

**CLIENT:** MACTEC  
**Project:** MTA Westside, 4953-10-1561  
**Lab Order:** 118889

**CASE NARRATIVE**

The samples for EPA 1516 analysis was subcontracted to Air Technology Lab.



**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 20-Jul-11

**CLIENT:** MACTEC

**Client Sample ID:** M-124-35'

**Lab Order:** 118889

**Collection Date:** 7/12/2011 8:00:00 AM

**Project:** MTA Westside, 4953-10-1561

**Matrix:** SOIL VAPOR

**Lab ID:** 118889-001A

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASES BY GAS CHROMATOGRAPHY**

**ASTM D1946**

RunID: GC18_110713A	QC Batch: Z11A033	PrepDate:	Analyst: DMP
Methane	690	10 ppmv	7/13/2011 09:34 AM

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 20-Jul-11

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<b>CLIENT:</b>	MACTEC	<b>Client Sample ID:</b>	M-108-10'
<b>Lab Order:</b>	118889	<b>Collection Date:</b>	7/12/2011 11:15:00 AM
<b>Project:</b>	MTA Westside, 4953-10-1561	<b>Matrix:</b>	SOIL VAPOR
<b>Lab ID:</b>	118889-002A		

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Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASES BY GAS CHROMATOGRAPHY**

**ASTM D1946**

RunID: GC18_110713A	QC Batch: Z11A033	PrepDate:	Analyst: <b>DMP</b>	
Methane	900000	10000 ppmv	1000	7/13/2011 12:01 PM

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<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 20-Jul-11

**CLIENT:** MACTEC  
**Lab Order:** 118889  
**Project:** MTA Westside, 4953-10-1561  
**Lab ID:** 118889-003A

**Client Sample ID:** M-114  
**Collection Date:** 7/12/2011 11:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID:	MS2_110713A	QC Batch:	Q11VW129	PrepDate:	Analyst:	SLL
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,1,1-Trichloroethane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,1,2-Trichloroethane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,1-Dichloroethane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,1-Dichloroethene	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,1-Dichloropropene	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,2,3-Trichlorobenzene	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,2,3-Trichloropropane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,2,4-Trichlorobenzene	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,2-Dibromo-3-chloropropane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,2-Dibromoethane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,2-Dichlorobenzene	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,2-Dichloroethane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,2-Dichloropropane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,3-Dichlorobenzene	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,3-Dichloropropane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
1,4-Dichlorobenzene	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
2,2-Dichloropropane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
2-Chlorotoluene	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
4-Chlorotoluene	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
4-Isopropyltoluene	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
Benzene	3.4	0.50	µg/L	1	7/13/2011 11:43 AM	
Bromobenzene	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
Bromodichloromethane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
Bromoform	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
Bromomethane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
Carbon tetrachloride	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
Chlorobenzene	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
Chloroethane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
Chloroform	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
Chloromethane	ND	0.50	µg/L	1	7/13/2011 11:43 AM	
cis-1,2-Dichloroethene	ND	0.50	µg/L	1	7/13/2011 11:43 AM	

**Qualifiers:** B Analyte detected in the associated Method Blank E Value above quantitation range  
H Holding times for preparation or analysis exceeded ND Not Detected at the Reporting Limit  
S Spike/Surrogate outside of limits due to matrix interference Results are wet unless otherwise specified  
DO Surrogate Diluted Out





# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 20-Jul-11

<b>CLIENT:</b> MACTEC	<b>Client Sample ID:</b> M-114
<b>Lab Order:</b> 118889	<b>Collection Date:</b> 7/12/2011 11:00:00 AM
<b>Project:</b> MTA Westside, 4953-10-1561	<b>Matrix:</b> GROUNDWATER
<b>Lab ID:</b> 118889-003A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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## VOLATILE ORGANIC COMPOUNDS BY GC/MS

