	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Carbon Dioxide	3.8	0.010	1.2	0.010	0.78	0.010	0.065	0.010
Oxygen/Argon	17	0.50	20	0.50	20	0.50	22	0.50
Nitrogen	79	1.0	78	1.0	79	1.0	78	1.0
Methane	0.0023	0.0010	ND	0.0010	ND	0.0010	ND	0.0010

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 11/25/15

The cover letter is an integral part of this analytical report



Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503905
Date Received: 11/13/15
Matrix: Air
Reporting Units: % v/v

Page 3 of 7
 G111302

ASTM D1946								
Lab No.:	G111302-05		G111302-06		G111302-07			
Client Sample I.D.:	1503905-05 / M-404 @ 30'		1503905-06 / M-404 @ 40'		1503905-07 / M-404 @ 50'			
Date/Time Sampled:	11/12/15 11:40		11/12/15 11:50		11/12/15 12:00			
Date/Time Analyzed:	11/13/15 12:53		11/13/15 13:07		11/13/15 13:22			
QC Batch No.:	151113GC8A2		151113GC8A2		151113GC8A2			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Result	RL	Result	RL	Result	RL		
	% v/v	% v/v	% v/v	% v/v	% v/v	% v/v		
Carbon Dioxide	2.9	0.010	2.3	0.010	2.1	0.010		
Oxygen/Argon	18	0.50	18	0.50	18	0.50		
Nitrogen	79	1.0	80	1.0	80	1.0		
Methane	ND	0.0010	ND	0.0010	ND	0.0010		

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

MM

Mark Johnson
 Operations Manager

Date 11/25/15

The cover letter is an integral part of this analytical report



AirTECHNOLOGY Laboratories, Inc.

page 1 of 1

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

Figure E-2.109

Page 10 of 17

QC Batch No.: 151113GC8A2

Matrix: Air

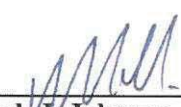
Units: % v/v

QC for ASTM D1946

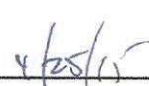
Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	11/13/15 11:38		11/13/15 11:09		11/13/15 11:24			
Analyst Initials:	AS		AS		AS			
Datafile:	13nov021		13nov019		13nov020			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Carbon Dioxide	ND	0.010	91	70-130%	92	70-130%	0.4	<30
Oxygen/Argon	ND	0.50	100	70-130%	100	70-130%	0.0	<30
Nitrogen	ND	1.0	100	70-130%	100	70-130%	0.0	<30
Methane	ND	0.0010	129	70-130%	129	70-130%	0.2	<30

ND = Not Detected (Below RL)

Reviewed/Approved By:


Mark J. Johnson
Operations Manager

Date:


11/25/15

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

Figure E-2.110

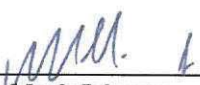
Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503905
Date Received: 11/13/15
Matrix: Air
Reporting Units: ppmv

Page 5 of 7
 G111302

EPA 15/16								
Lab No.:	G111302-01		G111302-02		G111302-03		G111302-04	
Client Sample I.D.:	1503905-01 / G-11 @ 32.5'		1503905-02 / G-11 @ 60'		1503905-03 / M-404 @ 87'		1503905-04 / M-404 @ 105'	
Date/Time Sampled:	11/12/15 10:05		11/12/15 10:10		11/12/15 11:25		11/12/15 11:35	
Date/Time Analyzed:	11/13/15 11:38		11/13/15 11:51		11/13/15 12:03		11/13/15 12:41	
QC Batch No.:	151113GC3A1		151113GC3A1		151113GC3A1		151113GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20	ND	0.20

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

Reviewed/Approved By: _____


 Mark Johnson
 Operations Manager

Date _____

11/25/15

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

page 1 of 1

Page 12 of 17

Figure E-2.111

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503905
Date Received: 11/13/15
Matrix: Air
Reporting Units: ppmv

Page 6 of 7
 G111302

EPA 15/16								
Lab No.:	G111302-05		G111302-06		G111302-07			
Client Sample I.D.:	1503905-05 / M-404 @ 30'		1503905-06 / M-404 @ 40'		1503905-07 / M-404 @ 50'			
Date/Time Sampled:	11/12/15 11:40		11/12/15 11:50		11/12/15 12:00			
Date/Time Analyzed:	11/13/15 12:53		11/13/15 13:07		11/13/15 13:18			
QC Batch No.:	151113GC3A1		151113GC3A1		151113GC3A1			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Result	RL	Result	RL	Result	RL		
	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv		
Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20		

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 11/25/15

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

page 1 of 1

Page 13 of 17

Figure E-2.112

QC Batch No.: 151113GC3A1
Matrix: Air
Units: ppmv

Page 7 of 7
G111302

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	11/13/15 11:22		11/13/15 10:59		11/13/15 11:10			
Analyst Initials:	AS		AS		AS			
Datafile:	13nov003		13nov001		13nov002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	105	70-130%	107	70-130%	1.6	<30

ND = Not Detected (Below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark J. Johnson
Operations Manager

Date: _____

11/25/15

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

Figure E-2.113

Page 14 of 17

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1503905

G111302-01/07

SENDING LABORATORY:

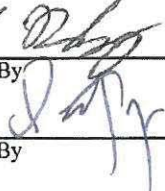
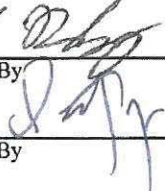
Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Air Technology Laboratories, Inc.
18501 E. Gale Ave, Suite 130
City of Industry, CA 91748
Phone : (626) 964-4032
Fax: (626) 964-5832
PO#: SC010018-STANDARD TAT (RA)

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1503905-01 / G-11 @32.5'				
		Air	11/12/15 10:05	D1946- Please report Carbon Dioxide, Oxygen/Argon, Nitrogen, Methane
D1946_T [Fixed Gases]	11/30/15 17:00	11/15/15 10:05		
15_16_H2S_T_SUB [Hydrogen Sulfide]	11/30/15 17:00	11/15/15 10:05		
2-Tedlar Bag				
ATL Lab#: 1503905-02 / G-11 @60'				
D1946_T [Fixed Gases]	11/30/15 17:00	11/15/15 10:10	11/12/15 10:10	
15_16_H2S_T_SUB [Hydrogen Sulfide]	11/30/15 17:00	11/15/15 10:10		
2-Tedlar Bag				
ATL Lab#: 1503905-03 / M-404 @87'				
D1946_T [Fixed Gases]	11/30/15 17:00	11/15/15 11:25	11/12/15 11:25	
15_16_H2S_T_SUB [Hydrogen Sulfide]	11/30/15 17:00	11/15/15 11:25		
2-Tedlar Bag				

Released By 	Date 11-13-15	Received By 	Date 11-13-15 4:20
Released By 	Date 11-13-15 10:45	Received By 	Date 11-13-15 1045

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1503905

G111302-01/07

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1503905-04 / M-404 @105'				
D1946_T	11/30/15 17:00	11/15/15 11:35	11/12/15 11:35	
[Fixed Gases]				
15_16_H2S_T_SUB	11/30/15 17:00	11/15/15 11:35		
[Hydrogen Sulfide]				
2-Tedlar Bag				
ATL Lab#: 1503905-05 / M-404 @30'				
D1946_T	11/30/15 17:00	11/15/15 11:40	11/12/15 11:40	
[Fixed Gases]				
15_16_H2S_T_SUB	11/30/15 17:00	11/15/15 11:40		
[Hydrogen Sulfide]				
2-Tedlar Bag				
ATL Lab#: 1503905-06 / M-404 @40'				
D1946_T	11/30/15 17:00	11/15/15 11:20 ⁵⁰	11/12/15 11:20	
[Fixed Gases]				
15_16_H2S_T_SUB	11/30/15 17:00	11/15/15 11:20 ⁵⁰		
[Hydrogen Sulfide]				
2-Tedlar Bag				
ATL Lab#: 1503905-07 / M-404 @50'				
D1946_T	11/30/15 17:00	11/15/15 12:00	11/12/15 12:00	
[Fixed Gases]				
15_16_H2S_T_SUB	11/30/15 17:00	11/15/15 12:00		
[Hydrogen Sulfide]				
2-Tedlar Bag				

Released By <i>Armen Manukyan</i>	Date <i>11/12/15</i>	Received By <i>G111302</i>	Date <i>11-13-15</i>	<i>9:20</i>
Released By <i>G111302</i>	Date <i>11-13-15 10:45</i>	Received By <i>[Signature]</i>	Date <i>11/18/15</i>	<i>10:45</i>

CHAIN OF CUSTODY RECORD

Page 1 of 1

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCOG Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt			
Condition	Y	N	Condition	Y	N
☒ Client			1. CHILLED	☐	☐
☐ FedEx			5. # OF SAMPLES MATCH COC	☐	☐
☐ GSO			6. PRESERVED	☐	☐
☐ Other:			3. CONTAINER INTACT	☐	☐
			7. COOLER TEMP, deg C:	☐	☐
			4. SEALED	☐	☐

Company: **Avec Foster Wheeler** Address: **6001 Rickenbacker** Tel: _____
City: **Los Angeles** State: **CA** Zip: **90049** Fax: _____
SEND REPORT TO: _____
Attn: _____ Email: _____
Company: _____
Address: _____
City: _____ State: _____ Zip: _____

ITEM	Lab No.	Sample ID / Location	Sample Description	Special Instructions/Comments:		Encircle or Write Requested Analysis										Encircle Sample Matrix		Container	QA/QC	
				Quote No:	PO #:	8260 / 624 (Volatiles)	8015 (GRO)	8015 (DRO)	8270 (Semi-Volatiles)	8081 (Organochlorine Pesticides)	6010 / 7000 (Title 22 Metals)	TO-15	SOILS / WIPE / FILTER	WATER - DRINKING / GROUND	WATER - STORM / WASTE	AQUEOUS / LAYERED - OIL				
1	150405	1	G-11 @ 32.5'																	
2		2	G-11 @ 60'																	
3		3	M-404 @ 87'																	
4		4	M-404 @ 105'																	
5		5	M-404 @ 30'																	
6		6	M-404 @ 40'																	
7		7	M-404 @ 50'																	
8		8	M-404 @ 87'																	
9		9	M-404 @ 105'																	
10																				

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

W. Williams Kelly *William A Kelly*
Submitter Print Name Signature

Time: 1:40 PM Date: 11/12/15
Time: 1:50 PM Date: 11/12/15

Time: 1:50 PM Date: 11/12/15



November 09, 2015

Ron Lopez
Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles, CA 90040
Tel: (323) 889-5300
Fax: (323) 721-6700

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1503687
Client Reference : MTA Westside, 4953-11-1423

Enclosed are the results for sample(s) received on October 27, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read 'E Rodriguez', is placed above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

***3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040
www.atlglobal.com***



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/09/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M 404 @105'	1503687-01	Air	10/27/15 10:07	10/27/15 14:26
M 404 @87'	1503687-02	Air	10/27/15 10:27	10/27/15 14:26
M 404 @50' (probe)	1503687-03	Air	10/27/15 10:59	10/27/15 14:26
M 404 @40' (probe)	1503687-04	Air	10/27/15 11:47	10/27/15 14:26
M 404 @30' (probe)	1503687-05	Air	10/27/15 12:20	10/27/15 14:26
M 404 @87'	1503687-06	Groundwater	10/27/15 12:50	10/27/15 14:26
M 404 @105'	1503687-07	Groundwater	10/27/15 13:00	10/27/15 14:26

CASE NARRATIVE

The air samples for Methane, H2S (15/16) and Fixed Gases (ASTM D1946) were subcontracted to Air Technology Laboratories.



