



April 23, 2009

Mr. Brett Middleton  
EnCana Oil & Gas (USA) Inc.  
2717 County Rd. 215  
Suite 100  
Parachute, CO 81635

Re: West Divide Seep Area First Quarter Monitoring Status Report for March 2009

Dear Mr. Middleton:

Cordilleran Compliance Services, Inc. (Cordilleran), a division of Olsson Associates, has completed the first quarter of 2009 groundwater and surface-water monitoring for EnCana Oil & Gas (USA) Inc. (EnCana) at the West Divide Creek Gas Seep study area (Figure 1).

This report summarizes the status of the remediation system and the analytical results of surface-water and groundwater monitoring in March 2009 and data collected since 2004 to monitor the impacts of the dissolved phase hydrocarbons comprised primarily of methane and benzene at the seep site.

### ***Groundwater and Surface-Water Monitoring***

Cordilleran collected groundwater samples from 25 monitoring wells for the first quarter on March 16 and 17, 2009 (Figure 1). One duplicate sample was also collected from the monitoring wells. Prior to sample collection, static water levels were measured in monitoring wells to within 0.01 feet (ft) from the top of the PVC casing using an electronic water level. The wells were purged of static water using dedicated disposable bailers. Field parameters were obtained at the completion of purging activities and included temperature, specific conductance, dissolved oxygen, pH, total dissolved solids and turbidity using a Quanta water quality meter. Groundwater samples were collected following field parameter measurements.

Cordilleran collected eight (8) surface-water samples (DCS-1-8) in West Divide Creek extending from the former seep area to the northern Langegger property line on March 16 and 17 (Figure 1). Field parameters (temperature, specific conductance, dissolved oxygen, pH, total dissolved solids, and turbidity) were also collected from the creek locations using the Quanta meter (Figure 1). One duplicate sample was acquired from one of the sampling points in the creek.

Water-quality samples collected during this period were analyzed by Evergreen Analytical Laboratory (EAL), Wheat Ridge, CO for the following analyses:

- BTEX/MTBE using EPA method 8021
- Total Dissolved methane using method RSK 175M
- Chloride (Cl) using method 300E
- Sodium (Na) using method SW6020

Analysis of the field parameter and laboratory data for pH, TDS and specific conductivity collected since 2004 showed a median difference of 5.7% between field and laboratory results. Based on these results, laboratory analysis was discontinued for these parameters. Isotopic methane was analyzed by Isotech Laboratories, Inc of Champaign, IL. Stable isotopes of carbon and hydrogen in methane, stable isotopes of carbon in ethane and propane and the gas composition were determined for total dissolved methane gas concentrations at locations with a history of methane greater than 1.0 mg/L (Appendix B, Appendix C).

Groundwater and surface-water samples were placed in the appropriate sample containers provided by EAL, labeled, stored on ice, and delivered under chain-of-custody procedures to EAL.

### ***Site Hydrogeology and Hydrology***

For this monitoring period, groundwater was encountered from near surface (in the seep area) to 23.27 (MW-21) feet below ground surface (ft-bgs). The groundwater flow direction continues to be from the seep area towards the north, mimicking the creek flow direction (Figure 2). The groundwater gradient for this period of monitoring was 0.018 feet/foot (ft/ft), which is consistent with gradients measured during other spring periods.

The flow in the creek was typical for spring, without significant runoff. During March, the southeast side of the study area was either flooded near MW-13 and MW-19, or frozen at MW-15; therefore groundwater levels and groundwater samples were not acquired from these wells.

### ***Groundwater Monitoring Results***

A summary of laboratory analytical groundwater results for benzene, toluene, ethylene, total xylenes (BTEX), and total dissolved methane for March 2009 is presented in Table 1. The extent of benzene concentrations for this monitoring period is shown in Figure 3. The distribution of total dissolved methane concentrations are shown in Figure 4. The March 2009 results are depicted in Figure 5. The March 2009 field parameters are contained in Appendix A. A summary of historical hydrocarbon analyses results for groundwater data collected since 2004 are contained in Appendix B. Appendix C contains a summary of historical hydrocarbon analyses results for surface-water data collected since 2004. The QA/QC data are contained in Appendix D. The thermogenic methane data are summarized in Appendix E. The laboratory reports for March 2009 are in Appendix F. Graphs of chemical concentrations for selected wells are in Appendix G. The entire report including all of the above listed data is enclosed on a disk in the Adobe Acrobat format.

For March 2009, detections of benzene were found in monitoring wells 2, 4, 9, 14 and 17 (Table 1). Benzene concentrations were detected above the state standard of 5 µg/L in monitoring wells MW-2 at 93 µg/L, MW-4 at 81 µg/L, and MW-17 at 13 µg/L (Table 1). The reported benzene concentration at MW-9 was 2.3 µg/L and at MW-14 was 1.0 µg/L. Toluene was not detected in any monitoring wells during this monitoring period and has not been detected in any wells since September 2008 (Table 1, Appendix B). Ethylbenzene was not detected in any monitoring wells during this monitoring period and has not been detected in any wells since December 2008 (Table 1, Appendix B). Total xylenes were detected in MW-2 and MW-4, but were below the state standard (Table 1). The data continues to show decreasing concentrations of hydrocarbons at all locations (Appendices B and H).

## ***Surface-Water Monitoring Results***

A summary of historical surface-water results for hydrocarbons is contained in Appendix C. Laboratory results indicate that BTEX compounds were not detected in any of the Divide Creek surface-water samples in March (Table 2). Total dissolved methane was detected in samples from DCS-4, DCS-5, DCS-6, DCS-7, and DCS-8 at distances between 160 feet and 630 feet from the seep, but all with reported concentrations of less than 0.002 milligrams per liter (mg/L) (Table 2). Total dissolved methane was not detected in samples from DCS-1, DCS-2, or DCS-3 above the laboratory reporting limit of 0.0008 mg/L. The results from March 2009 to date indicate that hydrocarbon concentrations above the laboratory reporting limit have not been detected in the creek since April of 2005 (Appendix C).

## ***Methane Results***

The laboratory results for methane are reported as total dissolved methane. This includes both biogenic (methane gas generated by biologic reduction of organic matter) and thermogenic methane (methane gas generated by thermal reduction of deeply buried organic matter). Total dissolved methane above the LDL is generally detected in all monitoring wells in the study area. As previously observed in the seep area, the highest concentrations of total dissolved methane in the groundwater are located in close proximity to the seep at well MW-4 (Table 1 and Figure 4).

The primary qualitative methods of differentiating between thermogenic and biogenic methane are based on isotopic data, methane / non-methane hydrocarbon ratios, and literature values for the evaluations. The data are first evaluated on the basis of the laboratory-determined values of  $\delta^{13}\text{C}_1$  (methane carbon-13 isotope ratio),  $\delta\text{DC}_1$  (methane hydrogen isotope ratio). These values are compared with Figure 9 in Appendix F (from Kaplan, et. al., 1997) which empirically delineates the different isotopic values of methane from biogenic and thermogenic sources. The data are then evaluated on the basis of the  $\text{C}_1 / (\text{C}_2 + \text{C}_3)$  ratio (methane to ethane and propane). Hydrocarbon gas from 'biogenic-only' sources contains a high proportion of methane (>99%) and  $\text{C}_1 / (\text{C}_2 + \text{C}_3)$  ratios greater than 10,000 would be consistent with methane from biogenic sources. If these evaluations produce ambiguous results then the sample may be a mixed source sample and a gross quantitative approximation of the thermogenic / biogenic split is arrived at by comparing the gas component profile with a known sample of 'reservoir-typical' thermogenic gas. The methane fraction of a 'reservoir-typical' thermogenic source (79%) is used as a baseline and the biogenic source is assumed to be 100% methane. An algebraic mixing calculation is used to estimate what percentage of the total methane comes from biogenic versus thermogenic sources.

Isotopic samples were collected from monitoring wells 2, 4, 9, 12, 14, 16, and 17 and creek locations DCS-2 and DCS-3 during this monitoring period. The results for these locations are shown in Appendix F. All of these estimated thermogenic concentrations are less than the initial concentrations, but have remained stable at these concentrations since 2007 (Appendix B).

## ***Divide Creek Seep Remediation Status***

The air sparge remediation system has been operated with minimum downtime throughout this quarter. Since the start up of the system in April 2005 the number of monitoring wells in the study area with benzene concentrations above the maximum contaminant level (MCL) has been

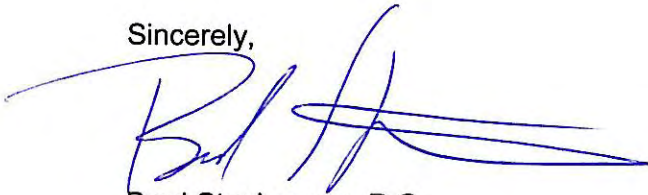
reduced from 14 to 3 with all of the wells above the MCL located in the seep area and upgradient of the remediation system wells.

Monitoring has continuously shown that the air sparge remediation system has successfully contained migration of the hydrocarbon plume even with the reduction in treatment time from 24 hr/day to 12 hr/day. Since the reduction in treatment time in May 2008, the data suggest that this reduction in treatment time has not changed groundwater quality in the vicinity of the remediation system and continues to provide a treatment barrier for migration of benzene downgradient of the seep (Appendix B). The treatment time may be reduced further if the data continues to show treatment at 12 hr/day is sufficient. Cordilleran will continue to evaluate remedial options in the area upgradient of the present air sparge array.

Cordilleran will continue to monitor all monitoring wells, the Eicher well, and surface-water locations on a quarterly basis and provide operation and maintenance to the remediation system on an as-needed basis. Duplicate samples for all analyses will be acquired from the study area for every 20 samples collected.

Cordilleran appreciates the opportunity to provide services to EnCana Oil & Gas (USA) Inc. If you have any questions or concerns regarding this information, please contact me at (303) 237-2072.

Sincerely,



Brad Stephenson, P.G.  
Associate Hydrogeologist

cc: Margaret Ash  
Lisa Bracken  
Richard Thompson  
Pepi Langegger

Attachments



# TABLES

**Table 1**

Summary of December 2008 Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	Groundwater Elevation (ft-msl)
Colorado RBSLs (ug/L)		5	1000	680	10000			
MW-01	17-Mar-09	<1	<2	<2	<2	<0.0008		5952.47
MW-02	17-Mar-09	<b>93</b>	<2	<2	13.0	6.1	3.4	5953.78
MW-04	16-Mar-09	<b>81</b>	<2	<2	17.3	9.2	6.6	5955.36
MW-04D	16-Mar-09	<b>83</b>	<2	<2	18.5	9.1	6.5	5955.36
MW-04S	16-Mar-09	<b>73</b>	<1	<1	15.7	6.0		5955.36
MW-06	16-Mar-09	<1	<2	<2	<2	<0.0008		5952.94
MW-07	16-Mar-09	<1	<2	<2	<2	<0.0008		5952.02
MW-08	16-Mar-09	<1	<2	<2	<2	0.22		5950.29
MW-09	17-Mar-09	2.3	<2	<2	<2	8.1	5.5	5960.61
MW-11	17-Mar-09	<1	<2	<2	<2	0.0073		5965.01
MW-12	17-Mar-09	<1	<2	<2	<2	0.13	0.04	5961.65
MW-13	16-Mar-09							FLOODED
MW-14	17-Mar-09	1.0	<2	<2	<2	7.0	4.6	5959.77
MW-15	16-Mar-09							FROZEN
MW-16	16-Mar-09	<1	<2	<2	<2	1.4	0.03	5954.59
MW-17	16-Mar-09	<b>13</b>	<2	<2	<2	2.2	1.0	5951.78
MW-18	16-Mar-09	<1	<2	<2	<2	<0.0008		5948.68
MW-19	16-Mar-09							FLOODED
MW-20	16-Mar-09	<1	<2	<2	<2	<0.0008		5946.03
MW-21	16-Mar-09	<1	<2	<2	<2	<0.0008		5946.18
MW-22	16-Mar-09	<1	<2	<2	<2	<0.0008		5947.41
MW-23	16-Mar-09	<1	<2	<2	<2	0.37		5937.17
MW-24	17-Mar-09	<1	<2	<2	<2	<0.0008		5949.46
MW-25	17-Mar-09	<1	<2	<2	<2	<0.0008		5948.86
MW-26	17-Mar-09	<1	<2	<2	<2	0.14		5953.06
MW-27	16-Mar-09	<1	<2	<2	<2	<0.0008		5948.01
EICH2	16-Mar-09	<1	<2	<2	<2	<0.0008	NOT MEASURED	

**200 - Bold** exceeds Colorado RBSLs

ug/L - micrograms/Liter

mg/L - milligrams/Liter

Blank cell - not analyzed/not collected

ft-msl - feet above mean sea level

D - Duplicate sample

**Table 2**

Summary of Surface-Water Analytical Results for December 2008  
 Encana, West Divide Creek Seep  
 Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-1	17-Mar-09	<1	<2	<2	<2	<0.0008	
DCS-1D	17-Mar-09	<1	<2	<2	<2	<0.0008	
DCS-1S	17-Mar-09	<1	<1	<1	<1	<0.001	
DCS-2	17-Mar-09	<1	<2	<2	<2	<0.0008	<0.0008
DCS-3	17-Mar-09	<1	<2	<2	<2	<0.0008	<0.0008
DCS-4	17-Mar-09	<1	<2	<2	<2	0.00096	
DCS-5	17-Mar-09	<1	<2	<2	<2	0.0012	
DCS-6	17-Mar-09	<1	<2	<2	<2	0.0011	
DCS-7	17-Mar-09	<1	<2	<2	<2	0.0012	
DCS-8	17-Mar-09	<1	<2	<2	<2	0.0011	

**200 - Bold** exceeds Colorado RBSLs

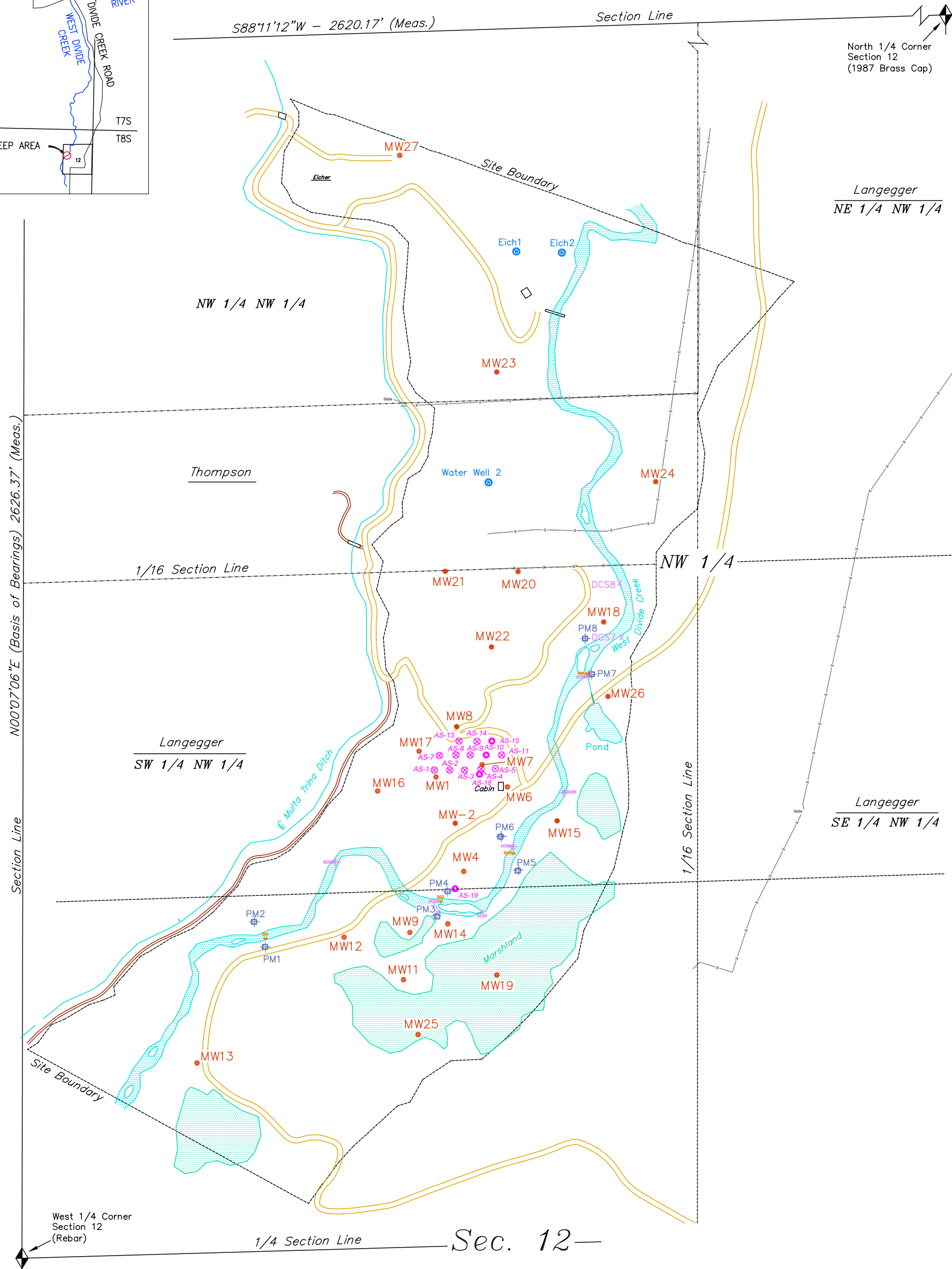
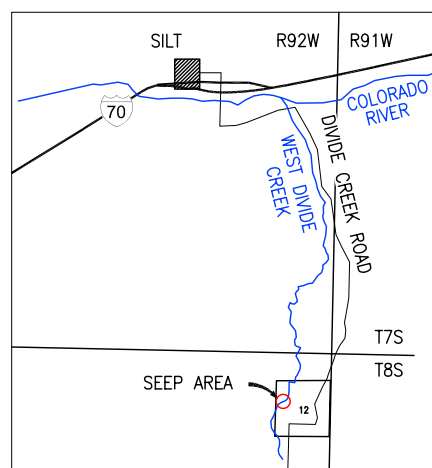
ug/L - micrograms/liter

mg/L - milligrams/Liter












Blank cell - not analyzed/not collected

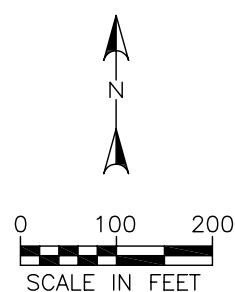
D - Duplicate Sample

## **FIGURES**



## LEGEND

- |   |                         |   |                                   |
|---|-------------------------|---|-----------------------------------|
|  | = SECTION CORNERS FOUND |  | = PIEZOMETER                      |
|  | = FENCE                 |  | = DIVIDE CREEK SAMPLE             |
|  | = OLD FENCE             |  | = AIR SPARGE WELL LOCATION        |
|  | = PROPERTY LINE         |  | = NESTED AIR SPARGE WELL LOCATION |
|  | = DRAINAGE              |  | = MONITORING WELL                 |
|  | = STREAM GAUGE          |   |                                   |



PROJECT NO: 008-2067

DRAWN BY: RJV

DATE: 5/14/09

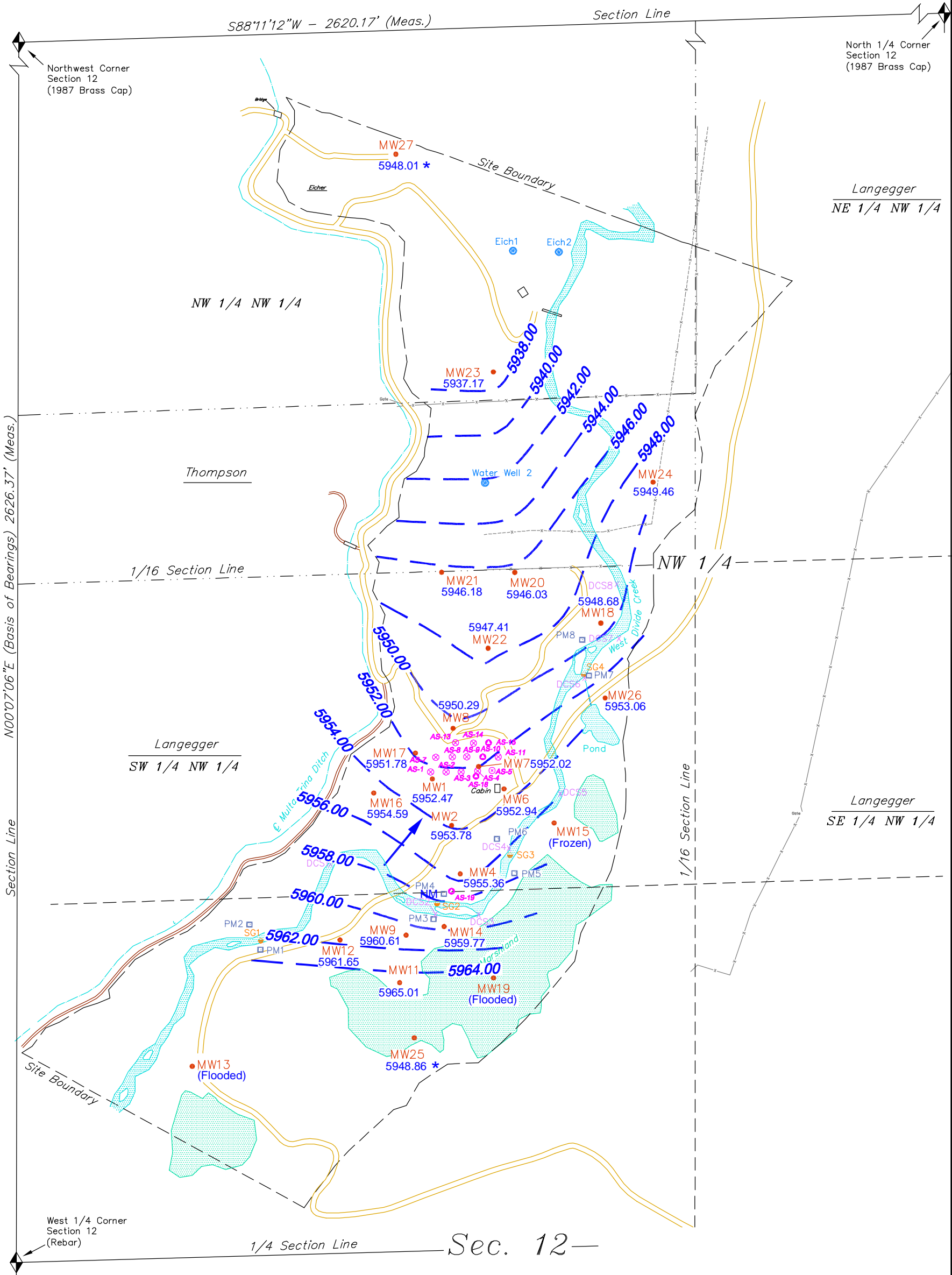
## WEST DIVIDE CREEK SEEP AREA SITE LOCATION MAP



4690 Table Mountain Drive  
Suite 200  
Golden, CO 80403  
TEL 303.237.2072  
FAX 303.237.2659

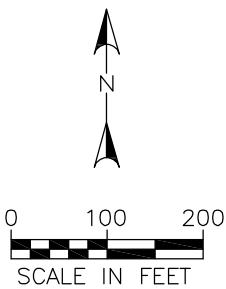
FIGURE

1

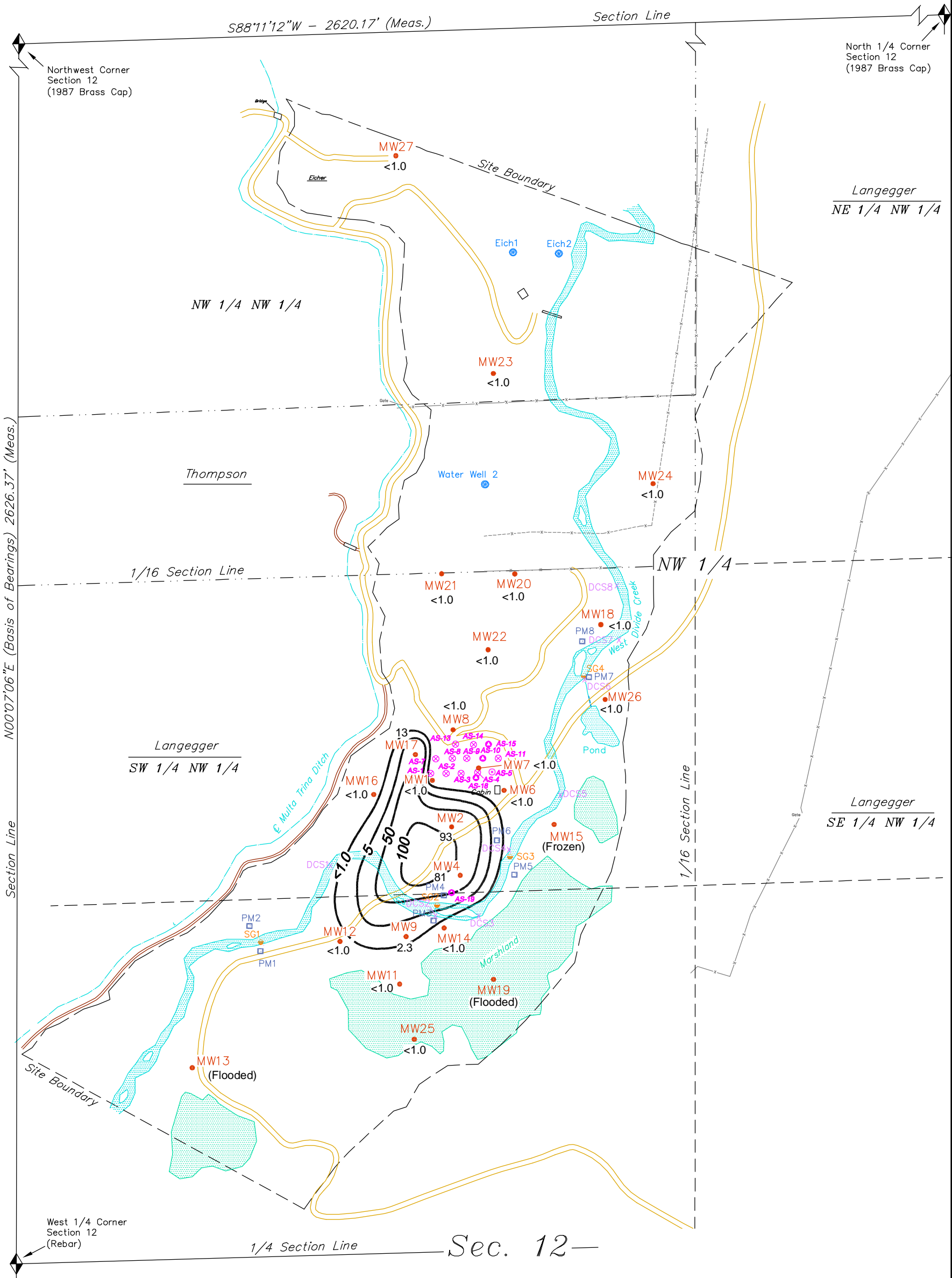


LEGEND

- = SECTION CORNERS FOUND
- = FENCE
- = OLD FENCE
- = PROPERTY LINE
- = DRAINAGE
- = STREAM GAUGE
- = GROUNDWATER ELEVATION CONTOUR (FEET)
- = GROUNDWATER ELEVATION (FEET)
- = GROUNDWATER FLOW DIRECTION
- = DATA NOT USED IN CONTOURING
- = PIEZOMETER
- = DIVIDE CREEK SAMPLE
- = AIR SPARGE WELL LOCATION
- = NESTED AIR SPARGE WELL LOCATION
- = MONITORING WELL

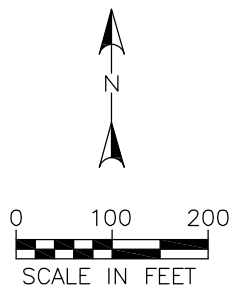






LEGEND

- |  |   |  |                                   |
|--|---|--|-----------------------------------|
|  | = SECTION CORNERS FOUND                 |  | = PIEZOMETER                      |
|  | = FENCE                                 |  | = DIVIDE CREEK SAMPLE             |
|  | = OLD FENCE                             |  | = AIR SPARGE WELL LOCATION        |
|  | = PROPERTY LINE                         |  | = NESTED AIR SPARGE WELL LOCATION |
|  | = DRAINAGE                              |  | = MONITORING WELL                 |
|  | = STREAM GAUGE                          |  |                                   |
|  | = BENZENE CONCENTRATION CONTOUR IN µg/L |  |                                   |
|  | = BENZENE CONCENTRATION IN µg/L         |  |                                   |
|  | = NOT SAMPLED                           |  |                                   |



PROJECT NO: 008-2067

DRAWN BY: RJV

DATE: 4/21/09

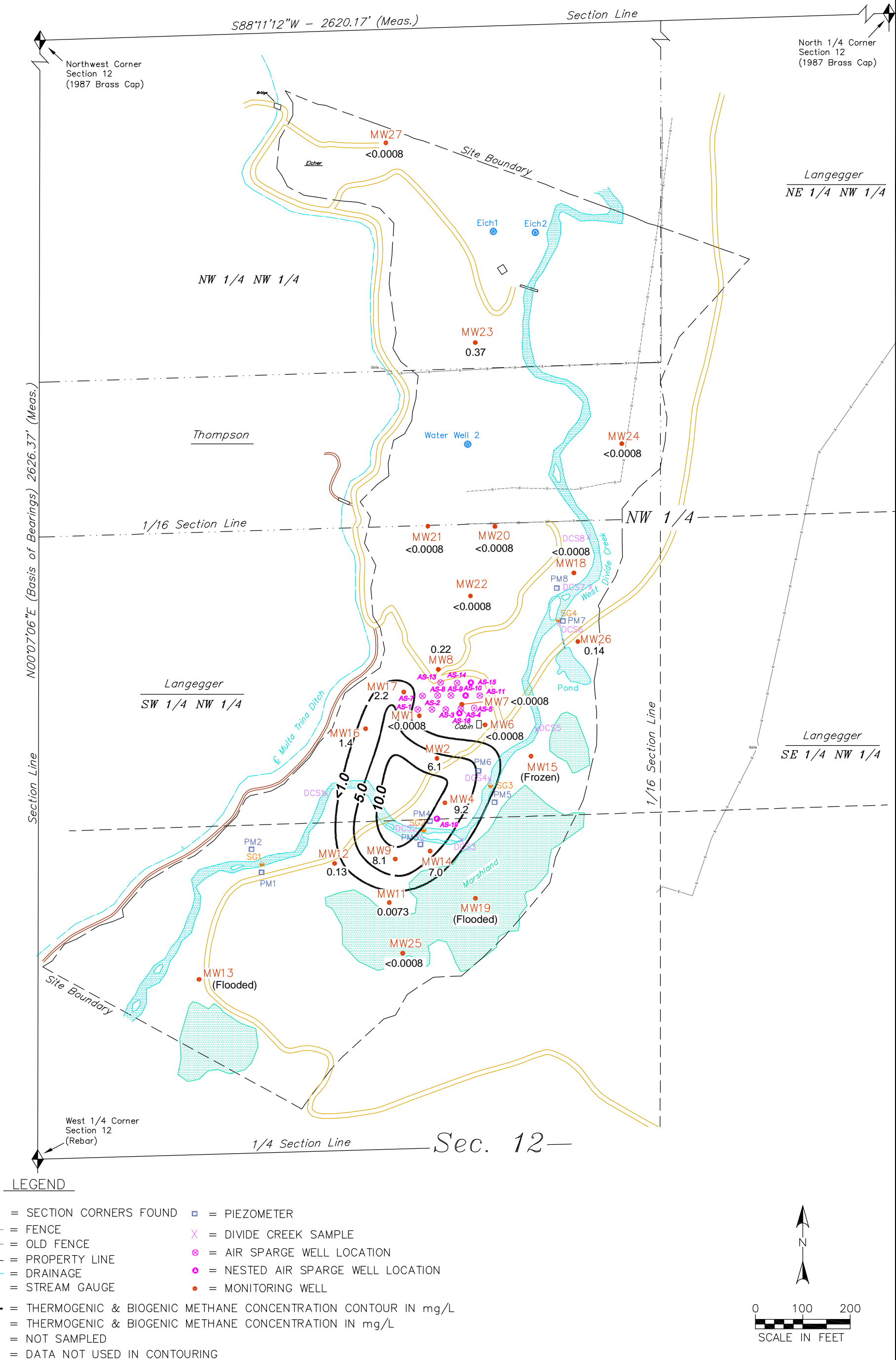
WEST DIVIDE CREEK SEEP AREA BENZENE CONCENTRATIONS  
MARCH 2009  
GARFIELD COUNTY, COLORADO

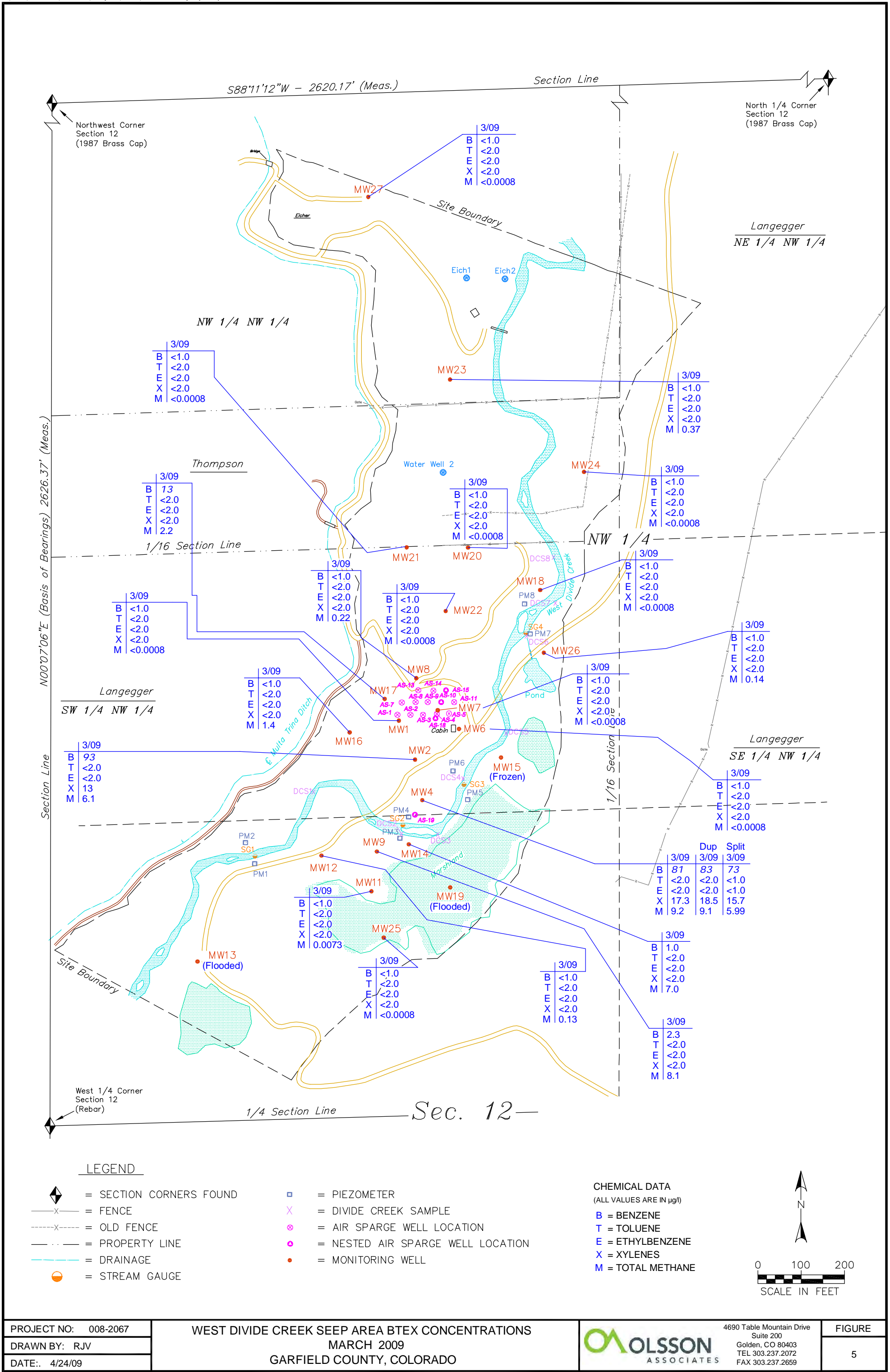
OLSSON  
ASSOCIATES

4690 Table Mountain Drive  
Suite 200  
Golden, CO 80403  
TEL 303.237.2072  
FAX 303.237.2659

FIGURE

3





# **APPENDIX A**

**Field Data – 1st Quarter**

**Appendix A**  
 Lab Results and Field Data  
 Encana, West Divide Creek Seep  
 Garfield County, Colorado

Date	SampleName	SiteID	Lab	Temp_ Field	SpCond_ Field	DO_ Field	pH_ Field	TDS_ Field	DO_Percent	Turbidity_ Field	DTW
16-Mar-09	EICH2	EICH1WW	EAL	4.25	0.877	2.90	7.66	0.6	27.0	16.5	-88.8
16-Mar-09	MW23	EICH2WW	EAL	8.20	1.920	3.15	7.85	1.2	32.5	370	15.52
16-Mar-09	MW27	EICH3WW	EAL	6.66	1.098	5.23	7.68	0.7	51.6	2000	8.21
17-Mar-09	DCS1	LANG3ST	EAL	7.01	0.626	9.69	8.49	0.4	97.3	404	-88.8
17-Mar-09	DCS1D	LANG7ST	EAL	7.01	0.626	9.69	8.49	0.4	97.3	404	-88.8
17-Mar-09	DCS1	LANG7ST	Energy	7.01	0.626	9.69	8.49	0.4	97.3	404	-88.8
17-Mar-09	DCS2	LANG4ST	EAL	7.42	0.626	10.26	8.46	0.4	103.7	34.8	-88.8
17-Mar-09	DCS3	LANG5ST	EAL	7.69	0.625	9.99	8.51	0.4	101.7	340	-88.8
17-Mar-09	DCS4	LANG6ST	EAL	5.02	0.523	10.58	8.35	0.3	100.4	5999	-88.8
17-Mar-09	DCS5	LANG7ST	EAL	5.03	0.524	10.45	8.32	0.3	99.2	5999	-88.8
17-Mar-09	DCS6	LANG8ST	EAL	4.54	0.522	10.67	8.40	0.3	100.0	5999	-88.8
17-Mar-09	DCS7	LANG9ST	EAL	4.41	0.521	10.68	8.36	0.3	100.0	5999	-88.8
17-Mar-09	DCS8	LANG10ST	EAL	4.31	0.519	11.00	8.35	0.3	102.5	5999	-88.8
17-Mar-09	MW1	LANG10WW	EAL	9.64	1.071	2.27	7.77	0.7	24.3	2000	6.32
17-Mar-09	MW11	LANG15WW	EAL	5.00	0.622	2.64	7.47	0.4	24.5	572	4.65
17-Mar-09	MW12	LANG16WW	EAL	5.51	0.906	2.07	7.32	0.6	19.8	177	1.95
17-Mar-09	MW14	LANG18WW	EAL	7.88	4.030	5.21	7.61	2.6	53.7	5999	5.29
16-Mar-09	MW16	LANG20WW	EAL	9.59	1.099	2.90	8.43	0.7	30.8	770	5.86
16-Mar-09	MW17	LANG21WW	EAL	12.22	1.265	2.14	7.82	0.8	24.2	2000	6.71
16-Mar-09	MW18	LANG22WW	EAL	8.95	0.784	2.43	7.67	0.5	25.4	1330	3.75
17-Mar-09	MW2	LANG11WW	EAL	11.56	0.904	2.56	7.75	0.6	28.8	1994	5.5
16-Mar-09	MW20	LANG4WW	EAL	6.17	0.955	2.77	7.68	0.6	27.0	817	7.85
16-Mar-09	MW21	LANG5WW	EAL	10.14	1.288	2.24	7.75	0.8	24.2	771	23.27
16-Mar-09	MW22	LANG24WW	EAL	9.79	0.985	3.55	7.57	0.6	37.8	1288	9.67
17-Mar-09	MW24	THOM3WW	EAL	9.70	0.700	4.32	7.78	0.5	46.0	446	5.45
17-Mar-09	MW25	LANG25WW	EAL	7.16	0.593	3.82	7.67	0.4	38.0	1937	3.3
17-Mar-09	MW26	LANG26WW	EAL	8.83	0.798	1.83	7.61	0.5	19.1	2000	1.59
16-Mar-09	MW4	LANG12WW	EAL	9.71	0.722	2.98	7.74	0.5	31.6	97.8	8.05
16-Mar-09	MW4D	LANG12WW	EAL	9.71	0.722	2.98	7.74	0.5	31.6	97.8	8.05
16-Mar-09	MW4	LANG12WW	Energy	9.71	0.722	2.98	7.74	0.5	31.6	97.8	8.05
16-Mar-09	MW6	LANG13WW	EAL	10.01	1.154	2.46	7.43	0.7	25.1	450	7
16-Mar-09	MW7	LANG2WW	EAL	10.30	1.023	6.10	8.13	0.7	65.9	2000	6.95
16-Mar-09	MW8	LANG3WW	EAL	9.57	1.127	1.01	7.65	0.7	10.4	48.7	9.0
17-Mar-09	MW9	LANG14WW	EAL	4.71	0.776	1.91	7.24	0.5	19.1	177	4.52

**Appendix A**  
 Lab Results and Field Data  
 Encana, West Divide Creek Seep  
 Garfield County, Colorado

Date	SampleName	Sample Description	SampleComments	Sampler	SampleSource
16-Mar-09	EICH2	Domestic well	WQ: Slight sulfur smell, clear to very slight yellow, no effervescence	JV	Well
16-Mar-09	MW23	Domestic well	WQ: Brown, some sediment, slight sulfur smell, no effervescence	JV	Well
16-Mar-09	MW27	Divide Creek monitoring well #27	WQ: Turbid, red-brown, no smell, no effervescence, no sheen.	SH	Well
17-Mar-09	DCS1	Divide Creek monitoring station 1	WQ: Brown, murky, no odor, no sheen, no effervescence	SH	Stream
17-Mar-09	DCS1D	Divide Creek monitoring station 1 - duplicate sample	WQ: Brown, murky, no odor, no sheen, no effervescence	SH	Stream
17-Mar-09	DCS1	Divide Creek monitoring station 1 - split sample	WQ: Brown, murky, no odor, no sheen, no effervescence	SH	Stream
17-Mar-09	DCS2	Divide Creek monitoring station 2	WQ: Brown, no odor, sheen, or effervescence.	SH	Stream
17-Mar-09	DCS3	Divide Creek monitoring station 3	WQ: Brown, no odor, sheen, or effervescence.	SH	Stream
17-Mar-09	DCS4	Divide Creek monitoring station 4	WQ: Brown/muddy, no odor, sheen, or effervescence.	SH	Stream
17-Mar-09	DCS5	Divide Creek monitoring station 5	WQ: Brown/muddy, no odor, sheen, or effervescence.	SH	Stream
17-Mar-09	DCS6	Divide Creek monitoring station 6	WQ: Brown/muddy, no odor, sheen, or effervescence.	SH	Stream
17-Mar-09	DCS7	Divide Creek monitoring station 7	WQ: Brown/muddy, no odor, sheen, or effervescence.	SH	Stream
17-Mar-09	DCS8	Divide Creek monitoring station 8	WQ: Brown/muddy, no odor, no effervescence, no sheen.	SH	Stream
17-Mar-09	MW1	Divide Creek monitoring well #1	WQ: Brown-greyish, neutral smell, no effervescence, some sediment	JV	Well
17-Mar-09	MW11	Divide Creek monitoring well #11	WQ: Brown, sulfur smell, no sheen, no effervescence.	SH	Well
17-Mar-09	MW12	Divide Creek monitoring well #12	WQ: Light. brown, slight sulfur smell, no sheen, no effervescence.	SH	Well
17-Mar-09	MW14	Divide Creek monitoring well #14	WQ: Black, high turbidity, sulfur smell, no sheen, no effervescence.	SH	Well
16-Mar-09	MW16	Divide Creek monitoring well #16	WQ: Light brown, neutral smell, no effervescence, no sediment	JV	Well
16-Mar-09	MW17	Divide Creek monitoring well #17	WQ: Grey-dark, sulfur smell, no effervescence, sediment	JV	Well
16-Mar-09	MW18	Divide Creek monitoring well #18	WQ: Light brown, neutral smell, no effervescence, some sediment	JV	Well
17-Mar-09	MW2	Divide Creek monitoring well #2	WQ: Brown, neutral to earthy odor, no effervescence, some sediment	JV	Well
16-Mar-09	MW20	Divide Creek monitoring well #20	WQ: Brown, turbid, neutral odor, no effervescence, some sediment	JV	Well
16-Mar-09	MW21	Divide Creek monitoring well #21	WQ: Brown, neutral smell, no effervescence, some sediment	JV	Well
16-Mar-09	MW22	Divide Creek monitoring well #22	WQ: Brown, neutral odor, no effervescence, some sediment	JV	Well
17-Mar-09	MW24	Divide Creek monitoring well #24	WQ: Slightly turbid, neutral odor, no effervescence, very slight sediment	JV	Well
17-Mar-09	MW25	Divide Creek monitoring well #25	WQ: Brown/turbid, no odor, no sheen, no effervescence	SH	Well
17-Mar-09	MW26	Divide Creek monitoring well #26	WQ: Brown, neutral smell, no effervescence, some sediment	JV	Well
16-Mar-09	MW4	Divide Creek monitoring well #4	WQ: Gray-black, sulfur smell, no sheen, no effervescence.	SH	Well
16-Mar-09	MW4D	Divide Creek monitoring well #4 - duplicate sample	WQ: Gray-black, sulfur smell, no sheen, no effervescence.	SH	Well
16-Mar-09	MW4	Divide Creek monitoring well #4 - split sample	WQ: Gray-black, sulfur smell, no sheen, no effervescence.	SH	Well
16-Mar-09	MW6	Divide Creek monitoring well #6	WQ: Brown, neutral smell, no effervescence, some sediment	JV	Well
16-Mar-09	MW7	Divide Creek monitoring well #7	WQ: Dark brown, neutral smell, no effervescence, some sediment	JV	Well
16-Mar-09	MW8	Divide Creek monitoring well #8	WQ: Slightly turbid, slight sulfur smell, no effervescence, some sediment	JV	Well
17-Mar-09	MW9	Divide Creek monitoring well #9	WQ: Black, sulfur smell, no sheen, no effervescence.	SH	Well



# **APPENDIX B**

## **Historical Groundwater Results**

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-01	09-Jul-04	220	NA	NA	NA	11			
MW-01	22-Jul-04	470	NA	NA	NA	9.9		4.09	5954.70
MW-01	03-Aug-04	460	310	10	96	6		9.54	5949.25
MW-01	19-Aug-04	NS	NS	NS	NS	NS		9.96	5948.83
MW-01	15-Sep-04	330	130	8.1	53	8.6	6.9	10.32	5948.47
MW-01	13-Oct-04	190	31	5.3	18.3	7.4		9.87	5948.92
MW-01	09-Nov-04	88	<2	3.1	<2	5.3		9.70	5949.09
MW-01	14-Dec-04	35	<2	<2	<2	5.9		9.23	5949.56
MW-01	12-Jan-05	10	<2	<2	<2	4.7	3.5	8.63	5950.16
MW-01	09-Feb-05	14	<2	<2	<2	2.9	2.3	8.81	5949.98
MW-01	08-Mar-05	4.8	<2	<2	<2	2.6		8.96	5949.83
MW-01	12-Apr-05	<1	<2	<2	<2	0.38		5.73	5953.06
MW-01	10-May-05	<1	<2	<2	<2	0.38	0.3	5.19	5953.60
MW-01	08-Jun-05	<1	<2	<2	<2	<0.0008		3.03	5955.76
MW-01	12-Jul-05	<1	<2	<2	<2	<0.0008		4.13	5954.66
MW-01	09-Aug-05	<1	<2	<2	<2	0.11		5.36	5953.43
MW-01	12-Sep-05	<1	<2	<2	<2	0.068	0.0	6.18	5952.61
MW-01	11-Oct-05	<1	<2	<2	<2	0.17			
MW-01	08-Nov-05	<1	<2	<2	<2	0.12		6.47	5952.32
MW-01	08-Dec-05	<1	<2	<2	<2	0.086		6.72	5952.07
MW-01	11-Jan-06	<1	<2	<2	<2	0.055	0.0	6.31	5952.48
MW-01	15-Mar-06	<1	<2	<2	<2	0.0086		6.01	5952.78
MW-01	12-Apr-06	<1	<2	<2	<2	<0.0008		5.42	5953.37
MW-01	09-May-06	<1	<2	<2	<2	<0.0008		4.45	5954.34
MW-01	12-Jun-06	<1	<2	<2	<2	0.011			
MW-01	07-Sep-06	<1	<5	<2	<2	0.15		7.60	5951.19
MW-01	05-Dec-06	<1	<2	<2	<2	0.00085		6.68	5952.11
MW-01	13-Mar-07	<1	<2	<2	<2	0.0023		6.10	5952.69
MW-01	20-Jun-07	<1	<2	<2	<2	<0.0008			
MW-01	11-Sep-07	<0.5	<0.5	<0.5	<0.5	0.000144		7.95	5950.84
MW-01	11-Sep-07	<1	<2	<2	<2	0.001		7.95	5950.84
MW-01	18-Dec-07	<1	<2	<2	<2	0.0022		6.83	5951.96
MW-01	04-Mar-08	<1	<2	<2	<2	<0.0008		5.85	5952.94
MW-01	17-Jun-08	<1	<2	<2	<2	<0.0008		3.33	5955.46
MW-01	30-Sep-08	<1	4.1	<2	<2	<0.0008		7.50	5951.29
MW-01	09-Dec-08	<1	<2	<2	<2	0.18		6.65	5952.14
MW-01	17-Mar-09	<1	<2	<2	<2	0.0065		6.32	5952.47
MW-02	09-Jul-04	240	NA	NA	NA	12			
MW-02	22-Jul-04	240	NA	NA	NA	12		5.60	5953.68
MW-02	03-Aug-04	420	400	<2	96	4.4		9.10	5950.18
MW-02	19-Aug-04	NS	NS	NS	NS	NS		9.00	5950.28
MW-02	15-Sep-04	340	240	10	95	11	9.5	9.02	5950.26
MW-02	13-Oct-04	370	110	9	78	5.8		8.70	5950.58
MW-02	09-Nov-04	390	<2	<2	<2	3.3		8.70	5950.58
MW-02	13-Dec-04	270	46	8.2	56.4	3.8		8.54	5950.74
MW-02	12-Jan-05	370	4.5	6.5	27.1	6.9	6.5	8.47	5950.81
MW-02	09-Feb-05	420	<10	<10	<10	3	2.6	4.09	5955.19
MW-02	09-Feb-05	420	2.4	8.6	43.5	2.6	3.0	11.95	5947.33
MW-02	09-Feb-05	340	<5	6.7	33	0.65		4.09	5955.19
MW-02	08-Mar-05	280	<10	<10	<10	4.4		8.82	5950.46
MW-02	12-Apr-05	360	<2	<2	<2	6.8		5.01	5954.27
MW-02	09-May-05	330	<10	<10	<10	5.9	5.4	4.49	5954.79
MW-02	08-Jun-05	98	<2	3.4	23.6	6.4		3.22	5956.06
MW-02	12-Jul-05	180	2.8	4.5	30.4	3.8		7.67	5951.61
MW-02	09-Aug-05	430	33	13	113	7.3		5.01	5954.27
MW-02	12-Sep-05	270	<10	<10	<10	4.9	4.3	5.31	5953.97
MW-02	11-Oct-05	350	<10	<10	<10	5.9			

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-02	07-Nov-05	290	32	<10	<10	3.5			
MW-02	07-Dec-05	270	<10	<10	<10	5.1		5.12	5954.16
MW-02	07-Dec-05	290	35	8.1	49	8.4		5.12	5954.16
MW-02	07-Dec-05	290	<10	<10	<10	6.5		5.12	5954.16
MW-02	11-Jan-06	340	<2	8.8	62.5	9		5.13	5954.15
MW-02	11-Jan-06	174	<2	4.9	36.9	3.1		5.13	5954.15
MW-02	11-Jan-06	310	<2	8.5	63.9	8	6.8	5.13	5954.15
MW-02	14-Feb-06	219	<2	5.8	37.3	9.3		5.19	5954.09
MW-02	15-Mar-06	200	<2	4.8	26.8	0.013		4.98	5954.30
MW-02	12-Apr-06	210	<2	6.6	45.7	7.3		4.51	5954.77
MW-02	09-May-06	240	<2	7.2	53.6	4.1		4.05	5955.23
MW-02	12-Jun-06	280	<2	11	93	12			
MW-02	07-Sep-06	240	<25	<10	<10	7.1	5.7	9.05	5950.23
MW-02	05-Dec-06	260	<2	5.3	22.6	6.7	4.3	5.42	5953.86
MW-02	12-Mar-07	230	<2	5.8	37.8	7.8	6.1	5.20	5954.08
MW-02	12-Mar-07	250	<2	6.5	43.4	9.4		5.20	5954.08
MW-02	12-Mar-07	212	<2	8.05	51.43	0.0691		5.20	5954.08
MW-02	20-Jun-07	220	<2	5.3	36.1	6.1			
MW-02	20-Jun-07	190	NA	4.6	31.6	4.5			
MW-02	20-Jun-07	94	<0.25	5.5	43.49	0.979			
MW-02	12-Sep-07	260	<2	8.1	51.2	3.5	2.7	6.13	5953.15
MW-02	18-Dec-07	180	<2	4.3	29.8	7.4		5.42	5953.86
MW-02	03-Mar-08	120	<2	2.6	<2	5.8	3.6	4.91	5954.37
MW-02	03-Mar-08	186	<0.5	5.1	<0.5	1.86		4.91	5954.37
MW-02	17-Jun-08	230	<2	10	98	6.6	4.9	4.02	5955.26
MW-02	01-Oct-08	160	<2	4.6	27.8	4.7	3.5	6.40	5952.88
MW-02	10-Dec-08	140	<2	4	32	7.3	5.4	6.00	5953.28
MW-02	17-Mar-09	93	<2	<2	13	6.1	3.4	5.50	5953.78
MW-04	12-Jan-04	320	35	8.1	49	6.1			5963.41
MW-04	09-Jul-04	230	NA	NA	NA	11			
MW-04	22-Jul-04	440	NA	NA	NA	11		8.46	5954.95
MW-04	03-Aug-04	400	160	<2	87	6.7		8.60	5954.81
MW-04	15-Sep-04	240	59	6.7	60	27		8.41	5955.00
MW-04	15-Sep-04	320	76	9.5	80.5	9.2	7.4	8.41	5955.00
MW-04	15-Sep-04	330	76	9.1	77.1	8.6		8.41	5955.00
MW-04	14-Oct-04	210	<50	6.1	37	4.4		8.38	5955.03
MW-04	14-Oct-04	300	51	9	59	9.3		8.38	5955.03
MW-04	14-Oct-04	300	37	9	55.2	5.6		8.38	5955.03
MW-04	09-Nov-04	290	41	<2	<2	9.1		4.90	5958.51
MW-04	02-Dec-04	280	19	<10	<10	14			
MW-04	08-Dec-04	280	110	7.8	72	17			
MW-04	13-Dec-04	240	33	12	97	7.8		7.93	5955.48
MW-04	13-Dec-04	270	36	8.1	64.9	14		7.93	5955.48
MW-04	13-Dec-04	270	37	7.7	62.6	12		7.93	5955.48
MW-04	12-Jan-05	350	68	11	71.9	14	11.9	7.40	5956.01
MW-04	12-Jan-05	360	40	11	62.3	14		7.40	5956.01
MW-04	09-Feb-05	280	57	8.5	52.7	10	8.5	8.02	5955.39
MW-04	08-Mar-05	350	160	<10	79	9.8		8.02	5955.39
MW-04	12-Apr-05	130	33	<2	<2	8.9		8.39	5955.02
MW-04	12-Apr-05	130	52	<2	<2	10		8.39	5955.02
MW-04	12-Apr-05	280	<1200	<120	NA	8.7		8.39	5955.02
MW-04	09-May-05	310	66	11	16	10	8.6	7.23	5956.18
MW-04	09-May-05	320	77	11	16	11		7.23	5956.18
MW-04	08-Jun-05	180	17	4.7	4.3	12		7.25	5956.16
MW-04	11-Jul-05	0.69	<1200	<120	NA	<1		7.83	5955.58
MW-04	11-Jul-05	170	40	3.3	38.7	7.8	6.4	7.83	5955.58
MW-04	11-Jul-05	180	32	3.8	34.9	6.1		7.83	5955.58

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-04	09-Aug-05	270	41	<10	69	8.3		8.15	5955.26
MW-04	09-Aug-05	240	46	<10	65	8.5		8.15	5955.26
MW-04	09-Aug-05	170	29	2.2	62	2.7		8.15	5955.26
MW-04	12-Sep-05	260	7.6	8	74	8.8	7.1	8.22	5955.19
MW-04	11-Oct-05	220	5.1	6.8	66.4	7.3			
MW-04	08-Nov-05	300	<10	<10	96	8.2		8.03	5955.38
MW-04	07-Dec-05	230	<10	<10	<10	8.6		7.93	5955.48
MW-04	10-Jan-06	270	<2	8	73	8.5		7.98	5955.43
MW-04	10-Jan-06	97	<2	<2	37	8.3		7.98	5955.43
MW-04	10-Jan-06	270	<2	6.5	71	8.8	7.1	7.98	5955.43
MW-04	14-Feb-06	249	<2	9	73.6	8.8		7.98	5955.43
MW-04	15-Mar-06	260	<2	8.6	66.6	14		8.04	5955.37
MW-04	12-Apr-06	220	<2	8.6	49.9	9.3		7.10	5956.31
MW-04	09-May-06	150	2.5	6.3	40	3.7		6.98	5956.43
MW-04	12-Jun-06	220	<2	8.3	74	9.2			
MW-04	06-Sep-06	200	<2	7.3	68	10	8.2	8.41	5955.00
MW-04	05-Dec-06	200	<2	7	70.9	10	7.8	7.99	5955.42
MW-04	12-Mar-07	220	<2	7	67.2	9.8		7.85	5955.56
MW-04	12-Mar-07	200	NA	6	55.9	7.6		7.85	5955.56
MW-04	12-Mar-07	172	<0.25	6.73	69.28	0.0592		7.85	5955.56
MW-04	22-Jun-07	110	<2	<2	39.2	6.4			
MW-04	13-Sep-07	170	<2	4.8	57.9	5.6		8.52	5954.89
MW-04	18-Dec-07	170	<2	3.7	53.4	8.4		8.07	5955.34
MW-04	04-Mar-08	130	<2	3.3	31.6	8.5	6.4	7.70	5955.71
MW-04	17-Jun-08	85	2.3	<2	23	3.7	2.6	7.65	5955.76
MW-04	01-Oct-08	110	<2	<2	33.7	6.2	4.8	8.60	5954.81
MW-04	01-Oct-08	120	<2	<2	34.9	5		8.60	5954.81
MW-04	09-Dec-08	100	<2	<2	28.4	8.6	6.5	8.35	5955.06
MW-04	16-Mar-09	81	<2	<2	17.3	9.2	6.6	8.05	5955.36
MW-04	16-Mar-09	83	<2	<2	18.5	9.1	6.5	8.05	5955.36
MW-04	16-Mar-09	73	<1	<1	15.7	5.99		8.05	5955.36
MW-06	09-Jul-04	1.1	NA	NA	NA	0.011			
MW-06	22-Jul-04	0.023	NA	NA	NA	0.023		9.74	5950.20
MW-06	03-Aug-04	1.5	<2	<2	<2	0.083		9.89	5950.05
MW-06	15-Sep-04	<1	<2	<2	<2	0.38	0.4	9.67	5950.27
MW-06	14-Oct-04	<1	<2	<2	<2	0.14		9.48	5950.46
MW-06	10-Nov-04	<1	<2	<2	<2	0.057		9.60	5950.34
MW-06	14-Dec-04	<1	<2	<2	<2	0.054		9.24	5950.70
MW-06	14-Dec-04	<1	<2	<2	<2	0.4		9.24	5950.70
MW-06	14-Dec-04	<0.5	<5	<0.5	NA	0.071		9.24	5950.70
MW-06	13-Jan-05	<1	<2	<2	<2	0.056	0.0	8.87	5951.07
MW-06	09-Feb-05	<1	<2	<2	<2	0.023	0.0	9.06	5950.88
MW-06	08-Mar-05	3.1	<2	<2	<2	0.051		9.15	5950.79
MW-06	12-Apr-05	6.5	<2	<2	<2	0.092		6.59	5953.35
MW-06	10-May-05	<1	<2	<2	<2	0.18	0.2	5.82	5954.12
MW-06	08-Jun-05	1.3	<2	<2	<2	0.18		5.55	5954.39
MW-06	08-Jun-05	2.5	<2	<2	<2	0.22		5.55	5954.39
MW-06	08-Jun-05	2.2	<5	<0.5	NA	0.024		5.55	5954.39
MW-06	12-Jul-05	<1	<2	<2	<2	0.15			
MW-06	09-Aug-05	<1	<2	<2	<2	0.24		7.72	5952.22
MW-06	12-Sep-05	1.9	<5	<0.5	NA	<0.01		6.81	5953.13
MW-06	12-Sep-05	2	<2	<2	<2	0.12	0.0	6.81	5953.13
MW-06	12-Sep-05	1.9	<2	<2	<2	0.16		6.81	5953.13
MW-06	11-Oct-05	4.3	<2	<2	<2	4			
MW-06	08-Nov-05	3.7	<2	<2	<2	0.17			
MW-06	08-Nov-05	3.6	<2	<2	<2	0.17			
MW-06	08-Nov-05	2.1	<5	<0.5	NA	0.41			

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Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-06	07-Dec-05	1.6	<2	<2	<2	0.13		6.88	5953.06
MW-06	11-Jan-06	<1	<2	<2	<2	0.14	0.1	6.94	5953.00
MW-06	14-Feb-06	0.6	<0.5	<0.5	<0.5	0.128		6.91	5953.03
MW-06	14-Feb-06	<0.5	<1	<1	<1	0.077		6.91	5953.03
MW-06	14-Feb-06	<0.5	<1	<1	<1	0.15		6.91	5953.03
MW-06	15-Mar-06	<1	<2	<2	<2	0.092		6.89	5953.05
MW-06	12-Apr-06	1.1	<2	<2	<2	0.046		6.15	5953.79
MW-06	12-Apr-06	1	NA	NA	NA	0.034		6.15	5953.79
MW-06	12-Apr-06	1.12	<0.25	<0.25	<0.25	0.125		6.15	5953.79
MW-06	09-May-06	<1	<2	<2	<2	0.029		5.89	5954.05
MW-06	12-Jun-06	<1	<2	<2	<2	0.0026			
MW-06	07-Sep-06	<0.25	<0.25	<0.25	<0.25	0.00523		7.53	5952.41
MW-06	07-Sep-06	<1	<5	<2	<2	0.038		7.53	5952.41
MW-06	07-Sep-06	<1	NA	<2	<2	0.031		7.53	5952.41
MW-06	05-Dec-06	<1	<2	<2	<2	<0.0008		7.04	5952.90
MW-06	13-Mar-07	<1	<2	<2	<2	0.0021		6.85	5953.09
MW-06	20-Jun-07	<1	<2	<2	<2	<0.0008			
MW-06	12-Sep-07	<1	<2	<2	<2	<0.0008		7.95	5951.99
MW-06	17-Dec-07	<0.5	<5	<0.5	<2	0.00846		7.15	5952.79
MW-06	17-Dec-07	<1	<2	<2	<2	0.0081		7.15	5952.79
MW-06	17-Dec-07	<1	<2	<2	<2	0.008		7.15	5952.79
MW-06	03-Mar-08	<1	<2	<2	<2	0.0015		6.75	5953.19
MW-06	17-Jun-08	<1	<2	<2	<2	0.0031		6.20	5953.74
MW-06	30-Sep-08	<1	<2	<2	<2	<0.008		7.60	5952.34
MW-06	30-Sep-08	<1	<2	<2	<2	<0.008		7.60	5952.34
MW-06	09-Dec-08	<1	<2	<2	<2	0.0092	<0.0008	7.25	5952.69
MW-06	16-Mar-09	<1	<2	<2	<2	<0.0008		7.00	5952.94
MW-07	09-Jul-04	200	NA	NA	NA	0.67			5958.97
MW-07	22-Jul-04	110	NA	NA	NA	0.53		10.34	5948.63
MW-07	03-Aug-04	32	<2	<2	<2	0.73		10.46	5948.51
MW-07	15-Sep-04	56	<2	<2	<2	6		11.11	5947.86
MW-07	14-Oct-04	32	<2	<2	<2	0.78		10.70	5948.27
MW-07	10-Nov-04	16	<2	<2	<2	0.65		10.70	5948.27
MW-07	19-Nov-04	19	<2	<2	<2	0.49			
MW-07	23-Nov-04	17	<2	<2	<2	0.67			
MW-07	07-Dec-04	<1	<2	<2	<2	0.04			
MW-07	14-Dec-04	20	<2	<2	<2	0.55		10.24	5948.73
MW-07	13-Jan-05	16	<2	<2	<2	0.53		9.89	5949.08
MW-07	09-Feb-05	5.7	<2	<2	<2	0.47		9.91	5949.06
MW-07	08-Mar-05	4.5	<2	<2	<2	0.58		10.06	5948.91
MW-07	20-Apr-05	<1	<2	<2	<2	<0.0008			
MW-07	10-May-05	<1	<2	<2	<2	<0.0008		6.22	5952.75
MW-07	10-May-05	<1	<2	<2	<2	<0.0008		6.22	5952.75
MW-07	10-May-05	<0.5	<5	<0.5	NA	0.031		6.22	5952.75
MW-07	08-Jun-05	<1	<2	<2	<2	<0.0008		4.47	5954.50
MW-07	12-Jul-05	<1	<2	<2	<2	<0.0008			
MW-07	09-Aug-05	<1	<2	<2	<2	<0.0008		6.13	5952.84
MW-07	12-Sep-05	<1	<2	<2	<2	0.0015		6.62	5952.35
MW-07	11-Oct-05	<1	<2	<2	<2	0.0075			
MW-07	11-Oct-05	<1	<2	<2	<2	0.026			
MW-07	11-Oct-05	<0.5	<5	<0.5	NA	<0.01			
MW-07	08-Nov-05	<1	<2	<2	<2	0.0059			
MW-07	08-Dec-05	<1	<2	<2	<2	0.017		6.92	5952.05
MW-07	11-Jan-06	<1	<2	<2	<2	0.014		6.95	5952.02
MW-07	14-Feb-06	<0.5	<1	<0.5	<1	<0.002		9.08	5949.89
MW-07	15-Mar-06	<1	<2	<2	<2	10		6.83	5952.14
MW-07	12-Apr-06	<1	<2	<2	<2	0.00092		6.23	5952.74

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-07	09-May-06	<1	<2	<2	<2	0.036		5.67	5953.30
MW-07	12-Jun-06	<1	<2	<2	<2	0.0037			
MW-07	21-Jul-06	<1	<2	<2	<2	<0.0008			
MW-07	28-Jul-06	<1	<2	<2	<2	0.0012			
MW-07	04-Aug-06	<1	<2	<2	<2	<0.0008			
MW-07	11-Aug-06	<1	<2	<2	<2	<0.0008			
MW-07	16-Aug-06	<1	<2	<2	<2	0.0041		17.45	5941.52
MW-07	24-Aug-06	<1	<2	<2	<2	0.00092		7.72	5951.25
MW-07	31-Aug-06	<1	<2	<2	<2	0.0014		7.84	5951.13
MW-07	07-Sep-06	<1	<2	<2	<2	0.047		8.22	5950.75
MW-07	07-Sep-06	<0.25	<0.25	<0.25	<0.25	0.00163		8.22	5950.75
MW-07	13-Sep-06	<1	<2	<2	<2	0.0024		7.98	5950.99
MW-07	21-Sep-06	<0.25	<0.25	<0.25	<0.25	0.000762		7.93	5951.04
MW-07	21-Sep-06	<1	<2	<2	<2	0.002		7.93	5951.04
MW-07	27-Sep-06	<1	<2	<2	<2	0.004		7.82	5951.15
MW-07	06-Oct-06	<1	<2	<2	<2	<0.0008		7.88	5951.09
MW-07	12-Oct-06	<1	<2	<2	<2	0.0025		7.71	5951.26
MW-07	19-Oct-06	<1	<2	<2	<2	<0.0008		7.73	5951.24
MW-07	25-Oct-06	<1	<2	<2	<2	0.00082		7.62	5951.35
MW-07	01-Nov-06	<1	<2	<2	<2	0.0011		7.63	5951.34
MW-07	17-Nov-06	<1	<2	<2	<2	<0.0008		7.42	5951.55
MW-07	05-Dec-06	<1	<2	<2	<2	0.0011		7.37	5951.60
MW-07	03-Jan-07	<1	<2	<2	<2	<0.0008			
MW-07	17-Jan-07	<1	<2	<2	<2	<0.0008			
MW-07	05-Feb-07	<1	<2	<2	<2	<0.0008			
MW-07	22-Feb-07	<1	<2	<2	<2	0.0016		6.92	5952.05
MW-07	07-Mar-07	<1	<2	<2	<2	0.00094		6.75	5952.22
MW-07	13-Mar-07	<1	<2	<2	<2	0.0079		6.80	5952.17
MW-07	26-Mar-07	<1	<2	<2	<2	<0.0008			
MW-07	11-Apr-07	<1	<2	<2	<2	0.001			
MW-07	25-Apr-07	<0.5	<5	<0.5	<2	0.0016			
MW-07	08-May-07	<0.5	<5	<0.5	<2	<0.01			
MW-07	20-Jun-07	<0.25	<0.25	<0.25	<0.25	-88.8			
MW-07	20-Jun-07	<1	<2	<2	<2	<0.0008			
MW-07	20-Jun-07	<1	<2	<2	<2	<0.0008			
MW-07	12-Sep-07	<1	<2	<2	<2	<0.0008		8.21	5950.76
MW-07	17-Dec-07	<1	<2	<2	<2	<0.0008		5.72	5953.25
MW-07	03-Mar-08	<1	<2	<2	<2	<0.0008		6.84	5952.13
MW-07	17-Jun-08	<1	<2	<2	<2	<0.0008		4.53	5954.44
MW-07	09-Dec-08	<1	<2	<2	<2	0.0032		7.60	5951.37
MW-07	16-Mar-09	<1	<2	<2	<2	<0.0008		6.95	5952.02
MW-08	09-Jul-04	<b>65</b>	NA	NA	NA	3.4			
MW-08	22-Jul-04	<b>210</b>	NA	NA	NA	2.9		12.45	5946.84
MW-08	03-Aug-04	<b>250</b>	<2	<2	<2	2.8		11.98	5947.31
MW-08	15-Sep-04	<b>200</b>	<2	<2	<2	4.1		13.54	5945.75
MW-08	14-Oct-04	<b>140</b>	<2	<2	<3	3.1		13.18	5946.11
MW-08	10-Nov-04	<b>120</b>	<5	<0.5	NA	3.1		12.80	5946.49
MW-08	10-Nov-04	<b>150</b>	<2	<2	<2	6.5		12.80	5946.49
MW-08	10-Nov-04	<b>140</b>	<2	<2	<2	7.2		12.80	5946.49
MW-08	14-Dec-04	<b>140</b>	<2	<2	<2	7.4		12.00	5947.29
MW-08	13-Jan-05	<b>100</b>	<2	<2	<2	5.7		12.12	5947.17
MW-08	09-Feb-05	<b>58</b>	<2	<2	<2	3.5		11.79	5947.50
MW-08	08-Mar-05	<b>42</b>	<2	<2	<2	3.3		11.86	5947.43
MW-08	12-Apr-05	<b>30</b>	<2	<2	<2	3.2		8.64	5950.65
MW-08	10-May-05	4.8	<2	<2	<2	0.82		7.99	5951.30
MW-08	09-Jun-05	1.8	<2	<2	<2	0.23		6.18	5953.11
MW-08	12-Jul-05	<1	<2	<2	<2	0.12		7.92	5951.37



## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-08	12-Jul-05	120	<5	<0.5	NA	3.1		7.92	5951.37
MW-08	12-Jul-05	<1	<2	<2	<2	0.043		7.92	5951.37
MW-08	09-Aug-05	<1	<2	<2	<2	0.045		8.15	5951.14
MW-08	12-Sep-05	<1	<2	<2	<2	0.22		9.07	5950.22
MW-08	12-Oct-05	<0.5	<5	<0.5	NA	<0.01			
MW-08	12-Oct-05	<1	<2	<2	<2	0.25			
MW-08	12-Oct-05	<1	<2	<2	<3	0.19			
MW-08	08-Nov-05	<1	<2	<2	<4	0.11			
MW-08	08-Dec-05	<1	<2	<2	<5	0.08		8.86	5950.43
MW-08	11-Jan-06	<1	<2	<2	<6	0.13		8.99	5950.30
MW-08	14-Feb-06	<0.5	<1	<1	<1	0.206		9.02	5950.27
MW-08	15-Mar-06	<1	<2	<2	<2	0.23		8.89	5950.40
MW-08	12-Apr-06	<1	<2	<2	<2	0.11		8.34	5950.95
MW-08	11-May-06	<0.5	<0.5	<0.5	<0.5	0.0649		7.50	5951.79
MW-08	11-May-06	<1	<2	<2	<2	0.032		7.50	5951.79
MW-08	11-May-06	<1	<2	<2	<2	0.017		7.50	5951.79
MW-08	12-Jun-06	<1	<2	<2	<2	0.13			
MW-08	21-Jul-06	<1	<2	<2	<2	0.0024			
MW-08	28-Jul-06	<1	<2	<2	<2	0.14			
MW-08	04-Aug-06	<1	<2	<2	<2	0.18			
MW-08	11-Aug-06	<1	<2	<2	<2	0.1			
MW-08	16-Aug-06	<1	<2	<2	<2	0.2		25.03	5934.26
MW-08	24-Aug-06	<1	<2	<2	<2	0.34		9.89	5949.40
MW-08	31-Aug-06	<1	<2	<2	<2	0.7		10.01	5949.28
MW-08	07-Sep-06	<1	<2	<2	<2	0.47		10.11	5949.18
MW-08	13-Sep-06	<1	<2	<2	<2	0.74		10.16	5949.13
MW-08	21-Sep-06	<1	<2	<2	<2	1.1		10.11	5949.18
MW-08	27-Sep-06	<1	<2	<2	<2	0.58		10.04	5949.25
MW-08	06-Oct-06	<1	<2	<2	<2	0.45		10.25	5949.04
MW-08	12-Oct-06	<1	<2	<2	<2	0.39		9.84	5949.45
MW-08	19-Oct-06	<1	<2	<2	<2	0.42		9.75	5949.54
MW-08	25-Oct-06	<1	<2	<2	<2	0.34		10.00	5949.29
MW-08	01-Nov-06	<1	<2	<2	<2	0.28		9.49	5949.80
MW-08	17-Nov-06	<1	<2	<2	<2	0.0043		9.32	5949.97
MW-08	05-Dec-06	<1	<2	<2	<2	0.045		9.42	5949.87
MW-08	03-Jan-07	<1	<2	<2	<2	0.00092			
MW-08	17-Jan-07	<1	<2	<2	<2	0.0034			
MW-08	05-Feb-07	<1	<2	<2	<2	0.12			
MW-08	22-Feb-07	<1	<2	<2	<2	0.22		9.12	5950.17
MW-08	07-Mar-07	<1	<2	<2	<2	0.48		9.06	5950.23
MW-08	13-Mar-07	<1	<2	<2	<2	0.18		9.11	5950.18
MW-08	26-Mar-07	<1	<2	<2	<2	<0.0008			
MW-08	11-Apr-07	<1	<2	<2	<2	0.085			
MW-08	25-Apr-07	<0.5	<5	<0.5	<2	0.0019			
MW-08	08-May-07	<0.5	<5	<0.5	<2	0.06			
MW-08	20-Jun-07	<1	<2	<2	<2	<0.0008			
MW-08	12-Sep-07	<1	<2	<2	<2	<0.0008		10.53	5948.76
MW-08	17-Dec-07	<1	<2	<2	<2	0.13		9.62	5949.67
MW-08	03-Mar-08	<1	<2	<2	<2	0.14		8.92	5950.37
MW-08	17-Jun-08	<1	<2	<2	<2	0.001		5.70	5953.59
MW-08	30-Sep-08	<1	<2	<2	<2	<0.008		10.10	5949.19
MW-08	09-Dec-08	<1	<2	<2	<2	0.11		9.00	5950.29
MW-08	16-Mar-09	<1	<2	<2	<2	0.22		9.00	5950.29
MW-09	09-Jul-04	120	NA	NA	NA	11			
MW-09	22-Jul-04	130	NA	NA	NA	10		4.88	5960.25
MW-09	03-Aug-04	150	50	2.8	21.3	9.5		4.85	5960.28
MW-09	15-Sep-04	210	140	6.2	59	11	9.0	4.61	5960.52

