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ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021 / 602 / 8260 / 624	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
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REMARKS: All tests failed

LAB USE ONLY

Relinquished by: <i>Barry</i>	Company: TA	Date: 6/11/12	Time: 8:20	INST: COR	OBS: COR
Relinquished by: <i>Barry</i>	Company: TA	Date: 6/11/12	Time: 8:20	INST: COR	OBS: COR
Relinquished by: <i>Barry</i>	Company: TA	Date: 6/11/12	Time: 8:20	INST: COR	OBS: COR

Dry Weight Basis Required ☐
TRRP Report Required ☐
Check if Special Reporting Limits Are Needed ☐

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # *Barry*

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email: lab@traceanalysis.com

Phone: 432 520 7700
Fax #:
E-mail:
Company Name: NOVA

Address: 2057 Commerce Dr
Contact Person: RON ROUSAVILLE

Invoice to: (If different from above) TMM-LF-2000-7

Project #: NM-2002

Project Location (including state): MONUMENT, NM
Project Name: BOB DURHAM
Sampler Signature: [Signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD					SAMPLING		TIME	DATE	INST	OBS	COR	INST	OBS	COR
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE									
6010	MW-24	3	VOA X	X	X	X	X	X	X	X	X	X	X	X	14:20	7/1/02	14:20					
6010	MW-27	3	VOA X	X	X	X	X	X	X	X	X	X	X	X	14:55							
6019	MW-31	3	VOA X	X	X	X	X	X	X	X	X	X	X	X	11:50							
6020	MW-33	3	VOA X	X	X	X	X	X	X	X	X	X	X	X	11:20							
6021	MW-56	3	VOA X	X	X	X	X	X	X	X	X	X	X	X	11:30							
6022	MW-15	3	VOA X	X	X	X	X	X	X	X	X	X	X	X	11:15							
6023	MW-10	3	VOA X	X	X	X	X	X	X	X	X	X	X	X	10:50							
6024	MW-7	3	VOA X	X	X	X	X	X	X	X	X	X	X	X	13:30							
6025	MW-32	3	VOA X	X	X	X	X	X	X	X	X	X	X	X	11:20							
6026	MW-37	3	VOA X	X	X	X	X	X	X	X	X	X	X	X	11:30							
6028	MW-8	3	VOA X	X	X	X	X	X	X	X	X	X	X	X	13:00							

Relinquished by: [Signature] Company: NOVA Date: 6/11/02 Time: 8:20

Relinquished by: [Signature] Company: TA Date: 6/11/02 Time: 8:20

Relinquished by: [Signature] Company: TA Date: 6/11/02 Time: 8:20

LAB USE ONLY	REMARKS:
Intact ☒ Headspace ☒ N/A	Oil Analysis Results

Dry Weight Basis Required ☐

TRRP Report Required ☐

Check if Special Reporting Limits Are Needed ☐

Summary Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX 79703

Report Date: August 22, 2012

Work Order: 12081501



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
306740	MW-31	water	2012-08-14	09:47	2012-08-15
306741	MW-33	water	2012-08-14	10:05	2012-08-15
306742	MW-56	water	2012-08-14	10:29	2012-08-15
306743	MW-15	water	2012-08-14	10:47	2012-08-15
306744	MW-10	water	2012-08-14	11:03	2012-08-15
306745	MW-7	water	2012-08-14	11:25	2012-08-15
306746	MW-32	water	2012-08-14	11:41	2012-08-15
306747	MW-37	water	2012-08-14	12:02	2012-08-15
306748	MW-8	water	2012-08-14	12:49	2012-08-15
306749	MW-28	water	2012-08-14	13:06	2012-08-15
306750	MW-3	water	2012-08-14	13:22	2012-08-15
306751	MW-23	water	2012-08-14	13:39	2012-08-15
306752	MW-5	water	2012-08-14	14:07	2012-08-15
306753	MW-4	water	2012-08-14	14:27	2012-08-15
306754	MW-6	water	2012-08-14	14:43	2012-08-15
306755	MW-38	water	2012-08-14	14:59	2012-08-15
306756	MW-2	water	2012-08-14	15:25	2012-08-15
306757	MW-13	water	2012-08-14	15:43	2012-08-15
306758	MW-1	water	2012-08-14	16:15	2012-08-15
306759	MW-16	water	2012-08-14	16:39	2012-08-15

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
306740 - MW-31	<0.00100	<0.00100	<0.00100	<0.00100
306741 - MW-33	<0.00100	<0.00100	<0.00100	<0.00100
306742 - MW-56	<0.00100	<0.00100	<0.00100	<0.00100
306743 - MW-15	<0.00100	<0.00100	<0.00100	<0.00100
306744 - MW-10	<0.00100	<0.00100	<0.00100	<0.00100

continued ...

... continued

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
306745 - MW-7	<0.00100	<0.00100	<0.00100	<0.00100
306746 - MW-32	<0.00100	<0.00100	<0.00100	<0.00100
306747 - MW-37	<0.00100	<0.00100	<0.00100	<0.00100
306748 - MW-8	<0.00100	<0.00100	<0.00100	<0.00100
306749 - MW-28	<0.00100	<0.00100	<0.00100	<0.00100
306750 - MW-3	<0.00100	<0.00100	<0.00100	<0.00100
306751 - MW-23	<0.00100	<0.00100	<0.00100	<0.00100
306752 - MW-5	0.00840	<0.00100	0.00580	<0.00100
306753 - MW-4	<0.00100	<0.00100	<0.00100	<0.00100
306754 - MW-6	<0.00100	<0.00100	<0.00100	0.00250
306755 - MW-38	0.00170	<0.00100	0.00230	<0.00100
306756 - MW-2	<0.00100	<0.00100	<0.00100	<0.00100
306757 - MW-13	<0.00100	<0.00100	<0.00100	<0.00100
306758 - MW-1	<0.00100	<0.00100	<0.00100	<0.00100
306759 - MW-16	0.00150	<0.00100	<0.00100	<0.00100



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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Ron Rounsaville
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: August 22, 2012

Work Order: 12081501



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
306740	MW-31	water	2012-08-14	09:47	2012-08-15
306741	MW-33	water	2012-08-14	10:05	2012-08-15
306742	MW-56	water	2012-08-14	10:29	2012-08-15
306743	MW-15	water	2012-08-14	10:47	2012-08-15
306744	MW-10	water	2012-08-14	11:03	2012-08-15
306745	MW-7	water	2012-08-14	11:25	2012-08-15
306746	MW-32	water	2012-08-14	11:41	2012-08-15
306747	MW-37	water	2012-08-14	12:02	2012-08-15
306748	MW-8	water	2012-08-14	12:49	2012-08-15
306749	MW-28	water	2012-08-14	13:06	2012-08-15
306750	MW-3	water	2012-08-14	13:22	2012-08-15
306751	MW-23	water	2012-08-14	13:39	2012-08-15
306752	MW-5	water	2012-08-14	14:07	2012-08-15
306753	MW-4	water	2012-08-14	14:27	2012-08-15
306754	MW-6	water	2012-08-14	14:43	2012-08-15
306755	MW-38	water	2012-08-14	14:59	2012-08-15
306756	MW-2	water	2012-08-14	15:25	2012-08-15
306757	MW-13	water	2012-08-14	15:43	2012-08-15

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
306758	MW-1	water	2012-08-14	16:15	2012-08-15
306759	MW-16	water	2012-08-14	16:39	2012-08-15

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 25 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2012-08-15 and assigned to work order 12081501. Samples for work order 12081501 were received intact without headspace and at a temperature of 7.1 C. Samples were received on ice.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	79681	2012-08-16 at 16:59	93983	2012-08-16 at 16:59
BTEX	S 8021B	79708	2012-08-19 at 16:06	94023	2012-08-17 at 16:06
BTEX	S 8021B	79734	2012-08-20 at 10:25	94069	2012-08-20 at 10:25

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 12081501 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

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Analytical Report

Sample: 306740 - MW-31

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 93983
Prep Batch: 79681

Analytical Method: S 8021B
Date Analyzed: 2012-08-16
Sample Preparation: 2012-08-16

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0945	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0973	mg/L	1	0.100	97	70 - 130

Sample: 306741 - MW-33

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 93983
Prep Batch: 79681

Analytical Method: S 8021B
Date Analyzed: 2012-08-16
Sample Preparation: 2012-08-16

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0923	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0907	mg/L	1	0.100	91	70 - 130

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Sample: 306742 - MW-56

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 93983
Prep Batch: 79681

Analytical Method: S 8021B
Date Analyzed: 2012-08-16
Sample Preparation: 2012-08-16

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0934	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0900	mg/L	1	0.100	90	70 - 130

Sample: 306743 - MW-15

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 93983
Prep Batch: 79681

Analytical Method: S 8021B
Date Analyzed: 2012-08-16
Sample Preparation: 2012-08-16

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0928	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0875	mg/L	1	0.100	88	70 - 130

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Sample: 306744 - MW-10

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 93983

Prep Batch: 79681

Analytical Method: S 8021B

Date Analyzed: 2012-08-16

Sample Preparation: 2012-08-16

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0942	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0866	mg/L	1	0.100	87	70 - 130

Sample: 306745 - MW-7

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 94023

Prep Batch: 79708

Analytical Method: S 8021B

Date Analyzed: 2012-08-17

Sample Preparation: 2012-08-19

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0978	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0986	mg/L	1	0.100	99	70 - 130

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Sample: 306746 - MW-32

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 93983

Prep Batch: 79681

Analytical Method: S 8021B

Date Analyzed: 2012-08-16

Sample Preparation: 2012-08-16

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0931	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0918	mg/L	1	0.100	92	70 - 130

Sample: 306747 - MW-37

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 93983

Prep Batch: 79681

Analytical Method: S 8021B

Date Analyzed: 2012-08-16

Sample Preparation: 2012-08-16

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0935	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0893	mg/L	1	0.100	89	70 - 130

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Sample: 306748 - MW-8

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 94069

Prep Batch: 79734

Analytical Method: S 8021B

Date Analyzed: 2012-08-20

Sample Preparation: 2012-08-20

Prep Method: S 5030B

Analyzed By: JS

Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0933	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0953	mg/L	1	0.100	95	70 - 130

Sample: 306749 - MW-28

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 93983

Prep Batch: 79681

Analytical Method: S 8021B

Date Analyzed: 2012-08-16

Sample Preparation: 2012-08-16

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0922	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0905	mg/L	1	0.100	90	70 - 130

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Sample: 306750 - MW-3

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 93983

Prep Batch: 79681

Analytical Method: S 8021B

Date Analyzed: 2012-08-16

Sample Preparation: 2012-08-16

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0958	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0789	mg/L	1	0.100	79	70 - 130

Sample: 306751 - MW-23

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 93983

Prep Batch: 79681

Analytical Method: S 8021B

Date Analyzed: 2012-08-16

Sample Preparation: 2012-08-16

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0951	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0870	mg/L	1	0.100	87	70 - 130

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Sample: 306752 - MW-5

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 94069
Prep Batch: 79734

Analytical Method: S 8021B
Date Analyzed: 2012-08-20
Sample Preparation: 2012-08-20

Prep Method: S 5030B
Analyzed By: JS
Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00840	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	0.00580	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0980	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.107	mg/L	1	0.100	107	70 - 130

Sample: 306753 - MW-4

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 94069
Prep Batch: 79734

Analytical Method: S 8021B
Date Analyzed: 2012-08-20
Sample Preparation: 2012-08-20

Prep Method: S 5030B
Analyzed By: JS
Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.100	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)			0.104	mg/L	1	0.100	104	70 - 130

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Sample: 306754 - MW-6

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 94069

Prep Batch: 79734

Analytical Method: S 8021B

Date Analyzed: 2012-08-20

Sample Preparation: 2012-08-20

Prep Method: S 5030B

Analyzed By: JS

Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene		1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene		1	0.00250	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0984	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.102	mg/L	1	0.100	102	70 - 130

Sample: 306755 - MW-38

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 94069

Prep Batch: 79734

Analytical Method: S 8021B

Date Analyzed: 2012-08-20

Sample Preparation: 2012-08-20

Prep Method: S 5030B

Analyzed By: JS

Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00170	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	0.00230	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0981	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.110	mg/L	1	0.100	110	70 - 130

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Sample: 306756 - MW-2

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 94069

Prep Batch: 79734

Analytical Method: S 8021B

Date Analyzed: 2012-08-20

Sample Preparation: 2012-08-20

Prep Method: S 5030B

Analyzed By: JS

Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.106	mg/L	1	0.100	106	70 - 130
4-Bromofluorobenzene (4-BFB)			0.110	mg/L	1	0.100	110	70 - 130

Sample: 306757 - MW-13

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 94069

Prep Batch: 79734

Analytical Method: S 8021B

Date Analyzed: 2012-08-20

Sample Preparation: 2012-08-20

Prep Method: S 5030B

Analyzed By: JS

Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.114	mg/L	1	0.100	114	70 - 130
4-Bromofluorobenzene (4-BFB)			0.115	mg/L	1	0.100	115	70 - 130

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Sample: 306758 - MW-1

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 94069

Prep Batch: 79734

Analytical Method: S 8021B

Date Analyzed: 2012-08-20

Sample Preparation: 2012-08-20

Prep Method: S 5030B

Analyzed By: JS

Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.100	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)			0.103	mg/L	1	0.100	103	70 - 130

Sample: 306759 - MW-16

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 94069

Prep Batch: 79734

Analytical Method: S 8021B

Date Analyzed: 2012-08-20

Sample Preparation: 2012-08-20

Prep Method: S 5030B

Analyzed By: JS

Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00150	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.103	mg/L	1	0.100	103	70 - 130
4-Bromofluorobenzene (4-BFB)			0.108	mg/L	1	0.100	108	70 - 130

Method Blanks

Method Blank (1) QC Batch: 93983

QC Batch: 93983 Date Analyzed: 2012-08-16 Analyzed By: MT
Prep Batch: 79681 QC Preparation: 2012-08-16 Prepared By: MT

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000371	mg/L	0.001
Toluene		1	<0.000347	mg/L	0.001
Ethylbenzene		1	<0.000326	mg/L	0.001
Xylene		1	<0.000357	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0937	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0971	mg/L	1	0.100	97	70 - 130

Method Blank (1) QC Batch: 94023

QC Batch: 94023 Date Analyzed: 2012-08-17 Analyzed By: MT
Prep Batch: 79708 QC Preparation: 2012-08-19 Prepared By: MT

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000371	mg/L	0.001
Toluene		1	<0.000347	mg/L	0.001
Ethylbenzene		1	<0.000326	mg/L	0.001
Xylene		1	<0.000357	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.100	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)			0.105	mg/L	1	0.100	105	70 - 130

Method Blank (1) QC Batch: 94069

QC Batch: 94069 Date Analyzed: 2012-08-20 Analyzed By: JS
Prep Batch: 79734 QC Preparation: 2012-08-20 Prepared By: JS

Report Date: August 22, 2012
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Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000371	mg/L	0.001
Toluene		1	<0.000347	mg/L	0.001
Ethylbenzene		1	<0.000326	mg/L	0.001
Xylene		1	<0.000357	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0998	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)			0.105	mg/L	1	0.100	105	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 93983
Prep Batch: 79681

Date Analyzed: 2012-08-16
QC Preparation: 2012-08-16

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0932	mg/L	1	0.100	<0.000371	93	78.6 - 120
Toluene		1	0.0958	mg/L	1	0.100	<0.000347	96	79.6 - 120
Ethylbenzene		1	0.0967	mg/L	1	0.100	<0.000326	97	80 - 120
Xylene		1	0.285	mg/L	1	0.300	<0.000357	95	79.3 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0905	mg/L	1	0.100	<0.000371	90	78.6 - 120	3	20
Toluene		1	0.0922	mg/L	1	0.100	<0.000347	92	79.6 - 120	4	20
Ethylbenzene		1	0.0950	mg/L	1	0.100	<0.000326	95	80 - 120	2	20
Xylene		1	0.275	mg/L	1	0.300	<0.000357	92	79.3 - 120	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0915	0.0919	mg/L	1	0.100	92	92	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0904	0.0904	mg/L	1	0.100	90	90	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 94023
Prep Batch: 79708

Date Analyzed: 2012-08-17
QC Preparation: 2012-08-19

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0999	mg/L	1	0.100	<0.000371	100	78.6 - 120
Toluene		1	0.106	mg/L	1	0.100	<0.000347	106	79.6 - 120
Ethylbenzene		1	0.108	mg/L	1	0.100	<0.000326	108	80 - 120
Xylene		1	0.319	mg/L	1	0.300	<0.000357	106	79.3 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0999	mg/L	1	0.100	<0.000371	100	78.6 - 120	0	20
Toluene		1	0.105	mg/L	1	0.100	<0.000347	105	79.6 - 120	1	20
Ethylbenzene		1	0.110	mg/L	1	0.100	<0.000326	110	80 - 120	2	20
Xylene		1	0.319	mg/L	1	0.300	<0.000357	106	79.3 - 120	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0966	0.0962	mg/L	1	0.100	97	96	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0972	0.0975	mg/L	1	0.100	97	98	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 94069
Prep Batch: 79734

Date Analyzed: 2012-08-20
QC Preparation: 2012-08-20

Analyzed By: JS
Prepared By: JS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0974	mg/L	1	0.100	<0.000371	97	78.6 - 120
Toluene		1	0.104	mg/L	1	0.100	<0.000347	104	79.6 - 120
Ethylbenzene		1	0.104	mg/L	1	0.100	<0.000326	104	80 - 120
Xylene		1	0.304	mg/L	1	0.300	<0.000357	101	79.3 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0981	mg/L	1	0.100	<0.000371	98	78.6 - 120	1	20
Toluene		1	0.104	mg/L	1	0.100	<0.000347	104	79.6 - 120	0	20
Ethylbenzene		1	0.105	mg/L	1	0.100	<0.000326	105	80 - 120	1	20
Xylene		1	0.306	mg/L	1	0.300	<0.000357	102	79.3 - 120	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0972	0.0969	mg/L	1	0.100	97	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0983	0.0980	mg/L	1	0.100	98	98	70 - 130

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Matrix Spike (MS-1) Spiked Sample: 306740

QC Batch: 93983
Prep Batch: 79681

Date Analyzed: 2012-08-16
QC Preparation: 2012-08-16

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0718	mg/L	1	0.100	<0.000371	72	42.2 - 136
Toluene		1	0.0714	mg/L	1	0.100	<0.000347	71	44.3 - 133
Ethylbenzene		1	0.0717	mg/L	1	0.100	<0.000326	72	45.6 - 132
Xylene		1	0.211	mg/L	1	0.300	<0.000357	70	44.7 - 128

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0611	mg/L	1	0.100	<0.000371	61	42.2 - 136	16	20
Toluene		1	0.0610	mg/L	1	0.100	<0.000347	61	44.3 - 133	16	20
Ethylbenzene		1	0.0612	mg/L	1	0.100	<0.000326	61	45.6 - 132	16	20
Xylene		1	0.181	mg/L	1	0.300	<0.000357	60	44.7 - 128	15	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0921	0.0918	mg/L	1	0.1	92	92	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0913	0.0898	mg/L	1	0.1	91	90	70 - 130

Matrix Spike (MS-1) Spiked Sample: 306857

QC Batch: 94023
Prep Batch: 79708

Date Analyzed: 2012-08-17
QC Preparation: 2012-08-19

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.105	mg/L	1	0.100	<0.000371	105	42.2 - 136
Toluene		1	0.109	mg/L	1	0.100	<0.000347	109	44.3 - 133
Ethylbenzene		1	0.112	mg/L	1	0.100	<0.000326	112	45.6 - 132
Xylene		1	0.324	mg/L	1	0.300	<0.000357	108	44.7 - 128

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.101	mg/L	1	0.100	<0.000371	101	42.2 - 136	3	20
Toluene		1	0.103	mg/L	1	0.100	<0.000347	103	44.3 - 133	5	20

continued ...

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matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene		1	0.106	mg/L	1	0.100	<0.000326	106	45.6 - 132	6	20
Xylene		1	0.312	mg/L	1	0.300	<0.000357	104	44.7 - 128	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0985	0.0965	mg/L	1	0.1	98	96	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0989	0.0976	mg/L	1	0.1	99	98	70 - 130

Matrix Spike (MS-1) Spiked Sample: 306922

QC Batch: 94069
Prep Batch: 79734

Date Analyzed: 2012-08-20
QC Preparation: 2012-08-20

Analyzed By: JS
Prepared By: JS

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.55	mg/L	10	1.00	0.588	96	42.2 - 136
Toluene		1	3.80	mg/L	10	1.00	2.86	94	44.3 - 133
Ethylbenzene		1	2.50	mg/L	10	1.00	1.61	89	45.6 - 132
Xylene		1	8.73	mg/L	10	3.00	6.2	84	44.7 - 128

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.57	mg/L	10	1.00	0.588	98	42.2 - 136	1	20
Toluene		1	3.88	mg/L	10	1.00	2.86	102	44.3 - 133	2	20
Ethylbenzene		1	2.55	mg/L	10	1.00	1.61	94	45.6 - 132	2	20
Xylene		1	8.91	mg/L	10	3.00	6.2	90	44.7 - 128	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.980	0.972	mg/L	10	1	98	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.939	0.936	mg/L	10	1	94	94	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 93983

Date Analyzed: 2012-08-16

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0915	92	80 - 120	2012-08-16
Toluene		1	mg/L	0.100	0.0931	93	80 - 120	2012-08-16
Ethylbenzene		1	mg/L	0.100	0.0938	94	80 - 120	2012-08-16
Xylene		1	mg/L	0.300	0.276	92	80 - 120	2012-08-16

Standard (CCV-2)

QC Batch: 93983

Date Analyzed: 2012-08-16

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0924	92	80 - 120	2012-08-16
Toluene		1	mg/L	0.100	0.0939	94	80 - 120	2012-08-16
Ethylbenzene		1	mg/L	0.100	0.0947	95	80 - 120	2012-08-16
Xylene		1	mg/L	0.300	0.276	92	80 - 120	2012-08-16

Standard (CCV-3)

QC Batch: 93983

Date Analyzed: 2012-08-16

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0932	93	80 - 120	2012-08-16
Toluene		1	mg/L	0.100	0.0950	95	80 - 120	2012-08-16
Ethylbenzene		1	mg/L	0.100	0.0954	95	80 - 120	2012-08-16
Xylene		1	mg/L	0.300	0.280	93	80 - 120	2012-08-16

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Standard (CCV-1)

QC Batch: 94023

Date Analyzed: 2012-08-17

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2012-08-17
Toluene		1	mg/L	0.100	0.105	105	80 - 120	2012-08-17
Ethylbenzene		1	mg/L	0.100	0.107	107	80 - 120	2012-08-17
Xylene		1	mg/L	0.300	0.314	105	80 - 120	2012-08-17

Standard (CCV-2)

QC Batch: 94023

Date Analyzed: 2012-08-17

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2012-08-17
Toluene		1	mg/L	0.100	0.104	104	80 - 120	2012-08-17
Ethylbenzene		1	mg/L	0.100	0.105	105	80 - 120	2012-08-17
Xylene		1	mg/L	0.300	0.309	103	80 - 120	2012-08-17

Standard (CCV-3)

QC Batch: 94023

Date Analyzed: 2012-08-17

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0986	99	80 - 120	2012-08-17
Toluene		1	mg/L	0.100	0.109	109	80 - 120	2012-08-17
Ethylbenzene		1	mg/L	0.100	0.112	112	80 - 120	2012-08-17
Xylene		1	mg/L	0.300	0.334	111	80 - 120	2012-08-17

Standard (CCV-1)

QC Batch: 94069

Date Analyzed: 2012-08-20

Analyzed By: JS

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Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0985	98	80 - 120	2012-08-20
Toluene		1	mg/L	0.100	0.104	104	80 - 120	2012-08-20
Ethylbenzene		1	mg/L	0.100	0.105	105	80 - 120	2012-08-20
Xylene		1	mg/L	0.300	0.306	102	80 - 120	2012-08-20

Standard (CCV-2)

QC Batch: 94069

Date Analyzed: 2012-08-20

Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0969	97	80 - 120	2012-08-20
Toluene		1	mg/L	0.100	0.101	101	80 - 120	2012-08-20
Ethylbenzene		1	mg/L	0.100	0.101	101	80 - 120	2012-08-20
Xylene		1	mg/L	0.300	0.295	98	80 - 120	2012-08-20

Standard (CCV-3)

QC Batch: 94069

Date Analyzed: 2012-08-20

Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0966	97	80 - 120	2012-08-20
Toluene		1	mg/L	0.100	0.0990	99	80 - 120	2012-08-20
Ethylbenzene		1	mg/L	0.100	0.0967	97	80 - 120	2012-08-20
Xylene		1	mg/L	0.300	0.284	95	80 - 120	2012-08-20

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-12-8	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

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Company Name: NOVA Safety & Environmental Phone #: 432-620-7720
Address: (Street, City, Zip) 2057 Commerce Dr. Midland TX 79703 Fax #: 432-620-7701
Contact Person: Don Rounsaville E-mail: VRounsaville@novasafety.com
Invoice to: (If different from above) Ugains
Project #: TNM-LF-20037 Project Name: Bob Duhon
Project Location (including state): Monument NM Sampler Signature: [Signature]

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE	8021 / 602 / 8260 / 624	X	8021 / 602 / 8260 / 624	TEX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ex(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCBs 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ -P, Alkalinity	Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard	Hold
															</								

REMARKS: Submittal rep

LAB USE ONLY

Intact Y/N
Headspace Y/N

Dry Weight Basis Required
TRRP Report Required
Check If Special Reporting Limits Are Needed

Log-In-Review

INST OBS COR INST OBS COR INST OBS COR

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL: [Signature]

Carrier # Carry IS: 270680

TraceAnalysis, Inc.

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Tel (915) 585-3443
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BioAqualic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name: NOVA Safety & Environmental Phone #: 432-520-7720
Address: 2057 Commerce Dr. Midland TX 79703 (Street, City, Zip) Fax #: 432-520-7701
Contact Person: Ron Rainsville E-mail: rrainsville@novasafety.com
Invoice to: Diggins
(If different from above)
Project #: TNM-LF-2007
Project Name: Monument NM
Project Location (including state): Monument NM

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME	
751	MW23	3	WAX	X				X					X		8/14/12	13:39
752	MW5														14:07	
753	MW4														14:27	
754	MW6														14:43	
755	MW38														14:59	
756	MW2														15:25	
758	MW13														15:43	
758	MW1														16:15	
759	MW16														16:39	

Relinquished by: [Signature] Company: NOVA Date: 8/15/12 Time: 8:07
Relinquished by: [Signature] Company: NOVA Date: 8/15/12 Time: 8:07
Relinquished by: [Signature] Company: NOVA Date: 8/15/12 Time: 10:00

ANALYSIS REQUEST (Circle or Specify Method No.)

☐	MTBE	8021 / 602 / 8260 / 624
☒	ATEX	8021 / 602 / 8260 / 624
☐	TPH 418.1 / TX1005 / TX1005 Ex(C35)	
☐	TPH 8015 GRO / DRO / TVHC	
☐	PAH 8270 / 625	
☐	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
☐	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
☐	TCLP Volatiles	
☐	TCLP Semi Volatiles	
☐	TCLP Pesticides	
☐	RCI	
☐	GC/MS Vol. 8260 / 624	
☐	GC/MS Semi. Vol. 8270 / 625	
☐	PCBs 8082 / 608	
☐	Pesticides 8081 / 608	
☐	BOD, TSS, pH	
☐	Moisture Content	
☐	Cl, F, SO ₄ , NO ₃ , N, NO ₂ , N, PO ₄ , P, Alkalinity	
☐	Na, Ca, Mg, K, TDS, EC	
☐	Turn Around Time if different from standard	

LAB USE ONLY
INST: 8/15/12 Time: 8:07
OBS: 8/15/12 Time: 8:07
COR: 8/15/12 Time: 8:07
INST: 8/15/12 Time: 8:07
OBS: 8/15/12 Time: 8:07
COR: 8/15/12 Time: 8:07
INST: 8/15/12 Time: 8:07
OBS: 8/15/12 Time: 8:07
COR: 8/15/12 Time: 8:07

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.
Carrier # 751 7016380

Summary Report

Camille Bryant
Nova Safety & Environmental
2057 Commerce St.
Midland, TX 79703

Report Date: November 19, 2012

Work Order: 12110918



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
313838	MW-11	water	2012-11-08	15:49	2012-11-09
313839	MW-20	water	2012-11-08	12:00	2012-11-09
313840	MW-21	water	2012-11-08	12:10	2012-11-09
313841	MW-25	water	2012-11-08	12:27	2012-11-09
313842	MW-30	water	2012-11-08	14:42	2012-11-09
313843	MW-24	water	2012-11-08	12:18	2012-11-09
313844	MW-27	water	2012-11-08	12:52	2012-11-09
313845	MW-2	water	2012-11-08	10:13	2012-11-09
313846	MW-3	water	2012-11-08	11:12	2012-11-09
313847	MW-4	water	2012-11-08	11:41	2012-11-09
313848	MW-6	water	2012-11-08	11:30	2012-11-09
313849	MW-7	water	2012-11-08	10:56	2012-11-09
313850	MW-8	water	2012-11-08	12:37	2012-11-09
313851	MW-10	water	2012-11-08	15:22	2012-11-09
313852	MW-15	water	2012-11-08	15:57	2012-11-09
313853	MW-23	water	2012-11-08	11:51	2012-11-09
313854	MW-28	water	2012-11-08	14:47	2012-11-09
313855	MW-31	water	2012-11-08	14:35	2012-11-09
313856	MW-32	water	2012-11-08	14:08	2012-11-09
313857	MW-33	water	2012-11-08	14:15	2012-11-09
313858	MW-37	water	2012-11-08	13:58	2012-11-09
313859	MW-56	water	2012-11-08	14:03	2012-11-09
313860	MW-13	water	2012-11-08	15:30	2012-11-09
313861	MW-1	water	2012-11-08	09:56	2012-11-09
313862	MW-16	water	2012-11-08	10:36	2012-11-09
313863	MW-38	water	2012-11-08	14:26	2012-11-09
313864	MW-5	water	2012-11-08	10:20	2012-11-09

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
313838 - MW-11	<0.00100 Q _r	<0.00100 Q _r	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313839 - MW-20	<0.00100 Q _r	<0.00100 Q _r	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313840 - MW-21	<0.00100 Q _r	<0.00100 Q _r	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313841 - MW-25	<0.00100 Q _r	<0.00100 Q _r	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313842 - MW-30	<0.00100 Q _r	<0.00100 Q _r	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313843 - MW-24	<0.00100 Q _r	<0.00100 Q _r	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313844 - MW-27	<0.00100 Q _r	<0.00100 Q _r	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313845 - MW-2	<0.00500 ¹ Q _r	<0.00500 Q _r	<0.00500 Q _r , Q _s	<0.00500 Q _r , Q _s
313846 - MW-3	<0.00100 Q _r	<0.00100 Q _r	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313847 - MW-4	<0.00500 ² Q _r	<0.00500 Q _r	<0.00500 Q _r , Q _s	<0.00500 Q _r , Q _s
313848 - MW-6	<0.00500 ³ Q _r	<0.00500 Q _r	<0.00500 Q _r , Q _s	<0.00500 Q _r , Q _s
313849 - MW-7	<0.00500 ⁴ Q _r	<0.00500 Q _r	<0.00500 Q _r , Q _s	<0.00500 Q _r , Q _s
313850 - MW-8	<0.00500 ⁵ Q _r	<0.00500 Q _r	<0.00500 Q _r , Q _s	<0.00500 Q _r , Q _s
313851 - MW-10	<0.00100 Q _r	<0.00100 Q _r	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313852 - MW-15	<0.00100 Q _r	<0.00100 Q _r	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313853 - MW-23	<0.00100 Q _r	<0.00100 Q _r	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313854 - MW-28	<0.00100 Q _r	<0.00100 Q _r	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313855 - MW-31	<0.00100 Q _r	<0.00100 Q _r	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313856 - MW-32	<0.00100 Q _r	<0.00100 Q _r	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313857 - MW-33	<0.00100 Q _r	<0.00100 Q _r	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313858 - MW-37	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313859 - MW-56	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313860 - MW-13	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s	<0.00100 Q _r , Q _s
313861 - MW-1	<0.00500 ⁶ Q _r , Q _s	<0.00500 Q _r , Q _s	<0.00500 Q _r , Q _s	<0.00500 Q _r , Q _s
313862 - MW-16	<0.00500 ⁷ Q _r , Q _s	<0.00500 Q _r , Q _s	<0.00500 Q _r , Q _s	<0.00500 Q _r , Q _s
313863 - MW-38	<0.00500 ⁸ Q _r , Q _s	<0.00500 Q _r , Q _s	<0.00500 Q _r , Q _s	<0.00500 Q _r , Q _s
313864 - MW-5	<0.00500 ⁹ Q _r , Q _s	<0.00500 Q _r , Q _s	<0.00500 Q _r , Q _s	<0.00500 Q _r , Q _s

Sample: 313845 - MW-2

Param	Flag	Result	Units	RL
Naphthalene		0.00513	mg/L	0.0002
2-Methylnaphthalene		0.00386	mg/L	0.0002
1-Methylnaphthalene		0.00879	mg/L	0.0002
Acenaphthylene		<0.00184	mg/L	0.0002
Acenaphthene		<0.00184	mg/L	0.0002
Dibenzofuran		<0.00184	mg/L	0.0002
Fluorene		<0.00184	mg/L	0.0002
Anthracene		<0.00184	mg/L	0.0002
Phenanthrene		<0.00184	mg/L	0.0002
Fluoranthene		<0.00184	mg/L	0.0002

continued ...

¹ Dilution due to surfactants.² Dilution due to surfactants.³ Dilution due to surfactants.⁴ Dilution due to surfactants.⁵ Dilution due to surfactants.⁶ Dilution due to surfactants.⁷ Dilution due to surfactants.⁸ Dilution due to surfactants.⁹ Dilution due to surfactants.

sample 313845 continued ...

Param	Flag	Result	Units	RL
Pyrene		<0.00184	mg/L	0.0002
Benzo(a)anthracene		<0.00184	mg/L	0.0002
Chrysene	Qs	<0.00184	mg/L	0.0002
Benzo(b)fluoranthene		<0.00184	mg/L	0.0002
Benzo(k)fluoranthene		<0.00184	mg/L	0.0002
Benzo(a)pyrene		<0.00184	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.00184	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.00184	mg/L	0.0002
Benzo(g,h,i)perylene		<0.00184	mg/L	0.0002

Sample: 313847 - MW-4

Param	Flag	Result	Units	RL
Naphthalene	¹⁰	<0.00185	mg/L	0.0002
2-Methylnaphthalene		<0.00185	mg/L	0.0002
1-Methylnaphthalene		<0.00185	mg/L	0.0002
Acenaphthylene		<0.00185	mg/L	0.0002
Acenaphthene		<0.00185	mg/L	0.0002
Dibenzofuran		<0.00185	mg/L	0.0002
Fluorene		<0.00185	mg/L	0.0002
Anthracene		<0.00185	mg/L	0.0002
Phenanthrene		<0.00185	mg/L	0.0002
Fluoranthene		<0.00185	mg/L	0.0002
Pyrene		<0.00185	mg/L	0.0002
Benzo(a)anthracene		<0.00185	mg/L	0.0002
Chrysene	Qs	<0.00185	mg/L	0.0002
Benzo(b)fluoranthene		<0.00185	mg/L	0.0002
Benzo(k)fluoranthene		<0.00185	mg/L	0.0002
Benzo(a)pyrene		<0.00185	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.00185	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.00185	mg/L	0.0002
Benzo(g,h,i)perylene		<0.00185	mg/L	0.0002

Sample: 313849 - MW-7

Param	Flag	Result	Units	RL
Naphthalene	¹¹	<0.00186	mg/L	0.0002
2-Methylnaphthalene		<0.00186	mg/L	0.0002
1-Methylnaphthalene		<0.00186	mg/L	0.0002
Acenaphthylene		<0.00186	mg/L	0.0002
Acenaphthene		<0.00186	mg/L	0.0002
Dibenzofuran		<0.00186	mg/L	0.0002

*continued ...*¹⁰Dilution run due to matrix difficulties.¹¹Dilution run due to matrix difficulties.

sample 313849 continued ...

Param	Flag	Result	Units	RL
Fluorene		<0.00186	mg/L	0.0002
Anthracene		<0.00186	mg/L	0.0002
Phenanthrene		<0.00186	mg/L	0.0002
Fluoranthene		<0.00186	mg/L	0.0002
Pyrene		<0.00186	mg/L	0.0002
Benzo(a)anthracene		<0.00186	mg/L	0.0002
Chrysene	Qs	<0.00186	mg/L	0.0002
Benzo(b)fluoranthene		<0.00186	mg/L	0.0002
Benzo(k)fluoranthene		<0.00186	mg/L	0.0002
Benzo(a)pyrene		<0.00186	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.00186	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.00186	mg/L	0.0002
Benzo(g,h,i)perylene		<0.00186	mg/L	0.0002

Sample: 313850 - MW-8

Param	Flag	Result	Units	RL
Naphthalene		<0.000187	mg/L	0.0002
2-Methylnaphthalene		<0.000187	mg/L	0.0002
1-Methylnaphthalene		<0.000187	mg/L	0.0002
Acenaphthylene		<0.000187	mg/L	0.0002
Acenaphthene		<0.000187	mg/L	0.0002
Dibenzofuran		0.00120	mg/L	0.0002
Fluorene		0.00186	mg/L	0.0002
Anthracene		<0.000187	mg/L	0.0002
Phenanthrene		<0.000187	mg/L	0.0002
Fluoranthene		<0.000187	mg/L	0.0002
Pyrene		<0.000187	mg/L	0.0002
Benzo(a)anthracene		<0.000187	mg/L	0.0002
Chrysene	Qs	<0.000187	mg/L	0.0002
Benzo(b)fluoranthene		<0.000187	mg/L	0.0002
Benzo(k)fluoranthene		<0.000187	mg/L	0.0002
Benzo(a)pyrene		<0.000187	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000187	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.000187	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000187	mg/L	0.0002

Sample: 313860 - MW-13

Param	Flag	Result	Units	RL
Naphthalene		0.00372	mg/L	0.0002
2-Methylnaphthalene		0.00346	mg/L	0.0002
1-Methylnaphthalene		0.00815	mg/L	0.0002
Acenaphthylene		<0.000190	mg/L	0.0002

continued ...

sample 313860 continued ...

Param	Flag	Result	Units	RL
Acenaphthene		<0.000190	mg/L	0.0002
Dibenzofuran		0.00198	mg/L	0.0002
Fluorene		0.00127	mg/L	0.0002
Anthracene		<0.000190	mg/L	0.0002
Phenanthrene		<0.000190	mg/L	0.0002
Fluoranthene		<0.000190	mg/L	0.0002
Pyrene		<0.000190	mg/L	0.0002
Benzo(a)anthracene		<0.000190	mg/L	0.0002
Chrysene	Qs	<0.000190	mg/L	0.0002
Benzo(b)fluoranthene		<0.000190	mg/L	0.0002
Benzo(k)fluoranthene		<0.000190	mg/L	0.0002
Benzo(a)pyrene		<0.000190	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000190	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.000190	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000190	mg/L	0.0002

Sample: 313861 - MW-1

Param	Flag	Result	Units	RL
Naphthalene	¹²	<0.00190	mg/L	0.0002
2-Methylnaphthalene		<0.00190	mg/L	0.0002
1-Methylnaphthalene		<0.00190	mg/L	0.0002
Acenaphthylene		<0.00190	mg/L	0.0002
Acenaphthene		<0.00190	mg/L	0.0002
Dibenzofuran		<0.00190	mg/L	0.0002
Fluorene		<0.00190	mg/L	0.0002
Anthracene		<0.00190	mg/L	0.0002
Phenanthrene		<0.00190	mg/L	0.0002
Fluoranthene		<0.00190	mg/L	0.0002
Pyrene		<0.00190	mg/L	0.0002
Benzo(a)anthracene		<0.00190	mg/L	0.0002
Chrysene	Qs	<0.00190	mg/L	0.0002
Benzo(b)fluoranthene		<0.00190	mg/L	0.0002
Benzo(k)fluoranthene		<0.00190	mg/L	0.0002
Benzo(a)pyrene		<0.00190	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.00190	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.00190	mg/L	0.0002
Benzo(g,h,i)perylene		<0.00190	mg/L	0.0002

Sample: 313862 - MW-16

continued ...

¹²Dilution run due to matrix difficulties.

sample 313862 continued ...

Param	Flag	Result	Units	RL
Param	Flag	Result	Units	RL
Naphthalene	¹³	<0.00189	mg/L	0.0002
2-Methylnaphthalene		<0.00189	mg/L	0.0002
1-Methylnaphthalene		<0.00189	mg/L	0.0002
Acenaphthylene		<0.00189	mg/L	0.0002
Acenaphthene		<0.00189	mg/L	0.0002
Dibenzofuran		<0.00189	mg/L	0.0002
Fluorene		<0.00189	mg/L	0.0002
Anthracene		<0.00189	mg/L	0.0002
Phenanthrene		<0.00189	mg/L	0.0002
Fluoranthene		<0.00189	mg/L	0.0002
Pyrene		<0.00189	mg/L	0.0002
Benzo(a)anthracene		<0.00189	mg/L	0.0002
Chrysene	Q ^a	<0.00189	mg/L	0.0002
Benzo(b)fluoranthene		<0.00189	mg/L	0.0002
Benzo(k)fluoranthene		<0.00189	mg/L	0.0002
Benzo(a)pyrene		<0.00189	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.00189	mg/L	0.0002
Dibenzo(a,h)anthracene	Q ^a	<0.00189	mg/L	0.0002
Benzo(g,h,i)perylene		<0.00189	mg/L	0.0002

Sample: 313863 - MW-38

Param	Flag	Result	Units	RL
Naphthalene	¹⁴	<0.00190	mg/L	0.0002
2-Methylnaphthalene		<0.00190	mg/L	0.0002
1-Methylnaphthalene		<0.00190	mg/L	0.0002
Acenaphthylene		<0.00190	mg/L	0.0002
Acenaphthene		<0.00190	mg/L	0.0002
Dibenzofuran		<0.00190	mg/L	0.0002
Fluorene		<0.00190	mg/L	0.0002
Anthracene		<0.00190	mg/L	0.0002
Phenanthrene		<0.00190	mg/L	0.0002
Fluoranthene		<0.00190	mg/L	0.0002
Pyrene		<0.00190	mg/L	0.0002
Benzo(a)anthracene		<0.00190	mg/L	0.0002
Chrysene	Q ^a	<0.00190	mg/L	0.0002
Benzo(b)fluoranthene		<0.00190	mg/L	0.0002
Benzo(k)fluoranthene		<0.00190	mg/L	0.0002
Benzo(a)pyrene		<0.00190	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.00190	mg/L	0.0002
Dibenzo(a,h)anthracene	Q ^a	<0.00190	mg/L	0.0002
Benzo(g,h,i)perylene		<0.00190	mg/L	0.0002

¹³Dilution run due to matrix difficulties.¹⁴Dilution run due to matrix difficulties.

