

COS 1904-01/03

**Advanced Technology Laboratories**  
 3275 Walnut Avenue, Signal Hill, CA 90755-5225  
 www.atlglobal.com  
 TEL: (562) 989-4045 FAX: (562) 989-4040

# CHAIN-OF-CUSTODY RECORD

QC Level: RTNE

**Subcontractor:**

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

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

Field Sampler: *Paul Kovic*

18-May-11

Sample ID	Matrix	Date Collected	Bottle Type	H2S	Requested Tests	
01 117923-001B / M7-15'	Air	5/17/2011 1:00:00 PM	TEDLAR	1		
02 117923-002B / M11-Yellow	Air	5/18/2011 10:00:00 AM	TEDLAR	1		
03 117923-003B / M13	Air	5/18/2011 11:55:00 AM	TEDLAR	1		

General Comments: Please email sample receipt acknowledgement to the PM. *(RX)*  
 Please use PO#: SC06409 Please fax results : Normal TAT  
 Please report H2S by EPA 1516. Send report to Rachelle Arada.

Relinquished by:	Date/Time	Received by:	Date/Time
<i>[Signature]</i>	5/18/11	<i>[Signature]</i>	5/19/11 8:39
<i>[Signature]</i>	5/19/11 8:39	<i>[Signature]</i>	5/19/11 8:39



QC Batch No.: 110520GC3A1  
 Matrix: Air  
 Units: ppmv

QC for Sulfur Compounds by EPA 15/16

Lab No.:	Method Blank		LCS		LCSD			
Date Analyzed:	05/20/11		05/20/11		05/20/11			
Analyst Initials:	ZK		ZK		ZK			
Datafile:	20may003		20may001		20may002			
Dilution Factor:	1.0		1.0		1.0			
ANALYTE	Results	RL	% Rec.	Criteria	% Rec.	Criteria	%RPD	Criteria
Hydrogen Sulfide	ND	0.20	96	70-130%	94	70-130%	2.7	<30

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

Reviewed/Approved By: Mark J. Johnson *[Signature]* Date: 6/1/11  
 Mark J. Johnson  
 Operations Manager

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



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**CLIENT:** Mactec  
**Project:** Metro Westside Extension, 4953-10-1561  
**Lab Order:** 117923

**CASE NARRATIVE**

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





**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**  
Print Date: 27-May-11

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<b>CLIENT:</b> Mactec	<b>Client Sample ID:</b> M7-15'
<b>Lab Order:</b> 117923	<b>Collection Date:</b> 5/17/2011 1:00:00 PM
<b>Project:</b> Metro Westside Extension, 4953-10-1561	<b>Matrix:</b> AIR
<b>Lab ID:</b> 117923-001A	

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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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**GASES BY GAS CHROMATOGRAPHY**

**ASTM D1946**

RunID: GC18_110520A	QC Batch: Z11A020	PrepDate:	Analyst: <b>BB</b>		
Methane	460000	10000	ppmv	1000	5/20/2011 01:51 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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**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 27-May-11

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<b>CLIENT:</b>	Mactec	<b>Client Sample ID:</b>	M11-Yellow
<b>Lab Order:</b>	117923	<b>Collection Date:</b>	5/18/2011 10:00:00 AM
<b>Project:</b>	Metro Westside Extension, 4953-10-1561	<b>Matrix:</b>	AIR
<b>Lab ID:</b>	117923-002A		

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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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**GASES BY GAS CHROMATOGRAPHY**

**ASTM D1946**

RunID: GC18_110520A	QC Batch: Z11A020	PrepDate:	Analyst: <b>BB</b>		
Methane	490000	10000	ppmv	1000	5/20/2011 02:33 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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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 27-May-11

**CLIENT:** Mactec **Client Sample ID:** M13  
**Lab Order:** 117923 **Collection Date:** 5/18/2011 11:55:00 AM  
**Project:** Metro Westside Extension, 4953-10-1561 **Matrix:** AIR  
**Lab ID:** 117923-003A

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

### ASTM D1946

RunID: GC18\_110520A      QC Batch: Z11A020      PrepDate:      Analyst: **BB**  
Methane      630000      10000      ppmv      1000      5/20/2011 03:01 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 QC SUMMARY REPORT**

**CLIENT:** Mactec  
**Work Order:** 117923

**Project:** Metro Westside Extension, 4953-10-1561

**TestCode:** D1946

Sample ID: MB-Z11A020	SampType: MBLK	TestCode: D1946	Units: ppmv	Prep Date:	RunNo: 133147						
Client ID: ZZZZZZ	Batch ID: Z11A020	TestNo: ASTM D1946		Analysis Date: 5/20/2011	SeqNo: 2172135						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	ND	10									

Sample ID: LCS-Z11A020	SampType: LCS	TestCode: D1946	Units: ppmv	Prep Date:	RunNo: 133147						
Client ID: ZZZZZZ	Batch ID: Z11A020	TestNo: ASTM D1946		Analysis Date: 5/20/2011	SeqNo: 2172136						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	1077.163	10	1000	0	108	70	130				

Sample ID: LCSD-Z11A020	SampType: LCSD	TestCode: D1946	Units: ppmv	Prep Date:	RunNo: 133147						
Client ID: ZZZZZZ	Batch ID: Z11A020	TestNo: ASTM D1946		Analysis Date: 5/20/2011	SeqNo: 2172137						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	1073.789	10	1000	0	107	70	130	1077	0.314	20	

**Qualifiers:**

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



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



June 1, 2011

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



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



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

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

### LABORATORY TEST RESULTS

Project Reference: 117923  
Lab Number: C051904-01/03

Enclosed are results for sample(s) received 5/19/11 by Air Technology Laboratories. Analyses were performed according to specifications on the chain of custody provided with the sample(s).

Report Narrative:

- Sample analyses were performed within method performance criteria, and meet all requirements of the NELAC Standards.
- All results are reported without qualifications unless otherwise noted.
- The enclosed results relate only to the sample(s).

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

Sincerely,

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

Mark Johnson  
Operations Manager  
MJohnson@AirTechLabs.com

Enclosures

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









**APPENDIX H**  
**HYDROGEOLOGIC INVESTIGATION**



**FIGURES H-1.1 THROUGH H-1.191  
ANALYTICAL TEST RESULTS OF GROUNDWATER SAMPLES  
(PE PHASE)**

June 14, 2011



Anthony Marino  
MACTEC  
2171 Campus Drive, Suite 100  
Irvine, CA 92612  
TEL: (949) 224-0050  
FAX:

ELAP No.: 1838  
NELAP No.: 02107CA  
CSDLAC No.: 10196  
ORELAP No.: CA300003  
  
Workorder No.: 118188

RE: MTA Westside Extention, 4953101561/6.2.3.3.

Attention: Anthony Marino

Enclosed are the results for sample(s) received on June 03, 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:** MTA Westside Extention, 4953101561/6.2.3.3.  
**Lab Order:** 118188

**CASE NARRATIVE**

Sample Receiving / General Comments

Sample received beyond holding time for SM4500-H+B (pH) analysis.

The result for Trivalent Chromium is the calculation of total chromium subtracts hexavalent chromium:

Sample ID	Total Cr	-	Hex Cr	=	Trivalent Cr (ug/L)
P-103/UCLA LOT 36	1.8	-	0.57	=	1.23

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Analytical Comments for EPA 200.8

Sample 118188-001G, dilution was necessary due to internal standard failure for Beryllium.

Analytical Comments for EPA 300.0

Samples 118188-001A-MS and 118188-001A-MSD, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).

Analytical Comments for SM4500-S=D

Samples 118151-001I-MS and 118151-001I-MSD, Matrix Spike (MS) and Matrix Spike Duplicate (MSD) are outside recovery criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).



**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001A

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual Units	DF	Date Analyzed
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**PERCHLORATE BY ION CHROMATOGRAPHY**

**EPA 314.0**

RunID: <b>IC4_110603A</b>	QC Batch: <b>R133810</b>			PrepDate:	Analyst: <b>PT</b>	
Perchlorate	ND	1.3	2.0	µg/L	1	6/3/2011 02:44 PM

**DISSOLVED HEXAVALENT CHROMIUM BY IC**

**EPA 218.6**

RunID: <b>IC7_110603A</b>	QC Batch: <b>R133649</b>			PrepDate:	Analyst: <b>PT</b>	
Chromium, Hexavalent	0.57	0.029	0.20	µg/L	1	6/3/2011 04:56 PM

**ANIONS BY ION CHROMATOGRAPHY**

**EPA 300.0**

RunID: <b>IC3_110603A</b>	QC Batch: <b>R133674</b>			PrepDate:	Analyst: <b>PT</b>	
Chloride	120	1.3	5.0	mg/L	10	6/3/2011 05:02 PM

**ANIONS BY ION CHROMATOGRAPHY**

**EPA 300.0**

RunID: <b>IC3_110603A</b>	QC Batch: <b>R133674</b>			PrepDate:	Analyst: <b>PT</b>	
Nitrogen, Nitrite	ND	0.094	0.20	mg/L	2	6/3/2011 04:51 PM

**ANIONS BY ION CHROMATOGRAPHY**

**EPA 300.0**

RunID: <b>IC3_110603A</b>	QC Batch: <b>R133674</b>			PrepDate:	Analyst: <b>PT</b>	
Nitrogen, Nitrate (As N)	5.4	0.072	0.20	mg/L	2	6/3/2011 04:51 PM

**ANIONS BY ION CHROMATOGRAPHY**

**EPA 300.0**

RunID: <b>IC3_110603A</b>	QC Batch: <b>R133674</b>			PrepDate:	Analyst: <b>PT</b>	
Sulfate	230	2.2	10	mg/L	10	6/3/2011 05:02 PM

**PH**

**SM4500-H+B**

RunID: <b>PH4_110603A</b>	QC Batch: <b>R133714</b>			PrepDate:	Analyst: <b>FD</b>	
pH	7.0	0.10	0.10	H pH Units	1	6/3/2011

**TURBIDITY**

**EPA 180.1**

RunID: <b>TURB_110603A</b>	QC Batch: <b>R133657</b>			PrepDate:	Analyst: <b>MP</b>
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**Qualifiers:** B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
 Results are wet unless otherwise specified  
 E Value above quantitation range  
 J Analyte detected below quantitation limits  
 S Spike/Surrogate outside of limits due to matrix interference  
 DO Surrogate Diluted Out



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**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001A

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual Units	DF	Date Analyzed
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**TURBIDITY**

**EPA 180.1**

RunID: <b>TURB_110603A</b>	QC Batch: <b>R133657</b>			PrepDate:		Analyst: <b>MP</b>
Turbidity	5.0	0.10	0.10	NTU	1	6/3/2011

**TOTAL FILTERABLE RESIDUE**

**SM2540C**

RunID: <b>WETCHEM_110607E</b>	QC Batch: <b>73393</b>			PrepDate: <b>6/6/2011</b>		Analyst: <b>PT</b>
Total Dissolved Solids (Residue, Filterable)	970	10	10	mg/L	1	6/6/2011 03:03 PM

**TOTAL NON-FILTERABLE RESIDUE**

**SM2540D**

RunID: <b>WETCHEM_110607B</b>	QC Batch: <b>73379</b>			PrepDate: <b>6/6/2011</b>		Analyst: <b>PT</b>
Suspended Solids (Residue, Non-Filterable)	ND	10	10	mg/L	1	6/6/2011 04:00 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	J Analyte detected below quantitation limits
	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: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001B

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual Units	DF	Date Analyzed
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**ORGANOCHLORINE PESTICIDES AND PCBS BY GC/ECD**

**EPA 3510C**

**EPA 608**

RunID:	GC9_110608B	QC Batch:	73426	PrepDate:	6/8/2011	Analyst:	HL
4,4'-DDD	ND	0.0050	0.050	µg/L	1	6/8/2011 03:00 PM	
4,4'-DDE	ND	0.0050	0.050	µg/L	1	6/8/2011 03:00 PM	
4,4'-DDT	ND	0.0050	0.050	µg/L	1	6/8/2011 03:00 PM	
Aldrin	ND	0.0050	0.025	µg/L	1	6/8/2011 03:00 PM	
alpha-BHC	ND	0.0050	0.025	µg/L	1	6/8/2011 03:00 PM	
Aroclor 1016	ND	0.10	0.50	µg/L	1	6/8/2011 05:25 PM	
Aroclor 1221	ND	0.10	1.0	µg/L	1	6/8/2011 05:25 PM	
Aroclor 1232	ND	0.10	0.50	µg/L	1	6/8/2011 05:25 PM	
Aroclor 1242	ND	0.10	0.50	µg/L	1	6/8/2011 05:25 PM	
Aroclor 1248	ND	0.10	0.50	µg/L	1	6/8/2011 05:25 PM	
Aroclor 1254	ND	0.10	0.50	µg/L	1	6/8/2011 05:25 PM	
Aroclor 1260	ND	0.10	0.50	µg/L	1	6/8/2011 05:25 PM	
beta-BHC	ND	0.0050	0.025	µg/L	1	6/8/2011 03:00 PM	
Chlordane	ND	0.050	0.25	µg/L	1	6/8/2011 03:00 PM	
delta-BHC	ND	0.0050	0.025	µg/L	1	6/8/2011 03:00 PM	
Dieldrin	ND	0.0050	0.050	µg/L	1	6/8/2011 03:00 PM	
Endosulfan I	ND	0.0050	0.025	µg/L	1	6/8/2011 03:00 PM	
Endosulfan II	ND	0.0050	0.050	µg/L	1	6/8/2011 03:00 PM	
Endosulfan sulfate	ND	0.0050	0.050	µg/L	1	6/8/2011 03:00 PM	
Endrin	ND	0.0050	0.050	µg/L	1	6/8/2011 03:00 PM	
Endrin aldehyde	ND	0.0050	0.050	µg/L	1	6/8/2011 03:00 PM	
gamma-BHC	ND	0.0050	0.025	µg/L	1	6/8/2011 03:00 PM	
Heptachlor	ND	0.0050	0.025	µg/L	1	6/8/2011 03:00 PM	
Heptachlor epoxide	ND	0.0050	0.025	µg/L	1	6/8/2011 03:00 PM	
Toxaphene	ND	0.50	2.5	µg/L	1	6/8/2011 03:00 PM	
Surr: Decachlorobiphenyl	102	0	29-137	%REC	1	6/8/2011 03:00 PM	
Surr: Decachlorobiphenyl	76.9	0	29-137	%REC	1	6/8/2011 05:25 PM	
Surr: Tetrachloro-m-xylene	78.5	0	47-117	%REC	1	6/8/2011 05:25 PM	
Surr: Tetrachloro-m-xylene	92.1	0	47-117	%REC	1	6/8/2011 03:00 PM	

**Qualifiers:** B Analyte detected in the associated Method Blank  
 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
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 S Spike/Surrogate outside of limits due to matrix interference  
 DO Surrogate Diluted Out



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**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001C

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual Units	DF	Date Analyzed
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**SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS**  
**EPA 3510C**

**EPA 625**

RunID: MS 13_110613C	QC Batch: 73374	PrepDate: 6/7/2011	Analyst: JSD
1,2,4-Trichlorobenzene	ND 0.46	2.0	µg/L 1 6/13/2011 09:10 PM
1,2-Diphenylhydrazine	ND 0.42	2.0	µg/L 1 6/13/2011 09:10 PM
2,4,6-Trichlorophenol	ND 2.3	10	µg/L 1 6/13/2011 09:10 PM
2,4-Dichlorophenol	ND 2.4	5.0	µg/L 1 6/13/2011 09:10 PM
2,4-Dimethylphenol	ND 1.9	5.0	µg/L 1 6/13/2011 09:10 PM
2,4-Dinitrophenol	ND 1.3	20	µg/L 1 6/13/2011 09:10 PM
2,4-Dinitrotoluene	ND 0.36	5.0	µg/L 1 6/13/2011 09:10 PM
2,6-Dinitrotoluene	ND 0.33	5.0	µg/L 1 6/13/2011 09:10 PM
2-Chloronaphthalene	ND 0.44	10	µg/L 1 6/13/2011 09:10 PM
2-Chlorophenol	ND 2.1	5.0	µg/L 1 6/13/2011 09:10 PM
2-Nitrophenol	ND 2.5	10	µg/L 1 6/13/2011 09:10 PM
3,3'-Dichlorobenzidine	ND 1.4	5.0	µg/L 1 6/13/2011 09:10 PM
4,6-Dinitro-2-methylphenol	ND 1.1	20	µg/L 1 6/13/2011 09:10 PM
4-Bromophenyl-phenylether	ND 0.47	5.0	µg/L 1 6/13/2011 09:10 PM
4-Chloro-3-methylphenol	ND 2.1	5.0	µg/L 1 6/13/2011 09:10 PM
4-Chlorophenyl-phenylether	ND 0.44	5.0	µg/L 1 6/13/2011 09:10 PM
4-Nitrophenol	ND 0.86	5.0	µg/L 1 6/13/2011 09:10 PM
Acenaphthene	ND 0.49	2.0	µg/L 1 6/13/2011 09:10 PM
Acenaphthylene	ND 0.47	2.0	µg/L 1 6/13/2011 09:10 PM
Anthracene	ND 0.32	2.0	µg/L 1 6/13/2011 09:10 PM
Benzidine (M)	ND 1.2	5.0	µg/L 1 6/13/2011 09:10 PM
Benzo(a)anthracene	ND 0.32	2.0	µg/L 1 6/13/2011 09:10 PM
Benzo(a)pyrene	ND 0.25	2.0	µg/L 1 6/13/2011 09:10 PM
Benzo(b)fluoranthene	ND 0.27	2.0	µg/L 1 6/13/2011 09:10 PM
Benzo(g,h,i)perylene	ND 0.29	2.0	µg/L 1 6/13/2011 09:10 PM
Benzo(k)fluoranthene	ND 0.36	2.0	µg/L 1 6/13/2011 09:10 PM
Bis(2-chloroethoxy)methane	ND 0.48	5.0	µg/L 1 6/13/2011 09:10 PM
Bis(2-chloroethyl)ether	ND 0.48	5.0	µg/L 1 6/13/2011 09:10 PM
Bis(2-ethylhexyl)phthalate	ND 0.43	5.0	µg/L 1 6/13/2011 09:10 PM
Butylbenzylphthalate	ND 0.46	10	µg/L 1 6/13/2011 09:10 PM
Chrysene	ND 0.32	2.0	µg/L 1 6/13/2011 09:10 PM
Di-n-butylphthalate	ND 0.41	10	µg/L 1 6/13/2011 09:10 PM
Di-n-octylphthalate	ND 0.42	10	µg/L 1 6/13/2011 09:10 PM
Dibenz(a,h)anthracene	ND 0.32	2.0	µg/L 1 6/13/2011 09:10 PM
Diethylphthalate	ND 0.38	10	µg/L 1 6/13/2011 09:10 PM