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-09	13-Oct-04	280	230	9.8	96	9.9		4.15	5960.98
MW-09	09-Nov-04	320	170	11	104	9		4.05	5961.08
MW-09	09-Nov-04	280	160	9.8	100	14		4.05	5961.08
MW-09	09-Nov-04	310	160	10	98	10		4.05	5961.08
MW-09	13-Dec-04	350	130	13	127	14		4.06	5961.07
MW-09	12-Jan-05	290	110	12	113	16	13.3	4.18	5960.95
MW-09	09-Feb-05	260	48	<10	86	9.4	8.5	4.53	5960.60
MW-09	08-Mar-05	210	22	<10	<10	11		4.65	5960.48
MW-09	12-Apr-05	210	23	<2	<2	11		4.63	5960.50
MW-09	09-May-05	210	32	9.4	81	12	10.3	4.25	5960.88
MW-09	08-Jun-05	210	39	<2	<2	12		4.25	5960.88
MW-09	11-Jul-05	160	18	5.1	50.5	9.3	7.8	4.58	5960.55
MW-09	08-Aug-05	120	12	<10	<10	7.8		4.52	5960.61
MW-09	12-Sep-05	78	3.6	3	31.4	9.7	7.6	4.49	5960.64
MW-09	11-Oct-05	55	5.5	2.4	24.8	8.7		4.32	5960.81
MW-09	07-Nov-05	35	<2	<2	<2	7.6			
MW-09	08-Dec-05	38	<2	<2	<2	7.7		4.51	5960.62
MW-09	10-Jan-06	40	<2	<2	<2	12	9.9	4.61	5960.52
MW-09	14-Feb-06	34.4	<1	1.2	12.4	6.3		4.63	5960.50
MW-09	15-Mar-06	30	<2	<2	<2	14		5.02	5960.11
MW-09	11-Apr-06	21	<2	<2	<2	9		4.39	5960.74
MW-09	10-May-06	16	<2	<2	<2	9.8	7.8	4.28	5960.85
MW-09	12-Jun-06	8.6	<2	<2	<2	10			
MW-09	06-Sep-06	8.9	<2	<2	<2	9.3	7.1	4.41	5960.72
MW-09	06-Dec-06	7.2	<2	<2	<2	10	7.6	4.08	5961.05
MW-09	13-Mar-07	7.5	<2	<2	<2	8.3	6.5	4.45	5960.68
MW-09	30-Apr-07	4.8	<5	<0.5	<2	-88.8			
MW-09	21-Jun-07	<1	<2	<2	<2	5.1			
MW-09	13-Sep-07	4.2	<2	<2	<2	5.4		4.49	5960.64
MW-09	18-Dec-07	2.7	<2	<2	<2	7.1		3.82	5961.31
MW-09	05-Mar-08	1	<2	<2	<2	7.2	5.0	4.05	5961.08
MW-09	17-Jun-08	2.2	<2	<2	<2	6.2	4.2	4.39	5960.74
MW-09	30-Sep-08	<1	<2	<2	<2	5.0	3.5	4.20	5960.93
MW-09	09-Dec-08	1.1	<2	<2	<2	8.6		4.46	5960.67
MW-09	17-Mar-09	2.3	<2	<2	<2	8.1	5.5	4.52	5960.61
MW-11	09-Jul-04	2	NA	NA	NA	0.16			
MW-11	22-Jul-04	<1	NA	NA	NA	0.25		4.50	5965.16
MW-11	03-Aug-04	<1	<2	<2	<2	0.23		4.49	5965.17
MW-11	15-Sep-04	<1	<2	<2	<2	0.12		4.29	5965.37
MW-11	13-Oct-04	<1	<2	<2	<2	0.017		4.10	5965.56
MW-11	09-Nov-04	<1	<2	<2	<2	0.14		4.10	5965.56
MW-11	12-Jan-05	<1	<2	<2	<2	0.18		3.98	5965.68
MW-11	09-Feb-05	<1	<2	<2	<2	0.12		4.13	5965.53
MW-11	08-Mar-05	<1	<2	<2	<2	0.11		4.45	5965.21
MW-11	12-Apr-05	<1	<2	<2	<2	0.14		4.21	5965.45
MW-11	09-May-05	<1	<2	<2	<2	0.13		3.94	5965.72
MW-11	08-Jun-05	<1	<2	<2	<2	0.13		3.85	5965.81
MW-11	11-Jul-05	<1	<2	<2	<2	0.1		5.25	5964.41
MW-11	08-Aug-05	<1	<2	<2	<2	0.079		4.11	5965.55
MW-11	12-Sep-05	<1	<2	<2	<2	0.13		4.22	5965.44
MW-11	11-Oct-05	<1	<2	<2	<2	0.1		3.98	5965.68
MW-11	07-Nov-05	<1	<2	<2	<2	0.061			
MW-11	08-Dec-05	<1	<2	<2	<2	0.046		4.07	5965.59
MW-11	10-Jan-06	<1	<2	<2	<2	0.037		4.02	5965.64
MW-11	14-Feb-06	<0.5	<1	<1	<1	0.017		4.02	5965.64
MW-11	15-Mar-06	<1	<2	<2	<2	0.06		4.50	5965.16
MW-11	11-Apr-06	<1	<2	<2	<2	0.041		4.05	5965.61

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-11	10-May-06	<1	<2	<2	<2	0.035		4.08	5965.58
MW-11	12-Jun-06	<1	<2	<2	<2	0.043			
MW-11	06-Sep-06	<1	<2	<2	<2	0.081		4.15	5965.51
MW-11	06-Dec-06	<1	<2	<2	<2	0.0039		3.98	5965.68
MW-11	13-Mar-07	<1	<2	<2	<2	0.02		3.89	5965.77
MW-11	21-Jun-07	<1	<2	<2	<2	0.018			
MW-11	12-Sep-07	<1	<2	<2	<2	0.028		4.30	5965.36
MW-11	05-Mar-08	<1	<2	<2	<2	0.027		4.09	5965.57
MW-11	17-Jun-08	<1	<2	<2	<2	0.012		4.03	5965.63
MW-11	30-Sep-08	<1	<2	<2	<2	0.0017		4.10	5965.56
MW-11	09-Dec-08	<1	<2	<2	<2	0.016		4.20	5965.46
MW-11	17-Mar-09	<1	<2	<2	<2	0.0073		4.65	5965.01
MW-12	09-Jul-04	0.86	NA	NA	NA	2.5			5963.60
MW-12	22-Jul-04	2	NA	NA	NA	3.6		6.02	5957.58
MW-12	03-Aug-04	4.6	<2	<2	<2	3.8			
MW-12	15-Sep-04	2.7	<2	<2	<2	4.9	4.1	5.81	5957.79
MW-12	13-Oct-04	<1	<2	<2	<2	0.17		5.13	5958.47
MW-12	13-Oct-04	<1	<2	<2	NA	0.12		5.13	5958.47
MW-12	13-Oct-04	<1	<2	<2	<2	<0.0008		5.13	5958.47
MW-12	09-Nov-04	<1	<2	<2	<2	0.069		4.90	5958.70
MW-12	13-Dec-04	<1	<2	<2	<2	0.046		3.85	5959.75
MW-12	12-Jan-05	<1	<2	<2	<2	1.3	0.8	4.10	5959.50
MW-12	09-Feb-05	<1	<2	<2	<2	2	1.2	4.78	5958.82
MW-12	08-Mar-05	<1	<2	<2	<2	2.6		4.53	5959.07
MW-12	12-Apr-05	<1	<2	<2	<2	0.94		4.63	5958.97
MW-12	09-May-05	<1	<2	<2	<2	0.43	0.4	4.03	5959.57
MW-12	08-Jun-05	<1	<2	<2	<2	0.65		4.39	5959.21
MW-12	11-Jul-05	3.8	<2	<2	<2	3	2.7	2.86	5960.74
MW-12	08-Aug-05	7.1	<2	<2	<2	4.3		3.02	5960.58
MW-12	12-Sep-05	8.4	<2	<2	<2	6.4	5.1	2.82	5960.78
MW-12	11-Oct-05	<1	<2	<2	<2	0.26		1.94	5961.66
MW-12	07-Nov-05	<1	<2	<2	<2	0.11			
MW-12	08-Dec-05	<1	<2	<2	<2	0.25		1.81	5961.79
MW-12	10-Jan-06	<1	<2	<2	<2	0.24	0.2	1.89	5961.71
MW-12	14-Feb-06	0.6	<1	<1	<1	0.53		2.03	5961.57
MW-12	15-Mar-06	<1	<2	<2	<2	1.6		1.85	5961.75
MW-12	15-Mar-06	<0.5	<0.5	<0.5	<0.5	1.51		1.85	5961.75
MW-12	11-Apr-06	<1	<2	<2	<2	1.2		4.10	5959.50
MW-12	10-May-06	<1	<2	<2	<2	0.95	0.5	1.25	5962.35
MW-12	12-Jun-06	1.2	<2	<2	<2	2.1			
MW-12	06-Sep-06	5.3	<2	<2	<2	7.1	4.1	3.31	5960.29
MW-12	06-Dec-06	<1	<2	<2	<2	0.21	0.2	1.52	5962.08
MW-12	13-Mar-07	<1	<2	<2	<2	0.046	0.0	0.00	5963.60
MW-12	21-Jun-07	<1	<2	<2	<2	0.016			
MW-12	12-Sep-07	5.4	<2	<2	<2	3.7	2.8	3.08	5960.52
MW-12	18-Dec-07	<1	<2	<2	<2	0.18		1.92	5961.68
MW-12	05-Mar-08	<1	<2	<2	<2	<0.0008		0.00	5963.60
MW-12	17-Jun-08	<1	<2	<2	<2	0.0011	<0.0011	2.36	5961.24
MW-12	30-Sep-08	2.4	<2	<2	<2	2.8	1.5	3.30	5960.30
MW-12	09-Dec-08	<1	<2	<2	<2	0.13	<0.0008	2.10	5961.50
MW-12	17-Mar-09	<1	<2	<2	<2	0.13	0.04	1.95	5961.65
MW-13	13-Dec-04	<1	<2	<2	<2	0.15		2.49	5961.11
MW-13	21-Sep-04	<1	<2	<2	<2	0.061			
MW-13	13-Oct-04	<1	<2	<2	<2	0.011		2.89	5969.11
MW-13	09-Nov-04	<1	<2	<2	<2	0.015		2.80	5969.20
MW-13	13-Dec-04	<1	<2	<2	<2	0.029		2.49	5969.51

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-13	12-Jan-05	<1	<2	<2	<2	0.069		2.24	5969.76
MW-13	09-Feb-05	<1	<2	<2	<2	0.029		2.79	5969.21
MW-13	08-Mar-05	<1	<2	<2	<2	0.037		2.81	5969.19
MW-13	12-Apr-05	<1	<2	<2	<2	0.039		3.12	5968.88
MW-13	09-May-05	<1	<2	<2	<2	0.04		2.42	5969.58
MW-13	08-Jun-05	<1	<2	<2	<2	0.071		2.41	5969.59
MW-13	12-Jun-06	<1	<2	<2	<2	2.8			
MW-13	07-Sep-06	<1	<5	<2	<2	1.4		1.40	5970.60
MW-13	06-Dec-06	<1	<2	<2	<2	0.32		0.58	5971.42
MW-13	13-Mar-07	<1	<2	<2	<2	0.014		0.00	
MW-13	21-Jun-07	<1	<2	<2	<2	0.33			
MW-13	12-Sep-07	<1	<2	<2	<2	0.43		1.05	5970.95
MW-13	17-Jun-08								flooded
MW-13	29-Sep-08							2.65	
MW-13	08-Dec-08								frozen
MW-13	16-Mar-09								flooded
MW-14	21-Sep-04	150	9.6	2.9	19.8	1.4			
MW-14	13-Oct-04	140	12	3.6	27.3	4.8	4.3	6.57	5958.49
MW-14	09-Nov-04	150	8.8	4.7	32.4	6.7		7.02	5958.04
MW-14	13-Dec-04	300	12	7.5	44.2	13		7.01	5958.05
MW-14	12-Jan-05	230	9.7	4.6	30.7	9.4	8.0	6.98	5958.08
MW-14	09-Feb-05	270	13	<10	<10	9.6	8.0	7.24	5957.82
MW-14	08-Mar-05	180	12	3.1	21.5	12		8.05	5957.01
MW-14	12-Apr-05	74	5.2	<2	<2	11		6.97	5958.09
MW-14	09-May-05	8	<2	<2	<2	8.2	6.6	6.19	5958.87
MW-14	08-Jun-05	6	<2	<2	<2	10		6.38	5958.68
MW-14	11-Jul-05	16	<2	<2	<2	4.8	3.8	4.15	5960.91
MW-14	08-Aug-05	<1	<2	<2	<2	3.6		4.25	5960.81
MW-14	12-Sep-05	<1	<2	<2	<2	3.6	2.3	4.25	5960.81
MW-14	11-Oct-05	<1	<2	<2	<2	4.2		4.17	5960.89
MW-14	07-Nov-05	<1	<2	<2	<2	3.9			
MW-14	08-Dec-05	1.6	<2	<2	<2	3.9		4.59	5960.47
MW-14	10-Jan-06	<1	<2	<2	<2	7.4	5.6	4.71	5960.35
MW-14	14-Feb-06	1.9	<1	<1	<1	8.3		4.71	5960.35
MW-14	15-Mar-06	<1	<2	<2	<2	5.8		4.71	5960.35
MW-14	11-Apr-06	<1	<2	<2	<2	1.2		4.55	5960.51
MW-14	10-May-06	<1	<2	<2	<2	2.9	1.9	4.28	5960.78
MW-14	12-Jun-06	<1	<2	<2	<2	7			
MW-14	06-Sep-06	<1	<2	<2	<2	9	6.0	4.22	5960.84
MW-14	06-Dec-06	12	<2	<2	<2	9.1	6.4	4.18	5960.88
MW-14	13-Mar-07	<1	<2	<2	<2	7.6	5.3	4.45	5960.61
MW-14	30-Apr-07	<1	<5	<0.5	<2	-88.8			
MW-14	21-Jun-07	<1	<2	<2	<2	3.4			
MW-14	13-Sep-07	<1	<2	<2	<2	2.8		5.04	5960.02
MW-14	18-Dec-07	1.2	<2	<2	<2	3.2		4.75	5960.31
MW-14	05-Mar-08	<1	<2	<2	<2	5.1	3.1	4.98	5960.08
MW-14	17-Jun-08	<1	<2	<2	<2	3.7	2.1	4.95	5960.11
MW-14	30-Sep-08	<1	<2	<2	<2	2.9	2.0	5.51	5959.55
MW-14	09-Dec-08	<1	<2	<2	<2	4.7	2.9	5.20	5959.86
MW-14	17-Mar-09	1.0	<2	<2	<2	7.0	4.6	5.29	5959.77
MW-15	21-Sep-04	<1	<2	<2	<2	0.37			
MW-15	14-Oct-04	<1	<2	<2	<2	0.047		2.80	5954.99
MW-15	10-Nov-04	<1	<2	<2	<2	0.034		2.85	5954.94
MW-15	14-Dec-04	<1	<2	<2	<2	0.017		2.54	5955.25
MW-15	12-Jan-05	<1	<2	<2	<2	0.012		2.50	5955.29
MW-15	08-Mar-05	<1	<2	<2	<2	0.0071		3.62	5954.17

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-15	12-Apr-05	<1	<2	<2	<2	0.021		2.82	5954.97
MW-15	11-May-05	<1	<2	<2	<2	0.031		2.47	5955.32
MW-15	08-Jun-05	<1	<2	<2	<2	0.059		2.36	5955.43
MW-15	12-Jul-05	<1	<2	<2	<2	0.0055		0.17	5957.62
MW-15	09-Aug-05	<1	<2	<2	<2	0.0069		0.42	5957.37
MW-15	12-Sep-05	<1	<2	<2	<2	0.007		0.36	5957.43
MW-15	11-Oct-05	<1	<2	<2	<2	0.058		0.42	5957.37
MW-15	08-Nov-05	<1	<2	<2	<2	0.025		0.44	5957.35
MW-15	08-Dec-05	<1	<2	<2	<2	0.038		0.56	5957.23
MW-15	11-Jan-06	<1	<2	<2	<2	0.044		0.68	5957.11
MW-15	15-Feb-06	<1	<2	<2	<2	0.026		0.58	5957.21
MW-15	15-Mar-06	<1	<2	<2	<2	0.027		0.40	5957.39
MW-15	11-Apr-06	<1	<2	<2	<2	0.012		0.50	5957.29
MW-15	10-May-06	<1	<2	<2	<2	0.01		0.51	5957.28
MW-15	12-Jun-06	<1	<2	<2	<2	0.01			
MW-15	06-Sep-06	<1	<2	<2	<2	0.036		0.00	5957.79
MW-15	06-Dec-06	<1	<2	<2	<2	0.015		0.00	5957.79
MW-15	13-Mar-07	<1	<2	<2	<2	0.012		0.10	5957.69
MW-15	21-Jun-07	<1	<2	<2	<2	0.015			
MW-15	11-Sep-07	<1	<2	<2	<2	<0.0008		0.00	5957.79
MW-15	18-Dec-07	<1	<2	<2	<2	0.0018		0.05	5957.74
MW-15	17-Jun-08	<1	<2	<2	<2	0.0072		2.12	5955.67
MW-15	29-Sep-08								Flooded
MW-15	08-Dec-08								Frozen
MW-15	16-Mar-09								Frozen
MW-16	21-Sep-04	9.5	<2	<2	<2	1.1			
MW-16	13-Oct-04	4.7	<2	<2	<2	0.85		7.79	5952.66
MW-16	09-Nov-04	2.7	<2	<2	<2	0.34		7.29	5953.16
MW-16	14-Dec-04	4.9	<2	<2	<2	0.8		6.92	5953.53
MW-16	12-Jan-05	7.6	<2	<2	<2	1.1		7.20	5953.25
MW-16	09-Feb-05	6.2	<2	<2	<2	0.72	0.5	6.96	5953.49
MW-16	08-Mar-05	6.1	<2	<2	<2	0.83		7.27	5953.18
MW-16	08-Mar-05	6.3	<2	<2	<2	0.66		7.27	5953.18
MW-16	08-Mar-05	6.2	<5	<0.5	NA	1.7		7.27	5953.18
MW-16	12-Apr-05	1.4	<2	<2	<2	0.57		7.39	5953.06
MW-16	09-May-05	1.9	<2	<2	<2	0.35		5.81	5954.64
MW-16	08-Jun-05	1.7	<2	<2	<2	0.37		4.20	5956.25
MW-16	12-Jul-05	4	<2	<2	<2	0.62		2.65	5957.80
MW-16	09-Aug-05	12	<2	<2	<2	1.1		4.83	5955.62
MW-16	12-Sep-05	6.4	<2	<2	<2	1.3		5.45	5955.00
MW-16	11-Oct-05	2.8	<2	<2	<2	0.91			
MW-16	08-Nov-05	4.1	<2	<2	<2	0.62			
MW-16	07-Dec-05	3.4	<2	<2	<2	0.67		4.73	5955.72
MW-16	11-Jan-06	2.1	<2	<2	<2	1.1		5.21	5955.24
MW-16	14-Feb-06	<0.5	<1	<1	<1	0.58		5.25	5955.20
MW-16	15-Mar-06	<1	<2	<2	<2	0.78		5.38	5955.07
MW-16	12-Apr-06	<1	<2	<2	<2	0.59		4.77	5955.68
MW-16	09-May-06	<1	<2	<2	<2	0.2		3.43	5957.02
MW-16	12-Jun-06	<1	<2	<2	<2	0.042			
MW-16	07-Sep-06	3.7	<5	<2	<2	1.7		6.41	5954.04
MW-16	05-Dec-06	<1	<2	<2	<2	1.1		5.21	5955.24
MW-16	13-Mar-07	<1	<2	<2	<2	0.54	0.1	5.50	5954.95
MW-16	20-Jun-07	<1	<2	<2	<2	0.17			
MW-16	12-Sep-07	<1	<2	<2	<2	0.8	0.3	6.45	5954.00
MW-16	18-Dec-07	<1	<2	<2	<2	1.2		8.50	5951.95
MW-16	04-Mar-08	<1	<2	<2	<2	1.2		5.60	5954.85
MW-16	17-Jun-08	<1	<2	<2	<2	0.021	<0.021	2.69	5957.76

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-16	30-Sep-08	<1	<2	<2	<2	1.3	0.4	6.70	5953.75
MW-16	09-Dec-08	<1	<2	<2	<2	1.2	0.1	5.20	5955.25
MW-16	16-Mar-09	<1	<2	<2	<2	1.4	0.03	5.86	5954.59
MW-17	21-Sep-04	<1	<2	<2	46.6	8.3			
MW-17	13-Oct-04	230	110	4.1	39.8	7.5	6.2	10.48	5948.01
MW-17	09-Nov-04	140	7.2	3	20.7	7.6		9.60	5948.89
MW-17	14-Dec-04	110	<2	2.1	16.1	9.4		8.76	5949.73
MW-17	12-Jan-05	56	<2	<2	<2	7.1	5.1	8.84	5949.65
MW-17	09-Feb-05	76	<2	<2	<2	6.6	4.9	8.69	5949.80
MW-17	08-Mar-05	63	<2	<2	<2	6.8		8.84	5949.65
MW-17	12-Apr-05	44	<2	<2	<2	6.6		6.19	5952.30
MW-17	10-May-05	16	<2	<2	<2	1.9	1.0	4.90	5953.59
MW-17	08-Jun-05	1.4	<2	<2	<2	1.6		2.43	5956.06
MW-17	12-Jul-05	<1	<2	<2	<2	0.64		3.28	5955.21
MW-17	09-Aug-05	19	<2	<2	<2	2.7		5.53	5952.96
MW-17	12-Sep-05	110	3.6	<2	<2	5.3	3.3	7.02	5951.47
MW-17	11-Oct-05	72	<2	<2	<2	4.7			
MW-17	08-Nov-05	31	<2	<2	<2	3.2			
MW-17	07-Dec-05	31	<2	<2	<2	3.1		6.58	5951.91
MW-17	11-Jan-06	30	<2	<2	<2	3.2	1.8	6.88	5951.61
MW-17	14-Feb-06	26	<1	<1	<1	2.5		6.88	5951.61
MW-17	15-Mar-06	19	<2	<2	<2	3.5		6.55	5951.94
MW-17	12-Apr-06	12	<2	<2	<2	3		5.85	5952.64
MW-17	09-May-06	2.8	<2	<2	<2	1.4		4.20	5954.29
MW-17	12-Jun-06	<1	<2	<2	<2	2.6			
MW-17	07-Sep-06	24	<5	<2	<2	3.5	2.2	8.27	5950.22
MW-17	05-Dec-06	23	<2	<2	<2	2.2	1.2	7.31	5951.18
MW-17	13-Mar-07	66	<2	<2	<2	5.6	0.6	6.65	5951.84
MW-17	20-Jun-07	<1	<2	<2	<2	<0.0008			
MW-17	12-Sep-07	30	<2	<2	<2	2	1.2	9.68	5948.81
MW-17	18-Dec-07	16	<2	<2	<2	2		7.59	5950.90
MW-17	03-Mar-08	6.7	<2	<2	<2	1	0.5	6.90	5951.59
MW-17	17-Jun-08	<1	<2	<2	<2	<0.0008	<0.0008	2.66	5955.83
MW-17	30-Sep-08	31	<2	<2	<2	1.9	1.1	8.20	5950.29
MW-17	09-Dec-08	21	<2	<2	<2	1.9	1.0	6.75	5951.74
MW-17	16-Mar-09	13	<2	<2	<2	2.2	1.0	6.71	5951.78
MW-18	21-Sep-04	<1	<2	<2	<2	0.74			
MW-18	14-Oct-04	<1	<2	<2	<2	0.89	0.3	6.75	5945.68
MW-18	10-Nov-04	<1	<2	<2	<2	1.6		6.80	5945.63
MW-18	14-Dec-04	<1	<2	<2	<2	1.1		6.63	5945.80
MW-18	13-Jan-05	<1	<2	<2	<2	1.1	0.4		
MW-18	09-Feb-05	<1	<2	<2	<2	0.71	0.2	6.77	5945.66
MW-18	09-Mar-05	<1	<2	<2	<2	0.69		6.81	5945.62
MW-18	13-Apr-05	<1	<2	<2	<2	0.71		6.98	5945.45
MW-18	10-May-05	<1	<2	<2	<2	0.19	0.1	6.11	5946.32
MW-18	09-Jun-05	<1	<2	<2	<2	0.058		3.55	5948.88
MW-18	12-Jul-05	<1	<2	<2	<2	0.02			
MW-18	09-Aug-05	<1	<2	<2	<2	0.66		4.26	5948.17
MW-18	13-Sep-05	<1	<2	<2	<2	0.3	0.1	4.35	5948.08
MW-18	12-Oct-05	<1	<2	<2	<2	1.1			
MW-18	09-Nov-05	<1	<2	<2	<2	1.1		4.06	5948.37
MW-18	08-Dec-05	<1	<2	<2	<2	0.76		3.93	5948.50
MW-18	08-Dec-05	<1	<2	<2	<2	0.68		3.93	5948.50
MW-18	08-Dec-05	<0.5	<5	<0.5	NA	0.8		3.93	5948.50
MW-18	11-Jan-06	<1	<2	<2	<2	0.6	0.2	3.72	5948.71
MW-18	15-Feb-06	<1	<2	<2	<2	1.2		4.12	5948.31



## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-18	15-Mar-06	<1	<2	<2	<2	1.5		3.94	5948.49
MW-18	12-Apr-06	<1	<2	<2	<2	0.46		3.30	5949.13
MW-18	11-May-06	<1	<2	<2	<2	0.25	0.1	3.33	5949.10
MW-18	13-Jun-06	<0.5	<0.5	<0.5	<0.5	1.46			
MW-18	13-Jun-06	<1	<2	<2	<2	1.4			
MW-18	06-Sep-06	<1	<2	<2	<2	0.99	0.4	4.58	5947.85
MW-18	05-Dec-06	<1	<2	<2	<2	0.0057	0.0	4.02	5948.41
MW-18	13-Mar-07	<1	<2	<2	<2	0.0034	0.0	3.10	5949.33
MW-18	22-Jun-07	<1	<2	<2	<2	0.026			
MW-18	11-Sep-07	<1	<2	<2	<2	<0.0008		3.85	5948.58
MW-18	18-Dec-07	<1	<2	<2	<2	<0.0008		3.35	5949.08
MW-18	04-Mar-08	<1	<2	<2	<2	<0.0008		3.15	5949.28
MW-18	17-Jun-08	<1	<2	<2	<2	0.15		3.78	5948.65
MW-18	30-Sep-08	<1	<2	<2	<2	<0.0008		4.50	5947.93
MW-18	08-Dec-08	<1	<2	<2	<2	0.034		3.40	5949.03
MW-18	16-Mar-09	<1	<2	<2	<2	<0.0008		3.75	5948.68
MW-19	21-Sep-04	<1	2.4	<2	<2	1.6			
MW-19	13-Oct-04	<1	7.8	<2	<2	0.34		2.94	5966.50
MW-19	09-Nov-04	<1	10	<2	<2	4		4.20	5965.24
MW-19	13-Dec-04	<1	14	<2	<2	3.9		3.42	5966.02
MW-19	12-Jan-05	<1	9	<2	<2	2.6		3.32	5966.12
MW-19	08-Mar-05	<1	13	<2	<2	3.7		4.77	5964.67
MW-19	12-Apr-05	<1	<2	<2	<2	2.2		3.67	5965.77
MW-19	09-May-05	<1	9	<2	<2	1		3.37	5966.07
MW-19	08-Jun-05	<1	<2	<2	<2	2		2.71	5966.73
MW-19	11-Jul-05	<1	2.7	<2	<2	1.2		4.51	5964.93
MW-19	08-Aug-05	<1	5.7	<2	<2	1.7		2.83	5966.61
MW-19	12-Sep-05	<1	2.7	<2	<2	2.1		2.78	5966.66
MW-19	11-Oct-05	<1	3.1	<2	<2	2.2		2.63	5966.81
MW-19	07-Nov-05	<1	<2	<2	<2	2			
MW-19	11-Apr-06	<1	<2	<2	<2	0.95		4.05	5965.39
MW-19	10-May-06	<1	4.5	<2	<2	1.1		3.18	5966.26
MW-19	12-Jun-06	<1	<2	<2	<2	1.3			5969.44
MW-19	17-Jun-08								Flooded
MW-19	29-Sep-08								Lost
MW-19	08-Dec-08								Frozen
MW-19	16-Mar-09								Lost
MW-20	02-Sep-04	<1	<2	<2	<2	0.89			
MW-20	14-Oct-04	<1	<2	<2	<2	0.36		11.90	5941.98
MW-20	10-Nov-04	<1	<2	<2	<2	0.048		11.75	5942.13
MW-20	14-Dec-04	<1	<2	<2	<2	0.0078		11.12	5942.76
MW-20	13-Jan-05	<1	<2	<2	<2	0.0039			
MW-20	09-Feb-05	<1	<2	<2	<2	0.00092		10.54	5943.34
MW-20	09-Mar-05	<1	<2	<2	<2	0.0008		10.33	5943.55
MW-20	13-Apr-05	<1	<2	<2	<2	0.0011		10.23	5943.65
MW-20	10-May-05	<1	<2	<2	<2	0.002		9.83	5944.05
MW-20	09-Jun-05	<1	<2	<2	<2	0.0092		7.12	5946.76
MW-20	12-Jul-05	<1	<2	<2	<2	0.053			
MW-20	09-Aug-05	<1	<2	<2	<2	0.017		1.48	5952.40
MW-20	13-Sep-05	<1	<2	<2	<2	0.002		9.28	5944.60
MW-20	12-Oct-05	<1	<2	<2	<2	<0.0008		9.11	5944.77
MW-20	08-Nov-05	<1	<2	<2	<2	0.00084			
MW-20	08-Dec-05	<1	<2	<2	<2	<0.0008		8.27	5945.61
MW-20	11-Jan-06	<1	<2	<2	<2	<0.0008		8.06	5945.82
MW-20	15-Feb-06	<1	<2	<2	<2	<0.0008		7.96	5945.92
MW-20	15-Mar-06	<1	<2	<2	<2	<0.0008		7.73	5946.15

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-20	11-Apr-06	<1	<2	<2	<2	<0.0008		7.35	5946.53
MW-20	11-May-06	<1	<2	<2	<2	0.00086		7.01	5946.87
MW-20	13-Jun-06	<1	<2	<2	<2	0.00855			
MW-20	21-Jul-06	<1	<2	<2	<2	<0.0008			
MW-20	28-Jul-06	<1	<2	<2	<2	0.0011			
MW-20	04-Aug-06	<1	<2	<2	<2	<0.0008			
MW-20	11-Aug-06	<1	<2	<2	<2	<0.0008			
MW-20	16-Aug-06	<1	<2	<2	<2	0.0033			
MW-20	24-Aug-06	<1	<2	<2	<2	0.0022		9.71	5944.17
MW-20	31-Aug-06	<1	<2	<2	<2	0.0011		9.85	5944.03
MW-20	06-Sep-06	<1	<2	<2	<2	0.011		10.00	5943.88
MW-20	13-Sep-06	<1	<2	<2	<2	<0.0008		10.04	5943.84
MW-20	21-Sep-06	<1	<2	<2	<2	0.0015		9.96	5943.92
MW-20	27-Sep-06	<1	<2	<2	<2	0.00096		9.82	5944.06
MW-20	06-Oct-06	<1	<2	<2	<2	<0.0008		9.88	5944.00
MW-20	12-Oct-06	<1	<2	<2	<2	<0.0008		9.54	5944.34
MW-20	19-Oct-06	<1	<2	<2	<2	<0.0008		9.43	5944.45
MW-20	25-Oct-06	<1	<2	<2	<2	<0.0008		9.64	5944.24
MW-20	01-Nov-06	<1	<2	<2	<2	<0.0008		9.25	5944.63
MW-20	17-Nov-06	<1	<2	<2	<2	<0.0008		9.03	5944.85
MW-20	06-Dec-06	<1	<2	<2	<2	<0.0008		7.92	5945.96
MW-20	03-Jan-07	<1	<2	<2	<2	<0.0008			
MW-20	17-Jan-07	<1	<2	<2	<2	<0.0008			
MW-20	05-Feb-07	<1	<2	<2	<2	<0.0008			
MW-20	22-Feb-07	<1	<2	<2	<2	<0.0008		8.32	5945.56
MW-20	07-Mar-07	<1	<2	<2	<2	<0.0008		8.19	5945.69
MW-20	13-Mar-07	<1	<2	<2	<2	<0.0008		8.20	5945.68
MW-20	26-Mar-07	<1	<2	<2	<2	0.0012			
MW-20	11-Apr-07	<1	<2	<2	<2	<0.0008			
MW-20	25-Apr-07	<0.5	<5	<0.5	<2	<0.01			
MW-20	08-May-07	<0.5	<5	<0.5	<2	<0.01			
MW-20	22-Jun-07	<1	<2	<2	<2	0.0012			
MW-20	11-Sep-07	<1	<2	<2	<2	<0.0008		10.15	5943.73
MW-20	18-Dec-07	<1	<2	<2	<2	<0.0008		8.25	5945.63
MW-20	04-Mar-08	<1	<2	<2	<2	<0.0008		7.69	5946.19
MW-20	17-Jun-08	<1	<2	<2	<2	<0.0008		6.23	5947.65
MW-20	30-Sep-08	<1	<2	<2	<2	0.0035		9.75	5944.13
MW-20	08-Dec-08	<1	<2	<2	<2	0.0011		8.61	5945.27
MW-20	16-Mar-09	<1	<2	<2	<2	<0.0008		7.85	5946.03
MW-21	02-Sep-04	<1	<2	<2	<2	0.0087			
MW-21	14-Oct-04	<1	<2	<2	<2	0.0049		25.20	5944.25
MW-21	10-Nov-04	<1	<2	<2	<2	0.0011		24.80	5944.65
MW-21	14-Dec-04	<1	<2	<2	<2	0.0016		23.54	5945.91
MW-21	13-Jan-05	<1	<2	<2	<2	<0.0009			
MW-21	09-Feb-05	<1	<2	<2	<2	0.00086		23.68	5945.77
MW-21	09-Mar-05	<1	<2	<2	<2	<0.0008		23.56	5945.89
MW-21	13-Apr-05	<1	<2	<2	<2	<0.0008		23.33	5946.12
MW-21	10-May-05	<1	<2	<2	<2	<0.0008		22.79	5946.66
MW-21	09-Jun-05	<1	<2	<2	<2	0.0019		21.93	5947.52
MW-21	13-Jul-05	<1	<2	<2	<2	0.0028		22.24	5947.21
MW-21	09-Aug-05	<1	<2	<2	<2	0.0011		23.42	5946.03
MW-21	13-Sep-05	<1	<2	<2	<2	0.0011		24.43	5945.02
MW-21	12-Oct-05	<1	<2	<2	<2	0.0015		24.34	5945.11
MW-21	08-Nov-05	<1	<2	<2	<2	0.0013		23.89	5945.56
MW-21	08-Dec-05	<1	<2	<2	<2	0.00092		23.52	5945.93
MW-21	12-Jan-06	<1	<2	<2	<2	0.0013		23.37	5946.08
MW-21	15-Feb-06	<1	<2	<2	<2	0.0013		23.22	5946.23

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-21	15-Mar-06	<1	<2	<2	<2	0.01		20.33	5949.12
MW-21	11-Apr-06	<1	<2	<2	<2	0.0022		22.48	5946.97
MW-21	11-May-06	<1	<2	<2	<2	0.0017		22.00	5947.45
MW-21	13-Jun-06	<1	<2	<2	<2	0.0032			
MW-21	21-Jul-06	<1	<2	<2	<2	0.0016			
MW-21	28-Jul-06	<1	<2	<2	<2	0.0019			
MW-21	04-Aug-06	<1	<2	<2	<2	0.001			
MW-21	11-Aug-06	<1	<2	<2	<2	0.0011			
MW-21	16-Aug-06	<1	<2	<2	<2	0.0023			
MW-21	24-Aug-06	<1	<2	<2	<2	0.0026		24.79	5944.66
MW-21	31-Aug-06	<1	<2	<2	<2	0.0036		24.87	5944.58
MW-21	06-Sep-06	<1	<2	<2	<2	0.0057		24.95	5944.50
MW-21	13-Sep-06	<1	<2	<2	<2	0.0031		25.31	5944.14
MW-21	21-Sep-06	<1	<2	<2	<2	0.0036		25.31	5944.14
MW-21	27-Sep-06	<1	<2	<2	<2	0.0039		25.08	5944.37
MW-21	06-Oct-06	<1	<2	<2	<2	0.0019		25.21	5944.24
MW-21	12-Oct-06	<1	<2	<2	<2	<0.0008		24.85	5944.60
MW-21	19-Oct-06	<1	<2	<2	<2	<0.0008		24.75	5944.70
MW-21	25-Oct-06	<1	<2	<2	<2	<0.0008		24.68	5944.77
MW-21	01-Nov-06	<1	<2	<2	<2	<0.0008		24.53	5944.92
MW-21	17-Nov-06	<1	<2	<2	<2	<0.0008		24.61	5944.84
MW-21	06-Dec-06	<1	<2	<2	<2	0.0019		24.26	5945.19
MW-21	03-Jan-07	<1	<2	<2	<2	<0.0008			
MW-21	17-Jan-07	<1	<2	<2	<2	<0.0008			
MW-21	05-Feb-07	<1	<2	<2	<2	<0.0008			
MW-21	22-Feb-07	<1	<2	<2	<2	<0.0008		23.68	5945.77
MW-21	07-Mar-07	<1	<2	<2	<2	0.00086		23.82	5945.63
MW-21	13-Mar-07	<1	<2	<2	<2	<0.0008		23.60	5945.85
MW-21	26-Mar-07	<1	<2	<2	<2	<0.0008			
MW-21	11-Apr-07	<1	<2	<2	<2	<0.0008			
MW-21	25-Apr-07	<0.5	<5	<0.5	<2	<0.0008			
MW-21	08-May-07	<0.5	<5	<0.5	<2	<0.0008			
MW-21	22-Jun-07	<1	<2	<2	<2	0.00095			
MW-21	11-Sep-07	<1	<2	<2	<2	0.0012		24.95	5944.50
MW-21	18-Dec-07	<1	<2	<2	<2	0.0038		23.81	5945.64
MW-21	04-Mar-08	<1	<2	<2	<2	<0.0008		23.12	5946.33
MW-21	17-Jun-08	<1	<2	<2	<2	<0.0008		20.80	5948.65
MW-21	30-Sep-08	<1	<2	<2	<2	0.0015		25.00	5944.45
MW-21	08-Dec-08	<1	<2	<2	<2	<0.0008		23.90	5945.55
MW-21	16-Mar-09	<1	<2	<2	<2	<0.0008		23.27	5946.18
MW-22	21-Sep-04	<1	<2	<2	<2	0.025			
MW-22	14-Oct-04	<1	<2	<2	<2	0.061		13.50	5943.58
MW-22	10-Nov-04	<1	<2	<2	<2	0.023		13.20	5943.88
MW-22	14-Dec-04	<1	<2	<2	<2	0.069		12.42	5944.66
MW-22	13-Jan-05	<1	<2	<2	<2	0.03			
MW-22	09-Feb-05	<1	<2	<2	<2	0.0087		11.95	5945.13
MW-22	09-Mar-05	<1	<2	<2	<2	0.0043		11.89	5945.19
MW-22	09-Mar-05	<1	<2	<2	<2	0.0034		11.89	5945.19
MW-22	09-Mar-05	<0.5	<5	<0.5	<2	<0.01		11.89	5945.19
MW-22	13-Apr-05	<1	<2	<2	<2	0.0013		11.78	5945.30
MW-22	10-May-05	<1	<2	<2	<2	<0.0008		11.14	5945.94
MW-22	09-Jun-05	<1	<2	<2	<2	0.0066		8.11	5948.97
MW-22	12-Jul-05	<1	<2	<2	<2	0.021		8.64	5948.44
MW-22	09-Aug-05	<1	<2	<2	<2	0.0084		9.65	5947.43
MW-22	13-Sep-05	<1	<2	<2	<2	0.0025		10.56	5946.52
MW-22	12-Oct-05	<1	<2	<2	<2	0.004		10.56	5946.52
MW-22	08-Nov-05	<1	<2	<2	<2	0.0042		10.16	5946.92

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-22	08-Dec-05	<1	<2	<2	<2	<0.0008		9.82	5947.26
MW-22	11-Jan-06	<1	<2	<2	<2	0.007		9.06	5948.02
MW-22	15-Feb-06	<1	<2	<2	<2	0.0015		9.79	5947.29
MW-22	15-Mar-06	<1	<2	<2	<2	0.009		9.51	5947.57
MW-22	11-Apr-06	<1	<2	<2	<2	0.0052		9.05	5948.03
MW-22	11-May-06	<1	<2	<2	<2	<0.0008		9.43	5947.65
MW-22	13-Jun-06	<1	<2	<2	<2	0.0014			
MW-22	06-Sep-06	<1	<2	<2	<2	0.049		10.00	5947.08
MW-22	05-Dec-06	<1	<2	<2	<2	0.00085		10.56	5946.52
MW-22	13-Mar-07	<1	<2	<2	<2	<0.0008		9.95	5947.13
MW-22	22-Jun-07	<1	<2	<2	<2	<0.0008			
MW-22	11-Sep-07	<1	<2	<2	<2	<0.0008		11.45	5945.63
MW-22	18-Dec-07	<1	<2	<2	<2	<0.0008		9.92	5947.16
MW-22	04-Mar-08	<1	<2	<2	<2	<0.0008		9.43	5947.65
MW-22	17-Jun-08	<1	<2	<2	<2	<0.0008		7.21	5949.87
MW-22	30-Sep-08	<1	<2	<2	<2	<0.0008		11.55	5945.53
MW-22	08-Dec-08	<1	<2	<2	<2	<0.0008		10.25	5946.83
MW-22	16-Mar-09	<1	<2	<2	<2	<0.0008		9.67	5947.41
MW-23	23-Sep-04	<1	<2	<2	<2	3.7			
MW-23	14-Oct-04	<1	<2	<2	<2	5.5		17.05	5935.64
MW-23	10-Nov-04	<1	<2	<2	<2	6.1		17.20	5935.49
MW-23	14-Dec-04	<1	<2	<2	<2	6.6		15.71	5936.98
MW-23	13-Jan-05	<1	<2	<2	<2	7.2		16.02	5936.67
MW-23	10-Feb-05	<1	<2	<2	<2	4.3	0.0		
MW-23	09-Mar-05	<1	<2	<2	<2	4.1		16.58	5936.11
MW-23	13-Apr-05	<1	<2	<2	<2	7.5		16.08	5936.61
MW-23	11-May-05	<1	<2	<2	<2	4		14.51	5938.18
MW-23	09-Jun-05	<1	<2	<2	<2	4.9		13.15	5939.54
MW-23	13-Jul-05	<1	<2	<2	<2	3.4		13.33	5939.36
MW-23	10-Aug-05	<1	<2	<2	<2	3.6		15.14	5937.55
MW-23	12-Sep-05	<1	<2	<2	<2	4.4		16.93	5935.76
MW-23	11-Oct-05	<1	<2	<2	<2	3.3			
MW-23	09-Nov-05	<1	<2	<2	<2	3.5			
MW-23	08-Dec-05	<1	<2	<2	<2	3.2		16.08	5936.61
MW-23	12-Jan-06	<1	<2	<2	<2	3		16.16	5936.53
MW-23	15-Feb-06	<1	<2	<2	<2	5.5		16.03	5936.66
MW-23	16-Mar-06	<1	<2	<2	<2	7.3		16.15	5936.54
MW-23	11-Apr-06	<1	<2	<2	<2	5.3		14.80	5937.89
MW-23	11-May-06	<1	<2	<2	<2	4.6		13.15	5939.54
MW-23	13-Jun-06	<1	<2	<2	<2	0.92			
MW-23	21-Jul-06	<1	<2	<2	<2	2.4			
MW-23	28-Jul-06	<1	<2	<2	<2	3.6			
MW-23	04-Aug-06	<1	<2	<2	<2	4.2			
MW-23	11-Aug-06	<1	<2	<2	<2	4			
MW-23	16-Aug-06	<1	<2	<2	<2	3.3			
MW-23	24-Aug-06	<1	<2	<2	<2	5.4			
MW-23	31-Aug-06	<1	<2	<2	<2	5		17.39	5935.30
MW-23	06-Sep-06	<1	<2	<2	<2	2.9		17.29	5935.40
MW-23	13-Sep-06	<1	<2	<2	<2	5.5		17.36	5935.33
MW-23	21-Sep-06	<1	<2	<2	<2	4.8		17.45	5935.24
MW-23	27-Sep-06	<1	<2	<2	<2	4		17.22	5935.47
MW-23	06-Oct-06	<1	<2	<2	<2	4.6		17.18	5935.51
MW-23	12-Oct-06	<1	<2	<2	<2	5.7		17.21	5935.48
MW-23	19-Oct-06	<1	<2	<2	<2	4.2		16.64	5936.05
MW-23	25-Oct-06	<1	<2	<2	<2	3.9		16.89	5935.80
MW-23	01-Nov-06	<1	<2	<2	<2	3.1		16.31	5936.38
MW-23	17-Nov-06	<1	<2	<2	<2	1.6		16.25	5936.44

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-23	06-Dec-06	<1	<2	<2	<2	1.2		16.32	5936.37
MW-23	03-Jan-07	<1	<2	<2	<2	2.3			
MW-23	17-Jan-07	<1	<2	<2	<2	1.7			
MW-23	05-Feb-07	<1	<2	<2	<2	2.2			
MW-23	22-Feb-07	<1	<2	<2	<2	4		15.68	5937.01
MW-23	07-Mar-07	<1	<2	<2	<2	3.4		15.34	5937.35
MW-23	13-Mar-07	<1	<2	<2	<2	3.4	0.2	15.30	5937.39
MW-23	26-Mar-07	<1	<2	<2	<2	3.6			
MW-23	11-Apr-07	<1	<2	<2	<2	2.2			
MW-23	25-Apr-07	<0.5	<5	<2	<2	3.2			
MW-23	08-May-07	<0.5	<5	<2	<2	2.1			
MW-23	22-Jun-07	<1	<2	<2	<2	2.3			
MW-23	10-Sep-07	<1	<2	<2	<2	3.6		17.29	5935.40
MW-23	18-Dec-07	<1	<2	<2	<2	4.5		16.65	5936.04
MW-23	04-Mar-08	<1	<2	<2	<2	1.3		16.17	5936.52
MW-23	17-Jun-08	<1	<2	<2	<2	0.0012		12.16	5940.53
MW-23	29-Sep-08	<1	<2	<2	<2	0.72		17.10	5935.59
MW-23	08-Dec-08	<1	<2	<2	<2	0.45		14.77	5937.92
MW-23	16-Mar-09	<1	<2	<2	<2	0.37		15.52	5937.17
MW-24	21-Sep-04	<1	<2	<2	<2	<0.0008			
MW-24	14-Oct-04	<1	<2	<2	<2	0.00082		5.25	5949.66
MW-24	10-Nov-04	<1	<2	<2	<2	<0.0008		6.00	5948.91
MW-24	14-Dec-04	<1	<2	<2	<2	<0.0008		6.54	5948.37
MW-24	13-Jan-05	<1	<2	<2	<2	<0.0008			
MW-24	10-Feb-05	<1	<2	<2	<2	<0.0008			
MW-24	09-Mar-05	<1	<2	<2	<2	<0.0008		6.95	5947.96
MW-24	13-Apr-05	<1	<2	<2	<2	<0.0008		7.28	5947.63
MW-24	11-May-05	<1	<2	<2	<2	<0.0008		2.64	5952.27
MW-24	09-Jun-05	<1	<2	<2	<2	<0.0008		7.08	5947.83
MW-24	13-Jul-05	<1	<2	<2	<2	<0.0008			
MW-24	10-Aug-05	<1	<2	<2	<2	<0.0008		5.02	5949.89
MW-24	10-Aug-05	<1	<2	<2	<2	<0.0008		5.02	5949.89
MW-24	10-Aug-05	<0.5	<5	<0.5	1.9	<0.01		5.02	5949.89
MW-24	12-Sep-05	<1	<2	<2	<2	<0.0008		5.35	5949.56
MW-24	12-Oct-05	<1	<2	<2	<2	<0.0008		5.83	5949.08
MW-24	09-Nov-05	<1	<2	<2	<2	<0.0008			
MW-24	09-Nov-05	<0.5	<5	<0.5	NA	<0.01			
MW-24	09-Nov-05	<1	<2	<2	<2	<0.0008			
MW-24	08-Dec-05	<1	<2	<2	<2	<0.0008		5.82	5949.09
MW-24	10-Jan-06	<1	<2	<2	<2	<0.0008		5.88	5949.03
MW-24	15-Feb-06	<1	<2	<2	<2	<0.0008		6.18	5948.73
MW-24	15-Feb-06	<1	<2	<2	<2	<0.0008		6.18	5948.73
MW-24	15-Feb-06	<0.5	<0.5	<0.5	<0.5	<0.0034		6.18	5948.73
MW-24	16-Mar-06	<1	<2	<2	<2	0.002		6.45	5948.46
MW-24	13-Apr-06	<1	<2	<2	<2	<0.0008		6.13	5948.78
MW-24	11-May-06	<1	<2	<2	<2	<0.0008		6.78	5948.13
MW-24	13-Jun-06	<1	<2	<2	<2	<0.0008			
MW-24	06-Sep-06	<1	<2	<2	<2	<0.0008		5.23	5949.68
MW-24	06-Dec-06	<1	<2	<2	<2	<0.0008		5.36	5949.55
MW-24	06-Dec-06	<0.25	<0.25	<0.25	<0.25	0.00028		5.36	5949.55
MW-24	12-Mar-07	<1	<2	<2	<2	<0.0008		5.80	5949.11
MW-24	22-Jun-07	<1	<2	<2	<2	<0.0008			
MW-24	10-Sep-07	<1	<2	<2	<2	0.021		5.15	5949.76
MW-24	18-Dec-07	<1	<2	<2	<2	<0.0008		5.41	5949.50
MW-24	05-Mar-08	<1	<2	<2	<2	<0.0008		5.01	5949.90
MW-24	17-Jun-08	<1	<2	<2	<2	<0.0008		6.15	5948.76
MW-24	01-Oct-08	<1	<2	<2	<2	0.004		4.85	5950.06

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-24	10-Dec-08	<1	<2	<2	<2	<0.0008		4.58	5950.33
MW-24	10-Dec-08	<1	<2	<2	<2	<0.0008		4.58	5950.33
MW-24	10-Dec-08	<1	<1	<1	<1	<0.001		4.58	5950.33
MW-24	17-Mar-09	<1	<2	<2	<2	<0.0008		5.45	5949.46
MW-25	21-Sep-04	<1	<2	<2	<2	0.093			
MW-25	13-Oct-04	<1	<2	<2	<2	0.029		2.57	5969.22
MW-25	09-Nov-04	<1	<2	<2	<2	0.06		3.30	5968.49
MW-25	13-Dec-04	<1	<2	<2	<2	0.087		2.54	5969.25
MW-25	08-Mar-05	<1	<2	<2	<2	0.17		4.02	5967.77
MW-25	12-Apr-05	<1	<2	<2	<2	0.065		4.74	5967.05
MW-25	09-May-05	<1	<2	<2	<2	0.08		2.89	5968.90
MW-25	08-Jun-05	<1	<2	<2	<2	0.067		2.08	5969.71
MW-25	11-Jul-05	<1	<2	<2	<2	0.041			
MW-25	08-Aug-05	<1	<2	<2	<2	0.06		2.51	5969.28
MW-25	12-Sep-05	<1	<2	<2	<2	0.4		2.68	5969.11
MW-25	11-Oct-05	<1	<2	<2	<2	0.0079		2.51	5969.28
MW-25	07-Nov-05	<1	<2	<2	<2	0.034			
MW-25	11-Apr-06	<1	<2	<2	<2	0.13		2.75	5969.04
MW-25	10-May-06	<1	<2	<2	<2	0.14		2.65	5969.14
MW-25	12-Jun-06	<1	<2	<2	<2	0.06			
MW-25	06-Sep-06	<1	<2	<2	<2	0.068		2.42	5969.37
MW-25	13-Mar-07	<1	<2	<2	<2	0.076			
MW-25	21-Jun-07	<1	<2	<2	<2	0.2			
MW-25	12-Sep-07	<1	<2	<2	<2	0.0023		2.71	5969.08
MW-25	17-Jun-08	<1	<2	<2	<2	0.0025		2.51	5969.28
MW-25	29-Sep-08								Lost
MW-25	08-Dec-08								Frozen
MW-25	17-Mar-09	<1	<2	<2	<2	<0.0008		3.30	5968.49
MW-26	21-Sep-04	<1	<2	<2	<2	0.82			
MW-26	14-Oct-04	<1	<2	<2	<2	1.4		4.15	5950.50
MW-26	10-Nov-04	<1	<2	<2	<2	4		4.90	5949.75
MW-26	14-Dec-04	<1	<2	<2	<2	2.4		4.81	5949.84
MW-26	13-Jan-05	<0.5	<5	<0.5	NA	0.5		5.79	5948.86
MW-26	13-Jan-05	<1	<2	<2	<2	2.4		5.79	5948.86
MW-26	13-Jan-05	<1	<2	<2	<2	2.1		5.79	5948.86
MW-26	10-Feb-05	<0.5	<5	<0.5	NA	2.9			
MW-26	10-Feb-05	<1	<2	<2	<2	3.2			
MW-26	10-Feb-05	<1	<2	<2	<2	2.9			
MW-26	09-Mar-05	<1	<2	<2	<2	3.4		4.25	5950.40
MW-26	13-Apr-05	<1	<2	<2	<2	3.3		4.15	5950.50
MW-26	13-Apr-05	<1	<2	<2	<2	3.3		4.15	5950.50
MW-26	13-Apr-05	<0.5	<2	<0.5	NA	3.7		4.15	5950.50
MW-26	11-May-05	<1	<2	<2	<2	2.1		1.77	5952.88
MW-26	11-May-05	<0.5	<5	<0.5	NA	0.38		1.77	5952.88
MW-26	11-May-05	<1	<2	<2	<2	2.3		1.77	5952.88
MW-26	08-Jun-05	<1	<2	<2	<2	2.8		1.79	5952.86
MW-26	12-Jul-05	<1	<2	<2	<2	1.5		1.79	5952.86
MW-26	09-Aug-05	<1	<2	<2	<2	1		1.48	5953.17
MW-26	13-Sep-05	<1	<2	<2	<2	0.97		1.32	5953.33
MW-26	13-Sep-05	<1	<2	<2	<2	0.99		1.32	5953.33
MW-26	13-Sep-05	<0.5	<5	<0.5	NA	1.5		1.32	5953.33
MW-26	11-Oct-05	<1	<2	<2	<2	0.48		1.45	5953.20
MW-26	09-Nov-05	<1	<2	<2	<2	1.4		1.79	5952.86
MW-26	08-Dec-05	<1	<2	<2	<2	0.86		1.75	5952.90
MW-26	12-Jan-06	<1	<2	<2	<2	1.2		1.65	5953.00
MW-26	15-Feb-06	<1	<2	<2	<2	1		1.64	5953.01

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
MW-26	16-Mar-06	<1	<2	<2	<2	0.83		1.48	5953.17
MW-26	16-Mar-06	<0.25	<0.25	<0.25	<0.25	0.000377		1.48	5953.17
MW-26	12-Apr-06	<1	<2	<2	<2	0.45		1.13	5953.52
MW-26	12-Apr-06	<0.25	<0.25	<0.25	<0.25	0.858		1.13	5953.52
MW-26	11-May-06	<1	<2	<2	<2	0.75		1.55	5953.10
MW-26	11-May-06	<0.5	<0.5	<0.5	<0.5	0.877		1.55	5953.10
MW-26	13-Jun-06	<1	<2	<2	<2	0.63			
MW-26	13-Jun-06	<0.5	<0.5	<0.5	<0.5	0.767			
MW-26	07-Sep-06	<1	<5	<2	<2	1.5		1.20	5953.45
MW-26	06-Dec-06	<0.25	<0.25	<0.25	<0.25	0.355		0.98	5953.67
MW-26	06-Dec-06	<1	<2	<2	<2	1.1		0.98	5953.67
MW-26	06-Dec-06	<1	<2	<2	<2	0.76		0.98	5953.67
MW-26	12-Mar-07	<1	<2	<2	<2	0.56		0.70	5953.95
MW-26	21-Jun-07	<1	<2	<2	<2	0.62			
MW-26	11-Sep-07	<1	<2	<2	<2	1.4		1.00	5953.65
MW-26	18-Dec-07	<1	<2	<2	<2	0.036		1.73	5952.92
MW-26	04-Mar-08	<1	<2	<2	<2	0.35		0.60	5954.05
MW-26	17-Jun-08	<1	<2	<2	<2	0.55		1.30	5953.35
MW-26	17-Jun-08	<1	<1	<1	<2			1.30	5953.35
MW-26	01-Oct-08	<1	<2	<2	<2	1		1.60	5953.05
MW-26	09-Dec-08	<1	<2	<2	<2	0.73		1.25	5953.40
MW-26	09-Dec-08	<1	<2	<2	<2	0.79		1.25	5953.40
MW-26	09-Dec-08	<1	<1	<1	<1	0.145		1.25	5953.40
MW-26	17-Mar-09	<1	<2	<2	<2	0.14		1.59	5953.06
MW-27	23-Sep-04	<1	<2	<2	<2	0.00095			
MW-27	14-Oct-04	<1	<2	<2	<2	<0.0008		9.72	5946.50
MW-27	10-Nov-04	<1	<2	<2	<2	0.0011		7.30	5948.92
MW-27	14-Dec-04	<1	<2	<2	<2	0.00091		6.74	5949.48
MW-27	13-Jan-05	<1	<2	<2	<2	<0.0009		7.39	5948.83
MW-27	10-Feb-05	<1	<2	<2	<2	<0.0008			
MW-27	09-Mar-05	<1	<2	<2	<2	<0.0008		9.29	5946.93
MW-27	13-Apr-05	<1	<2	<2	<2	<0.0008		8.02	5948.20
MW-27	11-May-05	<1	<2	<2	<2	<0.0008		5.56	5950.66
MW-27	09-Jun-05	<1	<2	<2	<2	<0.0008		4.67	5951.55
MW-27	13-Jul-05	<1	<2	<2	<2	<0.0008		13.33	5942.89
MW-27	10-Aug-05	<1	<2	<2	<2	<0.0008		8.39	5947.83
MW-27	12-Sep-05	<1	<2	<2	<2	<0.0008		9.87	5946.35
MW-27	11-Oct-05	<1	<2	<2	<2	<0.0008			
MW-27	09-Nov-05	<1	<2	<2	<2	0.00086			
MW-27	08-Dec-05	<1	<2	<2	<2	<0.0008		8.23	5947.99
MW-27	12-Jan-06	<1	<2	<2	<2	<0.0008		9.06	5947.16
MW-27	15-Feb-06	<1	<2	<2	<2	<0.0008		9.57	5946.65
MW-27	16-Mar-06	<1	<2	<2	<2	<0.0008		7.91	5948.31
MW-27	11-Apr-06	<1	<2	<2	<2	0.00083		6.45	5949.77
MW-27	11-May-06	<1	<2	<2	<2	<0.0008		4.15	5952.07
MW-27	13-Jun-06	<1	<2	<2	<2	<0.0008			
MW-27	06-Sep-06	<1	<2	<2	<2	<0.0008		11.04	5945.18
MW-27	06-Dec-06	<1	<2	<2	<2	<0.0008		8.82	5947.40
MW-27	13-Mar-07	<1	<2	<2	<2	<0.0008		5.90	5950.32
MW-27	22-Jun-07	<1	<2	<2	<2	<0.0008			
MW-27	10-Sep-07	<1	<2	<2	<2	<0.0008		11.21	5945.01
MW-27	18-Dec-07	<1	<2	<2	<2	<0.0008		10.95	5945.27
MW-27	04-Mar-08	<1	<2	<2	<2	<0.0008		9.75	5946.47
MW-27	17-Jun-08	<1	<2	<2	<2	<0.0008		5.47	5950.75
MW-27	29-Sep-08	<1	<2	<2	<2	<0.0008	<0.0008	11.35	5944.87
MW-27	09-Dec-08	<1	<2	<2	<2	<0.0008	<0.0008	5.75	5950.47
MW-27	16-Mar-09	<1	<2	<2	<2	<0.0008		8.21	5948.01

## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
EP-01	08-Apr-04	< 1	< 2	< 2	< 2	0.015			
E2	16-Sep-04	< 1	< 2	< 2	< 2	0.16			
E2	20-Apr-05	< 1	< 2	< 2	< 2	0.0015			
E2	18-May-05	< 1	< 2	< 2	< 2	0.0035			
E2	09-Jun-05	< 1	< 2	< 2	< 2	0.43			
E2-D	09-Jun-05	< 1	< 2	< 2	< 2	0.51			
E2-S	09-Jun-05	< 0.5	< 5	< 0.5	< 1.5	0.13			
E2	13-Jul-05	< 1	< 2	< 2	< 2	0.41			
E2	10-Aug-05	< 1	< 2	< 2	< 2	0.23			
E2	08-Sep-05	< 1	< 2	< 2	< 2	0.11			
E2	06-Oct-05	< 1	< 2	< 2	< 2	0.12			
E2	03-Nov-05	< 1	< 2	< 2	< 2	0.095			
E2	12-Dec-05	< 1	< 2	< 2	< 2	0.0012			
E2	10-Jan-06	< 1	< 2	< 2	< 2	0.037			
E2	15-Feb-06	< 1	< 2	< 2	< 2	0.027			
E2	16-Mar-06	< 1	< 2	< 2	< 2	0.13			
E2	11-Apr-06	< 1	< 2	< 2	< 2	0.16			
E2	03-May-06	< 1	< 2	< 2	< 2	0.14			
E2	06-Jun-06	< 1	< 2	< 2	< 2	0.059			
E2	21-Jul-06	< 1	< 2	< 2	< 2	0.16			
E2	28-Jul-06	< 1	< 2	< 2	< 2	0.068			
E2	04-Aug-06	< 1	< 2	< 2	< 2	0.085			
E2	11-Aug-06	< 1	< 2	< 2	< 2	0.051			
E2	16-Aug-06	< 1	< 2	< 2	< 2	0.064			
E2	24-Aug-06	< 1	< 2	< 2	< 2	0.05			
E2	31-Aug-06	< 1	< 2	< 2	< 2	0.041			
E2	06-Sep-06	< 1	< 2	< 2	< 2	0.038			
E2	13-Sep-06	< 1	< 2	< 2	< 2	0.03			
E2	21-Sep-06	< 1	< 2	< 2	< 2	0.052			
E2	27-Sep-06	< 1	< 2	< 2	< 2	0.018			
E2	06-Oct-06	< 1	< 2	< 2	< 2	0.013			
E2	12-Oct-06	< 1	< 2	< 2	< 2	0.028			
E2	19-Oct-06	< 1	< 2	< 2	< 2	0.016			
E2	25-Oct-06	< 1	< 2	< 2	< 2	0.0061			
E2-D	25-Oct-06	< 1	< 2	< 2	< 2	0.0098			
E2-S	25-Oct-06	< 0.25	< 0.25	< 0.25	< 0.5	0.00274			
E2	01-Nov-06	< 1	< 2	< 2	< 2	0.0076			
E2	17-Nov-06	< 1	< 2	< 2	< 2	0.0025			
E2	06-Dec-06	< 1	< 2	< 2	< 2	0.0067			
E2	03-Jan-07	< 1	< 2	< 2	< 2	0.0075			
E2	17-Jan-07	< 1	< 2	< 2	< 2	0.0095			
E2	05-Feb-07	< 1	< 2	< 2	< 2	0.011			
E2	22-Feb-07	< 1	< 2	< 2	< 2	0.024			
E2	07-Mar-07	< 1	< 2	< 2	< 2	0.02			
E2	13-Mar-07	< 1	< 2	< 2	< 2	0.018			
E2	26-Mar-07	< 1	< 2	< 2	< 2	0.032			
E2	11-Apr-07	< 1	< 2	< 2	< 2	0.049			
E2	25-Apr-07	< 0.5	< 5	< 0.5	NS	0.055			
E2	08-May-07	< 0.5	< 5	< 0.5	NS	0.054			
E2	30-May-07	< 1	< 2	< 2	< 2	0.012			
E2	13-Jun-07	< 1	< 2	< 2	< 2	0.0095			
E2	22-Jun-07	< 1	< 2	< 2	< 2	0.0096			
E2	05-Jul-07	< 1	< 2	< 2	< 2	0.017			
E2	20-Jul-07	< 1	< 2	< 2	< 2	0.047			
E2	02-Aug-07	< 1	< 2	< 2	< 2	0.082			
E2	15-Aug-07	< 1	< 2	< 2	< 2	0.1			
E2	10-Sep-07	< 1	< 2	< 2	< 2	0.043			



## Appendix B

Summary of Historical Groundwater Analytical Results and Groundwater Elevations  
Encana, West Divide Creek Seep  
Garfield County, Colorado

Sample ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Methane (mg/L)	Estimated Thermogenic Methane (mg/L)	DTW (ft)	Groundwater Elevation (ft-msl)
E2	24-Sep-07	< 1	< 2	< 2	< 2	0.11			
E2	09-Oct-07	< 1	< 2	< 2	< 2	< 0.0008			
E2	24-Oct-07	< 0.5	< 5	< 0.5	< 2	< 0.0008			
EDC-1	02-Nov-07	< 1	< 2	< 2	< 2	0.0041			
EDC-2	02-Nov-07	< 0.5	< 5	< 0.5	NS	0.0089			
E2	07-Nov-07	< 0.5	< 5	< 0.5	< 2	< 0.0008			
E2	20-Nov-07	< 1	< 2	< 2	< 2	< 0.0008			
E2	04-Dec-07	< 1	< 2	< 2	< 2	< 0.0008			
E2	18-Dec-07	< 1	< 2	< 2	< 2	< 0.0008			
E2	03-Jan-08	< 1	< 2	< 2	< 2	0.012			
E2	04-Mar-08	< 1	< 2	< 2	< 2	0.0095			
EICH1	21-May-08	< 0.5	< 5	< 0.5	< 1.5	< 0.01			
ECH2WW	29-Sep-08	< 1	< 2	< 2	< 2	< 0.0008			
EICH1	01-Dec-08	< 0.5	< 5	< 0.5	< 1.5	< 0.010			
EICH2	16-Mar-09	< 1	< 2	< 2	< 2	< 0.0008			
<b>Bold - indicates value exceeds state standard</b>				DTW - depth to water below measuring point					
mg/l - milligrams/liter				<b>ft - feet</b>				ft-msl - feet above mean sea level	
ug/l - micrograms/liter				Blank cell - indicates not analyzed or not obtained					

# **APPENDIX C**

## **Historical Surface Water Results**

## Appendix C

### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-1	13-Apr-04	<1	<2	<2	<2	0.0055	
DCS-1	14-Apr-04	<1	<2	<2	<2	0.0039	
DCS-1	15-Apr-04	<1	<2	<2	<2	0.0077	
DCS-1	16-Apr-04	<1	<2	<2	<2	0.011	
DCS-1	17-Apr-04	<1	<2	<2	<2	0.015	
DCS-1	18-Apr-04	<1	<2	<2	<2	0.018	
DCS-1	19-Apr-04	<1	<2	<2	<2	0.0031	
DCS-1	26-Apr-04	<1	<2	<2	<2	0.003	
DCS-1	29-Apr-04	<1	<2	<2	<2	0.0015	
DCS-1	03-May-04	<1	<2	<2	<2	0.0011	
DCS-1	02-Jun-04	<1	<2	<2	<2	0.0013	
DCS-1	08-Jul-04	<1	<2	<2	<2	0.0016	
DCS-1	03-Aug-04	<1	<2	<2	<2	0.0025	
DCS-1	14-Sep-04	<1	<2	<2	<2	0.0014	
DCS-1	12-Oct-04	<1	<2	<2	<2	0.02	
DCS-1	26-Oct-04	<1	<2	<2	<2	0.026	
DCS-1	27-Oct-04	<1	<2	<2	<2	0.021	
DCS-1	28-Oct-04	<1	<2	<2	<2	0.023	
DCS-1	29-Oct-04	<1	<2	<2	<2	0.027	
DCS-1	30-Oct-04	<1	<2	<2	<2	0.026	
DCS-1	31-Oct-04	<1	<2	<2	<2	0.028	
DCS-1	01-Nov-04	<1	<2	<2	<2	0.027	
DCS-1	02-Nov-04	<1	<2	<2	<2	0.05	
DCS-1	03-Nov-04	<1	<2	<2	<2	0.029	
DCS-1	04-Nov-04	<1	<2	<2	<2	0.042	
DCS-1	05-Nov-04	<1	<2	<2	<2	0.035	
DCS-1	06-Nov-04	<1	<2	<2	<2	0.037	
DCS-1	07-Nov-04	<1	<2	<2	<2	0.032	
DCS-1	08-Nov-04	<1	<2	<2	<2	0.018	
DCS-1	09-Nov-04	<1	<2	<2	<2	0.022	
DCS-1	10-Nov-04	<1	<2	<2	<2	0.024	
DCS-1	11-Nov-04	<1	<2	<2	<2	0.026	
DCS-1	12-Nov-04	<1	<2	<2	<2	0.028	
DCS-1	19-Nov-04	<1	<2	<2	<2	0.033	
DCS-1	23-Nov-04	<1	<2	<2	<2	0.057	
DCS-1	02-Dec-04	<1	<2	<2	<2	0.086	
DCS-1	09-Dec-04	<1	<2	<2	<2	0.002	
DCS-1	15-Dec-04	<1	<2	<2	<2	0.0019	
DCS-1	20-Dec-04	<1	<2	<2	<2	0.002	
DCS-1	23-Dec-04	<1	<2	<2	<2	0.0013	

## Appendix C

### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-1	06-Jan-05	<1	<2	<2	<2	0.0015	
DCS-1	10-Jan-05	<1	<2	<2	<2	0.0022	
DCS-1	10-Jan-05	<1	<2	<2	<2	0.0023	
DCS-1	10-Jan-05	<0.5	<5	<0.5	NA	<0.01	
DCS-1	20-Jan-05	<1	<2	<2	<2	0.0013	
DCS-1	26-Jan-05	<1	<2	<2	<2	0.00095	
DCS-1	04-Feb-05	<1	<2	<2	<2	0.0013	
DCS-1	07-Feb-05	<1	<2	<2	<2	0.0013	
DCS-1	16-Feb-05	<1	<2	<2	<2	0.0013	
DCS-1	24-Feb-05	<1	<2	<2	<2	0.0011	
DCS-1	03-Mar-05	<1	<2	<2	<2	0.0013	
DCS-1	07-Mar-05	<1	<2	<2	<2	0.0014	
DCS-1	07-Mar-05	<1	<2	<2	<2	0.0014	
DCS-1	07-Mar-05	<0.5	<5	<0.5	NA	<0.01	
DCS-1	18-Mar-05	<1	<2	<2	<2	0.0011	
DCS-1	23-Mar-05	<1	<2	<2	<2	0.0063	
DCS-1	29-Mar-05	<1	<2	<2	<2	<0.0008	
DCS-1	07-Apr-05	<1	<2	<2	<2	0.0062	
DCS-1	11-Apr-05	<1	<2	<2	<2	0.01	
DCS-1	20-Apr-05	<1	<2	<2	<2	<0.0008	
DCS-1	27-Apr-05	<1	<2	<2	<2	<0.0008	
DCS-1	05-May-05	<1	<2	<2	<2	<0.0008	
DCS-1	09-May-05	<1	<2	<2	<2	<0.0008	
DCS-1	18-May-05	<1	<2	<2	<2	<0.0008	
DCS-1	25-May-05	<1	<2	<2	<2	<0.0008	
DCS-1	02-Jun-05	<1	<2	<2	<2	0.0018	
DCS-1	08-Jun-05	<1	<2	<2	<2	0.0019	
DCS-1	15-Jun-05	<1	<2	<2	<2	0.0026	
DCS-1	21-Jun-05	<1	<2	<2	<2	0.0011	
DCS-1	30-Jun-05	<1	<2	<2	<2	0.0012	
DCS-1	07-Jul-05	<1	<2	<2	<2	0.0013	
DCS-1	11-Jul-05	<1	<2	<2	<2	0.0013	
DCS-1	21-Jul-05	<1	<2	<2	<2	0.0018	
DCS-1	27-Jul-05	<1	<2	<2	<2	0.0011	
DCS-1	03-Aug-05	<1	<2	<2	<2	0.0014	
DCS-1	08-Aug-05	<1	<2	<2	<2	0.0014	
DCS-1	16-Aug-05	<1	<2	<2	<2	0.0022	
DCS-1	24-Aug-05	<1	<2	<2	<2	0.0015	
DCS-1	02-Sep-05	<1	<2	<2	<2	0.0017	
DCS-1	09-Sep-05	<1	<2	<2	<2	0.0021	