### EPA 8260B

RunID: MS2_110713A	QC Batch: Q11VW129	PrepDate:	Analyst: SLL
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Compound	Result	PQL	Qual	Units	DF	Date Analyzed
cis-1,3-Dichloropropene	ND	0.50		µg/L	1	7/13/2011 11:43 AM
Dibromochloromethane	ND	0.50		µg/L	1	7/13/2011 11:43 AM
Dibromomethane	ND	0.50		µg/L	1	7/13/2011 11:43 AM
Dichlorodifluoromethane	ND	0.50		µg/L	1	7/13/2011 11:43 AM
Ethylbenzene	ND	0.50		µg/L	1	7/13/2011 11:43 AM
Hexachlorobutadiene	ND	0.50		µg/L	1	7/13/2011 11:43 AM
Isopropylbenzene	ND	0.50		µg/L	1	7/13/2011 11:43 AM
m,p-Xylene	ND	1.0		µg/L	1	7/13/2011 11:43 AM
Methylene chloride	ND	1.0		µg/L	1	7/13/2011 11:43 AM
n-Butylbenzene	ND	0.50		µg/L	1	7/13/2011 11:43 AM
n-Propylbenzene	ND	0.50		µg/L	1	7/13/2011 11:43 AM
Naphthalene	ND	0.50		µg/L	1	7/13/2011 11:43 AM
o-Xylene	ND	0.50		µg/L	1	7/13/2011 11:43 AM
sec-Butylbenzene	ND	0.50		µg/L	1	7/13/2011 11:43 AM
Styrene	ND	0.50		µg/L	1	7/13/2011 11:43 AM
tert-Butylbenzene	ND	0.50		µg/L	1	7/13/2011 11:43 AM
Tetrachloroethene	ND	0.50		µg/L	1	7/13/2011 11:43 AM
Toluene	ND	0.50		µg/L	1	7/13/2011 11:43 AM
trans-1,2-Dichloroethene	ND	0.50		µg/L	1	7/13/2011 11:43 AM
Trichloroethene	ND	0.50		µg/L	1	7/13/2011 11:43 AM
Trichlorofluoromethane	ND	0.50		µg/L	1	7/13/2011 11:43 AM
Vinyl chloride	ND	0.50		µg/L	1	7/13/2011 11:43 AM
Hexane	ND	1.0		µg/L	1	7/13/2011 11:43 AM
Surr: 1,2-Dichloroethane-d4	80.5	70-130		%REC	1	7/13/2011 11:43 AM
Surr: 4-Bromofluorobenzene	89.6	70-130		%REC	1	7/13/2011 11:43 AM
Surr: Dibromofluoromethane	88.9	70-130		%REC	1	7/13/2011 11:43 AM
Surr: Toluene-d8	90.4	70-130		%REC	1	7/13/2011 11:43 AM

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	ND Not Detected at the Reporting Limit
	S Spike/Surrogate outside of limits due to matrix interference	Results are wet unless otherwise specified
	DO Surrogate Diluted Out	



# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 20-Jul-11

<b>CLIENT:</b>	MACTEC	<b>Client Sample ID:</b>	M-114
<b>Lab Order:</b>	118889	<b>Collection Date:</b>	7/12/2011 11:00:00 AM
<b>Project:</b>	MTA Westside, 4953-10-1561	<b>Matrix:</b>	GROUNDWATER
<b>Lab ID:</b>	118889-003B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DISSOLVED GASES IN WATER</b>						
				<b>RSK175</b>		
RunID: GC18_110713A	QC Batch: Z11A033			PrepDate:		Analyst: <b>DMP</b>
Methane	160	1.0		ug/L	1	7/13/2011 11:31 AM

<b>Qualifiers:</b>	B	Analyte detected in the associated Method Blank	E	Value above quantitation range
	H	Holding times for preparation or analysis exceeded	ND	Not Detected at the Reporting Limit
	S	Spike/Surrogate outside of limits due to matrix interference		Results are wet unless otherwise specified
	DO	Surrogate Diluted Out		