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



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**ANALYTICAL RESULTS**

Print Date: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001C

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

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

**EPA 3510C**

**EPA 625**

RunID: MS 13_110613C	QC Batch: 73374	PrepDate: 6/7/2011	Analyst: JSD		
Dimethylphthalate	ND 0.38	10	µg/L	1	6/13/2011 09:10 PM
Fluoranthene	ND 0.31	2.0	µg/L	1	6/13/2011 09:10 PM
Fluorene	ND 0.41	2.0	µg/L	1	6/13/2011 09:10 PM
Hexachlorobenzene	ND 0.50	5.0	µg/L	1	6/13/2011 09:10 PM
Hexachlorobutadiene	ND 0.54	5.0	µg/L	1	6/13/2011 09:10 PM
Hexachlorocyclopentadiene	ND 0.35	5.0	µg/L	1	6/13/2011 09:10 PM
Hexachloroethane	ND 0.37	5.0	µg/L	1	6/13/2011 09:10 PM
Indeno(1,2,3-cd)pyrene	ND 0.30	2.0	µg/L	1	6/13/2011 09:10 PM
Isophorone	ND 0.47	5.0	µg/L	1	6/13/2011 09:10 PM
N-Nitrosodi-n-propylamine	ND 0.82	5.0	µg/L	1	6/13/2011 09:10 PM
N-Nitrosodimethylamine	ND 0.55	10	µg/L	1	6/13/2011 09:10 PM
N-Nitrosodiphenylamine	ND 0.36	5.0	µg/L	1	6/13/2011 09:10 PM
Naphthalene	ND 0.47	2.0	µg/L	1	6/13/2011 09:10 PM
Nitrobenzene	ND 0.51	10	µg/L	1	6/13/2011 09:10 PM
Pentachlorophenol	ND 1.6	20	µg/L	1	6/13/2011 09:10 PM
Phenanthrene	ND 0.37	2.0	µg/L	1	6/13/2011 09:10 PM
Phenol	ND 1.3	10	µg/L	1	6/13/2011 09:10 PM
Pyrene	ND 0.28	2.0	µg/L	1	6/13/2011 09:10 PM
Surr: 1,2-Dichlorobenzene-d4	62.6 0	46-97	%REC	1	6/13/2011 09:10 PM
Surr: 2,4,6-Tribromophenol	87.1 0	59-124	%REC	1	6/13/2011 09:10 PM
Surr: 2-Chlorophenol-d4	58.7 0	49-93	%REC	1	6/13/2011 09:10 PM
Surr: 2-Fluorobiphenyl	70.8 0	57-107	%REC	1	6/13/2011 09:10 PM
Surr: 2-Fluorophenol	39.3 0	27-60	%REC	1	6/13/2011 09:10 PM
Surr: 4-Terphenyl-d14	81.4 0	69-132	%REC	1	6/13/2011 09:10 PM
Surr: Nitrobenzene-d5	64.4 0	52-107	%REC	1	6/13/2011 09:10 PM
Surr: Phenol-d5	31.9 0	15-50	%REC	1	6/13/2011 09:10 PM

**1,4-DIOXANE BY GC/MS: ISOTOPE DILUTION TECHNIQUE**

**EPA 3510C**

**EPA 8270C(M)**

RunID: MS 13_110607A	QC Batch: 73374	PrepDate: 6/7/2011	Analyst: JSD		
1,4-Dioxane	ND 1.9	2.0	µg/L	1	6/8/2011 06:41 PM
Surr: 1,2-Dichlorobenzene-d4	65.2 0	46-97	%REC	1	6/8/2011 06:41 PM
Surr: 2,4,6-Tribromophenol	101 0	59-124	%REC	1	6/8/2011 06:41 PM
Surr: 2-Chlorophenol-d4	58.6 0	49-93	%REC	1	6/8/2011 06:41 PM
Surr: 2-Fluorobiphenyl	71.9 0	57-107	%REC	1	6/8/2011 06:41 PM

**Qualifiers:** B Analyte detected in the associated Method Blank  
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 ND Not Detected at the Reporting Limit  
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**ANALYTICAL RESULTS**

Print Date: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001C

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual Units	DF	Date Analyzed
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**1,4-DIOXANE BY GC/MS: ISOTOPE DILUTION TECHNIQUE**

**EPA 3510C**

**EPA 8270C(M)**

RunID: <b>MS 13_110607A</b>	QC Batch: <b>73374</b>			PrepDate: <b>6/7/2011</b>	Analyst: <b>JSD</b>
Surr: 2-Fluorophenol	38.3	0	27-60	%REC	1 6/8/2011 06:41 PM
Surr: 4-Terphenyl-d14	86.6	0	69-132	%REC	1 6/8/2011 06:41 PM
Surr: Nitrobenzene-d5	69.6	0	52-107	%REC	1 6/8/2011 06:41 PM
Surr: Phenol-d5	30.2	0	15-50	%REC	1 6/8/2011 06:41 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	J Analyte detected below quantitation limits
	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: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001D

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	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_110609C	QC Batch:	73438	PrepDate:	6/9/2011	Analyst:	CBR
DRO	ND	0.050	0.050	mg/L	1	6/9/2011 01:18 PM	
ORO	ND	0.050	0.050	mg/L	1	6/9/2011 01:18 PM	
Surr: p-Terphenyl	61.9	0	36-126	%REC	1	6/9/2011 01:18 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	J Analyte detected below quantitation limits
	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: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001E

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

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

**EPA 624**

RunID:	MS2_110610A	QC Batch:	Q11VW094	PrepDate:	Analyst:	BD
1,1,1-Trichloroethane	ND	0.17	0.50	µg/L	1	6/10/2011 03:51 PM
1,1,2,2-Tetrachloroethane	ND	0.21	0.50	µg/L	1	6/10/2011 03:51 PM
1,1,2-Trichloroethane	ND	0.15	0.50	µg/L	1	6/10/2011 03:51 PM
1,1-Dichloroethane	ND	0.14	0.50	µg/L	1	6/10/2011 03:51 PM
1,1-Dichloroethene	ND	0.15	0.50	µg/L	1	6/10/2011 03:51 PM
1,2-Dichlorobenzene	ND	0.12	0.50	µg/L	1	6/10/2011 03:51 PM
1,2-Dichloroethane	ND	0.14	0.50	µg/L	1	6/10/2011 03:51 PM
1,2-Dichloropropane	ND	0.11	0.50	µg/L	1	6/10/2011 03:51 PM
1,3-Dichlorobenzene	ND	0.15	0.50	µg/L	1	6/10/2011 03:51 PM
1,4-Dichlorobenzene	ND	0.15	0.50	µg/L	1	6/10/2011 03:51 PM
2-Chloroethyl vinyl ether	ND	0.40	0.50	µg/L	1	6/10/2011 03:51 PM
Acrolein	ND	1.4	10	µg/L	1	6/10/2011 03:51 PM
Acrylonitrile	ND	1.2	10	µg/L	1	6/10/2011 03:51 PM
Benzene	ND	0.14	0.50	µg/L	1	6/10/2011 03:51 PM
Bromodichloromethane	ND	0.18	0.50	µg/L	1	6/10/2011 03:51 PM
Bromoform	ND	0.13	0.50	µg/L	1	6/10/2011 03:51 PM
Bromomethane	ND	0.50	0.50	µg/L	1	6/10/2011 03:51 PM
Carbon tetrachloride	ND	0.20	0.50	µg/L	1	6/10/2011 03:51 PM
Chlorobenzene	ND	0.13	0.50	µg/L	1	6/10/2011 03:51 PM
Chloroethane	ND	0.20	0.50	µg/L	1	6/10/2011 03:51 PM
Chloroform	1.9	0.13	0.50	µg/L	1	6/10/2011 03:51 PM
Chloromethane	ND	0.19	0.50	µg/L	1	6/10/2011 03:51 PM
cis-1,3-Dichloropropene	ND	0.13	0.50	µg/L	1	6/10/2011 03:51 PM
Dibromochloromethane	ND	0.17	0.50	µg/L	1	6/10/2011 03:51 PM
Ethylbenzene	ND	0.14	0.50	µg/L	1	6/10/2011 03:51 PM
Methylene chloride	ND	1.0	1.0	µg/L	1	6/10/2011 03:51 PM
o-Xylene	ND	0.14	0.50	µg/L	1	6/10/2011 03:51 PM
Tetrachloroethene	0.47	0.15	0.50	µg/L	1	6/10/2011 03:51 PM
Toluene	ND	0.17	0.50	µg/L	1	6/10/2011 03:51 PM
trans-1,2-Dichloroethene	ND	0.14	0.50	µg/L	1	6/10/2011 03:51 PM
trans-1,3-Dichloropropene	ND	0.16	0.50	µg/L	1	6/10/2011 03:51 PM
Trichloroethene	ND	0.15	0.50	µg/L	1	6/10/2011 03:51 PM
Vinyl chloride	ND	0.16	0.50	µg/L	1	6/10/2011 03:51 PM
m,p-Xylene	ND	0.29	1.0	µg/L	1	6/10/2011 03:51 PM
Surr: 1,2-Dichloroethane-d4	93.4	0	70-130	%REC	1	6/10/2011 03:51 PM

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 H Holding times for preparation or analysis exceeded  
 ND Not Detected at the Reporting Limit  
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**ANALYTICAL RESULTS**

Print Date: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001E

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

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

**EPA 624**

RunID:	MS2_110610A	QC Batch:	Q11VW094	PrepDate:	Analyst:	BD	
Surr:	4-Bromofluorobenzene	105	0	70-130	%REC	1	6/10/2011 03:51 PM
Surr:	Dibromofluoromethane	91.8	0	70-130	%REC	1	6/10/2011 03:51 PM
Surr:	Toluene-d8	93.6	0	70-130	%REC	1	6/10/2011 03:51 PM

**VOLATILE ORGANIC COMPOUNDS BY GC/MS**

**EPA 8260B**

RunID:	MS2_110610A	QC Batch:	Q11VW094	PrepDate:	Analyst:	BD	
	1,2-Dibromoethane	ND	0.12	0.50	µg/L	1	6/10/2011 03:51 PM
	2-Butanone	ND	1.7	10	µg/L	1	6/10/2011 03:51 PM
	Acetone	ND	2.7	10	µg/L	1	6/10/2011 03:51 PM
	Di-isopropyl ether	ND	0.17	0.50	µg/L	1	6/10/2011 03:51 PM
	Ethyl tert-butyl ether	ND	0.13	0.50	µg/L	1	6/10/2011 03:51 PM
	MTBE	ND	0.12	0.50	µg/L	1	6/10/2011 03:51 PM
	Tert-amyl methyl ether	ND	0.11	0.50	µg/L	1	6/10/2011 03:51 PM
	Tert-Butanol	ND	2.4	10	µg/L	1	6/10/2011 03:51 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	J Analyte detected below quantitation limits
	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: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001F

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

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

**EPA 8015B(M)**

RunID: <b>GC19_110607A</b>	QC Batch: <b>M11VW112</b>			PrepDate:		Analyst: <b>DDL</b>
GRO	ND	0.050	0.050	mg/L	1	6/7/2011 02:46 PM
Surr: Bromofluorobenzene (FID)	91.7	0	70-130	%REC	1	6/7/2011 02:46 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	J Analyte detected below quantitation limits
	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: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001G

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

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

**EPA 3010A**

**EPA 200.7**

RunID: <b>ICP8_110608D</b>	QC Batch: <b>73389</b>				PrepDate: <b>6/7/2011</b>	Analyst: <b>IL</b>
Boron	0.39	0.020	0.10	mg/L	1	6/8/2011 12:10 PM

**ICPMS METALS**

**EPA 200.8**

**EPA 200.8**

RunID: <b>ICP7_110608B</b>	QC Batch: <b>73358</b>				PrepDate: <b>6/6/2011</b>	Analyst: <b>SRB</b>
Antimony	0.19	0.084	0.50	J µg/L	1	6/8/2011 05:24 PM
Arsenic	1.8	0.067	1.0	µg/L	1	6/8/2011 05:24 PM
Beryllium	ND	0.38	2.5	µg/L	5	6/8/2011 06:24 PM
Cadmium	0.19	0.071	0.50	J µg/L	1	6/8/2011 05:24 PM
Chromium	1.8	0.088	0.50	µg/L	1	6/8/2011 05:24 PM
Copper	1.1	0.058	1.0	µg/L	1	6/8/2011 05:24 PM
Lead	ND	0.10	1.0	µg/L	1	6/8/2011 05:24 PM
Nickel	5.4	0.10	1.0	µg/L	1	6/8/2011 05:24 PM
Selenium	7.5	0.26	0.50	µg/L	1	6/8/2011 05:24 PM
Silver	0.076	0.027	0.50	J µg/L	1	6/8/2011 05:24 PM
Thallium	ND	0.091	0.50	µg/L	1	6/8/2011 05:24 PM
Zinc	7.3	2.5	10	J µg/L	1	6/8/2011 05:24 PM

**MERCURY BY COLD VAPOR TECHNIQUE**

**EPA 245.1**

RunID: <b>AA1_110608B</b>	QC Batch: <b>73388</b>				PrepDate: <b>6/7/2011</b>	Analyst: <b>VV</b>
Mercury	ND	0.081	0.20	µg/L	1	6/8/2011 12:25 PM

**HARDNESS AS CALCIUM CARBONATE**

**SM2340C**

RunID: <b>WETCHEM_110609B</b>	QC Batch: <b>R133784</b>				PrepDate:	Analyst: <b>PT</b>
Hardness (As CaCO3)	580	3.3	8.0	mg/L	4	6/9/2011

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	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: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001H

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual Units	DF	Date Analyzed
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**CYANIDE, TOTAL**

**SM4500-CN E**

RunID: <b>WETCHEM3_110609A</b>	QC Batch: <b>73478</b>			PrepDate: <b>6/9/2011</b>	Analyst: <b>AAG</b>	
Cyanide	1.5	0.25	0.50	µg/L	1	6/9/2011

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	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: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001I

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual Units	DF	Date Analyzed
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## SETTLABLE MATTER

### SM2540F

RunID: <b>WETCHEM_110603A</b>	QC Batch: <b>73356</b>			PrepDate: <b>6/3/2011</b>	Analyst: <b>PT</b>	
Settleable Matter	ND	0.093	0.093	ml/L	1	6/3/2011

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	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: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001J

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**OIL & GREASE**

**EPA 1664\_HEM**

RunID: <b>WETCHEM2_110608C</b>	QC Batch: <b>73436</b>				PrepDate: <b>6/8/2011</b>	Analyst: <b>AAG</b>	
Oil & Grease	ND	1.2	4.4		mg/L	1	6/8/2011

**TOTAL PETROLEUM HYDROCARBONS**

**EPA 1664\_SGT/HEM**

RunID: <b>WETCHEM2_110608B</b>	QC Batch: <b>73435</b>				PrepDate: <b>6/8/2011</b>	Analyst: <b>AAG</b>	
Total Petroleum Hydrocarbons	ND	0.46	2.0		mg/L	1	6/8/2011

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	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: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001K

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**SULFIDE, TOTAL**

**SM4500-S= D**

RunID: <b>WETCHEM3_110607A</b>	QC Batch: <b>R133693</b>			PrepDate:		Analyst: <b>admin</b>
Sulfide	0.0082	0.0035	0.010	J mg/L	1	6/7/2011

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	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: 14-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 118188-001L

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/3/2011 10:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual Units	DF	Date Analyzed
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**NON-HALOGENATED ORGANICS BY GC/FID**

**EPA 8015B**

RunID: <b>GC3_110607A</b>	QC Batch: <b>R133678</b>			PrepDate:		Analyst: <b>CBR</b>
Ethanol	ND	0.25	1.0	mg/L	1	6/9/2011 09:09 AM
Methanol	ND	0.39	1.0	mg/L	1	6/9/2011 09:09 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	J Analyte detected below quantitation limits
	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:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

**ANALYTICAL QC SUMMARY REPORT**

**TestCode: 130.2\_2340C\_W**

Sample ID: <b>MB-R133784</b>	SampType: <b>MBLK</b>	TestCode: <b>130.2_2340C_</b> Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133784</b>							
Client ID: <b>PBW</b>	Batch ID: <b>R133784</b>	TestNo: <b>SM2340C</b>	Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2184124</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Hardness (As CaCO3) ND 2.0

Sample ID: <b>LCS-R133784</b>	SampType: <b>LCS</b>	TestCode: <b>130.2_2340C_</b> Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133784</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>R133784</b>	TestNo: <b>SM2340C</b>	Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2184125</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Hardness (As CaCO3) 50.490 2.0 50.00 0 101 80 120

Sample ID: <b>118188-001GMS</b>	SampType: <b>MS</b>	TestCode: <b>130.2_2340C_</b> Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133784</b>							
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133784</b>	TestNo: <b>SM2340C</b>	Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2184127</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

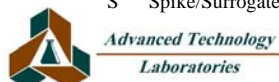
Hardness (As CaCO3) 1108.800 20 500.0 578.2 106 80 120

Sample ID: <b>118188-001GMSD</b>	SampType: <b>MSD</b>	TestCode: <b>130.2_2340C_</b> Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133784</b>							
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133784</b>	TestNo: <b>SM2340C</b>	Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2184128</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Hardness (As CaCO3) 1113.750 20 500.0 578.2 107 80 120 1109 0.445 20

**Qualifiers:**

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



**CLIENT:** MACTEC  
**Work Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 150.1\_4500H+B\_W

Sample ID: <b>118188-001ADUP</b>		SampType: <b>DUP</b>		TestCode: <b>150.1_4500H+</b> Units: <b>pH Units</b>			Prep Date:		RunNo: <b>133714</b>		
Client ID: <b>P-103 / UCLA LOT 3</b>		Batch ID: <b>R133714</b>		TestNo: <b>SM4500-H+B</b>			Analysis Date: <b>6/3/2011</b>		SeqNo: <b>2182893</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	7.000	0.10						6.970	0.429	10	H

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | 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:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 160.1\_2540C\_W**