## Appendix C

### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-1	13-Sep-05	<1	<2	<2	<2	0.0014	
DCS-1	22-Sep-05	<1	<2	<2	<2	<0.0008	
DCS-1	29-Sep-05	<1	<2	<2	<2	<0.0008	
DCS-1	06-Oct-05	<1	<2	<2	<2	0.006	
DCS-1	10-Oct-05	<1	<2	<2	<2	0.0015	
DCS-1	20-Oct-05	<1	<2	<2	<2	0.0063	
DCS-1	27-Oct-05	<1	<2	<2	<2	0.0061	
DCS-1	03-Nov-05	<1	<2	<2	<2	0.0012	
DCS-1	07-Nov-05	<1	<2	<2	<2	0.0012	
DCS-1	17-Nov-05	<1	<2	<2	<2	0.0011	
DCS-1	22-Nov-05	<1	<2	<2	<2	0.0017	
DCS-1	29-Nov-05	<1	<2	<2	<2	0.0016	
DCS-1	06-Dec-05	<1	<2	<2	<2	0.0013	
DCS-1	14-Dec-05	<1	<2	<2	<2	0.0014	
DCS-1	21-Dec-05	<1	<2	<2	<2	<0.0008	
DCS-1	29-Dec-05	<1	<2	<2	<2	<0.0008	
DCS-1	05-Jan-06	<1	<2	<2	<2	<0.0008	
DCS-1	09-Jan-06	<1	<2	<2	<2	<0.0008	
DCS-1	18-Jan-06	<1	<2	<2	<2	<0.0008	
DCS-1	24-Jan-06	<1	<2	<2	<2	0.0011	
DCS-1	01-Feb-06	<1	<2	<2	<2	0.00089	
DCS-1	09-Feb-06	<0.5	<1	<1	NA	0.003	
DCS-1	13-Feb-06	<0.5	<1	<1	NA	<0.0008	
DCS-1	22-Feb-06	<1	<2	<2	<2	0.00081	
DCS-1	01-Mar-06	<1	<2	<2	<2	<0.0008	
DCS-1	09-Mar-06	<1	<2	<2	<2	0.00084	
DCS-1	14-Mar-06	<1	<2	<2	<2	<0.0008	
DCS-1	22-Mar-06	<1	<2	<2	<2	0.0017	
DCS-1	30-Mar-06	<1	<2	<2	<2	<0.0008	
DCS-1	05-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-1	10-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-1	20-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-1	27-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-1	04-May-06	<1	<2	<2	<2	<0.0008	
DCS-1	09-May-06	<1	<2	<2	<2	<0.0008	
DCS-1	13-Jun-06	<1	<2	<2	<2	0.0016	
DCS-1	05-Sep-06	<1	<5	<2	<2	0.0019	
DCS-1	04-Dec-06	<1	<5	<2	<2	0.0015	
DCS-1	04-Dec-06	<0.25	<0.25	<0.25	NA	0.0005	
DCS-1	12-Mar-07	<1	<5	<2	<2	<0.0008	

## Appendix C

### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-1	21-Jun-07	<1	<2	<2	<2	<0.0008	
DCS-1	13-Sep-07	<1	<2	<2	<2	0.0018	
DCS-1	17-Dec-07	<1	<2	<2	<2	0.0015	
DCS-1	03-Mar-08	<1	<2	<2	<2	<0.0008	
DCS-1	18-Jun-08	<1	<2	<2	<2	0.0012	
DCS-1	29-Sep-08	<1	<2	<2	<2	0.0019	
DCS-1	10-Dec-08	<1	<2	<2	<2	<0.0008	
DCS-1	17-Mar-09	<1	<2	<2	<2	<0.0008	
DCS-1	17-Mar-09	<1	<2	<2	<2	<0.0008	
DCS-1	17-Mar-09	<1	<1	<1	<1	<0.001	
DCS-2	13-Apr-04	1.4	<2	<2	<2	0.1	
DCS-2	14-Apr-04	1.1	<2	<2	<2	0.11	
DCS-2	15-Apr-04	1.6	<2	<2	<2	0.12	
DCS-2	16-Apr-04	3.5	2.6	<2	<2	0.24	
DCS-2	17-Apr-04	3.5	2.6	<2	<2	0.28	
DCS-2	18-Apr-04	2.9	2.1	<2	<2	0.19	
DCS-2	19-Apr-04	<1	<2	<2	<2	0.034	
DCS-2	26-Apr-04	<1	<2	<2	<2	0.027	
DCS-2	29-Apr-04	<1	<2	<2	<2	0.0025	
DCS-2	03-May-04	<1	<2	<2	<2	0.007	
DCS-2	02-Jun-04	<1	<2	<2	<2	0.0027	
DCS-2	09-Jun-04	<1	<2	<2	<2	0.0028	
DCS-2	17-Jun-04	<1	<2	<2	<2	0.0023	
DCS-2	24-Jun-04	<1	<2	<2	<2	0.015	
DCS-2	30-Jun-04	<1	<2	<2	<2	0.0052	
DCS-2	08-Jul-04	<1	<2	<2	<2	0.0064	
DCS-2	15-Jul-04	<1	<2	<2	<2	0.0065	
DCS-2	22-Jul-04	<1	<2	<2	<2	0.0077	
DCS-2	29-Jul-04	<1	<2	<2	<2	0.0074	
DCS-2	03-Aug-04	<1	<2	<2	<2	0.011	
DCS-2	11-Aug-04	<1	<2	<2	<2	0.014	
DCS-2	17-Aug-04	1.9	<2	<2	<2	0.012	
DCS-2	14-Sep-04	<1	<2	<2	<2	0.013	
DCS-2	12-Oct-04	4.3	<2	<2	<2	0.36	
DCS-2	12-Oct-04	4.1	<2	<2	<2	0.36	
DCS-2	12-Oct-04	3.6	<2	<2	NA	0.18	
DCS-2	26-Oct-04	2.9	<2	<2	<2	0.29	
DCS-2	27-Oct-04	2.2	<2	<2	<2	0.18	
DCS-2	28-Oct-04	2.5	<2	<2	<2	0.28	

## Appendix C

### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-2	29-Oct-04	2.4	<2	<2	<2	0.25	
DCS-2	30-Oct-04	3.2	<2	<2	<2	0.28	
DCS-2	31-Oct-04	1.3	<2	<2	<2	0.18	
DCS-2	01-Nov-04	3.5	<2	<2	<2	0.33	
DCS-2	02-Nov-04	4.1	<2	<2	<2	0.59	
DCS-2	03-Nov-04	3.3	<2	<2	<2	0.32	
DCS-2	04-Nov-04	4.4	<2	<2	<2	0.61	
DCS-2	05-Nov-04	<b>5.9</b>	<2	<2	<2	0.56	
DCS-2	06-Nov-04	4.4	<2	<2	<2	0.46	
DCS-2	07-Nov-04	4.2	<2	<2	<2	0.44	
DCS-2	08-Nov-04	3	<2	<2	<2	0.18	
DCS-2	09-Nov-04	3.7	<2	<2	<2	0.29	
DCS-2	10-Nov-04	4.5	<2	<2	<2	0.37	
DCS-2	11-Nov-04	3.3	<2	<2	<2	0.28	
DCS-2	12-Nov-04	<1	<2	<2	<2	0.3	
DCS-2	19-Nov-04	2.8	<2	<2	<2	0.3	
DCS-2	23-Nov-04	<b>5.1</b>	<2	<2	<2	0.57	
DCS-2	02-Dec-04	2.4	<2	<2	<2	0.42	
DCS-2	09-Dec-04	<1	<2	<2	<2	0.059	
DCS-2	15-Dec-04	<1	<2	<2	<2	0.035	
DCS-2	20-Dec-04	<b>360</b>	130	16	NA	12	
DCS-2	23-Dec-04	<1	<2	<2	<2	0.018	
DCS-2	06-Jan-05	<1	<2	<2	<2	0.0055	
DCS-2	10-Jan-05	<1	<2	<2	<2	0.041	
DCS-2	20-Jan-05	<1	<2	<2	<2	0.0031	
DCS-2	26-Jan-05	<1	<2	<2	<2	0.0035	
DCS-2	04-Feb-05	<1	<2	<2	<2	0.0038	
DCS-2	07-Feb-05	<1	<2	<2	<2	0.0035	
DCS-2	16-Feb-05	<1	<2	<2	<2	0.0045	0.003
DCS-2	24-Feb-05	<1	<2	<2	<2	0.0038	
DCS-2	03-Mar-05	<1	<2	<2	<2	0.003	
DCS-2	07-Mar-05	<1	<2	<2	<2	0.0048	
DCS-2	18-Mar-05	<1	<2	<2	<2	0.0035	
DCS-2	23-Mar-05	<1	<2	<2	<2	0.056	
DCS-2	29-Mar-05	<1	<2	<2	<2	0.0019	
DCS-2	07-Apr-05	1	<2	<2	<2	0.064	
DCS-2	11-Apr-05	2	<2	<2	<2	0.11	
DCS-2	20-Apr-05	<1	<2	<2	<2	<0.0008	
DCS-2	27-Apr-05	<1	<2	<2	<2	0.00088	
DCS-2	05-May-05	<1	<2	<2	<2	<0.0008	

## Appendix C

### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-2	09-May-05	<1	<2	<2	<2	0.0084	
DCS-2	09-May-05	<1	<2	<2	<2	0.0098	
DCS-2	18-May-05	<1	<2	<2	<2	0.001	
DCS-2	25-May-05	<1	<2	<2	<2	0.0018	
DCS-2	02-Jun-05	<1	<2	<2	<2	0.0023	
DCS-2	08-Jun-05	<1	<2	<2	<2	0.003	
DCS-2	15-Jun-05	<1	<2	<2	<2	0.0027	
DCS-2	21-Jun-05	<1	<2	<2	<2	0.0013	
DCS-2	30-Jun-05	<1	<2	<2	<2	0.0015	
DCS-2	07-Jul-05	<1	<2	<2	<2	0.0023	
DCS-2	11-Jul-05	<1	<2	<2	<2	0.0021	
DCS-2	21-Jul-05	<1	<2	<2	<2	0.0036	
DCS-2	27-Jul-05	<1	<2	<2	<2	0.0023	
DCS-2	08-Aug-05	<1	<2	<2	<2	0.0052	
DCS-2	16-Aug-05	<1	<2	<2	<2	0.006	
DCS-2	24-Aug-05	<1	<2	<2	<2	0.0044	
DCS-2	02-Sep-05	<1	<2	<2	<2	0.01	
DCS-2	09-Sep-05	<1	<2	<2	<2	0.014	
DCS-2	13-Sep-05	<1	<2	<2	<2	0.0063	
DCS-2	22-Sep-05	<1	<2	<2	<2	0.0012	
DCS-2	29-Sep-05	<1	<2	<2	<2	0.0014	
DCS-2	06-Oct-05	<1	<2	<2	<2	0.048	
DCS-2	10-Oct-05	<1	<2	<2	<2	0.012	
DCS-2	20-Oct-05	<1	<2	<2	<2	0.043	
DCS-2	27-Oct-05	<1	<2	<2	<2	0.051	
DCS-2	07-Nov-05	<1	<2	<2	<2	0.0022	
DCS-2	17-Nov-05	<1	<2	<2	<2	0.0038	
DCS-2	22-Nov-05	<1	<2	<2	<2	0.0096	
DCS-2	29-Nov-05	<1	<2	<2	<2	0.015	
DCS-2	06-Dec-05	<1	<2	<2	<2	0.005	
DCS-2	14-Dec-05	<1	<2	<2	<2	0.065	
DCS-2	21-Dec-05	<1	<2	<2	<2	0.0062	
DCS-2	29-Dec-05	<1	<2	<2	<2	0.0052	
DCS-2	05-Jan-06	<1	<2	<2	<2	0.0046	
DCS-2	09-Jan-06	<1	<2	<2	<2	0.0035	
DCS-2	18-Jan-06	<1	<2	<2	<2	0.01	
DCS-2	24-Jan-06	<1	<2	<2	<2	0.0098	
DCS-2	01-Feb-06	<1	<2	<2	<2	0.0049	
DCS-2	09-Feb-06	<0.5	<1	<1	<1	0.028	
DCS-2	13-Feb-06	<0.5	<1	<1	<1	-999.9	



## Appendix C

### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-2	22-Feb-06	<1	<2	<2	<2	0.0039	
DCS-2	01-Mar-06	<1	<2	<2	<2	<0.0008	
DCS-2	09-Mar-06	<1	<2	<2	<2	0.0021	
DCS-2	14-Mar-06	<1	<2	<2	<2	0.0014	
DCS-2	22-Mar-06	<1	<2	<2	<2	0.0052	
DCS-2	30-Mar-06	<1	<2	<2	<2	0.0012	
DCS-2	05-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-2	10-Apr-06	<0.25	<0.25	<0.25	<0.25	0.00061	
DCS-2	10-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-2	20-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-2	27-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-2	04-May-06	<1	<2	<2	<2	<0.0008	
DCS-2	09-May-06	<1	<2	<2	<2	<0.0008	
DCS-2	13-Jun-06	<1	<2	<2	<2	0.019	
DCS-2	05-Sep-06	<1	<5	<2	<2	0.0054	0.000
DCS-2	05-Sep-06	<0.25	<0.25	<0.25	<0.25	0.00269	
DCS-2	04-Dec-06	<1	<5	<2	<2	0.014	0.007
DCS-2	12-Mar-07	<1	<5	<2	<2	0.0735	
DCS-2	12-Mar-07	<1	<5	<2	<2	0.072	0.042
DCS-2	12-Mar-07	<1	<5	<2	<2	0.11	
DCS-2	21-Jun-07	<1	<2	<2	<2	0.0019	
DCS-2	21-Jun-07	<0.25	<0.25	<0.25	<0.25	0.991	
DCS-2	13-Sep-07	<1	<2	<2	<2	0.02	
DCS-2	17-Dec-07	<1	<2	<2	<2	0.0018	
DCS-2	03-Mar-08	<1	<2	<2	<2	0.00096	
DCS-2	03-Mar-08	<1	<2	<2	<2	0.0011	0.000
DCS-2	03-Mar-08	<0.5	<0.5	<0.5	<0.5	0.000488	
DCS-2	18-Jun-08	<1	<2	<2	<2	0.0013	<0.0013
DCS-2	29-Sep-08	<1	<2	<2	<2	0.0059	<0.0059
DCS-2	10-Dec-08	<1	<2	<2	<2	0.0022	<0.0008
DCS-2	17-Mar-09	<1	<2	<2	<2	<0.0008	<0.0008
DCS-3	03-Nov-05	<1	<2	<2	<2	0.0035	
DCS-3	13-Apr-04	3.1	2.6	<2	<2	0.22	
DCS-3	14-Apr-04	2.3	<2	<2	<2	0.15	
DCS-3	15-Apr-04	<b>6.6</b>	5.2	<2	<2	0.35	
DCS-3	16-Apr-04	<b>5.7</b>	4.2	<2	<2	0.38	
DCS-3	16-Apr-04	<b>5.8</b>	4.2	<2	<2	0.33	
DCS-3	17-Apr-04	<b>9.1</b>	7	<2	<2	0.46	

## Appendix C

### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-3	18-Apr-04	6.4	4.7	<2	<2	0.4	
DCS-3	19-Apr-04	1.4	<2	<2	<2	0.098	
DCS-3	26-Apr-04	<1	<2	<2	<2	0.081	
DCS-3	29-Apr-04	<1	<2	<2	<2	0.018	
DCS-3	03-May-04	<1	<2	<2	<2	0.027	
DCS-3	26-May-04	<1	<2	<2	<2	0.023	
DCS-3	02-Jun-04	<1	<2	<2	<2	0.014	
DCS-3	09-Jun-04	<1	<2	<2	<2	0.019	
DCS-3	17-Jun-04	<1	<2	<2	<2	0.013	
DCS-3	24-Jun-04	<1	<2	<2	<2	0.0029	
DCS-3	30-Jun-04	<1	<2	<2	<2	0.02	
DCS-3	08-Jul-04	<1	<2	<2	<2	0.033	
DCS-3	15-Jul-04	<1	<2	<2	<2	0.041	
DCS-3	22-Jul-04	<1	<2	<2	<2	0.048	
DCS-3	29-Jul-04	<1	<2	<2	<2	0.046	
DCS-3	03-Aug-04	<1	<2	<2	<2	0.066	
DCS-3	11-Aug-04	<1	<2	<2	<2	0.072	
DCS-3	17-Aug-04	<1	<2	<2	<2	0.083	
DCS-3	14-Sep-04	<1	<2	<2	<2	0.084	0.049
DCS-3	12-Oct-04	6.2	<2	<2	<2	0.67	
DCS-3	26-Oct-04	5.8	<2	<2	<2	0.64	
DCS-3	27-Oct-04	5.3	<2	<2	<2	0.56	
DCS-3	28-Oct-04	4.4	<2	<2	<2	0.48	
DCS-3	29-Oct-04	4.3	<2	<2	<2	0.43	
DCS-3	30-Oct-04	<1	<2	<2	<2	0.59	
DCS-3	31-Oct-04	6.3	<2	<2	<2	0.58	
DCS-3	01-Nov-04	5.5	<2	<2	<2	0.62	
DCS-3	02-Nov-04	6.5	<2	<2	<2	1.2	
DCS-3	03-Nov-04	5.7	<2	<2	<2	0.53	
DCS-3	04-Nov-04	5.4	<2	<2	<2	0.74	
DCS-3	05-Nov-04	9.7	<2	<2	<2	0.86	
DCS-3	06-Nov-04	4.9	<2	<2	<2	0.71	
DCS-3	07-Nov-04	3.9	<2	<2	<2	0.6	
DCS-3	08-Nov-04	5.1	<2	<2	<2	0.39	
DCS-3	09-Nov-04	5.7	<2	<2	<2	0.58	
DCS-3	10-Nov-04	5.4	<2	<2	<2	0.57	
DCS-3	11-Nov-04	7.1	<2	<2	<2	0.63	
DCS-3	12-Nov-04	1.2	<2	<2	<2	0.77	
DCS-3	19-Nov-04	5.9	<2	<2	<2	0.74	

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### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-3	23-Nov-04	9.2	<2	<2	<2	0.98	
DCS-3	02-Dec-04	12	<2	<2	<2	1.5	
DCS-3	09-Dec-04	<0.5	<5	<0.5	NA	0.058	
DCS-3	09-Dec-04	<1	<2	<2	<2	0.079	
DCS-3	09-Dec-04	<1	<2	<2	<2	0.077	
DCS-3	15-Dec-04	<1	<2	<2	<2	0.006	
DCS-3	20-Dec-04	<1	<2	<2	<2	0.0052	
DCS-3	23-Dec-04	<1	<2	<2	<2	0.03	
DCS-3	06-Jan-05	<1	<2	<2	<2	0.039	
DCS-3	10-Jan-05	<1	<2	<2	<2	0.088	0.045
DCS-3	20-Jan-05	<1	<2	<2	<2	0.022	
DCS-3	26-Jan-05	<1	<2	<2	<2	0.018	
DCS-3	04-Feb-05	<1	<2	<2	<2	0.025	
DCS-3	07-Feb-05	<1	<2	<2	<2	0.02	
DCS-3	16-Feb-05	<1	<2	<2	<2	0.025	0.020
DCS-3	24-Feb-05	<1	<2	<2	<2	0.016	
DCS-3	03-Mar-05	<1	<2	<2	<2	0.014	
DCS-3	07-Mar-05	<1	<2	<2	<2	0.025	
DCS-3	18-Mar-05	<1	<2	<2	<2	0.023	
DCS-3	23-Mar-05	2.1	<2	<2	<2	0.13	
DCS-3	29-Mar-05	<1	<2	<2	<2	0.0089	
DCS-3	07-Apr-05	1.9	<2	<2	<2	0.17	
DCS-3	11-Apr-05	3.5	<2	<2	<2	0.29	
DCS-3	20-Apr-05	<1	<2	<2	<2	<0.0008	
DCS-3	27-Apr-05	<1	<2	<2	<2	0.0026	
DCS-3	05-May-05	<1	<2	<2	<2	0.0028	
DCS-3	09-May-05	<1	<2	<2	<2	0.015	0.002
DCS-3	18-May-05	<1	<2	<2	<2	0.00083	
DCS-3	25-May-05	<1	<2	<2	<2	0.00082	
DCS-3	02-Jun-05	<1	<2	<2	<2	0.0019	
DCS-3	08-Jun-05	<1	<2	<2	<2	0.0037	
DCS-3	08-Jun-05	<0.5	<5	<0.5	NA	<0.01	
DCS-3	08-Jun-05	<1	<2	<2	<2	0.0035	
DCS-3	15-Jun-05	<1	<2	<2	<2	0.0026	
DCS-3	21-Jun-05	<1	<2	<2	<2	0.0013	
DCS-3	30-Jun-05	<1	<2	<2	<2	0.0014	
DCS-3	07-Jul-05	<1	<2	<2	<2	0.0091	
DCS-3	11-Jul-05	<1	<2	<2	<2	0.0069	
DCS-3	11-Jul-05	<0.5	<5	0.53	NA	0.017	
DCS-3	11-Jul-05	<1	<2	<2	<2	0.006	

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### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-3	21-Jul-05	<1	<2	<2	<2	0.017	
DCS-3	27-Jul-05	<1	<2	<2	<2	0.0087	
DCS-3	03-Aug-05	<1	<2	<2	<2	0.016	
DCS-3	08-Aug-05	<1	<2	<2	<2	0.017	
DCS-3	16-Aug-05	<1	<2	<2	<2	0.017	
DCS-3	24-Aug-05	<1	<2	<2	<2	0.014	
DCS-3	02-Sep-05	<1	<2	<2	<2	0.026	
DCS-3	09-Sep-05	<1	<2	<2	<2	0.015	
DCS-3	13-Sep-05	<1	<2	<2	<2	0.017	0.012
DCS-3	22-Sep-05	<1	<2	<2	<2	0.0035	
DCS-3	29-Sep-05	<1	<2	<2	<2	0.003	
DCS-3	06-Oct-05	<1	<2	<2	<2	0.093	
DCS-3	10-Oct-05	<1	<2	<2	<2	0.015	
DCS-3	20-Oct-05	<1	<2	<2	<2	0.048	
DCS-3	27-Oct-05	<1	<2	<2	<2	0.068	
DCS-3	03-Nov-05	<1	<2	<2	<2	0.011	
DCS-3	07-Nov-05	<1	<2	<2	<2	0.0069	
DCS-3	17-Nov-05	<1	<2	<2	<2	0.0084	
DCS-3	22-Nov-05	<1	<2	<2	<2	0.035	
DCS-3	29-Nov-05	<1	<2	<2	<2	0.048	
DCS-3	06-Dec-05	<1	<2	<2	<2	0.0024	
DCS-3	14-Dec-05	<1	<2	<2	<2	0.061	
DCS-3	21-Dec-05	<1	<2	<2	<2	0.014	
DCS-3	29-Dec-05	<1	<2	<2	<2	0.014	
DCS-3	05-Jan-06	<1	<2	<2	<2	0.011	
DCS-3	09-Jan-06	<1	<2	<2	<2	0.019	0.019
DCS-3	18-Jan-06	<1	<2	<2	<2	0.02	
DCS-3	24-Jan-06	<1	<2	<2	<2	0.04	
DCS-3	01-Feb-06	<1	<2	<2	<2	0.023	
DCS-3	09-Feb-06	<0.5	<1	<1	<1	<0.002	
DCS-3	13-Feb-06	<0.5	<1	<1	<1	0.028	
DCS-3	22-Feb-06	<1	<2	<2	<2	0.015	
DCS-3	01-Mar-06	<1	<2	<2	<2	0.0011	
DCS-3	09-Mar-06	<1	<2	<2	<2	0.0055	
DCS-3	14-Mar-06	<1	<2	<2	<2	0.0028	
DCS-3	22-Mar-06	<1	<2	<2	<2	0.01	
DCS-3	30-Mar-06	<1	<2	<2	<2	0.0011	
DCS-3	05-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-3	10-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-3	20-Apr-06	<1	<2	<2	<2	0.0005	

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### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-3	27-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-3	04-May-06	<1	<2	<2	<2	<0.0008	
DCS-3	09-May-06	<1	<2	<2	<2	<0.0008	0.000
DCS-3	09-May-06	<0.5	<0.5	<0.5	<0.5	0.000849	
DCS-3	09-May-06	<1	<2	<2	<2	<0.0008	
DCS-3	13-Jun-06	<1	<2	<2	<2	0.005	
DCS-3	05-Sep-06	<1	<5	<2	<2	0.015	0.009
DCS-3	04-Dec-06	<1	<5	<2	<2	0.0061	0.000
DCS-3	12-Mar-07	<1	<5	<2	<2	0.0081	0.000
DCS-3	21-Jun-07	<1	<2	<2	<2	0.00082	
DCS-3	13-Sep-07	<1	<2	<2	<2	0.0025	
DCS-3	17-Dec-07	<0.5	<5	<0.5	<2	0.00371	
DCS-3	17-Dec-07	<1	<2	<2	<2	0.0032	
DCS-3	03-Mar-08	<1	<2	<2	<2	0.0021	0.000
DCS-3	18-Jun-08	<1	<2	<2	<2	0.001	<0.001
DCS-3	29-Sep-08	<1	<2	<2	<2	0.015	0.008
DCS-3	10-Dec-08	<1	<2	<2	<2	0.067	<0.0008
DCS-3	17-Mar-09	<1	<2	<2	<2	<0.0008	<0.0008
DCS-4	13-Apr-04	<1	<2	<2	<2	0.11	
DCS-4	14-Apr-04	<1	<2	<2	<2	0.09	
DCS-4	15-Apr-04	1.7	<2	<2	<2	0.15	
DCS-4	16-Apr-04	1.4	<2	<2	<2	0.14	
DCS-4	17-Apr-04	2	<2	<2	<2	0.18	
DCS-4	18-Apr-04	1.7	<2	<2	<2	0.17	
DCS-4	19-Apr-04	<1	<2	<2	<2	0.058	
DCS-4	26-Apr-04	<1	<2	<2	<2	0.043	
DCS-4	29-Apr-04	<1	<2	<2	<2	0.012	
DCS-4	03-May-04	<1	<2	<2	<2	0.013	
DCS-4	02-Jun-04	<1	<2	<2	<2	0.006	
DCS-4	08-Jul-04	<1	<2	<2	<2	0.014	
DCS-4	03-Aug-04	<1	<2	<2	<2	0.022	
DCS-4	14-Sep-04	<1	<2	<2	<2	0.027	
DCS-4	12-Oct-04	1	<2	<2	<2	0.13	
DCS-4	26-Oct-04	1.1	<2	<2	<2	0.15	
DCS-4	27-Oct-04	<1	<2	<2	<2	0.11	
DCS-4	28-Oct-04	<1	<2	<2	<2	0.13	
DCS-4	29-Oct-04	1.1	<2	<2	<2	0.13	
DCS-4	30-Oct-04	1.3	<2	<2	<2	0.15	
DCS-4	31-Oct-04	1.2	<2	<2	<2	0.12	

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### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-4	01-Nov-04	1.2	<2	<2	<2	0.13	
DCS-4	02-Nov-04	1.9	<2	<2	<2	0.3	
DCS-4	03-Nov-04	1.3	<2	<2	<2	0.16	
DCS-4	04-Nov-04	1.7	<2	<2	<2	0.21	
DCS-4	05-Nov-04	1.5	<2	<2	<2	0.15	
DCS-4	06-Nov-04	1.3	<2	<2	<2	0.17	
DCS-4	07-Nov-04	1.3	<2	<2	<2	0.16	
DCS-4	08-Nov-04	1	<2	<2	<2	0.077	
DCS-4	09-Nov-04	1	<2	<2	<2	0.11	
DCS-4	10-Nov-04	<1	<2	<2	<2	0.1	
DCS-4	11-Nov-04	1	<2	<2	<2	0.1	
DCS-4	12-Nov-04	<b>9.8</b>	<2	<2	<2	0.12	
DCS-4	19-Nov-04	1.1	<2	<2	<2	0.14	
DCS-4	23-Nov-04	1.8	<2	<2	<2	0.26	
DCS-4	02-Dec-04	3	<2	<2	<2	0.5	
DCS-4	09-Dec-04	<1	<2	<2	<2	0.029	
DCS-4	15-Dec-04	<1	<2	<2	<2	0.016	
DCS-4	20-Dec-04	<1	<2	<2	<2	0.0023	
DCS-4	23-Dec-04	<1	<2	<2	<2	0.0097	
DCS-4	06-Jan-05	<1	<2	<2	<2	0.019	
DCS-4	10-Jan-05	<1	<2	<2	<2	0.0046	
DCS-4	20-Jan-05	<1	<2	<2	<2	0.0091	
DCS-4	26-Jan-05	<1	<2	<2	<2	0.01	
DCS-4	04-Feb-05	<1	<2	<2	<2	0.0087	
DCS-4	07-Feb-05	<0.5	<5	<0.5	NA	<0.01	
DCS-4	07-Feb-05	<1	<2	<2	<2	0.0096	
DCS-4	07-Feb-05	<1	<2	<2	<2	0.0096	
DCS-4	16-Feb-05	<1	<2	<2	<2	0.01	
DCS-4	24-Feb-05	<1	<2	<2	<2	0.016	
DCS-4	03-Mar-05	<1	<2	<2	<2	0.0069	
DCS-4	07-Mar-05	<1	<2	<2	<2	0.011	
DCS-4	18-Mar-05	<1	<2	<2	<2	0.0075	
DCS-4	23-Mar-05	<1	<2	<2	<2	0.033	
DCS-4	29-Mar-05	<1	<2	<2	<2	0.0042	
DCS-4	07-Apr-05	<1	<2	<2	<2	0.027	
DCS-4	11-Apr-05	<1	<2	<2	<2	0.057	
DCS-4	20-Apr-05	<1	<2	<2	<2	<0.0008	
DCS-4	27-Apr-05	<1	<2	<2	<2	0.0014	
DCS-4	05-May-05	<1	<2	<2	<2	0.0016	
DCS-4	09-May-05	<1	<2	<2	<2	0.00096	

## Appendix C

### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-4	18-May-05	<1	<2	<2	<2	0.0012	
DCS-4	25-May-05	<1	<2	<2	<2	0.0012	
DCS-4	02-Jun-05	<1	<2	<2	<2	0.003	
DCS-4	08-Jun-05	<1	<2	<2	<2	0.0054	
DCS-4	15-Jun-05	<1	<2	<2	<2	0.0033	
DCS-4	21-Jun-05	<1	<2	<2	<2	0.0022	
DCS-4	30-Jun-05	<1	<2	<2	<2	0.0027	
DCS-4	07-Jul-05	<1	<2	<2	<2	0.0042	
DCS-4	11-Jul-05	<1	<2	<2	<2	0.0041	
DCS-4	21-Jul-05	<1	<2	<2	<2	0.0075	
DCS-4	27-Jul-05	<1	<2	<2	<2	0.0035	
DCS-4	03-Aug-05	<1	<2	<2	<2	0.0077	
DCS-4	08-Aug-05	<1	<2	<2	<2	0.0077	
DCS-4	16-Aug-05	<1	<2	<2	<2	0.0089	
DCS-4	24-Aug-05	<1	<2	<2	<2	0.0068	
DCS-4	02-Sep-05	<1	<2	<2	<2	0.0089	
DCS-4	09-Sep-05	<1	<2	<2	<2	0.0072	
DCS-4	13-Sep-05	<1	<2	<2	<2	0.0084	
DCS-4	22-Sep-05	<1	<2	<2	<2	0.0013	
DCS-4	29-Sep-05	<1	<2	<2	<2	0.0019	
DCS-4	06-Oct-05	<1	<2	<2	<2	0.035	
DCS-4	10-Oct-05	<1	<2	<2	<2	0.0085	
DCS-4	20-Oct-05	<1	<2	<2	<2	0.022	
DCS-4	27-Oct-05	<1	<2	<2	<2	0.025	
DCS-4	03-Nov-05	<1	<2	<2	<2	0.0063	
DCS-4	07-Nov-05	<1	<2	<2	<2	0.0044	
DCS-4	07-Nov-05	<1	<2	<2	<2	0.0034	
DCS-4	07-Nov-05	<0.5	<5	<0.5	NA	<0.01	
DCS-4	17-Nov-05	<1	<2	<2	<2	0.0049	
DCS-4	22-Nov-05	<1	<2	<2	<2	0.014	
DCS-4	29-Nov-05	<1	<2	<2	<2	0.024	
DCS-4	06-Dec-05	<1	<2	<2	<2	0.012	
DCS-4	14-Dec-05	<1	<2	<2	<2	0.011	
DCS-4	21-Dec-05	<1	<2	<2	<2	0.0038	
DCS-4	29-Dec-05	<1	<2	<2	<2	0.0038	
DCS-4	05-Jan-06	<1	<2	<2	<2	0.0042	
DCS-4	09-Jan-06	<0.5	<1	<2	<1	0.005	
DCS-4	09-Jan-06	<1	<2	<2	<2	0.0064	
DCS-4	09-Jan-06	<1	<2	<2	<2	0.0064	
DCS-4	18-Jan-06	<1	<2	<2	<2	0.0057	

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### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-4	24-Jan-06	<1	<2	<2	<2	0.019	
DCS-4	01-Feb-06	<1	<2	<2	<2	0.0059	
DCS-4	09-Feb-06	<0.5	<1	<1	<1	0.015	
DCS-4	13-Feb-06	<0.5	<1	<1	<1	<0.002	
DCS-4	22-Feb-06	<1	<2	<2	<2	0.0054	
DCS-4	01-Mar-06	<1	<2	<2	<2	0.0013	
DCS-4	09-Mar-06	<1	<2	<2	<2	0.0032	
DCS-4	14-Mar-06	<1	<2	<2	<2	0.004	
DCS-4	22-Mar-06	<1	<2	<2	<2	0.008	
DCS-4	30-Mar-06	<1	<2	<2	<2	0.0018	
DCS-4	05-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-4	10-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-4	20-Apr-06	<1	<2	<2	<2	0.00078	
DCS-4	27-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-4	04-May-06	<1	<2	<2	<2	<0.0008	
DCS-4	09-May-06	<1	<2	<2	<2	0.00081	
DCS-4	13-Jun-06	<1	<2	<2	<2	0.0038	
DCS-4	05-Sep-06	<1	<5	<2	<2	0.0096	
DCS-4	04-Dec-06	<1	<5	<2	<2	0.014	
DCS-4	12-Mar-07	<1	<5	<2	<2	0.0014	
DCS-4	21-Jun-07	<1	<2	<2	<2	0.0014	
DCS-4	13-Sep-07	<1	<2	<2	<2	0.0058	
DCS-4	17-Dec-07	<1	<2	<2	<2	0.0078	
DCS-4	03-Mar-08	<1	<2	<2	<2	0.0022	
DCS-4	18-Jun-08	<1	<2	<2	<2	0.0028	
DCS-4	29-Sep-08	<1	<2	<2	<2	0.0098	
DCS-4	29-Sep-08	<1	<2	<2	<2	0.0098	
DCS-4	10-Dec-08	<1	<2	<2	<2	0.006	
DCS-4	17-Mar-09	<1	<2	<2	<2	0.00096	
DCS-5	13-Apr-04	<1	<2	<2	<2	0.11	
DCS-5	14-Apr-04	<1	<2	<2	<2	0.086	
DCS-5	15-Apr-04	1.3	<2	<2	<2	0.13	
DCS-5	16-Apr-04	<1	<2	<2	<2	0.13	
DCS-5	17-Apr-04	1.3	<2	<2	<2	0.15	
DCS-5	18-Apr-04	1.2	<2	<2	<2	0.15	
DCS-5	19-Apr-04	<1	<2	<2	<2	0.057	
DCS-5	26-Apr-04	<1	<2	<2	<2	0.046	
DCS-5	29-Apr-04	<1	<2	<2	<2	0.014	
DCS-5	03-May-04	<1	<2	<2	<2	0.018	



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### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-5	26-May-04	<1	<2	<2	<2	0.015	
DCS-5	02-Jun-04	<1	<2	<2	<2	0.012	
DCS-5	08-Jul-04	<1	<2	<2	<2	0.016	
DCS-5	03-Aug-04	<1	<2	<2	<2	0.014	
DCS-5	14-Sep-04	<1	<2	<2	<2	0.017	
DCS-5	12-Oct-04	<1	<2	<2	<2	0.044	
DCS-5	26-Oct-04	<1	<2	<2	<2	0.055	
DCS-5	27-Oct-04	<1	<2	<2	<2	0.035	
DCS-5	28-Oct-04	<1	<2	<2	<2	0.028	
DCS-5	29-Oct-04	<1	<2	<2	<2	0.053	
DCS-5	30-Oct-04	<1	<2	<2	<2	0.047	
DCS-5	31-Oct-04	<1	<2	<2	<2	0.052	
DCS-5	01-Nov-04	<1	<2	<2	<2	0.049	
DCS-5	02-Nov-04	<1	<2	<2	<2	0.12	
DCS-5	03-Nov-04	<1	<2	<2	<2	0.072	
DCS-5	04-Nov-04	<1	<2	<2	<2	0.088	
DCS-5	05-Nov-04	<1	<2	<2	<2	0.064	
DCS-5	06-Nov-04	<1	<2	<2	<2	0.06	
DCS-5	07-Nov-04	<1	<2	<2	<2	0.054	
DCS-5	08-Nov-04	<1	<2	<2	<2	0.026	
DCS-5	09-Nov-04	<1	<2	<2	<2	0.35	
DCS-5	10-Nov-04	<1	<2	<2	<2	0.035	
DCS-5	11-Nov-04	<1	<2	<2	<2	0.039	
DCS-5	12-Nov-04	3.6	<2	<2	<2	0.048	
DCS-5	19-Nov-04	<1	<2	<2	<2	0.056	
DCS-5	23-Nov-04	<1	<2	<2	<2	0.11	
DCS-5	02-Dec-04	1.1	<2	<2	<2	0.18	
DCS-5	09-Dec-04	<1	<2	<2	<2	0.029	
DCS-5	15-Dec-04	<1	<2	<2	<2	0.017	
DCS-5	20-Dec-04	<1	<2	<2	<2	0.0034	
DCS-5	23-Dec-04	<1	<2	<2	<2	0.026	
DCS-5	06-Jan-05	<1	<2	<2	<2	0.02	
DCS-5	10-Jan-05	<1	<2	<2	<2	0.012	
DCS-5	20-Jan-05	<1	<2	<2	<2	0.0098	
DCS-5	26-Jan-05	<1	<2	<2	<2	0.013	
DCS-5	04-Feb-05	<1	<2	<2	<2	0.011	
DCS-5	07-Feb-05	<1	<2	<2	<2	0.012	
DCS-5	16-Feb-05	<1	<2	<2	<2	0.011	
DCS-5	24-Feb-05	<1	<2	<2	<2	0.014	
DCS-5	03-Mar-05	<1	<2	<2	<2	0.0086	

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### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-5	07-Mar-05	<1	<2	<2	<2	0.012	
DCS-5	18-Mar-05	<1	<2	<2	<2	0.0099	
DCS-5	23-Mar-05	<1	<2	<2	<2	0.021	
DCS-5	29-Mar-05	<1	<2	<2	<2	0.006	
DCS-5	07-Apr-05	<1	<2	<2	<2	0.014	
DCS-5	11-Apr-05	<1	<2	<2	<2	0.044	
DCS-5	20-Apr-05	<1	<2	<2	<2	0.00091	
DCS-5	27-Apr-05	<1	<2	<2	<2	0.0037	
DCS-5	05-May-05	<1	<2	<2	<2	0.0046	
DCS-5	09-May-05	<1	<2	<2	<2	0.0016	
DCS-5	18-May-05	<1	<2	<2	<2	0.0013	
DCS-5	25-May-05	<1	<2	<2	<2	0.0018	
DCS-5	02-Jun-05	<1	<2	<2	<2	0.0035	
DCS-5	08-Jun-05	<1	<2	<2	<2	0.0049	
DCS-5	15-Jun-05	<1	<2	<2	<2	0.0027	
DCS-5	21-Jun-05	<1	<2	<2	<2	0.0025	
DCS-5	30-Jun-05	<1	<2	<2	<2	0.0052	
DCS-5	07-Jul-05	<1	<2	<2	<2	0.0053	
DCS-5	11-Jul-05	<1	<2	<2	<2	0.0053	
DCS-5	21-Jul-05	<1	<2	<2	<2	0.0079	
DCS-5	27-Jul-05	<1	<2	<2	<2	0.0058	
DCS-5	03-Aug-05	<1	<2	<2	<2	0.0091	
DCS-5	08-Aug-05	<1	<2	<2	<2	0.011	
DCS-5	16-Aug-05	<1	<2	<2	<2	0.0098	
DCS-5	24-Aug-05	<1	<2	<2	<2	0.0074	
DCS-5	02-Sep-05	<1	<2	<2	<2	0.01	
DCS-5	09-Sep-05	<1	<2	<2	<2	0.009	
DCS-5	13-Sep-05	<1	<2	<2	<2	0.0076	
DCS-5	13-Sep-05	<0.5	<5	<0.5	NA	0.012	
DCS-5	13-Sep-05	<1	<2	<2	<2	0.0075	
DCS-5	22-Sep-05	<1	<2	<2	<2	0.002	
DCS-5	29-Sep-05	<1	<2	<2	<2	0.0035	
DCS-5	06-Oct-05	<1	<2	<2	<2	0.028	
DCS-5	10-Oct-05	<1	<2	<2	<2	0.015	
DCS-5	20-Oct-05	<1	<2	<2	<2	0.016	
DCS-5	27-Oct-05	<1	<2	<2	<2	0.018	
DCS-5	03-Nov-05	<1	<2	<2	<2	0.007	
DCS-5	07-Nov-05	<1	<2	<2	<2	0.005	
DCS-5	17-Nov-05	<1	<2	<2	<2	0.0068	
DCS-5	22-Nov-05	<1	<2	<2	<2	0.013	

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### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-5	29-Nov-05	<1	<2	<2	<2	0.023	
DCS-5	06-Dec-05	<1	<2	<2	<2	0.015	
DCS-5	14-Dec-05	<1	<2	<2	<2	0.012	
DCS-5	21-Dec-05	<1	<2	<2	<2	0.0055	
DCS-5	29-Dec-05	<1	<2	<2	<2	0.0048	
DCS-5	05-Jan-06	<1	<2	<2	<2	0.0068	
DCS-5	09-Jan-06	<1	<2	<2	<2	0.0072	
DCS-5	18-Jan-06	<1	<2	<2	<2	0.0074	
DCS-5	24-Jan-06	<1	<2	<2	<2	0.021	
DCS-5	01-Feb-06	<1	<2	<2	<2	0.007	
DCS-5	09-Feb-06	<0.5	<1	<1	<1	0.015	
DCS-5	13-Feb-06	<0.5	<1	<1	<1	<0.002	
DCS-5	13-Feb-06	<0.5	<1	<1	<1	0.009	
DCS-5	13-Feb-06	<0.5	<0.5	<0.5	<0.5	0.013	
DCS-5	22-Feb-06	<1	<2	<2	<2	0.0073	
DCS-5	01-Mar-06	<1	<2	<2	<2	0.0019	
DCS-5	09-Mar-06	<1	<2	<2	<2	0.0041	
DCS-5	14-Mar-06	<1	<2	<2	<2	0.0052	
DCS-5	22-Mar-06	<1	<2	<2	<2	0.0085	
DCS-5	30-Mar-06	<1	<2	<2	<2	0.0025	
DCS-5	05-Apr-06	<1	<2	<2	<2	0.00089	
DCS-5	10-Apr-06	<1	<2	<2	<2	0.0009	
DCS-5	20-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-5	27-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-5	04-May-06	<1	<2	<2	<2	<0.0008	
DCS-5	09-May-06	<1	<2	<2	<2	0.00097	
DCS-5	13-Jun-06	<1	<2	<2	<2	0.0045	
DCS-5	13-Jun-06	<0.5	<0.5	<0.5	<0.5	0.00445	
DCS-5	05-Sep-06	<1	<5	<2	<2	0.01	
DCS-5	04-Dec-06	<1	<5	<2	<2	0.012	
DCS-5	12-Mar-07	<1	<5	<2	<2	0.0026	
DCS-5	21-Jun-07	<1	<2	<2	<2	0.0018	
DCS-5	13-Sep-07	<1	<2	<2	<2	0.0055	
DCS-5	17-Dec-07	<1	<2	<2	<2	0.0077	
DCS-5	04-Mar-08	<1	<2	<2	<2	0.0038	
DCS-5	18-Jun-08	<1	<2	<2	<2	0.0019	
DCS-5	29-Sep-08	<1	<2	<2	<2	0.008	
DCS-5	10-Dec-08	<1	<2	<2	<2	0.0066	
DCS-5	10-Dec-08	<1	<2	<2	<2	0.0062	
DCS-5	10-Dec-08	<1	<1	<1	<1	0.003	

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### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-5	17-Mar-09	<1	<2	<2	<2	0.0012	
DCS-6	13-Apr-04	<1	<2	<2	<2	0.087	
DCS-6	14-Apr-04	<1	<2	<2	<2	0.063	
DCS-6	15-Apr-04	<1	<2	<2	<2	0.11	
DCS-6	16-Apr-04	<1	<2	<2	<2	0.083	
DCS-6	17-Apr-04	<1	<2	<2	<2	0.11	
DCS-6	18-Apr-04	<1	<2	<2	<2	0.093	
DCS-6	19-Apr-04	<1	<2	<2	<2	0.048	
DCS-6	26-Apr-04	<1	<2	<2	<2	0.035	
DCS-6	29-Apr-04	<1	<2	<2	<2	0.011	
DCS-6	29-Apr-04	<1	<2	<2	<2	0.015	
DCS-6	03-May-04	<1	<2	<2	<2	0.014	
DCS-6	02-Jun-04	<1	<2	<2	<2	0.0091	
DCS-6	08-Jul-04	<1	<2	<2	<2	0.014	
DCS-6	03-Aug-04	<1	<2	<2	<2	0.014	
DCS-6	14-Sep-04	<1	<2	<2	<2	0.031	
DCS-6	12-Oct-04	<1	<2	<2	<2	0.032	
DCS-6	26-Oct-04	<1	<2	<2	<2	0.049	
DCS-6	27-Oct-04	<1	<2	<2	<2	0.023	
DCS-6	28-Oct-04	<1	<2	<2	<2	0.06	
DCS-6	29-Oct-04	<1	<2	<2	<2	0.086	
DCS-6	30-Oct-04	<1	<2	<2	<2	0.034	
DCS-6	31-Oct-04	<1	<2	<2	<2	0.045	
DCS-6	01-Nov-04	<1	<2	<2	<2	0.24	
DCS-6	02-Nov-04	<1	<2	<2	<2	0.093	
DCS-6	03-Nov-04	<1	<2	<2	<2	0.16	
DCS-6	04-Nov-04	<1	<2	<2	<2	0.061	
DCS-6	05-Nov-04	<1	<2	<2	<2	0.039	
DCS-6	06-Nov-04	<1	<2	<2	<2	0.043	
DCS-6	07-Nov-04	<1	<2	<2	<2	0.039	
DCS-6	08-Nov-04	<1	<2	<2	<2	0.017	
DCS-6	09-Nov-04	<1	<2	<2	<2	0.034	
DCS-6	10-Nov-04	<1	<2	<2	<2	0.024	
DCS-6	11-Nov-04	<1	<2	<2	<2	0.026	
DCS-6	12-Nov-04	<1	<2	<2	<2	0.022	
DCS-6	19-Nov-04	<1	<2	<2	<2	0.035	
DCS-6	23-Nov-04	<1	<2	<2	<2	0.069	
DCS-6	02-Dec-04	1.5	<2	<2	<2	-88.8	
DCS-6	09-Dec-04	<1	<2	<2	<2	0.028	

## Appendix C

### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-6	15-Dec-04	<1	<2	<2	<2	0.018	
DCS-6	20-Dec-04	<1	<2	<2	<2	0.036	
DCS-6	23-Dec-04	<1	<2	<2	<2	0.021	
DCS-6	06-Jan-05	<1	<2	<2	<2	0.019	
DCS-6	10-Jan-05	<1	<2	<2	<2	0.011	
DCS-6	20-Jan-05	<1	<2	<2	<2	0.0086	
DCS-6	26-Jan-05	<1	<2	<2	<2	0.013	
DCS-6	04-Feb-05	<1	<2	<2	<2	0.0088	
DCS-6	07-Feb-05	<1	<2	<2	<2	0.0091	
DCS-6	16-Feb-05	<1	<2	<2	<2	0.011	
DCS-6	24-Feb-05	<1	<2	<2	<2	0.014	
DCS-6	03-Mar-05	<1	<2	<2	<2	0.0086	
DCS-6	07-Mar-05	<1	<2	<2	<2	0.013	
DCS-6	18-Mar-05	<1	<2	<2	<2	0.01	
DCS-6	23-Mar-05	<1	<2	<2	<2	0.023	
DCS-6	29-Mar-05	<1	<2	<2	<2	0.0052	
DCS-6	07-Apr-05	<1	<2	<2	<2	0.015	
DCS-6	11-Apr-05	<1	<2	<2	<2	0.034	
DCS-6	27-Apr-05	<1	<2	<2	<2	0.003	
DCS-6	05-May-05	<1	<2	<2	<2	0.0045	
DCS-6	09-May-05	<1	<2	<2	<2	0.0022	
DCS-6	18-May-05	<1	<2	<2	<2	0.0019	
DCS-6	25-May-05	<1	<2	<2	<2	0.0025	
DCS-6	02-Jun-05	<1	<2	<2	<2	0.0031	
DCS-6	08-Jun-05	<1	<2	<2	<2	0.0049	
DCS-6	15-Jun-05	<1	<2	<2	<2	0.0044	
DCS-6	21-Jun-05	<1	<2	<2	<2	0.0027	
DCS-6	30-Jun-05	<1	<2	<2	<2	0.0036	
DCS-6	07-Jul-05	<1	<2	<2	<2	0.0068	
DCS-6	11-Jul-05	<1	<2	<2	<2	0.0064	
DCS-6	21-Jul-05	<1	<2	<2	<2	0.012	
DCS-6	27-Jul-05	<1	<2	<2	<2	0.0066	
DCS-6	03-Aug-05	<1	<2	<2	<2	0.0081	
DCS-6	08-Aug-05	<1	<2	<2	<2	0.018	
DCS-6	16-Aug-05	<1	<2	<2	<2	0.016	
DCS-6	24-Aug-05	<1	<2	<2	<2	0.013	
DCS-6	02-Sep-05	<1	<2	<2	<2	0.013	
DCS-6	09-Sep-05	<1	<2	<2	<2	0.0086	
DCS-6	13-Sep-05	<1	<2	<2	<2	0.011	
DCS-6	22-Sep-05	<1	<2	<2	<2	0.0021	

## Appendix C

### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-6	29-Sep-05	<1	<2	<2	<2	0.0033	
DCS-6	06-Oct-05	<1	<2	<2	<2	0.027	
DCS-6	10-Oct-05	<1	<2	<2	<2	0.014	
DCS-6	10-Oct-05	<1	<2	<2	<2	0.015	
DCS-6	10-Oct-05	<0.5	<5	<0.5	<0.5	0.019	
DCS-6	20-Oct-05	<1	<2	<2	<2	0.014	
DCS-6	27-Oct-05	<1	<2	<2	<2	0.012	
DCS-6	03-Nov-05	<1	<2	<2	<2	0.0066	
DCS-6	07-Nov-05	<1	<2	<2	<2	0.0059	
DCS-6	17-Nov-05	<1	<2	<2	<2	0.007	
DCS-6	22-Nov-05	<1	<2	<2	<2	0.013	
DCS-6	29-Nov-05	<1	<2	<2	<2	0.021	
DCS-6	06-Dec-05	<1	<2	<2	<2	0.015	
DCS-6	06-Dec-05	<1	<2	<2	<2	0.014	
DCS-6	06-Dec-05	<0.5	<5	<0.5	NA	0.014	
DCS-6	14-Dec-05	<1	<2	<2	<2	0.011	
DCS-6	21-Dec-05	<1	<2	<2	<2	0.0064	
DCS-6	29-Dec-05	<1	<2	<2	<2	0.0026	
DCS-6	05-Jan-06	<1	<2	<2	<2	0.0056	
DCS-6	09-Jan-06	<1	<2	<2	<2	0.0078	
DCS-6	18-Jan-06	<1	<2	<2	<2	0.0066	
DCS-6	24-Jan-06	<1	<2	<2	<2	0.036	
DCS-6	01-Feb-06	<1	<2	<2	<2	0.0056	
DCS-6	09-Feb-06	<0.5	<1	<1	<1	0.016	
DCS-6	13-Feb-06	<0.5	<1	<1	<1	<0.002	
DCS-6	22-Feb-06	<1	<2	<2	<2	0.0066	
DCS-6	01-Mar-06	<1	<2	<2	<2	0.0019	
DCS-6	09-Mar-06	<1	<2	<2	<2	0.0056	
DCS-6	14-Mar-06	<0.25	<0.25	<0.25	<0.25	0.0143	
DCS-6	14-Mar-06	<1	<2	<2	<2	0.012	
DCS-6	14-Mar-06	<1	<2	<2	<2	0.012	
DCS-6	22-Mar-06	<1	<2	<2	<2	0.0096	
DCS-6	30-Mar-06	<1	<2	<2	<2	0.0058	
DCS-6	05-Apr-06	<1	<2	<2	<2	0.00089	
DCS-6	10-Apr-06	<1	<2	<2	<2	0.00089	
DCS-6	20-Apr-06	<1	<2	<2	<2	0.00098	
DCS-6	27-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-6	04-May-06	<1	<2	<2	<2	0.00084	
DCS-6	09-May-06	<1	<2	<2	<2	0.00083	
DCS-6	13-Jun-06	<1	<2	<2	<2	0.0054	

## Appendix C

### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-6	05-Sep-06	<1	<5	<2	<2	0.013	
DCS-6	04-Dec-06	<1	<5	<2	<2	0.013	
DCS-6	12-Mar-07	<1	<5	<2	<2	0.0035	
DCS-6	21-Jun-07	<1	<2	<2	<2	0.0025	
DCS-6	13-Sep-07	<1	<2	<2	<2	NA	
DCS-6	17-Dec-07	<1	<2	<2	<2	0.0078	
DCS-6	04-Mar-08	<1	<2	<2	<2	0.0047	
DCS-6	18-Jun-08	<1	<2	<2	<2	0.0029	
DCS-6	29-Sep-08	<1	<2	<2	<2	0.011	
DCS-6	10-Dec-08	<1	<2	<2	<2	0.085	
DCS-6	17-Mar-09	<1	<2	<2	<2	0.0011	
DCS-7	09-Dec-04	<1	<2	<2	<2	0.026	
DCS-7	15-Dec-04	<1	<2	<2	<2	0.016	
DCS-7	20-Dec-04	<1	<2	<2	<2	0.031	
DCS-7	23-Dec-04	<1	<2	<2	<2	0.019	
DCS-7	06-Jan-05	<1	<2	<2	<2	0.018	
DCS-7	10-Jan-05	<1	<2	<2	<2	0.01	
DCS-7	20-Jan-05	<1	<2	<2	<2	0.0082	
DCS-7	26-Jan-05	<1	<2	<2	<2	0.012	
DCS-7	04-Feb-05	<1	<2	<2	<2	0.0087	
DCS-7	07-Feb-05	<1	<2	<2	<2	0.0092	
DCS-7	16-Feb-05	<1	<2	<2	<2	0.0094	
DCS-7	24-Feb-05	<1	<2	<2	<2	0.012	
DCS-7	03-Mar-05	<1	<2	<2	<2	0.0081	
DCS-7	07-Mar-05	<1	<2	<2	<2	0.01	
DCS-7	18-Mar-05	<1	<2	<2	<2	0.0087	
DCS-7	23-Mar-05	<1	<2	<2	<2	0.017	
DCS-7	29-Mar-05	<1	<2	<2	<2	0.0049	
DCS-7	07-Apr-05	<1	<2	<2	<2	0.0097	
DCS-7	11-Apr-05	<1	<2	<2	<2	0.033	
DCS-7	27-Apr-05	<1	<2	<2	<2	0.0027	
DCS-7	05-May-05	<1	<2	<2	<2	0.0038	
DCS-7	09-May-05	<1	<2	<2	<2	0.0021	
DCS-7	18-May-05	<1	<2	<2	<2	0.0016	
DCS-7	25-May-05	<1	<2	<2	<2	0.0018	
DCS-7	02-Jun-05	<1	<2	<2	<2	0.0031	
DCS-7	08-Jun-05	<1	<2	<2	<2	0.0041	
DCS-7	15-Jun-05	<1	<2	<2	<2	0.0027	
DCS-7	21-Jun-05	<1	<2	<2	<2	0.0027	

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### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-7	30-Jun-05	<1	<2	<2	<2	0.0036	
DCS-7	07-Jul-05	<1	<2	<2	<2	0.0054	
DCS-7	11-Jul-05	<1	<2	<2	<2	0.0051	
DCS-7	21-Jul-05	<1	<2	<2	<2	0.0082	
DCS-7	27-Jul-05	<1	<2	<2	<2	0.0053	
DCS-7	03-Aug-05	<1	<2	<2	<2	0.0074	
DCS-7	08-Aug-05	<1	<2	<2	<2	0.0099	
DCS-7	16-Aug-05	<1	<2	<2	<2	0.0098	
DCS-7	24-Aug-05	<1	<2	<2	<2	0.0085	
DCS-7	02-Sep-05	<1	<2	<2	<2	0.0085	
DCS-7	09-Sep-05	<1	<2	<2	<2	0.0074	
DCS-7	13-Sep-05	<1	<2	<2	<2	0.0079	
DCS-7	22-Sep-05	<1	<2	<2	<2	0.0021	
DCS-7	29-Sep-05	<1	<2	<2	<2	0.0034	
DCS-7	06-Oct-05	<1	<2	<2	<2	0.025	
DCS-7	10-Oct-05	<1	<2	<2	<2	0.013	
DCS-7	20-Oct-05	<1	<2	<2	<2	0.0096	
DCS-7	27-Oct-05	<1	<2	<2	<2	0.01	
DCS-7	03-Nov-05	<1	<2	<2	<2	0.0064	
DCS-7	07-Nov-05	<1	<2	<2	<2	0.0052	
DCS-7	17-Nov-05	<1	<2	<2	<2	0.0066	
DCS-7	22-Nov-05	<1	<2	<2	<2	0.012	
DCS-7	29-Nov-05	<1	<2	<2	<2	0.022	
DCS-7	06-Dec-05	<1	<2	<2	<2	0.015	
DCS-7	14-Dec-05	<1	<2	<2	<2	0.013	
DCS-7	21-Dec-05	<1	<2	<2	<2	0.0067	
DCS-7	29-Dec-05	<1	<2	<2	<2	0.0044	
DCS-7	05-Jan-06	<1	<2	<2	<2	0.0058	
DCS-7	09-Jan-06	<1	<2	<2	<2	0.008	
DCS-7	18-Jan-06	<1	<2	<2	<2	0.0055	
DCS-7	24-Jan-06	<1	<2	<2	<2	0.02	
DCS-7	01-Feb-06	<1	<2	<2	<2	0.0053	
DCS-7	09-Feb-06	<0.5	<1	<1	<1	0.017	
DCS-7	13-Feb-06	<0.5	<1	<1	<1	<0.002	
DCS-7	22-Feb-06	<1	<2	<2	<2	0.004	
DCS-7	01-Mar-06	<1	<2	<2	<2	0.002	
DCS-7	09-Mar-06	<1	<2	<2	<2	0.0039	
DCS-7	14-Mar-06	<1	<2	<2	<2	0.01	
DCS-7	22-Mar-06	<1	<2	<2	<2	0.0084	
DCS-7	30-Mar-06	<1	<2	<2	<2	0.0025	



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### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-7	05-Apr-06	<1	<2	<2	<2	0.00079	
DCS-7	10-Apr-06	<1	<2	<2	<2	0.00077	
DCS-7	20-Apr-06	<1	<2	<2	<2	0.00089	
DCS-7	27-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-7	04-May-06	<1	<2	<2	<2	0.0014	
DCS-7	09-May-06	<1	<2	<2	<2	<0.0008	
DCS-7	13-Jun-06	<1	<2	<2	<2	0.0053	
DCS-7	05-Sep-06	<1	<5	<2	<2	0.01	
DCS-7	04-Dec-06	<1	<5	<2	<2	0.011	
DCS-7	12-Mar-07	<1	<5	<2	<2	0.0027	
DCS-7	21-Jun-07	<1	<2	<2	<2	0.002	
DCS-7	13-Sep-07	<1	<2	<2	<2	-88.8	
DCS-7	17-Dec-07	<1	<2	<2	<2	0.0078	
DCS-7	04-Mar-08	<1	<2	<2	<2	0.004	
DCS-7	18-Jun-08	<1	<2	<2	<2	0.0022	
DCS-7	29-Sep-08	<1	<2	<2	<2	0.0084	
DCS-7	10-Dec-08	<1	<2	<2	<2	0.0083	
DCS-7	17-Mar-09	<1	<2	<2	<2	0.0012	
DCS-8	09-Dec-04	<1	<2	<2	<2	0.021	
DCS-8	15-Dec-04	<1	<2	<2	<2	0.013	
DCS-8	20-Dec-04	<1	<2	<2	<2	0.026	
DCS-8	23-Dec-04	<1	<2	<2	<2	0.016	
DCS-8	06-Jan-05	<1	<2	<2	<2	0.016	
DCS-8	10-Jan-05	<1	<2	<2	<2	0.0098	
DCS-8	20-Jan-05	<1	<2	<2	<2	0.0075	
DCS-8	26-Jan-05	<1	<2	<2	<2	0.013	
DCS-8	04-Feb-05	<1	<2	<2	<2	0.0075	
DCS-8	07-Feb-05	<1	<2	<2	<2	0.0076	
DCS-8	16-Feb-05	<1	<2	<2	<2	0.0074	
DCS-8	24-Feb-05	<1	<2	<2	<2	0.0099	
DCS-8	03-Mar-05	<1	<2	<2	<2	0.0058	
DCS-8	07-Mar-05	<1	<2	<2	<2	0.0086	
DCS-8	18-Mar-05	<1	<2	<2	<2	0.0075	
DCS-8	23-Mar-05	<1	<2	<2	<2	0.013	
DCS-8	29-Mar-05	<1	<2	<2	<2	0.0041	
DCS-8	07-Apr-05	<1	<2	<2	<2	0.0083	
DCS-8	11-Apr-05	<1	<2	<2	<2	0.025	
DCS-8	27-Apr-05	<1	<2	<2	<2	0.0027	
DCS-8	05-May-05	<1	<2	<2	<2	0.0032	

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### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-8	09-May-05	<1	<2	<2	<2	0.0019	
DCS-8	18-May-05	<1	<2	<2	<2	0.002	
DCS-8	25-May-05	<1	<2	<2	<2	0.0017	
DCS-8	02-Jun-05	<1	<2	<2	<2	0.0032	
DCS-8	08-Jun-05	<1	<2	<2	<2	0.0045	
DCS-8	15-Jun-05	<1	<2	<2	<2	0.0025	
DCS-8	21-Jun-05	<1	<2	<2	<2	0.0024	
DCS-8	30-Jun-05	<1	<2	<2	<2	0.0034	
DCS-8	07-Jul-05	<1	<2	<2	<2	0.0047	
DCS-8	11-Jul-05	<1	<2	<2	<2	0.0044	
DCS-8	21-Jul-05	<1	<2	<2	<2	0.0072	
DCS-8	27-Jul-05	<1	<2	<2	<2	0.0038	
DCS-8	03-Aug-05	<1	<2	<2	<2	0.0099	
DCS-8	08-Aug-05	<0.5	<5	<2	NA	<0.01	
DCS-8	08-Aug-05	<1	<2	<2	<2	0.0075	
DCS-8	08-Aug-05	<1	<2	<2	<2	0.0072	
DCS-8	16-Aug-05	<1	<2	<2	<2	0.0083	
DCS-8	24-Aug-05	<1	<2	<2	<2	0.0065	
DCS-8	02-Sep-05	<1	<2	<2	<2	0.0066	
DCS-8	09-Sep-05	<1	<2	<2	<2	0.0068	
DCS-8	13-Sep-05	<1	<2	<2	<2	0.0064	
DCS-8	22-Sep-05	<1	<2	<2	<2	0.0018	
DCS-8	29-Sep-05	<1	<2	<2	<2	0.0032	
DCS-8	06-Oct-05	<1	<2	<2	<2	0.026	
DCS-8	10-Oct-05	<1	<2	<2	<2	0.0097	
DCS-8	20-Oct-05	<1	<2	<2	<2	0.011	
DCS-8	27-Oct-05	<1	<2	<2	<2	0.0091	
DCS-8	03-Nov-05	<1	<2	<2	<2	0.0065	
DCS-8	07-Nov-05	<1	<2	<2	<2	0.0043	
DCS-8	17-Nov-05	<1	<2	<2	<2	0.0066	
DCS-8	22-Nov-05	<1	<2	<2	<2	0.012	
DCS-8	29-Nov-05	<1	<2	<2	<2	0.021	
DCS-8	06-Dec-05	<1	<2	<2	<2	0.013	
DCS-8	14-Dec-05	<1	<2	<2	<2	0.073	
DCS-8	21-Dec-05	<1	<2	<2	<2	0.0073	
DCS-8	29-Dec-05	<1	<2	<2	<2	-88.8	
DCS-8	05-Jan-06	<1	<2	<2	<2	0.006	
DCS-8	09-Jan-06	<1	<2	<2	<2	0.0081	
DCS-8	18-Jan-06	<1	<2	<2	<2	0.005	
DCS-8	24-Jan-06	<1	<2	<2	<2	0.018	

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### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

Garfield County, Colorado

Location ID	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)	Estimated Thermogenic Methane (mg/L)
Colorado RBSLs (ug/L)		5	1000	680	10,000		
DCS-8	01-Feb-06	<1	<2	<2	<2	0.0056	
DCS-8	09-Feb-06	<0.5	<1	<2	<1	0.015	
DCS-8	13-Feb-06	<0.5	<1	<2	<1	<0.002	
DCS-8	22-Feb-06	<1	<2	<2	<2	0.0052	
DCS-8	01-Mar-06	<1	<2	<2	<2	0.0018	
DCS-8	09-Mar-06	<1	<2	<2	<2	0.0038	
DCS-8	14-Mar-06	<1	<2	<2	<2	0.0088	
DCS-8	22-Mar-06	<1	<2	<2	<2	0.008	
DCS-8	30-Mar-06	<1	<2	<2	<2	0.0024	
DCS-8	05-Apr-06	<1	<2	<2	<2	0.00083	
DCS-8	10-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-8	20-Apr-06	<1	<2	<2	<2	0.0008	
DCS-8	27-Apr-06	<1	<2	<2	<2	<0.0008	
DCS-8	04-May-06	<1	<2	<2	<2	0.0013	
DCS-8	09-May-06	<1	<2	<2	<2	0.0011	
DCS-8	13-Jun-06	<1	<2	<2	<2	0.0043	
DCS-8	05-Sep-06	<1	<5	<2	<2	0.0084	
DCS-8	04-Dec-06	<1	<5	<2	<2	0.011	
DCS-8	12-Mar-07	<1	<5	<2	<2	0.0022	
DCS-8	21-Jun-07	<1	<2	<2	<2	0.0017	
DCS-8	13-Sep-07	<1	<2	<2	<2	0.0064	
DCS-8	13-Sep-07	<1	<2	<2	<2	0.005	
DCS-8	17-Dec-07	<1	<2	<2	<2	0.0058	
DCS-8	04-Mar-08	<1	<2	<2	<2	0.0034	
DCS-8	18-Jun-08	<1	<2	<2	<2	0.0023	
DCS-8	29-Sep-08	<1	<2	<2	<2	0.0065	
DCS-8	10-Dec-08	<1	<2	<2	<2	0.006	
DCS-8	17-Mar-09	<1	<2	<2	<2	0.0011	

**Bold - indicates value exceeds state standard**

mg/l - milligrams/liter

ug/l - micrograms/liter

Total number of observations for all points over all dates:

981

# **APPENDIX D**

## **Historical QA/QC Results Surface and Ground Water**

**Appendix D**  
Summary of Historical QA/QC Samples  
Encana, West Divide Seep  
Garfield County, Colorado

Sample ID	Seq	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)
Colorado RBSLs			5	1000	680	10000	
DCS-1		1/10/05	< 1	< 2	< 2	< 2	0.0022
DCS-1	Dup	1/10/05	< 1	< 2	< 2	< 2	0.0023
DCS-1	Split	1/10/05	< 0.5	< 5	< 0.5	< 1.5	< 0.01
DCS-1		3/7/05	< 1	< 2	< 2	< 2	0.0014
DCS-1	Dup	3/7/05	< 1	< 2	< 2	< 2	0.0014
DCS-1	Split	3/7/05	< 0.5	< 5	< 0.5	< 1.5	< 0.01
DCS-1		12/4/06	< 1	< 5	< 2	< 2	0.0015
DCS-1	Dup	12/4/06	< 1	< 5	< 2	< 2	0.0015
DCS-1	Split	12/4/06	< 0.25	< 0.25	< 0.25	< 0.5	0.0005
DCS-1		3/17/09	< 1	< 2	< 2	< 2	< 0.0008
DCS-1	Dup	3/17/09	< 1	< 2	< 2	< 2	0.0062
DCS-1	Split	3/17/09	< 1	< 1	< 1	< 1	< 0.001
DCS-2		10/12/04	4.3	< 2	< 2	< 2	0.36
DCS-2	Dup	10/12/04	4.1	< 2	< 2	< 2	0.36
DCS-2	Split	10/12/04	3.6	< 2	< 2	< 1.5	0.18
DCS-2		5/9/05	< 1	< 2	< 2	< 2	0.0084
DCS-2	Dup	5/9/05	< 1	< 2	< 2	< 2	0.0098
DCS-2	Split	5/9/05	< 0.5	< 5	< 0.5	< 1.5	0.012
DCS-2		4/10/06	< 1	< 2	< 2	< 2	< 0.0008
DCS-2	Dup	4/10/06	< 1	< 2	< 2	< 2	< 0.0008
DCS-2	Split	4/10/06	< 0.25	< 0.25	< 0.25	< 0.5	0.00061
DCS-2		9/5/06	< 1	< 5	< 2	< 2	0.0054
DCS-2	Dup	9/5/06	< 1	< 5	< 2	< 2	0.0057
DCS-2	Split	9/5/06	< 0.25	< 0.25	< 0.25	< 0.5	0.00269
DCS-2		3/12/07	< 1	< 5	< 2	< 2	0.072
DCS-2	Dup.	3/12/07	< 1	< 5	< 2	< 2	0.11
DCS-2	Split	3/12/07	< 1	< 5	< 2	< 2	0.0735
DCS-2		6/21/07	< 1	< 2	< 2	< 2	0.0019
DCS-2	Dup	6/21/07	< 1	< 2	< 2	< 2	0.002
DCS-2	Split	6/21/07	< 0.25	< 0.25	< 0.25	< 0.5	0.991
DCS-2		3/3/08	< 1	< 2	< 2	< 2	0.00096
DCS-2	Dup	3/3/08	< 1	< 2	< 2	< 2	0.0011
DCS-2	Split	3/3/08	< 0.5	< 0.5	< 0.5	< 1	0.000488
DCS-3		4/16/04	<b>5.7</b>	4.2	< 2	< 2	0.38
DCS-3	Dup	4/16/04	<b>5.8</b>	4.2	< 2	2.3	0.33
DCS-3		12/9/04	< 1	< 2	< 2	< 2	0.077
DCS-3	Dup	12/9/04	< 1	< 2	< 2	< 2	0.079
DCS-3	Split	12/9/04	< 0.5	< 5	< 0.5	< 1.5	0.058
DCS-3		6/8/05	< 1	< 2	< 2	< 2	0.0035
DCS-3	Dup	6/8/05	< 1	< 2	< 2	< 2	0.0037
DCS-3	Split	6/8/05	< 0.5	< 5	< 0.5	< 1.5	< 0.01
DCS-3		7/11/05	< 1	< 2	< 2	< 2	0.0069
DCS-3	Dup	7/11/05	< 1	< 2	< 2	< 2	0.006

**Appendix D**  
Summary of Historical QA/QC Samples  
Encana, West Divide Seep  
Garfield County, Colorado

Sample ID	Seq	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)
Colorado RBSLs			5	1000	680	10000	
DCS-3	Split	7/11/05	< 0.5	< 5	0.53	2.6	0.017
DCS-3		5/9/06	< 1	< 2	< 2	< 2	< 0.0008
DCS-3	Dup	5/9/06	< 1	< 2	< 2	< 2	< 0.0008
DCS-3	Split	5/9/06	< 0.5	< 0.5	< 0.5	< 1	0.000849
DCS-3		12/17/07	< 1	< 2	< 2	< 2	0.0032
DCS-3	Dup	12/17/07	< 1	< 2	< 2	< 2	0.0034
DCS-3	Rep	12/17/07	< 0.5	< 5	< 0.5	< 0	0.00371
DCS-4		2/7/05	< 1	< 2	< 2	< 2	0.0096
DCS-4	Dup	2/7/05	< 1	< 2	< 2	< 2	0.0096
DCS-4	Split	2/7/05	< 0.5	< 5	< 0.5	< 1.5	< 0.01
DCS-4		11/7/05	< 1	< 2	< 2	< 2	0.0044
DCS-4	Dup	11/7/05	< 1	< 2	< 2	< 2	0.0034
DCS-4	Split	11/7/05	< 0.5	< 5	< 0.5	< 1.5	< 0.01
DCS-4		1/9/06	< 1	< 2	< 2	< 2	0.0064
DCS-4	Dup	1/9/06	< 1	< 2	< 2	< 2	0.0064
DCS-4	Split	1/9/06	< 0.5	< 1	< 1	< 2	0.005
DCS-4		9/29/08	< 1	< 2	< 2	< 2	0.0098
DCS-4	Dup	9/29/08	< 1	< 2	< 2	< 2	0.0098
DCS-4	Split	9/29/08	< 0.5	< 0.5	< 0.5	< 0.5	0.012
DCS-5		9/13/05	< 1	< 2	< 2	< 2	0.0076
DCS-5	Dup	9/13/05	< 1	< 2	< 2	< 2	0.0075
DCS-5	Split	9/13/05	0.99	< 5	< 0.5	1.9	0.012
DCS-5		2/13/06	< 0.5	< 1	< 1	< 2	< 0.002
DCS-5	Dup	2/13/06	< 0.5	< 1	< 1	< 2	0.009
DCS-5	Split	2/13/06	< 0.5	< 0.5	< 0.5	< 1	0.013
DCS-5		6/13/06	< 1	< 2	< 2	< 2	0.0045
DCS-5	Split	6/13/06	< 0.5	< 0.5	< 0.5	< 1	0.00445
DCS-5		12/10/08	<1	<2	<2	<2	0.0066
DCS-5	Dup	12/10/08	<1	<2	<2	<2	0.0062
DCS-5	Split	12/10/08	<1	<1	<1	<1	0.003
DCS-6		4/29/04	< 1	< 2	< 2	< 2	0.011
DCS-6	Dup	4/29/04	< 1	< 2	< 2	< 2	0.015
DCS-6		10/10/05	< 1	< 2	< 2	< 2	0.014
DCS-6	Dup	10/10/05	< 1	< 2	< 2	< 2	0.015
DCS-6	Split	10/10/05	< 0.5	< 5	< 0.5	< 1.5	0.019
DCS-6		12/6/05	< 1	< 2	< 2	< 2	0.015
DCS-6	Dup	12/6/05	< 1	< 2	< 2	< 2	0.014
DCS-6	Split	12/6/05	< 0.5	< 5	< 0.5	< 1.5	0.014
DCS-6		3/14/06	< 1	< 2	< 2	< 2	0.012
DCS-6	Dup	3/14/06	< 1	< 2	< 2	< 2	0.012
DCS-6	Split	3/14/06	< 0.25	< 0.25	< 0.25	< 0.5	0.0143
DCS-6		6/18/08	< 1	< 2	< 2	< 2	0.0029

