

AP - 002

STAGE 2
REPORTS

06/14/2007

Shell E&P Company

A Division of Shell Exploration & Production Company



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June 14, 2007

JUN 18 2007

Oil Conservation Division
Environmental Bureau

Mr. Wayne Price
New Mexico Oil Conservation Division
1220 South St. Francis Drive
Santa Fe, New Mexico 87505

**SUBJECT: SUBMITTAL OF 2006 GROUNDWATER MONITORING
REPORT, WESTGATE SUBDIVISION,
GRIMES BATTERY AND TASKER ROAD**

Dear Mr. Price:

Shell Exploration and Production Company (SEPCo) respectfully submits the enclosed 2006 Groundwater Monitoring Report for the Westgate Subdivision, Grimes Battery and Tasker Road.

This report details the groundwater monitoring and free product recovery activities for the four quarters of 2006. Also included are summary data tables, original laboratory data, and isopleth maps.

If you have any questions, please call me at (281) 544-2322 or Cliff Brunson at (505) 397-6388 or via e-mail to me at Wayne.Hamilton@shell.com or Cliff at cbrunson@bbcinternational.com.

Sincerely,

for
Wayne A. Hamilton
Sr. Staff Engineer, Legacy Properties

cc: Chris Williams, NMOCD District 1 Supervisor, 2 copies
Cliff P. Brunson, BBC International, Inc.

AP002

WESTGATE SUBDIVISION
GRIMES BATTERY & TASKER ROAD

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JUN 18 2007

Oil Conservation Division
Environmental Bureau

**2006 Quarterly Groundwater
Monitoring Report**

June 2007

**SHELL EXPLORATION & PRODUCTION
COMPANY
HOUSTON, TEXAS**

Prepared By:

BBC International, Inc.
World-Wide Environmental Specialists

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1.0 INTRODUCTION

The subject site is located in west Hobbs, New Mexico. Assessment activities (Stage 1 Abatement activities) were conducted on developed and undeveloped property bordered by Tasker Road to the east, the Los Cuatro, Inc. property to the west, Sanger Road to the south, and Princess Jeanne Drive to the North. Assessment activities also included undeveloped property extending approximately 400 feet west of Cobb Drive. Based on the results of the assessment activities (both Stage 1 and Stage 2 Abatement activities), quarterly groundwater monitoring and remediation activities are being performed.

The Grimes Lease is an oil production property that has been in operation since the late 1920's. It consists of producing and injection wells, tank batteries, and associated flowlines. Oil and saltwater were produced from the wells on this lease and transported by flowlines to the Grimes Battery. Prior to decommissioning of the Grimes Battery in 1993, produced oil from the battery was transported south in a pipeline owned by Shell Pipeline (currently known as Equilon Pipeline). The pipeline is decommissioned and terminates at the former battery location.

Per NMOCD requirements, there are sixteen groundwater monitoring wells in the Westgate Subdivision that are being monitored quarterly for BTEX using USEPA Method 8260-B and annually for PAHs using USEPA Method 8270-C. In 2002, five monitor wells (TMW-1 through TMW-5) were plugged and abandoned per NMOCD approval.

2.0 2006 GROUNDWATER MONITORING ACTIVITIES

There are only eleven monitoring wells that are now gauged and sampled during a calendar year. Three of the remaining eleven wells have had measurable free product hydrocarbons detected in them. These monitor wells are GMW-1, GMW-3B, GMW-5.

2.1 LNAPL THICKNESS AND GROUNDWATER ELEVATIONS

Each quarter the eleven monitor wells were measured from the top of the casing for depth to groundwater, depth to LNAPL, LNAPL thickness, and corrected groundwater elevations prior to sampling (Tables 1, 2, 3, 4). Three wells were found to have measurable free product hydrocarbons. They are GMW-1, GMW-3B, and GMW-5. (Tables 1, 2, 3, 4). Groundwater gradient and elevations for the first quarter are depicted in Figure 1, for the second quarter in Figure 4, for the third quarter in Figure 7, and for the fourth quarter in Figure 10. LNAPL thicknesses for the first quarter are depicted in Figure 2, for the second quarter in Figure 5, for the third quarter in Figure 8, and for the fourth quarter in Figure 11.

**Table 1. 1st Quarter 2006 LNAPL and Groundwater Elevation
Westgate Subdivision - Hobbs, NM**

MONITORING WELL	TOP OF CASING	DATE	DEPTH TO GROUNDWATER	DEPTH TO LNAPL	LNAPL THICKNESS	CORRECTED GROUNDWATER
GMW-1	3647.84	3/10/2006	71.24	ND	0.00	3576.60
GMW-2	3648.51	3/10/2006	70.46	ND	0.00	3578.05
GMW-3B	3648.26	3/10/2006	70.69	ND	0.00	3577.57
GMW-4	3647.79	3/10/2006	70.07	ND	0.00	3577.72
GMW-5	3648.41	3/10/2006	71.74	71.72	0.02	3576.67
GMW-6	3648.22	3/10/2006	72.28	ND	0.00	3575.94
GMW-7	3644.98	3/10/2006	71.69	ND	0.00	3573.29
GMW-8	3645.66	3/10/2006	72.34	ND	0.00	3573.32
GMW-9	3646.27	3/10/2006	71.64	ND	0.00	3574.63
GMW-10	3645.65	3/10/2006	69.89	ND	0.00	3575.76
GMW-11	3644.07	3/10/2006	70.15	ND	0.00	3573.92

**Table 1. 2nd Quarter 2006 LNAPL and Groundwater Elevation
Westgate Subdivision - Hobbs, NM**

MONITORING WELL	TOP OF CASING	DATE	DEPTH TO GROUNDWATER	DEPTH TO LNAPL	LNAPL THICKNESS	CORRECTED GROUNDWATER
GMW-1	3647.84	6/24/2006	71.29	ND	0.00	3576.55
GMW-2	3648.51	6/24/2006	70.53	ND	0.00	3577.98
GMW-3B	3648.26	6/24/2006	70.76	ND	0.00	3577.50
GMW-4	3647.79	6/24/2006	71.01	ND	0.00	3579.89
GMW-5	3648.41	6/24/2006	71.79	71.74	0.05	3576.62
GMW-6	3648.22	6/24/2006	73.04	ND	0.00	3579.17
GMW-7	3644.98	6/24/2006	71.75	ND	0.00	3573.23
GMW-8	3645.66	6/24/2006	72.39	ND	0.00	3573.27
GMW-9	3646.27	6/24/2006	71.60	ND	0.00	3574.67
GMW-10	3645.65	6/24/2006	69.92	ND	0.00	3575.73
GMW-11	3644.07	6/24/2006	70.11	ND	0.00	3576.08

**Table 1. 3rd Quarter 2006 LNAPL and Groundwater Elevation
Westgate Subdivision - Hobbs, NM**

MONITORING WELL	TOP OF CASING	DATE	DEPTH TO GROUNDWATER	DEPTH TO LNAPL	LNAPL THICKNESS	CORRECTED GROUNDWATER
GMW-1	3647.84	9/26/2006	71.23	ND	0.00	3576.61
GMW-2	3648.51	9/26/2006	69.72	ND	0.00	3578.79
GMW-3B	3648.26	9/26/2006	70.71	ND	0.00	3577.55
GMW-4	3647.79	9/26/2006	70.03	ND	0.00	3577.76
GMW-5	3648.41	9/26/2006	71.74	71.73	0.01	3576.67
GMW-6	3648.22	9/26/2006	72.81	ND	0.00	3575.41
GMW-7	3644.98	9/26/2006	71.88	ND	0.00	3573.10
GMW-8	3645.66	9/26/2006	72.50	ND	0.00	3573.16
GMW-9	3646.27	9/26/2006	71.69	ND	0.00	3574.58
GMW-10	3645.65	9/26/2006	70.04	ND	0.00	3575.61
GMW-11	3644.07	9/26/2006	70.09	ND	0.00	3573.98

**Table 1. 4th Quarter 2006 LNAPL and Groundwater Elevation
Westgate Subdivision - Hobbs, NM**

MONITORING WELL	TOP OF CASING	DATE	DEPTH TO GROUNDWATER	DEPTH TO LNAPL	LNAPL THICKNESS	CORRECTED GROUNDWATER
GMW-1	3647.84	12/29/2006	71.56	71.54	0.02	3576.30
GMW-2	3648.51	12/29/2006	70.74	ND	0.00	3577.77
GMW-3B	3648.26	12/29/2006	70.30	ND	0.00	3577.96
GMW-4	3647.79	12/29/2006	70.38	ND	0.00	3577.41
GMW-5	3648.41	12/29/2006	72.01	72.00	0.01	3576.41
GMW-6	3648.22	12/29/2006	72.20	ND	0.00	3576.02
GMW-7	3644.98	12/29/2006	72.00	ND	0.00	3572.98
GMW-8	3645.66	12/29/2006	72.63	ND	0.00	3573.03
GMW-9	3646.27	12/29/2006	72.31	ND	0.00	3573.96
GMW-10	3645.65	12/29/2006	70.10	ND	0.00	3575.55
GMW-11	3644.07	12/29/2006	70.41	ND	0.00	3573.66

2.2 FREE PRODUCT RECOVERY

Downhole passive absorbing skimmers were installed in monitor wells GMW-1, GMW-3B, and GMW-5. Free product was removed periodically from each monitor well (Table 5). All recovered fluids were transported to the Sundance Services NMOCD approved disposal facility near Eunice, NM for recycling and disposal.

Table 5. Free Product Recovery

Date	Location		
	GMW-1	GMW-3B	GMW-5
	Product Recovery (quarts)	Product Recovery (quarts)	Product Recovery (quarts)
First Quarter			
1/6/06	0.75	Tip of soak-ease	0.75
1/10/06	Tip of soak-ease	Trace of product	0.75
1/17/06	Tip of soak-ease	Trace of product	0.75
1/20/06	0.75	Tip of soak-ease	0.75
1/24/06	0.75	Trace of product	Tip of soak-ease
1/26/06	Tip of soak-ease	Tip of soak-ease	0.75
1/31/07	Tip of soak-ease	Trace of product	0.75
First Quarter Total	2.25	0.00	4.50
Year-to Date Totals	2.25	0.00	4.50
Second Quarter			
6/12/06	0.75	0.00	0.75
6/19/06	0.75	0.00	0.75
6/29/06	0.00	0.00	Tip of soak-ease
Second Quarter Total	1.50	0.00	1.50
Year-to Date Totals	3.75	0.00	6.00
Third Quarter			
7/3/06	0.00	0.00	Tip of soak-ease
7/20/06	0.00	0.00	0.75
8/25/06	1.50	0.75	1.50
9/5/06	Trace of product	0.00	1.50

Third Quarter Total	1.50	0.75	3.75
Year-to Date Totals	5.25	0.75	9.75
Forth Quarter			
10/16/06	0.00	0.00	Tip of soak-ease
12/5/06	0.75	Trace of product	Tip of soak-ease
12/27/06	Trace of product	0.00	Tip of soak-ease
Fourth Quarter Totals	0.75	0.00	0.00
Year-to Date Totals	6.00	0.75	9.75

2.3 PURGING AND SAMPLING ACTIVITIES

Each quarter all eleven monitor wells were measured from the top of the casing for depth to groundwater, depth to LNAPL, LNAPL thickness, and corrected groundwater elevations prior to sampling (Table 1). All purged fluids were drummed, transported, and disposed of at Sundance Services NMOCD approved disposal facility near Eunice, NM for recycling and disposal.

The groundwater samples were sent to Trace Analysis Laboratories in Lubbock, TX to be analyzed for BTEX (USEPA Method 8260-B) and PAHs (USEPA Method 8270-C). The results per quarter per monitor well are summarized in Tables 6, and 7. Laboratory analytical results, QA/QC, and chain-of-custody reports for the groundwater samples collected and analyzed are included in Appendix I through Appendix IV.

Table 6. 1st & 2nd Quarter 2006 Sampling Reports

Grimes Monitor Wells - Westgate Subdivision BTEX

GMW-2

Analyte	Matrix	Method Taken	1st Quarter				2nd Quarter			
			Work Order Number: 6031323 Method Taken: 8260				Work Order Number: 6062719 Method Taken: 8021			
			Sample No.	Date Taken	µg/L		Sample No.	Date Taken	µg/L	
					Result	Detection Limit			Result	Detection Limit
Benzene	Water	S-8260B	85861	3/10/06	<1.00	1	93785	6/24/06	<0.00100	0.00100
Toluene	Water	S-8260B	85861	3/10/06	<1.00	1	93785	6/24/06	<0.00100	0.00100
Ethylbenzene	Water	S-8260B	85861	3/10/06	<1.00	1	93785	6/24/06	<0.00100	0.00100
m,p-Xylene	Water	S-8260B	85861	3/10/06	<1.00	1	93785	6/24/06	<0.00100	0.00100
o-Xylene	Water	S-8260B	85861	3/10/06	<1.00	1	93785	6/24/06	<0.00100	0.00100

GMW-7

Analyte	Matrix	Method Taken	<u>1st Quarter</u>				<u>2nd Quarter</u>			
			Work Order Number: 6031323 Method Taken: 8260				Work Order Number: 6062719 Method Taken: 8021			
			Sample No.	Date Taken	<u>µg/L</u>		Sample No.	Date Taken	<u>µg/L</u>	
					Result	Detection Limit			Result	Detection Limit
Benzene	Water	S-8260B	85863	3/10/06	<1.00	1	93787	6/24/06	<0.00100	0.00100
Toluene	Water	S-8260B	85863	3/10/06	<1.00	1	93787	6/24/06	<0.00100	0.00100
Ethylbenzene	Water	S-8260B	85863	3/10/06	<1.00	1	93787	6/24/06	<0.00100	0.00100
M,p-Xylene	Water	S-8260B	85863	3/10/06	<1.00	1	93787	6/24/06	<0.00100	0.00100
o-Xylene	Water	S-8260B	85863	3/10/06	<1.00	1	93787	6/24/06	<0.00100	0.00100

GMW-8

Analyte	Matrix	Method Taken	<u>1st Quarter</u>				<u>2nd Quarter</u>			
			Work Order Number: 6031323 Method Taken: 8260				Work Order Number: 6062719 Method Taken: 8021			
			Sample No.	Date Taken	<u>µg/L</u>		Sample No.	Date Taken	<u>µg/L</u>	
					Result	Detection Limit			Result	Detection Limit
Benzene	Water	S-8260B	85864	3/10/06	<1.00	1	93788	6/24/06	<0.00100	0.00100
Toluene	Water	S-8260B	85864	3/10/06	<1.00	1	93788	6/24/06	<0.00100	0.00100
Ethylbenzene	Water	S-8260B	85864	3/10/06	<1.00	1	93788	6/24/06	<0.00100	0.00100
M,p-Xylene	Water	S-8260B	85864	3/10/06	<1.00	1	93788	6/24/06	<0.00100	0.00100
o-Xylene	Water	S-8260B	85864	3/10/06	<1.00	1	93788	6/24/06	<0.00100	0.00100