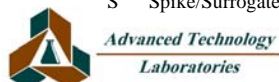
Sample ID: <b>118188-001A-DUP</b>	SampType: <b>DUP</b>	TestCode: <b>160.1_2540C_</b>	Units: <b>mg/L</b>	Prep Date: <b>6/6/2011</b>	RunNo: <b>133689</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>73393</b>	TestNo: <b>SM2540C</b>	Analysis Date: <b>6/6/2011</b>	SeqNo: <b>2182545</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	980.000	10						970.0	1.03	10	

Sample ID: <b>LCS-73393</b>	SampType: <b>LCS</b>	TestCode: <b>160.1_2540C_</b>	Units: <b>mg/L</b>	Prep Date: <b>6/6/2011</b>	RunNo: <b>133689</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73393</b>	TestNo: <b>SM2540C</b>	Analysis Date: <b>6/6/2011</b>	SeqNo: <b>2182546</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	989.000	10	970.0	0	102	80	120				

Sample ID: <b>MB-73393</b>	SampType: <b>MBLK</b>	TestCode: <b>160.1_2540C_</b>	Units: <b>mg/L</b>	Prep Date: <b>6/6/2011</b>	RunNo: <b>133689</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73393</b>	TestNo: <b>SM2540C</b>	Analysis Date: <b>6/6/2011</b>	SeqNo: <b>2182547</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Total Dissolved Solids (Residue, Filtera	ND	10									

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | 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:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 160.2\_2540D\_W**

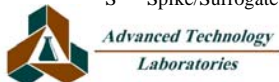
Sample ID: <b>118188-001A-DUP</b>	SampType: <b>DUP</b>	TestCode: <b>160.2_2540D_</b>	Units: <b>mg/L</b>	Prep Date: <b>6/6/2011</b>	RunNo: <b>133660</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>73379</b>	TestNo: <b>SM2540D</b>	Analysis Date: <b>6/6/2011</b>	SeqNo: <b>2182127</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter)	ND	10						0	0	10	

Sample ID: <b>LCS-73379</b>	SampType: <b>LCS</b>	TestCode: <b>160.2_2540D_</b>	Units: <b>mg/L</b>	Prep Date: <b>6/6/2011</b>	RunNo: <b>133660</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73379</b>	TestNo: <b>SM2540D</b>	Analysis Date: <b>6/6/2011</b>	SeqNo: <b>2182128</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter)	99.000	10	96.60	0	102	80	120				

Sample ID: <b>MB-73379</b>	SampType: <b>MBLK</b>	TestCode: <b>160.2_2540D_</b>	Units: <b>mg/L</b>	Prep Date: <b>6/6/2011</b>	RunNo: <b>133660</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73379</b>	TestNo: <b>SM2540D</b>	Analysis Date: <b>6/6/2011</b>	SeqNo: <b>2182129</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter)	ND	10									

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | 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:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 160.5\_2540F\_W

Sample ID: <b>MB-73356</b>	SampType: <b>MBLK</b>	TestCode: <b>160.5_2540F_</b> Units: <b>ml/L</b>	Prep Date: <b>6/3/2011</b>	RunNo: <b>133626</b>							
Client ID: <b>PBW</b>	Batch ID: <b>73356</b>	TestNo: <b>SM2540F</b>	Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2181625</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Settleable Matter	ND	0.10									

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | 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: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 1664\_HEM\_W

Sample ID: <b>MB-73436</b>	SampType: <b>MBLK</b>	TestCode: <b>1664_HEM_W</b>	Units: <b>mg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133759</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73436</b>	TestNo: <b>EPA 1664_H</b>		Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183638</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Oil & Grease ND 4.0

Sample ID: <b>LCS-73436</b>	SampType: <b>LCS</b>	TestCode: <b>1664_HEM_W</b>	Units: <b>mg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133759</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73436</b>	TestNo: <b>EPA 1664_H</b>		Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183639</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Oil & Grease 38.600 4.0 40.00 0 96.5 78 114

Sample ID: <b>118188-001J-MS</b>	SampType: <b>MS</b>	TestCode: <b>1664_HEM_W</b>	Units: <b>mg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133759</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>73436</b>	TestNo: <b>EPA 1664_H</b>		Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183641</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

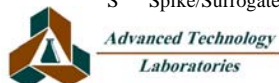
Oil & Grease 39.889 4.4 44.44 0 89.8 78 114

Sample ID: <b>118188-001J-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>1664_HEM_W</b>	Units: <b>mg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133759</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>73436</b>	TestNo: <b>EPA 1664_H</b>		Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183642</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Oil & Grease 41.667 4.4 44.44 0 93.8 78 114 39.89 4.36 20

### Qualifiers:

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



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CLIENT: MACTEC

Work Order: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 1664\_SGT/HEM\_W

Sample ID: <b>MB-73435</b>	SampType: <b>MBLK</b>	TestCode: <b>1664_SGT/HE</b>	Units: <b>mg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133756</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73435</b>	TestNo: <b>EPA 1664_SG</b>		Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183566</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons ND 2.0

Sample ID: <b>LCS-73435</b>	SampType: <b>LCS</b>	TestCode: <b>1664_SGT/HE</b>	Units: <b>mg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133756</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73435</b>	TestNo: <b>EPA 1664_SG</b>		Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183567</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons 18.900 2.0 20.00 0 94.5 78 114

Sample ID: <b>118188-001JMS</b>	SampType: <b>MS</b>	TestCode: <b>1664_SGT/HE</b>	Units: <b>mg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133756</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>73435</b>	TestNo: <b>EPA 1664_SG</b>		Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183576</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

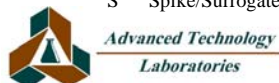
Total Petroleum Hydrocarbons 16.500 2.0 20.00 0 82.5 78 114

Sample ID: <b>118188-001JMSD</b>	SampType: <b>MSD</b>	TestCode: <b>1664_SGT/HE</b>	Units: <b>mg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133756</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>73435</b>	TestNo: <b>EPA 1664_SG</b>		Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183577</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Total Petroleum Hydrocarbons 16.800 2.0 20.00 0 84.0 78 114 16.50 1.80 20

### Qualifiers:

- |   |  |    |                                     |   |  |
|---|--|----|-------------------------------------|---|--|
| B | Analyte detected in the associated Method Blank              | E  | Value above quantitation range      | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits                   | 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:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 180.1\_W**

Sample ID: <b>MB-R133657</b>	SampType: <b>MBLK</b>	TestCode: <b>180.1_W</b>	Units: <b>NTU</b>	Prep Date:	RunNo: <b>133657</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R133657</b>	TestNo: <b>EPA 180.1</b>	Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182092</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

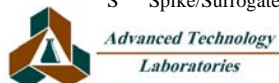
Turbidity	ND	0.10									
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Sample ID: <b>118188-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>180.1_W</b>	Units: <b>NTU</b>	Prep Date:	RunNo: <b>133657</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133657</b>	TestNo: <b>EPA 180.1</b>	Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182094</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Turbidity	5.080	0.10				5.040	0.791	10			
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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 |
| J Analyte detected below quantitation limits                   | 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: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 200.7\_W1

Sample ID: <b>MB-73389</b>	SampType: <b>MBLK</b>	TestCode: <b>200.7_W1</b>	Units: <b>mg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133728</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73389</b>	TestNo: <b>EPA 200.7</b>	<b>EPA 3010A</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183096</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Boron	0.024	0.10									J
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Sample ID: <b>LCS-73389</b>	SampType: <b>LCS</b>	TestCode: <b>200.7_W1</b>	Units: <b>mg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133728</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73389</b>	TestNo: <b>EPA 200.7</b>	<b>EPA 3010A</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183097</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Boron	10.480	0.10	10.00	0.02390	105	85	115				
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Sample ID: <b>118188-001G-MS</b>	SampType: <b>MS</b>	TestCode: <b>200.7_W1</b>	Units: <b>mg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133728</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>73389</b>	TestNo: <b>EPA 200.7</b>	<b>EPA 3010A</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183101</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

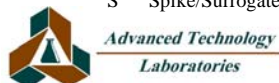
Boron	5.457	0.10	5.000	0.3947	101	78	121				
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Sample ID: <b>118188-001G-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>200.7_W1</b>	Units: <b>mg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133728</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>73389</b>	TestNo: <b>EPA 200.7</b>	<b>EPA 3010A</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183102</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Boron	5.441	0.10	5.000	0.3947	101	78	121	5.457	0.307	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 |
| J | Analyte detected below quantitation limits                   | 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: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

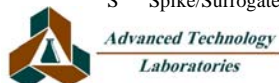
TestCode: 200.8\_W

Sample ID: <b>MB-73358</b>	SampType: <b>MBLK</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>6/6/2011</b>	RunNo: <b>133765</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73358</b>	TestNo: <b>EPA 200.8</b>	<b>EPA 200.8</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183808</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	ND	0.50									
Arsenic	ND	1.0									
Cadmium	ND	0.50									
Chromium	ND	0.50									
Copper	ND	1.0									
Lead	ND	1.0									
Nickel	ND	1.0									
Selenium	ND	0.50									
Silver	ND	0.50									
Thallium	ND	0.50									
Zinc	ND	10									

Sample ID: <b>LCS-73358</b>	SampType: <b>LCS</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>6/6/2011</b>	RunNo: <b>133765</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73358</b>	TestNo: <b>EPA 200.8</b>	<b>EPA 200.8</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183809</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	9.646	0.50	10.00	0	96.5	85	115				
Arsenic	9.941	1.0	10.00	0	99.4	85	115				
Cadmium	9.896	0.50	10.00	0	99.0	85	115				
Chromium	9.755	0.50	10.00	0	97.6	85	115				
Copper	9.965	1.0	10.00	0	99.7	85	115				
Lead	9.813	1.0	10.00	0	98.1	85	115				
Nickel	9.650	1.0	10.00	0	96.5	85	115				
Selenium	10.325	0.50	10.00	0	103	85	115				
Silver	9.426	0.50	10.00	0	94.3	85	115				
Thallium	9.879	0.50	10.00	0	98.8	85	115				
Zinc	101.155	10	100.0	0	101	85	115				

**Qualifiers:**

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  - E Value above quantitation range
  - ND Not Detected at the Reporting Limit
  - DO Surrogate Diluted Out
  - H Holding times for preparation or analysis exceeded
  - R RPD outside accepted recovery limits
- 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: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

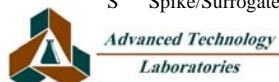
TestCode: 200.8\_W

Sample ID: 118188-001G-MS	SampType: MS	TestCode: 200.8_W	Units: µg/L	Prep Date: 6/6/2011	RunNo: 133765						
Client ID: P-103 / UCLA LOT 3	Batch ID: 73358	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 6/8/2011	SeqNo: 2183811						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	9.746	0.50	10.00	0.1888	95.6	70	130				
Arsenic	11.793	1.0	10.00	1.786	100	70	130				
Cadmium	9.333	0.50	10.00	0.1925	91.4	70	130				
Chromium	10.281	0.50	10.00	1.846	84.4	70	130				
Copper	9.394	1.0	10.00	1.130	82.6	70	130				
Lead	9.265	1.0	10.00	0	92.6	70	130				
Nickel	13.620	1.0	10.00	5.359	82.6	70	130				
Selenium	17.969	0.50	10.00	7.509	105	70	130				
Silver	7.904	0.50	10.00	0.07625	78.3	70	130				
Thallium	9.409	0.50	10.00	0	94.1	70	130				
Zinc	104.645	10	100.0	7.315	97.3	70	130				

Sample ID: 118188-001G-MSD	SampType: MSD	TestCode: 200.8_W	Units: µg/L	Prep Date: 6/6/2011	RunNo: 133765						
Client ID: P-103 / UCLA LOT 3	Batch ID: 73358	TestNo: EPA 200.8	EPA 200.8	Analysis Date: 6/8/2011	SeqNo: 2183812						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Antimony	9.878	0.50	10.00	0.1888	96.9	70	130	9.746	1.34	20	
Arsenic	11.955	1.0	10.00	1.786	102	70	130	11.79	1.37	20	
Cadmium	9.160	0.50	10.00	0.1925	89.7	70	130	9.332	1.87	20	
Chromium	10.419	0.50	10.00	1.846	85.7	70	130	10.28	1.33	20	
Copper	9.083	1.0	10.00	1.130	79.5	70	130	9.394	3.37	20	
Lead	8.941	1.0	10.00	0	89.4	70	130	9.265	3.56	20	
Nickel	13.815	1.0	10.00	5.359	84.6	70	130	13.62	1.42	20	
Selenium	17.086	0.50	10.00	7.509	95.8	70	130	17.97	5.03	20	
Silver	8.455	0.50	10.00	0.07625	83.8	70	130	7.904	6.74	20	
Thallium	9.041	0.50	10.00	0	90.4	70	130	9.409	3.98	20	
Zinc	97.769	10	100.0	7.315	90.5	70	130	104.6	6.79	20	

**Qualifiers:**

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

CLIENT: MACTEC

Work Order: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8\_W

Sample ID: <b>MB-73358</b>	SampType: <b>MBLK</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>6/6/2011</b>	RunNo: <b>133765</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73358</b>	TestNo: <b>EPA 200.8</b>	<b>EPA 200.8</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183813</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Beryllium ND 0.50

Sample ID: <b>LCS-73358</b>	SampType: <b>LCS</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>6/6/2011</b>	RunNo: <b>133765</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73358</b>	TestNo: <b>EPA 200.8</b>	<b>EPA 200.8</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183814</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Beryllium 9.558 0.50 10.00 0 95.6 85 115

Sample ID: <b>118188-001G-MS</b>	SampType: <b>MS</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>6/6/2011</b>	RunNo: <b>133765</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>73358</b>	TestNo: <b>EPA 200.8</b>	<b>EPA 200.8</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183816</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

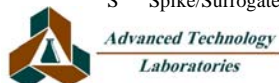
Beryllium 8.125 2.5 10.00 0 81.2 70 130

Sample ID: <b>118188-001G-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>6/6/2011</b>	RunNo: <b>133765</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>73358</b>	TestNo: <b>EPA 200.8</b>	<b>EPA 200.8</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183817</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Beryllium 8.344 2.5 10.00 0 83.4 70 130 8.125 2.66 20

### Qualifiers:

- B Analyte detected in the associated Method Blank
  - J Analyte detected below quantitation limits
  - S Spike/Surrogate outside of limits due to matrix interference
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  - DO Surrogate Diluted Out
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**CLIENT:** MACTEC  
**Work Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 218.6\_W**

Sample ID: <b>MB-R133649</b>	SampType: <b>MBLK</b>	TestCode: <b>218.6_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>133649</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R133649</b>	TestNo: <b>EPA 218.6</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182031</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chromium, Hexavalent	ND	0.20									
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Sample ID: <b>LCS-R133649</b>	SampType: <b>LCS</b>	TestCode: <b>218.6_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>133649</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R133649</b>	TestNo: <b>EPA 218.6</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182032</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chromium, Hexavalent	5.027	0.20	5.000	0	101	90	110				
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Sample ID: <b>118188-001A-DUP</b>	SampType: <b>DUP</b>	TestCode: <b>218.6_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>133649</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133649</b>	TestNo: <b>EPA 218.6</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182034</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chromium, Hexavalent	0.531	0.20						0.5655	6.31	10	
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Sample ID: <b>118188-001A-MS</b>	SampType: <b>MS</b>	TestCode: <b>218.6_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>133649</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133649</b>	TestNo: <b>EPA 218.6</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182035</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

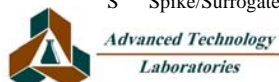
Chromium, Hexavalent	5.578	0.20	5.000	0.5655	100	90	110				
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Sample ID: <b>118188-001A-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>218.6_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>133649</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133649</b>	TestNo: <b>EPA 218.6</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182036</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chromium, Hexavalent	5.430	0.20	5.000	0.5655	97.3	90	110	5.578	2.67	10	
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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 |
| J Analyte detected below quantitation limits                   | 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:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 245.1\_W**

Sample ID: <b>MB-73388</b>	SampType: <b>MBLK</b>	TestCode: <b>245.1_W</b>	Units: <b>µg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133730</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73388</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183111</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury ND 0.20

Sample ID: <b>LCS-73388</b>	SampType: <b>LCS</b>	TestCode: <b>245.1_W</b>	Units: <b>µg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133730</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73388</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183112</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 10.200 0.20 10.00 0 102 85 115

Sample ID: <b>118188-001G-MS</b>	SampType: <b>MS</b>	TestCode: <b>245.1_W</b>	Units: <b>µg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133730</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>73388</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183113</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

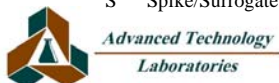
Mercury 9.786 0.20 10.00 0 97.9 70 130

Sample ID: <b>118188-001G-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>245.1_W</b>	Units: <b>µg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133730</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>73388</b>	TestNo: <b>EPA 245.1</b>		Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183114</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Mercury 9.852 0.20 10.00 0 98.5 70 130 9.786 0.670 20

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | 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:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 300\_W\_CL**

Sample ID: <b>LCS-R133674</b>	SampType: <b>LCS</b>	TestCode: <b>300_W_CL</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182402</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	0.935	0.50	1.000	0	93.5	90	110				
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Sample ID: <b>118188-001A-DUP</b>	SampType: <b>DUP</b>	TestCode: <b>300_W_CL</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182404</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	122.691	5.0						124.9	1.80	20	
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Sample ID: <b>118188-001A-MS</b>	SampType: <b>MS</b>	TestCode: <b>300_W_CL</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182405</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	142.776	5.0	25.00	124.9	71.4	80	120				S
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Sample ID: <b>118188-001A-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>300_W_CL</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182406</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

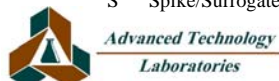
Chloride	142.937	5.0	25.00	124.9	72.0	80	120	142.8	0.113	20	S
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Sample ID: <b>MB-R133674</b>	SampType: <b>MBLK</b>	TestCode: <b>300_W_CL</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182407</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chloride	ND	0.50									
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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 |
| J Analyte detected below quantitation limits                   | 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: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 300\_W\_NO2

Sample ID: <b>LCS-R133674</b>	SampType: <b>LCS</b>	TestCode: <b>300_W_NO2</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182408</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Nitrite 0.940 0.10 1.000 0 94.0 90 110

Sample ID: <b>118188-001A-DUP</b>	SampType: <b>DUP</b>	TestCode: <b>300_W_NO2</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182411</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Nitrite ND 1.0 0 0 20