Advanced Technology Laboratories

Date: 20-Jul-11

CLIENT: MACTEC  
Work Order: 118889  
Project: MTA Westside, 4953-10-1561

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP+HEX\_LL

Sample ID: Q110713LCS1	SampType: LCS	TestCode: 8260_WP+HE	Units: µg/L	Prep Date:	RunNo: 134946						
Client ID: LCSW	Batch ID: Q11VW129	TestNo: EPA 8260B		Analysis Date: 7/13/2011	SeqNo: 2208309						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	18.690	0.50	20.00	0	93.5	70	130				
Benzene	39.110	0.50	40.00	0	97.8	70	130				
Chlorobenzene	20.320	0.50	20.00	0	102	70	130				
Toluene	40.520	0.50	40.00	0	101	70	130				
Trichloroethene	20.040	0.50	20.00	0	100	70	130				
Surr: 1,2-Dichloroethane-d4	21.510		25.00		86.0	70	130				
Surr: 4-Bromofluorobenzene	22.870		25.00		91.5	70	130				
Surr: Dibromofluoromethane	23.720		25.00		94.9	70	130				
Surr: Toluene-d8	23.840		25.00		95.4	70	130				

Sample ID: Q110713MB3MS	SampType: MS	TestCode: 8260_WP+HE	Units: µg/L	Prep Date:	RunNo: 134946						
Client ID: ZZZZZZ	Batch ID: Q11VW129	TestNo: EPA 8260B		Analysis Date: 7/13/2011	SeqNo: 2208310						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1-Dichloroethene	18.030	0.50	20.00	0	90.2	70	130				
Benzene	38.180	0.50	40.00	0	95.4	70	130				
Chlorobenzene	20.150	0.50	20.00	0	101	70	130				
Toluene	39.620	0.50	40.00	0	99.0	70	130				
Trichloroethene	19.070	0.50	20.00	0	95.4	70	130				
Surr: 1,2-Dichloroethane-d4	20.880		25.00		83.5	70	130				
Surr: 4-Bromofluorobenzene	22.320		25.00		89.3	70	130				
Surr: Dibromofluoromethane	23.190		25.00		92.8	70	130				
Surr: Toluene-d8	23.190		25.00		92.8	70	130				

Sample ID: Q110713MB3MSD	SampType: MSD	TestCode: 8260_WP+HE	Units: µg/L	Prep Date:	RunNo: 134946						
Client ID: ZZZZZZ	Batch ID: Q11VW129	TestNo: EPA 8260B		Analysis Date: 7/13/2011	SeqNo: 2208311						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Qualifiers:

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference



**CLIENT:** MACTEC  
**Work Order:** 118889  
**Project:** MTA Westside, 4953-10-1561

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP+HEX\_LL

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	17.730	0.50	20.00	0	88.6	70	130	18.03	1.68	20	
Benzene	40.250	0.50	40.00	0	101	70	130	38.18	5.28	20	
Chlorobenzene	21.630	0.50	20.00	0	108	70	130	20.15	7.08	20	
Toluene	41.680	0.50	40.00	0	104	70	130	39.62	5.07	20	
Trichloroethene	19.590	0.50	20.00	0	98.0	70	130	19.07	2.69	20	
Surr: 1,2-Dichloroethane-d4	21.400		25.00		85.6	70	130		0	0	
Surr: 4-Bromofluorobenzene	24.350		25.00		97.4	70	130		0	0	
Surr: Dibromofluoromethane	24.310		25.00		97.2	70	130		0	0	
Surr: Toluene-d8	24.950		25.00		99.8	70	130		0	0	

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	0.50									
1,1,1-Trichloroethane	ND	0.50									
1,1,2,2-Tetrachloroethane	ND	0.50									
1,1,2-Trichloroethane	ND	0.50									
1,1-Dichloroethane	ND	0.50									
1,1-Dichloroethene	ND	0.50									
1,1-Dichloropropene	ND	0.50									
1,2,3-Trichlorobenzene	ND	0.50									
1,2,3-Trichloropropane	ND	0.50									
1,2,4-Trichlorobenzene	ND	0.50									
1,2,4-Trimethylbenzene	ND	0.50									
1,2-Dibromo-3-chloropropane	ND	0.50									
1,2-Dibromoethane	ND	0.50									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									

**Qualifiers:**

- |    |   |                                      |                                      |   |  |
|----|---|--------------------------------------|--------------------------------------|---|--|
| B  | Analyte detected in the associated Method Blank | E                                    | Value above quantitation range       | H | Holding times for preparation or analysis exceeded           |
| ND | Not Detected at the Reporting Limit             | R                                    | RPD outside accepted recovery limits | S | Spike/Surrogate outside of limits due to matrix interference |
| DO | Surrogate Diluted Out                           | Calculations are based on raw values |                                      |   |  |