Sample: 313864 - MW-5

Param	Flag	Result	Units	RL
Naphthalene		0.0134	mg/L	0.0002
2-Methylnaphthalene		0.0254	mg/L	0.0002
1-Methylnaphthalene		0.0294	mg/L	0.0002
Acenaphthylene		<0.000948	mg/L	0.0002
Acenaphthene		<0.000948	mg/L	0.0002
Dibenzofuran		<0.000948	mg/L	0.0002
Fluorene		<0.000948	mg/L	0.0002
Anthracene		<0.000948	mg/L	0.0002
Phenanthrene		0.00609	mg/L	0.0002
Fluoranthene		<0.000948	mg/L	0.0002
Pyrene		<0.000948	mg/L	0.0002
Benzo(a)anthracene		<0.000948	mg/L	0.0002
Chrysene	Qs	<0.000948	mg/L	0.0002
Benzo(b)fluoranthene		<0.000948	mg/L	0.0002
Benzo(k)fluoranthene		<0.000948	mg/L	0.0002
Benzo(a)pyrene		<0.000948	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000948	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.000948	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000948	mg/L	0.0002



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5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Camille Bryant
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: November 19, 2012

Work Order: 12110918



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
313838	MW-11	water	2012-11-08	15:49	2012-11-09
313839	MW-20	water	2012-11-08	12:00	2012-11-09
313840	MW-21	water	2012-11-08	12:10	2012-11-09
313841	MW-25	water	2012-11-08	12:27	2012-11-09
313842	MW-30	water	2012-11-08	14:42	2012-11-09
313843	MW-24	water	2012-11-08	12:18	2012-11-09
313844	MW-27	water	2012-11-08	12:52	2012-11-09
313845	MW-2	water	2012-11-08	10:13	2012-11-09
313846	MW-3	water	2012-11-08	11:12	2012-11-09
313847	MW-4	water	2012-11-08	11:41	2012-11-09
313848	MW-6	water	2012-11-08	11:30	2012-11-09
313849	MW-7	water	2012-11-08	10:56	2012-11-09
313850	MW-8	water	2012-11-08	12:37	2012-11-09
313851	MW-10	water	2012-11-08	15:22	2012-11-09
313852	MW-15	water	2012-11-08	15:57	2012-11-09
313853	MW-23	water	2012-11-08	11:51	2012-11-09
313854	MW-28	water	2012-11-08	14:47	2012-11-09
313855	MW-31	water	2012-11-08	14:35	2012-11-09

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
313856	MW-32	water	2012-11-08	14:08	2012-11-09
313857	MW-33	water	2012-11-08	14:15	2012-11-09
313858	MW-37	water	2012-11-08	13:58	2012-11-09
313859	MW-56	water	2012-11-08	14:03	2012-11-09
313860	MW-13	water	2012-11-08	15:30	2012-11-09
313861	MW-1	water	2012-11-08	09:56	2012-11-09
313862	MW-16	water	2012-11-08	10:36	2012-11-09
313863	MW-38	water	2012-11-08	14:26	2012-11-09
313864	MW-5	water	2012-11-08	10:20	2012-11-09

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 38 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2012-11-09 and assigned to work order 12110918. Samples for work order 12110918 were received intact without headspace and at a temperature of 1.4 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	81897	2012-11-15 at 12:00	96635	2012-11-15 at 12:00
BTEX	S 8021B	81953	2012-11-16 at 11:11	96686	2012-11-17 at 11:11
PAH	S 8270D	81966	2012-11-12 at 15:00	96701	2012-11-19 at 11:09

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 12110918 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 313838 - MW-11

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0872	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0794	mg/L	1	0.100	79	70 - 130

Sample: 313839 - MW-20

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0866	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0794	mg/L	1	0.100	79	70 - 130

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Sample: 313840 - MW-21

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0867	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0801	mg/L	1	0.100	80	70 - 130

Sample: 313841 - MW-25

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0878	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0799	mg/L	1	0.100	80	70 - 130

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Sample: 313842 - MW-30

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0869	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0800	mg/L	1	0.100	80	70 - 130

Sample: 313843 - MW-24

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0870	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0794	mg/L	1	0.100	79	70 - 130

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Sample: 313844 - MW-27

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0876	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0800	mg/L	1	0.100	80	70 - 130

Sample: 313845 - MW-2

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00500	mg/L	5	0.00100
Toluene	Qr,U	2	<0.00500	mg/L	5	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00500	mg/L	5	0.00100
Xylene	Qr,Qs,U	2	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.428	mg/L	5	0.500	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.407	mg/L	5	0.500	81	70 - 130

Sample: 313845 - MW-2

Laboratory: Lubbock
Analysis: PAH
QC Batch: 96701
Prep Batch: 81966

Analytical Method: S 8270D
Date Analyzed: 2012-11-19
Sample Preparation: 2012-11-12

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	0.00513	mg/L	9.217	0.000200
2-Methylnaphthalene		1	0.00386	mg/L	9.217	0.000200
1-Methylnaphthalene			0.00879	mg/L	9.217	0.000200
Acenaphthylene	U	1	<0.00184	mg/L	9.217	0.000200
Acenaphthene	U	1	<0.00184	mg/L	9.217	0.000200
Dibenzofuran	U	1	<0.00184	mg/L	9.217	0.000200
Fluorene	U	1	<0.00184	mg/L	9.217	0.000200
Anthracene	U	1	<0.00184	mg/L	9.217	0.000200
Phenanthrene	U	1	<0.00184	mg/L	9.217	0.000200
Fluoranthene	U	1	<0.00184	mg/L	9.217	0.000200
Pyrene	U	1	<0.00184	mg/L	9.217	0.000200
Benzo(a)anthracene	U	1	<0.00184	mg/L	9.217	0.000200
Chrysene	Qs,U	1	<0.00184	mg/L	9.217	0.000200
Benzo(b)fluoranthene	U	1	<0.00184	mg/L	9.217	0.000200
Benzo(k)fluoranthene	U	1	<0.00184	mg/L	9.217	0.000200
Benzo(a)pyrene	U	1	<0.00184	mg/L	9.217	0.000200
Indeno(1,2,3-cd)pyrene	U	1	<0.00184	mg/L	9.217	0.000200
Dibenzo(a,h)anthracene	Qs,U	1	<0.00184	mg/L	9.217	0.000200
Benzo(g,h,i)perylene	U	1	<0.00184	mg/L	9.217	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0707	mg/L	9.217	0.0800	88	40 - 110
2-Fluorobiphenyl	Qsr	Qsr	0.0930	mg/L	9.217	0.0800	116	50 - 110
Terphenyl-d14			0.0960	mg/L	9.217	0.0800	120	50 - 135

Sample: 313846 - MW-3

Laboratory: Midland

Analysis: BTEX

QC Batch: 96635

Prep Batch: 81897

Analytical Method: S 8021B

Date Analyzed: 2012-11-15

Sample Preparation: 2012-11-15

Prep Method: S 5030B

Analyzed By: YG

Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0867	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0786	mg/L	1	0.100	79	70 - 130

Sample: 313847 - MW-4

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene ²	Qr, U	2	<0.00500	mg/L	5	0.00100
Toluene	Qr, U	2	<0.00500	mg/L	5	0.00100
Ethylbenzene	Qr, Qs, U	2	<0.00500	mg/L	5	0.00100
Xylene	Qr, Qs, U	2	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.432	mg/L	5	0.500	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.402	mg/L	5	0.500	80	70 - 130

Sample: 313847 - MW-4

Laboratory: Lubbock
Analysis: PAH
QC Batch: 96701
Prep Batch: 81966

Analytical Method: S 8270D
Date Analyzed: 2012-11-19
Sample Preparation: 2012-11-12

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene ³	U	1	<0.00185	mg/L	9.259	0.000200
2-Methylnaphthalene	U	1	<0.00185	mg/L	9.259	0.000200
1-Methylnaphthalene	U		<0.00185	mg/L	9.259	0.000200
Acenaphthylene	U	1	<0.00185	mg/L	9.259	0.000200
Acenaphthene	U	1	<0.00185	mg/L	9.259	0.000200
Dibenzofuran	U	1	<0.00185	mg/L	9.259	0.000200
Fluorene	U	1	<0.00185	mg/L	9.259	0.000200
Anthracene	U	1	<0.00185	mg/L	9.259	0.000200
Phenanthrene	U	1	<0.00185	mg/L	9.259	0.000200
Fluoranthene	U	1	<0.00185	mg/L	9.259	0.000200

continued ...

sample 313847 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Pyrene	U	1	<0.00185	mg/L	9.259	0.000200
Benzo(a)anthracene	U	1	<0.00185	mg/L	9.259	0.000200
Chrysene	Qs,U	1	<0.00185	mg/L	9.259	0.000200
Benzo(b)fluoranthene	U	1	<0.00185	mg/L	9.259	0.000200
Benzo(k)fluoranthene	U	1	<0.00185	mg/L	9.259	0.000200
Benzo(a)pyrene	U	1	<0.00185	mg/L	9.259	0.000200
Indeno(1,2,3-cd)pyrene	U	1	<0.00185	mg/L	9.259	0.000200
Dibenzo(a,h)anthracene	Qs,U	1	<0.00185	mg/L	9.259	0.000200
Benzo(g,h,i)perylene	U	1	<0.00185	mg/L	9.259	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0458	mg/L	9.259	0.0800	57	40 - 110
2-Fluorobiphenyl			0.0704	mg/L	9.259	0.0800	88	50 - 110
Terphenyl-d14			0.0789	mg/L	9.259	0.0800	99	50 - 135

Sample: 313848 - MW-6

Laboratory: Midland

Analysis: BTEX

QC Batch: 96635

Prep Batch: 81897

Analytical Method: S 8021B

Date Analyzed: 2012-11-15

Sample Preparation: 2012-11-15

Prep Method: S 5030B

Analyzed By: YG

Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00500	mg/L	5	0.00100
Toluene	Qr,U	2	<0.00500	mg/L	5	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00500	mg/L	5	0.00100
Xylene	Qr,Qs,U	2	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.434	mg/L	5	0.500	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.404	mg/L	5	0.500	81	70 - 130

Sample: 313849 - MW-7

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL	Units	Dilution	RL	
			Result				
Benzene	5	Qr,U	2	<0.00500	mg/L	5	0.00100
Toluene		Qr,U	2	<0.00500	mg/L	5	0.00100
Ethylbenzene		Qr,Qs,U	2	<0.00500	mg/L	5	0.00100
Xylene		Qr,Qs,U	2	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.435	mg/L	5	0.500	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.399	mg/L	5	0.500	80	70 - 130

Sample: 313849 - MW-7

Laboratory: Lubbock
Analysis: PAH
QC Batch: 96701
Prep Batch: 81966

Analytical Method: S 8270D
Date Analyzed: 2012-11-19
Sample Preparation: 2012-11-12

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL	
Naphthalene	6	U	1	<0.00186	mg/L	9.302	0.000200
2-Methylnaphthalene		U	1	<0.00186	mg/L	9.302	0.000200
1-Methylnaphthalene		U		<0.00186	mg/L	9.302	0.000200
Acenaphthylene		U	1	<0.00186	mg/L	9.302	0.000200
Acenaphthene		U	1	<0.00186	mg/L	9.302	0.000200
Dibenzofuran		U	1	<0.00186	mg/L	9.302	0.000200
Fluorene		U	1	<0.00186	mg/L	9.302	0.000200
Anthracene		U	1	<0.00186	mg/L	9.302	0.000200
Phenanthrene		U	1	<0.00186	mg/L	9.302	0.000200
Fluoranthene		U	1	<0.00186	mg/L	9.302	0.000200
Pyrene		U	1	<0.00186	mg/L	9.302	0.000200
Benzo(a)anthracene		U	1	<0.00186	mg/L	9.302	0.000200
Chrysene		Qs,U	1	<0.00186	mg/L	9.302	0.000200
Benzo(b)fluoranthene		U	1	<0.00186	mg/L	9.302	0.000200
Benzo(k)fluoranthene		U	1	<0.00186	mg/L	9.302	0.000200
Benzo(a)pyrene		U	1	<0.00186	mg/L	9.302	0.000200
Indeno(1,2,3-cd)pyrene		U	1	<0.00186	mg/L	9.302	0.000200
Dibenzo(a,h)anthracene		Qs,U	1	<0.00186	mg/L	9.302	0.000200

continued ...

sample 313849 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzo(g,h,i)perylene	u	1	<0.00186	mg/L	9.302	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0473	mg/L	9.302	0.0800	59	40 - 110
2-Fluorobiphenyl			0.0631	mg/L	9.302	0.0800	79	50 - 110
Terphenyl-d14			0.0660	mg/L	9.302	0.0800	82	50 - 135

Sample: 313850 - MW-8

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00500	mg/L	5	0.00100
Toluene	Qr,U	2	<0.00500	mg/L	5	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00500	mg/L	5	0.00100
Xylene	Qr,Qs,U	2	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.437	mg/L	5	0.500	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.401	mg/L	5	0.500	80	70 - 130

Sample: 313850 - MW-8

Laboratory: Lubbock
Analysis: PAH
QC Batch: 96701
Prep Batch: 81966

Analytical Method: S 8270D
Date Analyzed: 2012-11-19
Sample Preparation: 2012-11-12

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	u	1	<0.000187	mg/L	0.935	0.000200
2-Methylnaphthalene	u	1	<0.000187	mg/L	0.935	0.000200
1-Methylnaphthalene	u		<0.000187	mg/L	0.935	0.000200

continued ...

sample 313850 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Acenaphthylene	U	1	<0.000187	mg/L	0.935	0.000200
Acenaphthene	U	1	<0.000187	mg/L	0.935	0.000200
Dibenzofuran		1	0.00120	mg/L	0.935	0.000200
Fluorene		1	0.00186	mg/L	0.935	0.000200
Anthracene	U	1	<0.000187	mg/L	0.935	0.000200
Phenanthrene	U	1	<0.000187	mg/L	0.935	0.000200
Fluoranthene	U	1	<0.000187	mg/L	0.935	0.000200
Pyrene	U	1	<0.000187	mg/L	0.935	0.000200
Benzo(a)anthracene	U	1	<0.000187	mg/L	0.935	0.000200
Chrysene	Qs,U	1	<0.000187	mg/L	0.935	0.000200
Benzo(b)fluoranthene	U	1	<0.000187	mg/L	0.935	0.000200
Benzo(k)fluoranthene	U	1	<0.000187	mg/L	0.935	0.000200
Benzo(a)pyrene	U	1	<0.000187	mg/L	0.935	0.000200
Indeno(1,2,3-cd)pyrene	U	1	<0.000187	mg/L	0.935	0.000200
Dibenzo(a,h)anthracene	Qs,U	1	<0.000187	mg/L	0.935	0.000200
Benzo(g,h,i)perylene	U	1	<0.000187	mg/L	0.935	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0632	mg/L	0.935	0.0800	79	40 - 110
2-Fluorobiphenyl			0.0702	mg/L	0.935	0.0800	88	50 - 110
Terphenyl-d14			0.0696	mg/L	0.935	0.0800	87	50 - 135

Sample: 313851 - MW-10

Laboratory: Midland

Analysis: BTEX

QC Batch: 96635

Prep Batch: 81897

Analytical Method: S 8021B

Date Analyzed: 2012-11-15

Sample Preparation: 2012-11-15

Prep Method: S 5030B

Analyzed By: YG

Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0872	mg/L	1	0.100	87	70 - 130

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sample continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.0794	mg/L	1	0.100	79	70 - 130

Sample: 313852 - MW-15

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0866	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0795	mg/L	1	0.100	80	70 - 130

Sample: 313853 - MW-23

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0871	mg/L	1	0.100	87	70 - 130

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sample continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.0806	mg/L	1	0.100	81	70 - 130

Sample: 313854 - MW-28

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0851	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0765	mg/L	1	0.100	76	70 - 130

Sample: 313855 - MW-31

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0869	mg/L	1	0.100	87	70 - 130

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sample continued . . .

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.0799	mg/L	1	0.100	80	70 - 130

Sample: 313856 - MW-32

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0874	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0796	mg/L	1	0.100	80	70 - 130

Sample: 313857 - MW-33

Laboratory: Midland
Analysis: BTEX
QC Batch: 96635
Prep Batch: 81897

Analytical Method: S 8021B
Date Analyzed: 2012-11-15
Sample Preparation: 2012-11-15

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0867	mg/L	1	0.100	87	70 - 130

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sample continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.0796	mg/L	1	0.100	80	70 - 130

Sample: 313858 - MW-37

Laboratory: Midland
Analysis: BTEX
QC Batch: 96686
Prep Batch: 81953

Analytical Method: S 8021B
Date Analyzed: 2012-11-17
Sample Preparation: 2012-11-16

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs, U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr, Qs, U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0875	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0812	mg/L	1	0.100	81	70 - 130

Sample: 313859 - MW-56

Laboratory: Midland
Analysis: BTEX
QC Batch: 96686
Prep Batch: 81953

Analytical Method: S 8021B
Date Analyzed: 2012-11-17
Sample Preparation: 2012-11-16

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs, U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr, Qs, U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0887	mg/L	1	0.100	89	70 - 130

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sample continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.0799	mg/L	1	0.100	80	70 - 130

Sample: 313860 - MW-13

Laboratory: Midland
Analysis: BTEX
QC Batch: 96686
Prep Batch: 81953

Analytical Method: S 8021B
Date Analyzed: 2012-11-17
Sample Preparation: 2012-11-16

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0885	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0907	mg/L	1	0.100	91	70 - 130

Sample: 313860 - MW-13

Laboratory: Lubbock
Analysis: PAH
QC Batch: 96701
Prep Batch: 81966

Analytical Method: S 8270D
Date Analyzed: 2012-11-19
Sample Preparation: 2012-11-12

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	0.00372	mg/L	0.952	0.000200
2-Methylnaphthalene		1	0.00346	mg/L	0.952	0.000200
1-Methylnaphthalene		1	0.00815	mg/L	0.952	0.000200
Acenaphthylene	U	1	<0.000190	mg/L	0.952	0.000200
Acenaphthene	U	1	<0.000190	mg/L	0.952	0.000200
Dibenzofuran		1	0.00198	mg/L	0.952	0.000200
Fluorene		1	0.00127	mg/L	0.952	0.000200
Anthracene	U	1	<0.000190	mg/L	0.952	0.000200
Phenanthrene	U	1	<0.000190	mg/L	0.952	0.000200
Fluoranthene	U	1	<0.000190	mg/L	0.952	0.000200

continued ...

sample 313860 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Pyrene	U	1	<0.000190	mg/L	0.952	0.000200
Benzo(a)anthracene	U	1	<0.000190	mg/L	0.952	0.000200
Chrysene	Qs,U	1	<0.000190	mg/L	0.952	0.000200
Benzo(b)fluoranthene	U	1	<0.000190	mg/L	0.952	0.000200
Benzo(k)fluoranthene	U	1	<0.000190	mg/L	0.952	0.000200
Benzo(a)pyrene	U	1	<0.000190	mg/L	0.952	0.000200
Indeno(1,2,3-cd)pyrene	U	1	<0.000190	mg/L	0.952	0.000200
Dibenzo(a,h)anthracene	Qs,U	1	<0.000190	mg/L	0.952	0.000200
Benzo(g,h,i)perylene	U	1	<0.000190	mg/L	0.952	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0809	mg/L	0.952	0.0800	101	40 - 110
2-Fluorobiphenyl			0.0859	mg/L	0.952	0.0800	107	50 - 110
Terphenyl-d14			0.0825	mg/L	0.952	0.0800	103	50 - 135

Sample: 313861 - MW-1

Laboratory: Midland

Analysis: BTEX

QC Batch: 96686

Prep Batch: 81953

Analytical Method: S 8021B

Date Analyzed: 2012-11-17

Sample Preparation: 2012-11-16

Prep Method: S 5030B

Analyzed By: YG

Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	2	<0.00500	mg/L	5	0.00100
Toluene	Qr,Qs,U	2	<0.00500	mg/L	5	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00500	mg/L	5	0.00100
Xylene	Qr,Qs,U	2	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.436	mg/L	5	0.500	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.406	mg/L	5	0.500	81	70 - 130

Sample: 313861 - MW-1

Laboratory: Lubbock
Analysis: PAH
QC Batch: 96701
Prep Batch: 81966

Analytical Method: S 8270D
Date Analyzed: 2012-11-19
Sample Preparation: 2012-11-12

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL	
Naphthalene	9	U	1	<0.00190	mg/L	9.524	0.000200
2-Methylnaphthalene		U	1	<0.00190	mg/L	9.524	0.000200
1-Methylnaphthalene		U		<0.00190	mg/L	9.524	0.000200
Acenaphthylene		U	1	<0.00190	mg/L	9.524	0.000200
Acenaphthene		U	1	<0.00190	mg/L	9.524	0.000200
Dibenzofuran		U	1	<0.00190	mg/L	9.524	0.000200
Fluorene		U	1	<0.00190	mg/L	9.524	0.000200
Anthracene		U	1	<0.00190	mg/L	9.524	0.000200
Phenanthrene		U	1	<0.00190	mg/L	9.524	0.000200
Fluoranthene		U	1	<0.00190	mg/L	9.524	0.000200
Pyrene		U	1	<0.00190	mg/L	9.524	0.000200
Benzo(a)anthracene		U	1	<0.00190	mg/L	9.524	0.000200
Chrysene		Qs,U	1	<0.00190	mg/L	9.524	0.000200
Benzo(b)fluoranthene		U	1	<0.00190	mg/L	9.524	0.000200
Benzo(k)fluoranthene		U	1	<0.00190	mg/L	9.524	0.000200
Benzo(a)pyrene		U	1	<0.00190	mg/L	9.524	0.000200
Indeno(1,2,3-cd)pyrene		U	1	<0.00190	mg/L	9.524	0.000200
Dibenzo(a,h)anthracene		Qs,U	1	<0.00190	mg/L	9.524	0.000200
Benzo(g,h,i)perylene		U	1	<0.00190	mg/L	9.524	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0436	mg/L	9.524	0.0800	54	40 - 110
2-Fluorobiphenyl			0.0589	mg/L	9.524	0.0800	74	50 - 110
Terphenyl-d14			0.0661	mg/L	9.524	0.0800	83	50 - 135

Sample: 313862 - MW-16

Laboratory: Midland
Analysis: BTEX
QC Batch: 96686
Prep Batch: 81953

Analytical Method: S 8021B
Date Analyzed: 2012-11-17
Sample Preparation: 2012-11-16

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	10 Qr,Qs,U	2	<0.00500	mg/L	5	0.00100

continued ...

sample 313862 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Toluene	Qr, Qs, U	2	<0.00500	mg/L	5	0.00100
Ethylbenzene	Qr, Qs, U	2	<0.00500	mg/L	5	0.00100
Xylene	Qr, Qs, U	2	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.435	mg/L	5	0.500	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.405	mg/L	5	0.500	81	70 - 130

Sample: 313862 - MW-16

Laboratory: Lubbock

Analysis: PAH

QC Batch: 96701

Prep Batch: 81966

Analytical Method: S 8270D

Date Analyzed: 2012-11-19

Sample Preparation: 2012-11-12

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	U	1	<0.00189	mg/L	9.434	0.000200
2-Methylnaphthalene	U	1	<0.00189	mg/L	9.434	0.000200
1-Methylnaphthalene	U		<0.00189	mg/L	9.434	0.000200
Acenaphthylene	U	1	<0.00189	mg/L	9.434	0.000200
Acenaphthene	U	1	<0.00189	mg/L	9.434	0.000200
Dibenzofuran	U	1	<0.00189	mg/L	9.434	0.000200
Fluorene	U	1	<0.00189	mg/L	9.434	0.000200
Anthracene	U	1	<0.00189	mg/L	9.434	0.000200
Phenanthrene	U	1	<0.00189	mg/L	9.434	0.000200
Fluoranthene	U	1	<0.00189	mg/L	9.434	0.000200
Pyrene	U	1	<0.00189	mg/L	9.434	0.000200
Benzo(a)anthracene	U	1	<0.00189	mg/L	9.434	0.000200
Chrysene	Qs, U	1	<0.00189	mg/L	9.434	0.000200
Benzo(b)fluoranthene	U	1	<0.00189	mg/L	9.434	0.000200
Benzo(k)fluoranthene	U	1	<0.00189	mg/L	9.434	0.000200
Benzo(a)pyrene	U	1	<0.00189	mg/L	9.434	0.000200
Indeno(1,2,3-cd)pyrene	U	1	<0.00189	mg/L	9.434	0.000200
Dibenzo(a,h)anthracene	Qs, U	1	<0.00189	mg/L	9.434	0.000200
Benzo(g,h,i)perylene	U	1	<0.00189	mg/L	9.434	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0469	mg/L	9.434	0.0800	59	40 - 110
2-Fluorobiphenyl			0.0606	mg/L	9.434	0.0800	76	50 - 110

continued ...

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sample continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Terphenyl-d14			0.0638	mg/L	9.434	0.0800	80	50 - 135

Sample: 313863 - MW-38

Laboratory: Midland

Analysis: BTEX

QC Batch: 96686

Prep Batch: 81953

Analytical Method: S 8021B

Date Analyzed: 2012-11-17

Sample Preparation: 2012-11-16

Prep Method: S 5030B

Analyzed By: YG

Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	12 Qr, Qs, U	2	<0.00500	mg/L	5	0.00100
Toluene	Qr, Qs, U	2	<0.00500	mg/L	5	0.00100
Ethylbenzene	Qr, Qs, U	2	<0.00500	mg/L	5	0.00100
Xylene	Qr, Qs, U	2	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.437	mg/L	5	0.500	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.399	mg/L	5	0.500	80	70 - 130

Sample: 313863 - MW-38

Laboratory: Lubbock

Analysis: PAH

QC Batch: 96701

Prep Batch: 81966

Analytical Method: S 8270D

Date Analyzed: 2012-11-19

Sample Preparation: 2012-11-12

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	13 U	1	<0.00190	mg/L	9.479	0.000200
2-Methylnaphthalene	U	1	<0.00190	mg/L	9.479	0.000200
1-Methylnaphthalene	U		<0.00190	mg/L	9.479	0.000200
Acenaphthylene	U	1	<0.00190	mg/L	9.479	0.000200
Acenaphthene	U	1	<0.00190	mg/L	9.479	0.000200
Dibenzofuran	U	1	<0.00190	mg/L	9.479	0.000200
Fluorene	U	1	<0.00190	mg/L	9.479	0.000200
Anthracene	U	1	<0.00190	mg/L	9.479	0.000200
Phenanthrene	U	1	<0.00190	mg/L	9.479	0.000200
Fluoranthene	U	1	<0.00190	mg/L	9.479	0.000200

continued ...

sample 313863 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Pyrene	U	1	<0.00190	mg/L	9.479	0.000200
Benzo(a)anthracene	U	1	<0.00190	mg/L	9.479	0.000200
Chrysene	Qs,U	1	<0.00190	mg/L	9.479	0.000200
Benzo(b)fluoranthene	U	1	<0.00190	mg/L	9.479	0.000200
Benzo(k)fluoranthene	U	1	<0.00190	mg/L	9.479	0.000200
Benzo(a)pyrene	U	1	<0.00190	mg/L	9.479	0.000200
Indeno(1,2,3-cd)pyrene	U	1	<0.00190	mg/L	9.479	0.000200
Dibenzo(a,h)anthracene	Qs,U	1	<0.00190	mg/L	9.479	0.000200
Benzo(g,h,i)perylene	U	1	<0.00190	mg/L	9.479	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0560	mg/L	9.479	0.0800	70	40 - 110
2-Fluorobiphenyl			0.0740	mg/L	9.479	0.0800	92	50 - 110
Terphenyl-d14			0.0776	mg/L	9.479	0.0800	97	50 - 135

Sample: 313864 - MW-5

Laboratory: Midland

Analysis: BTEX

QC Batch: 96686

Prep Batch: 81953

Analytical Method: S 8021B

Date Analyzed: 2012-11-17

Sample Preparation: 2012-11-16

Prep Method: S 5030B

Analyzed By: YG

Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene ¹⁴	Qr,Qs,U	2	<0.00500	mg/L	5	0.00100
Toluene	Qr,Qs,U	2	<0.00500	mg/L	5	0.00100
Ethylbenzene	Qr,Qs,U	2	<0.00500	mg/L	5	0.00100
Xylene	Qr,Qs,U	2	<0.00500	mg/L	5	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.440	mg/L	5	0.500	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.405	mg/L	5	0.500	81	70 - 130

Sample: 313864 - MW-5

Laboratory: Lubbock

Analysis: PAH

QC Batch: 96701

Prep Batch: 81966

Analytical Method: S 8270D

Date Analyzed: 2012-11-19

Sample Preparation: 2012-11-12

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1	0.0134	mg/L	4.739	0.000200
2-Methylnaphthalene		1	0.0254	mg/L	4.739	0.000200
1-Methylnaphthalene		1	0.0294	mg/L	4.739	0.000200
Acenaphthylene	U	1	<0.000948	mg/L	4.739	0.000200
Acenaphthene	U	1	<0.000948	mg/L	4.739	0.000200
Dibenzofuran	U	1	<0.000948	mg/L	4.739	0.000200
Fluorene	U	1	<0.000948	mg/L	4.739	0.000200
Anthracene	U	1	<0.000948	mg/L	4.739	0.000200
Phenanthrene		1	0.00609	mg/L	4.739	0.000200
Fluoranthene	U	1	<0.000948	mg/L	4.739	0.000200
Pyrene	U	1	<0.000948	mg/L	4.739	0.000200
Benzo(a)anthracene	U	1	<0.000948	mg/L	4.739	0.000200
Chrysene	Qs,U	1	<0.000948	mg/L	4.739	0.000200
Benzo(b)fluoranthene	U	1	<0.000948	mg/L	4.739	0.000200
Benzo(k)fluoranthene	U	1	<0.000948	mg/L	4.739	0.000200
Benzo(a)pyrene	U	1	<0.000948	mg/L	4.739	0.000200
Indeno(1,2,3-cd)pyrene	U	1	<0.000948	mg/L	4.739	0.000200
Dibenzo(a,h)anthracene	Qs,U	1	<0.000948	mg/L	4.739	0.000200
Benzo(g,h,i)perylene	U	1	<0.000948	mg/L	4.739	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0440	mg/L	4.739	0.0800	55	40 - 110
2-Fluorobiphenyl			0.0426	mg/L	4.739	0.0800	53	50 - 110
Terphenyl-d14			0.0418	mg/L	4.739	0.0800	52	50 - 135

Method Blanks

Method Blank (1) QC Batch: 96635

QC Batch: 96635
Prep Batch: 81897

Date Analyzed: 2012-11-15
QC Preparation: 2012-11-15

Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		2	<0.000200	mg/L	0.001
Toluene		2	<0.000300	mg/L	0.001
Ethylbenzene		2	<0.000400	mg/L	0.001
Xylene		2	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0865	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0805	mg/L	1	0.100	80	70 - 130

Method Blank (1) QC Batch: 96686

QC Batch: 96686
Prep Batch: 81953

Date Analyzed: 2012-11-17
QC Preparation: 2012-11-16

Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		2	<0.000200	mg/L	0.001
Toluene		2	<0.000300	mg/L	0.001
Ethylbenzene		2	<0.000400	mg/L	0.001
Xylene		2	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0874	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0809	mg/L	1	0.100	81	70 - 130

Method Blank (1) QC Batch: 96701

QC Batch: 96701
Prep Batch: 81966

Date Analyzed: 2012-11-19
QC Preparation: 2012-11-12

Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	MDL Result	Units	RL
Naphthalene		1	<0.000121	mg/L	0.0002
2-Methylnaphthalene		1	<0.0000913	mg/L	0.0002
1-Methylnaphthalene			<0.000109	mg/L	0.0002
Acenaphthylene		1	<0.000100	mg/L	0.0002
Acenaphthene		1	<0.000122	mg/L	0.0002
Dibenzofuran		1	<0.000108	mg/L	0.0002
Fluorene		1	<0.000100	mg/L	0.0002
Anthracene		1	<0.0000791	mg/L	0.0002
Phenanthrene		1	<0.0000824	mg/L	0.0002
Fluoranthene		1	<0.000124	mg/L	0.0002
Pyrene		1	<0.0000691	mg/L	0.0002
Benzo(a)anthracene		1	<0.000101	mg/L	0.0002
Chrysene		1	<0.0000769	mg/L	0.0002
Benzo(b)fluoranthene		1	<0.0000813	mg/L	0.0002
Benzo(k)fluoranthene		1	<0.0000790	mg/L	0.0002
Benzo(a)pyrene		1	<0.0000701	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		1	<0.0000770	mg/L	0.0002
Dibenzo(a,h)anthracene		1	<0.0000851	mg/L	0.0002
Benzo(g,h,i)perylene		1	<0.0000798	mg/L	0.0002

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			0.0685	mg/L	1	0.0800	86	40 - 110
2-Fluorobiphenyl			0.0666	mg/L	1	0.0800	83	50 - 110
Terphenyl-d14			0.0659	mg/L	1	0.0800	82	50 - 135

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 96635
Prep Batch: 81897

Date Analyzed: 2012-11-15
QC Preparation: 2012-11-15

Analyzed By: YG
Prepared By: YG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	0.0918	mg/L	1	0.100	<0.000200	92	70 - 130
Toluene		2	0.0895	mg/L	1	0.100	<0.000300	90	70 - 130
Ethylbenzene		2	0.0832	mg/L	1	0.100	<0.000400	83	70 - 130
Xylene		2	0.260	mg/L	1	0.300	<0.000400	87	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2	0.0929	mg/L	1	0.100	<0.000200	93	70 - 130	1	20
Toluene		2	0.0904	mg/L	1	0.100	<0.000300	90	70 - 130	1	20
Ethylbenzene		2	0.0837	mg/L	1	0.100	<0.000400	84	70 - 130	1	20
Xylene		2	0.262	mg/L	1	0.300	<0.000400	87	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0869	0.0870	mg/L	1	0.100	87	87	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0813	0.0817	mg/L	1	0.100	81	82	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 96686
Prep Batch: 81953

Date Analyzed: 2012-11-17
QC Preparation: 2012-11-16

Analyzed By: YG
Prepared By: YG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	0.0924	mg/L	1	0.100	<0.000200	92	70 - 130
Toluene		2	0.0895	mg/L	1	0.100	<0.000300	90	70 - 130
Ethylbenzene		2	0.0828	mg/L	1	0.100	<0.000400	83	70 - 130
Xylene		2	0.260	mg/L	1	0.300	<0.000400	87	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2	0.0939	mg/L	1	0.100	<0.000200	94	70 - 130	2	20
Toluene		2	0.0913	mg/L	1	0.100	<0.000300	91	70 - 130	2	20
Ethylbenzene		2	0.0844	mg/L	1	0.100	<0.000400	84	70 - 130	2	20
Xylene		2	0.265	mg/L	1	0.300	<0.000400	88	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0878	0.0879	mg/L	1	0.100	88	88	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0826	0.0828	mg/L	1	0.100	83	83	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 96701
Prep Batch: 81966

Date Analyzed: 2012-11-19
QC Preparation: 2012-11-12

Analyzed By: MN
Prepared By: MN

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
			Result	Units					
Naphthalene			0.0656	mg/L	1	0.0800	<0.000121	82	40 - 100
2-Methylnaphthalene			0.0616	mg/L	1	0.0800	<0.0000913	77	45 - 105
1-Methylnaphthalene			0.0596	mg/L	1	0.0800	<0.000109	74	70 - 130
Acenaphthylene			0.0686	mg/L	1	0.0800	<0.000100	86	50 - 105
Acenaphthene			0.0655	mg/L	1	0.0800	<0.000122	82	45 - 110
Dibenzofuran			0.0498	mg/L	1	0.0800	<0.000108	62	55 - 105
Fluorene			0.0673	mg/L	1	0.0800	<0.000100	84	50 - 110
Anthracene			0.0620	mg/L	1	0.0800	<0.0000791	78	55 - 110
Phenanthrene			0.0692	mg/L	1	0.0800	<0.0000824	86	50 - 115
Fluoranthene			0.0634	mg/L	1	0.0800	<0.000124	79	55 - 115
Pyrene			0.0592	mg/L	1	0.0800	<0.0000691	74	50 - 130
Benzo(a)anthracene			0.0646	mg/L	1	0.0800	<0.000101	81	55 - 110
Chrysene	Qs	Qs	0.108	mg/L	1	0.0800	<0.0000769	135	55 - 110
Benzo(b)fluoranthene			0.0563	mg/L	1	0.0800	<0.0000813	70	45 - 120
Benzo(k)fluoranthene			0.0698	mg/L	1	0.0800	<0.0000790	87	45 - 125
Benzo(a)pyrene			0.0667	mg/L	1	0.0800	<0.0000701	83	55 - 110
Indeno(1,2,3-cd)pyrene			0.0668	mg/L	1	0.0800	<0.0000770	84	45 - 125
Dibenzo(a,h)anthracene	Qs	Qs	0.112	mg/L	1	0.0800	<0.0000851	140	40 - 125
Benzo(g,h,i)perylene			0.0625	mg/L	1	0.0800	<0.0000798	78	40 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene		1	0.0652	mg/L	1	0.0800	<0.000121	82	40 - 100	1	20

continued ...

control spikes continued ...

Param	F	C	LCSD		Dil.	Spike	Matrix	Rec.	Rec.	RPD	RPD	
			Result	Units		Amount	Result	Rec.	Limit		Limit	
2-Methylnaphthalene		1	0.0631	mg/L	1	0.0800	<0.0000913	79	45 - 105	2	20	
1-Methylnaphthalene			0.0627	mg/L	1	0.0800	<0.000109	78	70 - 130	5	20	
Acenaphthylene		1	0.0674	mg/L	1	0.0800	<0.000100	84	50 - 105	2	20	
Acenaphthene		1	0.0634	mg/L	1	0.0800	<0.000122	79	45 - 110	3	20	
Dibenzofuran		1	0.0475	mg/L	1	0.0800	<0.000108	59	55 - 105	5	20	
Fluorene		1	0.0636	mg/L	1	0.0800	<0.000100	80	50 - 110	6	20	
Anthracene		1	0.0605	mg/L	1	0.0800	<0.0000791	76	55 - 110	2	20	
Phenanthrene		1	0.0668	mg/L	1	0.0800	<0.0000824	84	50 - 115	4	20	
Fluoranthene		1	0.0605	mg/L	1	0.0800	<0.000124	76	55 - 115	5	20	
Pyrene		1	0.0574	mg/L	1	0.0800	<0.0000691	72	50 - 130	3	20	
Benzo(a)anthracene		1	0.0624	mg/L	1	0.0800	<0.000101	78	55 - 110	4	20	
Chrysene	Qs	Qs	1	0.104	mg/L	1	0.0800	<0.0000769	130	55 - 110	4	20
Benzo(b)fluoranthene		1	0.0568	mg/L	1	0.0800	<0.0000813	71	45 - 120	1	20	
Benzo(k)fluoranthene		1	0.0719	mg/L	1	0.0800	<0.0000790	90	45 - 125	3	20	
Benzo(a)pyrene		1	0.0690	mg/L	1	0.0800	<0.0000701	86	55 - 110	3	20	
Indeno(1,2,3-cd)pyrene		1	0.0683	mg/L	1	0.0800	<0.0000770	85	45 - 125	2	20	
Dibenzo(a,h)anthracene	Qs	Qs	1	0.121	mg/L	1	0.0800	<0.0000851	151	40 - 125	8	20
Benzo(g,h,i)perylene		1	0.0638	mg/L	1	0.0800	<0.0000798	80	40 - 125	2	20	

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Nitrobenzene-d5	0.0590	0.0568	mg/L	1	0.0800	74	71	40 - 110
2-Fluorobiphenyl	0.0602	0.0589	mg/L	1	0.0800	75	74	50 - 110
Terphenyl-d14	0.0569	0.0556	mg/L	1	0.0800	71	70	50 - 135

Matrix Spike (MS-1) Spiked Sample: 313838

QC Batch: 96635
Prep Batch: 81897

Date Analyzed: 2012-11-15
QC Preparation: 2012-11-15

Analyzed By: YG
Prepared By: YG

Param			MS			Spike	Matrix		Rec.	
	F	C	Result	Units	Dil.	Amount	Result	Rec.	Limit	
Benzene			2	0.0753	mg/L	1	0.100	<0.000200	75	70 - 130
Toluene			2	0.0723	mg/L	1	0.100	<0.000300	72	70 - 130
Ethylbenzene	Qs	Qs	2	0.0656	mg/L	1	0.100	<0.000400	66	70 - 130
Xylene	Qs	Qs	2	0.206	mg/L	1	0.300	<0.000400	69	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

continued ...

matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit	
Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit	
Benzene	Qr	Qr	2	0.105	mg/L	1	0.100	<0.000200	105	70 - 130	33	20
Toluene	Qr	Qr	2	0.102	mg/L	1	0.100	<0.000300	102	70 - 130	34	20
Ethylbenzene	Qr	Qr	2	0.0940	mg/L	1	0.100	<0.000400	94	70 - 130	36	20
Xylene	Qr	Qr	2	0.296	mg/L	1	0.300	<0.000400	99	70 - 130	36	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0884	0.0871	mg/L	1	0.1	88	87	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0809	0.0808	mg/L	1	0.1	81	81	70 - 130

Matrix Spike (MS-1) Spiked Sample: 313858

QC Batch: 96686
Prep Batch: 81953

Date Analyzed: 2012-11-17
QC Preparation: 2012-11-16

Analyzed By: YG
Prepared By: YG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	0.0977	mg/L	1	0.100	<0.000200	98	70 - 130
Toluene		2	0.0946	mg/L	1	0.100	<0.000300	95	70 - 130
Ethylbenzene		2	0.0873	mg/L	1	0.100	<0.000400	87	70 - 130
Xylene		2	0.274	mg/L	1	0.300	<0.000400	91	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param			MSD				Spike	Matrix		Rec.		RPD
	F	C	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit	
Benzene	Qr, Qs	Qr, Qs	2	0.0394	mg/L	1	0.100	<0.000200	39	70 - 130	85	20
Toluene	Qr, Qs	Qr, Qs	2	0.0369	mg/L	1	0.100	<0.000300	37	70 - 130	88	20
Ethylbenzene	Qr, Qs	Qr, Qs	2	0.0338	mg/L	1	0.100	<0.000400	34	70 - 130	88	20
Xylene	Qr, Qs	Qr, Qs	2	0.106	mg/L	1	0.300	<0.000400	35	70 - 130	88	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0899	0.0879	mg/L	1	0.1	90	88	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0821	0.0808	mg/L	1	0.1	82	81	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 96635

Date Analyzed: 2012-11-15

Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.0916	92	80 - 120	2012-11-15
Toluene		2	mg/L	0.100	0.0889	89	80 - 120	2012-11-15
Ethylbenzene		2	mg/L	0.100	0.0829	83	80 - 120	2012-11-15
Xylene		2	mg/L	0.300	0.258	86	80 - 120	2012-11-15

Standard (CCV-2)

QC Batch: 96635

Date Analyzed: 2012-11-15

Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.0923	92	80 - 120	2012-11-15
Toluene		2	mg/L	0.100	0.0897	90	80 - 120	2012-11-15
Ethylbenzene		2	mg/L	0.100	0.0825	82	80 - 120	2012-11-15
Xylene		2	mg/L	0.300	0.259	86	80 - 120	2012-11-15

Standard (CCV-3)

QC Batch: 96635

Date Analyzed: 2012-11-15

Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.0935	94	80 - 120	2012-11-15
Toluene		2	mg/L	0.100	0.0903	90	80 - 120	2012-11-15
Ethylbenzene		2	mg/L	0.100	0.0832	83	80 - 120	2012-11-15
Xylene		2	mg/L	0.300	0.261	87	80 - 120	2012-11-15

Standard (CCV-1)

QC Batch: 96686

Date Analyzed: 2012-11-17

Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.0928	93	80 - 120	2012-11-17
Toluene		2	mg/L	0.100	0.0901	90	80 - 120	2012-11-17
Ethylbenzene		2	mg/L	0.100	0.0834	83	80 - 120	2012-11-17
Xylene		2	mg/L	0.300	0.262	87	80 - 120	2012-11-17

Standard (CCV-2)

QC Batch: 96686

Date Analyzed: 2012-11-17

Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.0925	92	80 - 120	2012-11-17
Toluene		2	mg/L	0.100	0.0898	90	80 - 120	2012-11-17
Ethylbenzene		2	mg/L	0.100	0.0829	83	80 - 120	2012-11-17
Xylene		2	mg/L	0.300	0.260	87	80 - 120	2012-11-17

Standard (CCV-3)

QC Batch: 96686

Date Analyzed: 2012-11-17

Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.0925	92	80 - 120	2012-11-17
Toluene		2	mg/L	0.100	0.0901	90	80 - 120	2012-11-17
Ethylbenzene		2	mg/L	0.100	0.0834	83	80 - 120	2012-11-17
Xylene		2	mg/L	0.300	0.261	87	80 - 120	2012-11-17

Standard (CCV-1)

QC Batch: 96701

Date Analyzed: 2012-11-19

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1	mg/L	60.0	60.1	100	80 - 120	2012-11-19
2-Methylnaphthalene		1	mg/L	60.0	57.5	96	80 - 120	2012-11-19
1-Methylnaphthalene			mg/L	60.0	56.2	94	80 - 120	2012-11-19
Acenaphthylene		1	mg/L	60.0	55.1	92	80 - 120	2012-11-19
Acenaphthene		1	mg/L	60.0	56.0	93	80 - 120	2012-11-19
Dibenzofuran		1	mg/L	60.0	60.9	102	80 - 120	2012-11-19
Fluorene		1	mg/L	60.0	55.6	93	80 - 120	2012-11-19
Anthracene		1	mg/L	60.0	55.8	93	80 - 120	2012-11-19
Phenanthrene		1	mg/L	60.0	60.7	101	80 - 120	2012-11-19
Fluoranthene		1	mg/L	60.0	60.4	101	80 - 120	2012-11-19
Pyrene		1	mg/L	60.0	58.4	97	80 - 120	2012-11-19
Benzo(a)anthracene		1	mg/L	60.0	60.4	101	80 - 120	2012-11-19
Chrysene		1	mg/L	60.0	60.6	101	80 - 120	2012-11-19
Benzo(b)fluoranthene		1	mg/L	60.0	54.5	91	80 - 120	2012-11-19
Benzo(k)fluoranthene		1	mg/L	60.0	57.4	96	80 - 120	2012-11-19
Benzo(a)pyrene		1	mg/L	60.0	59.4	99	80 - 120	2012-11-19
Indeno(1,2,3-cd)pyrene		1	mg/L	60.0	60.7	101	80 - 120	2012-11-19
Dibenzo(a,h)anthracene		1	mg/L	60.0	60.0	100	80 - 120	2012-11-19
Benzo(g,h,i)perylene		1	mg/L	60.0	60.1	100	80 - 120	2012-11-19

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			60.1	mg/L	1	60.0	100	-
2-Fluorobiphenyl			60.1	mg/L	1	60.0	100	-
Terphenyl-d14			62.1	mg/L	1	60.0	104	-

Standard (CCV-2)

QC Batch: 96701

Date Analyzed: 2012-11-19

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1	mg/L	60.0	61.2	102	80 - 120	2012-11-19
2-Methylnaphthalene		1	mg/L	60.0	58.3	97	80 - 120	2012-11-19
1-Methylnaphthalene			mg/L	60.0	55.9	93	80 - 120	2012-11-19
Acenaphthylene		1	mg/L	60.0	55.3	92	80 - 120	2012-11-19
Acenaphthene		1	mg/L	60.0	55.9	93	80 - 120	2012-11-19
Dibenzofuran		1	mg/L	60.0	61.4	102	80 - 120	2012-11-19
Fluorene		1	mg/L	60.0	55.8	93	80 - 120	2012-11-19
Anthracene		1	mg/L	60.0	54.7	91	80 - 120	2012-11-19
Phenanthrene		1	mg/L	60.0	59.8	100	80 - 120	2012-11-19

continued ...

standard continued . . .

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Fluoranthene		1	mg/L	60.0	59.6	99	80 - 120	2012-11-19
Pyrene		1	mg/L	60.0	58.8	98	80 - 120	2012-11-19
Benzo(a)anthracene		1	mg/L	60.0	59.4	99	80 - 120	2012-11-19
Chrysene		1	mg/L	60.0	59.5	99	80 - 120	2012-11-19
Benzo(b)fluoranthene		1	mg/L	60.0	53.9	90	80 - 120	2012-11-19
Benzo(k)fluoranthene		1	mg/L	60.0	54.7	91	80 - 120	2012-11-19
Benzo(a)pyrene		1	mg/L	60.0	57.2	95	80 - 120	2012-11-19
Indeno(1,2,3-cd)pyrene		1	mg/L	60.0	59.0	98	80 - 120	2012-11-19
Dibenzo(a,h)anthracene		1	mg/L	60.0	57.6	96	80 - 120	2012-11-19
Benzo(g,h,i)perylene		1	mg/L	60.0	57.5	96	80 - 120	2012-11-19

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			61.7	mg/L	1	60.0	103	-
2-Fluorobiphenyl			60.1	mg/L	1	60.0	100	-
Terphenyl-d14			62.3	mg/L	1	60.0	104	-

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-12-8	Lubbock
2	NELAP	T104704392-12-4	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Result Comments

- 1 Dilution due to surfactants.
- 2 Dilution due to surfactants.
- 3 Dilution run due to matrix difficulties.
- 4 Dilution due to surfactants.

- 5 Dilution due to surfactants.
- 6 Dilution run due to matrix difficulties.
- 7 Dilution due to surfactants.
- 8 Dilution due to surfactants.
- 9 Dilution run due to matrix difficulties.
- 10 Dilution due to surfactants.
- 11 Dilution run due to matrix difficulties.
- 12 Dilution due to surfactants.
- 13 Dilution run due to matrix difficulties.
- 14 Dilution due to surfactants.

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

5002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
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200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAqualic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

email: lab@traceanalysis.com

Company Name: NOVA Phone #: _____

Address: _____ (Street, City, Zip) Fax #: _____

Contact Person: Camillie Bryant E-mail: _____

Invoice to: _____ (If different from above)

Project #: _____

Project Location (including state): _____

Project Name: Bob Durham
Sample Signature: _____

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ext(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCCLP Volatiles	TCCLP Semi Volatiles	TCCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Sem. Vol. 8270 / 625	PCBs 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ -P, Alkalinity	Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard

LAB # LAB USE ONLY	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME
313838	MW-11	3		X				X					X	11-8-12	1549
839	MW-20	3												11-8-12	1200
840	MW-21	3												11-8-12	1210
841	MW-25	3												11-8-12	1227
842	MW-30	3												11-8-12	1442
843	MW-24	3												11-8-12	1218
844	MW-27	3												11-8-12	1252
845	MW-2	3												11-8-12	1013
846	MW-3	3												11-8-12	1112
847	MW-4	3												11-8-12	1141
848	MW-6	3												11-8-12	1130

Relinquished by: _____ Date: _____ Company: _____

Relinquished by: _____	Company: _____	Date: _____	Time: _____	Received by: _____	Company: _____	Date: _____	Time: _____	INST: _____	OBS: _____	COR: _____
Relinquished by: <u>Licardo Boer Nova</u>	Company: <u>Nova</u>	Date: <u>11-9-12</u>	Time: <u>6:00</u>	Received by: <u>Licardo Boer Nova</u>	Company: <u>Nova</u>	Date: <u>11-9-12</u>	Time: <u>8:20</u>	INST: <u>1218</u>	OBS: <u>1442</u>	COR: _____
Relinquished by: <u>Licardo Boer Nova</u>	Company: <u>Nova</u>	Date: <u>11-9-12</u>	Time: <u>8:30</u>	Received by: <u>Licardo Boer Nova</u>	Company: <u>Nova</u>	Date: <u>11-9-12</u>	Time: <u>8:20</u>	INST: <u>1218</u>	OBS: <u>1442</u>	COR: _____
Relinquished by: <u>Licardo Boer Nova</u>	Company: <u>Nova</u>	Date: <u>11-12-12</u>	Time: <u>15:30</u>	Received by: <u>Licardo Boer Nova</u>	Company: <u>Nova</u>	Date: <u>11-12-12</u>	Time: <u>8:30</u>	INST: <u>1218</u>	OBS: <u>1442</u>	COR: _____

submitter of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

LAB USE ONLY	REMARKS: <u>Midland-BTEX</u> <u>Lubbock - PAH</u>
Headspace ☒ N/A	Dry Weight Basis Required ☐
Log-In-Review ☒ N/A	TRRP Report Required ☐
	Check If Special Reporting Limits Are Needed ☐

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2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

email: lab@traceanalysis.com

Company Name: NOVA

Phone #:

Address: (Street, City, Zip)

Fax #:

Contact Person: Camillie Bryant

E-mail:

Invoice to:

(If different from above)

Project #:

Project Location (including state):

Project Name: Bob Durham

Sampler Signature:

LAB # LAB USE ONLY	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD					SAMPLING		Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date	Company	Received by:	Time	Date
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Relinquished by: Ricardo Baer Nov 8 11-9-12 1:00	Received by: [Signature]	Company: NOVA	Date: 11/9/12	Time: 8:20	INST: OBS: COR:
Relinquished by: [Signature]	Received by: [Signature]	Company: NOVA	Date: 11/9/12	Time: 8:20	INST: OBS: COR:
Relinquished by: [Signature]	Received by: [Signature]	Company: NOVA	Date: 11/9/12	Time: 8:20	INST: OBS: COR:

LAB USE ONLY

Intact Y/N: ☒ Y ☐ N

Headspace: ☒ Y ☐ N

Log-in-Review: ☒ Y ☐ N

REMARKS:

Dry Weight Basis Required ☐

TRRP Report Required ☐

Check if Special Reporting Units Are Needed ☐

Submission of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

CONFIDENTIAL

Carrier: [Signature] XS ZP 32 74 78

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name:

NOVA
(Street, City, Zip)

Phone

Address:

(Street, City, Zip)

Contact Person:

Person: Camillie Bryant

E-mail:

Invoice to:

(If different from above)

Project #:

Project Name:

Time: Bob Duvhem

Project Location (including state):

[illegible]

Relinquished by:

Acquired by: Richard Baer No 18 Company:

Relinquished by:

Company: *ABC*

Relinquished by

Company:

Received by:

Received by:  Company: 

Received by:

Received by:  Company: 

2

Received by: _____ Company: _____

Time: 1:15

Time: INST _____ OBS _____

5.20 COR.

Time: INST 12-4
OBS 14° 00'

0.40 COR

Time: INST

LAB USE ONLY

intast Y N
headspace Y N

log-in-Review

Dry Weight Basis Required
TRRP Report Required
Check If Special Reporting
Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

2000

Carrier # Carver 75 ZP-321-327478

TraceAnalysis, Inc.

email: lab@traceanalysis.com

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-12965002 Basin Street, Suite A1
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Tel (432) 689-6301
Fax (432) 689-6313200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443BioAqualic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Company Name:

NOUR

Phone #:

Address:

(Street, City, Zip)

Fax #:

Contact Person:

Camille Bryant

E-mail:

Invoice to:

(If different from above)

Project #:

Project Name:

Bobdurham

Project Location (including state):

Sampler Signature:

LAB # LAB USE ONLY	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME	
	MW-1	1	114	X								X			11-8-12	0956
	MW-16	1	1	X								X			11-8-12	1036
	MW-38	1	1	X								X			11-8-12	1426
	MW-5	1	1	X								X			11-8-12	1020

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8021 / 602 / 8260 / 624	
BTEX 8021 / 602 / 8260 / 624	
TPH 418.1 / TX1005 / TX1005 Ex(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270 / 625	X
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	X
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	X
TCLP Volatiles	X
TCLP Semi Volatiles	X
TCLP Pesticides	X
RCI	
GC/MS Vol. 8260 / 624	
GC/MS Semi. Vol. 8270 / 625	
PCB's 8082 / 608	
Pesticides 8081 / 608	
BOD, TSS, pH	
Moisture Content	
Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ -P, Alkalinity	
Na, Ca, Mg, K, TDS, EC	
Turn Around Time if different from standard	Hold

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR
Richard Baer	NOUR	11-9-12	6:10	<i>[Signature]</i>	NOUR	11-9-12	8:20			
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR
<i>[Signature]</i>	NOUR	11-9-12	8:20	<i>[Signature]</i>	TA	11-9-12	8:20			
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR
<i>[Signature]</i>	NOUR	11-9-12	8:20	<i>[Signature]</i>	Tracy	11/13/12	8:50			

LAB USE ONLY		INST	OBS	COR
Infect Y N				
Headspace				
Dry Weight Basis Required				
TRRP Report Required				
Check If Special Reporting Limits Are Needed				
Log-In-Review				

Remarks:

Submittal of samples constitutes acceptance of the above information.