Sample ID: <b>118188-001A-MS</b>	SampType: <b>MS</b>	TestCode: <b>300_W_NO2</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182412</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Nitrite 26.988 1.0 25.00 0 108 80 120

Sample ID: <b>118188-001A-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>300_W_NO2</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182413</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

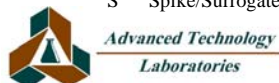
Nitrogen, Nitrite 26.954 1.0 25.00 0 108 80 120 26.99 0.126 20

Sample ID: <b>MB-R133674</b>	SampType: <b>MBLK</b>	TestCode: <b>300_W_NO2</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182414</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Nitrite ND 0.10

### Qualifiers:

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



**CLIENT:** MACTEC  
**Work Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 300\_W\_NO3**

Sample ID: <b>LCS-R133674</b>	SampType: <b>LCS</b>	TestCode: <b>300_W_NO3</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182415</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Nitrate (As N)	0.940	0.10	1.000	0	94.0	90	110				
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Sample ID: <b>118188-001A-DUP</b>	SampType: <b>DUP</b>	TestCode: <b>300_W_NO3</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182418</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Nitrate (As N)	5.076	1.0						5.222	2.84	20	
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Sample ID: <b>118188-001A-MS</b>	SampType: <b>MS</b>	TestCode: <b>300_W_NO3</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182419</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Nitrate (As N)	28.903	1.0	25.00	5.222	94.7	80	120				
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Sample ID: <b>118188-001A-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>300_W_NO3</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182420</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

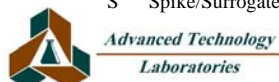
Nitrogen, Nitrate (As N)	28.716	1.0	25.00	5.222	94.0	80	120	28.90	0.649	20	
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Sample ID: <b>MB-R133674</b>	SampType: <b>MBLK</b>	TestCode: <b>300_W_NO3</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182421</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Nitrogen, Nitrate (As N)	ND	0.10									
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**Qualifiers:**

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|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | 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:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 300\_W\_SO4**

Sample ID: <b>LCS-R133674</b>	SampType: <b>LCS</b>	TestCode: <b>300_W_SO4</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182422</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate	1.923	1.0	2.000	0	96.2	90	110				
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Sample ID: <b>118188-001A-DUP</b>	SampType: <b>DUP</b>	TestCode: <b>300_W_SO4</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182424</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate	225.817	10						226.5	0.323	20	
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Sample ID: <b>118188-001A-MS</b>	SampType: <b>MS</b>	TestCode: <b>300_W_SO4</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182425</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate	289.669	10	50.00	226.5	126	80	120				S
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Sample ID: <b>118188-001A-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>300_W_SO4</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182426</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

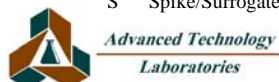
Sulfate	288.990	10	50.00	226.5	125	80	120	289.7	0.235	20	S
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Sample ID: <b>MB-R133674</b>	SampType: <b>MBLK</b>	TestCode: <b>300_W_SO4</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133674</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R133674</b>	TestNo: <b>EPA 300.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2182427</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sulfate	ND	1.0									
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**Qualifiers:**

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|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | 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: 118188

Project: MTA Westside Extension, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 314\_W

Sample ID: <b>MB-R133810</b>	SampType: <b>MBLK</b>	TestCode: <b>314_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>133810</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R133810</b>	TestNo: <b>EPA 314.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2184682</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Perchlorate	ND	2.0									
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Sample ID: <b>LCS-R133810</b>	SampType: <b>LCS</b>	TestCode: <b>314_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>133810</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R133810</b>	TestNo: <b>EPA 314.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2184683</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Perchlorate	24.283	2.0	25.00	0	97.1	85	115				
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Sample ID: <b>118166-010B-DUP</b>	SampType: <b>DUP</b>	TestCode: <b>314_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>133810</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R133810</b>	TestNo: <b>EPA 314.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2184686</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Perchlorate	59.174	2.0						58.98	0.329	15	
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Sample ID: <b>118166-010B-MS</b>	SampType: <b>MS</b>	TestCode: <b>314_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>133810</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R133810</b>	TestNo: <b>EPA 314.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2184687</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

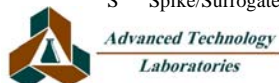
Perchlorate	69.152	2.0	10.00	58.98	102	80	120				
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Sample ID: <b>118166-010B-MS</b>	SampType: <b>MSD</b>	TestCode: <b>314_W</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>133810</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>R133810</b>	TestNo: <b>EPA 314.0</b>		Analysis Date: <b>6/3/2011</b>	SeqNo: <b>2184688</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Perchlorate	69.154	2.0	10.00	58.98	102	80	120	69.15	0.00347	15	
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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 |
| J | Analyte detected below quantitation limits                   | 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: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 335.2\_LL\_4500CNE\_W

Sample ID: <b>118167-001A-MS</b>	SampType: <b>MS</b>	TestCode: <b>335.2_LL_450</b>	Units: <b>µg/L</b>	Prep Date: <b>6/9/2011</b>	RunNo: <b>133816</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>73478</b>	TestNo: <b>SM4500-CN E</b>	Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2184892</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cyanide 4.705 0.50 5.000 0 94.1 80 120

Sample ID: <b>118167-001A-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>335.2_LL_450</b>	Units: <b>µg/L</b>	Prep Date: <b>6/9/2011</b>	RunNo: <b>133816</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>73478</b>	TestNo: <b>SM4500-CN E</b>	Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2184893</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cyanide 4.340 0.50 5.000 0 86.8 80 120 4.705 8.07 20

Sample ID: <b>LCS-73478</b>	SampType: <b>LCS</b>	TestCode: <b>335.2_LL_450</b>	Units: <b>µg/L</b>	Prep Date: <b>6/9/2011</b>	RunNo: <b>133816</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73478</b>	TestNo: <b>SM4500-CN E</b>	Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2184895</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

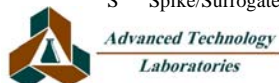
Cyanide 4.413 0.50 5.000 0 88.3 80 120

Sample ID: <b>MB-73478</b>	SampType: <b>MBLK</b>	TestCode: <b>335.2_LL_450</b>	Units: <b>µg/L</b>	Prep Date: <b>6/9/2011</b>	RunNo: <b>133816</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73478</b>	TestNo: <b>SM4500-CN E</b>	Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2184896</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Cyanide ND 0.50

**Qualifiers:**

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



**CLIENT:** MACTEC  
**Work Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 376.2\_4500S2\_WT**

Sample ID: <b>118151-0011-MS</b>	SampType: <b>MS</b>	TestCode: <b>376.2_4500S2</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133693</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R133693</b>	TestNo: <b>SM4500-S= D</b>	Analysis Date: <b>6/7/2011</b>	SeqNo: <b>2182592</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	0.038	0.010	0.1000	0.004900	33.3	70	120				S

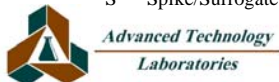
Sample ID: <b>118151-0011-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>376.2_4500S2</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133693</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>R133693</b>	TestNo: <b>SM4500-S= D</b>	Analysis Date: <b>6/7/2011</b>	SeqNo: <b>2182592</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	0.034	0.010	0.1000	0.004900	29.5	70	120	0.03820	10.5	20	S

Sample ID: <b>LCS-R133693</b>	SampType: <b>LCS</b>	TestCode: <b>376.2_4500S2</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133693</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R133693</b>	TestNo: <b>SM4500-S= D</b>	Analysis Date: <b>6/7/2011</b>	SeqNo: <b>2182597</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	0.102	0.010	0.1000	0	102	80	120				

Sample ID: <b>MB-R133693</b>	SampType: <b>MBLK</b>	TestCode: <b>376.2_4500S2</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133693</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R133693</b>	TestNo: <b>SM4500-S= D</b>	Analysis Date: <b>6/7/2011</b>	SeqNo: <b>2182598</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sulfide	ND	0.010									

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | 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:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

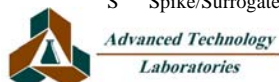
**TestCode: 608\_W\_FULL**

Sample ID: <b>MB-73426</b>	SampType: <b>MBLK</b>	TestCode: <b>608_W_FULL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133745</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73426</b>	TestNo: <b>EPA 608</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183452</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDD	ND	0.050									
4,4'-DDE	ND	0.050									
4,4'-DDT	ND	0.050									
Aldrin	ND	0.025									
alpha-BHC	ND	0.025									
beta-BHC	ND	0.025									
Chlordane	ND	0.25									
delta-BHC	ND	0.025									
Dieldrin	ND	0.050									
Endosulfan I	ND	0.025									
Endosulfan II	ND	0.050									
Endosulfan sulfate	ND	0.050									
Endrin	ND	0.050									
Endrin aldehyde	ND	0.050									
gamma-BHC	ND	0.025									
Heptachlor	ND	0.025									
Heptachlor epoxide	ND	0.025									
Toxaphene	ND	2.5									
Surr: Decachlorobiphenyl	0.403		0.5000		80.6	29	137				
Surr: Tetrachloro-m-xylene	0.447		0.5000		89.4	47	117				

Sample ID: <b>LCS-73426</b>	SampType: <b>LCS</b>	TestCode: <b>608_W_FULL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133745</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73426</b>	TestNo: <b>EPA 608</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183453</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aldrin	0.458	0.025	0.5000	0	91.7	63	115				
Dieldrin	0.445	0.050	0.5000	0	89.1	62	111				
Endrin	0.532	0.050	0.5000	0	106	45	137				
gamma-BHC	0.476	0.025	0.5000	0	95.2	62	115				
Heptachlor	0.472	0.025	0.5000	0	94.3	60	113				

**Qualifiers:**

- |  |  |  |
|--|--|--|
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| J Analyte detected below quantitation limits                   | 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: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 608\_W\_FULL

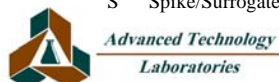
Sample ID: <b>LCS-73426</b>	SampType: <b>LCS</b>	TestCode: <b>608_W_FULL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133745</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73426</b>	TestNo: <b>EPA 608</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183453</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Decachlorobiphenyl	0.413		0.5000		82.5	29	137				
Surr: Tetrachloro-m-xylene	0.452		0.5000		90.3	47	117				

Sample ID: <b>MB-73426MS</b>	SampType: <b>MS</b>	TestCode: <b>608_W_FULL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133745</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>73426</b>	TestNo: <b>EPA 608</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183454</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDT	0.452	0.050	0.5000	0	90.3	53	113				
Aldrin	0.467	0.025	0.5000	0	93.3	63	115				
Dieldrin	0.454	0.050	0.5000	0	90.9	62	111				
Endrin	0.530	0.050	0.5000	0	106	45	137				
gamma-BHC	0.484	0.025	0.5000	0	96.8	62	115				
Heptachlor	0.481	0.025	0.5000	0	96.3	60	113				
Surr: Decachlorobiphenyl	0.407		0.5000		81.4	29	137				
Surr: Tetrachloro-m-xylene	0.451		0.5000		90.2	47	117				

Sample ID: <b>MB-73426MSD</b>	SampType: <b>MSD</b>	TestCode: <b>608_W_FULL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133745</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>73426</b>	TestNo: <b>EPA 608</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2183455</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,4'-DDT	0.461	0.050	0.5000	0	92.3	53	113	0.4516	2.13	20	
Aldrin	0.477	0.025	0.5000	0	95.3	63	115	0.4667	2.12	20	
Dieldrin	0.465	0.050	0.5000	0	93.1	62	111	0.4544	2.37	20	
Endrin	0.544	0.050	0.5000	0	109	45	137	0.5299	2.55	20	
gamma-BHC	0.494	0.025	0.5000	0	98.8	62	115	0.4841	2.04	20	
Heptachlor	0.491	0.025	0.5000	0	98.2	60	113	0.4814	2.01	20	
Surr: Decachlorobiphenyl	0.421		0.5000		84.2	29	137		0	0	
Surr: Tetrachloro-m-xylene	0.459		0.5000		91.8	47	117		0	0	

**Qualifiers:**

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  - E Value above quantitation range
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  - DO Surrogate Diluted Out
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- Calculations are based on raw values



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CLIENT: MACTEC

Work Order: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 608\_W\_FULL

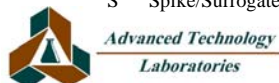
Sample ID: <b>MB-73426</b>	SampType: <b>MBLK</b>	TestCode: <b>608_W_FULL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133778</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73426</b>	TestNo: <b>EPA 608</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2184024</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	ND	0.50									
Aroclor 1221	ND	1.0									
Aroclor 1232	ND	0.50									
Aroclor 1242	ND	0.50									
Aroclor 1248	ND	0.50									
Aroclor 1254	ND	0.50									
Aroclor 1260	ND	0.50									
Surr: Decachlorobiphenyl	0.357		0.5000		71.4	29	137				
Surr: Tetrachloro-m-xylene	0.390		0.5000		78.0	47	117				

Sample ID: <b>LCSA-73426</b>	SampType: <b>LCS</b>	TestCode: <b>608_W_FULL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133778</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73426</b>	TestNo: <b>EPA 608</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2184025</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	4.488	0.50	5.000	0	89.8	53	115				
Aroclor 1260	5.170	0.50	5.000	0	103	52	125				
Surr: Decachlorobiphenyl	0.397		0.5000		79.5	29	137				
Surr: Tetrachloro-m-xylene	0.437		0.5000		87.3	47	117				

Sample ID: <b>MB-73426MSA</b>	SampType: <b>MS</b>	TestCode: <b>608_W_FULL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133778</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>73426</b>	TestNo: <b>EPA 608</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2184026</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	4.103	0.50	5.000	0	82.1	53	115				
Aroclor 1260	4.699	0.50	5.000	0	94.0	52	125				
Surr: Decachlorobiphenyl	0.357		0.5000		71.3	29	137				
Surr: Tetrachloro-m-xylene	0.389		0.5000		77.7	47	117				

**Qualifiers:**

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  - J Analyte detected below quantitation limits
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  - ND Not Detected at the Reporting Limit
  - DO Surrogate Diluted Out
  - H Holding times for preparation or analysis exceeded
  - R RPD outside accepted recovery limits
- Calculations are based on raw values



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**CLIENT:** MACTEC  
**Work Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

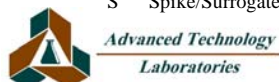
## ANALYTICAL QC SUMMARY REPORT

**TestCode: 608\_W\_FULL**

Sample ID: <b>MB-73426MSDA</b>	SampType: <b>MSD</b>	TestCode: <b>608_W_FULL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/8/2011</b>	RunNo: <b>133778</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>73426</b>	TestNo: <b>EPA 608</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/8/2011</b>	SeqNo: <b>2184027</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Aroclor 1016	4.177	0.50	5.000	0	83.5	53	115	4.103	1.79	20	
Aroclor 1260	4.670	0.50	5.000	0	93.4	52	125	4.699	0.620	20	
Surr: Decachlorobiphenyl	0.353		0.5000		70.6	29	137		0	0	
Surr: Tetrachloro-m-xylene	0.387		0.5000		77.3	47	117		0	0	

**Qualifiers:**

- |  |  |  |
|--|--|--|
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| J Analyte detected below quantitation limits                   | 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: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 624LL\_WP

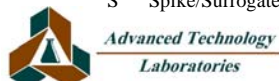
Sample ID: Q110610MB3LCS1	SampType: LCS	TestCode: 624LL_WP	Units: µg/L	Prep Date:	RunNo: 133844						
Client ID: LCSW	Batch ID: Q11VW094	TestNo: EPA 624	Analysis Date: 6/10/2011	SeqNo: 2185550							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20.560	0.50	20.00	0	103	70	130				
Benzene	40.030	0.50	40.00	0	100	70	130				
Chlorobenzene	21.310	0.50	20.00	0	107	70	130				
Toluene	42.950	0.50	40.00	0	107	70	130				
Trichloroethene	20.740	0.50	20.00	0	104	70	130				
Surr: 1,2-Dichloroethane-d4	21.630		25.00		86.5	70	130				
Surr: 4-Bromofluorobenzene	27.490		25.00		110	70	130				
Surr: Dibromofluoromethane	22.640		25.00		90.6	70	130				
Surr: Toluene-d8	25.260		25.00		101	70	130				

Sample ID: Q110610MB3MS	SampType: MS	TestCode: 624LL_WP	Units: µg/L	Prep Date:	RunNo: 133844						
Client ID: ZZZZZZ	Batch ID: Q11VW094	TestNo: EPA 624	Analysis Date: 6/10/2011	SeqNo: 2185551							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20.190	0.50	20.00	0	101	70	130				
Benzene	40.700	0.50	40.00	0	102	70	130				
Chlorobenzene	21.760	0.50	20.00	0	109	70	130				
Toluene	43.040	0.50	40.00	0	108	70	130				
Trichloroethene	20.590	0.50	20.00	0	103	70	130				
Surr: 1,2-Dichloroethane-d4	21.840		25.00		87.4	70	130				
Surr: 4-Bromofluorobenzene	27.760		25.00		111	70	130				
Surr: Dibromofluoromethane	23.000		25.00		92.0	70	130				
Surr: Toluene-d8	25.300		25.00		101	70	130				

Sample ID: Q110610MB3MSD	SampType: MSD	TestCode: 624LL_WP	Units: µg/L	Prep Date:	RunNo: 133844						
Client ID: ZZZZZZ	Batch ID: Q11VW094	TestNo: EPA 624	Analysis Date: 6/10/2011	SeqNo: 2185552							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	17.970	0.50	20.00	0	89.8	70	130	20.19	11.6	20	
Benzene	38.170	0.50	40.00	0	95.4	70	130	40.70	6.42	20	

**Qualifiers:**

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CLIENT: MACTEC

Work Order: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 624LL\_WP

Sample ID: <b>Q110610MB3MSD</b>	SampType: <b>MSD</b>	TestCode: <b>624LL_WP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>133844</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>Q11VW094</b>	TestNo: <b>EPA 624</b>		Analysis Date: <b>6/10/2011</b>	SeqNo: <b>2185552</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	20.200	0.50	20.00	0	101	70	130	21.76	7.44	20	
Toluene	40.580	0.50	40.00	0	101	70	130	43.04	5.88	20	
Trichloroethene	19.550	0.50	20.00	0	97.8	70	130	20.59	5.18	20	
Surr: 1,2-Dichloroethane-d4	20.030		25.00		80.1	70	130		0	20	
Surr: 4-Bromofluorobenzene	26.150		25.00		105	70	130		0	20	
Surr: Dibromofluoromethane	21.120		25.00		84.5	70	130		0	20	
Surr: Toluene-d8	24.110		25.00		96.4	70	130		0	20	