GMW-9

Analyte	Matrix	Method Taken	<u>1st Quarter</u>				<u>2nd Quarter</u>			
			Work Order Number: 6031323 Method Taken: 8260				Work Order Number: 6062719 Method Taken: 8021			
			Sample No.	Date Taken	<u>µg/L</u>		Sample No.	Date Taken	<u>µg/L</u>	
					Result	Detection Limit			Result	Detection Limit
Benzene	Water	S-8260B	85865	3/10/06	<1.00	1	93789	6/24/06	<0.00100	0.00100
Toluene	Water	S-8260B	85865	3/10/06	<1.00	1	93789	6/24/06	<0.00100	0.00100
Ethylbenzene	Water	S-8260B	85865	3/10/06	<1.00	1	93789	6/24/06	<0.00100	0.00100
M,p-Xylene	Water	S-8260B	85865	3/10/06	<1.00	1	93789	6/24/06	<0.00100	0.00100
o-Xylene	Water	S-8260B	85865	3/10/06	<1.00	1	93789	6/24/06	<0.00100	0.00100

GMW-10

Analyte	Matrix	Method Taken	<u>1st Quarter</u>				<u>2nd Quarter</u>			
			Work Order Number: 6031323 Method Taken: 8260				Work Order Number: 6062719 Method Taken: 8021			
			Sample No.	Date Taken	<u>µg/L</u>		Sample No.	Date Taken	<u>µg/L</u>	
					Result	Detection Limit			Result	Detection Limit
Benzene	Water	S-8260B	85862	3/10/06	<1.00	1	93786	6/24/06	<0.00100	0.00100
Toluene	Water	S-8260B	85862	3/10/06	<1.00	1	93786	6/24/06	<0.00100	0.00100
Ethylbenzene	Water	S-8260B	85862	3/10/06	<1.00	1	93786	6/24/06	<0.00100	0.00100
M,p-Xylene	Water	S-8260B	85862	3/10/06	<1.00	1	93786	6/24/06	<0.00100	0.00100
o-Xylene	Water	S-8260B	85862	3/10/06	<1.00	1	93786	6/24/06	<0.00100	0.00100

Table 7. 3rd & 4th Quarter 2006 Sampling Reports

**Grimes Monitor Wells - Westgate Subdivision
BTEX: S-8260B Method and PAH: S-8270C**

GMW-2

Analyte	Matrix	Method Taken	3 rd Quarter				4 th Quarter			
			Work Order Number: 6092837				Work Order Number: 7010318			
			Sample No.	Date Taken	µg/L		Sample No.	Date Taken	µg/L	
					Result	Detection Limit			Result	Detection Limit
Benzene	Water	S-8260B	104619	9/26/06	<1.00	1	113006	12/29/06	<1.00	1
Toluene	Water	S-8260B	104619	9/26/06	<1.00	1	113006	12/29/06	<1.00	1
Ethylbenzene	Water	S-8260B	104619	9/26/06	<1.00	1	113006	12/29/06	<1.00	1
M,p-Xylene	Water	S-8260B	104619	9/26/06	<1.00	1	113006	12/29/06	<1.00	1
o-Xylene	Water	S-8260B	104619	9/26/06	<1.00	1	113006	12/29/06	<1.00	1
Analyte	Matrix	Method Taken	Sample No.	Date Taken	mg/L		Sample No.	Date Taken	mg/L	
					Result	Detection Limit			Result	Detection Limit
Naphthalene	Water	S-8270C					113006	12/29/06	<0.000572	0.0002
Acenaphthylene	Water	S-8270C					113006	12/29/06	<0.000572	0.0002
Acenaphthene	Water	S-8270C					113006	12/29/06	<0.000572	0.0002
Dibenzofuran	Water	S-8270C					113006	12/29/06	<0.000572	0.0002
Fluorene	Water	S-8270C					113006	12/29/06	<0.000572	0.0002
Phenanthrene	Water	S-8270C					113006	12/29/06	<0.000572	0.0002
Anthracene	Water	S-8270C					113006	12/29/06	<0.000572	0.0002
Fluoranthene	Water	S-8270C					113006	12/29/06	<0.000572	0.0002
Pyrene	Water	S-8270C					113006	12/29/06	<0.000572	0.0002
Benzo[a]anthracene	Water	S-8270C					113006	12/29/06	<0.000572	0.0002
Chrysene	Water	S-8270C					113006	12/29/06	<0.000572	0.0002
Benzo[b]fluoranthene	Water	S-8270C					113006	12/29/06	<0.000572	0.0002
Benzo[k]fluoranthene	Water	S-8270C					113006	12/29/06	<0.00114	0.0004
Benzo[a]pyrene	Water	S-8270C					113006	12/29/06	<0.000572	0.0002
Indeno[1,2-3-cd]pyrene	Water	S-8270C					113006	12/29/06	<0.00114	0.0004
Dibenzo[a,h]anthracene	Water	S-8270C					113006	12/29/06	<0.000572	0.0002
Benzo[g,h,i]perylene	Water	S-8270C					113006	12/29/06	<0.000572	0.0002

GMW-3B

Analyte	Matrix	Method Taken	3 rd Quarter				4 th Quarter			
			Work Order Number: 6092837				Work Order Number: 7010318			
			Sample No.	Date Taken	µg/L		Sample No.	Date Taken	µg/L	
					Result	Detection Limit			Result	Detection Limit
Benzene	Water	S-8260B					113011	12/29/06	5.77	1
Toluene	Water	S-8260B					113011	12/29/06	<1.00	1
Ethylbenzene	Water	S-8260B					113011	12/29/06	2.54	1
M,p-Xylene	Water	S-8260B					113011	12/29/06	11.7	1
o-Xylene	Water	S-8260B					113011	12/29/06	<1.00	1
Analyte	Matrix	Method Taken	Sample No.	Date Taken	mg/L		Sample No.	Date Taken	mg/L	
					Result	Detection Limit			Result	Detection Limit
Naphthalene	Water	S-8270C					113011	12/29/06	0.000427	0.0002
Acenaphthylene	Water	S-8270C					113011	12/29/06	<0.0002	0.0002
Acenaphthene	Water	S-8270C					113011	12/29/06	<0.0002	0.0002
Dibenzofuran	Water	S-8270C					113011	12/29/06	<0.0002	0.0002
Fluorene	Water	S-8270C					113011	12/29/06	<0.0002	0.0002
Phenanthrene	Water	S-8270C					113011	12/29/06	<0.0002	0.0002
Anthracene	Water	S-8270C					113011	12/29/06	<0.0002	0.0002
Fluoranthene	Water	S-8270C					113011	12/29/06	<0.0002	0.0002
Pyrene	Water	S-8270C					113011	12/29/06	<0.0002	0.0002
Benzo[a]anthracene	Water	S-8270C					113011	12/29/06	<0.0002	0.0002
Chrysene	Water	S-8270C					113011	12/29/06	<0.0002	0.0002
Benzo[b]fluoranthene	Water	S-8270C					113011	12/29/06	<0.0002	0.0002
Benzo[k]fluoranthene	Water	S-8270C					113011	12/29/06	<0.0004	0.0004
Benzo[a]pyrene	Water	S-8270C					113011	12/29/06	<0.0002	0.0002
Indeno[1,2-3-cd]pyrene	Water	S-8270C					113011	12/29/06	<0.0004	0.0004
Dibenzo[a,h]anthracene	Water	S-8270C					113011	12/29/06	<0.0002	0.0002
Benzo[g,h,i]perylene	Water	S-8270C					113011	12/29/06	<0.0002	0.0002

GMW-7

Analyte	Matrix	Method Taken	3 rd Quarter				4 th Quarter			
			Work Order Number: 6092837				Work Order Number: 7010318			
			Sample No.	Date Taken	µg/L		Sample No.	Date Taken	µg/L	
					Result	Detection Limit			Result	Detection Limit
Benzene	Water	S-8260B	104621	9/26/06	<1.00	1	113008	12/29/06	<1.00	1
Toluene	Water	S-8260B	104621	9/26/06	<1.00	1	113008	12/29/06	<1.00	1
Ethylbenzene	Water	S-8260B	104621	9/26/06	<1.00	1	113008	12/29/06	<1.00	1
M,p-Xylene	Water	S-8260B	104621	9/26/06	<1.00	1	113008	12/29/06	<1.00	1
o-Xylene	Water	S-8260B	104621	9/26/06	<1.00	1	113008	12/29/06	<1.00	1
Analyte	Matrix	Method Taken	Sample No.	Date Taken	mg/L		Sample No.	Date Taken	mg/L	
					Result	Detection Limit			Result	Detection Limit
Naphthalene	Water	S-8270C					113008	12/29/06	0.000209	0.0002
Acenaphthylene	Water	S-8270C					113008	12/29/06	<0.0002	0.0002
Acenaphthene	Water	S-8270C					113008	12/29/06	<0.0002	0.0002
Dibenzofuran	Water	S-8270C					113008	12/29/06	<0.0002	0.0002
Fluorene	Water	S-8270C					113008	12/29/06	<0.0002	0.0002
Phenanthrene	Water	S-8270C					113008	12/29/06	<0.0002	0.0002
Anthracene	Water	S-8270C					113008	12/29/06	<0.0002	0.0002
Fluoranthene	Water	S-8270C					113008	12/29/06	<0.0002	0.0002
Pyrene	Water	S-8270C					113008	12/29/06	<0.0002	0.0002
Benzo[a]anthracene	Water	S-8270C					113008	12/29/06	<0.0002	0.0002
Chrysene	Water	S-8270C					113008	12/29/06	<0.0002	0.0002
Benzo[b]fluoranthene	Water	S-8270C					113008	12/29/06	<0.0002	0.0002
Benzo[k]fluoranthene	Water	S-8270C					113008	12/29/06	<0.0004	0.0004
Benzo[a]pyrene	Water	S-8270C					113008	12/29/06	<0.0002	0.0002
Indeno[1,2-3-cd]pyrene	Water	S-8270C					113008	12/29/06	<0.0004	0.0004
Dibenzo[a,h]anthracene	Water	S-8270C					113008	12/29/06	<0.0002	0.0002
Benzo[g,h,i]perylene	Water	S-8270C					113008	12/29/06	<0.0002	0.0002

GMW-8

Analyte	Matrix	Method Taken	3 rd Quarter				4 th Quarter			
			Work Order Number: 6092837				Work Order Number: 7010318			
			Sample No.	Date Taken	µg/L		Sample No.	Date Taken	µg/L	
					Result	Detection Limit			Result	Detection Limit
Benzene	Water	S-8260B	104622	9/26/06	<1.00	1	113009	12/29/06	<1.00	1
Toluene	Water	S-8260B	104622	9/26/06	<1.00	1	113009	12/29/06	<1.00	1
Ethylbenzene	Water	S-8260B	104622	9/26/06	<1.00	1	113009	12/29/06	<1.00	1
M,p-Xylene	Water	S-8260B	104622	9/26/06	<1.00	1	113009	12/29/06	<1.00	1
o-Xylene	Water	S-8260B	104622	9/26/06	<1.00	1	113009	12/29/06	<1.00	1
Analyte	Matrix	Method Taken	Sample No.	Date Taken	mg/L		Sample No.	Date Taken	mg/L	
					Result	Detection Limit			Result	Detection Limit
Naphthalene	Water	S-8270C					113009	12/29/06	<0.0002	0.0002
Acenaphthylene	Water	S-8270C					113009	12/29/06	<0.0002	0.0002
Acenaphthene	Water	S-8270C					113009	12/29/06	<0.0002	0.0002
Dibenzofuran	Water	S-8270C					113009	12/29/06	0.000690	0.0002
Fluorene	Water	S-8270C					113009	12/29/06	0.000305	0.0002
Phenanthrene	Water	S-8270C					113009	12/29/06	<0.0002	0.0002
Anthracene	Water	S-8270C					113009	12/29/06	0.000473	0.0002
Fluoranthene	Water	S-8270C					113009	12/29/06	<0.0002	0.0002
Pyrene	Water	S-8270C					113009	12/29/06	<0.0002	0.0002
Benzo[a]anthracene	Water	S-8270C					113009	12/29/06	<0.0002	0.0002
Chrysene	Water	S-8270C					113009	12/29/06	<0.0002	0.0002
Benzo[b]fluoranthene	Water	S-8270C					113009	12/29/06	<0.0002	0.0002
Benzo[k]fluoranthene	Water	S-8270C					113009	12/29/06	<0.0004	0.0004
Benzo[a]pyrene	Water	S-8270C					113009	12/29/06	<0.0002	0.0002
Indeno[1,2,3-cd]pyrene	Water	S-8270C					113009	12/29/06	<0.0004	0.0004
Dibenz[a,h]anthracene	Water	S-8270C					113009	12/29/06	<0.0002	0.0002
Benzo[g,h,i]perylene	Water	S-8270C					113009	12/29/06	<0.0002	0.0002

GMW-9

Analyte	Matrix	Method Taken	3 rd Quarter				4 th Quarter			
			Work Order Number: 6092837				Work Order Number: 7010318			
			Sample No.	Date Taken	µg/L		Sample No.	Date Taken	µg/L	
					Result	Detection Limit			Result	Detection Limit
Benzene	Water	S-8260B	104623	9/26/06	<1.00	1	113010	12/29/06	<1.00	1
Toluene	Water	S-8260B	104623	9/26/06	<1.00	1	113010	12/29/06	<1.00	1
Ethylbenzene	Water	S-8260B	104623	9/26/06	<1.00	1	113010	12/29/06	<1.00	1
M,p-Xylene	Water	S-8260B	104623	9/26/06	<1.00	1	113010	12/29/06	<1.00	1
o-Xylene	Water	S-8260B	104623	9/26/06	<1.00	1	113010	12/29/06	<1.00	1
Analyte	Matrix	Method Taken	Sample No.	Date Taken	mg/L		Sample No.	Date Taken	mg/L	
					Result	Detection Limit			Result	Detection Limit
Naphthalene	Water	S-8270C					113010	12/29/06	<0.0002	0.0002
Acenaphthylene	Water	S-8270C					113010	12/29/06	<0.0002	0.0002
Acenaphthene	Water	S-8270C					113010	12/29/06	<0.0002	0.0002
Dibenzofuran	Water	S-8270C					113010	12/29/06	0.00216	0.0002
Fluorene	Water	S-8270C					113010	12/29/06	0.000913	0.0002
Phenanthrene	Water	S-8270C					113010	12/29/06	<0.0002	0.0002
Anthracene	Water	S-8270C					113010	12/29/06	0.000821	0.0002
Fluoranthene	Water	S-8270C					113010	12/29/06	<0.0002	0.0002
Pyrene	Water	S-8270C					113010	12/29/06	<0.0002	0.0002
Benzo[a]anthracene	Water	S-8270C					113010	12/29/06	<0.0002	0.0002
Chrysene	Water	S-8270C					113010	12/29/06	<0.0002	0.0002
Benzo[b]fluoranthene	Water	S-8270C					113010	12/29/06	<0.0002	0.0002
Benzo[k]fluoranthene	Water	S-8270C					113010	12/29/06	<0.0004	0.0004
Benzo[a]pyrene	Water	S-8270C					113010	12/29/06	<0.0002	0.0002
Indeno[1,2,3-cd]pyrene	Water	S-8270C					113010	12/29/06	<0.0004	0.0004
Dibenz[a,h]anthracene	Water	S-8270C					113010	12/29/06	<0.0002	0.0002
Benzo[g,h,i]perylene	Water	S-8270C					113010	12/29/06	<0.0002	0.0002