REMARKS:

LAB USE ONLY

Indict Y/N

Headspace Y/N/A

Log-In-Review

A/H

Dry Weight Basis Required
TRRP Report Required
Check If Special Reporting
Limits Are Needed

Submission of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier #

327478

Summary Report

Camille Bryant
Nova Safety & Environmental
2057 Commerce St.
Midland, TX 79703

Report Date: February 21, 2013

Work Order: 13022002



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
321681	MW-56	water	2013-02-19	15:15	2013-02-20
321682	MW-2	water	2013-02-19	15:32	2013-02-20
321683	MW-4	water	2013-02-19	15:12	2013-02-20
321684	MW-32	water	2013-02-19	14:40	2013-02-20
321685	MW-38	water	2013-02-19	14:59	2013-02-20
321686	MW-13	water	2013-02-19	15:32	2013-02-20
321687	MW-1	water	2013-02-19	16:12	2013-02-20
321688	MW-5	water	2013-02-19	16:00	2013-02-20

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
321681 - MW-56	<0.00100	<0.00100	<0.00100	<0.00100
321682 - MW-2	<0.00100	<0.00100	<0.00100	<0.00100
321683 - MW-4	<0.00100	<0.00100	<0.00100	<0.00100
321684 - MW-32	<0.00100	<0.00100	<0.00100	<0.00100
321685 - MW-38	0.00540	<0.00100	0.00710	<0.00100
321686 - MW-13	<0.00100	<0.00100	<0.00100	<0.00100
321687 - MW-1	<0.00100	<0.00100	<0.00100	<0.00100
321688 - MW-5	<0.00100	<0.00100	<0.00100	<0.00100



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Camille Bryant
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: February 21, 2013

Work Order: 13022002



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
321681	MW-56	water	2013-02-19	15:15	2013-02-20
321682	MW-2	water	2013-02-19	15:32	2013-02-20
321683	MW-4	water	2013-02-19	15:12	2013-02-20
321684	MW-32	water	2013-02-19	14:40	2013-02-20
321685	MW-38	water	2013-02-19	14:59	2013-02-20
321686	MW-13	water	2013-02-19	15:32	2013-02-20
321687	MW-1	water	2013-02-19	16:12	2013-02-20
321688	MW-5	water	2013-02-19	16:00	2013-02-20

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 14 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink that reads "Michael Abel". The signature is written in a cursive style with a large, stylized 'M' and 'A'.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Sample 321683 (MW-4)	5
Sample 321684 (MW-32)	6
Sample 321685 (MW-38)	6
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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2013-02-20 and assigned to work order 13022002. Samples for work order 13022002 were received intact without headspace and at a temperature of 1.6 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	83997	2013-02-20 at 12:00	99155	2013-02-20 at 12:00

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13022002 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: February 21, 2013
TNM-LF-2000-07

Work Order: 13022002
Bob Durham

Page Number: 5 of 14
Monument, Lea County, NM

Analytical Report

Sample: 321681 - MW-56

Laboratory: Midland
Analysis: BTEX
QC Batch: 99155
Prep Batch: 83997

Analytical Method: S 8021B
Date Analyzed: 2013-02-20
Sample Preparation: 2013-02-20

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	75.7 - 109
4-Bromofluorobenzene (4-BFB)			0.100	mg/L	1	0.100	100	68.1 - 109

Sample: 321682 - MW-2

Laboratory: Midland
Analysis: BTEX
QC Batch: 99155
Prep Batch: 83997

Analytical Method: S 8021B
Date Analyzed: 2013-02-20
Sample Preparation: 2013-02-20

Prep Method: S 5030B
Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0970	mg/L	1	0.100	97	75.7 - 109
4-Bromofluorobenzene (4-BFB)			0.108	mg/L	1	0.100	108	68.1 - 109

Report Date: February 21, 2013
TNM-LF-2000-07

Work Order: 13022002
Bob Durham

Page Number: 6 of 14
Monument, Lea County, NM

Sample: 321683 - MW-4

Laboratory: Midland

Analysis: BTEX

QC Batch: 99155

Prep Batch: 83997

Analytical Method: S 8021B

Date Analyzed: 2013-02-20

Sample Preparation: 2013-02-20

Prep Method: S 5030B

Analyzed By: YG

Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0986	mg/L	1	0.100	99	75.7 - 109
4-Bromofluorobenzene (4-BFB)			0.0996	mg/L	1	0.100	100	68.1 - 109

Sample: 321684 - MW-32

Laboratory: Midland

Analysis: BTEX

QC Batch: 99155

Prep Batch: 83997

Analytical Method: S 8021B

Date Analyzed: 2013-02-20

Sample Preparation: 2013-02-20

Prep Method: S 5030B

Analyzed By: YG

Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.100	mg/L	1	0.100	100	75.7 - 109
4-Bromofluorobenzene (4-BFB)			0.0995	mg/L	1	0.100	100	68.1 - 109

Report Date: February 21, 2013
TNM-LF-2000-07

Work Order: 13022002
Bob Durham

Page Number: 7 of 14
Monument, Lea County, NM

Sample: 321685 - MW-38

Laboratory: Midland

Analysis: BTEX

QC Batch: 99155

Prep Batch: 83997

Analytical Method: S 8021B

Date Analyzed: 2013-02-20

Sample Preparation: 2013-02-20

Prep Method: S 5030B

Analyzed By: YG

Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00540	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	0.00710	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	75.7 - 109
4-Bromofluorobenzene (4-BFB)			0.100	mg/L	1	0.100	100	68.1 - 109

Sample: 321686 - MW-13

Laboratory: Midland

Analysis: BTEX

QC Batch: 99155

Prep Batch: 83997

Analytical Method: S 8021B

Date Analyzed: 2013-02-20

Sample Preparation: 2013-02-20

Prep Method: S 5030B

Analyzed By: YG

Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	75.7 - 109
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	0.111	mg/L	1	0.100	111	68.1 - 109

Report Date: February 21, 2013
TNM-LF-2000-07

Work Order: 13022002
Bob Durham

Page Number: 8 of 14
Monument, Lea County, NM

Sample: 321687 - MW-1

Laboratory: Midland

Analysis: BTEX

QC Batch: 99155

Prep Batch: 83997

Analytical Method: S 8021B

Date Analyzed: 2013-02-20

Sample Preparation: 2013-02-20

Prep Method: S 5030B

Analyzed By: YG

Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0991	mg/L	1	0.100	99	75.7 - 109
4-Bromofluorobenzene (4-BFB)			0.102	mg/L	1	0.100	102	68.1 - 109

Sample: 321688 - MW-5

Laboratory: Midland

Analysis: BTEX

QC Batch: 99155

Prep Batch: 83997

Analytical Method: S 8021B

Date Analyzed: 2013-02-20

Sample Preparation: 2013-02-20

Prep Method: S 5030B

Analyzed By: YG

Prepared By: YG

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0991	mg/L	1	0.100	99	75.7 - 109
4-Bromofluorobenzene (4-BFB)	Qst	Qst	0.110	mg/L	1	0.100	110	68.1 - 109

Report Date: February 21, 2013
TNM-LF-2000-07

Work Order: 13022002
Bob Durham

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Monument, Lea County, NM

Method Blanks

Method Blank (1) QC Batch: 99155

QC Batch: 99155
Prep Batch: 83997

Date Analyzed: 2013-02-20
QC Preparation: 2013-02-20

Analyzed By: YG
Prepared By: YG

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000200	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000400	mg/L	0.001
Xylene		1	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	75.7 - 109
4-Bromofluorobenzene (4-BFB)			0.0988	mg/L	1	0.100	99	68.1 - 109

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 99155
Prep Batch: 83997

Date Analyzed: 2013-02-20
QC Preparation: 2013-02-20

Analyzed By: YG
Prepared By: YG

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.101	mg/L	1	0.100	<0.000200	101	80 - 120
Toluene		1	0.102	mg/L	1	0.100	<0.000300	102	80 - 120
Ethylbenzene		1	0.107	mg/L	1	0.100	<0.000400	107	70.6 - 120
Xylene		1	0.330	mg/L	1	0.300	<0.00120	110	79.2 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.100	mg/L	1	0.100	<0.000200	100	80 - 120	1	20
Toluene		1	0.102	mg/L	1	0.100	<0.000300	102	80 - 120	0	20
Ethylbenzene		1	0.106	mg/L	1	0.100	<0.000400	106	70.6 - 120	1	20
Xylene		1	0.328	mg/L	1	0.300	<0.00120	109	79.2 - 120	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.103	0.102	mg/L	1	0.100	103	102	75.7 - 109
4-Bromofluorobenzene (4-BFB)	0.102	0.102	mg/L	1	0.100	102	102	68.1 - 109

Matrix Spike (MS-1) Spiked Sample: 321681

QC Batch: 99155
Prep Batch: 83997

Date Analyzed: 2013-02-20
QC Preparation: 2013-02-20

Analyzed By: YG
Prepared By: YG

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.102	mg/L	1	0.100	<0.000200	102	25.7 - 139
Toluene		1	0.102	mg/L	1	0.100	<0.000300	102	32.7 - 134
Ethylbenzene		1	0.106	mg/L	1	0.100	<0.000400	106	45.9 - 120
Xylene		1	0.328	mg/L	1	0.300	<0.00120	109	34.9 - 128

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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TNM-LF-2000-07

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Bob Durham

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Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.102	mg/L	1	0.100	<0.000200	102	25.7 - 139	0	20
Toluene		1	0.103	mg/L	1	0.100	<0.000300	103	32.7 - 134	1	20
Ethylbenzene		1	0.107	mg/L	1	0.100	<0.000400	107	45.9 - 120	1	20
Xylene		1	0.330	mg/L	1	0.300	<0.00120	110	34.9 - 128	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.102	0.102	mg/L	1	0.1	102	102	75.7 - 109
4-Bromofluorobenzene (4-BFB)	0.102	0.102	mg/L	1	0.1	102	102	68.1 - 109

Calibration Standards

Standard (CCV-1)

QC Batch: 99155

Date Analyzed: 2013-02-20

Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2013-02-20
Toluene		1	mg/L	0.100	0.102	102	80 - 120	2013-02-20
Ethylbenzene		1	mg/L	0.100	0.106	106	80 - 120	2013-02-20
Xylenc		1	mg/L	0.300	0.328	109	80 - 120	2013-02-20

Standard (CCV-2)

QC Batch: 99155

Date Analyzed: 2013-02-20

Analyzed By: YG

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0982	98	80 - 120	2013-02-20
Toluene		1	mg/L	0.100	0.103	103	80 - 120	2013-02-20
Ethylbenzene		1	mg/L	0.100	0.107	107	80 - 120	2013-02-20
Xylene		1	mg/L	0.300	0.335	112	80 - 120	2013-02-20

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
SQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-12-4	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and SQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

Report Date: February 21, 2013
TNM-LF-2000-07

Work Order: 13022002
Bob Durham

Page Number: 14 of 14
Monument, Lea County, NM

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

LAB Order ID # 13022002

Page of

TraceAnalysis, Inc.

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Lubbock, Texas 79424
Tel (806) 794-1296
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200 East Sunset Rd., Suite E
El Paso, Texas 79922
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BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

email: lab@traceanalysis.com

Company Name: Dava Phone #: 432-520-7720
Address: (Street, City, Zip) Fax #:

Contact Person: 2057 Commerce drive E-mail:
Bobby Westcott CAMILLE BRYANT

Invoice to: (if different from above) Sega 2007-257 TNU-LF-2000-7

Project #: Bob Durham Project Name: BAR AT
Project Location (including state): MM Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD					SAMPLING		Turn Around Time	Hold	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE			TIME
221681	MW-56	3	100%	X										21-13-1458	15:15		
682	MW-2	3	↓											1532			
683	MW-4	3	↓											1512			
684	MW-32	3	↓											1440			
685	MW-38	3	↓											1459			
686	MW-13	3	↓											1532			
687	MW-1	3	↓											1612			
688	MW-5	3	↓											1600			

ANALYSIS REQUEST (Circle or Specify Method No.)

☐	MTBE 8021 / 602 / 8260 / 624
☐	TPH 418.1 / TX1005 / TX1005 EX(C35)
☐	TPH 8015 GRO / DRO / TVHC
☐	PAH 8270 / 625
☐	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7
☐	TCLP Metals Ag As Ba Cd Cr Pb Se Hg
☐	TCLP Volatiles
☐	TCLP Semi Volatiles
☐	TCLP Pesticides
☐	RCI
☐	GC/MS Vol. 8260 / 624
☐	GC/MS Semi. Vol. 8270 / 625
☐	PCBs 8082 / 608
☐	Pesticides 8081 / 608
☐	BOD, TSS, pH
☐	Moisture Content
☐	Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ -P, Alkalinity
☐	Na, Ca, Mg, K, TDS, EC
☐	Turn Around Time if different from standard

Relinquished by: <u>Trace Analysis, Inc.</u>	Company: <u>Trace Analysis, Inc.</u>	Date: <u>2-20-13</u>	Time: <u>8:12</u>	Received by: <u>TA 2/20/13</u>	Company: <u>Trace Analysis, Inc.</u>	Date: <u>2-20-13</u>	Time: <u>8:12</u>	INST: <u>112</u>	LAB USE ONLY	REMARKS: <u>Muddled - Del</u>
Relinquished by: <u>Trace Analysis, Inc.</u>	Company: <u>Trace Analysis, Inc.</u>	Date: <u>2-20-13</u>	Time: <u>8:12</u>	Received by: <u>TA 2/20/13</u>	Company: <u>Trace Analysis, Inc.</u>	Date: <u>2-20-13</u>	Time: <u>8:12</u>	INST: <u>112</u>	ONLY	
Relinquished by: <u>Trace Analysis, Inc.</u>	Company: <u>Trace Analysis, Inc.</u>	Date: <u>2-20-13</u>	Time: <u>8:12</u>	Received by: <u>TA 2/20/13</u>	Company: <u>Trace Analysis, Inc.</u>	Date: <u>2-20-13</u>	Time: <u>8:12</u>	INST: <u>112</u>		

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Summary Report

Camille Bryant
Nova Safety & Environmental
2057 Commerce St.
Midland, TX 79703

Report Date: June 3, 2013

Work Order: 13052401



Project Location: West of Monument, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-7
SRS #: TNM-LF-2000-7

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330154	MW-12	water	2013-05-23	17:20	2013-05-24

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
330154 - MW-12	0.0124 Qs	<0.00100 Qs	<0.00100 Qs	<0.00100 Qs



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Camille Bryant
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: June 3, 2013

Work Order: 13052401



Project Location: West of Monument, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-7
SRS #: TNM-LF-2000-7

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330154	MW-12	water	2013-05-23	17:20	2013-05-24

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 10 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2013-05-24 and assigned to work order 13052401. Samples for work order 13052401 were received intact without headspace and at a temperature of 4.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	86338	2013-05-30 at 12:00	101900	2013-05-31 at 12:26

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13052401 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: June 3, 2013
TNM-LF-2000-7

Work Order: 13052401
Bob Durham

Page Number: 4 of 10
West of Monument, NM

Analytical Report

Sample: 330154 - MW-12

Laboratory: Midland

Analysis: BTEX

QC Batch: 101900

Prep Batch: 86338

Analytical Method: S 8021B

Date Analyzed: 2013-05-31

Sample Preparation: 2013-05-30

Prep Method: S 5030B

Analyzed By: KC

Prepared By: KC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs	1	0.0124	mg/L	1	0.00100
Toluene	Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0875	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.109	mg/L	1	0.100	109	70 - 130

Report Date: June 3, 2013
TNM-LF-2000-7

Work Order: 13052401
Bob Durham

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West of Monument, NM

Method Blanks

Method Blank (1) QC Batch: 101900

QC Batch: 101900
Prep Batch: 86338

Date Analyzed: 2013-05-31
QC Preparation: 2013-05-30

Analyzed By: KC
Prepared By: KC

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000200	mg/L	0.001
Toluene		1	<0.000300	mg/L	0.001
Ethylbenzene		1	<0.000400	mg/L	0.001
Xylene		1	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0908	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0876	mg/L	1	0.100	88	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 101900
Prep Batch: 86338

Date Analyzed: 2013-05-31
QC Preparation: 2013-05-30

Analyzed By: KC
Prepared By: KC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0740	mg/L	1	0.100	<0.000200	74	70 - 130
Toluene		1	0.0769	mg/L	1	0.100	<0.000300	77	70 - 130
Ethylbenzene		1	0.0776	mg/L	1	0.100	<0.000400	78	70 - 130
Xylene		1	0.227	mg/L	1	0.300	<0.00120	76	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param			LCSD			Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit	
	F	C	Result	Units	Dil.							
Benzene	Qs	Qs	1	0.0676	mg/L	1	0.100	<0.000200	68	70 - 130	9	20
Toluene	Qs	Qs	1	0.0695	mg/L	1	0.100	<0.000300	70	70 - 130	10	20
Ethylbenzene	Qs	Qs	1	0.0687	mg/L	1	0.100	<0.000400	69	70 - 130	12	20
Xylene	Qs	Qs	1	0.204	mg/L	1	0.300	<0.00120	68	70 - 130	11	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0848	0.0896	mg/L	1	0.100	85	90	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0879	0.0924	mg/L	1	0.100	88	92	70 - 130

Matrix Spike (MS-1) Spiked Sample: 330161

QC Batch: 101900
Prep Batch: 86338

Date Analyzed: 2013-05-31
QC Preparation: 2013-05-30

Analyzed By: KC
Prepared By: KC

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	
Benzene	Qs	Qs	1	0.0362	mg/L	1	0.100	<0.000200	36	70 - 130
Toluene	Qs	Qs	1	0.0377	mg/L	1	0.100	<0.000300	38	70 - 130
Ethylbenzene	Qs	Qs	1	0.0398	mg/L	1	0.100	<0.000400	40	70 - 130
Xylene	Qs	Qs	1	0.116	mg/L	1	0.300	<0.00120	39	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: June 3, 2013
TNM-LF-2000-7

Work Order: 13052401
Bob Durham

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West of Monument, NM

Param			MSD			Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit	
	F	C	Result	Units	Dil.							
Benzene	Qs	Qs	1	0.0383	mg/L	1	0.100	<0.000200	38	70 - 130	6	20
Toluene	Qs	Qs	1	0.0389	mg/L	1	0.100	<0.000300	39	70 - 130	3	20
Ethylbenzene	Qs	Qs	1	0.0389	mg/L	1	0.100	<0.000400	39	70 - 130	2	20
Xylene	Qs	Qs	1	0.113	mg/L	1	0.300	<0.00120	38	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0882	0.0831	mg/L	1	0.1	88	83	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0899	0.0841	mg/L	1	0.1	90	84	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 101900

Date Analyzed: 2013-05-31

Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0867	87	80 - 120	2013-05-31
Toluene		1	mg/L	0.100	0.0897	90	80 - 120	2013-05-31
Ethylbenzene		1	mg/L	0.100	0.0900	90	80 - 120	2013-05-31
Xylene		1	mg/L	0.300	0.263	88	80 - 120	2013-05-31

Standard (CCV-2)

QC Batch: 101900

Date Analyzed: 2013-05-31

Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0962	96	80 - 120	2013-05-31
Toluene		1	mg/L	0.100	0.0991	99	80 - 120	2013-05-31
Ethylbenzene		1	mg/L	0.100	0.0985	98	80 - 120	2013-05-31
Xylene		1	mg/L	0.300	0.287	96	80 - 120	2013-05-31

Standard (CCV-3)

QC Batch: 101900

Date Analyzed: 2013-05-31

Analyzed By: KC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0950	95	80 - 120	2013-05-31
Toluene		1	mg/L	0.100	0.0982	98	80 - 120	2013-05-31
Ethylbenzene		1	mg/L	0.100	0.0976	98	80 - 120	2013-05-31
Xylene		1	mg/L	0.300	0.284	95	80 - 120	2013-05-31

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-12-4	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

Report Date: June 3, 2013
TNM-LF-2000-7

Work Order: 13052401
Bob Durham

Page Number: 10 of 10
West of Monument, NM

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

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Company Name: A / Phone #: 708-221-1111

Address: (Street, City, Zip) Fax #: 715-261-1120

Contact Person: _____ E-mail: _____

Invoice to: Mr. J. J. O'Connell

Project #: 10-1 Project Name: _____

Project Location (including state): Illinois

Wm. H. ...

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ATINO

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Summary Report

Camille Bryant
Nova Safety & Environmental
2057 Commerce St.
Midland, TX 79703

Report Date: June 4, 2013

Work Order: 13052318



Project Location: West of Monument, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-7
SRS #: TNM-LF-2000-7

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330108	MW-3	water	2013-05-21	12:40	2013-05-22
330109	MW-6	water	2013-05-21	12:55	2013-05-22
330110	MW-7	water	2013-05-21	13:25	2013-05-22
330111	MW-8	water	2013-05-21	13:00	2013-05-22
330112	MW-10	water	2013-05-21	16:30	2013-05-22
330113	MW-15	water	2013-05-21	16:20	2013-05-22
330114	MW-16	water	2013-05-21	13:15	2013-05-22
330115	MW-23	water	2013-05-21	12:30	2013-05-22
330116	MW-31	water	2013-05-21	15:25	2013-05-22
330117	MW-37	water	2013-05-21	15:50	2013-05-22
330118	MW-56	water	2013-05-21	15:35	2013-05-22
330119	MW-2	water	2013-05-21	13:40	2013-05-22
330120	MW-4	water	2013-05-21	12:15	2013-05-22
330121	MW-32	water	2013-05-21	15:40	2013-05-22
330122	MW-13	water	2013-05-21	16:10	2013-05-22
330123	MW-1	water	2013-05-21	14:16	2013-05-22
330124	MW-5	water	2013-05-21	14:00	2013-05-22
330125	MW-38	water	2013-05-21	16:00	2013-05-22

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
330108 - MW-3	<0.00100	<0.00100	<0.00100	<0.00100
330109 - MW-6	<0.00100	<0.00100	<0.00100	<0.00100
330110 - MW-7	<0.00100	<0.00100	<0.00100	<0.00100
330111 - MW-8	<0.00100	<0.00100	<0.00100	<0.00100
330112 - MW-10	<0.00100	<0.00100	<0.00100	<0.00100

continued ...

... continued

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
330113 - MW-15	<0.00100	<0.00100	<0.00100	<0.00100
330114 - MW-16	<0.00100	<0.00100	<0.00100	<0.00100
330115 - MW-23	<0.00100	<0.00100	<0.00100	<0.00100
330116 - MW-31	<0.00100	<0.00100	<0.00100	<0.00100
330117 - MW-37	<0.00100	<0.00100	<0.00100	<0.00100
330118 - MW-56	<0.00100	<0.00100	<0.00100	<0.00100
330119 - MW-2	<0.00100	<0.00100	<0.00100	<0.00100
330120 - MW-4	<0.00100	<0.00100	<0.00100	<0.00100
330121 - MW-32	<0.00100	<0.00100	<0.00100	<0.00100
330122 - MW-13	<0.00100	<0.00100	<0.00100	<0.00100
330123 - MW-1	<0.00100	<0.00100	<0.00100	<0.00100
330124 - MW-5	<0.00100	<0.00100	<0.00100	<0.00100
330125 - MW-38	0.00120	<0.00100	<0.00100	<0.00100



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E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Camille Bryant
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: June 4, 2013

Work Order: 13052318



Project Location: West of Monument, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-7
SRS #: TNM-LF-2000-7

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330108	MW-3	water	2013-05-21	12:40	2013-05-22
330109	MW-6	water	2013-05-21	12:55	2013-05-22
330110	MW-7	water	2013-05-21	13:25	2013-05-22
330111	MW-8	water	2013-05-21	13:00	2013-05-22
330112	MW-10	water	2013-05-21	16:30	2013-05-22
330113	MW-15	water	2013-05-21	16:20	2013-05-22
330114	MW-16	water	2013-05-21	13:15	2013-05-22
330115	MW-23	water	2013-05-21	12:30	2013-05-22
330116	MW-31	water	2013-05-21	15:25	2013-05-22
330117	MW-37	water	2013-05-21	15:50	2013-05-22
330118	MW-56	water	2013-05-21	15:35	2013-05-22
330119	MW-2	water	2013-05-21	13:40	2013-05-22
330120	MW-4	water	2013-05-21	12:15	2013-05-22
330121	MW-32	water	2013-05-21	15:40	2013-05-22
330122	MW-13	water	2013-05-21	16:10	2013-05-22
330123	MW-1	water	2013-05-21	14:16	2013-05-22
330124	MW-5	water	2013-05-21	14:00	2013-05-22

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
330125	MW-38	water	2013-05-21	16:00	2013-05-22

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 31 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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QC Batch 101831 - CCV (1)	26
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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2013-05-22 and assigned to work order 13052318. Samples for work order 13052318 were received intact without headspace and at a temperature of 3.0 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	86254	2013-05-28 at 14:29	101800	2013-05-28 at 14:29
BTEX	S 8021B	86255	2013-05-28 at 14:29	101802	2013-05-28 at 14:29
BTEX	S 8021B	86278	2013-05-29 at 14:49	101831	2013-05-29 at 14:49
BTEX	S 8021B	86343	2013-05-30 at 14:57	101908	2013-05-30 at 14:57
BTEX	S 8021B	86382	2013-06-03 at 15:18	101959	2013-06-03 at 15:18

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13052318 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

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Analytical Report

Sample: 330108 - MW-3

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 101800
Prep Batch: 86254

Analytical Method: S 8021B
Date Analyzed: 2013-05-28
Sample Preparation: 2013-05-28

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0990	mg/L	1	0.100	99	80 - 120
4-Bromofluorobenzene (4-BFB)			0.107	mg/L	1	0.100	107	80 - 120

Sample: 330109 - MW-6

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 101831
Prep Batch: 86278

Analytical Method: S 8021B
Date Analyzed: 2013-05-29
Sample Preparation: 2013-05-29

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0962	mg/L	1	0.100	96	80 - 120
4-Bromofluorobenzene (4-BFB)			0.106	mg/L	1	0.100	106	80 - 120

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Sample: 330110 - MW-7

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 101831
Prep Batch: 86278

Analytical Method: S 8021B
Date Analyzed: 2013-05-29
Sample Preparation: 2013-05-29

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0940	mg/L	1	0.100	94	80 - 120
4-Bromofluorobenzene (4-BFB)			0.110	mg/L	1	0.100	110	80 - 120

Sample: 330111 - MW-8

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 101831
Prep Batch: 86278

Analytical Method: S 8021B
Date Analyzed: 2013-05-29
Sample Preparation: 2013-05-29

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0935	mg/L	1	0.100	94	80 - 120
4-Bromofluorobenzene (4-BFB)			0.105	mg/L	1	0.100	105	80 - 120

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Sample: 330112 - MW-10

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 101800

Prep Batch: 86254

Analytical Method: S 8021B

Date Analyzed: 2013-05-28

Sample Preparation: 2013-05-28

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0993	mg/L	1	0.100	99	80 - 120
4-Bromofluorobenzene (4-BFB)			0.107	mg/L	1	0.100	107	80 - 120

Sample: 330113 - MW-15

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 101800

Prep Batch: 86254

Analytical Method: S 8021B

Date Analyzed: 2013-05-28

Sample Preparation: 2013-05-28

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.100	mg/L	1	0.100	100	80 - 120
4-Bromofluorobenzene (4-BFB)			0.108	mg/L	1	0.100	108	80 - 120

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Sample: 330114 - MW-16

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 101831

Prep Batch: 86278

Analytical Method: S 8021B

Date Analyzed: 2013-05-29

Sample Preparation: 2013-05-29

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0933	mg/L	1	0.100	93	80 - 120
4-Bromofluorobenzene (4-BFB)			0.111	mg/L	1	0.100	111	80 - 120

Sample: 330115 - MW-23

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 101800

Prep Batch: 86254

Analytical Method: S 8021B

Date Analyzed: 2013-05-28

Sample Preparation: 2013-05-28

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0976	mg/L	1	0.100	98	80 - 120
4-Bromofluorobenzene (4-BFB)			0.107	mg/L	1	0.100	107	80 - 120

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Sample: 330116 - MW-31

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 101800
Prep Batch: 86254

Analytical Method: S 8021B
Date Analyzed: 2013-05-28
Sample Preparation: 2013-05-28

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0995	mg/L	1	0.100	100	80 - 120
4-Bromofluorobenzene (4-BFB)			0.106	mg/L	1	0.100	106	80 - 120

Sample: 330117 - MW-37

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 101800
Prep Batch: 86254

Analytical Method: S 8021B
Date Analyzed: 2013-05-28
Sample Preparation: 2013-05-28

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0995	mg/L	1	0.100	100	80 - 120
4-Bromofluorobenzene (4-BFB)			0.107	mg/L	1	0.100	107	80 - 120

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Sample: 330118 - MW-56

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 101802

Prep Batch: 86255

Analytical Method: S 8021B

Date Analyzed: 2013-05-28

Sample Preparation: 2013-05-28

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0973	mg/L	1	0.100	97	80 - 120
4-Bromofluorobenzene (4-BFB)			0.106	mg/L	1	0.100	106	80 - 120

Sample: 330119 - MW-2

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 101959

Prep Batch: 86382

Analytical Method: S 8021B

Date Analyzed: 2013-06-03

Sample Preparation: 2013-06-03

Prep Method: S 5030B

Analyzed By: JS

Prepared By: JS

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0936	mg/L	1	0.100	94	80 - 120
4-Bromofluorobenzene (4-BFB)			0.112	mg/L	1	0.100	112	80 - 120

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Sample: 330120 - MW-4

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 101908

Prep Batch: 86343

Analytical Method: S 8021B

Date Analyzed: 2013-05-30

Sample Preparation: 2013-05-30

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0953	mg/L	1	0.100	95	80 - 120
4-Bromofluorobenzene (4-BFB)			0.109	mg/L	1	0.100	109	80 - 120

Sample: 330121 - MW-32

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 101908

Prep Batch: 86343

Analytical Method: S 8021B

Date Analyzed: 2013-05-30

Sample Preparation: 2013-05-30

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0933	mg/L	1	0.100	93	80 - 120
4-Bromofluorobenzene (4-BFB)			0.106	mg/L	1	0.100	106	80 - 120

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Sample: 330122 - MW-13

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 101802

Prep Batch: 86255

Analytical Method: S 8021B

Date Analyzed: 2013-05-28

Sample Preparation: 2013-05-28

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.112	mg/L	1	0.100	112	80 - 120
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	0.129	mg/L	1	0.100	129	80 - 120

Sample: 330123 - MW-1

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 101908

Prep Batch: 86343

Analytical Method: S 8021B

Date Analyzed: 2013-05-30

Sample Preparation: 2013-05-30

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	80 - 120
4-Bromofluorobenzene (4-BFB)			0.108	mg/L	1	0.100	108	80 - 120

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Sample: 330124 - MW-5

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 101908

Prep Batch: 86343

Analytical Method: S 8021B

Date Analyzed: 2013-05-30

Sample Preparation: 2013-05-30

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	80 - 120
4-Bromofluorobenzene (4-BFB)			0.114	mg/L	1	0.100	114	80 - 120

Sample: 330125 - MW-38

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 101908

Prep Batch: 86343

Analytical Method: S 8021B

Date Analyzed: 2013-05-30

Sample Preparation: 2013-05-30

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00120	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0947	mg/L	1	0.100	95	80 - 120
4-Bromofluorobenzene (4-BFB)	Qsr	Qsr	0.129	mg/L	1	0.100	129	80 - 120

Method Blanks

Method Blank (1) QC Batch: 101800

QC Batch: 101800 Date Analyzed: 2013-05-28 Analyzed By: MT
Prep Batch: 86254 QC Preparation: 2013-05-28 Prepared By: MT

Parameter	Flag	Cert	MDL		Units	RL
			Result			
Benzene		1	<0.000567		mg/L	0.001
Toluene		1	<0.000518		mg/L	0.001
Ethylbenzene		1	<0.000518		mg/L	0.001
Xylene		1	<0.000548		mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.100	mg/L	1	0.100	100	80 - 120
4-Bromofluorobenzene (4-BFB)			0.106	mg/L	1	0.100	106	80 - 120

Method Blank (1) QC Batch: 101802

QC Batch: 101802 Date Analyzed: 2013-05-28 Analyzed By: MT
Prep Batch: 86255 QC Preparation: 2013-05-28 Prepared By: MT

Parameter	Flag	Cert	MDL		Units	RL
			Result			
Benzene		1	<0.000567		mg/L	0.001
Toluene		1	<0.000518		mg/L	0.001
Ethylbenzene		1	<0.000518		mg/L	0.001
Xylene		1	<0.000548		mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0961	mg/L	1	0.100	96	80 - 120
4-Bromofluorobenzene (4-BFB)			0.105	mg/L	1	0.100	105	80 - 120

Method Blank (1) QC Batch: 101831

QC Batch: 101831 Date Analyzed: 2013-05-29 Analyzed By: MT
Prep Batch: 86278 QC Preparation: 2013-05-29 Prepared By: MT

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Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000567	mg/L	0.001
Toluene		1	<0.000518	mg/L	0.001
Ethylbenzene		1	<0.000518	mg/L	0.001
Xylene		1	<0.000548	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0975	mg/L	1	0.100	98	80 - 120
4-Bromofluorobenzene (4-BFB)			0.107	mg/L	1	0.100	107	80 - 120

Method Blank (1) QC Batch: 101908

QC Batch: 101908
Prep Batch: 86343

Date Analyzed: 2013-05-30
QC Preparation: 2013-05-30

Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000567	mg/L	0.001
Toluene		1	<0.000518	mg/L	0.001
Ethylbenzene		1	<0.000518	mg/L	0.001
Xylene		1	<0.000548	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0948	mg/L	1	0.100	95	80 - 120
4-Bromofluorobenzene (4-BFB)			0.104	mg/L	1	0.100	104	80 - 120

Method Blank (1) QC Batch: 101959

QC Batch: 101959
Prep Batch: 86382

Date Analyzed: 2013-06-03
QC Preparation: 2013-06-03

Analyzed By: JS
Prepared By: JS

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000567	mg/L	0.001
Toluene		1	<0.000518	mg/L	0.001
Ethylbenzene		1	<0.000518	mg/L	0.001
Xylene		1	<0.000548	mg/L	0.001

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0878	mg/L	1	0.100	88	80 - 120
4-Bromofluorobenzene (4-BFB)			0.102	mg/L	1	0.100	102	80 - 120

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 101800
Prep Batch: 86254

Date Analyzed: 2013-05-28
QC Preparation: 2013-05-28

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.104	mg/L	1	0.100	<0.000567	104	80 - 120
Toluene		1	0.104	mg/L	1	0.100	<0.000518	104	80 - 120
Ethylbenzene		1	0.104	mg/L	1	0.100	<0.000518	104	80 - 120
Xylene		1	0.309	mg/L	1	0.300	<0.000548	103	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.102	mg/L	1	0.100	<0.000567	102	80 - 120	2	20
Toluene		1	0.103	mg/L	1	0.100	<0.000518	103	80 - 120	1	20
Ethylbenzene		1	0.103	mg/L	1	0.100	<0.000518	103	80 - 120	1	20
Xylene		1	0.306	mg/L	1	0.300	<0.000548	102	80 - 120	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.0976	mg/L	1	0.100	101	98	80 - 120
4-Bromofluorobenzene (4-BFB)	0.103	0.101	mg/L	1	0.100	103	101	80 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 101802
Prep Batch: 86255

Date Analyzed: 2013-05-28
QC Preparation: 2013-05-28

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0993	mg/L	1	0.100	<0.000567	99	80 - 120
Toluene		1	0.101	mg/L	1	0.100	<0.000518	101	80 - 120
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000518	101	80 - 120
Xylene		1	0.303	mg/L	1	0.300	<0.000548	101	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0986	mg/L	1	0.100	<0.000567	99	80 - 120	1	20
Toluene		1	0.100	mg/L	1	0.100	<0.000518	100	80 - 120	1	20
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000518	101	80 - 120	0	20
Xylene		1	0.302	mg/L	1	0.300	<0.000548	101	80 - 120	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0959	0.0952	mg/L	1	0.100	96	95	80 - 120
4-Bromofluorobenzene (4-BFB)	0.0999	0.0999	mg/L	1	0.100	100	100	80 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 101831
Prep Batch: 86278

Date Analyzed: 2013-05-29
QC Preparation: 2013-05-29

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.100	mg/L	1	0.100	<0.000567	100	80 - 120
Toluene		1	0.102	mg/L	1	0.100	<0.000518	102	80 - 120
Ethylbenzene		1	0.106	mg/L	1	0.100	<0.000518	106	80 - 120
Xylene		1	0.312	mg/L	1	0.300	<0.000548	104	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0953	mg/L	1	0.100	<0.000567	95	80 - 120	5	20
Toluene		1	0.0947	mg/L	1	0.100	<0.000518	95	80 - 120	8	20
Ethylbenzene		1	0.0968	mg/L	1	0.100	<0.000518	97	80 - 120	9	20
Xylene		1	0.284	mg/L	1	0.300	<0.000548	95	80 - 120	9	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0989	0.0937	mg/L	1	0.100	99	94	80 - 120
4-Bromofluorobenzene (4-BFB)	0.104	0.0976	mg/L	1	0.100	104	98	80 - 120

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Laboratory Control Spike (LCS-1)

QC Batch: 101908
Prep Batch: 86343

Date Analyzed: 2013-05-30
QC Preparation: 2013-05-30

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0920	mg/L	1	0.100	<0.000567	92	80 - 120
Toluene		1	0.0928	mg/L	1	0.100	<0.000518	93	80 - 120
Ethylbenzene		1	0.0925	mg/L	1	0.100	<0.000518	92	80 - 120
Xylene		1	0.277	mg/L	1	0.300	<0.000548	92	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0947	mg/L	1	0.100	<0.000567	95	80 - 120	3	20
Toluene		1	0.0957	mg/L	1	0.100	<0.000518	96	80 - 120	3	20
Ethylbenzene		1	0.0951	mg/L	1	0.100	<0.000518	95	80 - 120	3	20
Xylene		1	0.286	mg/L	1	0.300	<0.000548	95	80 - 120	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0911	0.0923	mg/L	1	0.100	91	92	80 - 120
4-Bromofluorobenzene (4-BFB)	0.0964	0.0969	mg/L	1	0.100	96	97	80 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 101959
Prep Batch: 86382

Date Analyzed: 2013-06-03
QC Preparation: 2013-06-03

Analyzed By: JS
Prepared By: JS

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0925	mg/L	1	0.100	<0.000567	92	80 - 120
Toluene		1	0.0923	mg/L	1	0.100	<0.000518	92	80 - 120
Ethylbenzene		1	0.0920	mg/L	1	0.100	<0.000518	92	80 - 120
Xylene		1	0.276	mg/L	1	0.300	<0.000548	92	80 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0950	mg/L	1	0.100	<0.000567	95	80 - 120	3	20
Toluene		1	0.0973	mg/L	1	0.100	<0.000518	97	80 - 120	5	20

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Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene		1	0.0998	mg/L	1	0.100	<0.000518	100	80 - 120	8	20
Xylene		1	0.292	mg/L	1	0.300	<0.000548	97	80 - 120	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0890	0.0911	mg/L	1	0.100	89	91	80 - 120
4-Bromofluorobenzene (4-BFB)	0.0962	0.0987	mg/L	1	0.100	96	99	80 - 120

Matrix Spike (MS-1) Spiked Sample: 330115

QC Batch: 101800
Prep Batch: 86254

Date Analyzed: 2013-05-28
QC Preparation: 2013-05-28

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.102	mg/L	1	0.100	<0.000567	102	64.6 - 120
Toluene		1	0.102	mg/L	1	0.100	<0.000518	102	62.9 - 123
Ethylbenzene		1	0.0997	mg/L	1	0.100	<0.000518	100	64.2 - 123
Xylene		1	0.298	mg/L	1	0.300	<0.000548	99	63.1 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0947	mg/L	1	0.100	<0.000567	95	64.6 - 120	7	20
Toluene		1	0.0933	mg/L	1	0.100	<0.000518	93	62.9 - 123	8	20
Ethylbenzene		1	0.0907	mg/L	1	0.100	<0.000518	91	64.2 - 123	9	20
Xylene		1	0.272	mg/L	1	0.300	<0.000548	90	63.1 - 121	9	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0991	0.101	mg/L	1	0.1	99	101	80 - 120
4-Bromofluorobenzene (4-BFB)	0.103	0.103	mg/L	1	0.1	103	103	80 - 120

Matrix Spike (MS-1) Spiked Sample: 330236

QC Batch: 101802
Prep Batch: 86255

Date Analyzed: 2013-05-28
QC Preparation: 2013-05-28

Analyzed By: MT
Prepared By: MT

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Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.103	mg/L	1	0.100	<0.000567	103	64.6 - 120
Toluene		1	0.103	mg/L	1	0.100	<0.000518	103	62.9 - 123
Ethylbenzene		1	0.103	mg/L	1	0.100	<0.000518	103	64.2 - 123
Xylene		1	0.306	mg/L	1	0.300	<0.000548	102	63.1 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.100	mg/L	1	0.100	<0.000567	100	64.6 - 120	3	20
Toluene		1	0.102	mg/L	1	0.100	<0.000518	102	62.9 - 123	1	20
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000518	101	64.2 - 123	2	20
Xylene		1	0.302	mg/L	1	0.300	<0.000548	100	63.1 - 121	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0960	0.0959	mg/L	1	0.1	96	96	80 - 120
4-Bromofluorobenzene (4-BFB)	0.0974	0.0973	mg/L	1	0.1	97	97	80 - 120

Matrix Spike (MS-1) Spiked Sample: 330258

QC Batch: 101831
Prep Batch: 86278

Date Analyzed: 2013-05-29
QC Preparation: 2013-05-29

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.102	mg/L	1	0.100	<0.000567	102	64.6 - 120
Toluene		1	0.103	mg/L	1	0.100	<0.000518	103	62.9 - 123
Ethylbenzene		1	0.100	mg/L	1	0.100	<0.000518	100	64.2 - 123
Xylene		1	0.300	mg/L	1	0.300	<0.000548	100	63.1 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.100	mg/L	1	0.100	<0.000567	100	64.6 - 120	2	20
Toluene		1	0.101	mg/L	1	0.100	<0.000518	101	62.9 - 123	2	20
Ethylbenzene		1	0.0998	mg/L	1	0.100	<0.000518	100	64.2 - 123	0	20
Xylene		1	0.298	mg/L	1	0.300	<0.000548	99	63.1 - 121	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0969	0.0952	mg/L	1	0.1	97	95	80 - 120
4-Bromofluorobenzene (4-BFB)	0.0987	0.0997	mg/L	1	0.1	99	100	80 - 120

Matrix Spike (MS-1) Spiked Sample: 330252

QC Batch: 101908
Prep Batch: 86343

Date Analyzed: 2013-05-30
QC Preparation: 2013-05-30

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.939	mg/L	5	0.500	0.446	99	64.6 - 120
Toluene		1	0.544	mg/L	5	0.500	0.0474	99	62.9 - 123
Ethylbenzene		1	0.601	mg/L	5	0.500	0.101	100	64.2 - 123
Xylene		1	1.46	mg/L	5	1.50	0.0083	97	63.1 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.936	mg/L	5	0.500	0.446	98	64.6 - 120	0	20
Toluene		1	0.537	mg/L	5	0.500	0.0474	98	62.9 - 123	1	20
Ethylbenzene		1	0.596	mg/L	5	0.500	0.101	99	64.2 - 123	1	20
Xylene		1	1.46	mg/L	5	1.50	0.0083	97	63.1 - 121	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.502	0.487	mg/L	5	0.5	100	97	80 - 120
4-Bromofluorobenzene (4-BFB)	0.508	0.498	mg/L	5	0.5	102	100	80 - 120

Matrix Spike (MS-1) Spiked Sample: 330772

QC Batch: 101959
Prep Batch: 86382

Date Analyzed: 2013-06-03
QC Preparation: 2013-06-03

Analyzed By: JS
Prepared By: JS

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Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0838	mg/L	1	0.100	<0.000567	84	64.6 - 120
Toluene		1	0.0856	mg/L	1	0.100	<0.000518	86	62.9 - 123
Ethylbenzene		1	0.0872	mg/L	1	0.100	<0.000518	87	64.2 - 123
Xylene		1	0.259	mg/L	1	0.300	<0.000548	86	63.1 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0787	mg/L	1	0.100	<0.000567	79	64.6 - 120	6	20
Toluene		1	0.0806	mg/L	1	0.100	<0.000518	81	62.9 - 123	6	20
Ethylbenzene		1	0.0808	mg/L	1	0.100	<0.000518	81	64.2 - 123	8	20
Xylene		1	0.242	mg/L	1	0.300	<0.000548	81	63.1 - 121	7	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0901	0.0892	mg/L	1	0.1	90	89	80 - 120
4-Bromofluorobenzene (4-BFB)	0.0990	0.0972	mg/L	1	0.1	99	97	80 - 120

Calibration Standards

Standard (CCV-1)

QC Batch: 101800

Date Analyzed: 2013-05-28

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.105	105	80 - 120	2013-05-28
Toluene		1	mg/L	0.100	0.105	105	80 - 120	2013-05-28
Ethylbenzene		1	mg/L	0.100	0.104	104	80 - 120	2013-05-28
Xylene		1	mg/L	0.300	0.311	104	80 - 120	2013-05-28

Standard (CCV-2)

QC Batch: 101800

Date Analyzed: 2013-05-28

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.103	103	80 - 120	2013-05-28
Toluene		1	mg/L	0.100	0.103	103	80 - 120	2013-05-28
Ethylbenzene		1	mg/L	0.100	0.105	105	80 - 120	2013-05-28
Xylene		1	mg/L	0.300	0.308	103	80 - 120	2013-05-28

Standard (CCV-3)

QC Batch: 101800

Date Analyzed: 2013-05-28

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2013-05-28
Toluene		1	mg/L	0.100	0.102	102	80 - 120	2013-05-28
Ethylbenzene		1	mg/L	0.100	0.105	105	80 - 120	2013-05-28
Xylene		1	mg/L	0.300	0.305	102	80 - 120	2013-05-28

Standard (CCV-1)

QC Batch: 101802

Date Analyzed: 2013-05-28

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2013-05-28
Toluene		1	mg/L	0.100	0.102	102	80 - 120	2013-05-28
Ethylbenzene		1	mg/L	0.100	0.104	104	80 - 120	2013-05-28
Xylene		1	mg/L	0.300	0.308	102	80 - 120	2013-05-28

Standard (CCV-2)

QC Batch: 101802

Date Analyzed: 2013-05-28

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.102	102	80 - 120	2013-05-28
Toluene		1	mg/L	0.100	0.102	102	80 - 120	2013-05-28
Ethylbenzene		1	mg/L	0.100	0.105	105	80 - 120	2013-05-28
Xylene		1	mg/L	0.300	0.310	103	80 - 120	2013-05-28

Standard (CCV-3)

QC Batch: 101802

Date Analyzed: 2013-05-28

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.100	100	80 - 120	2013-05-28
Toluene		1	mg/L	0.100	0.101	101	80 - 120	2013-05-28
Ethylbenzene		1	mg/L	0.100	0.0996	100	80 - 120	2013-05-28
Xylene		1	mg/L	0.300	0.298	99	80 - 120	2013-05-28

Standard (CCV-1)

QC Batch: 101831

Date Analyzed: 2013-05-29

Analyzed By: MT

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Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0998	100	80 - 120	2013-05-29
Toluene		1	mg/L	0.100	0.101	101	80 - 120	2013-05-29
Ethylbenzene		1	mg/L	0.100	0.101	101	80 - 120	2013-05-29
Xylene		1	mg/L	0.300	0.302	101	80 - 120	2013-05-29

Standard (CCV-2)

QC Batch: 101831

Date Analyzed: 2013-05-29

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.100	100	80 - 120	2013-05-29
Toluene		1	mg/L	0.100	0.102	102	80 - 120	2013-05-29
Ethylbenzene		1	mg/L	0.100	0.100	100	80 - 120	2013-05-29
Xylene		1	mg/L	0.300	0.300	100	80 - 120	2013-05-29

Standard (CCV-3)

QC Batch: 101831

Date Analyzed: 2013-05-29

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0936	94	80 - 120	2013-05-29
Toluene		1	mg/L	0.100	0.0947	95	80 - 120	2013-05-29
Ethylbenzene		1	mg/L	0.100	0.0954	95	80 - 120	2013-05-29
Xylene		1	mg/L	0.300	0.285	95	80 - 120	2013-05-29

Standard (CCV-1)

QC Batch: 101908

Date Analyzed: 2013-05-30

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0947	95	80 - 120	2013-05-30

continued ...

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standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		1	mg/L	0.100	0.0954	95	80 - 120	2013-05-30
Ethylbenzene		1	mg/L	0.100	0.0953	95	80 - 120	2013-05-30
Xylene		1	mg/L	0.300	0.285	95	80 - 120	2013-05-30

Standard (CCV-2)

QC Batch: 101908

Date Analyzed: 2013-05-30

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0958	96	80 - 120	2013-05-30
Toluene		1	mg/L	0.100	0.0966	97	80 - 120	2013-05-30
Ethylbenzene		1	mg/L	0.100	0.0953	95	80 - 120	2013-05-30
Xylene		1	mg/L	0.300	0.286	95	80 - 120	2013-05-30

Standard (CCV-1)

QC Batch: 101959

Date Analyzed: 2013-06-03

Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0975	98	80 - 120	2013-06-03
Toluene		1	mg/L	0.100	0.0991	99	80 - 120	2013-06-03
Ethylbenzene		1	mg/L	0.100	0.101	101	80 - 120	2013-06-03
Xylene		1	mg/L	0.300	0.294	98	80 - 120	2013-06-03

Standard (CCV-2)

QC Batch: 101959

Date Analyzed: 2013-06-03

Analyzed By: JS

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0966	97	80 - 120	2013-06-03

continued ...

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standard continued . . .