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/09/2015

Client Sample ID M 404 @87'

Lab ID: 1503687-06

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	1	B5J0773	10/28/2015	10/28/15 12:44	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	1	B5J0867	10/30/2015	10/30/15 15:38	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/09/2015

Client Sample ID M 404 @105'

Lab ID: 1503687-07

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	1	B5J0773	10/28/2015	10/28/15 13:03	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	1	B5J0867	10/30/2015	10/30/15 15:38	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/09/2015

QUALITY CONTROL SECTION

Dissolved Gases in Water - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5J0773 - No_Prep_RSK_W									
Blank (B5J0773-BLK1)				Prepared: 10/28/2015 Analyzed: 10/28/2015					
Methane	ND	1.0			NR				
LCS (B5J0773-BS1)				Prepared: 10/28/2015 Analyzed: 10/28/2015					
Methane	44.2600	1.0	48.1000		92.0	70 - 130			
LCS Dup (B5J0773-BSD1)				Prepared: 10/28/2015 Analyzed: 10/28/2015					
Methane	41.4300	1.0	48.1000		86.1	70 - 130	6.61	20	
Duplicate (B5J0773-DUP1)				Prepared: 10/28/2015 Analyzed: 10/28/2015					
Methane	ND	1.0		ND	NR			20	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/09/2015

Sulfide, Total by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B5J0867 - Prep_WC3_W

Blank (B5J0867-BLK1)

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total ND 0.010 NR

LCS (B5J0867-BS1)

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total 0.0957 0.010 0.100000 95.7 80 - 120

Matrix Spike (B5J0867-MS1)

Source: 1503667-04

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total 0.103200 0.010 0.100000 ND 103 70 - 120

Matrix Spike Dup (B5J0867-MSD1)

Source: 1503667-04

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total 0.103400 0.010 0.100000 ND 103 70 - 120 0.194 20



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423
Report To : Ron Lopez
Reported : 11/09/2015

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

November 6, 2015

Advanced Technology Laboratories
ATTN: Rachelle Arada
3275 Walnut Ave.
Signal Hill, CA 90755



ADE-1461
EPA Methods TO-3,
TO14A, TO15 SIM & Scan,
ASTM D1946



LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450—14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 1503687
Lab Number: G102804-01/05

Enclosed are results for sample(s) received 10/28/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,



Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

Attn: **Rachelle Arada**
 Project Name: **NA**
 Project No.: **1503687**
 Date Received: **10/28/15**
 Matrix: **Air**
 Reporting Units: **% v/v**

Page 2 of 7
 G102804

ASTM D1946

Lab No.:	G102804-01		G102804-02		G102804-03		G102804-04	
Client Sample I.D.:	1503687-01 / M 404 @105'		1503687-02 / M 404 @87'		1503687-03 / M 404 @50' (Probe)		1503687-04 / M 404 @40' (Probe)	
Date/Time Sampled:	10/27/15 10:07		10/27/15 10:27		10/27/15 10:59		10/27/15 11:47	
Date/Time Analyzed:	10/29/15 10:47		10/29/15 11:02		10/29/15 11:16		10/29/15 11:31	
QC Batch No.:	151029GC8A1		151029GC8A1		151029GC8A1		151029GC8A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Carbon Dioxide	0.063	0.010	0.49	0.010	1.6	0.010	1.8	0.010
Oxygen/Argon	22	0.50	20	0.50	18	0.50	18	0.50
Nitrogen	78	1.0	79	1.0	80	1.0	80	1.0
Methane	ND	0.0010	ND	0.0010	ND	0.0010	ND	0.0010

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____



Mark Johnson
Operations Manager

Date

11-6-15

The cover letter is an integral part of this analytical report



Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503687
Date Received: 10/28/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946

Lab No.:	G102804-05							
Client Sample I.D.:	1503687-05 / M 404 @30' (Probe)							
Date/Time Sampled:	10/27/15 12:20							
Date/Time Analyzed:	10/29/15 11:46							
QC Batch No.:	151029GC8A1							
Analyst Initials:	AS							
Dilution Factor:	1.0							
ANALYTE	Result % v/v	RL % v/v						
Carbon Dioxide	2.9	0.010						
Oxygen/Argon	19	0.50						
Nitrogen	78	1.0						
Methane	0.0010	0.0010						

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: 

Mark Johnson
 Operations Manager

Date 11-6-15

The cover letter is an integral part of this analytical report



QC Batch No.: 151029GC8A1

Matrix: Air

Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank	LCS		LCSD				
Date/Time Analyzed:	10/29/15 10:33	10/29/15 9:33		10/29/15 9:47				
Analyst Initials:	AS	AS		AS				
Datafile:	29oct009	29oct006		29oct007				
Dilution Factor:	1.0	1.0		1.0				
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Carbon Dioxide	ND	0.010	89	70-130%	88	70-130%	0.8	<30
Oxygen/Argon	ND	0.50	97	70-130%	97	70-130%	0.5	<30
Nitrogen	ND	1.0	96	70-130%	96	70-130%	0.5	<30
Methane	ND	0.0010	97	70-130%	96	70-130%	0.8	<30

ND = Not Detected (Below RL)

Reviewed/Approved By:



Mark J. Johnson
Operations Manager

Date:

11-6-15

The cover letter is an integral part of this analytical report.



AirTECHNOLOGY Laboratories, Inc.

18501 E. Gale Avenue, Suite 130 ♦ City of Industry, CA 91744 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503687
Date Received: 10/28/15
Matrix: Air
Reporting Units: ppmv

Page 5 of 7
 G102804

EPA 15/16

Lab No.:	G102804-01		G102804-02		G102804-03		G102804-04	
Client Sample I.D.:	1503687-01 / M 404 @105'		1503687-02 / M 404 @87'		1503687-03 / M 404 @50' (Probe)		1503687-04 / M 404 @40' (Probe)	
Date/Time Sampled:	10/27/15 10:07		10/27/15 10:27		10/27/15 10:59		10/27/15 11:47	
Date/Time Analyzed:	10/29/15 9:30		10/29/15 9:41		10/29/15 9:53		10/29/15 10:04	
QC Batch No.:	151029GC3A1		151029GC3A1		151029GC3A1		151029GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result	RL	Result	RL	Result	RL	Result	RL
	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv
Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20	ND	0.20

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson

Mark Johnson
 Operations Manager

Date 11-6-15

The cover letter is an integral part of this analytical report.



AirTECHNOLOGY Laboratories, Inc.

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503687
Date Received: 10/28/15
Matrix: Air
Reporting Units: ppmv

Page 6 of 7
 G102804

EPA 15/16							
Lab No.:	G102804-05						
Client Sample I.D.:	1503687-05 / M 404 @30' (Probe)						
Date/Time Sampled:	10/27/15 12:20						
Date/Time Analyzed:	10/29/15 10:15						
QC Batch No.:	151029GC3A1						
Analyst Initials:	AS						
Dilution Factor:	1.0						
ANALYTE	Result ppmv	RL ppmv					
Hydrogen Sulfide	ND	0.20					

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark Johnson
 Operations Manager

Date

11-6-15

The cover letter is an integral part of this analytical report



QC Batch No.: 151029GC3A1
 Matrix: Air
 Units: ppmv

Page 7 of 7
 G102804

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	10/29/15 9:19		10/29/15 8:55		10/29/15 9:07			
Analyst Initials:	AS		AS		AS			
Datafile:	29oct004		29oct002		29oct003			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	107	70-130%	105	70-130%	1.8	<30

ND = Not Detected (Below RL)

RL = Reporting Limit

Reviewed/Approved By: _____


 Mark J. Johnson
 Operations Manager

Date: 11-6-15

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

ADVANCED TECHNOLOGY
 LABORATORIES

SUBCONTRACT ORDER

Work Order: 1503687

G102804-01/09

Page 15 of 17

SENDING LABORATORY:

Advanced Technology Laboratories
 3275 Walnut Avenue
 Signal Hill, CA 90755
 Phone: 562.989.4045
 Fax: 562.989.6348
 Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Air Technology Laboratories, Inc.
 18501 E. Gale Ave, Suite 130
 City of Industry, CA 91748
 Phone : (626) 964-4032
 Fax: (626) 964-5832
 PO#: SC09978-STANDARD TAT

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
<hr/>				
ATL Lab#: 1503687-01 / M 404 @105' 01 D1946_T [Fixed Gases] 15_16_H2S_T_SUB [Hydrogen Sulfide] 2-Tedlar Bag	11/10/15 17:00	10/30/15 10:07	10/27/15 10:07	D1946-please report Carbon Dioxide, Oxygen/Argon, Nitrogen, Methane
ATL Lab#: 1503687-02 / M 404 @87' 02 D1946_T [Fixed Gases] 15_16_H2S_T_SUB [Hydrogen Sulfide] 2-Tedlar Bag	11/10/15 17:00	10/30/15 10:27	10/27/15 10:27	
ATL Lab#: 1503687-03 / M 404 @50' (probe) 03 D1946_T [Fixed Gases] 15_16_H2S_T_SUB [Hydrogen Sulfide] 2-Tedlar Bag	11/10/15 17:00	10/30/15 10:59	10/27/15 10:59	

Released By

Date

Received By

Date

Released By

Date

Received By

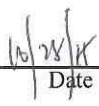
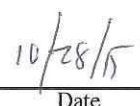
Date

SUBCONTRACT ORDER

Work Order: 1503687

G102804-01/09

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1503687-04 / M 404 @40' (probe)				
D1946_T	11/10/15 17:00	10/30/15 11:47	10/27/15 11:47	
[Fixed Gases]				
15_16_H2S_T_SUB	11/10/15 17:00	10/30/15 11:47		
[Hydrogen Sulfide]				
2-Tedlar Bag				
ATL Lab#: 1503687-05 / M 404 @30' (probe)				
D1946_T	11/10/15 17:00	10/30/15 12:20	10/27/15 12:20	
[Fixed Gases]				
15_16_H2S_T_SUB	11/10/15 17:00	10/30/15 12:20		
[Hydrogen Sulfide]				
2-Tedlar Bag				

 Released By	 Date	 Received By	 Date
840	840	840	840

CHAIN OF CUSTODY RECORD

Page of

Instruction: Complete all shaded areas.

Method of Transport		Sample Conditions Upon Receipt	
☐ Client	☐ ATL	Condition	Y N
☐ FedEx	☐ OnTrac	1. CHILLED	☐ Y ☐ N
☐ GSO	☐ Other: <u> </u>	2. HEADSPACE (N/A)	☐ Y ☐ N
		3. CONTAINER INTACT	☐ Y ☐ N
		4. SEALED	☐ Y ☐ N
		5. # OF SAMPLES MATCH COC	☐ Y ☐ N
		6. PRESERVED	☐ Y ☐ N
		7. COOLER TEMP. deg C:	☐ Y ☐ N

Company: <u>Avec Foster Wheeler</u>		Address: <u>6001 Rickenbacker Rd</u>		Tel: <u> </u>	
Attn: <u>Ron Lopez</u>		City: <u>Los Angeles</u>		State: <u>CA</u> Zip: <u>90040</u>	
Company: <u>Avec Foster Wheeler</u>		Address: <u> </u>		Email: <u> </u>	
City: <u> </u>		State: <u> </u>		Zip: <u> </u>	

Project Name:		Quote No:	Special Instructions/Comments:	
MTA Westside				
Project No: <u>4953-11-1423</u>		PO #:		
Sampler: <u>Diego Scapillato</u>				
ITEM	Lab No.	Sample ID / Location	Date	Time
1	15071687-1	M 404 @ 105'	10/27/15	10:07
2	2	M 404 @ 87'	10/27/15	10:27
3	3	M 404 @ 50' (probe)	10/27/15	10:59
4	4	M 404 @ 40' (probe)	10/27/15	11:47
5	5	M 404 @ 30' (probe)	10/27/15	12:20
6	6	M 404 @ 87'	10/27/15	12:50
7	7	M 404 @ 105'	10/27/15	1:00
8				
9				
10				

<p>1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.</p> <p>2. Samples Submitted AFTER 3:00 PM, are considered received the following Business day at 8:00 AM.</p> <p>3. The following turn-around time commitments apply to samples received by 8:00 AM:</p> <p>4. Workload:</p> <p>5. Subcontractor: It is 10-15 business days. Projects requiring shorter TATs will incur a surcharge.</p> <p>6. Liquid and solid samples will be disposed of after 45 calendar days from receipt of samples; air samples will be disposed of after 14 calendar days after receipt of samples.</p> <p>7. Electronic records maintained for five (5) years from report date.</p> <p>8. Hard copy reports will be disposed of after 45 calendar days from report date.</p> <p>9. Storage and Report Fees:</p> <p>- Liquid & solid samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.</p> <p>- Air samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.</p> <p>- Hard copy and regenerated reports/EDS: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$25.00 per EDS.</p> <p>10. Rush TAT/STLC samples add 2 days to analysis TAT for extraction on procedure.</p> <p>11. Unanalyzed samples will incur a disposal fee of \$7 per sample.</p>		<p>As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.</p>	
<p>Relinquished by: (Signature and Printed Name) <u>Diego Scapillato</u></p> <p>Relinquished by: (Signature and Printed Name) <u> </u></p> <p>Relinquished by: (Signature and Printed Name) <u> </u></p>		<p>Signature <u> </u></p> <p>Date: <u>10/27/15</u> Time: <u>2:26pm</u></p> <p>Date: <u>10/27/15</u> Time: <u> </u></p> <p>Date: <u> </u> Time: <u> </u></p>	



November 03, 2015

Ron Lopez
Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles, CA 90040
Tel: (323) 889-5300
Fax: (323) 721-6700

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1503667
Client Reference : MTA Westside, 4953-11-1423

Enclosed are the results for sample(s) received on October 26, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040
www.atlglobal.com



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/03/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M 405 @106'	1503667-01	Air	10/25/15 10:13	10/26/15 7:33
M 405 @47'	1503667-02	Air	10/25/15 10:23	10/26/15 7:33
M 405 @34' (Probe)	1503667-03	Air	10/25/15 11:04	10/26/15 7:33
M 405 @105'	1503667-04	Groundwater	10/25/15 11:45	10/26/15 7:33

CASE NARRATIVE

The air samples for Methane, H₂S (15/16) and Fixed Gases (ASTM D1946) were subcontracted to Air Technology Laboratories.