Sample ID: <b>Q110609MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>624LL_WP</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>133844</b>						
Client ID: <b>PBW</b>	Batch ID: <b>Q11VW094</b>	TestNo: <b>EPA 624</b>		Analysis Date: <b>6/10/2011</b>	SeqNo: <b>2185553</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
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									
1,2-Dichlorobenzene	ND	0.50									
1,2-Dichloroethane	ND	0.50									
1,2-Dichloropropane	ND	0.50									
1,3-Dichlorobenzene	ND	0.50									
1,4-Dichlorobenzene	ND	0.50									
2-Chloroethyl vinyl ether	ND	0.50									
Acrolein	ND	10									
Acrylonitrile	ND	10									
Benzene	ND	0.50									
Bromodichloromethane	ND	0.50									
Bromoform	ND	0.50									
Bromomethane	ND	0.50									
Carbon tetrachloride	ND	0.50									

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  - E Value above quantitation range
  - ND Not Detected at the Reporting Limit
  - DO Surrogate Diluted Out
  - H Holding times for preparation or analysis exceeded
  - R RPD outside accepted recovery limits
- Calculations are based on raw values



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CLIENT: MACTEC

Work Order: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 624LL\_WP

Sample ID: Q110609MB3	SampType: MBLK	TestCode: 624LL_WP	Units: µg/L	Prep Date:	RunNo: 133844						
Client ID: PBW	Batch ID: Q11VW094	TestNo: EPA 624		Analysis Date: 6/10/2011	SeqNo: 2185553						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chlorobenzene	ND	0.50									
Chloroethane	ND	0.50									
Chloroform	ND	0.50									
Chloromethane	ND	0.50									
cis-1,3-Dichloropropene	ND	0.50									
Dibromochloromethane	ND	0.50									
Ethylbenzene	ND	0.50									
Methylene chloride	ND	1.0									
o-Xylene	ND	0.50									
Tetrachloroethene	ND	0.50									
Toluene	ND	0.50									
trans-1,2-Dichloroethene	ND	0.50									
trans-1,3-Dichloropropene	ND	0.50									
Trichloroethene	ND	0.50									
Vinyl chloride	ND	0.50									
m,p-Xylene	ND	1.0									
Surr: 1,2-Dichloroethane-d4	22.730		25.00		90.9	70	130				
Surr: 4-Bromofluorobenzene	27.250		25.00		109	70	130				
Surr: Dibromofluoromethane	23.140		25.00		92.6	70	130				
Surr: Toluene-d8	24.720		25.00		98.9	70	130				

**Qualifiers:**

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CLIENT: MACTEC

Work Order: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 625\_W\_LL

Sample ID: <b>MB-73374</b>	SampType: <b>MBLK</b>	TestCode: <b>625_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133959</b>
Client ID: <b>PBW</b>	Batch ID: <b>73374</b>	TestNo: <b>EPA 625</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/13/2011</b>	SeqNo: <b>2187835</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	2.0									
1,2-Diphenylhydrazine	ND	2.0									
2,4,6-Trichlorophenol	ND	10									
2,4-Dichlorophenol	ND	5.0									
2,4-Dimethylphenol	ND	5.0									
2,4-Dinitrophenol	ND	20									
2,4-Dinitrotoluene	ND	5.0									
2,6-Dinitrotoluene	ND	5.0									
2-Chloronaphthalene	ND	10									
2-Chlorophenol	ND	5.0									
2-Nitrophenol	ND	10									
3,3'-Dichlorobenzidine	ND	5.0									
4,6-Dinitro-2-methylphenol	ND	20									
4-Bromophenyl-phenylether	ND	5.0									
4-Chloro-3-methylphenol	ND	5.0									
4-Chlorophenyl-phenylether	ND	5.0									
4-Nitrophenol	ND	5.0									
Acenaphthene	ND	2.0									
Acenaphthylene	ND	2.0									
Anthracene	ND	2.0									
Benzidine (M)	ND	5.0									
Benzo(a)anthracene	ND	2.0									
Benzo(a)pyrene	ND	2.0									
Benzo(b)fluoranthene	ND	2.0									
Benzo(g,h,i)perylene	ND	2.0									
Benzo(k)fluoranthene	ND	2.0									
Bis(2-chloroethoxy)methane	ND	5.0									
Bis(2-chloroethyl)ether	ND	5.0									
Bis(2-ethylhexyl)phthalate	ND	5.0									
Butylbenzylphthalate	ND	10									

**Qualifiers:**

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CLIENT: MACTEC

Work Order: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

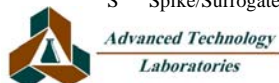
TestCode: 625\_W\_LL

Sample ID: <b>MB-73374</b>	SampType: <b>MBLK</b>	TestCode: <b>625_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133959</b>
Client ID: <b>PBW</b>	Batch ID: <b>73374</b>	TestNo: <b>EPA 625</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/13/2011</b>	SeqNo: <b>2187835</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chrysene	ND	2.0									
Di-n-butylphthalate	ND	10									
Di-n-octylphthalate	ND	10									
Dibenz(a,h)anthracene	ND	2.0									
Diethylphthalate	ND	10									
Dimethylphthalate	ND	10									
Fluoranthene	ND	2.0									
Fluorene	ND	2.0									
Hexachlorobenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Hexachlorocyclopentadiene	ND	5.0									
Hexachloroethane	ND	5.0									
Indeno(1,2,3-cd)pyrene	ND	2.0									
Isophorone	ND	5.0									
N-Nitrosodi-n-propylamine	ND	5.0									
N-Nitrosodimethylamine	ND	10									
N-Nitrosodiphenylamine	ND	5.0									
Naphthalene	ND	2.0									
Nitrobenzene	ND	10									
Pentachlorophenol	ND	20									
Phenanthrene	ND	2.0									
Phenol	ND	10									
Pyrene	ND	2.0									
Surr: 1,2-Dichlorobenzene-d4	71.340		100.0		71.3	46	97				
Surr: 2,4,6-Tribromophenol	87.450		100.0		87.4	59	124				
Surr: 2-Chlorophenol-d4	68.350		100.0		68.4	49	93				
Surr: 2-Fluorobiphenyl	75.450		100.0		75.4	57	107				
Surr: 2-Fluorophenol	46.540		100.0		46.5	27	60				
Surr: 4-Terphenyl-d14	79.670		100.0		79.7	69	132				
Surr: Nitrobenzene-d5	73.540		100.0		73.5	52	107				

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CLIENT: MACTEC

Work Order: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 625\_W\_LL

Sample ID: <b>MB-73374</b>	SampType: <b>MBLK</b>	TestCode: <b>625_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133959</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73374</b>	TestNo: <b>EPA 625</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/13/2011</b>	SeqNo: <b>2187835</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Surr: Phenol-d5	36.020		100.0		36.0	15	50				
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Sample ID: <b>LCS-73374</b>	SampType: <b>LCS</b>	TestCode: <b>625_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133959</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73374</b>	TestNo: <b>EPA 625</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/13/2011</b>	SeqNo: <b>2187836</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

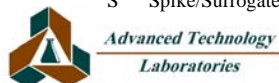
1,2,4-Trichlorobenzene	81.140	2.0	100.0	0	81.1	60	106				
2,4-Dinitrotoluene	115.750	5.0	100.0	0	116	81	123				
2-Chlorophenol	68.120	5.0	100.0	0	68.1	46	105				
4-Chloro-3-methylphenol	92.640	5.0	100.0	0	92.6	51	140				
4-Nitrophenol	52.310	5.0	100.0	0	52.3	20	74				
Acenaphthene	90.500	2.0	100.0	0	90.5	64	119				
N-Nitrosodi-n-propylamine	96.050	5.0	100.0	0	96.0	65	117				
Pentachlorophenol	91.340	20	100.0	0	91.3	55	142				
Phenol	39.490	10	100.0	0	39.5	18	52				
Pyrene	95.870	2.0	100.0	0	95.9	73	120				
Surr: 1,2-Dichlorobenzene-d4	69.550		100.0		69.6	46	97				
Surr: 2,4,6-Tribromophenol	103.710		100.0		104	59	124				
Surr: 2-Chlorophenol-d4	67.950		100.0		68.0	49	93				
Surr: 2-Fluorobiphenyl	81.890		100.0		81.9	57	107				
Surr: 2-Fluorophenol	46.060		100.0		46.1	27	60				
Surr: 4-Terphenyl-d14	86.560		100.0		86.6	69	132				
Surr: Nitrobenzene-d5	74.740		100.0		74.7	52	107				
Surr: Phenol-d5	37.560		100.0		37.6	15	50				

Sample ID: <b>MB-73374MS</b>	SampType: <b>MS</b>	TestCode: <b>625_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133959</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>73374</b>	TestNo: <b>EPA 625</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/13/2011</b>	SeqNo: <b>2187837</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

1,2,4-Trichlorobenzene	82.150	2.0	100.0	0	82.2	60	106				
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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 |
| J | Analyte detected below quantitation limits                   | 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: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

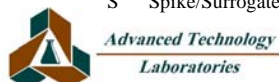
TestCode: 625\_W\_LL

Sample ID: MB-73374MS	SampType: MS	TestCode: 625_W_LL	Units: µg/L	Prep Date: 6/7/2011	RunNo: 133959						
Client ID: ZZZZZZ	Batch ID: 73374	TestNo: EPA 625	EPA 3510C	Analysis Date: 6/13/2011	SeqNo: 2187837						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
2,4-Dinitrotoluene	114.600	5.0	100.0	0	115	81	123				
2-Chlorophenol	68.840	5.0	100.0	0	68.8	46	105				
4-Chloro-3-methylphenol	91.530	5.0	100.0	0	91.5	51	140				
4-Nitrophenol	50.450	5.0	100.0	0	50.4	20	74				
Acenaphthene	90.020	2.0	100.0	0	90.0	64	119				
N-Nitrosodi-n-propylamine	94.740	5.0	100.0	0	94.7	65	117				
Pentachlorophenol	91.460	20	100.0	0	91.5	55	142				
Phenol	38.750	10	100.0	0	38.8	18	52				
Pyrene	94.710	2.0	100.0	0	94.7	73	120				
Surr: 1,2-Dichlorobenzene-d4	69.850		100.0		69.8	46	97				
Surr: 2,4,6-Tribromophenol	101.390		100.0		101	59	124				
Surr: 2-Chlorophenol-d4	69.390		100.0		69.4	49	93				
Surr: 2-Fluorobiphenyl	81.490		100.0		81.5	57	107				
Surr: 2-Fluorophenol	45.840		100.0		45.8	27	60				
Surr: 4-Terphenyl-d14	85.590		100.0		85.6	69	132				
Surr: Nitrobenzene-d5	75.160		100.0		75.2	52	107				
Surr: Phenol-d5	36.960		100.0		37.0	15	50				

Sample ID: MB-73374MSD	SampType: MSD	TestCode: 625_W_LL	Units: µg/L	Prep Date: 6/7/2011	RunNo: 133959						
Client ID: ZZZZZZ	Batch ID: 73374	TestNo: EPA 625	EPA 3510C	Analysis Date: 6/13/2011	SeqNo: 2187838						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	83.870	2.0	100.0	0	83.9	60	106	82.15	2.07	20	
2,4-Dinitrotoluene	116.340	5.0	100.0	0	116	81	123	114.6	1.51	20	
2-Chlorophenol	66.890	5.0	100.0	0	66.9	46	105	68.84	2.87	20	
4-Chloro-3-methylphenol	89.070	5.0	100.0	0	89.1	51	140	91.53	2.72	20	
4-Nitrophenol	45.710	5.0	100.0	0	45.7	20	74	50.45	9.86	20	
Acenaphthene	91.130	2.0	100.0	0	91.1	64	119	90.02	1.23	20	
N-Nitrosodi-n-propylamine	94.480	5.0	100.0	0	94.5	65	117	94.74	0.275	20	
Pentachlorophenol	88.910	20	100.0	0	88.9	55	142	91.46	2.83	20	

**Qualifiers:**

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**CLIENT:** MACTEC  
**Work Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

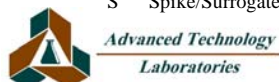
## ANALYTICAL QC SUMMARY REPORT

**TestCode: 625\_W\_LL**

Sample ID: <b>MB-73374MSD</b>	SampType: <b>MSD</b>	TestCode: <b>625_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133959</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>73374</b>	TestNo: <b>EPA 625</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/13/2011</b>	SeqNo: <b>2187838</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	34.280	10	100.0	0	34.3	18	52	38.75	12.2	20	
Pyrene	95.340	2.0	100.0	0	95.3	73	120	94.71	0.663	20	
Surr: 1,2-Dichlorobenzene-d4	66.910		100.0		66.9	46	97		0	0	
Surr: 2,4,6-Tribromophenol	101.460		100.0		101	59	124		0	0	
Surr: 2-Chlorophenol-d4	66.590		100.0		66.6	49	93		0	0	
Surr: 2-Fluorobiphenyl	81.940		100.0		81.9	57	107		0	0	
Surr: 2-Fluorophenol	41.300		100.0		41.3	27	60		0	0	
Surr: 4-Terphenyl-d14	86.180		100.0		86.2	69	132		0	0	
Surr: Nitrobenzene-d5	75.060		100.0		75.1	52	107		0	0	
Surr: Phenol-d5	32.230		100.0		32.2	15	50		0	0	

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | 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:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_W\_ALC**

Sample ID: <b>MB-R133678</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_W_ALC</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133678</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R133678</b>	TestNo: <b>EPA 8015B</b>		Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2183718</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ethanol	ND	1.0									
Methanol	ND	1.0									

Sample ID: <b>LCS-R133678</b>	SampType: <b>LCS</b>	TestCode: <b>8015_W_ALC</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133678</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R133678</b>	TestNo: <b>EPA 8015B</b>		Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2183719</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ethanol	571.556	1.0	500.0	0	114	70	130				
Methanol	559.183	1.0	500.0	0	112	70	130				

Sample ID: <b>118188-001LMS</b>	SampType: <b>MS</b>	TestCode: <b>8015_W_ALC</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133678</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133678</b>	TestNo: <b>EPA 8015B</b>		Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2183720</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

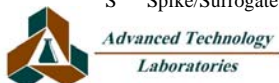
Ethanol	169.827	1.0	200.0	0	84.9	70	130				
Methanol	156.661	1.0	200.0	0	78.3	70	130				

Sample ID: <b>118188-001LMSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_W_ALC</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133678</b>						
Client ID: <b>P-103 / UCLA LOT 3</b>	Batch ID: <b>R133678</b>	TestNo: <b>EPA 8015B</b>		Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2183721</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Ethanol	209.295	1.0	200.0	0	105	70	130	169.8	20.8	30	
Methanol	208.693	1.0	200.0	0	104	70	130	156.7	28.5	30	

**Qualifiers:**

- |  |  |  |
|--|--|--|
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| J Analyte detected below quantitation limits                   | 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: 118188

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8015\_W\_DM\_LL

Sample ID: <b>MB-73438</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_W_DM_</b> Units: <b>mg/L</b>	Prep Date: <b>6/9/2011</b>	RunNo: <b>133802</b>							
Client ID: <b>PBW</b>	Batch ID: <b>73438</b>	TestNo: <b>EPA 8015B(M EPA 3510C</b>	Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2184490</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	ND	0.050									
ORO	ND	0.050									
Surr: p-Terphenyl	0.055		0.08000		68.6	36	126				

Sample ID: <b>LCS-73438</b>	SampType: <b>LCS</b>	TestCode: <b>8015_W_DM_</b> Units: <b>mg/L</b>	Prep Date: <b>6/9/2011</b>	RunNo: <b>133802</b>							
Client ID: <b>LCSW</b>	Batch ID: <b>73438</b>	TestNo: <b>EPA 8015B(M EPA 3510C</b>	Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2184491</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.666	0.050	1.000	0	66.6	52	128				
Surr: p-Terphenyl	0.064		0.08000		79.7	36	126				

Sample ID: <b>MB-73438MS</b>	SampType: <b>MS</b>	TestCode: <b>8015_W_DM_</b> Units: <b>mg/L</b>	Prep Date: <b>6/9/2011</b>	RunNo: <b>133802</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>73438</b>	TestNo: <b>EPA 8015B(M EPA 3510C</b>	Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2184492</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

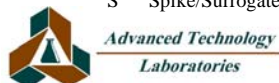
DRO	0.636	0.050	1.000	0	63.6	52	128				
Surr: p-Terphenyl	0.061		0.08000		75.9	36	126				

Sample ID: <b>MB-73438MSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_W_DM_</b> Units: <b>mg/L</b>	Prep Date: <b>6/9/2011</b>	RunNo: <b>133802</b>							
Client ID: <b>ZZZZZ</b>	Batch ID: <b>73438</b>	TestNo: <b>EPA 8015B(M EPA 3510C</b>	Analysis Date: <b>6/9/2011</b>	SeqNo: <b>2184493</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

DRO	0.617	0.050	1.000	0	61.7	52	128	0.6363	3.10	20	
Surr: p-Terphenyl	0.061		0.08000		75.9	36	126		0	0	

### Qualifiers:

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



**CLIENT:** MACTEC  
**Work Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_W\_GP LL**

Sample ID: <b>M110607LCS2</b>	SampType: <b>LCS</b>	TestCode: <b>8015_W_GP</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133718</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>M11VW112</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>6/7/2011</b>	SeqNo: <b>2182899</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	1.026	0.050	1.000	0	103	70	130				
Surr: Bromofluorobenzene (FID)	92.048		100.0		92.0	70	130				

Sample ID: <b>M110607MB1MS</b>	SampType: <b>MS</b>	TestCode: <b>8015_W_GP</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133718</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>M11VW112</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>6/7/2011</b>	SeqNo: <b>2182900</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	0.920	0.050	1.000	0	92.0	70	130				
Surr: Bromofluorobenzene (FID)	91.203		100.0		91.2	70	130				

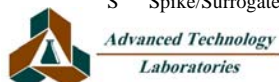
Sample ID: <b>M110607MB1MSD</b>	SampType: <b>MSD</b>	TestCode: <b>8015_W_GP</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133718</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>M11VW112</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>6/7/2011</b>	SeqNo: <b>2182901</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	1.009	0.050	1.000	0	101	70	130	0.9200	9.23	20	
Surr: Bromofluorobenzene (FID)	93.974		100.0		94.0	70	130		0	0	