GMW-10

Analyte	Matrix	Method Taken	3rd Quarter				4th Quarter			
			Work Order Number: 6092837				Work Order Number: 7010318			
			Sample No.	Date Taken	µg/L		Sample No.	Date Taken	µg/L	
					Result	Detection Limit			Result	Detection Limit
Benzene	Water	S-8260B	104620	9/26/06	<1.00	1	113007	12/29/06	<1.00	1
Toluene	Water	S-8260B	104620	9/26/06	<1.00	1	113007	12/29/06	<1.00	1
Ethylbenzene	Water	S-8260B	104620	9/26/06	<1.00	1	113007	12/29/06	<1.00	1
M,p-Xylene	Water	S-8260B	104620	9/26/06	<1.00	1	113007	12/29/06	<1.00	1
o-Xylene	Water	S-8260B	104620	9/26/06	<1.00	1	113007	12/29/06	<1.00	1
Analyte	Matrix	Method Taken	Sample No.	Date Taken	mg/L		Sample No.	Date Taken	mg/L	
					Result	Detection Limit			Result	Detection Limit
Naphthalene	Water	S-8270C					113007	12/29/06	<0.0002	0.0002
Acenaphthylene	Water	S-8270C					113007	12/29/06	<0.0002	0.0002
Acenaphthene	Water	S-8270C					113007	12/29/06	<0.0002	0.0002
Dibenzofuran	Water	S-8270C					113007	12/29/06	<0.0002	0.0002
Fluorene	Water	S-8270C					113007	12/29/06	<0.0002	0.0002
Phenanthrene	Water	S-8270C					113007	12/29/06	<0.0002	0.0002
Anthracene	Water	S-8270C					113007	12/29/06	<0.0002	0.0002
Fluoranthene	Water	S-8270C					113007	12/29/06	<0.0002	0.0002
Pyrene	Water	S-8270C					113007	12/29/06	<0.0002	0.0002
Benzo[a]anthracene	Water	S-8270C					113007	12/29/06	<0.0002	0.0002
Chrysene	Water	S-8270C					113007	12/29/06	<0.0002	0.0002
Benzo[b]fluoranthene	Water	S-8270C					113007	12/29/06	<0.0002	0.0002
Benzo[k]fluoranthene	Water	S-8270C					113007	12/29/06	<0.0004	0.0004
Benzo[a]pyrene	Water	S-8270C					113007	12/29/06	<0.0002	0.0002
Indeno[1,2-3-cd]pyrene	Water	S-8270C					113007	12/29/06	<0.0004	0.0004
Dibenz[a,h]anthracene	Water	S-8270C					113007	12/29/06	<0.0002	0.0002
Benzo[g,h,i]perylene	Water	S-8270C					113007	12/29/06	<0.0002	0.0002

GMW-4

Analyte	Matrix	Method Taken	3rd Quarter				4th Quarter			
			Work Order Number: 6092837				Work Order Number: 7010318			
			Sample No.	Sample No.	Sample No.		Sample No.	Sample No.	µg/L	
									Result	Detection Limit
Benzene	Water	S-8260B					113012	12/29/06	<1.00	1
Toluene	Water	S-8260B					113012	12/29/06	<1.00	1
Ethylbenzene	Water	S-8260B					113012	12/29/06	<1.00	1
M,p-Xylene	Water	S-8260B					113012	12/29/06	<1.00	1
o-Xylene	Water	S-8260B					113012	12/29/06	<1.00	1

GMW-6

Analyte	Matrix	Method Taken	3rd Quarter				4th Quarter			
			Work Order Number: 6092837				Work Order Number: 7010318			
			Sample No.	Date Taken	µg/L		Sample No.	Date Taken	µg/L	
					Result	Detection Limit			Result	Detection Limit
Benzene	Water	S-8260B					113013	12/29/06	<1.00	1
Toluene	Water	S-8260B					113013	12/29/06	<1.00	1
Ethylbenzene	Water	S-8260B					113013	12/29/06	<1.00	1
M,p-Xylene	Water	S-8260B					113013	12/29/06	<1.00	1
o-Xylene	Water	S-8260B					113013	12/29/06	<1.00	1

GMW-11

Analyte	Matrix	Method Taken	3 rd Quarter				4 th Quarter			
			Work Order Number: 6092837				Work Order Number: 7010318			
			Sample No.	Date Taken	µg/L		Sample No.	Date Taken	µg/L	
					Result	Detection Limit			Result	Detection Limit
Benzene	Water	S-8260B					113014	12/29/06	<1.00	1
Toluene	Water	S-8260B					113014	12/29/06	<1.00	1
Ethylbenzene	Water	S-8260B					113014	12/29/06	<1.00	1
M,p-Xylene	Water	S-8260B					113014	12/29/06	<1.00	1
o-Xylene	Water	S-8260B					113014	12/29/06	<1.00	1

In the first quarter of 2006, all analytes tested non-detect in all of the wells. Figure 3 is an isopleth map of total BTEX concentration detected in the groundwater samples.

In the second quarter, all analytes tested non-detect in all of the wells. Figure 6 is an isopleth map of total BTEX concentrations detected in the groundwater samples.

In the third quarter, all analytes tested non-detect in all of the wells. Figure 9 is an isopleth map of total BTEX concentrations detected in the groundwater samples.

In the fourth quarter of 2006, GMW-3b was sampled because there was no measurable product. Benzene, ethyl-benzene, m,p Xylene, naphthalene was detected in GMW-3b at a concentrations of 5.77, 2.54, 11.7, 0.000427 parts per billion (ppb) respectively. Dibenzofuran, fluorine, anthracene, was detected in GMW-8 at concentrations of 0.000680 ppb, 0.000305ppb, 0.000473ppb respectively. Dibenzofuran, fluorine, anthracene, was detected in GMW-9 at concentrations of 0.000216 ppb, 0.000913 ppb, 0.000821 ppb respectively.. GMW-7 detected naphthalene at a concentration of 0.000209 (Table 7). All other analytes tested non-detect in all of the wells. Figure 12 is an isopleth map of total BTEX concentrations detected in the groundwater samples.

3.0 CONCLUSION

Monitor wells GMW-2, GMW-7, GMW-8, GMW-9, and GMW-10 will be sampled quarterly for BTEX using USEPA Method 8260-B Monitor wells GMW-2, GMW-4, GMW-6, GMW-7, GMW-8, GMW-9, GMW-10, and GMW-11 will be analyzed for PAH's annually using USEPA Method 8270-C. Based on sample results for one year (four quarters), sampling frequency will be reviewed and may be revised.

Sampling will be discontinued when eight quarters of sample results indicate analyte concentrations below New Mexico Water Quality Control Commission, Title 20, Chapter 6, part 2 (20 NMAC 6.2 Standards). If no 20 NMAC 6.2 Standard is available for a detected analyte, USEPA standards will be used. Free product recovery will continue until no free product is recovered for an extended period of time.

Sample results will be submitted to NMOCD annually on April 1. All recovered fluids will be recycled and disposed of at an NMOCD approved facility.

Per discussions with the NMOCD in early 2000 it was agreed that Shell would not be required to sample any monitor wells that have free product until such time that free product is no longer detected in the wells. These wells would only be sampled quarterly when no measurable free product exists.

APPENDIX I

TRACE ANALYSIS, INC.
Laboratory Results
1st Quarter 2006

Westgate Subdivision
Grimes Battery & Tasker Road

June 2007

Shell Exploration & Production Company
Houston, Texas

Prepared by:
BBC International, Inc.

Summary Report

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM, 88240

Report Date: March 23, 2006

Work Order: 6031323



Project Location: Hobbs,NM
Project Number: Westgate

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
85861	MW-2	water	2006-03-10	09:46	2006-03-11
85862	MW-10	water	2006-03-10	10:24	2006-03-11
85863	MW-7	water	2006-03-10	11:00	2006-03-11
85864	MW-8	water	2006-03-10	11:30	2006-03-11
85865	MW-9	water	2006-03-10	12:09	2006-03-11

Sample - Field Code	BTEX by 8260					MTBE by 8260
	Benzene ($\mu\text{g/L}$)	Toluene ($\mu\text{g/L}$)	Ethylbenzene ($\mu\text{g/L}$)	m,p-Xylene ($\mu\text{g/L}$)	o-Xylene ($\mu\text{g/L}$)	MTBE ($\mu\text{g/L}$)
85861 - MW-2	<1.00	<1.00	<1.00	<1.00	<1.00	
85862 - MW-10	<1.00	<1.00	<1.00	<1.00	<1.00	
85863 - MW-7	<1.00	<1.00	<1.00	<1.00	<1.00	
85864 - MW-8	<1.00	<1.00	<1.00	<1.00	<1.00	
85865 - MW-9	<1.00	<1.00	<1.00	<1.00	<1.00	

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Analytical and Quality Control Report

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM, 88240

Report Date: March 23, 2006

Work Order: 6031323



Project Location: Hobbs, NM
Project Number: Westgate

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
85861	MW-2	water	2006-03-10	09:46	2006-03-11
85862	MW-10	water	2006-03-10	10:24	2006-03-11
85863	MW-7	water	2006-03-10	11:00	2006-03-11
85864	MW-8	water	2006-03-10	11:30	2006-03-11
85865	MW-9	water	2006-03-10	12:09	2006-03-11

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 7 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.


Dr. Blair Leftwich, Director

Analytical Report

Sample: 85861 - MW-2

Analysis: BTEX by 8260
QC Batch: 25295
Prep Batch: 22223

Analytical Method: S 8260B
Date Analyzed: 2006-03-15
Sample Preparation: 2006-03-15

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		48.6	µg/L	1	50.0	97	70 - 130
Toluene-d8		48.6	µg/L	1	50.0	97	70 - 130
4-Bromofluorobenzene (4-BFB)		47.2	µg/L	1	50.0	94	70 - 130

Sample: 85862 - MW-10

Analysis: BTEX by 8260
QC Batch: 25295
Prep Batch: 22223

Analytical Method: S 8260B
Date Analyzed: 2006-03-15
Sample Preparation: 2006-03-15

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		49.3	µg/L	1	50.0	99	70 - 130
Toluene-d8		48.2	µg/L	1	50.0	96	70 - 130
4-Bromofluorobenzene (4-BFB)		47.0	µg/L	1	50.0	94	70 - 130

Sample: 85863 - MW-7

Analysis: BTEX by 8260
QC Batch: 25295
Prep Batch: 22223

Analytical Method: S 8260B
Date Analyzed: 2006-03-15
Sample Preparation: 2006-03-15

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00

continued ...

sample 85863 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		48.9	µg/L	1	50.0	98	70 - 130
Toluene-d8		48.6	µg/L	1	50.0	97	70 - 130
4-Bromofluorobenzene (4-BFB)		47.0	µg/L	1	50.0	94	70 - 130

Sample: 85864 - MW-8

Analysis: BTEX by 8260
QC Batch: 25295
Prep Batch: 22223

Analytical Method: S 8260B
Date Analyzed: 2006-03-15
Sample Preparation: 2006-03-15

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		49.0	µg/L	1	50.0	98	70 - 130
Toluene-d8		48.6	µg/L	1	50.0	97	70 - 130
4-Bromofluorobenzene (4-BFB)		47.7	µg/L	1	50.0	95	70 - 130

Sample: 85865 - MW-9

Analysis: BTEX by 8260
QC Batch: 25333
Prep Batch: 22253

Analytical Method: S 8260B
Date Analyzed: 2006-03-17
Sample Preparation: 2006-03-17

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		44.9	µg/L	1	50.0	90	70 - 130
Toluene-d8		47.6	µg/L	1	50.0	95	70 - 130
4-Bromofluorobenzene (4-BFB)		49.1	µg/L	1	50.0	98	70 - 130

Method Blank (1) QC Batch: 25295

Parameter	Flag	MDL Result	Units	RL
1,1-Dichloroethene		<0.136	µg/L	1
Benzene		<0.146	µg/L	1
Trichloroethene (TCE)		<0.117	µg/L	1
Toluene		0.120	µg/L	1
Chlorobenzene		0.0600	µg/L	1
Ethylbenzene		0.100	µg/L	1
m,p-Xylene		0.240	µg/L	1
o-Xylene		0.100	µg/L	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		48.7	µg/L	1	50.0	97	70 - 130
Toluene-d8		48.9	µg/L	1	50.0	98	70 - 130
4-Bromofluorobenzene (4-BFB)		47.6	µg/L	1	50.0	95	70 - 130

Method Blank (1) QC Batch: 25333

Parameter	Flag	MDL Result	Units	RL
1,1-Dichloroethene		<0.136	µg/L	1
Benzene		<0.146	µg/L	1
Trichloroethene (TCE)		<0.117	µg/L	1
Toluene		0.130	µg/L	1
Chlorobenzene		<0.0540	µg/L	1
Ethylbenzene		0.170	µg/L	1
m,p-Xylene		0.370	µg/L	1
o-Xylene		0.170	µg/L	1

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		45.7	µg/L	1	50.0	91	70 - 130
Toluene-d8		47.5	µg/L	1	50.0	95	70 - 130
4-Bromofluorobenzene (4-BFB)		48.9	µg/L	1	50.0	98	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 25295

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	50.8	52.0	µg/L	1	50.0	<0.136	102	2	70 - 130	20
Benzene	52.9	53.1	µg/L	1	50.0	<0.146	106	0	70 - 130	20
Trichloroethene (TCE)	53.9	54.5	µg/L	1	50.0	<0.117	108	1	70 - 130	20
Toluene	52.0	52.5	µg/L	1	50.0	<0.0600	104	1	70 - 130	20
Chlorobenzene	51.0	51.0	µg/L	1	50.0	<0.0540	102	0	70 - 130	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
Dibromofluoromethane	48.3	48.6	µg/L	1	50.0	97	97	70 - 130
Toluene-d8	48.5	48.8	µg/L	1	50.0	97	98	70 - 130
4-Bromofluorobenzene (4-BFB)	48.2	48.7	µg/L	1	50.0	96	97	70 - 130

Laboratory Control Spike (LCS-1) QC Batch: 25333

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
1,1-Dichloroethene	50.7	50.2	µg/L	1	50.0	<0.136	101	1	70 - 130	20
Benzene	49.7	50.3	µg/L	1	50.0	<0.146	99	1	70 - 130	20
Trichloroethene (TCE)	51.5	51.6	µg/L	1	50.0	<0.117	103	0	70 - 130	20
Toluene	48.8	49.8	µg/L	1	50.0	<0.0600	98	2	70 - 130	20
Chlorobenzene	49.2	49.7	µg/L	1	50.0	<0.0540	98	1	70 - 130	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
Dibromofluoromethane	45.6	45.7	µg/L	1	50.0	91	91	70 - 130
Toluene-d8	47.2	47.0	µg/L	1	50.0	94	94	70 - 130
4-Bromofluorobenzene (4-BFB)	49.3	49.1	µg/L	1	50.0	99	98	70 - 130

Standard (CCV-1) QC Batch: 25295

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	46.1	92	80 - 120	2006-03-15
1,1-Dichloroethene		µg/L	50.0	52.6	105	80 - 120	2006-03-15
Chloroform		µg/L	50.0	51.9	104	80 - 120	2006-03-15
1,2-Dichloropropane		µg/L	50.0	55.5	111	80 - 120	2006-03-15
Toluene		µg/L	50.0	52.6	105	80 - 120	2006-03-15
Chlorobenzene		µg/L	50.0	51.4	103	80 - 120	2006-03-15
Ethylbenzene		µg/L	50.0	50.0	100	80 - 120	2006-03-15

Standard (CCV-1) QC Batch: 25333

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	40.8	82	80 - 120	2006-03-17
1,1-Dichloroethene		µg/L	50.0	52.6	105	80 - 120	2006-03-17
Chloroform		µg/L	50.0	48.6	97	80 - 120	2006-03-17
1,2-Dichloropropane		µg/L	50.0	50.7	101	80 - 120	2006-03-17
Toluene		µg/L	50.0	49.4	99	80 - 120	2006-03-17
Chlorobenzene		µg/L	50.0	49.9	100	80 - 120	2006-03-17
Ethylbenzene		µg/L	50.0	47.8	96	80 - 120	2006-03-17

APPENDIX II

TRACE ANALYSIS, INC.
Laboratory Results
2nd Quarter 2006

Westgate Subdivision
Grimes Battery & Tasker Road

June 2007

Shell Exploration & Production Company
Houston, Texas

Prepared by:
BBC International, Inc.