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/03/2015

Client Sample ID M 405 @105'

Lab ID: 1503667-04

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	1	B5J0728	10/27/2015	10/27/15 12:49	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	1	B5J0867	10/30/2015	10/30/15 15:38	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/03/2015

QUALITY CONTROL SECTION

Dissolved Gases in Water - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5J0728 - No_Prep_RSK_W									
Blank (B5J0728-BLK1)				Prepared: 10/27/2015 Analyzed: 10/27/2015					
Methane	ND	1.0			NR				
LCS (B5J0728-BS1)				Prepared: 10/27/2015 Analyzed: 10/27/2015					
Methane	42.4300	1.0	48.1000		88.2	70 - 130			
LCS Dup (B5J0728-BSD1)				Prepared: 10/27/2015 Analyzed: 10/27/2015					
Methane	40.7100	1.0	48.1000		84.6	70 - 130	4.14	20	
Duplicate (B5J0728-DUP1)				Prepared: 10/27/2015 Analyzed: 10/27/2015					
Methane	ND	1.0		ND	NR			20	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423
Report To : Ron Lopez
Reported : 11/03/2015

Sulfide, Total by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B5J0867 - Prep_WC3_W

Blank (B5J0867-BLK1)

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total ND 0.010 NR

LCS (B5J0867-BS1)

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total 0.0957 0.010 0.100000 95.7 80 - 120

Matrix Spike (B5J0867-MS1)

Source: 1503667-04

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total 0.103200 0.010 0.100000 ND 103 70 - 120

Matrix Spike Dup (B5J0867-MSD1)

Source: 1503667-04

Prepared: 10/30/2015 Analyzed: 10/30/2015

Sulfide, Total 0.103400 0.010 0.100000 ND 103 70 - 120 0.194 20



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423
Report To : Ron Lopez
Reported : 11/03/2015

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

November 3, 2015

Advanced Technology Laboratories
ATTN: Rachelle Arada
3275 Walnut Ave.
Signal Hill, CA 90755



ADE-1461
EPA Methods TO-3,
TO14A, TO15 SIM & Scan,
ASTM D1946



LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450—14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 1503667
Lab Number: G102602-01/03

Enclosed are results for sample(s) received 10/26/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503667
Date Received: 10/23/15
Matrix: Air
Reporting Units: % v/v

Page 2 of 5
 G102602

ASTM D1946							
Lab No.:	G102602-01	G102602-02	G102602-03				
Client Sample I.D.:	1503667-01 / M 405 @106'	1503667-02 / M 405 @47'	1503667-03 / M 405 @34' (Probe)				
Date/Time Sampled:	10/25/15 10:13	10/25/15 10:23	10/25/15 11:04				
Date/Time Analyzed:	10/26/15 19:32	10/26/15 19:47	10/26/15 20:01				
QC Batch No.:	151026GC8A1	151026GC8A1	151026GC8A1				
Analyst Initials:	AS	AS	AS				
Dilution Factor:	1.0	1.0	1.0				
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	
Carbon Dioxide	0.098	0.010	0.59	0.010	0.35	0.010	
Oxygen/Argon	22	0.50	20	0.50	20	0.50	
Nitrogen	78	1.0	80	1.0	80	1.0	
Methane	ND	0.0010	0.0013	0.0010	0.0016	0.0010	

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
 Operations Manager

Date 10/26/15

The cover letter is an integral part of this analytical report



QC Batch No.: 151026GC8A1

Matrix: Air

Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank	LCS	LCSD					
Date/Time Analyzed:	10/26/15 15:10	10/26/15 10:16	10/26/15 10:30					
Analyst Initials:	AS	AS	AS					
Datafile:	26oct048	26oct008	26oct009					
Dilution Factor:	1.0	1.0	1.0					
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Carbon Dioxide	ND	0.010	102	70-130%	102	70-130%	0.0	<30
Oxygen/Argon	ND	0.50	100	70-130%	100	70-130%	0.1	<30
Nitrogen	ND	1.0	100	70-130%	100	70-130%	0.3	<30
Methane	ND	0.0010	92	70-130%	92	70-130%	0.2	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____

Mark J. 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 91744 ♦ Ph: (626) 964-4032 ♦ Fx: (626) 964-5832

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503667
Date Received: 10/23/15
Matrix: Air
Reporting Units: ppmv

Page 4 of 5
 G102602

EPA 15/16							
Lab No.:	G102602-01	G102602-02	G102602-03				
Client Sample I.D.:	1503667-01 / M 405 @106'	1503667-02 / M 405 @47'	1503667-03 / M 405 @34' (Probe)				
Date/Time Sampled:	10/25/15 10:13	10/25/15 10:23	10/25/15 11:04				
Date/Time Analyzed:	10/26/15 15:00	10/26/15 15:13	10/26/15 15:24				
QC Batch No.:	151026GC3A1	151026GC3A1	151026GC3A1				
Analyst Initials:	AS	AS	AS				
Dilution Factor:	1.0	1.0	1.0				
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	
Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20	

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____


 Mark Johnson
 Operations Manager

Date 11/2/15

The cover letter is an integral part of this analytical report



QC Batch No.: 151026GC3A1
Matrix: Air
Units: ppmv

Page 5 of 5
G102602

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank	LCS		LCSD				
Date/Time Analyzed:	10/26/15 9:48	10/26/15 9:23		10/26/15 9:37				
Analyst Initials:	AS	AS		AS				
Datafile:	26oct003	26oct001		26oct002				
Dilution Factor:	1.0	1.0		1.0				
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	85	70-130%	85	70-130%	0.4	<30

ND = Not Detected (Below RL)

RL = Reporting Limit

Reviewed/Approved By:

Mark J. Johnson
Operations Manager

Date:

11/2/15

The cover letter is an integral part of this analytical report.



ADVANCED TECHNOLOGY
LABORATORIES

G 102602-01/03

SUBCONTRACT ORDER

Work Order: 1503667

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

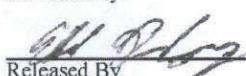
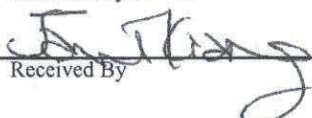
RECEIVING LABORATORY:

Air Technology Laboratories, Inc.
18501 E. Gale Ave, Suite 130
City of Industry, CA 91748
Phone : (626) 964-4032
Fax: (626) 964-5832
PO#: SC09973-STANDARD TAT

RA

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1503667-01 / M 405 @106'				
		Air	10/25/15 10:13	D1646- please report Carbon Dioxide, Oxygen/Argon, Nitrogen, Methane
D1946_T [Fixed Gases]	11/06/15 17:00	10/28/15 10:13		
15_16_H2S_T_SUB [Hydrogen Sulfide]	11/06/15 17:00	10/28/15 10:13		
2-Tedlar Bag				
ATL Lab#: 1503667-02 / M 405 @47'				
		Air	10/25/15 10:23	
D1946_T [Fixed Gases]	10/30/15 17:00	10/28/15 10:23		
15_16_H2S_T_SUB [Hydrogen Sulfide]	10/30/15 17:00	10/28/15 10:23		
2-Tedlar Bag				
ATL Lab#: 1503667-03 / M 405 @34' (Probe)				
		Air	10/25/15 11:04	
D1946_T [Fixed Gases]	10/30/15 17:00	10/28/15 11:04		
15_16_H2S_T_SUB [Hydrogen Sulfide]	10/30/15 17:00	10/28/15 11:04		
2-Tedlar Bag				

Released By 	Date 10/26/15	Received By 	Date 10-26-15
Released By 	Date 10-26-15 12:42	Received By 	Date 10/26/15 12:42

10/26/15

CHAIN OF CUSTODY RECORD

Page ____ of ____

Instruction: Complete all shaded areas.

For Laboratory Use Only ATLCOG Ver: 20130715

Method of Transport		Sample Conditions Upon Receipt	
Client	Condition	Y	N
☒ ATL	☒ CHILLED	☒	☒
☒ FedEx	☒ 2. HEADSPACE (VOM)	☒	☒
☒ GSO	☒ 3. CONTAINER INTACT	☒	☒
☒ Other:	☒ 4. SEALED	☒	☒

Company: Avec Foster Wheeler Address: 6001 Rickenbacker Rd Tel: _____
 Attn: Ron Lopez City: Los Angeles State: CA Zip: 90040 Fax: _____
 Company: Avec Foster Wheeler Email: _____
 Address: _____
 City: _____ State: _____ Zip: _____

Project Name: MTA Westside Quote No: _____
 Project No.: 4953-11-1123 PO #: _____
 Sampler: CHACK

ITEM	Lab No.	Sample Description		Special Instructions/Comments:	
		Sample ID / Location	Time	Date	Time
1	107367-1	M405 @ 108' 919X	10:13	10/25/15	10:13
2	2	M405 @ 47'	10:23	10/25/15	10:23
3	3	M405 @ 34' (probe)	11:04	10/25/15	11:04
4	4	M405 @ 105'	11:45	10/25/15	11:45
5					
6					
7					
8					
9					
10					

Encircle or Write Requested Analysis

Encircle Sample Matrix	Encircle or Write Requested Analysis	Container	QA/QC
SOIL / SEDIMENT / SLUDGE			☐ Routine
SOLIDS / WIPE / FILTER			☐ Caltrans
WATER - DRINKING / GROUND			☐ Legal
WATER - STORM / WASTE			☐ RWQCB
AQUEOUS / LAYERED - OIL			☐ Level IV

