

July 29, 2011



Matt Fraychineaud  
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.: 119093

RE: Metro Westside Extention, 4953101561

Attention: Matt Fraychineaud

Enclosed are the results for sample(s) received on July 22, 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,

A handwritten signature in black ink, appearing to read "Eddie F. Rodriguez". The signature is fluid and cursive, with a large initial "E" and "R".

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.



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**CLIENT:** Mactec  
**Project:** Metro Westside Extention, 4953101561  
**Lab Order:** 119093

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**CASE NARRATIVE**

All volatile analyses were performed using 5035 preservation requirements. Any high level dilutions were performed on a preserved methanol sample unless otherwise noted.



**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-121-15'
<b>Lab Order:</b> 119093	<b>Collection Date:</b> 7/21/2011 10:30:00 AM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119093-002A	

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

**EPA 8260B**

RunID: MS4_110725A	QC Batch: K11VS196	PrepDate: 7/21/2011	Analyst: SLL
1,1,1,2-Tetrachloroethane	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,1,1-Trichloroethane	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,1,2,2-Tetrachloroethane	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,1,2-Trichloroethane	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,1-Dichloroethane	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,1-Dichloroethene	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,1-Dichloropropene	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,2,3-Trichlorobenzene	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,2,3-Trichloropropane	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,2,4-Trichlorobenzene	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,2,4-Trimethylbenzene	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,2-Dibromo-3-chloropropane	ND	7.8	µg/Kg 1 7/25/2011 11:52 AM
1,2-Dibromoethane	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,2-Dichlorobenzene	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,2-Dichloroethane	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,2-Dichloropropane	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,3,5-Trimethylbenzene	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,3-Dichlorobenzene	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,3-Dichloropropane	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
1,4-Dichlorobenzene	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
2,2-Dichloropropane	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
2-Chlorotoluene	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
4-Chlorotoluene	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
4-Isopropyltoluene	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
Benzene	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
Bromobenzene	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
Bromodichloromethane	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
Bromoform	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
Bromomethane	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
Carbon tetrachloride	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
Chlorobenzene	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
Chloroethane	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
Chloroform	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
Chloromethane	ND	3.9	µg/Kg 1 7/25/2011 11:52 AM
cis-1,2-Dichloroethene	ND	3.9	µg/Kg 1 7/25/2011 11:52 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



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**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-121-15'
<b>Lab Order:</b> 119093	<b>Collection Date:</b> 7/21/2011 10:30:00 AM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119093-002A	

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

**EPA 8260B**

RunID: MS4_110725A	QC Batch: K11VS196	PrepDate: 7/21/2011	Analyst: SLL		
cis-1,3-Dichloropropene	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Di-isopropyl ether	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Dibromochloromethane	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Dibromomethane	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Dichlorodifluoromethane	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Ethyl Tert-butyl ether	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Ethylbenzene	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Hexachlorobutadiene	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Isopropylbenzene	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
m,p-Xylene	ND	7.8	µg/Kg	1	7/25/2011 11:52 AM
Methylene chloride	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
MTBE	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
n-Butylbenzene	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
n-Propylbenzene	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Naphthalene	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
o-Xylene	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
sec-Butylbenzene	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Styrene	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Tert-amyl methyl ether	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Tert-Butanol	ND	78	µg/Kg	1	7/25/2011 11:52 AM
tert-Butylbenzene	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Tetrachloroethene	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Toluene	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
trans-1,2-Dichloroethene	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Trichloroethene	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Trichlorofluoromethane	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Vinyl chloride	ND	3.9	µg/Kg	1	7/25/2011 11:52 AM
Surr: 1,2-Dichloroethane-d4	127	65-141	%REC	1	7/25/2011 11:52 AM
Surr: 4-Bromofluorobenzene	91.6	57-134	%REC	1	7/25/2011 11:52 AM
Surr: Dibromofluoromethane	114	70-128	%REC	1	7/25/2011 11:52 AM
Surr: Toluene-d8	97.1	72-123	%REC	1	7/25/2011 11:52 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	



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**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

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<b>CLIENT:</b>	Mactec	<b>Client Sample ID:</b>	E-121-15'
<b>Lab Order:</b>	119093	<b>Collection Date:</b>	7/21/2011 10:30:00 AM
<b>Project:</b>	Metro Westside Extention, 4953101561	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	119093-002D		

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<b>Analyses</b>	<b>Result</b>	<b>PQL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC2_110726A	QC Batch: E11VS274	PrepDate: 7/21/2011	Analyst: <b>TP</b>		
GRO	ND	0.89	mg/Kg	1	7/26/2011 01:09 PM
Surr: Bromofluorobenzene (FID)	126	51-161	%REC	1	7/26/2011 01:09 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		



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**ANALYTICAL RESULTS**  
 Print Date: 29-Jul-11

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<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-121-15'
<b>Lab Order:</b> 119093	<b>Collection Date:</b> 7/21/2011 10:30:00 AM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119093-002G	

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Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID**

		LUFT	EPA 8015B(M)			
RunID: GC16_110725A	QC Batch: 74513				PrepDate: 7/25/2011	Analyst: <b>CBR</b>
DRO	ND	10		mg/Kg	1	7/25/2011 05:08 PM
ORO	ND	10		mg/Kg	1	7/25/2011 05:08 PM
Surr: p-Terphenyl	80.3	63-152		%REC	1	7/25/2011 05:08 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	



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**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

**CLIENT:** Mactec  
**Lab Order:** 119093  
**Project:** Metro Westside Extention, 4953101561  
**Lab ID:** 119093-005A

**Client Sample ID:** E-121-35'  
**Collection Date:** 7/21/2011 11:00:00 AM  
**Matrix:** SOIL

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP METALS**

**EPA 3050B**

**EPA 6010B**

RunID:	ICP8_110725D	QC Batch:	74509	PrepDate:	7/25/2011	Analyst:	CBB
Antimony	ND	2.0	mg/Kg	1	7/25/2011 03:44 PM		
Arsenic	3.2	1.0	mg/Kg	1	7/25/2011 03:44 PM		
Barium	83	1.0	mg/Kg	1	7/25/2011 03:44 PM		
Beryllium	ND	1.0	mg/Kg	1	7/25/2011 03:44 PM		
Cadmium	ND	1.0	mg/Kg	1	7/25/2011 03:44 PM		
Chromium	7.8	1.0	mg/Kg	1	7/25/2011 03:44 PM		
Cobalt	1.7	1.0	mg/Kg	1	7/25/2011 03:44 PM		
Copper	7.5	2.0	mg/Kg	1	7/25/2011 03:44 PM		
Lead	6.0	1.0	mg/Kg	1	7/25/2011 03:44 PM		
Molybdenum	ND	1.0	mg/Kg	1	7/25/2011 03:44 PM		
Nickel	4.6	1.0	mg/Kg	1	7/25/2011 03:44 PM		
Selenium	ND	1.0	mg/Kg	1	7/25/2011 03:44 PM		
Silver	ND	1.0	mg/Kg	1	7/25/2011 03:44 PM		
Thallium	ND	1.0	mg/Kg	1	7/25/2011 03:44 PM		
Vanadium	9.5	1.0	mg/Kg	1	7/25/2011 03:44 PM		
Zinc	21	1.0	mg/Kg	1	7/25/2011 03:44 PM		

**MERCURY BY COLD VAPOR TECHNIQUE**

**EPA 7471A**

RunID:	AA1_110726A	QC Batch:	74520	PrepDate:	7/25/2011	Analyst:	VV
Mercury	ND	0.10	mg/Kg	1	7/26/2011 11:50 AM		

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



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**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-121-45'
<b>Lab Order:</b> 119093	<b>Collection Date:</b> 7/21/2011 12:00:00 PM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119093-006A	

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

**EPA 8260B**

RunID: MS4_110725A	QC Batch: K11VS196	PrepDate: 7/21/2011	Analyst: SLL
1,1,1,2-Tetrachloroethane	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,1,1-Trichloroethane	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,1,2,2-Tetrachloroethane	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,1,2-Trichloroethane	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,1-Dichloroethane	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,1-Dichloroethene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,1-Dichloropropene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,2,3-Trichlorobenzene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,2,3-Trichloropropane	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,2,4-Trichlorobenzene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,2,4-Trimethylbenzene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,2-Dibromo-3-chloropropane	ND	17	µg/Kg 1 7/25/2011 12:10 PM
1,2-Dibromoethane	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,2-Dichlorobenzene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,2-Dichloroethane	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,2-Dichloropropane	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,3,5-Trimethylbenzene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,3-Dichlorobenzene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,3-Dichloropropane	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
1,4-Dichlorobenzene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
2,2-Dichloropropane	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
2-Chlorotoluene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
4-Chlorotoluene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
4-Isopropyltoluene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
Benzene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
Bromobenzene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
Bromodichloromethane	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
Bromoform	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
Bromomethane	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
Carbon tetrachloride	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
Chlorobenzene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
Chloroethane	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
Chloroform	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
Chloromethane	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM
cis-1,2-Dichloroethene	ND	8.6	µg/Kg 1 7/25/2011 12:10 PM

<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	



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**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-121-45'
<b>Lab Order:</b> 119093	<b>Collection Date:</b> 7/21/2011 12:00:00 PM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119093-006A	

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

**EPA 8260B**

RunID: MS4_110725A	QC Batch: K11VS196	PrepDate: 7/21/2011	Analyst: SLL		
cis-1,3-Dichloropropene	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Di-isopropyl ether	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Dibromochloromethane	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Dibromomethane	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Dichlorodifluoromethane	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Ethyl Tert-butyl ether	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Ethylbenzene	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Hexachlorobutadiene	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Isopropylbenzene	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
m,p-Xylene	ND	17	µg/Kg	1	7/25/2011 12:10 PM
Methylene chloride	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
MTBE	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
n-Butylbenzene	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
n-Propylbenzene	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Naphthalene	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
o-Xylene	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
sec-Butylbenzene	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Styrene	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Tert-amyl methyl ether	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Tert-Butanol	ND	170	µg/Kg	1	7/25/2011 12:10 PM
tert-Butylbenzene	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Tetrachloroethene	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Toluene	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
trans-1,2-Dichloroethene	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Trichloroethene	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Trichlorofluoromethane	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Vinyl chloride	ND	8.6	µg/Kg	1	7/25/2011 12:10 PM
Surr: 1,2-Dichloroethane-d4	128	65-141	%REC	1	7/25/2011 12:10 PM
Surr: 4-Bromofluorobenzene	92.0	57-134	%REC	1	7/25/2011 12:10 PM
Surr: Dibromofluoromethane	110	70-128	%REC	1	7/25/2011 12:10 PM
Surr: Toluene-d8	97.1	72-123	%REC	1	7/25/2011 12:10 PM

<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
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**ANALYTICAL RESULTS**  
 Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-121-45'
<b>Lab Order:</b> 119093	<b>Collection Date:</b> 7/21/2011 12:00:00 PM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119093-006D	

<b>Analyses</b>	<b>Result</b>	<b>PQL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC2_110726A	QC Batch: E11VS274	PrepDate: 7/21/2011	Analyst: <b>TP</b>		
GRO	ND	0.88	mg/Kg	1	7/26/2011 01:25 PM
Surr: Bromofluorobenzene (FID)	112	51-161	%REC	1	7/26/2011 01:25 PM

<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
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3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**  
 Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-121-45'
<b>Lab Order:</b> 119093	<b>Collection Date:</b> 7/21/2011 12:00:00 PM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119093-006G	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID**

LUFT		EPA 8015B(M)				
RunID: GC16_110725A	QC Batch: 74513				PrepDate: 7/25/2011	Analyst: CBR
DRO	ND	10		mg/Kg	1	7/25/2011 05:18 PM
ORO	ND	10		mg/Kg	1	7/25/2011 05:18 PM
Surr: p-Terphenyl	83.4	63-152		%REC	1	7/25/2011 05:18 PM

<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	



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**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-121-65'
<b>Lab Order:</b> 119093	<b>Collection Date:</b> 7/21/2011 1:30:00 PM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119093-010A	

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

**EPA 8260B**

RunID: MS4_110725A	QC Batch: K11VS196	PrepDate: 7/21/2011	Analyst: SLL
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Compound	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,1,1-Trichloroethane	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,1,2,2-Tetrachloroethane	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,1,2-Trichloroethane	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,1-Dichloroethane	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,1-Dichloroethene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,1-Dichloropropene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,2,3-Trichlorobenzene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,2,3-Trichloropropane	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,2,4-Trichlorobenzene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,2,4-Trimethylbenzene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,2-Dibromo-3-chloropropane	ND	13		µg/Kg	1	7/25/2011 12:28 PM
1,2-Dibromoethane	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,2-Dichlorobenzene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,2-Dichloroethane	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,2-Dichloropropane	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,3,5-Trimethylbenzene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,3-Dichlorobenzene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,3-Dichloropropane	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
1,4-Dichlorobenzene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
2,2-Dichloropropane	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
2-Chlorotoluene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
4-Chlorotoluene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
4-Isopropyltoluene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
Benzene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
Bromobenzene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
Bromodichloromethane	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
Bromoform	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
Bromomethane	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
Carbon tetrachloride	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
Chlorobenzene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
Chloroethane	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
Chloroform	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
Chloromethane	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM
cis-1,2-Dichloroethene	ND	6.6		µg/Kg	1	7/25/2011 12:28 PM

<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	



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**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-121-65'
<b>Lab Order:</b> 119093	<b>Collection Date:</b> 7/21/2011 1:30:00 PM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119093-010A	