**Appendix D**  
Summary of Historical QA/QC Samples  
Encana, West Divide Seep  
Garfield County, Colorado

Sample ID	Seq	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)
Colorado RBSLs			5	1000	680	10000	
DCS-6	Dup	6/18/08	< 1	< 2	< 2	< 2	0.0027
DCS-6	Split	6/18/08	< 1	< 1	< 1	< 3	NS
DCS-8		8/8/05	< 1	< 2	< 2	< 2	0.0075
DCS-8	Dup	8/8/05	< 1	< 2	< 2	< 2	0.0072
DCS-8	Split	8/8/05	< 0.5	< 5	< 0.5	< 1.5	< 0.01
DCS-8		6/13/06	< 1	< 2	< 2	< 2	0.0043
DCS-8	Dup	6/13/06	< 1	< 2	< 2	< 2	0.0048
DCS-8		9/13/07	< 1	< 2	< 2	< 2	0.0064
DCS-8	Dup	9/13/07	< 1	< 2	< 2	< 2	0.005
MW-1		9/11/07	< 1	< 2	< 2	< 2	0.001
MW-1	Dup	9/11/07	< 1	< 2	< 2	< 2	< 0.0008
MW-1	Split	9/11/07	< 0.5	< 0.5	< 0.5	< 1	0.000144
MW-2		2/9/05	420	< 10	< 10	30	3
MW-2	Dup	2/9/05	420	2.4	8.6	43.5	2.6
MW-2	Split	2/9/05	340	< 5	6.7	33	0.65
MW-2		12/7/05	290	< 10	< 10	46	6.5
MW-2	Dup	12/7/05	270	< 10	< 10	42	5.1
MW-2	Split	12/7/05	290	35	8.1	49	8.4
MW-2		1/11/06	310	< 2	8.5	63.9	8
MW-2	Dup	1/11/06	340	< 2	8.8	62.5	9
MW-2	Split	1/11/06	174	< 2	4.9	36.9	3.1
MW-2		3/12/07	230	< 2	5.8	37.8	7.8
MW-2	Dup.	3/12/07	250	< 2	6.5	43.4	9.4
MW-2	Split	3/12/07	212	< 2	8.05	51.43	0.0691
MW-2		6/20/07	220	< 2	5.3	36.1	6.1
MW-2	Dup	6/20/07	190	< 2	4.6	31.6	4.5
MW-2	Split	6/20/07	94	< 0.25	5.5	43.49	0.979
MW-2		3/3/08	120	< 2	2.6	11	5.8
MW-2	Dup	3/3/08	130	< 2	2.7	12	5.9
MW-2	Split	3/3/08	186	< 0.5	5.1	31.2	1.86
MW-4		9/15/04	320	76	9.5	80.5	9.2
MW-4	Dup	9/15/04	330	76	9.1	77.1	8.6
MW-4	Split	9/15/04	240	59	6.7	60	27
MW-4		10/14/04	300	37	9	55.2	5.6
MW-4	Dup	10/14/04	300	51	9	59	9.3
MW-4	Split	10/14/04	210	< 50	6.1	37	4.4
MW-4		12/13/04	270	36	8.1	64.9	14
MW-4	Dup	12/13/04	270	37	7.7	62.6	12
MW-4	Split	12/13/04	240	33	12	97	7.8
MW-4		1/12/05	350	68	11	71.9	14
MW-4	Dup	1/12/05	360	40	11	62.3	14

**Appendix D**  
Summary of Historical QA/QC Samples  
Encana, West Divide Seep  
Garfield County, Colorado

Sample ID	Seq	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)
Colorado RBSLs			5	1000	680	10000	
MW-4	Split	1/12/05	320	35	8.1	49	6.1
MW-4		4/12/05	130	33	< 2	20	8.9
MW-4	Dup	4/12/05	130	52	< 2	24	10
MW-4	Split	4/12/05	280	< 1200	< 120	< 380	8.7
MW-4		5/9/05	310	66	11	88	10
MW-4	Dup	5/9/05	320	77	11	90	11
MW-4		7/11/05	180	32	3.8	34.9	6.1
MW-4	Dup	7/11/05	170	40	3.3	38.7	7.8
MW-4	Split	7/11/05	0.69	< 1200	< 120	< 380	< 1
MW-4		8/9/05	270	41	< 10	69	8.3
MW-4	Dup	8/9/05	240	46	< 10	65	8.5
MW-4	Split	8/9/05	170	29	2.2	62	2.7
MW-4		1/10/06	270	< 2	6.5	71	8.8
MW-4	Dup	1/10/06	270	< 2	8	73	8.5
MW-4	Split	1/10/06	97	< 2	< 2	37	8.3
MW-4		3/12/07	220	< 2	7	67.2	9.8
MW-4	Dup.	3/12/07	200	< 2	6	55.9	7.6
MW-4	Split	3/12/07	172	< 0.25	6.73	69.28	0.0592
MW-4		10/1/08	110	< 2	< 2	33.7	6.2
MW-4	Dup	10/1/08	120	< 2	< 2	34.9	5
MW-4	Split	10/1/08	100	< 0.5	0.69	23.7	4.48
MW-4		3/16/09	81	< 2	< 2	17.3	9.2
MW-4	Dup	3/16/09	83	< 2	< 2	18.5	9.1
MW-4	Split	3/16/09	73	< 1	< 1	15.7	5.99
MW-6		12/14/04	< 1	< 2	< 2	< 2	0.054
MW-6	Dup	12/14/04	< 1	< 2	< 2	< 2	0.4
MW-6	Split	12/14/04	< 0.5	< 5	< 0.5	< 1.5	0.071
MW-6		6/8/05	1.3	< 2	< 2	< 2	0.18
MW-6	Dup	6/8/05	2.5	< 2	< 2	< 2	0.22
MW-6	Split	6/8/05	2.2	< 5	< 0.5	< 1.5	0.024
MW-6		9/12/05	2	< 2	< 2	< 2	0.12
MW-6	Dup	9/12/05	1.9	< 2	< 2	< 2	0.16
MW-6	Split	9/12/05	1.9	< 5	< 0.5	< 1.5	< 0.01
MW-6		11/8/05	3.7	< 2	< 2	< 2	0.17
MW-6	Dup	11/8/05	3.6	< 2	< 2	< 2	0.17
MW-6	Split	11/8/05	2.1	< 5	< 0.5	< 1.5	0.41
MW-6		2/14/06	< 0.5	< 1	< 1	< 2	0.15
MW-6	Dup	2/14/06	< 0.5	< 1	< 1	< 2	0.077
MW-6	Split	2/14/06	0.6	< 0.5	< 0.5	< 1	0.128
MW-6		4/12/06	1.1	< 2	< 2	< 2	0.046
MW-6	Dup	4/12/06	1	< 2	< 2	< 2	0.034
MW-6	Split	4/12/06	1.12	< 0.25	< 0.25	< 0.5	0.125
MW-6		9/7/06	< 1	< 5	< 2	< 2	0.038
MW-6	DUP	9/7/06	< 1	< 5	< 2	< 2	0.031



**Appendix D**  
Summary of Historical QA/QC Samples  
Encana, West Divide Seep  
Garfield County, Colorado

Sample ID	Seq	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)
Colorado RBSLs			5	1000	680	10000	
MW-6	Split	9/7/06	< 0.25	< 0.25	< 0.25	< 0.5	0.00523
MW-6		12/17/07	<1	<2	<2	<2	0.0081
MW-6	Dup	12/17/07	< 1	< 2	< 2	< 2	0.008
MW-6	Split	12/17/07	< 0.5	< 5	< 0.5	< 0	0.00846
MW-6		9/30/08	< 1	< 2	< 2	< 2	< 0.008
MW-6	Dup	9/30/08	< 1	< 2	< 2	< 2	< 0.008
MW-6	Split	9/30/08	< 0.5	< 0.5	< 0.5	< 0.5	< 0.001
MW-7		5/10/05	< 1	< 2	< 2	< 2	< 0.0008
MW-7	Dup	5/10/05	< 1	< 2	< 2	< 2	< 0.0008
MW-7	Split2	5/10/05	< 0.5	< 5	< 0.5	< 1.5	0.031
MW-7		10/11/05	< 1	< 2	< 2	< 2	0.0075
MW-7	Dup	10/11/05	< 1	< 2	< 2	< 2	0.026
MW-7	Split2	10/11/05	< 0.5	< 5	< 0.5	< 1.5	< 0.01
MW-7		9/7/06	< 1	< 2	< 2	< 2	0.047
MW-7	Dup	9/7/06	< 1	< 2	< 2	< 2	0.039
MW-7	Split	9/7/06	< 0.25	< 0.25	< 0.25	< 0.5	0.00163
MW-7		9/21/06	< 1	< 2	< 2	< 2	0.002
MW-7	DUP	9/21/06	< 1	< 2	< 2	< 2	0.0013
MW-7	Split	9/21/06	< 0.25	< 0.25	< 0.25	< 0.5	0.000762
MW-7		6/20/07	< 1	< 2	< 2	< 2	< 0.0008
MW-7	Dup	6/20/07	< 1	< 2	< 2	< 2	0.0013
MW-7	Split	6/20/07	< 0.25	< 0.25	< 0.25	< 0.5	NS
MW-8		11/10/04	<b>140</b>	< 2	< 2	< 2	7.2
MW-8	Dup	11/10/04	<b>150</b>	< 2	< 2	< 2	6.5
MW-8	Split	11/10/04	<b>120</b>	< 5	< 0.5	< 1.5	3.1
MW-8		7/12/05	< 1	< 2	< 2	< 2	0.043
MW-8	Dup	7/12/05	< 1	< 2	< 2	< 2	0.12
MW-8	Split	7/12/05	<b>120</b>	< 5	< 0.5	< 1.5	3.1
MW-8		10/12/05	< 1	< 2	< 2	< 2	0.25
MW-8	Dup	10/12/05	< 1	< 2	< 2	< 2	0.19
MW-8	Split	10/12/05	< 0.5	< 5	< 0.5	< 1.5	< 0.01
MW-8		5/11/06	< 1	< 2	< 2	< 2	0.032
MW-8	Dup	5/11/06	< 1	< 2	< 2	< 2	0.017
MW-8	Split	5/11/06	< 0.5	< 0.5	< 0.5	< 1	0.0649
MW-9		11/9/04	<b>310</b>	160	10	98	10
MW-9	Dup	11/9/04	<b>320</b>	170	11	104	9
MW-9	Split	11/9/04	<b>280</b>	160	9.8	100	14
MW-12		10/13/04	< 1	< 2	< 2	< 2	< 0.0008
MW-12	Dup	10/13/04	< 1	< 2	< 2	< 2	0.17
MW-12	Split	10/13/04	< 1	< 2	< 2	< 1.5	0.12
MW-12		3/15/06	< 1	< 2	< 2	< 2	1.6

**Appendix D**  
Summary of Historical QA/QC Samples  
Encana, West Divide Seep  
Garfield County, Colorado

Sample ID	Seq	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)
Colorado RBSLs			5	1000	680	10000	
MW-12	Dup	3/15/06	< 1	< 2	< 2	< 2	1.4
MW-12	Split	3/15/06	< 0.5	< 0.5	< 0.5	< 1	1.51
MW-16		3/8/05	<b>6.1</b>	< 2	< 2	< 2	0.83
MW-16	Dup	3/8/05	<b>6.3</b>	< 2	< 2	< 2	0.66
MW-16	Split	3/8/05	<b>6.2</b>	< 5	< 0.5	< 1.5	1.7
MW-18		12/8/05	< 1	< 2	< 2	< 2	0.76
MW-18	Dup	12/8/05	< 1	< 2	< 2	< 2	0.68
MW-18	Split2	12/8/05	< 0.5	< 5	< 0.5	< 1.5	0.8
MW-18		6/13/06	< 1	< 2	< 2	< 2	1.4
MW-18	Dup	6/13/06	< 1	< 2	< 2	< 2	1.2
MW-18	Split	6/13/06	< 0.5	< 0.5	< 0.5	< 1	1.46
MW-18		6/19/08	< 1	< 2	< 2	< 2	0.15
MW-18	Dup	6/19/08	< 1	< 2	< 2	< 2	0.013
MW-18	Split	6/19/08	< 1	< 1	< 1	< 3	NS
MW-22		3/9/05	< 1	< 2	< 2	< 2	0.0043
MW-22	Dup	3/9/05	< 1	< 2	< 2	< 2	0.0034
MW-22	Split2	3/9/05	< 0.5	< 5	< 0.5	< 1.5	< 0.01
MW-24		8/10/05	< 1	< 2	< 2	< 2	< 0.0008
MW-24	Dup	8/10/05	< 1	< 2	< 2	< 2	< 0.0008
MW-24	Split2	8/10/05	< 0.5	< 5	< 0.5	1.9	< 0.01
MW-24		11/9/05	< 1	< 2	< 2	< 2	< 0.0008
MW-24	Dup	11/9/05	< 1	< 2	< 2	< 2	< 0.0008
MW-24	Split2	11/9/05	< 0.5	< 5	< 0.5	< 1.5	< 0.01
MW-24		2/15/06	< 1	< 2	< 2	< 2	< 0.0008
MW-24	Dup	2/15/06	< 1	< 2	< 2	< 2	< 0.0008
MW-24	Split	2/15/06	< 0.5	< 0.5	< 0.5	< 1	< 0.0034
MW-24		12/6/06	< 1	< 2	< 2	< 2	< 0.0008
MW-24	DUP	12/6/06	< 1	< 2	< 2	< 2	< 0.0008
MW-24	Split	12/6/06	< 0.25	< 0.25	< 0.25	< 0.5	0.00028
MW-24		12/10/08	<1	<2	<2	<2	<0.0008
MW-24	Dup	12/10/08	<1	<2	<2	<2	<0.0008
MW-24	Split	12/10/08	<1	<1	<1	<1	<0.001
MW-26		1/13/05	< 1	< 2	< 2	< 2	2.4
MW-26	Dup	1/13/05	< 1	< 2	< 2	< 2	2.1
MW-26	Split	1/13/05	< 0.5	< 5	< 0.5	< 1.5	0.5
MW-26		2/10/05	< 1	< 2	< 2	< 2	2.9
MW-26	Dup	2/10/05	< 1	< 2	< 2	< 2	3.2
MW-26	Split2	2/10/05	< 0.5	< 5	< 0.5	< 1.5	2.9
MW-26		4/13/05	< 1	< 2	< 2	< 2	3.3
MW-26	Dup	4/13/05	< 1	< 2	< 2	< 2	3.3

**Appendix D**  
Summary of Historical QA/QC Samples  
Encana, West Divide Seep  
Garfield County, Colorado

Sample ID	Seq	Date	Benzene (ug/L)	Toluene (ug/L)	Ethylbenzene (ug/L)	Total Xylene (ug/L)	Total Dissolved Methane (mg/L)
Colorado RBSLs			5	1000	680	10000	
MW-26	Split2	4/13/05	< 0.5	< 5	< 0.5	< 1.5	3.7
MW-26		5/11/05	< 1	< 2	< 2	< 2	2.3
MW-26	Dup	5/11/05	< 1	< 2	< 2	< 2	2.1
MW-26	Split2	5/11/05	< 0.5	< 5	< 0.5	< 1.5	0.38
MW-26		9/13/05	< 1	< 2	< 2	< 2	0.97
MW-26	Dup	9/13/05	< 1	< 2	< 2	< 2	0.99
MW-26	Split2	9/13/05	< 0.5	< 5	< 0.5	< 1.5	1.5
MW-26		3/16/06	< 1	< 2	< 2	< 2	0.83
MW-26	Dup	3/16/06	< 1	< 2	< 2	< 2	0.79
MW-26	Split	3/16/06	< 0.25	< 0.25	< 0.25	< 0.5	0.000377
MW-26		4/12/06	< 1	< 2	< 2	< 2	0.45
MW-26	Dup	4/12/06	< 1	< 2	< 2	< 2	0.6
MW-26	Split	4/12/06	< 0.25	< 0.25	< 0.25	< 0.5	0.858
MW-26		5/11/06	< 1	< 2	< 2	< 2	0.75
MW-26	Dup	5/11/06	< 1	< 2	< 2	< 2	0.74
MW-26	Split	5/11/06	< 0.5	< 0.5	< 0.5	< 1	0.877
MW-26		6/13/06	< 1	< 2	< 2	< 2	0.63
MW-26	Dup	6/13/06	< 1	< 2	< 2	< 2	0.74
MW-26	Split	6/13/06	< 0.5	< 0.5	< 0.5	< 1	0.767
MW-26		12/6/06	< 1	< 2	< 2	< 2	1.1
MW-26	DUP	12/6/06	< 1	< 2	< 2	< 2	0.76
MW-26	Split	12/6/06	< 0.25	< 0.25	< 0.25	< 0.5	0.355
MW-26		6/17/08	< 1	< 2	< 2	< 2	0.55
MW-26	Dup	6/17/08	< 1	< 2	< 2	< 2	0.51
MW-26	Split	6/17/08	< 1	< 1	< 1	< 3	NS
MW-26		12/9/08	<1	<2	<2	<2	0.73
MW-26	Dup	12/9/08	<1	<2	<2	<2	0.79
MW-26	Split	12/9/08	<1	<1	<1	<1	0.145
E2		6/9/05	< 1	< 2	< 2	< 2	0.43
E2	Dup	6/9/05	< 1	< 2	< 2	< 2	0.51
E2	Split	6/9/05	< 0.5	< 5	< 0.5	< 1.5	0.13
E2		10/25/06	< 1	< 2	< 2	< 2	0.0061
E2	Dup	10/25/06	< 1	< 2	< 2	< 2	0.0098
E2	Split	10/25/06	< 0.25	< 0.25	< 0.25	< 0.5	0.00274

Bold - Indicates Value exceeds state standard  
ug/L = micrograms per liter  
mg/L = milligrams per liter  
< - below laborator reporting limit

NS - Not sampled  
Dup - Duplicate sample  
Split - Split sample  
Split2 - Split sample

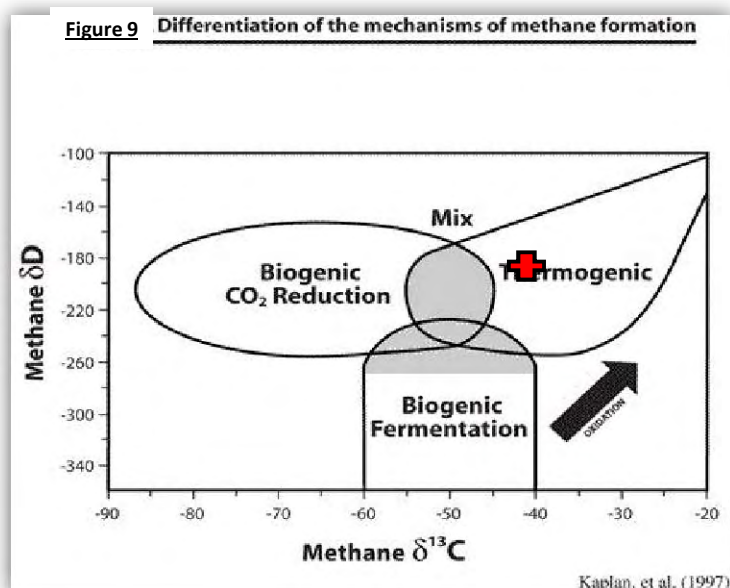
# **Appendix E**

## **Thermogenic Methane Data**

# Appendix E - An Estimation of Thermogenic Data for West Divide Creek Seep

Date	Site ID	Total Methane mg/L	Thermogenic Methane mg/L	$\delta^{13}\text{C}_1$	$\delta\text{DC}_1$	Comment
				per mil	per mil	
16-Apr-09	DCS2	<0.0008	<0.0008			Hydrocarbon levels (including methane) too low for accurate analysis
16-Apr-09	DCS3	<0.0008	<0.0008			Hydrocarbon levels (including methane) too low for accurate analysis
16-Apr-09	MW2	6.1	3.4	-40.060	-161.000	Consistent with thermogenic (or mostly thermogenic) formation
16-Apr-09	MW4	9.2	6.6	-39.700	-187.500	Consistent with thermogenic (or mostly thermogenic) formation
16-Apr-09	MW4D	9.1	6.5	-39.730	-187.300	Consistent with thermogenic (or mostly thermogenic) formation
16-Apr-09	MW9	8.1	5.5	-39.880	-186.700	Consistent with thermogenic (or mostly thermogenic) formation
16-Apr-09	MW12	0.13	0.04			Hydrocarbon levels (including methane) too low for accurate analysis
16-Apr-09	MW14	7.0	4.6	-39.700	-190.300	Consistent with thermogenic (or mostly thermogenic) formation
16-Apr-09	MW16	1.4	0.03	-36.230	-164.200	Consistent with thermogenic (or mostly thermogenic) formation
16-Apr-09	MW17	2.2	1.0	-45.170	-202.300	Consistent with thermogenic (or mostly thermogenic) formation

	Hydrocarbon levels (including methane) too low for accurate analysis
	Isotech data inconsistent with either thermogenic or biogenic formation
	Consistent with biogenic formation
	All others consistent with thermogenic (or mostly thermogenic) formation



## **Appendix F**

### **Lab Reports**

**Evergreen Analytical Labs: report included as .pdf file on CD in back**

**Energy Labs: report included as .pdf file on CD in back**

**Isotech Labs: report included as .pdf file on CD in back**

**WORK ORDER Summary****Evergreen Analytical, Inc.****09-1760****Rpt To:** Stuart Hall**Email To:** shall@oacconsulting.com

Olsson Associates

826 21 1/2 Road

Grand Junction, CO 81505

(970) 263-7800

3/17/2009 1:31:43 PM

**Client Project ID:** 008-2067**QC Level:** Level I**Comments:**

<b>Sample ID</b>	<b>Client Sample ID</b>	<b>Matrix</b>	<b>Collection Date</b>	<b>Date Received</b>	<b>Test Code</b>	<b>Test Name</b>	<b>Hold</b>	<b>MS</b>	<b>Date Due</b>	<b>Hold Time</b>
09-1760-01A	EICH2	Water	3/16/09 0955	3/17/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/20/09	3/23/09
09-1760-01B	EICH2	Water	3/16/09 0955	3/17/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/23/09
09-1760-01C	EICH2	Water	3/16/09 0955	3/17/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	9/12/09
09-1760-01D	EICH2	Water	3/16/09 0955	3/17/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/18/09
09-1760-02A	MW23	Water	3/16/09 1020	3/17/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/20/09	3/23/09
09-1760-02B	MW23	Water	3/16/09 1020	3/17/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/23/09
09-1760-02C	MW23	Water	3/16/09 1020	3/17/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	9/12/09
09-1760-02D	MW23	Water	3/16/09 1020	3/17/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/18/09
09-1760-03A	MW20	Water	3/16/09 1115	3/17/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/20/09	3/23/09
09-1760-03B	MW20	Water	3/16/09 1115	3/17/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/23/09
09-1760-03C	MW20	Water	3/16/09 1115	3/17/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	9/12/09
09-1760-03D	MW20	Water	3/16/09 1115	3/17/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/18/09
09-1760-04A	MW21	Water	3/16/09 1140	3/17/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/20/09	3/23/09
09-1760-04B	MW21	Water	3/16/09 1140	3/17/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/23/09
09-1760-04C	MW21	Water	3/16/09 1140	3/17/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	9/12/09
09-1760-04D	MW21	Water	3/16/09 1140	3/17/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/18/09
09-1760-05A	MW18	Water	3/16/09 1205	3/17/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/20/09	3/23/09
09-1760-05B	MW18	Water	3/16/09 1205	3/17/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/23/09
09-1760-05C	MW18	Water	3/16/09 1205	3/17/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	9/12/09
09-1760-05D	MW18	Water	3/16/09 1205	3/17/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/18/09
09-1760-06A	MW22	Water	3/16/09 1220	3/17/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/20/09	3/23/09

**Definitions:** \* - Test Code has a Select List

**WORK ORDER Summary****Evergreen Analytical, Inc.****09-1760****Rpt To:** Stuart Hall**Email To:** shall@oacconsulting.com

Olsson Associates

826 21 1/2 Road

Grand Junction, CO 81505

(970) 263-7800

**Client Project ID:** 008-2067

3/17/2009 1:31:43 PM

**QC Level:** Level I

09-1760-06B	MW22	Water	3/16/09 1220	3/17/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/23/09
09-1760-06C	MW22	Water	3/16/09 1220	3/17/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	9/12/09
09-1760-06D	MW22	Water	3/16/09 1220	3/17/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/18/09
09-1760-07A	MW8	Water	3/16/09 1240	3/17/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/20/09	3/23/09
09-1760-07B	MW8	Water	3/16/09 1240	3/17/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/23/09
09-1760-07C	MW8	Water	3/16/09 1240	3/17/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	9/12/09
09-1760-07D	MW8	Water	3/16/09 1240	3/17/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/18/09
09-1760-08A	MW7	Water	3/16/09 1300	3/17/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/20/09	3/23/09
09-1760-08B	MW7	Water	3/16/09 1300	3/17/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/23/09
09-1760-08C	MW7	Water	3/16/09 1300	3/17/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	9/12/09
09-1760-08D	MW7	Water	3/16/09 1300	3/17/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/18/09
09-1760-09A	MW6	Water	3/16/09 1310	3/17/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/20/09	3/23/09
09-1760-09B	MW6	Water	3/16/09 1310	3/17/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/23/09
09-1760-09C	MW6	Water	3/16/09 1310	3/17/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	9/12/09
09-1760-09D	MW6	Water	3/16/09 1310	3/17/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/18/09
09-1760-10A	MW17	Water	3/16/09 1340	3/17/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/20/09	3/23/09
09-1760-10B	MW17	Water	3/16/09 1340	3/17/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/23/09
09-1760-10C	MW17	Water	3/16/09 1340	3/17/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	9/12/09
09-1760-10D	MW17	Water	3/16/09 1340	3/17/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/18/09
09-1760-11A	MW16	Water	3/16/09 1400	3/17/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/20/09	3/23/09
09-1760-11B	MW16	Water	3/16/09 1400	3/17/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/23/09
09-1760-11C	MW16	Water	3/16/09 1400	3/17/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	9/12/09
09-1760-11D	MW16	Water	3/16/09 1400	3/17/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/18/09

**Definitions:** \* - Test Code has a Select List



**WORK ORDER Summary****Evergreen Analytical, Inc.****09-1760****Rpt To:** Stuart Hall**Email To:** shall@oacconsulting.com

Olson Associates

826 21 1/2 Road

Grand Junction, CO 81505

(970) 263-7800

**Client Project ID:** 008-2067

3/17/2009 1:31:43 PM

**QC Level:** Level I

09-1760-12A	MW27	Water	3/16/09 1030	3/17/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/20/09	3/23/09
09-1760-12B	MW27	Water	3/16/09 1030	3/17/09	MEBP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/23/09
09-1760-12C	MW27	Water	3/16/09 1030	3/17/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	9/12/09
09-1760-12D	MW27	Water	3/16/09 1030	3/17/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/18/09
09-1760-13A	MW4	Water	3/16/09 1355	3/17/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/20/09	3/23/09
09-1760-13B	MW4	Water	3/16/09 1355	3/17/09	MEBP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/23/09
09-1760-13C	MW4	Water	3/16/09 1355	3/17/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	9/12/09
09-1760-13D	MW4	Water	3/16/09 1355	3/17/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/18/09
09-1760-14A	MW0	Water	3/16/09 1355	3/17/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/20/09	3/23/09
09-1760-14B	MW0	Water	3/16/09 1355	3/17/09	MEBP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/23/09
09-1760-14C	MW0	Water	3/16/09 1355	3/17/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	9/12/09
09-1760-14D	MW0	Water	3/16/09 1355	3/17/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	3/31/09	3/18/09

**Definitions:**

\* - Test Code has a Select List

JESS VANK	<i>[Signature]</i>	3-16-07 1730					<i>[Signature]</i>	3-17-07 1035
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**Evergreen Analytical, Inc.**

**Date:** 27-Mar-09

**Lab Order:** 09-1760

**Client Project ID** 008-2067

## **CASE NARRATIVE**

---

### **SAMPLE RECEIVING**

Custody seals were present and intact.

The temperature of the sample(s) upon arrival was 2.8°C.

Sample(s) were received in good condition, in the proper container, and within holding times.

VOC samples were not preserved.

VOC sample(s) were received with no headspace present. JD

### **QUALITY ASSURANCE (QA)**

Analyses performed on samples in this work order by EAL meet the requirements of the EAL Quality Assurance Program unless otherwise explained. Analyses of RCRA samples meet the requirements of NELAC and Utah Rule R444-14 unless otherwise explained. JE

### **CLIENT SERVICES**

There are no anomalies to report. PM

### **GENERAL CHEMISTRY**

There are no anomalies to report. MM

### **METALS ANALYSIS**

There are no anomalies to report. MB

### **GAS CHROMATOGRAPHY**

Method RSK-175: There are no anomalies to report. VM

Method 8021\_W: There are no anomalies to report. JCC

---

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862

(303) 425-6021

Client Sample ID: EICH2  
 Client Project ID: 008-2067  
 Date Collected: 3/16/09 0955  
 Date Received: 3/17/09

Lab Work Order 09-1760  
 Lab Sample ID: 09-1760-01  
 Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
81	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: BP

Result	LQL	DF	Units
15.8	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
U	0.00080	1	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/27/2009

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW23  
Client Project ID: 008-2067  
Date Collected: 3/16/09 1020  
Date Received: 3/17/09

Lab Work Order 09-1760  
Lab Sample ID: 09-1760-02  
Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
430	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: BP

Result	LQL	DF	Units
49.6	2.5	5	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
0.37	0.00080	1	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/27/2009

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862

(303) 425-6021

Client Sample ID: MW20  
 Client Project ID: 008-2067  
 Date Collected: 3/16/09 1115  
 Date Received: 3/17/09

Lab Work Order 09-1760  
 Lab Sample ID: 09-1760-03  
 Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
100	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: BP

Result	LQL	DF	Units
21.8	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
U	0.00080	1	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/27/2009

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW21  
Client Project ID: 008-2067  
Date Collected: 3/16/09 1140  
Date Received: 3/17/09

Lab Work Order 09-1760  
Lab Sample ID: 09-1760-04  
Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
240	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: BP

Result	LQL	DF	Units
23.8	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
U	0.00080	1	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/27/2009



## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW18  
Client Project ID: 008-2067  
Date Collected: 3/16/09 1205  
Date Received: 3/17/09

Lab Work Order 09-1760  
Lab Sample ID: 09-1760-05  
Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
61	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: BP

Result	LQL	DF	Units
4.4	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
U	0.00080	1	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/27/2009

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW22  
Client Project ID: 008-2067  
Date Collected: 3/16/09 1220  
Date Received: 3/17/09

Lab Work Order 09-1760  
Lab Sample ID: 09-1760-06  
Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
110	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: BP

Result	LQL	DF	Units
19.4	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
U	0.00080	1	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/27/2009

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW8  
Client Project ID: 008-2067  
Date Collected: 3/16/09 1240  
Date Received: 3/17/09

Lab Work Order 09-1760  
Lab Sample ID: 09-1760-07  
Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
150	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: BP

Result	LQL	DF	Units
41.9	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
0.22	0.00080	1	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/27/2009

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW7  
Client Project ID: 008-2067  
Date Collected: 3/16/09 1300  
Date Received: 3/17/09

Lab Work Order 09-1760  
Lab Sample ID: 09-1760-08  
Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
130	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: BP

Result	LQL	DF	Units
28.5	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
U	0.00080	1	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/27/2009

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW6  
Client Project ID: 008-2067  
Date Collected: 3/16/09 1310  
Date Received: 3/17/09

Lab Work Order: 09-1760  
Lab Sample ID: 09-1760-09  
Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
130	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: BP

Result	LQL	DF	Units
24.6	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
U	0.00080	1	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/27/2009

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW17  
Client Project ID: 008-2067  
Date Collected: 3/16/09 1340  
Date Received: 3/17/09

Lab Work Order 09-1760  
Lab Sample ID: 09-1760-10  
Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
250	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
13	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: BP

Result	LQL	DF	Units
39.6	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
2.2	0.0080	10	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/27/2009

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW16  
Client Project ID: 008-2067  
Date Collected: 3/16/09 1400  
Date Received: 3/17/09

Lab Work Order 09-1760  
Lab Sample ID: 09-1760-11  
Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
260	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: BP

Result	LQL	DF	Units
54.9	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
1.4	0.0080	10	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/27/2009

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW27  
Client Project ID: 008-2067  
Date Collected: 3/16/09 1030  
Date Received: 3/17/09

Lab Work Order 09-1760  
Lab Sample ID: 09-1760-12  
Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
300	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: BP

Result	LQL	DF	Units
33.1	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
U	0.00080	1	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/27/2009



## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW4  
Client Project ID: 008-2067  
Date Collected: 3/16/09 1355  
Date Received: 3/17/09

Lab Work Order 09-1760  
Lab Sample ID: 09-1760-13  
Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
110	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
81	1.0	1	µg/L
U	2.0	1	µg/L
15	2.0	1	µg/L
2.3	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: BP

Result	LQL	DF	Units
32.4	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
9.2	0.016	20	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/27/2009

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW0  
Client Project ID: 008-2067  
Date Collected: 3/16/09 1355  
Date Received: 3/17/09

Lab Work Order 09-1760  
Lab Sample ID: 09-1760-14  
Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
110	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
83	1.0	1	µg/L
U	2.0	1	µg/L
16	2.0	1	µg/L
2.5	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: BP

Result	LQL	DF	Units
31.9	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
9.1	0.016	20	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/27/2009

**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

**Client Sample ID:** EICH2  
**Client Project ID:** 008-2067  
**Date Collected:** 3/16/2009  
**Date Received:** 3/17/2009

**Lab Work Order** 09-1760  
**Lab Sample ID:** 09-1760-01A  
**Sample Matrix:** Water

**AROMATIC VOLATILE ORGANICS**

**Method:** SW8021B

**Prep Method:** SW5030B

**Date Prepared:** 3/18/2009

**Lab File ID:** TVB40318\005R

**Dilution Factor:** 1

**Date Analyzed:** 3/18/2009

**Method Blank:** MB4031809

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	75	<b>QC Limits:</b> 60-140	%REC

  
 Analyst

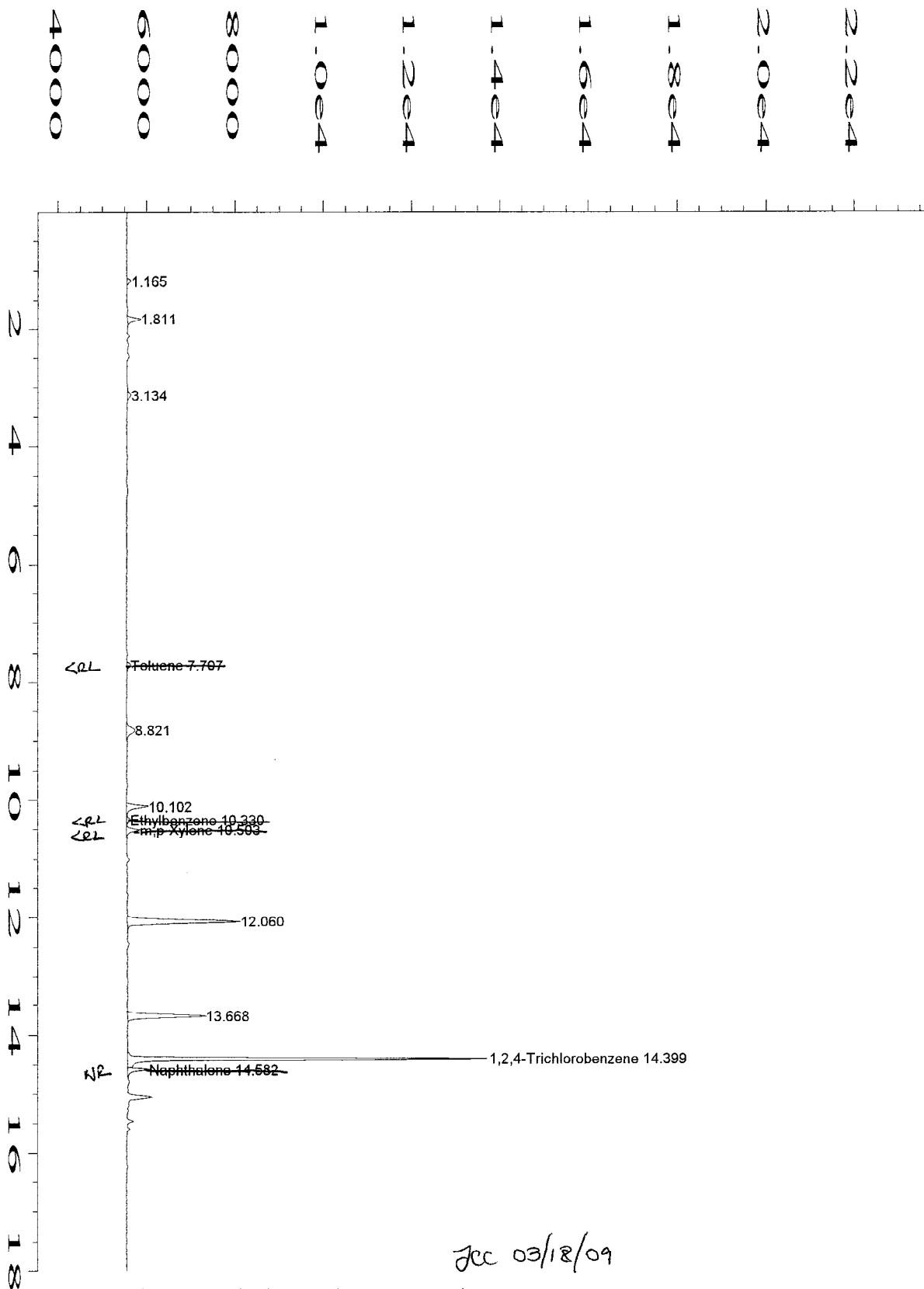
  
 Approved

**Notes:** Total Xylenes consist of three isomers, two of which co-elute. The Xylene RI is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 3/19/2009



Data File Name	: C:\HPCHEM\1\DATA\TVB40318\005R0101.D	Page Number	: 1
Operator	: Jennifer Chapin	Vial Number	: 5
Instrument	: TVHBTEX4	Injection Number	: 1
Sample Name	: 09-1760-01A	Sequence Line	: 1
Run Time Bar Code:		Instrument Method:	TS40116E.MTH
Acquired on	: 18 Mar 09 10:59 AM	Analysis Method	: BS40206.MTH
Report Created on:	18 Mar 09 11:18 AM	Sample Amount	: 0
Last Recalib on	: 09 FEB 09 06:53 AM	ISTD Amount	:
Multiplier	: 1		
Sample Info	: SAMP		
	DF=1		

# Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW23  
Client Project ID: 008-2067  
Date Collected: 3/16/2009  
Date Received: 3/17/2009

Lab Work Order 09-1760  
Lab Sample ID: 09-1760-02A  
Sample Matrix: Water

## AROMATIC VOLATILE ORGANICS

Method: SW8021B

Prep Method: SW5030B

Date Prepared: 3/18/2009

Lab File ID: TVB40318\008R

Dilution Factor: 1

Date Analyzed: 3/18/2009

Method Blank: MB4031809

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	79	QC Limits: 60-140	%REC

*JCC*

Analyst

*SJ*

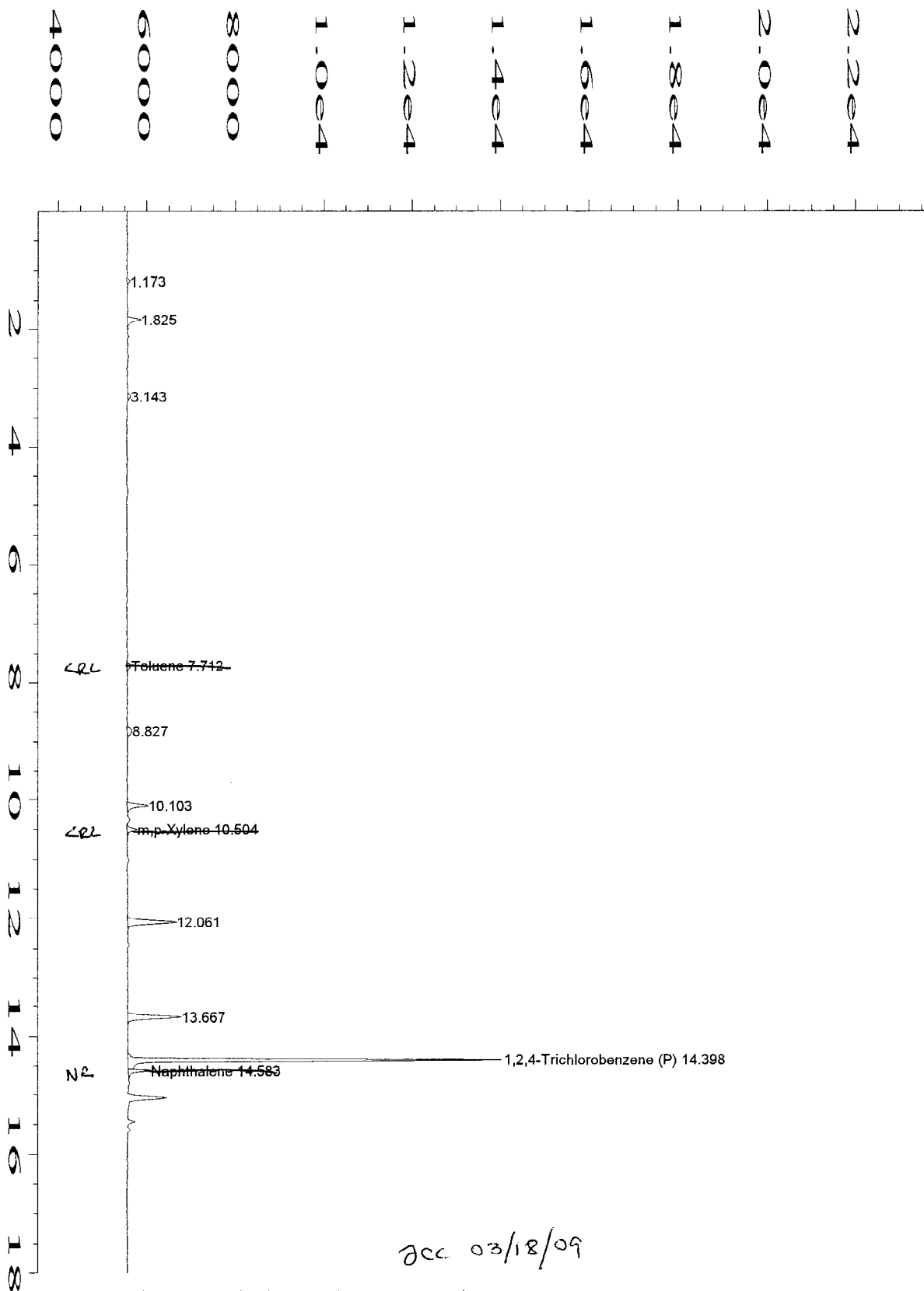
Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
Surr - Surrogate

Print Date: 3/19/2009



Data File Name : C:\HPCHEM\1\DATA\TVB40318\008R0101.D  
 Operator : Jennifer Chapin  
 Instrument : TVHBTEX4  
 Sample Name : 09-1760-02A  
 Run Time Bar Code:  
 Acquired on : 18 Mar 09 12:43 PM  
 Report Created on: 18 Mar 09 01:01 PM  
 Last Recalib on : 09 FEB 09 06:53 AM  
 Multiplier : 1  
 Sample Info : SAMP  
 DF=1

Page Number : 1  
 Vial Number : 8  
 Injection Number : 1  
 Sequence Line : 1  
 Instrument Method: TS40116E.MTH  
 Analysis Method : BS40206.MTH  
 Sample Amount : 0  
 ISTD Amount :

occ 03/18/09

**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

**Client Sample ID:** MW20  
**Client Project ID:** 008-2067  
**Date Collected:** 3/16/2009  
**Date Received:** 3/17/2009

**Lab Work Order** 09-1760  
**Lab Sample ID:** 09-1760-03A  
**Sample Matrix:** Water

**AROMATIC VOLATILE ORGANICS**

**Method: SW8021B**

**Prep Method: SW5030B**

**Date Prepared:** 3/18/2009

**Lab File ID:** TVB40318\009R

**Dilution Factor:** 1

**Date Analyzed:** 3/18/2009

**Method Blank:** MB4031809

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	77	<b>QC Limits:</b> 60-140	%REC

  
 Analyst

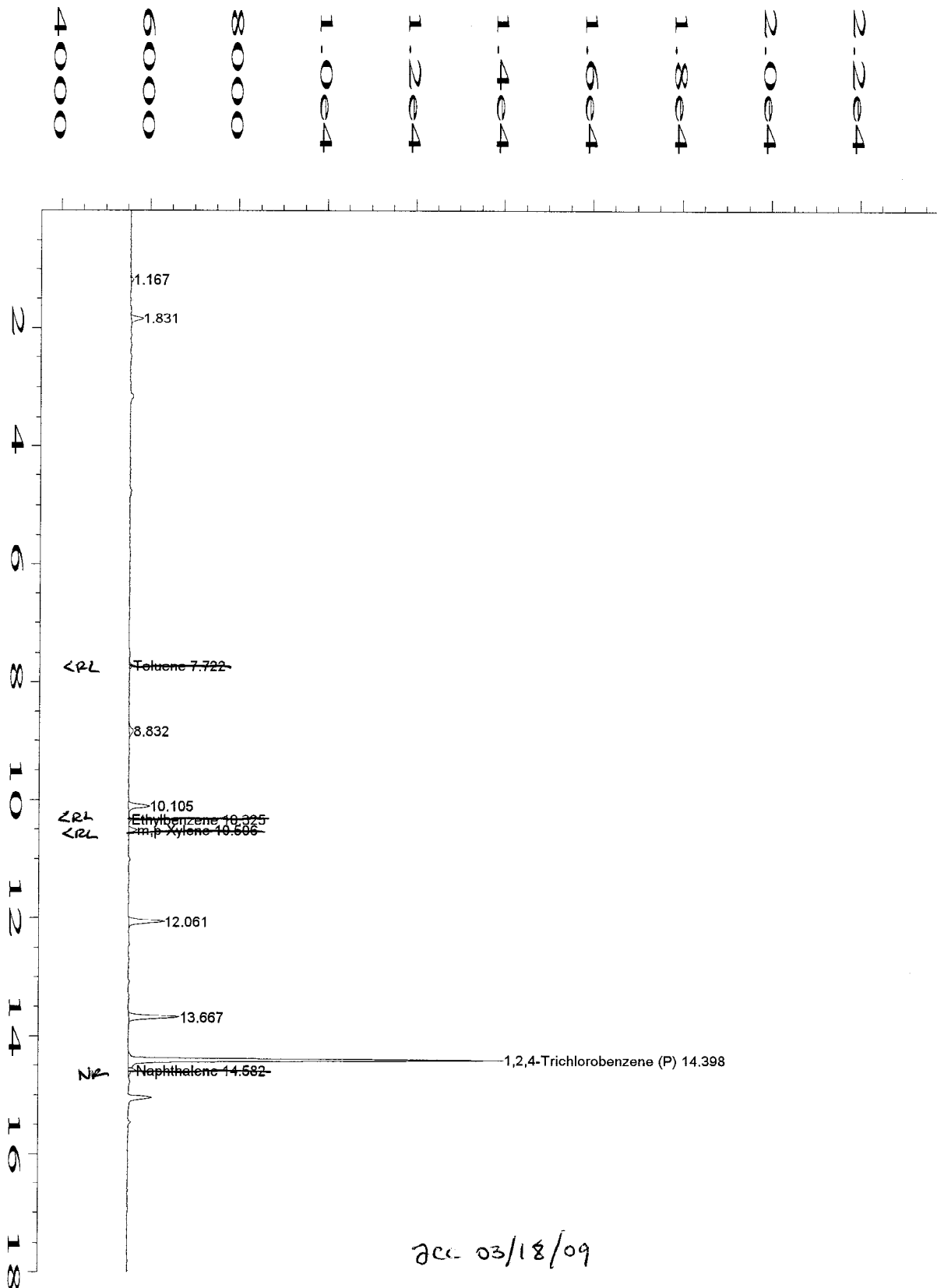
  
 Approved

**Notes:** Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 3/19/2009



acc 03/18/09

Data File Name	: C:\HPCHEM\1\DATA\TVB40318\009R0101.D	Page Number	: 1
Operator	: Jennifer Chapin	Vial Number	: 9
Instrument	: TVHBTEX4	Injection Number	: 1
Sample Name	: 09-1760-03A	Sequence Line	: 1
Run Time Bar Code:		Instrument Method	: TS40116E.MTH
Acquired on	: 18 Mar 09 01:18 PM	Analysis Method	: BS40206.MTH
Report Created on:	: 18 Mar 09 01:36 PM	Sample Amount	: 0
Last Recalib on	: 09 FEB 09 06:53 AM	ISTD Amount	:
Multiplier	: 1		
Sample Info	: SAMP		
	DF=1		



**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

**Client Sample ID:** MW21  
**Client Project ID:** 008-2067  
**Date Collected:** 3/16/2009  
**Date Received:** 3/17/2009

**Lab Work Order** 09-1760  
**Lab Sample ID:** 09-1760-04A  
**Sample Matrix:** Water

**AROMATIC VOLATILE ORGANICS**

**Method: SW8021B**

**Prep Method: SW5030B**

**Date Prepared:** 3/18/2009

**Lab File ID:** TVB40318\010R

**Dilution Factor:** 1

**Date Analyzed:** 3/18/2009

**Method Blank:** MB4031809

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	83	<b>QC Limits:</b> 60-140	%REC

  
 Analyst

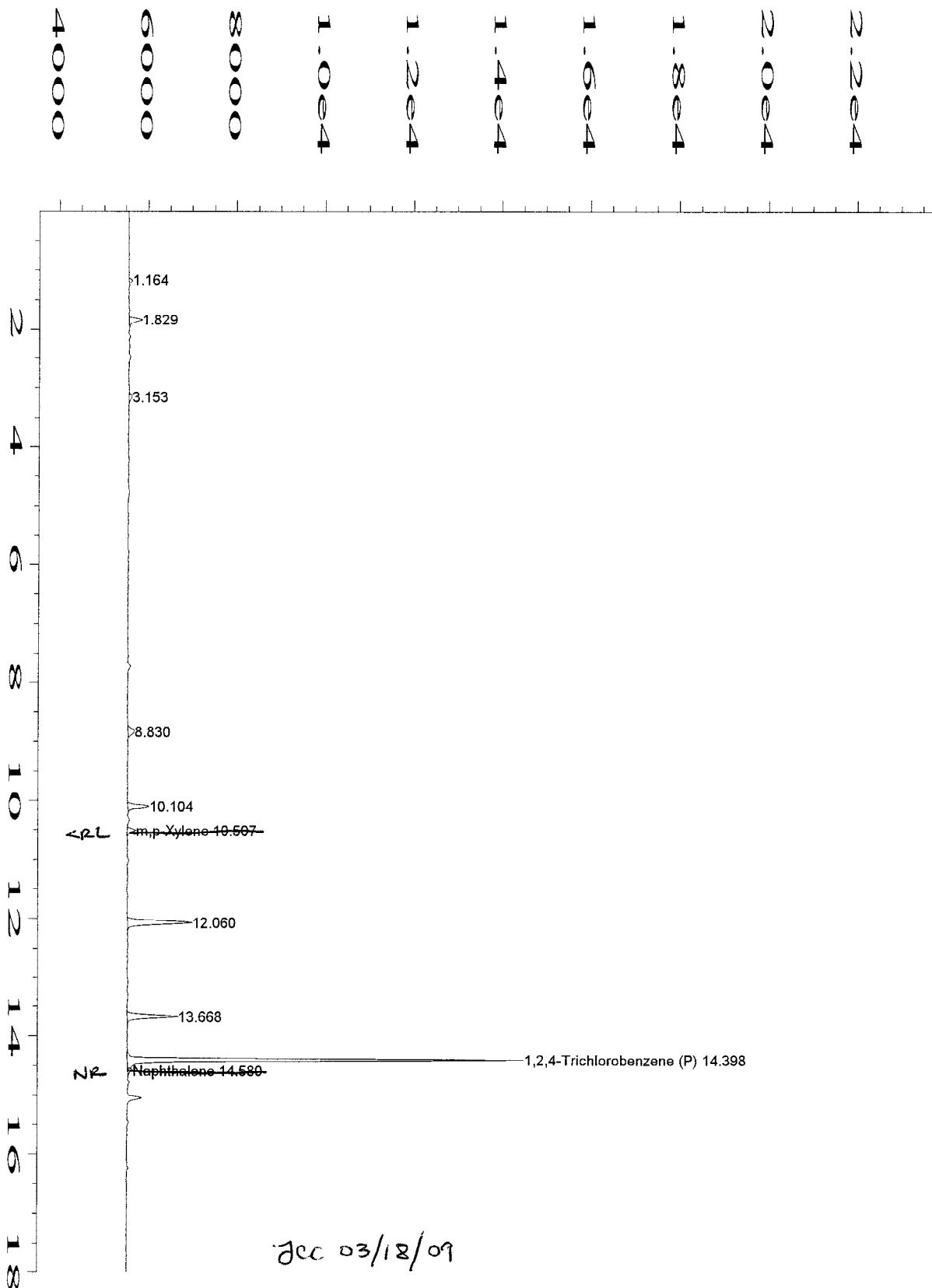
  
 Approved

**Notes:** Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 3/19/2009



Data File Name	: C:\HPCHEM\1\DATA\TVB40318\010R0101.D	Page Number	: 1
Operator	: Jennifer Chapin	Vial Number	: 10
Instrument	: TVHBTEX4	Injection Number	: 1
Sample Name	: 09-1760-04A	Sequence Line	: 1
Run Time Bar Code:		Instrument Method:	TS40116E.MTH
Acquired on	: 18 Mar 09 01:52 PM	Analysis Method	: BS40206.MTH
Report Created on:	18 Mar 09 02:11 PM	Sample Amount	: 0
Last Recalib on	: 09 FEB 09 06:53 AM	ISTD Amount	:
Multiplier	: 1		
Sample Info	: SAMP		
	DF=1		

**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

**Client Sample ID:** MW18  
**Client Project ID:** 008-2067  
**Date Collected:** 3/16/2009  
**Date Received:** 3/17/2009

**Lab Work Order** 09-1760  
**Lab Sample ID:** 09-1760-05A  
**Sample Matrix:** Water

**AROMATIC VOLATILE ORGANICS**

**Method: SW8021B**

**Prep Method: SW5030B**

**Date Prepared:** 3/18/2009


**Lab File ID:** TVB40318\011R

**Dilution Factor:** 1

**Date Analyzed:** 3/18/2009

**Method Blank:** MB4031809

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	80	<b>QC Limits:</b> 60-140	%REC

  
 Analyst

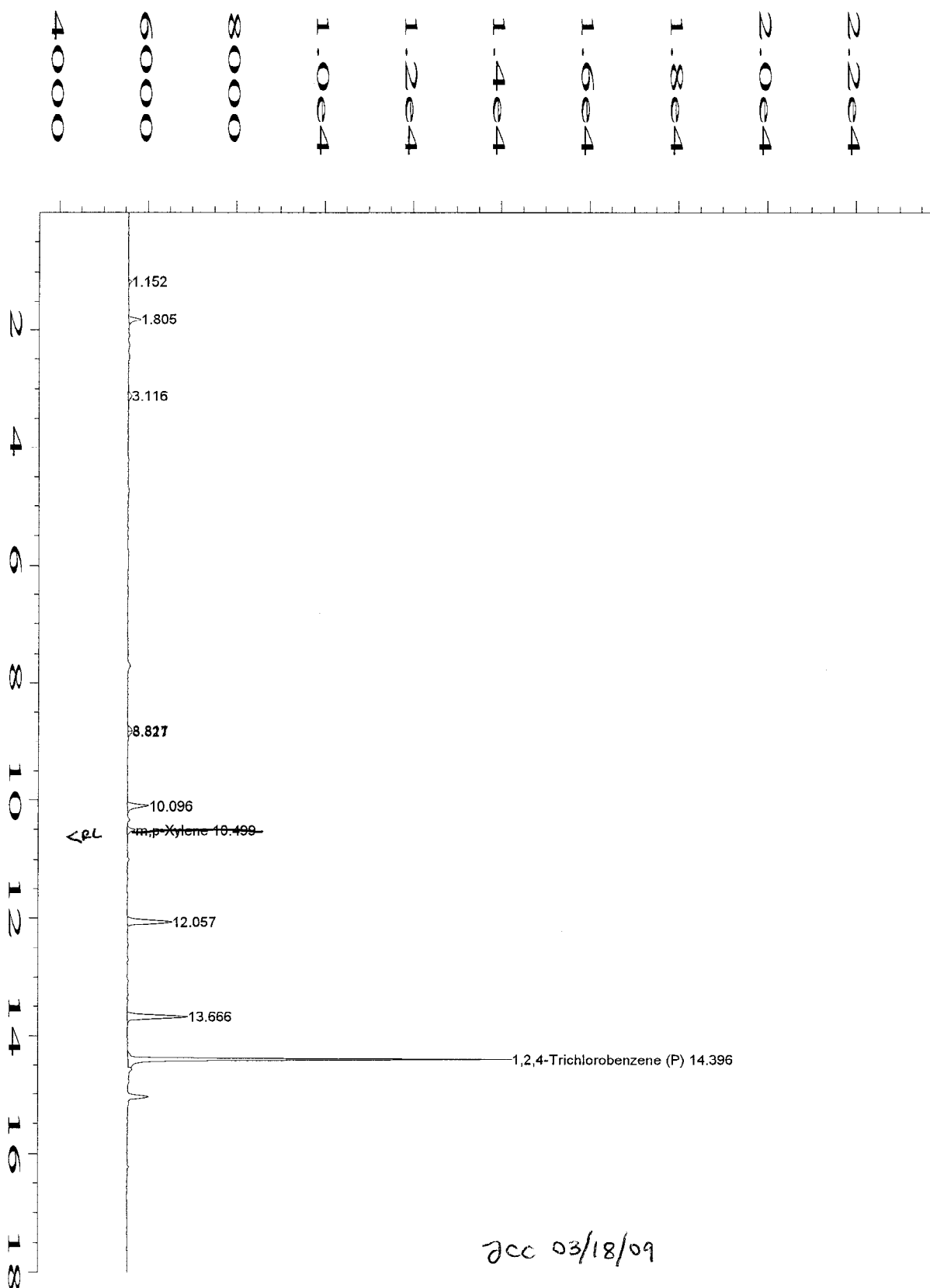
  
 Approved

**Notes:** Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 3/19/2009



2cc 03/18/09

Data File Name	: C:\HPCHEM\1\DATA\TVB40318\011R0101.D	Page Number	: 1
Operator	: Jennifer Chapin	Vial Number	: 11
Instrument	: TVHBTEX4	Injection Number	: 1
Sample Name	: 09-1760-05A	Sequence Line	: 1
Run Time Bar Code:		Instrument Method:	TS40116E.MTH
Acquired on	: 18 Mar 09 02:27 PM	Analysis Method	: BS40206.MTH
Report Created on:	18 Mar 09 02:45 PM	Sample Amount	: 0
Last Recalib on	: 09 FEB 09 06:53 AM	ISTD Amount	:
Multiplier	: 1		
Sample Info	: SAMP		
	DF=1		

**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

**Client Sample ID:** MW22  
**Client Project ID:** 008-2067  
**Date Collected:** 3/16/2009  
**Date Received:** 3/17/2009

**Lab Work Order** 09-1760  
**Lab Sample ID:** 09-1760-06A  
**Sample Matrix:** Water

**AROMATIC VOLATILE ORGANICS**

**Method:** SW8021B

**Prep Method:** SW5030B

**Date Prepared:** 3/18/2009

**Lab File ID:** TVB40318\015R

**Dilution Factor:** 1

**Date Analyzed:** 3/18/2009

**Method Blank:** MB4031809

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	80	<b>QC Limits:</b> 60-140	%REC

*JCC*

**Analyst**

*JS*

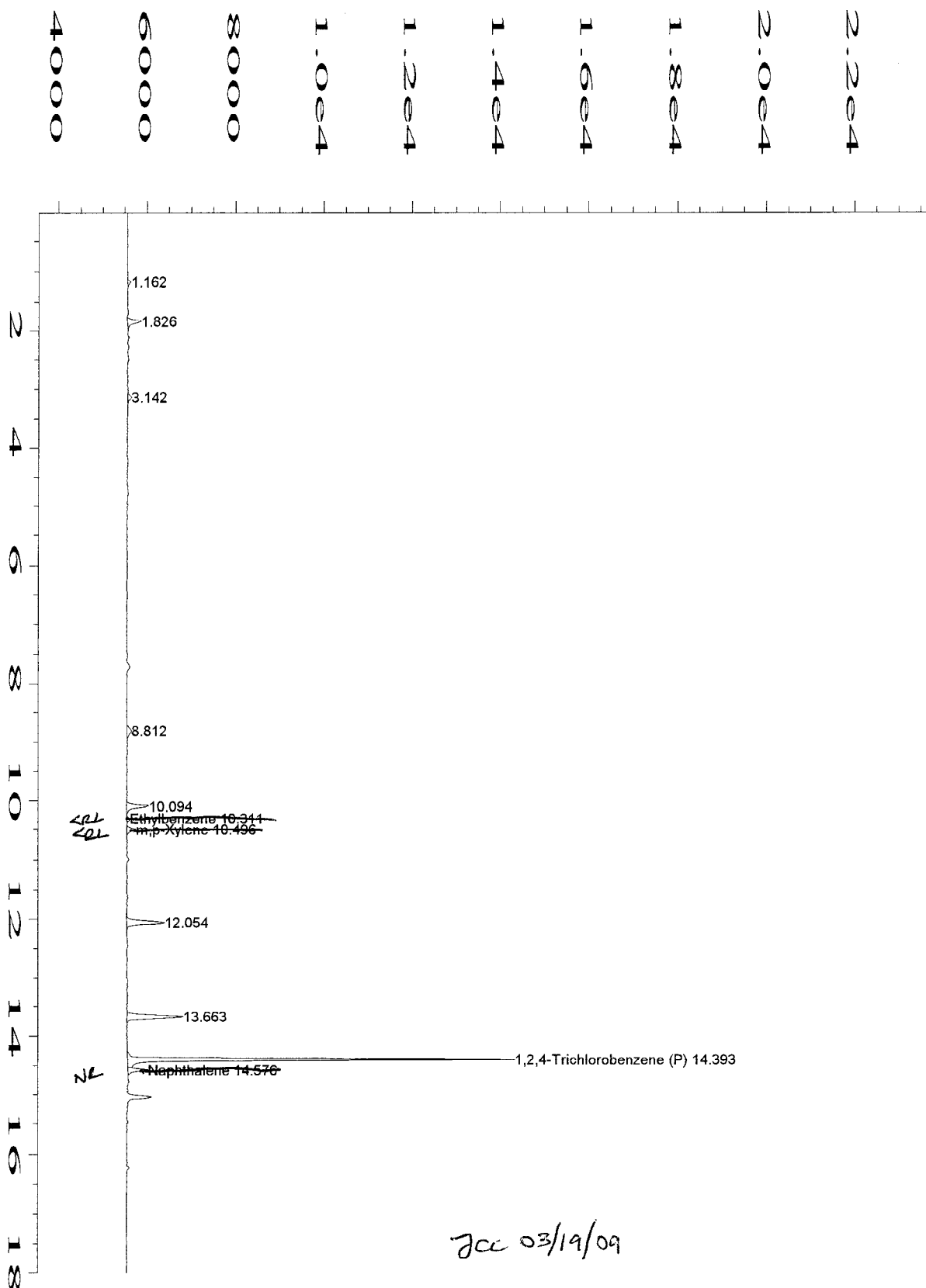
**Approved**

**Notes:** Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 3/19/2009



Data File Name	: C:\HPCHEM\1\DATA\TVB40318\015R0101.D	Page Number	: 1
Operator	: Jennifer Chapin	Vial Number	: 15
Instrument	: TVHBTEX4	Injection Number	: 1
Sample Name	: 09-1760-06A	Sequence Line	: 1
Run Time Bar Code:		Instrument Method:	TS40116E.MTH
Acquired on	: 18 Mar 09 04:46 PM	Analysis Method	: BS40206.MTH
Report Created on:	18 Mar 09 05:04 PM	Sample Amount	: 0
Last Recalib on	: 09 FEB 09 06:53 AM	ISTD Amount	:
Multiplier	: 1		
Sample Info	: SAMP		
DF=1			

**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

**Client Sample ID:** MW8  
**Client Project ID:** 008-2067  
**Date Collected:** 3/16/2009  
**Date Received:** 3/17/2009

**Lab Work Order** 09-1760  
**Lab Sample ID:** 09-1760-07A  
**Sample Matrix:** Water

**AROMATIC VOLATILE ORGANICS**

**Method:** SW8021B

**Prep Method:** SW5030B

**Date Prepared:** 3/18/2009

**Lab File ID:** TVB40318\016R

**Dilution Factor:** 1

**Date Analyzed:** 3/18/2009

**Method Blank:** MB4031809

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	82	<b>QC Limits:</b> 60-140	%REC

*JCC*

**Analyst**

*J2*

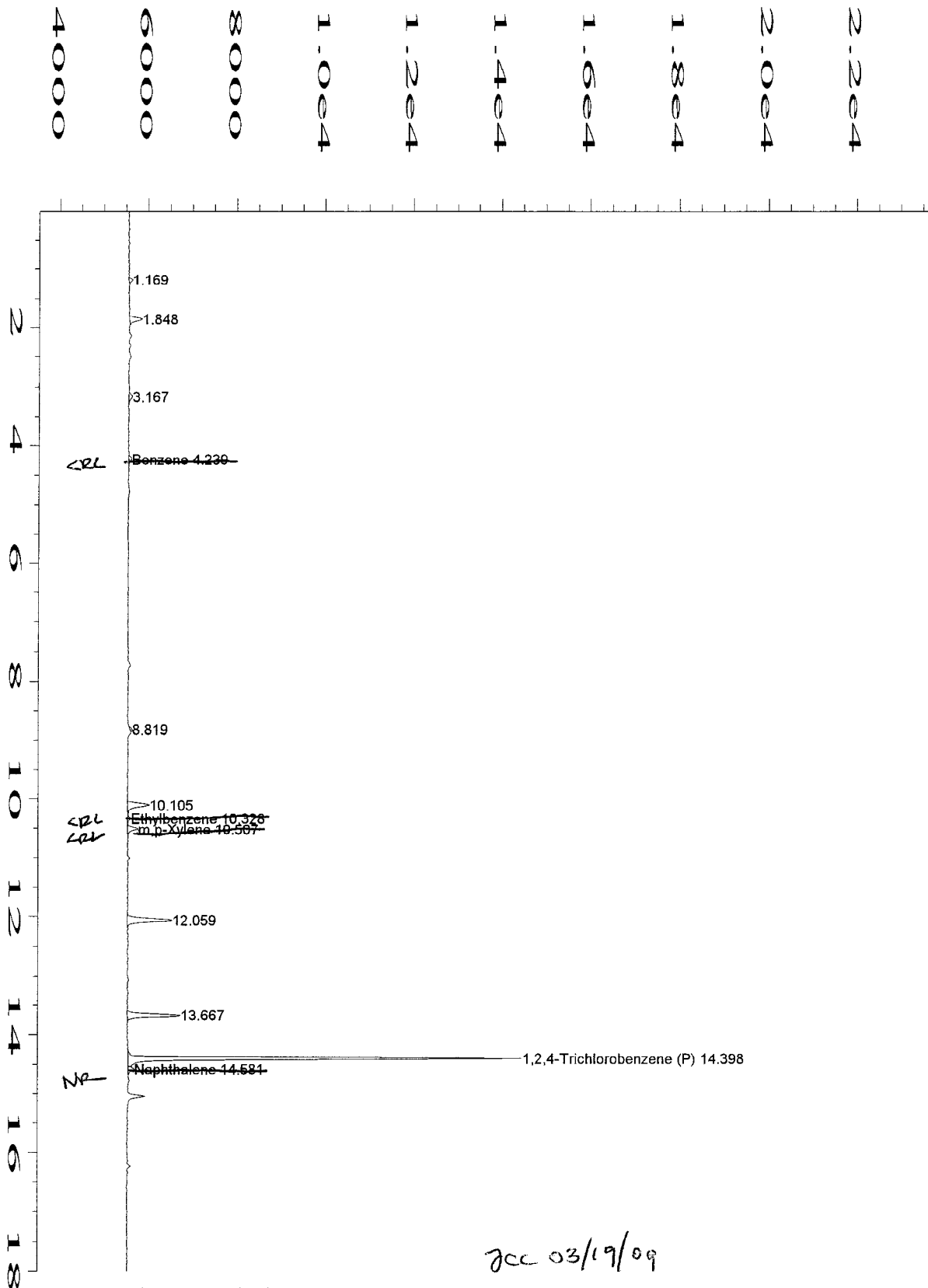
**Approved**

**Notes:** Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 3/19/2009



JCC 03/19/09

Data File Name	: C:\HPCHEM\1\DATA\TVB40318\016R0101.D	Page Number	: 1
Operator	: Jennifer Chapin	Vial Number	: 16
Instrument	: TVHBTEX4	Injection Number	: 1
Sample Name	: 09-1760-07A	Sequence Line	: 1
Run Time Bar Code:		Instrument Method:	TS40116E.MTH
Acquired on	: 18 Mar 09 05:20 PM	Analysis Method	: BS40206.MTH
Report Created on:	18 Mar 09 05:39 PM	Sample Amount	: 0
Last Recalib on	: 09 FEB 09 06:53 AM	ISTD Amount	:
Multiplier	: 1		
Sample Info	: SAMP		
	DF=1		



**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

**Client Sample ID:** MW7  
**Client Project ID:** 008-2067  
**Date Collected:** 3/16/2009  
**Date Received:** 3/17/2009

**Lab Work Order** 09-1760  
**Lab Sample ID:** 09-1760-08A  
**Sample Matrix:** Water

**AROMATIC VOLATILE ORGANICS**

**Method:** SW8021B

**Prep Method:** SW5030B

**Date Prepared:** 3/18/2009

**Lab File ID:** TVB40318\017R

**Dilution Factor:** 1

**Date Analyzed:** 3/18/2009

**Method Blank:** MB4031809

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	82	<b>QC Limits:</b> 60-140	%REC

*JCC*

**Analyst**

*27*

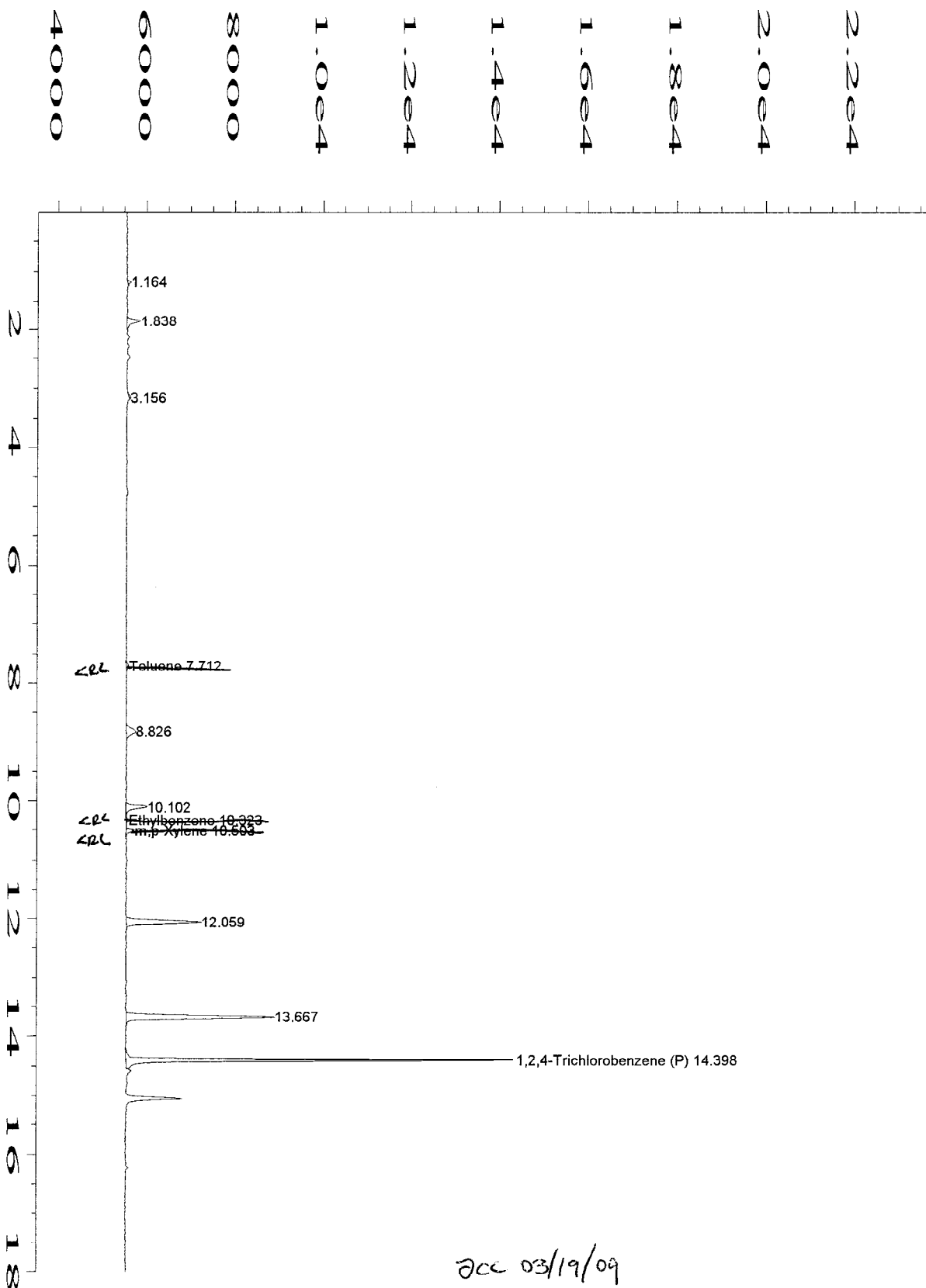
**Approved**

**Notes:** Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 3/19/2009



03/19/09

Data File Name	: C:\HPCHEM\1\DATA\TVB40318\017R0101.D	Page Number	: 1
Operator	: Jennifer Chapin	Vial Number	: 17
Instrument	: TVHBTEX4	Injection Number	: 1
Sample Name	: 09-1760-08A	Sequence Line	: 1
Run Time Bar Code:		Instrument Method	: TS40116E.MTH
Acquired on	: 18 Mar 09 05:55 PM	Analysis Method	: BS40206.MTH
Report Created on	: 18 Mar 09 06:14 PM	Sample Amount	: 0
Last Recalib on	: 09 FEB 09 06:53 AM	ISTD Amount	:
Multiplier	: 1		
Sample Info	: SAMP		
	DF=1		

**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

**Client Sample ID:** MW6  
**Client Project ID:** 008-2067  
**Date Collected:** 3/16/2009  
**Date Received:** 3/17/2009

**Lab Work Order** 09-1760  
**Lab Sample ID:** 09-1760-09A  
**Sample Matrix:** Water

**AROMATIC VOLATILE ORGANICS**

**Method: SW8021B**

**Prep Method: SW5030B**

**Date Prepared:** 3/18/2009

**Lab File ID:** TVB40318\018R

**Dilution Factor:** 1

**Date Analyzed:** 3/18/2009

**Method Blank:** MB4031809

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	82	<b>QC Limits:</b> 60-140	%REC