**CLIENT:** MACTEC  
**Work Order:** 118889  
**Project:** MTA Westside, 4953-10-1561

### ANALYTICAL QC SUMMARY REPORT

**TestCode:** 8260\_WP+HEX\_LL

Sample ID: Q110713MB3	SampType: MBLK	TestCode: 8260_WP+HE	Units: µg/L	Prep Date:	RunNo: 134946						
Client ID: PBW	Batch ID: Q11VW129	TestNo: EPA 8260B		Analysis Date: 7/13/2011	SeqNo: 2208312						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,3,5-Trimethylbenzene	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,3-Dichloropropane	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2,2-Dichloropropane	ND	0.50									
2-Chlorotoluene	ND	0.50									
4-Chlorotoluene	ND	0.50									
4-Isopropyltoluene	ND	0.50									
Benzene	ND	0.50									
Bromobenzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,2-Dichloroethene	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									
Methylene chloride	ND	1.0									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference



CLIENT: MACTEC  
Work Order: 118889  
Project: MTA Westside, 4953-10-1561

### ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP+HEX\_LL

Sample ID: <b>Q110713MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP+HE</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>134946</b>						
Client ID: <b>PBW</b>	Batch ID: <b>Q11VW129</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/13/2011</b>	SeqNo: <b>2208312</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Naphthalene	ND	0.50									
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
tert-Butylbenzene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
Trichloroethene	ND	0.50									
Trichlorofluoromethane	ND	0.50									
Vinyl chloride	ND	0.50									
Hexane	ND	1.0									
Surr: 1,2-Dichloroethane-d4	21.630		25.00		86.5	70	130				
Surr: 4-Bromofluorobenzene	22.760		25.00		91.0	70	130				
Surr: Dibromofluoromethane	23.980		25.00		95.9	70	130				
Surr: Toluene-d8	22.590		25.00		90.4	70	130				

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference





CLIENT: MACTEC  
Work Order: 118889  
Project: MTA Westside, 4953-10-1561

### ANALYTICAL QC SUMMARY REPORT

TestCode: D1946

Sample ID: <b>MB-Z11A033</b>	SampType: <b>MBLK</b>	TestCode: <b>D1946</b>	Units: <b>ppmv</b>	Prep Date:	RunNo: <b>135030</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>Z11A033</b>	TestNo: <b>ASTM D1946</b>		Analysis Date: <b>7/13/2011</b>	SeqNo: <b>2209806</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane ND 10

Sample ID: <b>LCS-Z11A033</b>	SampType: <b>LCS</b>	TestCode: <b>D1946</b>	Units: <b>ppmv</b>	Prep Date:	RunNo: <b>135030</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>Z11A033</b>	TestNo: <b>ASTM D1946</b>		Analysis Date: <b>7/13/2011</b>	SeqNo: <b>2209807</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane 1054.387 10 1000 0 105 70 130

Sample ID: <b>LCSD-Z11A033</b>	SampType: <b>LCSD</b>	TestCode: <b>D1946</b>	Units: <b>ppmv</b>	Prep Date:	RunNo: <b>135030</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>Z11A033</b>	TestNo: <b>ASTM D1946</b>		Analysis Date: <b>7/13/2011</b>	SeqNo: <b>2209811</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane 1102.597 10 1000 0 110 70 130 1054 4.47 20

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference



**CLIENT:** MACTEC  
**Work Order:** 118889  
**Project:** MTA Westside, 4953-10-1561

### ANALYTICAL QC SUMMARY REPORT

**TestCode:** RSK175\_ATL

Sample ID: <b>MB-Z11A033</b>	SampType: <b>MBLK</b>	TestCode: <b>RSK175_ATL</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>135030</b>						
Client ID: <b>PBW</b>	Batch ID: <b>Z11A033</b>	TestNo: <b>RSK175</b>		Analysis Date: <b>7/13/2011</b>	SeqNo: <b>2209812</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane ND 1.0