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Toluene		1	mg/L	0.100	0.0967	97	80 - 120	2013-06-03
Ethylbenzene		1	mg/L	0.100	0.0967	97	80 - 120	2013-06-03
Xylene		1	mg/L	0.300	0.290	97	80 - 120	2013-06-03

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-13-9	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

Report Date: June 4, 2013
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Bob Durham

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The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

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Carrollton, Texas 75006
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email: lab@traceanalysis.com

Company Name: Nova		Phone #: (432) 570-7720											
Address: (Street, City, Zip) 2057 Commerce Drive		Fax #:											
Contact Person: Camille Bryant		E-mail:											
Invoice to: (If different from above)													
Project #: TNM-LF-2000-7		Project Name: Bob DeCham											
Project Location (including state):		Sampler Signature: [Signature]											
LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD				SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE
330108	MW-3	3	VDA X	X				X				5/21/12	12:40
109	MW-6												12:55
110	MW-7												1:25
111	MW-8												1:30
112	MW-10												1:30
113	MW-15												1:35
114	MW-16												1:35
115	MW-23												1:35
116	MW-31												1:35
117	MW-37												1:35
118	MW-56												1:35

LAB USE ONLY	RECEIVED BY:	COMPANY:	DATE:	TIME:	RECEIVED BY:	COMPANY:	DATE:	TIME:	INST	OBS	COR
	Robert Bell	Nov	5/21/12	07:30	Robert Bell	Nov	5/21	07:31			
	Robert Bell	Nov	5/22	8:11	TA	Nov	5/22/12	8:11			
	TA	Nov	5/22/12	13:13	Robert Bell	Nov	5/22/12	13:13			

ANALYSIS REQUEST (Circle or Specify Method No.)	LAB USE ONLY	REMARKS:
MTBE 8021 / 802 / 8260 / 624		
STEX 8021 / 802 / 8260 / 624		
TPH 418.1 / TX1005 / TX1005 EX/C35		
TPH 8015 GRO / DRO / TVHC		
PAH 8270 / 625		
Total Metals Ag As Ba Cd Cr Pb Se Hg 8010/200.7		
TCLP Metals Ag As Ba Cd Cr Pb Se Hg		
TCLP Volatiles		
TCLP Semi Volatiles		
TCLP Pesticides		
RCI		
GC/MS Vol. 8260 / 624		
GC/MS Semi. Vol. 8270 / 625		
PCBs 8082 / 608		
Pesticides 8081 / 608		
BOD, TSS, PH		
Moisture Content		
Cl, F, SO ₄ , NO ₃ , N, NO ₂ , P, PO ₄ , P, Alkalinity		
Na, Ca, Mg, K, TDS, EC		
Turn Around Time if different from standard		

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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E-Mail lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Camille Bryant
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: September 4, 2013

Work Order: 13082001



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
339087	MW-1	water	2013-08-19	11:00	2013-08-20
339088	MW-13	water	2013-08-19	11:40	2013-08-20
339089	MW-2	water	2013-08-19	12:05	2013-08-20
339090	MW-32	water	2013-08-19	12:41	2013-08-20
339091	MW-4	water	2013-08-19	13:19	2013-08-20
339092	MW-5	water	2013-08-19	13:30	2013-08-20
339093	MW-56	water	2013-08-19	14:02	2013-08-20
339094	MW-38	water	2013-08-19	14:43	2013-08-20
339095	MW-12	water	2013-08-19	15:17	2013-08-20

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 20 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink that reads "Michael Abel". The signature is written in a cursive style with a large, stylized 'M' and 'A'.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2013-08-20 and assigned to work order 13082001. Samples for work order 13082001 were received intact without headspace and at a temperature of 4.7 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	88465	2013-08-26 at 12:59	104419	2013-08-27 at 08:45
BTEX	S 8021B	88614	2013-08-28 at 13:31	104602	2013-08-29 at 15:12
BTEX	S 8021B	88693	2013-09-03 at 15:13	104683	2013-09-03 at 15:13

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13082001 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 339087 - MW-1

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 104683
Prep Batch: 88693

Analytical Method: S 8021B
Date Analyzed: 2013-09-03
Sample Preparation: 2013-09-03

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0970	mg/L	1	0.100	97	75.4 - 120
4-Bromofluorobenzene (4-BFB)			0.0977	mg/L	1	0.100	98	74.6 - 120

Sample: 339088 - MW-13

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 104683
Prep Batch: 88693

Analytical Method: S 8021B
Date Analyzed: 2013-09-03
Sample Preparation: 2013-09-03

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0985	mg/L	1	0.100	98	75.4 - 120
4-Bromofluorobenzene (4-BFB)			0.104	mg/L	1	0.100	104	74.6 - 120

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Sample: 339089 - MW-2

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 104683
Prep Batch: 88693

Analytical Method: S 8021B
Date Analyzed: 2013-09-03
Sample Preparation: 2013-09-03

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00120	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0979	mg/L	1	0.100	98	75.4 - 120
4-Bromofluorobenzene (4-BFB)			0.109	mg/L	1	0.100	109	74.6 - 120

Sample: 339090 - MW-32

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 104683
Prep Batch: 88693

Analytical Method: S 8021B
Date Analyzed: 2013-09-03
Sample Preparation: 2013-09-03

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0934	mg/L	1	0.100	93	75.4 - 120
4-Bromofluorobenzene (4-BFB)			0.0948	mg/L	1	0.100	95	74.6 - 120

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Sample: 339091 - MW-4

Laboratory: Midland
Analysis: BTEX
QC Batch: 104419
Prep Batch: 88465

Analytical Method: S 8021B
Date Analyzed: 2013-08-27
Sample Preparation: 2013-08-26

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0930	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0990	mg/L	1	0.100	99	70 - 130

Sample: 339092 - MW-5

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 104683
Prep Batch: 88693

Analytical Method: S 8021B
Date Analyzed: 2013-09-03
Sample Preparation: 2013-09-03

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00370	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	0.00120	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0899	mg/L	1	0.100	90	75.4 - 120
4-Bromofluorobenzene (4-BFB)			0.102	mg/L	1	0.100	102	74.6 - 120

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Sample: 339093 - MW-56

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 104602
Prep Batch: 88614

Analytical Method: S 8021B
Date Analyzed: 2013-08-29
Sample Preparation: 2013-08-28

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0806	mg/L	1	0.100	81	68.8 - 120
4-Bromofluorobenzene (4-BFB)			0.0706	mg/L	1	0.100	71	67.5 - 120

Sample: 339094 - MW-38

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 104683
Prep Batch: 88693

Analytical Method: S 8021B
Date Analyzed: 2013-09-03
Sample Preparation: 2013-09-03

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0931	mg/L	1	0.100	93	75.4 - 120
4-Bromofluorobenzene (4-BFB)			0.0945	mg/L	1	0.100	94	74.6 - 120

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Sample: 339095 - MW-12

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 104683
Prep Batch: 88693

Analytical Method: S 8021B
Date Analyzed: 2013-09-03
Sample Preparation: 2013-09-03

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00140	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene		1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0914	mg/L	1	0.100	91	75.4 - 120
4-Bromofluorobenzene (4-BFB)			0.118	mg/L	1	0.100	118	74.6 - 120

Method Blanks

Method Blank (1) QC Batch: 104419

QC Batch: 104419 Date Analyzed: 2013-08-27 Analyzed By: AK
Prep Batch: 88465 QC Preparation: 2013-08-26 Prepared By: AK

Parameter	Flag	Cert	MDL		Units	RL
			Result			
Benzene		2	<0.000200		mg/L	0.001
Toluene		2	<0.000300		mg/L	0.001
Ethylbenzene		2	<0.000400		mg/L	0.001
Xylene		2	<0.00120		mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.122	mg/L	1	0.100	122	70 - 130
4-Bromofluorobenzene (4-BFB)			0.110	mg/L	1	0.100	110	70 - 130

Method Blank (1) QC Batch: 104602

QC Batch: 104602 Date Analyzed: 2013-08-29 Analyzed By: MT
Prep Batch: 88614 QC Preparation: 2013-08-28 Prepared By: MT

Parameter	Flag	Cert	MDL		Units	RL
			Result			
Benzene		1	<0.000387		mg/L	0.001
Toluene		1	<0.000465		mg/L	0.001
Ethylbenzene		1	<0.000442		mg/L	0.001
Xylene		1	0.00140		mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0990	mg/L	1	0.100	99	68.8 - 120
4-Bromofluorobenzene (4-BFB)			0.0790	mg/L	1	0.100	79	67.5 - 120

Method Blank (1) QC Batch: 104683

QC Batch: 104683 Date Analyzed: 2013-09-03 Analyzed By: MT
Prep Batch: 88693 QC Preparation: 2013-09-03 Prepared By: MT

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Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000567	mg/L	0.001
Toluene		1	<0.000518	mg/L	0.001
Ethylbenzene		1	<0.000518	mg/L	0.001
Xylene		1	<0.000548	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0991	mg/L	1	0.100	99	75.4 - 120
4-Bromofluorobenzene (4-BFB)			0.100	mg/L	1	0.100	100	74.6 - 120

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 104419
Prep Batch: 88465

Date Analyzed: 2013-08-27
QC Preparation: 2013-08-26

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	0.110	mg/L	1	0.100	<0.000200	110	70 - 130
Toluene		2	0.105	mg/L	1	0.100	<0.000300	105	70 - 130
Ethylbenzene		2	0.103	mg/L	1	0.100	<0.000400	103	70 - 130
Xylene		2	0.308	mg/L	1	0.300	<0.00120	103	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2	0.112	mg/L	1	0.100	<0.000200	112	70 - 130	2	20
Toluene		2	0.107	mg/L	1	0.100	<0.000300	107	70 - 130	2	20
Ethylbenzene		2	0.104	mg/L	1	0.100	<0.000400	104	70 - 130	1	20
Xylene		2	0.312	mg/L	1	0.300	<0.00120	104	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.116	0.114	mg/L	1	0.100	116	114	70 - 130
4-Bromofluorobenzene (4-BFB)	0.115	0.110	mg/L	1	0.100	115	110	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 104602
Prep Batch: 88614

Date Analyzed: 2013-08-29
QC Preparation: 2013-08-28

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0820	mg/L	1	0.100	<0.000387	82	71.6 - 120
Toluene		1	0.0830	mg/L	1	0.100	<0.000465	83	71.6 - 120
Ethylbenzene		1	0.0870	mg/L	1	0.100	<0.000442	87	71.1 - 120
Xylene		1	0.264	mg/L	1	0.300	0.0014	88	72.5 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0800	mg/L	1	0.100	<0.000387	80	71.6 - 120	2	20
Toluene		1	0.0810	mg/L	1	0.100	<0.000465	81	71.6 - 120	2	20
Ethylbenzene		1	0.0844	mg/L	1	0.100	<0.000442	84	71.1 - 120	3	20
Xylene		1	0.256	mg/L	1	0.300	0.0014	85	72.5 - 120	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0860	0.0890	mg/L	1	0.100	86	89	68.8 - 120
4-Bromofluorobenzene (4-BFB)	0.0810	0.0790	mg/L	1	0.100	81	79	67.5 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 104683
Prep Batch: 88693

Date Analyzed: 2013-09-03
QC Preparation: 2013-09-03

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0957	mg/L	1	0.100	<0.000567	96	74.3 - 120
Toluene		1	0.0874	mg/L	1	0.100	<0.000518	87	77.6 - 120
Ethylbenzene		1	0.0929	mg/L	1	0.100	<0.000518	93	78.5 - 120
Xylene		1	0.285	mg/L	1	0.300	<0.000548	95	77.6 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0974	mg/L	1	0.100	<0.000567	97	74.3 - 120	2	20
Toluene		1	0.0891	mg/L	1	0.100	<0.000518	89	77.6 - 120	2	20
Ethylbenzene		1	0.0945	mg/L	1	0.100	<0.000518	94	78.5 - 120	2	20
Xylene		1	0.290	mg/L	1	0.300	<0.000548	97	77.6 - 120	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.102	0.103	mg/L	1	0.100	102	103	75.4 - 120
4-Bromofluorobenzene (4-BFB)	0.103	0.104	mg/L	1	0.100	103	104	74.6 - 120

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Matrix Spike (MS-1) Spiked Sample: 339091

QC Batch: 104419
Prep Batch: 88465

Date Analyzed: 2013-08-27
QC Preparation: 2013-08-26

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	0.103	mg/L	1	0.100	<0.000200	103	70 - 130
Toluene		2	0.0965	mg/L	1	0.100	<0.000300	96	70 - 130
Ethylbenzene		2	0.0889	mg/L	1	0.100	<0.000400	89	70 - 130
Xylene		2	0.264	mg/L	1	0.300	<0.00120	88	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2	0.111	mg/L	1	0.100	<0.000200	111	70 - 130	8	20
Toluene		2	0.103	mg/L	1	0.100	<0.000300	103	70 - 130	6	20
Ethylbenzene		2	0.0912	mg/L	1	0.100	<0.000400	91	70 - 130	3	20
Xylene		2	0.270	mg/L	1	0.300	<0.00120	90	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.104	0.0917	mg/L	1	0.1	104	92	70 - 130
4-Bromofluorobenzene (4-BFB)	0.106	0.0952	mg/L	1	0.1	106	95	70 - 130

Matrix Spike (MS-1) Spiked Sample: 339379

QC Batch: 104602
Prep Batch: 88614

Date Analyzed: 2013-08-29
QC Preparation: 2013-08-28

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0806	mg/L	1	0.100	<0.000387	81	54.2 - 120
Toluene		1	0.0810	mg/L	1	0.100	<0.000465	81	55.6 - 120
Ethylbenzene		1	0.0833	mg/L	1	0.100	<0.000442	83	59.6 - 120
Xylene		1	0.252	mg/L	1	0.300	<0.000413	84	61.4 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0811	mg/L	1	0.100	<0.000387	81	54.2 - 120	1	20
Toluene		1	0.0810	mg/L	1	0.100	<0.000465	81	55.6 - 120	0	20

continued ...

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matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene		1	0.0833	mg/L	1	0.100	<0.000442	83	59.6 - 120	0	20
Xylene		1	0.252	mg/L	1	0.300	<0.000413	84	61.4 - 120	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0852	0.0896	mg/L	1	0.1	85	90	68.8 - 120
4-Bromofluorobenzene (4-BFB)	0.0852	0.0831	mg/L	1	0.1	85	83	67.5 - 120

Matrix Spike (MS-1) Spiked Sample: 339397

QC Batch: 104683
Prep Batch: 88693

Date Analyzed: 2013-09-03
QC Preparation: 2013-09-03

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	1.91	mg/L	10	1.00	0.998	91	50.2 - 129
Toluene		1	0.812	mg/L	10	1.00	<0.00518	81	58.1 - 129
Ethylbenzene		1	0.924	mg/L	10	1.00	0.0259	90	58.1 - 127
Xylene		1	2.65	mg/L	10	3.00	<0.00548	88	53.1 - 128

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	1.89	mg/L	10	1.00	0.998	89	50.2 - 129	1	20
Toluene		1	0.832	mg/L	10	1.00	<0.00518	83	58.1 - 129	2	20
Ethylbenzene		1	0.953	mg/L	10	1.00	0.0259	93	58.1 - 127	3	20
Xylene		1	2.71	mg/L	10	3.00	<0.00548	90	53.1 - 128	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.998	0.959	mg/L	10	1	100	96	75.4 - 120
4-Bromofluorobenzene (4-BFB)	1.03	0.988	mg/L	10	1	103	99	74.6 - 120

Calibration Standards

Standard (CCV-1)

QC Batch: 104419

Date Analyzed: 2013-08-27

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.108	108	80 - 120	2013-08-27
Toluene		2	mg/L	0.100	0.103	103	80 - 120	2013-08-27
Ethylbenzene		2	mg/L	0.100	0.101	101	80 - 120	2013-08-27
Xylene		2	mg/L	0.300	0.301	100	80 - 120	2013-08-27

Standard (CCV-2)

QC Batch: 104419

Date Analyzed: 2013-08-27

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.105	105	80 - 120	2013-08-27
Toluene		2	mg/L	0.100	0.102	102	80 - 120	2013-08-27
Ethylbenzene		2	mg/L	0.100	0.0994	99	80 - 120	2013-08-27
Xylene		2	mg/L	0.300	0.296	99	80 - 120	2013-08-27

Standard (CCV-1)

QC Batch: 104602

Date Analyzed: 2013-08-29

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0800	80	80 - 120	2013-08-29
Toluene		1	mg/L	0.100	0.0830	83	80 - 120	2013-08-29
Ethylbenzene		1	mg/L	0.100	0.0880	88	80 - 120	2013-08-29
Xylene		1	mg/L	0.300	0.294	98	80 - 120	2013-08-29

Standard (CCV-2)

QC Batch: 104602

Date Analyzed: 2013-08-29

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0825	82	80 - 120	2013-08-29
Toluene		1	mg/L	0.100	0.0842	84	80 - 120	2013-08-29
Ethylbenzene		1	mg/L	0.100	0.0863	86	80 - 120	2013-08-29
Xylene		1	mg/L	0.300	0.260	87	80 - 120	2013-08-29

Standard (CCV-3)

QC Batch: 104602

Date Analyzed: 2013-08-29

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0817	82	80 - 120	2013-08-29
Toluene		1	mg/L	0.100	0.0827	83	80 - 120	2013-08-29
Ethylbenzene		1	mg/L	0.100	0.0824	82	80 - 120	2013-08-29
Xylene		1	mg/L	0.300	0.248	83	80 - 120	2013-08-29

Standard (CCV-1)

QC Batch: 104683

Date Analyzed: 2013-09-03

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0979	98	80 - 120	2013-09-03
Toluene		1	mg/L	0.100	0.0893	89	80 - 120	2013-09-03
Ethylbenzene		1	mg/L	0.100	0.0950	95	80 - 120	2013-09-03
Xylene		1	mg/L	0.300	0.289	96	80 - 120	2013-09-03

Standard (CCV-2)

QC Batch: 104683

Date Analyzed: 2013-09-03

Analyzed By: MT

Report Date: September 4, 2013
TNM-LF-2000-07

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Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0908	91	80 - 120	2013-09-03
Toluene		1	mg/L	0.100	0.0832	83	80 - 120	2013-09-03
Ethylbenzene		1	mg/L	0.100	0.0912	91	80 - 120	2013-09-03
Xylene		1	mg/L	0.300	0.278	93	80 - 120	2013-09-03

Standard (CCV-3)

QC Batch: 104683

Date Analyzed: 2013-09-03

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0889	89	80 - 120	2013-09-03
Toluene		1	mg/L	0.100	0.0800	80	80 - 120	2013-09-03
Ethylbenzene		1	mg/L	0.100	0.0872	87	80 - 120	2013-09-03
Xylene		1	mg/L	0.300	0.269	90	80 - 120	2013-09-03

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-13-9	Lubbock
2	NELAP	T104704392-12-4	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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Lubbock, Texas 79424
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1 (800) 378-12965002 Basin Street, Suite A1
Midland, Texas 79703
Tel (432) 689-6301
Fax (432) 689-6313BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750
1 (888) 588-3443Company Name: **NOVA** Phone #: **432 520 7720**Address: (Street, City, Zip) **2057 Commerce Drive** Fax #:Contact Person: **CAMILLE BRYANT** E-mail:

Invoice to: (If different from above)

Project #: **NM-2002** Project Name: **BOB DURHAM**

Project Location (including state):

Sampler Signature: *[Signature]*

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME
339087	MW-1	3	VOA	X				X				X	8/19/13	1100	
088	MW-13	1												1140	
089	MW-2													1205	
090	MW-32													1241	
091	MW-4													1319	
092	MW-5													1330	
093	MW-56													1402	
094	MW-38													1443	
095	MW-12													1517	

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE 8021 / 602 / 8260 / 624	ETEX 8027 602 / 8260 / 624	TPH 418-1 (TX1005) TX1005 EX(C35)	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCBs 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ -P, Alkalinity	Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard
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Relinquished by: AMES GENTRY NOVA	Company:	Date: 8/20/13	Time: 8:20	Received by: A. Hunsley	Company:	Date: 8-20-13	Time: 8:20	INST: IR-1	LAB USE ONLY	REMARKS: Midland - 200
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST: OBS 48°C	Intact Y/N	
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST: COR 7°C	Headspace Y/N/NA	
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST: OBS	Log-in-Review	
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST: COR		

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Carrier #

Summary Report

(Corrected Report)

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX 79703

Report Date: December 5, 2013

Work Order: 13112004



Project Location: West of Monument, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-7
SRS #: TNM-LF-2000-7

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
347010	MW-1	water	2013-11-19	15:40	2013-11-20
347011	MW-10	water	2013-11-19	14:30	2013-11-20
347012	MW-11	water	2013-11-19	14:50	2013-11-20
347013	MW-13	water	2013-11-19	15:16	2013-11-20
347014	MW-15	water	2013-11-19	14:37	2013-11-20
347015	MW-16	water	2013-11-19	16:08	2013-11-20
347016	MW-20	water	2013-11-19	13:13	2013-11-20
347017	MW-21	water	2013-11-19	13:17	2013-11-20
347018	MW-23	water	2013-11-19	13:48	2013-11-20
347019	MW-24	water	2013-11-19	12:20	2013-11-20
347020	MW-25	water	2013-11-19	12:22	2013-11-20
347021	MW-27	water	2013-11-19	14:01	2013-11-20
347022	MW-3	water	2013-11-19	13:14	2013-11-20
347023	MW-30	water	2013-11-19	13:56	2013-11-20
347024	MW-31	water	2013-11-19	14:10	2013-11-20
347025	MW-32	water	2013-11-19	14:15	2013-11-20
347026	MW-33	water	2013-11-19	14:25	2013-11-20
347027	MW-37	water	2013-11-19	14:33	2013-11-20
347028	MW-4	water	2013-11-19	14:35	2013-11-20
347029	MW-56	water	2013-11-19	14:44	2013-11-20
347030	MW-6	water	2013-11-19	15:36	2013-11-20
347031	MW-7	water	2013-11-19	15:39	2013-11-20
347032	MW-8	water	2013-11-19	15:51	2013-11-20
347033	MW-2	water	2013-11-19	16:00	2013-11-20
347034	MW-38	water	2013-11-19	16:10	2013-11-20
347035	MW-12	water	2013-11-19	16:25	2013-11-20
347036	MW-5	water	2013-11-19	16:30	2013-11-20

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
347010 - MW-1	0.260	0.00290	0.291	0.648
347011 - MW-10	<0.00100	<0.00100	<0.00100	<0.00100
347012 - MW-11	<0.00100	<0.00100	<0.00100	<0.00100
347013 - MW-13	<0.00100	<0.00100	<0.00100	<0.00100
347014 - MW-15	<0.00100	<0.00100	<0.00100	<0.00100
347015 - MW-16	<0.00100	<0.00100	<0.00100	<0.00100
347016 - MW-20	<0.00100	<0.00100	<0.00100	<0.00100
347017 - MW-21	<0.00100	<0.00100	<0.00100	<0.00100
347018 - MW-23	<0.00100	<0.00100	<0.00100	<0.00100
347019 - MW-24	<0.00100	<0.00100	<0.00100	<0.00100
347020 - MW-25	<0.00100	<0.00100	<0.00100	<0.00100
347021 - MW-27	<0.00100	<0.00100	<0.00100	<0.00100
347022 - MW-3	<0.00100	<0.00100	<0.00100	<0.00100
347023 - MW-30	<0.00100	<0.00100	<0.00100	<0.00100
347024 - MW-31	<0.00100	<0.00100	<0.00100	<0.00100
347025 - MW-32	<0.00100	<0.00100	<0.00100	<0.00100
347026 - MW-33	<0.00100	<0.00100	<0.00100	<0.00100
347027 - MW-37	<0.00100	<0.00100	<0.00100	<0.00100
347028 - MW-4	<0.00100	<0.00100	<0.00100	<0.00100
347029 - MW-56	<0.00100	<0.00100	<0.00100	<0.00100
347030 - MW-6	<0.00100	<0.00100	<0.00100	<0.00100
347031 - MW-7	<0.00100	<0.00100	<0.00100	<0.00100
347032 - MW-8	<0.00100	<0.00100	<0.00100	<0.00100
347033 - MW-2	<0.00100	<0.00100	<0.00100	<0.00100
347034 - MW-38	<0.00100	<0.00100	<0.00100	<0.00100
347035 - MW-12	<0.00100	<0.00100	<0.00100	<0.00100
347036 - MW-5	<0.00100	<0.00100	<0.00100	<0.00300

Sample: 347010 - MW-1

Param	Flag	Result	Units	RL
Naphthalene	Qs	<0.000200	mg/L	0.0002
2-Methylnaphthalene	Qs	<0.000200	mg/L	0.0002
1-Methylnaphthalene	Qs	<0.000200	mg/L	0.0002
Acenaphthylene	Qs	<0.000200	mg/L	0.0002
Acenaphthene	Qs	<0.000200	mg/L	0.0002
Dibenzofuran	Qs	<0.000200	mg/L	0.0002
Fluorene	Qs	<0.000200	mg/L	0.0002
Anthracene	Qs	<0.000200	mg/L	0.0002
Phenanthrene	Qs	<0.000200	mg/L	0.0002
Fluoranthene	Qr, Qs	<0.000200	mg/L	0.0002
Pyrene	Qs	<0.000200	mg/L	0.0002
Benzo(a)anthracene	Qs	<0.000200	mg/L	0.0002
Chrysene	Qs	<0.000200	mg/L	0.0002
Benzo(b)fluoranthene	Qs	<0.000200	mg/L	0.0002
Benzo(k)fluoranthene	Qs	<0.000200	mg/L	0.0002
Benzo(a)pyrene	Qs	<0.000200	mg/L	0.0002
Indeno(1,2,3-cd)pyrene	Qs	<0.000200	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.000200	mg/L	0.0002

continued ...

sample 347010 continued ...

Param	Flag	Result	Units	RL
Benzo(g,h,i)perylene	Qs	<0.000200	mg/L	0.0002

Sample: 347013 - MW-13

Param	Flag	Result	Units	RL
Naphthalene	Qs	<0.000200	mg/L	0.0002
2-Methylnaphthalene	Qs	<0.000200	mg/L	0.0002
1-Methylnaphthalene	Qs	<0.000200	mg/L	0.0002
Acenaphthylene	Qs	<0.000200	mg/L	0.0002
Acenaphthene	Qs	<0.000200	mg/L	0.0002
Dibenzofuran	Qs	<0.000200	mg/L	0.0002
Fluorene	Qs	<0.000200	mg/L	0.0002
Anthracene	Qs	<0.000200	mg/L	0.0002
Phenanthrene	Qs	<0.000200	mg/L	0.0002
Fluoranthene	Qr,Qs	<0.000200	mg/L	0.0002
Pyrene	Qs	<0.000200	mg/L	0.0002
Benzo(a)anthracene	Qs	<0.000200	mg/L	0.0002
Chrysene	Qs	<0.000200	mg/L	0.0002
Benzo(b)fluoranthene	Qs	<0.000200	mg/L	0.0002
Benzo(k)fluoranthene	Qs	<0.000200	mg/L	0.0002
Benzo(a)pyrene	Qs	<0.000200	mg/L	0.0002
Indeno(1,2,3-cd)pyrene	Qs	0.00193	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.000200	mg/L	0.0002
Benzo(g,h,i)perylene	Qs	<0.000200	mg/L	0.0002

Sample: 347015 - MW-16

Param	Flag	Result	Units	RL
Naphthalene	Qs	<0.000200	mg/L	0.0002
2-Methylnaphthalene	Qs	<0.000200	mg/L	0.0002
1-Methylnaphthalene	Qs	<0.000200	mg/L	0.0002
Acenaphthylene	Qs	<0.000200	mg/L	0.0002
Acenaphthene	Qs	<0.000200	mg/L	0.0002
Dibenzofuran	Qs	<0.000200	mg/L	0.0002
Fluorene	Qs	<0.000200	mg/L	0.0002
Anthracene	Qs	<0.000200	mg/L	0.0002
Phenanthrene	Qs	<0.000200	mg/L	0.0002
Fluoranthene	Qr,Qs	<0.000200	mg/L	0.0002
Pyrene	Qs	<0.000200	mg/L	0.0002
Benzo(a)anthracene	Qs	<0.000200	mg/L	0.0002
Chrysene	Qs	<0.000200	mg/L	0.0002
Benzo(h)fluoranthene	Qs	<0.000200	mg/L	0.0002
Benzo(k)fluoranthene	Qs	<0.000200	mg/L	0.0002
Benzo(a)pyrene	Qs	<0.000200	mg/L	0.0002

continued ...

sample 347015 continued ...

Param	Flag	Result	Units	RL
Indeno(1,2,3-cd)pyrene	Qs	<0.000200	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.000200	mg/L	0.0002
Benzo(g,h,i)perylene	Qs	<0.000200	mg/L	0.0002

Sample: 347032 - MW-8

Param	Flag	Result	Units	RL
Naphthalene	Qs	<0.000200	mg/L	0.0002
2-Methylnaphthalene	Qs	<0.000200	mg/L	0.0002
1-Methylnaphthalene	Qs	<0.000200	mg/L	0.0002
Acenaphthylene	Qs	<0.000200	mg/L	0.0002
Acenaphthene	Qs	<0.000200	mg/L	0.0002
Dibenzofuran	Qs	<0.000200	mg/L	0.0002
Fluorene	Qs	<0.000200	mg/L	0.0002
Anthracene	Qs	<0.000200	mg/L	0.0002
Phenanthrene	Qs	<0.000200	mg/L	0.0002
Fluoranthene	Qr, Qs	<0.000200	mg/L	0.0002
Pyrene	Qs	<0.000200	mg/L	0.0002
Benzo(a)anthracene	Qs	<0.000200	mg/L	0.0002
Chrysene	Qs	<0.000200	mg/L	0.0002
Benzo(b)fluoranthene	Qs	<0.000200	mg/L	0.0002
Benzo(k)fluoranthene	Qs	<0.000200	mg/L	0.0002
Benzo(a)pyrene	Qs	<0.000200	mg/L	0.0002
Indeno(1,2,3-cd)pyrene	Qs	<0.000200	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.000200	mg/L	0.0002
Benzo(g,h,i)perylene	Qs	<0.000200	mg/L	0.0002

Sample: 347034 - MW-38

Param	Flag	Result	Units	RL
Naphthalene	Qs	<0.000200	mg/L	0.0002
2-Methylnaphthalene	Qs	<0.000200	mg/L	0.0002
1-Methylnaphthalene	Qs	<0.000200	mg/L	0.0002
Acenaphthylene	Qs	<0.000200	mg/L	0.0002
Acenaphthene	Qs	<0.000200	mg/L	0.0002
Dibenzofuran	Qs	<0.000200	mg/L	0.0002
Fluorene	Qs	<0.000200	mg/L	0.0002
Anthracene	Qs	<0.000200	mg/L	0.0002
Phenanthrene	Qs	<0.000200	mg/L	0.0002
Fluoranthene	Qr, Qs	<0.000200	mg/L	0.0002
Pyrene	Qs	<0.000200	mg/L	0.0002
Benzo(a)anthracene	Qs	<0.000200	mg/L	0.0002
Chrysene	Qs	<0.000200	mg/L	0.0002
Benzo(b)fluoranthene	Qs	<0.000200	mg/L	0.0002

continued ...

sample 347034 continued ...

Param	Flag	Result	Units	RL
Benzo(k)fluoranthene	Qs	<0.000200	mg/L	0.0002
Benzo(a)pyrene	Qs	<0.000200	mg/L	0.0002
Indeno(1,2,3-cd)pyrene	Qs	<0.000200	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.000200	mg/L	0.0002
Benzo(g,h,i)perylene	Qs	<0.000200	mg/L	0.0002

Sample: 347035 - MW-12

Param	Flag	Result	Units	RL
Naphthalene	Qs	<0.000200	mg/L	0.0002
2-Methylnaphthalene	Qs	<0.000200	mg/L	0.0002
1-Methylnaphthalene	Qs	<0.000200	mg/L	0.0002
Acenaphthylene	Qs	<0.000200	mg/L	0.0002
Acenaphthene	Qs	<0.000200	mg/L	0.0002
Dibenzofuran	Qs	<0.000200	mg/L	0.0002
Fluorene	Qs	<0.000200	mg/L	0.0002
Anthracene	Qs	<0.000200	mg/L	0.0002
Phenanthrene	Qs	<0.000200	mg/L	0.0002
Fluoranthene	Qr, Qs	<0.000200	mg/L	0.0002
Pyrene	Qs	<0.000200	mg/L	0.0002
Benzo(a)anthracene	Qs	<0.000200	mg/L	0.0002
Chrysene	Qs	<0.000200	mg/L	0.0002
Benzo(b)fluoranthene	Qs	<0.000200	mg/L	0.0002
Benzo(k)fluoranthene	Qs	<0.000200	mg/L	0.0002
Benzo(a)pyrene	Qs	<0.000200	mg/L	0.0002
Indeno(1,2,3-cd)pyrene	Qs	<0.000200	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.000200	mg/L	0.0002
Benzo(g,h,i)perylene	Qs	<0.000200	mg/L	0.0002

Sample: 347036 - MW-5

Param	Flag	Result	Units	RL
Naphthalene	Qs	<0.000200	mg/L	0.0002
2-Methylnaphthalene	Qs	<0.000200	mg/L	0.0002
1-Methylnaphthalene	Qs	<0.000200	mg/L	0.0002
Acenaphthylene	Qs	<0.000200	mg/L	0.0002
Acenaphthene	Qs	<0.000200	mg/L	0.0002
Dibenzofuran	Qs	<0.000200	mg/L	0.0002
Fluorene	Qs	<0.000200	mg/L	0.0002
Anthracene	Qs	<0.000200	mg/L	0.0002
Phenanthrene	Qs	<0.000200	mg/L	0.0002
Fluoranthene	Qr, Qs	<0.000200	mg/L	0.0002
Pyrene	Qs	<0.000200	mg/L	0.0002
Benzo(a)anthracene	Qs	<0.000200	mg/L	0.0002

continued ...

sample 347036 continued ...

Param	Flag	Result	Units	RL
Chrysene	Qs	<0.000200	mg/L	0.0002
Benzo(b)fluoranthene	Qs	<0.000200	mg/L	0.0002
Benzo(k)fluoranthene	Qs	<0.000200	mg/L	0.0002
Benzo(a)pyrene	Qs	<0.000200	mg/L	0.0002
Indeno(1,2,3-cd)pyrene	Qs	<0.000200	mg/L	0.0002
Dibenzo(a,h)anthracene	Qs	<0.000200	mg/L	0.0002
Benzo(g,h,i)perylene	Qs	<0.000200	mg/L	0.0002



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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

(Corrected Report)

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: December 5, 2013

Work Order: 13112004



Project Location: West of Monument, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-7
SRS #: TNM-LF-2000-7

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
347010	MW-1	water	2013-11-19	15:40	2013-11-20
347011	MW-10	water	2013-11-19	14:30	2013-11-20
347012	MW-11	water	2013-11-19	14:50	2013-11-20
347013	MW-13	water	2013-11-19	15:16	2013-11-20
347014	MW-15	water	2013-11-19	14:37	2013-11-20
347015	MW-16	water	2013-11-19	16:08	2013-11-20
347016	MW-20	water	2013-11-19	13:13	2013-11-20
347017	MW-21	water	2013-11-19	13:17	2013-11-20
347018	MW-23	water	2013-11-19	13:48	2013-11-20
347019	MW-24	water	2013-11-19	12:20	2013-11-20
347020	MW-25	water	2013-11-19	12:22	2013-11-20
347021	MW-27	water	2013-11-19	14:01	2013-11-20
347022	MW-3	water	2013-11-19	13:14	2013-11-20
347023	MW-30	water	2013-11-19	13:56	2013-11-20
347024	MW-31	water	2013-11-19	14:10	2013-11-20

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
347025	MW-32	water	2013-11-19	14:15	2013-11-20
347026	MW-33	water	2013-11-19	14:25	2013-11-20
347027	MW-37	water	2013-11-19	14:33	2013-11-20
347028	MW-4	water	2013-11-19	14:35	2013-11-20
347029	MW-56	water	2013-11-19	14:44	2013-11-20
347030	MW-6	water	2013-11-19	15:36	2013-11-20
347031	MW-7	water	2013-11-19	15:39	2013-11-20
347032	MW-8	water	2013-11-19	15:51	2013-11-20
347033	MW-2	water	2013-11-19	16:00	2013-11-20
347034	MW-38	water	2013-11-19	16:10	2013-11-20
347035	MW-12	water	2013-11-19	16:25	2013-11-20
347036	MW-5	water	2013-11-19	16:30	2013-11-20

Report Corrections (Work Order 13112004)

- 12/5/13: Corrected PAH on sample 347036.

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 41 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2013-11-20 and assigned to work order 13112004. Samples for work order 13112004 were received intact without headspace and at a temperature of 1.7 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	90530	2013-11-20 at 12:06	106954	2013-11-21 at 11:42
BTEX	S 8021B	90552	2013-11-21 at 08:56	106991	2013-11-22 at 09:37
BTEX	S 8021B	90602	2013-11-22 at 13:56	107033	2013-11-25 at 10:59
PAH	S 8270D	90788	2013-11-26 at 15:00	107220	2013-12-03 at 13:09

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13112004 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 347010 - MW-1

Laboratory: Midland
Analysis: BTEX
QC Batch: 107033
Prep Batch: 90602

Analytical Method: S 8021B
Date Analyzed: 2013-11-25
Sample Preparation: 2013-11-22

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		2	0.260	mg/L	1	0.00100
Toluene	B	2	0.00290	mg/L	1	0.00100
Ethylbenzene		2	0.291	mg/L	1	0.00100
Xylene		2	0.648	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.104	mg/L	1	0.100	104	70 - 130
4-Bromofluorobenzene (4-BFB)	Q _{sr}	Q _{sr}	0.135	mg/L	1	0.100	135	70 - 130

Sample: 347010 - MW-1

Laboratory: Lubbock
Analysis: PAH
QC Batch: 107220
Prep Batch: 90788

Analytical Method: S 8270D
Date Analyzed: 2013-12-03
Sample Preparation: 2013-11-26

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
2-Methylnaphthalene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
1-Methylnaphthalene	Q _s ,U		<0.000200	mg/L	1	0.000200
Acenaphthylene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Aceunaphthene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Dibenzofuran	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Fluorene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Anthracene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Phenanthrene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Fluoranthene	Q _r ,Q _s ,U	1	<0.000200	mg/L	1	0.000200
Pyrene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Benzo(a)anthracene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Chrysene	Q _s ,U	1	<0.000200	mg/L	1	0.000200

continued ...

Report Date: December 5, 2013
TNM-LF-2000-7

Work Order: 13112004
Bob Durham

Page Number: 7 of 41
West of Monument, NM

sample 347010 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzo(b)fluoranthene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(a)pyrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene	Qs,U	1	<0.000200	mg/L	1	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	Qsr	Qsr	2.41	mg/L	1	8.00	30	40 - 110
2-Fluorobiphenyl	Qsr	Qsr	3.39	mg/L	1	8.00	42	50 - 110
Terphenyl-d14	Qsr	Qsr	2.41	mg/L	1	8.00	30	50 - 135

Sample: 347011 - MW-10

Laboratory: Midland
Analysis: BTEX
QC Batch: 106991
Prep Batch: 90552

Analytical Method: S 8021B
Date Analyzed: 2013-11-22
Sample Preparation: 2013-11-21

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2	<0.00100	mg/L	1	0.00100
Toluene	U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2	<0.00100	mg/L	1	0.00100
Xylene	U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0974	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0877	mg/L	1	0.100	88	70 - 130

Sample: 347012 - MW-11

Laboratory: Midland
Analysis: BTEX
QC Batch: 106954
Prep Batch: 90530

Analytical Method: S 8021B
Date Analyzed: 2013-11-21
Sample Preparation: 2013-11-20

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2	<0.00100	mg/L	1	0.00100
Toluene	U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2	<0.00100	mg/L	1	0.00100
Xylene	U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)	¹ Q _{sr}	Q _{sr}	0.0310	mg/L	1	0.100	31	70 - 130
4-Bromofluorobenzene (4-BFB)	² Q _{sr}	Q _{sr}	0.0289	mg/L	1	0.100	29	70 - 130

Sample: 347013 - MW-13

Laboratory: Midland

Analysis: BTEX

QC Batch: 106954

Prep Batch: 90530

Analytical Method: S 8021B

Date Analyzed: 2013-11-21

Sample Preparation: 2013-11-20

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2	<0.00100	mg/L	1	0.00100
Toluene	U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2	<0.00100	mg/L	1	0.00100
Xylene	U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.112	mg/L	1	0.100	112	70 - 130
4-Bromofluorobenzene (4-BFB)			0.103	mg/L	1	0.100	103	70 - 130

Sample: 347013 - MW-13

Laboratory: Lubbock

Analysis: PAH

QC Batch: 107220

Prep Batch: 90788

Analytical Method: S 8270D

Date Analyzed: 2013-12-03

Sample Preparation: 2013-11-26

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	Q _{s,U}	1	<0.000200	mg/L	1	0.000200
2-Methylnaphthalene	Q _{s,U}	1	<0.000200	mg/L	1	0.000200
1-Methylnaphthalene	Q _{s,U}		<0.000200	mg/L	1	0.000200

continued ...

sample 347013 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Acenaphthylene	Q _{s,U}	1	<0.000200	mg/L	1	0.000200
Acenaphthene	Q _{s,U}	1	<0.000200	mg/L	1	0.000200
Dibenzofuran	Q _{s,U}	1	<0.000200	mg/L	1	0.000200
Fluorene	Q _{s,U}	1	<0.000200	mg/L	1	0.000200
Anthracene	Q _{s,U}	1	<0.000200	mg/L	1	0.000200
Phenanthrene	Q _{s,U}	1	<0.000200	mg/L	1	0.000200
Fluoranthene	Q _{r,Q_{s,U}}	1	<0.000200	mg/L	1	0.000200
Pyrene	Q _{s,U}	1	<0.000200	mg/L	1	0.000200
Benzo(a)anthracene	Q _{s,U}	1	<0.000200	mg/L	1	0.000200
Chrysene	Q _{s,U}	1	<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene	Q _{s,U}	1	<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene	Q _{s,U}	1	<0.000200	mg/L	1	0.000200
Benzo(a)pyrene	Q _{s,U}	1	<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene	Q _s	1	0.00193	mg/L	1	0.000200
Dibenzo(a,h)anthracene	Q _{s,U}	1	<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene	Q _{s,U}	1	<0.000200	mg/L	1	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	Q _{sr}	Q _{sr}	2.66	mg/L	1	8.00	33	40 - 110
2-Fluorobiphenyl			4.07	mg/L	1	8.00	51	50 - 110
Terphenyl-d14	Q _{sr}	Q _{sr}	3.00	mg/L	1	8.00	38	50 - 135

Sample: 347014 - MW-15

Laboratory: Midland
Analysis: BTEX
QC Batch: 106954
Prep Batch: 90530

Analytical Method: S 8021B
Date Analyzed: 2013-11-21
Sample Preparation: 2013-11-20

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0980	mg/L	1	0.100	98	70 - 130

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sample continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.0894	mg/L	1	0.100	89	70 - 130

Sample: 347015 - MW-16

Laboratory: Midland
Analysis: BTEX
QC Batch: 106954
Prep Batch: 90530

Analytical Method: S 8021B
Date Analyzed: 2013-11-21
Sample Preparation: 2013-11-20

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2	<0.00100	mg/L	1	0.00100
Toluene	U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2	<0.00100	mg/L	1	0.00100
Xylene	U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0955	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0940	mg/L	1	0.100	94	70 - 130

Sample: 347015 - MW-16

Laboratory: Lubbock
Analysis: PAH
QC Batch: 107220
Prep Batch: 90788

Analytical Method: S 8270D
Date Analyzed: 2013-12-03
Sample Preparation: 2013-11-26

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	Qs,U	1	<0.000200	mg/L	1	0.000200
2-Methylnaphthalene	Qs,U	1	<0.000200	mg/L	1	0.000200
1-Methylnaphthalene	Qs,U		<0.000200	mg/L	1	0.000200
Acenaphthylene	Qs,U	1	<0.000200	mg/L	1	0.000200
Acenaphthene	Qs,U	1	<0.000200	mg/L	1	0.000200
Dibenzofuran	Qs,U	1	<0.000200	mg/L	1	0.000200
Fluorene	Qs,U	1	<0.000200	mg/L	1	0.000200
Anthracene	Qs,U	1	<0.000200	mg/L	1	0.000200
Phenanthrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Fluoranthene	Qr,Qs,U	1	<0.000200	mg/L	1	0.000200

continued ...

sample 347015 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Pyrene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Benzo(a)anthracene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Chrysene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Benzo(a)pyrene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene	Q _s ,U	1	<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene	Q _s ,U	1	<0.000200	mg/L	1	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	Q _{sr}	Q _{sr}	2.00	mg/L	1	8.00	25	40 - 110
2-Fluorobiphenyl	Q _{sr}	Q _{sr}	2.99	mg/L	1	8.00	37	50 - 110
Terphenyl-d14	Q _{sr}	Q _{sr}	2.21	mg/L	1	8.00	28	50 - 135

Sample: 347016 - MW-20

Laboratory: Midland
Analysis: BTEX
QC Batch: 106954
Prep Batch: 90530

Analytical Method: S 8021B
Date Analyzed: 2013-11-21
Sample Preparation: 2013-11-20

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2	<0.00100	mg/L	1	0.00100
Toluene	U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2	<0.00100	mg/L	1	0.00100
Xylene	U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.100	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0910	mg/L	1	0.100	91	70 - 130

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Sample: 347017 - MW-21

Laboratory: Midland
Analysis: BTEX
QC Batch: 106954
Prep Batch: 90530

Analytical Method: S 8021B
Date Analyzed: 2013-11-21
Sample Preparation: 2013-11-20

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0990	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0893	mg/L	1	0.100	89	70 - 130

Sample: 347018 - MW-23

Laboratory: Midland
Analysis: BTEX
QC Batch: 106954
Prep Batch: 90530

Analytical Method: S 8021B
Date Analyzed: 2013-11-21
Sample Preparation: 2013-11-20

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0973	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0881	mg/L	1	0.100	88	70 - 130

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Sample: 347019 - MW-24

Laboratory: Midland

Analysis: BTEX

QC Batch: 106954

Prep Batch: 90530

Analytical Method: S 8021B

Date Analyzed: 2013-11-21

Sample Preparation: 2013-11-20

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0986	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0898	mg/L	1	0.100	90	70 - 130

Sample: 347020 - MW-25

Laboratory: Midland

Analysis: BTEX

QC Batch: 106954

Prep Batch: 90530

Analytical Method: S 8021B

Date Analyzed: 2013-11-21

Sample Preparation: 2013-11-20

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0989	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0889	mg/L	1	0.100	89	70 - 130

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Sample: 347021 - MW-27

Laboratory: Midland

Analysis: BTEX

QC Batch: 106954

Prep Batch: 90530

Analytical Method: S 8021B

Date Analyzed: 2013-11-21

Sample Preparation: 2013-11-20

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0991	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0885	mg/L	1	0.100	88	70 - 130

Sample: 347022 - MW-3

Laboratory: Midland

Analysis: BTEX

QC Batch: 106954

Prep Batch: 90530

Analytical Method: S 8021B

Date Analyzed: 2013-11-21

Sample Preparation: 2013-11-20

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0975	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0891	mg/L	1	0.100	89	70 - 130

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Sample: 347023 - MW-30

Laboratory: Midland
Analysis: BTEX
QC Batch: 106954
Prep Batch: 90530

Analytical Method: S 8021B
Date Analyzed: 2013-11-21
Sample Preparation: 2013-11-20

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0987	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0873	mg/L	1	0.100	87	70 - 130

Sample: 347024 - MW-31

Laboratory: Midland
Analysis: BTEX
QC Batch: 106954
Prep Batch: 90530

Analytical Method: S 8021B
Date Analyzed: 2013-11-21
Sample Preparation: 2013-11-20

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0994	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0904	mg/L	1	0.100	90	70 - 130

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Sample: 347025 - MW-32

Laboratory: Midland

Analysis: BTEX

QC Batch: 106954

Prep Batch: 90530

Analytical Method: S 8021B

Date Analyzed: 2013-11-21

Sample Preparation: 2013-11-20

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0984	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0882	mg/L	1	0.100	88	70 - 130

Sample: 347026 - MW-33

Laboratory: Midland

Analysis: BTEX

QC Batch: 106954

Prep Batch: 90530

Analytical Method: S 8021B

Date Analyzed: 2013-11-21

Sample Preparation: 2013-11-20

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0989	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0890	mg/L	1	0.100	89	70 - 130

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Sample: 347027 - MW-37

Laboratory: Midland
Analysis: BTEX
QC Batch: 106954
Prep Batch: 90530

Analytical Method: S 8021B
Date Analyzed: 2013-11-21
Sample Preparation: 2013-11-20

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0982	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0882	mg/L	1	0.100	88	70 - 130

Sample: 347028 - MW-4

Laboratory: Midland
Analysis: BTEX
QC Batch: 106954
Prep Batch: 90530

Analytical Method: S 8021B
Date Analyzed: 2013-11-21
Sample Preparation: 2013-11-20

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0905	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0844	mg/L	1	0.100	84	70 - 130

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Sample: 347029 - MW-56

Laboratory: Midland

Analysis: BTEX

QC Batch: 106954

Prep Batch: 90530

Analytical Method: S 8021B

Date Analyzed: 2013-11-21

Sample Preparation: 2013-11-20

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0993	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0914	mg/L	1	0.100	91	70 - 130

Sample: 347030 - MW-6

Laboratory: Midland

Analysis: BTEX

QC Batch: 106954

Prep Batch: 90530

Analytical Method: S 8021B

Date Analyzed: 2013-11-21

Sample Preparation: 2013-11-20

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.100	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0897	mg/L	1	0.100	90	70 - 130

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Sample: 347031 - MW-7

Laboratory: Midland
Analysis: BTEX
QC Batch: 106954
Prep Batch: 90530

Analytical Method: S 8021B
Date Analyzed: 2013-11-21
Sample Preparation: 2013-11-20

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0975	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0881	mg/L	1	0.100	88	70 - 130

Sample: 347032 - MW-8

Laboratory: Midland
Analysis: BTEX
QC Batch: 106991
Prep Batch: 90552

Analytical Method: S 8021B
Date Analyzed: 2013-11-22
Sample Preparation: 2013-11-21

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0966	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0878	mg/L	1	0.100	88	70 - 130

Sample: 347032 - MW-8

Laboratory: Lubbock
Analysis: PAH
QC Batch: 107220
Prep Batch: 90788

Analytical Method: S 8270D
Date Analyzed: 2013-12-03
Sample Preparation: 2013-11-26