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

**EPA 8260B**

RunID: MS4_110725A	QC Batch: K11VS196	PrepDate: 7/21/2011	Analyst: SLL		
cis-1,3-Dichloropropene	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Di-isopropyl ether	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Dibromochloromethane	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Dibromomethane	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Dichlorodifluoromethane	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Ethyl Tert-butyl ether	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Ethylbenzene	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Hexachlorobutadiene	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Isopropylbenzene	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
m,p-Xylene	ND	13	µg/Kg	1	7/25/2011 12:28 PM
Methylene chloride	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
MTBE	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
n-Butylbenzene	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
n-Propylbenzene	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Naphthalene	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
o-Xylene	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
sec-Butylbenzene	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Styrene	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Tert-amyl methyl ether	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Tert-Butanol	ND	130	µg/Kg	1	7/25/2011 12:28 PM
tert-Butylbenzene	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Tetrachloroethene	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Toluene	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
trans-1,2-Dichloroethene	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Trichloroethene	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Trichlorofluoromethane	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Vinyl chloride	ND	6.6	µg/Kg	1	7/25/2011 12:28 PM
Surr: 1,2-Dichloroethane-d4	134	65-141	%REC	1	7/25/2011 12:28 PM
Surr: 4-Bromofluorobenzene	90.8	57-134	%REC	1	7/25/2011 12:28 PM
Surr: Dibromofluoromethane	114	70-128	%REC	1	7/25/2011 12:28 PM
Surr: Toluene-d8	97.8	72-123	%REC	1	7/25/2011 12:28 PM

<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	



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**ANALYTICAL RESULTS**  
 Print Date: 29-Jul-11

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<b>CLIENT:</b>	Mactec	<b>Client Sample ID:</b>	E-121-65'
<b>Lab Order:</b>	119093	<b>Collection Date:</b>	7/21/2011 1:30:00 PM
<b>Project:</b>	Metro Westside Extention, 4953101561	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	119093-010D		

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Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC2_110726A	QC Batch: E11VS274	PrepDate: 7/21/2011	Analyst: <b>TP</b>		
GRO	ND	0.79	mg/Kg	1	7/26/2011 01:40 PM
Surr: Bromofluorobenzene (FID)	94.8	51-161	%REC	1	7/26/2011 01:40 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	



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**ANALYTICAL RESULTS**  
 Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-121-65'
<b>Lab Order:</b> 119093	<b>Collection Date:</b> 7/21/2011 1:30:00 PM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119093-010G	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID**

LUFT		EPA 8015B(M)				
RunID: GC16_110725A	QC Batch: 74513				PrepDate: 7/25/2011	Analyst: CBR
DRO	ND	10		mg/Kg	1	7/25/2011 05:29 PM
ORO	ND	10		mg/Kg	1	7/25/2011 05:29 PM
Surr: p-Terphenyl	82.5	63-152		%REC	1	7/25/2011 05:29 PM

<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	



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**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-121-GW
<b>Lab Order:</b> 119093	<b>Collection Date:</b> 7/21/2011 1:45:00 PM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> GROUNDWATER
<b>Lab ID:</b> 119093-011A	

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

**EPA 8260B**

RunID: MS11_110725A	QC Batch: A11VW125	PrepDate:	Analyst: <b>BD</b>		
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,1,1-Trichloroethane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,1,2-Trichloroethane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,1-Dichloroethane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,1-Dichloroethene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,1-Dichloropropene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,2,3-Trichlorobenzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,2,3-Trichloropropane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,2,4-Trichlorobenzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,2-Dibromo-3-chloropropane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,2-Dibromoethane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,2-Dichlorobenzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,2-Dichloroethane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,2-Dichloropropane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,3-Dichlorobenzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,3-Dichloropropane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
1,4-Dichlorobenzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
2,2-Dichloropropane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
2-Chlorotoluene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
4-Chlorotoluene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
4-Isopropyltoluene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Benzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Bromobenzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Bromodichloromethane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Bromoform	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Bromomethane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Carbon tetrachloride	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Chlorobenzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Chloroethane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Chloroform	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Chloromethane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
cis-1,2-Dichloroethene	ND	0.50	µg/L	1	7/25/2011 02:12 PM

<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	



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**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-121-GW
<b>Lab Order:</b> 119093	<b>Collection Date:</b> 7/21/2011 1:45:00 PM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> GROUNDWATER
<b>Lab ID:</b> 119093-011A	

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

**EPA 8260B**

RunID: MS11_110725A	QC Batch: A11VW125	PrepDate:	Analyst: <b>BD</b>		
cis-1,3-Dichloropropene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Di-isopropyl ether	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Dibromochloromethane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Dibromomethane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Dichlorodifluoromethane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Ethyl tert-butyl ether	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Ethylbenzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Hexachlorobutadiene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Isopropylbenzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
m,p-Xylene	ND	1.0	µg/L	1	7/25/2011 02:12 PM
Methylene chloride	ND	1.0	µg/L	1	7/25/2011 02:12 PM
MTBE	ND	0.50	µg/L	1	7/25/2011 02:12 PM
n-Butylbenzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
n-Propylbenzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Naphthalene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
o-Xylene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
sec-Butylbenzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Styrene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Tert-amyl methyl ether	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Tert-Butanol	ND	10	µg/L	1	7/25/2011 02:12 PM
tert-Butylbenzene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Tetrachloroethene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Toluene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
trans-1,2-Dichloroethene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Trichloroethene	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Trichlorofluoromethane	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Vinyl chloride	ND	0.50	µg/L	1	7/25/2011 02:12 PM
Surr: 1,2-Dichloroethane-d4	88.0	70-130	%REC	1	7/25/2011 02:12 PM
Surr: 4-Bromofluorobenzene	99.9	70-130	%REC	1	7/25/2011 02:12 PM
Surr: Dibromofluoromethane	99.0	70-130	%REC	1	7/25/2011 02:12 PM
Surr: Toluene-d8	99.4	70-130	%REC	1	7/25/2011 02:12 PM

<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	



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**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b>	Mactec	<b>Client Sample ID:</b>	E-121-GW
<b>Lab Order:</b>	119093	<b>Collection Date:</b>	7/21/2011 1:45:00 PM
<b>Project:</b>	Metro Westside Extention, 4953101561	<b>Matrix:</b>	GROUNDWATER
<b>Lab ID:</b>	119093-011B		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC19_110725A	QC Batch: M11VW144	PrepDate:	Analyst: <b>BB</b>		
GRO	ND	0.20	mg/L	1	7/25/2011 02:06 PM
Surr: Bromofluorobenzene (FID)	90.4	70-130	%REC	1	7/25/2011 02:06 PM

<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		



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**ANALYTICAL RESULTS**  
 Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-121-GW
<b>Lab Order:</b> 119093	<b>Collection Date:</b> 7/21/2011 1:45:00 PM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> GROUNDWATER
<b>Lab ID:</b> 119093-011C	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID**

EPA 3510C		EPA 8015B(M)				
RunID: GC16_110726B	QC Batch: 74531			PrepDate: 7/26/2011	Analyst: CBR	
DRO	ND	0.20		mg/L	1	7/26/2011 11:56 AM
ORO	ND	0.20		mg/L	1	7/26/2011 11:56 AM
Surr: p-Terphenyl	58.7	36-126		%REC	1	7/26/2011 11:56 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	



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**CLIENT:** Mactec  
**Work Order:** 119093  
**Project:** Metro Westside Extention, 4953101561

**ANALYTICAL QC SUMMARY REPORT**

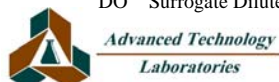
**TestCode: 6010\_S**

Sample ID: <b>MB-74509</b>	SampType: <b>MBLK</b>	TestCode: <b>6010_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/25/2011</b>	RunNo: <b>135302</b>						
Client ID: <b>PBS</b>	Batch ID: <b>74509</b>	TestNo: <b>EPA 6010B EPA 3050B</b>		Analysis Date: <b>7/25/2011</b>	SeqNo: <b>2215175</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	2.0									
Arsenic	ND	1.0									
Barium	ND	1.0									
Beryllium	ND	1.0									
Cadmium	ND	1.0									
Chromium	ND	1.0									
Cobalt	ND	1.0									
Copper	ND	2.0									
Lead	ND	1.0									
Molybdenum	ND	1.0									
Nickel	ND	1.0									
Selenium	ND	1.0									
Silver	ND	1.0									
Thallium	ND	1.0									
Vanadium	ND	1.0									
Zinc	0.461	1.0									

Sample ID: <b>LCS-74509</b>	SampType: <b>LCS</b>	TestCode: <b>6010_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/25/2011</b>	RunNo: <b>135302</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>74509</b>	TestNo: <b>EPA 6010B EPA 3050B</b>		Analysis Date: <b>7/25/2011</b>	SeqNo: <b>2215176</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	46.173	2.0	50.00	0	92.3	80	120				
Arsenic	45.939	1.0	50.00	0	91.9	80	120				
Barium	47.794	1.0	50.00	0	95.6	80	120				
Beryllium	47.191	1.0	50.00	0	94.4	80	120				
Cadmium	45.821	1.0	50.00	0	91.6	80	120				
Chromium	44.562	1.0	50.00	0	89.1	80	120				
Cobalt	47.845	1.0	50.00	0	95.7	80	120				

**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:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

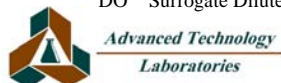
**TestCode: 6010\_S**

Sample ID: <b>LCS-74509</b>		SampType: <b>LCS</b>		TestCode: <b>6010_S</b>		Units: <b>mg/Kg</b>		Prep Date: <b>7/25/2011</b>		RunNo: <b>135302</b>	
Client ID: <b>LCSS</b>		Batch ID: <b>74509</b>		TestNo: <b>EPA 6010B EPA 3050B</b>				Analysis Date: <b>7/25/2011</b>		SeqNo: <b>2215176</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	47.937	2.0	50.00	0	95.9	80	120				
Lead	47.096	1.0	50.00	0	94.2	80	120				
Molybdenum	49.615	1.0	50.00	0	99.2	80	120				
Nickel	47.727	1.0	50.00	0	95.5	80	120				
Selenium	43.352	1.0	50.00	0	86.7	80	120				
Silver	47.062	1.0	50.00	0	94.1	80	120				
Thallium	45.685	1.0	50.00	0	91.4	80	120				
Vanadium	47.437	1.0	50.00	0	94.9	80	120				
Zinc	46.705	1.0	50.00	0.4612	92.5	80	120				

Sample ID: <b>118919-007A-MS</b>		SampType: <b>MS</b>		TestCode: <b>6010_S</b>		Units: <b>mg/Kg</b>		Prep Date: <b>7/25/2011</b>		RunNo: <b>135302</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>74509</b>		TestNo: <b>EPA 6010B EPA 3050B</b>				Analysis Date: <b>7/25/2011</b>		SeqNo: <b>2215178</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	103.766	2.0	125.0	0	83.0	32	105				
Arsenic	98.353	1.0	125.0	0	78.7	49	106				
Barium	228.814	1.0	125.0	115.3	90.8	31	133				
Beryllium	111.642	1.0	125.0	0	89.3	56	106				
Cadmium	108.129	1.0	125.0	0.3535	86.2	51	103				
Chromium	114.288	1.0	125.0	5.679	86.9	45	114				
Cobalt	121.428	1.0	125.0	7.258	91.3	52	106				
Copper	122.531	2.0	125.0	0	98.0	54	125				
Lead	111.082	1.0	125.0	2.664	86.7	34	126				
Molybdenum	114.141	1.0	125.0	0	91.3	54	106				
Nickel	109.725	1.0	125.0	0.8731	87.1	45	111				
Selenium	104.222	1.0	125.0	0	83.4	47	104				
Silver	116.600	1.0	125.0	0	93.3	56	112				
Thallium	81.607	1.0	125.0	0	65.3	46	101				
Vanadium	162.211	1.0	125.0	45.78	93.1	54	114				
Zinc	153.966	1.0	125.0	49.83	83.3	28	125				

**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:** 119093  
**Project:** Metro Westside Extention, 4953101561

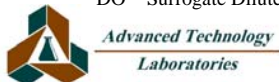
## ANALYTICAL QC SUMMARY REPORT

**TestCode: 6010\_S**

Sample ID: <b>118919-007A-MSD</b>		SampType: <b>MSD</b>		TestCode: <b>6010_S</b>		Units: <b>mg/Kg</b>		Prep Date: <b>7/25/2011</b>		RunNo: <b>135302</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>74509</b>		TestNo: <b>EPA 6010B EPA 3050B</b>		Analysis Date: <b>7/25/2011</b>		SeqNo: <b>2215179</b>			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	102.841	2.0	125.0	0	82.3	32	105	103.8	0.896	20	
Arsenic	99.365	1.0	125.0	0	79.5	49	106	98.35	1.02	20	
Barium	200.372	1.0	125.0	115.3	68.1	31	133	228.8	13.3	20	
Beryllium	110.176	1.0	125.0	0	88.1	56	106	111.6	1.32	20	
Cadmium	105.839	1.0	125.0	0.3535	84.4	51	103	108.1	2.14	20	
Chromium	110.457	1.0	125.0	5.679	83.8	45	114	114.3	3.41	20	
Cobalt	117.514	1.0	125.0	7.258	88.2	52	106	121.4	3.28	20	
Copper	118.964	2.0	125.0	0	95.2	54	125	122.5	2.95	20	
Lead	109.823	1.0	125.0	2.664	85.7	34	126	111.1	1.14	20	
Molybdenum	113.189	1.0	125.0	0	90.6	54	106	114.1	0.838	20	
Nickel	107.281	1.0	125.0	0.8731	85.1	45	111	109.7	2.25	20	
Selenium	103.349	1.0	125.0	0	82.7	47	104	104.2	0.841	20	
Silver	113.600	1.0	125.0	0	90.9	56	112	116.6	2.61	20	
Thallium	87.139	1.0	125.0	0	69.7	46	101	81.61	6.56	20	
Vanadium	146.124	1.0	125.0	45.78	80.3	54	114	162.2	10.4	20	
Zinc	140.185	1.0	125.0	49.83	72.3	28	125	154.0	9.37	20	