Report Date: July 3, 2006
Westgate

Work Order: 6062719

Page Number: 1 of 1
Hobbs,NM

Summary Report

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM, 88240

Report Date: July 3, 2006

Work Order: 6062719



Project Location: Hobbs,NM
Project Number: Westgate

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
93785	MW #2	water	2006-06-24	07:38	2006-06-27
93786	MW #10	water	2006-06-24	08:04	2006-06-27
93787	MW #7	water	2006-06-24	08:34	2006-06-27
93788	MW #8	water	2006-06-24	09:10	2006-06-27
93789	MW #9	water	2006-06-24	09:40	2006-06-27

Sample - Field Code	BTEX				MTBE MTBE (mg/L)
	Benzene (mg/L)	Toluene (mg/L)	Ethylbenzene (mg/L)	Xylene (mg/L)	
93785 - MW #2	<0.00100	<0.00100	<0.00100	<0.00100	
93786 - MW #10	<0.00100	<0.00100	<0.00100	<0.00100	
93787 - MW #7	<0.00100	<0.00100	<0.00100	<0.00100	
93788 - MW #8	<0.00100	<0.00100	<0.00100	<0.00100	
93789 - MW #9	<0.00100	<0.00100	<0.00100	<0.00100	

TRACE ANALYSIS, INC.

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E-Mail: lab@traceanalysis.com

806•794•1296
915•585•3443

FAX 806•794•1298
FAX 915•585•4944

Analytical and Quality Control Report

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM, 88240

Report Date: July 3, 2006

Work Order: 6062719



Project Location: Hobbs, NM
Project Number: Westgate

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
93785	MW #2	water	2006-06-24	07:38	2006-06-27
93786	MW #10	water	2006-06-24	08:04	2006-06-27
93787	MW #7	water	2006-06-24	08:34	2006-06-27
93788	MW #8	water	2006-06-24	09:10	2006-06-27
93789	MW #9	water	2006-06-24	09:40	2006-06-27

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 8 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

Dr. Blair Leftwich, Director

Analytical Report

Sample: 93785 - MW #2

Analysis: BTEX
QC Batch: 27732
Prep Batch: 24313

Analytical Method: S 8021B
Date Analyzed: 2006-06-29
Sample Preparation: 2006-06-29

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0974	mg/L	1	0.100	97	78.1 - 125.4
4-Bromofluorobenzene (4-BFB)		0.106	mg/L	1	0.100	106	46.4 - 136.5

Sample: 93786 - MW #10

Analysis: BTEX
QC Batch: 27671
Prep Batch: 24263

Analytical Method: S 8021B
Date Analyzed: 2006-06-27
Sample Preparation: 2006-06-27

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

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

Surrogate	Flag	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)		0.0909	mg/L	1	0.100	91	70 - 130

Sample: 93787 - MW #7

Analysis: BTEX
QC Batch: 27732
Prep Batch: 24313

Analytical Method: S 8021B
Date Analyzed: 2006-06-29
Sample Preparation: 2006-06-29

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0972	mg/L	1	0.100	97	78.1 - 125.4
4-Bromofluorobenzene (4-BFB)		0.105	mg/L	1	0.100	105	46.4 - 136.5

Sample: 93788 - MW #8

Analysis: BTEX
QC Batch: 27732
Prep Batch: 24313

Analytical Method: S 8021B
Date Analyzed: 2006-06-29
Sample Preparation: 2006-06-29

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.0992	mg/L	1	0.100	99	78.1 - 125.4
4-Bromofluorobenzene (4-BFB)		0.107	mg/L	1	0.100	107	46.4 - 136.5

Sample: 93789 - MW #9

Analysis: BTEX
QC Batch: 27732
Prep Batch: 24313

Analytical Method: S 8021B
Date Analyzed: 2006-06-29
Sample Preparation: 2006-06-29

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

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

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.100	mg/L	1	0.100	100	78.1 - 125.4
4-Bromofluorobenzene (4-BFB)		0.111	mg/L	1	0.100	111	46.4 - 136.5

Method Blank (1) QC Batch: 27671

QC Batch: 27671
Prep Batch: 24263

Date Analyzed: 2006-06-27
QC Preparation: 2006-06-27

Analyzed By: MT
Prepared By: MT

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000305	mg/L	0.001
Toluene		<0.000497	mg/L	0.001

continued ...

method blank continued...

Parameter	Flag	MDL Result	Units	RL
Ethylbenzene		<0.000294	mg/L	0.001
Xylene		<0.000348	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.108	mg/L	1	0.100	108	81.4 - 109
4-Bromofluorobenzene (4-BFB)		0.0968	mg/L	1	0.100	97	57.1 - 113

Method Blank (1) QC Batch: 27732

QC Batch: 27732
Prep Batch: 24313

Date Analyzed: 2006-06-29
QC Preparation: 2006-06-29

Analyzed By: KB
Prepared By: KB

Parameter	Flag	MDL Result	Units	RL
Benzene		<0.000153	mg/L	0.001
Toluene		<0.000283	mg/L	0.001
Ethylbenzene		<0.000621	mg/L	0.001
Xylene		<0.000456	mg/L	0.001

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)		0.100	mg/L	1	0.100	100	77.4 - 109
4-Bromofluorobenzene (4-BFB)		0.107	mg/L	1	0.100	107	63.8 - 118

Laboratory Control Spike (LCS-1)

QC Batch: 27671
Prep Batch: 24263

Date Analyzed: 2006-06-27
QC Preparation: 2006-06-27

Analyzed By: MT
Prepared By: MT

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.0957	0.0985	mg/L	1	0.100	<0.000305	96	3	80 - 120	20
Toluene	0.0925	0.0969	mg/L	1	0.100	<0.000497	92	5	80 - 120	20
Ethylbenzene	0.100	0.100	mg/L	1	0.100	<0.000294	100	0	80 - 120	20
Xylene	0.280	0.289	mg/L	1	0.300	<0.000348	93	3	80 - 120	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	0.109	mg/L	1	0.100	102	109	80 - 120
4-Bromofluorobenzene (4-BFB)	0.107	0.112	mg/L	1	0.100	107	112	80 - 120

Laboratory Control Spike (LCS-1)

QC Batch: 27732
Prep Batch: 24313

Date Analyzed: 2006-06-29
QC Preparation: 2006-06-29

Analyzed By: KB
Prepared By: KB

Param	LCS Result	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene	0.100	0.102	mg/L	1	0.100	<0.000153	100	2	80 - 120	20
Toluene	0.101	0.102	mg/L	1	0.100	<0.000283	101	1	80 - 120	20
Ethylbenzene	0.100	0.102	mg/L	1	0.100	<0.000621	100	2	80 - 120	20
Xylene	0.301	0.304	mg/L	1	0.300	<0.000456	100	1	80 - 120	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)	0.107	0.108	mg/L	1	0.100	107	108	80 - 120
4-Bromofluorobenzene (4-BFB)	0.114	0.114	mg/L	1	0.100	114	114	80 - 120

Matrix Spike (MS-1) Spiked Sample: 93786

QC Batch: 27671
Prep Batch: 24263

Date Analyzed: 2006-06-27
QC Preparation: 2006-06-27

Analyzed By: MT
Prepared By: MT

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene ¹	0.0906	NA	mg/L	1	0.100	<0.000305	91	200	80.8 - 117	20
Toluene ²	0.0905	NA	mg/L	1	0.100	<0.000497	90	200	85 - 113	20
Ethylbenzene ³	0.0985	NA	mg/L	1	0.100	<0.000294	98	200	80.5 - 112	20
Xylene ⁴	0.275	NA	mg/L	1	0.300	<0.000348	92	200	83.8 - 109	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	0.0982	NA	mg/L	1	0.1	98	0	85 - 114
4-Bromofluorobenzene (4-BFB) ⁶	0.103	NA	mg/L	1	0.1	103	0	90.8 - 120

Matrix Spike (MS-1) Spiked Sample: 93888

QC Batch: 27732
Prep Batch: 24313

Date Analyzed: 2006-06-29
QC Preparation: 2006-06-29

Analyzed By: KB
Prepared By: KB

Param	MS Result	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	RPD	Rec. Limit	RPD Limit
Benzene ⁷	0.112	NA	mg/L	1	0.100	0.0035	108	200	88.4 - 114	20
Toluene ⁸	0.0870	NA	mg/L	1	0.100	0.0004	87	200	81.4 - 116	20
Ethylbenzene ⁹	0.102	NA	mg/L	1	0.100	0.0049	97	200	82.5 - 118	20
Xylene ¹⁰	0.354	NA	mg/L	1	0.300	0.0453	103	200	77.9 - 117	20

¹RPD is out of range because a matrix spike duplicate was not prepared.

²RPD is out of range because a matrix spike duplicate was not prepared.

³RPD is out of range because a matrix spike duplicate was not prepared.

⁴RPD is out of range because a matrix spike duplicate was not prepared.

⁵RPD is out of range because a matrix spike duplicate was not prepared.

⁶RPD is out of range because a matrix spike duplicate was not prepared.

⁷RPD is out of range because a matrix spike duplicate was not prepared.

⁸RPD is out of range because a matrix spike duplicate was not prepared.

⁹RPD is out of range because a matrix spike duplicate was not prepared.

¹⁰RPD is out of range because a matrix spike duplicate was not prepared.

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)	¹¹	0.0876	NA	mg/L	1	0.1	88	0	84 - 109
4-Bromofluorobenzene (4-BFB)	¹²¹³	0.144	NA	mg/L	1	0.1	144	0	74 - 120

Standard (ICV-1)

QC Batch: 27671

Date Analyzed: 2006-06-27

Analyzed By: MT

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0998	100	85 - 115	2006-06-27
Toluene		mg/L	0.100	0.0967	97	85 - 115	2006-06-27
Ethylbenzene		mg/L	0.100	0.103	103	85 - 115	2006-06-27
Xylene		mg/L	0.300	0.291	97	85 - 115	2006-06-27

Standard (CCV-1)

QC Batch: 27671

Date Analyzed: 2006-06-27

Analyzed By: MT

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.0942	94	85 - 115	2006-06-27
Toluene		mg/L	0.100	0.0918	92	85 - 115	2006-06-27
Ethylbenzene		mg/L	0.100	0.0969	97	85 - 115	2006-06-27
Xylene		mg/L	0.300	0.277	92	85 - 115	2006-06-27

Standard (ICV-1)

QC Batch: 27732

Date Analyzed: 2006-06-29

Analyzed By: KB

Param	Flag	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.104	104	85 - 115	2006-06-29
Toluene		mg/L	0.100	0.104	104	85 - 115	2006-06-29
Ethylbenzene		mg/L	0.100	0.103	103	85 - 115	2006-06-29
Xylene		mg/L	0.300	0.309	103	85 - 115	2006-06-29

Standard (CCV-1)

QC Batch: 27732

Date Analyzed: 2006-06-29

Analyzed By: KB

¹¹RPD is out of range because a matrix spike duplicate was not prepared.

¹²Surrogate recovery out of control on MS/MSD due to matrix interference. LCS/LCSD show method to be in control.

¹³RPD is out of range because a matrix spike duplicate was not prepared.

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		mg/L	0.100	0.100	100	85 - 115	2006-06-29
Toluene		mg/L	0.100	0.101	101	85 - 115	2006-06-29
Ethylbenzene		mg/L	0.100	0.100	100	85 - 115	2006-06-29
Xylene		mg/L	0.300	0.303	101	85 - 115	2006-06-29

APPENDIX III

TRACE ANALYSIS, INC.
Laboratory Results
3rd Quarter 2006

Westgate Subdivision
Grimes Battery & Tasker Road

June 2007

Shell Exploration & Production Company
Houston, Texas

Prepared by:
BBC International, Inc.

Summary Report

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM, 88240

Report Date: October 9, 2006

Work Order: 6092837



Project Location: Hobbs,NM
Project Number: Westgate

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
104619	MW-2	water	2006-09-26	12:25	2006-09-28
104620	MW-10	water	2006-09-26	12:52	2006-09-28
104621	MW-7	water	2006-09-26	13:28	2006-09-28
104622	MW-8	water	2006-09-26	13:51	2006-09-28
104623	MW-9	water	2006-09-26	14:27	2006-09-28

Sample: 104619 - MW-2

Param	Flag	Result	Units	RL
Benzene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00

Sample: 104620 - MW-10

Param	Flag	Result	Units	RL
Benzene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00

Sample: 104621 - MW-7

Param	Flag	Result	Units	RL
Benzene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00

continued ...

sample 104621 continued ...