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	Qs,U	1	<0.000200	mg/L	1	0.000200
2-Methylnaphthalene	Qs,U	1	<0.000200	mg/L	1	0.000200
1-Methylnaphthalene	Qs,U		<0.000200	mg/L	1	0.000200
Acenaphthylene	Qs,U	1	<0.000200	mg/L	1	0.000200
Acenaphthene	Qs,U	1	<0.000200	mg/L	1	0.000200
Dibenzofuran	Qs,U	1	<0.000200	mg/L	1	0.000200
Fluorene	Qs,U	1	<0.000200	mg/L	1	0.000200
Anthracene	Qs,U	1	<0.000200	mg/L	1	0.000200
Phenanthrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Fluoranthene	Qr,Qs,U	1	<0.000200	mg/L	1	0.000200
Pyrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(a)anthracene	Qs,U	1	<0.000200	mg/L	1	0.000200
Chrysene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(a)pyrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene	Qs,U	1	<0.000200	mg/L	1	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	Qsr	Qsr	2.52	mg/L	1	8.00	32	40 - 110
2-Fluorobiphenyl	Qsr	Qsr	3.41	mg/L	1	8.00	43	50 - 110
Terphenyl-d14	Qsr	Qsr	2.51	mg/L	1	8.00	31	50 - 135

Sample: 347033 - MW-2

Laboratory: Midland
Analysis: BTEX
QC Batch: 106991
Prep Batch: 90552

Analytical Method: S 8021B
Date Analyzed: 2013-11-22
Sample Preparation: 2013-11-21

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2	<0.00100	mg/L	1	0.00100
Toluene	U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2	<0.00100	mg/L	1	0.00100
Xylene	U	2	<0.00100	mg/L	1	0.00100

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0927	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0902	mg/L	1	0.100	90	70 - 130

Sample: 347034 - MW-38

Laboratory: Midland
Analysis: BTEX
QC Batch: 106991
Prep Batch: 90552

Analytical Method: S 8021B
Date Analyzed: 2013-11-22
Sample Preparation: 2013-11-21

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	2	<0.00100	mg/L	1	0.00100
Toluene	u	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	2	<0.00100	mg/L	1	0.00100
Xylene	u	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0952	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0887	mg/L	1	0.100	89	70 - 130

Sample: 347034 - MW-38

Laboratory: Lubbock
Analysis: PAH
QC Batch: 107220
Prep Batch: 90788

Analytical Method: S 8270D
Date Analyzed: 2013-12-03
Sample Preparation: 2013-11-26

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	Qs,U	1	<0.000200	mg/L	1	0.000200
2-Methylnaphthalene	Qs,U	1	<0.000200	mg/L	1	0.000200
1-Methylnaphthalene	Qs,U		<0.000200	mg/L	1	0.000200
Acenaphthylene	Qs,U	1	<0.000200	mg/L	1	0.000200
Acenaphthene	Qs,U	1	<0.000200	mg/L	1	0.000200
Dibenzofuran	Qs,U	1	<0.000200	mg/L	1	0.000200
Fluorene	Qs,U	1	<0.000200	mg/L	1	0.000200
Anthracene	Qs,U	1	<0.000200	mg/L	1	0.000200
Phenanthrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Fluoranthene	Qr,Qs,U	1	<0.000200	mg/L	1	0.000200

continued ...

sample 347034 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Pyrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(a)anthracene	Qs,U	1	<0.000200	mg/L	1	0.000200
Chrysene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(a)pyrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene	Qs,U	1	<0.000200	mg/L	1	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	Qsr	Qsr	2.76	mg/L	1	8.00	34	40 - 110
2-Fluorobiphenyl	Qsr	Qsr	3.98	mg/L	1	8.00	50	50 - 110
Terphenyl-d14	Qsr	Qsr	2.76	mg/L	1	8.00	34	50 - 135

Sample: 347035 - MW-12

Laboratory: Midland
Analysis: BTEX
QC Batch: 106991
Prep Batch: 90552

Analytical Method: S 8021B
Date Analyzed: 2013-11-22
Sample Preparation: 2013-11-21

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2	<0.00100	mg/L	1	0.00100
Toluene	U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	2	<0.00100	mg/L	1	0.00100
Xylene	U	2	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0889	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.110	mg/L	1	0.100	110	70 - 130

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Sample: 347035 - MW-12

Laboratory: Lubbock

Analysis: PAH

QC Batch: 107220

Prep Batch: 90788

Analytical Method: S 8270D

Date Analyzed: 2013-12-03

Sample Preparation: 2013-11-26

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	Qs,U	1	<0.000200	mg/L	1	0.000200
2-Methylnaphthalene	Qs,U	1	<0.000200	mg/L	1	0.000200
1-Methylnaphthalene	Qs,U	1	<0.000200	mg/L	1	0.000200
Acenaphthylene	Qs,U	1	<0.000200	mg/L	1	0.000200
Acenaphthene	Qs,U	1	<0.000200	mg/L	1	0.000200
Dibenzofuran	Qs,U	1	<0.000200	mg/L	1	0.000200
Fluorene	Qs,U	1	<0.000200	mg/L	1	0.000200
Anthracene	Qs,U	1	<0.000200	mg/L	1	0.000200
Phenanthrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Fluoranthene	Qr,Qs,U	1	<0.000200	mg/L	1	0.000200
Pyrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(a)anthracene	Qs,U	1	<0.000200	mg/L	1	0.000200
Chrysene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(a)pyrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene	Qs,U	1	<0.000200	mg/L	1	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	Qsr	Qsr	1.90	mg/L	1	8.00	24	40 - 110
2-Fluorobiphenyl	Qsr	Qsr	3.18	mg/L	1	8.00	40	50 - 110
Terphenyl-d14	Qsr	Qsr	2.21	mg/L	1	8.00	28	50 - 135

Sample: 347036 - MW-5

Laboratory: Midland

Analysis: BTEX

QC Batch: 107033

Prep Batch: 90602

Analytical Method: S 8021B

Date Analyzed: 2013-11-25

Sample Preparation: 2013-11-22

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	2	<0.00100	mg/L	1	0.00100

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sample 347036 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Toluene	U	2	<0.00100	mg/L	1	0.00100
Ethylbenzene		2	<0.00100	mg/L	1	0.00100
Xylene		2	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0988	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0796	mg/L	1	0.100	80	70 - 130

Sample: 347036 - MW-5

Laboratory: Lubbock

Analysis: PAH

QC Batch: 107220

Prep Batch: 90788

Analytical Method: S 8270D

Date Analyzed: 2013-12-03

Sample Preparation: 2013-11-26

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	Qs,U	1	<0.000200	mg/L	1	0.000200
2-Methylnaphthalene	Qs,U	1	<0.000200	mg/L	1	0.000200
1-Methylnaphthalene	Qs,U		<0.000200	mg/L	1	0.000200
Acenaphthylene	Qs,U	1	<0.000200	mg/L	1	0.000200
Acenaphthene	Qs,U	1	<0.000200	mg/L	1	0.000200
Dibenzofuran	Qs,U	1	<0.000200	mg/L	1	0.000200
Fluorene	Qs,U	1	<0.000200	mg/L	1	0.000200
Anthracene	Qs,U	1	<0.000200	mg/L	1	0.000200
Phenanthrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Fluoranthene	Qr,Qs,U	1	<0.000200	mg/L	1	0.000200
Pyrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(a)anthracene	Qs,U	1	<0.000200	mg/L	1	0.000200
Chrysene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(a)pyrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene	Qs,U	1	<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene	Qs,U	1	<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene	Qs,U	1	<0.000200	mg/L	1	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	Qsr	Qsr	2.79	mg/L	1	8.00	35	40 - 110
2-Fluorobiphenyl	Qsr	Qsr	3.55	mg/L	1	8.00	44	50 - 110

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Surrogate		Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Terphenyl-d14	Q _{sr}	Q _{sr}		2.72	mg/L	1	8.00	34	50 - 135

Method Blanks

Method Blank (1) QC Batch: 106954

QC Batch: 106954
Prep Batch: 90530

Date Analyzed: 2013-11-21
QC Preparation: 2013-11-20

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		2	<0.000200	mg/L	0.001
Toluene		2	<0.000300	mg/L	0.001
Ethylbenzene		2	<0.000400	mg/L	0.001
Xylene		2	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0958	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0888	mg/L	1	0.100	89	70 - 130

Method Blank (1) QC Batch: 106991

QC Batch: 106991
Prep Batch: 90552

Date Analyzed: 2013-11-22
QC Preparation: 2013-11-21

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		2	<0.000200	mg/L	0.001
Toluene		2	<0.000300	mg/L	0.001
Ethylbenzene		2	<0.000400	mg/L	0.001
Xylene		2	<0.00120	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0992	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0871	mg/L	1	0.100	87	70 - 130

Method Blank (1) QC Batch: 107033

QC Batch: 107033
Prep Batch: 90602

Date Analyzed: 2013-11-25
QC Preparation: 2013-11-22

Analyzed By: AK
Prepared By: AK

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Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		2	<0.000238	mg/L	0.001
Toluene		2	0.000400	mg/L	0.001
Ethylbenzene		2	<0.000247	mg/L	0.001
Xylene		2	<0.000189	mg/L	0.003

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0992	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0813	mg/L	1	0.100	81	70 - 130

Method Blank (1) QC Batch: 107220

QC Batch: 107220
Prep Batch: 90788

Date Analyzed: 2013-12-03
QC Preparation: 2013-11-26

Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	MDL Result	Units	RL
Naphthalene		1	<0.000121	mg/L	0.0002
2-Methylnaphthalene		1	<0.0000913	mg/L	0.0002
1-Methylnaphthalene			<0.000109	mg/L	0.0002
Acenaphthylene		1	<0.000100	mg/L	0.0002
Acenaphthene		1	<0.000122	mg/L	0.0002
Dibenzofuran		1	<0.000108	mg/L	0.0002
Fluorene		1	<0.000100	mg/L	0.0002
Anthracene		1	<0.0000791	mg/L	0.0002
Phenanthrene		1	<0.0000824	mg/L	0.0002
Fluoranthene		1	<0.000124	mg/L	0.0002
Pyrene		1	<0.0000691	mg/L	0.0002
Benzo(a)anthracene		1	<0.000101	mg/L	0.0002
Chrysene		1	<0.0000769	mg/L	0.0002
Benzo(b)fluoranthene		1	<0.0000813	mg/L	0.0002
Benzo(k)fluoranthene		1	<0.0000790	mg/L	0.0002
Benzo(a)pyrene		1	<0.0000701	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		1	0.00248	mg/L	0.0002
Dibenzo(a,h)anthracene		1	<0.0000851	mg/L	0.0002
Benzo(g,h,i)perylene		1	<0.0000798	mg/L	0.0002

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			4.83	mg/L	1	8.00	60	40 - 110
2-Fluorobiphenyl			5.98	mg/L	1	8.00	75	50 - 110

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method blank continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Terphenyl-d14			4.76	mg/L	1	8.00	60	50 - 135

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 106954
Prep Batch: 90530

Date Analyzed: 2013-11-21
QC Preparation: 2013-11-20

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	0.0952	mg/L	1	0.100	<0.000200	95	70 - 130
Toluene		2	0.0934	mg/L	1	0.100	<0.000300	93	70 - 130
Ethylbenzene		2	0.0887	mg/L	1	0.100	<0.000400	89	70 - 130
Xylene		2	0.267	mg/L	1	0.300	<0.00120	89	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2	0.0987	mg/L	1	0.100	<0.000200	99	70 - 130	4	20
Toluene		2	0.0971	mg/L	1	0.100	<0.000300	97	70 - 130	4	20
Ethylbenzene		2	0.0927	mg/L	1	0.100	<0.000400	93	70 - 130	4	20
Xylene		2	0.279	mg/L	1	0.300	<0.00120	93	70 - 130	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0956	0.0966	mg/L	1	0.100	96	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0924	0.0933	mg/L	1	0.100	92	93	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 106991
Prep Batch: 90552

Date Analyzed: 2013-11-22
QC Preparation: 2013-11-21

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	0.0954	mg/L	1	0.100	<0.000200	95	70 - 130
Toluene		2	0.0953	mg/L	1	0.100	<0.000300	95	70 - 130
Ethylbenzene		2	0.0908	mg/L	1	0.100	<0.000400	91	70 - 130
Xylene		2	0.276	mg/L	1	0.300	<0.00120	92	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2	0.0950	mg/L	1	0.100	<0.000200	95	70 - 130	0	20
Toluene		2	0.0951	mg/L	1	0.100	<0.000300	95	70 - 130	0	20
Ethylbenzene		2	0.0910	mg/L	1	0.100	<0.000400	91	70 - 130	0	20
Xylene		2	0.275	mg/L	1	0.300	<0.00120	92	70 - 130	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0956	0.0920	mg/L	1	0.100	96	92	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0918	0.0882	mg/L	1	0.100	92	88	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 107033
Prep Batch: 90602

Date Analyzed: 2013-11-25
QC Preparation: 2013-11-22

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	0.103	mg/L	1	0.100	<0.000238	103	70 - 130
Toluene		2	0.103	mg/L	1	0.100	0.0004	103	70 - 130
Ethylbenzene		2	0.108	mg/L	1	0.100	<0.000247	108	70 - 130
Xylene		2	0.329	mg/L	1	0.300	<0.000189	110	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2	0.102	mg/L	1	0.100	<0.000238	102	70 - 130	1	20
Toluene		2	0.101	mg/L	1	0.100	0.0004	101	70 - 130	2	20
Ethylbenzene		2	0.107	mg/L	1	0.100	<0.000247	107	70 - 130	1	20
Xylene		2	0.323	mg/L	1	0.300	<0.000189	108	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.102	0.103	mg/L	1	0.100	102	103	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0992	0.0985	mg/L	1	0.100	99	98	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 107220
Prep Batch: 90788

Date Analyzed: 2013-12-03
QC Preparation: 2013-11-26

Analyzed By: MN
Prepared By: MN

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene		1	5.38	mg/L	1	8.00	<0.000121	67	40 - 100
2-Methylnaphthalene		1	5.26	mg/L	1	8.00	<0.0000913	66	45 - 105
1-Methylnaphthalene			5.33	mg/L	1	8.00	<0.000109	67	34.3 - 120
Acenaphthylene		1	6.81	mg/L	1	8.00	<0.000100	85	55 - 105
Acenaphthene	Qs	Qs	1.61	mg/L	1	8.00	<0.000122	20	45 - 110
Dibenzofuran		1	5.19	mg/L	1	8.00	<0.000108	65	55 - 105
Fluorene		1	6.22	mg/L	1	8.00	<0.000100	78	50 - 110
Anthracene	Qs	Qs	4.08	mg/L	1	8.00	<0.0000791	51	55 - 110
Phenanthrene		1	4.24	mg/L	1	8.00	<0.0000824	53	50 - 115
Fluoranthene	Qs	Qs	4.29	mg/L	1	8.00	<0.000124	54	55 - 115
Pyrene		1	5.36	mg/L	1	8.00	<0.0000691	67	50 - 130
Benzo(a)anthracene		1	5.70	mg/L	1	8.00	<0.000101	71	55 - 110
Chrysene	Qs	Qs	4.00	mg/L	1	8.00	<0.0000769	50	55 - 110
Benzo(b)fluoranthene		1	4.88	mg/L	1	8.00	<0.0000813	61	45 - 120
Benzo(k)fluoranthene		1	4.64	mg/L	1	8.00	<0.0000790	58	45 - 125
Benzo(a)pyrene		1	5.22	mg/L	1	8.00	<0.0000701	65	55 - 110
Indeno(1,2,3-cd)pyrene		1	4.64	mg/L	1	8.00	<0.0000770	58	45 - 125
Dibenzo(a,h)anthracene		1	5.09	mg/L	1	8.00	<0.0000851	64	40 - 125
Benzo(g,h,i)perylene		1	4.91	mg/L	1	8.00	<0.0000798	61	40 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene		1	5.19	mg/L	1	8.00	<0.000121	65	40 - 100	4	20
2-Methylnaphthalene		1	5.20	mg/L	1	8.00	<0.0000913	65	45 - 105	1	20
1-Methylnaphthalene			5.29	mg/L	1	8.00	<0.000109	66	34.3 - 120	1	20
Acenaphthylene		1	5.90	mg/L	1	8.00	<0.000100	74	55 - 105	14	20
Acenaphthene	Qs	Qs	1.63	mg/L	1	8.00	<0.000122	20	45 - 110	1	20
Dibenzofuran		1	4.59	mg/L	1	8.00	<0.000108	57	55 - 105	12	20
Fluorene		1	5.96	mg/L	1	8.00	<0.000100	74	50 - 110	4	20
Anthracene	Qs	Qs	3.86	mg/L	1	8.00	<0.0000791	48	55 - 110	6	20
Phenanthrene		1	4.00	mg/L	1	8.00	<0.0000824	50	50 - 115	6	20
Fluoranthene	Qr, Qs	Qr, Qs	3.28	mg/L	1	8.00	<0.000124	41	55 - 115	27	20
Pyrene		1	4.93	mg/L	1	8.00	<0.0000691	62	50 - 130	8	20
Benzo(a)anthracene		1	5.49	mg/L	1	8.00	<0.000101	69	55 - 110	4	20
Chrysene	Qs	Qs	3.83	mg/L	1	8.00	<0.0000769	48	55 - 110	4	20
Benzo(b)fluoranthene		1	4.14	mg/L	1	8.00	<0.0000813	52	45 - 120	16	20
Benzo(k)fluoranthene		1	4.33	mg/L	1	8.00	<0.0000790	54	45 - 125	7	20
Benzo(a)pyrene		1	4.85	mg/L	1	8.00	<0.0000701	61	55 - 110	7	20

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Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Indeno(1,2,3-cd)pyrene		1	4.29	mg/L	1	8.00	<0.0000770	54	45 - 125	8	20
Dibenzo(a,h)anthracene		1	4.72	mg/L	1	8.00	<0.0000851	59	40 - 125	8	20
Benzo(g,h,i)perylene		1	4.52	mg/L	1	8.00	<0.0000798	56	40 - 125	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Nitrobenzene-d5	6.39	6.11	mg/L	1	8.00	80	76	40 - 110
2-Fluorobiphenyl	8.12	8.40	mg/L	1	8.00	102	105	50 - 110
Terphenyl-d14	6.70	6.33	mg/L	1	8.00	84	79	50 - 135

Matrix Spike (MS-1) Spiked Sample: 347012

QC Batch: 106954
Prep Batch: 90530

Date Analyzed: 2013-11-21
QC Preparation: 2013-11-20

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	0.0832	mg/L	1	0.100	<0.000200	83	70 - 130
Toluene		2	0.0821	mg/L	1	0.100	<0.000300	82	70 - 130
Ethylbenzene		2	0.0783	mg/L	1	0.100	<0.000400	78	70 - 130
Xylene		2	0.235	mg/L	1	0.300	<0.00120	78	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2	0.0984	mg/L	1	0.100	<0.000200	98	70 - 130	17	20
Toluene		2	0.0965	mg/L	1	0.100	<0.000300	96	70 - 130	16	20
Ethylbenzene		2	0.0930	mg/L	1	0.100	<0.000400	93	70 - 130	17	20
Xylene		2	0.279	mg/L	1	0.300	<0.00120	93	70 - 130	17	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0820	0.100	mg/L	1	0.1	82	100	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0785	0.0960	mg/L	1	0.1	78	96	70 - 130

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Matrix Spike (MS-1) Spiked Sample: 347118

QC Batch: 106991
Prep Batch: 90552

Date Analyzed: 2013-11-22
QC Preparation: 2013-11-21

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	3	2	0.0989	mg/L	1	0.100	<0.000200	99	70 - 130
Toluene		2	0.0971	mg/L	1	0.100	<0.000300	97	70 - 130
Ethylbenzene		2	0.0930	mg/L	1	0.100	<0.000400	93	70 - 130
Xylene		2	0.284	mg/L	1	0.300	<0.00120	95	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	4	2	0.0981	mg/L	1	0.100	<0.000200	98	70 - 130	1	20
Toluene		2	0.0969	mg/L	1	0.100	<0.000300	97	70 - 130	0	20
Ethylbenzene		2	0.0934	mg/L	1	0.100	<0.000400	93	70 - 130	0	20
Xylene		2	0.281	mg/L	1	0.300	<0.00120	94	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0997	0.0989	mg/L	1	0.1	100	99	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0969	0.0951	mg/L	1	0.1	97	95	70 - 130

Matrix Spike (MS-1) Spiked Sample: 347243

QC Batch: 107033
Prep Batch: 90602

Date Analyzed: 2013-11-25
QC Preparation: 2013-11-22

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		2	0.0951	mg/L	1	0.100	<0.000238	95	70 - 130
Toluene		2	0.0921	mg/L	1	0.100	<0.000181	92	70 - 130
Ethylbenzene		2	0.0971	mg/L	1	0.100	<0.000247	97	70 - 130
Xylene		2	0.295	mg/L	1	0.300	<0.000189	98	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		2	0.0983	mg/L	1	0.100	<0.000238	98	70 - 130	3	20
Toluene		2	0.0952	mg/L	1	0.100	<0.000181	95	70 - 130	3	20

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matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Ethylbenzene		2	0.0999	mg/L	1	0.100	<0.000247	100	70 - 130	3	20
Xylene		2	0.303	mg/L	1	0.300	<0.000189	101	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.103	0.103	mg/L	1	0.1	103	103	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0982	0.0984	mg/L	1	0.1	98	98	70 - 130

Matrix Spike (MS-1) Spiked Sample: 347010

QC Batch: 107220
Prep Batch: 90788

Date Analyzed: 2013-12-03
QC Preparation: 2013-11-26

Analyzed By: MN
Prepared By: MN

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene	Qs	Qs	1	2.31	mg/L	1	8.00	<0.000121	29 40 - 100
2-Methylnaphthalene	Qs	Qs	1	2.31	mg/L	1	8.00	<0.0000913	29 45 - 105
1-Methylnaphthalene	Qs	Qs		2.30	mg/L	1	8.00	<0.000109	29 34.3 - 120
Acenaphthylene	Qs	Qs	1	3.80	mg/L	1	8.00	<0.000100	48 55 - 105
Acenaphthene	Qs	Qs	1	0.809	mg/L	1	8.00	<0.000122	10 45 - 110
Dibenzofuran			1	4.44	mg/L	1	8.00	<0.000108	56 55 - 105
Fluorene	Qs	Qs	1	2.54	mg/L	1	8.00	<0.000100	32 50 - 110
Anthracene	Qs	Qs	1	1.68	mg/L	1	8.00	<0.0000791	21 55 - 110
Phenanthrene	Qs	Qs	1	1.81	mg/L	1	8.00	<0.0000824	23 50 - 115
Fluoranthene	Qs	Qs	1	2.97	mg/L	1	8.00	<0.000124	37 55 - 115
Pyrene	Qs	Qs	1	2.15	mg/L	1	8.00	<0.0000691	27 50 - 130
Benzo(a)anthracene	Qs	Qs	1	2.39	mg/L	1	8.00	0.015	30 55 - 110
Chrysene	Qs	Qs	1	1.58	mg/L	1	8.00	<0.0000769	20 55 - 110
Benzo(b)fluoranthene	Qs	Qs	1	1.81	mg/L	1	8.00	<0.0000813	23 45 - 120
Benzo(k)fluoranthene	Qs	Qs	1	1.97	mg/L	1	8.00	<0.0000790	25 45 - 125
Benzo(a)pyrene	Qs	Qs	1	2.12	mg/L	1	8.00	<0.0000701	26 55 - 110
Indeno(1,2,3-cd)pyrene	Qs	Qs	1	1.82	mg/L	1	8.00	0.00239	23 45 - 125
Dibenzo(a,h)anthracene	Qs	Qs	1	1.58	mg/L	1	8.00	<0.0000851	20 40 - 125
Benzo(g,h,i)perylene	Qs	Qs	1	1.96	mg/L	1	8.00	<0.0000798	24 40 - 125

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene	Qs	Qs	1	2.35	mg/L	1	8.00	<0.000121	29 40 - 100	2	20
2-Methylnaphthalene	Qs	Qs	1	2.36	mg/L	1	8.00	<0.0000913	30 45 - 105	2	20

continued ...

matrix spikes continued ...

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
1-Methylnaphthalene	Q _s	Q _s	2.31	mg/L	1	8.00	<0.000109	29	34.3 - 120	0	20
Acenaphthylene	Q _s	Q _s	3.96	mg/L	1	8.00	<0.000100	50	55 - 105	4	20
Acenaphthene	Q _s	Q _s	0.824	mg/L	1	8.00	<0.000122	10	45 - 110	2	20
Dibenzofuran	Q _s	Q _s	4.20	mg/L	1	8.00	<0.000108	52	55 - 105	6	20
Fluorene	Q _s	Q _s	2.61	mg/L	1	8.00	<0.000100	33	50 - 110	3	20
Anthracene	Q _s	Q _s	1.73	mg/L	1	8.00	<0.0000791	22	55 - 110	3	20
Phenanthrene	Q _s	Q _s	1.86	mg/L	1	8.00	<0.0000824	23	50 - 115	3	20
Fluoranthene	Q _s	Q _s	2.90	mg/L	1	8.00	<0.000124	36	55 - 115	2	20
Pyrene	Q _s	Q _s	2.19	mg/L	1	8.00	<0.0000691	27	50 - 130	2	20
Benzo(a)anthracene	Q _s	Q _s	2.44	mg/L	1	8.00	0.015	30	55 - 110	2	20
Chrysene	Q _s	Q _s	1.62	mg/L	1	8.00	<0.0000769	20	55 - 110	2	20
Benzo(b)fluoranthene	Q _s	Q _s	2.00	mg/L	1	8.00	<0.0000813	25	45 - 120	10	20
Benzo(k)fluoranthene	Q _s	Q _s	1.83	mg/L	1	8.00	<0.0000790	23	45 - 125	7	20
Benzo(a)pyrene	Q _s	Q _s	2.13	mg/L	1	8.00	<0.0000701	27	55 - 110	0	20
Indeno(1,2,3-cd)pyrene	Q _s	Q _s	1.85	mg/L	1	8.00	0.00239	23	45 - 125	2	20
Dibenzo(a,h)anthracene	Q _s	Q _s	1.46	mg/L	1	8.00	<0.0000851	18	40 - 125	8	20
Benzo(g,h,i)perylene	Q _s	Q _s	1.96	mg/L	1	8.00	<0.0000798	24	40 - 125	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate			MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Nitrobenzene-d5	Q _{sr}	Q _{sr}	1.62	1.70	mg/L	1	8	20	21	40 - 110
2-Fluorobiphenyl	Q _{sr}	Q _{sr}	2.24	2.33	mg/L	1	8	28	29	50 - 110
Terphenyl-d14	Q _{sr}	Q _{sr}	1.68	1.72	mg/L	1	8	21	22	50 - 135

Calibration Standards

Standard (CCV-1)

QC Batch: 106954

Date Analyzed: 2013-11-21

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.0974	97	80 - 120	2013-11-21
Toluene		2	mg/L	0.100	0.0956	96	80 - 120	2013-11-21
Ethylbenzene		2	mg/L	0.100	0.0903	90	80 - 120	2013-11-21
Xylene		2	mg/L	0.300	0.272	91	80 - 120	2013-11-21

Standard (CCV-2)

QC Batch: 106954

Date Analyzed: 2013-11-21

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.0986	99	80 - 120	2013-11-21
Toluene		2	mg/L	0.100	0.0971	97	80 - 120	2013-11-21
Ethylbenzene		2	mg/L	0.100	0.0928	93	80 - 120	2013-11-21
Xylene		2	mg/L	0.300	0.279	93	80 - 120	2013-11-21

Standard (CCV-3)

QC Batch: 106954

Date Analyzed: 2013-11-21

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.0972	97	80 - 120	2013-11-21
Toluene		2	mg/L	0.100	0.0971	97	80 - 120	2013-11-21
Ethylbenzene		2	mg/L	0.100	0.0934	93	80 - 120	2013-11-21
Xylene		2	mg/L	0.300	0.279	93	80 - 120	2013-11-21

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Standard (CCV-1)

QC Batch: 106991

Date Analyzed: 2013-11-22

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.0972	97	80 - 120	2013-11-22
Toluene		2	mg/L	0.100	0.0971	97	80 - 120	2013-11-22
Ethylbenzene		2	mg/L	0.100	0.0934	93	80 - 120	2013-11-22
Xylene		2	mg/L	0.300	0.279	93	80 - 120	2013-11-22

Standard (CCV-2)

QC Batch: 106991

Date Analyzed: 2013-11-22

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.0957	96	80 - 120	2013-11-22
Toluene		2	mg/L	0.100	0.0950	95	80 - 120	2013-11-22
Ethylbenzene		2	mg/L	0.100	0.0919	92	80 - 120	2013-11-22
Xylene		2	mg/L	0.300	0.275	92	80 - 120	2013-11-22

Standard (CCV-3)

QC Batch: 106991

Date Analyzed: 2013-11-22

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.0942	94	80 - 120	2013-11-22
Toluene		2	mg/L	0.100	0.0944	94	80 - 120	2013-11-22
Ethylbenzene		2	mg/L	0.100	0.0911	91	80 - 120	2013-11-22
Xylene		2	mg/L	0.300	0.272	91	80 - 120	2013-11-22

Standard (CCV-1)

QC Batch: 107033

Date Analyzed: 2013-11-25

Analyzed By: AK

Report Date: December 5, 2013
TNM-LF-2000-7

Work Order: 13112004
Bob Durham

Page Number: 38 of 41
West of Monument, NM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.106	106	80 - 120	2013-11-25
Toluene		2	mg/L	0.100	0.105	105	80 - 120	2013-11-25
Ethylbenzene		2	mg/L	0.100	0.111	111	80 - 120	2013-11-25
Xylene		2	mg/L	0.300	0.336	112	80 - 120	2013-11-25

Standard (CCV-2)

QC Batch: 107033

Date Analyzed: 2013-11-25

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.102	102	80 - 120	2013-11-25
Toluene		2	mg/L	0.100	0.101	101	80 - 120	2013-11-25
Ethylbenzene		2	mg/L	0.100	0.107	107	80 - 120	2013-11-25
Xylene		2	mg/L	0.300	0.325	108	80 - 120	2013-11-25

Standard (CCV-3)

QC Batch: 107033

Date Analyzed: 2013-11-25

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		2	mg/L	0.100	0.104	104	80 - 120	2013-11-25
Toluene		2	mg/L	0.100	0.104	104	80 - 120	2013-11-25
Ethylbenzene		2	mg/L	0.100	0.109	109	80 - 120	2013-11-25
Xylene		2	mg/L	0.300	0.332	111	80 - 120	2013-11-25

Standard (CCV-1)

QC Batch: 107220

Date Analyzed: 2013-12-03

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1	mg/L	60.0	60.2	100	80 - 120	2013-12-03

continued ...

standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
2-Methylnaphthalene		1	mg/L	60.0	58.2	97	80 - 120	2013-12-03
1-Methylnaphthalene			mg/L	60.0	59.2	99	80 - 120	2013-12-03
Acenaphthylene		1	mg/L	60.0	56.5	94	80 - 120	2013-12-03
Acenaphthene		1	mg/L	60.0	63.5	106	80 - 120	2013-12-03
Dibenzofuran		1	mg/L	60.0	55.4	92	80 - 120	2013-12-03
Fluorene		1	mg/L	60.0	59.3	99	80 - 120	2013-12-03
Anthracene		1	mg/L	60.0	71.3	119	80 - 120	2013-12-03
Phenanthrene		1	mg/L	60.0	68.7	114	80 - 120	2013-12-03
Fluoranthene		1	mg/L	60.0	60.9	102	80 - 120	2013-12-03
Pyrene		1	mg/L	60.0	56.8	95	80 - 120	2013-12-03
Benzo(a)anthracene		1	mg/L	60.0	57.4	96	80 - 120	2013-12-03
Chrysene		1	mg/L	60.0	57.0	95	80 - 120	2013-12-03
Benzo(b)fluoranthene		1	mg/L	60.0	56.8	95	80 - 120	2013-12-03
Benzo(k)fluoranthene		1	mg/L	60.0	51.2	85	80 - 120	2013-12-03
Benzo(a)pyrene		1	mg/L	60.0	58.5	98	80 - 120	2013-12-03
Indeno(1,2,3-cd)pyrene		1	mg/L	60.0	56.7	94	80 - 120	2013-12-03
Dibenzo(a,h)anthracene		1	mg/L	60.0	51.6	86	80 - 120	2013-12-03
Benzo(g,h,i)perylene		1	mg/L	60.0	57.8	96	80 - 120	2013-12-03

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			58.5	mg/L	1	60.0	98	-
2-Fluorobiphenyl			63.0	mg/L	1	60.0	105	-
Terphenyl-d14			57.2	mg/L	1	60.0	95	-

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704219-13-9	Lubbock
2	NELAP	T104704392-13-7	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Result Comments

- 1 Analyst error spiking surrogate, confirmed by MS & MSD.
- 2 Analyst error spiking surrogate, confirmed by MS & MSD.
- 3 pH > 2.
- 4 pH > 2.

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

TraceAnalysis, Inc.

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email: lab@traceanalysis.com

Company Name: **NOVA** Phone #: **432 520 7720**

Address: **2057 Commerce Dr**

Contact Person: **Curt Stanley**

Invoice to:

Project #: **TNM-LF 2000-7**

Project Name: **Bob Durham**

Project Location (including state):

Sampler Signature: *[Signature]*

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD					SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE
347010	MW-1	6	Vol	X				X		X			11/13/15	1540
011	MW-10	3												1430
012	MW-11	3												1450
013	MW-13	6												1576
014	MW-15	3												1437
015	MW-16	6												1608
016	MW-20	3												1313
017	MW-21													1317
018	MW-23													1348
019	MW-24													1320
020	MW-25													1222

Relinquished by: John Flores Nova	Company: Nova	Date: 11/24/13	Time: 11:24	Received by: <i>[Signature]</i>	Company: TA	Date: 11/20/15	Time: 8:57	INST OBS COR: 1.8 1.7 0
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST OBS COR:
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST OBS COR:

REMARKS: **Quadrant - BTEX**
Lubbock - PHH

LAB USE ONLY

Dry Weight Basis Required
TRRP Report Required
Check if Special Reporting Limits Are Needed

Carrier # **Carrollton**

ANALYSIS REQUEST (Circle or Specify Method No.)

☒ TPH 418.1 / TX1005 / TX1005 EX/C35	☒ TPH 8016 GRO / DRO / TVHC	☒ Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	☒ TCLP Metals Ag As Ba Cd Cr Pb Se Hg	☒ TCLP Volatiles	☒ TCLP Semi Volatiles	☒ TCLP Pesticides	☒ RCI	☒ GC/MS Vol. 8260 / 624	☒ GC/MS Semi Vol. 8270 / 626	☒ PCB's 8082 / 608	☒ Pesticides 8081 / 608	☒ BOD, TSS, pH	☒ Moisture Content	☒ Cl, F, SO ₄ , NO ₃ , N, NO ₂ , P, PO ₄ , F, Alkalinity	☒ Na, Ca, Mg, K, TDS, EC	☐ Turn Around Time if different from standard
--	---	---	---	--	---	---	---	---	--	--	---	--	--	--	--	--

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email: lab@traceanalysis.com

Company Name: Nova Phone #: 432 520 7720

Address: 2057 Commerce Dr Fax #:

Contact Person: Curt Stanley E-mail:

Invoice to: (if different from above)

Project #: TNM-LF 2000-7

Project Location (including state): NM

Project Name: Bob Durham
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD					SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE
021	MW-27	3	6A	X				X			X	11/11/03	1401
022	MW-3												1314
023	MW-30												1356
024	MW-31												1410
025	MW-32												1415
026	MW-33												1425
027	MW-37												1433
028	MW-4												1435
029	MW-56												1444
030	MW-6												1536
031	MW-7												1539

LAB USE ONLY	REMARKS:
TPH 418.1 / TX1005 / TX1005 EXRC35	
TPH 8015 GRO / DRO / TVHC	
PAH 8270 / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. B260 / 624	
GC/MS Semi Vol. B270 / 625	
PCBs 8082 / 608	
Pesticides 8081 / 608	
BOD, TSS, pH	
Moisture Content	
Cl, F, SO ₄ , NO ₃ , N, NO ₂ , N, PO ₄ , P, Alkalinity	
Na, Ca, Mg, K, TDS, EC	
Turn Around Time if different from standard	

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # 40000000

Dry Weight Basis Required
TRRP Report Required
Check if Special Reporting
Limits Are Needed



TRACE ANALYSIS, INC.

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E-Mail: lab@traceanalysis.com Web: www.traceanalysis.com

December 11, 2013

Curt Stanley

Nova Safety and Environmental

2057 Commerce St.

Midland, TX. 79703

Re: Bob Durham

To Whom It May Concern,

On November 20th, 2013 Nova Safety and Environmental submitted twenty-seven samples for BTEX and PAH analysis for the Bob Durham project. The project was given a unique work order 13112004 and each sample associated with the project was assigned a unique laboratory identifier cross referenced to the field code. It was observed that BTEX results for sample 347010 affiliated with QC Batch 107033 were confounding. Trace investigated this issue and determined that an auto-sampler error required all samples linked to that QC Batch be removed and reloaded into a back-up system. These samples were accidentally shuffled up and the reported results are not indicative of the samples actual concentrations. This error was not discovered until the results were reported and samples were out of holding time.

Subsequently, Nova resampled the well in question. It was submitted to TraceAnalysis on December 9th, 2013 and given a work order number 13120906. The field code MW-1 was cross referenced to the laboratory identifier 348308. The sample was analyzed immediately and results were reported to the client on December 10th. Due to the obvious error in the first sampling event Trace recommends using the latter results for all analytical decisions. If you have any questions regarding these issues please do not hesitate to contact me.

Thank you,



Dr. Michael Abel, PhD.

Laboratory Manager

TraceAnalysis, Inc.

Ph: (806)794-1296

Fax: (806)794-1298

e-mail: mabel@traceanalysis.com

Summary Report

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX 79703

Report Date: December 10, 2013

Work Order: 13120906



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
348308	MW-1	water	2013-12-08	13:10	2013-12-09

Sample - Field Code	BTEX			
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)
348308 - MW-1	0.00100	<0.00100	<0.00100	<0.00300



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E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: December 10, 2013

Work Order: 13120906



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
348308	MW-1	water	2013-12-08	13:10	2013-12-09

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 11 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2013-12-09 and assigned to work order 13120906. Samples for work order 13120906 were received intact without headspace and at a temperature of 4.8 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	90925	2013-12-09 at 11:22	107423	2013-12-10 at 09:15

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 13120906 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: December 10, 2013
TNM-LF-2000-07

Work Order: 13120906
Bob Durham

Page Number: 4 of 11
Monument, Lea County, NM

Analytical Report

Sample: 348308 - MW-1

Laboratory: Midland

Analysis: BTEX

QC Batch: 107423

Prep Batch: 90925

Analytical Method: S 8021B

Date Analyzed: 2013-12-10

Sample Preparation: 2013-12-09

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0939	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0885	mg/L	1	0.100	88	70 - 130

Method Blanks

Report Date: December 10, 2013
TNM-LF-2000-07

Work Order: 13120906
Bob Durham

Page Number: 5 of 11
Monument, Lea County, NM

Method Blank (1) QC Batch: 107423

QC Batch: 107423 Date Analyzed: 2013-12-10
Prep Batch: 90925 QC Preparation: 2013-12-09
Analyzed By: AK Prepared By: AK

Parameter	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Benzene			1	<0.000238		mg/L	0.001	0.001
Toluene			1	<0.000181		mg/L	0.001	0.001
Ethylbenzene			1	<0.000247		mg/L	0.001	0.001
Xylene			1	<0.000189		mg/L	0.003	0.003
Surrogate								
Trifluorotoluene (TFT)			0.0933	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0802	mg/L	1	0.100	80	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 107423
Prep Batch: 90925

Date Analyzed: 2013-12-10
QC Preparation: 2013-12-09

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0946	mg/L	1	0.100	<0.000238	95	70 - 130
Toluene		1	0.0929	mg/L	1	0.100	<0.000181	93	70 - 130
Ethylbenzene		1	0.0984	mg/L	1	0.100	<0.000247	98	70 - 130
Xylene		1	0.301	mg/L	1	0.300	<0.000189	100	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0941	mg/L	1	0.100	<0.000238	94	70 - 130	0	20
Toluene		1	0.0929	mg/L	1	0.100	<0.000181	93	70 - 130	0	20
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000247	101	70 - 130	3	20
Xylene		1	0.304	mg/L	1	0.300	<0.000189	101	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0956	0.0971	mg/L	1	0.100	96	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0997	0.102	mg/L	1	0.100	100	102	70 - 130

Matrix Spike (MS-1) Spiked Sample: 348051

QC Batch: 107423
Prep Batch: 90925

Date Analyzed: 2013-12-10
QC Preparation: 2013-12-09

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.100	mg/L	1	0.100	<0.000238	100	70 - 130
Toluene		1	0.0977	mg/L	1	0.100	<0.000181	98	70 - 130
Ethylbenzene		1	0.106	mg/L	1	0.100	<0.000247	106	70 - 130
Xylene		1	0.320	mg/L	1	0.300	<0.000189	107	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Report Date: December 10, 2013
TNM-LF-2000-07

Work Order: 13120906
Bob Durham

Page Number: 7 of 11
Monument, Lea County, NM

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0977	mg/L	1	0.100	<0.000238	98	70 - 130	2	20
Toluene		1	0.0951	mg/L	1	0.100	<0.000181	95	70 - 130	3	20
Ethylbenzene		1	0.102	mg/L	1	0.100	<0.000247	102	70 - 130	4	20
Xylene		1	0.308	mg/L	1	0.300	<0.000189	103	70 - 130	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0962	0.0952	mg/L	1	0.1	96	95	70 - 130
4-Bromofluorobenzene (4-BFB)	0.101	0.0995	mg/L	1	0.1	101	100	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 107423

Date Analyzed: 2013-12-10

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0965	96	80 - 120	2013-12-10
Toluene		1	mg/L	0.100	0.0939	94	80 - 120	2013-12-10
Ethylbenzene		1	mg/L	0.100	0.100	100	80 - 120	2013-12-10
Xylene		1	mg/L	0.300	0.305	102	80 - 120	2013-12-10

Standard (CCV-2)

QC Batch: 107423

Date Analyzed: 2013-12-10

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2013-12-10
Toluene		1	mg/L	0.100	0.0993	99	80 - 120	2013-12-10
Ethylbenzene		1	mg/L	0.100	0.105	105	80 - 120	2013-12-10
Xylene		1	mg/L	0.300	0.320	107	80 - 120	2013-12-10

Standard (CCV-3)

QC Batch: 107423

Date Analyzed: 2013-12-10

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0996	100	80 - 120	2013-12-10
Toluene		1	mg/L	0.100	0.0982	98	80 - 120	2013-12-10
Ethylbenzene		1	mg/L	0.100	0.106	106	80 - 120	2013-12-10
Xylene		1	mg/L	0.300	0.320	107	80 - 120	2013-12-10

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Standard (CCV-4)

QC Batch: 107423

Date Analyzed: 2013-12-10

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2013-12-10
Toluene		1	mg/L	0.100	0.0992	99	80 - 120	2013-12-10
Ethylbenzene		1	mg/L	0.100	0.108	108	80 - 120	2013-12-10
Xylene		1	mg/L	0.300	0.324	108	80 - 120	2013-12-10

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-13-7	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

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The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.



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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

(Corrected Report)

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: February 27, 2014

Work Order: 14021906



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
354937	MW-13	water	2014-02-18	10:39	2014-02-19
354938	MW-32	water	2014-02-18	11:10	2014-02-19
354939	MW-4	water	2014-02-18	11:48	2014-02-19
354940	MW-56	water	2014-02-18	12:19	2014-02-19
354941	MW-2	water	2014-02-18	12:57	2014-02-19
354942	MW-1	water	2014-02-18	13:30	2014-02-19
354943	MW-5	water	2014-02-18	13:58	2014-02-19
354944	MW-38	water	2014-02-18	14:20	2014-02-19
354945	MW-12	water	2014-02-18	14:49	2014-02-19

Report Corrections (Work Order 14021906)

- 2/27/14: Reran samples and reissued report.

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 17 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink that reads "Michael Abel". The signature is written in a cursive style with a large, stylized 'M' and 'A'.

Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2014-02-19 and assigned to work order 14021906. Samples for work order 14021906 were received intact without headspace and at a temperature of 2.7 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	92538	2014-02-19 at 08:21	109479	2014-02-20 at 09:09
BTEX	S 8021B	92652	2014-02-24 at 12:42	109643	2014-02-26 at 08:48

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14021906 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

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Analytical Report

Sample: 354937 - MW-13

Laboratory: Midland
Analysis: BTEX
QC Batch: 109643
Prep Batch: 92652

Analytical Method: S 8021B
Date Analyzed: 2014-02-26
Sample Preparation: 2014-02-24

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0107	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0964	mg/L	1	0.100	96	70 - 130

Sample: 354938 - MW-32

Laboratory: Midland
Analysis: BTEX
QC Batch: 109479
Prep Batch: 92538

Analytical Method: S 8021B
Date Analyzed: 2014-02-20
Sample Preparation: 2014-02-19

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0816	mg/L	1	0.100	82	70 - 130

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Sample: 354939 - MW-4

Laboratory: Midland
Analysis: BTEX
QC Batch: 109479
Prep Batch: 92538

Analytical Method: S 8021B
Date Analyzed: 2014-02-20
Sample Preparation: 2014-02-19

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.105	mg/L	1	0.100	105	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0843	mg/L	1	0.100	84	70 - 130

Sample: 354940 - MW-56

Laboratory: Midland
Analysis: BTEX
QC Batch: 109479
Prep Batch: 92538

Analytical Method: S 8021B
Date Analyzed: 2014-02-20
Sample Preparation: 2014-02-19

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.100	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0796	mg/L	1	0.100	80	70 - 130

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Sample: 354941 - MW-2

Laboratory: Midland
Analysis: BTEX
QC Batch: 109643
Prep Batch: 92652

Analytical Method: S 8021B
Date Analyzed: 2014-02-26
Sample Preparation: 2014-02-24

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00160	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0887	mg/L	1	0.100	89	70 - 130

Sample: 354942 - MW-1

Laboratory: Midland
Analysis: BTEX
QC Batch: 109643
Prep Batch: 92652

Analytical Method: S 8021B
Date Analyzed: 2014-02-26
Sample Preparation: 2014-02-24

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00120	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0917	mg/L	1	0.100	92	70 - 130

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Sample: 354943 - MW-5

Laboratory: Midland
Analysis: BTEX
QC Batch: 109643
Prep Batch: 92652

Analytical Method: S 8021B
Date Analyzed: 2014-02-26
Sample Preparation: 2014-02-24

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00990	mg/L	1	0.00100
Toluene		1	0.00110	mg/L	1	0.00100
Ethylbenzene		1	0.00170	mg/L	1	0.00100
Xylene	u	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0990	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0905	mg/L	1	0.100	90	70 - 130

Sample: 354944 - MW-38

Laboratory: Midland
Analysis: BTEX
QC Batch: 109643
Prep Batch: 92652

Analytical Method: S 8021B
Date Analyzed: 2014-02-26
Sample Preparation: 2014-02-24

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00250	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0985	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0873	mg/L	1	0.100	87	70 - 130

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Sample: 354945 - MW-12

Laboratory: Midland
Analysis: BTEX
QC Batch: 109643
Prep Batch: 92652

Analytical Method: S 8021B
Date Analyzed: 2014-02-26
Sample Preparation: 2014-02-24

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.0151	mg/L	1	0.00100
Toluene		1	0.00220	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene		1	0.0143	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	70 - 130
4-Bromofluorobenzene (4-BFB)			0.111	mg/L	1	0.100	111	70 - 130

Method Blanks

Method Blank (1) QC Batch: 109479

QC Batch: 109479
Prep Batch: 92538

Date Analyzed: 2014-02-20
QC Preparation: 2014-02-19

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000238	mg/L	0.001
Toluene		1	0.000900	mg/L	0.001
Ethylbenzene		1	<0.000247	mg/L	0.001
Xylene		1	<0.000189	mg/L	0.003

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0998	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0795	mg/L	1	0.100	80	70 - 130

Method Blank (1) QC Batch: 109643

QC Batch: 109643
Prep Batch: 92652

Date Analyzed: 2014-02-26
QC Preparation: 2014-02-24

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000238	mg/L	0.001
Toluene		1	<0.000181	mg/L	0.001
Ethylbenzene		1	<0.000247	mg/L	0.001
Xylene		1	<0.000189	mg/L	0.003

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0927	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0750	mg/L	1	0.100	75	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 109479
Prep Batch: 92538

Date Analyzed: 2014-02-20
QC Preparation: 2014-02-19

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.107	mg/L	1	0.100	<0.000238	107	70 - 130
Toluene		1	0.109	mg/L	1	0.100	0.0009	108	70 - 130
Ethylbenzene		1	0.109	mg/L	1	0.100	<0.000247	109	70 - 130
Xylene		1	0.332	mg/L	1	0.300	<0.000189	111	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.102	mg/L	1	0.100	<0.000238	102	70 - 130	5	20
Toluene		1	0.103	mg/L	1	0.100	0.0009	102	70 - 130	6	20
Ethylbenzene		1	0.103	mg/L	1	0.100	<0.000247	103	70 - 130	6	20
Xylene		1	0.314	mg/L	1	0.300	<0.000189	105	70 - 130	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.103	0.103	mg/L	1	0.100	103	103	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0951	0.0950	mg/L	1	0.100	95	95	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 109643
Prep Batch: 92652

Date Analyzed: 2014-02-26
QC Preparation: 2014-02-24

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.110	mg/L	1	0.100	<0.000238	110	70 - 130
Toluene		1	0.110	mg/L	1	0.100	<0.000181	110	70 - 130
Ethylbenzene		1	0.110	mg/L	1	0.100	<0.000247	110	70 - 130
Xylene		1	0.340	mg/L	1	0.300	<0.000189	113	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.106	mg/L	1	0.100	<0.000238	106	70 - 130	3	20
Toluene		1	0.107	mg/L	1	0.100	<0.000181	107	70 - 130	3	20
Ethylbenzene		1	0.107	mg/L	1	0.100	<0.000247	107	70 - 130	3	20
Xylene		1	0.326	mg/L	1	0.300	<0.000189	109	70 - 130	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.104	mg/L	1	0.100	101	104	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0946	0.0950	mg/L	1	0.100	95	95	70 - 130

Matrix Spike (MS-1) Spiked Sample: 354940

QC Batch: 109479
Prep Batch: 92538

Date Analyzed: 2014-02-20
QC Preparation: 2014-02-19

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.106	mg/L	1	0.100	<0.000238	106	70 - 130
Toluene		1	0.107	mg/L	1	0.100	<0.000181	107	70 - 130
Ethylbenzene		1	0.106	mg/L	1	0.100	<0.000247	106	70 - 130
Xylene		1	0.323	mg/L	1	0.300	<0.000189	108	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0974	mg/L	1	0.100	<0.000238	97	70 - 130	8	20
Toluene		1	0.0988	mg/L	1	0.100	<0.000181	99	70 - 130	8	20
Ethylbenzene		1	0.0978	mg/L	1	0.100	<0.000247	98	70 - 130	8	20
Xylene		1	0.297	mg/L	1	0.300	<0.000189	99	70 - 130	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.102	0.103	mg/L	1	0.1	102	103	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0949	0.0951	mg/L	1	0.1	95	95	70 - 130

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Matrix Spike (MS-1) Spiked Sample: 355296

QC Batch: 109643
Prep Batch: 92652

Date Analyzed: 2014-02-26
QC Preparation: 2014-02-24

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.107	mg/L	1	0.100	<0.000238	107	70 - 130
Toluene		1	0.107	mg/L	1	0.100	<0.000181	107	70 - 130
Ethylbenzene		1	0.102	mg/L	1	0.100	<0.000247	102	70 - 130
Xylene		1	0.314	mg/L	1	0.300	<0.000189	105	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.109	mg/L	1	0.100	<0.000238	109	70 - 130	2	20
Toluene		1	0.110	mg/L	1	0.100	<0.000181	110	70 - 130	3	20
Ethylbenzene		1	0.106	mg/L	1	0.100	<0.000247	106	70 - 130	4	20
Xylene		1	0.324	mg/L	1	0.300	<0.000189	108	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.101	0.101	mg/L	1	0.1	101	101	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0926	0.0945	mg/L	1	0.1	93	94	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 109479

Date Analyzed: 2014-02-20

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.104	104	80 - 120	2014-02-20
Toluene		1	mg/L	0.100	0.106	106	80 - 120	2014-02-20
Ethylbenzene		1	mg/L	0.100	0.104	104	80 - 120	2014-02-20
Xylene		1	mg/L	0.300	0.315	105	80 - 120	2014-02-20

Standard (CCV-2)

QC Batch: 109479

Date Analyzed: 2014-02-20

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.107	107	80 - 120	2014-02-20
Toluene		1	mg/L	0.100	0.109	109	80 - 120	2014-02-20
Ethylbenzene		1	mg/L	0.100	0.108	108	80 - 120	2014-02-20
Xylene		1	mg/L	0.300	0.327	109	80 - 120	2014-02-20

Standard (CCV-1)

QC Batch: 109643

Date Analyzed: 2014-02-26

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.105	105	80 - 120	2014-02-26
Toluene		1	mg/L	0.100	0.108	108	80 - 120	2014-02-26
Ethylbenzene		1	mg/L	0.100	0.106	106	80 - 120	2014-02-26
Xylene		1	mg/L	0.300	0.325	108	80 - 120	2014-02-26

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Bob Durham

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Standard (CCV-2)

QC Batch: 109643

Date Analyzed: 2014-02-26

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.103	103	80 - 120	2014-02-26
Toluene		1	mg/L	0.100	0.105	105	80 - 120	2014-02-26
Ethylbenzene		1	mg/L	0.100	0.104	104	80 - 120	2014-02-26
Xylene		1	mg/L	0.300	0.317	106	80 - 120	2014-02-26

Standard (CCV-3)

QC Batch: 109643

Date Analyzed: 2014-02-26

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.108	108	80 - 120	2014-02-26
Toluene		1	mg/L	0.100	0.109	109	80 - 120	2014-02-26
Ethylbenzene		1	mg/L	0.100	0.108	108	80 - 120	2014-02-26
Xylene		1	mg/L	0.300	0.330	110	80 - 120	2014-02-26

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-13-7	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

Report Date: February 27, 2014
TNM-LF-2000-07

Work Order: 14021906
Bob Durham

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Monument, Lea County, NM

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

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Company Name: Nova Phone #: (432) 530-7720
Address: (Street, City, Zip) Fax #:
Contact Person: Curt Stanley E-mail:
Invoice to: Plains
(If different from above)
Project #: NM 2002
Project Name: Bob Duchene
Project Location (including state): David Ketchum
Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING		
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME	
937	mw13	3	1000	X				X					X		2/18/14	1039
938	mw32															1110
939	mw4															1148
940	mw56															1219
941	mw2															1257
942	mw1															1336
943	mw5															1358
944	mw38															1420
945	mw12															1449

Relinquished by: David Ketchum Nova 2/19/14 0800
Relinquished by: David Ketchum Nova 2/19/14 0800
Relinquished by: David Ketchum Nova 2/19/14 0903

Received by: NOVA 2/19/14 0800
Received by: NOVA 2/19/14 0800
Received by: NOVA 2/19/14 0903

INST OBS COR
INST OBS COR
INST OBS COR

ANALYSIS REQUEST
(Circle or Specify Method No.)