**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   |  |



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**CLIENT:** Mactec  
**Work Order:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 7471\_S**

Sample ID: <b>MB-74520</b>	SampType: <b>MBLK</b>	TestCode: <b>7471_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/25/2011</b>	RunNo: <b>135330</b>						
Client ID: <b>PBS</b>	Batch ID: <b>74520</b>	TestNo: <b>EPA 7471A</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215636</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury ND 0.10

Sample ID: <b>LCS-74520</b>	SampType: <b>LCS</b>	TestCode: <b>7471_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/25/2011</b>	RunNo: <b>135330</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>74520</b>	TestNo: <b>EPA 7471A</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215637</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.878 0.10 0.8300 0 106 80 120

Sample ID: <b>119094-003G-MS</b>	SampType: <b>MS</b>	TestCode: <b>7471_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/25/2011</b>	RunNo: <b>135330</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>74520</b>	TestNo: <b>EPA 7471A</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215638</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

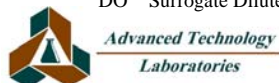
Mercury 0.823 0.10 0.8300 0 99.1 70 130

Sample ID: <b>119094-003G-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>7471_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/25/2011</b>	RunNo: <b>135330</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>74520</b>	TestNo: <b>EPA 7471A</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215639</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.822 0.10 0.8300 0 99.0 70 130 0.8229 0.129 20

**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:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_S\_DM H**

Sample ID: <b>MB-74513</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_S_DM H</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/25/2011</b>	RunNo: <b>135317</b>						
Client ID: <b>PBS</b>	Batch ID: <b>74513</b>	TestNo: <b>EPA 8015B(M LUFT</b>		Analysis Date: <b>7/25/2011</b>	SeqNo: <b>2215380</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	ND	10									
ORO	ND	10									
Surr: p-Terphenyl	71.990		80.00		90.0	63	152				

Sample ID: <b>LCS-74513</b>	SampType: <b>LCS</b>	TestCode: <b>8015_S_DM H</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/25/2011</b>	RunNo: <b>135317</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>74513</b>	TestNo: <b>EPA 8015B(M LUFT</b>		Analysis Date: <b>7/25/2011</b>	SeqNo: <b>2215381</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	938.900	10	1000	0	93.9	76	139				
Surr: p-Terphenyl	74.630		80.00		93.3	63	152				

Sample ID: <b>119065-001GMS</b>	SampType: <b>MS</b>	TestCode: <b>8015_S_DM H</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/25/2011</b>	RunNo: <b>135317</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>74513</b>	TestNo: <b>EPA 8015B(M LUFT</b>		Analysis Date: <b>7/25/2011</b>	SeqNo: <b>2215382</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	832.320	10	1000	0	83.2	60	158				
Surr: p-Terphenyl	65.260		80.00		81.6	63	152				

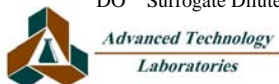
Sample ID: <b>119065-001GMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_S_DM H</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/25/2011</b>	RunNo: <b>135317</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>74513</b>	TestNo: <b>EPA 8015B(M LUFT</b>		Analysis Date: <b>7/25/2011</b>	SeqNo: <b>2215383</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	840.690	10	1000	0	84.1	60	158	832.3	1.00	20	
Surr: p-Terphenyl	64.110		80.00		80.1	63	152		0	0	

Sample ID: <b>119111-002AMS</b>	SampType: <b>MS</b>	TestCode: <b>8015_S_DM H</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/25/2011</b>	RunNo: <b>135317</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>74513</b>	TestNo: <b>EPA 8015B(M LUFT</b>		Analysis Date: <b>7/25/2011</b>	SeqNo: <b>2215399</b>						
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 | 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:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_S\_DM H**

Sample ID: <b>119111-002AMS</b>	SampType: <b>MS</b>	TestCode: <b>8015_S_DM H</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/25/2011</b>	RunNo: <b>135317</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>74513</b>	TestNo: <b>EPA 8015B(M LUFT</b>		Analysis Date: <b>7/25/2011</b>	SeqNo: <b>2215399</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

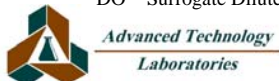
DRO	951.900	10	1000	0	95.2	60	158				
Surr: p-Terphenyl	74.710		80.00		93.4	63	152				

Sample ID: <b>119111-002AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_S_DM H</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/25/2011</b>	RunNo: <b>135317</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>74513</b>	TestNo: <b>EPA 8015B(M LUFT</b>		Analysis Date: <b>7/25/2011</b>	SeqNo: <b>2215400</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	956.600	10	1000	0	95.7	60	158	951.9	0.493	20	
Surr: p-Terphenyl	74.370		80.00		93.0	63	152		0	0	

**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   |  |



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**CLIENT:** Mactec  
**Work Order:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_S\_G 5035P**

Sample ID: <b>E110726LC1</b>	SampType: <b>LCS</b>	TestCode: <b>8015_S_G 50</b>	Units: <b>mg/Kg</b>	Prep Date:	RunNo: <b>135360</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>E11VS274</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2216092</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	4.689	1.0	5.000	0	93.8	70	130				
Surr: Bromofluorobenzene (FID)	118.212		100.0		118	51	161				

Sample ID: <b>E110726MB1MS</b>	SampType: <b>MS</b>	TestCode: <b>8015_S_G 50</b>	Units: <b>mg/Kg</b>	Prep Date:	RunNo: <b>135360</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>E11VS274</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2216093</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	4.623	1.0	5.000	0	92.5	41	146				
Surr: Bromofluorobenzene (FID)	114.698		100.0		115	51	161				

Sample ID: <b>E110726MB1MSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_S_G 50</b>	Units: <b>mg/Kg</b>	Prep Date:	RunNo: <b>135360</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>E11VS274</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2216094</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	4.613	1.0	5.000	0	92.3	41	146	4.623	0.217	20	
Surr: Bromofluorobenzene (FID)	123.354		100.0		123	51	161		0	0	

Sample ID: <b>E110726MB1</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_S_G 50</b>	Units: <b>mg/Kg</b>	Prep Date:	RunNo: <b>135360</b>						
Client ID: <b>PBS</b>	Batch ID: <b>E11VS274</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2216095</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

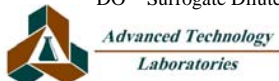
GRO	ND	1.0									
Surr: Bromofluorobenzene (FID)	86.392		100.0		86.4	51	161				

Sample ID: <b>119099-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>8015_S_G 50</b>	Units: <b>mg/Kg</b>	Prep Date:	RunNo: <b>135360</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>E11VS274</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2216106</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	4.396	1.0	5.000	0.3600	80.7	41	146				
-----	-------	-----	-------	--------	------	----	-----	--	--	--	--

**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:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

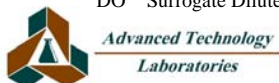
**TestCode: 8015\_S\_G 5035P**

Sample ID: <b>119099-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>8015_S_G 50</b>	Units: <b>mg/Kg</b>	Prep Date:	RunNo: <b>135360</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>E11VS274</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2216106</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Bromofluorobenzene (FID)	126.109		100.0		126	51	161				

Sample ID: <b>119099-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_S_G 50</b>	Units: <b>mg/Kg</b>	Prep Date:	RunNo: <b>135360</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>E11VS274</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2216107</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.482	1.0	5.000	0.3600	82.4	41	146	4.396	1.94	20	
Surr: Bromofluorobenzene (FID)	126.627		100.0		127	51	161		0	0	

**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:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_W\_DM**

Sample ID: <b>MB-74531</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_W_DM</b>	Units: <b>mg/L</b>	Prep Date: <b>7/26/2011</b>	RunNo: <b>135340</b>						
Client ID: <b>PBW</b>	Batch ID: <b>74531</b>	TestNo: <b>EPA 8015B(M EPA 3510C</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215981</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	ND	0.20									
ORO	ND	0.20									
Surr: p-Terphenyl	0.043		0.08000		53.9	36	126				

Sample ID: <b>LCS-74531</b>	SampType: <b>LCS</b>	TestCode: <b>8015_W_DM</b>	Units: <b>mg/L</b>	Prep Date: <b>7/26/2011</b>	RunNo: <b>135340</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>74531</b>	TestNo: <b>EPA 8015B(M EPA 3510C</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215982</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.532	0.20	1.000	0	53.2	52	128				
Surr: p-Terphenyl	0.050		0.08000		62.6	36	126				

Sample ID: <b>MB-74531MS</b>	SampType: <b>MS</b>	TestCode: <b>8015_W_DM</b>	Units: <b>mg/L</b>	Prep Date: <b>7/26/2011</b>	RunNo: <b>135340</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>74531</b>	TestNo: <b>EPA 8015B(M EPA 3510C</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215983</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

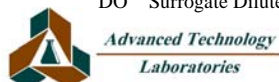
DRO	0.593	0.20	1.000	0	59.3	52	128				
Surr: p-Terphenyl	0.052		0.08000		65.6	36	126				

Sample ID: <b>MB-74531MSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_W_DM</b>	Units: <b>mg/L</b>	Prep Date: <b>7/26/2011</b>	RunNo: <b>135340</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>74531</b>	TestNo: <b>EPA 8015B(M EPA 3510C</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215999</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.629	0.20	1.000	0	62.9	52	128	0.5926	5.89	20	
Surr: p-Terphenyl	0.045		0.08000		56.0	36	126		0	0	

**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:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_W\_G PRES**

Sample ID: <b>M110725LCS2</b>		SampType: <b>LCS</b>		TestCode: <b>8015_W_G P</b>		Units: <b>mg/L</b>		Prep Date:		RunNo: <b>135318</b>		
Client ID: <b>LCSW</b>		Batch ID: <b>M11VW144</b>		TestNo: <b>EPA 8015B(M)</b>		Analysis Date: <b>7/25/2011</b>		SeqNo: <b>2215493</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	0.929	0.20	1.000	0	92.9	70	130					
Surr: Bromofluorobenzene (FID)	91.503		100.0		91.5	70	130					

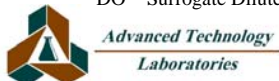
Sample ID: <b>M110725MB1MS</b>		SampType: <b>MS</b>		TestCode: <b>8015_W_G P</b>		Units: <b>mg/L</b>		Prep Date:		RunNo: <b>135318</b>		
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>M11VW144</b>		TestNo: <b>EPA 8015B(M)</b>		Analysis Date: <b>7/25/2011</b>		SeqNo: <b>2215495</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	1.069	0.20	1.000	0	107	70	130					
Surr: Bromofluorobenzene (FID)	93.684		100.0		93.7	70	130					

Sample ID: <b>M110725MB1MSD</b>		SampType: <b>MSD</b>		TestCode: <b>8015_W_G P</b>		Units: <b>mg/L</b>		Prep Date:		RunNo: <b>135318</b>		
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>M11VW144</b>		TestNo: <b>EPA 8015B(M)</b>		Analysis Date: <b>7/25/2011</b>		SeqNo: <b>2215496</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	1.088	0.20	1.000	0	109	70	130	1.069	1.76	20		
Surr: Bromofluorobenzene (FID)	93.078		100.0		93.1	70	130		0	0		

Sample ID: <b>M110725MB1</b>		SampType: <b>MBLK</b>		TestCode: <b>8015_W_G P</b>		Units: <b>mg/L</b>		Prep Date:		RunNo: <b>135318</b>		
Client ID: <b>PBW</b>		Batch ID: <b>M11VW144</b>		TestNo: <b>EPA 8015B(M)</b>		Analysis Date: <b>7/25/2011</b>		SeqNo: <b>2215497</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
GRO	ND	0.20										
Surr: Bromofluorobenzene (FID)	89.134		100.0		89.1	70	130					

**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:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_S\_5035**

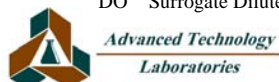
Sample ID: <b>K110725LCS1</b>		SampType: <b>LCS</b>		TestCode: <b>8260_S_5035</b>		Units: <b>µg/Kg</b>		Prep Date:		RunNo: <b>135313</b>		
Client ID: <b>LCSS</b>		Batch ID: <b>K11VS196</b>		TestNo: <b>EPA 8260B</b>				Analysis Date: <b>7/25/2011</b>		SeqNo: <b>2216476</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	46.080	5.0	50.00	0	92.2	70	130					
Benzene	93.170	5.0	100.0	0	93.2	70	130					
Chlorobenzene	49.430	5.0	50.00	0	98.9	70	130					
MTBE	58.120	5.0	50.00	0	116	70	130					
Toluene	95.480	5.0	100.0	0	95.5	70	130					
Trichloroethene	48.780	5.0	50.00	0	97.6	70	130					
Surr: 1,2-Dichloroethane-d4	54.960		50.00		110	65	141					
Surr: 4-Bromofluorobenzene	45.890		50.00		91.8	57	134					
Surr: Dibromofluoromethane	51.140		50.00		102	70	128					
Surr: Toluene-d8	47.800		50.00		95.6	72	123					