Sample ID: <b>M110607MB1</b>	SampType: <b>MBLK</b>	TestCode: <b>8015_W_GP</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133718</b>						
Client ID: <b>PBW</b>	Batch ID: <b>M11VW112</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>6/7/2011</b>	SeqNo: <b>2182902</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	0.050									
Surr: Bromofluorobenzene (FID)	90.704		100.0		90.7	70	130				

Sample ID: <b>118199-045ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>8015_W_GP</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>133718</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>M11VW112</b>	TestNo: <b>EPA 8015B(M)</b>	Analysis Date: <b>6/7/2011</b>	SeqNo: <b>2182904</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
GRO	ND	0.050						0	0	20	

**Qualifiers:**

- |  |  |  |
|--|--|--|
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| J Analyte detected below quantitation limits                   | 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:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8015\_W\_GP LL**

Sample ID: <b>118199-045ADUP</b>		SampType: <b>DUP</b>		TestCode: <b>8015_W_GP</b>		Units: <b>mg/L</b>		Prep Date:		RunNo: <b>133718</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>M11VW112</b>		TestNo: <b>EPA 8015B(M)</b>		Analysis Date: <b>6/7/2011</b>				SeqNo: <b>2182904</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: Bromofluorobenzene (FID)	90.857		100.0		90.9	70	130		0	0	

**Qualifiers:**

- |  |  |  |
|--|--|--|
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 Laboratories

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CLIENT: MACTEC

Work Order: 118188

Project: MTA Westside Extension, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8260\_WP\_LL

Sample ID: Q110610MB3LCS1		SampType: LCS		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 133844	
Client ID: LCSW		Batch ID: Q11VW094		TestNo: EPA 8260B		Analysis Date: 6/10/2011				SeqNo: 2185539	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,1-Dichloroethene	20.560	0.50	20.00	0	103	70	130				
Benzene	40.030	0.50	40.00	0	100	70	130				
Chlorobenzene	21.310	0.50	20.00	0	107	70	130				
MTBE	18.510	0.50	20.00	0	92.6	70	130				
Toluene	42.950	0.50	40.00	0	107	70	130				
Trichloroethene	20.740	0.50	20.00	0	104	70	130				
Surr: 1,2-Dichloroethane-d4	21.630		25.00		86.5	70	130				
Surr: 4-Bromofluorobenzene	27.490		25.00		110	70	130				
Surr: Dibromofluoromethane	22.640		25.00		90.6	70	130				
Surr: Toluene-d8	25.260		25.00		101	70	130				

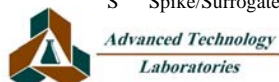
Sample ID: Q110610MB3MS		SampType: MS		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 133844	
Client ID: ZZZZZZ		Batch ID: Q11VW094		TestNo: EPA 8260B		Analysis Date: 6/10/2011				SeqNo: 2185540	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MTBE	19.340	0.50	20.00	0	96.7	70	130				

Sample ID: Q110610MB3MSD		SampType: MSD		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 133844	
Client ID: ZZZZZZ		Batch ID: Q11VW094		TestNo: EPA 8260B		Analysis Date: 6/10/2011				SeqNo: 2185541	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
MTBE	18.110	0.50	20.00	0	90.6	70	130	19.34	6.57	20	

Sample ID: Q110609MB3		SampType: MBLK		TestCode: 8260_WP_LL		Units: µg/L		Prep Date:		RunNo: 133844	
Client ID: PBW		Batch ID: Q11VW094		TestNo: EPA 8260B		Analysis Date: 6/10/2011				SeqNo: 2185542	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2-Dibromoethane	ND	0.50									
2-Butanone	ND	10									

**Qualifiers:**

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**Work Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8260\_WP\_LL**

Sample ID: <b>Q110609MB3</b>	SampType: <b>MBLK</b>	TestCode: <b>8260_WP_LL</b>	Units: <b>µg/L</b>	Prep Date:	RunNo: <b>133844</b>						
Client ID: <b>PBW</b>	Batch ID: <b>Q11VW094</b>	TestNo: <b>EPA 8260B</b>	Analysis Date: <b>6/10/2011</b>	SeqNo: <b>2185542</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acetone	ND	10									
Di-isopropyl ether	ND	0.50									
Ethyl tert-butyl ether	ND	0.50									
MTBE	ND	0.50									
Tert-amyl methyl ether	ND	0.50									
Tert-Butanol	ND	10									

**Qualifiers:**

- |  |  |  |
|--|--|--|
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| J Analyte detected below quantitation limits                   | ND Not Detected at the Reporting Limit | R RPD outside accepted recovery limits               |
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CLIENT: MACTEC

Work Order: 118188

Project: MTA Westside Extension, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8270\_Dioxane\_W

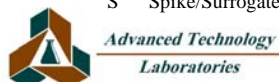
Sample ID: <b>MB-73374</b>	SampType: <b>MBLK</b>	TestCode: <b>8270_Dioxan</b>	Units: <b>µg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133685</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73374</b>	TestNo: <b>EPA 8270C(M EPA 3510C</b>		Analysis Date: <b>6/7/2011</b>	SeqNo: <b>2184179</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dioxane	ND	2.0									
Surr: 1,2-Dichlorobenzene-d4	74.960		100.0		75.0	46	97				
Surr: 2,4,6-Tribromophenol	92.110		100.0		92.1	59	124				
Surr: 2-Chlorophenol-d4	67.880		100.0		67.9	49	93				
Surr: 2-Fluorobiphenyl	78.240		100.0		78.2	57	107				
Surr: 2-Fluorophenol	44.530		100.0		44.5	27	60				
Surr: 4-Terphenyl-d14	88.690		100.0		88.7	69	132				
Surr: Nitrobenzene-d5	78.550		100.0		78.6	52	107				
Surr: Phenol-d5	34.060		100.0		34.1	15	50				

Sample ID: <b>LCS-73374</b>	SampType: <b>LCS</b>	TestCode: <b>8270_Dioxan</b>	Units: <b>µg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133685</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73374</b>	TestNo: <b>EPA 8270C(M EPA 3510C</b>		Analysis Date: <b>6/7/2011</b>	SeqNo: <b>2184180</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dioxane	105.020	2.0	100.0	0	105	70	130				
Surr: 1,2-Dichlorobenzene-d4	71.830		100.0		71.8	46	97				
Surr: 2,4,6-Tribromophenol	112.700		100.0		113	59	124				
Surr: 2-Chlorophenol-d4	67.490		100.0		67.5	49	93				
Surr: 2-Fluorobiphenyl	84.890		100.0		84.9	57	107				
Surr: 2-Fluorophenol	44.410		100.0		44.4	27	60				
Surr: 4-Terphenyl-d14	97.030		100.0		97.0	69	132				
Surr: Nitrobenzene-d5	80.090		100.0		80.1	52	107				
Surr: Phenol-d5	35.310		100.0		35.3	15	50				

Sample ID: <b>MB-73374MS</b>	SampType: <b>MS</b>	TestCode: <b>8270_Dioxan</b>	Units: <b>µg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133685</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>73374</b>	TestNo: <b>EPA 8270C(M EPA 3510C</b>		Analysis Date: <b>6/7/2011</b>	SeqNo: <b>2184181</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dioxane	106.730	2.0	100.0	0	107	70	130				
Surr: 1,2-Dichlorobenzene-d4	73.270		100.0		73.3	46	97				

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**CLIENT:** MACTEC  
**Work Order:** 118188  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

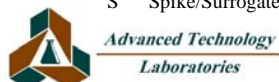
**TestCode: 8270\_Dioxane\_W**

Sample ID: <b>MB-73374MS</b>	SampType: <b>MS</b>	TestCode: <b>8270_Dioxan</b>	Units: <b>µg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133685</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>73374</b>	TestNo: <b>EPA 8270C(M EPA 3510C)</b>		Analysis Date: <b>6/7/2011</b>	SeqNo: <b>2184181</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 2,4,6-Tribromophenol	111.290		100.0		111	59	124				
Surr: 2-Chlorophenol-d4	67.720		100.0		67.7	49	93				
Surr: 2-Fluorobiphenyl	84.310		100.0		84.3	57	107				
Surr: 2-Fluorophenol	44.170		100.0		44.2	27	60				
Surr: 4-Terphenyl-d14	95.650		100.0		95.6	69	132				
Surr: Nitrobenzene-d5	88.240		100.0		88.2	52	107				
Surr: Phenol-d5	34.190		100.0		34.2	15	50				

Sample ID: <b>MB-73374MSD</b>	SampType: <b>MSD</b>	TestCode: <b>8270_Dioxan</b>	Units: <b>µg/L</b>	Prep Date: <b>6/7/2011</b>	RunNo: <b>133685</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>73374</b>	TestNo: <b>EPA 8270C(M EPA 3510C)</b>		Analysis Date: <b>6/7/2011</b>	SeqNo: <b>2184182</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,4-Dioxane	106.190	2.0	100.0	0	106	70	130	106.7	0.507	20	
Surr: 1,2-Dichlorobenzene-d4	70.630		100.0		70.6	46	97		0	0	
Surr: 2,4,6-Tribromophenol	112.030		100.0		112	59	124		0	0	
Surr: 2-Chlorophenol-d4	67.020		100.0		67.0	49	93		0	0	
Surr: 2-Fluorobiphenyl	85.100		100.0		85.1	57	107		0	0	
Surr: 2-Fluorophenol	40.450		100.0		40.5	27	60		0	0	
Surr: 4-Terphenyl-d14	94.900		100.0		94.9	69	132		0	0	
Surr: Nitrobenzene-d5	89.580		100.0		89.6	52	107		0	0	
Surr: Phenol-d5	30.560		100.0		30.6	15	50		0	0	

**Qualifiers:**

- |  |  |  |
|--|--|--|
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June 27, 2011



Anthony Marino  
MACTEC  
2171 Campus Drive, Suite 100  
Irvine, CA 92612  
TEL: (949) 224-0050  
FAX:

ELAP No.: 1838  
NELAP No.: 02107CA  
CSDLAC No.: 10196  
ORELAP No.: CA300003  
  
Workorder No.: 118501

RE: MTA Westside EXT., 4953101561/6.2.3

Attention: Anthony Marino

Enclosed are the results for sample(s) received on June 17, 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".

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:** MTA Westside EXT., 4953101561/6.2.3  
**Lab Order:** 118501

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**CASE NARRATIVE**

The sample for BOD analysis was subcontracted to American Scientific Laboratories with ELAP Cert.# 2200.

Sample Receiving/General Comments

Collection date was taken from the sample container.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.





**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 27-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118501  
**Project:** MTA Westside EXT., 4953101561/6.2.3  
**Lab ID:** 118501-001A

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/17/2011 10:45:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**SEMIVOLATILE ORGANIC COMPOUNDS BY GC/MS-SIM**

**EPA 3510C**

**EPA 8270C**

RunID:	MS6_110623A	QC Batch:	73836	PrepDate:	6/23/2011	Analyst:	JSD
Dibenz(a,h)anthracene	ND	0.062	0.20	µg/L	1	6/24/2011 11:43 AM	
Indeno(1,2,3-cd)pyrene	ND	0.057	0.20	µg/L	1	6/24/2011 11:43 AM	
Surr: 1,2-Dichlorobenzene-d4	89.9	0	58-99	%REC	1	6/24/2011 11:43 AM	
Surr: 2-Fluorobiphenyl	97.3	0	60-104	%REC	1	6/24/2011 11:43 AM	
Surr: 4-Terphenyl-d14	111	0	65-127	%REC	1	6/24/2011 11:43 AM	
Surr: Nitrobenzene-d5	84.5	0	50-136	%REC	1	6/24/2011 11:43 AM	

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	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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3275 Walnut Avenue, Signal Hill, CA 90755 Tel: 562.989.4045 Fax: 562.989.4040

**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 27-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118501  
**Project:** MTA Westside EXT., 4953101561/6.2.3  
**Lab ID:** 118501-001B

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/17/2011 10:45:00 AM  
**Matrix:** GROUNDWATER

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

**EPA 3510C**

**EPA 625**

RunID:	MS 13_110622A	QC Batch:	73755	PrepDate:	6/21/2011	Analyst:	JSD
1,2,4-Trichlorobenzene	ND	0.23	1.0	µg/L	1	6/22/2011 05:18 PM	
1,2-Diphenylhydrazine	ND	0.21	1.0	µg/L	1	6/22/2011 05:18 PM	
2,4,6-Trichlorophenol	ND	1.1	5.0	µg/L	1	6/22/2011 05:18 PM	
2,4-Dichlorophenol	ND	1.2	2.5	µg/L	1	6/22/2011 05:18 PM	
2,4-Dimethylphenol	ND	0.97	2.5	µg/L	1	6/22/2011 05:18 PM	
2,4-Dinitrophenol	ND	0.67	10	µg/L	1	6/22/2011 05:18 PM	
2,4-Dinitrotoluene	ND	0.18	2.5	µg/L	1	6/22/2011 05:18 PM	
2,6-Dinitrotoluene	ND	0.16	2.5	µg/L	1	6/22/2011 05:18 PM	
2-Chloronaphthalene	ND	0.22	5.0	µg/L	1	6/22/2011 05:18 PM	
2-Chlorophenol	ND	1.0	2.5	µg/L	1	6/22/2011 05:18 PM	
2-Nitrophenol	ND	1.3	5.0	µg/L	1	6/22/2011 05:18 PM	
3,3'-Dichlorobenzidine	ND	0.72	2.5	µg/L	1	6/22/2011 05:18 PM	
4,6-Dinitro-2-methylphenol	ND	0.53	10	µg/L	1	6/22/2011 05:18 PM	
4-Bromophenyl-phenylether	ND	0.23	2.5	µg/L	1	6/22/2011 05:18 PM	
4-Chloro-3-methylphenol	ND	1.0	2.5	µg/L	1	6/22/2011 05:18 PM	
4-Chlorophenyl-phenylether	ND	0.22	2.5	µg/L	1	6/22/2011 05:18 PM	
4-Nitrophenol	ND	0.43	2.5	µg/L	1	6/22/2011 05:18 PM	
Acenaphthene	ND	0.24	1.0	µg/L	1	6/22/2011 05:18 PM	
Acenaphthylene	ND	0.24	1.0	µg/L	1	6/22/2011 05:18 PM	
Anthracene	ND	0.16	1.0	µg/L	1	6/22/2011 05:18 PM	
Benzidine (M)	ND	0.58	2.5	µg/L	1	6/22/2011 05:18 PM	
Benzo(a)anthracene	ND	0.16	1.0	µg/L	1	6/22/2011 05:18 PM	
Benzo(a)pyrene	ND	0.13	1.0	µg/L	1	6/22/2011 05:18 PM	
Benzo(b)fluoranthene	ND	0.14	1.0	µg/L	1	6/22/2011 05:18 PM	
Benzo(g,h,i)perylene	ND	0.14	1.0	µg/L	1	6/22/2011 05:18 PM	
Benzo(k)fluoranthene	ND	0.18	1.0	µg/L	1	6/22/2011 05:18 PM	
Bis(2-chloroethoxy)methane	ND	0.24	2.5	µg/L	1	6/22/2011 05:18 PM	
Bis(2-chloroethyl)ether	ND	0.24	2.5	µg/L	1	6/22/2011 05:18 PM	
Bis(2-ethylhexyl)phthalate	ND	0.21	2.5	µg/L	1	6/22/2011 05:18 PM	
Butylbenzylphthalate	ND	0.23	5.0	µg/L	1	6/22/2011 05:18 PM	
Chrysene	ND	0.16	1.0	µg/L	1	6/22/2011 05:18 PM	
Di-n-butylphthalate	ND	0.20	5.0	µg/L	1	6/22/2011 05:18 PM	
Di-n-octylphthalate	ND	0.21	5.0	µg/L	1	6/22/2011 05:18 PM	
Diethylphthalate	ND	0.19	5.0	µg/L	1	6/22/2011 05:18 PM	
Dimethylphthalate	ND	0.19	5.0	µg/L	1	6/22/2011 05:18 PM	

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



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**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 27-Jun-11

**CLIENT:** MACTEC  
**Lab Order:** 118501  
**Project:** MTA Westside EXT., 4953101561/6.2.3  
**Lab ID:** 118501-001B

**Client Sample ID:** P-103 / UCLA LOT 36  
**Collection Date:** 6/17/2011 10:45:00 AM  
**Matrix:** GROUNDWATER

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

**EPA 3510C**

**EPA 625**

RunID: MS 13_110622A	QC Batch: 73755			PrepDate: 6/21/2011	Analyst: JSD
Fluoranthene	ND	0.15	1.0	µg/L	6/22/2011 05:18 PM
Fluorene	ND	0.20	1.0	µg/L	6/22/2011 05:18 PM
Hexachlorobenzene	ND	0.25	2.5	µg/L	6/22/2011 05:18 PM
Hexachlorobutadiene	ND	0.27	2.5	µg/L	6/22/2011 05:18 PM
Hexachlorocyclopentadiene	ND	0.18	2.5	µg/L	6/22/2011 05:18 PM
Hexachloroethane	ND	0.18	2.5	µg/L	6/22/2011 05:18 PM
Isophorone	ND	0.23	2.5	µg/L	6/22/2011 05:18 PM
N-Nitrosodi-n-propylamine	ND	0.41	2.5	µg/L	6/22/2011 05:18 PM
N-Nitrosodimethylamine	ND	0.28	5.0	µg/L	6/22/2011 05:18 PM
N-Nitrosodiphenylamine	ND	0.18	2.5	µg/L	6/22/2011 05:18 PM
Naphthalene	ND	0.23	1.0	µg/L	6/22/2011 05:18 PM
Nitrobenzene	ND	0.25	5.0	µg/L	6/22/2011 05:18 PM
Pentachlorophenol	ND	0.79	10	µg/L	6/22/2011 05:18 PM
Phenanthrene	ND	0.19	1.0	µg/L	6/22/2011 05:18 PM
Phenol	ND	0.63	5.0	µg/L	6/22/2011 05:18 PM
Pyrene	ND	0.14	1.0	µg/L	6/22/2011 05:18 PM
Surr: 1,2-Dichlorobenzene-d4	63.6	0	46-97	%REC	6/22/2011 05:18 PM
Surr: 2,4,6-Tribromophenol	89.7	0	59-124	%REC	6/22/2011 05:18 PM
Surr: 2-Chlorophenol-d4	56.4	0	49-93	%REC	6/22/2011 05:18 PM
Surr: 2-Fluorobiphenyl	77.2	0	57-107	%REC	6/22/2011 05:18 PM
Surr: 2-Fluorophenol	33.8	0	27-60	%REC	6/22/2011 05:18 PM
Surr: 4-Terphenyl-d14	104	0	69-132	%REC	6/22/2011 05:18 PM
Surr: Nitrobenzene-d5	65.1	0	52-107	%REC	6/22/2011 05:18 PM
Surr: Phenol-d5	25.5	0	15-50	%REC	6/22/2011 05:18 PM