MTBE 8021 / 602 / 8260 / 624	BTEX 8027 / 602 / 8260 / 624	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCBs 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ -P, Alkalinity	Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard	Hold
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REMARKS: NOVA
Medial all

LAB USE ONLY

Dry Weight Basis Required ☐
TRRP Report Required ☐
Check if Special Reporting Limits Are Needed ☐



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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: May 29, 2014

Work Order: 14052302



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
363813	MW-10	water	2014-05-22	09:15	2014-05-23
363814	MW-15	water	2014-05-22	09:23	2014-05-23
363815	MW-16	water	2014-05-22	09:27	2014-05-23
363816	MW-23	water	2014-05-22	09:36	2014-05-23
363817	MW-3	water	2014-05-22	09:40	2014-05-23
363818	MW-31	water	2014-05-22	09:51	2014-05-23
363819	MW-37	water	2014-05-22	09:55	2014-05-23
363820	MW-6	water	2014-05-22	09:59	2014-05-23
363821	MW-7	water	2014-05-22	10:11	2014-05-23
363822	MW-8	water	2014-05-22	10:30	2014-05-23
363823	MW-32	water	2014-05-22	10:35	2014-05-23
363824	MW-38	water	2014-05-22	10:40	2014-05-23
363825	MW-4	water	2014-05-22	10:51	2014-05-23
363826	MW-56	water	2014-05-22	11:05	2014-05-23
363827	MW-1	water	2014-05-22	11:15	2014-05-23
363828	MW-2	water	2014-05-22	11:23	2014-05-23
363829	MW-5	water	2014-05-22	11:28	2014-05-23
363830	MW-13	water	2014-05-22	11:35	2014-05-23

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
363831	MW-12	water	2014-05-22	11:41	2014-05-23

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 24 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
Dr. Michael Abel, Project Manager

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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2014-05-23 and assigned to work order 14052302. Samples for work order 14052302 were received intact without headspace and at a temperature of 2.9 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	94886	2014-05-23 at 11:40	112264	2014-05-27 at 09:58
BTEX	S 8021B	94945	2014-05-27 at 09:30	112300	2014-05-28 at 07:26

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14052302 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 363813 - MW-10

Laboratory: Midland
Analysis: BTEX
QC Batch: 112264
Prep Batch: 94886

Analytical Method: S 8021B
Date Analyzed: 2014-05-27
Sample Preparation: 2014-05-23

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0923	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0747	mg/L	1	0.100	75	70 - 130

Sample: 363814 - MW-15

Laboratory: Midland
Analysis: BTEX
QC Batch: 112264
Prep Batch: 94886

Analytical Method: S 8021B
Date Analyzed: 2014-05-27
Sample Preparation: 2014-05-23

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0922	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0745	mg/L	1	0.100	74	70 - 130

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Sample: 363815 - MW-16

Laboratory: Midland
Analysis: BTEX
QC Batch: 112300
Prep Batch: 94945

Analytical Method: S 8021B
Date Analyzed: 2014-05-28
Sample Preparation: 2014-05-27

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs	1	0.00100	mg/L	1	0.00100
Toluene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0943	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0964	mg/L	1	0.100	96	70 - 130

Sample: 363816 - MW-23

Laboratory: Midland
Analysis: BTEX
QC Batch: 112264
Prep Batch: 94886

Analytical Method: S 8021B
Date Analyzed: 2014-05-27
Sample Preparation: 2014-05-23

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0911	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0746	mg/L	1	0.100	75	70 - 130

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Sample: 363817 - MW-3

Laboratory: Midland

Analysis: BTEX

QC Batch: 112264

Prep Batch: 94886

Analytical Method: S 8021B

Date Analyzed: 2014-05-27

Sample Preparation: 2014-05-23

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0928	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0741	mg/L	1	0.100	74	70 - 130

Sample: 363818 - MW-31

Laboratory: Midland

Analysis: BTEX

QC Batch: 112264

Prep Batch: 94886

Analytical Method: S 8021B

Date Analyzed: 2014-05-27

Sample Preparation: 2014-05-23

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0939	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0743	mg/L	1	0.100	74	70 - 130

Report Date: May 29, 2014
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Sample: 363819 - MW-37

Laboratory: Midland

Analysis: BTEX

QC Batch: 112264

Prep Batch: 94886

Analytical Method: S 8021B

Date Analyzed: 2014-05-27

Sample Preparation: 2014-05-23

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0912	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0725	mg/L	1	0.100	72	70 - 130

Sample: 363820 - MW-6

Laboratory: Midland

Analysis: BTEX

QC Batch: 112264

Prep Batch: 94886

Analytical Method: S 8021B

Date Analyzed: 2014-05-27

Sample Preparation: 2014-05-23

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0907	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0762	mg/L	1	0.100	76	70 - 130

Report Date: May 29, 2014
TNM-LF-2000-07

Work Order: 14052302
Bob Durham

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Sample: 363821 - MW-7

Laboratory: Midland
Analysis: BTEX
QC Batch: 112264
Prep Batch: 94886

Analytical Method: S 8021B
Date Analyzed: 2014-05-27
Sample Preparation: 2014-05-23

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0960	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0778	mg/L	1	0.100	78	70 - 130

Sample: 363822 - MW-8

Laboratory: Midland
Analysis: BTEX
QC Batch: 112264
Prep Batch: 94886

Analytical Method: S 8021B
Date Analyzed: 2014-05-27
Sample Preparation: 2014-05-23

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0897	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0782	mg/L	1	0.100	78	70 - 130

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Sample: 363823 - MW-32

Laboratory: Midland

Analysis: BTEX

QC Batch: 112264

Prep Batch: 94886

Analytical Method: S 8021B

Date Analyzed: 2014-05-27

Sample Preparation: 2014-05-23

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0892	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0760	mg/L	1	0.100	76	70 - 130

Sample: 363824 - MW-38

Laboratory: Midland

Analysis: BTEX

QC Batch: 112264

Prep Batch: 94886

Analytical Method: S 8021B

Date Analyzed: 2014-05-27

Sample Preparation: 2014-05-23

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs	1	0.00340	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs	1	0.00100	mg/L	1	0.00100
Xylene	Qr,Qs	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0896	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0797	mg/L	1	0.100	80	70 - 130

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Sample: 363825 - MW-4

Laboratory: Midland

Analysis: BTEX

QC Batch: 112264

Prep Batch: 94886

Analytical Method: S 8021B

Date Analyzed: 2014-05-27

Sample Preparation: 2014-05-23

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0909	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0772	mg/L	1	0.100	77	70 - 130

Sample: 363826 - MW-56

Laboratory: Midland

Analysis: BTEX

QC Batch: 112264

Prep Batch: 94886

Analytical Method: S 8021B

Date Analyzed: 2014-05-27

Sample Preparation: 2014-05-23

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0899	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0748	mg/L	1	0.100	75	70 - 130

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Sample: 363827 - MW-1

Laboratory: Midland

Analysis: BTEX

QC Batch: 112264

Prep Batch: 94886

Analytical Method: S 8021B

Date Analyzed: 2014-05-27

Sample Preparation: 2014-05-23

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs	1	0.00520	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0942	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0805	mg/L	1	0.100	80	70 - 130

Sample: 363828 - MW-2

Laboratory: Midland

Analysis: BTEX

QC Batch: 112300

Prep Batch: 94945

Analytical Method: S 8021B

Date Analyzed: 2014-05-28

Sample Preparation: 2014-05-27

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0923	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0927	mg/L	1	0.100	93	70 - 130

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Sample: 363829 - MW-5

Laboratory: Midland
Analysis: BTEX
QC Batch: 112300
Prep Batch: 94945

Analytical Method: S 8021B
Date Analyzed: 2014-05-28
Sample Preparation: 2014-05-27

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs	1	0.00800	mg/L	1	0.00100
Toluene	Qr, Qs	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0966	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0925	mg/L	1	0.100	92	70 - 130

Sample: 363830 - MW-13

Laboratory: Midland
Analysis: BTEX
QC Batch: 112264
Prep Batch: 94886

Analytical Method: S 8021B
Date Analyzed: 2014-05-27
Sample Preparation: 2014-05-23

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs	1	0.00840	mg/L	1	0.00100
Toluene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0919	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0893	mg/L	1	0.100	89	70 - 130

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Sample: 363831 - MW-12

Laboratory: Midland

Analysis: BTEX

QC Batch: 112300

Prep Batch: 94945

Analytical Method: S 8021B

Date Analyzed: 2014-05-28

Sample Preparation: 2014-05-27

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs	1	0.0104	mg/L	1	0.00100
Toluene	Qr, Qs, U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs	1	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	1	<0.00300	mg/L	1	0.00300

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0875	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0966	mg/L	1	0.100	97	70 - 130

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Method Blanks

Method Blank (1) QC Batch: 112264

QC Batch: 112264
Prep Batch: 94886

Date Analyzed: 2014-05-27
QC Preparation: 2014-05-23

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000238	mg/L	0.001
Toluene		1	<0.000181	mg/L	0.001
Ethylbenzene		1	<0.000247	mg/L	0.001
Xylene		1	<0.000189	mg/L	0.003

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0888	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0750	mg/L	1	0.100	75	70 - 130

Method Blank (1) QC Batch: 112300

QC Batch: 112300
Prep Batch: 94945

Date Analyzed: 2014-05-28
QC Preparation: 2014-05-27

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000238	mg/L	0.001
Toluene		1	<0.000181	mg/L	0.001
Ethylbenzene		1	<0.000247	mg/L	0.001
Xylene		1	<0.000189	mg/L	0.003

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0934	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0821	mg/L	1	0.100	82	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 112264
Prep Batch: 94886

Date Analyzed: 2014-05-27
QC Preparation: 2014-05-23

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0991	mg/L	1	0.100	<0.000238	99	70 - 130
Toluene		1	0.0998	mg/L	1	0.100	<0.000181	100	70 - 130
Ethylbenzene		1	0.0952	mg/L	1	0.100	<0.000247	95	70 - 130
Xylene		1	0.287	mg/L	1	0.300	<0.000189	96	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.103	mg/L	1	0.100	<0.000238	103	70 - 130	4	20
Toluene		1	0.104	mg/L	1	0.100	<0.000181	104	70 - 130	4	20
Ethylbenzene		1	0.0987	mg/L	1	0.100	<0.000247	99	70 - 130	4	20
Xylene		1	0.300	mg/L	1	0.300	<0.000189	100	70 - 130	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0968	0.0962	mg/L	1	0.100	97	96	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0957	0.0956	mg/L	1	0.100	96	96	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 112300
Prep Batch: 94945

Date Analyzed: 2014-05-28
QC Preparation: 2014-05-27

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.0991	mg/L	1	0.100	<0.000238	99	70 - 130
Toluene		1	0.101	mg/L	1	0.100	<0.000181	101	70 - 130
Ethylbenzene		1	0.0981	mg/L	1	0.100	<0.000247	98	70 - 130
Xylene		1	0.298	mg/L	1	0.300	<0.000189	99	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.100	mg/L	1	0.100	<0.000238	100	70 - 130	1	20
Toluene		1	0.102	mg/L	1	0.100	<0.000181	102	70 - 130	1	20
Ethylbenzene		1	0.0990	mg/L	1	0.100	<0.000247	99	70 - 130	1	20
Xylene		1	0.301	mg/L	1	0.300	<0.000189	100	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0981	0.0968	mg/L	1	0.100	98	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.103	0.103	mg/L	1	0.100	103	103	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 363813

QC Batch: 112264
Prep Batch: 94886

Date Analyzed: 2014-05-27
QC Preparation: 2014-05-23

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	Qs	Qs	1	0.0402	mg/L	1	0.100	<0.000238	40 70 - 130
Toluene	Qs	Qs	1	0.0374	mg/L	1	0.100	<0.000181	37 70 - 130
Ethylbenzene	Qs	Qs	1	0.0332	mg/L	1	0.100	<0.000247	33 70 - 130
Xylene	Qs	Qs	1	0.102	mg/L	1	0.300	<0.000189	34 70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	Qr,Qs	Qr,Qs	1	0.0601	mg/L	1	0.100	<0.000238	60 70 - 130	40	20
Toluene	Qr,Qs	Qr,Qs	1	0.0584	mg/L	1	0.100	<0.000181	58 70 - 130	44	20
Ethylbenzene	Qr,Qs	Qr,Qs	1	0.0520	mg/L	1	0.100	<0.000247	52 70 - 130	44	20
Xylene	Qr,Qs	Qr,Qs	1	0.159	mg/L	1	0.300	<0.000189	53 70 - 130	44	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0957	0.0977	mg/L	1	0.1	96	98	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0871	0.0912	mg/L	1	0.1	87	91	70 - 130

Matrix Spike (xMS-1) Spiked Sample: 363836

QC Batch: 112300
Prep Batch: 94945

Date Analyzed: 2014-05-28
QC Preparation: 2014-05-27

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene	Qs	Qs	1	0.0612	mg/L	1	0.100	<0.000238	61 70 - 130
Toluene	Qs	Qs	1	0.0592	mg/L	1	0.100	0.0028	56 70 - 130
Ethylbenzene	Qs	Qs	1	0.0547	mg/L	1	0.100	0.0017	53 70 - 130
Xylene	Qs	Qs	1	0.164	mg/L	1	0.300	0.0069	52 70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param			MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit	
	F	C	Result	Units								
Benzene	Q _r	Q _r	1	0.0820	mg/L	1	0.100	<0.000238	82	70 - 130	29	20
Toluene	Q _r	Q _r	1	0.0807	mg/L	1	0.100	0.0028	78	70 - 130	31	20
Ethylbenzene	Q _r	Q _r	1	0.0746	mg/L	1	0.100	0.0017	73	70 - 130	31	20
Xylene	Q _r	Q _r	1	0.228	mg/L	1	0.300	0.0069	74	70 - 130	33	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0969	0.0953	mg/L	1	0.1	97	95	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0968	0.0984	mg/L	1	0.1	97	98	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 112264

Date Analyzed: 2014-05-27

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.102	102	80 - 120	2014-05-27
Toluene		1	mg/L	0.100	0.102	102	80 - 120	2014-05-27
Ethylbenzene		1	mg/L	0.100	0.0960	96	80 - 120	2014-05-27
Xylene		1	mg/L	0.300	0.292	97	80 - 120	2014-05-27

Standard (CCV-2)

QC Batch: 112264

Date Analyzed: 2014-05-27

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.101	101	80 - 120	2014-05-27
Toluene		1	mg/L	0.100	0.0999	100	80 - 120	2014-05-27
Ethylbenzene		1	mg/L	0.100	0.0939	94	80 - 120	2014-05-27
Xylene		1	mg/L	0.300	0.285	95	80 - 120	2014-05-27

Standard (CCV-3)

QC Batch: 112264

Date Analyzed: 2014-05-27

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.103	103	80 - 120	2014-05-27
Toluene		1	mg/L	0.100	0.102	102	80 - 120	2014-05-27
Ethylbenzene		1	mg/L	0.100	0.0975	98	80 - 120	2014-05-27
Xylene		1	mg/L	0.300	0.294	98	80 - 120	2014-05-27

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Standard (CCV-2)

QC Batch: 112300

Date Analyzed: 2014-05-28

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.102	102	80 - 120	2014-05-28
Toluene		1	mg/L	0.100	0.103	103	80 - 120	2014-05-28
Ethylbenzene		1	mg/L	0.100	0.0968	97	80 - 120	2014-05-28
Xylene		1	mg/L	0.300	0.294	98	80 - 120	2014-05-28

Standard (CCV-3)

QC Batch: 112300

Date Analyzed: 2014-05-28

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0980	98	80 - 120	2014-05-28
Toluene		1	mg/L	0.100	0.0996	100	80 - 120	2014-05-28
Ethylbenzene		1	mg/L	0.100	0.0938	94	80 - 120	2014-05-28
Xylene		1	mg/L	0.300	0.283	94	80 - 120	2014-05-28

Standard (CCV-4)

QC Batch: 112300

Date Analyzed: 2014-05-28

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0984	98	80 - 120	2014-05-28
Toluene		1	mg/L	0.100	0.0998	100	80 - 120	2014-05-28
Ethylbenzene		1	mg/L	0.100	0.0936	94	80 - 120	2014-05-28
Xylene		1	mg/L	0.300	0.282	94	80 - 120	2014-05-28

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-13-7	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

Report Date: May 29, 2014
TNM-LF-2000-07

Work Order: 14052302
Bob Durham

Page Number: 24 of 24
Monument, Lea County, NM

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.

TraceAnalysis, Inc.

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1 (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750
Fax (972) 242-7750

email: lab@traceanalysis.com

Company Name: NOVA Phone #: 932-520-7720
Address: (Street, City, Zip) 2057 COMMERCIAL DR MIDLAND, TX 79703 Fax #:
Contact Person: CURT STANLEY E-mail: cjbryant@paulp.com
Invoice to:
(If different from above)
Project #: NM-2002 Project Name: BOB DUTHAM
Project Location (including state): NM Sampler Signature: [Signature]

ANALYSIS REQUEST

(Circle or Specify Method No.)

TPH 418.1 / TX1005 / TX1005 EXI(C35)	
TPH 8015 GRO / DRO / TVHC	
PAH 8270 / 625	
Total Metals Ag As Ba Cd Cr Pb Se Hg 8010/200.7	
TCLP Metals Ag As Ba Cd Cr Pb Se Hg	
TCLP Volatiles	
TCLP Semi Volatiles	
TCLP Pesticides	
RCI	
GC/MS Vol. 8260 / 624	
GC/MS Semi. Vol. 8270 / 625	
PCBs 8082 / 608	
Pesticides 8081 / 608	
BOD, TSS, pH	
Moisture Content	
Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ -P, Alkalinity	
Na, Ca, Mg, K, TDS, EC	
Turn Around Time if different from standard	

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX					PRESERVATIVE METHOD					SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME
363813	MW-10	3	100%	X				X				X		5/22	915
814	MW-15	1													923
815	MW-16	1													927
816	MW-23	1													936
817	MW-3	1													940
818	MW-31	1													951
819	MW-37	1													955
820	MW-6	2													959
821	MW-7	3													1011
822	MW-8	1													1030
823	MW-32	1													1035

RELINQUISHED BY: [Signature] Date: 5/23/14 Time: 0800 Company: NOVA
RECEIVED BY: [Signature] Date: 5/23/14 Time: 8:00 Company: NOVA
OBS °C 22.9 COR °C 22.9
INST °C OBS °C COR °C
RECEIVED BY: [Signature] Date: Time: Company:
OBS °C COR °C
INST °C OBS °C COR °C

REMARKS: muddied. all

LAB USE ONLY

Dry Weight Basis Required ☐
TRRP Report Required ☐
Check if Special Reporting Limits Are Needed ☐

Submission of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

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BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750
Fax (575) 392-4508

Company Name:

NOVA

Address: (Street, City, Zip)

2057 Commerce St MIDLAND, TX 79703

Contact Person:

CURT STANLEY

Invoice to:

(If different from above)

Project #:

NM-2002

Project Location (including state):

NM

Project Name:

BOB'S DURHAM

Sampler Signature:

[Signature]

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ex(C35)	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCBs 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ -P, Alkalinity	Na, Ca, Mg, K, TDS, EC	Hold
------------------------------	-------------------------------------	----------------	---	-------------------------------------	----------------	---------------------	-----------------	-----	-----------------------	-----------------------------	-----------------	-----------------------	--------------	------------------	---	------------------------	------

LAB # LAB USE ONLY	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME
824	MW-38	3	Var	X				X					X	5/22	1040
825	MW-4	1													1051
826	MW-56	1													1105
827	MW-1	1													1115
828	MW-2	1													1123
829	MW-5	1													1128
830	MW-13	1													1135
831	MW-12	1													1141

LAB USE ONLY

REMARKS:

Relinquished by: <i>[Signature]</i>	Company: <u>NOVA</u>	Date: <u>5/24/04</u>	Time: <u>0800</u>	Received by: <i>[Signature]</i>	Company: <u>TA</u>	Date: <u>5/23/04</u>	Time: <u>8:29</u>	INST: <u>1125</u>	OBS: <u>25</u>	COR: <u>29</u>
Relinquished by: <i>[Signature]</i>	Company: <u>NOVA</u>	Date: <u>5/24/04</u>	Time: <u>0800</u>	Received by: <i>[Signature]</i>	Company: <u>TA</u>	Date: <u>5/23/04</u>	Time: <u>8:29</u>	INST: <u>1125</u>	OBS: <u>25</u>	COR: <u>29</u>
Relinquished by: <i>[Signature]</i>	Company: <u>NOVA</u>	Date: <u>5/24/04</u>	Time: <u>0800</u>	Received by: <i>[Signature]</i>	Company: <u>TA</u>	Date: <u>5/23/04</u>	Time: <u>8:29</u>	INST: <u>1125</u>	OBS: <u>25</u>	COR: <u>29</u>

Dry Weight Basis Required ☐
TRRP Report Required ☐
Check if Special Reporting Limits Are Needed ☐

submital of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carried *[Signature]*



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944
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(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: September 10, 2014

Work Order: 14090210



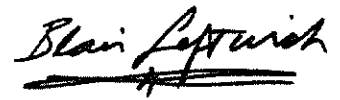
Project Location: West of Monument, NM
Project Name: Bob Durham
Project Number: TNM LF 2000-7
SRS #: TNM LF 2000-7

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
373479	MW 2	water	2014-08-29	09:46	2014-08-29
373480	MW 32	water	2014-08-29	10:20	2014-08-29
373481	MW 4	water	2014-08-29	10:39	2014-08-29
373482	MW 56	water	2014-08-29	11:05	2014-08-29
373483	MW 38	water	2014-08-29	11:46	2014-08-29
373484	MW 1	water	2014-08-29	12:29	2014-08-29
373485	MW 5	water	2014-08-29	13:08	2014-08-29
373486	MW 13	water	2014-08-29	13:33	2014-08-29

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 17 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink, reading "Blair Leftwich". The signature is written in a cursive style and is underlined with a double line.

Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2014-08-29 and assigned to work order 14090210. Samples for work order 14090210 were received intact without headspace and at a temperature of 3.8 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	97425	2014-09-04 at 15:11	115202	2014-09-04 at 15:11
BTEX	S 8021B	97527	2014-09-09 at 14:24	115330	2014-09-09 at 14:24

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14090210 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 373479 - MW 2

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 115330
Prep Batch: 97527

Analytical Method: S 8021B
Date Analyzed: 2014-09-09
Sample Preparation: 2014-09-09

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene		1,2,3,4,5	0.00110	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0851	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0872	mg/L	1	0.100	87	70 - 130

Sample: 373480 - MW 32

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 115330
Prep Batch: 97527

Analytical Method: S 8021B
Date Analyzed: 2014-09-09
Sample Preparation: 2014-09-09

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0844	mg/L	1	0.100	84	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0825	mg/L	1	0.100	82	70 - 130

Report Date: September 10, 2014
TNM LF 2000-7

Work Order: 14090210
Bob Durham

Page Number: 6 of 17
West of Monument, NM

Sample: 373481 - MW 4

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 115330

Prep Batch: 97527

Analytical Method: S 8021B

Date Analyzed: 2014-09-09

Sample Preparation: 2014-09-09

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene		1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0849	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0830	mg/L	1	0.100	83	70 - 130

Sample: 373482 - MW 56

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 115202

Prep Batch: 97425

Analytical Method: S 8021B

Date Analyzed: 2014-09-04

Sample Preparation: 2014-09-04

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0975	mg/L	1	0.100	98	75.4 - 120
4-Bromofluorobenzene (4-BFB)		5	0.0761	mg/L	1	0.100	76	74.6 - 120

Report Date: September 10, 2014
TNM LF 2000-7

Work Order: 14090210
Bob Durham

Page Number: 7 of 17
West of Monument, NM

Sample: 373483 - MW 38

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 115330

Prep Batch: 97527

Analytical Method: S 8021B

Date Analyzed: 2014-09-09

Sample Preparation: 2014-09-09

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1,2,3,4,5	0.00170	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene		1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0845	mg/L	1	0.100	84	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0873	mg/L	1	0.100	87	70 - 130

Sample: 373484 - MW 1

Laboratory: Lubbock

Analysis: BTEX

QC Batch: 115330

Prep Batch: 97527

Analytical Method: S 8021B

Date Analyzed: 2014-09-09

Sample Preparation: 2014-09-09

Prep Method: S 5030B

Analyzed By: MT

Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0851	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0846	mg/L	1	0.100	85	70 - 130

Report Date: September 10, 2014
TNM LF 2000-7

Work Order: 14090210
Bob Durham

Page Number: 8 of 17
West of Monument, NM

Sample: 373485 - MW 5

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 115330
Prep Batch: 97527

Analytical Method: S 8021B
Date Analyzed: 2014-09-09
Sample Preparation: 2014-09-09

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1,2,3,4,5	0.00160	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene		1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0841	mg/L	1	0.100	84	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0829	mg/L	1	0.100	83	70 - 130

Sample: 373486 - MW 13

Laboratory: Lubbock
Analysis: BTEX
QC Batch: 115330
Prep Batch: 97527

Analytical Method: S 8021B
Date Analyzed: 2014-09-09
Sample Preparation: 2014-09-09

Prep Method: S 5030B
Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1,2,3,4,5	<0.00100	mg/L	1	0.00100
Toluene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100
Xylene	U	1,2,3,4,5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		5	0.0858	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)		5	0.0905	mg/L	1	0.100	90	70 - 130

Method Blanks

Method Blank (1) QC Batch: 115202

QC Batch: 115202
Prep Batch: 97425

Date Analyzed: 2014-09-04
QC Preparation: 2014-09-04

Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	MDL		Units	RL
			Result			
Benzene		1,2,3,4,5	<0.000188		mg/L	0.001
Toluene		1,2,3,4,5	<0.000160		mg/L	0.001
Ethylbenzene		1,2,3,4,5	<0.000119		mg/L	0.001
Xylene		1,2,3,4,5	<0.000142		mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		s	0.0970	mg/L	1	0.100	97	75.4 - 120
4-Bromofluorobenzene (4-BFB)		s	0.0756	mg/L	1	0.100	76	74.6 - 120

Method Blank (1) QC Batch: 115330

QC Batch: 115330
Prep Batch: 97527

Date Analyzed: 2014-09-09
QC Preparation: 2014-09-09

Analyzed By: MT
Prepared By: MT

Parameter	Flag	Cert	MDL		Units	RL
			Result			
Benzene		1,2,3,4,5	<0.000303		mg/L	0.001
Toluene		1,2,3,4,5	<0.000303		mg/L	0.001
Ethylbenzene		1,2,3,4,5	<0.000266		mg/L	0.001
Xylene		1,2,3,4,5	<0.000265		mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		s	0.0861	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)		s	0.0835	mg/L	1	0.100	84	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 115202
Prep Batch: 97425

Date Analyzed: 2014-09-04
QC Preparation: 2014-09-04

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1,2,3,4,5	0.0914	mg/L	1	0.100	<0.000188	91	74.3 - 120
Toluene		1,2,3,4,5	0.0903	mg/L	1	0.100	<0.000160	90	77.6 - 120
Ethylbenzene		1,2,3,4,5	0.0905	mg/L	1	0.100	<0.000119	90	78.5 - 120
Xylene		1,2,3,4,5	0.243	mg/L	1	0.300	<0.000142	81	77.6 - 120

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1,2,3,4,5	0.0943	mg/L	1	0.100	<0.000188	94	74.3 - 120	3	20
Toluene		1,2,3,4,5	0.0933	mg/L	1	0.100	<0.000160	93	77.6 - 120	3	20
Ethylbenzene		1,2,3,4,5	0.0935	mg/L	1	0.100	<0.000119	94	78.5 - 120	3	20
Xylene		1,2,3,4,5	0.252	mg/L	1	0.300	<0.000142	84	77.6 - 120	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	5	0.0921	0.0893	mg/L	1	0.100	92	89	75.4 - 120
4-Bromofluorobenzene (4-BFB)	5	0.0918	0.0894	mg/L	1	0.100	92	89	74.6 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 115330
Prep Batch: 97527

Date Analyzed: 2014-09-09
QC Preparation: 2014-09-09

Analyzed By: MT
Prepared By: MT

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1,2,3,4,5	0.0950	mg/L	1	0.100	<0.000303	95	70 - 130
Toluene		1,2,3,4,5	0.0952	mg/L	1	0.100	<0.000303	95	70 - 130
Ethylbenzene		1,2,3,4,5	0.0910	mg/L	1	0.100	<0.000266	91	70 - 130
Xylene		1,2,3,4,5	0.278	mg/L	1	0.300	<0.000265	92	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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TNM LF 2000-7

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Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1,2,3,4,5	0.0885	mg/L	1	0.100	<0.000303	88	70 - 130	7	20
Toluene		1,2,3,4,5	0.0865	mg/L	1	0.100	<0.000303	86	70 - 130	10	20
Ethylbenzene		1,2,3,4,5	0.0823	mg/L	1	0.100	<0.000266	82	70 - 130	10	20
Xylene		1,2,3,4,5	0.252	mg/L	1	0.300	<0.000265	84	70 - 130	10	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	5	0.0868	0.0880	mg/L	1	0.100	87	88	70 - 130
4-Bromofluorobenzene (4-BFB)	5	0.0855	0.0860	mg/L	1	0.100	86	86	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 373460

QC Batch: 115202
Prep Batch: 97425

Date Analyzed: 2014-09-04
QC Preparation: 2014-09-04

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1,2,3,4,5	0.107	mg/L	1	0.100	0.01	97	50.2 - 129
Toluene		1,2,3,4,5	0.0947	mg/L	1	0.100	<0.000160	95	58.1 - 129
Ethylbenzene		1,2,3,4,5	0.0946	mg/L	1	0.100	<0.000119	95	58.1 - 127
Xylene		1,2,3,4,5	0.256	mg/L	1	0.300	<0.000142	85	53.1 - 128

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1,2,3,4,5	0.106	mg/L	1	0.100	0.01	96	50.2 - 129	1	20
Toluene		1,2,3,4,5	0.0941	mg/L	1	0.100	<0.000160	94	58.1 - 129	1	20
Ethylbenzene		1,2,3,4,5	0.0942	mg/L	1	0.100	<0.000119	94	58.1 - 127	0	20
Xylene		1,2,3,4,5	0.255	mg/L	1	0.300	<0.000142	85	53.1 - 128	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	5	0.0968	0.0954	mg/L	1	0.1	97	95	75.4 - 120
4-Bromofluorobenzene (4-BFB)	5	0.0985	0.0984	mg/L	1	0.1	98	98	74.6 - 120

Matrix Spike (MS-1) Spiked Sample: 373700

QC Batch: 115330
Prep Batch: 97527

Date Analyzed: 2014-09-09
QC Preparation: 2014-09-09

Analyzed By: MT
Prepared By: MT

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1,2,3,4,5	0.0962	mg/L	1	0.100	<0.000303	96	70 - 130
Toluene		1,2,3,4,5	0.0944	mg/L	1	0.100	<0.000303	94	70 - 130
Ethylbenzene		1,2,3,4,5	0.0892	mg/L	1	0.100	<0.000266	89	70 - 130
Xylene		1,2,3,4,5	0.272	mg/L	1	0.300	<0.000265	91	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Bob Durham

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Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1,2,3,4,5	0.0968	mg/L	1	0.100	<0.000303	97	70 - 130	1	20
Toluene		1,2,3,4,5	0.0928	mg/L	1	0.100	<0.000303	93	70 - 130	2	20
Ethylbenzene		1,2,3,4,5	0.0877	mg/L	1	0.100	<0.000266	88	70 - 130	2	20
Xylene		1,2,3,4,5	0.268	mg/L	1	0.300	<0.000265	89	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	5	0.0853	0.0870	mg/L	1	0.1	85	87	70 - 130
4-Bromofluorobenzene (4-BFB)	5	0.0843	0.0846	mg/L	1	0.1	84	85	70 - 130

Calibration Standards

Standard (CCV-2)

QC Batch: 115202

Date Analyzed: 2014-09-04

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4,5	mg/L	0.100	0.0918	92	80 - 120	2014-09-04
Toluene		1,2,3,4,5	mg/L	0.100	0.0906	91	80 - 120	2014-09-04
Ethylbenzene		1,2,3,4,5	mg/L	0.100	0.0907	91	80 - 120	2014-09-04
Xylene		1,2,3,4,5	mg/L	0.300	0.244	81	80 - 120	2014-09-04

Standard (CCV-3)

QC Batch: 115202

Date Analyzed: 2014-09-04

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4,5	mg/L	0.100	0.0910	91	80 - 120	2014-09-04
Toluene		1,2,3,4,5	mg/L	0.100	0.0896	90	80 - 120	2014-09-04
Ethylbenzene		1,2,3,4,5	mg/L	0.100	0.0894	89	80 - 120	2014-09-04
Xylene		1,2,3,4,5	mg/L	0.300	0.240	80	80 - 120	2014-09-04

Standard (CCV-1)

QC Batch: 115330

Date Analyzed: 2014-09-09

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4,5	mg/L	0.100	0.0956	96	80 - 120	2014-09-09
Toluene		1,2,3,4,5	mg/L	0.100	0.0952	95	80 - 120	2014-09-09
Ethylbenzene		1,2,3,4,5	mg/L	0.100	0.0903	90	80 - 120	2014-09-09
Xylene		1,2,3,4,5	mg/L	0.300	0.275	92	80 - 120	2014-09-09

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Bob Durham

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Standard (CCV-2)

QC Batch: 115330

Date Analyzed: 2014-09-09

Analyzed By: MT

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1,2,3,4,5	mg/L	0.100	0.0929	93	80 - 120	2014-09-09
Toluene		1,2,3,4,5	mg/L	0.100	0.0916	92	80 - 120	2014-09-09
Ethylbenzene		1,2,3,4,5	mg/L	0.100	0.0867	87	80 - 120	2014-09-09
Xylene		1,2,3,4,5	mg/L	0.300	0.264	88	80 - 120	2014-09-09

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	PJLA	L14-93	Lubbock
2	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-14-10	Lubbock
5		2014-018	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.

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TNM LF 2000-7

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Bob Durham

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West of Monument, NM

F	Description
---	-------------

U	The analyte is not detected above the SDL
---	---

Attachments

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.

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Contact Person: Curt Stuebel E-mail:

Invoice to: Plains
(If different from above)
Project #: NM 2002
Project Location (including state):

Project Name: San Juan
Sampler Signature: [Signature]

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME
373479	mw2	13	VOA	X				X						8/24/14	946
480	mw32														1020
481	mw4														1039
482	mw56														1105
483	mw38														1146
484	mw1														1229
485	mw5														1308
486	mw13														1333

Relinquished by: <u>[Signature]</u> Company: <u>NOVA</u> Date: <u>8/29/14</u> Time: <u>1632</u>	Received by: <u>[Signature]</u> Company: <u>TA</u> Date: <u>8/29/14</u> Time: <u>1632</u>	INST: <u>1632</u> OBS: <u>38</u> COR: <u>38</u>	LAB USE ONLY Effect: <u>Y, L, N</u> Headspace: <u>Y, L, N, NA</u> Log-In/Review: <u>[Signature]</u>	REMARKS: <u>Lab data only</u>
Relinquished by: <u>[Signature]</u> Company: <u>NOVA</u> Date: <u>9/2/14</u> Time: <u>1530</u>	Received by: <u>[Signature]</u> Company: <u>TA</u> Date: <u>9/3/14</u> Time: <u>9am</u>	INST: <u>1530</u> OBS: <u>48</u> COR: <u>48</u>		
Relinquished by: <u>[Signature]</u> Company: <u>NOVA</u> Date: <u>9/2/14</u> Time: <u>1530</u>	Received by: <u>[Signature]</u> Company: <u>TA</u> Date: <u>9/3/14</u> Time: <u>9am</u>	INST: <u>1530</u> OBS: <u>48</u> COR: <u>48</u>		

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C.O.C.

Carrier # WVX/LSO ZRS-94387



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Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: December 16, 2014

Work Order: 14112403



Project Location: Monument, Lea County, NM
Project Name: Bob Durham
Project Number: TNM-LF-2000-07

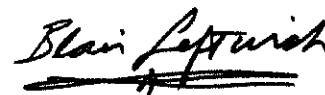
Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
380496	MW 1	water	2014-11-20	13:57	2014-11-24
380497	MW 10	water	2014-11-20	14:15	2014-11-24
380498	MW 11	water	2014-11-20	14:27	2014-11-24
380499	MW 13	water	2014-11-20	14:40	2014-11-24
380500	MW 15	water	2014-11-20	14:56	2014-11-24
380501	MW 16	water	2014-11-20	15:26	2014-11-24
380502	MW 2	water	2014-11-20	15:45	2014-11-24
380503	MW 20	water	2014-11-20	16:10	2014-11-24
380504	MW 21	water	2014-11-20	16:30	2014-11-24
380505	MW 23	water	2014-11-20	16:52	2014-11-24
380506	MW 24	water	2014-11-21	11:37	2014-11-24
380507	MW 25	water	2014-11-21	11:49	2014-11-24
380508	MW 27	water	2014-11-21	12:21	2014-11-24
380509	MW 3	water	2014-11-21	13:19	2014-11-24
380510	MW 30	water	2014-11-21	13:43	2014-11-24
380511	MW 31	water	2014-11-21	14:05	2014-11-24
380512	MW 32	water	2014-11-21	14:20	2014-11-24
380513	MW 33	water	2014-11-21	14:43	2014-11-24

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
380514	MW 37	water	2014-11-21	14:57	2014-11-24
380515	MW 4	water	2014-11-21	15:21	2014-11-24
380516	MW 56	water	2014-11-21	15:38	2014-11-24
380517	MW 6	water	2014-11-21	16:09	2014-11-24
380518	MW 7	water	2014-11-21	16:27	2014-11-24
380519	MW 8	water	2014-11-21	16:42	2014-11-24
380520	MW 5	water	2014-11-21	16:57	2014-11-24
380521	MW 38	water	2014-11-21	17:28	2014-11-24

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 36 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2014-11-24 and assigned to work order 14112403. Samples for work order 14112403 were received intact at a temperature of 6.5 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	99402	2014-11-26 at 14:53	117580	2014-11-30 at 12:49
BTEX	S 8021B	99408	2014-11-30 at 13:45	117581	2014-12-01 at 08:53
BTEX	S 8021B	99476	2014-12-02 at 15:00	117658	2014-12-03 at 07:14
PAH	S 8270D	99788	2014-11-27 at 13:00	118022	2014-12-12 at 10:00

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 14112403 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 380496 - MW 1

Laboratory: Midland
Analysis: BTEX
QC Batch: 117580
Prep Batch: 99402

Analytical Method: S 8021B
Date Analyzed: 2014-11-30
Sample Preparation: 2014-11-26

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0966	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0794	mg/L	1	0.100	79	70 - 130

Sample: 380497 - MW 10

Laboratory: Midland
Analysis: BTEX
QC Batch: 117581
Prep Batch: 99408

Analytical Method: S 8021B
Date Analyzed: 2014-12-01
Sample Preparation: 2014-11-30

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs	5	0.00440	mg/L	1	0.00100
Toluene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs	5	0.00440	mg/L	1	0.00100
Xylene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0931	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0870	mg/L	1	0.100	87	70 - 130

Report Date: December 16, 2014
TNM-LF-2000-07

Work Order: 14112403
Bob Durham

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Monument, Lea County, NM

Sample: 380498 - MW 11

Laboratory: Midland
Analysis: BTEX
QC Batch: 117580
Prep Batch: 99402

Analytical Method: S 8021B
Date Analyzed: 2014-11-30
Sample Preparation: 2014-11-26

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0863	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0773	mg/L	1	0.100	77	70 - 130

Sample: 380499 - MW 13

Laboratory: Midland
Analysis: BTEX
QC Batch: 117580
Prep Batch: 99402

Analytical Method: S 8021B
Date Analyzed: 2014-11-30
Sample Preparation: 2014-11-26

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0965	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0898	mg/L	1	0.100	90	70 - 130

Sample: 380499 - MW 13

Laboratory: Lubbock
Analysis: PAH
QC Batch: 118022
Prep Batch: 99788

Analytical Method: S 8270D
Date Analyzed: 2014-12-12
Sample Preparation: 2014-11-27

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
2-Methylnaphthalene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
1-Methylnaphthalene	Qs,U	1	<0.000200	mg/L	1	0.000200
Acenaphthylene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Acenaphthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Dibenzofuran	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Fluorene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Anthracene	Qc,U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Phenanthrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Pyrene	Qc,U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(a)anthracene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Chrysene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(a)pyrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	Qsr	Qsr	0.0364	mg/L	1	8.00	0	10 - 121
2-Fluorobiphenyl			1.96	mg/L	1	8.00	24	20.5 - 120
Terphenyl-d14			2.16	mg/L	1	8.00	27	26.4 - 120

Sample: 380500 - MW 15

Laboratory: Midland

Analysis: BTEX

QC Batch: 117580

Prep Batch: 99402

Analytical Method: S 8021B

Date Analyzed: 2014-11-30

Sample Preparation: 2014-11-26

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0934	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0825	mg/L	1	0.100	82	70 - 130

Sample: 380501 - MW 16

Laboratory: Midland
Analysis: BTEX
QC Batch: 117581
Prep Batch: 99408

Analytical Method: S 8021B
Date Analyzed: 2014-12-01
Sample Preparation: 2014-11-30

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs	5	0.00480	mg/L	1	0.00100
Toluene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0925	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0755	mg/L	1	0.100	76	70 - 130

Sample: 380502 - MW 2

Laboratory: Midland
Analysis: BTEX
QC Batch: 117581
Prep Batch: 99408

Analytical Method: S 8021B
Date Analyzed: 2014-12-01
Sample Preparation: 2014-11-30

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Toluene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0953	mg/L	1	0.100	95	70 - 130

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sample continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.0738	mg/L	1	0.100	74	70 - 130

Sample: 380503 - MW 20

Laboratory: Midland
Analysis: BTEX
QC Batch: 117580
Prep Batch: 99402

Analytical Method: S 8021B
Date Analyzed: 2014-11-30
Sample Preparation: 2014-11-26

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0952	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0811	mg/L	1	0.100	81	70 - 130

Sample: 380504 - MW 21

Laboratory: Midland
Analysis: BTEX
QC Batch: 117580
Prep Batch: 99402

Analytical Method: S 8021B
Date Analyzed: 2014-11-30
Sample Preparation: 2014-11-26

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0976	mg/L	1	0.100	98	70 - 130

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.0794	mg/L	1	0.100	79	70 - 130

Sample: 380505 - MW 23

Laboratory: Midland
Analysis: BTEX
QC Batch: 117580
Prep Batch: 99402

Analytical Method: S 8021B
Date Analyzed: 2014-11-30
Sample Preparation: 2014-11-26

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0980	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0813	mg/L	1	0.100	81	70 - 130

Sample: 380506 - MW 24

Laboratory: Midland
Analysis: BTEX
QC Batch: 117580
Prep Batch: 99402

Analytical Method: S 8021B
Date Analyzed: 2014-11-30
Sample Preparation: 2014-11-26

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0956	mg/L	1	0.100	96	70 - 130

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sample continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.0759	mg/L	1	0.100	76	70 - 130

Sample: 380507 - MW 25

Laboratory: Midland
Analysis: BTEX
QC Batch: 117580
Prep Batch: 99402

Analytical Method: S 8021B
Date Analyzed: 2014-11-30
Sample Preparation: 2014-11-26

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0891	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0743	mg/L	1	0.100	74	70 - 130

Sample: 380508 - MW 27

Laboratory: Midland
Analysis: BTEX
QC Batch: 117580
Prep Batch: 99402

Analytical Method: S 8021B
Date Analyzed: 2014-11-30
Sample Preparation: 2014-11-26

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0978	mg/L	1	0.100	98	70 - 130

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.0778	mg/L	1	0.100	78	70 - 130

Sample: 380509 - MW 3

Laboratory: Midland
Analysis: BTEX
QC Batch: 117580
Prep Batch: 99402

Analytical Method: S 8021B
Date Analyzed: 2014-11-30
Sample Preparation: 2014-11-26

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0937	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0712	mg/L	1	0.100	71	70 - 130

Sample: 380510 - MW 30

Laboratory: Midland
Analysis: BTEX
QC Batch: 117580
Prep Batch: 99402

Analytical Method: S 8021B
Date Analyzed: 2014-11-30
Sample Preparation: 2014-11-26

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0942	mg/L	1	0.100	94	70 - 130

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.0723	mg/L	1	0.100	72	70 - 130