Param	Flag	Result	Units	RL
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00

Sample: 104622 - MW-8

Param	Flag	Result	Units	RL
Benzene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00

Sample: 104623 - MW-9

Param	Flag	Result	Units	RL
Benzene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00



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Analytical and Quality Control Report

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM, 88240

Report Date: October 9, 2006

Work Order: 6092837



Project Location: Hobbs, NM
Project Number: Westgate

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
104619	MW-2	water	2006-09-26	12:25	2006-09-28
104620	MW-10	water	2006-09-26	12:52	2006-09-28
104621	MW-7	water	2006-09-26	13:28	2006-09-28
104622	MW-8	water	2006-09-26	13:51	2006-09-28
104623	MW-9	water	2006-09-26	14:27	2006-09-28

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

Analytical Report

Sample: 104619 - MW-2

Analysis: Volatiles	Analytical Method: S 8260B	Prep Method: S 5030B
QC Batch: 30789	Date Analyzed: 2006-10-06	Analyzed By: JG
Prep Batch: 26811	Sample Preparation: 2006-10-06	Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		51.7	µg/L	1	50.0	103	82.4 - 115
Toluene-d8		49.9	µg/L	1	50.0	100	89.7 - 108
4-Bromofluorobenzene (4-BFB)		42.7	µg/L	1	50.0	85	84.6 - 114

Sample: 104620 - MW-10

Analysis: Volatiles	Analytical Method: S 8260B	Prep Method: S 5030B
QC Batch: 30788	Date Analyzed: 2006-10-05	Analyzed By: JG
Prep Batch: 26810	Sample Preparation: 2006-10-05	Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.1	µg/L	1	50.0	100	82.4 - 115
Toluene-d8		51.4	µg/L	1	50.0	103	89.7 - 108
4-Bromofluorobenzene (4-BFB)		42.9	µg/L	1	50.0	86	84.6 - 114

Sample: 104621 - MW-7

Analysis: Volatiles	Analytical Method: S 8260B	Prep Method: S 5030B
QC Batch: 30788	Date Analyzed: 2006-10-05	Analyzed By: JG
Prep Batch: 26810	Sample Preparation: 2006-10-05	Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00

continued...

sample 104621 continued...

Parameter	Flag	RL Result	Units	Dilution	RL
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.9	µg/L	1	50.0	102	82.4 - 115
Toluene-d8		50.0	µg/L	1	50.0	100	89.7 - 108
4-Bromofluorobenzene (4-BFB)		42.7	µg/L	1	50.0	85	84.6 - 114

Sample: 104622 - MW-8

Analysis: Volatiles	Analytical Method: S 8260B	Prep Method: S 5030B
QC Batch: 30788	Date Analyzed: 2006-10-05	Analyzed By: JG
Prep Batch: 26810	Sample Preparation: 2006-10-05	Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.7	µg/L	1	50.0	101	82.4 - 115
Toluene-d8		50.1	µg/L	1	50.0	100	89.7 - 108
4-Bromofluorobenzene (4-BFB)		42.9	µg/L	1	50.0	86	84.6 - 114

Sample: 104623 - MW-9

Analysis: Volatiles	Analytical Method: S 8260B	Prep Method: S 5030B
QC Batch: 30789	Date Analyzed: 2006-10-06	Analyzed By: JG
Prep Batch: 26811	Sample Preparation: 2006-10-06	Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		50.7	µg/L	1	50.0	101	82.4 - 115
Toluene-d8		50.2	µg/L	1	50.0	100	89.7 - 108
4-Bromofluorobenzene (4-BFB)		44.1	µg/L	1	50.0	88	84.6 - 114

Method Blank (1) QC Batch: 30788

QC Batch: 30788
Prep Batch: 26810

Date Analyzed: 2006-10-05
QC Preparation: 2006-10-05

Analyzed By: JG
Prepared By: JG

Parameter	Flag	MDL Result	Units	RL
Bromochloromethane	1	<0.0699	µg/L	1
Dichlorodifluoromethane		<0.0598	µg/L	1
Chloromethane (methyl chloride)		<0.230	µg/L	1
Vinyl Chloride		<0.0902	µg/L	1
Bromomethane (methyl bromide)		<0.740	µg/L	5
Chloroethane		<0.195	µg/L	1
Trichlorofluoromethane		<0.160	µg/L	1
Acetone		3.16	µg/L	10
Iodomethane (methyl iodide)		<0.112	µg/L	5
Carbon Disulfide		<0.0764	µg/L	1
Acrylonitrile		<0.184	µg/L	1
2-Butanone (MEK)		<0.394	µg/L	5
4-Methyl-2-pentanone (MIBK)		<0.484	µg/L	5
2-Hexanone		<0.0975	µg/L	5
trans 1,4-Dichloro-2-butene		<0.420	µg/L	10
1,1-Dichloroethene		<0.0736	µg/L	1
Methylene chloride		<0.689	µg/L	5
MTBE		<0.0504	µg/L	1
trans-1,2-Dichloroethene		<0.0598	µg/L	1
1,1-Dichloroethane		<0.0299	µg/L	1
cis-1,2-Dichloroethene		<0.101	µg/L	1
2,2-Dichloropropane		<0.0665	µg/L	1
1,2-Dichloroethane (EDC)		<0.0557	µg/L	1
Chloroform		<0.0475	µg/L	1
1,1,1-Trichloroethane		<0.0846	µg/L	1
1,1-Dichloropropene		<0.0423	µg/L	1
Benzene		<0.0495	µg/L	1
Carbon Tetrachloride		<0.121	µg/L	1
1,2-Dichloropropane		<0.0933	µg/L	1
Trichloroethene (TCE)		<0.0495	µg/L	1
Dibromomethane (methylene bromide)		<0.0640	µg/L	1
Bromodichloromethane		<0.0651	µg/L	1
2-Chloroethyl vinyl ether		<0.0905	µg/L	5
cis-1,3-Dichloropropene		<0.0640	µg/L	1
trans-1,3-Dichloropropene		<0.0504	µg/L	1
Toluene		0.150	µg/L	1
1,1,2-Trichloroethane		<0.106	µg/L	1

continued...

¹n-Hexane <1.00 µg/L. Estimated concentration reported as TIC. •

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
1,3-Dichloropropane		<0.0625	µg/L	1
Dibromochloromethane		<0.0791	µg/L	1
1,2-Dibromoethane (EDB)		<0.0460	µg/L	1
Tetrachloroethene (PCE)		<0.0696	µg/L	1
Chlorobenzene		<0.0217	µg/L	1
1,1,1,2-Tetrachloroethane		<0.125	µg/L	1
Ethylbenzene		<0.0566	µg/L	1
m,p-Xylene		0.0800	µg/L	1
Bromoform		<0.0859	µg/L	1
Styrene		<0.0394	µg/L	1
o-Xylene		<0.0505	µg/L	1
1,1,2,2-Tetrachloroethane		<0.0672	µg/L	1
2-Chlorotoluene		<0.0283	µg/L	1
1,2,3-Trichloropropane		<0.0679	µg/L	1
Isopropylbenzene		0.0500	µg/L	1
Bromobenzene		<0.103	µg/L	1
n-Propylbenzene		<0.0423	µg/L	1
1,3,5-Trimethylbenzene		<0.0557	µg/L	1
tert-Butylbenzene		<0.0770	µg/L	1
1,2,4-Trimethylbenzene		<0.0336	µg/L	1
1,4-Dichlorobenzene (para)		<0.0672	µg/L	1
sec-Butylbenzene		<0.0439	µg/L	1
1,3-Dichlorobenzene (meta)		<0.0672	µg/L	1
p-Isopropyltoluene		<0.0513	µg/L	1
4-Chlorotoluene		<0.0460	µg/L	1
1,2-Dichlorobenzene (ortho)		<0.0629	µg/L	1
n-Butylbenzene		<0.0400	µg/L	1
1,2-Dibromo-3-chloropropane		<0.538	µg/L	5
1,2,3-Trichlorobenzene		<0.504	µg/L	5
1,2,4-Trichlorobenzene		<0.166	µg/L	5
Naphthalene		<0.417	µg/L	5
Hexachlorobutadiene		<0.176	µg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		49.5	µg/L	1	50.0	99	82.4 - 115
Toluene-d8		49.5	µg/L	1	50.0	99	89.7 - 108
4-Bromofluorobenzene (4-BFB)		45.4	µg/L	1	50.0	91	84.6 - 114

Method Blank (1) QC Batch: 30789

QC Batch: 30789
Prep Batch: 26811

Date Analyzed: 2006-10-06
QC Preparation: 2006-10-06

Analyzed By: JG
Prepared By: JG

Parameter	Flag	MDL Result	Units	RL
Bromochloromethane	2	<0.0699	µg/L	1

continued ...

²n-Hexane <1.00 µg/L. Estimated concentration reported as TIC. •

method blank continued ...

Parameter	Flag	MDL Result	Units	RL
Dichlorodifluoromethane		<0.0598	µg/L	1
Chloromethane (methyl chloride)		<0.230	µg/L	1
Vinyl Chloride		<0.0902	µg/L	1
Bromomethane (methyl bromide)		<0.740	µg/L	5
Chloroethane		<0.195	µg/L	1
Trichlorofluoromethane		<0.160	µg/L	1
Acetone		<0.854	µg/L	10
Iodomethane (methyl iodide)		<0.112	µg/L	5
Carbon Disulfide		<0.0764	µg/L	1
Acrylonitrile		<0.184	µg/L	1
2-Butanone (MEK)		<0.394	µg/L	5
4-Methyl-2-pentanone (MIBK)		<0.484	µg/L	5
2-Hexanone		<0.0975	µg/L	5
trans 1,4-Dichloro-2-butene		<0.420	µg/L	10
1,1-Dichloroethene		<0.0736	µg/L	1
Methylene chloride		1.73	µg/L	5
MTBE		<0.0504	µg/L	1
trans-1,2-Dichloroethene		<0.0598	µg/L	1
1,1-Dichloroethane		<0.0299	µg/L	1
cis-1,2-Dichloroethene		<0.101	µg/L	1
2,2-Dichloropropane		<0.0665	µg/L	1
1,2-Dichloroethane (EDC)		<0.0557	µg/L	1
Chloroform		<0.0475	µg/L	1
1,1,1-Trichloroethane		<0.0846	µg/L	1
1,1-Dichloropropene		<0.0423	µg/L	1
Benzene		<0.0495	µg/L	1
Carbon Tetrachloride		<0.121	µg/L	1
1,2-Dichloropropane		<0.0933	µg/L	1
Trichloroethene (TCE)		<0.0495	µg/L	1
Dibromomethane (methylene bromide)		<0.0640	µg/L	1
Bromodichloromethane		<0.0651	µg/L	1
2-Chloroethyl vinyl ether		<0.0905	µg/L	5
cis-1,3-Dichloropropene		<0.0640	µg/L	1
trans-1,3-Dichloropropene		<0.0504	µg/L	1
Toluene		0.130	µg/L	1
1,1,2-Trichloroethane		<0.106	µg/L	1
1,3-Dichloropropane		<0.0625	µg/L	1
Dibromochloromethane		<0.0791	µg/L	1
1,2-Dibromoethane (EDB)		<0.0460	µg/L	1
Tetrachloroethene (PCE)		<0.0696	µg/L	1
Chlorobenzene		<0.0217	µg/L	1
1,1,1,2-Tetrachloroethane		<0.125	µg/L	1
Ethylbenzene		<0.0566	µg/L	1
m,p-Xylene		0.0500	µg/L	1
Bromoform		<0.0859	µg/L	1
Styrene		<0.0394	µg/L	1
o-Xylene		<0.0505	µg/L	1
1,1,2,2-Tetrachloroethane		<0.0672	µg/L	1
2-Chlorotoluene		<0.0283	µg/L	1
1,2,3-Trichloropropane		<0.0679	µg/L	1

continued ...

method blank continued...

Parameter	Flag	MDL Result	Units	RL
Isopropylbenzene		<0.0406	µg/L	1
Bromobenzene		<0.103	µg/L	1
n-Propylbenzene		<0.0423	µg/L	1
1,3,5-Trimethylbenzene		<0.0557	µg/L	1
tert-Butylbenzene		<0.0770	µg/L	1
1,2,4-Trimethylbenzene		<0.0336	µg/L	1
1,4-Dichlorobenzene (para)		<0.0672	µg/L	1
sec-Butylbenzene		<0.0439	µg/L	1
1,3-Dichlorobenzene (meta)		<0.0672	µg/L	1
p-Isopropyltoluene		<0.0513	µg/L	1
4-Chlorotoluene		<0.0460	µg/L	1
1,2-Dichlorobenzene (ortho)		<0.0629	µg/L	1
n-Butylbenzene		<0.0400	µg/L	1
1,2-Dibromo-3-chloropropane		<0.538	µg/L	5
1,2,3-Trichlorobenzene		<0.504	µg/L	5
1,2,4-Trichlorobenzene		<0.166	µg/L	5
Naphthalene		<0.417	µg/L	5
Hexachlorobutadiene		<0.176	µg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		52.2	µg/L	1	50.0	104	82.4 - 115
Toluene-d8		50.6	µg/L	1	50.0	101	89.7 - 108
4-Bromofluorobenzene (4-BFB)	3	42.2	µg/L	1	50.0	84	84.6 - 114

Laboratory Control Spike (LCS-1)

QC Batch: 30788
Prep Batch: 26810

Date Analyzed: 2006-10-05
QC Preparation: 2006-10-05

Analyzed By: JG
Prepared By: JG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,1-Dichloroethene	48.7	µg/L	1	50.0	<0.0736	97	83.4 - 114
Benzene	50.4	µg/L	1	50.0	<0.0495	101	83.5 - 115
Trichloroethene (TCE)	50.8	µg/L	1	50.0	<0.0495	102	91.3 - 111
Toluene	49.7	µg/L	1	50.0	<0.0736	99	82 - 110
Chlorobenzene	49.8	µg/L	1	50.0	<0.0217	100	87.9 - 109

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
1,1-Dichloroethene	47.3	µg/L	1	50.0	<0.0736	97	83.4 - 114	3	20
Benzene	47.9	µg/L	1	50.0	<0.0495	101	83.5 - 115	5	20
Trichloroethene (TCE)	48.7	µg/L	1	50.0	<0.0495	102	91.3 - 111	4	20
Toluene	47.0	µg/L	1	50.0	<0.0736	99	82 - 110	6	20
Chlorobenzene	47.2	µg/L	1	50.0	<0.0217	100	87.9 - 109	5	20

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

³8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preparation was performed properly.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Dibromofluoromethane	50.2	50.0	µg/L	1	50.0	100	100	82.4 - 115
Toluene-d8	49.0	48.9	µg/L	1	50.0	98	98	89.7 - 108
4-Bromofluorobenzene (4-BFB)	46.2	47.2	µg/L	1	50.0	92	94	84.6 - 114

Laboratory Control Spike (LCS-1)

QC Batch: 30789
Prep Batch: 26811

Date Analyzed: 2006-10-06
QC Preparation: 2006-10-06

Analyzed By: JG
Prepared By: JG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
2-Butanone (MEK)	46.6	µg/L	1	50.0	<0.394	93	43.7 - 117
1,1-Dichloroethene	50.6	µg/L	1	50.0	<0.0736	101	83.4 - 114
Benzene	53.4	µg/L	1	50.0	<0.0495	107	83.5 - 115
Trichloroethene (TCE)	53.8	µg/L	1	50.0	<0.0495	108	91.3 - 111
Toluene	53.5	µg/L	1	50.0	<0.0736	107	82 - 110
Chlorobenzene	53.0	µg/L	1	50.0	<0.0217	106	87.9 - 109