Remarks: 5=Zn (1/2); 6=NH₄OH; 7=HNO₃; 8=H₂SO₄; 9=H₂O; 10=H₂O; 11=H₂O; 12=H₂O; 13=H₂O; 14=H₂O; 15=H₂O; 16=H₂O; 17=H₂O; 18=H₂O; 19=H₂O; 20=H₂O; 21=H₂O; 22=H₂O; 23=H₂O; 24=H₂O; 25=H₂O; 26=H₂O; 27=H₂O; 28=H₂O; 29=H₂O; 30=H₂O; 31=H₂O; 32=H₂O; 33=H₂O; 34=H₂O; 35=H₂O; 36=H₂O; 37=H₂O; 38=H₂O; 39=H₂O; 40=H₂O; 41=H₂O; 42=H₂O; 43=H₂O; 44=H₂O; 45=H₂O; 46=H₂O; 47=H₂O; 48=H₂O; 49=H₂O; 50=H₂O; 51=H₂O; 52=H₂O; 53=H₂O; 54=H₂O; 55=H₂O; 56=H₂O; 57=H₂O; 58=H₂O; 59=H₂O; 60=H₂O; 61=H₂O; 62=H₂O; 63=H₂O; 64=H₂O; 65=H₂O; 66=H₂O; 67=H₂O; 68=H₂O; 69=H₂O; 70=H₂O; 71=H₂O; 72=H₂O; 73=H₂O; 74=H₂O; 75=H₂O; 76=H₂O; 77=H₂O; 78=H₂O; 79=H₂O; 80=H₂O; 81=H₂O; 82=H₂O; 83=H₂O; 84=H₂O; 85=H₂O; 86=H₂O; 87=H₂O; 88=H₂O; 89=H₂O; 90=H₂O; 91=H₂O; 92=H₂O; 93=H₂O; 94=H₂O; 95=H₂O; 96=H₂O; 97=H₂O; 98=H₂O; 99=H₂O; 100=H₂O; 101=H₂O; 102=H₂O; 103=H₂O; 104=H₂O; 105=H₂O; 106=H₂O; 107=H₂O; 108=H₂O; 109=H₂O; 110=H₂O; 111=H₂O; 112=H₂O; 113=H₂O; 114=H₂O; 115=H₂O; 116=H₂O; 117=H₂O; 118=H₂O; 119=H₂O; 120=H₂O; 121=H₂O; 122=H₂O; 123=H₂O; 124=H₂O; 125=H₂O; 126=H₂O; 127=H₂O; 128=H₂O; 129=H₂O; 130=H₂O; 131=H₂O; 132=H₂O; 133=H₂O; 134=H₂O; 135=H₂O; 136=H₂O; 137=H₂O; 138=H₂O; 139=H₂O; 140=H₂O; 141=H₂O; 142=H₂O; 143=H₂O; 144=H₂O; 145=H₂O; 146=H₂O; 147=H₂O; 148=H₂O; 149=H₂O; 150=H₂O; 151=H₂O; 152=H₂O; 153=H₂O; 154=H₂O; 155=H₂O; 156=H₂O; 157=H₂O; 158=H₂O; 159=H₂O; 160=H₂O; 161=H₂O; 162=H₂O; 163=H₂O; 164=H₂O; 165=H₂O; 166=H₂O; 167=H₂O; 168=H₂O; 169=H₂O; 170=H₂O; 171=H₂O; 172=H₂O; 173=H₂O; 174=H₂O; 175=H₂O; 176=H₂O; 177=H₂O; 178=H₂O; 179=H₂O; 180=H₂O; 181=H₂O; 182=H₂O; 183=H₂O; 184=H₂O; 185=H₂O; 186=H₂O; 187=H₂O; 188=H₂O; 189=H₂O; 190=H₂O; 191=H₂O; 192=H₂O; 193=H₂O; 194=H₂O; 195=H₂O; 196=H₂O; 197=H₂O; 198=H₂O; 199=H₂O; 200=H₂O; 201=H₂O; 202=H₂O; 203=H₂O; 204=H₂O; 205=H₂O; 206=H₂O; 207=H₂O; 208=H₂O; 209=H₂O; 210=H₂O; 211=H₂O; 212=H₂O; 213=H₂O; 214=H₂O; 215=H₂O; 216=H₂O; 217=H₂O; 218=H₂O; 219=H₂O; 220=H₂O; 221=H₂O; 222=H₂O; 223=H₂O; 224=H₂O; 225=H₂O; 226=H₂O; 227=H₂O; 228=H₂O; 229=H₂O; 230=H₂O; 231=H₂O; 232=H₂O; 233=H₂O; 234=H₂O; 235=H₂O; 236=H₂O; 237=H₂O; 238=H₂O; 239=H₂O; 240=H₂O; 241=H₂O; 242=H₂O; 243=H₂O; 244=H₂O; 245=H₂O; 246=H₂O; 247=H₂O; 248=H₂O; 249=H₂O; 250=H₂O; 251=H₂O; 252=H₂O; 253=H₂O; 254=H₂O; 255=H₂O; 256=H₂O; 257=H₂O; 258=H₂O; 259=H₂O; 260=H₂O; 261=H₂O; 262=H₂O; 263=H₂O; 264=H₂O; 265=H₂O; 266=H₂O; 267=H₂O; 268=H₂O; 269=H₂O; 270=H₂O; 271=H₂O; 272=H₂O; 273=H₂O; 274=H₂O; 275=H₂O; 276=H₂O; 277=H₂O; 278=H₂O; 279=H₂O; 280=H₂O; 281=H₂O; 282=H₂O; 283=H₂O; 284=H₂O; 285=H₂O; 286=H₂O; 287=H₂O; 288=H₂O; 289=H₂O; 290=H₂O; 291=H₂O; 292=H₂O; 293=H₂O; 294=H₂O; 295=H₂O; 296=H₂O; 297=H₂O; 298=H₂O; 299=H₂O; 300=H₂O; 301=H₂O; 302=H₂O; 303=H₂O; 304=H₂O; 305=H₂O; 306=H₂O; 307=H₂O; 308=H₂O; 309=H₂O; 310=H₂O; 311=H₂O; 312=H₂O; 313=H₂O; 314=H₂O; 315=H₂O; 316=H₂O; 317=H₂O; 318=H₂O; 319=H₂O; 320=H₂O; 321=H₂O; 322=H₂O; 323=H₂O; 324=H₂O; 325=H₂O; 326=H₂O; 327=H₂O; 328=H₂O; 329=H₂O; 330=H₂O; 331=H₂O; 332=H₂O; 333=H₂O; 334=H₂O; 335=H₂O; 336=H₂O; 337=H₂O; 338=H₂O; 339=H₂O; 340=H₂O; 341=H₂O; 342=H₂O; 343=H₂O; 344=H₂O; 345=H₂O; 346=H₂O; 347=H₂O; 348=H₂O; 349=H₂O; 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462=H₂O; 463=H₂O; 464=H₂O; 465=H₂O; 466=H₂O; 467=H₂O; 468=H₂O; 469=H₂O; 470=H₂O; 471=H₂O; 472=H₂O; 473=H₂O; 474=H₂O; 475=H₂O; 476=H₂O; 477=H₂O; 478=H₂O; 479=H₂O; 480=H₂O; 481=H₂O; 482=H₂O; 483=H₂O; 484=H₂O; 485=H₂O; 486=H₂O; 487=H₂O; 488=H₂O; 489=H₂O; 490=H₂O; 491=H₂O; 492=H₂O; 493=H₂O; 494=H₂O; 495=H₂O; 496=H₂O; 497=H₂O; 498=H₂O; 499=H₂O; 500=H₂O; 501=H₂O; 502=H₂O; 503=H₂O; 504=H₂O; 505=H₂O; 506=H₂O; 507=H₂O; 508=H₂O; 509=H₂O; 510=H₂O; 511=H₂O; 512=H₂O; 513=H₂O; 514=H₂O; 515=H₂O; 516=H₂O; 517=H₂O; 518=H₂O; 519=H₂O; 520=H₂O; 521=H₂O; 522=H₂O; 523=H₂O; 524=H₂O; 525=H₂O; 526=H₂O; 527=H₂O; 528=H₂O; 529=H₂O; 530=H₂O; 531=H₂O; 532=H₂O; 533=H₂O; 534=H₂O; 535=H₂O; 536=H₂O; 537=H₂O; 538=H₂O; 539=H₂O; 540=H₂O; 541=H₂O; 542=H₂O; 543=H₂O; 544=H₂O; 545=H₂O; 546=H₂O; 547=H₂O; 548=H₂O; 549=H₂O; 550=H₂O; 551=H₂O; 552=H₂O; 553=H₂O; 554=H₂O; 555=H₂O; 556=H₂O; 557=H₂O; 558=H₂O; 559=H₂O; 560=H₂O; 561=H₂O; 562=H₂O; 563=H₂O; 564=H₂O; 565=H₂O; 566=H₂O; 567=H₂O; 568=H₂O; 569=H₂O; 570=H₂O; 571=H₂O; 572=H₂O; 573=H₂O; 574=H₂O; 575=H₂O; 576=H₂O; 577=H₂O; 578=H₂O; 579=H₂O; 580=H₂O; 581=H₂O; 582=H₂O; 583=H₂O; 584=H₂O; 585=H₂O; 586=H₂O; 587=H₂O; 588=H₂O; 589=H₂O; 590=H₂O; 591=H₂O; 592=H₂O; 593=H₂O; 594=H₂O; 595=H₂O; 596=H₂O; 597=H₂O; 598=H₂O; 599=H₂O; 600=H₂O; 601=H₂O; 602=H₂O; 603=H₂O; 604=H₂O; 605=H₂O; 606=H₂O; 607=H₂O; 608=H₂O; 609=H₂O; 610=H₂O; 611=H₂O; 612=H₂O; 613=H₂O; 614=H₂O; 615=H₂O; 616=H₂O; 617=H₂O; 618=H₂O; 619=H₂O; 620=H₂O; 621=H₂O; 622=H₂O; 623=H₂O; 624=H₂O; 625=H₂O; 626=H₂O; 627=H₂O; 628=H₂O; 629=H₂O; 630=H₂O; 631=H₂O; 632=H₂O; 633=H₂O; 634=H₂O; 635=H₂O; 636=H₂O; 637=H₂O; 638=H₂O; 639=H₂O; 640=H₂O; 641=H₂O; 642=H₂O; 643=H₂O; 644=H₂O; 645=H₂O; 646=H₂O; 647=H₂O; 648=H₂O; 649=H₂O; 650=H₂O; 651=H₂O; 652=H₂O; 653=H₂O; 654=H₂O; 655=H₂O; 656=H₂O; 657=H₂O; 658=H₂O; 659=H₂O; 660=H₂O; 661=H₂O; 662=H₂O; 663=H₂O; 664=H₂O; 665=H₂O; 666=H₂O; 667=H₂O; 668=H₂O; 669=H₂O; 670=H₂O; 671=H₂O; 672=H₂O; 673=H₂O; 674=H₂O; 675=H₂O; 676=H₂O; 677=H₂O; 678=H₂O; 679=H₂O; 680=H₂O; 681=H₂O; 682=H₂O; 683=H₂O; 684=H₂O; 685=H₂O; 686=H₂O; 687=H₂O; 688=H₂O; 689=H₂O; 690=H₂O; 691=H₂O; 692=H₂O; 693=H₂O; 694=H₂O; 695=H₂O; 696=H₂O; 697=H₂O; 698=H₂O; 699=H₂O; 700=H₂O; 701=H₂O; 702=H₂O; 703=H₂O; 704=H₂O; 705=H₂O; 706=H₂O; 707=H₂O; 708=H₂O; 709=H₂O; 710=H₂O; 711=H₂O; 712=H₂O; 713=H₂O; 714=H₂O; 715=H₂O; 716=H₂O; 717=H₂O; 718=H₂O; 719=H₂O; 720=H₂O; 721=H₂O; 722=H₂O; 723=H₂O; 724=H₂O; 725=H₂O; 726=H₂O; 727=H₂O; 728=H₂O; 729=H₂O; 730=H₂O; 731=H₂O; 732=H₂O; 733=H₂O; 734=H₂O; 735=H₂O; 736=H₂O; 737=H₂O; 738=H₂O; 739=H₂O; 740=H₂O; 741=H₂O; 742=H₂O; 743=H₂O; 744=H₂O; 745=H₂O; 746=H₂O; 747=H₂O; 748=H₂O; 749=H₂O; 750=H₂O; 751=H₂O; 752=H₂O; 753=H₂O; 754=H₂O; 755=H₂O; 756=H₂O; 757=H₂O; 758=H₂O; 759=H₂O; 760=H



November 16, 2015

Ron Lopez
Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles, CA 90040
Tel: (323) 889-5300
Fax: (323) 721-6700

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1503748
Client Reference : MTA Westside, 4953-11-1423

Enclosed are the results for sample(s) received on October 31, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is written over a light blue horizontal line.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040
www.atlglobal.com



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/16/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M405 @ 47'	1503748-01	Air	10/31/15 10:25	10/31/15 13:19
M405 @ 106'	1503748-02	Air	10/31/15 10:25	10/31/15 13:19
M405 @ 34' (probe)	1503748-03	Air	10/31/15 11:20	10/31/15 13:19
M405 @ 105'	1503748-04	Groundwater	10/31/15 11:31	10/31/15 13:19

CASE NARRATIVE

The air samples for Methane, H₂S (15/16) and Fixed Gases (ASTM D1946) were subcontracted to Air Technology Laboratories.



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/16/2015

Client Sample ID M405 @ 105'

Lab ID: 1503748-04

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	1	B5K0039	11/03/2015	11/03/15 13:29	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	1	B5K0108	11/04/2015	11/04/15 13:19	



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Los Angeles , CA 90040

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Reported : 11/16/2015

QUALITY CONTROL SECTION

Dissolved Gases in Water - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec % Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5K0039 - No_Prep_RSK_W									
Blank (B5K0039-BLK1)				Prepared: 11/3/2015 Analyzed: 11/3/2015					
Methane	ND	1.0			NR				
LCS (B5K0039-BS1)				Prepared: 11/3/2015 Analyzed: 11/3/2015					
Methane	44.1200	1.0	48.1000		91.7	70 - 130			
LCS Dup (B5K0039-BSD1)				Prepared: 11/3/2015 Analyzed: 11/3/2015					
Methane	40.3400	1.0	48.1000		83.9	70 - 130	8.95	20	
Duplicate (B5K0039-DUP1)				Prepared: 11/3/2015 Analyzed: 11/3/2015					
Methane	ND	1.0		ND	NR			20	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/16/2015

Sulfide, Total by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B5K0108 - Prep_WC3_W

Blank (B5K0108-BLK1)

Prepared: 11/4/2015 Analyzed: 11/4/2015

Sulfide, Total	ND	0.010				NR			
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LCS (B5K0108-BS1)

Prepared: 11/4/2015 Analyzed: 11/4/2015

Sulfide, Total	0.0992	0.010	0.100000		99.2	80 - 120			
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Matrix Spike (B5K0108-MS1)

Source: 1503749-01

Prepared: 11/4/2015 Analyzed: 11/4/2015

Sulfide, Total	0.0948	0.010	0.100000	ND	94.8	70 - 120			
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Matrix Spike Dup (B5K0108-MSD1)

Source: 1503749-01

Prepared: 11/4/2015 Analyzed: 11/4/2015

Sulfide, Total	0.0953	0.010	0.100000	ND	95.3	70 - 120	0.526	20	
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Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 11/16/2015

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

November 13, 2015

Advanced Technology Laboratories
ATTN: Rachelle Arada
3275 Walnut Ave.
Signal Hill, CA 90755



ADE-1461
EPA Methods TO-3,
TO14A, TO15 SIM & Scan,
ASTM D1946



LA Cert 04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15
UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 1503748
Lab Number: G110202-01/03

Enclosed are results for sample(s) received 11/02/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503748
Date Received: 11/02/15
Matrix: Air
Reporting Units: % v/v

Page 2 of 5
 G110202

ASTM D1946

Lab No.:	G110202-01	G110202-02	G110202-03						
Client Sample I.D.:	1503748-01 / M405 @ 47'	1503748-02 / M405 @ 106'	1503748-03 / M405 @ 34' (probe)						
Date/Time Sampled:	10/31/15 10:25	10/31/15 10:25	10/31/15 11:20						
Date/Time Analyzed:	11/2/15 14:36	11/2/15 14:51	11/2/15 15:05						
QC Batch No.:	151102GC8A1	151102GC8A1	151102GC8A1						
Analyst Initials:	AS	AS	AS						
Dilution Factor:	1.0	1.0	1.0						
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v			
	Carbon Dioxide	0.58	0.010	0.060	0.010	0.38	0.010		
	Oxygen/Argon	19	0.50	22	0.50	18	0.50		
	Nitrogen	80	1.0	78	1.0	81	1.0		
	Methane	0.0016	0.0010	ND	0.0010	0.0013	0.0010		

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark Johnson
 Operations Manager

Date

11-13-15

The cover letter is an integral part of this analytical report



QC Batch No.: 151102GC8A1

Matrix: Air

Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank	LCS	LCSD					
Date/Time Analyzed:	11/2/15 13:23	11/2/15 15:20	11/2/15 15:34					
Analyst Initials:	AS	AS	AS					
Datafile:	02nov009	02nov017	02nov018					
Dilution Factor:	1.0	1.0	1.0					
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Carbon Dioxide	ND	0.010	100	70-130%	99	70-130%	0.7	<30
Oxygen/Argon	ND	0.50	98	70-130%	98	70-130%	0.3	<30
Nitrogen	ND	1.0	98	70-130%	98	70-130%	0.4	<30
Methane	ND	0.0010	95	70-130%	95	70-130%	0.1	<30

ND = Not Detected (Below RL)

Reviewed/Approved By:



Mark J. Johnson
Operations Manager

Date: 11-13-15

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: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503748
Date Received: 11/02/15
Matrix: Air
Reporting Units: ppmv

Page 4 of 5
 G110202

EPA 15/16							
Lab No.:	G110202-01	G110202-02	G110202-03				
Client Sample I.D.:	1503748-01 / M405 @ 47'	1503748-02 / M405 @ 106'	1503748-03 / M405 @ 34' (probe)				
Date/Time Sampled:	10/31/15 10:25	10/31/15 10:25	10/31/15 11:20				
Date/Time Analyzed:	11/2/15 14:11	11/2/15 14:22	11/2/15 14:33				
QC Batch No.:	151102GC3A1	151102GC3A1	151102GC3A1				
Analyst Initials:	AS	AS	AS				
Dilution Factor:	1.0	1.0	1.0				
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	
Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20	

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark Johnson
 Operations Manager

Date

11-13-15

The cover letter is an integral part of this analytical report



QC Batch No.: 151102GC3A1
Matrix: Air
Units: ppmv

Page 5 of 5
G110202

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	11/2/15 12:50		11/2/15 12:28		11/2/15 12:39			
Analyst Initials:	AS		AS		AS			
Datafile:	02nov003		02nov001		02nov002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	90	70-130%	93	70-130%	3.1	<30

ND = Not Detected (Below RL)

RL = Reporting Limit

Reviewed/Approved By:


Mark J. Johnson
Operations Manager

Date:

11/3-15

The cover letter is an integral part of this analytical report.



ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1503748

G110202-01/03

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Air Technology Laboratories, Inc.
18501 E. Gale Ave, Suite 130
City of Industry, CA 91748
Phone : (626) 964-4032
Fax: (626) 964-5832
PO#: SC09993- STANDARD TAT

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1503748-01 / M405 @ 47'				
<i>DL</i> D1946_T [Fixed Gases]	11/13/15 17:00	11/03/15 10:25	10/31/15 10:25	D1946-pls report Carbon Dioxide, Oxygen/Argon, Nitrogen, Methane
15_16_H2S_T_SUB [Hydrogen Sulfide]	11/13/15 17:00	11/03/15 10:25		
2-Tedlar Bag				
ATL Lab#: 1503748-02 / M405 @ 106'				
<i>DL</i> D1946_T [Fixed Gases]	11/13/15 17:00	11/03/15 10:25	10/31/15 10:25	
15_16_H2S_T_SUB [Hydrogen Sulfide]	11/13/15 17:00	11/03/15 10:25		
2-Tedlar Bag				
ATL Lab#: 1503748-03 / M405 @ 34' (probe)				
<i>DL</i> D1946_T [Fixed Gases]	11/13/15 17:00	11/03/15 11:20	10/31/15 11:20	
15_16_H2S_T_SUB [Hydrogen Sulfide]	11/13/15 17:00	11/03/15 11:20		
2-Tedlar Bag				

Released By <i>ASWEN MANDERHART</i>	Date <i>11/2/15</i>	Received By <i>[Signature]</i>	Date <i>11/2/15</i>	<i>0800</i>
Released By <i>[Signature]</i>	Date <i>11/2/15</i>	Received By <i>[Signature]</i>	Date <i>11/2/15</i>	<i>1024</i>

Instruction: Complete all shaded areas.

Company:	Aneq Foster Wheeler		Address:	6001 Rickenbacker		Tel:	
			City:	Los Angeles		Fax:	
			State:	CA		Zip:	90040
			SEND INVOICE TO:			same as SEND REPORT TO	
Attn:	Rov Lopez		Attn:			Email:	
Company:	Aneq Foster Wheeler		Company:	Rov.R. LOPEZ @AMMAMEL.COM			
Address:			Address:				

City:	State:	Zip:
City:	State:	Zip:

[illegible]

samples will be disposed of after 14 calendar days after receipt of samples.

Electronic records maintained for five (5) years from report date.

Hard copy reports will be disposed of after 45 calendar days from report date.

Storage and Report Fees:

- Liquid & Solid Samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reformat ed report; \$25 per regenerated EDD.

EDDs must be generated and add 2 days to analysis. TAXI for extraction on procedure.

10. **Disposition:** The client will incur a disposal fee of \$2 per sample.

1. Sample receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted After 3:00 PM are considered received the following business day at 8:00 AM.
3. The following turnaround time conditions applies: **NO SURCHARGE** (if received by 9:00 AM)
 - TAT = 1 - 100% SURCHARGE NEXT BUSINESS DAY (COB 5:00 PM)
 - TAT = 2 - 50% SURCHARGE 2ND BUSINESS DAY (COB 5:00 PM)
 - TAT = 3 - 30% SURCHARGE 3RD BUSINESS DAY (COB 5:00 PM)
 - TAT = 4 - 20% SURCHARGE 4TH BUSINESS DAY (COB 5:00 PM)
 - TAT = 5 - NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)
4. Weekend, holiday, after-hours work - ask for quote.
5. Subcontractor TAT is 10-15 business days. Projects requiring shorter TATs will incur a surcharge. Samples requiring shorter turnaround times will be disposed of after 45 calendar days from receipt on samples; air samples will be disposed of after 30 calendar days from receipt on samples; air

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Submitter Print Name W.A. Kelly Signature W.A. Kelly

Relinquished by: (Signature and Printed Name)	W.A. Kelly	Date:	10/31/15	Time:	12:10 PM
Relinquished by: (Signature and Printed Name)	W.A. Kelly	Date:	10/31/15	Time:	1:19
Relinquished by: (Signature and Printed Name)	W.A. Kelly	Date:	10/31/15	Time:	1:19
Relinquished by: (Signature and Printed Name)	W.A. Kelly	Date:	10/31/15	Time:	1:19



December 01, 2015

Ron Lopez
Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles, CA 90040
Tel: (323) 889-5300
Fax: (323) 721-6700

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1503933
Client Reference : MTA Westside, 4953-11-1423

Enclosed are the results for sample(s) received on November 14, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink, appearing to read "E Rodriguez", is positioned above the printed name.

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040
www.atlglobal.com



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 12/01/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M 405 @ 38'	1503933-01	Air	11/14/15 7:35	11/14/15 13:58
M 405 @ 47'	1503933-02	Air	11/14/15 7:10	11/14/15 13:58
M 405 @ 106'	1503933-03	Air	11/14/15 7:20	11/14/15 13:58
M 405 @ 106'	1503933-04	Groundwater	11/14/15 8:45	11/14/15 13:58
OB 308 @ 71'	1503933-05	Air	11/14/15 9:40	11/14/15 13:58
OB 308 @ 93'	1503933-06	Air	11/14/15 8:45	11/14/15 13:58
OB 308 @ 113'	1503933-07	Air	11/14/15 8:45	11/14/15 13:58
OB 307 @ 40'	1503933-08	Air	11/14/15 11:30	11/14/15 13:58
OB 307 @ 80'	1503933-09	Air	11/14/15 10:55	11/14/15 13:58
OB 307 @ 129'	1503933-10	Air	11/14/15 11:10	11/14/15 13:58
OB 308 @ 93'	1503933-11	Groundwater	11/14/15 11:10	11/14/15 13:58
OB 307 @113'	1503933-12	Groundwater	11/14/15 11:30	11/14/15 13:58

CASE NARRATIVE

The air samples for Methane, H₂S (15/16) and Fixed Gases (ASTM D1946) were subcontracted to Air Technology Laboratories.



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 12/01/2015

Client Sample ID M 405 @ 106'

Lab ID: 1503933-04

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	1	B5K0549	11/19/2015	11/19/15 10:53	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	ND	0.010	1	B5K0460	11/17/2015	11/18/15 08:41	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 12/01/2015

Client Sample ID OB 308 @ 93'

Lab ID: 1503933-11

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	1	B5K0549	11/19/2015	11/19/15 11:23	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	0.23	0.050	5	B5K0460	11/17/2015	11/18/15 08:41	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 12/01/2015

Client Sample ID OB 307 @113'

Lab ID: 1503933-12

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	1	B5K0549	11/19/2015	11/19/15 11:44	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	0.042	0.010	1	B5K0460	11/17/2015	11/18/15 08:41	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 12/01/2015

QUALITY CONTROL SECTION

Dissolved Gases in Water - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5K0549 - No_Prep_RSK_W									
Blank (B5K0549-BLK1)				Prepared: 11/19/2015 Analyzed: 11/19/2015					
Methane	ND	1.0			NR				
LCS (B5K0549-BS1)				Prepared: 11/19/2015 Analyzed: 11/19/2015					
Methane	39.7900	1.0	48.1000		82.7	70 - 130			
LCS Dup (B5K0549-BSD1)				Prepared: 11/19/2015 Analyzed: 11/19/2015					
Methane	43.5000	1.0	48.1000		90.4	70 - 130	8.91	20	
Duplicate (B5K0549-DUP1)				Prepared: 11/19/2015 Analyzed: 11/19/2015					
Methane	ND	1.0		ND	NR			20	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 12/01/2015

Sulfide, Total by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
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Batch B5K0460 - Prep_WC3_W

Blank (B5K0460-BLK1)

Prepared: 11/17/2015 Analyzed: 11/18/2015

Sulfide, Total	ND	0.010			NR
----------------	----	-------	--	--	----

LCS (B5K0460-BS1)

Prepared: 11/17/2015 Analyzed: 11/18/2015

Sulfide, Total	0.108300	0.010	0.100000	108	80 - 120
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Matrix Spike (B5K0460-MS1)

Source: 1503905-08

Prepared: 11/17/2015 Analyzed: 11/18/2015

Sulfide, Total	0.106000	0.010	0.100000	ND	106	70 - 120
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Matrix Spike Dup (B5K0460-MSD1)

Source: 1503905-08

Prepared: 11/17/2015 Analyzed: 11/18/2015

Sulfide, Total	0.105000	0.010	0.100000	ND	105	70 - 120	0.948	20
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Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423
Report To : Ron Lopez
Reported : 12/01/2015

Notes and Definitions

ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

November 30, 2015

Advanced Technology Laboratories
ATTN: Rachelle Arada
3275 Walnut Ave.
Signal Hill, CA 90755



ADE-1461
EPA Methods TO3,
TO14A, TO15 SIM & SCAN
ASTM D1946



LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA013332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 1503933
Lab Number: G111603-01/09

Enclosed are results for sample(s) received 11/16/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503933
Date Received: 11/16/15
Matrix: Air
Reporting Units: % v/v

Page 2 of 9
 G111603

ASTM D1946								
Lab No.:	G111603-01		G111603-02		G111603-03		G111603-04	
Client Sample I.D.:	1503933-01 / M 405 @ 38'		1503933-02 / M 405 @ 47'		1503933-03 / M 405 @ 106'		1503933-05 / OB 308 @ 71'	
Date/Time Sampled:	11/14/15 7:35		11/14/15 7:10		11/14/15 7:20		11/14/15 9:40	
Date/Time Analyzed:	11/16/15 15:39		11/16/15 15:24		11/16/15 15:54		11/16/15 16:08	
QC Batch No.:	151116GC8A2		151116GC8A2		151116GC8A2		151116GC8A2	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Carbon Dioxide	0.43	0.010	0.27	0.010	0.46	0.010	0.062	0.010
Oxygen/Argon	17	0.50	21	0.50	19	0.50	22	0.50
Nitrogen	82	1.0	79	1.0	80	1.0	78	1.0
Methane	ND	0.0010	ND	0.0010	0.0013	0.0010	ND	0.0010

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 11/20/15

The cover letter is an integral part of this analytical report



AirTECHNOLOGY Laboratories, Inc.

page 1 of 1

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

Figure E-2.169

Page 10 of 22

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503933
Date Received: 11/16/15
Matrix: Air
Reporting Units: % v/v

Page 3 of 9
 G111603

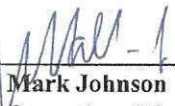
ASTM D1946								
Lab No.:	G111603-05		G111603-06		G111603-07		G111603-08	
Client Sample I.D.:	1503933-06 / OB 308 @ 93'		1503933-07 / OB 308 @ 113'		1503933-08 / OB 307 @ 40'		1503933-09 / OB 307 @ 80'	
Date/Time Sampled:	11/14/15 8:45		11/14/15 8:45		11/14/15 11:30		11/14/15 10:55	
Date/Time Analyzed:	11/16/15 16:23		11/16/15 16:38		11/16/15 16:52		11/16/15 17:07	
QC Batch No.:	151116GC8A2		151116GC8A2		151116GC8A2		151116GC8A2	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v
Carbon Dioxide	0.068	0.010	0.061	0.010	3.4	0.010	0.39	0.010
Oxygen/Argon	22	0.50	22	0.50	18	0.50	21	0.50
Nitrogen	78	1.0	78	1.0	78	1.0	79	1.0
Methane	ND	0.0010	ND	0.0010	ND	0.0010	0.0057	0.0010

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____


 Mark Johnson
 Operations Manager

Date: 11/30/15

The cover letter is an integral part of this analytical report



AirTECHNOLOGY Laboratories, Inc.

page 1 of 1

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

Figure E-2.170

Page 11 of 22

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503933
Date Received: 11/16/15
Matrix: Air
Reporting Units: % v/v

Page 4 of 9
 G111603

ASTM D1946							
Lab No.:	G111603-09						
Client Sample I.D.:	1503933-10 / OB 307 @ 129'						
Date/Time Sampled:	11/14/15 11:10						
Date/Time Analyzed:	11/16/15 17:21						
QC Batch No.:	151116GC8A2						
Analyst Initials:	AS						
Dilution Factor:	1.0						
ANALYTE	Result % v/v	RL % v/v					
Carbon Dioxide	0.26	0.010					
Oxygen/Argon	20	0.50					
Nitrogen	80	1.0					
Methane	ND	0.0010					

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 11/30/15

The cover letter is an integral part of this analytical report



QC Batch No.: 151116GC8A2

Matrix: Air

Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	11/16/15 14:53		11/16/15 13:57		11/16/15 14:38			
Analyst Initials:	AS		AS		AS			
Datafile:	16nov021		16nov018		16nov020			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Carbon Dioxide	ND	0.010	101	70-130%	102	70-130%	0.6	<30
Oxygen/Argon	ND	0.50	98	70-130%	98	70-130%	0.4	<30
Nitrogen	ND	1.0	98	70-130%	98	70-130%	0.6	<30
Methane	ND	0.0010	95	70-130%	100	70-130%	4.2	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____

Mark J. 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

Figure E-2.172

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1503933
Date Received: 11/16/15
Matrix: Air
Reporting Units: ppmv

Page 6 of 9
 G111603

EPA 15/16								
Lab No.:	G111603-01		G111603-02		G111603-03		G111603-04	
Client Sample I.D.:	1503933-01 / M 405 @ 38'		1503933-02 / M 405 @ 47'		1503933-03 / M 405 @ 106'		1503933-05 / OB 308 @ 71'	
Date/Time Sampled:	11/14/15 7:35		11/14/15 7:10		11/14/15 7:20		11/14/15 9:40	
Date/Time Analyzed:	11/16/15 10:34		11/16/15 10:45		11/16/15 10:57		11/16/15 11:09	
QC Batch No.:	151116GC3A1		151116GC3A1		151116GC3A1		151116GC3A1	
Analyst Initials:	AS		AS		AS		AS	
Dilution Factor:	1.0		1.0		1.0		1.0	
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv
Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20	ND	0.20

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 11/30/15

The cover letter is an integral part of this analytical report



AirTECHNOLOGY Laboratories, Inc.