*JCC*

**Analyst**

*87*

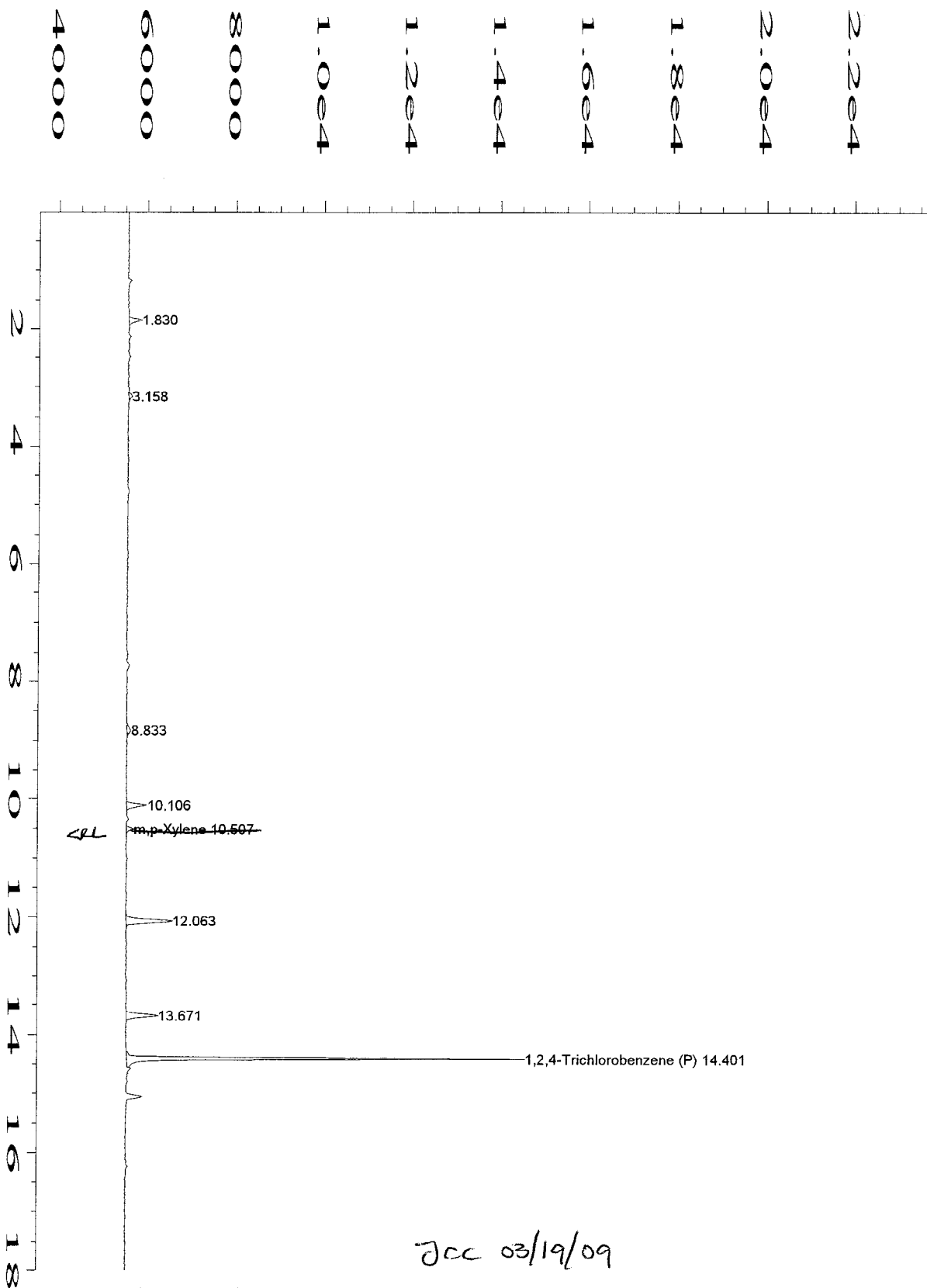
**Approved**

**Notes:** Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 3/19/2009



Data File Name	: C:\HPCHEM\1\DATA\TVB40318\018R0101.D	Page Number	: 1
Operator	: Jennifer Chapin	Vial Number	: 18
Instrument	: TVHBTEX4	Injection Number	: 1
Sample Name	: 09-1760-09A	Sequence Line	: 1
Run Time Bar Code:		Instrument Method	: TS40116E.MTH
Acquired on	: 18 Mar 09 06:30 PM	Analysis Method	: BS40206.MTH
Report Created on:	: 18 Mar 09 06:49 PM	Sample Amount	: 0
Last Recalib on	: 09 FEB 09 06:53 AM	ISTD Amount	:
Multiplier	: 1		
Sample Info	: SAMP		
DF=1			

**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

**Client Sample ID:** MW17  
**Client Project ID:** 008-2067  
**Date Collected:** 3/16/2009  
**Date Received:** 3/17/2009

**Lab Work Order** 09-1760  
**Lab Sample ID:** 09-1760-10A  
**Sample Matrix:** Water

**AROMATIC VOLATILE ORGANICS**

**Method:** SW8021B

**Prep Method:** SW5030B

**Date Prepared:** 3/18/2009

**Lab File ID:** TVB40318\019R

**Dilution Factor:** 1

**Date Analyzed:** 3/18/2009

**Method Blank:** MB4031809

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	13	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	81	<b>QC Limits:</b> 60-140	%REC

  
 Analyst

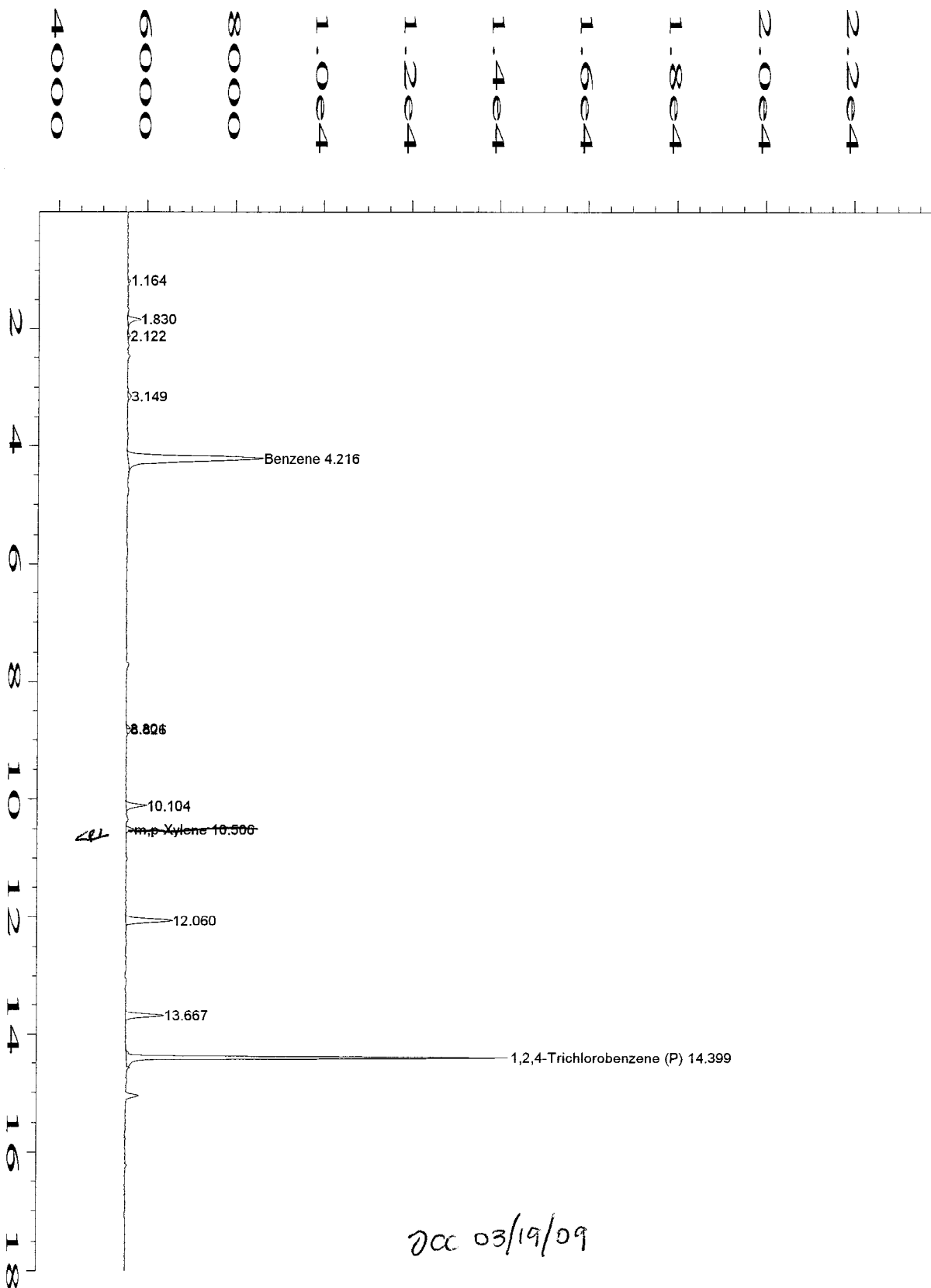
  
 Approved

**Notes:** Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 3/19/2009



Data File Name	: C:\HPCHEM\1\DATA\TVB40318\019R0101.D	Page Number	: 1
Operator	: Jennifer Chapin	Vial Number	: 19
Instrument	: TVHBTEX4	Injection Number	: 1
Sample Name	: 09-1760-10A	Sequence Line	: 1
Run Time Bar Code:		Instrument Method:	TS40116E.MTH
Acquired on	: 18 Mar 09 07:05 PM	Analysis Method	: BS40206.MTH
Report Created on:	18 Mar 09 07:23 PM	Sample Amount	: 0
Last Recalib on	: 09 FEB 09 06:53 AM	ISTD Amount	:
Multiplier	: 1		
Sample Info	: SAMP		
	DF=1		

**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

**Client Sample ID:** MW16  
**Client Project ID:** 008-2067  
**Date Collected:** 3/16/2009  
**Date Received:** 3/17/2009

**Lab Work Order** 09-1760  
**Lab Sample ID:** 09-1760-11A  
**Sample Matrix:** Water

**AROMATIC VOLATILE ORGANICS**

**Method: SW8021B**

**Prep Method: SW5030B**

**Date Prepared:** 3/18/2009

**Lab File ID:** TVB40318\020R

**Dilution Factor:** 1

**Date Analyzed:** 3/18/2009

**Method Blank:** MB4031809

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	82	<b>QC Limits:</b> 60-140	%REC

  
 Analyst

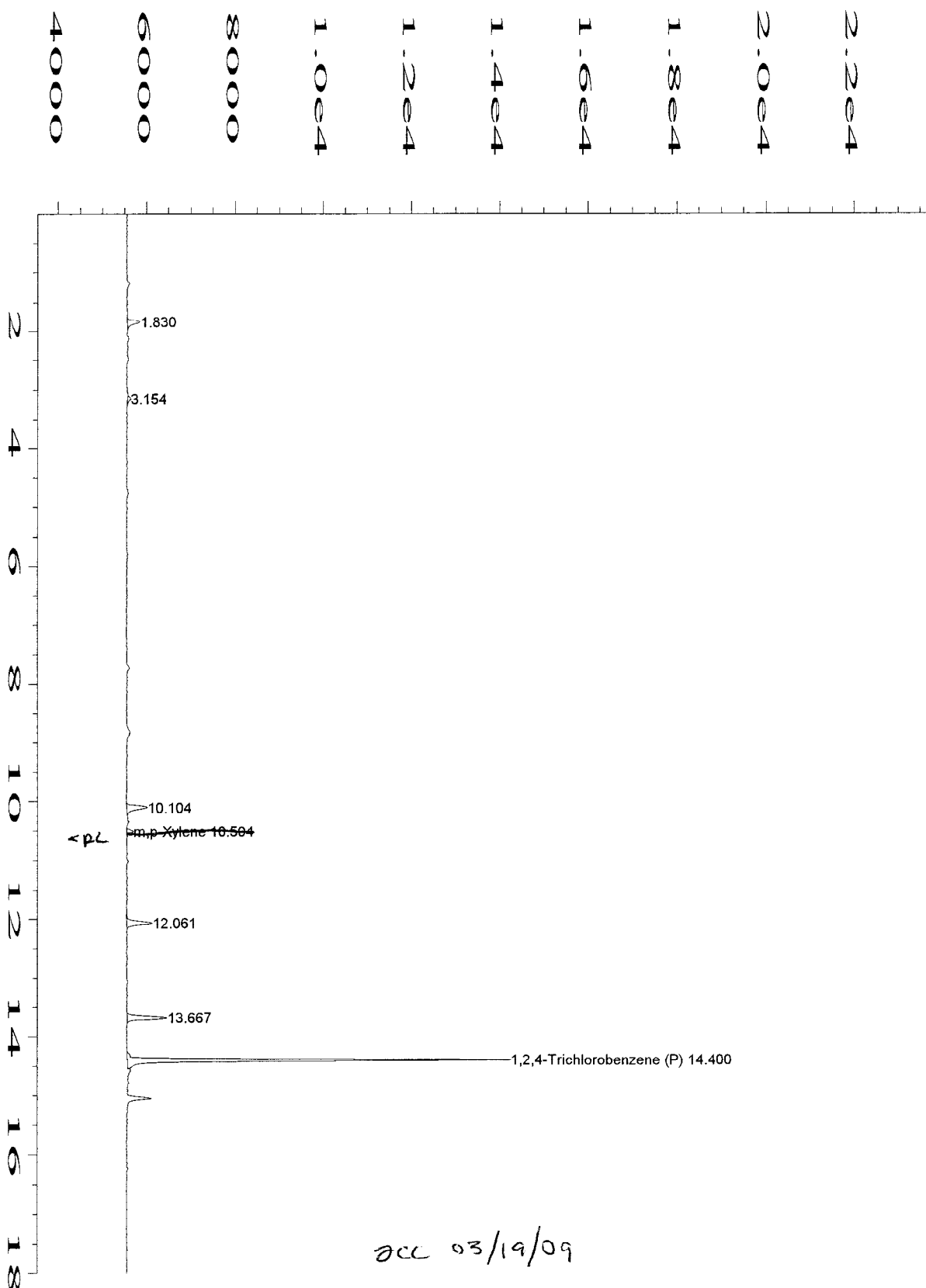
  
 Approved

**Notes:** Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 3/19/2009



Data File Name	: C:\HPCHEM\1\DATA\TVB40318\020R0101.D	Page Number	: 1
Operator	: Jennifer Chapin	Vial Number	: 20
Instrument	: TVHBTEX4	Injection Number	: 1
Sample Name	: 09-1760-11A	Sequence Line	: 1
Run Time Bar Code:		Instrument Method	: TS40116E.MTH
Acquired on	: 18 Mar 09 07:39 PM	Analysis Method	: BS40206.MTH
Report Created on	: 18 Mar 09 07:58 PM	Sample Amount	: 0
Last Recalib on	: 09 FEB 09 06:53 AM	ISTD Amount	:
Multiplier	: 1		
Sample Info	: SAMP		
	DF=1		



**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

**Client Sample ID:** MW27  
**Client Project ID:** 008-2067  
**Date Collected:** 3/16/2009  
**Date Received:** 3/17/2009

**Lab Work Order** 09-1760  
**Lab Sample ID:** 09-1760-12A  
**Sample Matrix:** Water

**AROMATIC VOLATILE ORGANICS**

**Method: SW8021B**

**Prep Method: SW5030B**

**Date Prepared:** 3/18/2009

**Lab File ID:** TVB40318\021R

**Dilution Factor:** 1

**Date Analyzed:** 3/18/2009

**Method Blank:** MB4031809

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	75	<b>QC Limits:</b> 60-140	%REC

*JCC*

Analyst

*J7*

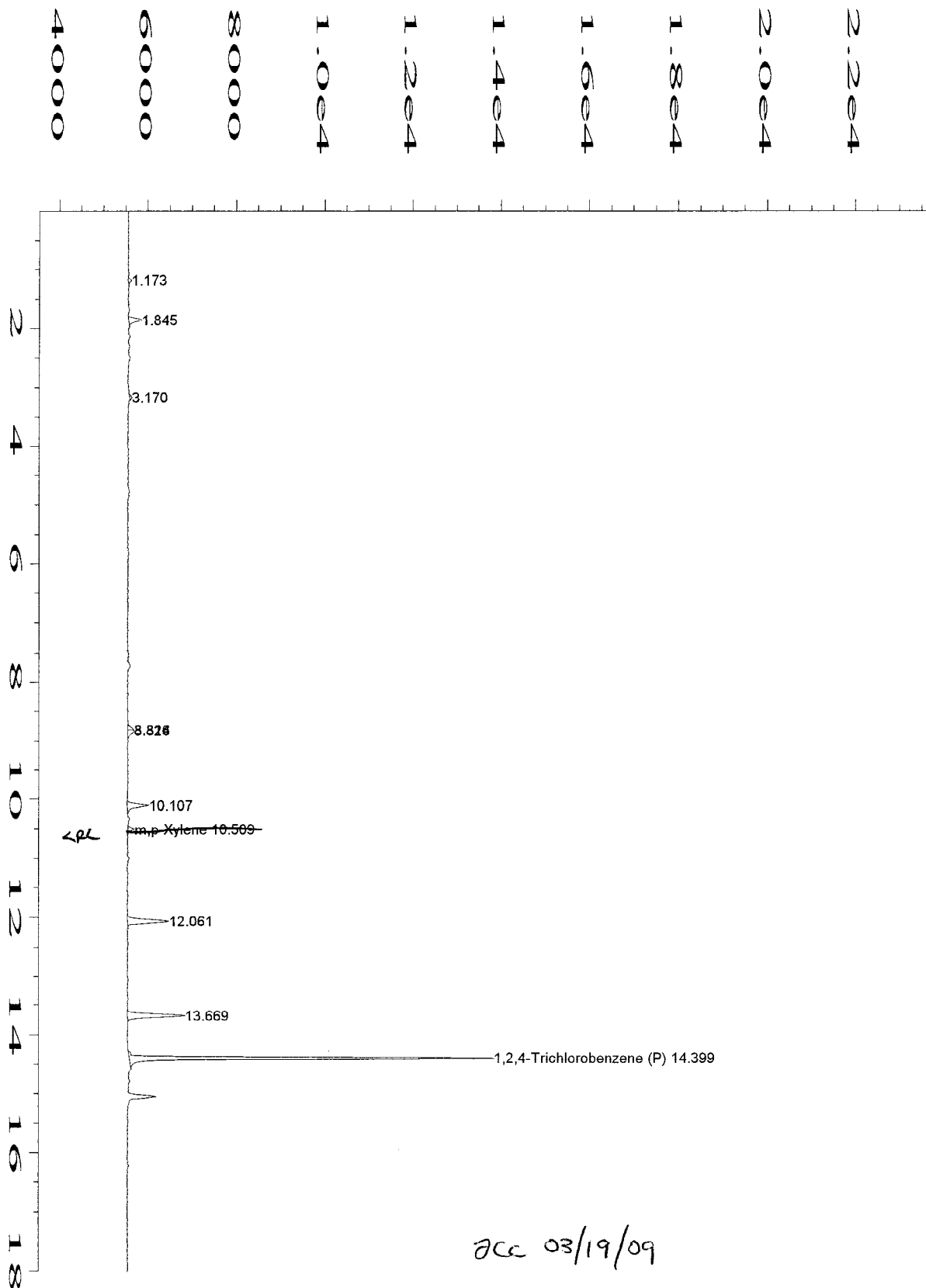
Approved

**Notes:** Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 3/19/2009



Data File Name	: C:\HPCHEM\1\DATA\TVB40318\021R0101.D	Page Number	: 1
Operator	: Jennifer Chapin	Vial Number	: 21
Instrument	: TVHBTEX4	Injection Number	: 1
Sample Name	: 09-1760-12A	Sequence Line	: 1
Run Time Bar Code:		Instrument Method:	TS40116E.MTH
Acquired on	: 18 Mar 09 08:14 PM	Analysis Method	: BS40206.MTH
Report Created on:	18 Mar 09 08:33 PM	Sample Amount	: 0
Last Recalib on	: 09 FEB 09 06:53 AM	ISTD Amount	:
Multiplier	: 1		
Sample Info	: SAMP		
DF=1			

**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

**Client Sample ID:** MW4  
**Client Project ID:** 008-2067  
**Date Collected:** 3/16/2009  
**Date Received:** 3/17/2009

**Lab Work Order** 09-1760  
**Lab Sample ID:** 09-1760-13A  
**Sample Matrix:** Water

**AROMATIC VOLATILE ORGANICS**

**Method:** SW8021B

**Prep Method:** SW5030B

**Date Prepared:** 3/18/2009

**Lab File ID:** TVB40318\022R

**Dilution Factor:** 1

**Date Analyzed:** 3/18/2009

**Method Blank:** MB4031809

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	81	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	15	2.0	µg/L
o-Xylene	95-47-6	2.3	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	85	<b>QC Limits:</b> 60-140	%REC

  
 Analyst

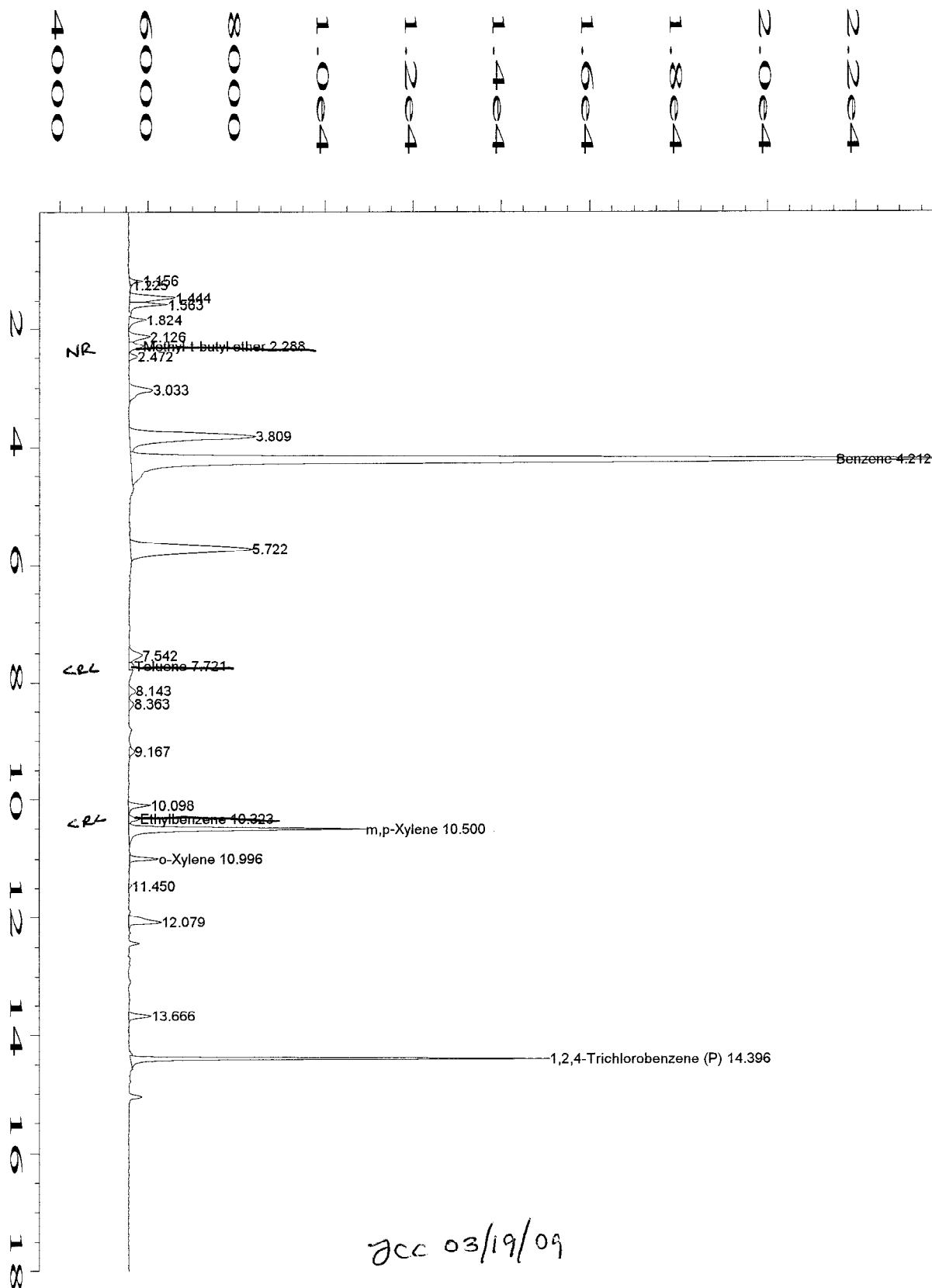
  
 Approved

**Notes:** Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 3/19/2009



Data File Name	: C:\HPCHEM\1\DATA\TVB40318\022R0101.D	Page Number	: 1
Operator	: Jennifer Chapin	Vial Number	: 22
Instrument	: TVHBTEX4	Injection Number	: 1
Sample Name	: 09-1760-13A	Sequence Line	: 1
Run Time Bar Code:		Instrument Method:	TS40116E.MTH
Acquired on	: 18 Mar 09 08:49 PM	Analysis Method	: BS40206.MTH
Report Created on:	18 Mar 09 09:07 PM	Sample Amount	: 0
Last Recalib on	: 09 FEB 09 06:53 AM	ISTD Amount	:
Multiplier	: 1		
Sample Info	: SAMP		
DF=1			

**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

**Client Sample ID:** MW0  
**Client Project ID:** 008-2067  
**Date Collected:** 3/16/2009  
**Date Received:** 3/17/2009

**Lab Work Order** 09-1760  
**Lab Sample ID:** 09-1760-14A  
**Sample Matrix:** Water

**AROMATIC VOLATILE ORGANICS**

**Method: SW8021B**

**Prep Method: SW5030B**

**Date Prepared:** 3/18/2009

**Lab File ID:** TVB40318\023R

**Dilution Factor:** 1

**Date Analyzed:** 3/18/2009

**Method Blank:** MB4031809

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	83	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	16	2.0	µg/L
o-Xylene	95-47-6	2.5	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	88	<b>QC Limits:</b> 60-140	%REC

*Jcc*

**Analyst**

*J7*

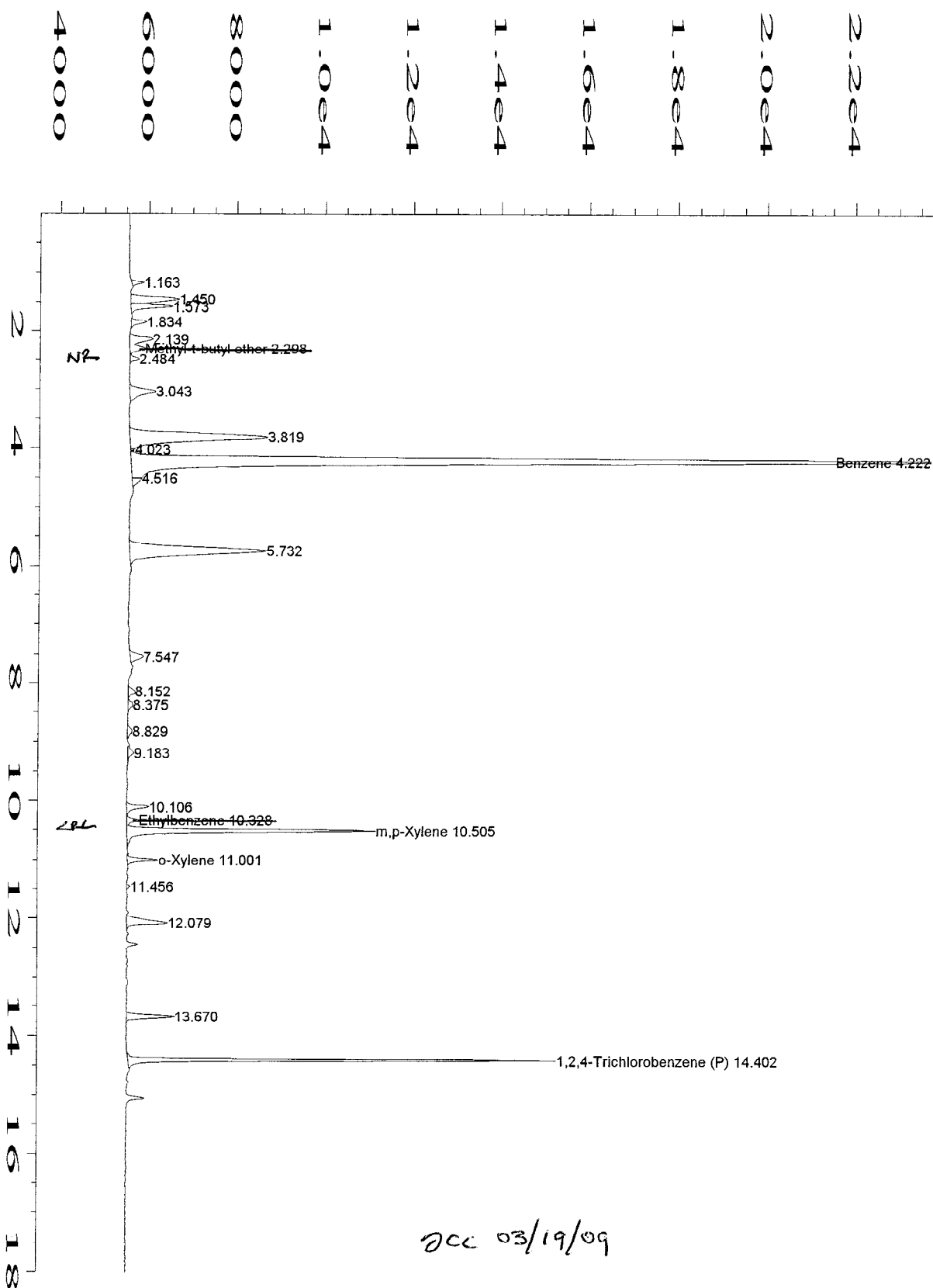
**Approved**

**Notes:** Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 3/19/2009



Data File Name	: C:\HPCHEM\1\DATA\TVB40318\023R0101.D	Page Number	: 1
Operator	: Jennifer Chapin	Vial Number	: 23
Instrument	: TVHBTEX4	Injection Number	: 1
Sample Name	: 09-1760-14A	Sequence Line	: 1
Run Time Bar Code:		Instrument Method:	TS40116E.MTH
Acquired on	: 18 Mar 09 09:23 PM	Analysis Method	: BS40206.MTH
Report Created on:	18 Mar 09 09:42 PM	Sample Amount	: 0
Last Recalib on	: 09 FEB 09 06:53 AM	ISTD Amount	:
Multiplier	: 1		
Sample Info	: SAMP		
DF=1			

**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

Client Project ID 008-2067

 Lab Order: 09-1760  
 Units: mg/L

**RSKSOP-175M Headspace**

Method: RSKSOP175M

Methane

Prep Method: RSKSOP175M

Lab ID	Client ID	Matrix	Date Received	Collection Date	Date Prepared	Date Analyzed	Results	LQL	DF
09-1760-01B	ECCH2	Water	3/17/09	3/16/09	3/18/09	3/18/09	U	0.00080	1
09-1760-02B	MW23	Water	3/17/09	3/16/09	3/18/09	3/18/09	0.37	0.00080	1
09-1760-03B	MW20	Water	3/17/09	3/16/09	3/18/09	3/18/09	U	0.00080	1
09-1760-04B	MW21	Water	3/17/09	3/16/09	3/18/09	3/18/09	U	0.00080	1
09-1760-05B	MW18	Water	3/17/09	3/16/09	3/18/09	3/18/09	U	0.00080	1
09-1760-06B	MW22	Water	3/17/09	3/16/09	3/18/09	3/18/09	U	0.00080	1
09-1760-07B	MW8	Water	3/17/09	3/16/09	3/18/09	3/18/09	0.22	0.00080	1
09-1760-08B	MW7	Water	3/17/09	3/16/09	3/18/09	3/18/09	U	0.00080	1
09-1760-09B	MW6	Water	3/17/09	3/16/09	3/18/09	3/18/09	U	0.00080	1
09-1760-10B	MW17	Water	3/17/09	3/16/09	3/18/09	3/18/09	2.2	0.0080	10
09-1760-11B	MW16	Water	3/17/09	3/16/09	3/18/09	3/18/09	1.4	0.0080	10
09-1760-12B	MW27	Water	3/17/09	3/16/09	3/18/09	3/18/09	U	0.00080	1
09-1760-13B	MW4	Water	3/17/09	3/16/09	3/18/09	3/18/09	9.2	0.016	20
09-1760-14B	MW0	Water	3/17/09	3/16/09	3/18/09	3/18/09	9.1	0.016	20

Comments:

 VM  
 Analyst

  
 Approved

Qualifiers: J - Indicates an estimated value when the compound is detected, but is below the LQL.

H - Sample analysis exceeded analytical holding time

U - Compound analyzed for but not detected

X - See case narrative

\* - Value exceeds Maximum Contamination Level(MCL), TCLP limit, or if compound is undetected. LQL exceeds MCL.

Definitions: DF - Dilution Factor

LQL - Lower Quantitation Limit

Print Date: 3/18/2009

Data File : F:\DATA\031809\FB024.D

Acq On : 18 Mar 2009 1:02 pm

Sample : 09-1760-01B

Misc : 500uL DF=1

IntFile : autoint1.e

Vial: 24

Operator: Virginia Meyer

Inst : FID4

Multiplr: 1.00

Quant Time: Mar 18 14:38 2009 Quant Results File: GAS0318.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0318.M (Chemstation Integrator)

Title : RSK 175 Methane, Ethene, Ethane, and Propane

Last Update : Wed Mar 18 11:13:59 2009

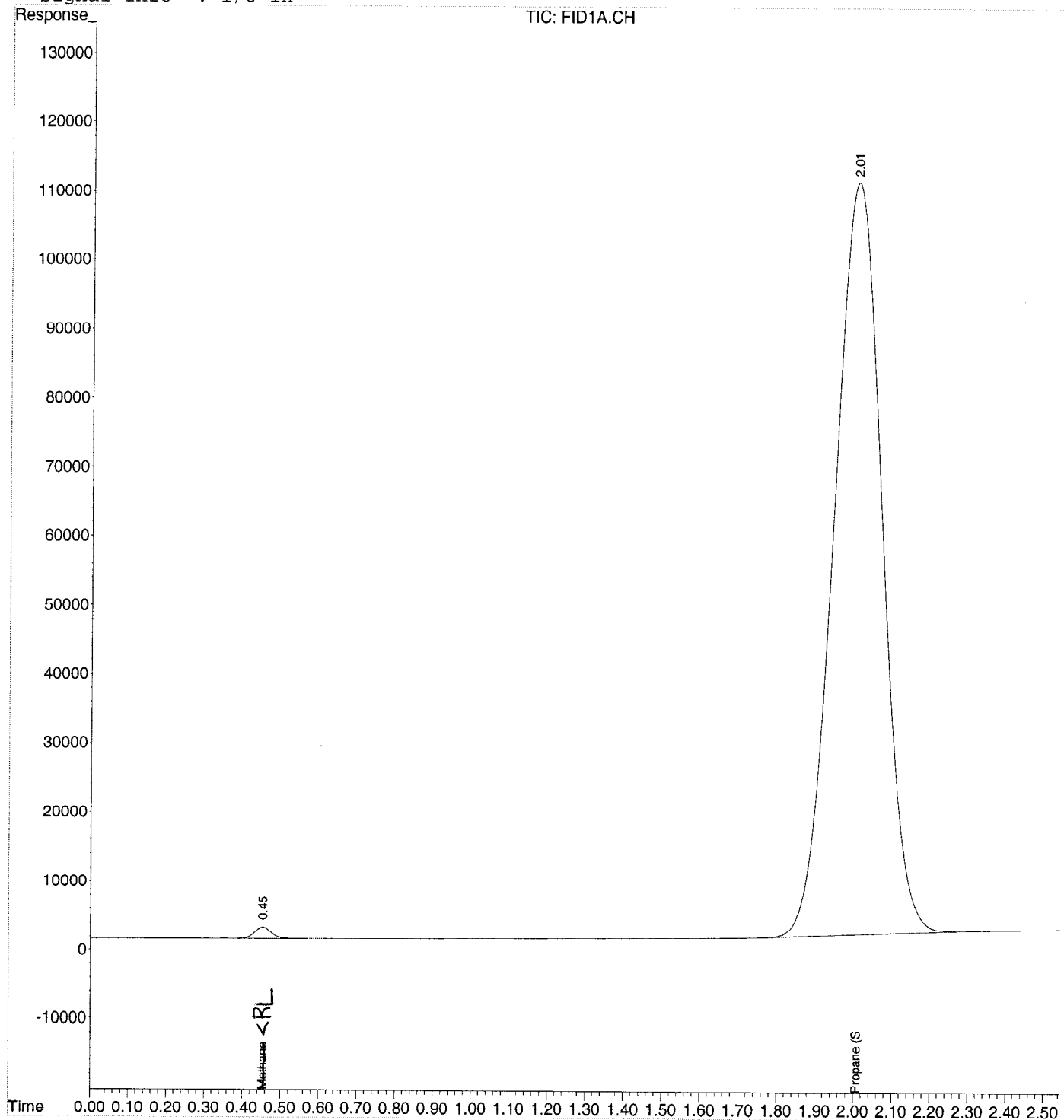
Response via : Multiple Level Calibration

DataAcq Meth : GAS.M

Volume Inj. : 100ul

Signal Phase : Porapak Q 80/100

Signal Info : 1/8 in

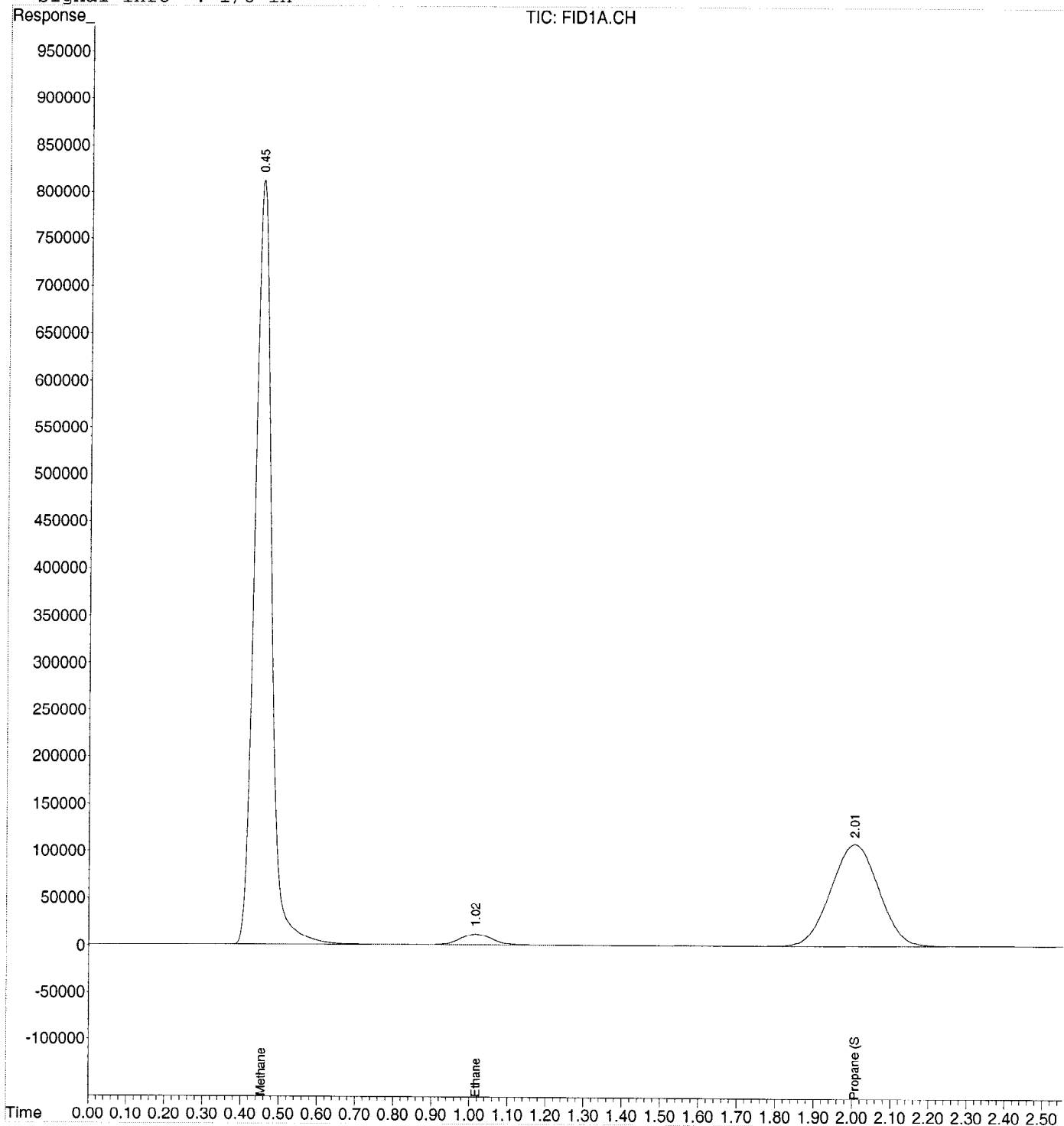




Data File : F:\DATA\031809\FB025.D Vial: 25  
Acq On : 18 Mar 2009 1:07 pm Operator: Virginia Meyer  
Sample : 09-1760-02B Inst : FID4  
Misc : 500uL DF=1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 18 14:33 2009 Quant Results File: GAS0318.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0318.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Wed Mar 18 11:13:59 2009  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

Volume Inj. : 100ul  
Signal Phase : Porapak Q 80/100  
Signal Info : 1/8 in



Data File : F:\DATA\031809\FB026.D

Vial: 26

Acq On : 18 Mar 2009 1:11 pm

Operator: Virginia Meyer

Sample : 09-1760-03B

Inst : FID4

Misc : 500uL DF=1

Multiplr: 1.00

IntFile : autoint1.e

Quant Time: Mar 18 14:33 2009 Quant Results File: GAS0318.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0318.M (Chemstation Integrator)

Title : RSK 175 Methane, Ethene, Ethane, and Propane

Last Update : Wed Mar 18 11:13:59 2009

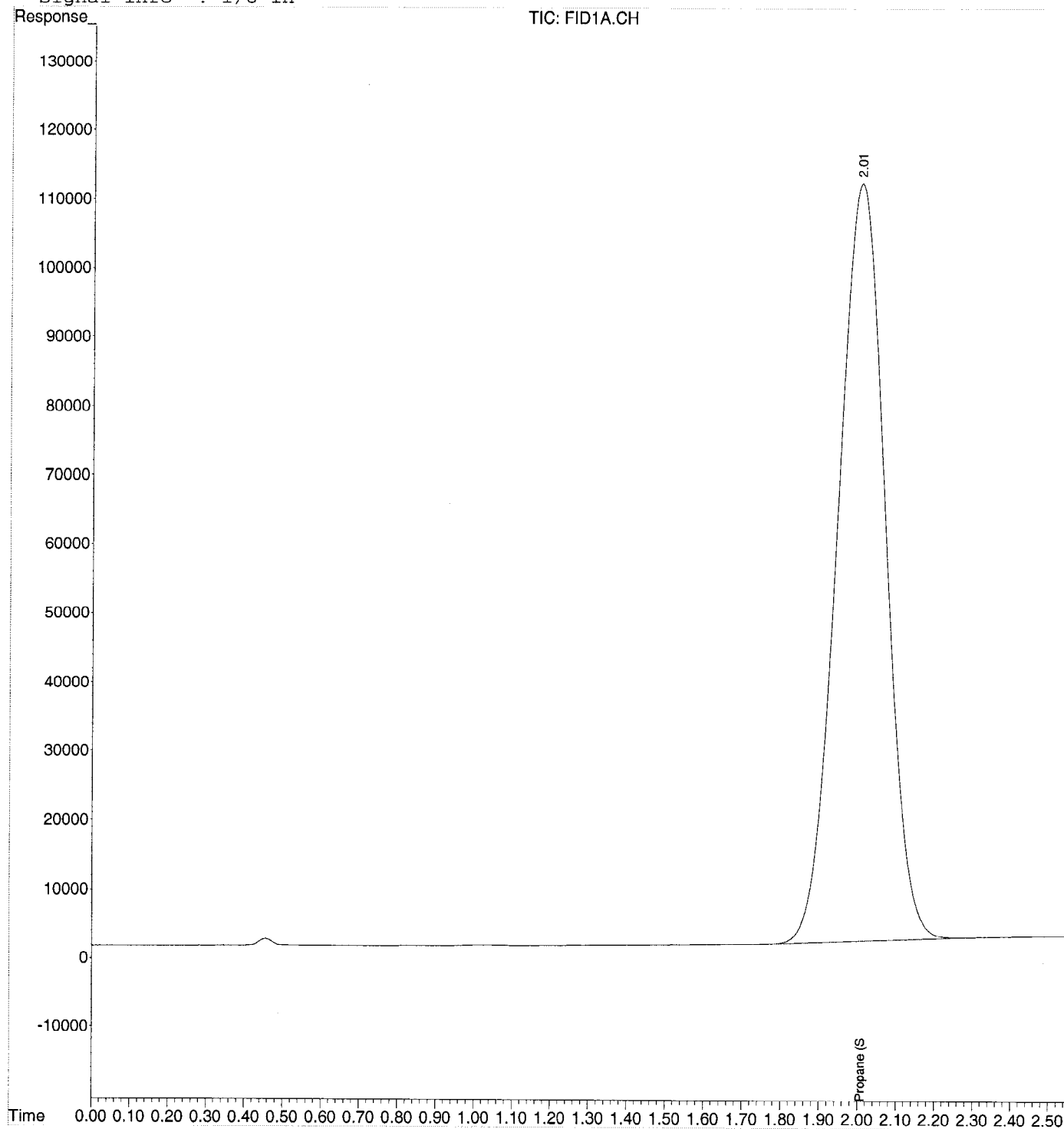
Response via : Multiple Level Calibration

DataAcq Meth : GAS.M

Volume Inj. : 100ul

Signal Phase : Porapak Q 80/100

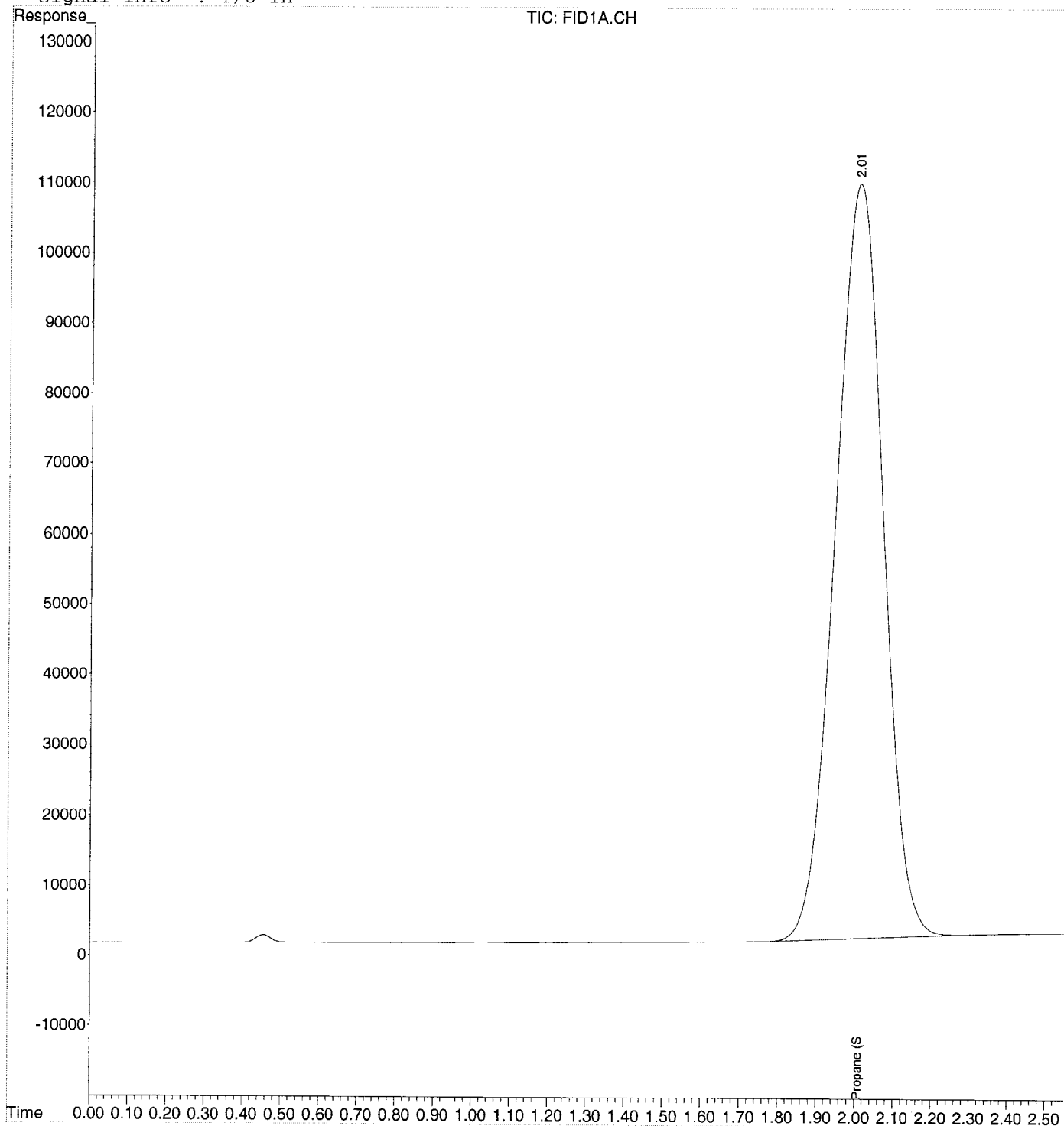
Signal Info : 1/8 in



Data File : F:\DATA\031809\FB027.D Vial: 27  
Acq On : 18 Mar 2009 1:16 pm Operator: Virginia Meyer  
Sample : 09-1760-04B Inst : FID4  
Misc : 500uL DF=1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 18 14:33 2009 Quant Results File: GAS0318.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0318.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Wed Mar 18 11:13:59 2009  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

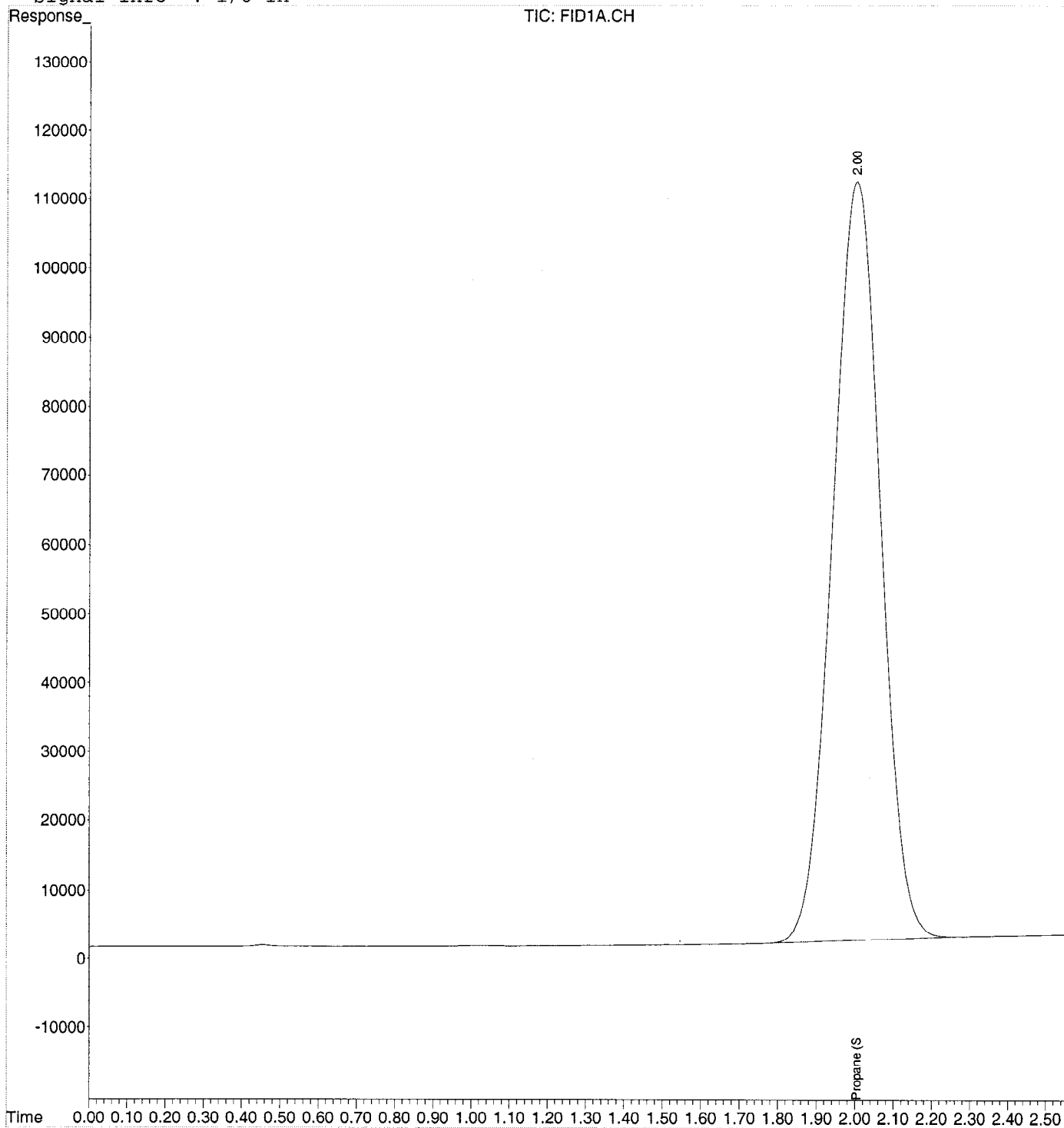
Volume Inj. : 100ul  
Signal Phase : Porapak Q 80/100  
Signal Info : 1/8 in



Data File : F:\DATA\031809\FB028.D Vial: 28  
Acq On : 18 Mar 2009 1:21 pm Operator: Virginia Meyer  
Sample : 09-1760-05B Inst : FID4  
Misc : 500uL DF=1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 18 14:33 2009 Quant Results File: GAS0318.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0318.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Wed Mar 18 11:13:59 2009  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

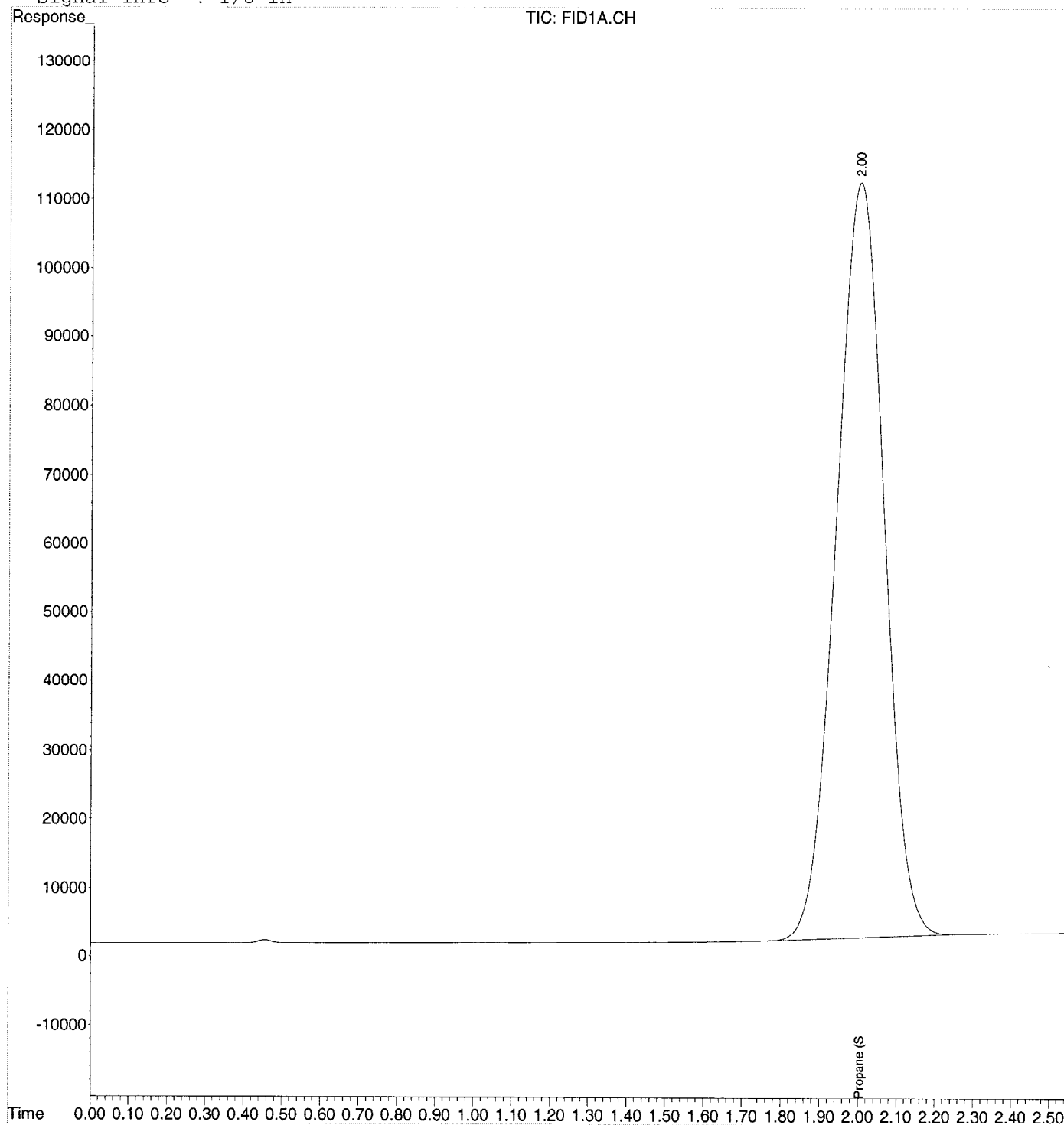
Volume Inj. : 100ul  
Signal Phase : Porapak Q 80/100  
Signal Info : 1/8 in



Data File : F:\DATA\031809\FB029.D Vial: 29  
Acq On : 18 Mar 2009 1:27 pm Operator: Virginia Meyer  
Sample : 09-1760-06B Inst : FID4  
Misc : 500uL DF=1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 18 14:33 2009 Quant Results File: GAS0318.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0318.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Wed Mar 18 11:13:59 2009  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

Volume Inj. : 100ul  
Signal Phase : Porapak Q 80/100  
Signal Info : 1/8 in



Data File : F:\DATA\031809\FB030.D

Vial: 30

Acq On : 18 Mar 2009 1:31 pm

Operator: Virginia Meyer

Sample : 09-1760-07B

Inst : FID4

Misc : 500uL DF=1

Multiplr: 1.00

IntFile : autoint1.e

Quant Time: Mar 18 14:34 2009 Quant Results File: GAS0318.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0318.M (Chemstation Integrator)

Title : RSK 175 Methane, Ethene, Ethane, and Propane

Last Update : Wed Mar 18 11:13:59 2009

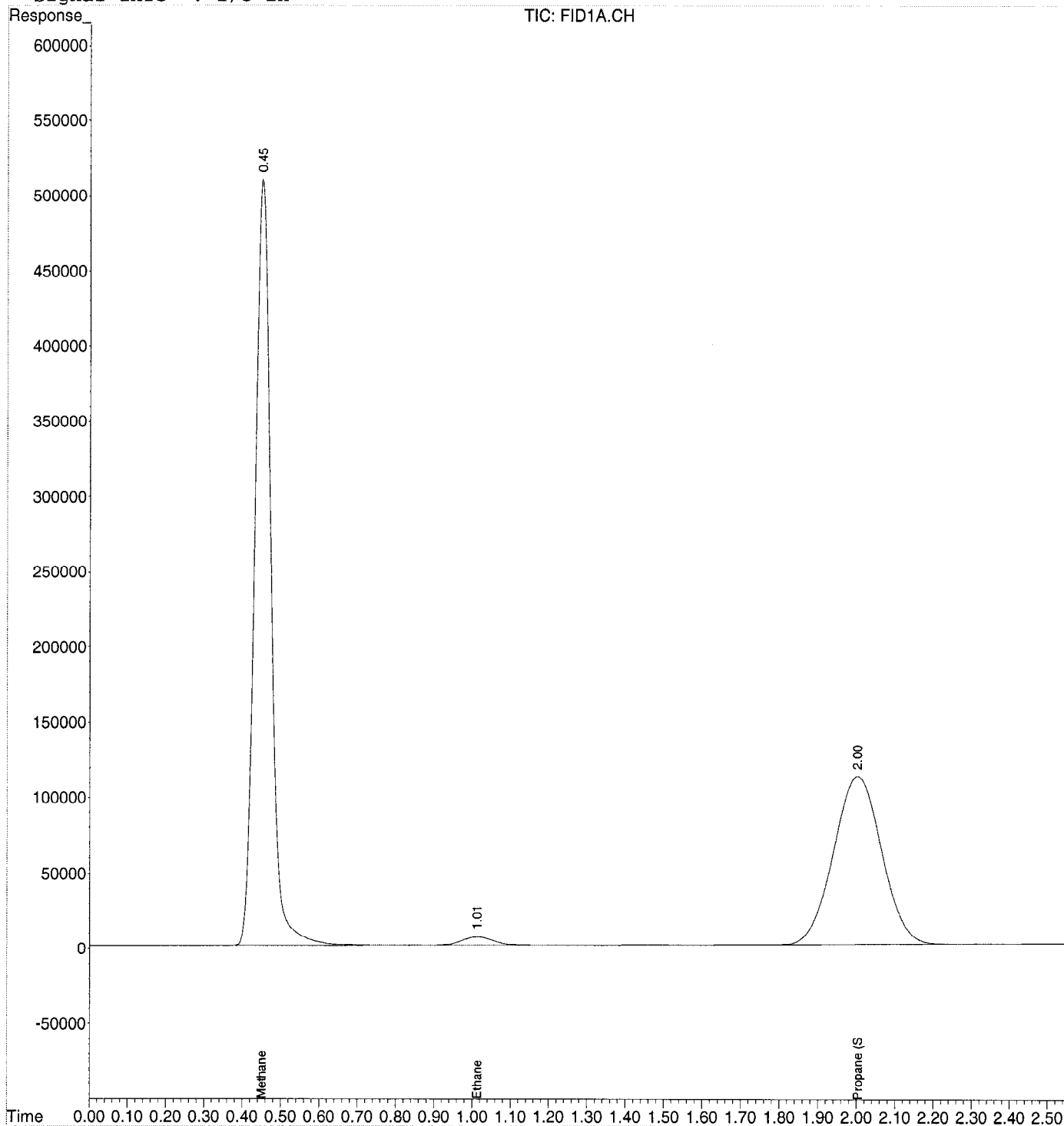
Response via : Multiple Level Calibration

DataAcq Meth : GAS.M

Volume Inj. : 100ul

Signal Phase : Porapak Q 80/100

Signal Info : 1/8 in



Data File : F:\DATA\031809\FB031.D

Acq On : 18 Mar 2009 1:35 pm

Sample : 09-1760-08B

Misc : 500uL DF=1

IntFile : autoint1.e

Vial: 31

Operator: Virginia Meyer

Inst : FID4

Multiplr: 1.00

Quant Time: Mar 18 14:39 2009 Quant Results File: GAS0318.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0318.M (Chemstation Integrator)

Title : RSK 175 Methane, Ethene, Ethane, and Propane

Last Update : Wed Mar 18 11:13:59 2009

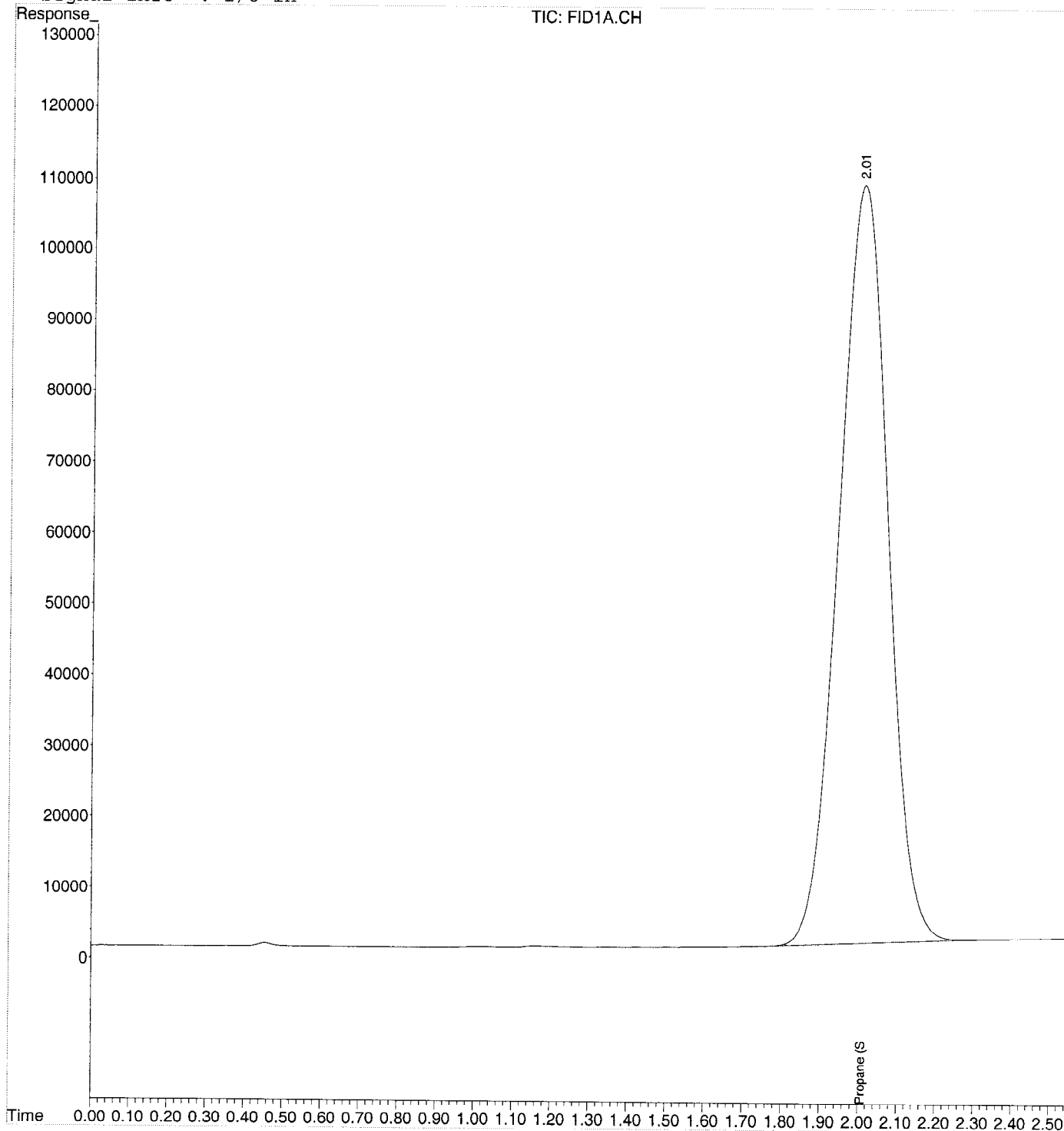
Response via : Multiple Level Calibration

DataAcq Meth : GAS.M

Volume Inj. : 100ul

Signal Phase : Porapak Q 80/100

Signal Info : 1/8 in



Data File : F:\DATA\031809\FB035.D

Vial: 35

Acq On : 18 Mar 2009 2:04 pm

Operator: Virginia Meyer

Sample : 09-1760-09B

Inst : FID4

Misc : 500uL DF=1

Multiplr: 1.00

IntFile : autoint1.e

Quant Time: Mar 18 15:11 2009 Quant Results File: GAS0318.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0318.M (Chemstation Integrator)

Title : RSK 175 Methane, Ethene, Ethane, and Propane

Last Update : Wed Mar 18 11:13:59 2009

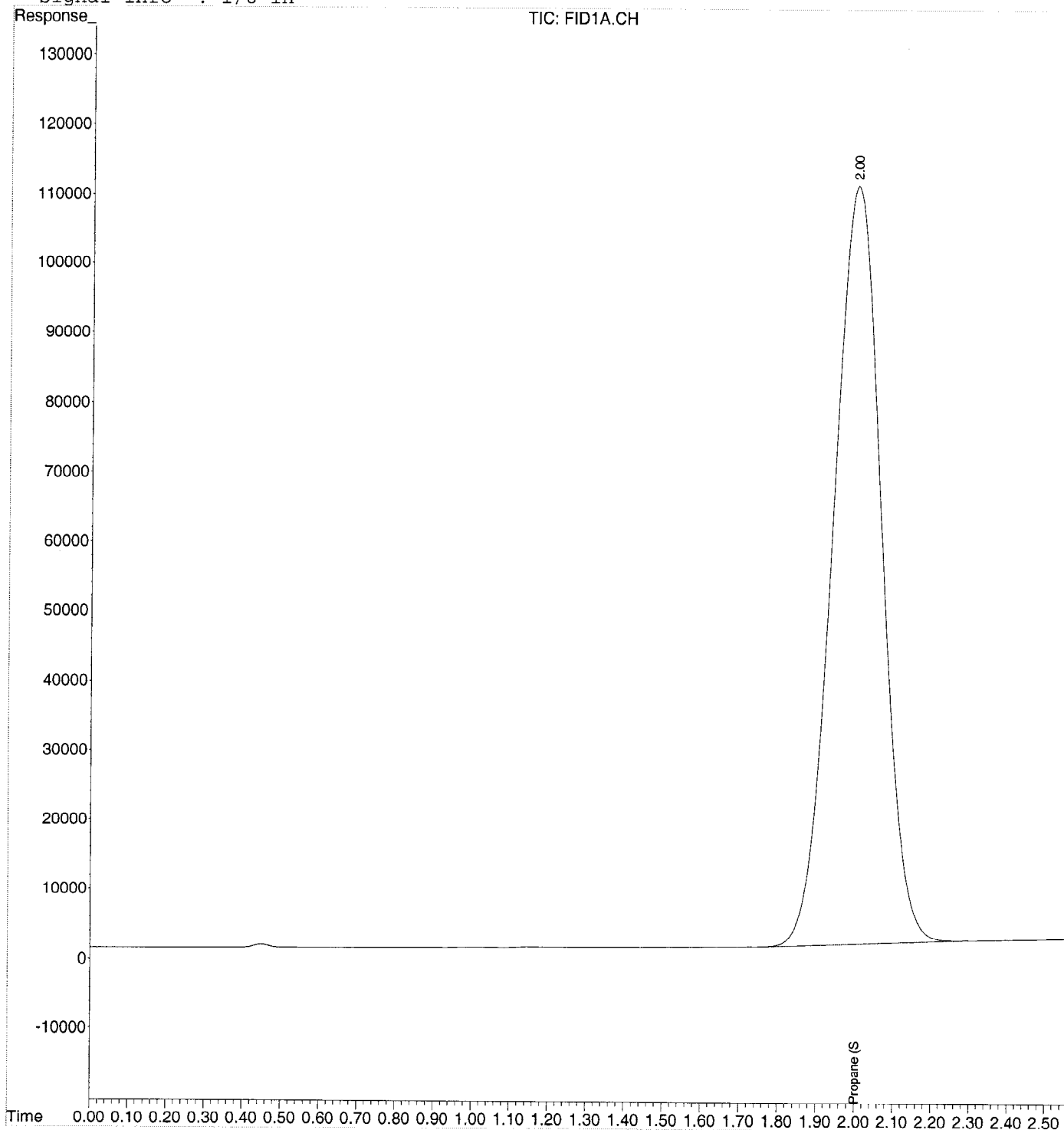
Response via : Multiple Level Calibration

DataAcq Meth : GAS.M

Volume Inj. : 100ul

Signal Phase : Porapak Q 80/100

Signal Info : 1/8 in





Data File : F:\DATA\031809\FB041.D

Vial: 41

Acq On : 18 Mar 2009 2:44 pm

Operator: Virginia Meyer

Sample : 09-1760-10B

Inst : FID4

Misc : 50uL DF=10

Multiplr: 1.00

IntFile : autoint1.e

Quant Time: Mar 18 15:49 2009 Quant Results File: GAS0318.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0318.M (Chemstation Integrator)

Title : RSK 175 Methane, Ethene, Ethane, and Propane

Last Update : Wed Mar 18 11:13:59 2009

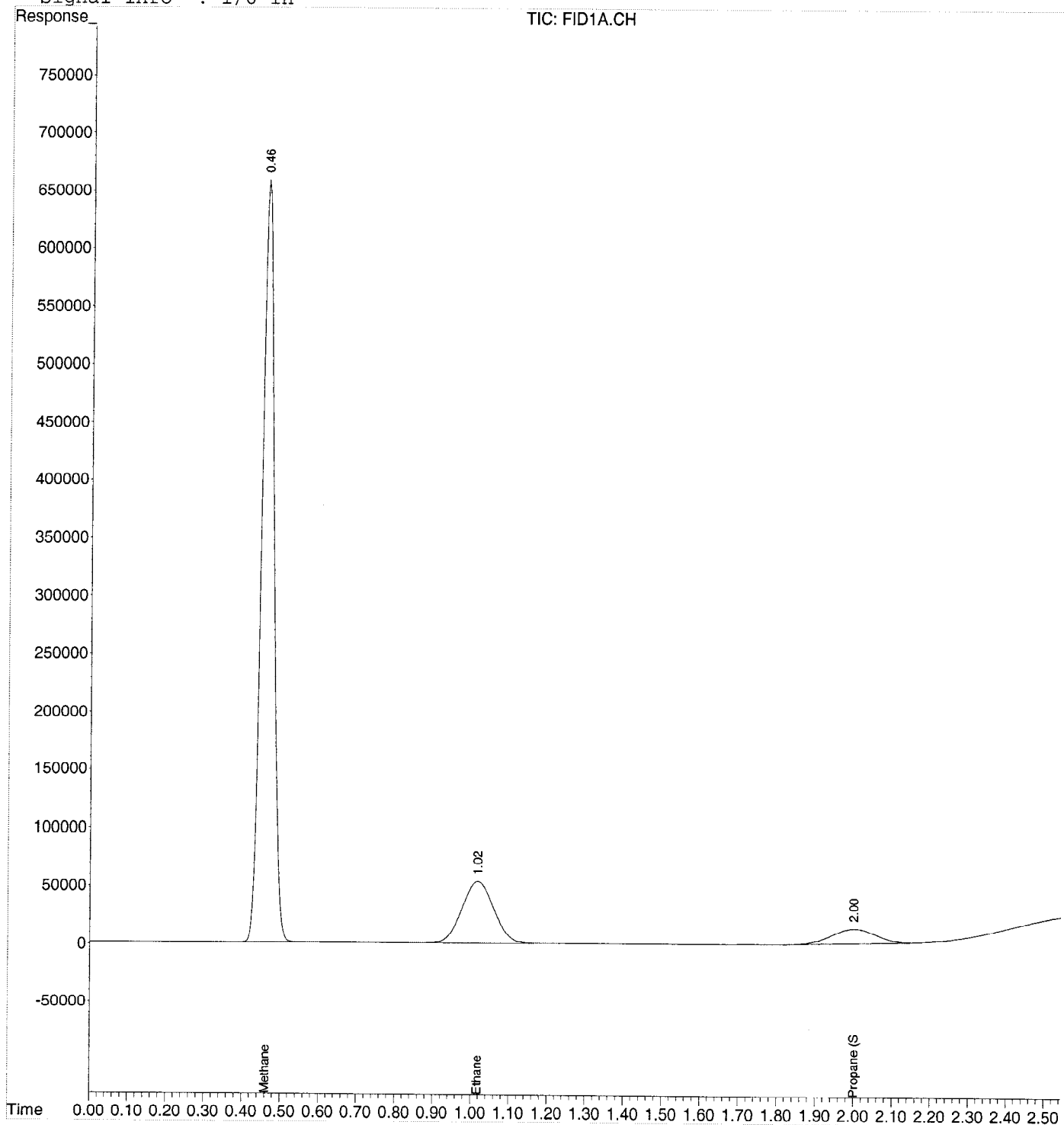
Response via : Multiple Level Calibration