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
2-Butanone (MEK)	47.4	µg/L	1	50.0	<0.394	93	43.7 - 117	2	20
1,1-Dichloroethene	49.9	µg/L	1	50.0	<0.0736	101	83.4 - 114	1	20
Benzene	52.2	µg/L	1	50.0	<0.0495	107	83.5 - 115	2	20
Trichloroethene (TCE)	52.5	µg/L	1	50.0	<0.0495	108	91.3 - 111	2	20
Toluene	51.5	µg/L	1	50.0	<0.0736	107	82 - 110	4	20
Chlorobenzene	51.0	µg/L	1	50.0	<0.0217	106	87.9 - 109	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
Dibromofluoromethane	51.2	50.5	µg/L	1	50.0	102	101	82.4 - 115
Toluene-d8	49.3	48.4	µg/L	1	50.0	99	97	89.7 - 108
4-Bromofluorobenzene (4-BFB)	47.0	46.7	µg/L	1	50.0	94	93	84.6 - 114

Matrix Spike (MS-1) Spiked Sample: 104505

QC Batch: 30788
Prep Batch: 26810

Date Analyzed: 2006-10-05
QC Preparation: 2006-10-05

Analyzed By: JG
Prepared By: JG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,1-Dichloroethene	44.7	µg/L	1	50.0	<0.0736	89	78.7 - 119
Benzene	47.8	µg/L	1	50.0	<0.0495	96	75.8 - 125
Trichloroethene (TCE)	48.2	µg/L	1	50.0	<0.0495	96	83.6 - 112
Toluene	46.7	µg/L	1	50.0	<0.0736	93	81.6 - 115
Chlorobenzene	47.3	µg/L	1	50.0	<0.0217	95	83.9 - 113

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
1,1-Dichloroethene	48.9	µg/L	1	50.0	<0.0736	98	78.7 - 119	9	20
Benzene	49.3	µg/L	1	50.0	<0.0495	99	75.8 - 125	3	20
Trichloroethene (TCE)	50.3	µg/L	1	50.0	<0.0495	101	83.6 - 112	4	20
Toluene	48.6	µg/L	1	50.0	<0.0736	97	81.6 - 115	4	20
Chlorobenzene	49.0	µg/L	1	50.0	<0.0217	98	83.9 - 113	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
Dibromofluoromethane	49.5	49.3	µg/L	1	50	99	99	86.6 - 114
Toluene-d8	48.4	48.2	µg/L	1	50	97	96	91 - 109
4-Bromofluorobenzene (4-BFB)	46.8	46.5	µg/L	1	50	94	93	87.2 - 113

Standard (CCV-1)

QC Batch: 30788

Date Analyzed: 2006-10-05

Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	42.0	84	80 - 120	2006-10-05
1,1-Dichloroethene		µg/L	50.0	46.4	93	80 - 120	2006-10-05
Chloroform		µg/L	50.0	48.3	97	80 - 120	2006-10-05
1,2-Dichloropropane		µg/L	50.0	50.9	102	80 - 120	2006-10-05
Toluene		µg/L	50.0	48.4	97	80 - 120	2006-10-05
Chlorobenzene		µg/L	50.0	49.3	99	80 - 120	2006-10-05
Ethylbenzene		µg/L	50.0	47.9	96	80 - 120	2006-10-05

Standard (CCV-1)

QC Batch: 30789

Date Analyzed: 2006-10-06

Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	48.7	97	80 - 120	2006-10-06
2-Butanone (MEK)		µg/L	50.0	48.3	97	70 - 130	2006-10-06
1,1-Dichloroethene		µg/L	50.0	47.4	95	80 - 120	2006-10-06
Chloroform		µg/L	50.0	51.5	103	80 - 120	2006-10-06
Benzene		µg/L	50.0	51.8	104	70 - 130	2006-10-06
1,2-Dichloropropane		µg/L	50.0	55.2	110	80 - 120	2006-10-06
Toluene		µg/L	50.0	52.1	104	80 - 120	2006-10-06
Chlorobenzene		µg/L	50.0	51.2	102	80 - 120	2006-10-06
Ethylbenzene		µg/L	50.0	51.0	102	80 - 120	2006-10-06

Standard (CCV-2)

QC Batch: 30789

Date Analyzed: 2006-10-06

Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	50.6	101	80 - 120	2006-10-06
2-Butanone (MEK)		µg/L	50.0	49.0	98	70 - 130	2006-10-06
1,1-Dichloroethene		µg/L	50.0	46.8	94	80 - 120	2006-10-06
Chloroform		µg/L	50.0	51.7	103	80 - 120	2006-10-06
Benzene		µg/L	50.0	51.3	103	70 - 130	2006-10-06
1,2-Dichloropropane		µg/L	50.0	54.5	109	80 - 120	2006-10-06
Toluene		µg/L	50.0	51.5	103	80 - 120	2006-10-06
Chlorobenzene		µg/L	50.0	50.3	101	80 - 120	2006-10-06
Ethylbenzene		µg/L	50.0	49.8	100	80 - 120	2006-10-06

APPENDIX IV

TRACE ANALYSIS, INC.
Laboratory Results
4th Quarter 2006

Westgate Subdivision
Grimes Battery & Tasker Road

June 2007

Shell Exploration & Production Company
Houston, Texas

Prepared by:
BBC International, Inc.

Summary Report

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM, 88240

Report Date: January 9, 2007

Work Order: 7010318



Project Location: Hobbs,NM
Project Number: Westgate

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
113006	MW-2	water	2006-12-29	09:40	2007-01-03
113007	MW-10	water	2006-12-29	10:10	2007-01-03
113008	MW-7	water	2006-12-29	10:50	2007-01-03
113009	MW-8	water	2006-12-29	11:20	2007-01-03
113010	MW-9	water	2006-12-29	11:54	2007-01-03
113011	MW-3B	water	2006-12-29	14:04	2007-01-03
113012	MW-4	water	2006-12-29	12:25	2007-01-03
113013	MW-6	water	2006-12-29	12:58	2007-01-03
113014	MW-11	water	2006-12-29	13:28	2007-01-03

Sample: 113006 - MW-2

Param	Flag	Result	Units	RL
Naphthalene	1	<0.000572	mg/L	0.000200
Acenaphthylene		<0.000572	mg/L	0.000200
Acenaphthene		<0.000572	mg/L	0.000200
Dibenzofuran		<0.000572	mg/L	0.000200
Fluorene		<0.000572	mg/L	0.000200
Phenanthrene		<0.000572	mg/L	0.000200
Anthracene		<0.000572	mg/L	0.000200
Fluoranthene		<0.000572	mg/L	0.000200
Pyrene		<0.000572	mg/L	0.000200
Benzo(a)anthracene		<0.000572	mg/L	0.000200
Chrysene		<0.000572	mg/L	0.000200
Benzo(b)fluoranthene		<0.000572	mg/L	0.000200
Benzo(k)fluoranthene		<0.00114	mg/L	0.000400
Benzo(a)pyrene		<0.000572	mg/L	0.000200
Indeno(1,2,3-cd)pyrene		<0.00114	mg/L	0.000400
Dibenzo(a,h)anthracene		<0.000572	mg/L	0.000200
Benzo(g,h,i)perylene		<0.000572	mg/L	0.000200
Benzene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00

continued ...

¹Sample ran at a dilution due to inadequate sample amount.

sample 113006 continued ...

Param	Flag	Result	Units	RL
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00

Sample: 113007 - MW-10

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.000200
Acenaphthylene		<0.000200	mg/L	0.000200
Acenaphthene		<0.000200	mg/L	0.000200
Dibenzofuran		<0.000200	mg/L	0.000200
Fluorene		<0.000200	mg/L	0.000200
Phenanthrene		<0.000200	mg/L	0.000200
Anthracene		<0.000200	mg/L	0.000200
Fluoranthene		<0.000200	mg/L	0.000200
Pyrene		<0.000200	mg/L	0.000200
Benzo(a)anthracene		<0.000200	mg/L	0.000200
Chrysene		<0.000200	mg/L	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	0.000200
Benzo(k)fluoranthene		<0.000400	mg/L	0.000400
Benzo(a)pyrene		<0.000200	mg/L	0.000200
Indeno(1,2,3-cd)pyrene		<0.000400	mg/L	0.000400
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.000200
Benzene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00

Sample: 113008 - MW-7

Param	Flag	Result	Units	RL
Naphthalene		0.000209	mg/L	0.000200
Acenaphthylene		<0.000200	mg/L	0.000200
Acenaphthene		<0.000200	mg/L	0.000200
Dibenzofuran		<0.000200	mg/L	0.000200
Fluorene		<0.000200	mg/L	0.000200
Phenanthrene		<0.000200	mg/L	0.000200
Anthracene		<0.000200	mg/L	0.000200
Fluoranthene		<0.000200	mg/L	0.000200
Pyrene		<0.000200	mg/L	0.000200
Benzo(a)anthracene		<0.000200	mg/L	0.000200
Chrysene		<0.000200	mg/L	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	0.000200
Benzo(k)fluoranthene		<0.000400	mg/L	0.000400
Benzo(a)pyrene		<0.000200	mg/L	0.000200
Indeno(1,2,3-cd)pyrene		<0.000400	mg/L	0.000400
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.000200

continued ...

sample 113008 continued ...

Param	Flag	Result	Units	RL
Benzene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00

Sample: 113009 - MW-8

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.000200
Acenaphthylene		<0.000200	mg/L	0.000200
Acenaphthene		<0.000200	mg/L	0.000200
Dibenzofuran		0.000690	mg/L	0.000200
Fluorene		0.000305	mg/L	0.000200
Phenanthrene		<0.000200	mg/L	0.000200
Anthracene		0.000473	mg/L	0.000200
Fluoranthene		<0.000200	mg/L	0.000200
Pyrene		<0.000200	mg/L	0.000200
Benzo(a)anthracene		<0.000200	mg/L	0.000200
Chrysene		<0.000200	mg/L	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	0.000200
Benzo(k)fluoranthene		<0.000400	mg/L	0.000400
Benzo(a)pyrene		<0.000200	mg/L	0.000200
Indeno(1,2,3-cd)pyrene		<0.000400	mg/L	0.000400
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.000200
Benzene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00

Sample: 113010 - MW-9

Param	Flag	Result	Units	RL
Naphthalene		<0.000200	mg/L	0.000200
Acenaphthylene		<0.000200	mg/L	0.000200
Acenaphthene		<0.000200	mg/L	0.000200
Dibenzofuran		0.00216	mg/L	0.000200
Fluorene		0.000913	mg/L	0.000200
Phenanthrene		<0.000200	mg/L	0.000200
Anthracene		0.000821	mg/L	0.000200
Fluoranthene		<0.000200	mg/L	0.000200
Pyrene		<0.000200	mg/L	0.000200
Benzo(a)anthracene		<0.000200	mg/L	0.000200
Chrysene		<0.000200	mg/L	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	0.000200
Benzo(k)fluoranthene		<0.000400	mg/L	0.000400
Benzo(a)pyrene		<0.000200	mg/L	0.000200
Indeno(1,2,3-cd)pyrene		<0.000400	mg/L	0.000400

continued ...

sample 113010 continued ...

Param	Flag	Result	Units	RL
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.000200
Benzene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00

Sample: 113011 - MW-3B

Param	Flag	Result	Units	RL
Naphthalene		0.000427	mg/L	0.000200
Acenaphthylene		<0.000200	mg/L	0.000200
Acenaphthene		<0.000200	mg/L	0.000200
Dibenzofuran		<0.000200	mg/L	0.000200
Fluorene		<0.000200	mg/L	0.000200
Phenanthrene		<0.000200	mg/L	0.000200
Anthracene		<0.000200	mg/L	0.000200
Fluoranthene		<0.000200	mg/L	0.000200
Pyrene		<0.000200	mg/L	0.000200
Benzo(a)anthracene		<0.000200	mg/L	0.000200
Chrysene		<0.000200	mg/L	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	0.000200
Benzo(k)fluoranthene		<0.000400	mg/L	0.000400
Benzo(a)pyrene		<0.000200	mg/L	0.000200
Indeno(1,2,3-cd)pyrene		<0.000400	mg/L	0.000400
Dibenzo(a,h)anthracene		<0.000200	mg/L	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	0.000200
Benzene		5.77	µg/L	1.00
Toluene		<1.00	µg/L	1.00
Ethylbenzene		2.54	µg/L	1.00
m,p-Xylene		11.7	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00

Sample: 113012 - MW-4

Param	Flag	Result	Units	RL
Benzene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00

Sample: 113013 - MW-6

Param	Flag	Result	Units	RL
Benzene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00

continued ...

sample 113013 continued ...

Param	Flag	Result	Units	RL
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00

Sample: 113014 - MW-11

Param	Flag	Result	Units	RL
Benzene		<1.00	µg/L	1.00
Toluene		<1.00	µg/L	1.00
Ethylbenzene		<1.00	µg/L	1.00
m,p-Xylene		<1.00	µg/L	1.00
o-Xylene		<1.00	µg/L	1.00

TRACE ANALYSIS, INC.

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Analytical and Quality Control Report

Cliff Brunson
BBC International
1324 W. Marland
Hobbs, NM, 88240

Report Date: January 9, 2007

Work Order: 7010318



Project Location: Hobbs, NM
Project Number: Westgate

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
113006	MW-2	water	2006-12-29	09:40	2007-01-03
113007	MW-10	water	2006-12-29	10:10	2007-01-03
113008	MW-7	water	2006-12-29	10:50	2007-01-03
113009	MW-8	water	2006-12-29	11:20	2007-01-03
113010	MW-9	water	2006-12-29	11:54	2007-01-03
113011	MW-3B	water	2006-12-29	14:04	2007-01-03
113012	MW-4	water	2006-12-29	12:25	2007-01-03
113013	MW-6	water	2006-12-29	12:58	2007-01-03
113014	MW-11	water	2006-12-29	13:28	2007-01-03

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.

Dr. Blair Leftwich, Director

Standard Flags

B - The sample contains less than ten times the concentration found in the method blank.

Analytical Report

Sample: 113006 - MW-2

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 33502	Date Analyzed: 2007-01-05	Analyzed By: DS
Prep Batch: 29101	Sample Preparation: 2007-01-05	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene	1	<0.000572	mg/L	2.86	0.000200
Acenaphthylene		<0.000572	mg/L	2.86	0.000200
Acenaphthene		<0.000572	mg/L	2.86	0.000200
Dibenzofuran		<0.000572	mg/L	2.86	0.000200
Fluorene		<0.000572	mg/L	2.86	0.000200
Phenanthrene		<0.000572	mg/L	2.86	0.000200
Anthracene		<0.000572	mg/L	2.86	0.000200
Fluoranthene		<0.000572	mg/L	2.86	0.000200
Pyrene		<0.000572	mg/L	2.86	0.000200
Benzo(a)anthracene		<0.000572	mg/L	2.86	0.000200
Chrysene		<0.000572	mg/L	2.86	0.000200
Benzo(b)fluoranthene		<0.000572	mg/L	2.86	0.000200
Benzo(k)fluoranthene		<0.00114	mg/L	2.86	0.000400
Benzo(a)pyrene		<0.000572	mg/L	2.86	0.000200
Indeno(1,2,3-cd)pyrene		<0.00114	mg/L	2.86	0.000400
Dibenzo(a,h)anthracene		<0.000572	mg/L	2.86	0.000200
Benzo(g,h,i)perylene		<0.000572	mg/L	2.86	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0461	mg/L	2.86	0.0800	58	37.4 - 123
2-Fluorobiphenyl		0.0463	mg/L	2.86	0.0800	58	34.3 - 130
Terphenyl-d14		0.0596	mg/L	2.86	0.0800	74	10 - 252

Sample: 113006 - MW-2

Analysis: Volatiles	Analytical Method: S 8260B	Prep Method: S 5030B
QC Batch: 33445	Date Analyzed: 2007-01-06	Analyzed By: JG
Prep Batch: 29064	Sample Preparation: 2007-01-06	Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		55.5	µg/L	1	50.0	111	82.4 - 115

continued...