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page 1 of 1

Figure E-2.173

Page 14 of 22

Client: Advanced Technology Laboratories
 Attn: Rachelle Arada
 Project Name: NA
 Project No.: 1503933
 Date Received: 11/16/15
 Matrix: Air
 Reporting Units: ppmv

Page 7 of 9
 G111603

EPA 15/16									
Lab No.:	G111603-05		G111603-06		G111603-07		G111603-08		
Client Sample I.D.:	1503933-06 / OB 308 @ 93'		1503933-07 / OB 308 @ 113'		1503933-08 / OB 307 @ 40'		1503933-09 / OB 307 @ 80'		
Date/Time Sampled:	11/14/15 8:45		11/14/15 8:45		11/14/15 11:30		11/14/15 10:55		
Date/Time Analyzed:	11/16/15 11:20		11/16/15 11:31		11/16/15 11:42		11/16/15 11:53		
QC Batch No.:	151116GC3A1		151116GC3A1		151116GC3A1		151116GC3A1		
Analyst Initials:	AS		AS		AS		AS		
Dilution Factor:	1.0		1.0		1.0		1.0		
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	
	Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20	ND	0.20

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
 Mark Johnson
 Operations Manager

Date 11/30/15

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

page 1 of 1

Page 15 of 22

Figure E-2.174

Client: Advanced Technology Laboratories
 Attn: Rachelle Arada
 Project Name: NA
 Project No.: 1503933
 Date Received: 11/16/15
 Matrix: Air
 Reporting Units: ppmv

Page 8 of 9
 G111603

EPA 15/16							
Lab No.:	G111603-09						
Client Sample I.D.:	1503933-10 / OB 307 @ 129'						
Date/Time Sampled:	11/14/15 11:10						
Date/Time Analyzed:	11/16/15 12:11						
QC Batch No.:	151116GC3A1						
Analyst Initials:	AS						
Dilution Factor:	1.0						
ANALYTE	Result ppmv	RL ppmv					
Hydrogen Sulfide	ND	0.20					

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: _____


 Mark Johnson
 Operations Manager

Date _____

11/30/15

The cover letter is an integral part of this analytical report



AirTECHNOLOGY Laboratories, Inc.

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page 1 of 1

Page 16 of 22

Figure E-2.175

QC Batch No.: 151116GC3A1
Matrix: Air
Units: ppmv

Page 9 of 9
G111603

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	11/16/15 10:14		11/16/15 9:48		11/16/15 9:59			
Analyst Initials:	AS		AS		AS			
Datafile:	16nov003		16nov001		16nov002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	90	70-130%	89	70-130%	1.0	<30

ND = Not Detected (Below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark J. 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

Figure E-2.176

 ADVANCED TECHNOLOGY
 LABORATORIES

SUBCONTRACT ORDER

Work Order: 1503933

G111603-01/09

SENDING LABORATORY:

Advanced Technology Laboratories
 3275 Walnut Avenue
 Signal Hill, CA 90755
 Phone: 562.989.4045
 Fax: 562.989.6348
 Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Air Technology Laboratories, Inc.
 18501 E. Gale Ave, Suite 130
 City of Industry, CA 91748
 Phone : (626) 964-4032
 Fax: (626) 964-5832
 PO#: SC10023- STANDARD TAT

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1503933-01 / M 405 @ 38'				
01 D1946_T [Fixed Gases] 15_16_H2S_T_SUB [Hydrogen Sulfide] 2-Tedlar Bag	12/02/15 17:00	11/17/15 07:35	11/14/15 07:35	D1946- Please report Carbon Dioxide, Oxygen/Argon, Nitrogen, Methane
ATL Lab#: 1503933-02 / M 405 @ 47'				
02 15_16_H2S_T_SUB [Hydrogen Sulfide] D1946_T [Fixed Gases] 2-Tedlar Bag	12/02/15 17:00	11/17/15 07:10	11/14/15 07:10	
ATL Lab#: 1503933-03 / M 405 @ 106'				
03 15_16_H2S_T_SUB [Hydrogen Sulfide] D1946_T [Fixed Gases] 2-Tedlar Bag	12/02/15 17:00	11/17/15 07:20	11/14/15 07:20	

Released By

Date

Received By

Date

Released By

Date

Received By

Date

ADVANCED TECHNOLOGY
LABORATORIES

SUBCONTRACT ORDER

Work Order: 1503933

G111603-01/09

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1503933-05 / OB 308 @ 71'				
D1946_T	12/02/15 17:00	11/17/15 09:40	11/14/15 09:40	
[Fixed Gases]				
15_16_H2S_T_SUB	12/02/15 17:00	11/17/15 09:40		
[Hydrogen Sulfide]				
2-Tedlar Bag				
ATL Lab#: 1503933-06 / OB 308 @ 93'				
D1946_T	12/02/15 17:00	11/17/15 08:45	11/14/15 08:45	
[Fixed Gases]				
15_16_H2S_T_SUB	12/02/15 17:00	11/17/15 08:45		
[Hydrogen Sulfide]				
2-Tedlar Bag				
ATL Lab#: 1503933-07 / OB 308 @ 113'				
15_16_H2S_T_SUB	12/02/15 17:00	11/17/15 08:45	11/14/15 08:45	
[Hydrogen Sulfide]				
D1946_T	12/02/15 17:00	11/17/15 08:45		
[Fixed Gases]				
2-Tedlar Bag				
ATL Lab#: 1503933-08 / OB 307 @ 40'				
15_16_H2S_T_SUB	12/02/15 17:00	11/17/15 11:30	11/14/15 11:30	
[Hydrogen Sulfide]				
D1946_T	12/02/15 17:00	11/17/15 11:30		
[Fixed Gases]				
2-Tedlar Bag				
ATL Lab#: 1503933-09 / OB 307 @ 80'				
15_16_H2S_T_SUB	12/02/15 17:00	11/17/15 10:55	11/14/15 10:55	
[Hydrogen Sulfide]				
D1946_T	12/02/15 17:00	11/17/15 10:55		
[Fixed Gases]				
2-Tedlar Bag				

Released By	Date	Received By	Date
<i>[Signature]</i>	11/16/15 0830	<i>[Signature]</i>	11/16/15 0830
Released By	Date	Received By	Date
<i>[Signature]</i>	11/16/15 0952	<i>[Signature]</i>	11/16/15 0952

 ADVANCED TECHNOLOGY
 LABORATORIES

SUBCONTRACT ORDER

Work Order: 1503933

G111603 - 01/09

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1503933-10 / OB 307 @ 129'		Air	11/14/15 11:10	
D1946_T [Fixed Gases]	12/02/15 17:00	11/17/15 11:10		
15_16_H2S_T_SUB [Hydrogen Sulfide]	12/02/15 17:00	11/17/15 11:10		
2-Tedlar Bag				

Released By

Date

Received By

Date

Released By

Date

Received By

Date

**ADVANCED TECHNOLOGY
LABORATORIES**

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

ATLCOC Ver: 20130715

Page 1 of 2

Instruction: Complete all shaded areas.

CUSTOMER					
Company:		Address:		Tel:	
Amec Foster Wheeler		8001 Pickens Road			
		City:	State:	Zip:	Fax:
		Los Angeles	CA		
SEND REPORT TO:			SEND INVOICE TO:		
A/R#:	Email:	Attn:			
Rov Lopez	Rov. R. LOPEZ @AMEC.COM				
Company:		Company:			
Sane					
Address:		Address:			
City:	State:	Zip:	State:		
			Zip:		

Project Name:		Quote No:		Special Instructions/Comments:	
Project No.:	Project Name:	PO #:	Quote No:	Special Instructions/Comments:	
Sampler:	Project No.:	Project Name:	PO #:	Quote No:	Special Instructions/Comments:
15039733	MTA Westside	4953-11-1423	Diego Sapillato		
ITEM	Lab No.	Sample ID / Location	Sample Description	Date	Time
1	15039733	M 405 @ 38'		11/14/15	7:35am
2	-2	M 405 @ 47'		11/14/15	7:10am
3	-3	M 405 @ 106'		11/14/15	7:20am
4	-4	M 405 @ 106'		11/14/15	8:45am
5	-5	OB 308 @ 71'		11/14/15	9:40am
6	-6	OB 308 @ 93'		11/14/15	8:45am
7	-7	OB 308 @ 113'		11/14/15	8:45am
8	-8	OB 307 @ 40'		11/14/15	11:30am
9	-9	OB 307 @ 80'		11/14/15	10:55am
10	-10	OB 307 @ 129'		11/14/15	11:10am

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

samples will be disposed of after 14 calendar days after receipt samples.

Electronic records maintained for five (5) years from report date.

Hard copy reports will be disposed of after 45 calendar days from report date.

Storage and Report Fees:

- Liquid & solid samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage of field is requested.
- Hard copy: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/ sample/week if extended storage is requested.
- Hard copy and regenerated reports/EDDs: \$17.50 per hard copy request; \$50.00 per regenerated/reforma? ed report; \$35 per reprocessed EDD.

10. Rush TAT/SLC sampling: add 2 days to analysis TAT for extraction on procedure.

11. Disposal: All samples will be disposed of after 14 calendar days from receipt of samples.

1. Samples received hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted After 3:00 PM are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
 a. **1. 100% SURCHARGE NEXT BUSINESS DAY (if received by 9:00 AM)**
 b. **TA1 = 1. 100% Surcharge NEXT BUSINESS DAY (COB 5:00 PM)**
 c. **TA2 = 2. 50% Surcharge 2ND BUSINESS DAY (COB 5:00 PM)**
 d. **TA3 = 2. 50% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)**
 e. **TA4 = 3. 50% Surcharge 3RD BUSINESS DAY (COB 5:00 PM)**
 f. **TA5 = 5. NO SURCHARGE 5th BUSINESS DAY (COB 5:00 PM)**
4. Weekends/holiday, after-hours work - ask for quote.
5. Subcontract fees: 10 - 15 business days. Projects requiring shorter TATs will incur a surcharge
6. Samples received after 10:00 AM will be shipped after 45 calendar days from receipt samples; air
freight and expedited shipping will be required. Samples received before 10:00 AM will be shipped
the following Business day.

Submitter Print Name

Signature _____

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
 W.A. Kelly	11/14/15	12:40pm	 W.A. Kelly	11/14/15	12:40
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
 W.A. Kelly	11/14/15	1:58pm	 W.A. Kelly	11/14/15	1:58
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
 W.A. Kelly	11/14/15		 W.A. Kelly	11/14/15	



December 09, 2015

Ron Lopez
Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles, CA 90040
Tel: (323) 889-5300
Fax: (323) 721-6700

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1504028
Client Reference : MTA Westside, 4953-11-1423

Enclosed are the results for sample(s) received on November 23, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink on a grid background. The signature is stylized and appears to read "Eddie Rodriguez".

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

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www.atlglobal.com



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 12/09/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M 406 @ 45'	1504028-01	Air	11/23/15 10:34	11/23/15 14:50
M 406 @ 135'	1504028-02	Air	11/23/15 10:40	11/23/15 14:50
M 406 @ 20'	1504028-03	Air	11/23/15 11:00	11/23/15 14:50
M 406 @ 135'	1504028-04	Groundwater	11/23/15 13:35	11/23/15 14:50

CASE NARRATIVE

The air samples for Methane, H₂S (15/16) and Fixed Gases (ASTM D1946) were subcontracted to Air Technology Laboratories.