Sample: 380511 - MW 31

Laboratory: Midland
Analysis: BTEX
QC Batch: 117580
Prep Batch: 99402

Analytical Method: S 8021B
Date Analyzed: 2014-11-30
Sample Preparation: 2014-11-26

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0948	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0751	mg/L	1	0.100	75	70 - 130

Sample: 380512 - MW 32

Laboratory: Midland
Analysis: BTEX
QC Batch: 117580
Prep Batch: 99402

Analytical Method: S 8021B
Date Analyzed: 2014-11-30
Sample Preparation: 2014-11-26

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0954	mg/L	1	0.100	95	70 - 130

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.0749	mg/L	1	0.100	75	70 - 130

Sample: 380512 - MW 32

Laboratory: Lubbock

Analysis: PAH

QC Batch: 118022

Prep Batch: 99788

Analytical Method: S 8270D

Date Analyzed: 2014-12-12

Sample Preparation: 2014-11-27

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
2-Methylnaphthalene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
1-Methylnaphthalene	Qs,U	1	<0.000200	mg/L	1	0.000200
Acenaphthylene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Acenaphthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Dibenzofuran	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Fluorene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Anthracene	Qc,U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Phenanthrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Pyrene	Qc,U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(a)anthracene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Chrysene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(a)pyrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	Qsr	Qsr	0.107	mg/L	1	8.00	1	10 - 121
2-Fluorobiphenyl			2.41	mg/L	1	8.00	30	20.5 - 120
Terphenyl-d14			2.40	mg/L	1	8.00	30	26.4 - 120

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Sample: 380513 - MW 33

Laboratory: Midland
Analysis: BTEX
QC Batch: 117581
Prep Batch: 99408

Analytical Method: S 8021B
Date Analyzed: 2014-12-01
Sample Preparation: 2014-11-30

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Toluene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0952	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.104	mg/L	1	0.100	104	70 - 130

Sample: 380514 - MW 37

Laboratory: Midland
Analysis: BTEX
QC Batch: 117658
Prep Batch: 99476

Analytical Method: S 8021B
Date Analyzed: 2014-12-03
Sample Preparation: 2014-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Toluene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0916	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0758	mg/L	1	0.100	76	70 - 130

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Sample: 380515 - MW 4

Laboratory: Midland

Analysis: BTEX

QC Batch: 117581

Prep Batch: 99408

Analytical Method: S 8021B

Date Analyzed: 2014-12-01

Sample Preparation: 2014-11-30

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0912	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0749	mg/L	1	0.100	75	70 - 130

Sample: 380516 - MW 56

Laboratory: Midland

Analysis: BTEX

QC Batch: 117658

Prep Batch: 99476

Analytical Method: S 8021B

Date Analyzed: 2014-12-03

Sample Preparation: 2014-12-02

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0925	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0760	mg/L	1	0.100	76	70 - 130

Sample: 380516 - MW 56

Laboratory: Lubbock

Analysis: PAH

QC Batch: 118022

Prep Batch: 99788

Analytical Method: S 8270D

Date Analyzed: 2014-12-12

Sample Preparation: 2014-11-27

Prep Method: S 3510C

Analyzed By: MN

Prepared By: MN

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Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
2-Methylnaphthalene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
1-Methylnaphthalene	Qs,U	1	<0.000200	mg/L	1	0.000200
Acenaphthylene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Acenaphthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Dibenzofuran	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Fluorene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Anthracene	Qc,U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Phenanthrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Pyrene	Qc,U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(a)anthracene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Chrysene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(a)pyrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	Qsr	Qsr	0.0409	mg/L	1	8.00	0	10 - 121
2-Fluorobiphenyl			2.40	mg/L	1	8.00	30	20.5 - 120
Terphenyl-d14			2.52	mg/L	1	8.00	32	26.4 - 120

Sample: 380517 - MW 6

Laboratory: Midland
Analysis: BTEX
QC Batch: 117658
Prep Batch: 99476

Analytical Method: S 8021B
Date Analyzed: 2014-12-03
Sample Preparation: 2014-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs	5	0.0116	mg/L	1	0.00100

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Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0945	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0770	mg/L	1	0.100	77	70 - 130

Sample: 380518 - MW 7

Laboratory: Midland
Analysis: BTEX
QC Batch: 117658
Prep Batch: 99476

Analytical Method: S 8021B
Date Analyzed: 2014-12-03
Sample Preparation: 2014-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Toluene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0918	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0803	mg/L	1	0.100	80	70 - 130

Sample: 380519 - MW 8

Laboratory: Midland
Analysis: BTEX
QC Batch: 117581
Prep Batch: 99408

Analytical Method: S 8021B
Date Analyzed: 2014-12-01
Sample Preparation: 2014-11-30

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Toluene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr, Qs, U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0918	mg/L	1	0.100	92	70 - 130

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sample continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
4-Bromofluorobenzene (4-BFB)			0.0703	mg/L	1	0.100	70	70 - 130

Sample: 380520 - MW 5

Laboratory: Midland
Analysis: BTEX
QC Batch: 117581
Prep Batch: 99408

Analytical Method: S 8021B
Date Analyzed: 2014-12-01
Sample Preparation: 2014-11-30

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100
Toluene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0910	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0744	mg/L	1	0.100	74	70 - 130

Sample: 380520 - MW 5

Laboratory: Lubbock
Analysis: PAH
QC Batch: 118022
Prep Batch: 99788

Analytical Method: S 8270D
Date Analyzed: 2014-12-12
Sample Preparation: 2014-11-27

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
2-Methylnaphthalene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
1-Methylnaphthalene	Qs,U	1	<0.000200	mg/L	1	0.000200
Acenaphthylene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Acenaphthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Dibenzofuran	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Fluorene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Anthracene	Qc,U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Phenanthrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200

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sample 380520 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Pyrene	Qc,U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(a)anthracene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Chrysene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(a)pyrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	Qsr	Qsr	0.0981	mg/L	1	8.00	1	10 - 121
2-Fluorobiphenyl			2.64	mg/L	1	8.00	33	20.5 - 120
Terphenyl-d14			2.69	mg/L	1	8.00	34	26.4 - 120

Sample: 380521 - MW 38

Laboratory: Midland

Analysis: BTEX

QC Batch: 117581

Prep Batch: 99408

Analytical Method: S 8021B

Date Analyzed: 2014-12-01

Sample Preparation: 2014-11-30

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qr,Qs	5	0.00530	mg/L	1	0.00100
Toluene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr,Qs,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0913	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0798	mg/L	1	0.100	80	70 - 130

Method Blanks

Method Blank (1) QC Batch: 117580

QC Batch: 117580
Prep Batch: 99402

Date Analyzed: 2014-11-30
QC Preparation: 2014-11-26

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		s	<0.000299	mg/L	0.001
Toluene		s	<0.000247	mg/L	0.001
Ethylbenzene		s	<0.000423	mg/L	0.001
Xylene		s	<0.000552	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0894	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0808	mg/L	1	0.100	81	70 - 130

Method Blank (1) QC Batch: 117581

QC Batch: 117581
Prep Batch: 99408

Date Analyzed: 2014-12-01
QC Preparation: 2014-11-30

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		s	<0.000299	mg/L	0.001
Toluene		s	<0.000247	mg/L	0.001
Ethylbenzene		s	<0.000423	mg/L	0.001
Xylene		s	<0.000552	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0878	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0901	mg/L	1	0.100	90	70 - 130

Method Blank (1) QC Batch: 117658

QC Batch: 117658
Prep Batch: 99476

Date Analyzed: 2014-12-03
QC Preparation: 2014-12-02

Analyzed By: AK
Prepared By: AK

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Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		5	<0.000299	mg/L	0.001
Toluene		5	<0.000247	mg/L	0.001
Ethylbenzene		5	<0.000423	mg/L	0.001
Xylene		5	<0.000552	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0954	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0798	mg/L	1	0.100	80	70 - 130

Method Blank (1) QC Batch: 118022

QC Batch: 118022
Prep Batch: 99788

Date Analyzed: 2014-12-12
QC Preparation: 2014-11-27

Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	MDL Result	Units	RL
Naphthalene		1,2,3,4,6	<0.0000708	mg/L	0.0002
2-Methylnaphthalene		1,2,3,4,6	<0.0000834	mg/L	0.0002
1-Methylnaphthalene		1	<0.000107	mg/L	0.0002
Acenaphthylene		1,2,3,4,6	<0.0000823	mg/L	0.0002
Acenaphthene		1,2,3,4,6	<0.0000888	mg/L	0.0002
Dibenzofuran		1,2,3,4,6	<0.0000787	mg/L	0.0002
Fluorene		1,2,3,4,6	<0.0000670	mg/L	0.0002
Anthracene		1,2,3,4,6	<0.0000838	mg/L	0.0002
Phenanthrene		1,2,3,4,6	<0.000106	mg/L	0.0002
Fluoranthene		1,2,3,4,6	<0.0000885	mg/L	0.0002
Pyrene		1,2,3,4,6	<0.000149	mg/L	0.0002
Benzo(a)anthracene		1,2,3,4,6	<0.000146	mg/L	0.0002
Chrysene		1,2,3,4,6	<0.000157	mg/L	0.0002
Benzo(b)fluoranthene		1,2,3,4,6	<0.000146	mg/L	0.0002
Benzo(k)fluoranthene		1,2,3,4,6	<0.000152	mg/L	0.0002
Benzo(a)pyrene		1,2,3,4,6	<0.000141	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		1,2,3,4,6	<0.000160	mg/L	0.0002
Dibenzo(a,h)anthracene		1,2,3,4,6	<0.000127	mg/L	0.0002
Benzo(g,h,i)perylene		1,2,3,4,6	<0.000175	mg/L	0.0002

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5	Qsr	Qsr	0.0494	mg/L	1	8.00	1	10 - 121
2-Fluorobiphenyl			4.76	mg/L	1	8.00	60	20.5 - 120

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method blank continued ...

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Terphenyl-d14			4.13	mg/L	1	8.00	52	26.4 - 120

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 117580
Prep Batch: 99402

Date Analyzed: 2014-11-30
QC Preparation: 2014-11-26

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		s	0.0930	mg/L	1	0.100	<0.000299	93	70 - 130
Toluene		s	0.0964	mg/L	1	0.100	<0.000247	96	70 - 130
Ethylbenzene		s	0.0973	mg/L	1	0.100	<0.000423	97	70 - 130
Xylene		s	0.294	mg/L	1	0.300	<0.000552	98	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		s	0.0914	mg/L	1	0.100	<0.000299	91	70 - 130	2	20
Toluene		s	0.0941	mg/L	1	0.100	<0.000247	94	70 - 130	2	20
Ethylbenzene		s	0.0949	mg/L	1	0.100	<0.000423	95	70 - 130	2	20
Xylene		s	0.285	mg/L	1	0.300	<0.000552	95	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0966	0.0931	mg/L	1	0.100	97	93	70 - 130
4-Bromofluorobenzene (4-BFB)	0.106	0.104	mg/L	1	0.100	106	104	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 117581
Prep Batch: 99408

Date Analyzed: 2014-12-01
QC Preparation: 2014-11-30

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		s	0.0865	mg/L	1	0.100	<0.000299	86	70 - 130
Toluene		s	0.0902	mg/L	1	0.100	<0.000247	90	70 - 130
Ethylbenzene		s	0.0923	mg/L	1	0.100	<0.000423	92	70 - 130
Xylene		s	0.278	mg/L	1	0.300	<0.000552	93	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	0.0900	mg/L	1	0.100	<0.000299	90	70 - 130	4	20
Toluene		5	0.0940	mg/L	1	0.100	<0.000247	94	70 - 130	4	20
Ethylbenzene		5	0.0967	mg/L	1	0.100	<0.000423	97	70 - 130	5	20
Xylene		5	0.288	mg/L	1	0.300	<0.000552	96	70 - 130	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0981	0.0975	mg/L	1	0.100	98	98	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0952	0.0951	mg/L	1	0.100	95	95	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 117658
Prep Batch: 99476

Date Analyzed: 2014-12-03
QC Preparation: 2014-12-02

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	0.102	mg/L	1	0.100	<0.000299	102	70 - 130
Toluene		5	0.101	mg/L	1	0.100	<0.000247	101	70 - 130
Ethylbenzene		5	0.101	mg/L	1	0.100	<0.000423	101	70 - 130
Xylene		5	0.301	mg/L	1	0.300	<0.000552	100	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	0.104	mg/L	1	0.100	<0.000299	104	70 - 130	2	20
Toluene		5	0.104	mg/L	1	0.100	<0.000247	104	70 - 130	2	20
Ethylbenzene		5	0.106	mg/L	1	0.100	<0.000423	106	70 - 130	5	20
Xylene		5	0.313	mg/L	1	0.300	<0.000552	104	70 - 130	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0981	0.0969	mg/L	1	0.100	98	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.104	0.104	mg/L	1	0.100	104	104	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 118022
Prep Batch: 99788

Date Analyzed: 2014-12-12
QC Preparation: 2014-11-27

Analyzed By: MN
Prepared By: MN

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene		1,2,3,4,6	6.12	mg/L	1	8.00	<0.0000708	76	33.4 - 120
2-Methylnaphthalene		1,2,3,4,6	5.60	mg/L	1	8.00	<0.0000834	70	36.7 - 120
1-Methylnaphthalene	Qs	Qs	12.2	mg/L	1	8.00	<0.000107	152	37.7 - 120
Acenaphthylene		1,2,3,4,6	7.49	mg/L	1	8.00	<0.0000832	94	39.7 - 120
Acenaphthene		1,2,3,4,6	6.29	mg/L	1	8.00	<0.0000888	79	10 - 120
Dibenzofuran		1,2,3,4,6	6.58	mg/L	1	8.00	<0.0000787	82	27.5 - 120
Fluorene		1,2,3,4,6	5.09	mg/L	1	8.00	<0.0000670	64	32.7 - 120
Anthracene		1,2,3,4,6	4.92	mg/L	1	8.00	<0.0000838	62	23.6 - 120
Phenanthrene		1,2,3,4,6	4.48	mg/L	1	8.00	<0.000106	56	26.7 - 120
Fluoranthene		1,2,3,4,6	4.54	mg/L	1	8.00	<0.0000885	57	19.2 - 120
Pyrene		1,2,3,4,6	6.80	mg/L	1	8.00	<0.000149	85	34.1 - 120
Benzo(a)anthracene		1,2,3,4,6	5.89	mg/L	1	8.00	<0.000146	74	43.4 - 120
Chrysene		1,2,3,4,6	6.21	mg/L	1	8.00	<0.000157	78	10 - 176
Benzo(b)fluoranthene		1,2,3,4,6	5.44	mg/L	1	8.00	<0.000146	68	18.4 - 120
Benzo(k)fluoranthene		1,2,3,4,6	6.86	mg/L	1	8.00	<0.000152	86	22 - 124
Benzo(a)pyrene		1,2,3,4,6	6.63	mg/L	1	8.00	<0.000141	83	25.1 - 120
Indeno(1,2,3-cd)pyrene		1,2,3,4,6	5.16	mg/L	1	8.00	<0.000160	64	21.3 - 120
Dibenzo(a,h)anthracene		1,2,3,4,6	3.65	mg/L	1	8.00	<0.000127	46	10 - 173
Benzo(g,h,i)perylene		1,2,3,4,6	6.30	mg/L	1	8.00	<0.000175	79	10.7 - 128

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene		1,2,3,4,6	6.07	mg/L	1	8.00	<0.0000708	76	33.4 - 120	1	20
2-Methylnaphthalene		1,2,3,4,6	5.49	mg/L	1	8.00	<0.0000834	69	36.7 - 120	2	20
1-Methylnaphthalene	Qs	Qs	11.9	mg/L	1	8.00	<0.000107	149	37.7 - 120	2	20
Acenaphthylene		1,2,3,4,6	7.47	mg/L	1	8.00	<0.0000832	93	39.7 - 120	0	20
Acenaphthene		1,2,3,4,6	6.34	mg/L	1	8.00	<0.0000888	79	10 - 120	1	20
Dibenzofuran		1,2,3,4,6	6.62	mg/L	1	8.00	<0.0000787	83	27.5 - 120	1	20
Fluorene		1,2,3,4,6	5.23	mg/L	1	8.00	<0.0000670	65	32.7 - 120	3	20
Anthracene		1,2,3,4,6	4.25	mg/L	1	8.00	<0.0000838	53	23.6 - 120	15	20
Phenanthrene		1,2,3,4,6	4.69	mg/L	1	8.00	<0.000106	59	26.7 - 120	5	20
Fluoranthene		1,2,3,4,6	4.76	mg/L	1	8.00	<0.0000885	60	19.2 - 120	5	20
Pyrene		1,2,3,4,6	6.18	mg/L	1	8.00	<0.000149	77	34.1 - 120	10	20
Benzo(a)anthracene		1,2,3,4,6	5.82	mg/L	1	8.00	<0.000146	73	43.4 - 120	1	20
Chrysene		1,2,3,4,6	6.20	mg/L	1	8.00	<0.000157	78	10 - 176	0	20
Benzo(b)fluoranthene		1,2,3,4,6	5.43	mg/L	1	8.00	<0.000146	68	18.4 - 120	0	20
Benzo(k)fluoranthene		1,2,3,4,6	6.79	mg/L	1	8.00	<0.000152	85	22 - 124	1	20
Benzo(a)pyrene		1,2,3,4,6	6.65	mg/L	1	8.00	<0.000141	83	25.1 - 120	0	20

continued ...

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control spikes continued ...

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Indeno(1,2,3-cd)pyrene		1,2,3,4,6	5.06	mg/L	1	8.00	<0.000160	63	21.3 - 120	2	20
Dibenzo(a,h)anthracene		1,2,3,4,6	4.32	mg/L	1	8.00	<0.000127	54	10 - 173	17	20
Benzo(g,h,i)perylene		1,2,3,4,6	6.40	mg/L	1	8.00	<0.000175	80	10.7 - 128	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate			LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Nitrobenzene-d5	Q _{sr}	Q _{sr}	0.0453	0.0474	mg/L	1	8.00	0	0	10 - 121
2-Fluorobiphenyl			5.62	5.56	mg/L	1	8.00	70	70	20.5 - 120
Terphenyl-d14			5.11	4.76	mg/L	1	8.00	64	60	26.4 - 120

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 380498

QC Batch: 117580
Prep Batch: 99402

Date Analyzed: 2014-11-30
QC Preparation: 2014-11-26

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	0.0933	mg/L	1	0.100	<0.000299	93	70 - 130
Toluene		5	0.0952	mg/L	1	0.100	<0.000247	95	70 - 130
Ethylbenzene		5	0.0949	mg/L	1	0.100	<0.000423	95	70 - 130
Xylene		5	0.286	mg/L	1	0.300	<0.000552	95	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	0.0934	mg/L	1	0.100	<0.000299	93	70 - 130	0	20
Toluene		5	0.0968	mg/L	1	0.100	<0.000247	97	70 - 130	2	20
Ethylbenzene		5	0.0974	mg/L	1	0.100	<0.000423	97	70 - 130	3	20
Xylene		5	0.291	mg/L	1	0.300	<0.000552	97	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.102	0.0893	mg/L	1	0.1	102	89	70 - 130
4-Bromofluorobenzene (4-BFB)	0.103	0.105	mg/L	1	0.1	103	105	70 - 130

Matrix Spike (MS-1) Spiked Sample: 380513

QC Batch: 117581
Prep Batch: 99408

Date Analyzed: 2014-12-01
QC Preparation: 2014-11-30

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	
Benzene	Qs	Qs	5	0.0284	mg/L	1	0.100	<0.000299	28	70 - 130
Toluene	Qs	Qs	5	0.0280	mg/L	1	0.100	<0.000247	28	70 - 130
Ethylbenzene	Qs	Qs	5	0.0279	mg/L	1	0.100	<0.000423	28	70 - 130
Xylene	Qs	Qs	5	0.0831	mg/L	1	0.300	<0.000552	28	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param			MSD		Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit	
	F	C	Result	Units								
Benzene	Qr, Qs	Qr, Qs	5	0.0369	mg/L	1	0.100	<0.000299	37	70 - 130	26	20
Toluene	Qr, Qs	Qr, Qs	5	0.0376	mg/L	1	0.100	<0.000247	38	70 - 130	29	20
Ethylbenzene	Qr, Qs	Qr, Qs	5	0.0385	mg/L	1	0.100	<0.000423	38	70 - 130	32	20
Xylene	Qr, Qs	Qr, Qs	5	0.113	mg/L	1	0.300	<0.000552	38	70 - 130	30	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0952	0.0948	mg/L	1	0.1	95	95	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0809	0.0855	mg/L	1	0.1	81	86	70 - 130

Matrix Spike (MS-1) Spiked Sample: 380786

QC Batch: 117658
Prep Batch: 99476

Date Analyzed: 2014-12-03
QC Preparation: 2014-12-02

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	0.483	mg/L	5	0.500	<0.00150	97	70 - 130
Toluene		5	0.475	mg/L	5	0.500	<0.00124	95	70 - 130
Ethylbenzene		5	0.461	mg/L	5	0.500	<0.00212	92	70 - 130
Xylene		5	1.36	mg/L	5	1.50	<0.00276	91	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param			F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene	Qr, Qs	Qr, Qs	5		0.308	mg/L	5	0.500	<0.00150	62	70 - 130	44	20
Toluene	Qr, Qs	Qr, Qs	5		0.290	mg/L	5	0.500	<0.00124	58	70 - 130	48	20
Ethylbenzene	Qr, Qs	Qr, Qs	5		<0.00212	mg/L	5	0.500	<0.00212	0	70 - 130	200	20
Xylene	Qr, Qs	Qr, Qs	5		0.846	mg/L	5	1.50	<0.00276	56	70 - 130	47	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.497	0.492	mg/L	5	0.5	99	98	70 - 130
4-Bromofluorobenzene (4-BFB)	0.504	0.477	mg/L	5	0.5	101	95	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 117580

Date Analyzed: 2014-11-30

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		s	mg/L	0.100	0.0910	91	80 - 120	2014-11-30
Toluene		s	mg/L	0.100	0.0937	94	80 - 120	2014-11-30
Ethylbenzene		s	mg/L	0.100	0.0913	91	80 - 120	2014-11-30
Xylene		s	mg/L	0.300	0.275	92	80 - 120	2014-11-30

Standard (CCV-2)

QC Batch: 117580

Date Analyzed: 2014-11-30

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		s	mg/L	0.100	0.0924	92	80 - 120	2014-11-30
Toluene		s	mg/L	0.100	0.0946	95	80 - 120	2014-11-30
Ethylbenzene		s	mg/L	0.100	0.0931	93	80 - 120	2014-11-30
Xylene		s	mg/L	0.300	0.281	94	80 - 120	2014-11-30

Standard (CCV-3)

QC Batch: 117580

Date Analyzed: 2014-11-30

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		s	mg/L	0.100	0.0901	90	80 - 120	2014-11-30
Toluene		s	mg/L	0.100	0.0926	93	80 - 120	2014-11-30
Ethylbenzene		s	mg/L	0.100	0.0913	91	80 - 120	2014-11-30
Xylene		s	mg/L	0.300	0.272	91	80 - 120	2014-11-30

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Standard (CCV-1)

QC Batch: 117581

Date Analyzed: 2014-12-01

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		5	mg/L	0.100	0.109	109	80 - 120	2014-12-01
Toluene		5	mg/L	0.100	0.112	112	80 - 120	2014-12-01
Ethylbenzene		5	mg/L	0.100	0.116	116	80 - 120	2014-12-01
Xylene		5	mg/L	0.300	0.355	118	80 - 120	2014-12-01

Standard (CCV-2)

QC Batch: 117581

Date Analyzed: 2014-12-01

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		5	mg/L	0.100	0.0902	90	80 - 120	2014-12-01
Toluene		5	mg/L	0.100	0.0925	92	80 - 120	2014-12-01
Ethylbenzene		5	mg/L	0.100	0.0904	90	80 - 120	2014-12-01
Xylene		5	mg/L	0.300	0.272	91	80 - 120	2014-12-01

Standard (CCV-3)

QC Batch: 117581

Date Analyzed: 2014-12-01

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		5	mg/L	0.100	0.0903	90	80 - 120	2014-12-01
Toluene		5	mg/L	0.100	0.0935	94	80 - 120	2014-12-01
Ethylbenzene		5	mg/L	0.100	0.0933	93	80 - 120	2014-12-01
Xylene		5	mg/L	0.300	0.277	92	80 - 120	2014-12-01

Standard (CCV-1)

QC Batch: 117658

Date Analyzed: 2014-12-03

Analyzed By: AK

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Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		5	mg/L	0.100	0.106	106	80 - 120	2014-12-03
Toluene		5	mg/L	0.100	0.103	103	80 - 120	2014-12-03
Ethylbenzene		5	mg/L	0.100	0.105	105	80 - 120	2014-12-03
Xylene		5	mg/L	0.300	0.310	103	80 - 120	2014-12-03

Standard (CCV-2)

QC Batch: 117658

Date Analyzed: 2014-12-03

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		5	mg/L	0.100	0.100	100	80 - 120	2014-12-03
Toluene		5	mg/L	0.100	0.0993	99	80 - 120	2014-12-03
Ethylbenzene		5	mg/L	0.100	0.0974	97	80 - 120	2014-12-03
Xylene		5	mg/L	0.300	0.288	96	80 - 120	2014-12-03

Standard (CCV-1)

QC Batch: 118022

Date Analyzed: 2014-12-12

Analyzed By: MN

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		1,2,3,4,6	mg/L	60.0	60.2	100	80 - 120	2014-12-12
2-Methylnaphthalene		1,2,3,4,6	mg/L	60.0	54.8	91	80 - 120	2014-12-12
1-Methylnaphthalene		1	mg/L	60.0	53.5	89	80 - 120	2014-12-12
Acenaphthylene		1,2,3,4,6	mg/L	60.0	57.0	95	80 - 120	2014-12-12
Acenaphthene		1,2,3,4,6	mg/L	60.0	60.8	101	80 - 120	2014-12-12
Dibenzofuran		1,2,3,4,6	mg/L	60.0	59.2	99	80 - 120	2014-12-12
Fluorene		1,2,3,4,6	mg/L	60.0	57.7	96	80 - 120	2014-12-12
Anthracene	Qc	Qc	1,2,3,4,6	mg/L	60.0	102	80 - 120	2014-12-12
Phenanthrene		1,2,3,4,6	mg/L	60.0	58.5	98	80 - 120	2014-12-12
Fluoranthene		1,2,3,4,6	mg/L	60.0	64.2	107	80 - 120	2014-12-12
Pyrene	Qc	Qc	1,2,3,4,6	mg/L	60.0	37.2	80 - 120	2014-12-12
Benzo(a)anthracene		1,2,3,4,6	mg/L	60.0	56.8	95	80 - 120	2014-12-12
Chrysene		1,2,3,4,6	mg/L	60.0	57.0	95	80 - 120	2014-12-12
Benzo(b)fluoranthene		1,2,3,4,6	mg/L	60.0	52.7	88	80 - 120	2014-12-12
Benzo(k)fluoranthene		1,2,3,4,6	mg/L	60.0	50.9	85	80 - 120	2014-12-12
Benzo(a)pyrene		1,2,3,4,6	mg/L	60.0	54.9	92	80 - 120	2014-12-12

continued ...

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standard continued ...

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Indeno(1,2,3-cd)pyrene		1,2,3,4,6	mg/L	60.0	67.6	113	80 - 120	2014-12-12
Dibenzo(a,h)anthracene		1,2,3,4,6	mg/L	60.0	59.5	99	80 - 120	2014-12-12
Benzo(g,h,i)perylene		1,2,3,4,6	mg/L	60.0	53.1	88	80 - 120	2014-12-12

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5			57.4	mg/L	1	60.0	96	-
2-Fluorobiphenyl			57.2	mg/L	1	60.0	95	-
Terphenyl-d14			54.8	mg/L	1	60.0	91	-

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
SQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	PJLA	L14-93	Lubbock
2	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-14-10	Lubbock
5	NELAP	T104704392-14-8	Midland
6		2014-018	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and SQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Jc	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.

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F Description

Qsr Surrogate recovery outside of laboratory limits.

U The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-1296

email: lab@traceanalysis.com

Company Name:

Address: Nova (Street, City, Zip)
2057 Commerce Dr Midland TX 79703
Contact Person: Cuf Stanley
Invoice to: (If different from above) Plains
Project #: TNM-LF 2000-7
Project Location (including state):

Phone #: 432 520-7720

Fax #: 432 79703

E-mail:

Project Name: Sub Durham

Sampler Signature: [Signature]

ANALYSIS REQUEST

(Circle or Specify Method No.)

MTBE	8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ex(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCB's 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ -P, Alkalinity	Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard
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LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME
30496	mw1	3	100A	X				X				X		11/20/14	1357
497	mw10	3													1415
498	mw11	3													1427
499	mw13	6													1440
500	mw15	3													1456
501	mw16	1													1526
502	mw2	1													1545
503	mw20	1													1610
504	mw21	1													1630
505	mw23	1													1652
506	mw24	1												11/21	1137
Disinched by:		Company:	Date:	Time:	Received by:	Comments:		Date:							

REMARKS:

LAB USE ONLY

Relinquished by: [Signature] Date: 11/24/14 0819 Company: TA
Relinquished by: [Signature] Date: 11/24/14 0819 Company: TA
Relinquished by: [Signature] Date: 11/24/14 0819 Company: TA
Relinquished by: [Signature] Date: 11/24/14 0819 Company: TA

Submission of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier # 25 ZR 883566

200 East Sunset Rd., Suite E
El Paso, Texas 79922
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Fax (915) 585-4944
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BioAquatic Testing
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Carrollton, Texas 75006
Tel (972) 242-7750

Brandon & Clark
3403 Industrial Blvd.
Hobbs, NM 88240
Tel (575) 392-2561
Fax (575) 392-4508

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
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1 (800) 378-1296

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email: lab@traceanalysis.com

Company Name: Nova
Address: (Street, City, Zip)
2057 Commerce Dr Midland TX 79703
Contact Person: Curt Stanley
Invoice to: (if different from above) Plains
Project #: INM-LF 2000-7
Project Location (including state):
Sampler Signature: Bob Durhan

Project Name: 5002-7720
Phone #: (432) 520-7720
Fax #: 77703
E-mail:

LAB # (LAB USE) (ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD					DATE	SAMPLING TIME
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE		
507	mw 25	3	VOAX	X				X				X	1/2/04 1149	
508	mw 27	1											1221	
509	mw 3	1											1319	
510	mw 30	1											1343	
511	mw 31	1											1405	
512	mw 32	6											1420	
513	mw 33	3											1443	
514	mw 37	3											1457	
515	mw 4	3											1521	
516	mw 56	6											1538	
517	mw 6	3											1609	

Relinquished by: Mani... Nova 11/24/14 0819
Relinquished by: Company: TA 11-24-14 8:19
Relinquished by: Company: TA 11-24-14 8:15
Relinquished by: Company: TA 11-24-14 8:15

LAB USE ONLY
INST OBS COR
INST OBS COR
INST OBS COR

REMARKS:
Dry Weight Basis Required
TRRP Report Required
Check if Special Reporting Limits Are Needed

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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Hobbs, NM 88240
Tel (575) 392-7561
Fax (575) 392-4508

Company Name: Nova
Address: (Street, City, Zip)
2057 Commerce Dr Midland TX 79703
Contact Person: Curt Stanky
Invoice to: (If different from above) Plains
Project #: TNM-LF-2000-7
Project Location (including state):

Project Name: Bob Decker
Sampler Signature: [Signature]
Project Location (including state):

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME
518	MW 7	3	VOA	X				X					X	1/24/14	1627
519	MW 8	3													1642
520	MW 5	6													1657
521	MW 38	3													1728

Relinquished by: [Signature] Company: Nova Date: 1/24/14 Time: 08:19
Relinquished by: [Signature] Company: TA Date: 1/24/14 Time: 8:19
Relinquished by: Brenda Ward Company: TA Date: 1/24/14 Time: 8:15

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE	8021 / 602 / 8260 / 624	X
BTEX	8021 / 602 / 8260 / 624	X
TPH 418.1 / TX1005 / TX1005 Ex(C35)		
TPH 8015 GRO / DRO / TVHC		
PAH(8270) 625		X
Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7		
TCLP Metals Ag As Ba Cd Cr Pb Se Hg		
TCLP Volatiles		
TCLP Semi Volatiles		
TCLP Pesticides		
RCI		
GC/MS Vol. 8260 / 624		
GC/MS Semi. Vol. 8270 / 625		
PCB's 8082 / 608		
Pesticides 8081 / 608		
BOD, TSS, pH		
Moisture Content		
Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N, PO ₄ -P, Alkalinity		
Na, Ca, Mg, K, TDS, EC		
Turn Around Time if different from standard		

REMARKS:

LAB USE ONLY

Inst. Y/L/N

Headspace

Dry Weight Basis Required

TRRP Report Required

Check if Special Reporting Limits Are Needed



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(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: March 9, 2015

Work Order: 15022608



Project Location: West of Monument, NM
Project Name: Bob Durham
Project Number: TNM LF 2000-7
SRS #: TNM LF 2000-7

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
387617	MW 13	water	2015-02-25	11:02	2015-02-26
387618	MW 32	water	2015-02-25	11:02	2015-02-26
387619	MW 4	water	2015-02-25	11:02	2015-02-26
387620	MW 56	water	2015-02-25	11:02	2015-02-26
387621	MW 2	water	2015-02-25	11:02	2015-02-26
387622	MW 1	water	2015-02-25	11:02	2015-02-26
387623	MW 5	water	2015-02-25	11:02	2015-02-26
387624	MW 38	water	2015-02-25	11:02	2015-02-26

Notes

- **Work Order 15022608:** on ice

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

This report consists of a total of 14 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink, reading "Blair Leftwich". The signature is written in a cursive style and is underlined with two horizontal lines.

Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2015-02-26 and assigned to work order 15022608. Samples for work order 15022608 were received intact without headspace and at a temperature of 7.7 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	101397	2015-03-06 at 15:15	119863	2015-03-09 at 11:59

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 15022608 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: March 9, 2015
TNM LF 2000-7

Work Order: 15022608
Bob Durham

Page Number: 5 of 14
West of Monument, NM

Analytical Report

Sample: 387617 - MW 13

Laboratory: Midland
Analysis: BTEX
QC Batch: 119863
Prep Batch: 101397

Analytical Method: S 8021B
Date Analyzed: 2015-03-09
Sample Preparation: 2015-03-06

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00130	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0946	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.102	mg/L	1	0.100	102	70 - 130

Sample: 387618 - MW 32

Laboratory: Midland
Analysis: BTEX
QC Batch: 119863
Prep Batch: 101397

Analytical Method: S 8021B
Date Analyzed: 2015-03-09
Sample Preparation: 2015-03-06

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0941	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0945	mg/L	1	0.100	94	70 - 130

Report Date: March 9, 2015
TNM LF 2000-7

Work Order: 15022608
Bob Durham

Page Number: 6 of 14
West of Monument, NM

Sample: 387619 - MW 4

Laboratory: Midland
Analysis: BTEX
QC Batch: 119863
Prep Batch: 101397

Analytical Method: S 8021B
Date Analyzed: 2015-03-09
Sample Preparation: 2015-03-06

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0924	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0966	mg/L	1	0.100	97	70 - 130

Sample: 387620 - MW 56

Laboratory: Midland
Analysis: BTEX
QC Batch: 119863
Prep Batch: 101397

Analytical Method: S 8021B
Date Analyzed: 2015-03-09
Sample Preparation: 2015-03-06

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	1	<0.00100	mg/L	1	0.00100
Toluene	U	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	1	<0.00100	mg/L	1	0.00100
Xylene	U	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0948	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0968	mg/L	1	0.100	97	70 - 130

Report Date: March 9, 2015
TNM LF 2000-7

Work Order: 15022608
Bob Durham

Page Number: 7 of 14
West of Monnment, NM

Sample: 387621 - MW 2

Laboratory: Midland
Analysis: BTEX
QC Batch: 119863
Prep Batch: 101397

Analytical Method: S 8021B
Date Analyzed: 2015-03-09
Sample Preparation: 2015-03-06

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00120	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0897	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0993	mg/L	1	0.100	99	70 - 130

Sample: 387622 - MW 1

Laboratory: Midland
Analysis: BTEX
QC Batch: 119863
Prep Batch: 101397

Analytical Method: S 8021B
Date Analyzed: 2015-03-09
Sample Preparation: 2015-03-06

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	1	<0.00100	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0944	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0971	mg/L	1	0.100	97	70 - 130

Report Date: March 9, 2015
TNM LF 2000-7

Work Order: 15022608
Bob Durham

Page Number: 8 of 14
West of Monument, NM

Sample: 387623 - MW 5

Laboratory: Midland
Analysis: BTEX
QC Batch: 119863
Prep Batch: 101397

Analytical Method: S 8021B
Date Analyzed: 2015-03-09
Sample Preparation: 2015-03-06

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00120	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0952	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.100	mg/L	1	0.100	100	70 - 130

Sample: 387624 - MW 38

Laboratory: Midland
Analysis: BTEX
QC Batch: 119863
Prep Batch: 101397

Analytical Method: S 8021B
Date Analyzed: 2015-03-09
Sample Preparation: 2015-03-06

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		1	0.00120	mg/L	1	0.00100
Toluene	u	1	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	1	<0.00100	mg/L	1	0.00100
Xylene	u	1	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0917	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0979	mg/L	1	0.100	98	70 - 130

Method Blanks

Method Blank (1) QC Batch: 119863

QC Batch: 119863
Prep Batch: 101397

Date Analyzed: 2015-03-09
QC Preparation: 2015-03-06

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		1	<0.000299	mg/L	0.001
Toluene		1	<0.000247	mg/L	0.001
Ethylbenzene		1	<0.000423	mg/L	0.001
Xylene		1	<0.000552	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0978	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0981	mg/L	1	0.100	98	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 119863
Prep Batch: 101397

Date Analyzed: 2015-03-09
QC Preparation: 2015-03-06

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.102	mg/L	1	0.100	<0.000299	102	70 - 130
Toluene		1	0.0989	mg/L	1	0.100	<0.000247	99	70 - 130
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000423	101	70 - 130
Xylene		1	0.306	mg/L	1	0.300	<0.000552	102	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.0966	mg/L	1	0.100	<0.000299	97	70 - 130	5	20
Toluene		1	0.0944	mg/L	1	0.100	<0.000247	94	70 - 130	5	20
Ethylbenzene		1	0.0963	mg/L	1	0.100	<0.000423	96	70 - 130	5	20
Xylene		1	0.292	mg/L	1	0.300	<0.000552	97	70 - 130	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0929	0.0926	mg/L	1	0.100	93	93	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0976	0.0987	mg/L	1	0.100	98	99	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 387617

QC Batch: 119863
Prep Batch: 101397

Date Analyzed: 2015-03-09
QC Preparation: 2015-03-06

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		1	0.102	mg/L	1	0.100	0.0013	101	70 - 130
Toluene		1	0.0984	mg/L	1	0.100	<0.000247	98	70 - 130
Ethylbenzene		1	0.101	mg/L	1	0.100	<0.000423	101	70 - 130
Xylene		1	0.304	mg/L	1	0.300	<0.000552	101	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		1	0.105	mg/L	1	0.100	0.0013	104	70 - 130	3	20
Toluene		1	0.102	mg/L	1	0.100	<0.000247	102	70 - 130	4	20
Ethylbenzene		1	0.103	mg/L	1	0.100	<0.000423	103	70 - 130	2	20
Xylene		1	0.314	mg/L	1	0.300	<0.000552	105	70 - 130	3	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0945	0.0945	mg/L	1	0.1	94	94	70 - 130
4-Bromofluorobenzene (4-BFB)	0.106	0.106	mg/L	1	0.1	106	106	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 119863

Date Analyzed: 2015-03-09

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0979	98	80 - 120	2015-03-09
Toluene		1	mg/L	0.100	0.0958	96	80 - 120	2015-03-09
Ethylbenzene		1	mg/L	0.100	0.0975	98	80 - 120	2015-03-09
Xylene		1	mg/L	0.300	0.296	99	80 - 120	2015-03-09

Standard (CCV-2)

QC Batch: 119863

Date Analyzed: 2015-03-09

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0996	100	80 - 120	2015-03-09
Toluene		1	mg/L	0.100	0.0965	96	80 - 120	2015-03-09
Ethylbenzene		1	mg/L	0.100	0.0980	98	80 - 120	2015-03-09
Xylene		1	mg/L	0.300	0.297	99	80 - 120	2015-03-09

Standard (CCV-3)

QC Batch: 119863

Date Analyzed: 2015-03-09

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		1	mg/L	0.100	0.0974	97	80 - 120	2015-03-09
Toluene		1	mg/L	0.100	0.0941	94	80 - 120	2015-03-09
Ethylbenzene		1	mg/L	0.100	0.0946	95	80 - 120	2015-03-09
Xylene		1	mg/L	0.300	0.287	96	80 - 120	2015-03-09

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	NELAP	T104704392-14-8	Midland

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

Report Date: March 9, 2015
TNM LF 2000-7

Work Order: 15022608
Bob Durham

Page Number: 14 of 14
West of Monument, NM

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.

TraceAnalysis, Inc.

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Company Name: Nova

Phone #: (432) 520-7720

Address: 2057 Commerce Dr Midland TX 79703

Fax #:

Contact Person: Curt Stanley

E-mail:

Invoice to:

(If different from above) Plains

Project #:

TNM - LF-2000-7

Project Name:

Bob Durham

Project Location (including state):

Sampler Signature:

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD						SAMPLING	
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	TIME
387617	MW 13	3	VOA X	X				X					X	2/25/15	1111
387618	MW 32	1													1130
387619	MW 41	1													1153
387620	MW 56	1													1230
387621	MW 2	1													1320
387622	MW 1	1													1355
387623	MW 5	1													1415
387624	MW 38	1													1440

ANALYSIS REQUEST (Circle or Specify Method No.)

MTBE 8021 / 602 / 8260 / 624	BTX 8021 / 602 / 8260 / 624	TPH 418.1 / TX1005 / TX1005 Ex(C35)	TPH 8015 GRO / DRO / TVHC	PAH 8270 / 625	Total Metals Ag As Ba Cd Cr Pb Se Hg 6010/200.7	TCLP Metals Ag As Ba Cd Cr Pb Se Hg	TCLP Volatiles	TCLP Semi Volatiles	TCLP Pesticides	RCI	GC/MS Vol. 8260 / 624	GC/MS Semi. Vol. 8270 / 625	PCBs 8082 / 608	Pesticides 8081 / 608	BOD, TSS, pH	Moisture Content	Cl, F, SO ₄ , NO ₃ , N, NO ₂ , N, PO ₄ , P, Alkalinity	Na, Ca, Mg, K, TDS, EC	Turn Around Time if different from standard
------------------------------	-----------------------------	-------------------------------------	---------------------------	----------------	---	-------------------------------------	----------------	---------------------	-----------------	-----	-----------------------	-----------------------------	-----------------	-----------------------	--------------	------------------	--	------------------------	---

REMARKS:

LAB USE ONLY

INST 1.7
OBS 9:03
COR

Time: 9:03
Date: 2/26/15
Company: Nova

Time: 9:03
Date: 2/26/15
Company: Nova

Time: 9:03
Date: 2/26/15
Company: Nova

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Date: 2/26/15
Company: Nova

Time: 9:03
Date: 2/26/15
Company: Nova

Time: 9:03
Date: 2/26/15
Company: Nova

Dry Weight Basis Required
TRRP Report Required
Check If Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

ORIGINAL COPY

Carrier #



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E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Curt Stanley
Nova Safety & Environmental
2057 Commerce St.
Midland, TX, 79703

Report Date: May 18, 2015

Work Order: 15050705



Project Location: West of Monument, NM
Project Name: Bob Durham
Project Number: TNM LF 2000-7
SRS #: TNM LF 2000-7

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

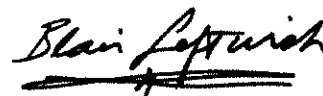
Sample	Description	Matrix	Date Taken	Time Taken	Date Received
392642	MW 1	water	2015-05-06	10:08	2015-05-07
392643	MW 15	water	2015-05-06	10:38	2015-05-07
392644	MW 23	water	2015-05-06	11:09	2015-05-07
392645	MW 3	water	2015-05-06	11:35	2015-05-07
392646	MW 31	water	2015-05-06	12:04	2015-05-07
392647	MW 32	water	2015-05-06	12:20	2015-05-07
392648	MW 37	water	2015-05-06	12:42	2015-05-07
392649	MW 4	water	2015-05-06	13:10	2015-05-07
392650	MW 56	water	2015-05-06	13:34	2015-05-07
392651	MW 6	water	2015-05-06	14:01	2015-05-07
392652	MW 7	water	2015-05-06	14:28	2015-05-07
392653	MW 8	water	2015-05-06	14:52	2015-05-07
392654	MW 2	water	2015-05-06	15:37	2015-05-07
392655	MW 38	water	2015-05-06	15:53	2015-05-07
392656	MW 5	water	2015-05-06	16:37	2015-05-07
392657	MW 13	water	2015-05-06	16:50	2015-05-07
392658	MW 10	water	2015-05-06	17:10	2015-05-07

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
392659	MW 16	water	2015-05-06	17:43	2015-05-07
392660	MW 12	water	2015-05-06	18:09	2015-05-07

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

TraceAnalysis, Inc. uses the attached chain of custody (COC) as the laboratory check-in documentation which includes sample receipt, temperature, sample preservation method and condition, collection date and time, testing requested, company, sampler, contacts and any special remarks.