¹ Sample ran at a dilution due to inadequate sample amount.

sample continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Toluene-d8	2	56.3	µg/L	1	50.0	113	89.7 - 108
4-Bromofluorobenzene (4-BFB)		50.0	µg/L	1	50.0	100	84.6 - 114

Sample: 113007 - MW-10

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 33502	Date Analyzed: 2007-01-05	Analyzed By: DS
Prep Batch: 29101	Sample Preparation: 2007-01-05	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	1	0.000200
Acenaphthylene		<0.000200	mg/L	1	0.000200
Acenaphthene		<0.000200	mg/L	1	0.000200
Dibenzofuran		<0.000200	mg/L	1	0.000200
Fluorene		<0.000200	mg/L	1	0.000200
Phenanthrene		<0.000200	mg/L	1	0.000200
Anthracene		<0.000200	mg/L	1	0.000200
Fluoranthene		<0.000200	mg/L	1	0.000200
Pyrene		<0.000200	mg/L	1	0.000200
Benzo(a)anthracene		<0.000200	mg/L	1	0.000200
Chrysene		<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene		<0.000400	mg/L	1	0.000400
Benzo(a)pyrene		<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene		<0.000400	mg/L	1	0.000400
Dibenzo(a,h)anthracene		<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	1	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0577	mg/L	1	0.0800	72	37.4 - 123
2-Fluorobiphenyl		0.0662	mg/L	1	0.0800	83	34.3 - 130
Terphenyl-d14		0.0736	mg/L	1	0.0800	92	10 - 252

Sample: 113007 - MW-10

Analysis: Volatiles	Analytical Method: S 8260B	Prep Method: S 5030B
QC Batch: 33445	Date Analyzed: 2007-01-06	Analyzed By: JG
Prep Batch: 29064	Sample Preparation: 2007-01-06	Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

²8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preparation was performed properly.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		57.0	µg/L	1	50.0	114	82.4 - 115
Toluene-d8	3	56.1	µg/L	1	50.0	112	89.7 - 108
4-Bromofluorobenzene (4-BFB)		50.3	µg/L	1	50.0	101	84.6 - 114

Sample: 113008 - MW-7

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 33502	Date Analyzed: 2007-01-05	Analyzed By: DS
Prep Batch: 29101	Sample Preparation: 2007-01-05	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		0.000209	mg/L	1	0.000200
Acenaphthylene		<0.000200	mg/L	1	0.000200
Acenaphthene		<0.000200	mg/L	1	0.000200
Dibenzofuran		<0.000200	mg/L	1	0.000200
Fluorene		<0.000200	mg/L	1	0.000200
Phenanthrene		<0.000200	mg/L	1	0.000200
Anthracene		<0.000200	mg/L	1	0.000200
Fluoranthene		<0.000200	mg/L	1	0.000200
Pyrene		<0.000200	mg/L	1	0.000200
Benzo(a)anthracene		<0.000200	mg/L	1	0.000200
Chrysene		<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene		<0.000400	mg/L	1	0.000400
Benzo(a)pyrene		<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene		<0.000400	mg/L	1	0.000400
Dibenzo(a,h)anthracene		<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	1	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0529	mg/L	1	0.0800	66	37.4 - 123
2-Fluorobiphenyl		0.0552	mg/L	1	0.0800	69	34.3 - 130
Terphenyl-d14		0.0583	mg/L	1	0.0800	73	10 - 252

Sample: 113008 - MW-7

Analysis: Volatiles	Analytical Method: S 8260B	Prep Method: S 5030B
QC Batch: 33445	Date Analyzed: 2007-01-06	Analyzed By: JG
Prep Batch: 29064	Sample Preparation: 2007-01-06	Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

³8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preparation was performed properly.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		56.9	µg/L	1	50.0	114	82.4 - 115
Toluene-d8	4	55.7	µg/L	1	50.0	111	89.7 - 108
4-Bromofluorobenzene (4-BFB)		49.5	µg/L	1	50.0	99	84.6 - 114

Sample: 113009 - MW-8

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 33502	Date Analyzed: 2007-01-05	Analyzed By: DS
Prep Batch: 29101	Sample Preparation: 2007-01-05	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	1	0.000200
Acenaphthylene		<0.000200	mg/L	1	0.000200
Acenaphthene		<0.000200	mg/L	1	0.000200
Dibenzofuran		0.000690	mg/L	1	0.000200
Fluorene		0.000305	mg/L	1	0.000200
Phenanthrene		<0.000200	mg/L	1	0.000200
Anthracene		0.000473	mg/L	1	0.000200
Fluoranthene		<0.000200	mg/L	1	0.000200
Pyrene		<0.000200	mg/L	1	0.000200
Benzo(a)anthracene		<0.000200	mg/L	1	0.000200
Chrysene		<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene		<0.000400	mg/L	1	0.000400
Benzo(a)pyrene		<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene		<0.000400	mg/L	1	0.000400
Dibenzo(a,h)anthracene		<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	1	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0523	mg/L	1	0.0800	65	37.4 - 123
2-Fluorobiphenyl		0.0495	mg/L	1	0.0800	62	34.3 - 130
Terphenyl-d14		0.0582	mg/L	1	0.0800	73	10 - 252

Sample: 113009 - MW-8

Analysis: Volatiles	Analytical Method: S 8260B	Prep Method: S 5030B
QC Batch: 33445	Date Analyzed: 2007-01-06	Analyzed By: JG
Prep Batch: 29064	Sample Preparation: 2007-01-06	Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

⁴8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preparation was performed properly.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		56.5	µg/L	1	50.0	113	82.4 - 115
Toluene-d8	5	56.5	µg/L	1	50.0	113	89.7 - 108
4-Bromofluorobenzene (4-BFB)		51.1	µg/L	1	50.0	102	84.6 - 114

Sample: 113010 - MW-9

Analysis: PAH
QC Batch: 33502
Prep Batch: 29101

Analytical Method: S 8270C
Date Analyzed: 2007-01-05
Sample Preparation: 2007-01-05

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

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		<0.000200	mg/L	1	0.000200
Acenaphthylene		<0.000200	mg/L	1	0.000200
Acenaphthene		<0.000200	mg/L	1	0.000200
Dibenzofuran		0.00216	mg/L	1	0.000200
Fluorene		0.000913	mg/L	1	0.000200
Phenanthrene		<0.000200	mg/L	1	0.000200
Anthracene		0.000821	mg/L	1	0.000200
Fluoranthene		<0.000200	mg/L	1	0.000200
Pyrene		<0.000200	mg/L	1	0.000200
Benzo(a)anthracene		<0.000200	mg/L	1	0.000200
Chrysene		<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene		<0.000400	mg/L	1	0.000400
Benzo(a)pyrene		<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene		<0.000400	mg/L	1	0.000400
Dibenzo(a,h)anthracene		<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	1	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0654	mg/L	1	0.0800	82	37.4 - 123
2-Fluorobiphenyl		0.0671	mg/L	1	0.0800	84	34.3 - 130
Terphenyl-d14		0.0659	mg/L	1	0.0800	82	10 - 252

Sample: 113010 - MW-9

Analysis: Volatiles
QC Batch: 33445
Prep Batch: 29064

Analytical Method: S 8260B
Date Analyzed: 2007-01-06
Sample Preparation: 2007-01-06

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

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

⁵8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preparation was performed properly.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		55.4	µg/L	1	50.0	111	82.4 - 115
Toluene-d8	6	56.5	µg/L	1	50.0	113	89.7 - 108
4-Bromofluorobenzene (4-BFB)		51.9	µg/L	1	50.0	104	84.6 - 114

Sample: 113011 - MW-3B

Analysis: PAH	Analytical Method: S 8270C	Prep Method: S 3510C
QC Batch: 33502	Date Analyzed: 2007-01-05	Analyzed By: DS
Prep Batch: 29101	Sample Preparation: 2007-01-05	Prepared By: DS

Parameter	Flag	RL Result	Units	Dilution	RL
Naphthalene		0.000427	mg/L	1	0.000200
Acenaphthylene		<0.000200	mg/L	1	0.000200
Acenaphthene		<0.000200	mg/L	1	0.000200
Dibenzofuran		<0.000200	mg/L	1	0.000200
Fluorene		<0.000200	mg/L	1	0.000200
Phenanthrene		<0.000200	mg/L	1	0.000200
Anthracene		<0.000200	mg/L	1	0.000200
Fluoranthene		<0.000200	mg/L	1	0.000200
Pyrene		<0.000200	mg/L	1	0.000200
Benzo(a)anthracene		<0.000200	mg/L	1	0.000200
Chrysene		<0.000200	mg/L	1	0.000200
Benzo(b)fluoranthene		<0.000200	mg/L	1	0.000200
Benzo(k)fluoranthene		<0.000400	mg/L	1	0.000400
Benzo(a)pyrene		<0.000200	mg/L	1	0.000200
Indeno(1,2,3-cd)pyrene		<0.000400	mg/L	1	0.000400
Dibenzo(a,h)anthracene		<0.000200	mg/L	1	0.000200
Benzo(g,h,i)perylene		<0.000200	mg/L	1	0.000200

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0592	mg/L	1	0.0800	74	37.4 - 123
2-Fluorobiphenyl		0.0584	mg/L	1	0.0800	73	34.3 - 130
Terphenyl-d14		0.0711	mg/L	1	0.0800	89	10 - 252

Sample: 113011 - MW-3B

Analysis: Volatiles	Analytical Method: S 8260B	Prep Method: S 5030B
QC Batch: 33445	Date Analyzed: 2007-01-06	Analyzed By: JG
Prep Batch: 29064	Sample Preparation: 2007-01-06	Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		5.77	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		2.54	µg/L	1	1.00
m,p-Xylene		11.7	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

⁶8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preparation was performed properly.

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane	7	53.2	µg/L	1	50.0	106	82.4 - 115
Toluene-d8		56.0	µg/L	1	50.0	112	89.7 - 108
4-Bromofluorobenzene (4-BFB)		50.8	µg/L	1	50.0	102	84.6 - 114

Sample: 113012 - MW-4

Analysis: Volatiles Analytical Method: S 8260B Prep Method: S 5030B
QC Batch: 33445 Date Analyzed: 2007-01-06 Analyzed By: JG
Prep Batch: 29064 Sample Preparation: 2007-01-06 Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane	8	55.9	µg/L	1	50.0	112	82.4 - 115
Toluene-d8		56.6	µg/L	1	50.0	113	89.7 - 108
4-Bromofluorobenzene (4-BFB)		50.3	µg/L	1	50.0	101	84.6 - 114

Sample: 113013 - MW-6

Analysis: Volatiles Analytical Method: S 8260B Prep Method: S 5030B
QC Batch: 33445 Date Analyzed: 2007-01-06 Analyzed By: JG
Prep Batch: 29064 Sample Preparation: 2007-01-06 Prepared By: JG

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane	9	56.3	µg/L	1	50.0	113	82.4 - 115
Toluene-d8		58.4	µg/L	1	50.0	117	89.7 - 108
4-Bromofluorobenzene (4-BFB)		50.8	µg/L	1	50.0	102	84.6 - 114

Sample: 113014 - MW-11

Analysis: Volatiles Analytical Method: S 8260B Prep Method: S 5030B
QC Batch: 33445 Date Analyzed: 2007-01-06 Analyzed By: JG
Prep Batch: 29064 Sample Preparation: 2007-01-06 Prepared By: JG

⁷8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preparation was performed properly.

⁸8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preparation was performed properly.

⁹8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preparation was performed properly.

Parameter	Flag	RL Result	Units	Dilution	RL
Benzene		<1.00	µg/L	1	1.00
Toluene		<1.00	µg/L	1	1.00
Ethylbenzene		<1.00	µg/L	1	1.00
m,p-Xylene		<1.00	µg/L	1	1.00
o-Xylene		<1.00	µg/L	1	1.00

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		56.2	µg/L	1	50.0	112	82.4 - 115
Toluene-d8	¹⁰	57.8	µg/L	1	50.0	116	89.7 - 108
4-Bromofluorobenzene (4-BFB)		50.1	µg/L	1	50.0	100	84.6 - 114

Method Blank (1) QC Batch: 33445

QC Batch: 33445
Prep Batch: 29064

Date Analyzed: 2007-01-06
QC Preparation: 2007-01-06

Analyzed By: JG
Prepared By: JG

Parameter	Flag	MDL Result	Units	RL
Bromochloromethane		<0.351	µg/L	1
Dichlorodifluoromethane		<0.306	µg/L	1
Chloromethane (methyl chloride)		<0.240	µg/L	1
Vinyl Chloride		<0.224	µg/L	1
Bromomethane (methyl bromide)		<0.325	µg/L	5
Chloroethane		<0.303	µg/L	1
Trichlorofluoromethane		<0.255	µg/L	1
Acetone		<1.86	µg/L	10
Iodomethane (methyl iodide)		<0.397	µg/L	5
Carbon Disulfide		<0.354	µg/L	1
Acrylonitrile		<0.306	µg/L	1
2-Butanone (MEK)		<0.670	µg/L	5
4-Methyl-2-pentanone (MIBK)		<0.463	µg/L	5
2-Hexanone		<0.303	µg/L	5
trans 1,4-Dichloro-2-butene		<0.406	µg/L	10
1,1-Dichloroethene		<0.326	µg/L	1
Methylene chloride		0.970	µg/L	5
MTBE		<0.352	µg/L	1
trans-1,2-Dichloroethene		<0.322	µg/L	1
1,1-Dichloroethane		<0.324	µg/L	1
cis-1,2-Dichloroethene		<0.331	µg/L	1
2,2-Dichloropropane		<0.440	µg/L	1
1,2-Dichloroethane (EDC)		<0.327	µg/L	1
Chloroform		<0.345	µg/L	1
1,1,1-Trichloroethane		<0.303	µg/L	1
1,1-Dichloropropene		<0.356	µg/L	1
Benzene		<0.356	µg/L	1
Carbon Tetrachloride		<0.342	µg/L	1
1,2-Dichloropropane		<0.366	µg/L	1

continued...

¹⁰8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preparation was performed properly.

method blank continued...