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 12/09/2015

Client Sample ID M 406 @ 135'

Lab ID: 1504028-04

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	0.73	1	B5K0679	11/24/2015	11/24/15 14:12	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	0.055	0.010	0.004	1	B5K0764	11/30/2015	11/30/15 12:24	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 12/09/2015

QUALITY CONTROL SECTION

Dissolved Gases in Water - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5K0679 - No_Prep_RSK_W									
Blank (B5K0679-BLK1)				Prepared: 11/24/2015 Analyzed: 11/24/2015					
Methane	ND	1.0			NR				
LCS (B5K0679-BS1)				Prepared: 11/24/2015 Analyzed: 11/24/2015					
Methane	41.0600	1.0	48.1000		85.4	70 - 130			
LCS Dup (B5K0679-BSD1)				Prepared: 11/24/2015 Analyzed: 11/24/2015					
Methane	41.8600	1.0	48.1000		87.0	70 - 130	1.93	20	
Duplicate (B5K0679-DUP1)				Prepared: 11/24/2015 Analyzed: 11/24/2015					
Methane	ND	1.0		ND	NR			20	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 12/09/2015

Sulfide, Total by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B5K0764 - Prep_WC3_W

Blank (B5K0764-BLK1)

Prepared: 11/30/2015 Analyzed: 11/30/2015

Sulfide, Total	ND	0.010		NR
----------------	----	-------	--	----

LCS (B5K0764-BS1)

Prepared: 11/30/2015 Analyzed: 11/30/2015

Sulfide, Total	0.0894	0.010	0.100000	89.4	80 - 120
----------------	--------	-------	----------	------	----------

Matrix Spike (B5K0764-MS1)

Source: 1504037-02

Prepared: 11/30/2015 Analyzed: 11/30/2015

Sulfide, Total	0.161600	0.010	0.100000	ND	162	70 - 120		D1, M2
----------------	----------	-------	----------	----	-----	----------	--	--------

Matrix Spike Dup (B5K0764-MSD1)

Source: 1504037-02

Prepared: 11/30/2015 Analyzed: 11/30/2015

Sulfide, Total	0.150100	0.010	0.100000	ND	150	70 - 120	7.38	20	D1, M2
----------------	----------	-------	----------	----	-----	----------	------	----	--------



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 12/09/2015

Notes and Definitions

M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

December 9, 2015

Advanced Technology Laboratories
ATTN: Rachelle Arada
3275 Walnut Ave.
Signal Hill, CA 90755



ADE-1461
EPA Methods TO3,
TO14A, TO15 SIM & SCAN
ASTM D1946



LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 1504028
Lab Number: G112402-01/03

Enclosed are results for sample(s) received 11/24/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1504028
Date Received: 11/24/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946							
Lab No.:	G112402-01		G112402-02		G112402-03		
Client Sample I.D.:	1504028-01 / M 406 @ 45'		1504028-02 / M 406 @ 135'		1504028-03 / M 406 @ 20'		
Date/Time Sampled:	11/23/15 10:34		11/23/15 10:40		11/23/15 11:00		
Date/Time Analyzed:	11/25/15 14:41		11/25/15 14:56		11/25/15 15:10		
QC Batch No.:	151125GC8A2		151125GC8A2		151125GC8A2		
Analyst Initials:	AS		AS		AS		
Dilution Factor:	1.0		1.0		1.0		
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	
Carbon Dioxide	0.051	0.010	0.044	0.010	0.99	0.010	
Oxygen/Argon	22	0.50	22	0.50	12	0.50	
Nitrogen	78	1.0	78	1.0	87	1.0	
Methane	ND	0.0010	ND	0.0010	0.0033	0.0010	

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
Mark Johnson
Operations Manager

Date 12/9/15

The cover letter is an integral part of this analytical report



QC Batch No.: 151125GC8A2

Matrix: Air

Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	11/25/15 14:27		11/25/15 13:43		11/25/15 13:57			
Analyst Initials:	AS		AS		AS			
Datafile:	25nov028		25nov025		25nov026			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Carbon Dioxide	ND	0.010	95	70-130%	96	70-130%	0.6	<30
Oxygen/Argon	ND	0.50	95	70-130%	96	70-130%	1.1	<30
Nitrogen	ND	1.0	95	70-130%	96	70-130%	0.9	<30
Methane	ND	0.0010	110	70-130%	108	70-130%	2.0	<30

ND = Not Detected (Below RL)

Reviewed/Approved By: _____

Mark J. 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: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1504028
Date Received: 11/24/15
Matrix: Air
Reporting Units: ppmv

EPA 15/16							
Lab No.:	G112402-01	G112402-02	G112402-03				
Client Sample I.D.:	1504028-01 / M 406 @ 45'	1504028-02 / M 406 @ 135'	1504028-03 / M 406 @ 20'				
Date/Time Sampled:	11/23/15 10:34	11/23/15 10:40	11/23/15 11:00				
Date/Time Analyzed:	11/24/15 13:50	11/24/15 14:01	11/24/15 14:12				
QC Batch No.:	151124GC3A1	151124GC3A1	151124GC3A1				
Analyst Initials:	AS	AS	AS				
Dilution Factor:	1.0	1.0	1.0				
ANALYTE	Result ppmv	RL ppmv	Result ppmv	RL ppmv	Result ppmv	RL ppmv	
Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20	

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

Reviewed/Approved By: _____

Mark Johnson
Mark Johnson
Operations Manager

Date

12/4/15

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

page 1 of 1

Page 10 of 13

QC Batch No.: 151124GC3A1
Matrix: Air
Units: ppmv

Page 5 of 5
G112402

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	11/24/15 9:25		11/24/15 8:58		11/24/15 9:12			
Analyst Initials:	AS		AS		AS			
Datafile:	24nov003		24nov001		24nov002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	98	70-130%	99	70-130%	0.3	<30

ND = Not Detected (Below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark J. Johnson
Operations Manager

Date: _____

12/4/15

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

Figure E-2.192

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G112402-a103

SUBCONTRACT ORDER

Work Order: 1504028

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Air Technology Laboratories, Inc.
18501 E. Gale Ave, Suite 130
City of Industry, CA 91748
Phone: (626) 964-4032
Fax: (626) 964-5832
PO#: SC10042- STANDARD TAT

(RA)

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
ATL Lab#: 1504028-01 / M 406 @ 45'				
G112402- 01 15_16_H2S_T_SUB [Hydrogen Sulfide]	12/09/15 17:00	11/26/15 10:34	11/23/15 10:34	D1946- Please report Carbon Dioxide, Oxygen/Argon, Nitrogen, Methane
-02 D1946_T [Fixed Gases] 2-Tedlar Bag	12/09/15 17:00	11/26/15 10:34		
-02 ATL Lab#: 1504028-02 / M 406 @ 135'			11/23/15 10:40	
03 15_16_H2S_T_SUB [Hydrogen Sulfide]	12/09/15 17:00	11/26/15 10:40		
-04 D1946_T [Fixed Gases] 2-Tedlar Bag	12/09/15 17:00	11/26/15 10:40		
-03 ATL Lab#: 1504028-03 / M 406 @ 20'			11/23/15 11:00	
05 15_16_H2S_T_SUB [Hydrogen Sulfide]	12/09/15 17:00	11/26/15 11:00		
06 D1946_T [Fixed Gases] 2-Tedlar Bag	12/09/15 17:00	11/26/15 11:00		

Released By

Date

Received By

Date

Released By

Date

Received By

Date

CHAIN OF CUSTODY RECORD

Page 1 of 1

Instruction: Complete all shaded areas.

For Laboratory Use Only
ATLCOG Ver: 20130715

Sample Conditions Upon Receipt	
Condition	Y N
1. CHILLED	☒
2. HEADSPACE (VOLUME)	☒
3. CONTAINER INTACT	☒
4. SEALED	☒

Method of Transport
☒ Client
☐ FedEx
☐ GSO
☐ Other: _____

5. # OF SAMPLES MATCH CDC ☒
 6. PRESERVED ☐
 7. COOLER TEMP. deg C: _____
 8. OTHER: _____

Company: **Amec Foster Wheeler** Address: **6001 Pickensburger** Tel: **323 889 5300**
 Attn: **Ron Lopez** City: **Los Angeles** State: **CA** Zip: **90041** Fax: _____
 Email: _____
 SEND REPORT TO: _____
 SEND INVOICE TO: _____
 Attn: _____
 Company: _____
 Address: _____
 City: _____ State: _____ Zip: _____

Project Name: MTA Westside		Quote No: _____		Special Instructions/Comments:	
Project No.: 4953-11-1423		PO #: _____			
Sampler: Diego Supillato					
ITEM	Lab No.	Sample ID / Location	Date	Time	
1	150 402Y - 1	M406 @ 45'	11/23/15	10:34am	
2	150 402Y - 2	M406 @ 135'	11/23/15	10:40am	
3	150 402Y - 3	M406 @ 20'	11/23/15	11:00am	
4	150 402Y - 4	M406 @ 135'	11/23/15	1:35pm	
5					
6					
7					
8					
9					
10					

As the authorized agent of the company above, I hereby purchase laboratory services from ATL as shown above and hereby guarantee payment as quoted.

Signature: **Diego Supillato** Date: **11/23/15**
 Submitter Print Name: _____

Received by: (Signature and Printed Name) **Diego Supillato** Date: **11/23/15**
 Relinquished by: (Signature and Printed Name) _____ Date: _____
 Relinquished by: (Signature and Printed Name) _____ Date: _____

TERMS: _____



December 09, 2015

Ron Lopez
Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles, CA 90040
Tel: (323) 889-5300
Fax: (323) 721-6700

ELAP No.: 1838
CSDLAC No.: 10196
ORELAP No.: CA300003
TCEQ No. : T104704502

Re: ATL Work Order Number : 1504028
Client Reference : MTA Westside, 4953-11-1423

Enclosed are the results for sample(s) received on November 23, 2015 by Advanced Technology Laboratories. The sample(s) are tested for the parameters as indicated on the enclosed chain of custody in accordance with applicable laboratory certifications. The laboratory results contained in this report specifically pertains to the sample(s) submitted.

Thank you for the opportunity to serve the needs of your company. If you have any questions, please feel free to contact me or your Project Manager.

Sincerely,

A handwritten signature in black ink on a grid background. The signature is stylized and appears to read "Eddie Rodriguez".

Eddie Rodriguez
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and its absence renders the report invalid. Test results contained within this data package meet the requirements of applicable state-specific certification programs. The report cannot be reproduced without written permission from the client and Advanced Technology Laboratories.

3275 Walnut Avenue, Signal Hill, CA 90755 • Tel: 562-989-4045 • Fax: 562-989-4040
www.atlglobal.com



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 12/09/2015

SUMMARY OF SAMPLES

Sample ID	Laboratory ID	Matrix	Date Sampled	Date Received
M 406 @ 45'	1504028-01	Air	11/23/15 10:34	11/23/15 14:50
M 406 @ 135'	1504028-02	Air	11/23/15 10:40	11/23/15 14:50
M 406 @ 20'	1504028-03	Air	11/23/15 11:00	11/23/15 14:50
M 406 @ 135'	1504028-04	Groundwater	11/23/15 13:35	11/23/15 14:50

CASE NARRATIVE

The air samples for Methane, H₂S (15/16) and Fixed Gases (ASTM D1946) were subcontracted to Air Technology Laboratories.



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 12/09/2015

Client Sample ID M 406 @ 135'

Lab ID: 1504028-04

Dissolved Gases in Water

Analyst: MFR

Analyte	Result (ug/L)	PQL (ug/L)	MDL (ug/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Methane	ND	1.0	0.73	1	B5K0679	11/24/2015	11/24/15 14:12	

Sulfide, Total by SM 4500-S=D

Analyst: LA

Analyte	Result (mg/L)	PQL (mg/L)	MDL (mg/L)	Dilution	Batch	Prepared	Date/Time Analyzed	Notes
Sulfide, Total	0.055	0.010	0.004	1	B5K0764	11/30/2015	11/30/15 12:24	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 12/09/2015

QUALITY CONTROL SECTION

Dissolved Gases in Water - Quality Control

Analyte	Result (ug/L)	PQL (ug/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
Batch B5K0679 - No_Prep_RSK_W									
Blank (B5K0679-BLK1)				Prepared: 11/24/2015 Analyzed: 11/24/2015					
Methane	ND	1.0			NR				
LCS (B5K0679-BS1)				Prepared: 11/24/2015 Analyzed: 11/24/2015					
Methane	41.0600	1.0	48.1000		85.4	70 - 130			
LCS Dup (B5K0679-BSD1)				Prepared: 11/24/2015 Analyzed: 11/24/2015					
Methane	41.8600	1.0	48.1000		87.0	70 - 130	1.93	20	
Duplicate (B5K0679-DUP1)				Prepared: 11/24/2015 Analyzed: 11/24/2015					
Methane	ND	1.0		ND	NR			20	



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423

Report To : Ron Lopez

Reported : 12/09/2015

Sulfide, Total by SM 4500-S=D - Quality Control

Analyte	Result (mg/L)	PQL (mg/L)	Spike Level	Source Result	% Rec	% Rec Limits	RPD	RPD Limit	Notes
---------	------------------	---------------	----------------	------------------	-------	-----------------	-----	--------------	-------

Batch B5K0764 - Prep_WC3_W

Blank (B5K0764-BLK1)

Prepared: 11/30/2015 Analyzed: 11/30/2015

Sulfide, Total ND 0.010 NR

LCS (B5K0764-BS1)

Prepared: 11/30/2015 Analyzed: 11/30/2015

Sulfide, Total 0.0894 0.010 0.100000 89.4 80 - 120

Matrix Spike (B5K0764-MS1)

Source: 1504037-02

Prepared: 11/30/2015 Analyzed: 11/30/2015

Sulfide, Total 0.161600 0.010 0.100000 ND 162 70 - 120 D1, M2

Matrix Spike Dup (B5K0764-MSD1)

Source: 1504037-02

Prepared: 11/30/2015 Analyzed: 11/30/2015

Sulfide, Total 0.150100 0.010 0.100000 ND 150 70 - 120 7.38 20 D1, M2



Certificate of Analysis

Amec Foster Wheeler
6001 Rickenbacker Road
Los Angeles , CA 90040

Project Number : MTA Westside, 4953-11-1423
Report To : Ron Lopez
Reported : 12/09/2015

Notes and Definitions

M2	Matrix spike recovery outside of acceptance limit due to possible matrix interference. The analytical batch was validated by the laboratory control sample.
D1	Sample required dilution due to possible matrix interference.
ND	Analyte is not detected at or above the Practical Quantitation Limit (PQL). When client requests quantitation against MDL, analyte is not detected at or above the Method Detection Limit (MDL)
PQL	Practical Quantitation Limit
MDL	Method Detection Limit
NR	Not Reported
RPD	Relative Percent Difference
CA2	CA-ELAP (CDPH)
OR1	OR-NELAP (OSPHL)
TX1	TX-NELAP (TCEQ)

Notes:

- (1) The reported MDL and PQL are based on prep ratio variation and analytical dilution.
- (2) The suffix [2C] of specific analytes signifies that the reported result is taken from the instrument's second column.
- (3) Results are wet unless otherwise specified.