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



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**CLIENT:** MACTEC  
**Work Order:** 118501  
**Project:** MTA Westside EXT., 4953101561/6.2.3

**ANALYTICAL QC SUMMARY REPORT**

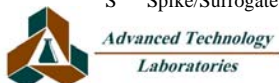
**TestCode: 625\_W\_LL**

Sample ID: <b>LCS-73755</b>	SampType: <b>LCS</b>	TestCode: <b>625_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/21/2011</b>	RunNo: <b>134310</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>73755</b>	TestNo: <b>EPA 625</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/22/2011</b>	SeqNo: <b>2195323</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	71.030	2.0	100.0	0	71.0	60	106				
2,4-Dinitrotoluene	94.180	5.0	100.0	0	94.2	81	123				
2-Chlorophenol	61.390	5.0	100.0	0	61.4	46	105				
4-Chloro-3-methylphenol	85.200	5.0	100.0	0	85.2	51	140				
4-Nitrophenol	40.970	5.0	100.0	0	41.0	20	74				
Acenaphthene	68.980	2.0	100.0	0	69.0	64	119				
N-Nitrosodi-n-propylamine	77.520	5.0	100.0	0	77.5	65	117				
Pentachlorophenol	72.650	20	100.0	0	72.6	55	142				
Phenol	29.570	10	100.0	0	29.6	18	52				
Pyrene	94.160	2.0	100.0	0	94.2	73	120				
Surr: 1,2-Dichlorobenzene-d4	56.270		100.0		56.3	46	97				
Surr: 2,4,6-Tribromophenol	68.460		100.0		68.5	59	124				
Surr: 2-Chlorophenol-d4	52.240		100.0		52.2	49	93				
Surr: 2-Fluorobiphenyl	68.110		100.0		68.1	57	107				
Surr: 2-Fluorophenol	32.410		100.0		32.4	27	60				
Surr: 4-Terphenyl-d14	81.620		100.0		81.6	69	132				
Surr: Nitrobenzene-d5	61.920		100.0		61.9	52	107				
Surr: Phenol-d5	24.840		100.0		24.8	15	50				

Sample ID: <b>MB-73755MSD</b>	SampType: <b>MSD</b>	TestCode: <b>625_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/21/2011</b>	RunNo: <b>134310</b>						
Client ID: <b>ZZZZZ</b>	Batch ID: <b>73755</b>	TestNo: <b>EPA 625</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/22/2011</b>	SeqNo: <b>2195324</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	73.710	2.0	100.0	0	73.7	60	106	79.08	7.03	20	
2,4-Dinitrotoluene	110.480	5.0	100.0	0	110	81	123	107.3	2.90	20	
2-Chlorophenol	61.870	5.0	100.0	0	61.9	46	105	70.10	12.5	20	
4-Chloro-3-methylphenol	98.570	5.0	100.0	0	98.6	51	140	96.63	1.99	20	
4-Nitrophenol	48.200	5.0	100.0	0	48.2	20	74	45.46	5.85	20	

**Qualifiers:**

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



**CLIENT:** MACTEC  
**Work Order:** 118501  
**Project:** MTA Westside EXT., 4953101561/6.2.3

## ANALYTICAL QC SUMMARY REPORT

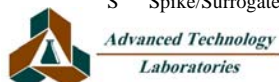
**TestCode: 625\_W\_LL**

Sample ID: <b>MB-7375MSD</b>		SampType: <b>MSD</b>		TestCode: <b>625_W_LL</b>		Units: <b>µg/L</b>		Prep Date: <b>6/21/2011</b>		RunNo: <b>134310</b>	
Client ID: <b>ZZZZZZ</b>		Batch ID: <b>73755</b>		TestNo: <b>EPA 625</b>		<b>EPA 3510C</b>		Analysis Date: <b>6/22/2011</b>		SeqNo: <b>2195324</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Acenaphthene	81.000	2.0	100.0	0	81.0	64	119	76.77	5.36	20	
N-Nitrosodi-n-propylamine	83.700	5.0	100.0	0	83.7	65	117	89.10	6.25	20	
Pentachlorophenol	81.380	20	100.0	0	81.4	55	142	83.24	2.26	20	
Phenol	30.680	10	100.0	0	30.7	18	52	33.02	7.35	20	
Pyrene	113.090	2.0	100.0	0	113	73	120	108.4	4.28	20	
Surr: 1,2-Dichlorobenzene-d4	53.640		100.0		53.6	46	97		0	0	
Surr: 2,4,6-Tribromophenol	79.580		100.0		79.6	59	124		0	0	
Surr: 2-Chlorophenol-d4	52.800		100.0		52.8	49	93		0	0	
Surr: 2-Fluorobiphenyl	76.330		100.0		76.3	57	107		0	0	
Surr: 2-Fluorophenol	32.340		100.0		32.3	27	60		0	0	
Surr: 4-Terphenyl-d14	100.920		100.0		101	69	132		0	0	
Surr: Nitrobenzene-d5	64.690		100.0		64.7	52	107		0	0	
Surr: Phenol-d5	25.670		100.0		25.7	15	50		0	0	

Sample ID: <b>MB-73755</b>		SampType: <b>MBLK</b>		TestCode: <b>625_W_LL</b>		Units: <b>µg/L</b>		Prep Date: <b>6/21/2011</b>		RunNo: <b>134310</b>	
Client ID: <b>PBW</b>		Batch ID: <b>73755</b>		TestNo: <b>EPA 625</b>		<b>EPA 3510C</b>		Analysis Date: <b>6/22/2011</b>		SeqNo: <b>2195325</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	ND	2.0									
1,2-Diphenylhydrazine	ND	2.0									
2,4,6-Trichlorophenol	ND	10									
2,4-Dichlorophenol	ND	5.0									
2,4-Dimethylphenol	ND	5.0									
2,4-Dinitrophenol	ND	20									
2,4-Dinitrotoluene	ND	5.0									
2,6-Dinitrotoluene	ND	5.0									
2-Chloronaphthalene	ND	10									
2-Chlorophenol	ND	5.0									
2-Nitrophenol	ND	10									
3,3'-Dichlorobenzidine	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 |
| J Analyte detected below quantitation limits                   | 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:** 118501  
**Project:** MTA Westside EXT., 4953101561/6.2.3

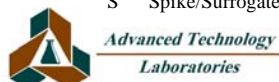
## ANALYTICAL QC SUMMARY REPORT

**TestCode: 625\_W\_LL**

Sample ID: <b>MB-73755</b>	SampType: <b>MBLK</b>	TestCode: <b>625_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/21/2011</b>	RunNo: <b>134310</b>						
Client ID: <b>PBW</b>	Batch ID: <b>73755</b>	TestNo: <b>EPA 625</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/22/2011</b>	SeqNo: <b>2195325</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
4,6-Dinitro-2-methylphenol	ND	20									
4-Bromophenyl-phenylether	ND	5.0									
4-Chloro-3-methylphenol	ND	5.0									
4-Chlorophenyl-phenylether	ND	5.0									
4-Nitrophenol	ND	5.0									
Acenaphthene	ND	2.0									
Acenaphthylene	ND	2.0									
Anthracene	ND	2.0									
Benzdine (M)	ND	5.0									
Benzo(a)anthracene	ND	2.0									
Benzo(a)pyrene	ND	2.0									
Benzo(b)fluoranthene	ND	2.0									
Benzo(g,h,i)perylene	ND	2.0									
Benzo(k)fluoranthene	ND	2.0									
Bis(2-chloroethoxy)methane	ND	5.0									
Bis(2-chloroethyl)ether	ND	5.0									
Bis(2-ethylhexyl)phthalate	ND	5.0									
Butylbenzylphthalate	ND	10									
Chrysene	ND	2.0									
Di-n-butylphthalate	ND	10									
Di-n-octylphthalate	ND	10									
Diethylphthalate	ND	10									
Dimethylphthalate	ND	10									
Fluoranthene	ND	2.0									
Fluorene	ND	2.0									
Hexachlorobenzene	ND	5.0									
Hexachlorobutadiene	ND	5.0									
Hexachlorocyclopentadiene	ND	5.0									
Hexachloroethane	ND	5.0									
Isophorone	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 |
| J Analyte detected below quantitation limits                   | 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:** 118501  
**Project:** MTA Westside EXT., 4953101561/6.2.3

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 625\_W\_LL**

Sample ID: <b>MB-73755</b>	SampType: <b>MBLK</b>	TestCode: <b>625_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/21/2011</b>	RunNo: <b>134310</b>
Client ID: <b>PBW</b>	Batch ID: <b>73755</b>	TestNo: <b>EPA 625</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/22/2011</b>	SeqNo: <b>2195325</b>

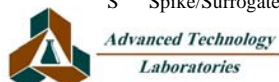
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
N-Nitrosodi-n-propylamine	ND	5.0									
N-Nitrosodimethylamine	ND	10									
N-Nitrosodiphenylamine	ND	5.0									
Naphthalene	ND	2.0									
Nitrobenzene	ND	10									
Pentachlorophenol	ND	20									
Phenanthrene	ND	2.0									
Phenol	ND	10									
Pyrene	ND	2.0									
Surr: 1,2-Dichlorobenzene-d4	64.260		100.0		64.3	46	97				
Surr: 2,4,6-Tribromophenol	62.750		100.0		62.8	59	124				
Surr: 2-Chlorophenol-d4	58.590		100.0		58.6	49	93				
Surr: 2-Fluorobiphenyl	70.500		100.0		70.5	57	107				
Surr: 2-Fluorophenol	35.730		100.0		35.7	27	60				
Surr: 4-Terphenyl-d14	100.350		100.0		100	69	132				
Surr: Nitrobenzene-d5	68.860		100.0		68.9	52	107				
Surr: Phenol-d5	25.990		100.0		26.0	15	50				

Sample ID: <b>MB-73755MS</b>	SampType: <b>MS</b>	TestCode: <b>625_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/21/2011</b>	RunNo: <b>134310</b>
Client ID: <b>ZZZZZ</b>	Batch ID: <b>73755</b>	TestNo: <b>EPA 625</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/22/2011</b>	SeqNo: <b>2195326</b>

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
1,2,4-Trichlorobenzene	79.080	2.0	100.0	0	79.1	60	106				
2,4-Dinitrotoluene	107.320	5.0	100.0	0	107	81	123				
2-Chlorophenol	70.100	5.0	100.0	0	70.1	46	105				
4-Chloro-3-methylphenol	96.630	5.0	100.0	0	96.6	51	140				
4-Nitrophenol	45.460	5.0	100.0	0	45.5	20	74				
Acenaphthene	76.770	2.0	100.0	0	76.8	64	119				
N-Nitrosodi-n-propylamine	89.100	5.0	100.0	0	89.1	65	117				
Pentachlorophenol	83.240	20	100.0	0	83.2	55	142				

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | 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:** 118501  
**Project:** MTA Westside EXT., 4953101561/6.2.3

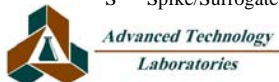
## ANALYTICAL QC SUMMARY REPORT

**TestCode: 625\_W\_LL**

Sample ID: <b>MB-73755MS</b>	SampType: <b>MS</b>	TestCode: <b>625_W_LL</b>	Units: <b>µg/L</b>	Prep Date: <b>6/21/2011</b>	RunNo: <b>134310</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>73755</b>	TestNo: <b>EPA 625</b>	<b>EPA 3510C</b>	Analysis Date: <b>6/22/2011</b>	SeqNo: <b>2195326</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Phenol	33.020	10	100.0	0	33.0	18	52				
Pyrene	108.350	2.0	100.0	0	108	73	120				
Surr: 1,2-Dichlorobenzene-d4	64.170		100.0		64.2	46	97				
Surr: 2,4,6-Tribromophenol	80.760		100.0		80.8	59	124				
Surr: 2-Chlorophenol-d4	60.460		100.0		60.5	49	93				
Surr: 2-Fluorobiphenyl	76.210		100.0		76.2	57	107				
Surr: 2-Fluorophenol	36.500		100.0		36.5	27	60				
Surr: 4-Terphenyl-d14	96.920		100.0		96.9	69	132				
Surr: Nitrobenzene-d5	70.420		100.0		70.4	52	107				
Surr: Phenol-d5	27.910		100.0		27.9	15	50				

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | 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:** 118501  
**Project:** MTA Westside EXT., 4953101561/6.2.3

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8270\_W\_SIM**

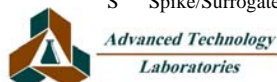
Sample ID: <b>LCS-73836</b>		SampType: <b>LCS</b>		TestCode: <b>8270_W_SIM</b>		Units: <b>µg/L</b>		Prep Date: <b>6/23/2011</b>		RunNo: <b>134373</b>		
Client ID: <b>LCSW</b>		Batch ID: <b>73836</b>		TestNo: <b>EPA 8270C EPA 3510C</b>				Analysis Date: <b>6/23/2011</b>		SeqNo: <b>2196804</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Acenaphthene	0.904	0.20	1.000	0	90.4	64	98					
Phenanthrene	0.934	0.20	1.000	0	93.4	69	104					
Pyrene	1.064	0.20	1.000	0	106	65	108					
Surr: 1,2-Dichlorobenzene-d4	0.797		1.000		79.7	58	99					
Surr: 2-Fluorobiphenyl	0.824		1.000		82.4	60	104					
Surr: 4-Terphenyl-d14	0.942		1.000		94.2	65	127					
Surr: Nitrobenzene-d5	0.806		1.000		80.6	50	136					

Sample ID: <b>MB-73836MS</b>		SampType: <b>MS</b>		TestCode: <b>8270_W_SIM</b>		Units: <b>µg/L</b>		Prep Date: <b>6/23/2011</b>		RunNo: <b>134373</b>		
Client ID: <b>ZZZZZ</b>		Batch ID: <b>73836</b>		TestNo: <b>EPA 8270C EPA 3510C</b>				Analysis Date: <b>6/23/2011</b>		SeqNo: <b>2196805</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Surr: 1,2-Dichlorobenzene-d4	0.823		1.000		82.3	58	99					
Surr: 2-Fluorobiphenyl	0.855		1.000		85.5	60	104					
Surr: 4-Terphenyl-d14	0.950		1.000		95.0	65	127					
Surr: Nitrobenzene-d5	0.810		1.000		81.0	50	136					

Sample ID: <b>MB-73836</b>		SampType: <b>MBLK</b>		TestCode: <b>8270_W_SIM</b>		Units: <b>µg/L</b>		Prep Date: <b>6/23/2011</b>		RunNo: <b>134373</b>		
Client ID: <b>PBW</b>		Batch ID: <b>73836</b>		TestNo: <b>EPA 8270C EPA 3510C</b>				Analysis Date: <b>6/24/2011</b>		SeqNo: <b>2196807</b>		
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Dibenz(a,h)anthracene	ND	0.20										
Indeno(1,2,3-cd)pyrene	ND	0.20										
Surr: 1,2-Dichlorobenzene-d4	0.807		1.000		80.7	58	99					
Surr: 2-Fluorobiphenyl	0.856		1.000		85.6	60	104					
Surr: 4-Terphenyl-d14	1.093		1.000		109	65	127					
Surr: Nitrobenzene-d5	0.774		1.000		77.4	50	136					

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | 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:** 118501  
**Project:** MTA Westside EXT., 4953101561/6.2.3

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 8270\_W\_SIM**

Sample ID: <b>MB-73836MSD</b>	SampType: <b>MSD</b>	TestCode: <b>8270_W_SIM</b>	Units: <b>µg/L</b>	Prep Date: <b>6/23/2011</b>	RunNo: <b>134373</b>						
Client ID: <b>ZZZZZZ</b>	Batch ID: <b>73836</b>	TestNo: <b>EPA 8270C EPA 3510C</b>		Analysis Date: <b>6/24/2011</b>	SeqNo: <b>2196809</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Surr: 1,2-Dichlorobenzene-d4	0.823		1.000		82.3	58	99		0	0	
Surr: 2-Fluorobiphenyl	0.888		1.000		88.8	60	104		0	0	
Surr: 4-Terphenyl-d14	0.937		1.000		93.7	65	127		0	0	
Surr: Nitrobenzene-d5	0.681		1.000		68.1	50	136		0	0	

**Qualifiers:**

- |  |  |  |
|--|--|--|
| B Analyte detected in the associated Method Blank              | E Value above quantitation range       | H Holding times for preparation or analysis exceeded |
| J Analyte detected below quantitation limits                   | 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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**AMERICAN SCIENTIFIC LABORATORIES, LLC**  
*Environmental Testing Services*

2520 N. San Fernando Rd., Los Angeles, CA 90065 Tel: (323) 223-9700 Fax: (323) 223-9500

**ANALYTICAL RESULTS**

Ordered By

Advanced Technology Laboratories  
 5775 Walnut Ave.  
 Signal Hill, CA 90755-5225

Telephone: (562)989-4045

Attn: Rachelle Arada

Page: 2

Project ID: 118501

ASL Job Number	Sample Date	Client
50277	06/17/2011	ATL

Method: SM5210B, Biochemical Oxygen Demand (BOD)

QC Batch No: 062211-1

QA Lab ID	Client Sample I.D.	Date Sampled	Date Prepared	Preparation Method	Date Analyzed	Matrix	Units	Dilution Factor	Conventional	BOD @ 20C
		118501-001C	06/17/2011		06/17/2011	Groundwater	mg/L	1		5.00
					06/22/2011					ND

**QUALITY CONTROL REPORT**

QC Batch No: 062211-1

	LCS % REC	LCS DUP % REC	LCS RPD % REC	LCS/LCSD % Limit	LCS RPD % Limit
Conventional					
BOD @ 20C	100	98	2.0	80-120	20





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

# CHAIN-OF-CUSTODY RECORD

**QC Level: RTNE**

**Subcontractor:**

American Scientific Laboratory  
 2520 N. San Fernando Rd.  
 Los Angeles, CA 90065



TEL: (323) 254-7700  
 FAX: (323) 223-9500  
 Acct #:

Field Sampler: ANTHONY MARINO

17-Jun-11

Sample ID	Matrix	Date Collected	Bottle Type	Requested Tests
118501-001C / P-103 / UCLA LOT 36	Groundwater	6/17/2011 10:45:00 AM	32OZP	SM5210B 1

General Comments: Please email sample receipt acknowledgement to the PM. **(RA)**  
 Please use PO#: SC06506 Please fax results by: NORMAL TAT  
 PLEASE SEND REPORT TO RACHELLE ARADA

Date/Time	Date/Time
Relinquished by: 	Received by: 
Relinquished by: _____	Received by: _____
_____	_____
_____	6/17/11
_____	17-Jun-11 3:15



August 26, 2011



Anthony Marino  
AMEC E&I  
2171 Campus Drive, Suite 100  
Irvine, CA 92612  
TEL: (949) 224-0050  
FAX: (949) 224-0073

ELAP No.: 1838  
NELAP No.: 02107CA  
CSDLAC No.: 10196  
ORELAP No.: CA300003  
Workorder No.: 119461

RE: MTA Westside Extention, 4953101561/6.2.3.3.