Parameter	Flag	MDL Result	Units	RL
Trichloroethene (TCE)		<0.434	µg/L	1
Dibromomethane (methylene bromide)		<0.406	µg/L	1
Bromodichloromethane		<0.325	µg/L	1
2-Chloroethyl vinyl ether		<0.366	µg/L	5
cis-1,3-Dichloropropene		<0.387	µg/L	1
trans-1,3-Dichloropropene		<0.367	µg/L	1
Toluene		0.480	µg/L	1
1,1,2-Trichloroethane		<0.397	µg/L	1
1,3-Dichloropropane		<0.355	µg/L	1
Dibromochloromethane		<0.315	µg/L	1
1,2-Dibromoethane (EDB)		<0.340	µg/L	1
Tetrachloroethene (PCE)		<0.355	µg/L	1
Chlorobenzene		<0.363	µg/L	1
1,1,1,2-Tetrachloroethane		<0.338	µg/L	1
Ethylbenzene		<0.350	µg/L	1
m,p-Xylene		<0.752	µg/L	1
Bromoform		<0.275	µg/L	1
Styrene		<0.395	µg/L	1
o-Xylene		<0.375	µg/L	1
1,1,2,2-Tetrachloroethane		<0.283	µg/L	1
2-Chlorotoluene		<0.445	µg/L	1
1,2,3-Trichloropropane		<0.430	µg/L	1
Isopropylbenzene		<0.521	µg/L	1
Bromobenzene		<0.494	µg/L	1
n-Propylbenzene		<0.483	µg/L	1
1,3,5-Trimethylbenzene		<0.487	µg/L	1
tert-Butylbenzene		<0.496	µg/L	1
1,2,4-Trimethylbenzene		<0.532	µg/L	1
1,4-Dichlorobenzene (para)		<0.413	µg/L	1
sec-Butylbenzene		<0.449	µg/L	1
1,3-Dichlorobenzene (meta)		<0.451	µg/L	1
p-Isopropyltoluene		<0.450	µg/L	1
4-Chlorotoluene		<0.489	µg/L	1
1,2-Dichlorobenzene (ortho)		<0.438	µg/L	1
n-Butylbenzene		<0.461	µg/L	1
1,2-Dibromo-3-chloropropane		<0.532	µg/L	5
1,2,3-Trichlorobenzene		<0.288	µg/L	5
1,2,4-Trichlorobenzene		<0.273	µg/L	5
Naphthalene		0.960	µg/L	5
Hexachlorobutadiene		<0.483	µg/L	5

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Dibromofluoromethane		55.7	µg/L	1	50.0	111	82.4 - 115
Toluene-d8	11	56.4	µg/L	1	50.0	113	89.7 - 108
4-Bromofluorobenzene (4-BFB)		49.6	µg/L	1	50.0	99	84.6 - 114

¹¹ 8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preparation was performed properly.

Method Blank (1) QC Batch: 33502

QC Batch: 33502
Prep Batch: 29101

Date Analyzed: 2007-01-05
QC Preparation: 2007-01-05

Analyzed By: DS
Prepared By: DS

Parameter	Flag	MDL Result	Units	RL
Naphthalene		<0.0000853	mg/L	0.0002
Acenaphthylene		<0.0000768	mg/L	0.0002
Acenaphthene		<0.000103	mg/L	0.0002
Dibenzofuran		<0.000200	mg/L	0.0002
Fluorene		<0.0000861	mg/L	0.0002
Phenanthrene		<0.0000884	mg/L	0.0002
Anthracene		<0.000170	mg/L	0.0002
Fluoranthene		<0.0000969	mg/L	0.0002
Pyrene		<0.0000855	mg/L	0.0002
Benzo(a)anthracene		<0.0000703	mg/L	0.0002
Chrysene		<0.000113	mg/L	0.0002
Benzo(b)fluoranthene		<0.000134	mg/L	0.0002
Benzo(k)fluoranthene		<0.000227	mg/L	0.0004
Benzo(a)pyrene		<0.000200	mg/L	0.0002
Indeno(1,2,3-cd)pyrene		<0.000253	mg/L	0.0004
Dibenzo(a,h)anthracene		<0.000180	mg/L	0.0002
Benzo(g,h,i)perylene		<0.000158	mg/L	0.0002

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Nitrobenzene-d5		0.0553	mg/L	1	0.0800	69	10 - 146
2-Fluorobiphenyl		0.0620	mg/L	1	0.0800	78	10 - 141
Terphenyl-d14		0.0757	mg/L	1	0.0800	95	10 - 266

Laboratory Control Spike (LCS-1)

QC Batch: 33445
Prep Batch: 29064

Date Analyzed: 2007-01-06
QC Preparation: 2007-01-06

Analyzed By: JG
Prepared By: JG

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,1-Dichloroethene	48.0	µg/L	1	50.0	<0.326	96	83.4 - 114
Benzene	51.2	µg/L	1	50.0	<0.356	102	83.5 - 115
Trichloroethene (TCE)	52.0	µg/L	1	50.0	<0.434	104	91.3 - 111
Toluene	48.3	µg/L	1	50.0	<0.366	97	82 - 110
Chlorobenzene	51.2	µg/L	1	50.0	<0.363	102	87.9 - 109

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
1,1-Dichloroethene	49.9	µg/L	1	50.0	<0.326	100	83.4 - 114	4	20
Benzene	49.3	µg/L	1	50.0	<0.356	99	83.5 - 115	4	20
Trichloroethene (TCE)	49.5	µg/L	1	50.0	<0.434	99	91.3 - 111	5	20
Toluene	46.5	µg/L	1	50.0	<0.366	93	82 - 110	4	20

continued...

control spikes continued...

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chlorobenzene	49.1	µg/L	1	50.0	<0.363	98	87.9 - 109	4	20

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

Surrogate	LCSD Result	Units	Dil.	Spike Amount	LCSD Rec.	Rec.	Rec. Limit
Dibromofluoromethane	53.6	µg/L	1	50.0	107	108	82.4 - 115
Toluene-d8	55.1	µg/L	1	50.0	110	111	89.7 - 108
4-Bromofluorobenzene (4-BFB)	54.6	µg/L	1	50.0	109	110	84.6 - 114

Laboratory Control Spike (LCS-1)

QC Batch: 33502
Prep Batch: 29101

Date Analyzed: 2007-01-05
QC Preparation: 2007-01-05

Analyzed By: DS
Prepared By: DS

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Naphthalene	0.0524	mg/L	1	0.0800	<0.0000853	66	10 - 141
Acenaphthylene	0.0607	mg/L	1	0.0800	<0.0000768	76	10 - 152
Acenaphthene	0.0570	mg/L	1	0.0800	<0.000103	71	10 - 151
Dibenzofuran	0.0614	mg/L	1	0.0800	<0.000200	77	10 - 148
Fluorene	0.0557	mg/L	1	0.0800	<0.0000861	70	10 - 172
Phenanthrene	0.0665	mg/L	1	0.0800	<0.0000884	83	19.6 - 172
Anthracene	0.0623	mg/L	1	0.0800	<0.000170	78	22.5 - 172
Fluoranthene	0.0699	mg/L	1	0.0800	<0.0000969	87	17.3 - 187
Pyrene	0.0691	mg/L	1	0.0800	<0.0000855	86	14.9 - 199
Benzo(a)anthracene	0.0678	mg/L	1	0.0800	<0.0000703	85	19.4 - 185
Chrysene	0.0751	mg/L	1	0.0800	<0.000113	94	18.4 - 188
Benzo(b)fluoranthene	0.0566	mg/L	1	0.0800	<0.000134	71	10 - 193
Benzo(k)fluoranthene	0.0679	mg/L	1	0.0800	<0.000227	85	27.8 - 196
Benzo(a)pyrene	0.0653	mg/L	1	0.0800	<0.000200	82	12.4 - 205
Indeno(1,2,3-cd)pyrene	0.0572	mg/L	1	0.0800	<0.000253	72	10 - 198
Dibenzo(a,h)anthracene	0.0559	mg/L	1	0.0800	<0.000180	70	10 - 172
Benzo(g,h,i)perylene	0.0718	mg/L	1	0.0800	<0.000158	90	10 - 186

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

Param	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Naphthalene	0.0528	mg/L	1	0.0800	<0.0000853	66	10 - 141	1	20
Acenaphthylene	0.0623	mg/L	1	0.0800	<0.0000768	78	10 - 152	3	20
Acenaphthene	0.0582	mg/L	1	0.0800	<0.000103	73	10 - 151	2	20
Dibenzofuran	0.0625	mg/L	1	0.0800	<0.000200	78	10 - 148	2	20
Fluorene	0.0574	mg/L	1	0.0800	<0.0000861	72	10 - 172	3	20
Phenanthrene	0.0660	mg/L	1	0.0800	<0.0000884	82	19.6 - 172	1	20
Anthracene	0.0621	mg/L	1	0.0800	<0.000170	78	22.5 - 172	0	20
Fluoranthene	0.0715	mg/L	1	0.0800	<0.0000969	89	17.3 - 187	2	20
Pyrene	0.0697	mg/L	1	0.0800	<0.0000855	87	14.9 - 199	1	20

continued...

¹²8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preparation was performed properly.

¹³8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preparation was performed properly.

control spikes continued ...

Param	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzo(a)anthracene	0.0683	mg/L	1	0.0800	<0.000703	85	19.4 - 185	1	20
Chrysene	0.0757	mg/L	1	0.0800	<0.000113	95	18.4 - 188	1	20
Benzo(b)fluoranthene	0.0568	mg/L	1	0.0800	<0.000134	71	10 - 193	0	20
Benzo(k)fluoranthene	0.0691	mg/L	1	0.0800	<0.000227	86	27.8 - 196	2	20
Benzo(a)pyrene	0.0661	mg/L	1	0.0800	<0.000200	83	12.4 - 205	1	20
Indeno(1,2,3-cd)pyrene	0.0584	mg/L	1	0.0800	<0.000253	73	10 - 198	2	20
Dibenzo(a,h)anthracene	0.0573	mg/L	1	0.0800	<0.000180	72	10 - 172	2	20
Benzo(g,h,i)perylene	0.0730	mg/L	1	0.0800	<0.000158	91	10 - 186	2	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
Nitrobenzene-d5	0.0636	0.0651	mg/L	1	0.0800	80	81	10 - 165
2-Fluorobiphenyl	0.0741	0.0779	mg/L	1	0.0800	93	97	10 - 157
Terphenyl-d14	0.0794	0.0810	mg/L	1	0.0800	99	101	10 - 220

Matrix Spike (MS-1) Spiked Sample: 112969

QC Batch: 33445
Prep Batch: 29064

Date Analyzed: 2007-01-06
QC Preparation: 2007-01-06

Analyzed By: JG
Prepared By: JG

Param	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
1,1-Dichloroethene	51.5	µg/L	1	50.0	<0.0736	103	78.7 - 119
Benzene	53.7	µg/L	1	50.0	<0.0495	107	75.8 - 125
Trichloroethene (TCE)	52.9	µg/L	1	50.0	<0.0495	106	83.6 - 112
Toluene	49.3	µg/L	1	50.0	<0.0736	99	81.6 - 115
Chlorobenzene	53.5	µg/L	1	50.0	<0.0217	107	83.9 - 113

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

Param	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
1,1-Dichloroethene	¹⁴ n/a	µg/L	1	50.0	<0.0736	0	78.7 - 119	200	20
Benzene	¹⁵ n/a	µg/L	1	50.0	<0.0495	0	75.8 - 125	200	20
Trichloroethene (TCE)	¹⁶ n/a	µg/L	1	50.0	<0.0495	0	83.6 - 112	200	20
Toluene	¹⁷ n/a	µg/L	1	50.0	<0.0736	0	81.6 - 115	200	20
Chlorobenzene	¹⁸ n/a	µg/L	1	50.0	<0.0217	0	83.9 - 113	200	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
Dibromofluoromethane	¹⁹ 53.3	n/a	µg/L	1	50	107	0	86.6 - 114

continued ...

¹⁴RPD is out of range because a matrix spike duplicate was not prepared.

¹⁵RPD is out of range because a matrix spike duplicate was not prepared.

¹⁶RPD is out of range because a matrix spike duplicate was not prepared.

¹⁷RPD is out of range because a matrix spike duplicate was not prepared.

¹⁸RPD is out of range because a matrix spike duplicate was not prepared.

¹⁹RPD is out of range because a matrix spike duplicate was not prepared.

matrix spikes continued...

Surrogate		MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Toluene-d8	²⁰ ²¹	55.2	n/a	µg/L	1	50	110	0	91 - 109
4-Bromofluorobenzene (4-BFB)	²²	54.5	n/a	µg/L	1	50	109	0	87.2 - 113

Standard (CCV-1)

QC Batch: 33445

Date Analyzed: 2007-01-06

Analyzed By: JG

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Vinyl Chloride		µg/L	50.0	48.2	96	80 - 120	2007-01-06
1,1-Dichloroethene		µg/L	50.0	48.1	96	80 - 120	2007-01-06
Chloroform		µg/L	50.0	49.8	100	80 - 120	2007-01-06
1,2-Dichloropropane		µg/L	50.0	50.5	101	80 - 120	2007-01-06
Toluene		µg/L	50.0	49.1	98	80 - 120	2007-01-06
Chlorobenzene		µg/L	50.0	51.5	103	80 - 120	2007-01-06
Ethylbenzene		µg/L	50.0	58.0	116	80 - 120	2007-01-06

Standard (CCV-1)

QC Batch: 33502

Date Analyzed: 2007-01-05

Analyzed By: DS

Param	Flag	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Naphthalene		mg/L	60.0	63.9	106	80 - 120	2007-01-05
Acenaphthylene		mg/L	60.0	61.1	102	80 - 120	2007-01-05
Acenaphthene		mg/L	60.0	61.0	102	80 - 120	2007-01-05
Dibenzofuran		mg/L	60.0	66.3	110	80 - 120	2007-01-05
Fluorene		mg/L	60.0	61.5	102	80 - 120	2007-01-05
Phenanthrene		mg/L	60.0	63.0	105	80 - 120	2007-01-05
Anthracene		mg/L	60.0	59.2	99	80 - 120	2007-01-05
Fluoranthene		mg/L	60.0	63.4	106	80 - 120	2007-01-05
Pyrene		mg/L	60.0	66.0	110	80 - 120	2007-01-05
Benzo(a)anthracene		mg/L	60.0	62.3	104	80 - 120	2007-01-05
Chrysene		mg/L	60.0	64.4	107	80 - 120	2007-01-05
Benzo(b)fluoranthene		mg/L	60.0	58.3	97	80 - 120	2007-01-05
Benzo(k)fluoranthene		mg/L	60.0	65.6	109	80 - 120	2007-01-05
Benzo(a)pyrene		mg/L	60.0	60.7	101	80 - 120	2007-01-05
Indeno(1,2,3-cd)pyrene		mg/L	60.0	55.0	92	80 - 120	2007-01-05
Dibenzo(a,h)anthracene		mg/L	60.0	53.8	90	80 - 120	2007-01-05
Benzo(g,h,i)perylene		mg/L	60.0	69.6	116	80 - 120	2007-01-05

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
Nitrobenzene-d5		72.0	mg/L	1	60.0	120	80 - 120

continued...

²⁰ 8260 Only - One surrogate is out of control limits. The other two surrogates show the sample preparation was performed properly.

²¹ RPD is out of range because a matrix spike duplicate was not prepared.

²² RPD is out of range because a matrix spike duplicate was not prepared.

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standard continued ...

Surrogate	Flag	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limit
2-Fluorobiphenyl		56.7	mg/L	1	60.0	94	80 - 120
Terphenyl-d14		66.1	mg/L	1	60.0	110	80 - 120