Sample ID: <b>K110725MB1MS</b>		SampType: <b>MS</b>		TestCode: <b>8260_S_5035</b>		Units: <b>µg/Kg</b>		Prep Date:		RunNo: <b>135313</b>		
Client ID: <b>ZZZZZ</b>		Batch ID: <b>K11VS196</b>		TestNo: <b>EPA 8260B</b>				Analysis Date: <b>7/25/2011</b>		SeqNo: <b>2216477</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	49.370	5.0	50.00	0	98.7	70	130					
Benzene	98.430	5.0	100.0	0	98.4	70	130					
Chlorobenzene	50.870	5.0	50.00	0	102	70	130					
MTBE	60.900	5.0	50.00	0	122	70	130					
Toluene	100.180	5.0	100.0	0	100	70	130					
Trichloroethene	50.620	5.0	50.00	0	101	70	130					
Surr: 1,2-Dichloroethane-d4	56.100		50.00		112	65	141					
Surr: 4-Bromofluorobenzene	45.120		50.00		90.2	57	134					
Surr: Dibromofluoromethane	52.580		50.00		105	70	128					
Surr: Toluene-d8	48.800		50.00		97.6	72	123					

Sample ID: <b>K110725MB1MSD</b>		SampType: <b>MSD</b>		TestCode: <b>8260_S_5035</b>		Units: <b>µg/Kg</b>		Prep Date:		RunNo: <b>135313</b>		
Client ID: <b>ZZZZZ</b>		Batch ID: <b>K11VS196</b>		TestNo: <b>EPA 8260B</b>				Analysis Date: <b>7/25/2011</b>		SeqNo: <b>2216478</b>		
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 | 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:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

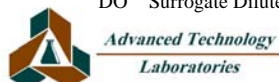
**TestCode: 8260\_S\_5035**

Sample ID: <b>K110725MB1MSD</b>		SampType: <b>MSD</b>		TestCode: <b>8260_S_5035</b>		Units: <b>µg/Kg</b>		Prep Date:		RunNo: <b>135313</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>K11VS196</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/25/2011</b>				SeqNo: <b>2216478</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	49.750	5.0	50.00	0	99.5	70	130	49.37	0.767	20	
Benzene	99.990	5.0	100.0	0	100	70	130	98.43	1.57	20	
Chlorobenzene	51.080	5.0	50.00	0	102	70	130	50.87	0.412	20	
MTBE	64.250	5.0	50.00	0	128	70	130	60.90	5.35	20	
Toluene	101.720	5.0	100.0	0	102	70	130	100.2	1.53	20	
Trichloroethene	50.580	5.0	50.00	0	101	70	130	50.62	0.0791	20	
Surr: 1,2-Dichloroethane-d4	55.010		50.00		110	65	141		0	0	
Surr: 4-Bromofluorobenzene	44.630		50.00		89.3	57	134		0	0	
Surr: Dibromofluoromethane	52.240		50.00		104	70	128		0	0	
Surr: Toluene-d8	48.520		50.00		97.0	72	123		0	0	

Sample ID: <b>K110725MB1</b>		SampType: <b>MBLK</b>		TestCode: <b>8260_S_5035</b>		Units: <b>µg/Kg</b>		Prep Date:		RunNo: <b>135313</b>	
Client ID: <b>PBS</b>		Batch ID: <b>K11VS196</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/25/2011</b>				SeqNo: <b>2216479</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	10									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									

**Qualifiers:**

- |   |  |  |
|---|--|--|
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| DO Surrogate Diluted Out                          | Calculations are based on raw values   |  |



**CLIENT:** Mactec  
**Work Order:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_S\_5035**

Sample ID: <b>K110725MB1</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_S_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>135313</b>						
Client ID: <b>PBS</b>	Batch ID: <b>K11VS196</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/25/2011</b>	SeqNo: <b>2216479</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon tetrachloride	ND	5.0									
Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									
Di-isopropyl ether	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethyl Tert-butyl ether	ND	5.0									
Ethylbenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	10									

**Qualifiers:**

- |   |  |  |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range       | H Holding times for preparation or analysis exceeded           |
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*Advanced Technology  
Laboratories*

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

**CLIENT:** Mactec  
**Work Order:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_S\_5035**

Sample ID: <b>K110725MB1</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_S_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>135313</b>						
Client ID: <b>PBS</b>	Batch ID: <b>K11VS196</b>	TestNo: <b>EPA 8260B</b>	Analysis Date: <b>7/25/2011</b>	SeqNo: <b>2216479</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	5.0									
MTBE	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
Naphthalene	ND	5.0									
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
Tert-amyl methyl ether	ND	5.0									
Tert-Butanol	ND	100									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	ND	5.0									
trans-1,2-Dichloroethene	ND	5.0									
Trichloroethene	ND	5.0									
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									
Surr: 1,2-Dichloroethane-d4	58.380		50.00		117	65	141				
Surr: 4-Bromofluorobenzene	44.580		50.00		89.2	57	134				
Surr: Dibromofluoromethane	53.580		50.00		107	70	128				
Surr: Toluene-d8	47.640		50.00		95.3	72	123				

**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   |  |



*Advanced Technology  
Laboratories*

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

**CLIENT:** Mactec  
**Work Order:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_LL**

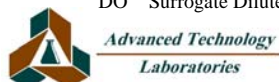
Sample ID: <b>A110725LCS1</b>		SampType: <b>LCS</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>135333</b>		
Client ID: <b>LCSW</b>		Batch ID: <b>A11VW125</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/25/2011</b>		SeqNo: <b>2215676</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	17.360	0.50	20.00	0	86.8	70	130					
Benzene	39.870	0.50	40.00	0	99.7	70	130					
Chlorobenzene	20.530	0.50	20.00	0	103	70	130					
MTBE	21.480	0.50	20.00	0	107	70	130					
Toluene	40.160	0.50	40.00	0	100	70	130					
Trichloroethene	19.030	0.50	20.00	0	95.2	70	130					
Surr: 1,2-Dichloroethane-d4	21.760		25.00		87.0	70	130					
Surr: 4-Bromofluorobenzene	25.090		25.00		100	70	130					
Surr: Dibromofluoromethane	24.260		25.00		97.0	70	130					
Surr: Toluene-d8	24.730		25.00		98.9	70	130					

Sample ID: <b>A110725MB3MS</b>		SampType: <b>MS</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>135333</b>		
Client ID: <b>ZZZZZ</b>		Batch ID: <b>A11VW125</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/25/2011</b>		SeqNo: <b>2215677</b>				
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	15.380	0.50	20.00	0	76.9	70	130					
Benzene	38.470	0.50	40.00	0	96.2	70	130					
Chlorobenzene	20.340	0.50	20.00	0	102	70	130					
MTBE	21.010	0.50	20.00	0	105	70	130					
Toluene	38.750	0.50	40.00	0	96.9	70	130					
Trichloroethene	17.690	0.50	20.00	0	88.4	70	130					
Surr: 1,2-Dichloroethane-d4	21.040		25.00		84.2	70	130					
Surr: 4-Bromofluorobenzene	24.880		25.00		99.5	70	130					
Surr: Dibromofluoromethane	23.850		25.00		95.4	70	130					
Surr: Toluene-d8	24.420		25.00		97.7	70	130					

Sample ID: <b>A110725MB3MSD</b>		SampType: <b>MSD</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>135333</b>		
Client ID: <b>ZZZZZ</b>		Batch ID: <b>A11VW125</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/25/2011</b>		SeqNo: <b>2215678</b>				
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 | 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:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

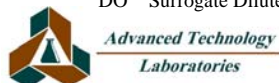
**TestCode: 8260\_WP\_LL**

Sample ID: <b>A110725MB3MSD</b>		SampType: <b>MSD</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>135333</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>A11VW125</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/25/2011</b>				SeqNo: <b>2215678</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	16.370	0.50	20.00	0	81.8	70	130	15.38	6.24	20	
Benzene	39.180	0.50	40.00	0	98.0	70	130	38.47	1.83	20	
Chlorobenzene	20.270	0.50	20.00	0	101	70	130	20.34	0.345	20	
MTBE	21.510	0.50	20.00	0	108	70	130	21.01	2.35	20	
Toluene	39.460	0.50	40.00	0	98.6	70	130	38.75	1.82	20	
Trichloroethene	18.330	0.50	20.00	0	91.7	70	130	17.69	3.55	20	
Surr: 1,2-Dichloroethane-d4	21.820		25.00		87.3	70	130		0	0	
Surr: 4-Bromofluorobenzene	25.210		25.00		101	70	130		0	0	
Surr: Dibromofluoromethane	23.930		25.00		95.7	70	130		0	0	
Surr: Toluene-d8	24.600		25.00		98.4	70	130		0	0	

Sample ID: <b>A110725MB3</b>		SampType: <b>MBLK</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>135333</b>	
Client ID: <b>PBW</b>		Batch ID: <b>A11VW125</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/25/2011</b>				SeqNo: <b>2215679</b>	
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									

**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:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_LL**

Sample ID: <b>A110725MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>135333</b>						
Client ID: <b>PBW</b>	Batch ID: <b>A11VW125</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/25/2011</b>	SeqNo: <b>2215679</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dichloropropane	ND	0.50									
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									
Di-isopropyl ether	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethyl tert-butyl ether	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									

**Qualifiers:**

- |   |  |  |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range       | H Holding times for preparation or analysis exceeded           |
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*Advanced Technology  
Laboratories*

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

**CLIENT:** Mactec  
**Work Order:** 119093  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_LL**

Sample ID: <b>A110725MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>135333</b>						
Client ID: <b>PBW</b>	Batch ID: <b>A11VW125</b>	TestNo: <b>EPA 8260B</b>	Analysis Date: <b>7/25/2011</b>	SeqNo: <b>2215679</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	1.0									
MTBE	ND	0.50									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
Tert-amyl methyl ether	ND	0.50									
Tert-Butanol	ND	10									
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									
Surr: 1,2-Dichloroethane-d4	21.700		25.00		86.8	70	130				
Surr: 4-Bromofluorobenzene	25.050		25.00		100	70	130				
Surr: Dibromofluoromethane	24.620		25.00		98.5	70	130				
Surr: Toluene-d8	25.020		25.00		100	70	130				

**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 |
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*Advanced Technology  
Laboratories*

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

# CHAIN OF CUSTODY RECORD

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

**FOR LABORATORY USE ONLY:**  
 Method of Transport:  Client  ATL  FedEx  OnTrac  
 Sample Condition Upon Receipt: 2.6 Y  N  4. SEALED Y  N   
 1. CHILLED Y  N  5. # OF SPLS MATCH COC Y  N   
 2. HEADSPACE (VOA) Y  N  6. PRESERVED Y  N   
 3. CONTAINER INTACT Y  N

Quote #: 201106374 Quote #: 1476  
 Logged By: \_\_\_\_\_ Date: 7/22/11  
 NOTE: Please include your Quote No. to ensure proper pricing of your project.

Client: TRACTEC Address: 5628 E. Slavson Ave State: CA Zip Code: 90040 TEL: 323-889-5300  
 Attn: Matt Fraychineaud City: LA State: CA Zip Code: 90040 FAX: \_\_\_\_\_

Project Name: metco westside extension Project #: 4953101561 Sampler: Paul Kane (Printed Name) (Signature)  
 Relinquished by: Dawn D. Snyder Date: 7-22-11 Received by: Paul Kane Date: 7-21-11 Time: 14:30  
 Relinquished by: Dawn D. Snyder Date: 7-22-11 Received by: Paul Kane Date: 7-22-11 Time: 07:00  
 Relinquished by: Matt Fraychineaud Date: 7/22/11 Received by: Matt Fraychineaud Date: 7/22/11 Time: 9:05  
 I hereby authorize ATL to perform the work indicated below: \_\_\_\_\_  
 Project Mgr / Submitter: Matt Fraychineaud Date: 7/22/11  
 Signature: [Signature]  
 Attn: Matt Fraychineaud Date: 7/22/11  
 Co: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

**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)

LAB USE ONLY: Batch #: Lab No.	Sample Description		Date	Time	SPECIFY APPROPRIATE MATRIX										QA/QC		
	Sample I.D. / Location	Container(s)			TAT	Type	SEDIMENT	SOIL	DRINKING WATER	WASTEWATER	STORMWATER	AQUEOUS	RTNE	CT		Legal	SWRCB Logcode
119093-21	E-121-10'		7/21/11	1020													Hold
	E-121-15'			1030													Hold
	E-121-20'			1035													
	E-121-25'			1043													
	E-121-35'			1100													
	E-121-45'			1200													
	E-121-50'			1245													
	E-121-55'			1250													
	E-121-60'			1310													
	E-121-65'			1330													
	E-121-GW			1345													

Circle or Add Analysis(es) Requested: 8081A (Pesticides) 8260B (PCB) 8270C (BNA) 8010B (Total Metal) 8015B (GRO) / 8021 (BTEX) 8015B (DRO) (BRO) TITLE 22 / CAM 17 (6010 / 7000)

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>

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

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

LAB USE ONLY: \_\_\_\_\_

July 29, 2011



Matt Fraychineaud  
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.: 119115

RE: Metro Westside Extention, 4953101561

Attention: Matt Fraychineaud

Enclosed are the results for sample(s) received on July 25, 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.



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**CLIENT:** Mactec  
**Project:** Metro Westside Extention, 4953101561  
**Lab Order:** 119115

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**CASE NARRATIVE**

All volatile analyses were performed using 5035 preservation requirements. Any high level dilutions were performed on a preserved methanol sample unless otherwise noted.



**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-20'
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 10:25:00 AM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119115-003A	

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

**EPA 8260B**

RunID: MS4_110726A	QC Batch: K11VS197	PrepDate: 7/22/2011	Analyst: SLL
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Compound	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,1,1-Trichloroethane	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,1,2,2-Tetrachloroethane	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,1,2-Trichloroethane	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,1-Dichloroethane	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,1-Dichloroethene	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,1-Dichloropropene	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,2,3-Trichlorobenzene	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,2,3-Trichloropropane	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,2,4-Trichlorobenzene	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,2,4-Trimethylbenzene	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,2-Dibromo-3-chloropropane	ND	21		µg/Kg	1	7/26/2011 02:13 PM
1,2-Dibromoethane	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,2-Dichlorobenzene	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,2-Dichloroethane	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,2-Dichloropropane	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,3,5-Trimethylbenzene	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,3-Dichlorobenzene	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,3-Dichloropropane	ND	10		µg/Kg	1	7/26/2011 02:13 PM
1,4-Dichlorobenzene	ND	10		µg/Kg	1	7/26/2011 02:13 PM
2,2-Dichloropropane	ND	10		µg/Kg	1	7/26/2011 02:13 PM
2-Chlorotoluene	ND	10		µg/Kg	1	7/26/2011 02:13 PM
4-Chlorotoluene	ND	10		µg/Kg	1	7/26/2011 02:13 PM
4-Isopropyltoluene	ND	10		µg/Kg	1	7/26/2011 02:13 PM
Benzene	ND	10		µg/Kg	1	7/26/2011 02:13 PM
Bromobenzene	ND	10		µg/Kg	1	7/26/2011 02:13 PM
Bromodichloromethane	ND	10		µg/Kg	1	7/26/2011 02:13 PM
Bromoform	ND	10		µg/Kg	1	7/26/2011 02:13 PM
Bromomethane	ND	10		µg/Kg	1	7/26/2011 02:13 PM
Carbon tetrachloride	ND	10		µg/Kg	1	7/26/2011 02:13 PM
Chlorobenzene	ND	10		µg/Kg	1	7/26/2011 02:13 PM
Chloroethane	ND	10		µg/Kg	1	7/26/2011 02:13 PM
Chloroform	ND	10		µg/Kg	1	7/26/2011 02:13 PM
Chloromethane	ND	10		µg/Kg	1	7/26/2011 02:13 PM
cis-1,2-Dichloroethene	ND	10		µg/Kg	1	7/26/2011 02:13 PM

<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

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-20'
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 10:25:00 AM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119115-003A	

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

**EPA 8260B**

RunID: MS4_110726A	QC Batch: K11VS197	PrepDate: 7/22/2011	Analyst: SLL
cis-1,3-Dichloropropene	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Di-isopropyl ether	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Dibromochloromethane	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Dibromomethane	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Dichlorodifluoromethane	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Ethyl Tert-butyl ether	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Ethylbenzene	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Hexachlorobutadiene	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Isopropylbenzene	ND	10	µg/Kg 1 7/26/2011 02:13 PM
m,p-Xylene	ND	21	µg/Kg 1 7/26/2011 02:13 PM
Methylene chloride	ND	10	µg/Kg 1 7/26/2011 02:13 PM
MTBE	ND	10	µg/Kg 1 7/26/2011 02:13 PM
n-Butylbenzene	ND	10	µg/Kg 1 7/26/2011 02:13 PM
n-Propylbenzene	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Naphthalene	ND	10	µg/Kg 1 7/26/2011 02:13 PM
o-Xylene	ND	10	µg/Kg 1 7/26/2011 02:13 PM
sec-Butylbenzene	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Styrene	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Tert-amyl methyl ether	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Tert-Butanol	ND	210	µg/Kg 1 7/26/2011 02:13 PM
tert-Butylbenzene	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Tetrachloroethene	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Toluene	ND	10	µg/Kg 1 7/26/2011 02:13 PM
trans-1,2-Dichloroethene	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Trichloroethene	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Trichlorofluoromethane	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Vinyl chloride	ND	10	µg/Kg 1 7/26/2011 02:13 PM
Surr: 1,2-Dichloroethane-d4	139	65-141	%REC 1 7/26/2011 02:13 PM
Surr: 4-Bromofluorobenzene	98.4	57-134	%REC 1 7/26/2011 02:13 PM
Surr: Dibromofluoromethane	123	70-128	%REC 1 7/26/2011 02:13 PM
Surr: Toluene-d8	107	72-123	%REC 1 7/26/2011 02:13 PM

<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	



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**ANALYTICAL RESULTS**  
 Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-20'
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 10:25:00 AM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119115-003D	

<b>Analyses</b>	<b>Result</b>	<b>PQL</b>	<b>Qual</b>	<b>Units</b>	<b>DF</b>	<b>Date Analyzed</b>
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC2_110727A	QC Batch: E11VS276	PrepDate: 7/22/2011	Analyst: <b>TP</b>		
GRO	ND	0.87	mg/Kg	1	7/27/2011 11:50 AM
Surr: Bromofluorobenzene (FID)	125	51-161	%REC	1	7/27/2011 11:50 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	



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**ANALYTICAL RESULTS**  
 Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-20'
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 10:25:00 AM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119115-003G	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL &amp; MOTOR OIL RANGE ORGANICS BY GC/FID</b>						
	<b>LUFT</b>			<b>EPA 8015B(M)</b>		
RunID: GC16_110726A	QC Batch: 74530			PrepDate: 7/26/2011		Analyst: CBR
DRO	ND	10		mg/Kg	1	7/26/2011 03:02 PM
ORO	ND	10		mg/Kg	1	7/26/2011 03:02 PM
Surr: p-Terphenyl	72.9	63-152		%REC	1	7/26/2011 03:02 PM

<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	



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**ANALYTICAL RESULTS**  
 Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-25'
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 10:33:00 AM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119115-004A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**ICP METALS**

**EPA 3050B**

**EPA 6010B**

RunID: ICP8_110727H	QC Batch: 74560			PrepDate: 7/27/2011	Analyst: IL
Antimony	ND	2.0		mg/Kg	1 7/27/2011 04:15 PM
Arsenic	ND	1.0		mg/Kg	1 7/27/2011 04:15 PM
Barium	110	1.0		mg/Kg	1 7/27/2011 04:15 PM
Beryllium	ND	1.0		mg/Kg	1 7/27/2011 04:15 PM
Cadmium	1.7	1.0		mg/Kg	1 7/27/2011 04:15 PM
Chromium	24	1.0		mg/Kg	1 7/27/2011 04:15 PM
Cobalt	9.9	1.0		mg/Kg	1 7/27/2011 04:15 PM
Copper	12	2.0		mg/Kg	1 7/27/2011 04:15 PM
Lead	2.6	1.0		mg/Kg	1 7/27/2011 04:15 PM
Molybdenum	ND	1.0		mg/Kg	1 7/27/2011 04:15 PM
Nickel	15	1.0		mg/Kg	1 7/27/2011 04:15 PM
Selenium	ND	1.0		mg/Kg	1 7/27/2011 04:15 PM
Silver	ND	1.0		mg/Kg	1 7/27/2011 04:15 PM
Thallium	ND	1.0		mg/Kg	1 7/27/2011 04:15 PM
Vanadium	29	1.0		mg/Kg	1 7/27/2011 04:15 PM
Zinc	47	1.0		mg/Kg	1 7/27/2011 04:15 PM

**MERCURY BY COLD VAPOR TECHNIQUE**

**EPA 7471A**

RunID: AA1_110726D	QC Batch: 74540			PrepDate: 7/26/2011	Analyst: VV
Mercury	ND	0.10		mg/Kg	1 7/26/2011 04:47 PM

**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



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**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-40'
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 11:00:00 AM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119115-007A	

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

**EPA 8260B**

RunID: MS4_110726A	QC Batch: K11VS197	PrepDate: 7/22/2011	Analyst: SLL
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Compound	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,1,1-Trichloroethane	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,1,2,2-Tetrachloroethane	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,1,2-Trichloroethane	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,1-Dichloroethane	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,1-Dichloroethene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,1-Dichloropropene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,2,3-Trichlorobenzene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,2,3-Trichloropropane	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,2,4-Trichlorobenzene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,2,4-Trimethylbenzene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,2-Dibromo-3-chloropropane	ND	7.4		µg/Kg	1	7/26/2011 02:31 PM
1,2-Dibromoethane	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,2-Dichlorobenzene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,2-Dichloroethane	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,2-Dichloropropane	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,3,5-Trimethylbenzene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,3-Dichlorobenzene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,3-Dichloropropane	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
1,4-Dichlorobenzene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
2,2-Dichloropropane	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
2-Chlorotoluene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
4-Chlorotoluene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
4-Isopropyltoluene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
Benzene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
Bromobenzene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
Bromodichloromethane	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
Bromoform	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
Bromomethane	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
Carbon tetrachloride	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
Chlorobenzene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
Chloroethane	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
Chloroform	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
Chloromethane	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM
cis-1,2-Dichloroethene	ND	3.7		µg/Kg	1	7/26/2011 02:31 PM

<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	



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**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-40'
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 11:00:00 AM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119115-007A	

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

**EPA 8260B**

RunID: MS4_110726A	QC Batch: K11VS197	PrepDate: 7/22/2011	Analyst: SLL		
cis-1,3-Dichloropropene	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Di-isopropyl ether	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Dibromochloromethane	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Dibromomethane	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Dichlorodifluoromethane	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Ethyl Tert-butyl ether	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Ethylbenzene	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Hexachlorobutadiene	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Isopropylbenzene	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
m,p-Xylene	ND	7.4	µg/Kg	1	7/26/2011 02:31 PM
Methylene chloride	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
MTBE	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
n-Butylbenzene	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
n-Propylbenzene	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Naphthalene	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
o-Xylene	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
sec-Butylbenzene	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Styrene	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Tert-amyl methyl ether	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Tert-Butanol	ND	74	µg/Kg	1	7/26/2011 02:31 PM
tert-Butylbenzene	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Tetrachloroethene	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Toluene	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
trans-1,2-Dichloroethene	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Trichloroethene	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Trichlorofluoromethane	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Vinyl chloride	ND	3.7	µg/Kg	1	7/26/2011 02:31 PM
Surr: 1,2-Dichloroethane-d4	126	65-141	%REC	1	7/26/2011 02:31 PM
Surr: 4-Bromofluorobenzene	89.8	57-134	%REC	1	7/26/2011 02:31 PM
Surr: Dibromofluoromethane	115	70-128	%REC	1	7/26/2011 02:31 PM
Surr: Toluene-d8	98.9	72-123	%REC	1	7/26/2011 02:31 PM

<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	



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**ANALYTICAL RESULTS**  
 Print Date: 29-Jul-11

<b>CLIENT:</b>	Mactec	<b>Client Sample ID:</b>	E-122-40'
<b>Lab Order:</b>	119115	<b>Collection Date:</b>	7/22/2011 11:00:00 AM
<b>Project:</b>	Metro Westside Extention, 4953101561	<b>Matrix:</b>	SOIL
<b>Lab ID:</b>	119115-007D		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC2_110727A	QC Batch: E11VS276	PrepDate: 7/22/2011	Analyst: <b>TP</b>		
GRO	ND	0.88	mg/Kg	1	7/27/2011 12:05 PM
Surr: Bromofluorobenzene (FID)	92.4	51-161	%REC	1	7/27/2011 12:05 PM

<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	



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**ANALYTICAL RESULTS**  
 Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-40'
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 11:00:00 AM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119115-007G	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL &amp; MOTOR OIL RANGE ORGANICS BY GC/FID</b>						
	<b>LUFT</b>			<b>EPA 8015B(M)</b>		
RunID: GC16_110726A	QC Batch: 74530			PrepDate: 7/26/2011		Analyst: CBR
DRO	ND	10		mg/Kg	1	7/26/2011 03:13 PM
ORO	ND	10		mg/Kg	1	7/26/2011 03:13 PM
Surr: p-Terphenyl	77.4	63-152		%REC	1	7/26/2011 03:13 PM

**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		



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**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-GW
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 11:30:00 AM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> GROUNDWATER
<b>Lab ID:</b> 119115-008A	

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

**EPA 8260B**

RunID: MS2_110726A	QC Batch: Q11VW138	PrepDate:	Analyst: <b>BD</b>		
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,1,1-Trichloroethane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,1,2-Trichloroethane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,1-Dichloroethane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,1-Dichloroethene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,1-Dichloropropene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,2,3-Trichlorobenzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,2,3-Trichloropropane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,2,4-Trichlorobenzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,2-Dibromo-3-chloropropane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,2-Dibromoethane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,2-Dichlorobenzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,2-Dichloroethane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,2-Dichloropropane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,3-Dichlorobenzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,3-Dichloropropane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
1,4-Dichlorobenzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
2,2-Dichloropropane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
2-Chlorotoluene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
4-Chlorotoluene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
4-Isopropyltoluene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Benzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Bromobenzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Bromodichloromethane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Bromoform	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Bromomethane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Carbon tetrachloride	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Chlorobenzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Chloroethane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Chloroform	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Chloromethane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
cis-1,2-Dichloroethene	ND	0.50	µg/L	1	7/26/2011 03:18 PM

**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



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**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-GW
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 11:30:00 AM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> GROUNDWATER
<b>Lab ID:</b> 119115-008A	

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

**EPA 8260B**

RunID: MS2_110726A	QC Batch: Q11VW138	PrepDate:	Analyst: <b>BD</b>		
cis-1,3-Dichloropropene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Di-isopropyl ether	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Dibromochloromethane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Dibromomethane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Dichlorodifluoromethane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Ethyl tert-butyl ether	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Ethylbenzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Hexachlorobutadiene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Isopropylbenzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
m,p-Xylene	ND	1.0	µg/L	1	7/26/2011 03:18 PM
Methylene chloride	ND	1.0	µg/L	1	7/26/2011 03:18 PM
MTBE	ND	0.50	µg/L	1	7/26/2011 03:18 PM
n-Butylbenzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
n-Propylbenzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Naphthalene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
o-Xylene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
sec-Butylbenzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Styrene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Tert-amyl methyl ether	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Tert-Butanol	ND	10	µg/L	1	7/26/2011 03:18 PM
tert-Butylbenzene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Tetrachloroethene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Toluene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
trans-1,2-Dichloroethene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Trichloroethene	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Trichlorofluoromethane	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Vinyl chloride	ND	0.50	µg/L	1	7/26/2011 03:18 PM
Surr: 1,2-Dichloroethane-d4	90.2	70-130	%REC	1	7/26/2011 03:18 PM
Surr: 4-Bromofluorobenzene	94.5	70-130	%REC	1	7/26/2011 03:18 PM
Surr: Dibromofluoromethane	100	70-130	%REC	1	7/26/2011 03:18 PM
Surr: Toluene-d8	91.0	70-130	%REC	1	7/26/2011 03:18 PM

<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	



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**ANALYTICAL RESULTS**  
 Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-GW
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 11:30:00 AM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> GROUNDWATER
<b>Lab ID:</b> 119115-008B	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC19_110727A	QC Batch: M11VW146	PrepDate:	Analyst: <b>BB</b>		
GRO	ND	0.20	mg/L	1	7/27/2011 01:26 PM
Surr: Bromofluorobenzene (FID)	90.8	70-130	%REC	1	7/27/2011 01:26 PM

<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	



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**ANALYTICAL RESULTS**  
 Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-GW
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 11:30:00 AM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> GROUNDWATER
<b>Lab ID:</b> 119115-008C	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID**

EPA 3510C		EPA 8015B(M)				
RunID: GC16_110728B	QC Batch: 74588			PrepDate: 7/28/2011	Analyst: CBR	
DRO	ND	0.20		mg/L	1	7/28/2011 02:21 PM
ORO	ND	0.20		mg/L	1	7/28/2011 02:21 PM
Surr: p-Terphenyl	81.2	36-126		%REC	1	7/28/2011 02:21 PM

<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	



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# ANALYTICAL RESULTS

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-60'
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 12:25:00 PM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119115-011A	

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

### EPA 8260B

RunID: MS4_110726A	QC Batch: K11VS197	PrepDate: 7/22/2011	Analyst: SLL
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Compound	Result	PQL	Qual	Units	DF	Date Analyzed
1,1,1,2-Tetrachloroethane	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,1,1-Trichloroethane	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,1,2,2-Tetrachloroethane	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,1,2-Trichloroethane	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,1-Dichloroethane	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,1-Dichloroethene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,1-Dichloropropene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,2,3-Trichlorobenzene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,2,3-Trichloropropane	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,2,4-Trichlorobenzene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,2,4-Trimethylbenzene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,2-Dibromo-3-chloropropane	ND	8.9		µg/Kg	1	7/26/2011 02:49 PM
1,2-Dibromoethane	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,2-Dichlorobenzene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,2-Dichloroethane	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,2-Dichloropropane	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,3,5-Trimethylbenzene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,3-Dichlorobenzene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,3-Dichloropropane	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
1,4-Dichlorobenzene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
2,2-Dichloropropane	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
2-Chlorotoluene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
4-Chlorotoluene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
4-Isopropyltoluene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
Benzene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
Bromobenzene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
Bromodichloromethane	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
Bromoform	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
Bromomethane	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
Carbon tetrachloride	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
Chlorobenzene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
Chloroethane	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
Chloroform	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
Chloromethane	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM
cis-1,2-Dichloroethene	ND	4.5		µg/Kg	1	7/26/2011 02:49 PM

<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	



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**ANALYTICAL RESULTS**

Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-60'
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 12:25:00 PM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119115-011A	

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

**EPA 8260B**

RunID: MS4_110726A	QC Batch: K11VS197	PrepDate: 7/22/2011	Analyst: SLL		
cis-1,3-Dichloropropene	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Di-isopropyl ether	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Dibromochloromethane	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Dibromomethane	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Dichlorodifluoromethane	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Ethyl Tert-butyl ether	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Ethylbenzene	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Hexachlorobutadiene	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Isopropylbenzene	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
m,p-Xylene	ND	8.9	µg/Kg	1	7/26/2011 02:49 PM
Methylene chloride	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
MTBE	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
n-Butylbenzene	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
n-Propylbenzene	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Naphthalene	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
o-Xylene	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
sec-Butylbenzene	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Styrene	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Tert-amyl methyl ether	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Tert-Butanol	ND	89	µg/Kg	1	7/26/2011 02:49 PM
tert-Butylbenzene	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Tetrachloroethene	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Toluene	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
trans-1,2-Dichloroethene	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Trichloroethene	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Trichlorofluoromethane	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Vinyl chloride	ND	4.5	µg/Kg	1	7/26/2011 02:49 PM
Surr: 1,2-Dichloroethane-d4	134	65-141	%REC	1	7/26/2011 02:49 PM
Surr: 4-Bromofluorobenzene	90.6	57-134	%REC	1	7/26/2011 02:49 PM
Surr: Dibromofluoromethane	117	70-128	%REC	1	7/26/2011 02:49 PM
Surr: Toluene-d8	98.1	72-123	%REC	1	7/26/2011 02:49 PM

<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	



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**ANALYTICAL RESULTS**  
 Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-60'
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 12:25:00 PM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119115-011D	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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**GASOLINE RANGE ORGANICS BY GC/FID**

**EPA 8015B(M)**

RunID: GC2_110727A	QC Batch: E11VS276	PrepDate: 7/22/2011	Analyst: <b>TP</b>		
GRO	ND	0.93	mg/Kg	1	7/27/2011 12:21 PM
Surr: Bromofluorobenzene (FID)	95.0	51-161	%REC	1	7/27/2011 12:21 PM

<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	



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**ANALYTICAL RESULTS**  
 Print Date: 29-Jul-11

<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> E-122-60'
<b>Lab Order:</b> 119115	<b>Collection Date:</b> 7/22/2011 12:25:00 PM
<b>Project:</b> Metro Westside Extention, 4953101561	<b>Matrix:</b> SOIL
<b>Lab ID:</b> 119115-011G	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
<b>DIESEL &amp; MOTOR OIL RANGE ORGANICS BY GC/FID</b>						
	<b>LUFT</b>			<b>EPA 8015B(M)</b>		
RunID: GC16_110726A	QC Batch: 74530			PrepDate: 7/26/2011		Analyst: <b>CBR</b>
DRO	ND	10		mg/Kg	1	7/26/2011 03:23 PM
ORO	ND	10		mg/Kg	1	7/26/2011 03:23 PM
Surr: p-Terphenyl	84.2	63-152		%REC	1	7/26/2011 03:23 PM

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



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**CLIENT:** Mactec  
**Work Order:** 119115  
**Project:** Metro Westside Extention, 4953101561

**ANALYTICAL QC SUMMARY REPORT**

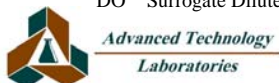
**TestCode: 6010\_S**

Sample ID: <b>MB-74560</b>	SampType: <b>MBLK</b>	TestCode: <b>6010_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/27/2011</b>	RunNo: <b>135351</b>						
Client ID: <b>PBS</b>	Batch ID: <b>74560</b>	TestNo: <b>EPA 6010B EPA 3050B</b>		Analysis Date: <b>7/27/2011</b>	SeqNo: <b>2216357</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	0.243	2.0									
Arsenic	ND	1.0									
Barium	ND	1.0									
Beryllium	ND	1.0									
Cadmium	ND	1.0									
Chromium	ND	1.0									
Cobalt	ND	1.0									
Copper	ND	2.0									
Lead	ND	1.0									
Molybdenum	ND	1.0									
Nickel	ND	1.0									
Selenium	ND	1.0									
Silver	ND	1.0									
Thallium	ND	1.0									
Vanadium	ND	1.0									
Zinc	ND	1.0									

Sample ID: <b>119116-009A-MS</b>	SampType: <b>MS</b>	TestCode: <b>6010_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/27/2011</b>	RunNo: <b>135351</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>74560</b>	TestNo: <b>EPA 6010B EPA 3050B</b>		Analysis Date: <b>7/27/2011</b>	SeqNo: <b>2216361</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	72.143	2.0	125.0	0	57.7	32	105				
Arsenic	94.179	1.0	125.0	0	75.3	49	106				
Barium	157.634	1.0	125.0	54.29	82.7	31	133				
Beryllium	99.122	1.0	125.0	0	79.3	56	106				
Cadmium	97.249	1.0	125.0	2.162	76.1	51	103				
Chromium	112.758	1.0	125.0	16.66	76.9	45	114				
Cobalt	108.257	1.0	125.0	8.413	79.9	52	106				

**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:** 119115  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

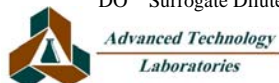
**TestCode: 6010\_S**

Sample ID: <b>119116-009A-MS</b>		SampType: <b>MS</b>		TestCode: <b>6010_S</b>		Units: <b>mg/Kg</b>		Prep Date: <b>7/27/2011</b>		RunNo: <b>135351</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>74560</b>		TestNo: <b>EPA 6010B EPA 3050B</b>				Analysis Date: <b>7/27/2011</b>		SeqNo: <b>2216361</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	128.221	2.0	125.0	16.41	89.4	54	125				
Lead	100.595	1.0	125.0	3.309	77.8	34	126				
Molybdenum	96.622	1.0	125.0	0	77.3	54	106				
Nickel	111.664	1.0	125.0	18.07	74.9	45	111				
Selenium	88.893	1.0	125.0	0	71.1	47	104				
Silver	101.767	1.0	125.0	0	81.4	56	112				
Thallium	89.936	1.0	125.0	0	71.9	46	101				
Vanadium	134.783	1.0	125.0	28.60	84.9	54	114				
Zinc	147.579	1.0	125.0	46.88	80.6	28	125				

Sample ID: <b>119116-009A-MSD</b>		SampType: <b>MSD</b>		TestCode: <b>6010_S</b>		Units: <b>mg/Kg</b>		Prep Date: <b>7/27/2011</b>		RunNo: <b>135351</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>74560</b>		TestNo: <b>EPA 6010B EPA 3050B</b>				Analysis Date: <b>7/27/2011</b>		SeqNo: <b>2216362</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	72.285	2.0	125.0	0	57.8	32	105	72.14	0.196	20	
Arsenic	92.273	1.0	125.0	0	73.8	49	106	94.18	2.04	20	
Barium	151.685	1.0	125.0	54.29	77.9	31	133	157.6	3.85	20	
Beryllium	95.956	1.0	125.0	0	76.8	56	106	99.12	3.25	20	
Cadmium	93.963	1.0	125.0	2.162	73.4	51	103	97.25	3.44	20	
Chromium	109.335	1.0	125.0	16.66	74.1	45	114	112.8	3.08	20	
Cobalt	105.348	1.0	125.0	8.413	77.5	52	106	108.3	2.72	20	
Copper	124.651	2.0	125.0	16.41	86.6	54	125	128.2	2.82	20	
Lead	98.415	1.0	125.0	3.309	76.1	34	126	100.6	2.19	20	
Molybdenum	95.405	1.0	125.0	0	76.3	54	106	96.62	1.27	20	
Nickel	108.071	1.0	125.0	18.07	72.0	45	111	111.7	3.27	20	
Selenium	87.673	1.0	125.0	0	70.1	47	104	88.89	1.38	20	
Silver	99.589	1.0	125.0	0	79.7	56	112	101.8	2.16	20	
Thallium	87.785	1.0	125.0	0	70.2	46	101	89.94	2.42	20	
Vanadium	131.612	1.0	125.0	28.60	82.4	54	114	134.8	2.38	20	
Zinc	138.265	1.0	125.0	46.88	73.1	28	125	147.6	6.52	20	

**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   |  |



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**CLIENT:** Mactec  
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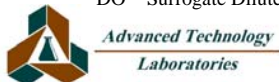
## ANALYTICAL QC SUMMARY REPORT

**TestCode: 6010\_S**

Sample ID: <b>LCS-74560</b>	SampType: <b>LCS</b>	TestCode: <b>6010_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/27/2011</b>	RunNo: <b>135351</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>74560</b>	TestNo: <b>EPA 6010B</b>	<b>EPA 3050B</b>	Analysis Date: <b>7/27/2011</b>	SeqNo: <b>2216364</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	49.667	2.0	50.00	0.2432	98.8	80	120				
Arsenic	49.456	1.0	50.00	0	98.9	80	120				
Barium	51.354	1.0	50.00	0	103	80	120				
Beryllium	51.180	1.0	50.00	0	102	80	120				
Cadmium	49.810	1.0	50.00	0	99.6	80	120				
Chromium	47.703	1.0	50.00	0	95.4	80	120				
Cobalt	51.312	1.0	50.00	0	103	80	120				
Copper	51.479	2.0	50.00	0	103	80	120				
Lead	51.286	1.0	50.00	0	103	80	120				
Molybdenum	52.698	1.0	50.00	0	105	80	120				
Nickel	49.918	1.0	50.00	0	99.8	80	120				
Selenium	46.111	1.0	50.00	0	92.2	80	120				
Silver	50.138	1.0	50.00	0	100	80	120				
Thallium	49.589	1.0	50.00	0	99.2	80	120				
Vanadium	50.702	1.0	50.00	0	101	80	120				
Zinc	50.720	1.0	50.00	0	101	80	120				

**Qualifiers:**

- |   |  |  |
|---|--|--|
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| DO Surrogate Diluted Out                          | Calculations are based on raw values   |  |



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## ANALYTICAL QC SUMMARY REPORT

**TestCode: 7471\_S**

Sample ID: <b>MB-74540</b>	SampType: <b>MBLK</b>	TestCode: <b>7471_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/26/2011</b>	RunNo: <b>135352</b>						
Client ID: <b>PBS</b>	Batch ID: <b>74540</b>	TestNo: <b>EPA 7471A</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215894</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	ND	0.10									
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Sample ID: <b>LCS-74540</b>	SampType: <b>LCS</b>	TestCode: <b>7471_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/26/2011</b>	RunNo: <b>135352</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>74540</b>	TestNo: <b>EPA 7471A</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215895</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.763	0.10	0.8300	0	91.9	80	120				
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Sample ID: <b>119116-009A-MS</b>	SampType: <b>MS</b>	TestCode: <b>7471_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/26/2011</b>	RunNo: <b>135352</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>74540</b>	TestNo: <b>EPA 7471A</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215896</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

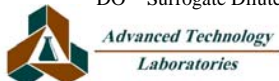
Mercury	0.779	0.10	0.8300	0.01089	92.6	70	130				
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Sample ID: <b>119116-009A-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>7471_S</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/26/2011</b>	RunNo: <b>135352</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>74540</b>	TestNo: <b>EPA 7471A</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215897</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury	0.771	0.10	0.8300	0.01089	91.5	70	130	0.7795	1.15	20	
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**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   |  |



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**Work Order:** 119115  
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## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_S\_DM H**

Sample ID: <b>MB-74530</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_S_DM H</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/26/2011</b>	RunNo: <b>135324</b>						
Client ID: <b>PBS</b>	Batch ID: <b>74530</b>	TestNo: <b>EPA 8015B(M LUFT</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215558</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	ND	10									
ORO	ND	10									
Surr: p-Terphenyl	68.870		80.00		86.1	63	152				

Sample ID: <b>LCS-74530</b>	SampType: <b>LCS</b>	TestCode: <b>8015_S_DM H</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/26/2011</b>	RunNo: <b>135324</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>74530</b>	TestNo: <b>EPA 8015B(M LUFT</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215559</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	964.250	10	1000	0	96.4	76	139				
Surr: p-Terphenyl	83.780		80.00		105	63	152				

Sample ID: <b>119112-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>8015_S_DM H</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/26/2011</b>	RunNo: <b>135324</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>74530</b>	TestNo: <b>EPA 8015B(M LUFT</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215560</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

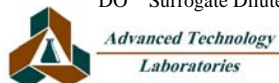
DRO	914.240	10	1000	19.31	89.5	60	158				
Surr: p-Terphenyl	69.850		80.00		87.3	63	152				

Sample ID: <b>119112-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_S_DM H</b>	Units: <b>mg/Kg</b>	Prep Date: <b>7/26/2011</b>	RunNo: <b>135324</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>74530</b>	TestNo: <b>EPA 8015B(M LUFT</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215561</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	884.570	10	1000	19.31	86.5	60	158	914.2	3.30	20	
Surr: p-Terphenyl	84.270		80.00		105	63	152		0	0	

**Qualifiers:**

- |   |  |  |
|---|--|--|
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| DO Surrogate Diluted Out                          | Calculations are based on raw values   |  |



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**Work Order:** 119115  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_S\_G 5035P**

Sample ID: <b>E110727LC1</b>	SampType: <b>LCS</b>	TestCode: <b>8015_S_G 50</b>	Units: <b>mg/Kg</b>	Prep Date:	RunNo: <b>135388</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>E11VS276</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>7/27/2011</b>	SeqNo: <b>2216736</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.830	1.0	5.000	0	96.6	70	130				
Surr: Bromofluorobenzene (FID)	125.597		100.0		126	51	161				

Sample ID: <b>E110727MB1MS</b>	SampType: <b>MS</b>	TestCode: <b>8015_S_G 50</b>	Units: <b>mg/Kg</b>	Prep Date:	RunNo: <b>135388</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>E11VS276</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>7/27/2011</b>	SeqNo: <b>2216737</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.908	1.0	5.000	0	98.2	41	146				
Surr: Bromofluorobenzene (FID)	124.985		100.0		125	51	161				

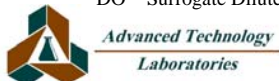
Sample ID: <b>E110727MB1MSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_S_G 50</b>	Units: <b>mg/Kg</b>	Prep Date:	RunNo: <b>135388</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>E11VS276</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>7/27/2011</b>	SeqNo: <b>2216738</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.758	1.0	5.000	0	95.2	41	146	4.908	3.10	20	
Surr: Bromofluorobenzene (FID)	121.855		100.0		122	51	161		0	0	

Sample ID: <b>E110727MB1</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_S_G 50</b>	Units: <b>mg/Kg</b>	Prep Date:	RunNo: <b>135388</b>						
Client ID: <b>PBS</b>	Batch ID: <b>E11VS276</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>7/27/2011</b>	SeqNo: <b>2216739</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	1.0									
Surr: Bromofluorobenzene (FID)	85.409		100.0		85.4	51	161				

Sample ID: <b>118996-001DMS</b>	SampType: <b>MS</b>	TestCode: <b>8015_S_G 50</b>	Units: <b>mg/Kg</b>	Prep Date:	RunNo: <b>135388</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>E11VS276</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>7/27/2011</b>	SeqNo: <b>2216748</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	3.714	1.0	5.000	0	74.3	41	146				

**Qualifiers:**

- |   |  |  |
|---|--|--|
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| 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  
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**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_S\_G 5035P**

Sample ID: <b>118996-001DMS</b>	SampType: <b>MS</b>	TestCode: <b>8015_S_G 50</b>	Units: <b>mg/Kg</b>	Prep Date:	RunNo: <b>135388</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>E11VS276</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>7/27/2011</b>	SeqNo: <b>2216748</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

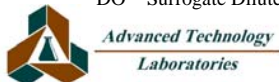
Surr: Bromofluorobenzene (FID)	122.454	100.0	122	51	161
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Sample ID: <b>118996-001DMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_S_G 50</b>	Units: <b>mg/Kg</b>	Prep Date:	RunNo: <b>135388</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>E11VS276</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>7/27/2011</b>	SeqNo: <b>2216749</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	4.449	1.0	5.000	0	89.0	41	146	3.714	18.0	20
Surr: Bromofluorobenzene (FID)	122.760		100.0		123	51	161		0	0

**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 |
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## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_W\_DM**

Sample ID: <b>MB-74588</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_W_DM</b>	Units: <b>mg/L</b>	Prep Date: <b>7/28/2011</b>	RunNo: <b>135420</b>						
Client ID: <b>PBW</b>	Batch ID: <b>74588</b>	TestNo: <b>EPA 8015B(M EPA 3510C</b>		Analysis Date: <b>7/28/2011</b>	SeqNo: <b>2217044</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	ND	0.20									
ORO	ND	0.20									
Surr: p-Terphenyl	0.056		0.08000		69.6	36	126				

Sample ID: <b>LCS-74588</b>	SampType: <b>LCS</b>	TestCode: <b>8015_W_DM</b>	Units: <b>mg/L</b>	Prep Date: <b>7/28/2011</b>	RunNo: <b>135420</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>74588</b>	TestNo: <b>EPA 8015B(M EPA 3510C</b>		Analysis Date: <b>7/28/2011</b>	SeqNo: <b>2217045</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.671	0.20	1.000	0	67.1	52	128				
Surr: p-Terphenyl	0.057		0.08000		71.0	36	126				

Sample ID: <b>MB-74588MS</b>	SampType: <b>MS</b>	TestCode: <b>8015_W_DM</b>	Units: <b>mg/L</b>	Prep Date: <b>7/28/2011</b>	RunNo: <b>135420</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>74588</b>	TestNo: <b>EPA 8015B(M EPA 3510C</b>		Analysis Date: <b>7/28/2011</b>	SeqNo: <b>2217046</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

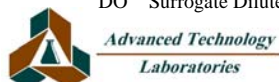
DRO	0.671	0.20	1.000	0	67.1	52	128				
Surr: p-Terphenyl	0.057		0.08000		71.6	36	126				

Sample ID: <b>MB-74588MSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_W_DM</b>	Units: <b>mg/L</b>	Prep Date: <b>7/28/2011</b>	RunNo: <b>135420</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>74588</b>	TestNo: <b>EPA 8015B(M EPA 3510C</b>		Analysis Date: <b>7/28/2011</b>	SeqNo: <b>2217092</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.691	0.20	1.000	0	69.1	52	128	0.6706	2.97	20	
Surr: p-Terphenyl	0.060		0.08000		74.9	36	126		0	0	

**Qualifiers:**

- |   |  |  |
|---|--|--|
| B Analyte detected in the associated Method Blank | E Value above quantitation range       | H Holding times for preparation or analysis exceeded           |
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**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_W\_G PRES**

Sample ID: <b>M110727LCS2</b>	SampType: <b>LCS</b>	TestCode: <b>8015_W_G P</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>135391</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>M11VW146</b>	TestNo: <b>EPA 8015B(M)</b>		Analysis Date: <b>7/27/2011</b>	SeqNo: <b>2216639</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	1.090	0.20	1.000	0	109	70	130				
Surr: Bromofluorobenzene (FID)	91.257		100.0		91.3	70	130				

Sample ID: <b>M110727MB1MS</b>	SampType: <b>MS</b>	TestCode: <b>8015_W_G P</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>135391</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>M11VW146</b>	TestNo: <b>EPA 8015B(M)</b>		Analysis Date: <b>7/27/2011</b>	SeqNo: <b>2216641</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	1.044	0.20	1.000	0	104	70	130				
Surr: Bromofluorobenzene (FID)	92.175		100.0		92.2	70	130				

Sample ID: <b>M110727MB1MSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_W_G P</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>135391</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>M11VW146</b>	TestNo: <b>EPA 8015B(M)</b>		Analysis Date: <b>7/27/2011</b>	SeqNo: <b>2216642</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

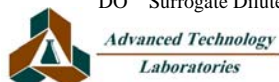
GRO	1.079	0.20	1.000	0	108	70	130	1.044	3.30	20	
Surr: Bromofluorobenzene (FID)	92.875		100.0		92.9	70	130		0	0	

Sample ID: <b>M110727MB1</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_W_G P</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>135391</b>						
Client ID: <b>PBW</b>	Batch ID: <b>M11VW146</b>	TestNo: <b>EPA 8015B(M)</b>		Analysis Date: <b>7/27/2011</b>	SeqNo: <b>2216643</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	ND	0.20									
Surr: Bromofluorobenzene (FID)	89.259		100.0		89.3	70	130				

**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:** 119115  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_S\_5035**

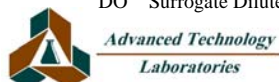
Sample ID: <b>K110726LCS1</b>	SampType: <b>LCS</b>	TestCode: <b>8260_S_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>135326</b>						
Client ID: <b>LCSS</b>	Batch ID: <b>K11VS197</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2216694</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	52.570	5.0	50.00	0	105	70	130				
Benzene	104.580	5.0	100.0	0	105	70	130				
Chlorobenzene	53.490	5.0	50.00	0	107	70	130				
MTBE	62.180	5.0	50.00	0	124	70	130				
Toluene	103.920	5.0	100.0	0	104	70	130				
Trichloroethene	52.730	5.0	50.00	0	105	70	130				
Surr: 1,2-Dichloroethane-d4	53.260		50.00		107	65	141				
Surr: 4-Bromofluorobenzene	45.560		50.00		91.1	57	134				
Surr: Dibromofluoromethane	52.010		50.00		104	70	128				
Surr: Toluene-d8	48.320		50.00		96.6	72	123				

Sample ID: <b>K110726MB1MS</b>	SampType: <b>MS</b>	TestCode: <b>8260_S_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>135326</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>K11VS197</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2216695</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	52.830	5.0	50.00	0	106	70	130				
Benzene	104.920	5.0	100.0	0	105	70	130				
Chlorobenzene	53.550	5.0	50.00	0	107	70	130				
MTBE	62.930	5.0	50.00	0	126	70	130				
Toluene	104.890	5.0	100.0	0	105	70	130				
Trichloroethene	53.990	5.0	50.00	0	108	70	130				
Surr: 1,2-Dichloroethane-d4	53.180		50.00		106	65	141				
Surr: 4-Bromofluorobenzene	46.300		50.00		92.6	57	134				
Surr: Dibromofluoromethane	52.550		50.00		105	70	128				
Surr: Toluene-d8	48.780		50.00		97.6	72	123				

Sample ID: <b>K110726MB1</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_S_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>135326</b>						
Client ID: <b>PBS</b>	Batch ID: <b>K11VS197</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2216696</b>						
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 | 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:** 119115  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_S\_5035**

Sample ID: <b>K110726MB1</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_S_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>135326</b>						
Client ID: <b>PBS</b>	Batch ID: <b>K11VS197</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2216696</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,1,1,2-Tetrachloroethane	ND	5.0									
1,1,1-Trichloroethane	ND	5.0									
1,1,2,2-Tetrachloroethane	ND	5.0									
1,1,2-Trichloroethane	ND	5.0									
1,1-Dichloroethane	ND	5.0									
1,1-Dichloroethene	ND	5.0									
1,1-Dichloropropene	ND	5.0									
1,2,3-Trichlorobenzene	ND	5.0									
1,2,3-Trichloropropane	ND	5.0									
1,2,4-Trichlorobenzene	ND	5.0									
1,2,4-Trimethylbenzene	ND	5.0									
1,2-Dibromo-3-chloropropane	ND	10									
1,2-Dibromoethane	ND	5.0									
1,2-Dichlorobenzene	ND	5.0									
1,2-Dichloroethane	ND	5.0									
1,2-Dichloropropane	ND	5.0									
1,3,5-Trimethylbenzene	ND	5.0									
1,3-Dichlorobenzene	ND	5.0									
1,3-Dichloropropane	ND	5.0									
1,4-Dichlorobenzene	ND	5.0									
2,2-Dichloropropane	ND	5.0									
2-Chlorotoluene	ND	5.0									
4-Chlorotoluene	ND	5.0									
4-Isopropyltoluene	ND	5.0									
Benzene	ND	5.0									
Bromobenzene	ND	5.0									
Bromodichloromethane	ND	5.0									
Bromoform	ND	5.0									
Bromomethane	ND	5.0									
Carbon tetrachloride	ND	5.0									