DataAcq Meth : GAS.M

Volume Inj. : 100ul

Signal Phase : Porapak Q 80/100

Signal Info : 1/8 in



Data File : F:\DATA\031809\FB042.D

Vial: 42

Acq On : 18 Mar 2009 2:48 pm

Operator: Virginia Meyer

Sample : 09-1760-11B

Inst : FID4

Misc : 50uL DF=10

Multiplr: 1.00

IntFile : autoint1.e

Quant Time: Mar 18 15:54 2009 Quant Results File: GAS0318.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0318.M (Chemstation Integrator)

Title : RSK 175 Methane, Ethene, Ethane, and Propane

Last Update : Wed Mar 18 11:13:59 2009

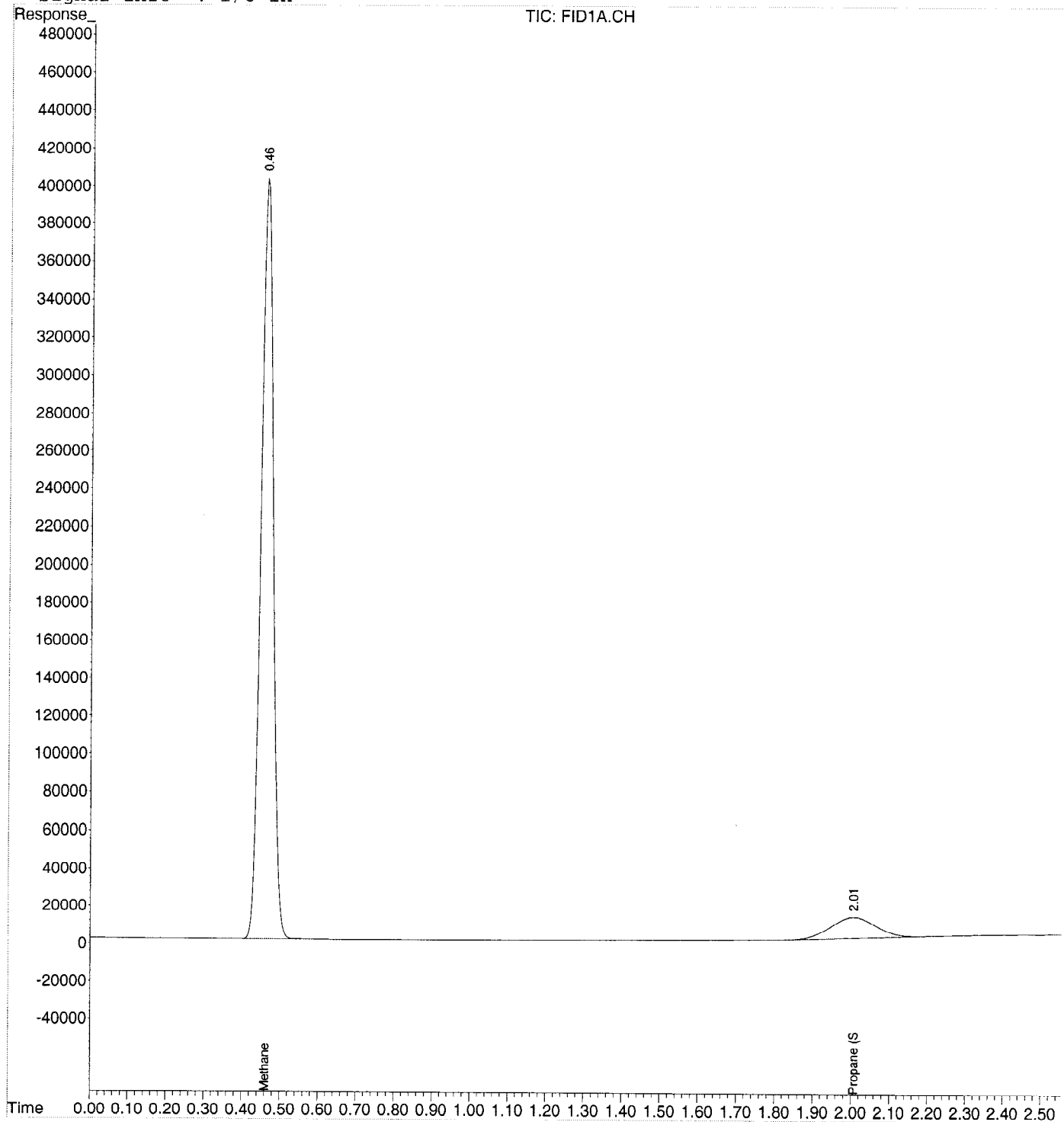
Response via : Multiple Level Calibration

DataAcq Meth : GAS.M

Volume Inj. : 100ul

Signal Phase : Porapak Q 80/100

Signal Info : 1/8 in



Data File : F:\DATA\031809\FB038.D

Vial: 38

Acq On : 18 Mar 2009 2:17 pm

Operator: Virginia Meyer

Sample : 09-1760-12B

Inst : FID4

Misc : 500uL DF=1

Multiplr: 1.00

IntFile : autoint1.e

Quant Time: Mar 18 15:55 2009 Quant Results File: GAS0318.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0318.M (Chemstation Integrator)

Title : RSK 175 Methane, Ethene, Ethane, and Propane

Last Update : Wed Mar 18 11:13:59 2009

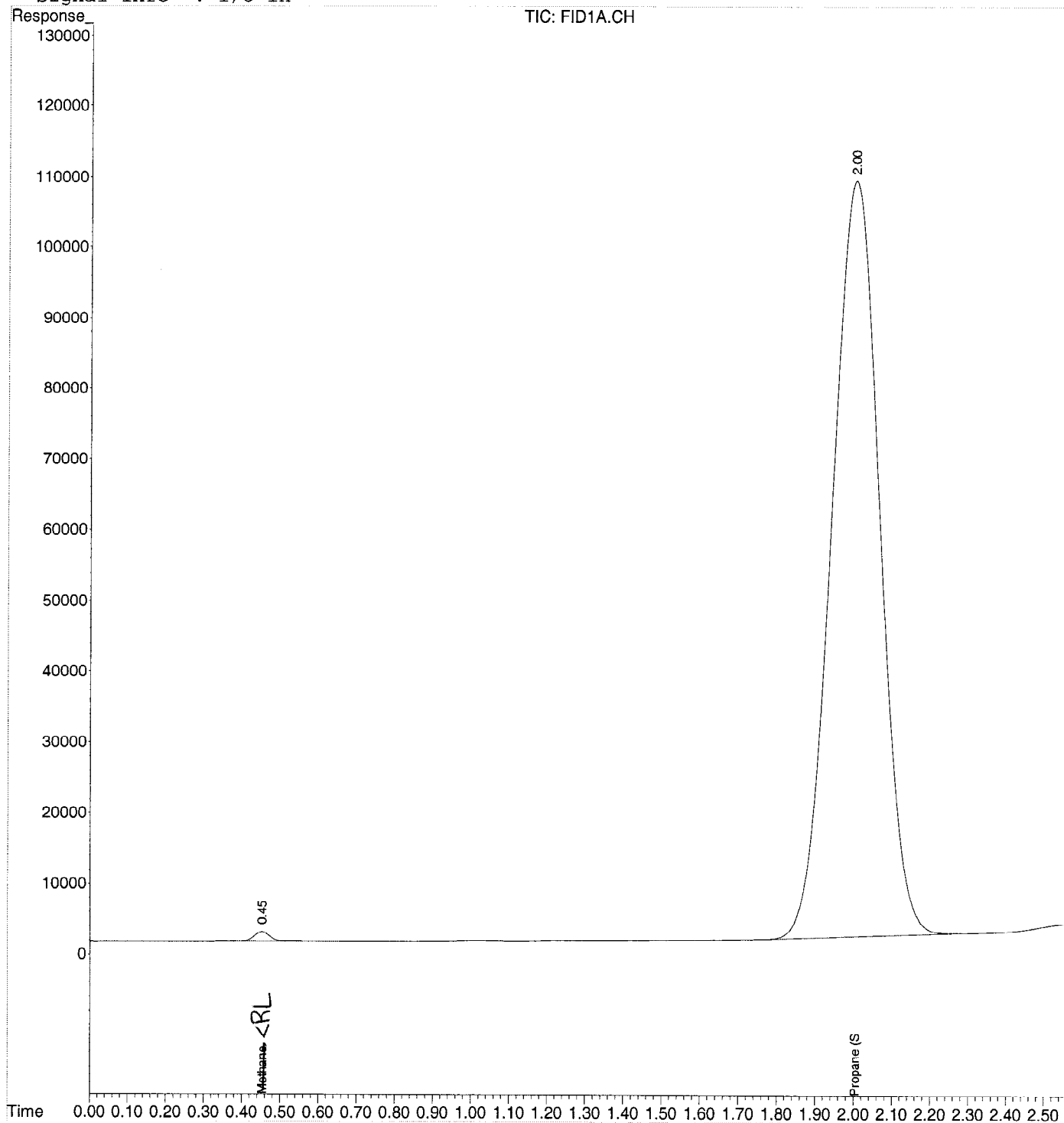
Response via : Multiple Level Calibration

DataAcq Meth : GAS.M

Volume Inj. : 100ul

Signal Phase : Porapak Q 80/100

Signal Info : 1/8 in



Data File : F:\DATA\031809\FB043.D

Vial: 43

Acq On : 18 Mar 2009 2:53 pm

Operator: Virginia Meyer

Sample : 09-1760-13B

Inst : FID4

Misc : 25uL DF=20

Multiplr: 1.00

IntFile : autoint1.e

Quant Time: Mar 18 15:58 2009 Quant Results File: GAS0318.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0318.M (Chemstation Integrator)

Title : RSK 175 Methane, Ethene, Ethane, and Propane

Last Update : Wed Mar 18 11:13:59 2009

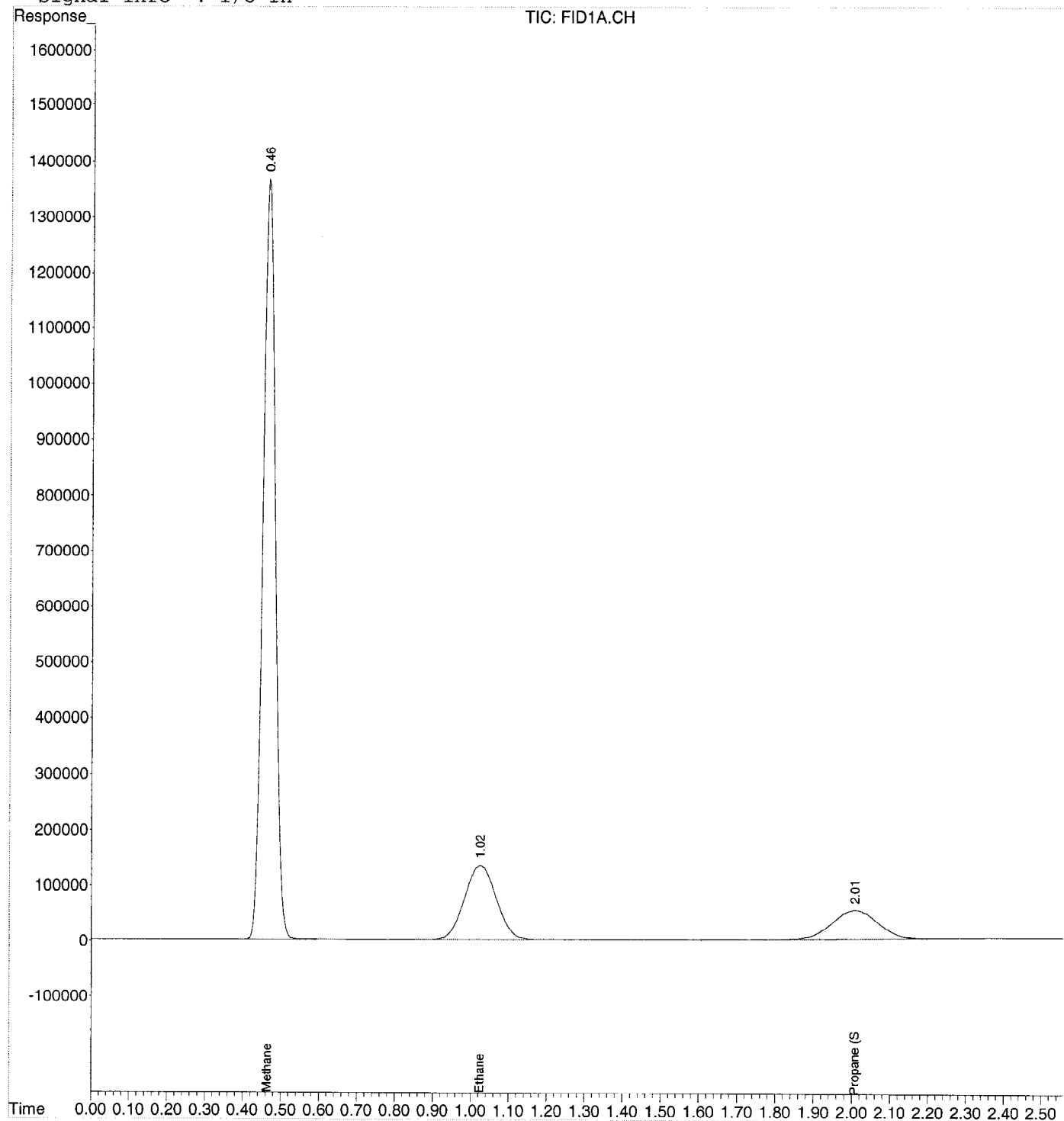
Response via : Multiple Level Calibration

DataAcq Meth : GAS.M

Volume Inj. : 100ul

Signal Phase : Porapak Q 80/100

Signal Info : 1/8 in



Data File : F:\DATA\031809\FB044.D

Vial: 44

Acq On : 18 Mar 2009 2:58 pm

Operator: Virginia Meyer

Sample : 09-1760-14B

Inst : FID4

Misc : 25uL DF=20

Multiplr: 1.00

IntFile : autoint1.e

Quant Time: Mar 18 16:01 2009 Quant Results File: GAS0318.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0318.M (Chemstation Integrator)

Title : RSK 175 Methane, Ethene, Ethane, and Propane

Last Update : Wed Mar 18 11:13:59 2009

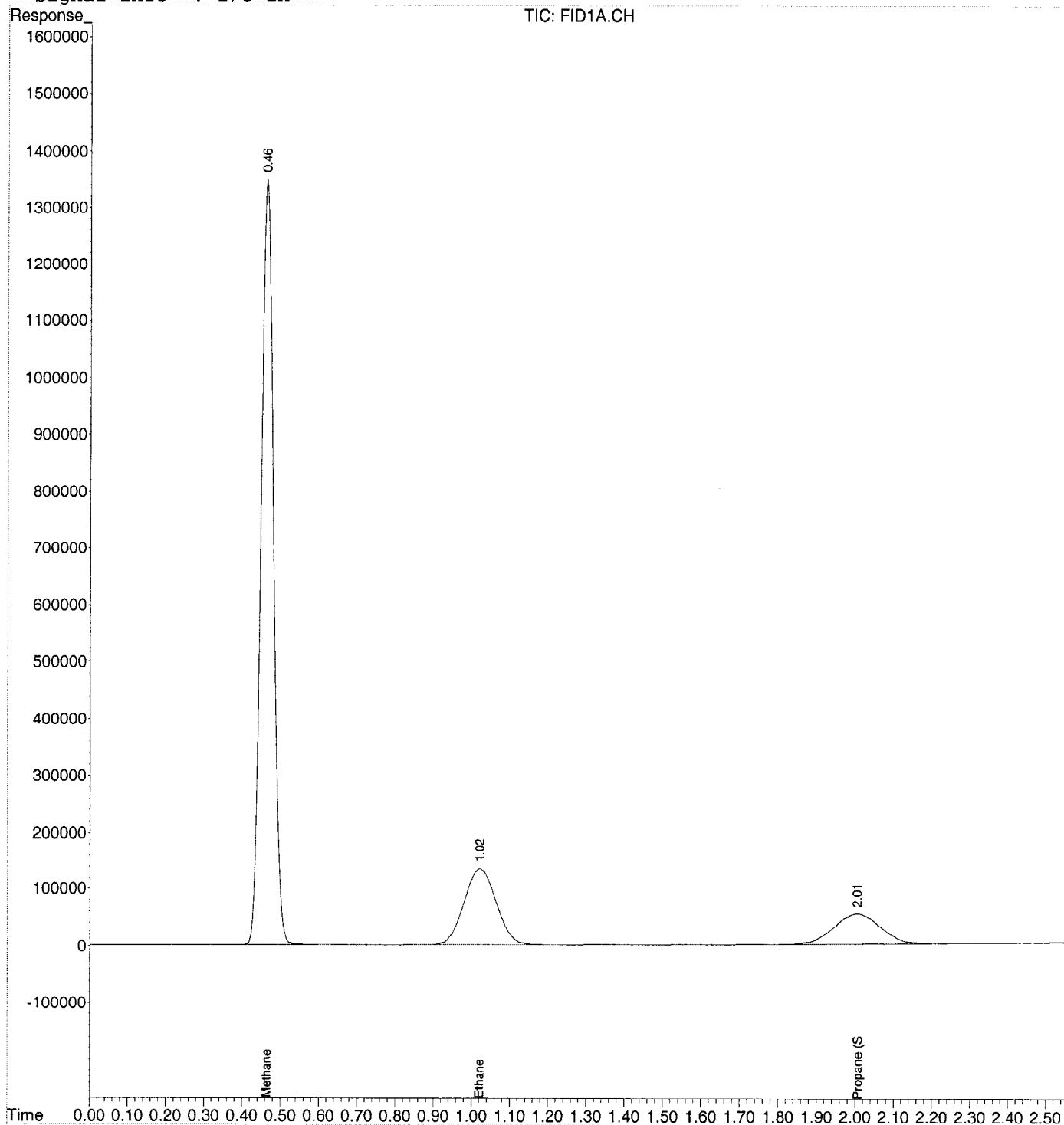
Response via : Multiple Level Calibration

DataAcq Meth : GAS.M

Volume Inj. : 100ul

Signal Phase : Porapak Q 80/100

Signal Info : 1/8 in



# Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Project ID 008-2067  
Date Received: 3/17/09

Lab Order: 09-1760  
Date Prepared: 3/20/09  
Units: mg/L

## Dissolved Metals

### Sodium

Method: SW6010B

Prep Method: E200.7/SW3010A

Lab ID	Client ID	Matrix	Date Collected	Date Analyzed	Results	LQL	DF
09-1760-01C	EICH2	Water	3/16/09	3/21/09	81	0.40	1
09-1760-02C	MW23	Water	3/16/09	3/21/09	430	0.40	1
09-1760-03C	MW20	Water	3/16/09	3/21/09	100	0.40	1
09-1760-04C	MW21	Water	3/16/09	3/21/09	240	0.40	1
09-1760-05C	MW18	Water	3/16/09	3/21/09	61	0.40	1
09-1760-06C	MW22	Water	3/16/09	3/21/09	110	0.40	1
09-1760-07C	MW8	Water	3/16/09	3/21/09	150	0.40	1
09-1760-08C	MW7	Water	3/16/09	3/21/09	130	0.40	1
09-1760-09C	MW6	Water	3/16/09	3/21/09	130	0.40	1
09-1760-10C	MW17	Water	3/16/09	3/21/09	250	0.40	1
09-1760-11C	MW16	Water	3/16/09	3/21/09	260	0.40	1
09-1760-12C	MW27	Water	3/16/09	3/21/09	300	0.40	1
09-1760-13C	MW4	Water	3/16/09	3/21/09	110	0.40	1
09-1760-14C	MW0	Water	3/16/09	3/21/09	110	0.40	1



Analyst



Approved

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** DF - Dilution Factor  
PF - Prep Factor  
LQL - Lower Quantitation Limit

Print Date: 3/26/2009

# Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862

(303) 425-6021

Client Project ID 008-2067  
Collection Date: 3/16/09 0955

Lab Order: 09-1760  
Date Received: 3/17/09  
Units: mg/L

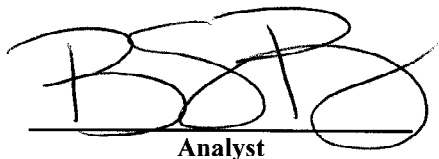
## Anions by IC Chloride

Method: E300.0

Prep Method:

Lab ID	Client ID	Matrix	Date Prepared	Date Analyzed	Results	LQL	DF
09-1760-01D	EICH2	Water	3/17/09	3/17/09 1435	15.8	0.50	1
09-1760-02D	MW23	Water	3/18/09	3/18/09 1014	49.6	2.5	5
09-1760-03D	MW20	Water	3/18/09	3/18/09 1024	21.8	0.50	1
09-1760-04D	MW21	Water	3/18/09	3/18/09 1035	23.8	0.50	1
09-1760-05D	MW18	Water	3/18/09	3/18/09 1045	4.4	0.50	1
09-1760-06D	MW22	Water	3/18/09	3/18/09 1056	19.4	0.50	1
09-1760-07D	MW8	Water	3/18/09	3/18/09 1107	41.9	0.50	1
09-1760-08D	MW7	Water	3/18/09	3/18/09 1117	28.5	0.50	1
09-1760-09D	MW6	Water	3/18/09	3/18/09 1128	24.6	0.50	1
09-1760-10D	MW17	Water	3/18/09	3/18/09 1138	39.6	0.50	1
09-1760-11D	MW16	Water	3/18/09	3/18/09 1149	54.9	0.50	1
09-1760-12D	MW27	Water	3/18/09	3/18/09 1221	33.1	0.50	1
09-1760-13D	MW4	Water	3/18/09	3/18/09 1231	32.4	0.50	1
09-1760-14D	MW0	Water	3/18/09	3/18/09 1242	31.9	0.50	1

Comments

  
Analyst

  
Approved

**Qualifiers:** J - Indicates an estimated value when the compound is detected, but is below the LQL  
H - Sample analysis exceeded analytical holding time  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeds Maximum Contamination Level(MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** DF - Dilution Factor  
LQL - Lower Quantitation Limit

Print Date: 3/19/09

## QUALITY ASSURANCE REPORTS

METHOD BLANKS (MB)

LABORATORY CONTROL SPIKES (LCS)

MATRIX SPIKES (MS/MSD)\*

DUPLICATES (DUP)\*

\* For Metals or Wet Chemistry analyses: only included if requested or if performed on this client's samples.



Work Order: 09-1760  
Client Project ID: 008-2067

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8021\_W

Sample ID: MB4031809	Sample Type: MBLK	TestCode: 8021_W	Run ID: TVHBTEx4_090318A	Prep Date: 3/18/2009	Units: µg/L
Batch ID: R45923	TestNo: SW8021B	FileID: TVB403181003R	Analysis Date: 3/18/2009	SeqNo: 814401	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Benzene	U	1.0																	
Toluene	U	2.0																	
Ethylbenzene	U	2.0																	
m,p-Xylene	U	2.0																	
o-Xylene	U	2.0																	
Surr: 1,2,4-Trichlorobenzene (S)	85.04	0	100	0	85	60	140	0	0										

Sample ID: LCS4031809	Sample Type: LCS	TestCode: 8021_W	Run ID: TVHBTEx4_090318A	Prep Date: 3/18/2009	Units: µg/L
Batch ID: R45923	TestNo: SW8021B	FileID: TVB403181004R	Analysis Date: 3/18/2009	SeqNo: 814402	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Benzene	19.7	1.0	25.5	0	77.3	70	130	0	0										
Toluene	157.8	2.0	183.6	0	85.9	70	130	0	0										
Ethylbenzene	33.79	2.0	36.8	0	91.8	70	130	0	0										
m,p-Xylene	135.1	2.0	136.3	0	99.1	70	130	0	0										
o-Xylene	53.26	2.0	57.2	0	93.1	70	130	0	0										
Surr: 1,2,4-Trichlorobenzene (S)	93.9	0	100	0	93.9	60	140	0	0										

Sample ID: 09-1760-01AMS	Sample Type: MS	TestCode: 8021_W	Run ID: TVHBTEx4_090318A	Prep Date: 3/18/2009	Units: µg/L
Client ID: EICH2	Batch ID: R45923	TestNo: SW8021B	FileID: TVB403181006R	Analysis Date: 3/18/2009	SeqNo: 814404
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Benzene	19.77	1.0	25.5	0	77.5	70	130	0	0										
Toluene	154	2.0	183.6	0	83.9	70	130	0	0										
Ethylbenzene	32.26	2.0	36.8	0	87.7	62	130	0	0										
m,p-Xylene	132.2	2.0	136.3	0	97	70	134	0	0										
o-Xylene	51.66	2.0	57.2	0	90.3	63	130	0	0										
Surr: 1,2,4-Trichlorobenzene (S)	97.52	0	100	0	97.5	60	140	0	0										

## Qualifiers:

U - Not detected at or above the Reporting Limit  
J - Analyte detected below quantitation limits  
S - Spike Recovery outside acceptance limits  
E - Extrapolated value, value exceeds calibration range.  
R - RPD outside acceptance limits  
B - Analyte detected in the associated Method Blank  
H - Prep or analytical holding time exceeded  
X - See case narrative

Work Order: 09-1760  
Client Project ID: 008-2067

## ANALYTICAL QC SUMMARY REPORT

TestCode: 8021\_W

Sample ID: 09-1760-01A	MSD	TestCode: 8021_W	Run ID: TVHBTEX4_090318A	Prep Date: 3/18/2009	Units: µg/L						
Client ID: EICH2	Batch ID: R45923	TestNo: SW8021B	FileID: TVB40318007R	Analysis Date: 3/18/2009	SeqNo: 814405						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.85	1.0	25.5	0	77.8	70	130	19.77	0.404	30	
Toluene	158.7	2.0	183.6	0	86.5	70	130	154	3.04	30	
Ethylbenzene	33.72	2.0	36.8	0	91.6	62	130	32.26	4.43	30	
m,p-Xylene	135.4	2.0	136.3	0	99.4	70	134	132.2	2.44	30	
o-Xylene	53.33	2.0	57.2	0	93.2	63	130	51.66	3.19	30	
Surr: 1,2,4-Trichlorobenzene (S)	94.38	0	100	0	94.4	60	140	0	0	0	

## Qualifiers:

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E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits  
B - Analyte detected in the associated Method Blank  
H - Prep or analytical holding time exceeded  
X - See case narrative

Evergreen Analytical, Inc.

Date: 18-Mar-09

Work Order: 09-1760  
Client Project ID: 008-2067

## ANALYTICAL QC SUMMARY REPORT

TestCode: MEEP\_W

Sample ID: GB031809	SampleType: MBLK	TestCode: MEEP_W	Run ID: FID4_090318A	Prep Date: 3/18/2009	Units: mg/L
Batch ID: GAS031809	TestNo: RSKSOP175	FileID: FB016	Analysis Date: 3/18/2009	SeqNo: 814064	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC Lowlimit Highlimit RPD Ref Val %RPD RPDlimit Qual
Methane	U	0.00080			
Sample ID: LCS031809	SampleType: LCS	TestCode: MEEP_W	Run ID: FID4_090318A	Prep Date: 3/18/2009	Units: mg/L
Batch ID: GAS031809	TestNo: RSKSOP175	FileID: FB017	Analysis Date: 3/18/2009	SeqNo: 814065	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC Lowlimit Highlimit RPD Ref Val %RPD RPDlimit Qual
Methane	0.6088	0.0080	0.5094	0	120 70 130 0 0
Sample ID: 09-1760-01BMS	SampleType: MS	TestCode: MEEP_W	Run ID: FID4_090318A	Prep Date: 3/18/2009	Units: mg/L
Client ID: EICH2	Batch ID: GAS031809	TestNo: RSKSOP175	FileID: FB033	Analysis Date: 3/18/2009	SeqNo: 814049
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC Lowlimit Highlimit RPD Ref Val %RPD RPDlimit Qual
Methane	0.5448	0.0080	0.5094	0	107 70 130 0 0
Sample ID: 09-1760-01BMSD	SampleType: MSD	TestCode: MEEP_W	Run ID: FID4_090318A	Prep Date: 3/18/2009	Units: mg/L
Client ID: EICH2	Batch ID: GAS031809	TestNo: RSKSOP175	FileID: FB034	Analysis Date: 3/18/2009	SeqNo: 814050
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC Lowlimit Highlimit RPD Ref Val %RPD RPDlimit Qual
Methane	0.5466	0.0080	0.5094	0	107 70 130 0.5448 0.322 30

## Qualifiers:

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S - Spike Recovery outside acceptance limits  
E - Extrapolated value, value exceeds calibration range.  
R - RPD outside acceptance limits  
B - Analyte detected in the associated Method Blank  
H - Prep or analytical holding time exceeded  
X - See case narrative

Evergreen Analytical, Inc.

Date: 26-Mar-09

Work Order: 09-1760  
Client Project ID: 008-2067

## ANALYTICAL QC SUMMARY REPORT

BatchID: 18525

Sample ID: MB-18525	Sample Type: MBLK	Test Code: 200.7_D	Run ID: ICP-OPTIMA 5300 DV_090321A	Prep Date: 3/20/2009	Units: mg/L
Batch ID: 18525	Test No: E200.7, Rev.	FileID: 032109AM	Analysis Date: 3/21/2009	SeqNo: 815790	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC Lowlimit Highlimit RPD Ref Val %RPD RPDlimit Qual
Sodium	U	0.400			
Sample ID: LCS-18525	Sample Type: LCS	Test Code: 200.7_D	Run ID: ICP-OPTIMA 5300 DV_090321A	Prep Date: 3/20/2009	Units: mg/L
Batch ID: 18525	Test No: E200.7, Rev.	FileID: 032109AM	Analysis Date: 3/21/2009	SeqNo: 815791	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC Lowlimit Highlimit RPD Ref Val %RPD RPDlimit Qual
Sodium	9.871	0.400	10	0.3017	98.7 85 115 0 0
Sample ID: 09-1760-01CMS	Sample Type: MS	Test Code: 6010_D	Run ID: ICP-OPTIMA 5300 DV_090321A	Prep Date: 3/20/2009	Units: mg/L
Client ID: EICH2	Batch ID: 18525	Test No: SW6010B	FileID: 032109AM	Analysis Date: 3/21/2009	SeqNo: 815793
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC Lowlimit Highlimit RPD Ref Val %RPD RPDlimit Qual
Sodium	94.3	0.50	12.5	80.8	108 75 125 0 0
Sample ID: 09-1760-01CMSD	Sample Type: MSD	Test Code: 6010_D	Run ID: ICP-OPTIMA 5300 DV_090321A	Prep Date: 3/20/2009	Units: mg/L
Client ID: EICH2	Batch ID: 18525	Test No: SW6010B	FileID: 032109AM	Analysis Date: 3/21/2009	SeqNo: 815794
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC Lowlimit Highlimit RPD Ref Val %RPD RPDlimit Qual
Sodium	92.32	0.50	12.5	80.8	92.2 75 125 94.3 2.12 20

## Qualifiers:

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J - Analyte detected below quantitation limits  
S - Spike Recovery outside acceptance limits  
E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits  
B - Analyte detected in the associated Method Blank  
H - Prep or analytical holding time exceeded  
X - See case narrative

Evergreen Analytical, Inc.

Date: 19-Mar-09

Work Order: 09-1760

Client Project ID: 008-2067

## ANALYTICAL QC SUMMARY REPORT

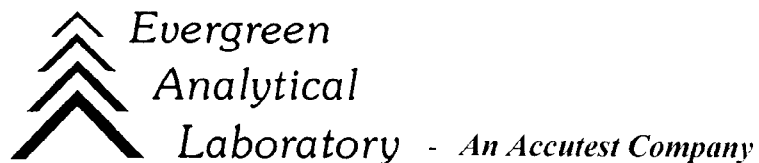
TestCode: ANIONS\_nondw

Sample ID: METHOD BLANK 03		Sample Type: MBLK	TestCode: ANIONS_non	Run ID: IC-DX300_090317A	Prep Date: 3/17/09	Units: mg/L					
Batch ID: R45900		TestNo: E300.0	FieldID:	Analysis Date: 3/17/09		SeqNo: 813823					
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	U	0.50									
Sample ID: METHOD BLANK 03		Sample Type: MBLK	TestCode: ANIONS_non	Run ID: IC-DX300_090318A	Prep Date: 3/18/09	Units: mg/L					
Batch ID: R45935		TestNo: E300.0	FieldID:	Analysis Date: 3/18/09		SeqNo: 814846					
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	U	0.50									
Sample ID: LCS ALLT218076		Sample Type: LCS	TestCode: ANIONS_non	Run ID: IC-DX300_090317A	Prep Date: 3/17/09	Units: mg/L					
Batch ID: R45900		TestNo: E300.0	FieldID:	Analysis Date: 3/17/09		SeqNo: 813822					
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	18.4	1.0	20	0.2069	92	90	110	0	0		
Sample ID: LCS ALLT218076		Sample Type: LCS	TestCode: ANIONS_non	Run ID: IC-DX300_090318A	Prep Date: 3/18/09	Units: mg/L					
Batch ID: R45935		TestNo: E300.0	FieldID:	Analysis Date: 3/18/09		SeqNo: 814845					
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	18.54	1.0	20	0	92.7	90	110	0	0		

## Qualifiers:

U - Not detected at or above the Reporting Limit  
 J - Analyte detected below quantitation limits  
 S - Spike Recovery outside acceptance limits  
 E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits  
 B - Analyte detected in the associated Method Blank  
 H - Prep or analytical holding time exceeded  
 X - See case narrative



March 27, 2009

Stuart Hall  
Ollson Associates  
826 21 1/2 Road  
Grand Junction, CO 81505

Lab Work Order: 09-1760  
Client Project ID: 008-2067

Dear Stuart Hall:

Enclosed are the analytical results for the samples shown in the Laboratory Work Order Summary. The invoice is included with this report or has been mailed to another party as indicated on the chain of custody.

The enclosed data for testing performed at Evergreen Analytical Laboratory (EAL) have been reviewed for quality assurance. A case narrative is included to describe any anomalies associated with the samples or data.

EAL will dispose of all samples 44 days from the sample receipt date. If you want samples returned, please advise us by mail or fax as soon as possible.

A copy of this project report and supporting data will be retained for a period of five years unless we are otherwise advised by you. A document retrieval charge will apply.

Thank you for using the services of Evergreen Analytical. If you have any questions concerning the analytical data, please contact me. Please direct other questions to Client Services.

Sincerely,



Joseph J Egry IV/ Carl Smits  
Quality Assurance

## WORK ORDER Summary

Evergreen Analytical, Inc.

09-1839

Rpt To: Stuart Hall

Email To: shall@oacconsulting.com

Olsson Associates

826 21 1/2 Road

Grand Junction, CO 81505

(970) 263-7800

3/19/2009 11:39:13 AM

Client Project ID: 008-2067

QC Level: Level I

## Comments:

Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Test Code	Test Name	Hold	MS	Date Due	Hold Time
09-1839-01A	DCS8	Water	3/18/09 1015	3/19/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/24/09	3/25/09
09-1839-01B	DCS8	Water	3/18/09 1015	3/19/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	4/02/09	3/25/09
09-1839-01C	DCS8	Water	3/18/09 1015	3/19/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/02/09	9/14/09
09-1839-01D	DCS8	Water	3/18/09 1015	3/19/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	4/02/09	3/20/09
09-1839-02A	DCS7	Water	3/18/09 1030	3/19/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/24/09	3/25/09
09-1839-02B	DCS7	Water	3/18/09 1030	3/19/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	4/02/09	3/25/09
09-1839-02C	DCS7	Water	3/18/09 1030	3/19/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/02/09	9/14/09
09-1839-02D	DCS7	Water	3/18/09 1030	3/19/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	4/02/09	3/20/09
09-1839-03A	DCS6	Water	3/18/09 1040	3/19/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/24/09	3/25/09
09-1839-03B	DCS6	Water	3/18/09 1040	3/19/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	4/02/09	3/25/09
09-1839-03C	DCS6	Water	3/18/09 1040	3/19/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/02/09	9/14/09
09-1839-03D	DCS6	Water	3/18/09 1040	3/19/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	4/02/09	3/20/09
09-1839-04A	DCS5	Water	3/18/09 1100	3/19/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/24/09	3/25/09
09-1839-04B	DCS5	Water	3/18/09 1100	3/19/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	4/02/09	3/25/09
09-1839-04C	DCS5	Water	3/18/09 1100	3/19/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/02/09	9/14/09
09-1839-04D	DCS5	Water	3/18/09 1100	3/19/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	4/02/09	3/20/09
09-1839-05A	DCS4	Water	3/18/09 1110	3/19/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/24/09	3/25/09
09-1839-05B	DCS4	Water	3/18/09 1110	3/19/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	4/02/09	3/25/09
09-1839-05C	DCS4	Water	3/18/09 1110	3/19/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/02/09	9/14/09
09-1839-05D	DCS4	Water	3/18/09 1110	3/19/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	4/02/09	3/20/09

Definitions: \* - Test Code has a Select List

## CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES AGREEMENT \*\*

## CLIENT INFORMATION

CLIENT Olson AssociatesADDRESS 826 21<sup>1</sup>/<sub>2</sub> RdCITY Grand Junction STATE CO ZIP 81505PHONE 970.263.7800 FAX 263-7456 E-mail shell@olsonassoc.comREPORT BY ☐ MAIL ☐ FAX ☒ PDF ☐ EDDREPORT CHROMATOGRAMS ☐ YES ☐ NOREPORT TO (Name) Stuart HallINVOICE TO SamePROJECT ID. 008-2067P.O. #                      EAL QUOTE #                     Sampler: Stuart Hall (sign)

NOTE: Identify Known Hazards Below

SAMPLE IDENTIFICATION	DATE	SAMPLED	TIME
DC58	3-18-09	1015	
DC57		1030	
DC56		1040	
DC55		1100	
DC54		1110	

No. of Containers

1) Drinking Water or 2) Discharge Water or 3) Ground Water (circle one)

Soil / Solid / Air / Gas

Oil / Sludge / Wipe

TCLP VOA/BNA/Pest/Herb/Metals (circle)

Volatile Organics 8260/824 (circle)

Semi-volatile Organics BNA, PAH, PNA 8270/825 (circle)

Pesticides 8081/8270/608 (circle)

PCBs/8082/608/screen (circle)

Herbicides 8151

BTEX 8021/802/8260/MTBE (circle)

TVPH 8015mod. (Gasoline)

TEPH 8015mod. (Diesel)

Total Metals-DW / NPDES / SW846 (circle &amp; list metals below)

Dissolved Metals - DW / SW846 (circle &amp; list metals below)

TRPH 418.1, O&amp;G 413.1, 1664 (circle)

COD, NH<sub>3</sub>, TOC, TP (circle)

AIK, BOD, pH, TDS, TSS (circle)

Dissolved Methane

NA

CI

## ANALYSES (check analysis)

4036 Youngfield St.

Wheat Ridge, Colorado 80033

(303) 425-6021

FAX (303) 425-6854

(877) 737-4521

E-mail info@evergreenanalytical.com

Report Results by:                      (Date)\*

Standard 2 working weeks

U.S. Analyzes per Fee Schedule

\* Rush: ☐ less than 24 hrs. 150% ☐ 1 - 2 work days, 100%☐ 3 - 5 work days, 50% ☐ 6 - 9 work days, 25%

\* Subject to surcharge &amp; exceptions noted in fee schedule.

Does this analysis involve property transfer? ☐ Yes or ☒ No

Instructions: Dissolved Metals need to be filtered

\*\* Important Note: See reverse side hereof for terms and conditions.

Relinquished by: (Signature)

Date/Time

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Date/Time

Received by: (Signature)

Date/Time

Stuart Hall

3-18-09 1630

3-19-07 1000

For Laboratory use only

WO # 01-1839BOF # NAC/S (O) NACooler Temp. °C 2.5Seals Present N/ASeals Intact N/ASamples Present N/AHeadspace N/ABy                     

01

02

03

04

05



**Evergreen Analytical, Inc.**

**Date:** 02-Apr-09

**Lab Order:** 09-1839

**Client Project ID** 008-2067

## **CASE NARRATIVE**

### **SAMPLE RECEIVING**

Custody seals were present and intact.

The temperature of the sample(s) upon arrival was 2.5°C.

Sample(s) were received in good condition, in the proper container, and within holding times.

VOC sample(s) were marked as preserved on the bottle labels.

VOC sample(s) were received with no headspace present. JD

### **QUALITY ASSURANCE (QA)**

Analyses performed on samples in this work order by EAL meet the requirements of the EAL Quality Assurance Program unless otherwise explained. Analyses of RCRA samples meet the requirements of NELAC and Utah Rule R444-14 unless otherwise explained. CMS

### **CLIENT SERVICES**

There are no anomalies to report. PM

### **GENERAL CHEMISTRY**

Chloride : There are no anomalies to report. MM

### **METALS ANALYSIS**

Sodium : There are no anomalies to report. WKH

### **GAS CHROMATOGRAPHY**

Method RSK-175: A sample duplicate (DUP) was prepared and analyzed instead of a matrix spike duplicate (MSD) due to limited sample. There are no other anomalies to report. VM

Method 8021\_W: There are no other anomalies to report. JCC

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: DCS8  
Client Project ID: 008-2067  
Date Collected: 3/18/09 1015  
Date Received: 3/19/09

Lab Work Order 09-1839  
Lab Sample ID: 09-1839-01  
Sample Matrix: Water

<b>Dissolved Metals</b>	<b>Method: SW6010B</b>			<b>Analyst: MAB</b>
	<b>Result</b>	<b>LQL</b>	<b>DF</b>	<b>Units</b>
Sodium	58	0.40	1	mg/L
<b>Aromatic Volatile Organics</b>	<b>Method: SW8021B</b>			<b>Analyst: JCC</b>
	<b>Result</b>	<b>LQL</b>	<b>DF</b>	<b>Units</b>
Benzene	U	1.0	1	µg/L
Ethylbenzene	U	2.0	1	µg/L
m,p-Xylene	U	2.0	1	µg/L
o-Xylene	U	2.0	1	µg/L
Toluene	U	2.0	1	µg/L
<b>Anions by IC</b>	<b>Method: E300.0</b>			<b>Analyst: JL</b>
	<b>Result</b>	<b>LQL</b>	<b>DF</b>	<b>Units</b>
Chloride	12.9	0.50	1	mg/L
<b>RSKSOP-175M Headspace</b>	<b>Method: RSKSOP175M</b>			<b>Analyst: VM</b>
	<b>Result</b>	<b>LQL</b>	<b>DF</b>	<b>Units</b>
Methane	0.0011	0.00080	1	mg/L

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 4/2/2009

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: DCS7  
Client Project ID: 008-2067  
Date Collected: 3/18/09 1030  
Date Received: 3/19/09

Lab Work Order: 09-1839  
Lab Sample ID: 09-1839-02  
Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
58	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: JL

Result	LQL	DF	Units
12.9	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
0.0012	0.00080	1	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 4/2/2009

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: DCS6  
Client Project ID: 008-2067  
Date Collected: 3/18/09 1040  
Date Received: 3/19/09

Lab Work Order 09-1839  
Lab Sample ID: 09-1839-03  
Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
57	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: JL

Result	LQL	DF	Units
12.8	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
0.0011	0.00080	1	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 4/2/2009

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: DCS5  
Client Project ID: 008-2067  
Date Collected: 3/18/09 1100  
Date Received: 3/19/09

Lab Work Order: 09-1839  
Lab Sample ID: 09-1839-04  
Sample Matrix: Water

## Dissolved Metals

Method: SW6010B

Analyst: MAB

Result	LQL	DF	Units
58	0.40	1	mg/L

Sodium

## Aromatic Volatile Organics

Method: SW8021B

Analyst: JCC

Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0

Analyst: JL

Result	LQL	DF	Units
12.8	0.50	1	mg/L

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Analyst: VM

Result	LQL	DF	Units
0.0012	0.00080	1	mg/L

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 4/2/2009

## SUMMARY OF SAMPLE RESULTS

## Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: DCS4  
Client Project ID: 008-2067  
Date Collected: 3/18/09 1110  
Date Received: 3/19/09

Lab Work Order 09-1839  
Lab Sample ID: 09-1839-05  
Sample Matrix: Water

<b>Dissolved Metals</b>	<b>Method: SW6010B</b>			<b>Analyst: MAB</b>
	<b>Result</b>	<b>LQL</b>	<b>DF</b>	<b>Units</b>
Sodium	61	0.40	1	mg/L
<b>Aromatic Volatile Organics</b>	<b>Method: SW8021B</b>			<b>Analyst: JCC</b>
	<b>Result</b>	<b>LQL</b>	<b>DF</b>	<b>Units</b>
Benzene	U	1.0	1	µg/L
Ethylbenzene	U	2.0	1	µg/L
m,p-Xylene	U	2.0	1	µg/L
o-Xylene	U	2.0	1	µg/L
Toluene	U	2.0	1	µg/L
<b>Anions by IC</b>	<b>Method: E300.0</b>			<b>Analyst: JL</b>
	<b>Result</b>	<b>LQL</b>	<b>DF</b>	<b>Units</b>
Chloride	12.8	0.50	1	mg/L
<b>RSKSOP-175M Headspace</b>	<b>Method: RSKSOP175M</b>			<b>Analyst: VM</b>
	<b>Result</b>	<b>LQL</b>	<b>DF</b>	<b>Units</b>
Methane	0.00096	0.00080	1	mg/L

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 4/2/2009

# Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: DCS8  
Client Project ID: 008-2067  
Date Collected: 3/18/2009  
Date Received: 3/19/2009

Lab Work Order 09-1839  
Lab Sample ID: 09-1839-01A  
Sample Matrix: Water

## AROMATIC VOLATILE ORGANICS

Method: SW8021B

Prep Method: SW5030B

Date Prepared: 3/24/2009

Lab File ID: 032409\TA006

Dilution Factor: 1

Date Analyzed: 3/24/2009

Method Blank: MB2032409

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	89	QC Limits: 60-140	%REC

*Jcc*

Analyst

*Jm*

Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

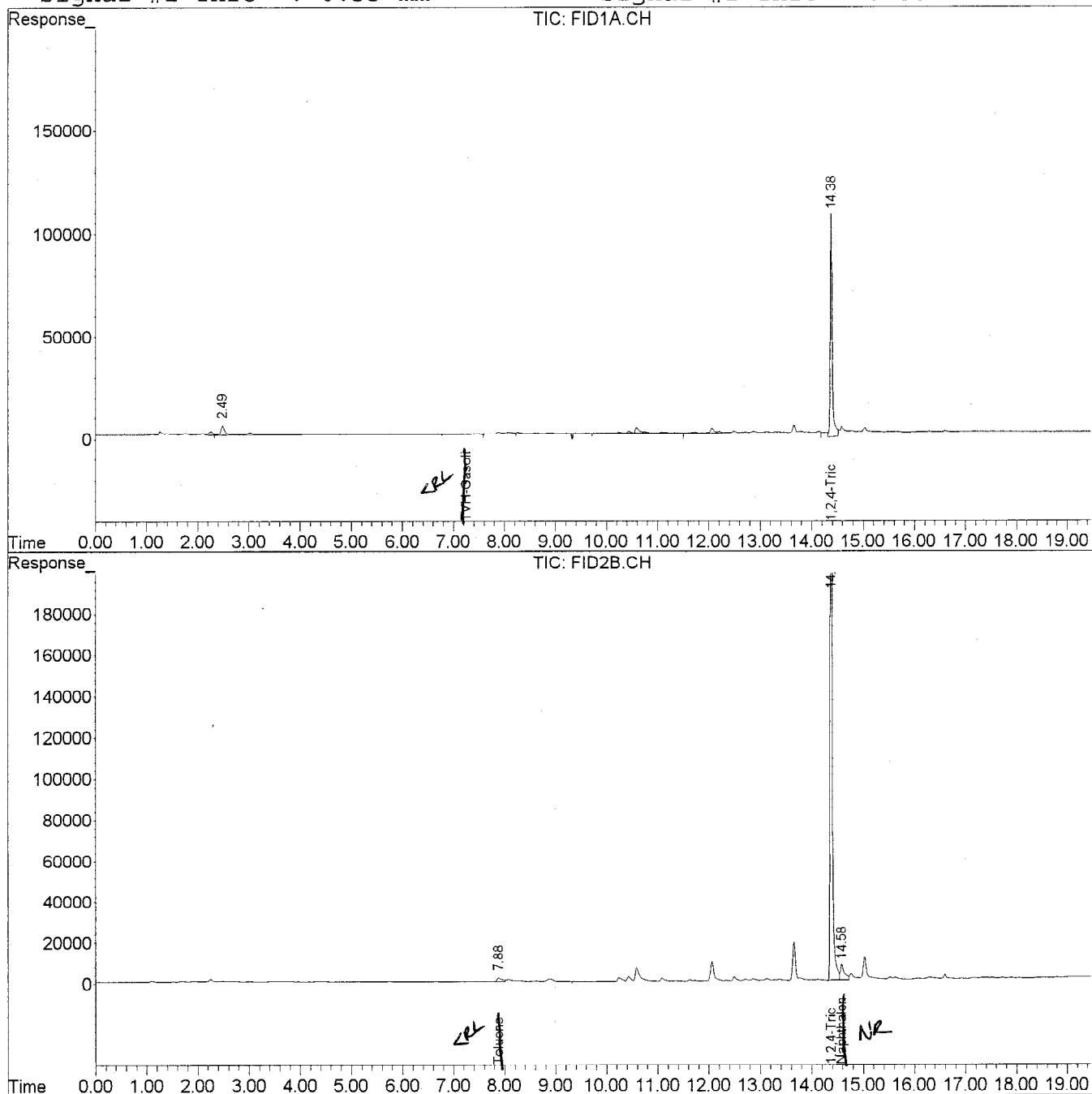
**Definitions:** LQL - Lower Quantitation Limit  
Surr - Surrogate

Print Date: 3/25/2009

Signal #1 : E:\DATA\032409\TA006.D\FID1A.CH Vial: 6  
Signal #2 : E:\DATA\032409\TA006.D\FID2B.CH  
Acq On : 24 Mar 2009 12:24 pm Operator: Jennifer C  
Sample : 09-1839-01A Inst : TVHBTEX2  
Misc : ,SAMP,8021\_S,TVH\_W,1, Multiplr: 1.00  
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
Quant Time: Mar 24 13:44 2009 Quant Results File: TW20314D.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX  
Last Update : Wed Mar 18 11:41:15 2009  
Response via : Multiple Level Calibration  
DataAcq Meth : TVB2.M

Volume Inj. :  
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624  
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





# Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: DCS7  
Client Project ID: 008-2067  
Date Collected: 3/18/2009  
Date Received: 3/19/2009

Lab Work Order 09-1839  
Lab Sample ID: 09-1839-02A  
Sample Matrix: Water

## AROMATIC VOLATILE ORGANICS

Method: SW8021B

Prep Method: SW5030B

Date Prepared: 3/24/2009

Lab File ID: 032409\TA009

Dilution Factor: 1

Date Analyzed: 3/24/2009

Method Blank: MB2032409

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	89	QC Limits: 60-140	%REC

*JCC*

Analyst

*Jm*

Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
Surr - Surrogate

Print Date: 3/25/2009

Signal #1 : E:\DATA\032409\TA009.D\FID1A.CH

Vial: 9

Signal #2 : E:\DATA\032409\TA009.D\FID2B.CH

Acq On : 24 Mar 2009 2:07 pm

Operator: Jennifer C

Sample : 09-1839-02A

Inst : TVHBTEX2

Misc : ,SAMP,8021\_W,TVH\_W,1,

Multiplr: 1.00

IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E

Quant Time: Mar 24 15:27 2009 Quant Results File: TW20314D.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)

Title : 8015B/8021B TVH/BTEX

Last Update : Wed Mar 18 11:41:15 2009

Response via : Multiple Level Calibration

DataAcq Meth : TVB2.M

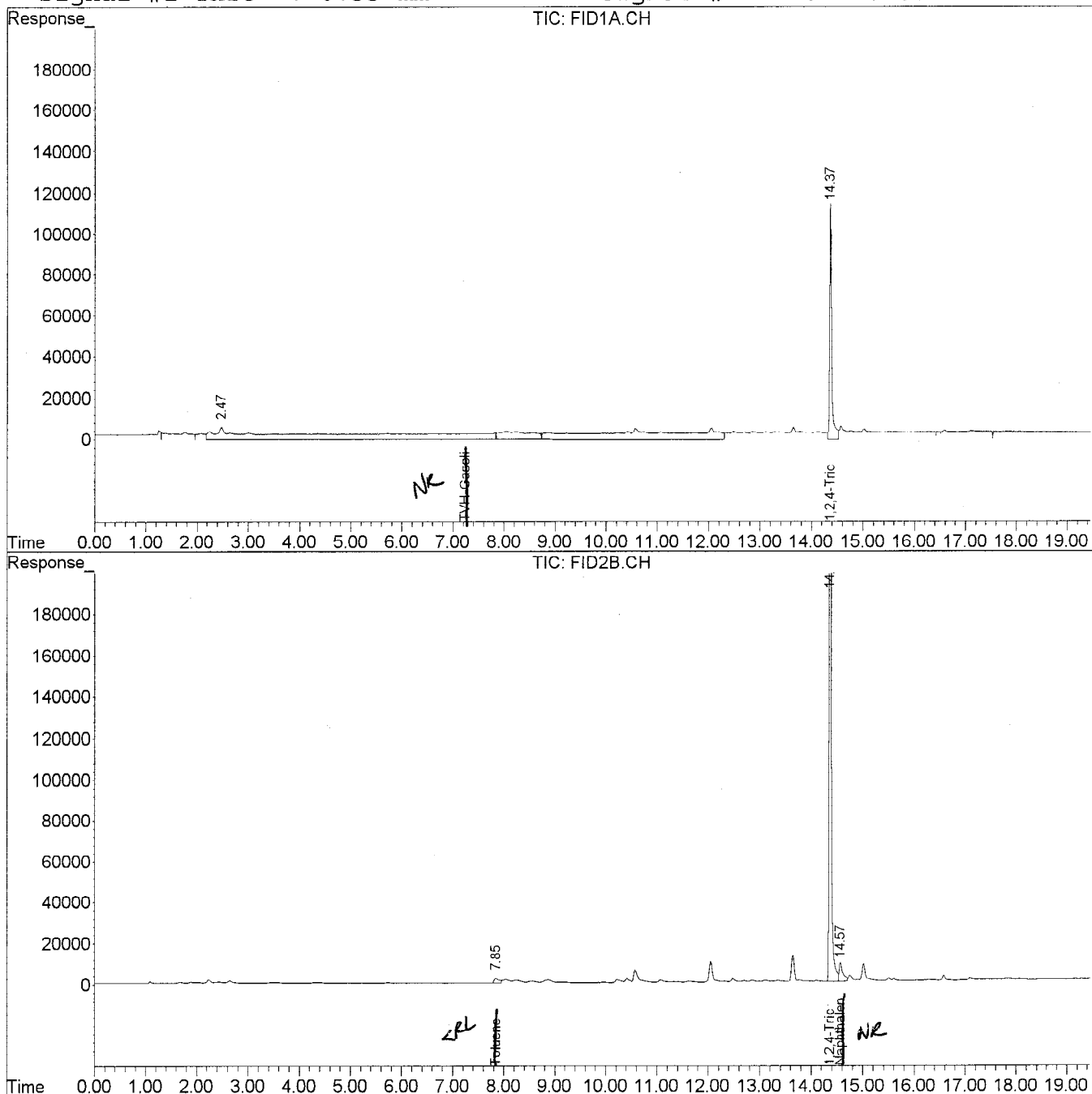
Volume Inj. :

Signal #1 Phase : DB-624

Signal #2 Phase: DB-624

Signal #1 Info : 0.53 mm

Signal #2 Info : 0.53 mm



# Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: DCS6  
Client Project ID: 008-2067  
Date Collected: 3/18/2009  
Date Received: 3/19/2009

Lab Work Order 09-1839  
Lab Sample ID: 09-1839-03A  
Sample Matrix: Water

## AROMATIC VOLATILE ORGANICS

Method: SW8021B

Prep Method: SW5030B

Date Prepared: 3/24/2009

Lab File ID: 032409\TA010

Dilution Factor: 1

Date Analyzed: 3/24/2009

Method Blank: MB2032409

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	88	QC Limits: 60-140	%REC

*Jcc*

Analyst

*Jm*

Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

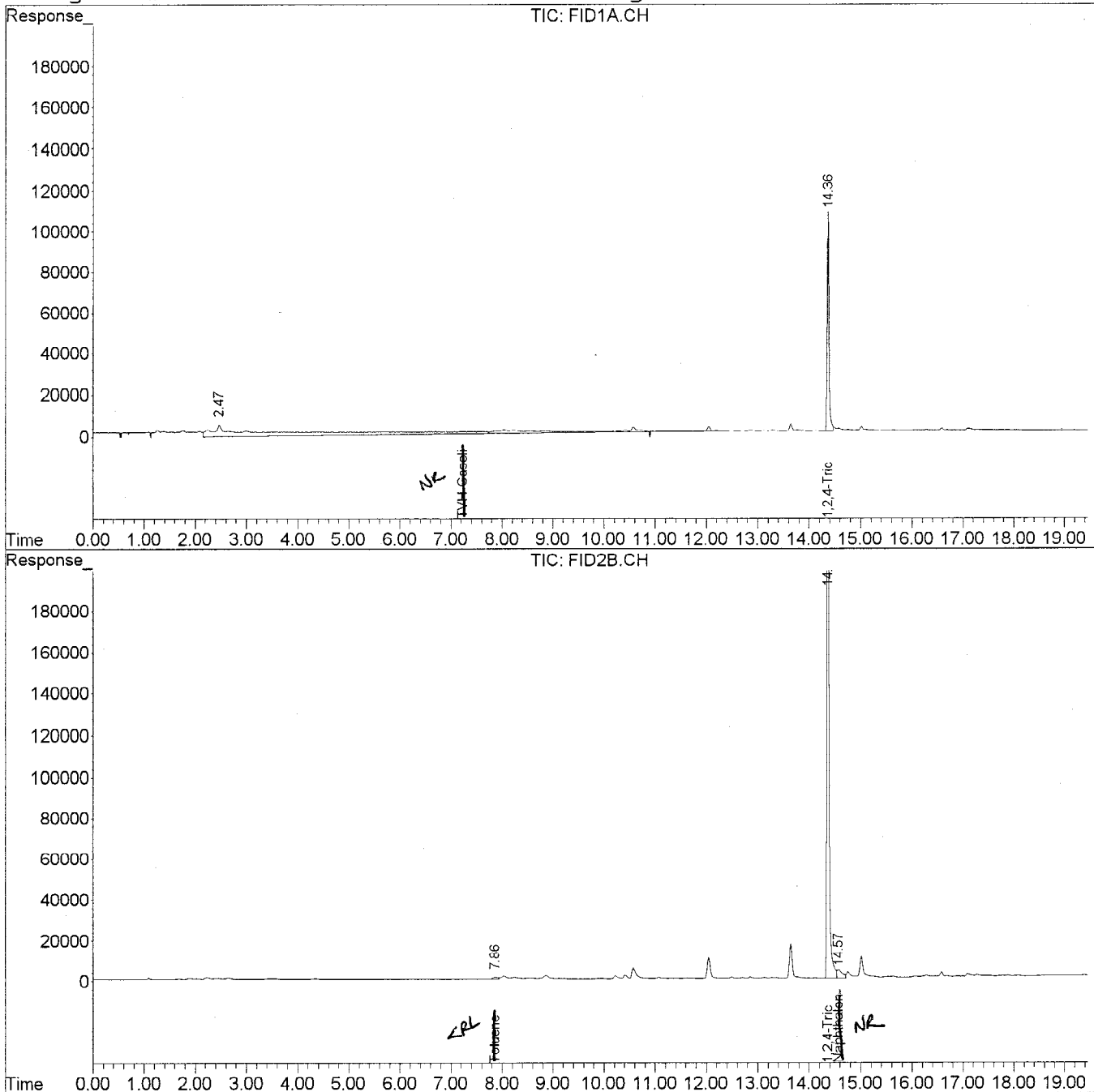
**Definitions:** LQL - Lower Quantitation Limit  
Surr - Surrogate

Print Date: 3/25/2009

Signal #1 : E:\DATA\032409\TA010.D\FID1A.CH Vial: 10  
Signal #2 : E:\DATA\032409\TA010.D\FID2B.CH  
Acq On : 24 Mar 2009 2:42 pm Operator: Jennifer C  
Sample : 09-1839-03A Inst : TVHBTEX2  
Misc : ,SAMP,8021\_W,TVH\_W,1, Multiplr: 1.00  
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
Quant Time: Mar 24 16:02 2009 Quant Results File: TW20314D.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX  
Last Update : Wed Mar 18 11:41:15 2009  
Response via : Multiple Level Calibration  
DataAcq Meth : TVB2.M

Volume Inj. :  
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624  
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm



**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

**Client Sample ID:** DCS5  
**Client Project ID:** 008-2067  
**Date Collected:** 3/18/2009  
**Date Received:** 3/19/2009

**Lab Work Order** 09-1839  
**Lab Sample ID:** 09-1839-04A  
**Sample Matrix:** Water

**AROMATIC VOLATILE ORGANICS**

**Method:** SW8021B

**Prep Method:** SW5030B

**Date Prepared:** 3/24/2009

**Lab File ID:** 032409\TA011

**Dilution Factor:** 1

**Date Analyzed:** 3/24/2009

**Method Blank:** MB2032409

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	88	<b>QC Limits:</b> 60-140	%REC

*Jcc*

**Analyst**

*[Signature]*

**Approved**

**Notes:** Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 S - Spike Recovery outside accepted limits  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** LQL - Lower Quantitation Limit  
 Surr - Surrogate

Print Date: 3/25/2009

Signal #1 : E:\DATA\032409\TA011.D\FID1A.CH

Vial: 11

Signal #2 : E:\DATA\032409\TA011.D\FID2B.CH

Acq On : 24 Mar 2009 3:16 pm

Operator: Jennifer C

Sample : 09-1839-04A

Inst : TVHBTEX2

Misc : ,SAMP,8021\_W,TVH\_W,1,

Multiplr: 1.00

IntFile Signal #1: TVH1.E

IntFile Signal #2: FB2.E

Quant Time: Mar 24 16:36 2009 Quant Results File: TW20314D.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)

Title : 8015B/8021B TVH/BTEX

Last Update : Wed Mar 18 11:41:15 2009

Response via : Multiple Level Calibration

DataAcq Meth : TVB2.M

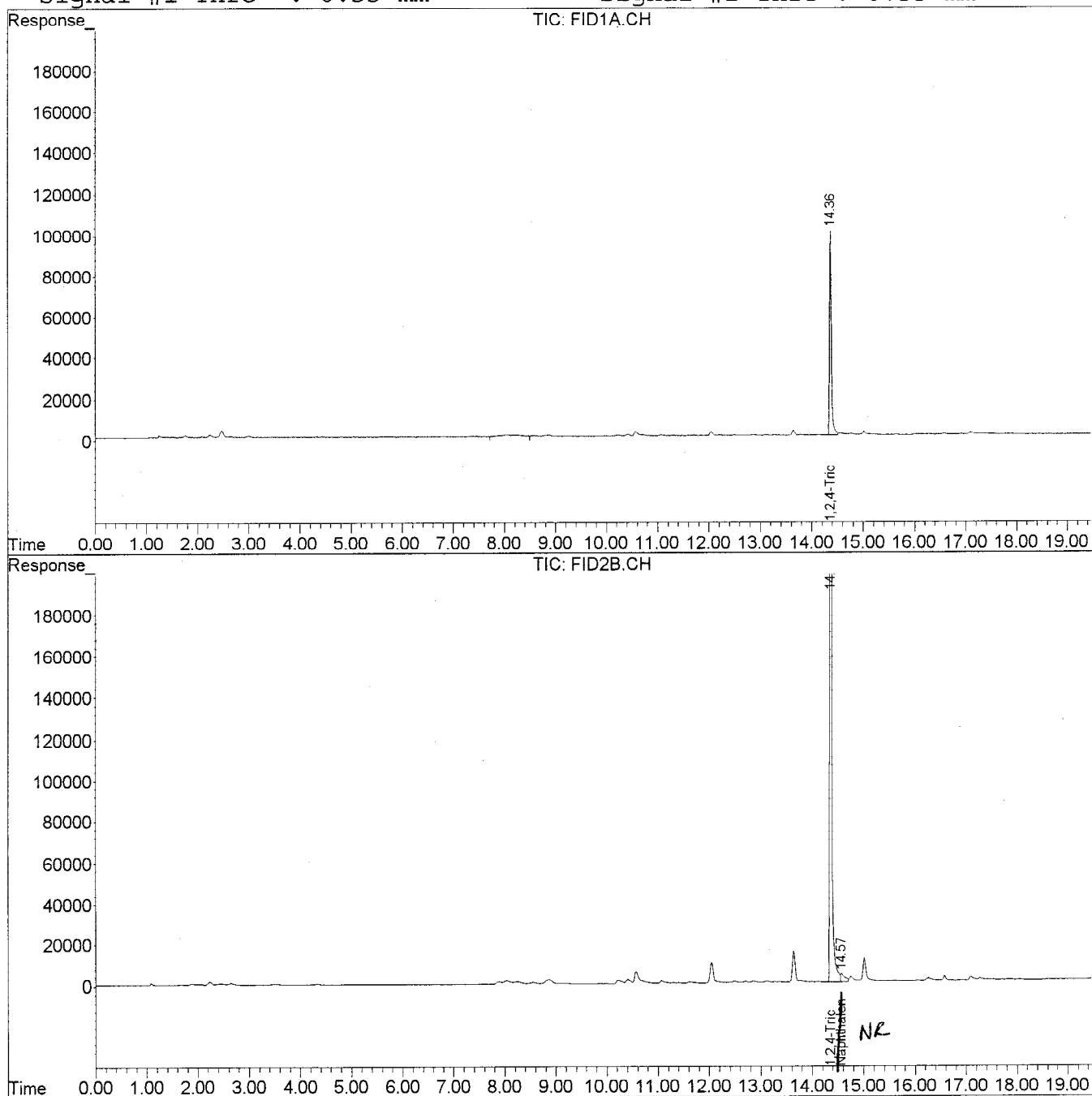
Volume Inj. :

Signal #1 Phase : DB-624

Signal #2 Phase: DB-624

Signal #1 Info : 0.53 mm

Signal #2 Info : 0.53 mm



JCC 03/24/09

# Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: DCS4  
Client Project ID: 008-2067  
Date Collected: 3/18/2009  
Date Received: 3/19/2009

Lab Work Order 09-1839  
Lab Sample ID: 09-1839-05A  
Sample Matrix: Water

## AROMATIC VOLATILE ORGANICS

Method: SW8021B

Prep Method: SW5030B

Date Prepared: 3/24/2009

Lab File ID: 032409\TA012

Dilution Factor: 1

Date Analyzed: 3/24/2009

Method Blank: MB2032409

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	91	QC Limits: 60-140	%REC

  
Analyst

  
Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

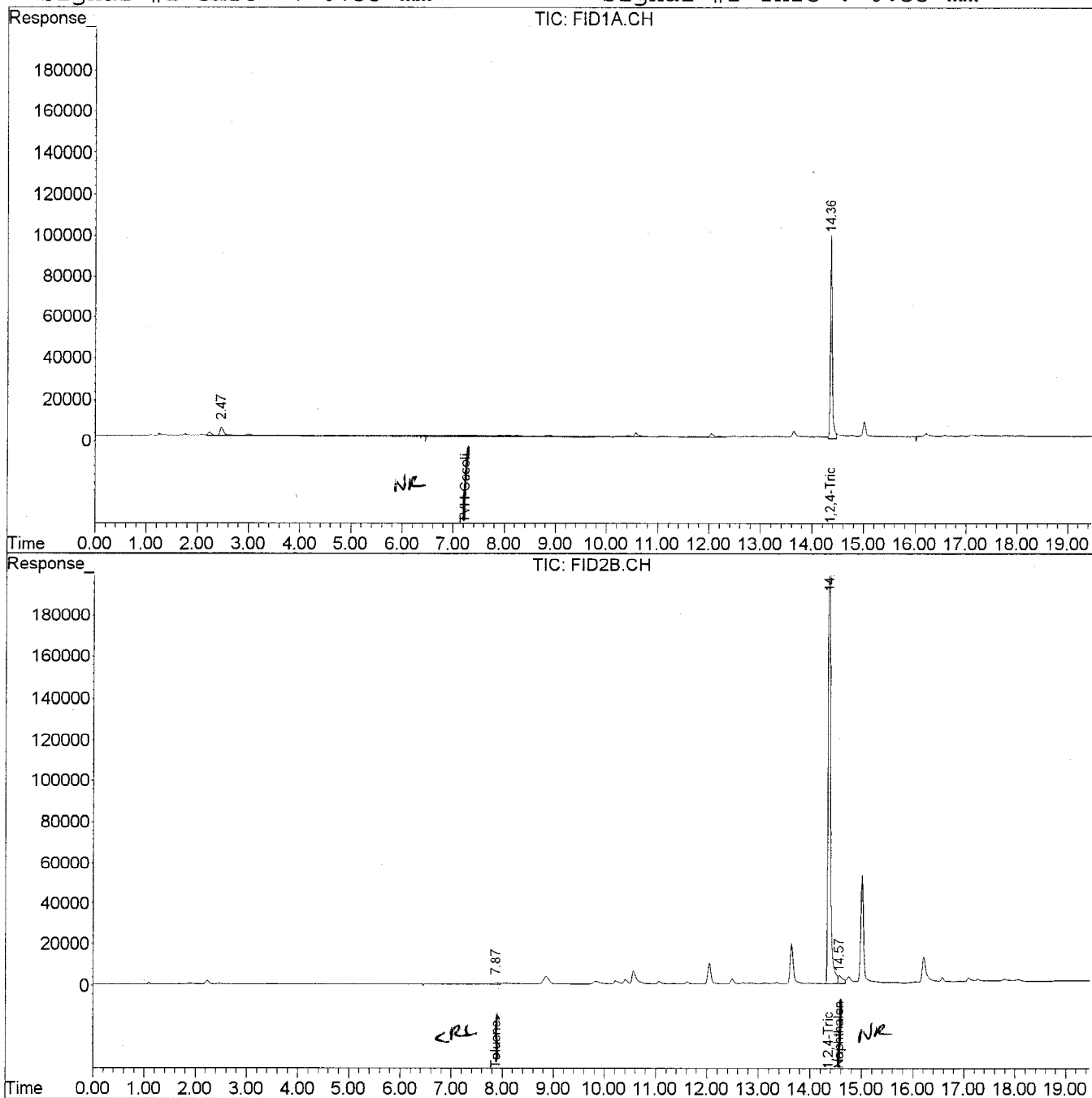
**Definitions:** LQL - Lower Quantitation Limit  
Surr - Surrogate

Print Date: 3/25/2009

Signal #1 : E:\DATA\032409\TA012.D\FID1A.CH Vial: 12  
Signal #2 : E:\DATA\032409\TA012.D\FID2B.CH  
Acq On : 24 Mar 2009 3:51 pm Operator: Jennifer C  
Sample : 09-1839-05A Inst : TVHBTEX2  
Misc : ,SAMP,8021\_W,TVH\_W,1, Multiplr: 1.00  
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
Quant Time: Mar 25 9:08 2009 Quant Results File: TW20314D.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX  
Last Update : Wed Mar 18 11:41:15 2009  
Response via : Multiple Level Calibration  
DataAcq Meth : TVB2.M

Volume Inj. :  
Signal #1 Phase : DB-624 Signal #2 Phase: DB-624  
Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm





**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

Client Project ID 008-2067

 Lab Order: 09-1839  
 Units: mg/L

**RSKSOP-175M Headspace**

Method: RSKSOP175M

Methane

Prep Method: RSKSOP175M

Lab ID	Client ID	Matrix	Date Received	Collection Date	Date Prepared	Date Analyzed	Results	LQL	DF
09-1839-01B	DCS8	Water	3/19/09	3/18/09	3/24/09	3/24/09	0.0011	0.00080	1
09-1839-02B	DCS7	Water	3/19/09	3/18/09	3/24/09	3/24/09	0.0012	0.00080	1
09-1839-03B	DCS6	Water	3/19/09	3/18/09	3/24/09	3/24/09	0.0011	0.00080	1
09-1839-04B	DCS5	Water	3/19/09	3/18/09	3/24/09	3/24/09	0.0012	0.00080	1
09-1839-05B	DCS4	Water	3/19/09	3/18/09	3/24/09	3/24/09	0.00096	0.00080	1

Comments:

 VM  
 Analyst

 27  
 Approved

Qualifiers: J - Indicates an estimated value when the compound is detected, but is below the LQL

H - Sample analysis exceeded analytical holding time

U - Compound analyzed for but not detected

X - See case narrative

\* - Value exceeds Maximum Contamination Level(MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: DF - Dilution Factor

LQL - Lower Quantitation Limit

Print Date: 3/24/2009

# Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Project ID 008-2067  
Date Received: 3/19/09

Lab Order: 09-1839  
Date Prepared: 3/30/09  
Units: mg/L

## Dissolved Metals

### Sodium

Method: SW6010B

Prep Method: E200.7/SW3010A

Lab ID	Client ID	Matrix	Date Collected	Date Analyzed	Results	LQL	DF
09-1839-01C	DCS8	Water	3/18/09	4/1/09	58	0.40	1
09-1839-02C	DCS7	Water	3/18/09	4/1/09	58	0.40	1
09-1839-03C	DCS6	Water	3/18/09	4/1/09	57	0.40	1
09-1839-04C	DCS5	Water	3/18/09	4/1/09	58	0.40	1
09-1839-05C	DCS4	Water	3/18/09	4/1/09	61	0.40	1

MB/ume  
Analyst

WLF  
Approved

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** DF - Dilution Factor  
PF - Prep Factor  
LQL - Lower Quantitation Limit

Print Date: 4/2/2009

**Evergreen Analytical, Inc.**  
 4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
 (303) 425-6021

Client Project ID 008-2067

 Lab Order: 09-1839  
 Units: mg/L

**Anions by IC  
Chloride**

Method: E300.0

Prep Method: E300.0

Lab ID	Client ID	Matrix	Date Received	Collection Date	Date Prepared	Date Analyzed	Results	LQL	DF
09-1839-01D	DCS8	Water	3/19/09	3/18/09 1015	3/20/09	3/20/09 1132	12.9	0.50	1
09-1839-02D	DCS7	Water	3/19/09	3/18/09 1030	3/20/09	3/20/09 1145	12.9	0.50	1
09-1839-03D	DCS6	Water	3/19/09	3/18/09 1040	3/20/09	3/20/09 1157	12.8	0.50	1
09-1839-04D	DCS5	Water	3/19/09	3/18/09 1100	3/20/09	3/20/09 1210	12.8	0.50	1
09-1839-05D	DCS4	Water	3/19/09	3/18/09 1110	3/20/09	3/20/09 1223	12.8	0.50	1

Comments:

  
 Analyst

  
 Approved

**Qualifiers:**

J - Indicates an estimated value when the compound is detected, but is below the LQL

H - Sample analysis exceeded analytical holding time

U - Compound analyzed for but not detected

X - See case narrative

\* Value exceeds Maximum Contamination Level(MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:**

DF - Dilution Factor

LQL - Lower Quantitation Limit

Print Date: 3/23/09

## **QUALITY ASSURANCE REPORTS**

**METHOD BLANKS (MB)**

**LABORATORY CONTROL SPIKES (LCS)**

**MATRIX SPIKES (MS/MSD)\***

**DUPLICATES (DUP)\***

- **For Metals or Wet Chemistry analyses: only included if requested.**

Work Order: 09-1839  
Client Project ID: 008-2067

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8021\_W

Sample ID: MB2032409	Sample Type: MBLK	TestCode: 8021_W	Run ID: TVHBTX2_090324A	Prep Date: 3/24/2009	Units: µg/L
Batch ID: R46049	TestNo: SW8021B	FileID: 0324091TA004	Analysis Date: 3/24/2009	SeqNo: 816916	
Analyte	Result	LCL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Benzene	U	1.0			
Toluene	U	2.0			
Ethylbenzene	U	2.0			
m,p-Xylene	U	2.0			
o-Xylene	U	2.0			
Surr: 1,2,4-Trichlorobenzene (S)	93.48	0	100	0	93.5 60 140 0 0

Sample ID: MEB032309	Sample Type: MBLK	TestCode: 8021_W	Run ID: TVHBTX2_090324A	Prep Date: 3/24/2009	Units: µg/L
Batch ID: R46049	TestNo: SW8021B	FileID: 0324091TA026	Analysis Date: 3/24/2009	SeqNo: 816936	
Analyte	Result	LCL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Benzene	U	100			
Toluene	U	200			
Ethylbenzene	U	200			
m,p-Xylene	U	200			
o-Xylene	U	200			
Surr: 1,2,4-Trichlorobenzene (S)	87.71	0	10000	0	87.7 60 140 0 0

Sample ID: LCS2032409	Sample Type: LCS	TestCode: 8021_W	Run ID: TVHBTX2_090324A	Prep Date: 3/24/2009	Units: µg/L
Batch ID: R46049	TestNo: SW8021B	FileID: 0324091TA005	Analysis Date: 3/24/2009	SeqNo: 816917	
Analyte	Result	LCL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual

Benzene	26.05	1.0	25.5	0	102	70	130	0	0
Toluene	178.6	2.0	183.6	0	97.3	70	130	0	0
Ethylbenzene	39.09	2.0	36.8	0	106	70	130	0	0
m,p-Xylene	144.4	2.0	136.3	0	106	70	130	0	0
o-Xylene	61.54	2.0	57.2	0	108	70	130	0	0
Surr: 1,2,4-Trichlorobenzene (S)	122.7	0	100	0	123	60	140	0	0

Qualifiers: U - Not detected at or above the Reporting Limit  
I - Analyte detected below quantitation limits  
S - Spike Recovery outside acceptance limits  
E - Extrapolated value, value exceeds calibration range  
R - RPD outside acceptance limits  
B - Analyte detected in the associated Method Blank  
H - Prep or analytical holding time exceeded  
X - See case narrative

Work Order: 09-1839  
Client Project ID: 008-2067

# ANALYTICAL QC SUMMARY REPORT

TestCode: 8021\_W

Sample ID: 09-1839-01AMS	Sample Type: MS	TestCode: 8021_W	Run ID: TVHBTEx2_090324A	Prep Date: 3/24/2009	Units: µg/L
Client ID: DCS8	Batch ID: R46049	TestNo: SW8021B	File ID: 0324091TA007	Analysis Date: 3/24/2009	SeqNo: 816919
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	26.18	1.0	25.5	0	103 70 130 0 0
Toluene	179.3	2.0	183.6	0	97.7 70 130 0 0
Ethylbenzene	39.34	2.0	36.8	0	107 62 130 0 0
m,p-Xylene	145.1	2.0	136.3	0	106 70 134 0 0
o-Xylene	61.86	2.0	57.2	0	108 63 130 0 0
Surr: 1,2,4-Trichlorobenzene (S)	120	0	100	0	120 60 140 0 0

Sample ID: 09-1839-01AMS	Sample Type: MSD	TestCode: 8021_W	Run ID: TVHBTEx2_090324A	Prep Date: 3/24/2009	Units: µg/L
Client ID: DCS8	Batch ID: R46049	TestNo: SW8021B	File ID: 0324091TA008	Analysis Date: 3/24/2009	SeqNo: 816920
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Benzene	26.49	1.0	25.5	0	104 70 130 26.18 1.19 30
Toluene	181.9	2.0	183.6	0	99.1 70 130 179.3 1.45 30
Ethylbenzene	39.98	2.0	36.8	0	109 62 130 39.34 1.62 30
m,p-Xylene	147.3	2.0	136.3	0	108 70 134 145.1 1.50 30
o-Xylene	62.68	2.0	57.2	0	110 63 130 61.86 1.32 30
Surr: 1,2,4-Trichlorobenzene (S)	123.2	0	100	0	123 60 140 0 0

## Qualifiers:

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S - Spike Recovery outside acceptance limits  
E - Extrapolated value, value exceeds calibration range

R - RPD outside acceptance limits  
B - Analyte detected in the associated Method Blank  
H - Prep or analytical holding time exceeded  
X - See case narrative

Evergreen Analytical, Inc.