December 9, 2015

Advanced Technology Laboratories
ATTN: Rachelle Arada
3275 Walnut Ave.
Signal Hill, CA 90755



ADE-1461
EPA Methods TO3,
TO14A, TO15 SIM & SCAN
ASTM D1946



LA Cert #04140
EPA Methods TO3, TO14A, TO15, 25C/3C,
RSK-175

TX Cert T104704450-14-6
EPA Methods TO14A, TO15

UT Cert CA0133332015-3
EPA Methods TO3, TO14A, TO15, RSK-175

LABORATORY TEST RESULTS

Project Reference: 1504028
Lab Number: G112402-01/03

Enclosed are results for sample(s) received 11/24/15 by Air Technology Laboratories. Samples were received intact. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Unless otherwise noted in the report, sample analyses were performed within method performance criteria and meet all requirements of the NELAC Standards.
- The enclosed results relate only to the sample(s).

ATL appreciates the opportunity to provide testing services to your company. If you have any questions regarding these results, please call me at (626) 964-4032.

Sincerely,

A handwritten signature in blue ink, appearing to read "Mark Johnson".

Mark Johnson
Operations Manager
MJohnson@AirTechLabs.com

Enclosures

Note: The cover letter is an integral part of this analytical report.

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1504028
Date Received: 11/24/15
Matrix: Air
Reporting Units: % v/v

ASTM D1946							
Lab No.:	G112402-01		G112402-02		G112402-03		
Client Sample I.D.:	1504028-01 / M 406 @ 45'		1504028-02 / M 406 @ 135'		1504028-03 / M 406 @ 20'		
Date/Time Sampled:	11/23/15 10:34		11/23/15 10:40		11/23/15 11:00		
Date/Time Analyzed:	11/25/15 14:41		11/25/15 14:56		11/25/15 15:10		
QC Batch No.:	151125GC8A2		151125GC8A2		151125GC8A2		
Analyst Initials:	AS		AS		AS		
Dilution Factor:	1.0		1.0		1.0		
ANALYTE	Result % v/v	RL % v/v	Result % v/v	RL % v/v	Result % v/v	RL % v/v	
Carbon Dioxide	0.051	0.010	0.044	0.010	0.99	0.010	
Oxygen/Argon	22	0.50	22	0.50	12	0.50	
Nitrogen	78	1.0	78	1.0	87	1.0	
Methane	ND	0.0010	ND	0.0010	0.0033	0.0010	

Results normalized including non-methane hydrocarbons

ND = Not Detected (below RL)

RL = Reporting Limit

Reviewed/Approved By: Mark Johnson
Mark Johnson
Operations Manager

Date 12/9/15

The cover letter is an integral part of this analytical report



QC Batch No.: 151125GC8A2

Matrix: Air

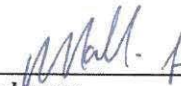
Units: % v/v

QC for ASTM D1946

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	11/25/15 14:27		11/25/15 13:43		11/25/15 13:57			
Analyst Initials:	AS		AS		AS			
Datafile:	25nov028		25nov025		25nov026			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Carbon Dioxide	ND	0.010	95	70-130%	96	70-130%	0.6	<30
Oxygen/Argon	ND	0.50	95	70-130%	96	70-130%	1.1	<30
Nitrogen	ND	1.0	95	70-130%	96	70-130%	0.9	<30
Methane	ND	0.0010	110	70-130%	108	70-130%	2.0	<30

ND = Not Detected (Below RL)

Reviewed/Approved By:


Mark J. Johnson
Operations Manager

Date:

12/9/15

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

Figure E-2.203

Client: Advanced Technology Laboratories
Attn: Rachelle Arada
Project Name: NA
Project No.: 1504028
Date Received: 11/24/15
Matrix: Air
Reporting Units: ppmv

EPA 15/16								
Lab No.:	G112402-01		G112402-02		G112402-03			
Client Sample I.D.:	1504028-01 / M 406 @ 45'		1504028-02 / M 406 @ 135'		1504028-03 / M 406 @ 20'			
Date/Time Sampled:	11/23/15 10:34		11/23/15 10:40		11/23/15 11:00			
Date/Time Analyzed:	11/24/15 13:50		11/24/15 14:01		11/24/15 14:12			
QC Batch No.:	151124GC3A1		151124GC3A1		151124GC3A1			
Analyst Initials:	AS		AS		AS			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Result	RL	Result	RL	Result	RL		
	ppmv	ppmv	ppmv	ppmv	ppmv	ppmv		
Hydrogen Sulfide	ND	0.20	ND	0.20	ND	0.20		

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

Reviewed/Approved By: Mark Johnson
Mark Johnson
Operations Manager

Date 12/4/15

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

page 1 of 1

Page 10 of 13

QC Batch No.: 151124GC3A1
Matrix: Air
Units: ppmv

Page 5 of 5
G112402

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date/Time Analyzed:	11/24/15 9:25		11/24/15 8:58		11/24/15 9:12			
Analyst Initials:	AS		AS		AS			
Datafile:	24nov003		24nov001		24nov002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	98	70-130%	99	70-130%	0.3	<30

ND = Not Detected (Below RL)

RL = Reporting Limit

Reviewed/Approved By: _____

Mark J. Johnson
Operations Manager

Date: 12/4/15

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

Figure E-2.205

Page 11 of 13

G112402-a103

SUBCONTRACT ORDER

Work Order: 1504028

SENDING LABORATORY:

Advanced Technology Laboratories
3275 Walnut Avenue
Signal Hill, CA 90755
Phone: 562.989.4045
Fax: 562.989.6348
Project Manager: Rachelle Arada (Rachelle@atlglobal.com)

RECEIVING LABORATORY:

Air Technology Laboratories, Inc.
18501 E. Gale Ave, Suite 130
City of Industry, CA 91748
Phone: (626) 964-4032
Fax: (626) 964-5832
PO#: SC10042- STANDARD TAT

(RA)

IMPORTANT : Please include Work Order # and PO # in your invoice.

Analysis	Due	Expires	Sampled	Comments
<hr/>				
ATL Lab#: 1504028-01 12402-	/ M 406 @ 45'	Air	11/23/15 10:34	D1946- Please report Carbon Dioxide, Oxygen/Argon, Nitrogen, Methane
15_16_H2S_T_SUB [Hydrogen Sulfide]	12/09/15 17:00	11/26/15 10:34		
D1946_T [Fixed Gases]	12/09/15 17:00	11/26/15 10:34		
2-Tedlar Bag				
<hr/>				
ATL Lab#: 1504028-02	/ M 406 @ 135'	Air	11/23/15 10:40	
15_16_H2S_T_SUB [Hydrogen Sulfide]	12/09/15 17:00	11/26/15 10:40		
D1946_T [Fixed Gases]	12/09/15 17:00	11/26/15 10:40		
2-Tedlar Bag				
<hr/>				
ATL Lab#: 1504028-03	/ M 406 @ 20'	Air	11/23/15 11:00	
15_16_H2S_T_SUB [Hydrogen Sulfide]	12/09/15 17:00	11/26/15 11:00		
D1946_T [Fixed Gases]	12/09/15 17:00	11/26/15 11:00		
2-Tedlar Bag				

Released By

Date

Received By

Date

Released By

Date

Received By

Date

Page 1 of 1

3275 Walnut Ave., Signal Hill, CA 90755
Tel: (562) 989-4045 • Fax: (562) 989-4040

Instruction: Complete all shaded areas.

CUSTOMER		Company: <i>AmEC Foster Wheeler</i>		Address: <i>6001 Pickensbaker</i>		Tel: <i>323 889 5390</i>	
Attn: <i>Ron Lopez</i>		City: <i>Los Angeles</i>		State: <i>CA</i>		Fax:	
Company: <i>None</i>		SEND REPORT TO:		SEND INVOICE TO:		Zip: <i>90041</i>	
Address: <i>None</i>		Attn:		Email:		☒ Same as SEND REPORT TO	
City:		State:		Zip:		State:	

Project Name:		Quote No:		Special Instructions/Comments:	
Project No.:		PO #:			
Sampler:					
1	1504028 - 1	M406 @ 45'	11/23/15	10:34am	
2	- 2	M406 @ 135'	11/23/15	10:40am	
3	- 3	M406 @ 20'	11/23/15	11:00am	
4	- 4	M406 @ 135'	11/23/15	1:35pm	
5					
6					
7					
8					
9					
10					

ITEM	Lab No.	Sample Description		Date	Time
		Sample ID / Location			
1	1504028 - 1	M406 @ 45'		11/23/15	10:34am
2	- 2	M406 @ 135'		11/23/15	10:40am
3	- 3	M406 @ 20'		11/23/15	11:00am
4	- 4	M406 @ 135'		11/23/15	1:35pm
5					
6					
7					
8					
9					
10					

Encircle or Write Requested Analysis					
8260 / 624 (Volatiles)					
8015(GRO)					
8015(DRO)					
8270(Semi-volatiles)					
8081(Organochlorine Pesticides)					
8082(PCBs)					
6010 / 7000(Title 22 Metals)					
TO-15					
Methane					
H ₂ S					
Fixed gases					
Total hydrocarbons					

Encircle Sample Matrix					
SOIL / SEDIMENT / SLUDGE					
SOLIDS / WIPE / FILTER					
WATER - DRINKING / GROUND					
WATER - STORM / WASTE					
AQUEOUS / LAYERED - OIL					

Container		TAT
#	Type: 1-Tube; 2-VOA; 3-Liter; 4-Pint; 5-Lar; 6-Tedlar; 7-Canister Material: 1-Glass; 2-Plastic; 3-Metal	
2	62	
2	62	
2	62	
1	62	

QA/QC	
☐ Routine	
☐ Caltrans	
☐ Legal	
☐ RW/QCB	
☐ Level IV	

REMARKS	
Preservative: 1-HCl; 2-HNO ₃ ; 3-H ₂ SO ₄ ; 4 - 4C; 5-Zn (Ac); 6-NaOH; 7-MVA2503	

samples will be disposed of after 14 calendar days after receipt of samples.

• Electronic records maintained for five (5) years from report date.

• **IS.** Hard copy records will be disposed of after 45 calendar days from report date.

• **Storage and Report Fees:**

- Liquid and Solid Samples: Complimentary storage for forty-five (45) calendar days from receipt of samples; \$2/sample/month if extended storage or hold is requested.
- Air samples: Complimentary storage for ten (10) calendar days from receipt of samples; \$20/ sample/week if extended storage is requested.
- Copy and regenerated reports/EDDs: \$17.50 per hard copy report requested; \$50.00 per regenerated/reforma? ed report; \$35.00 per regenerated EDD.

10.0. **Rush TAT/STLC samples:** add 2 days of analysis TAT for extraction on procedure.

Unanalyzed samples will incur a disposal fee of \$7 per sample.

1. Simple receiving hours: 7:30 AM to 7:30 PM Monday - Friday; Saturday 8:00 AM to 12:00 PM.
2. Samples Submitted After 3:00 PM are considered received the following Business day at 8:00 AM.
3. The following turnaround time conditions apply:
 - TAT = 1-20% Surcharges for 1st Business Day if received by 9:00 AM
 - TAT = 1-100% Surcharges for 2nd Business Day (COB 5:00 PM)
 - TAT = 2-50% Surcharges for 3rd Business Day (COB 5:00 PM)
 - TAT = 3-20% Surcharges for 4th Business Day (COB 5:00 PM)
 - TAT = 4-30% Surcharges for 5th Business Day (COB 5:00 PM)
 - TAT = 5-NO SURCHARGE 5th Business Day (COB 5:00 PM)
4. Weekend, Holiday, after-hours work - ask for quote.
5. Significant TAT is 10-15 business days. Projects requiring shorter TATs will incur a surcharge. Samples that are not received by 10:00 AM will be shipped after 48 calendar days from receipt; samples; air

As the authorized agent of the company above, I hereby
purchase laboratory services from ATL as shown above and
hereby guarantee payment as quoted.

Diego Saeillab 11/23/15
Submitter Print Name Signature

Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
<i>[Signature]</i> Margo S. Cap. 11/23/15	11/23/15	2:55 pm	<i>[Signature]</i> M. C.	11/23/15	Time: 11:10
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time:
Relinquished by: (Signature and Printed Name)	Date:	Time:	Received by: (Signature and Printed Name)	Date:	Time: