

CHAIN OF CUSTODY RECORD

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

Quote #: 201106374
Logged By: [Signature] Date: 6/22/11
NOTE: Please include your Quote No. to ensure proper pricing of your project.

Method of Transport
 Client ATL
 FedEx OnTrac
 GSO
 Other: _____

Client: MACTEC Address: 5628 E. SLAUSON AVE State: CA Zip Code: 90040
Attn: MATT FRAYCHINEAUD City: LOS ANGELES State: CA Zip Code: 90040

Project Name: METRO WESTSIDE EXTENSION Project #: 4953-10-1561 Sampler: DWAIN D. SNYDER
Relinquished by: [Signature] Date: 6/22/11 Time: 8:25 Received by: [Signature] Date: 6/22/11 Time: 8:25
Relinquished by: [Signature] Date: 6/22/11 Time: 11:59 Received by: [Signature] Date: 6/22/11 Time: 11:59
Relinquished by: [Signature] Date: 6/22/11 Time: 15:30 Received by: [Signature] Date: 6/22/11 Time: 15:30

I hereby authorize ATL to perform the work indicated below:
Project Mgr /Submitter: Matt Fraychineaud Date: 6/22/11
Signature: [Signature] Date: 6/22/11

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)

LAB USE ONLY: Batch #: Lab No.	Sample Description	Sample I.D. / Location	Date / Time	
			Date	Time
<u>118577</u>	<u>E-101-45</u>	<u>E-101-45</u>	<u>6/21</u>	<u>11:15</u>
<u>6</u>	<u>E-101-50</u>	<u>E-101-50</u>	<u>6/21</u>	<u>11:30</u>
<u>7</u>	<u>E-101-55</u>	<u>E-101-55</u>	<u>6/21</u>	<u>11:50</u>
<u>7</u>	<u>E-101-40-45</u>	<u>E-101-40-45</u>	<u>6/21</u>	<u>12:50</u>

Circle or Add Analysis(es) Requested

8081A (pesticides)	<input checked="" type="checkbox"/>
8082 (PCB)	<input checked="" type="checkbox"/>
8260B (Votiles)	<input checked="" type="checkbox"/>
8270C (BNA)	<input type="checkbox"/>
6010B (Total Metal)	<input type="checkbox"/>
8015B (GRO) / 8021 (BTEX)	<input type="checkbox"/>
8015B (DRO)	<input type="checkbox"/>
TITLE 22 / CAM 17 (6010 / 7000)	<input type="checkbox"/>

SPECIFY APPROPRIATE MATRIX

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

QA/QC

RTNE	<input type="checkbox"/>
CT	<input type="checkbox"/>
Legal	<input type="checkbox"/>
SWRCB Logcode	<input type="checkbox"/>
OTHER	
REMARKS	<u>2-55 Tube</u>
	<u>1-55 Tube</u>
	<u>1-55 Tube</u>

Preservatives:
H=HCl N=HNO₃ S=H₂SO₄ C=4°C
Z=Zn(AC)₂ O=NaOH T=Na₂S₂O₃

Figure I-1.19

Carmen Aguila

From: Fraychineaud, Matt [MFRAYCHINEAUD@mactec.com]
Sent: Friday, June 24, 2011 7:16 AM
To: Carmen Aguila
Subject: Westside Extension Environmental Samples

Hi Carmen:

Margo called and left a message yesterday afternoon regarding the samples that were picked up.

1. Trip Blank: The field tech forgot to add to the COC. However, no need to analyze. Place on-hold.
2. 8260B Analysis: Please analyze the samples in the VOA vials that were preserved using the 5035 method. We're also including whatever soil we have remaining in the tubes for the TPH-d/o analyses or in the event we want to do any additional analyses.

Please call me on my cell if you have questions as I'll be in the field until about noon today. (818) 231-6980. Otherwise, you can try my office phone and leave a message.

Thanks.

Matt

Matt Fraychineaud
Principal Geologist
AMEC (formerly MACTEC Engineering and Consulting, Inc.)
5628 East Slauson Avenue
Los Angeles, CA 90040
(323) 889-5310
mfraychineaud@mactec.com

July 05, 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.: 118577

RE: METRO WESTSIDE EXTENSION, 4953-10-1

Attention: Matt Fraychineaud

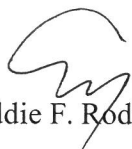
Enclosed are the results for sample(s) received on June 22, 2011 by Advanced Technology Laboratories . The sample(s) are tested for the parameters as indicated in the enclosed chain of custody in accordance with the applicable laboratory certifications.

This is an addendum report. Please incorporate with documentation previously submitted.

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 is an integral part of this analytical report. This Laboratory Report cannot be reproduced in part or in its entirety without written permission from the client and Advanced Technology Laboratories.



Advanced Technology Laboratories

ANALYTICAL RESULTS
 Print Date: 05-Jul-11

CLIENT: Mactec	Client Sample ID: E-101-50
Lab Order: 118577	Collection Date: 6/21/2011 11:30:00 AM
Project: METRO WESTSIDE EXTENSION, 4953-10	Matrix: SOIL
Lab ID: 118577-002D	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP METALS

EPA 3050B

EPA 6010B

RunID: ICP8_110705A	QC Batch: 74003			PrepDate: 6/30/2011	Analyst: CBB	
Antimony	ND	2.0		mg/Kg	1	7/5/2011 10:01 AM
Arsenic	ND	1.0		mg/Kg	1	7/5/2011 10:01 AM
Barium	58	1.0		mg/Kg	1	7/5/2011 10:01 AM
Beryllium	ND	1.0		mg/Kg	1	7/5/2011 10:01 AM
Cadmium	ND	1.0		mg/Kg	1	7/5/2011 10:01 AM
Chromium	12	1.0		mg/Kg	1	7/5/2011 10:01 AM
Cobalt	5.9	1.0		mg/Kg	1	7/5/2011 10:01 AM
Copper	9.4	2.0		mg/Kg	1	7/5/2011 10:01 AM
Lead	2.7	1.0		mg/Kg	1	7/5/2011 10:01 AM
Molybdenum	ND	1.0		mg/Kg	1	7/5/2011 10:01 AM
Nickel	10	1.0		mg/Kg	1	7/5/2011 10:01 AM
Selenium	ND	1.0		mg/Kg	1	7/5/2011 10:01 AM
Silver	ND	1.0		mg/Kg	1	7/5/2011 10:01 AM
Thallium	ND	1.0		mg/Kg	1	7/5/2011 10:01 AM
Vanadium	17	1.0		mg/Kg	1	7/5/2011 10:01 AM
Zinc	28	1.0		mg/Kg	1	7/5/2011 10:01 AM

MERCURY BY COLD VAPOR TECHNIQUE

EPA 7471A

RunID: AA1_110701B	QC Batch: 73991			PrepDate: 6/30/2011	Analyst: VV	
Mercury	ND	0.10		mg/Kg	1	7/1/2011 02:10 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	



Advanced Technology
 Laboratories

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

CLIENT: Mactec
Work Order: 118577
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

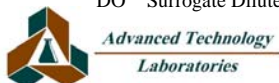
TestCode: 6010_S

Sample ID: MB-74003	SampType: MBLK	TestCode: 6010_S	Units: mg/Kg	Prep Date: 6/30/2011	RunNo: 134650						
Client ID: PBS	Batch ID: 74003	TestNo: EPA 6010B EPA 3050B		Analysis Date: 7/5/2011	SeqNo: 2202143						
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	ND	1.0									

Sample ID: LCS-74003	SampType: LCS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 6/30/2011	RunNo: 134650						
Client ID: LCSS	Batch ID: 74003	TestNo: EPA 6010B EPA 3050B		Analysis Date: 7/5/2011	SeqNo: 2202144						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	49.133	2.0	50.00	0	98.3	80	120				
Arsenic	48.984	1.0	50.00	0	98.0	80	120				
Barium	49.573	1.0	50.00	0	99.1	80	120				
Beryllium	49.000	1.0	50.00	0	98.0	80	120				
Cadmium	47.871	1.0	50.00	0	95.7	80	120				
Chromium	46.119	1.0	50.00	0	92.2	80	120				
Cobalt	49.694	1.0	50.00	0	99.4	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: 118577
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

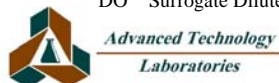
TestCode: 6010_S

Sample ID: LCS-74003		SampType: LCS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 6/30/2011		RunNo: 134650		
Client ID: LCSS		Batch ID: 74003		TestNo: EPA 6010B EPA 3050B				Analysis Date: 7/5/2011		SeqNo: 2202144		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Copper	49.780	2.0	50.00	0	99.6	80	120					
Lead	50.249	1.0	50.00	0	100	80	120					
Molybdenum	52.097	1.0	50.00	0	104	80	120					
Nickel	49.339	1.0	50.00	0	98.7	80	120					
Selenium	45.793	1.0	50.00	0	91.6	80	120					
Silver	45.992	1.0	50.00	0	92.0	80	120					
Thallium	48.037	1.0	50.00	0	96.1	80	120					
Vanadium	50.233	1.0	50.00	0	100	80	120					
Zinc	48.739	1.0	50.00	0	97.5	80	120					

Sample ID: 118577-002D-MS		SampType: MS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 6/30/2011		RunNo: 134650		
Client ID: E-101-50		Batch ID: 74003		TestNo: EPA 6010B EPA 3050B				Analysis Date: 7/5/2011		SeqNo: 2202146		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Antimony	96.247	2.0	125.0	0	77.0	32	105					
Arsenic	105.925	1.0	125.0	0	84.7	49	106					
Barium	169.064	1.0	125.0	57.97	88.9	31	133					
Beryllium	106.725	1.0	125.0	0	85.4	56	106					
Cadmium	102.432	1.0	125.0	0.4138	81.6	51	103					
Chromium	114.610	1.0	125.0	12.09	82.0	45	114					
Cobalt	112.005	1.0	125.0	5.874	84.9	52	106					
Copper	123.669	2.0	125.0	9.371	91.4	54	125					
Lead	109.710	1.0	125.0	2.706	85.6	34	126					
Molybdenum	109.900	1.0	125.0	0.7144	87.3	54	106					
Nickel	113.696	1.0	125.0	10.30	82.7	45	111					
Selenium	100.378	1.0	125.0	0	80.3	47	104					
Silver	108.307	1.0	125.0	0	86.6	56	112					
Thallium	98.647	1.0	125.0	0	78.9	46	101					
Vanadium	129.371	1.0	125.0	17.16	89.8	54	114					
Zinc	131.921	1.0	125.0	28.37	82.8	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: 118577
Project: METRO WESTSIDE EXTENSION, 4953-10-1

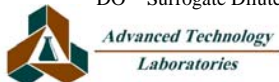
ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: 118577-002D-MSD		SampType: MSD		TestCode: 6010_S		Units: mg/Kg		Prep Date: 6/30/2011		RunNo: 134650	
Client ID: E-101-50		Batch ID: 74003		TestNo: EPA 6010B EPA 3050B		Analysis Date: 7/5/2011		SeqNo: 2202147			
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	93.812	2.0	125.0	0	75.0	32	105	96.25	2.56	20	
Arsenic	103.572	1.0	125.0	0	82.9	49	106	105.9	2.25	20	
Barium	163.587	1.0	125.0	57.97	84.5	31	133	169.1	3.29	20	
Beryllium	106.407	1.0	125.0	0	85.1	56	106	106.7	0.298	20	
Cadmium	101.718	1.0	125.0	0.4138	81.0	51	103	102.4	0.700	20	
Chromium	122.131	1.0	125.0	12.09	88.0	45	114	114.6	6.35	20	
Cobalt	111.973	1.0	125.0	5.874	84.9	52	106	112.0	0.0286	20	
Copper	122.704	2.0	125.0	9.371	90.7	54	125	123.7	0.783	20	
Lead	107.285	1.0	125.0	2.706	83.7	34	126	109.7	2.23	20	
Molybdenum	108.231	1.0	125.0	0.7144	86.0	54	106	109.9	1.53	20	
Nickel	117.018	1.0	125.0	10.30	85.4	45	111	113.7	2.88	20	
Selenium	98.625	1.0	125.0	0	78.9	47	104	100.4	1.76	20	
Silver	107.364	1.0	125.0	0	85.9	56	112	108.3	0.875	20	
Thallium	97.237	1.0	125.0	0	77.8	46	101	98.65	1.44	20	
Vanadium	128.842	1.0	125.0	17.16	89.3	54	114	129.4	0.410	20	
Zinc	130.041	1.0	125.0	28.37	81.3	28	125	131.9	1.44	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 | |



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

CLIENT: Mactec
Work Order: 118577
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 7471_S

Sample ID: MB-73991	SampType: MBLK	TestCode: 7471_S	Units: mg/Kg	Prep Date: 6/30/2011	RunNo: 134630						
Client ID: PBS	Batch ID: 73991	TestNo: EPA 7471A		Analysis Date: 7/1/2011	SeqNo: 2201591						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury ND 0.10

Sample ID: LCS-73991	SampType: LCS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 6/30/2011	RunNo: 134630						
Client ID: LCSS	Batch ID: 73991	TestNo: EPA 7471A		Analysis Date: 7/1/2011	SeqNo: 2201592						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.810 0.10 0.8300 0 97.6 80 120

Sample ID: 118605-004A-MS	SampType: MS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 6/30/2011	RunNo: 134630						
Client ID: ZZZZZ	Batch ID: 73991	TestNo: EPA 7471A		Analysis Date: 7/1/2011	SeqNo: 2201593						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

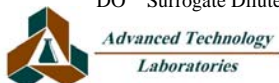
Mercury 0.853 0.10 0.8300 0.04964 96.8 70 130

Sample ID: 118605-004A-MSD	SampType: MSD	TestCode: 7471_S	Units: mg/Kg	Prep Date: 6/30/2011	RunNo: 134630						
Client ID: ZZZZZ	Batch ID: 73991	TestNo: EPA 7471A		Analysis Date: 7/1/2011	SeqNo: 2201594						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.856 0.10 0.8300 0.04964 97.2 70 130 0.8535 0.301 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 | |



Rachelle Arada

From: Fraychineaud, Matt [MFRAYCHINEAUD@mactec.com]
Sent: Friday, June 24, 2011 3:07 PM
To: Rachelle Arada
Cc: Bing Roura
Subject: Additional Analyses Request
Attachments: Additional Analyses.pdf

Hi Rachelle:

Please see the attached chain of custody forms for additional analyses that we'd like to have conducted. The additions are shown in red ink and highlighted in yellow. Just call if you have questions.

Thanks.

Matt

Matt Fraychineaud
Principal Geologist
AMEC (formerly MACTEC Engineering and Consulting, Inc.)
5628 East Slauson Avenue
Los Angeles, CA 90040
(323) 889-5310
mfraychineaud@mactec.com

CHAIN OF CUSTODY RECORD

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

P.O.#: 201106314 Quote #: _____
 Logged By: _____ Date: _____
 NOTE: Please include your Quote No. to ensure proper pricing of your project.

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

Client: MULTI-TEC Address: 5628 E. JAWSON AVE TEL: _____
 Attn: MATT FRAYCHINEAUD City: LOS ANGELES State: CA Zip Code: 90040 FAX: _____
 Project Name: _____ Project #: _____ Sampler: _____ (Printed Name)
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____ (Signature)
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____ (Signature and Printed Name)
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____ (Signature and Printed Name)
 Relinquished by: _____ Date: _____ Time: _____ Received by: _____ (Signature and Printed Name)

Special Instructions/Comments: _____
 Bill To: _____
 Attn: _____
 Co: _____
 Addr: _____
 City: _____ State: _____ Zip: _____

Send Report To: _____
 Attn: _____
 Co: _____
 Addr: _____
 City: _____ State: _____ Zip: _____

LAB USE ONLY:
 Batch #: _____
 Lab No. _____

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

ITEM	Batch #	Lab No.	Sample Description	Date		Time
				Sample I.D. / Location	Time	

Specify Appropriate Matrix

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

QA/QC

RTNE	CT	Legal	SWRCB	Logcode	OTHER	REMARKS

Preservatives:
 H=HCl N=HNO₃ S=H₂SO₄ C=4°C
 Z=Zn(Ac)₂ O=NaOH T=Na₂SO₃

DISTRIBUTION: White with report, Yellow to folder, Pink to submitter.
 Rev. 2010-0325

August 03, 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.: 119154

RE: METRO WESTSIDE EXTENSION, 4953-10-1

Attention: Matt Fraychineaud

Enclosed are the results for sample(s) received on July 27, 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.



CLIENT: Mactec
Project: METRO WESTSIDE EXTENSION, 4953-10-1
Lab Order: 119154

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.

Analytical Comments for EPA 8015B(M) GRO

Sample 119010-007AMSD, RPD for Matrix Spike Duplicate (MSD) is outside criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).



Advanced Technology Laboratories

ANALYTICAL RESULTS

Print Date: 03-Aug-11

CLIENT: Mactec **Client Sample ID:** E-102-40
Lab Order: 119154 **Collection Date:** 7/26/2011 11:25:00 AM
Project: METRO WESTSIDE EXTENSION, 4953-10 **Matrix:** SOIL
Lab ID: 119154-001A

Analyses Result PQL Qual Units DF Date Analyzed

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID:	MS4_110728A	QC Batch:	K11VS199	PrepDate:	7/26/2011	Analyst:	SLL
1,1,1,2-Tetrachloroethane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,1,1-Trichloroethane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,1,2,2-Tetrachloroethane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,1,2-Trichloroethane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,1-Dichloroethane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,1-Dichloroethene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,1-Dichloropropene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,2,3-Trichlorobenzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,2,3-Trichloropropane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,2,4-Trichlorobenzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,2,4-Trimethylbenzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,2-Dibromo-3-chloropropane	ND	8.1	µg/Kg	1	7/28/2011 01:43 PM		
1,2-Dibromoethane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,2-Dichlorobenzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,2-Dichloroethane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,2-Dichloropropane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,3,5-Trimethylbenzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,3-Dichlorobenzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,3-Dichloropropane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
1,4-Dichlorobenzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
2,2-Dichloropropane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
2-Chlorotoluene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
4-Chlorotoluene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
4-Isopropyltoluene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
Benzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
Bromobenzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
Bromodichloromethane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
Bromoform	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
Bromomethane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
Carbon tetrachloride	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
Chlorobenzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
Chloroethane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
Chloroform	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
Chloromethane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM		
cis-1,2-Dichloroethene	ND	4.1	µg/Kg	1	7/28/2011 01:43 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: 03-Aug-11

CLIENT: Mactec	Client Sample ID: E-102-40
Lab Order: 119154	Collection Date: 7/26/2011 11:25:00 AM
Project: METRO WESTSIDE EXTENSION, 4953-10	Matrix: SOIL
Lab ID: 119154-001A	

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

EPA 8260B

RunID: MS4_110728A	QC Batch: K11VS199	PrepDate: 7/26/2011	Analyst: SLL		
cis-1,3-Dichloropropene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Di-isopropyl ether	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Dibromochloromethane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Dibromomethane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Dichlorodifluoromethane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Ethyl Tert-butyl ether	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Ethylbenzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Hexachlorobutadiene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Isopropylbenzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
m,p-Xylene	ND	8.1	µg/Kg	1	7/28/2011 01:43 PM
Methylene chloride	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
MTBE	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
n-Butylbenzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
n-Propylbenzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Naphthalene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
o-Xylene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
sec-Butylbenzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Styrene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Tert-amyl methyl ether	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Tert-Butanol	ND	81	µg/Kg	1	7/28/2011 01:43 PM
tert-Butylbenzene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Tetrachloroethene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Toluene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
trans-1,2-Dichloroethene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Trichloroethene	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Trichlorofluoromethane	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Vinyl chloride	ND	4.1	µg/Kg	1	7/28/2011 01:43 PM
Surr: 1,2-Dichloroethane-d4	118	65-141	%REC	1	7/28/2011 01:43 PM
Surr: 4-Bromofluorobenzene	90.7	57-134	%REC	1	7/28/2011 01:43 PM
Surr: Dibromofluoromethane	109	70-128	%REC	1	7/28/2011 01:43 PM
Surr: Toluene-d8	95.0	72-123	%REC	1	7/28/2011 01:43 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: 03-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-102-40
Lab Order:	119154	Collection Date:	7/26/2011 11:25:00 AM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	SOIL
Lab ID:	119154-001D		

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

EPA 8015B(M)

RunID: GC2_110729A	QC Batch: E11VS280	PrepDate: 7/26/2011	Analyst: TP		
GRO	ND	0.82	mg/Kg	1	7/29/2011 12:08 PM
Surr: Bromofluorobenzene (FID)	101	51-161	%REC	1	7/29/2011 12:08 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: 03-Aug-11

CLIENT: Mactec	Client Sample ID: E-102-40
Lab Order: 119154	Collection Date: 7/26/2011 11:25:00 AM
Project: METRO WESTSIDE EXTENSION, 4953-10	Matrix: SOIL
Lab ID: 119154-001G	

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_110728C	QC Batch: 74603				PrepDate: 7/28/2011	Analyst: HL
DRO	ND	10		mg/Kg	1	7/28/2011 06:28 PM
ORO	ND	10		mg/Kg	1	7/28/2011 06:28 PM
Surr: p-Terphenyl	85.5	63-152		%REC	1	7/28/2011 06:28 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: 03-Aug-11

CLIENT: Mactec	Client Sample ID: E-102-45
Lab Order: 119154	Collection Date: 7/26/2011 11:40:00 AM
Project: METRO WESTSIDE EXTENSION, 4953-10	Matrix: SOIL
Lab ID: 119154-002A	

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

EPA 8260B

RunID: MS4_110728A	QC Batch: K11VS199	PrepDate: 7/26/2011	Analyst: SLL
1,1,1,2-Tetrachloroethane	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,1,1-Trichloroethane	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,1,2,2-Tetrachloroethane	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,1,2-Trichloroethane	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,1-Dichloroethane	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,1-Dichloroethene	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,1-Dichloropropene	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,2,3-Trichlorobenzene	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,2,3-Trichloropropane	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,2,4-Trichlorobenzene	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,2,4-Trimethylbenzene	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,2-Dibromo-3-chloropropane	ND	7.8	µg/Kg 1 7/28/2011 02:01 PM
1,2-Dibromoethane	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,2-Dichlorobenzene	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,2-Dichloroethane	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,2-Dichloropropane	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,3,5-Trimethylbenzene	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,3-Dichlorobenzene	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,3-Dichloropropane	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
1,4-Dichlorobenzene	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
2,2-Dichloropropane	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
2-Chlorotoluene	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
4-Chlorotoluene	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
4-Isopropyltoluene	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
Benzene	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
Bromobenzene	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
Bromodichloromethane	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
Bromoform	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
Bromomethane	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
Carbon tetrachloride	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
Chlorobenzene	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
Chloroethane	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
Chloroform	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
Chloromethane	ND	3.9	µg/Kg 1 7/28/2011 02:01 PM
cis-1,2-Dichloroethene	ND	3.9	µg/Kg 1 7/28/2011 02:01 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: 03-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-102-45
Lab Order:	119154	Collection Date:	7/26/2011 11:40:00 AM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	SOIL
Lab ID:	119154-002A		

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

EPA 8260B

RunID: MS4_110728A	QC Batch: K11VS199	PrepDate: 7/26/2011	Analyst: SLL		
cis-1,3-Dichloropropene	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Di-isopropyl ether	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Dibromochloromethane	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Dibromomethane	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Dichlorodifluoromethane	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Ethyl Tert-butyl ether	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Ethylbenzene	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Hexachlorobutadiene	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Isopropylbenzene	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
m,p-Xylene	ND	7.8	µg/Kg	1	7/28/2011 02:01 PM
Methylene chloride	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
MTBE	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
n-Butylbenzene	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
n-Propylbenzene	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Naphthalene	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
o-Xylene	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
sec-Butylbenzene	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Styrene	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Tert-amyl methyl ether	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Tert-Butanol	ND	78	µg/Kg	1	7/28/2011 02:01 PM
tert-Butylbenzene	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Tetrachloroethene	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Toluene	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
trans-1,2-Dichloroethene	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Trichloroethene	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Trichlorofluoromethane	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Vinyl chloride	ND	3.9	µg/Kg	1	7/28/2011 02:01 PM
Surr: 1,2-Dichloroethane-d4	114	65-141	%REC	1	7/28/2011 02:01 PM
Surr: 4-Bromofluorobenzene	89.4	57-134	%REC	1	7/28/2011 02:01 PM
Surr: Dibromofluoromethane	105	70-128	%REC	1	7/28/2011 02:01 PM
Surr: Toluene-d8	95.7	72-123	%REC	1	7/28/2011 02:01 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: 03-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-102-45
Lab Order:	119154	Collection Date:	7/26/2011 11:40:00 AM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	SOIL
Lab ID:	119154-002D		

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

EPA 8015B(M)

RunID: GC2_110729A	QC Batch: E11VS280	PrepDate: 7/26/2011	Analyst: TP		
GRO	ND	0.75	mg/Kg	1	7/29/2011 12:23 PM
Surr: Bromofluorobenzene (FID)	86.5	51-161	%REC	1	7/29/2011 12:23 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: 03-Aug-11

CLIENT: Mactec	Client Sample ID: E-102-45
Lab Order: 119154	Collection Date: 7/26/2011 11:40:00 AM
Project: METRO WESTSIDE EXTENSION, 4953-10	Matrix: SOIL
Lab ID: 119154-002G	

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_110728C	QC Batch: 74603				PrepDate: 7/28/2011	Analyst: HL
DRO	ND	10		mg/Kg	1	7/28/2011 06:38 PM
ORO	ND	10		mg/Kg	1	7/28/2011 06:38 PM
Surr: p-Terphenyl	89.4	63-152		%REC	1	7/28/2011 06:38 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: 03-Aug-11

CLIENT: Mactec **Client Sample ID:** E-102-55
Lab Order: 119154 **Collection Date:** 7/26/2011 12:20:00 PM
Project: METRO WESTSIDE EXTENSION, 4953-10 **Matrix:** SOIL
Lab ID: 119154-003A

Analyses Result PQL Qual Units DF Date Analyzed

VOLATILE ORGANIC COMPOUNDS BY GC/MS

EPA 8260B

RunID:	MS4_110728A	QC Batch:	K11VS199	PrepDate:	7/26/2011	Analyst:	SLL
1,1,1,2-Tetrachloroethane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,1,1-Trichloroethane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,1,2,2-Tetrachloroethane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,1,2-Trichloroethane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,1-Dichloroethane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,1-Dichloroethene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,1-Dichloropropene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,2,3-Trichlorobenzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,2,3-Trichloropropane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,2,4-Trichlorobenzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,2,4-Trimethylbenzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,2-Dibromo-3-chloropropane	ND	7.5	µg/Kg	1	7/28/2011 02:19 PM		
1,2-Dibromoethane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,2-Dichlorobenzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,2-Dichloroethane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,2-Dichloropropane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,3,5-Trimethylbenzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,3-Dichlorobenzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,3-Dichloropropane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
1,4-Dichlorobenzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
2,2-Dichloropropane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
2-Chlorotoluene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
4-Chlorotoluene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
4-Isopropyltoluene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
Benzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
Bromobenzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
Bromodichloromethane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
Bromoform	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
Bromomethane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
Carbon tetrachloride	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
Chlorobenzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
Chloroethane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
Chloroform	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
Chloromethane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM		
cis-1,2-Dichloroethene	ND	3.7	µg/Kg	1	7/28/2011 02:19 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: 03-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-102-55
Lab Order:	119154	Collection Date:	7/26/2011 12:20:00 PM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	SOIL
Lab ID:	119154-003A		

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

EPA 8260B

RunID: MS4_110728A	QC Batch: K11VS199	PrepDate: 7/26/2011	Analyst: SLL		
cis-1,3-Dichloropropene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Di-isopropyl ether	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Dibromochloromethane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Dibromomethane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Dichlorodifluoromethane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Ethyl Tert-butyl ether	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Ethylbenzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Hexachlorobutadiene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Isopropylbenzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
m,p-Xylene	ND	7.5	µg/Kg	1	7/28/2011 02:19 PM
Methylene chloride	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
MTBE	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
n-Butylbenzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
n-Propylbenzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Naphthalene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
o-Xylene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
sec-Butylbenzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Styrene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Tert-amyl methyl ether	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Tert-Butanol	ND	75	µg/Kg	1	7/28/2011 02:19 PM
tert-Butylbenzene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Tetrachloroethene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Toluene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
trans-1,2-Dichloroethene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Trichloroethene	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Trichlorofluoromethane	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Vinyl chloride	ND	3.7	µg/Kg	1	7/28/2011 02:19 PM
Surr: 1,2-Dichloroethane-d4	113	65-141	%REC	1	7/28/2011 02:19 PM
Surr: 4-Bromofluorobenzene	90.9	57-134	%REC	1	7/28/2011 02:19 PM
Surr: Dibromofluoromethane	106	70-128	%REC	1	7/28/2011 02:19 PM
Surr: Toluene-d8	94.6	72-123	%REC	1	7/28/2011 02:19 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: 03-Aug-11

CLIENT: Mactec	Client Sample ID: E-102-55
Lab Order: 119154	Collection Date: 7/26/2011 12:20:00 PM
Project: METRO WESTSIDE EXTENSION, 4953-10	Matrix: SOIL
Lab ID: 119154-003D	

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

EPA 8015B(M)

RunID: GC2_110729A	QC Batch: E11VS280	PrepDate: 7/26/2011	Analyst: TP		
GRO	ND	0.76	mg/Kg	1	7/29/2011 12:39 PM
Surr: Bromofluorobenzene (FID)	99.4	51-161	%REC	1	7/29/2011 12:39 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: 03-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-102-55
Lab Order:	119154	Collection Date:	7/26/2011 12:20:00 PM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	SOIL
Lab ID:	119154-003G		

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
DIESEL & MOTOR OIL RANGE ORGANICS BY GC/FID						
	LUFT			EPA 8015B(M)		
RunID: GC16_110728C	QC Batch: 74603			PrepDate: 7/28/2011		Analyst: HL
DRO	ND	10		mg/Kg	1	7/28/2011 07:22 PM
ORO	ND	10		mg/Kg	1	7/28/2011 07:22 PM
Surr: p-Terphenyl	102	63-152		%REC	1	7/28/2011 07:22 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: 03-Aug-11

CLIENT:	Mactec	Client Sample ID:	E-102-GW
Lab Order:	119154	Collection Date:	7/26/2011 10:35:00 AM
Project:	METRO WESTSIDE EXTENSION, 4953-10	Matrix:	GROUNDWATER
Lab ID:	119154-004A		

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

EPA 8260B

RunID: MS2_110801A	QC Batch: Q11VW142	PrepDate:	Analyst: BD		
1,1,1,2-Tetrachloroethane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,1,1-Trichloroethane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,1,2,2-Tetrachloroethane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,1,2-Trichloroethane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,1-Dichloroethane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,1-Dichloroethene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,1-Dichloropropene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,2,3-Trichlorobenzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,2,3-Trichloropropane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,2,4-Trichlorobenzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,2,4-Trimethylbenzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,2-Dibromo-3-chloropropane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,2-Dibromoethane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,2-Dichlorobenzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,2-Dichloroethane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,2-Dichloropropane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,3,5-Trimethylbenzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,3-Dichlorobenzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,3-Dichloropropane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
1,4-Dichlorobenzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
2,2-Dichloropropane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
2-Chlorotoluene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
4-Chlorotoluene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
4-Isopropyltoluene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Benzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Bromobenzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Bromodichloromethane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Bromoform	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Bromomethane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Carbon tetrachloride	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Chlorobenzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Chloroethane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Chloroform	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Chloromethane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
cis-1,2-Dichloroethene	1.0	0.50	µg/L	1	8/1/2011 07:27 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: 03-Aug-11

CLIENT: Mactec	Client Sample ID: E-102-GW
Lab Order: 119154	Collection Date: 7/26/2011 10:35:00 AM
Project: METRO WESTSIDE EXTENSION, 4953-10	Matrix: GROUNDWATER
Lab ID: 119154-004A	

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

EPA 8260B

RunID: MS2_110801A	QC Batch: Q11VW142	PrepDate:	Analyst: BD		
cis-1,3-Dichloropropene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Di-isopropyl ether	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Dibromochloromethane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Dibromomethane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Dichlorodifluoromethane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Ethyl tert-butyl ether	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Ethylbenzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Hexachlorobutadiene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Isopropylbenzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
m,p-Xylene	ND	1.0	µg/L	1	8/1/2011 07:27 PM
Methylene chloride	ND	1.0	µg/L	1	8/1/2011 07:27 PM
MTBE	67	0.50	µg/L	1	8/1/2011 07:27 PM
n-Butylbenzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
n-Propylbenzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Naphthalene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
o-Xylene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
sec-Butylbenzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Styrene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Tert-amyl methyl ether	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Tert-Butanol	ND	10	µg/L	1	8/1/2011 07:27 PM
tert-Butylbenzene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Tetrachloroethene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Toluene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
trans-1,2-Dichloroethene	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Trichloroethene	0.59	0.50	µg/L	1	8/1/2011 07:27 PM
Trichlorofluoromethane	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Vinyl chloride	ND	0.50	µg/L	1	8/1/2011 07:27 PM
Surr: 1,2-Dichloroethane-d4	75.7	70-130	%REC	1	8/1/2011 07:27 PM
Surr: 4-Bromofluorobenzene	97.1	70-130	%REC	1	8/1/2011 07:27 PM
Surr: Dibromofluoromethane	89.2	70-130	%REC	1	8/1/2011 07:27 PM
Surr: Toluene-d8	90.8	70-130	%REC	1	8/1/2011 07:27 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: 03-Aug-11

CLIENT: Mactec	Client Sample ID: E-102-GW
Lab Order: 119154	Collection Date: 7/26/2011 10:35:00 AM
Project: METRO WESTSIDE EXTENSION, 4953-10	Matrix: GROUNDWATER
Lab ID: 119154-004B	

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

EPA 8015B(M)

RunID: GC19_110728B	QC Batch: M11VW148	PrepDate:	Analyst: BB		
GRO	0.22	0.20	mg/L	1	7/28/2011 06:36 PM
Surr: Bromofluorobenzene (FID)	88.3	70-130	%REC	1	7/28/2011 06:36 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: 03-Aug-11

CLIENT: Mactec	Client Sample ID: E-102-GW
Lab Order: 119154	Collection Date: 7/26/2011 10:35:00 AM
Project: METRO WESTSIDE EXTENSION, 4953-10	Matrix: GROUNDWATER
Lab ID: 119154-004C	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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	0.24		mg/L	1	7/28/2011 04:22 PM
ORO	ND	0.24		mg/L	1	7/28/2011 04:22 PM
Surr: p-Terphenyl	71.7	36-126		%REC	1	7/28/2011 04:22 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: 03-Aug-11

CLIENT: Mactec	Client Sample ID: E-102-50
Lab Order: 119154	Collection Date: 7/26/2011 12:00:00 PM
Project: METRO WESTSIDE EXTENSION, 4953-10	Matrix: SOIL
Lab ID: 119154-006A	

Analyses	Result	PQL	Qual	Units	DF	Date Analyzed
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ICP METALS

	EPA 3050B		EPA 6010B			
RunID: ICP8_110729B	QC Batch: 74600		PrepDate: 7/28/2011		Analyst: IL	
Antimony	ND	2.0	mg/Kg	1	7/29/2011 12:18 PM	
Arsenic	ND	1.0	mg/Kg	1	7/29/2011 12:18 PM	
Barium	42	1.0	mg/Kg	1	7/29/2011 12:18 PM	
Beryllium	ND	1.0	mg/Kg	1	7/29/2011 12:18 PM	
Cadmium	ND	1.0	mg/Kg	1	7/29/2011 12:18 PM	
Chromium	17	1.0	mg/Kg	1	7/29/2011 12:18 PM	
Cobalt	8.7	1.0	mg/Kg	1	7/29/2011 12:18 PM	
Copper	14	2.0	mg/Kg	1	7/29/2011 12:18 PM	
Lead	2.1	1.0	mg/Kg	1	7/29/2011 12:18 PM	
Molybdenum	ND	1.0	mg/Kg	1	7/29/2011 12:18 PM	
Nickel	23	1.0	mg/Kg	1	7/29/2011 12:18 PM	
Selenium	ND	1.0	mg/Kg	1	7/29/2011 12:18 PM	
Silver	ND	1.0	mg/Kg	1	7/29/2011 12:18 PM	
Thallium	ND	1.0	mg/Kg	1	7/29/2011 12:18 PM	
Vanadium	16	1.0	mg/Kg	1	7/29/2011 12:18 PM	
Zinc	29	1.0	mg/Kg	1	7/29/2011 12:18 PM	

MERCURY BY COLD VAPOR TECHNIQUE

	EPA 7471A					
RunID: AA1_110729C	QC Batch: 74597		PrepDate: 7/28/2011		Analyst: VV	
Mercury	ND	0.10	mg/Kg	1	7/29/2011 02:05 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: 119154
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: MB-74600	SampType: MBLK	TestCode: 6010_S	Units: mg/Kg	Prep Date: 7/28/2011	RunNo: 135431						
Client ID: PBS	Batch ID: 74600	TestNo: EPA 6010B EPA 3050B		Analysis Date: 7/29/2011	SeqNo: 2217404						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

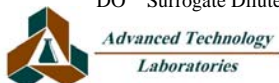
Antimony	0.309	2.0									
Arsenic	ND	1.0									
Barium	ND	1.0									
Beryllium	ND	1.0									
Cadmium	ND	1.0									
Chromium	ND	1.0									
Cobalt	ND	1.0									
Copper	ND	2.0									
Lead	ND	1.0									
Molybdenum	ND	1.0									
Nickel	ND	1.0									
Selenium	ND	1.0									
Silver	ND	1.0									
Thallium	0.103	1.0									
Vanadium	ND	1.0									
Zinc	ND	1.0									

Sample ID: LCS-74600	SampType: LCS	TestCode: 6010_S	Units: mg/Kg	Prep Date: 7/28/2011	RunNo: 135431						
Client ID: LCSS	Batch ID: 74600	TestNo: EPA 6010B EPA 3050B		Analysis Date: 7/29/2011	SeqNo: 2217405						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Antimony	48.905	2.0	50.00	0.3088	97.2	80	120				
Arsenic	47.898	1.0	50.00	0	95.8	80	120				
Barium	50.799	1.0	50.00	0	102	80	120				
Beryllium	50.448	1.0	50.00	0	101	80	120				
Cadmium	48.370	1.0	50.00	0	96.7	80	120				
Chromium	46.867	1.0	50.00	0	93.7	80	120				
Cobalt	50.429	1.0	50.00	0	101	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: 119154
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

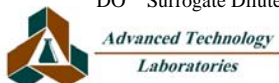
TestCode: 6010_S

Sample ID: LCS-74600		SampType: LCS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 7/28/2011		RunNo: 135431		
Client ID: LCSS		Batch ID: 74600		TestNo: EPA 6010B EPA 3050B				Analysis Date: 7/29/2011		SeqNo: 2217405		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Copper	50.713	2.0	50.00	0	101	80	120					
Lead	49.315	1.0	50.00	0	98.6	80	120					
Molybdenum	52.198	1.0	50.00	0	104	80	120					
Nickel	49.022	1.0	50.00	0	98.0	80	120					
Selenium	45.539	1.0	50.00	0	91.1	80	120					
Silver	49.347	1.0	50.00	0	98.7	80	120					
Thallium	47.524	1.0	50.00	0.1025	94.8	80	120					
Vanadium	49.994	1.0	50.00	0	100	80	120					
Zinc	48.983	1.0	50.00	0	98.0	80	120					

Sample ID: 119161-024A-MS		SampType: MS		TestCode: 6010_S		Units: mg/Kg		Prep Date: 7/28/2011		RunNo: 135431		
Client ID: ZZZZZZ		Batch ID: 74600		TestNo: EPA 6010B EPA 3050B				Analysis Date: 7/29/2011		SeqNo: 2217415		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Antimony	77.557	2.0	125.0	0.2274	61.9	32	105					
Arsenic	103.248	1.0	125.0	4.584	78.9	49	106					
Barium	192.037	1.0	125.0	92.15	79.9	31	133					
Beryllium	103.646	1.0	125.0	0	82.9	56	106					
Cadmium	99.734	1.0	125.0	0.4918	79.4	51	103					
Chromium	114.722	1.0	125.0	12.95	81.4	45	114					
Cobalt	109.751	1.0	125.0	5.905	83.1	52	106					
Copper	122.932	2.0	125.0	9.308	90.9	54	125					
Lead	104.978	1.0	125.0	6.117	79.1	34	126					
Molybdenum	103.175	1.0	125.0	0	82.5	54	106					
Nickel	106.288	1.0	125.0	9.743	77.2	45	111					
Selenium	96.840	1.0	125.0	0	77.5	47	104					
Silver	108.105	1.0	125.0	0	86.5	56	112					
Thallium	87.816	1.0	125.0	0	70.3	46	101					
Vanadium	142.434	1.0	125.0	28.68	91.0	54	114					
Zinc	139.950	1.0	125.0	38.81	80.9	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 | |



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

CLIENT: Mactec
Work Order: 119154
Project: METRO WESTSIDE EXTENSION, 4953-10-1

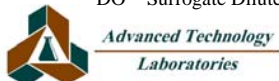
ANALYTICAL QC SUMMARY REPORT

TestCode: 6010_S

Sample ID: 119161-024A-MSD	SampType: MSD	TestCode: 6010_S	Units: mg/Kg	Prep Date: 7/28/2011	RunNo: 135431						
Client ID: ZZZZZZ	Batch ID: 74600	TestNo: EPA 6010B	EPA 3050B	Analysis Date: 7/29/2011	SeqNo: 2217416						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	79.366	2.0	125.0	0.2274	63.3	32	105	77.56	2.31	20	
Arsenic	103.300	1.0	125.0	4.584	79.0	49	106	103.2	0.0501	20	
Barium	187.251	1.0	125.0	92.15	76.1	31	133	192.0	2.52	20	
Beryllium	101.478	1.0	125.0	0	81.2	56	106	103.6	2.11	20	
Cadmium	98.166	1.0	125.0	0.4918	78.1	51	103	99.73	1.59	20	
Chromium	113.304	1.0	125.0	12.95	80.3	45	114	114.7	1.24	20	
Cobalt	108.267	1.0	125.0	5.905	81.9	52	106	109.8	1.36	20	
Copper	120.833	2.0	125.0	9.308	89.2	54	125	122.9	1.72	20	
Lead	104.749	1.0	125.0	6.117	78.9	34	126	105.0	0.218	20	
Molybdenum	103.229	1.0	125.0	0	82.6	54	106	103.2	0.0524	20	
Nickel	104.777	1.0	125.0	9.743	76.0	45	111	106.3	1.43	20	
Selenium	96.896	1.0	125.0	0	77.5	47	104	96.84	0.0582	20	
Silver	106.491	1.0	125.0	0	85.2	56	112	108.1	1.51	20	
Thallium	88.526	1.0	125.0	0	70.8	46	101	87.82	0.806	20	
Vanadium	140.689	1.0	125.0	28.68	89.6	54	114	142.4	1.23	20	
Zinc	137.096	1.0	125.0	38.81	78.6	28	125	139.9	2.06	20	

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



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

CLIENT: Mactec
Work Order: 119154
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 7471_S

Sample ID: MB-74597	SampType: MBLK	TestCode: 7471_S	Units: mg/Kg	Prep Date: 7/28/2011	RunNo: 135439						
Client ID: PBS	Batch ID: 74597	TestNo: EPA 7471A		Analysis Date: 7/29/2011	SeqNo: 2217501						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury ND 0.10

Sample ID: LCS-74597	SampType: LCS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 7/28/2011	RunNo: 135439						
Client ID: LCSS	Batch ID: 74597	TestNo: EPA 7471A		Analysis Date: 7/29/2011	SeqNo: 2217502						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.811 0.10 0.8300 0 97.8 80 120

Sample ID: 119134-001A-MS	SampType: MS	TestCode: 7471_S	Units: mg/Kg	Prep Date: 7/28/2011	RunNo: 135439						
Client ID: ZZZZZ	Batch ID: 74597	TestNo: EPA 7471A		Analysis Date: 7/29/2011	SeqNo: 2217504						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

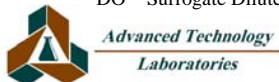
Mercury 0.840 0.10 0.8300 0.04434 95.9 70 130

Sample ID: 119134-001A-MSD	SampType: MSD	TestCode: 7471_S	Units: mg/Kg	Prep Date: 7/28/2011	RunNo: 135439						
Client ID: ZZZZZ	Batch ID: 74597	TestNo: EPA 7471A		Analysis Date: 7/29/2011	SeqNo: 2217505						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 0.833 0.10 0.8300 0.04434 95.0 70 130 0.8400 0.829 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: 119154
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_DM H

Sample ID: MB-74603	SampType: MBLK	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 7/28/2011	RunNo: 135423						
Client ID: PBS	Batch ID: 74603	TestNo: EPA 8015B(M LUFT		Analysis Date: 7/28/2011	SeqNo: 2217230						
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	80.230		80.00		100	63	152				

Sample ID: LCS-74603	SampType: LCS	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 7/28/2011	RunNo: 135423						
Client ID: LCSS	Batch ID: 74603	TestNo: EPA 8015B(M LUFT		Analysis Date: 7/28/2011	SeqNo: 2217231						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	1026.610	10	1000	0	103	76	139				
Surr: p-Terphenyl	84.630		80.00		106	63	152				

Sample ID: 119154-001GMS	SampType: MS	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 7/28/2011	RunNo: 135423						
Client ID: E-102-40	Batch ID: 74603	TestNo: EPA 8015B(M LUFT		Analysis Date: 7/28/2011	SeqNo: 2217232						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

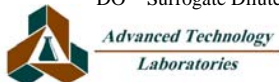
DRO	991.600	10	1000	0	99.2	60	158				
Surr: p-Terphenyl	77.820		80.00		97.3	63	152				

Sample ID: 119154-001GMSD	SampType: MSD	TestCode: 8015_S_DM H	Units: mg/Kg	Prep Date: 7/28/2011	RunNo: 135423						
Client ID: E-102-40	Batch ID: 74603	TestNo: EPA 8015B(M LUFT		Analysis Date: 7/28/2011	SeqNo: 2217233						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	1023.950	10	1000	0	102	60	158	991.6	3.21	20	
Surr: p-Terphenyl	82.730		80.00		103	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 | |



CLIENT: Mactec
Work Order: 119154
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_S_G 5035P

Sample ID: E110729LC1	SampType: LCS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135458						
Client ID: LCSS	Batch ID: E11VS280	TestNo: EPA 8015B(M)	Analysis Date: 7/29/2011	SeqNo: 2217925							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.638	1.0	5.000	0	92.8	70	130				
Surr: Bromofluorobenzene (FID)	113.655		100.0		114	51	161				

Sample ID: E110729MB1MS	SampType: MS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135458						
Client ID: ZZZZZZ	Batch ID: E11VS280	TestNo: EPA 8015B(M)	Analysis Date: 7/29/2011	SeqNo: 2217928							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.945	1.0	5.000	0	98.9	41	146				
Surr: Bromofluorobenzene (FID)	122.661		100.0		123	51	161				

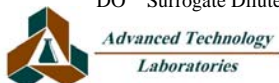
Sample ID: E110729MB1MSD	SampType: MSD	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135458						
Client ID: ZZZZZZ	Batch ID: E11VS280	TestNo: EPA 8015B(M)	Analysis Date: 7/29/2011	SeqNo: 2217929							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.814	1.0	5.000	0	96.3	41	146	4.945	2.68	20	
Surr: Bromofluorobenzene (FID)	113.921		100.0		114	51	161		0	0	

Sample ID: E110729MB1	SampType: MBLK	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135458						
Client ID: PBS	Batch ID: E11VS280	TestNo: EPA 8015B(M)	Analysis Date: 7/29/2011	SeqNo: 2217930							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	1.0									
Surr: Bromofluorobenzene (FID)	72.508		100.0		72.5	51	161				

Sample ID: 119010-007AMS	SampType: MS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135458						
Client ID: ZZZZZZ	Batch ID: E11VS280	TestNo: EPA 8015B(M)	Analysis Date: 7/29/2011	SeqNo: 2217936							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	3.641	1.0	5.000	0	72.8	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: 119154
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

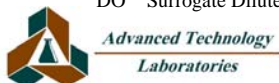
TestCode: 8015_S_G 5035P

Sample ID: 119010-007AMS	SampType: MS	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135458						
Client ID: ZZZZZZ	Batch ID: E11VS280	TestNo: EPA 8015B(M)	Analysis Date: 7/29/2011	SeqNo: 2217936							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Bromofluorobenzene (FID)	125.081		100.0		125	51	161				

Sample ID: 119010-007AMSD	SampType: MSD	TestCode: 8015_S_G 50	Units: mg/Kg	Prep Date:	RunNo: 135458						
Client ID: ZZZZZZ	Batch ID: E11VS280	TestNo: EPA 8015B(M)	Analysis Date: 7/29/2011	SeqNo: 2217937							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	4.698	1.0	5.000	0	94.0	41	146	3.641	25.4	20	R
Surr: Bromofluorobenzene (FID)	119.148		100.0		119	51	161		0	0	

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
Work Order: 119154
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_DM

Sample ID: MB-74588	SampType: MBLK	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 7/28/2011	RunNo: 135420						
Client ID: PBW	Batch ID: 74588	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 7/28/2011	SeqNo: 2217044						
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: LCS-74588	SampType: LCS	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 7/28/2011	RunNo: 135420						
Client ID: LCSW	Batch ID: 74588	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 7/28/2011	SeqNo: 2217045						
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: MB-74588MS	SampType: MS	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 7/28/2011	RunNo: 135420						
Client ID: ZZZZZ	Batch ID: 74588	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 7/28/2011	SeqNo: 2217046						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

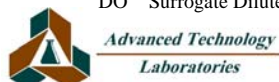
DRO	0.671	0.20	1.000	0	67.1	52	128				
Surr: p-Terphenyl	0.057		0.08000		71.6	36	126				

Sample ID: MB-74588MSD	SampType: MSD	TestCode: 8015_W_DM	Units: mg/L	Prep Date: 7/28/2011	RunNo: 135420						
Client ID: ZZZZZ	Batch ID: 74588	TestNo: EPA 8015B(M EPA 3510C		Analysis Date: 7/28/2011	SeqNo: 2217092						
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 |
| 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: 119154
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8015_W_G PRES

Sample ID: M110728LCS2	SampType: LCS	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 135428						
Client ID: LCSW	Batch ID: M11VW148	TestNo: EPA 8015B(M)	Analysis Date: 7/28/2011	SeqNo: 2217340							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	1.031	0.20	1.000	0	103	70	130				
Surr: Bromofluorobenzene (FID)	91.306		100.0		91.3	70	130				

Sample ID: M110728MB1MS	SampType: MS	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 135428						
Client ID: ZZZZZZ	Batch ID: M11VW148	TestNo: EPA 8015B(M)	Analysis Date: 7/28/2011	SeqNo: 2217343							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	1.042	0.20	1.000	0	104	70	130				
Surr: Bromofluorobenzene (FID)	90.647		100.0		90.6	70	130				

Sample ID: M110728MB1MSD	SampType: MSD	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 135428						
Client ID: ZZZZZZ	Batch ID: M11VW148	TestNo: EPA 8015B(M)	Analysis Date: 7/28/2011	SeqNo: 2217344							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

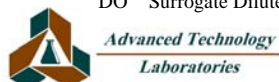
GRO	1.036	0.20	1.000	0	104	70	130	1.042	0.577	20	
Surr: Bromofluorobenzene (FID)	91.536		100.0		91.5	70	130		0	0	

Sample ID: M110728MB1	SampType: MBLK	TestCode: 8015_W_G P	Units: mg/L	Prep Date:	RunNo: 135428						
Client ID: PBW	Batch ID: M11VW148	TestNo: EPA 8015B(M)	Analysis Date: 7/28/2011	SeqNo: 2217345							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

GRO	ND	0.20									
Surr: Bromofluorobenzene (FID)	88.770		100.0		88.8	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: 119154
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

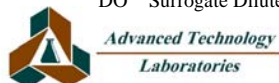
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Client ID: LCSS		Batch ID: K11VS199		TestNo: EPA 8260B				Analysis Date: 7/28/2011		SeqNo: 2217982		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	48.590	5.0	50.00	0	97.2	70	130					
Benzene	98.450	5.0	100.0	0	98.4	70	130					
Chlorobenzene	51.050	5.0	50.00	0	102	70	130					
MTBE	56.280	5.0	50.00	0	113	70	130					
Toluene	97.890	5.0	100.0	0	97.9	70	130					
Trichloroethene	49.170	5.0	50.00	0	98.3	70	130					
Surr: 1,2-Dichloroethane-d4	51.900		50.00		104	65	141					
Surr: 4-Bromofluorobenzene	44.650		50.00		89.3	57	134					
Surr: Dibromofluoromethane	49.790		50.00		99.6	70	128					
Surr: Toluene-d8	47.810		50.00		95.6	72	123					

Sample ID: K110728MB1MS		SampType: MS		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135403		
Client ID: ZZZZZ		Batch ID: K11VS199		TestNo: EPA 8260B				Analysis Date: 7/28/2011		SeqNo: 2217983		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
1,1-Dichloroethene	49.990	5.0	50.00	0	100	70	130					
Benzene	99.340	5.0	100.0	0	99.3	70	130					
Chlorobenzene	52.560	5.0	50.00	0	105	70	130					
MTBE	57.470	5.0	50.00	0	115	70	130					
Toluene	98.850	5.0	100.0	0	98.8	70	130					
Trichloroethene	50.430	5.0	50.00	0	101	70	130					
Surr: 1,2-Dichloroethane-d4	52.550		50.00		105	65	141					
Surr: 4-Bromofluorobenzene	45.600		50.00		91.2	57	134					
Surr: Dibromofluoromethane	50.810		50.00		102	70	128					
Surr: Toluene-d8	47.710		50.00		95.4	72	123					

Sample ID: K110728MB1MSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135403		
Client ID: ZZZZZ		Batch ID: K11VS199		TestNo: EPA 8260B				Analysis Date: 7/28/2011		SeqNo: 2217984		
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 | |



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

CLIENT: Mactec
Work Order: 119154
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

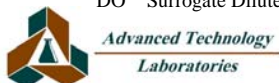
TestCode: 8260_S_5035

Sample ID: K110728MB1MSD		SampType: MSD		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135403	
Client ID: ZZZZZZ		Batch ID: K11VS199		TestNo: EPA 8260B		Analysis Date: 7/28/2011				SeqNo: 2217984	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	48.590	5.0	50.00	0	97.2	70	130	49.99	2.84	20	
Benzene	97.700	5.0	100.0	0	97.7	70	130	99.34	1.66	20	
Chlorobenzene	51.430	5.0	50.00	0	103	70	130	52.56	2.17	20	
MTBE	55.720	5.0	50.00	0	111	70	130	57.47	3.09	20	
Toluene	96.800	5.0	100.0	0	96.8	70	130	98.85	2.10	20	
Trichloroethene	48.840	5.0	50.00	0	97.7	70	130	50.43	3.20	20	
Surr: 1,2-Dichloroethane-d4	50.100		50.00		100	65	141		0	0	
Surr: 4-Bromofluorobenzene	44.910		50.00		89.8	57	134		0	0	
Surr: Dibromofluoromethane	49.770		50.00		99.5	70	128		0	0	
Surr: Toluene-d8	47.360		50.00		94.7	72	123		0	0	

Sample ID: K110728MB1		SampType: MBLK		TestCode: 8260_S_5035		Units: µg/Kg		Prep Date:		RunNo: 135403	
Client ID: PBS		Batch ID: K11VS199		TestNo: EPA 8260B		Analysis Date: 7/28/2011				SeqNo: 2217985	
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:

- | | | |
|---|--|--|
| 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: 119154

Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: K110728MB1	SampType: MBLK	TestCode: 8260_S_5035	Units: µg/Kg	Prep Date:	RunNo: 135403						
Client ID: PBS	Batch ID: K11VS199	TestNo: EPA 8260B		Analysis Date: 7/28/2011	SeqNo: 2217985						
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
- ND Not Detected at the Reporting Limit
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CLIENT: Mactec
Work Order: 119154
Project: METRO WESTSIDE EXTENSION, 4953-10-1

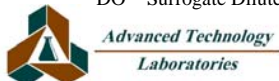
ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_S_5035

Sample ID: K110728MB1	SampType: MBLK	TestCode: 8260_S_5035	Units: µg/Kg	Prep Date:	RunNo: 135403						
Client ID: PBS	Batch ID: K11VS199	TestNo: EPA 8260B	Analysis Date: 7/28/2011	SeqNo: 2217985							
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	53.270		50.00		107	65	141				
Surr: 4-Bromofluorobenzene	43.160		50.00		86.3	57	134				
Surr: Dibromofluoromethane	51.210		50.00		102	70	128				
Surr: Toluene-d8	47.560		50.00		95.1	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 | |



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CLIENT: Mactec
Work Order: 119154
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

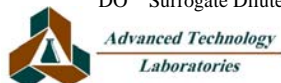
Sample ID: Q110801CS1	SampType: LCS	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 135509						
Client ID: LCSW	Batch ID: Q11VW142	TestNo: EPA 8260B		Analysis Date: 8/1/2011	SeqNo: 2218975						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	16.890	0.50	20.00	0	84.4	70	130				
Benzene	38.700	0.50	40.00	0	96.8	70	130				
Chlorobenzene	20.100	0.50	20.00	0	101	70	130				
MTBE	21.320	0.50	20.00	0	107	70	130				
Toluene	40.520	0.50	40.00	0	101	70	130				
Trichloroethene	20.050	0.50	20.00	0	100	70	130				
Surr: 1,2-Dichloroethane-d4	17.690		25.00		70.8	70	130				
Surr: 4-Bromofluorobenzene	24.030		25.00		96.1	70	130				
Surr: Dibromofluoromethane	20.230		25.00		80.9	70	130				
Surr: Toluene-d8	22.470		25.00		89.9	70	130				

Sample ID: Q110801MB3MS	SampType: MS	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 135509						
Client ID: ZZZZZ	Batch ID: Q11VW142	TestNo: EPA 8260B		Analysis Date: 8/1/2011	SeqNo: 2218976						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	16.840	0.50	20.00	0	84.2	70	130				
Benzene	38.590	0.50	40.00	0	96.5	70	130				
Chlorobenzene	19.930	0.50	20.00	0	99.7	70	130				
MTBE	22.020	0.50	20.00	0	110	70	130				
Toluene	40.080	0.50	40.00	0	100	70	130				
Trichloroethene	20.220	0.50	20.00	0	101	70	130				
Surr: 1,2-Dichloroethane-d4	18.080		25.00		72.3	70	130				
Surr: 4-Bromofluorobenzene	24.460		25.00		97.8	70	130				
Surr: Dibromofluoromethane	20.500		25.00		82.0	70	130				
Surr: Toluene-d8	22.550		25.00		90.2	70	130				

Sample ID: Q110801MB3MSD	SampType: MSD	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 135509						
Client ID: ZZZZZ	Batch ID: Q11VW142	TestNo: EPA 8260B		Analysis Date: 8/1/2011	SeqNo: 2218977						
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: 119154
Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

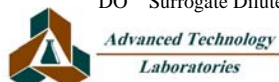
TestCode: 8260_WP_LL

Sample ID: Q110801MB3MSD		SampType: MSD		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 135509	
Client ID: ZZZZZZ		Batch ID: Q11VW142		TestNo: EPA 8260B		Analysis Date: 8/1/2011				SeqNo: 2218977	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	17.150	0.50	20.00	0	85.8	70	130	16.84	1.82	20	
Benzene	39.160	0.50	40.00	0	97.9	70	130	38.59	1.47	20	
Chlorobenzene	19.760	0.50	20.00	0	98.8	70	130	19.93	0.857	20	
MTBE	21.440	0.50	20.00	0	107	70	130	22.02	2.67	20	
Toluene	40.360	0.50	40.00	0	101	70	130	40.08	0.696	20	
Trichloroethene	20.200	0.50	20.00	0	101	70	130	20.22	0.0990	20	
Surr: 1,2-Dichloroethane-d4	17.940		25.00		71.8	70	130		0	0	
Surr: 4-Bromofluorobenzene	24.000		25.00		96.0	70	130		0	0	
Surr: Dibromofluoromethane	20.510		25.00		82.0	70	130		0	0	
Surr: Toluene-d8	22.720		25.00		90.9	70	130		0	0	

Sample ID: Q110801MB3		SampType: MBLK		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 135509	
Client ID: PBW		Batch ID: Q11VW142		TestNo: EPA 8260B		Analysis Date: 8/1/2011				SeqNo: 2218978	
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: 119154

Project: METRO WESTSIDE EXTENSION, 4953-10-1

ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: Q110801MB3	SampType: MBLK	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 135509						
Client ID: PBW	Batch ID: Q11VW142	TestNo: EPA 8260B		Analysis Date: 8/1/2011	SeqNo: 2218978						
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
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CLIENT: Mactec
Work Order: 119154
Project: METRO WESTSIDE EXTENSION, 4953-10-1

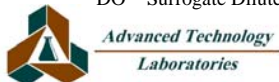
ANALYTICAL QC SUMMARY REPORT

TestCode: 8260_WP_LL

Sample ID: Q110801MB3	SampType: MBLK	TestCode: 8260_WP_LL	Units: µg/L	Prep Date:	RunNo: 135509						
Client ID: PBW	Batch ID: Q11VW142	TestNo: EPA 8260B		Analysis Date: 8/1/2011	SeqNo: 2218978						
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	19.160		25.00		76.6	70	130				
Surr: 4-Bromofluorobenzene	24.670		25.00		98.7	70	130				
Surr: Dibromofluoromethane	22.100		25.00		88.4	70	130				
Surr: Toluene-d8	23.170		25.00		92.7	70	130				

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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