Attention: Anthony Marino

Enclosed are the results for sample(s) received on August 19, 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:** AMEC E&I  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.  
**Lab Order:** 119461

---

**CASE NARRATIVE**

The sample for SM5210B (BOD) analysis was subcontracted to American Scientific Laboratories with ELAP Cert.# 2200.

Sample Receiving / General Comments

Sample received beyond holding time for SM4500-H+B (pH) and SM4500-Cl G (Residual Chlorine) analyses.

Results were J-Flag. "J" is used to flag those results that are between the PQL (Practical Quantitation Limit) and the calculated MDL (Method Detection Limit). Results that are "J" Flagged are estimated values since it becomes difficult to accurately quantitate the analyte near the MDL.

Analytical Comments for SM5540C

Sample 119461-001A-MSD, Matrix Spike Duplicate (MSD) is outside recovery criteria; however, the analytical batch was validated by the Laboratory Control Sample (LCS).





**Advanced Technology Laboratories**

**ANALYTICAL RESULTS**

Print Date: 26-Aug-11

<b>CLIENT:</b> AMEC E&I	<b>Client Sample ID:</b> P-103 Aug 2011/UCLA Lot 36
<b>Lab Order:</b> 119461	<b>Collection Date:</b> 8/19/2011 8:00:00 AM
<b>Project:</b> MTA Westside Extention, 4953101561/6.2.3.3	<b>Matrix:</b> GROUNDWATER
<b>Lab ID:</b> 119461-001A	

Analyses	Result	MDL	PQL	Qual Units	DF	Date Analyzed
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**SURFACTANTS**

**SM5540C**

RunID: <b>WETCHEM3_110819C</b>	QC Batch: <b>75067</b>	PrepDate: <b>8/19/2011</b>	Analyst: <b>AAG</b>
MBAS	0.11 0.026	0.050 mg/L	1 8/19/2011

**PH**

**SM4500-H+B**

RunID: <b>PH4_110819A</b>	QC Batch: <b>R135952</b>	PrepDate:	Analyst: <b>FD</b>
pH	7.0 0.10	0.10 H pH Units	1 8/19/2011

**TURBIDITY**

**EPA 180.1**

RunID: <b>TURB_110819A</b>	QC Batch: <b>R136052</b>	PrepDate:	Analyst: <b>MP</b>
Turbidity	2.7 0.10	0.10 NTU	1 8/19/2011

**TOTAL AND FREE CHLORINE DPD COLORIMETRIC**

**SM 4500-CL G**

RunID: <b>SC_110819A</b>	QC Batch: <b>R136053</b>	PrepDate:	Analyst: <b>MP</b>
Chlorine, Total	ND 0.054	0.10 H mg/L	1 8/19/2011

**TOTAL NON-FILTERABLE RESIDUE**

**SM2540D**

RunID: <b>WETCHEM_110822C</b>	QC Batch: <b>75052</b>	PrepDate: <b>8/22/2011</b>	Analyst: <b>PT</b>
Suspended Solids (Residue, Non-Filterable)	ND 10	10 mg/L	1 8/22/2011 08:00

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	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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Laboratories

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# Advanced Technology Laboratories

# ANALYTICAL RESULTS

Print Date: 26-Aug-11

**CLIENT:** AMEC E&I  
**Lab Order:** 119461  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 119461-001B

**Client Sample ID:** P-103 Aug 2011/UCLA Lot 36  
**Collection Date:** 8/19/2011 8:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual Units	DF	Date Analyzed
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## SETTLABLE MATTER

### SM2540F

RunID: <b>WETCHEM_110819A</b>	QC Batch: <b>75024</b>			PrepDate: <b>8/19/2011</b>	Analyst: <b>PT</b>	
Settleable Matter	ND	0.099	0.099	ml/L	1	8/19/2011

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	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: 26-Aug-11

**CLIENT:** AMEC E&I  
**Lab Order:** 119461  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3  
**Lab ID:** 119461-001C

**Client Sample ID:** P-103 Aug 2011/UCLA Lot 36  
**Collection Date:** 8/19/2011 8:00:00 AM  
**Matrix:** GROUNDWATER

Analyses	Result	MDL	PQL	Qual	Units	DF	Date Analyzed
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**ICPMS METALS**

RunID:	EPA 200.8			EPA 200.8			Analyst: SRB
	QC Batch:	75046		PrepDate:	8/22/2011		
Copper	1.3	0.058	1.0	µg/L	1	8/23/2011 12:33	
Lead	0.21	0.10	1.0	J µg/L	1	8/23/2011 12:33	
Selenium	6.9	0.26	0.50	µg/L	1	8/23/2011 12:33	
Zinc	7.9	2.5	10	J µg/L	1	8/23/2011 12:33	

<b>Qualifiers:</b>	B Analyte detected in the associated Method Blank	E Value above quantitation range
	H Holding times for preparation or analysis exceeded	J Analyte detected below quantitation limits
	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:** AMEC E&I  
**Work Order:** 119461  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

**ANALYTICAL QC SUMMARY REPORT**

**TestCode: 150.1\_4500H+B\_W**

Sample ID: <b>119461-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>150.1_4500H+</b>	Units: <b>pH Units</b>	Prep Date:	RunNo: <b>135952</b>						
Client ID: <b>P-103 Aug 2011/UCL</b>	Batch ID: <b>R135952</b>	TestNo: <b>SM4500-H+B</b>	Analysis Date: <b>8/19/2011</b>	SeqNo: <b>2227722</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
pH	6.970	0.10						6.970	0	10	H

**Qualifiers:**

- |   |  |    |                                     |   |  |
|---|--|----|-------------------------------------|---|--|
| B | Analyte detected in the associated Method Blank              | E  | Value above quantitation range      | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits                   | 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: AMEC E&I

Work Order: 119461

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 160.2\_2540D\_W

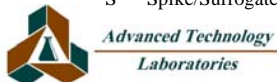
Sample ID: <b>119461-001A-DUP</b>	SampType: <b>DUP</b>	TestCode: <b>160.2_2540D_</b>	Units: <b>mg/L</b>	Prep Date: <b>8/22/2011</b>	RunNo: <b>135977</b>						
Client ID: <b>P-103 Aug 2011/UCL</b>	Batch ID: <b>75052</b>	TestNo: <b>SM2540D</b>	Analysis Date: <b>8/22/2011</b>	SeqNo: <b>2228189</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter)	ND	10						0	0	10	

Sample ID: <b>LCS-75052</b>	SampType: <b>LCS</b>	TestCode: <b>160.2_2540D_</b>	Units: <b>mg/L</b>	Prep Date: <b>8/22/2011</b>	RunNo: <b>135977</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>75052</b>	TestNo: <b>SM2540D</b>	Analysis Date: <b>8/22/2011</b>	SeqNo: <b>2228190</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter)	95.000	10	96.60	0	98.3	80	120				

Sample ID: <b>MB-75052</b>	SampType: <b>MBLK</b>	TestCode: <b>160.2_2540D_</b>	Units: <b>mg/L</b>	Prep Date: <b>8/22/2011</b>	RunNo: <b>135977</b>						
Client ID: <b>PBW</b>	Batch ID: <b>75052</b>	TestNo: <b>SM2540D</b>	Analysis Date: <b>8/22/2011</b>	SeqNo: <b>2228191</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Suspended Solids (Residue, Non-Filter)	ND	10									

**Qualifiers:**

- |   |  |    |                                     |   |  |
|---|--|----|-------------------------------------|---|--|
| B | Analyte detected in the associated Method Blank              | E  | Value above quantitation range      | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits                   | 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:** AMEC E&I  
**Work Order:** 119461  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode:** 160.5\_2540F\_W

Sample ID: <b>MB-75024</b>	SampType: <b>MBLK</b>	TestCode: <b>160.5_2540F_</b>	Units: <b>ml/L</b>	Prep Date: <b>8/19/2011</b>	RunNo: <b>135938</b>						
Client ID: <b>PBW</b>	Batch ID: <b>75024</b>	TestNo: <b>SM2540F</b>		Analysis Date: <b>8/19/2011</b>	SeqNo: <b>2227506</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Settleable Matter	ND	0.10									

**Qualifiers:**

- |   |  |    |                                     |   |  |
|---|--|----|-------------------------------------|---|--|
| B | Analyte detected in the associated Method Blank              | E  | Value above quantitation range      | H | Holding times for preparation or analysis exceeded |
| J | Analyte detected below quantitation limits                   | 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:** AMEC E&I  
**Work Order:** 119461  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

## ANALYTICAL QC SUMMARY REPORT

**TestCode: 180.1\_W**

Sample ID: <b>MB-R136052</b>	SampType: <b>MBLK</b>	TestCode: <b>180.1_W</b>	Units: <b>NTU</b>	Prep Date:	RunNo: <b>136052</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R136052</b>	TestNo: <b>EPA 180.1</b>		Analysis Date: <b>8/19/2011</b>	SeqNo: <b>2229349</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

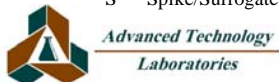
Turbidity	ND	0.10									
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Sample ID: <b>119461-001ADUP</b>	SampType: <b>DUP</b>	TestCode: <b>180.1_W</b>	Units: <b>NTU</b>	Prep Date:	RunNo: <b>136052</b>						
Client ID: <b>P-103 Aug 2011/UCL</b>	Batch ID: <b>R136052</b>	TestNo: <b>EPA 180.1</b>		Analysis Date: <b>8/19/2011</b>	SeqNo: <b>2229353</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Turbidity	2.580	0.10				2.690	4.17	10			
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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 |
| J Analyte detected below quantitation limits                   | 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: AMEC E&I

Work Order: 119461

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 200.8\_W

Sample ID: <b>MB-75046</b>	SampType: <b>MBLK</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>8/22/2011</b>	RunNo: <b>136009</b>						
Client ID: <b>PBW</b>	Batch ID: <b>75046</b>	TestNo: <b>EPA 200.8</b>	<b>EPA 200.8</b>	Analysis Date: <b>8/23/2011</b>	SeqNo: <b>2228660</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	ND	1.0									
Lead	ND	1.0									
Selenium	ND	0.50									
Zinc	2.760	10									J

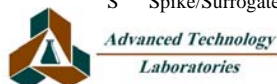
Sample ID: <b>LCS-75046</b>	SampType: <b>LCS</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>8/22/2011</b>	RunNo: <b>136009</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>75046</b>	TestNo: <b>EPA 200.8</b>	<b>EPA 200.8</b>	Analysis Date: <b>8/23/2011</b>	SeqNo: <b>2228661</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	9.935	1.0	10.00	0	99.4	85	115				
Lead	9.735	1.0	10.00	0	97.4	85	115				
Selenium	10.259	0.50	10.00	0	103	85	115				
Zinc	96.535	10	100.0	2.760	93.8	85	115				

Sample ID: <b>119461-001C-MS</b>	SampType: <b>MS</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>8/22/2011</b>	RunNo: <b>136009</b>						
Client ID: <b>P-103 Aug 2011/UCL</b>	Batch ID: <b>75046</b>	TestNo: <b>EPA 200.8</b>	<b>EPA 200.8</b>	Analysis Date: <b>8/23/2011</b>	SeqNo: <b>2228663</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	9.379	1.0	10.00	1.341	80.4	70	130				
Lead	9.166	1.0	10.00	0.2075	89.6	70	130				
Selenium	16.636	0.50	10.00	6.929	97.1	70	130				
Zinc	91.604	10	100.0	7.864	83.7	70	130				

Sample ID: <b>119461-001C-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>200.8_W</b>	Units: <b>µg/L</b>	Prep Date: <b>8/22/2011</b>	RunNo: <b>136009</b>						
Client ID: <b>P-103 Aug 2011/UCL</b>	Batch ID: <b>75046</b>	TestNo: <b>EPA 200.8</b>	<b>EPA 200.8</b>	Analysis Date: <b>8/23/2011</b>	SeqNo: <b>2228664</b>						
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Copper	9.265	1.0	10.00	1.341	79.2	70	130	9.379	1.22	20	
Lead	9.043	1.0	10.00	0.2075	88.4	70	130	9.166	1.36	20	

**Qualifiers:**

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



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**Work Order:** 119461  
**Project:** MTA Westside Extention, 4953101561/6.2.3.3.

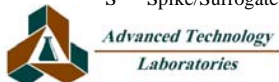
## ANALYTICAL QC SUMMARY REPORT

**TestCode: 200.8\_W**

Sample ID: <b>119461-001C-MSD</b>		SampType: <b>MSD</b>		TestCode: <b>200.8_W</b>		Units: <b>µg/L</b>		Prep Date: <b>8/22/2011</b>		RunNo: <b>136009</b>	
Client ID: <b>P-103 Aug 2011/UCL</b>		Batch ID: <b>75046</b>		TestNo: <b>EPA 200.8</b>		<b>EPA 200.8</b>		Analysis Date: <b>8/23/2011</b>		SeqNo: <b>2228664</b>	
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Selenium	16.526	0.50	10.00	6.929	96.0	70	130	16.64	0.663	20	
Zinc	93.385	10	100.0	7.864	85.5	70	130	91.60	1.93	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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# ANALYTICAL QC SUMMARY REPORT

TestCode: 425.1\_5540C\_W

Sample ID: <b>119461-001A-MS</b>	SampType: <b>MS</b>	TestCode: <b>425.1_5540C_</b>	Units: <b>mg/L</b>	Prep Date: <b>8/19/2011</b>	RunNo: <b>135988</b>						
Client ID: <b>P-103 Aug 2011/UCL</b>	Batch ID: <b>75067</b>	TestNo: <b>SM5540C</b>	Analysis Date: <b>8/19/2011</b>	SeqNo: <b>2228442</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

MBAS 0.527 0.050 0.5000 0.1110 83.2 80 120

Sample ID: <b>119461-001A-MSD</b>	SampType: <b>MSD</b>	TestCode: <b>425.1_5540C_</b>	Units: <b>mg/L</b>	Prep Date: <b>8/19/2011</b>	RunNo: <b>135988</b>						
Client ID: <b>P-103 Aug 2011/UCL</b>	Batch ID: <b>75067</b>	TestNo: <b>SM5540C</b>	Analysis Date: <b>8/19/2011</b>	SeqNo: <b>2228443</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

MBAS 0.510 0.050 0.5000 0.1110 79.8 80 120 0.5270 3.28 20 S

Sample ID: <b>LCS-75067</b>	SampType: <b>LCS</b>	TestCode: <b>425.1_5540C_</b>	Units: <b>mg/L</b>	Prep Date: <b>8/19/2011</b>	RunNo: <b>135988</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>75067</b>	TestNo: <b>SM5540C</b>	Analysis Date: <b>8/19/2011</b>	SeqNo: <b>2228444</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

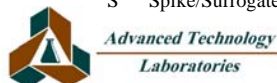
MBAS 0.523 0.050 0.5000 0 105 80 120

Sample ID: <b>MB-75067</b>	SampType: <b>MBLK</b>	TestCode: <b>425.1_5540C_</b>	Units: <b>mg/L</b>	Prep Date: <b>8/19/2011</b>	RunNo: <b>135988</b>						
Client ID: <b>PBW</b>	Batch ID: <b>75067</b>	TestNo: <b>SM5540C</b>	Analysis Date: <b>8/19/2011</b>	SeqNo: <b>2228445</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

MBAS ND 0.050

### Qualifiers:

- |   |  |    |                                     |   |  |
|---|--|----|-------------------------------------|---|--|
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Work Order: 119461

Project: MTA Westside Extention, 4953101561/6.2.3.3.

# ANALYTICAL QC SUMMARY REPORT

TestCode: 4500\_CL\_G

Sample ID: <b>MB-R136053</b>	SampType: <b>MBLK</b>	TestCode: <b>4500_CL_G</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>136053</b>						
Client ID: <b>PBW</b>	Batch ID: <b>R136053</b>	TestNo: <b>SM 4500-CI G</b>	Analysis Date: <b>8/19/2011</b>	SeqNo: <b>2229354</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chlorine, Total	ND	0.10									
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Sample ID: <b>LCS-R136053</b>	SampType: <b>LCS</b>	TestCode: <b>4500_CL_G</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>136053</b>						
Client ID: <b>LCSW</b>	Batch ID: <b>R136053</b>	TestNo: <b>SM 4500-CI G</b>	Analysis Date: <b>8/19/2011</b>	SeqNo: <b>2229355</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chlorine, Total	0.970	0.10	1.000	0	97.0	80	120				
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Sample ID: <b>119461-001AMS</b>	SampType: <b>MS</b>	TestCode: <b>4500_CL_G</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>136053</b>						
Client ID: <b>P-103 Aug 2011/UCL</b>	Batch ID: <b>R136053</b>	TestNo: <b>SM 4500-CI G</b>	Analysis Date: <b>8/19/2011</b>	SeqNo: <b>2229357</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chlorine, Total	0.950	0.10	1.000	0	95.0	80	120				H
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Sample ID: <b>119461-001AMSD</b>	SampType: <b>MSD</b>	TestCode: <b>4500_CL_G</b>	Units: <b>mg/L</b>	Prep Date:	RunNo: <b>136053</b>						
Client ID: <b>P-103 Aug 2011/UCL</b>	Batch ID: <b>R136053</b>	TestNo: <b>SM 4500-CI G</b>	Analysis Date: <b>8/19/2011</b>	SeqNo: <b>2229358</b>							
Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Chlorine, Total	0.950	0.10	1.000	0	95.0	80	120	0.9500	0	20	H
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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 |
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