This report consists of a total of 28 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2015-05-07 and assigned to work order 15050705. Samples for work order 15050705 were received intact at a temperature of 4.8 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	102747	2015-05-11 at 07:32	121426	2015-05-12 at 07:35
BTEX	S 8021B	102766	2015-05-12 at 16:48	121469	2015-05-13 at 09:42
BTEX	S 8021B	102830	2015-05-14 at 08:30	121540	2015-05-14 at 16:19
BTEX	S 8021B	102855	2015-05-15 at 11:55	121582	2015-05-18 at 10:34

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 15050705 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 392642 - MW 1

Laboratory: Midland
Analysis: BTEX
QC Batch: 121426
Prep Batch: 102747

Analytical Method: S 8021B
Date Analyzed: 2015-05-12
Sample Preparation: 2015-05-11

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs,U	5	<0.00100	mg/L	1	0.00100
Toluene	Qs,U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qs,U	5	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0962	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.100	mg/L	1	0.100	100	70 - 130

Sample: 392643 - MW 15

Laboratory: Midland
Analysis: BTEX
QC Batch: 121426
Prep Batch: 102747

Analytical Method: S 8021B
Date Analyzed: 2015-05-12
Sample Preparation: 2015-05-11

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs,U	5	<0.00100	mg/L	1	0.00100
Toluene	Qs,U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qs,U	5	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.100	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0943	mg/L	1	0.100	94	70 - 130

Report Date: May 18, 2015
TNM LF 2000-7

Work Order: 15050705
Bob Durham

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West of Monument, NM

Sample: 392644 - MW 23

Laboratory: Midland
Analysis: BTEX
QC Batch: 121469
Prep Batch: 102766

Analytical Method: S 8021B
Date Analyzed: 2015-05-13
Sample Preparation: 2015-05-12

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0896	mg/L	1	0.100	90	70 - 130

Sample: 392645 - MW 3

Laboratory: Midland
Analysis: BTEX
QC Batch: 121426
Prep Batch: 102747

Analytical Method: S 8021B
Date Analyzed: 2015-05-12
Sample Preparation: 2015-05-11

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs,U	5	<0.00100	mg/L	1	0.00100
Toluene	Qs,U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qs,U	5	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.104	mg/L	1	0.100	104	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0921	mg/L	1	0.100	92	70 - 130

Report Date: May 18, 2015
TNM LF 2000-7

Work Order: 15050705
Bob Durham

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West of Monument, NM

Sample: 392646 - MW 31

Laboratory: Midland
Analysis: BTEX
QC Batch: 121426
Prep Batch: 102747

Analytical Method: S 8021B
Date Analyzed: 2015-05-12
Sample Preparation: 2015-05-11

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs,U	5	<0.00100	mg/L	1	0.00100
Toluene	Qs,U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qs,U	5	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0943	mg/L	1	0.100	94	70 - 130

Sample: 392647 - MW 32

Laboratory: Midland
Analysis: BTEX
QC Batch: 121469
Prep Batch: 102766

Analytical Method: S 8021B
Date Analyzed: 2015-05-13
Sample Preparation: 2015-05-12

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0989	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0925	mg/L	1	0.100	92	70 - 130

Report Date: May 18, 2015
TNM LF 2000-7

Work Order: 15050705
Bob Durham

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West of Monument, NM

Sample: 392648 - MW 37

Laboratory: Midland
Analysis: BTEX
QC Batch: 121426
Prep Batch: 102747

Analytical Method: S 8021B
Date Analyzed: 2015-05-12
Sample Preparation: 2015-05-11

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs,U	5	<0.00100	mg/L	1	0.00100
Toluene	Qs,U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qs,U	5	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.104	mg/L	1	0.100	104	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0895	mg/L	1	0.100	90	70 - 130

Sample: 392649 - MW 4

Laboratory: Midland
Analysis: BTEX
QC Batch: 121469
Prep Batch: 102766

Analytical Method: S 8021B
Date Analyzed: 2015-05-13
Sample Preparation: 2015-05-12

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0938	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0962	mg/L	1	0.100	96	70 - 130

Report Date: May 18, 2015
TNM LF 2000-7

Work Order: 15050705
Bob Durham

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Sample: 392650 - MW 56

Laboratory: Midland
Analysis: BTEX
QC Batch: 121426
Prep Batch: 102747

Analytical Method: S 8021B
Date Analyzed: 2015-05-12
Sample Preparation: 2015-05-11

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	Qs,U	5	<0.00100	mg/L	1	0.00100
Toluene	Qs,U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	Qs,U	5	<0.00100	mg/L	1	0.00100
Xylene	Qs,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.101	mg/L	1	0.100	101	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0882	mg/L	1	0.100	88	70 - 130

Sample: 392651 - MW 6

Laboratory: Midland
Analysis: BTEX
QC Batch: 121469
Prep Batch: 102766

Analytical Method: S 8021B
Date Analyzed: 2015-05-13
Sample Preparation: 2015-05-12

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0904	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0792	mg/L	1	0.100	79	70 - 130

Report Date: May 18, 2015
TNM LF 2000-7

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Bob Durham

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West of Monument, NM

Sample: 392652 - MW 7

Laboratory: Midland

Analysis: BTEX

QC Batch: 121469

Prep Batch: 102766

Analytical Method: S 8021B

Date Analyzed: 2015-05-13

Sample Preparation: 2015-05-12

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0905	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0919	mg/L	1	0.100	92	70 - 130

Sample: 392653 - MW 8

Laboratory: Midland

Analysis: BTEX

QC Batch: 121469

Prep Batch: 102766

Analytical Method: S 8021B

Date Analyzed: 2015-05-13

Sample Preparation: 2015-05-12

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0928	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0915	mg/L	1	0.100	92	70 - 130

Report Date: May 18, 2015
TNM LF 2000-7

Work Order: 15050705
Bob Durham

Page Number: 12 of 28
West of Monument, NM

Sample: 392654 - MW 2

Laboratory: Midland
Analysis: BTEX
QC Batch: 121469
Prep Batch: 102766

Analytical Method: S 8021B
Date Analyzed: 2015-05-13
Sample Preparation: 2015-05-12

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	5	<0.00100	mg/L	1	0.00100
Toluene	u	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	5	<0.00100	mg/L	1	0.00100
Xylene	u	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0926	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0970	mg/L	1	0.100	97	70 - 130

Sample: 392655 - MW 38

Laboratory: Midland
Analysis: BTEX
QC Batch: 121469
Prep Batch: 102766

Analytical Method: S 8021B
Date Analyzed: 2015-05-13
Sample Preparation: 2015-05-12

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	5	<0.00100	mg/L	1	0.00100
Toluene	u	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	5	<0.00100	mg/L	1	0.00100
Xylene	u	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.104	mg/L	1	0.100	104	70 - 130
4-Bromofluorobenzene (4-BFB)			0.107	mg/L	1	0.100	107	70 - 130

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Sample: 392656 - MW 5

Laboratory: Midland
Analysis: BTEX
QC Batch: 121540
Prep Batch: 102830

Analytical Method: S 8021B
Date Analyzed: 2015-05-14
Sample Preparation: 2015-05-14

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0992	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.106	mg/L	1	0.100	106	70 - 130

Sample: 392657 - MW 13

Laboratory: Midland
Analysis: BTEX
QC Batch: 121540
Prep Batch: 102830

Analytical Method: S 8021B
Date Analyzed: 2015-05-14
Sample Preparation: 2015-05-14

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	70 - 130
4-Bromofluorobenzene (4-BFB)			0.102	mg/L	1	0.100	102	70 - 130

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Sample: 392658 - MW 10

Laboratory: Midland
Analysis: BTEX
QC Batch: 121540
Prep Batch: 102830

Analytical Method: S 8021B
Date Analyzed: 2015-05-14
Sample Preparation: 2015-05-14

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.104	mg/L	1	0.100	104	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0962	mg/L	1	0.100	96	70 - 130

Sample: 392659 - MW 16

Laboratory: Midland
Analysis: BTEX
QC Batch: 121582
Prep Batch: 102855

Analytical Method: S 8021B
Date Analyzed: 2015-05-18
Sample Preparation: 2015-05-15

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0993	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0957	mg/L	1	0.100	96	70 - 130

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Sample: 392660 - MW 12

Laboratory: Midland

Analysis: BTEX

QC Batch: 121582

Prep Batch: 102855

Analytical Method: S 8021B

Date Analyzed: 2015-05-18

Sample Preparation: 2015-05-15

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		S	0.00190	mg/L	1	0.00100
Toluene	U	S	<0.00100	mg/L	1	0.00100
Ethylbenzene		S	0.00430	mg/L	1	0.00100
Xylene	U	S	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0891	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.104	mg/L	1	0.100	104	70 - 130

Method Blanks

Method Blank (1) QC Batch: 121426

QC Batch: 121426
Prep Batch: 102747

Date Analyzed: 2015-05-12
QC Preparation: 2015-05-11

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL		Units	RL
			Result			
Benzene		s	<0.000423		mg/L	0.001
Toluene		s	<0.000238		mg/L	0.001
Ethylbenzene		s	<0.000283		mg/L	0.001
Xylene		s	<0.000282		mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.100	mg/L	1	0.100	100	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0927	mg/L	1	0.100	93	70 - 130

Method Blank (1) QC Batch: 121469

QC Batch: 121469
Prep Batch: 102766

Date Analyzed: 2015-05-13
QC Preparation: 2015-05-12

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL		Units	RL
			Result			
Benzene		s	<0.000423		mg/L	0.001
Toluene		s	<0.000238		mg/L	0.001
Ethylbenzene		s	<0.000283		mg/L	0.001
Xylene		s	0.000500		mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0971	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.106	mg/L	1	0.100	106	70 - 130

Method Blank (1) QC Batch: 121540

QC Batch: 121540
Prep Batch: 102830

Date Analyzed: 2015-05-14
QC Preparation: 2015-05-14

Analyzed By: AK
Prepared By: AK

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Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		5	<0.000423	mg/L	0.001
Toluene		5	<0.000238	mg/L	0.001
Ethylbenzene		5	<0.000283	mg/L	0.001
Xylene		5	<0.000282	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0975	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0935	mg/L	1	0.100	94	70 - 130

Method Blank (1) QC Batch: 121582

QC Batch: 121582
Prep Batch: 102855

Date Analyzed: 2015-05-18
QC Preparation: 2015-05-15

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		5	<0.000299	mg/L	0.001
Toluene		5	<0.000247	mg/L	0.001
Ethylbenzene		5	<0.000423	mg/L	0.001
Xylene		5	<0.000552	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0891	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0854	mg/L	1	0.100	85	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 121426
Prep Batch: 102747

Date Analyzed: 2015-05-12
QC Preparation: 2015-05-11

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	0.108	mg/L	1	0.100	<0.000423	108	70 - 130
Toluene		5	0.112	mg/L	1	0.100	<0.000238	112	70 - 130
Ethylbenzene		5	0.113	mg/L	1	0.100	<0.000283	113	70 - 130
Xylene		5	0.337	mg/L	1	0.300	<0.000282	112	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	0.109	mg/L	1	0.100	<0.000423	109	70 - 130	1	20
Toluene		5	0.114	mg/L	1	0.100	<0.000238	114	70 - 130	2	20
Ethylbenzene		5	0.116	mg/L	1	0.100	<0.000283	116	70 - 130	3	20
Xylene		5	0.344	mg/L	1	0.300	<0.000282	115	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.106	0.105	mg/L	1	0.100	106	105	70 - 130
4-Bromofluorobenzene (4-BFB)	0.114	0.114	mg/L	1	0.100	114	114	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 121469
Prep Batch: 102766

Date Analyzed: 2015-05-13
QC Preparation: 2015-05-12

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	0.0981	mg/L	1	0.100	<0.000423	98	70 - 130
Toluene		5	0.108	mg/L	1	0.100	<0.000238	108	70 - 130
Ethylbenzene		5	0.110	mg/L	1	0.100	<0.000283	110	70 - 130
Xylene		5	0.332	mg/L	1	0.300	<0.000282	111	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	F	C	LCSD Result	Units	Dil.	Spike Amonnt	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	0.0999	mg/L	1	0.100	<0.000423	100	70 - 130	2	20
Toluene		5	0.110	mg/L	1	0.100	<0.000238	110	70 - 130	2	20
Ethylbenzene		5	0.114	mg/L	1	0.100	<0.000283	114	70 - 130	4	20
Xylene		5	0.340	mg/L	1	0.300	<0.000282	113	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.103	0.102	mg/L	1	0.100	103	102	70 - 130
4-Bromofluorobenzene (4-BFB)	0.113	0.112	mg/L	1	0.100	113	112	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 121540
Prep Batch: 102830

Date Analyzed: 2015-05-14
QC Preparation: 2015-05-14

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	0.100	mg/L	1	0.100	<0.000423	100	70 - 130
Toluene		5	0.104	mg/L	1	0.100	<0.000238	104	70 - 130
Ethylbenzene		5	0.104	mg/L	1	0.100	<0.000283	104	70 - 130
Xylene		5	0.313	mg/L	1	0.300	<0.000282	104	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	0.102	mg/L	1	0.100	<0.000423	102	70 - 130	2	20
Toluene		5	0.103	mg/L	1	0.100	<0.000238	103	70 - 130	1	20
Ethylbenzene		5	0.104	mg/L	1	0.100	<0.000283	104	70 - 130	0	20
Xylene		5	0.311	mg/L	1	0.300	<0.000282	104	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.104	0.0996	mg/L	1	0.100	104	100	70 - 130
4-Bromofluorobenzene (4-BFB)	0.114	0.111	mg/L	1	0.100	114	111	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 121582
Prep Batch: 102855

Date Analyzed: 2015-05-18
QC Preparation: 2015-05-15

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	0.105	mg/L	1	0.100	<0.000299	105	70 - 130
Toluene		5	0.0926	mg/L	1	0.100	<0.000247	93	70 - 130
Ethylbenzene		5	0.0918	mg/L	1	0.100	<0.000423	92	70 - 130
Xylene		5	0.271	mg/L	1	0.300	<0.000552	90	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	0.103	mg/L	1	0.100	<0.000299	103	70 - 130	2	20
Toluene		5	0.0920	mg/L	1	0.100	<0.000247	92	70 - 130	1	20
Ethylbenzene		5	0.0934	mg/L	1	0.100	<0.000423	93	70 - 130	2	20
Xylene		5	0.271	mg/L	1	0.300	<0.000552	90	70 - 130	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCS Result	Units	Dil.	Spike Amount	LCS Rec.	LCS Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0919	0.0973	mg/L	1	0.100	92	97	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0892	0.0897	mg/L	1	0.100	89	90	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 392642

QC Batch: 121426
Prep Batch: 102747

Date Analyzed: 2015-05-12
QC Preparation: 2015-05-11

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	
Benzene	Qs	Qs	5	0.0129	mg/L	1	0.100	<0.000423	13	70 - 130
Toluene	Qs	Qs	5	0.0442	mg/L	1	0.100	<0.000238	44	70 - 130
Ethylbenzene	Qs	Qs	5	0.0120	mg/L	1	0.100	<0.000283	12	70 - 130
Xylene	Qs	Qs	5	0.0653	mg/L	1	0.300	<0.000282	22	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param			MSD			Spike	Matrix		Rec.		RPD	
	F	C	Result	Units	Dil.	Amount	Result	Rec.	Limit	RPD	Limit	
Benzene	Qs	Qs	5	0.0155	mg/L	1	0.100	<0.000423	16	70 - 130	18	20
Toluene	Qs	Qs	5	0.0520	mg/L	1	0.100	<0.000238	52	70 - 130	16	20
Ethylbenzene	Qs	Qs	5	0.0144	mg/L	1	0.100	<0.000283	14	70 - 130	18	20
Xylene	Qs	Qs	5	0.0749	mg/L	1	0.300	<0.000282	25	70 - 130	14	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.108	0.114	mg/L	1	0.1	108	114	70 - 130
4-Bromofluorobenzene (4-BFB)	0.110	0.112	mg/L	1	0.1	110	112	70 - 130

Matrix Spike (MS-1) Spiked Sample: 392655

QC Batch: 121469
Prep Batch: 102766

Date Analyzed: 2015-05-13
QC Preparation: 2015-05-12

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	0.0956	mg/L	1	0.100	<0.000423	96	70 - 130
Toluene		5	0.107	mg/L	1	0.100	<0.000238	107	70 - 130
Ethylbenzene		5	0.110	mg/L	1	0.100	<0.000283	110	70 - 130
Xylene		5	0.330	mg/L	1	0.300	<0.000282	110	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	0.0879	mg/L	1	0.100	<0.000423	88	70 - 130	8	20
Toluene		5	0.0979	mg/L	1	0.100	<0.000238	98	70 - 130	9	20
Ethylbenzene		5	0.102	mg/L	1	0.100	<0.000283	102	70 - 130	8	20
Xylene		5	0.306	mg/L	1	0.300	<0.000282	102	70 - 130	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.100	0.0996	mg/L	1	0.1	100	100	70 - 130
4-Bromofluorobenzene (4-BFB)	0.121	0.120	mg/L	1	0.1	121	120	70 - 130

Matrix Spike (MS-1) Spiked Sample: 392658

QC Batch: 121540
Prep Batch: 102830

Date Analyzed: 2015-05-14
QC Preparation: 2015-05-14

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	0.108	mg/L	1	0.100	<0.000423	108	70 - 130
Toluene		5	0.110	mg/L	1	0.100	<0.000238	110	70 - 130
Ethylbenzene		5	0.110	mg/L	1	0.100	<0.000283	110	70 - 130
Xylene		5	0.330	mg/L	1	0.300	<0.000282	110	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	0.107	mg/L	1	0.100	<0.000423	107	70 - 130	1	20
Toluene		5	0.109	mg/L	1	0.100	<0.000238	109	70 - 130	1	20
Ethylbenzene		5	0.110	mg/L	1	0.100	<0.000283	110	70 - 130	0	20
Xylene		5	0.329	mg/L	1	0.300	<0.000282	110	70 - 130	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.104	0.100	mg/L	1	0.1	104	100	70 - 130
4-Bromofluorobenzene (4-BFB)	0.113	0.113	mg/L	1	0.1	113	113	70 - 130

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Matrix Spike (MS-1) Spiked Sample: 392754

QC Batch: 121582
Prep Batch: 102855

Date Analyzed: 2015-05-18
QC Preparation: 2015-05-15

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	0.0972	mg/L	1	0.100	<0.000299	97	70 - 130
Toluene		5	0.0872	mg/L	1	0.100	<0.000247	87	70 - 130
Ethylbenzene		5	0.0860	mg/L	1	0.100	<0.000423	86	70 - 130
Xylene		5	0.255	mg/L	1	0.300	<0.000552	85	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	0.101	mg/L	1	0.100	<0.000299	101	70 - 130	4	20
Toluene		5	0.0903	mg/L	1	0.100	<0.000247	90	70 - 130	4	20
Ethylbenzene		5	0.0921	mg/L	1	0.100	<0.000423	92	70 - 130	7	20
Xylene		5	0.270	mg/L	1	0.300	<0.000552	90	70 - 130	6	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.102	0.0988	mg/L	1	0.1	102	99	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0880	0.0913	mg/L	1	0.1	88	91	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 121426

Date Analyzed: 2015-05-12

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		s	mg/L	0.100	0.107	107	80 - 120	2015-05-12
Toluene		s	mg/L	0.100	0.112	112	80 - 120	2015-05-12
Ethylbenzene		s	mg/L	0.100	0.114	114	80 - 120	2015-05-12
Xylene		s	mg/L	0.300	0.338	113	80 - 120	2015-05-12

Standard (CCV-2)

QC Batch: 121426

Date Analyzed: 2015-05-12

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		s	mg/L	0.100	0.105	105	80 - 120	2015-05-12
Toluene		s	mg/L	0.100	0.109	109	80 - 120	2015-05-12
Ethylbenzene		s	mg/L	0.100	0.110	110	80 - 120	2015-05-12
Xylene		s	mg/L	0.300	0.330	110	80 - 120	2015-05-12

Standard (CCV-1)

QC Batch: 121469

Date Analyzed: 2015-05-13

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		s	mg/L	0.100	0.101	101	80 - 120	2015-05-13
Toluene		s	mg/L	0.100	0.108	108	80 - 120	2015-05-13
Ethylbenzene		s	mg/L	0.100	0.111	111	80 - 120	2015-05-13
Xylene		s	mg/L	0.300	0.335	112	80 - 120	2015-05-13

Standard (CCV-2)

QC Batch: 121469

Date Analyzed: 2015-05-13

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		s	mg/L	0.100	0.103	103	80 - 120	2015-05-13
Toluene		s	mg/L	0.100	0.106	106	80 - 120	2015-05-13
Ethylbenzene		s	mg/L	0.100	0.107	107	80 - 120	2015-05-13
Xylene		s	mg/L	0.300	0.319	106	80 - 120	2015-05-13

Standard (CCV-1)

QC Batch: 121540

Date Analyzed: 2015-05-14

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		s	mg/L	0.100	0.0972	97	80 - 120	2015-05-14
Toluene		s	mg/L	0.100	0.102	102	80 - 120	2015-05-14
Ethylbenzene		s	mg/L	0.100	0.103	103	80 - 120	2015-05-14
Xylene		s	mg/L	0.300	0.308	103	80 - 120	2015-05-14

Standard (CCV-2)

QC Batch: 121540

Date Analyzed: 2015-05-14

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		s	mg/L	0.100	0.106	106	80 - 120	2015-05-14
Toluene		s	mg/L	0.100	0.108	108	80 - 120	2015-05-14
Ethylbenzene		s	mg/L	0.100	0.107	107	80 - 120	2015-05-14
Xylene		s	mg/L	0.300	0.321	107	80 - 120	2015-05-14

Standard (CCV-1)

QC Batch: 121582

Date Analyzed: 2015-05-18

Analyzed By: AK

Report Date: May 18, 2015
TNM LF 2000-7

Work Order: 15050705
Bob Durham

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West of Monument, NM

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		5	mg/L	0.100	0.103	103	80 - 120	2015-05-18
Toluene		5	mg/L	0.100	0.0928	93	80 - 120	2015-05-18
Ethylbenzene		5	mg/L	0.100	0.0906	91	80 - 120	2015-05-18
Xylene		5	mg/L	0.300	0.268	89	80 - 120	2015-05-18

Standard (CCV-2)

QC Batch: 121582

Date Analyzed: 2015-05-18

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		5	mg/L	0.100	0.107	107	80 - 120	2015-05-18
Toluene		5	mg/L	0.100	0.0950	95	80 - 120	2015-05-18
Ethylbenzene		5	mg/L	0.100	0.0920	92	80 - 120	2015-05-18
Xylene		5	mg/L	0.300	0.275	92	80 - 120	2015-05-18

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	L-A-B	L2418	Lubbock
2	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-15-11	Lubbock
5	NELAP	T104704392-14-8	Midland
6		2014-018	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less than ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.

Report Date: May 18, 2015
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Work Order: 15050705
Bob Durham

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West of Monument, NM

F	Description
---	-------------

Qsr	Surrogate recovery outside of laboratory limits.
-----	--

U	The analyte is not detected above the SDL
---	---

Attachments

The scanned attachments will follow this page.

Please note, each attachment may consist of more than one page.

TraceAnalysis, Inc.

6701 Aberdeen Avenue, Suite 9
Lubbock, Texas 79424
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T (800) 378-1296

email: lab@traceanalysis.com

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Fax (432) 689-6313

200 East Sunset Rd., Suite E
El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
T (888) 588-3443

BioAquatic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750
Fax (575) 392-4508

Company Name: TRC

Phone # (432) 520-7720

Address: (Street, City, Zip)

2057 Commerce Dr Midland TX 79703

Contact Person:

E-mail:

Curt Stanley

Invoice to:

(If different from above) Plains

Project #:

TNW LF 2000-7

Project Name:

Bob Durham

Project Location (including state):

Sampler Signature:



LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD					SAMPLING		DATE	TIME	Turn Around Time if different from standard
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE			
392642	mw 1	3	VOA X					X							1008	
392643	mw 15														1038	
392644	mw 23														1109	
392645	mw 3														1135	
392646	mw 31														1204	
392647	mw 32														1220	
392648	mw 37														1242	
392649	mw 4														1310	
392650	mw 56														1334	
392651	mw 60														1401	
392652	mw 7														1428	
REMARKS:																
LAB USE ONLY																
Intact Y / N																
Headspace Y / N / NA																
Log-in-Review																
Dry Weight Basis Required																
TRRP Report Required																
Check if Special Reporting Limits Are Needed																

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier #

TraceAnalysis, Inc.

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Tel (972) 242-7750

Brandon & Clark
3403 Industrial Blvd.
Hobbs, NM 88240
Tel (575) 392-7561
Fax (575) 392-4508

Company Name:

TRC

Phone #:

(432) 520-7720

Address: (Street, City, Zip)

Fax #:

2057 Commerce Dr Midland, TX

Contact Person:

E-mail:

Curt Stanley

Invoice to:

(If different from above)

Project #:

TNM-LF-2000-7

Project Name:

Bob Duhon

Project Location (including state):

Sampler Signature:

LAB # LAB USE ONLY	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX				PRESERVATIVE METHOD					SAMPLING		TIME	DATE	MTBE 8021 / 602 / 8 BTX 8021 / 602 / 82 TPH 418.1 / TX1005 / TPH 8015 GRO / DRO PAH 8270 / 625 Total Metals Ag As Ba Cd TCLP Metals Ag As Ba TCLP Volatiles TCLP Semi Volatiles TCLP Pesticides RCI GC/MS Vol. 8260 / 624 GC/MS Semi. Vol. 8270 PCBs's 8082 / 608 Pesticides 8081 / 608 BOD, TSS, pH Moisture Content Cl, F, SO ₄ , NO ₃ -N, NO ₂ -N Na, Ca, Mg, K, TDS, EC	Turn Around Time if different	Hold
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE					
39263	MW 8	3	VOA	X				X				X			5/15/15	1452	X		
39264	MW 2	1													5/15/15	1537			
39265	MW 38	1													5/15/15	1553			
39266	MW 5	1													5/15/15	1637			
39267	MW 13	1													5/15/15	1650			
39268	MW 10	1													5/15/15	1710			
39269	MW 16	1													5/15/15	1743			
39270	MW 12	1													5/15/15	1809			

Relinquished by: <u>Monica</u>	Company: <u>TRC</u>	Date: <u>5/7/15</u>	Time: <u>0845</u>	Received by: <u>Nancy</u>	Company: <u>Trace</u>	Date: <u>5/7/15</u>	Time: <u>2:45</u>	INST: <u>IR</u>	Time: <u>5:00</u>	LAB USE ONLY	REMARKS:
Relinquished by: <u>Monica</u>	Company: <u>TRC</u>	Date: <u>5/7/15</u>	Time: <u>0845</u>	Received by: <u>Nancy</u>	Company: <u>Trace</u>	Date: <u>5/7/15</u>	Time: <u>2:45</u>	INST: <u>IR</u>	Time: <u>5:00</u>	LAB USE ONLY	REMARKS:
Relinquished by: <u>Monica</u>	Company: <u>TRC</u>	Date: <u>5/7/15</u>	Time: <u>0845</u>	Received by: <u>Nancy</u>	Company: <u>Trace</u>	Date: <u>5/7/15</u>	Time: <u>2:45</u>	INST: <u>IR</u>	Time: <u>5:00</u>	LAB USE ONLY	REMARKS:

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier #



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298
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(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail: lab@traceanalysis.com WEB: www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Curt Stanley
TRC Solutions
2057 Commerce
Midland, Tx, 79703

Report Date: August 12, 2015

Work Order: 15080710



Project Name: Bob Durham
Project Number: TNM-LF-2000-7

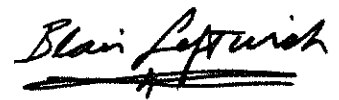
Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
401387	MW 1	water	2015-08-06	11:15	2015-08-07
401388	MW 13	water	2015-08-06	11:35	2015-08-07
401389	MW 2	water	2015-08-06	12:20	2015-08-07
401390	MW 32	water	2015-08-06	12:42	2015-08-07
401391	MW 38	water	2015-08-06	13:02	2015-08-07
401392	MW 4	water	2015-08-06	13:26	2015-08-07
401393	MW 5	water	2015-08-06	13:53	2015-08-07
401394	MW 56	water	2015-08-06	14:16	2015-08-07
401395	MW 12	water	2015-08-06	14:40	2015-08-07

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

TraceAnalysis, Inc. uses the attached chain of custody (COC) as the laboratory check-in documentation which includes sample receipt, temperature, sample preservation method and condition, collection date and time, testing requested, company, sampler, contacts and any special remarks.

This report consists of a total of 15 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink, reading "Blair Leftwich". The signature is written in a cursive style with a horizontal line underneath.

Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2015-08-07 and assigned to work order 15080710. Samples for work order 15080710 were received intact at a temperature of 4.6 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	104758	2015-08-11 at 08:26	123893	2015-08-11 at 08:26

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 15080710 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 401387 - MW 1

Laboratory: Midland
Analysis: BTEX
QC Batch: 123893
Prep Batch: 104758

Analytical Method: S 8021B
Date Analyzed: 2015-08-11
Sample Preparation: 2015-08-11

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	5	<0.00100	mg/L	1	0.00100
Toluene	u	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	5	<0.00100	mg/L	1	0.00100
Xylene	u	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0872	ug/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0895	mg/L	1	0.100	90	70 - 130

Sample: 401388 - MW 13

Laboratory: Midland
Analysis: BTEX
QC Batch: 123893
Prep Batch: 104758

Analytical Method: S 8021B
Date Analyzed: 2015-08-11
Sample Preparation: 2015-08-11

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	5	<0.00100	mg/L	1	0.00100
Toluene	u	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	5	<0.00100	mg/L	1	0.00100
Xylene	u	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0933	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0973	mg/L	1	0.100	97	70 - 130

Sample: 401389 - MW 2

Laboratory: Midland

Analysis: BTEX

QC Batch: 123893

Prep Batch: 104758

Analytical Method: S 8021B

Date Analyzed: 2015-08-11

Sample Preparation: 2015-08-11

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		5	<0.00100	mg/L	1	0.00100
Toluene	u	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	5	<0.00100	mg/L	1	0.00100
Xylene	u	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0969	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0996	mg/L	1	0.100	100	70 - 130

Sample: 401390 - MW 32

Laboratory: Midland

Analysis: BTEX

QC Batch: 123893

Prep Batch: 104758

Analytical Method: S 8021B

Date Analyzed: 2015-08-11

Sample Preparation: 2015-08-11

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	5	<0.00100	mg/L	1	0.00100
Toluene	u	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	5	<0.00100	mg/L	1	0.00100
Xylene	u	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0953	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0993	mg/L	1	0.100	99	70 - 130

Sample: 401391 - MW 38

Laboratory: Midland
Analysis: BTEX
QC Batch: 123893
Prep Batch: 104758

Analytical Method: S 8021B
Date Analyzed: 2015-08-11
Sample Preparation: 2015-08-11

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0980	mg/L	1	0.100	98	70 - 130
4-Bromofluorobenzene (4-BFB)			0.103	mg/L	1	0.100	103	70 - 130

Sample: 401392 - MW 4

Laboratory: Midland
Analysis: BTEX
QC Batch: 123893
Prep Batch: 104758

Analytical Method: S 8021B
Date Analyzed: 2015-08-11
Sample Preparation: 2015-08-11

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0966	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0969	mg/L	1	0.100	97	70 - 130

Sample: 401393 - MW 5

Laboratory: Midland

Analysis: BTEX

QC Batch: 123893

Prep Batch: 104758

Analytical Method: S 8021B

Date Analyzed: 2015-08-11

Sample Preparation: 2015-08-11

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene		s	0.00110	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0888	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0946	mg/L	1	0.100	95	70 - 130

Sample: 401394 - MW 56

Laboratory: Midland

Analysis: BTEX

QC Batch: 123893

Prep Batch: 104758

Analytical Method: S 8021B

Date Analyzed: 2015-08-11

Sample Preparation: 2015-08-11

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0965	mg/L	1	0.100	96	70 - 130
4-Bromofluorobenzene (4-BFB)			0.101	mg/L	1	0.100	101	70 - 130

Report Date: August 12, 2015
TNM-LF-2000-7

Work Order: 15080710
Bob Durham

Page Number: 9 of 15

Sample: 401395 - MW 12

Laboratory: Midland

Analysis: BTEX

QC Batch: 123893

Prep Batch: 104758

Analytical Method: S 8021B

Date Analyzed: 2015-08-11

Sample Preparation: 2015-08-11

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene		s	0.00160	mg/L	1	0.00100
Xylene		s	0.00150	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0887	mg/L	1	0.100	89	70 - 130
4-Bromofluorobenzene (4-BFB)			0.108	mg/L	1	0.100	108	70 - 130

Method Blanks

Method Blank (1) QC Batch: 123893

QC Batch: 123893
Prep Batch: 104758

Date Analyzed: 2015-08-11
QC Preparation: 2015-08-11

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		s	<0.000299	mg/L	0.001
Toluene		s	<0.000247	mg/L	0.001
Ethylbenzene		s	<0.000423	mg/L	0.001
Xylene		s	<0.000552	mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0990	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0983	mg/L	1	0.100	98	70 - 130

Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 123893
Prep Batch: 104758

Date Analyzed: 2015-08-11
QC Preparation: 2015-08-11

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		5	0.0934	mg/L	1	0.100	<0.000299	93	70 - 130
Toluene		5	0.0871	mg/L	1	0.100	<0.000247	87	70 - 130
Ethylbenzene		5	0.0825	mg/L	1	0.100	<0.000423	82	70 - 130
Xylene		5	0.254	mg/L	1	0.300	<0.000552	85	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		5	0.0928	mg/L	1	0.100	<0.000299	93	70 - 130	1	20
Toluene		5	0.0888	mg/L	1	0.100	<0.000247	89	70 - 130	2	20
Ethylbenzene		5	0.0825	mg/L	1	0.100	<0.000423	82	70 - 130	0	20
Xylene		5	0.254	mg/L	1	0.300	<0.000552	85	70 - 130	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0905	0.0940	mg/L	1	0.100	90	94	70 - 130
4-Bromofluorobenzene (4-BFB)	0.0958	0.101	mg/L	1	0.100	96	101	70 - 130

Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 401387

QC Batch: 123893
Prep Batch: 104758

Date Analyzed: 2015-08-11
QC Preparation: 2015-08-11

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		s	0.0979	mg/L	1	0.100	<0.000299	98	70 - 130
Toluene		s	0.0936	mg/L	1	0.100	<0.000247	94	70 - 130
Ethylbenzene		s	0.0878	mg/L	1	0.100	<0.000423	88	70 - 130
Xylene		s	0.268	mg/L	1	0.300	<0.000552	89	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		s	0.100	mg/L	1	0.100	<0.000299	100	70 - 130	2	20
Toluene		s	0.0952	mg/L	1	0.100	<0.000247	95	70 - 130	2	20
Ethylbenzene		s	0.0883	mg/L	1	0.100	<0.000423	88	70 - 130	1	20
Xylene		s	0.273	mg/L	1	0.300	<0.000552	91	70 - 130	2	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	0.0969	0.0914	mg/L	1	0.1	97	91	70 - 130
4-Bromofluorobenzene (4-BFB)	0.104	0.101	mg/L	1	0.1	104	101	70 - 130

Calibration Standards

Standard (CCV-1)

QC Batch: 123893

Date Analyzed: 2015-08-11

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		s	mg/L	0.100	0.0951	95	80 - 120	2015-08-11
Toluene		s	mg/L	0.100	0.0899	90	80 - 120	2015-08-11
Ethylbeuzene		s	mg/L	0.100	0.0853	85	80 - 120	2015-08-11
Xyleue		s	mg/L	0.300	0.262	87	80 - 120	2015-08-11

Standard (CCV-2)

QC Batch: 123893

Date Analyzed: 2015-08-11

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		s	mg/L	0.100	0.0959	96	80 - 120	2015-08-11
Toluene		s	mg/L	0.100	0.0908	91	80 - 120	2015-08-11
Ethylbenzene		s	mg/L	0.100	0.0853	85	80 - 120	2015-08-11
Xylene		s	mg/L	0.300	0.263	88	80 - 120	2015-08-11

Standard (CCV-3)

QC Batch: 123893

Date Analyzed: 2015-08-11

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		s	mg/L	0.100	0.0903	90	80 - 120	2015-08-11
Toluene		s	mg/L	0.100	0.0854	85	80 - 120	2015-08-11
Ethylbenzene		s	mg/L	0.100	0.0806	81	80 - 120	2015-08-11
Xylene		s	mg/L	0.300	0.247	82	80 - 120	2015-08-11

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	L-A-B	L2418	Lubbock
2	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-15-11	Lubbock
5	NELAP	T104704392-14-8	Midland
6		2014-018	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.

F	Description
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

TraceAnalysis, Inc.

email: lab@traceanalysis.com

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Lubbock, Texas 79424
Tel (806) 794-1296
Fax (806) 794-1298
1 (800) 378-12965002 Basin Street, Suite A1
Midland, Texas 79703
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El Paso, Texas 79922
Tel (915) 585-3443
Fax (915) 585-4944
1 (888) 588-3443BioAqualic Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750
Fax (575) 392-4508

Company Name: TRC Solutions

Address: (Street, City, Zip) 2057 Commerce Dr Midland Tx 79703

Contact Person: Curt Stanley

E-mail:

Invoice to:

(If different from above) Plains

Project #:

TNMA - LF-2000-7

Project Name:

Bob Dyer

Sampler Signature:

[Signature]

Project Location (including state):

LAB # (LAB USE ONLY)	FIELD CODE	# CONTAINERS	Volume / Amount	MATRIX			PRESERVATIVE METHOD						SAMPLING		TIME
				WATER	SOIL	AIR	SLUDGE	HCl	HNO ₃	H ₂ SO ₄	NaOH	ICE	NONE	DATE	
401387	MW 1	3	10A	X				X				X	8/6/15	1115	X
401388	MW 13	1											11	1135	
401389	MW 2													1220	
401390	MW 30													1242	
401391	MW 38													1303	
401392	MW 4													1326	
401393	MW 5													1353	
401394	MW 56													1416	
401395	MW 12													1440	
						</									

Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR
Relinquished by:	Company:	Date:	Time:	Received by:	Company:	Date:	Time:	INST	OBS	COR

LAB USE ONLY

Intact Y / N

Headspace Y / N / NA

Log-in-Review

Dry Weight Basis Required

TRRP Report Required

Check if Special Reporting Limits Are Needed

Submittal of samples constitutes agreement to Terms and Conditions listed on reverse side of C. O. C.

Carrier #

RCMA-10



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313
(BioAquatic) 2501 Mayes Rd., Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail lab@traceanalysis.com WEB www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Curt Stanley
TRC Solutions
2057 Commerce
Midland, Tx, 79703

Report Date: December 11, 2015

Work Order: 15112501



Project Name: Bob Durham
Project Number: TNM-LF-2000-7

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

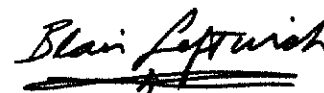
Sample	Description	Matrix	Date Taken	Time Taken	Date Received
409023	MW 11	water	2015-11-23	16:15	2015-11-25
409024	MW 20	water	2015-11-23	16:38	2015-11-25
409025	MW 21	water	2015-11-23	16:52	2015-11-25
409026	MW 24	water	2015-11-23	17:05	2015-11-25
409027	MW 25	water	2015-11-23	17:20	2015-11-25
409028	MW 27	water	2015-11-24	10:15	2015-11-25
409029	MW 28	water	2015-11-24	10:38	2015-11-25
409030	MW 30	water	2015-11-24	10:51	2015-11-25
409031	MW 33	water	2015-11-24	11:10	2015-11-25
409032	MW 15	water	2015-11-24	11:33	2015-11-25
409033	MW 23	water	2015-11-24	12:07	2015-11-25
409034	MW 3	water	2015-11-24	12:23	2015-11-25
409035	MW 31	water	2015-11-24	12:56	2015-11-25
409036	MW 37	water	2015-11-24	13:12	2015-11-25
409037	MW 6	water	2015-11-24	13:39	2015-11-25
409038	MW 7	water	2015-11-24	14:01	2015-11-25
409039	MW 8	water	2015-11-24	14:20	2015-11-25
409040	MW 10	water	2015-11-24	14:45	2015-11-25
409041	MW 16	water	2015-11-24	15:25	2015-11-25

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
409042	MW 1	water	2015-11-24	16:12	2015-11-25
409043	MW 13	water	2015-11-24	16:29	2015-11-25
409044	MW 2	water	2015-11-24	17:10	2015-11-25
409045	MW 32	water	2015-11-24	17:27	2015-11-25
409046	MW 38	water	2015-11-24	17:39	2015-11-25
409047	MW 4	water	2015-11-24	17:56	2015-11-25
409048	MW 5	water	2015-11-24	18:10	2015-11-25
409049	MW 56	water	2015-11-24	18:25	2015-11-25
409050	MW 12	water	2015-11-24	18:45	2015-11-25

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

TraceAnalysis, Inc. uses the attached chain of custody (COC) as the laboratory check-in documentation which includes sample receipt, temperature, sample preservation method and condition, collection date and time, testing requested, company, sampler, contacts and any special remarks.

This report consists of a total of 38 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.



Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

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Case Narrative

Samples for project Bob Durham were received by TraceAnalysis, Inc. on 2015-11-25 and assigned to work order 15112501. Samples for work order 15112501 were received intact at a temperature of 5.7 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	107234	2015-12-01 at 14:30	126744	2015-12-03 at 07:13
BTEX	S 8021B	107250	2015-12-02 at 07:20	126746	2015-12-03 at 07:46
BTEX	S 8021B	107304	2015-12-03 at 08:21	126795	2015-12-04 at 08:22
PAH	S 8270D	107383	2015-11-27 at 15:00	126886	2015-12-10 at 11:12
PAH	S 8270D	107415	2015-12-02 at 15:00	126924	2015-12-11 at 13:36

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 15112501 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Analytical Report

Sample: 409023 - MW 11

Laboratory: Midland
Analysis: BTEX
QC Batch: 126744
Prep Batch: 107234

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-01

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0969	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0866	mg/L	1	0.100	87	70 - 130

Sample: 409024 - MW 20

Laboratory: Midland
Analysis: BTEX
QC Batch: 126744
Prep Batch: 107234

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-01

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0919	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0876	mg/L	1	0.100	88	70 - 130

Sample: 409025 - MW 21

Laboratory: Midland
Analysis: BTEX
QC Batch: 126744
Prep Batch: 107234

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-01

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0992	mg/L	1	0.100	99	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0904	mg/L	1	0.100	90	70 - 130

Sample: 409026 - MW 24

Laboratory: Midland
Analysis: BTEX
QC Batch: 126746
Prep Batch: 107250

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr, U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0898	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0931	mg/L	1	0.100	93	70 - 130

Report Date: December 11, 2015
TNM-LF-2000-7

Work Order: 15112501
Bob Durham

Page Number: 8 of 38

Sample: 409027 - MW 25

Laboratory: Midland
Analysis: BTEX
QC Batch: 126746
Prep Batch: 107250

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0896	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0927	mg/L	1	0.100	93	70 - 130

Sample: 409028 - MW 27

Laboratory: Midland
Analysis: BTEX
QC Batch: 126746
Prep Batch: 107250

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0899	mg/L	1	0.100	90	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0924	mg/L	1	0.100	92	70 - 130

Report Date: December 11, 2015
TNM-LF-2000-7

Work Order: 15112501
Bob Durham

Page Number: 9 of 38

Sample: 409029 - MW 28

Laboratory: Midland
Analysis: BTEX
QC Batch: 126746
Prep Batch: 107250

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	S	<0.00100	mg/L	1	0.00100
Toluene	U	S	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	S	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	S	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0914	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0893	mg/L	1	0.100	89	70 - 130

Sample: 409030 - MW 30

Laboratory: Midland
Analysis: BTEX
QC Batch: 126746
Prep Batch: 107250

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	S	<0.00100	mg/L	1	0.00100
Toluene	U	S	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	S	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	S	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0947	mg/L	1	0.100	95	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0870	mg/L	1	0.100	87	70 - 130

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Sample: 409031 - MW 33

Laboratory: Midland
Analysis: BTEX
QC Batch: 126746
Prep Batch: 107250

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0855	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0904	mg/L	1	0.100	90	70 - 130

Sample: 409032 - MW 15

Laboratory: Midland
Analysis: BTEX
QC Batch: 126746
Prep Batch: 107250

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0941	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0943	mg/L	1	0.100	94	70 - 130

Sample: 409033 - MW 23

Laboratory: Midland

Analysis: BTEX

QC Batch: 126746

Prep Batch: 107250

Analytical Method: S 8021B

Date Analyzed: 2015-12-03

Sample Preparation: 2015-12-02

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0875	mg/L	1	0.100	88	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0909	mg/L	1	0.100	91	70 - 130

Sample: 409034 - MW 3

Laboratory: Midland

Analysis: BTEX

QC Batch: 126746

Prep Batch: 107250

Analytical Method: S 8021B

Date Analyzed: 2015-12-03

Sample Preparation: 2015-12-02

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0847	mg/L	1	0.100	85	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0886	mg/L	1	0.100	89	70 - 130

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Sample: 409035 - MW 31

Laboratory: Midland
Analysis: BTEX
QC Batch: 126746
Prep Batch: 107250

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0914	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0898	mg/L	1	0.100	90	70 - 130

Sample: 409036 - MW 37

Laboratory: Midland
Analysis: BTEX
QC Batch: 126746
Prep Batch: 107250

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0935	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0906	mg/L	1	0.100	91	70 - 130

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Sample: 409037 - MW 6

Laboratory: Midland

Analysis: BTEX

QC Batch: 126746

Prep Batch: 107250

Analytical Method: S 8021B

Date Analyzed: 2015-12-03

Sample Preparation: 2015-12-02

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0908	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0899	mg/L	1	0.100	90	70 - 130

Sample: 409038 - MW 7

Laboratory: Midland

Analysis: BTEX

QC Batch: 126746

Prep Batch: 107250

Analytical Method: S 8021B

Date Analyzed: 2015-12-03

Sample Preparation: 2015-12-02

Prep Method: S 5030B

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0907	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0873	mg/L	1	0.100	87	70 - 130

Sample: 409039 - MW 8

Laboratory: Midland
Analysis: BTEX
QC Batch: 126746
Prep Batch: 107250

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	S	<0.00100	mg/L	1	0.00100
Toluene	U	S	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	S	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	S	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0922	mg/L	1	0.100	92	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0915	mg/L	1	0.100	92	70 - 130

Sample: 409040 - MW 10

Laboratory: Midland
Analysis: BTEX
QC Batch: 126746
Prep Batch: 107250

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	S	<0.00100	mg/L	1	0.00100
Toluene	U	S	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	S	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	S	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0966	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0933	mg/L	1	0.100	93	70 - 130

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Sample: 409041 - MW 16

Laboratory: Midland
Analysis: BTEX
QC Batch: 126746
Prep Batch: 107250

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		S	0.00120	mg/L	1	0.00100
Toluene	U	S	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	S	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	S	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0857	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0831	mg/L	1	0.100	83	70 - 130

Sample: 409042 - MW 1

Laboratory: Midland
Analysis: BTEX
QC Batch: 126746
Prep Batch: 107250

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	S	<0.00100	mg/L	1	0.00100
Toluene	U	S	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	S	<0.00100	mg/L	1	0.00100
Xylene	Qr,U	S	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0861	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0903	mg/L	1	0.100	90	70 - 130

Sample: 409043 - MW 13

Laboratory: Midland
Analysis: BTEX
QC Batch: 126746
Prep Batch: 107250

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	5	<0.00100	mg/L	1	0.00100
Toluene	U	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	5	<0.00100	mg/L	1	0.00100
Xylene	Qr, U	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0810	mg/L	1	0.100	81	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0835	mg/L	1	0.100	84	70 - 130

Sample: 409043 - MW 13

Laboratory: Lubbock
Analysis: PAH
QC Batch: 126886
Prep Batch: 107383

Analytical Method: S 8270D
Date Analyzed: 2015-12-10
Sample Preparation: 2015-11-27

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
2-Methylnaphthalene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
1-Methylnaphthalene	U	1	<0.000200	mg/L	1	0.000200
Acenaphthylene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Acenaphthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Dibenzofuran	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Fluorene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Anthracene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Phenanthrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Pyrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(a)anthracene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Chrysene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(a)pyrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200

continued ...

sample 409043 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzo(g,h,i)perylene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			6.00	mg/L	1	8.00	75	10 - 120
2-Fluorobiphenyl	Qsr	Qsr	0.293	mg/L	1	8.00	4	35.9 - 120
Terphenyl-d14			3.10	mg/L	1	8.00	39	23.2 - 120

Sample: 409044 - MW 2

Laboratory: Midland
Analysis: BTEX
QC Batch: 126746
Prep Batch: 107250

Analytical Method: S 8021B
Date Analyzed: 2015-12-03
Sample Preparation: 2015-12-02

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	S	<0.00100	mg/L	1	0.00100
Toluene	U	S	<0.00100	mg/L	1	0.00100
Ethylbenzene	U	S	<0.00100	mg/L	1	0.00100
Xyleue	Qr,U	S	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0945	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0919	mg/L	1	0.100	92	70 - 130

Sample: 409045 - MW 32

Laboratory: Midland
Analysis: BTEX
QC Batch: 126795
Prep Batch: 107304

Analytical Method: S 8021B
Date Analyzed: 2015-12-04
Sample Preparation: 2015-12-04

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	S	<0.00100	mg/L	1	0.00100

continued ...

sample 409045 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Toluene	u	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	5	<0.00100	mg/L	1	0.00100
Xylene	u	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0945	mg/L	1	0.100	94	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0935	mg/L	1	0.100	94	70 - 130

Sample: 409046 - MW 38

Laboratory: Midland	Analytical Method: S 8021B	Prep Method: S 5030B
Analysis: BTEX	Date Analyzed: 2015-12-04	Analyzed By: AK
QC Batch: 126795	Sample Preparation: 2015-12-04	Prepared By: AK
Prep Batch: 107304		

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	5	<0.00100	mg/L	1	0.00100
Toluene	u	5	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	5	<0.00100	mg/L	1	0.00100
Xylene	u	5	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0933	mg/L	1	0.100	93	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0916	mg/L	1	0.100	92	70 - 130

Sample: 409047 - MW 4

Laboratory: Midland	Analytical Method: S 8021B	Prep Method: S 5030B
Analysis: BTEX	Date Analyzed: 2015-12-04	Analyzed By: AK
QC Batch: 126795	Sample Preparation: 2015-12-04	Prepared By: AK
Prep Batch: 107304		

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sample 409047 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0973	mg/L	1	0.100	97	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0912	mg/L	1	0.100	91	70 - 130

Sample: 409048 - MW 5

Laboratory: Midland
Analysis: BTEX
QC Batch: 126795
Prep Batch: 107304

Analytical Method: S 8021B
Date Analyzed: 2015-12-04
Sample Preparation: 2015-12-04

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		s	0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene		s	0.00200	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0914	mg/L	1	0.100	91	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0937	mg/L	1	0.100	94	70 - 130

Sample: 409049 - MW 56

Laboratory: Midland
Analysis: BTEX
QC Batch: 126795
Prep Batch: 107304

Analytical Method: S 8021B
Date Analyzed: 2015-12-04
Sample Preparation: 2015-12-04

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene	u	s	<0.00100	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0871	mg/L	1	0.100	87	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0873	mg/L	1	0.100	87	70 - 130

Sample: 409050 - MW 12

Laboratory: Midland
Analysis: BTEX
QC Batch: 126795
Prep Batch: 107304

Analytical Method: S 8021B
Date Analyzed: 2015-12-04
Sample Preparation: 2015-12-04

Prep Method: S 5030B
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene		s	<0.00100	mg/L	1	0.00100
Toluene	u	s	<0.00100	mg/L	1	0.00100
Ethylbenzene		s	0.00180	mg/L	1	0.00100
Xylene	u	s	<0.00100	mg/L	1	0.00100

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0857	mg/L	1	0.100	86	70 - 130
4-Bromofluorobenzene (4-BFB)			0.105	mg/L	1	0.100	105	70 - 130

Sample: 409050 - MW 12

Laboratory: Lubbock
Analysis: PAH
QC Batch: 126924
Prep Batch: 107415

Analytical Method: S 8270D
Date Analyzed: 2015-12-11
Sample Preparation: 2015-12-02

Prep Method: S 3510C
Analyzed By: MN
Prepared By: MN

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Naphthalene		1,2,3,4,6	0.110	mg/L	1	0.000200
2-Methylnaphthalene		1,2,3,4,6	0.128	mg/L	1	0.000200
1-Methylnaphthalene		1	0.568	mg/L	1	0.000200

continued ...

sample 409050 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Acenaphthylene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Acenaphthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Dibenzofuran	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Fluorene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Anthracene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Phenanthrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Pyrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(a)anthracene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Chrysene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(a)pyrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Dibenzo(a,h)anthracene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene	U	1,2,3,4,6	<0.000200	mg/L	1	0.000200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5			4.90	mg/L	1	8.00	61	10 - 120
2-Fluorobiphenyl	Q _{st}	Q _{st}	0.422	mg/L	1	8.00	5	35.9 - 120
Terphenyl-d14	Q _{st}	Q _{st}	1.79	mg/L	1	8.00	22	23.2 - 120

Method Blanks

Method Blank (1) QC Batch: 126744

QC Batch: 126744
Prep Batch: 107234

Date Analyzed: 2015-12-03
QC Preparation: 2015-12-01

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL		Units	RL
			Result			
Benzene		5	<0.000299		mg/L	0.001
Toluene		5	<0.000247		mg/L	0.001
Ethylbenzene		5	<0.000423		mg/L	0.001
Xylene		5	<0.000552		mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.0813	mg/L	1	0.100	81	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0771	mg/L	1	0.100	77	70 - 130

Method Blank (1) QC Batch: 126746

QC Batch: 126746
Prep Batch: 107250

Date Analyzed: 2015-12-03
QC Preparation: 2015-12-02

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL		Units	RL
			Result			
Benzene		5	<0.000299		mg/L	0.001
Toluene		5	<0.000247		mg/L	0.001
Ethylbenzene		5	<0.000423		mg/L	0.001
Xylene		5	<0.000552		mg/L	0.001

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			0.102	mg/L	1	0.100	102	70 - 130
4-Bromofluorobenzene (4-BFB)			0.0949	mg/L	1	0.100	95	70 - 130

Method Blank (1) QC Batch: 126795

QC Batch: 126795
Prep Batch: 107304

Date Analyzed: 2015-12-04
QC Preparation: 2015-12-03

Analyzed By: AK
Prepared By: AK