Sample ID: <b>LCS-Z11A033</b>	SampType: <b>LCS</b>	TestCode: <b>RSK175_ATL</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>135030</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>Z11A033</b>	TestNo: <b>RSK175</b>		Analysis Date: <b>7/13/2011</b>	SeqNo: <b>2209813</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane 101.960 1.0 98.00 0 104 70 130

Sample ID: <b>LCSD-Z11A033</b>	SampType: <b>LCSD</b>	TestCode: <b>RSK175_ATL</b>	Units: <b>ug/L</b>	Prep Date:	RunNo: <b>135030</b>						
Client ID: <b>LCSS02</b>	Batch ID: <b>Z11A033</b>	TestNo: <b>RSK175</b>		Analysis Date: <b>7/13/2011</b>	SeqNo: <b>2209815</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Methane 106.620 1.0 98.00 0 109 70 130 102.0 4.47 20

**Qualifiers:**

- B Analyte detected in the associated Method Blank
- ND Not Detected at the Reporting Limit
- DO Surrogate Diluted Out
- E Value above quantitation range
- R RPD outside accepted recovery limits
- Calculations are based on raw values
- H Holding times for preparation or analysis exceeded
- S Spike/Surrogate outside of limits due to matrix interference

July 21, 2011

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



FL Cert E8784/LA Cert 04140  
EPA Methods TO3, TO14A, TO15, 25C/3C,  
RSK-175

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

LABORATORY TEST RESULTS

Project Reference: 118889  
Lab Number: C071303-01

Enclosed are results for sample(s) received 7/13/11 by Air Technology Laboratories. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Sample analyses were performed within method performance criteria, and meet all requirements of the NELAC Standards.
- All results are reported without qualifications unless otherwise noted.
- 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 black ink, appearing to read 'Mark Johnson'.

Mark Johnson  
Operations Manager  
MJohnson@AirTechLabs.com

Enclosures

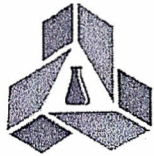
Note: The cover letter is an integral part of this analytical report.







071303-01



### Advanced Technology Laboratories

3275 Walnut Avenue, Signal Hill, CA 90755-5225  
www.atglobal.com  
TEL: (562) 989-4045 FAX: (562) 989-4040

# CHAIN-OF-CUSTODY RECORD

QC Level: RTNE

**Subcontractor:**

Air Technology Laboratories  
18501 E. Gale Ave, Suite 130  
City of Industry, CA 91748

TEL: (626) 964-4032  
FAX: (626) 964-5832  
Acct #:

Field Sampler: Rachel Mills

12-Jul-11

Sample ID	Matrix	Date Collected	Bottle Type	Requested Tests		
				H2S		
118889-002B / M-108-10'	Soil Vapor	7/12/2011 11:15:00 AM	TEDLAR BAG	1		

General Comments: Please email sample receipt acknowledgement to the PM. <sup>RA</sup>  
 Please use PO#: SC06556 Please fax results by: Normal TAT  
 Please analyze sample for H2S by EPA 1516  
 Please send report to Rachelle Arada

	Date/Time		Date/Time
Relinquished by:	7/12/11 1603	Received by:	7/13/11 945
Relinquished by:	7/13/11 1100	Received by:	7/13/11 11:00





**G-3.1**

**MTA Westside Extension PE Phase**

**Vapor Sample Data**

**Location: M- U U**

May 27, 2011



Martin Hudson  
Mactec  
5628 E. Slauson Avenue,  
Los Angeles, CA 90040-2922  
TEL: (323) 889-5300  
FAX:

ELAP No.:1838  
NELAP No.:02107CA  
CSDLAC No.:10196  
ORELAP No.:CA300003  
  
Workorder No.: 117923

RE: Metro Westside Extension, 4953-10-1561

Attention: Martin Hudson

Enclosed are the results for sample(s) received on May 18, 2011 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

Thank you for the opportunity to service the needs of your company.

Please feel free to call me at (562)989-4045 if I can be of further assistance to your company.

Sincerely,

Eddie F. Rodriguez  
Laboratory Director

The cover letter and the case narrative are an integral part of this analytical report and cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.