Date: 24-Mar-09

Work Order: 09-1839  
Client Project ID: 008-2067

## ANALYTICAL QC SUMMARY REPORT

TestCode: MEEP\_W

Sample ID: GB032409	SampleType: MBLK	TestCode: MEEP_W	Run ID: FID4_090324A	Prep Date: 3/24/2009	Units: mg/L
Batch ID: GAS032409	TestNo: RSKSOP175	FileID: FB017	Analysis Date: 3/24/2009	SeqNo: 816426	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Methane	U	0.00080			
Sample ID: LCS032409	SampleType: LCS	TestCode: MEEP_W	Run ID: FID4_090324A	Prep Date: 3/24/2009	Units: mg/L
Batch ID: GAS032409	TestNo: RSKSOP175	FileID: FB018	Analysis Date: 3/24/2009	SeqNo: 816427	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Methane	0.6082	0.0080	0.5094	0	119 70 130 0 0
Sample ID: LCSD032409	SampleType: LCSD	TestCode: MEEP_W	Run ID: FID4_090324A	Prep Date: 3/24/2009	Units: mg/L
Batch ID: GAS032409	TestNo: RSKSOP175	FileID: FB019	Analysis Date: 3/24/2009	SeqNo: 816428	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Methane	0.5997	0.0080	0.5094	0	118 70 130 0.6082 1.41 30
Sample ID: 09-1839-02BMS	SampleType: MS	TestCode: MEEP_W	Run ID: FID4_090324A	Prep Date: 3/24/2009	Units: mg/L
Client ID: DCS7	Batch ID: GAS032409	TestNo: RSKSOP175	FileID: FB030	Analysis Date: 3/24/2009	SeqNo: 816422
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Methane	0.5941	0.0080	0.5094	0.001167	117 70 130 0 0
Sample ID: 09-1839-01BDUP	SampleType: DUP	TestCode: MEEP_W	Run ID: FID4_090324A	Prep Date: 3/24/2009	Units: mg/L
Client ID: DCS8	Batch ID: GAS032409	TestNo: RSKSOP175	FileID: FB029	Analysis Date: 3/24/2009	SeqNo: 816420
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Methane	0.001114	0.00080	0	0	0 0 0.001074 3.69 30

## Qualifiers:

U - Not detected at or above the Reporting Limit  
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S - Spike Recovery outside acceptance limits  
E - Extrapolated value, value exceeds calibration range.  
R - RPD outside acceptance limits  
B - Analyte detected in the associated Method Blank  
H - Prep or analytical holding time exceeded  
X - See case narrative

Evergreen Analytical, Inc.

Date: 02-Apr-09

Work Order: 09-1839  
Client Project ID: 008-2067

## ANALYTICAL QC SUMMARY REPORT

BatchID: 18612

Sample ID: MB-18612	Sample Type: MBLK	TestCode: 200.7_D	Run ID: ICP-OPTIMA 5300 DV_090401A	Prep Date: 3/30/2009	Units: mg/L
Batch ID: 18612	TestNo: E200.7, Rev.	FileID: 040109AM	Analysis Date: 4/1/2009	SeqNo: 820443	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Sodium	0	0.400			
Sample ID: MB-18612	Sample Type: MBLK	TestCode: 200.7_D	Run ID: ICP-OPTIMA 5300 DV_090401B	Prep Date: 3/30/2009	Units: mg/L
Batch ID: 18612	TestNo: E200.7, Rev.	FileID: 040109DY	Analysis Date: 4/2/2009	SeqNo: 820723	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Sodium	0	0.400			
Sample ID: LCS-18612	Sample Type: LCS	TestCode: 200.7_D	Run ID: ICP-OPTIMA 5300 DV_090401A	Prep Date: 3/30/2009	Units: mg/L
Batch ID: 18612	TestNo: E200.7, Rev.	FileID: 040109AM	Analysis Date: 4/1/2009	SeqNo: 820444	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Sodium	8.966	0.400	10	0	89.7 85 115 0 0
Sample ID: LCS-18612	Sample Type: LCS	TestCode: 200.7_D	Run ID: ICP-OPTIMA 5300 DV_090401B	Prep Date: 3/30/2009	Units: mg/L
Batch ID: 18612	TestNo: E200.7, Rev.	FileID: 040109DY	Analysis Date: 4/2/2009	SeqNo: 820724	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Sodium	10.5	0.400	10	0	105 85 115 0 0
Sample ID: 09-1839-01CMS	Sample Type: MS	TestCode: 6010_D	Run ID: ICP-OPTIMA 5300 DV_090401B	Prep Date: 3/30/2009	Units: mg/L
Client ID: DCS8	Batch ID: 18612	TestNo: SW6010B	FileID: 040109DY	Analysis Date: 4/1/2009	SeqNo: 820677
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Sodium	73.23	0.50	12.5	57.87	123 75 125 0 0

## Qualifiers:

U - Not detected at or above the Reporting Limit  
J - Analyte detected below quantitation limits  
S - Spike Recovery outside acceptance limits  
E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits  
B - Analyte detected in the associated Method Blank  
H - Prep or analytical holding time exceeded  
X - See case narrative



Work Order: 09-1839  
Client Project ID: 008-2067

## ANALYTICAL QC SUMMARY REPORT

BatchID: 18612

Sample ID: 09-1839-01CICMSD	Sample Type: MSD	Test Code: 6010_D	Run ID: ICP-OPTIMA 5300 DV_090401B	Prep Date: 3/30/2009	Units: mg/L
Client ID: DCS8	Batch ID: 18612	Test No: SW6010B	File ID: 040109DY	Analysis Date: 4/1/2009	SeqNo: 820678
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Sodium	72.98	0.50	12.5	57.87	121 75 125 73.23 0.340 20

## Qualifiers:

U - Not detected at or above the Reporting Limit  
J - Analyte detected below quantitation limits  
S - Spike Recovery outside acceptance limits  
E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits  
B - Analyte detected in the associated Method Blank  
H - Prep or analytical holding time exceeded  
X - See case narrative

Evergreen Analytical, Inc.

Date: 23-Mar-09

Work Order: 09-1839  
Client Project ID: 008-2067

## ANALYTICAL QC SUMMARY REPORT

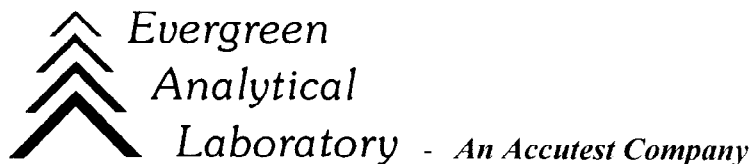
TestCode: ANIONS\_NonDW

Sample ID: MB 03/20/09	Sample Type: MBLK	TestCode: ANIONS_Non	Run ID: IC-DX120_090320A	Prep Date: 3/20/09	Units: mg/L
Batch ID: R45981	TestNo: E300.0	FileID:	Analysis Date: 3/20/09	SeqNo: 815537	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chloride	U	0.50			
Sample ID: LCS ALLT218076	Sample Type: LCS	TestCode: ANIONS_Non	Run ID: IC-DX120_090320A	Prep Date: 3/20/09	Units: mg/L
Batch ID: R45981	TestNo: E300.0	FileID:	Analysis Date: 3/20/09	SeqNo: 815536	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC LowLimit HighLimit RPD Ref Val %RPD RPDLimit Qual
Chloride	21.22	2.5	20	0	106 90 110 0 0

## Qualifiers:

U - Not detected at or above the Reporting Limit  
J - Analyte detected below quantitation limits  
S - Spike Recovery outside acceptance limits  
E - Extrapolated value, value exceeds calibration range.

R - RPD outside acceptance limits  
B - Analyte detected in the associated Method Blank  
H - Prep or analytical holding time exceeded  
X - See case narrative



April 02, 2009

Stuart Hall  
Ollson Associates  
826 21 1/2 Road  
Grand Junction, CO 81505

Lab Work Order: 09-1839  
Client Project ID: 008-2067

Dear Stuart Hall:

Enclosed are the analytical results for the samples shown in the Laboratory Work Order Summary. The invoice is included with this report or has been mailed to another party as indicated on the chain of custody.

The enclosed data for testing performed at Evergreen Analytical Laboratory (EAL) have been reviewed for quality assurance. A case narrative is included to describe any anomalies associated with the samples or data.

EAL will dispose of all samples 44 days from the sample receipt date. If you want samples returned, please advise us by mail or fax as soon as possible.

A copy of this project report and supporting data will be retained for a period of five years unless we are otherwise advised by you. A document retrieval charge will apply.

Thank you for using the services of Evergreen Analytical. If you have any questions concerning the analytical data, please contact me. Please direct other questions to Client Services.

Sincerely,

A handwritten signature in black ink, appearing to read "Carl Smits".

Joseph J Egry IV/ Carl Smits  
Quality Assurance



# WORK ORDER Summary

Evergreen Analytical, Inc.

09-1798

Rpt To: Stuart Hall

Email To: shall@oaoconsulting.com

Ollson Associates

826 21 1/2 Road

Grand Junction, CO 81505

(970) 263-7800

3/18/2009 11:50:32 AM

Client Project ID: 008-2067

QC Level: Level I

## Comments:

Sample ID	Client Sample ID	Matrix	Collection Date	Date Received	Test Code	Test Name	Hold MS	Date Due	Hold Time
09-1798-01A	MW 1	Water	3/17/09 1020	3/18/09	8021_W *	8021: BTEX	<input type="checkbox"/>	3/23/09	3/24/09
09-1798-01B	MW 1	Water	3/17/09 1020	3/18/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	4/01/09	3/24/09
09-1798-01C	MW 1	Water	3/17/09 1020	3/18/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	4/01/09	9/13/09
09-1798-01D	MW 1	Water	3/17/09 1020	3/18/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	4/01/09	3/19/09
09-1798-02A	MW 2	Water	3/17/09 1100	3/18/09	8021_W *	8021: BTEX	<input type="checkbox"/>	3/23/09	3/24/09
09-1798-02B	MW 2	Water	3/17/09 1100	3/18/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	4/01/09	3/24/09
09-1798-02C	MW 2	Water	3/17/09 1100	3/18/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	4/01/09	9/13/09
09-1798-02D	MW 2	Water	3/17/09 1100	3/18/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	4/01/09	3/19/09
09-1798-03A	MW 26	Water	3/17/09 1130	3/18/09	8021_W *	8021: BTEX	<input type="checkbox"/>	3/23/09	3/24/09
09-1798-03B	MW 26	Water	3/17/09 1130	3/18/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	4/01/09	3/24/09
09-1798-03C	MW 26	Water	3/17/09 1130	3/18/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	4/01/09	9/13/09
09-1798-03D	MW 26	Water	3/17/09 1130	3/18/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	4/01/09	3/19/09
09-1798-04A	MW 24	Water	3/17/09 1240	3/18/09	8021_W *	8021: BTEX	<input type="checkbox"/>	3/23/09	3/24/09
09-1798-04B	MW 24	Water	3/17/09 1240	3/18/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	4/01/09	3/24/09
09-1798-04C	MW 24	Water	3/17/09 1240	3/18/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	4/01/09	9/13/09
09-1798-04D	MW 24	Water	3/17/09 1240	3/18/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	4/01/09	3/19/09
09-1798-05A	MW 25	Water	3/17/09 1030	3/18/09	8021_W *	8021: BTEX	<input type="checkbox"/>	3/23/09	3/24/09
09-1798-05B	MW 25	Water	3/17/09 1030	3/18/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	4/01/09	3/24/09
09-1798-05C	MW 25	Water	3/17/09 1030	3/18/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	4/01/09	9/13/09
09-1798-05D	MW 25	Water	3/17/09 1030	3/18/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	4/01/09	3/19/09
09-1798-06A	MW 11	Water	3/17/09 1040	3/18/09	8021_W *	8021: BTEX	<input type="checkbox"/>	3/23/09	3/24/09

Definitions: \* - Test Code has a Select List

**WORK ORDER Summary****09-1798****Rpt To:** Stuart Hall**Email To:** shall@oaconsulting.com

Ollson Associates

826 21 1/2 Road

Grand Junction, CO 81505

(970) 263-7800

**Client Project ID:** 008-2067**QC Level:** Level I

3/18/2009 11:50:32 AM

09-1798-06B	MW 11	Water	3/17/09 1040	3/18/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/24/09
09-1798-06C	MW 11	Water	3/17/09 1040	3/18/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	9/13/09
09-1798-06D	MW 11	Water	3/17/09 1040	3/18/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/19/09
09-1798-07A	MW 12	Water	3/17/09 1055	3/18/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/23/09	3/24/09
09-1798-07B	MW 12	Water	3/17/09 1055	3/18/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/24/09
09-1798-07C	MW 12	Water	3/17/09 1055	3/18/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	9/13/09
09-1798-07D	MW 12	Water	3/17/09 1055	3/18/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/19/09
09-1798-08A	MW 9	Water	3/17/09 1120	3/18/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/23/09	3/24/09
09-1798-08B	MW 9	Water	3/17/09 1120	3/18/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/24/09
09-1798-08C	MW 9	Water	3/17/09 1120	3/18/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	9/13/09
09-1798-08D	MW 9	Water	3/17/09 1120	3/18/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/19/09
09-1798-09A	MW 14	Water	3/17/09 1135	3/18/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/23/09	3/24/09
09-1798-09B	MW 14	Water	3/17/09 1135	3/18/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/24/09
09-1798-09C	MW 14	Water	3/17/09 1135	3/18/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	9/13/09
09-1798-09D	MW 14	Water	3/17/09 1135	3/18/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/19/09
09-1798-10A	DCS 1	Water	3/17/09 1230	3/18/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/23/09	3/24/09
09-1798-10B	DCS 1	Water	3/17/09 1230	3/18/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/24/09
09-1798-10C	DCS 1	Water	3/17/09 1230	3/18/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	9/13/09
09-1798-10D	DCS 1	Water	3/17/09 1230	3/18/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/19/09
09-1798-11A	DCS 0	Water	3/17/09 1230	3/18/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/23/09	3/24/09
09-1798-11B	DCS 0	Water	3/17/09 1230	3/18/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/24/09
09-1798-11C	DCS 0	Water	3/17/09 1230	3/18/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	9/13/09
09-1798-11D	DCS 0	Water	3/17/09 1230	3/18/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/19/09

**Definitions:** \* - Test Code has a Select List



# WORK ORDER Summary

Evergreen Analytical, Inc.

09-1798

Rpt To: Stuart Hall

Email To: shall@oaconsulting.com

Ollson Associates

826 21 1/2 Road

Grand Junction, CO 81505

(970) 263-7800

Client Project ID: 008-2067

QC Level: Level I

3/18/2009 11:50:32 AM

09-1798-12A	DCS 2	Water	3/17/09 1300	3/18/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/23/09	3/24/09
09-1798-12B	DCS 2	Water	3/17/09 1300	3/18/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/24/09
09-1798-12C	DCS 2	Water	3/17/09 1300	3/18/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	9/13/09
09-1798-12D	DCS 2	Water	3/17/09 1300	3/18/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/19/09
09-1798-13A	DCS 3	Water	3/17/09 1310	3/18/09	8021_W *	8021: BTEX	<input type="checkbox"/>	<input type="checkbox"/>	3/23/09	3/24/09
09-1798-13B	DCS 3	Water	3/17/09 1310	3/18/09	MEEP_W *	RSK175M: Methane	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/24/09
09-1798-13C	DCS 3	Water	3/17/09 1310	3/18/09	6010_D *	6010: Dissolved Metals	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	9/13/09
09-1798-13D	DCS 3	Water	3/17/09 1310	3/18/09	ANIONS_NonDW *	300.0: Anions by IC	<input type="checkbox"/>	<input type="checkbox"/>	4/01/09	3/19/09

## CHAIN OF CUSTODY RECORD / ANALYTICAL SERVICES AGREEMENT \*\*

Page 1 of 2

## CLIENT INFORMATION

CLIENT OLLSOW ASSOCIATESADDRESS 826 21st RdCITY CLARK JUNCTION STATE CO ZIP 81505PHONE 970 263-7800 FAX 970 263-7456 E-mail skall@oll.comREPORT BY ☐ MAIL ☐ FAX ☒ PDF ☐ EDDREPORT CHROMATOGRAMS ☐ YES ☐ NOREPORT TO (Name) STUART HALLINVOICE TO SAMEPROJECT I.D. 008-2067P.O. # EAL QUOTE #Sampler: Jess Vann (sign)

NOTE: Identify Known Hazards Below

DATE SAMPLE IDENTIFICATION SAMPLED TIME

MW 1	3-17-09	1020	6
MW 2	1100	2	
MW 26	1130	3	
MW 24	1240		
MW 25	1030		
MW 11	1040		
MW 12	1055		
MW 9	1120		
MW 14	1135		
PCS 1	1230		

Does this analysis involve property transfer? ☐ Yes or ☒ NoInstructions: Metals Sample Needs to be Filtered

\*\* Important Note: See reverse side hereof for terms and conditions.

## Evergreen Analytical Laboratory Inc.

4036 Youngfield St.

Wheat Ridge, Colorado 80033

(303) 425-6021

FAX (303) 425-6854

(877) 737-4521

e-mail info@evergreenanalytical.com



Report Results by: \_\_\_\_\_ (Date)

Standard 2 working weeks

UST Analyses per Fee Schedule

\* Rush: ☐ less than 24 hrs, 150%☐ 3 - 5 work days, 50%☐ 1 - 2 work days, 100%☐ 6 - 9 work days, 25%

\* Subject to surcharge &amp; exceptions noted in fee schedule.

MATRIX		ANALYSES (check analysis)														For Laboratory use only		
1) Drinking Water or 2) Discharge Water or 3) Ground Water (circle one)	Oil / Sludge / Wipe	TCRP VOA/BNA/Pest/Herb/Metals (circle)	Volatile Organics 8260/624 (circle)	Semi-volatile Organics BNA, PAH, PMA 8270/625 (circle)	Pesticides 8081/8270/608 (circle)	PCBs/8082/608/screen (circle)	Herbicides 8151	BTEX 8021/902/8260/MTBE (circle)	TPH 8015mod. (Gasoline)	TEPH 8015mod. (Diesel)	Total Metals-DW / NPDES / SW46 (circle & list metals below)	Dissolved Metals - DW / SW46 (circle & list metals below)	TPH 418.1, O&G 413.1, 1664 (circle)	CO <sub>2</sub> , NH <sub>3</sub> , TOC, TP (circle)	Alk, BOD, PH, TDS, TSS (circle)	Dissolved Methane	CL	NA
								X							X	X	X	01
								X							X	X	X	02
								X							X	X	X	03
								X							X	X	X	04
								X							X	X	X	05
								X							X	X	X	06
								X							X	X	X	07
								X							X	X	X	08
								X							X	X	X	09
								X							X	X	X	10
								X							X	X	X	11

For Laboratory use only

WO # 09-1798B.O.F. # NAC/S (O) NAC/S (I) C + VPSCooler Temp. °C 4.2Seals Present Y N/NASeals Intact Y N/NASamples Pres. Y N/NAHeadspace Y N/NABy W

Relinquished by: (Signature)

Date/Time

3-17-09

Received by: (Signature)

Date/Time

Relinquished by: (Signature)

Date/Time

Received by: (Signature)

Date/Time

3-18-09

1130

JESS VANN





CASE NARRATIVE

SAMPLE RECEIVING

Custody seals were present and intact.  
The temperature of the sample(s) upon arrival was 4.2°C.  
Sample(s) were received in good condition, in the proper container, and within holding times.  
VOC sample(s) were not preserved.  
VOC sample(s) were received with no headspace present. JD

QUALITY ASSURANCE (QA)

Analyses performed on samples in this work order by EAL meet the requirements of the EAL Quality Assurance Program unless otherwise explained. Analyses of RCRA samples meet the requirements of NELAC and Utah Rule R444-14 unless otherwise explained. CMS

CLIENT SERVICES

There are no anomalies to report. AB

GENERAL CHEMISTRY

Chloride : There are no anomalies to report. MM

METALS ANALYSIS

Sodium : There are no anomalies to report. MB

GAS CHROMATOGRAPHY

Method 8021\_W: There are no anomalies to report. JCC

Method RSK-175: A sample duplicate (DUP) was prepared and analyzed instead of a matrix spike duplicate (MSD) due to limited sample. There are no other anomalies to report. VM

# SUMMARY OF SAMPLE RESULTS

Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862

(303) 425-6021

Client Sample ID: MW 1  
 Client Project ID: 008-2067  
 Date Collected: 3/17/09 1020  
 Date Received: 3/18/09  
 Lab Work Order 09-1798  
 Lab Sample ID: 09-1798-01  
 Sample Matrix: Water

Dissolved Metals				Method: SW6010B				Analyst: MAB	
Units	DF	Result	LQL	Units	DF	Result	LQL		
Sodium	1	170	0.40	mg/L	1			Analyst: JCC	
Aromatic Volatile Organics				Method: SW8021B					
Benzene	1	U	1.0	µg/L	1				
Ethylbenzene	1	U	2.0	µg/L	1				
m,p-Xylene	1	U	2.0	µg/L	1				
o-Xylene	1	U	2.0	µg/L	1				
Toluene	1	U	2.0	µg/L	1				
Anions by IC				Method: E300.0				Analyst: BP	
Chloride	DF	Result	LQL	Units	DF	Result	LQL		
	1	22.4	0.50	mg/L	1			Analyst: VM	
RSKSOP-175M Headspace				Method: RSKSOP175M					
Methane	DF	Result	LQL	Units	DF	Result	LQL		
	1	0.0065	0.00080	mg/L	1				

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 Definitions: NA - Not Applicable

E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Print Date: 3/30/2009

SUMMARY OF SAMPLE RESULTS

Evergreen Analytical, Inc.  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW 2	Lab Work Order	09-1798
Client Project ID: 008-2067	Lab Sample ID:	09-1798-02
Date Collected: 3/17/09 1100	Sample Matrix:	Water
Date Received: 3/18/09		

Dissolved Metals				Method: SW6010B				Analyst: MAB			
				Result	LQL	DF	Units				
Sodium				110	0.40	1	mg/L				
Aromatic Volatile Organics				Method: SW8021B				Analyst: JCC			
Benzene				93	1.0	1	µg/L				
Ethylbenzene				U	2.0	1	µg/L				
m,p-Xylene				13	2.0	1	µg/L				
o-Xylene				U	2.0	1	µg/L				
Toluene				U	2.0	1	µg/L				
Anions by IC				Method: E300.0				Analyst: BP			
Chloride				41.2	0.50	1	mg/L				
RSKSOP-175M Headspace				Method: RSKSOP175M				Analyst: VM			
Methane				6.1	0.016	20	mg/L				

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
Definitions: NA - Not Applicable

E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

# SUMMARY OF SAMPLE RESULTS

Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862

(303) 425-6021

Client Sample ID: MW 26  
 Client Project ID: 008-2067  
 Date Collected: 3/17/09 1130  
 Date Received: 3/18/09  
 Lab Work Order 09-1798  
 Lab Sample ID: 09-1798-03  
 Sample Matrix: Water

## Dissolved Metals

Method: SW6010B  
 Analyst: MAB

Units	DF	Result	LQL
mg/L	1	91	0.40

## Aromatic Volatile Organics

Method: SW8021B  
 Analyst: JCC

Units	DF	Result	LQL
µg/L	1	U	1.0
µg/L	1	U	2.0
µg/L	1	U	2.0
µg/L	1	U	2.0
µg/L	1	U	2.0
µg/L	1	U	2.0

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

## Anions by IC

Method: E300.0  
 Analyst: BP

Units	DF	Result	LQL
mg/L	1	5.0	0.50

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M  
 Analyst: VM

Units	DF	Result	LQL
mg/L	1	0.14	0.00080

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 Definitions: NA - Not Applicable

E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

SUMMARY OF SAMPLE RESULTS

Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862

(303) 425-6021

Client Sample ID: MW 24  
Client Project ID: 008-2067  
Date Collected: 3/17/09 1240  
Date Received: 3/18/09  
Lab Work Order: 09-1798  
Lab Sample ID: 09-1798-04  
Sample Matrix: Water

Dissolved Metals				Method: SW6010B				Analyst: MAB			
				Result	LQL	DF	Units				
Sodium				42	0.40	1	mg/L	Analyst: JCC			
Aromatic Volatile Organics				Method: SW8021B				Analyst: JCC			
				Result	LQL	DF	Units				
Benzene				U	1.0	1	µg/L				
Ethylbenzene				U	2.0	1	µg/L				
m,p-Xylene				U	2.0	1	µg/L				
o-Xylene				U	2.0	1	µg/L				
Toluene				U	2.0	1	µg/L				
Anions by IC				Method: E300.0				Analyst: BP			
				Result	LQL	DF	Units				
Chloride				3.9	0.50	1	mg/L	Analyst: VM			
RSKSOP-175M Headspace				Method: RSKSOP175M				Analyst: VM			
				Result	LQL	DF	Units				
Methane				U	0.00080	1	mg/L				

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
Definitions: NA - Not Applicable

E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

# SUMMARY OF SAMPLE RESULTS

Evergreen Analytical, Inc.  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW 25	Lab Work Order	09-1798
Client Project ID: 008-2067	Lab Sample ID:	09-1798-05
Date Collected: 3/17/09 1030	Sample Matrix:	Water
Date Received: 3/18/09		

Dissolved Metals			
Method: SW6010B	Analyst: MAB	Result	Units
		LQL	DF
		34	1
		0.40	mg/L
Aromatic Volatile Organics			
Method: SW8021B	Analyst: JCC	Result	Units
		LQL	DF
		1.0	1
		2.0	µg/L
Method: E300.0	Analyst: BP	Result	Units
		LQL	DF
		2.0	1
		2.0	µg/L
Method: E300.0	Analyst: BP	Result	Units
		LQL	DF
		0.50	1
		31.2	mg/L
RSKSOP-175M Headspace			
Method: RSKSOP175M	Analyst: VM	Result	Units
		LQL	DF
		0.00080	1
		U	mg/L
Methane			

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/30/2009

# SUMMARY OF SAMPLE RESULTS

Evergreen Analytical, Inc.  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW 11	Lab Work Order	09-1798
Client Project ID: 008-2067	Lab Sample ID:	09-1798-06
Date Collected: 3/17/09 1040	Sample Matrix:	Water
Date Received: 3/18/09		

## Dissolved Metals

Analyt:	MAB	Units	DF	Result	LQL	Method:	SW6010B	Analyst:	JCC
Sodium		mg/L	1	38	0.40	Method:	SW8021B	Analyst:	JCC

Analyt:	BP	Units	DF	Result	LQL	Method:	E300.0	Analyst:	BP
Benzene		µg/L	1	U	1.0				
Ethylbenzene		µg/L	1	U	2.0				
m,p-Xylene		µg/L	1	U	2.0				
o-Xylene		µg/L	1	U	2.0				
Toluene		µg/L	1	U	2.0				

Analyt:	VM	Units	DF	Result	LQL	Method:	RSKSOP175M	Analyst:	VM
Chloride		mg/L	1	31.3	0.50				
Methane		mg/L	1	0.0073	0.00080				

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

# SUMMARY OF SAMPLE RESULTS

Evergreen Analytical, Inc.  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW 12	Lab Work Order	09-1798
Client Project ID: 008-2067	Lab Sample ID:	09-1798-07
Date Collected: 3/17/09 1055	Sample Matrix:	Water
Date Received: 3/18/09		

Dissolved Metals				Method: SW6010B				Analyst: MAB			
Sodium	Units	DF	LQL	Result	83	0.40	1	mg/L	Analyst: JCC	Units	DF
				LQL							
Aromatic Volatile Organics				Method: SW8021B				Analyst: JCC			
Benzene	Units	DF	LQL	Result	U	1.0	1	µg/L	Analyst: BP	Units	DF
Ethylbenzene	µg/L	1	2.0	U	2.0	1	1	µg/L			
m,p-Xylene	µg/L	1	2.0	U	2.0	1	1	µg/L			
o-Xylene	µg/L	1	2.0	U	2.0	1	1	µg/L			
Toluene	µg/L	1	2.0	U	2.0	1	1	µg/L			
Anions by IC				Method: E300.0				Analyst: BP			
Chloride	Units	DF	LQL	Result	18.3	0.50	1	mg/L	Analyst: VM	Units	DF
RSKSOP-175M Headspace	Method: RSKSOP175M										
Methane	mg/L	1	0.00080	Result	0.016	0.00080	1	mg/L			

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable



SUMMARY OF SAMPLE RESULTS

Evergreen Analytical, Inc.  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW 9	Lab Work Order	09-1798
Client Project ID: 008-2067	Lab Sample ID:	09-1798-08
Date Collected: 3/17/09 1120	Sample Matrix:	Water
Date Received: 3/18/09		

Dissolved Metals				Method: SW6010B				Analyst: MAB			
				Result	LQL	DF	Units				
Sodium				61	0.40	1	mg/L				
Aromatic Volatile Organics				Method: SW8021B				Analyst: JCC			
				Result	LQL	DF	Units				
Benzene				2.3	1.0	1	µg/L				
Ethylbenzene				U	2.0	1	µg/L				
m,p-Xylene				U	2.0	1	µg/L				
o-Xylene				U	2.0	1	µg/L				
Toluene				U	2.0	1	µg/L				
Anions by IC				Method: E300.0				Analyst: BP			
				Result	LQL	DF	Units				
Chloride				27.9	0.50	1	mg/L				
RSKSOP-175M Headspace				Method: RSKSOP175M				Analyst: VM			
				Result	LQL	DF	Units				
Methane				8.1	0.016	20	mg/L				

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value, Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: NA - Not Applicable

## SUMMARY OF SAMPLE RESULTS

**Evergreen Analytical, Inc.**

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862

(303) 425-6021

Client Sample ID: MW 14

Client Project ID: 008-2067

Date Collected: 3/17/09 1135

Date Received: 3/18/09

Lab Work Order 09-1798

Lab Sample ID:

Sample Matrix: Water

## Dissolved Metals

Sodium

## Aromatic Volatile Organics

Benzene

Ethylbenzene

m,p-Xylene

o-Xylene

Toluene

Amions by IC

Method: E300.0

Result	LOL
1. The model is able to predict the correct class for the majority of the data points.	Yes
2. The model is able to predict the correct class for the minority of the data points.	Yes
3. The model is able to predict the correct class for the majority of the data points.	Yes
4. The model is able to predict the correct class for the minority of the data points.	Yes
5. The model is able to predict the correct class for the majority of the data points.	Yes
6. The model is able to predict the correct class for the minority of the data points.	Yes
7. The model is able to predict the correct class for the majority of the data points.	Yes
8. The model is able to predict the correct class for the minority of the data points.	Yes
9. The model is able to predict the correct class for the majority of the data points.	Yes
10. The model is able to predict the correct class for the minority of the data points.	Yes

DE

Analyst: BH

 $\gamma/\delta\omega$ 

I

0.50

27.2

Chloride

## RSKSOP-175M Headspace

Method: RSKSOP175M

Result LQ1

DE

Analyst: VN

 $\gamma/\delta\omega$ 

20

0.016

0.7

Methane

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
**Definitions:** NA - Not Applicable

E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time

H - Sample analysis exceeded analytical holding time

f - Indicates an estimated value when the compound is a compound analyzed for but not detected

U - Compound analyzed for but not detected

X - See case narrative

compound is undetected, LQL exceeds MCL.

Print Date: 3/30/2009

# SUMMARY OF SAMPLE RESULTS

Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862

(303) 425-6021

Client Sample ID: DCS 1  
 Client Project ID: 008-2067  
 Date Collected: 3/17/09 1230  
 Date Received: 3/18/09  
 Lab Work Order: 09-1798  
 Lab Sample ID: 09-1798-10  
 Sample Matrix: Water

Dissolved Metals			
Method: SW6010B		Analyst: MAB	

Aromatic Volatile Organics			
Method: SW8021B		Analyst: JCC	
Result	LQL	DF	Units
64	0.40	1	mg/L

Anions by IC			
Method: E300.0		Analyst: BP	
Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L

Chloride			
Method: RSKSOP175M		Analyst: VM	
Result	LQL	DF	Units
14.7	0.50	1	mg/L

Methane			
Method: RSKSOP175M		Analyst: VM	
Result	LQL	DF	Units
U	0.00080	1	mg/L

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 Definitions: NA - Not Applicable

E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

# SUMMARY OF SAMPLE RESULTS

Evergreen Analytical, Inc.  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: DCS 0  
Client Project ID: 008-2067  
Date Collected: 3/17/09 1230  
Date Received: 3/18/09  
Lab Work Order: 09-1798  
Lab Sample ID: 09-1798-11  
Sample Matrix: Water

Dissolved Metals				Aromatic Volatile Organics				Anions by IC				RSKSOP-175M Headspace															
Analyst: MAB	Units	DF	Result	LQL	65	0.40	Method: SW6010B	Units	DF	Result	LQL	Units	DF	Result	LQL												
Sodium				Benzene				Ethylbenzene				m,p-Xylene				o-Xylene				Toluene							
				U				1.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
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				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
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				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
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				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0				2.0			
				U				2.0				2.0				2.0				2.0							

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
Definitions: NA - Not Applicable

E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

# SUMMARY OF SAMPLE RESULTS

Evergreen Analytical, Inc.

4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862

(303) 425-6021

Client Sample ID: DCS 2	Lab Work Order	09-1798
Client Project ID: 008-2067	Lab Sample ID:	09-1798-12
Date Collected: 3/17/09 1300	Sample Matrix:	Water
Date Received: 3/18/09		

Dissolved Metals				Method: SW6010B				Analyst: MAB			
Sodium				Result	LQL	DF	Units	mg/L			
				64	0.40	1					
Aromatic Volatile Organics								Method: SW8021B			
Benzene				Result	LQL	DF	Units	µg/L			
				U	1.0	1					
Ethylbenzene				U	2.0	1	µg/L				
m,p-Xylene				U	2.0	1	µg/L				
o-Xylene				U	2.0	1	µg/L				
Toluene				U	2.0	1	µg/L				
Anions by IC				Method: B300.0				Analyst: BP			
				Result	LQL	DF	Units				
				14.5	0.50	1	mg/L				
Chloride				Method: RSKSOP175M				Analyst: VM			
				Result	LQL	DF	Units				
				U	0.00080	1	mg/L				
Methane				Result	LQL	DF	Units				

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

Print Date: 3/30/2009

# SUMMARY OF SAMPLE RESULTS

Evergreen Analytical, Inc.  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: DCS 3	Lab Work Order	09-1798
Client Project ID: 008-2067	Lab Sample ID:	09-1798-13
Date Collected: 3/17/09 1310	Sample Matrix:	Water
Date Received: 3/18/09		

## Dissolved Metals

Method: SW6010B		Analyst: MAB	
Result	LQL	DF	Units
65	0.40	1	mg/L
Method: SW8021B			
Analyst: JCC			

Method: SW8021B		Analyst: JCC	
Result	LQL	DF	Units
U	1.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
U	2.0	1	µg/L
Method: E300.0			
Analyst: BP			

Method: RSKSOP175M		Analyst: VM	
Result	LQL	DF	Units
14.9	0.50	1	mg/L
Method: RSKSOP175M			
Analyst: VM			

Methane	U	0.00080	1	mg/L
---------	---	---------	---	------

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
 E - Extrapolated value. Value exceeds calibration range  
 H - Sample analysis exceeded analytical holding time  
 J - Indicates an estimated value when the compound is detected, but is below the LQL  
 U - Compound analyzed for but not detected  
 X - See case narrative  
 \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

**Definitions:** NA - Not Applicable

**Evergreen Analytical, Inc.**  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Sample ID: MW 1  
Client Project ID: 008-2067  
Date Collected: 3/17/2009  
Date Received: 3/18/2009  
Lab Work Order: 09-1798  
Lab Sample ID: 09-1798-01A  
Sample Matrix: Water

**AROMATIC VOLATILE ORGANICS**

Prep Method: SW5030B

Method: SW8021B

Date Prepared: 3/19/2009      Lab File ID: 031909/TA006      Dilution Factor: 1  
Date Analyzed: 3/19/2009      Method Blank: MB2031909

Analytes		CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L	
Toluene	108-88-3	U	2.0	µg/L	
Ethylbenzene	100-41-4	U	2.0	µg/L	
m,p-Xylene	1330-20-7	U	2.0	µg/L	
o-Xylene	95-47-6	U	2.0	µg/L	
Surr: 1,2,4-Trichlorobenzene (S)		120-82-1	87	QC Limits: 60-140	%REC

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Analyst

Approved

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative

\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

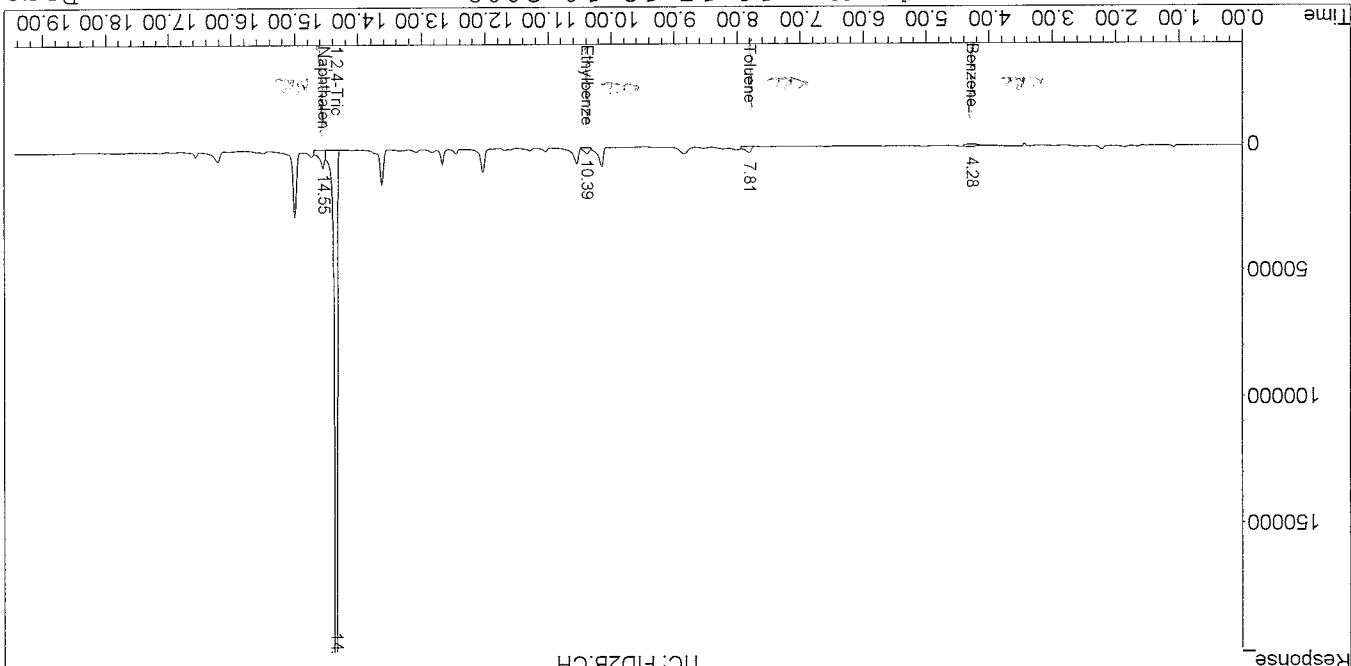
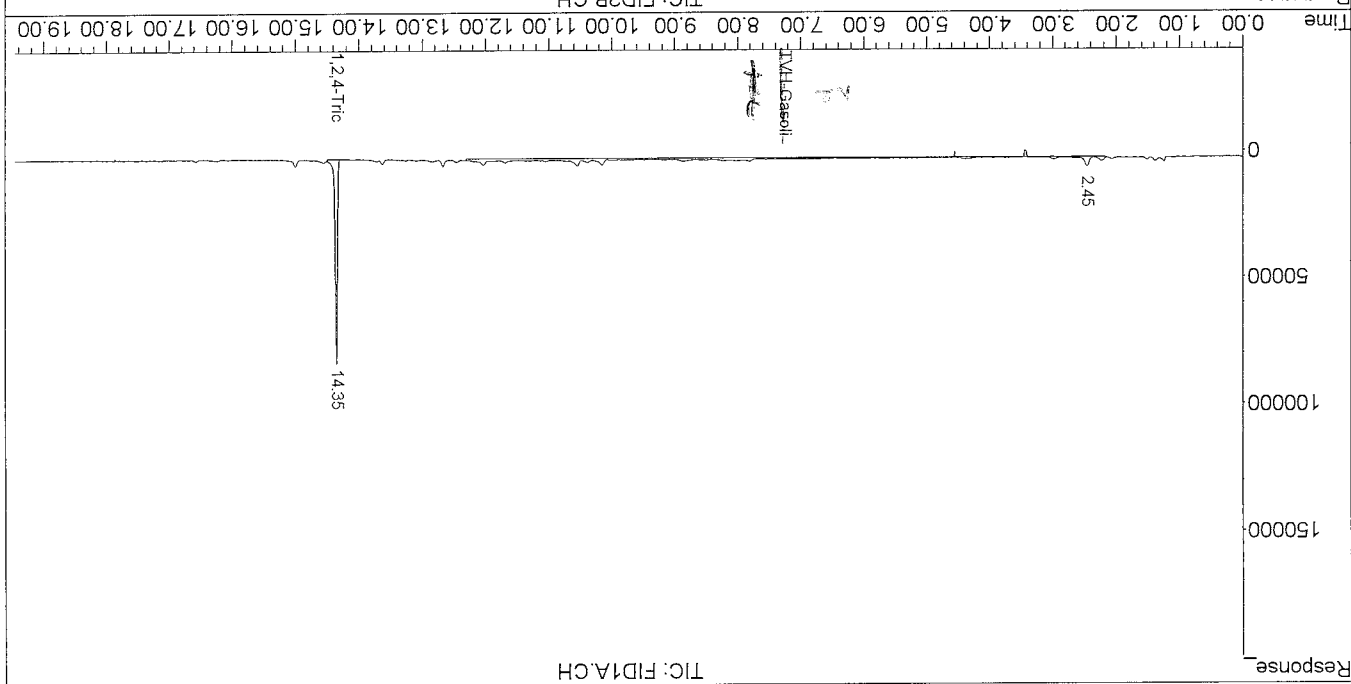
Print Date: 3/20/2009

# Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\031909\TA006.D\FID1A.CH  
 Signal #2 : E:\DATA\031909\TA006.D\FID2B.CH  
 Acq On : 19 Mar 2009 1:16 pm  
 Sample : 09-1798-01A  
 Misc : SAMP, 8021 W, TVH W, 1  
 IntFile Signal #1: TVH1.E  
 IntFile Signal #2: FB2.E  
 Quant Time: Mar 19 16:15 2009 Quant Results File: TW20314D.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Wed Mar 18 11:41:15 2009  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

Volume Inj.  
 Signal #1 Phase : DB-624  
 Signal #2 Phase: DB-624  
 Signal #1 Info : 0.53 mm  
 Signal #2 Info : 0.53 mm





Client Sample ID: MW 2	Lab Work Order	09-1798
Client Project ID: 008-2067	Lab Sample ID:	09-1798-02A
Date Collected: 3/17/2009	Sample Matrix:	Water
Date Received: 3/18/2009		

AROMATIC VOLATILE ORGANICS

Method: SW8021B      Prep Method: SW5030B

Date Prepared: 3/19/2009	Lab File ID: 031909\TA009	Dilution Factor: 1
Date Analyzed: 3/19/2009	Method Blank: MB2031909	

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	93	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	13	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	93	60-140	%REC

\_\_\_\_\_  
Analyst

\_\_\_\_\_  
Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers:

- B - Analyte detected in the associated Method Blank, value not subtracted from result
- E - Extrapolated value. Value exceeds calibration range
- H - Sample analysis exceeded analytical holding time
- J - Indicates an estimated value when the compound is detected, but is below the LQL
- S - Spike Recovery outside accepted limits
- U - Compound analyzed for but not detected
- X - See case narrative
- \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions:

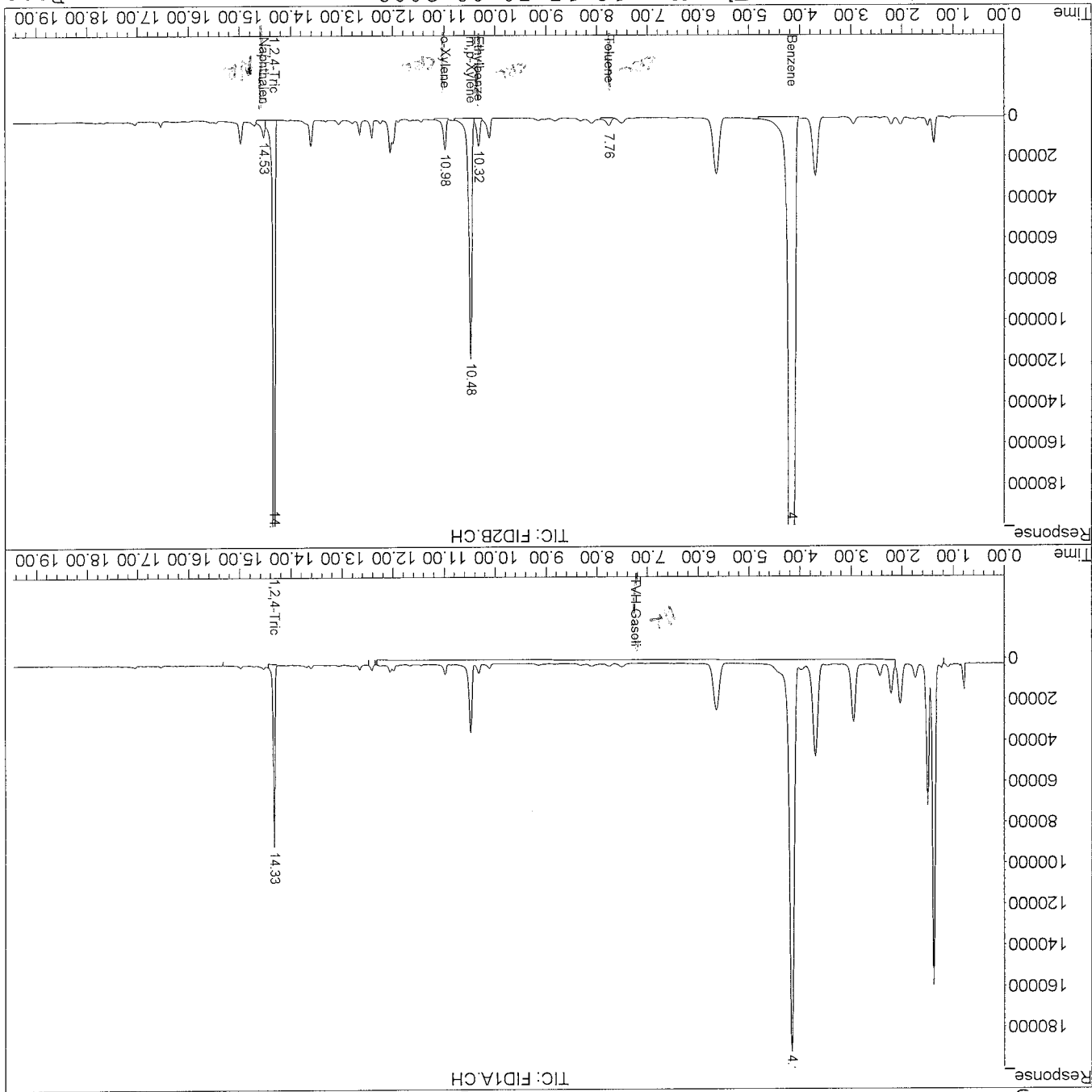
- LQL - Lower Quantitation Limit
- Surr - Surrogate

# Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\031909\TA009.D\FID1A.CH  
 Signal #2 : E:\DATA\031909\TA009.D\FID2B.CH  
 Acq On : 19 Mar 2009 3:01 pm  
 Sample : 09-1798-02A  
 Misc : SAMP, 8021 W, TVH W, 1  
 IntFile Signal #1: TVH1.E  
 IntFile Signal #2: FB2.E  
 Quant Time: Mar 19 16:52 2009 Quant Results File: TW20314D.RFS

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Wed Mar 18 11:41:15 2009  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

Volume Inj.  
 Signal #1 Phase : DB-624  
 Signal #1 Info : 0.53 mm  
 Signal #2 Phase: DB-624  
 Signal #2 Info : 0.53 mm



Lab Work Order: 09-1798  
Lab Sample ID: 09-1798-03A  
Sample Matrix: Water

AROMATIC VOLATILE ORGANICS

Lab File ID: 031909\TA010  
Dilution Factor: 1  
Method Blank: MB2031909

CAS Number	Result	LOL	Units
------------	--------	-----	-------

1.0	0.1	0
-----	-----	---

2.0  $\mu$ g/L

0 2.0 7.8rd

$\Gamma/\text{ad}$	2.0	0
--------------------	-----	---

$\pi/\text{rad}$	0.7	0
------------------	-----	---

QC Limits: 60-140 %REC 92

Approved

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result

**Definitions:** LQL - Lower Quantitation Limit

LQL - Lower Quantitation Limit  
Surr - Surrogate

J - Indicates an estimated value when the compound is detected, but is below the LOD

U - Compound analyzed for but not detected

\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if

Print Date: 3/20/2009

Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\031909\TA010.D\FID1A.CH

Vial: 10

Signal #2 : E:\DATA\031909\TA010.D\FID2B.CH

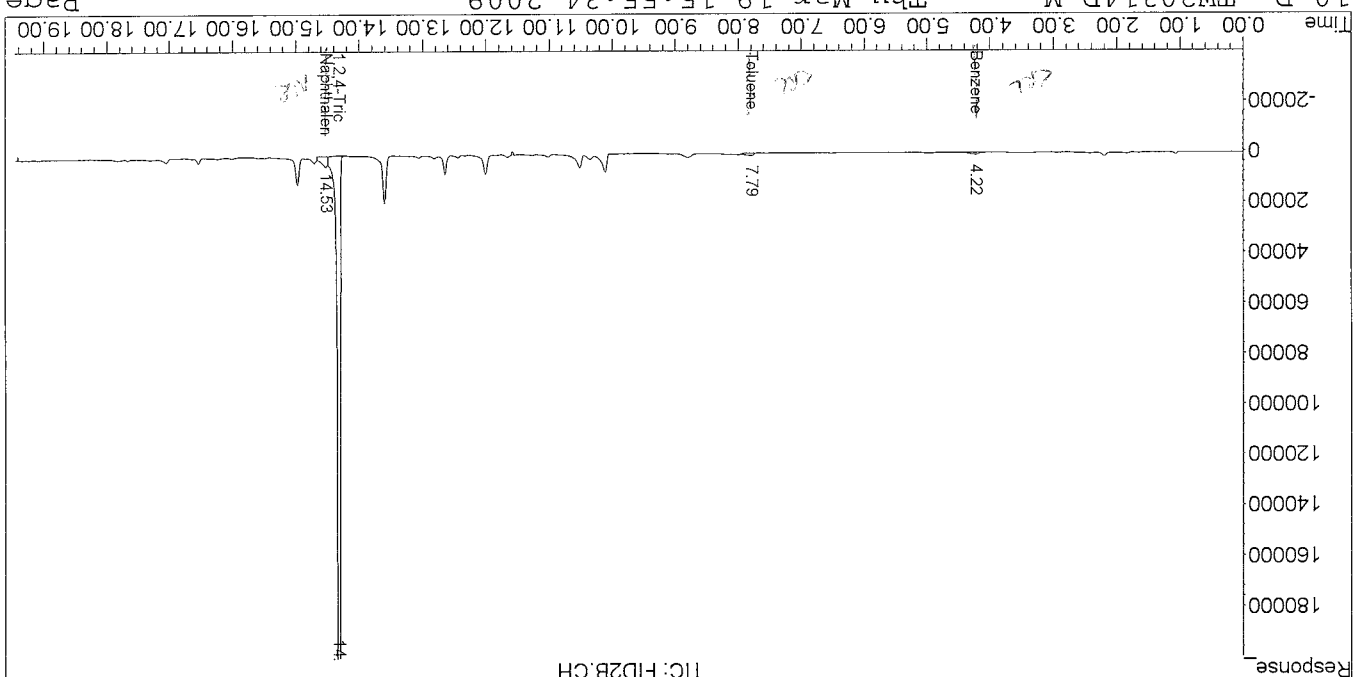
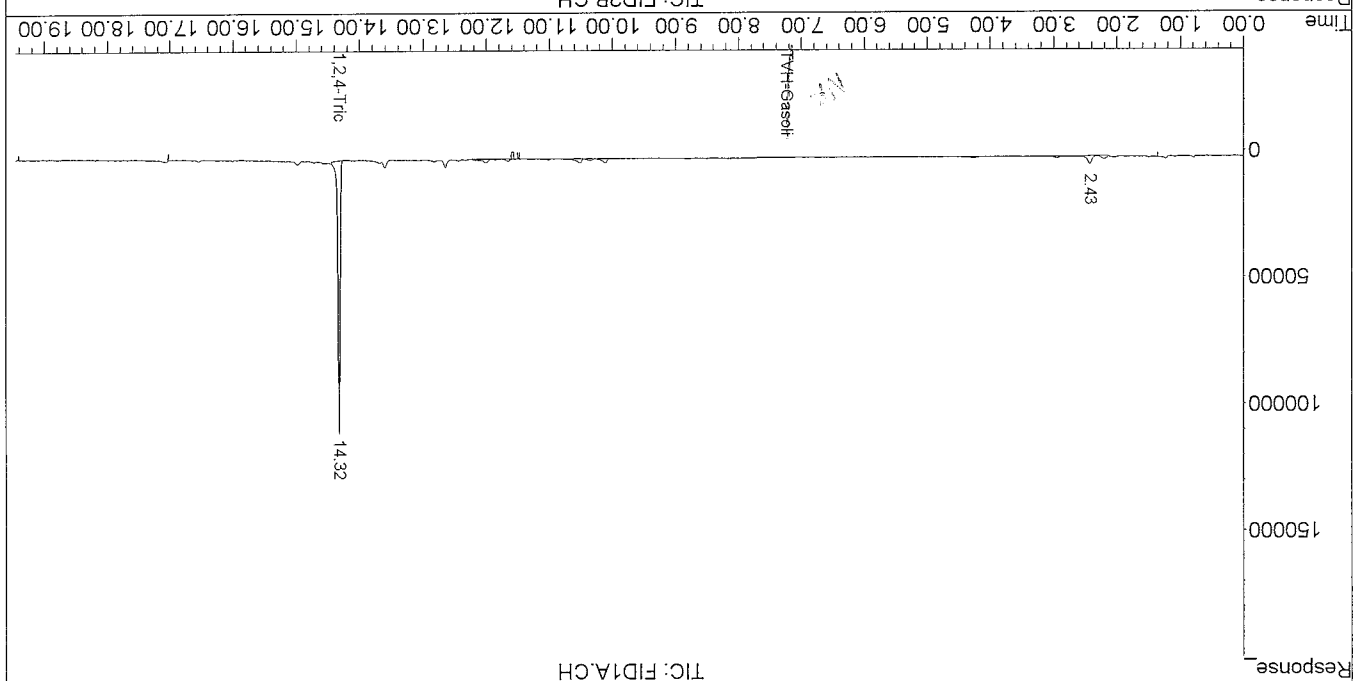
Acq On : 19 Mar 2009 3:37 pm  
Sample : 09-1798-03A  
Misc : SAMP, 8021 W, TVH W, 1  
Operator: Jennifer C  
Inst : TVHBTX2  
Multiplier: 1.00

Intfile Signal #1: TVH1.E  
Intfile Signal #2: FB2.E  
Quant Time: Mar 19 16:58 2009 Quant Results File: TW20314D.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX  
Last Update : Wed Mar 18 11:41:15 2009  
Response via : Multiple Level Calibration  
DataAcq Meth : TVB2.M

Volume Inj.

Signal #1 Phase : DB-624  
Signal #1 Info : 0.53 mm  
Signal #2 Phase : DB-624  
Signal #2 Info : 0.53 mm



Client Sample ID: MW 24	Lab Work Order	09-1798
Client Project ID: 008-2067	Lab Sample ID:	09-1798-04A
Date Collected: 3/17/2009	Sample Matrix:	Water
Date Received: 3/18/2009		

AROMATIC VOLATILE ORGANICS

Prep Method: SW5030B

Date Prepared: 3/19/2009	Lab File ID: 031909/TA011	Dilution Factor: 1
Date Analyzed: 3/19/2009	Method Blank: MB2031909	

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	91	QC Limits: 60-140	%REC

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
I - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

Analyst

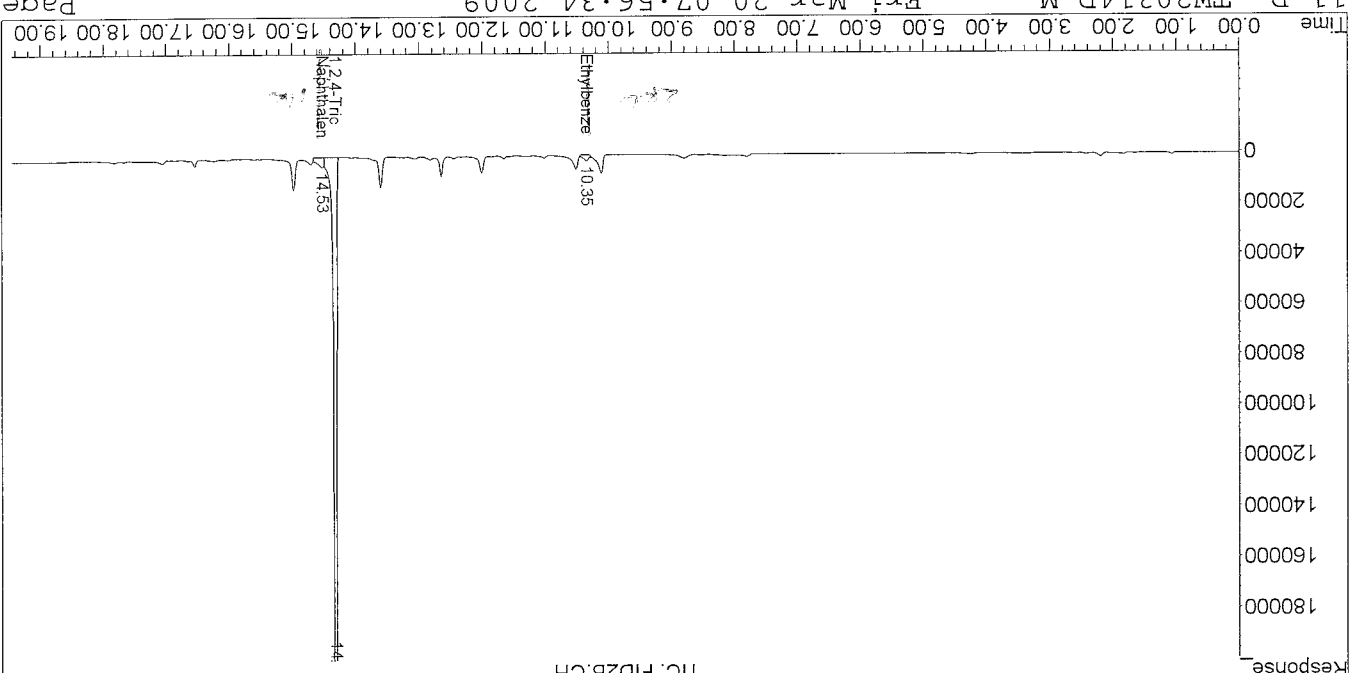
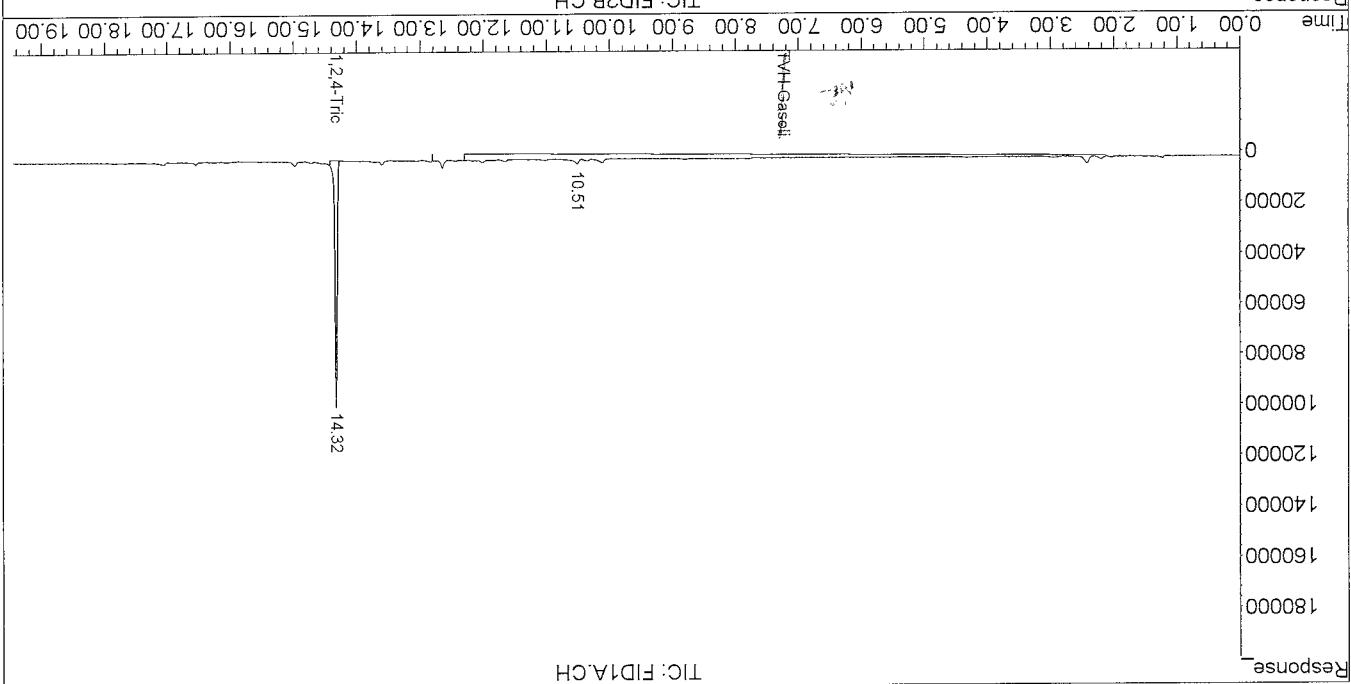
Approved

# Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\031909\TA011.D\FID1A.CH  
 Signal #2 : E:\DATA\031909\TA011.D\FID2B.CH  
 Acq On : 19 Mar 2009 4:12 pm  
 Sample : 09-1798-04A  
 Misc : SAMP, 8021 W, TVH W, 1  
 IntFile Signal #1: TVH1.E  
 IntFile Signal #2: FB2.E  
 Quant Time: Mar 20 8:59 2009 Quant Results File: TW20314D.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Wed Mar 18 11:41:15 2009  
 Response via : Multiple Level Calibration  
 Datacq Meth : TVB2.M

Volume Inj.  
 Signal #1 Phase : DB-624  
 Signal #2 Phase : DB-624  
 Signal #1 Info : 0.53 mm  
 Signal #2 Info : 0.53 mm




Client Sample ID: MW 25	Lab Work Order	09-1798
Client Project ID: 008-2067	Lab Sample ID:	09-1798-05A
Date Collected: 3/17/2009	Sample Matrix:	Water
Date Received: 3/18/2009		

AROMATIC VOLATILE ORGANICS

Method: SW8021B	Prep Method: SW5030B
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Date Prepared: 3/19/2009	Lab File ID: 031909\TA012	Dilution Factor: 1
Date Analyzed: 3/19/2009	Method Blank: MB2031909	

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	89	QC Limits: 60-140	%RBC

Analyst  


Approved  


Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
I - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

# Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\031909\TA012.D\FID1A.CH

Signal #2 : E:\DATA\031909\TA012.D\FID2B.CH

Acq On : 19 Mar 2009 4:48 pm

Sample : 09-1798-05A

Misc : SAMP, 8021 W, TVH W, 1

IntFile Signal #1: TVH1.E

IntFile Signal #2: FB2.E

Quant Time: Mar 20 9:01 2009 Quant Results File: TW20314D.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX

Last Update : Wed Mar 18 11:41:15 2009

Response via : Multiple Level Calibration

DataAcq Meth : TVB2.M

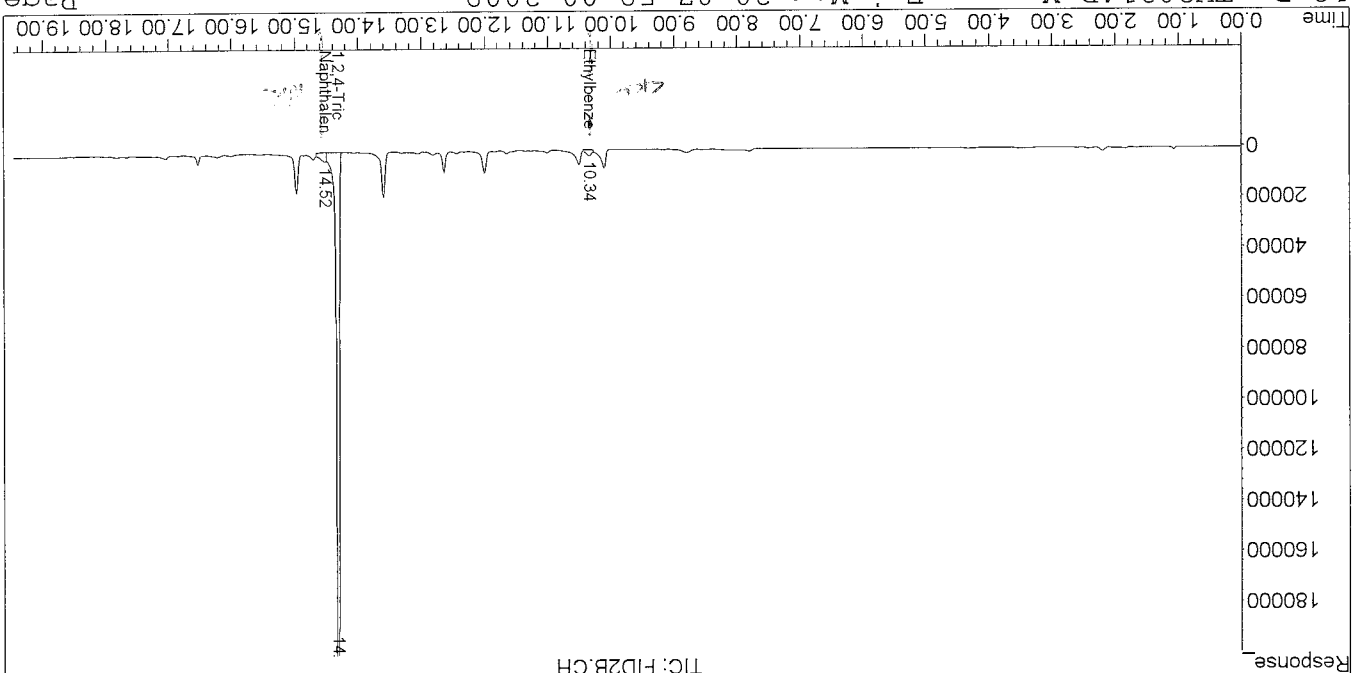
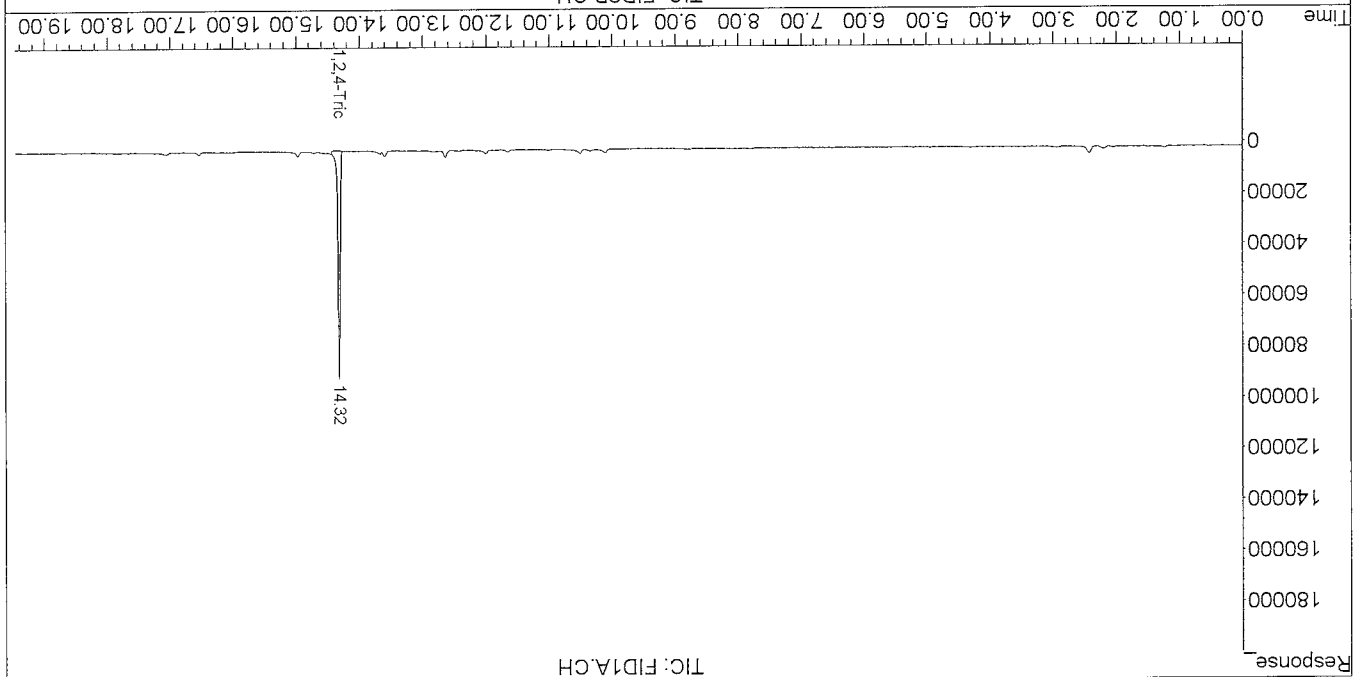
Volume Inj. :

Signal #1 Phase : DB-624

Signal #1 Info : 0.53 mm

Signal #2 Phase : DB-624

Signal #2 Info : 0.53 mm





Client Sample ID: MW 11  
Lab Work Order 09-1798  
Lab Sample ID: 09-1798-06A  
Sample Matrix: Water  
Date Collected: 3/17/2009  
Date Received: 3/18/2009

AROMATIC VOLATILE ORGANICS

Prep Method: SW5030B

Method: SW8021B

Date Prepared: 3/19/2009 Lab File ID: 031909\TA013  
Date Analyzed: 3/19/2009 Method Blank: MB2031909  
Dilution Factor: 1

Analytes		CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L	
Toluene	108-88-3	U	2.0	µg/L	
Ethylbenzene	100-41-4	U	2.0	µg/L	
m,p-Xylene	1330-20-7	U	2.0	µg/L	
o-Xylene	95-47-6	U	2.0	µg/L	
Surr: 1,2,4-Trichlorobenzene (S)		120-82-1	93	QC Limits: 60-140	%RBC

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Analyst

Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\031909\TA013.D\FID1A.CH

Signal #2 : E:\DATA\031909\TA013.D\FID2B.CH

Acq On : 19 Mar 2009 5:23 pm

Sample : 09-1798-06A

Misc : SAMP, 8021 W, TVH W, 1

IntFile Signal #1: TVH1.E

IntFile Signal #2: FB2.E

Quant Time: Mar 20 9:02 2009 Quant Results File: TW20314D.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX

Last Update : Wed Mar 18 11:41:15 2009

Response via : Multiple Level Calibration

DataAcq Meth : TVB2.M

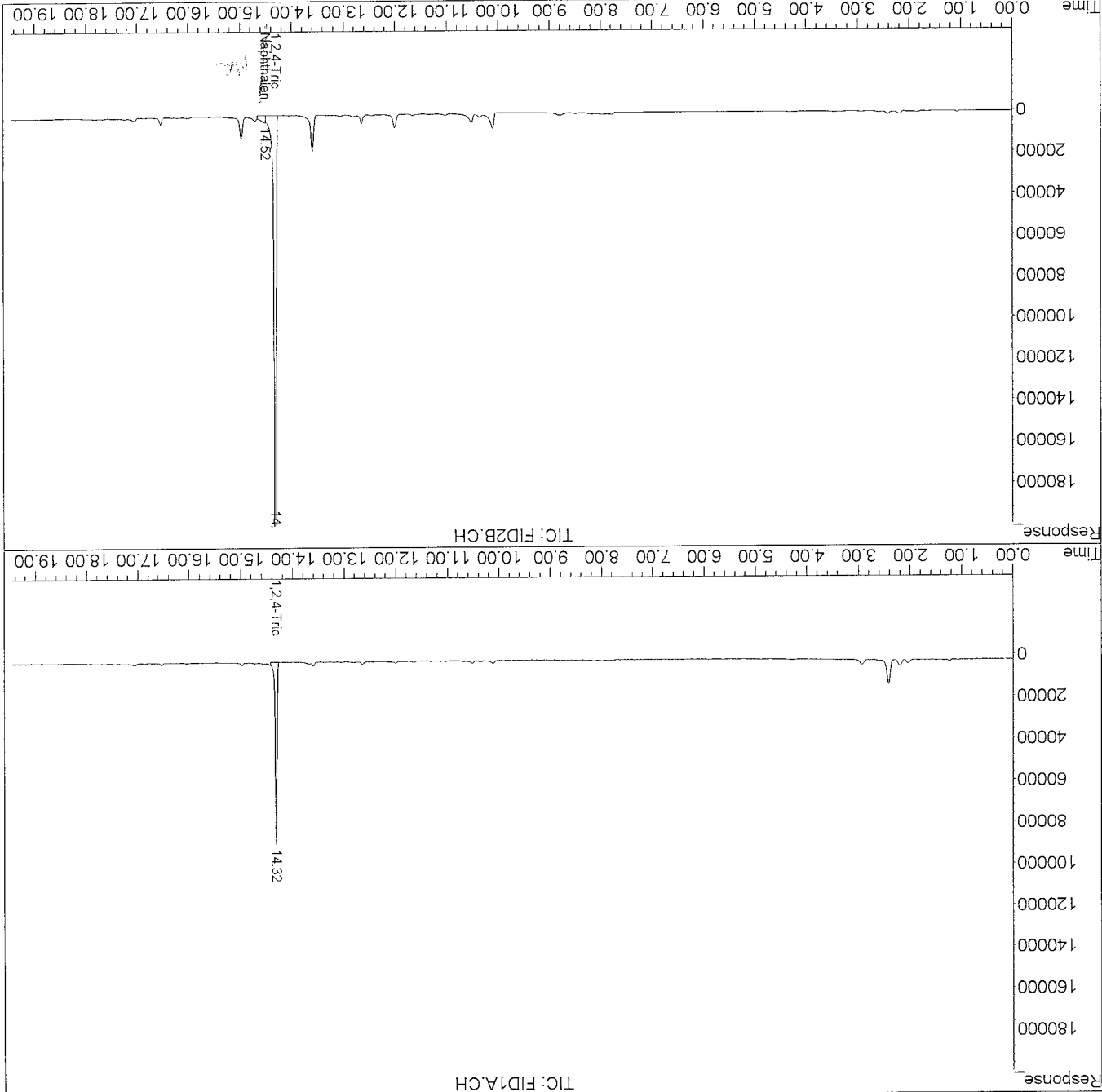
Volume Inj. :

Signal #1 Phase : DB-624

Signal #1 Info : 0.53 mm

Signal #2 Phase : DB-624

Signal #2 Info : 0.53 mm





Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\031909\TA014.D\FID1A.CH

Signal #2 : E:\DATA\031909\TA014.D\FID2B.CH

Acq On : 19 Mar 2009 5:59 pm

Sample : 09-1798-07A

Misc : SAMP, 8021 W, TVH W, 1

IntFile Signal #1: TVH1.E

IntFile Signal #2: RB2.E

Quant Time: Mar 20 9:04 2009 Quant Results File: TW20314D.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX  
Last Update : Wed Mar 18 11:41:15 2009  
Response via : Multiple Level Calibration  
DataAcq Meth : TVB2.M

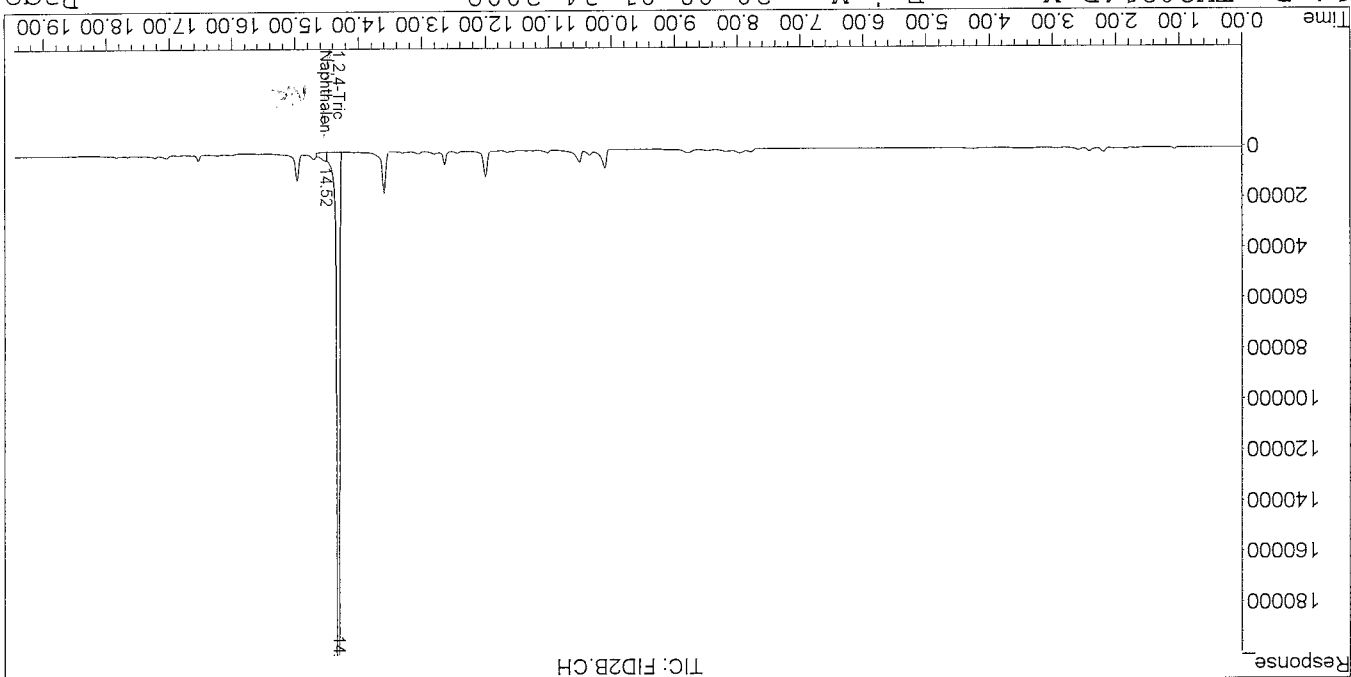
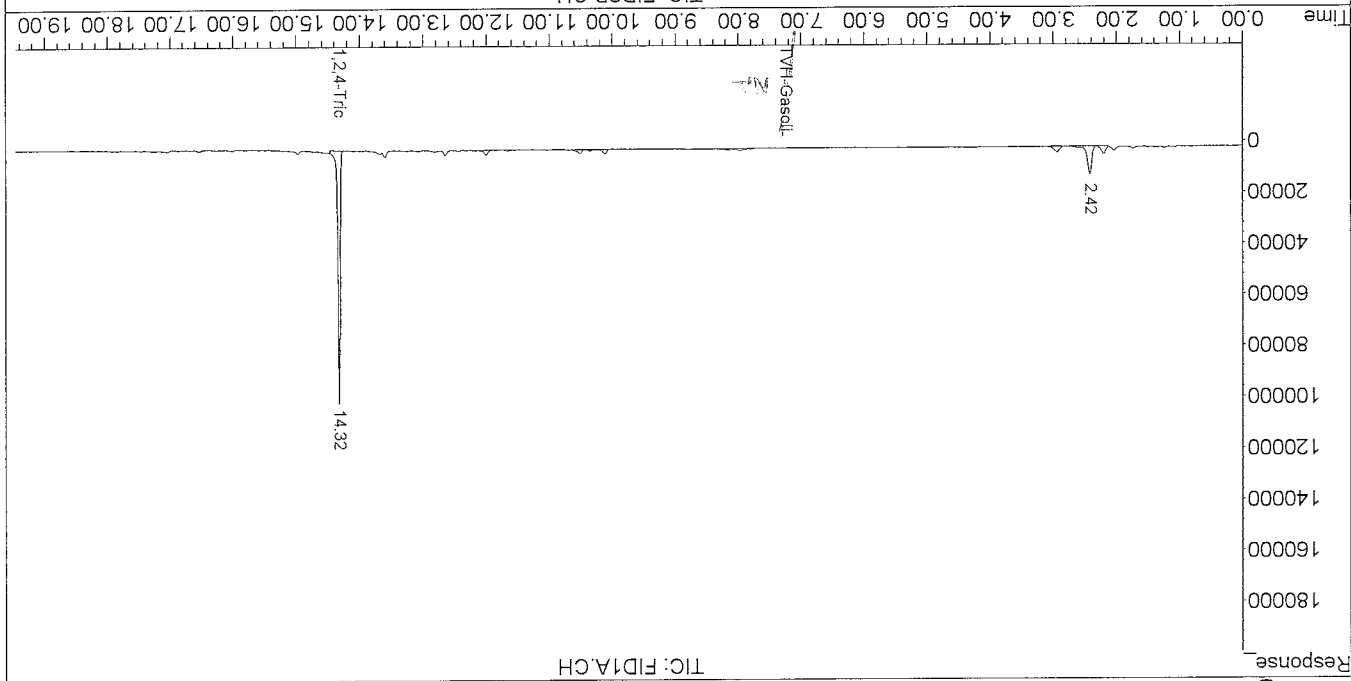
Volume Inj.