**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   |  |



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**CLIENT:** Mactec  
**Work Order:** 119115  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_S\_5035**

Sample ID: <b>K110726MB1</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_S_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>135326</b>						
Client ID: <b>PBS</b>	Batch ID: <b>K11VS197</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2216696</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chlorobenzene	ND	5.0									
Chloroethane	ND	5.0									
Chloroform	ND	5.0									
Chloromethane	ND	5.0									
cis-1,2-Dichloroethene	ND	5.0									
cis-1,3-Dichloropropene	ND	5.0									
Di-isopropyl ether	ND	5.0									
Dibromochloromethane	ND	5.0									
Dibromomethane	ND	5.0									
Dichlorodifluoromethane	ND	5.0									
Ethyl Tert-butyl ether	ND	5.0									
Ethylbenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Isopropylbenzene	ND	5.0									
m,p-Xylene	ND	10									
Methylene chloride	ND	5.0									
MTBE	ND	5.0									
n-Butylbenzene	ND	5.0									
n-Propylbenzene	ND	5.0									
Naphthalene	ND	5.0									
o-Xylene	ND	5.0									
sec-Butylbenzene	ND	5.0									
Styrene	ND	5.0									
Tert-amyl methyl ether	ND	5.0									
Tert-Butanol	ND	100									
tert-Butylbenzene	ND	5.0									
Tetrachloroethene	ND	5.0									
Toluene	ND	5.0									
trans-1,2-Dichloroethene	ND	5.0									
Trichloroethene	ND	5.0									

**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   |  |



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**CLIENT:** Mactec  
**Work Order:** 119115  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

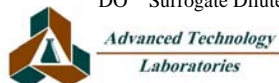
**TestCode: 8260\_S\_5035**

Sample ID: <b>K110726MB1</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_S_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>135326</b>						
Client ID: <b>PBS</b>	Batch ID: <b>K11VS197</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2216696</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Trichlorofluoromethane	ND	5.0									
Vinyl chloride	ND	5.0									
Surr: 1,2-Dichloroethane-d4	55.620		50.00		111	65	141				
Surr: 4-Bromofluorobenzene	44.990		50.00		90.0	57	134				
Surr: Dibromofluoromethane	54.100		50.00		108	70	128				
Surr: Toluene-d8	50.170		50.00		100	72	123				

Sample ID: <b>K110726MB1MSD</b>	SampType: <b>MSD</b>	TestCode: <b>8260_S_5035</b>	Units: <b>µg/Kg</b>	Prep Date:	RunNo: <b>135326</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>K11VS197</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2216697</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	54.020	5.0	50.00	0	108	70	130	52.83	2.23	20	
Benzene	104.570	5.0	100.0	0	105	70	130	104.9	0.334	20	
Chlorobenzene	53.240	5.0	50.00	0	106	70	130	53.55	0.581	20	
MTBE	59.770	5.0	50.00	0	120	70	130	62.93	5.15	20	
Toluene	104.160	5.0	100.0	0	104	70	130	104.9	0.698	20	
Trichloroethene	53.780	5.0	50.00	0	108	70	130	53.99	0.390	20	
Surr: 1,2-Dichloroethane-d4	53.720		50.00		107	65	141		0	0	
Surr: 4-Bromofluorobenzene	44.130		50.00		88.3	57	134		0	0	
Surr: Dibromofluoromethane	51.610		50.00		103	70	128		0	0	
Surr: Toluene-d8	48.390		50.00		96.8	72	123		0	0	

**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   |  |



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**CLIENT:** Mactec  
**Work Order:** 119115  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_LL**

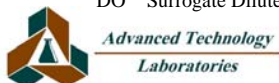
Sample ID: <b>Q110726CS1</b>		SampType: <b>LCS</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>135339</b>		
Client ID: <b>LCSW</b>		Batch ID: <b>Q11VW138</b>		TestNo: <b>EPA 8260B</b>				Analysis Date: <b>7/26/2011</b>		SeqNo: <b>2215768</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	18.920	0.50	20.00	0	94.6	70	130					
Benzene	38.610	0.50	40.00	0	96.5	70	130					
Chlorobenzene	20.250	0.50	20.00	0	101	70	130					
MTBE	22.280	0.50	20.00	0	111	70	130					
Toluene	40.860	0.50	40.00	0	102	70	130					
Trichloroethene	20.300	0.50	20.00	0	102	70	130					
Surr: 1,2-Dichloroethane-d4	20.760		25.00		83.0	70	130					
Surr: 4-Bromofluorobenzene	24.620		25.00		98.5	70	130					
Surr: Dibromofluoromethane	23.200		25.00		92.8	70	130					
Surr: Toluene-d8	22.870		25.00		91.5	70	130					

Sample ID: <b>Q110726MB3MS</b>		SampType: <b>MS</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>135339</b>		
Client ID: <b>ZZZZZ</b>		Batch ID: <b>Q11VW138</b>		TestNo: <b>EPA 8260B</b>				Analysis Date: <b>7/26/2011</b>		SeqNo: <b>2215769</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	19.000	0.50	20.00	0	95.0	70	130					
Benzene	39.230	0.50	40.00	0	98.1	70	130					
Chlorobenzene	20.780	0.50	20.00	0	104	70	130					
MTBE	22.560	0.50	20.00	0	113	70	130					
Toluene	41.130	0.50	40.00	0	103	70	130					
Trichloroethene	20.480	0.50	20.00	0	102	70	130					
Surr: 1,2-Dichloroethane-d4	20.150		25.00		80.6	70	130					
Surr: 4-Bromofluorobenzene	24.240		25.00		97.0	70	130					
Surr: Dibromofluoromethane	22.750		25.00		91.0	70	130					
Surr: Toluene-d8	22.670		25.00		90.7	70	130					

Sample ID: <b>Q110726MB3MSD</b>		SampType: <b>MSD</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>135339</b>		
Client ID: <b>ZZZZZ</b>		Batch ID: <b>Q11VW138</b>		TestNo: <b>EPA 8260B</b>				Analysis Date: <b>7/26/2011</b>		SeqNo: <b>2215770</b>		
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 | 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:** 119115  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

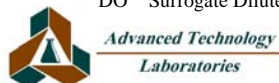
**TestCode: 8260\_WP\_LL**

Sample ID: <b>Q110726MB3MSD</b>		SampType: <b>MSD</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>135339</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>Q11VW138</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/26/2011</b>				SeqNo: <b>2215770</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	18.450	0.50	20.00	0	92.2	70	130	19.00	2.94	20	
Benzene	39.250	0.50	40.00	0	98.1	70	130	39.23	0.0510	20	
Chlorobenzene	20.620	0.50	20.00	0	103	70	130	20.78	0.773	20	
MTBE	22.710	0.50	20.00	0	114	70	130	22.56	0.663	20	
Toluene	40.950	0.50	40.00	0	102	70	130	41.13	0.439	20	
Trichloroethene	20.470	0.50	20.00	0	102	70	130	20.48	0.0488	20	
Surr: 1,2-Dichloroethane-d4	20.390		25.00		81.6	70	130		0	0	
Surr: 4-Bromofluorobenzene	23.990		25.00		96.0	70	130		0	0	
Surr: Dibromofluoromethane	23.330		25.00		93.3	70	130		0	0	
Surr: Toluene-d8	23.300		25.00		93.2	70	130		0	0	

Sample ID: <b>Q110726MB3</b>		SampType: <b>MBLK</b>		TestCode: <b>8260_WP_LL</b>		Units: <b>µg/L</b>		Prep Date:		RunNo: <b>135339</b>	
Client ID: <b>PBW</b>		Batch ID: <b>Q11VW138</b>		TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/26/2011</b>				SeqNo: <b>2215771</b>	
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									

**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   |  |



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**CLIENT:** Mactec  
**Work Order:** 119115  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_LL**

Sample ID: <b>Q110726MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>135339</b>						
Client ID: <b>PBW</b>	Batch ID: <b>Q11VW138</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215771</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2-Dichloropropane	ND	0.50									
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									
Di-isopropyl ether	ND	0.50									
Dibromochloromethane	ND	0.50									
Dibromomethane	ND	0.50									
Dichlorodifluoromethane	ND	0.50									
Ethyl tert-butyl ether	ND	0.50									
Ethylbenzene	ND	0.50									
Hexachlorobutadiene	ND	0.50									
Isopropylbenzene	ND	0.50									
m,p-Xylene	ND	1.0									

**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   |  |



*Advanced Technology  
Laboratories*

3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

**CLIENT:** Mactec  
**Work Order:** 119115  
**Project:** Metro Westside Extention, 4953101561

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_LL**

Sample ID: <b>Q110726MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>135339</b>						
Client ID: <b>PBW</b>	Batch ID: <b>Q11VW138</b>	TestNo: <b>EPA 8260B</b>		Analysis Date: <b>7/26/2011</b>	SeqNo: <b>2215771</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methylene chloride	ND	1.0									
MTBE	ND	0.50									
n-Butylbenzene	ND	0.50									
n-Propylbenzene	ND	0.50									
Naphthalene	ND	0.50									
o-Xylene	ND	0.50									
sec-Butylbenzene	ND	0.50									
Styrene	ND	0.50									
Tert-amyl methyl ether	ND	0.50									
Tert-Butanol	ND	10									
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									
Surr: 1,2-Dichloroethane-d4	23.640		25.00		94.6	70	130				
Surr: 4-Bromofluorobenzene	25.430		25.00		102	70	130				
Surr: Dibromofluoromethane	26.120		25.00		104	70	130				
Surr: Toluene-d8	23.740		25.00		95.0	70	130				

**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 |
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# CHAIN OF CUSTODY RECORD

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

Method of Transport  
 Client  ATL  
 FedEx  OnTrac  
 GSO  
 Other: \_\_\_\_\_

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

P.O.#: 201106374 Quote #: 14716  
 Logged By: \_\_\_\_\_ Date: 7/29/11  
 NOTE: Please include your Quote No. to ensure proper pricing of your project.

Client: MACTEC  
 Attn: Matt Fraychinpaud  
 Address: 5628 E. Slavson Ave City: LA State: CA Zip Code: 90040  
 TEL: 323-889-5300 FAX: \_\_\_\_\_

Project Name: Mitko Westside Extension Project #: 4953101561 Sampler: Paul Kane  
 Relinquished by: (Signature and Printed Name) \_\_\_\_\_ Date: 7/25/11 Time: 0730 Received by: (Signature and Printed Name) Matt Fraychinpaud Date: 7/25/11 Time: 0730  
 Relinquished by: (Signature and Printed Name) \_\_\_\_\_ Date: 7/25/11 Time: 1052 Received by: (Signature and Printed Name) Matt Fraychinpaud Date: 7/25/11 Time: 1052  
 Relinquished by: (Signature and Printed Name) \_\_\_\_\_ Date: 7/25/11 Time: 1645 Received by: (Signature and Printed Name) Matt Fraychinpaud Date: 7/25/11 Time: 1645

I hereby authorize ATL to perform the work indicated below:  
 Project Mgr / Submitter: Matt Fraychinpaud  
 Print Name: Matt Fraychinpaud Date: 7/25/11  
 Signature: \_\_\_\_\_

Send Report To:  
 Attn: Matt Fraychinpaud  
 Co: \_\_\_\_\_  
 Address: \_\_\_\_\_  
 City: \_\_\_\_\_ State: \_\_\_\_\_ Zip: \_\_\_\_\_

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

Special Instructions/Comments:  
 \_\_\_\_\_

**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)

I T E M	LAB USE ONLY:		Sample Description	
	Batch #:	Lab No.	Sample I.D. / Location	Date Time
	<u>119115-001</u>		<u>E-122-10'</u>	<u>7/22/11 1015</u>
			<u>E-122-15'</u>	<u>1022</u>
			<u>E-122-20'</u>	<u>1025</u>
			<u>E-122-25'</u>	<u>1033</u>
			<u>E-122-30'</u>	<u>1040</u>
			<u>E-122-35'</u>	<u>1050</u>
			<u>E-122-40'</u>	<u>1100</u>
			<u>E-122-40'</u>	<u>1130</u>
			<u>E-122-50'</u>	<u>1155</u>
			<u>E-122-55'</u>	<u>1210</u>

**SPECIFY APPROPRIATE MATRIX**

	Container(s)		TAT	Type	REMARKS
	#				
SEDIMENT					
SOIL					
DRINKING WATER					
GROUND WATER					
WASTEWATER					
STORMWATER					
AQUEOUS					

**Circle or Add Analysis(es) Requested**

Analysis	8081A (Pesticides)	8082 (PCB)	8260B (Volatiles)	6070B (BNA)	8015B (Total Metal)	8015B (GRO) / 8091 (BTEX)	8015B (DRO) (ORO)	TITLE 22 / CAM 17 (6010 / 7000)
8081A (Pesticides)								
8082 (PCB)	X							
8260B (Volatiles)		X						
6070B (BNA)			X					
8015B (Total Metal)				X				
8015B (GRO) / 8091 (BTEX)				X				
8015B (DRO) (ORO)					X			
TITLE 22 / CAM 17 (6010 / 7000)								

**QA / QC**

RTNE	CT	Legal	SWRCB	Logcode	OTHER	REMARKS
						<u>Hold</u>
						<u>1</u>
						<u>Hold</u>
						<u>Hold</u>
						<u>Hold</u>
						<u>1</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>

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

Figure I-1.799