# CHAIN OF CUSTODY RECORD

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

P.O.#: \_\_\_\_\_ Quote #: \_\_\_\_\_  
 Logged By: [Signature] Date: 5/18/11  
 NOTE: Please include your Quote No. to ensure proper pricing of your project.

**FOR LABORATORY USE ONLY:**  
 Sample Condition Upon Receipt  
 1. CHILLED  Y  N  4. SEALED  Y  N   
 2. HEADSPACE (VOA)  Y  N  5. # OF SPLS MATCH COC  Y  N   
 3. CONTAINER INTACT  Y  N  6. PRESERVED  Y  N

Client: **MACTEC** Address: 5688 E Slawson Ave TEL: 393-889-5300  
 Attn: \_\_\_\_\_ City: LA State: CA Zip Code: 90040 FAX: \_\_\_\_\_

Project Name: Metro Westside Extension Project #: 4953-10-1561 Sampler: [Signature]  
 Relinquished by: (Signature and Printed Name) Date: 5/18/11 Time: 1455  
 Relinquished by: (Signature and Printed Name) Date: 5/18/11 Time: 1455  
 Relinquished by: (Signature and Printed Name) Date: 5/18/11 Time: 1455

I hereby authorize ATL to perform the work indicated below:  
 Project Mgr /Submitter: \_\_\_\_\_  
 Print Name \_\_\_\_\_ Date \_\_\_\_\_  
 Signature \_\_\_\_\_

Send Report To:  
 Attn: \_\_\_\_\_  
 Co: \_\_\_\_\_  
 Addr: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Bill To:  
 Attn: \_\_\_\_\_  
 Co: \_\_\_\_\_  
 Addr: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

Special Instructions/Comments:  
Hydrogen Sulfide  
SEDIMENT AIR

**Sample/Records - Archival & Disposal**  
 Unless otherwise requested by client, all samples will be disposed 45 days after receipt and records will be disposed 1 year after submittal of final report.  
**Storage Fees (applies when storage is requested):**  
 • Sample : \$2.00 / sample / mo (after 45 days)  
 • Records : \$1.00 / ATL workorder / mo (after 1 year)

ITEM	LAB USE ONLY:		Sample Description	Date	Time
	Batch #:	Lab No.			
	<u>117923</u>	<u>1</u>	<u>M7-15'</u>	<u>5/17/11</u>	<u>1300</u>
	<u>↓</u>	<u>2</u>	<u>m11 - Yellow</u>	<u>5/18/11</u>	<u>1000</u>
	<u>↓</u>	<u>7</u>	<u>M13</u>	<u>5/18/11</u>	<u>1155</u>

**Specify Appropriate Matrix**

Matrix	Circle or Add Analysis(es) Requested	Circle or Add Title 22 / CAM 17 (6010 / 7000)	Circle or Add 8015B (DRO)	Circle or Add 8015B (GR) / 8021 (BTEX)	Circle or Add 8010B (Total Metal)	Circle or Add 8270C (BNA)	Circle or Add 8260B (Volatiles)	Circle or Add 8081A (Pesticides)
SEDIMENT	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
AIR	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SOLID	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
GROUND WATER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
DRINKING WATER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
WASTEWATER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
STORMWATER	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
AQUEOUS	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**QA/QC**

RTNE	CT	Legal	SWRCB	Logcode	OTHER	REMARKS
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	

**RESERVATION**

Container(s)	TAT #	Type
<u>2 Red 16's</u>		
<u>↓</u>		

**Preservatives:**  
 H=HCl N=HNO<sub>3</sub> S=H<sub>2</sub>SO<sub>4</sub> C=4°C  
 Z=Zn(AC)<sub>2</sub> O=NaOH T=Na<sub>2</sub>S<sub>2</sub>O<sub>3</sub>

**TAT:**  A= Overnight ≤ 24 hrs  B= Emergency Next workday  C= Critical 2 Workdays  D= Urgent 3 Workdays  E= Routine 7 Workdays

Container Types: T=Tube V=VOA L=Liter P=Pint J=Jar B=Tedlar G=Glass P=Plastic M=Metal

• TAT starts 8 a.m. following day if samples received after 5 p.m.

DISTRIBUTION: White with report, Yellow to folder, Pink to submitter.

Figure G-3.11.2