Signal #1 Phase : DB-624

Signal #1 Info : 0.53 mm

Signal #2 Phase: DB-624

Signal #2 Info : 0.53 mm



Client Sample ID: MW 9	Lab Work Order: 09-1798
Client Project ID: 008-2067	Lab Sample ID: 09-1798-08A
Date Collected: 3/17/2009	Sample Matrix: Water
Date Received: 3/18/2009	

AROMATIC VOLATILE ORGANICS

Method: SW8021B      Prep Method: SW5030B

Date Prepared: 3/19/2009	Lab File ID: 031909\TA019	Dilution Factor: 1
Date Analyzed: 3/19/2009	Method Blank: MB2031909	

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	2.3	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	90	QC Limits: 60-140	%REC

\_\_\_\_\_  
Analyst

\_\_\_\_\_  
Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

# Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\031909\TA019.D\FID1A.CH

Signal #2 : E:\DATA\031909\TA019.D\FID2B.CH

Acq On : 19 Mar 2009 8:55 pm

Sample : 09-1798-08A

Misc : SAMP, 8021 W, TVH W, 1

IntFile Signal #1: TVH1.E

IntFile Signal #2: FB2.E

Quant Time: Mar 20 9:12 2009 Quant Results File: TW20314D.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX

Last Update : Wed Mar 18 11:41:15 2009

Response via : Multiple Level Calibration

DataAcq Meth : TVB2.M

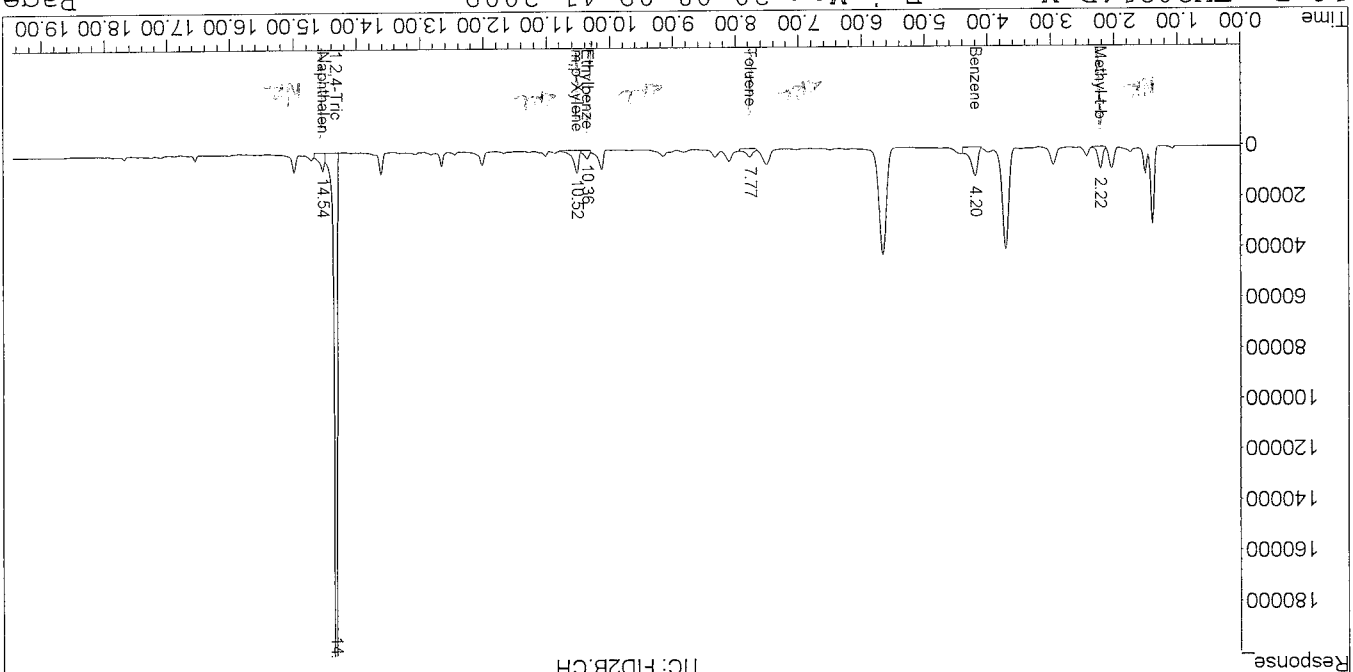
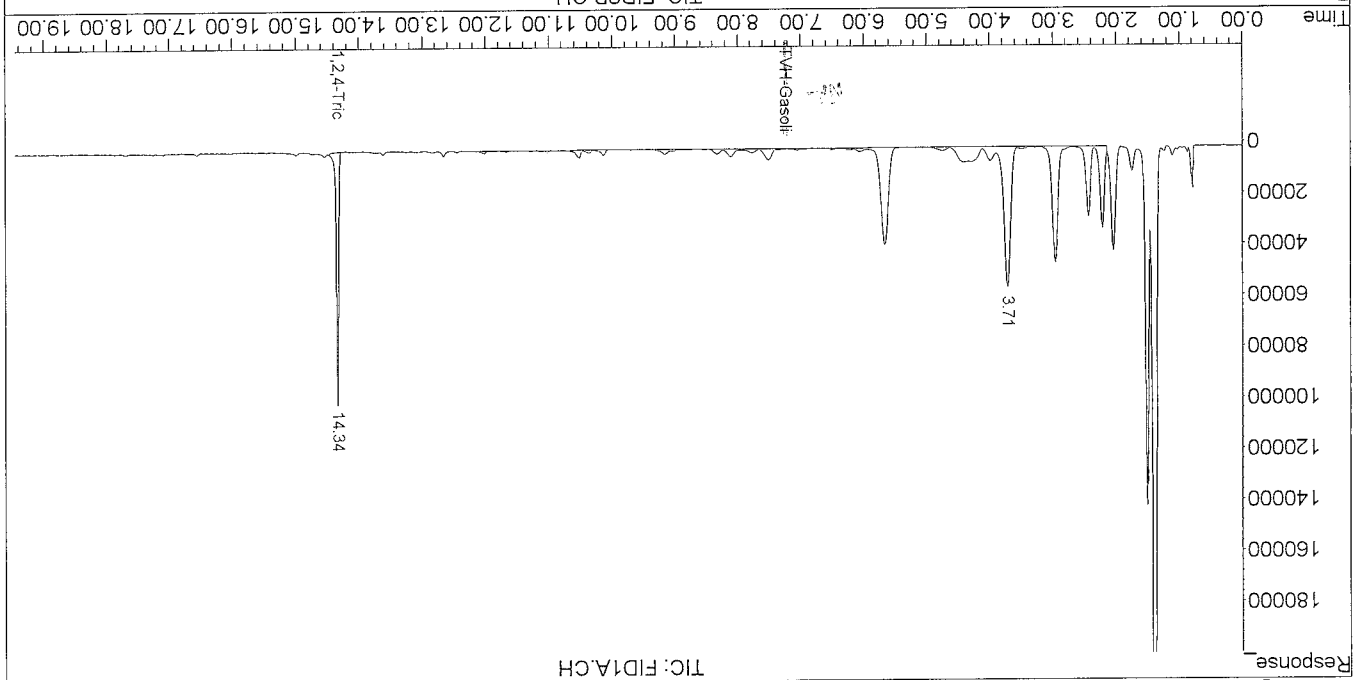
Volume Inj.

Signal #1 Phase : DB-624

Signal #1 Info : 0.53 mm

Signal #2 Phase : DB-624

Signal #2 Info : 0.53 mm



Client Sample ID: MW 14	Lab Work Order	09-1798
Client Project ID: 008-2067	Lab Sample ID:	09-1798-09A
Date Collected: 3/17/2009	Sample Matrix:	Water
Date Received: 3/18/2009		

## AROMATIC VOLATILE ORGANICS

Prep Method: SW5030B

Date Prepared: 3/19/2009	Lab File ID: 031909\TA020	Dilution Factor: 1
Date Analyzed: 3/19/2009	Method Blank: MB2031909	

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	1.0	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	93	QC Limits: 60-140	%REC

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Analyst

Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

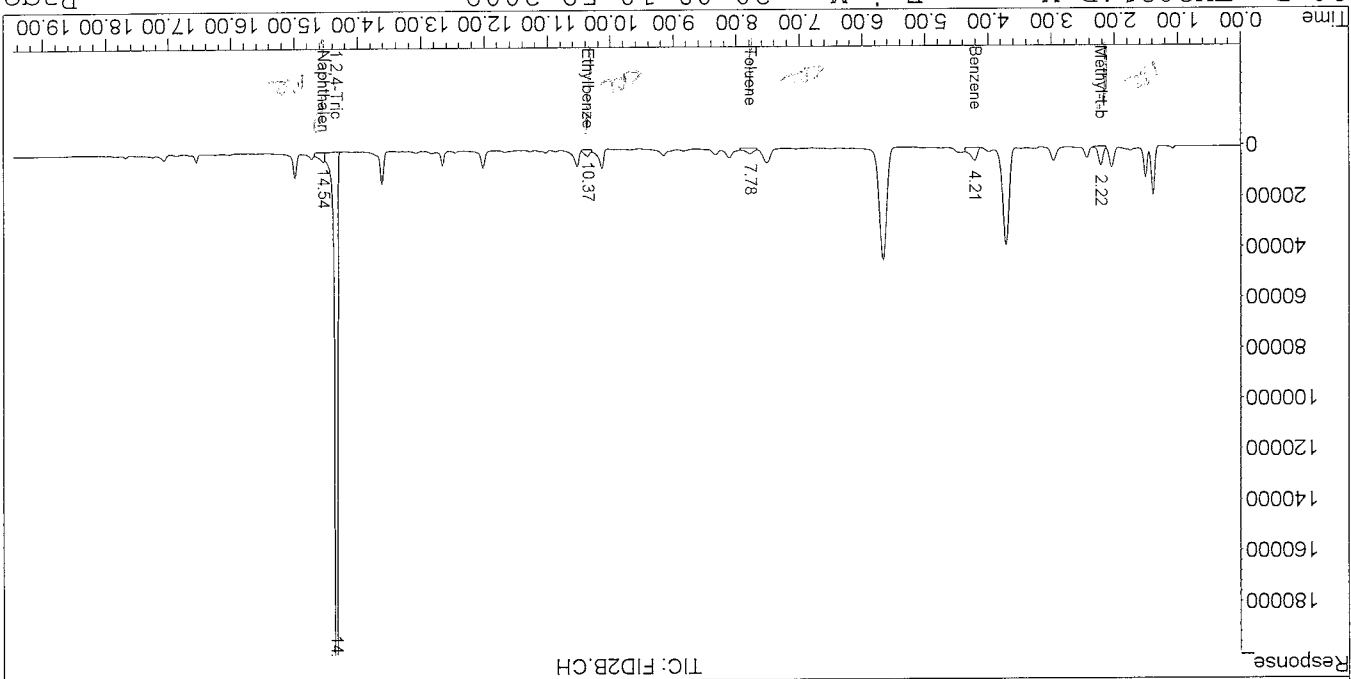
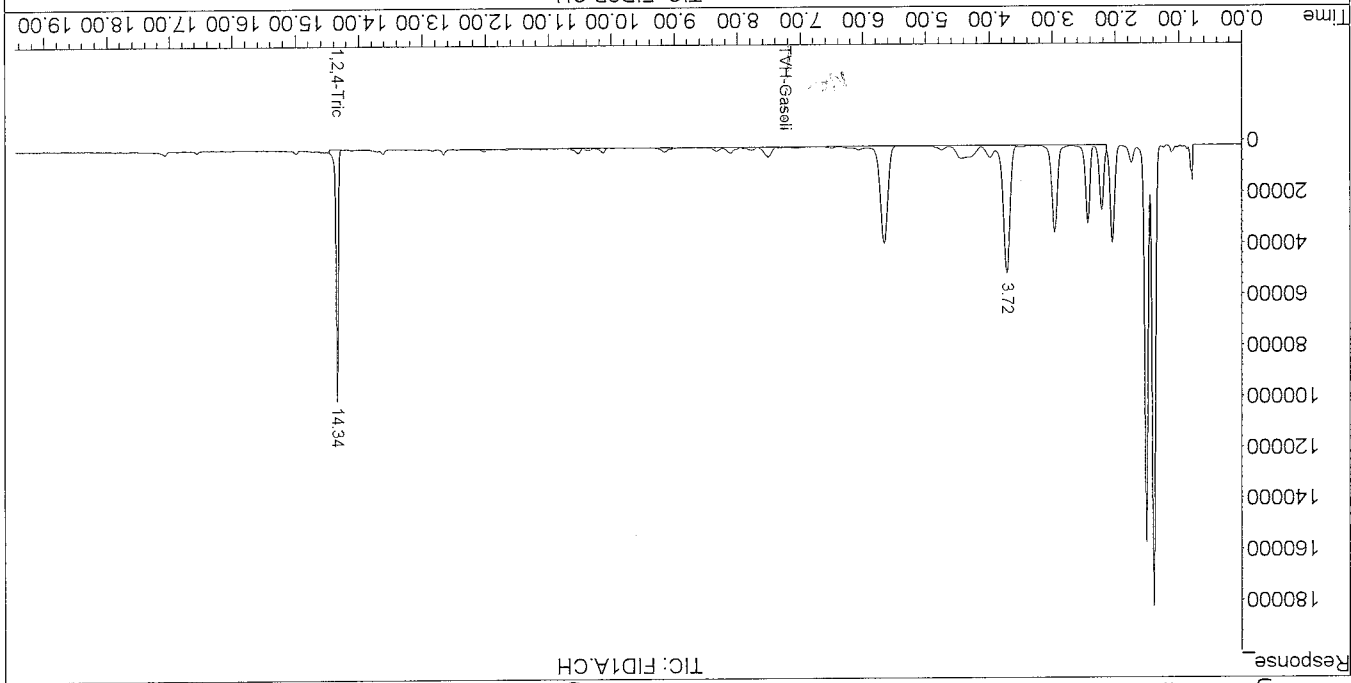
Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

# Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\031909\TA020.D\FID1A.CH  
 Signal #2 : E:\DATA\031909\TA020.D\FID2B.CH  
 Acq On : 19 Mar 2009 9:30 pm  
 Sample : 09-1798-09A  
 Misc : SAMP, 8021 W, TVH W, 1  
 IntFile Signal #1: TVH1.E  
 IntFile Signal #2: FB2.E  
 Quant Time: Mar 20 9:13 2009 Quant Results File: TW20314D.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Wed Mar 18 11:41:15 2009  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

Volume Inj.  
 Signal #1 Phase : DB-624  
 Signal #1 Info : 0.53 mm  
 Signal #2 Phase : DB-624  
 Signal #2 Info : 0.53 mm





Client Sample ID: DCS 1	Lab Work Order 09-1798
Client Project ID: 008-2067	Lab Sample ID: 09-1798-10A
Date Collected: 3/17/2009	Sample Matrix: Water
Date Received: 3/18/2009	

AROMATIC VOLATILE ORGANICS

Prep Method: SW5030B

Date Prepared: 3/19/2009	Lab File ID: 031909VTA021	Dilution Factor: 1
Date Analyzed: 3/19/2009	Method Blank: MJB2031909	

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	89	QC Limits: 60-140	%RBC

Analyst

Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers:

- B - Analyte detected in the associated Method Blank, value not subtracted from result
- E - Extrapolated value. Value exceeds calibration range
- H - Sample analysis exceeded analytical holding time
- I - Indicates an estimated value when the compound is detected, but is below the LQL
- S - Spike Recovery outside accepted limits
- U - Compound analyzed for but not detected
- X - See case narrative
- \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

# Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\031909\TA021.D\FID1A.CH

Signal #2 : E:\DATA\031909\TA021.D\FID2B.CH

Acq On : 19 Mar 2009 10:05 pm

Sample : 09-1798-10A

Misc : SAMP, 8021 W, TVH W, 1

IntFile Signal #1: TVHI.E

IntFile Signal #2: FB2.E

Quant Time: Mar 20 9:16 2009 Quant Results File: TW20314D.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX

Last Update : Wed Mar 18 11:41:15 2009

Response via : Multiple Level Calibration

DataAcq Meth : TVB2.M

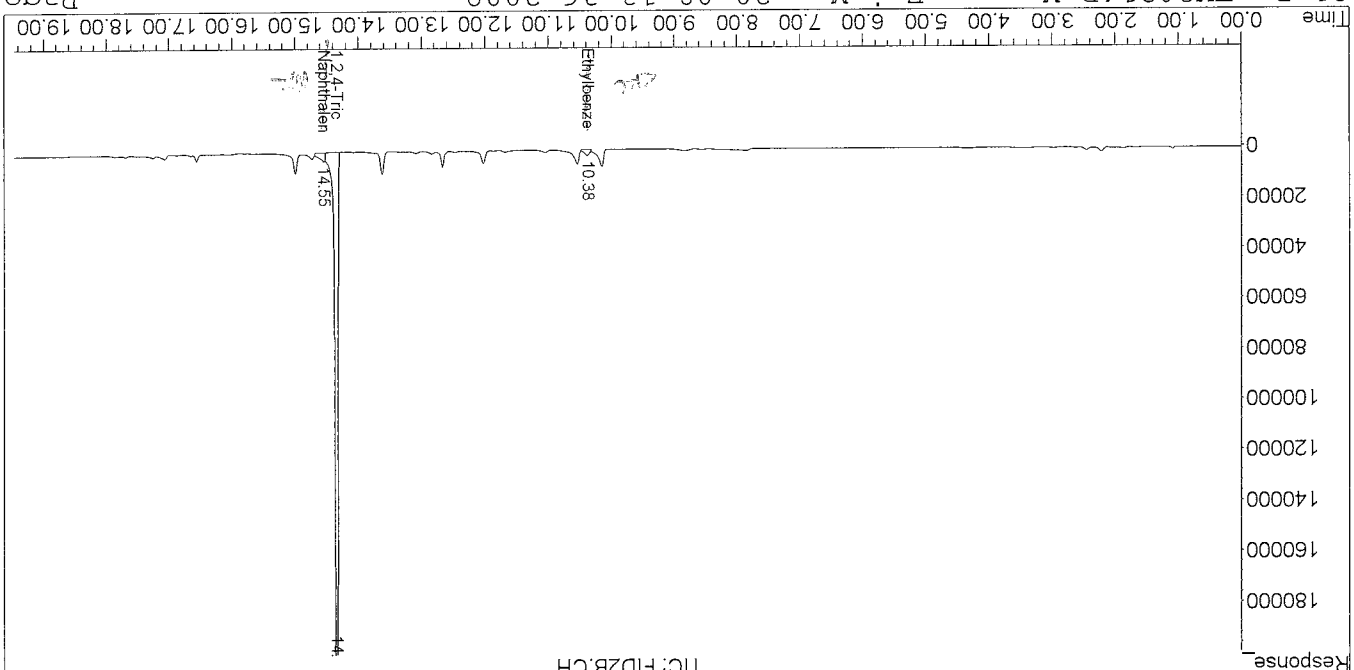
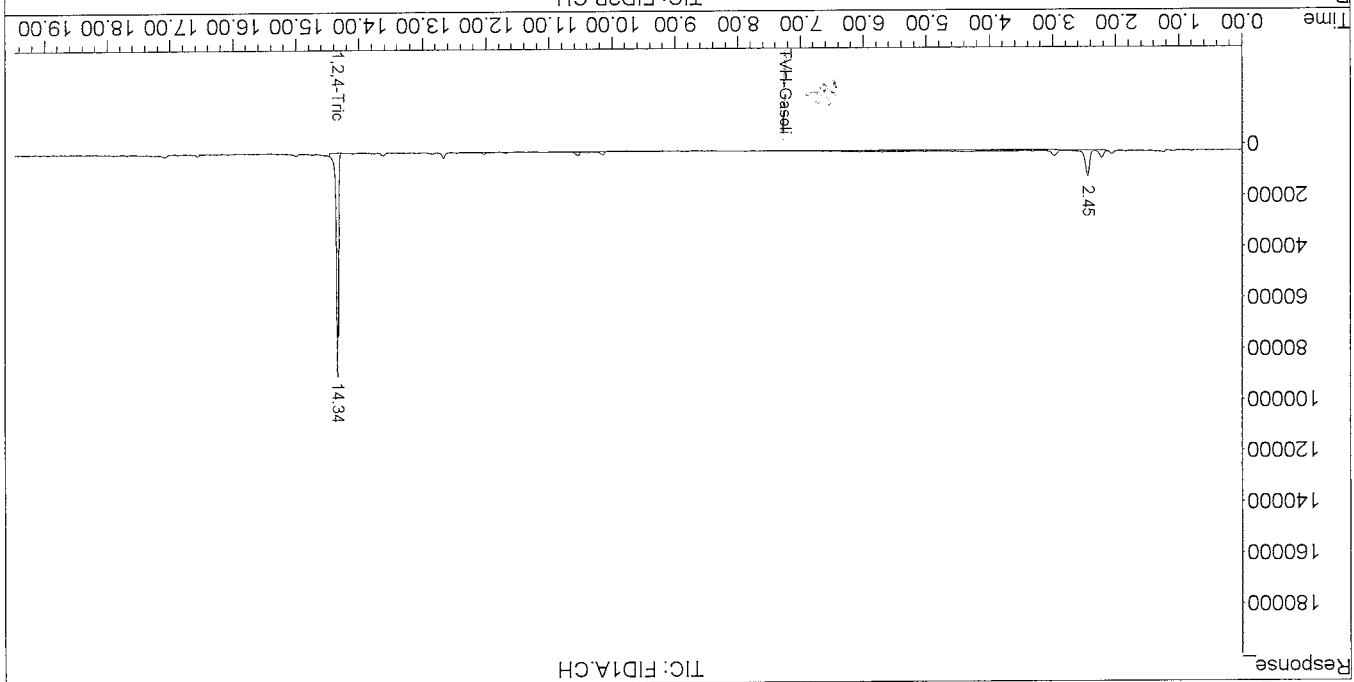
Volume Inj. :

Signal #1 Phase : DB-624

Signal #1 Info : 0.53 mm

Signal #2 Phase : DB-624

Signal #2 Info : 0.53 mm



for 03/20/09

Operator: Jennifer C

Inst : TVHBTEX2

Multiplier: 1.00

Vial: 21

Client Sample ID: DCS 0	Lab Work Order	09-1798
Client Project ID: 008-2067	Lab Sample ID:	09-1798-11A
Date Collected: 3/17/2009	Sample Matrix:	Water
Date Received: 3/18/2009		

AROMATIC VOLATILE ORGANICS

Prep Method: SW5030B

Date Prepared: 3/19/2009	Lab File ID: 031909\TA022	Dilution Factor: 1
Date Analyzed: 3/19/2009	Method Blank: MB2031909	

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	90	QC Limits: 60-140	%REC

Analyst

Approved

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers:

- B - Analyte detected in the associated Method Blank, value not subtracted from result
- E - Extrapolated value. Value exceeds calibration range
- H - Sample analysis exceeded analytical holding time
- J - Indicates an estimated value when the compound is detected, but is below the LQL
- S - Spike Recovery outside accepted limits
- U - Compound analyzed for but not detected
- X - See case narrative
- \* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit

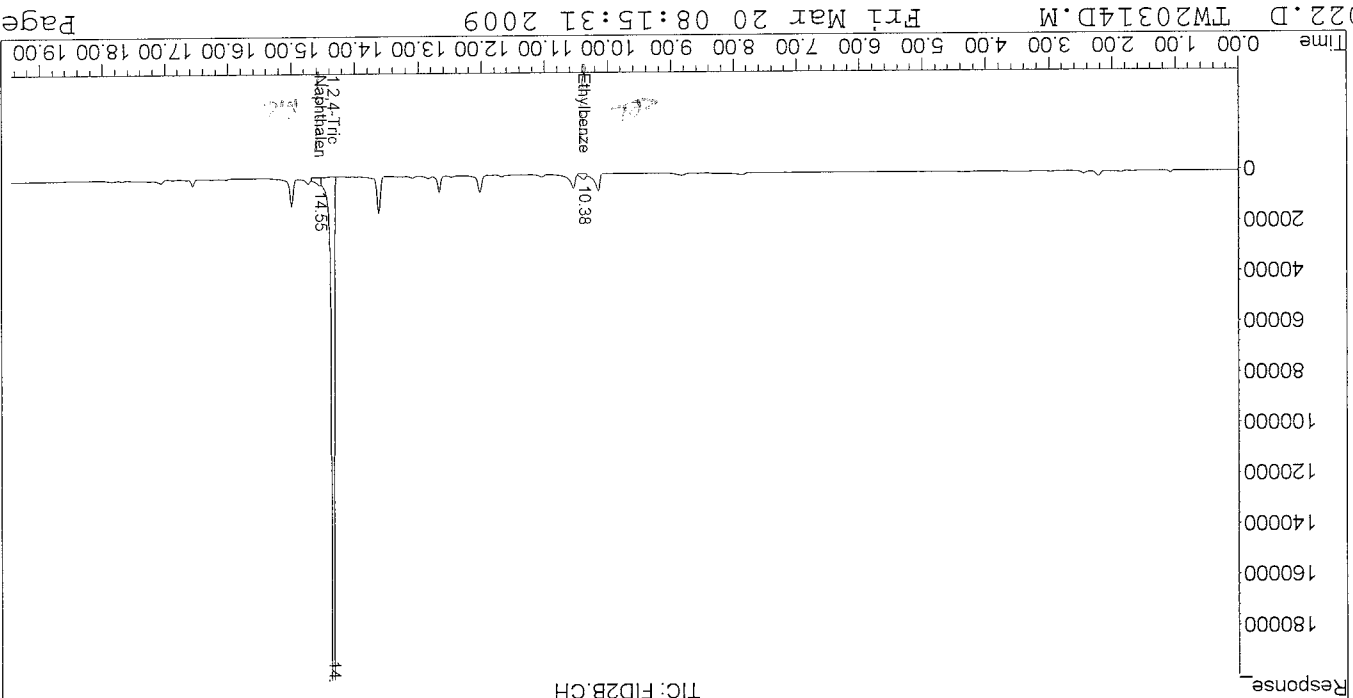
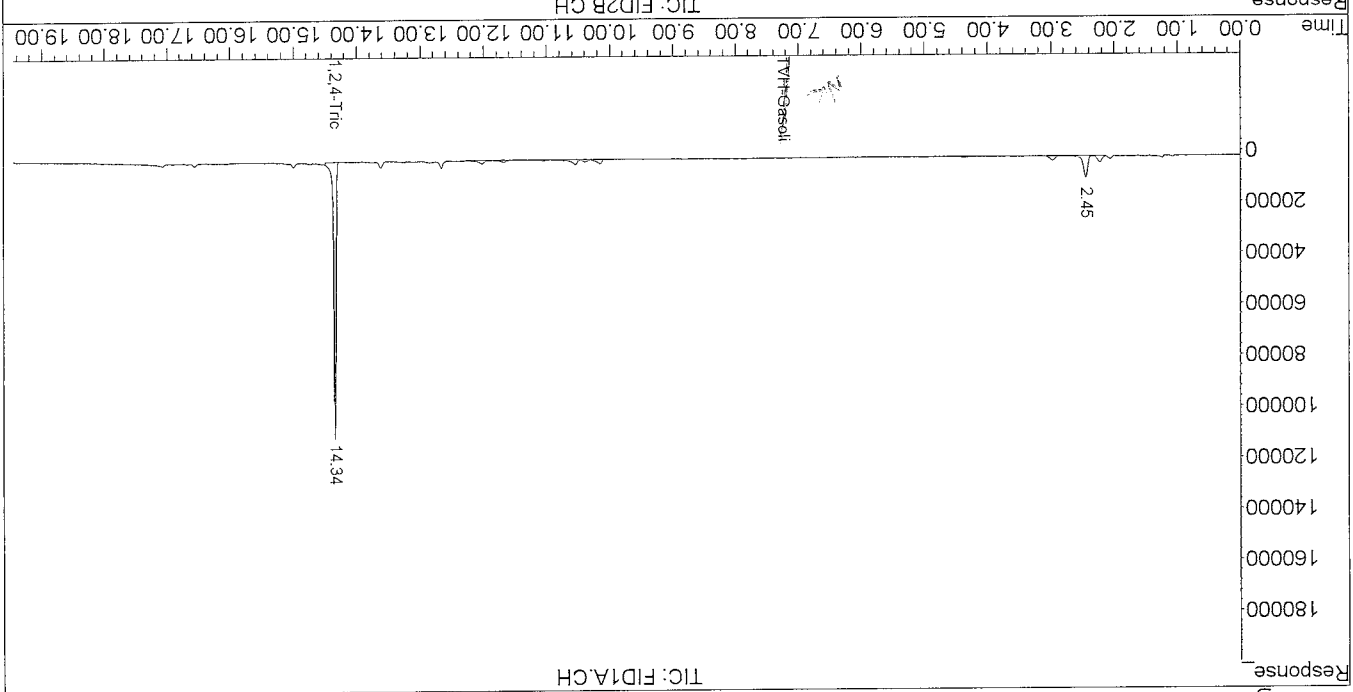
Surr - Surrogate

# Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\031909\TA022.D\FID1A.CH  
 Signal #2 : E:\DATA\031909\TA022.D\FID2B.CH  
 Acq On : 19 Mar 2009 10:40 pm  
 Sample : 09-1798-11A  
 Misc : SAMP, 8021 W, TVH W, 1  
 IntFile Signal #1: TVH1.E  
 IntFile Signal #2: FB2.E  
 Quant Time: Mar 20 9:18 2009 Quant Results File: TW20314D.RES

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Wed Mar 18 11:41:15 2009  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

Volume Inj.  
 Signal #1 Phase : DB-624  
 Signal #2 Phase : DB-624  
 Signal #1 Info : 0.53 mm  
 Signal #2 Info : 0.53 mm



Client Sample ID: DCS 2	Lab Work Order	09-1798
Client Project ID: 008-2067	Lab Sample ID:	09-1798-12A
Date Collected: 3/17/2009	Sample Matrix:	Water
Date Received: 3/18/2009		

AROMATIC VOLATILE ORGANICS

Method: SW8021B	Prep Method: SW5030B
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Date Prepared: 3/19/2009	Lab File ID: 031909\TA023	Dilution Factor: 1
Date Analyzed: 3/19/2009	Method Blank: MB2031909	

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	89	60-140	%REC

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Analyst

Approved

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

# Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\031909\TA023.D\FID1A.CH

Signal #2 : E:\DATA\031909\TA023.D\FID2B.CH

Acq On : 19 Mar 2009 11:15 pm

Sample : 09-1798-12A

Misc : SAMP, 8021 W, TVH W, 1

IntFile Signal #1: TVH1.E

IntFile Signal #2: FB2.E

Quant Time: Mar 20 9:19 2009 Quant Results File: TW20314D.RFS

Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)

Title : 8015B/8021B TVH/BTEX

Last Update : Wed Mar 18 11:41:15 2009

Response via : Multiple Level Calibration

DataAcq Meth : TVB2.M

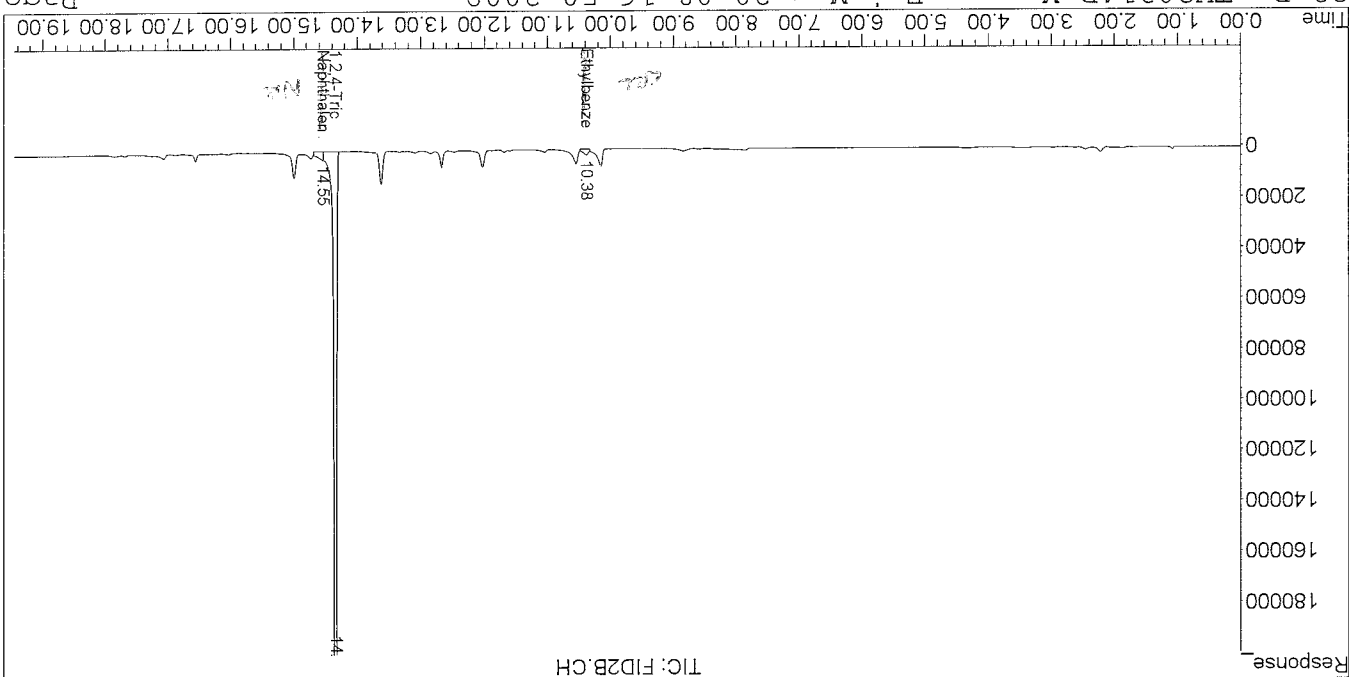
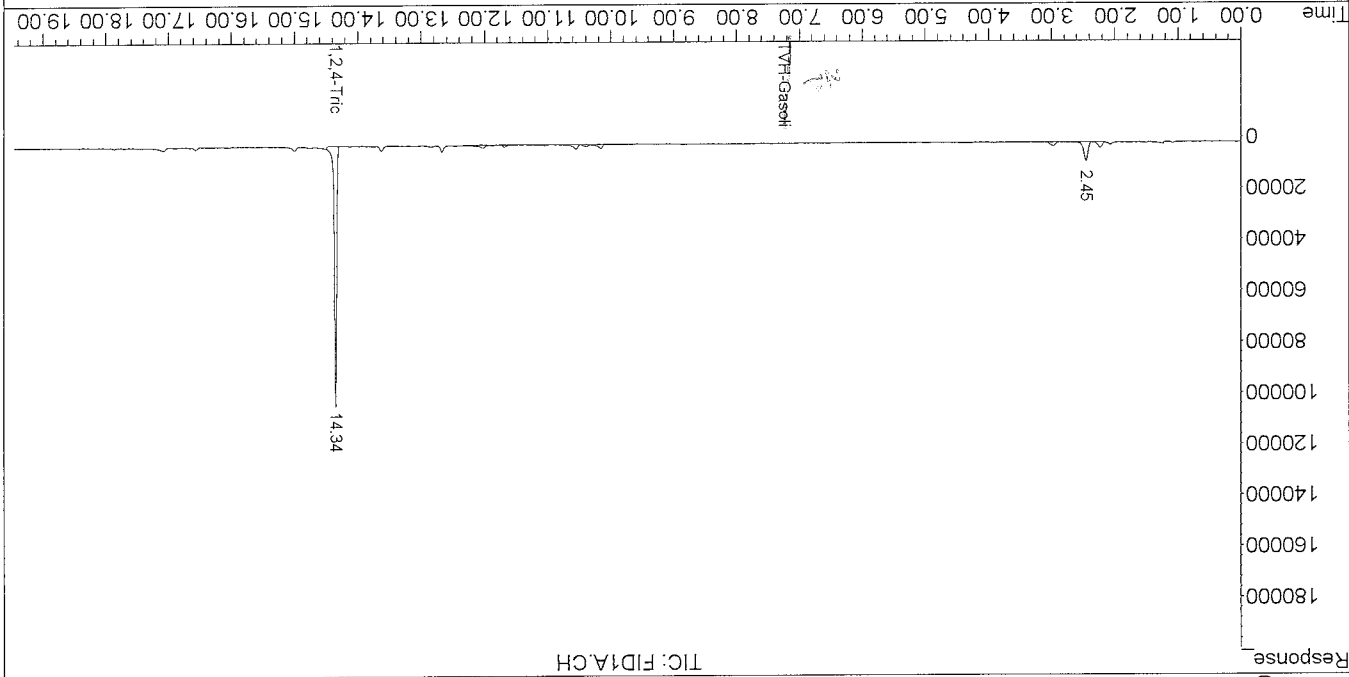
Volume Inj. :

Signal #1 Phase : DB-624

Signal #1 Info : 0.53 mm

Signal #2 Phase : DB-624

Signal #2 Info : 0.53 mm



Client Sample ID: DCS 3	Lab Work Order	09-1798
Client Project ID: 008-2067	Lab Sample ID:	09-1798-13A
Date Collected: 3/17/2009	Sample Matrix:	Water
Date Received: 3/18/2009		

AROMATIC VOLATILE ORGANICS

Prep Method: SW5030B

Date Prepared: 3/19/2009	Lab File ID: 031909\TA024	Dilution Factor: 1
Date Analyzed: 3/19/2009	Method Blank: MB2031909	

Analytes	CAS Number	Result	LQL	Units
Benzene	71-43-2	U	1.0	µg/L
Toluene	108-88-3	U	2.0	µg/L
Ethylbenzene	100-41-4	U	2.0	µg/L
m,p-Xylene	1330-20-7	U	2.0	µg/L
o-Xylene	95-47-6	U	2.0	µg/L
Surr: 1,2,4-Trichlorobenzene (S)	120-82-1	89	QC Limits: 60-140	%REC

Notes: Total Xylenes consist of three isomers, two of which co-elute. The Xylene RL is for a single peak. Confirmation analysis was not performed.

Qualifiers: B - Analyte detected in the associated Method Blank, value not subtracted from result  
E - Extrapolated value. Value exceeds calibration range  
H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Definitions: LQL - Lower Quantitation Limit  
Surr - Surrogate

Analyst

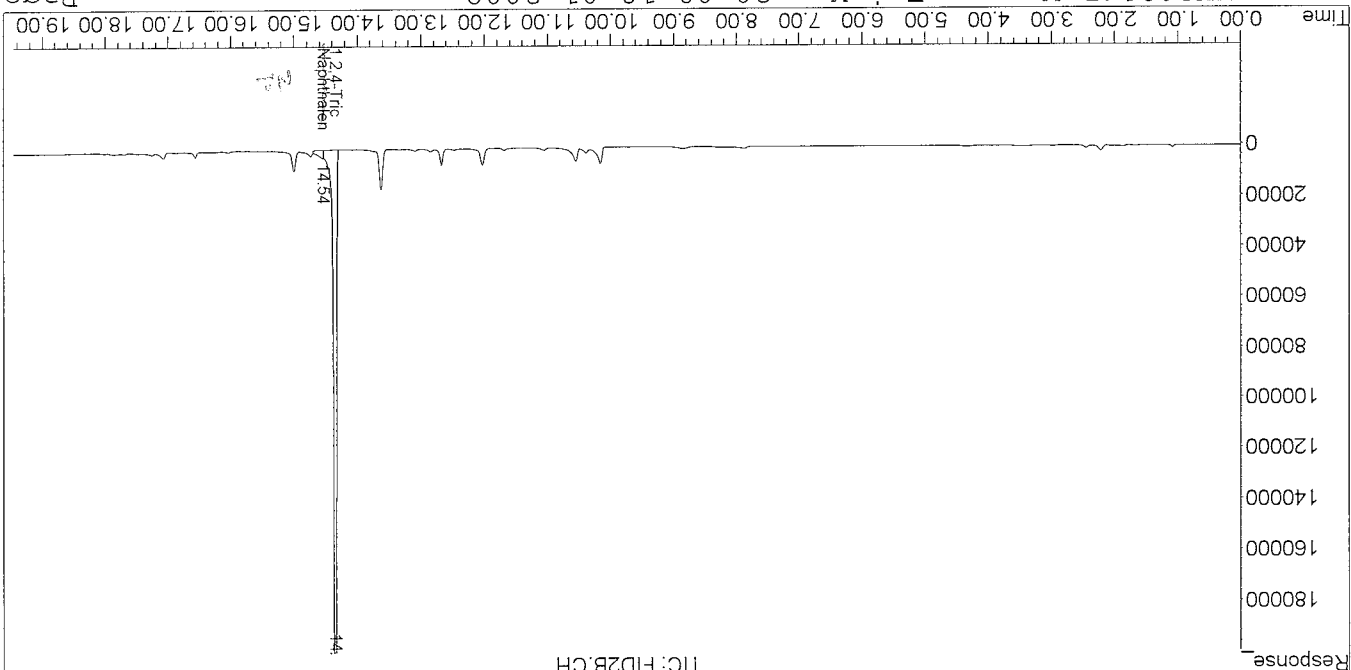
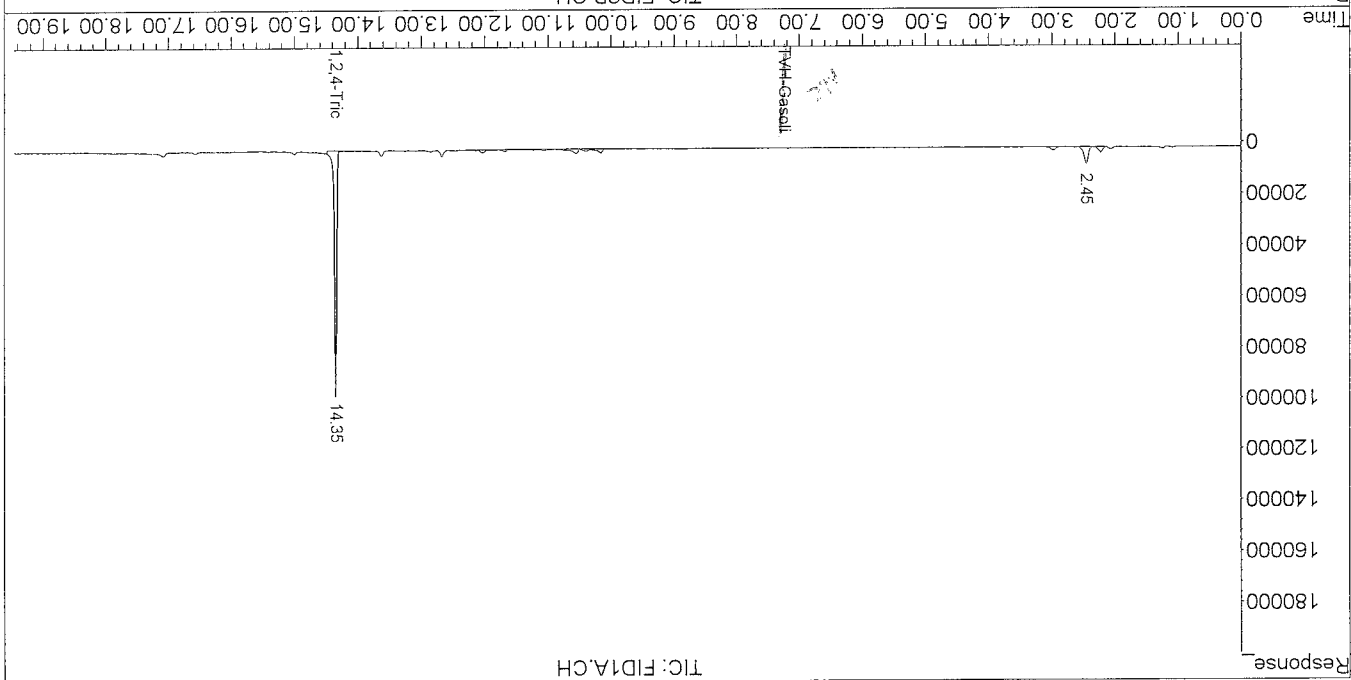
Approved

# Quantitation Report (Not Reviewed)

Signal #1 : E:\DATA\031909\TA024.D\FID1A.CH  
 Signal #2 : E:\DATA\031909\TA024.D\FID2B.CH  
 Acq On : 19 Mar 2009 11:50 pm  
 Sample : 09-1798-13A  
 Misc : SAMP, 8021 W, TVH W, 1  
 IntFile Signal #1: TVH1.E  
 IntFile Signal #2: RB2.E  
 Quant Time: Mar 20 9:20 2009 Quant Results File: TW20314D.RES  
 Quant Method : C:\MSDCHEM\1\METHODS\TW20314D.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Wed Mar 18 11:41:15 2009  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

## Volume Inj.

Signal #1 Phase : DB-624  
 Signal #2 Phase: DB-624  
 Signal #1 Info : 0.53 mm  
 Signal #2 Info : 0.53 mm





**Evergreen Analytical, Inc.**  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Project ID 008-2067

Lab Order: 09-1798  
Units: mg/L

**RSKSOP-175M Headspace**

**Methane**

**Method: RSKSOP175M**

**Prep Method: RSKSOP175M**

Lab ID	Client ID	Matrix	Date Received	Collection Date	Date Prepared	Date Analyzed	Results	LQL	DF
09-1798-01B	MW 1	Water	3/18/09	3/17/09	3/23/09	3/23/09	0.0065	0.00080	1
09-1798-02B	MW 2	Water	3/18/09	3/17/09	3/23/09	3/23/09	6.1	0.016	20
09-1798-03B	MW 26	Water	3/18/09	3/17/09	3/23/09	3/23/09	0.14	0.00080	1
09-1798-04B	MW 24	Water	3/18/09	3/17/09	3/23/09	3/23/09	U	0.00080	1
09-1798-05B	MW 25	Water	3/18/09	3/17/09	3/23/09	3/23/09	U	0.00080	1
09-1798-06B	MW 11	Water	3/18/09	3/17/09	3/23/09	3/23/09	0.0073	0.00080	1
09-1798-07B	MW 12	Water	3/18/09	3/17/09	3/23/09	3/23/09	0.016	0.00080	1
09-1798-08B	MW 9	Water	3/18/09	3/17/09	3/23/09	3/23/09	8.1	0.016	20
09-1798-09B	MW 14	Water	3/18/09	3/17/09	3/23/09	3/23/09	7.0	0.016	20
09-1798-10B	DCS 1	Water	3/18/09	3/17/09	3/23/09	3/23/09	U	0.00080	1
09-1798-11B	DCS 0	Water	3/18/09	3/17/09	3/23/09	3/23/09	U	0.00080	1
09-1798-12B	DCS 2	Water	3/18/09	3/17/09	3/23/09	3/23/09	U	0.00080	1
09-1798-13B	DCS 3	Water	3/18/09	3/17/09	3/23/09	3/23/09	U	0.00080	1

**Comments:**

VM

**Analyst**

**Approved**

**Qualifiers:** J - Indicates an estimated value when the compound is detected, but is below the LQL

H - Sample analysis exceeded analytical holding time

U - Compound analyzed for but not detected

X - See case narrative

\*. Value exceeds Maximum Contamination Level(MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

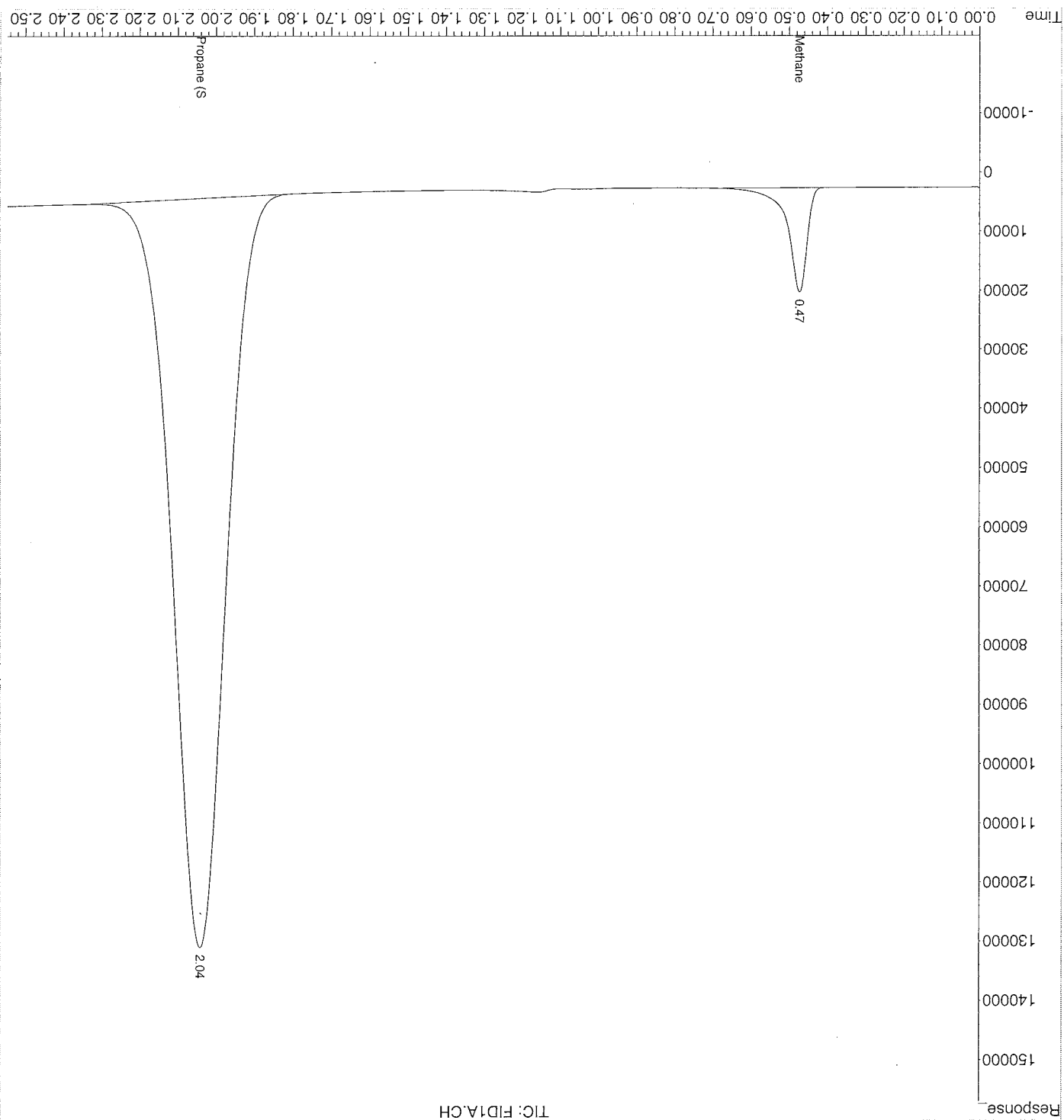
**Definitions:** DF - Dilution Factor  
LQL - Lower Quantitation Limit

Print Date: 3/24/2009

# Quantitation Report (Not Reviewed)

Data File : F:\DATA\032309\FB024.D  
 Acq On : 23 Mar 2009 4:53 pm  
 Sample : 09-1798-01B  
 Misc : SAMP, MEPP\_W, 1, 500ul  
 IntFile : autoint1.e  
 Quant Time: Mar 24 10:39 2009 Quant Results File: GAS0323.RES  
 Quant Method : C:\MSDCHEM\2\METHODS\GAS0323.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Tue Mar 24 09:28:15 2009  
 Response via : Single Level Calibration  
 DataAcq Meth : GAS.M  
 Volume Inj. : 100ul  
 Signal Phase : Porapak Q 80/100  
 Signal Info : 1/8 in

TIC: FID1A.CH



Quantitation Report (Not Reviewed)

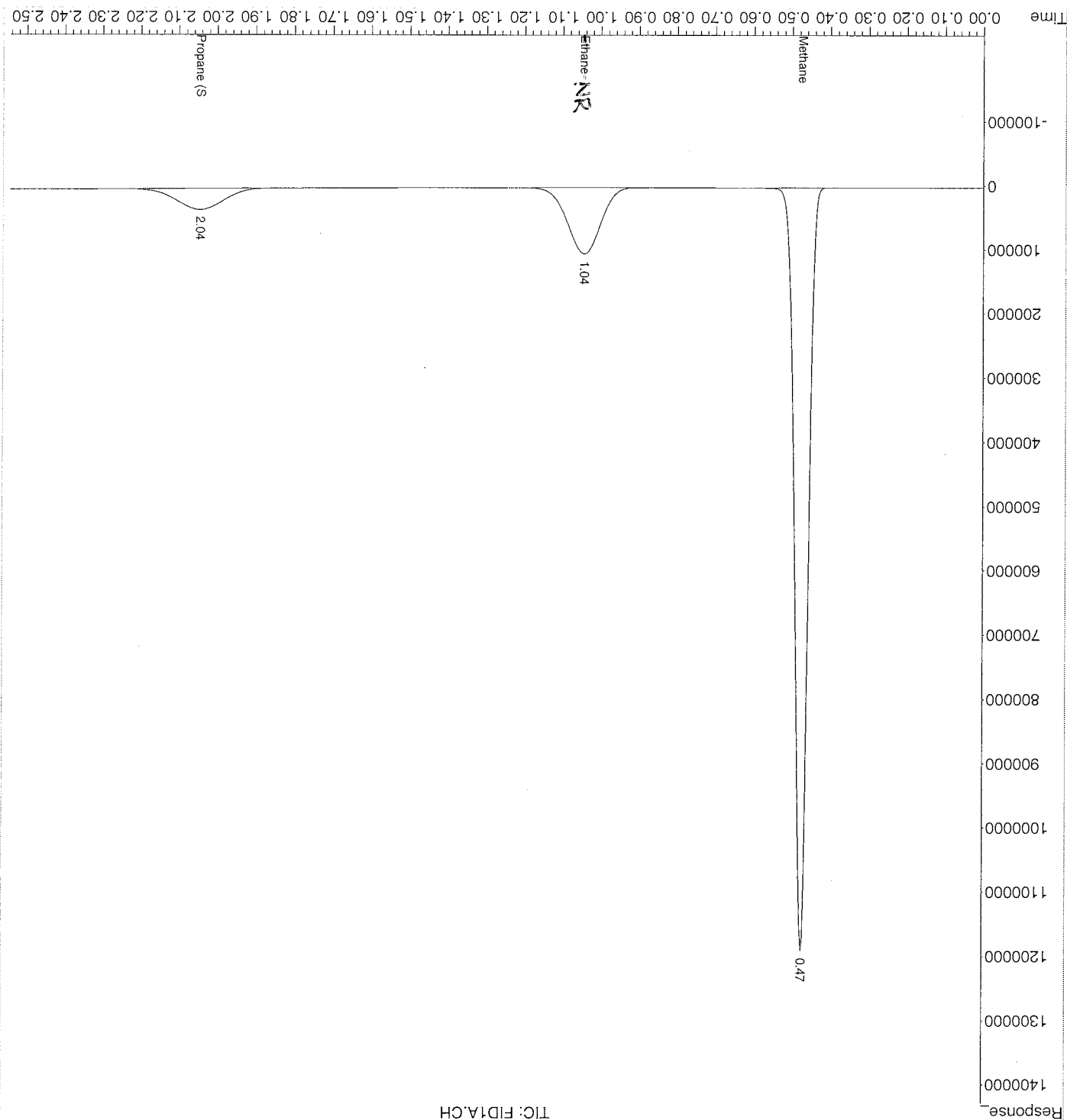
Data File : F:\DATA\032309\FB026.D  
Acq On : 23 Mar 2009 5:01 pm  
Sample : 09-1798-02B  
Misc : SAMP, MEFP-W, 20, 25uL  
Inst : FID4  
Operator: Virginia Meyer  
Vial: 26  
Multiplier: 1.00

Quant Time: Mar 24 10:39 2009 Quant Results File: GAS0323.RES

Quant Method : C:\MSDCHEM\2\METHODS\GAS0323.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Mar 24 09:28:15 2009  
Response via : Single Level Calibration  
DataAcq Meth : GAS.M

Volume Inj. : 100uL  
Signal Phase : Porapak Q 80/100  
Signal Info : 1/8 in

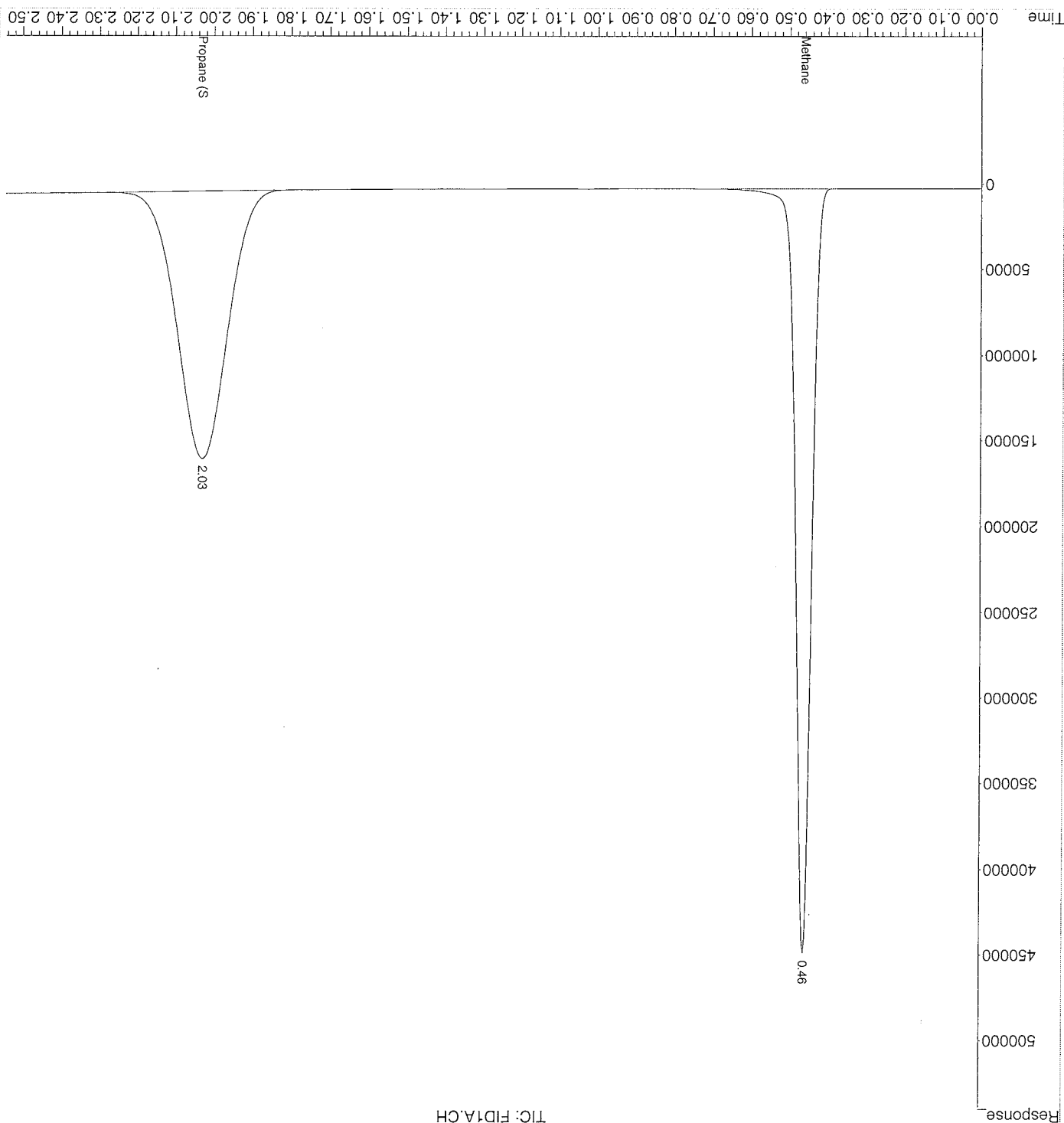
TIC: FID1A.CH



# Quantitation Report (Not Reviewed)

Data File : F:\DATA\032309\FB014.D  
 Acq On : 23 Mar 2009 3:53 pm  
 Sample : 09-1798-03B  
 Misc : SAMP, MEEP\_W, 1, 500uL  
 IntFile : autoInt1.e  
 Quant Time: Mar 24 10:39 2009 Quant Results File: GAS0323.RES  
 Quant Method : C:\MSDCHEM\2\METHODS\GAS0323.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethane, and Propane  
 Last Update : Tue Mar 24 09:28:15 2009  
 Response via : Single Level Calibration  
 DataAcq Meth : GAS.M  
 Volume Inj. : 100uL  
 Signal Phase : Porapak Q 80/100  
 Signal Info : 1/8 in

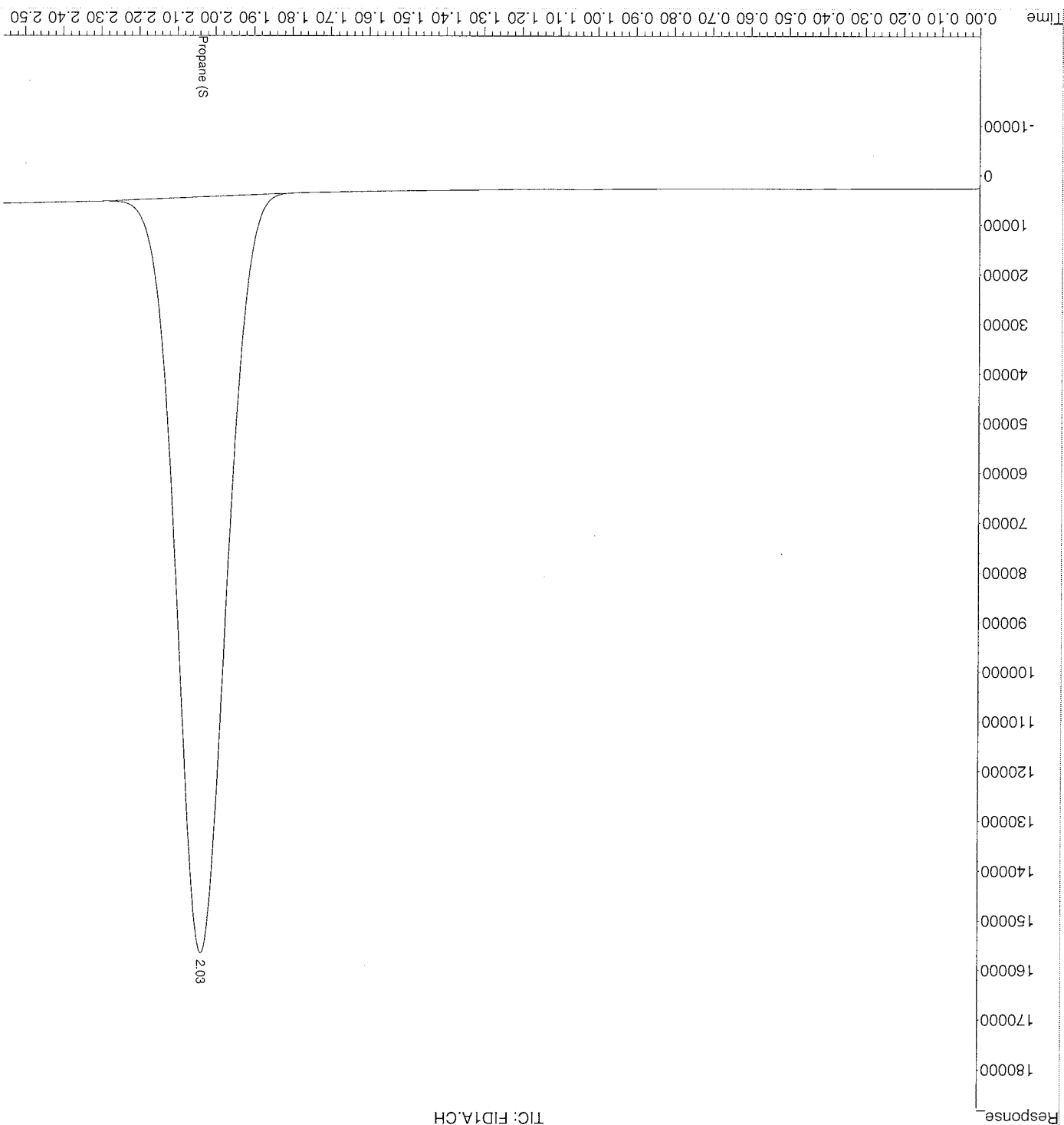
TIC: FID1A.CH



Quantitation Report (Not Reviewed)

Data File : F:\DATA\032309\FB015.D  
 Acq On : 23 Mar 2009 3:59 pm  
 Sample : 09-1798-04B  
 Misc : SAMP, MEEP\_W, 1, 500ul  
 IntFile : autoint1.e  
 Quant Time: Mar 24 10:39 2009 Quant Results File: GAS0323.RES  
 Quant Method : C:\MSDCHEM\2\METHODS\GAS0323.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Tue Mar 24 09:28:15 2009  
 Response via : Single Level Calibration  
 DataAcq Meth : GAS.M  
 Volume Inj. : 100ul  
 Signal Phase : Porapak Q 80/100  
 Signal Info : 1/8 in

TIC: FID1A.CH



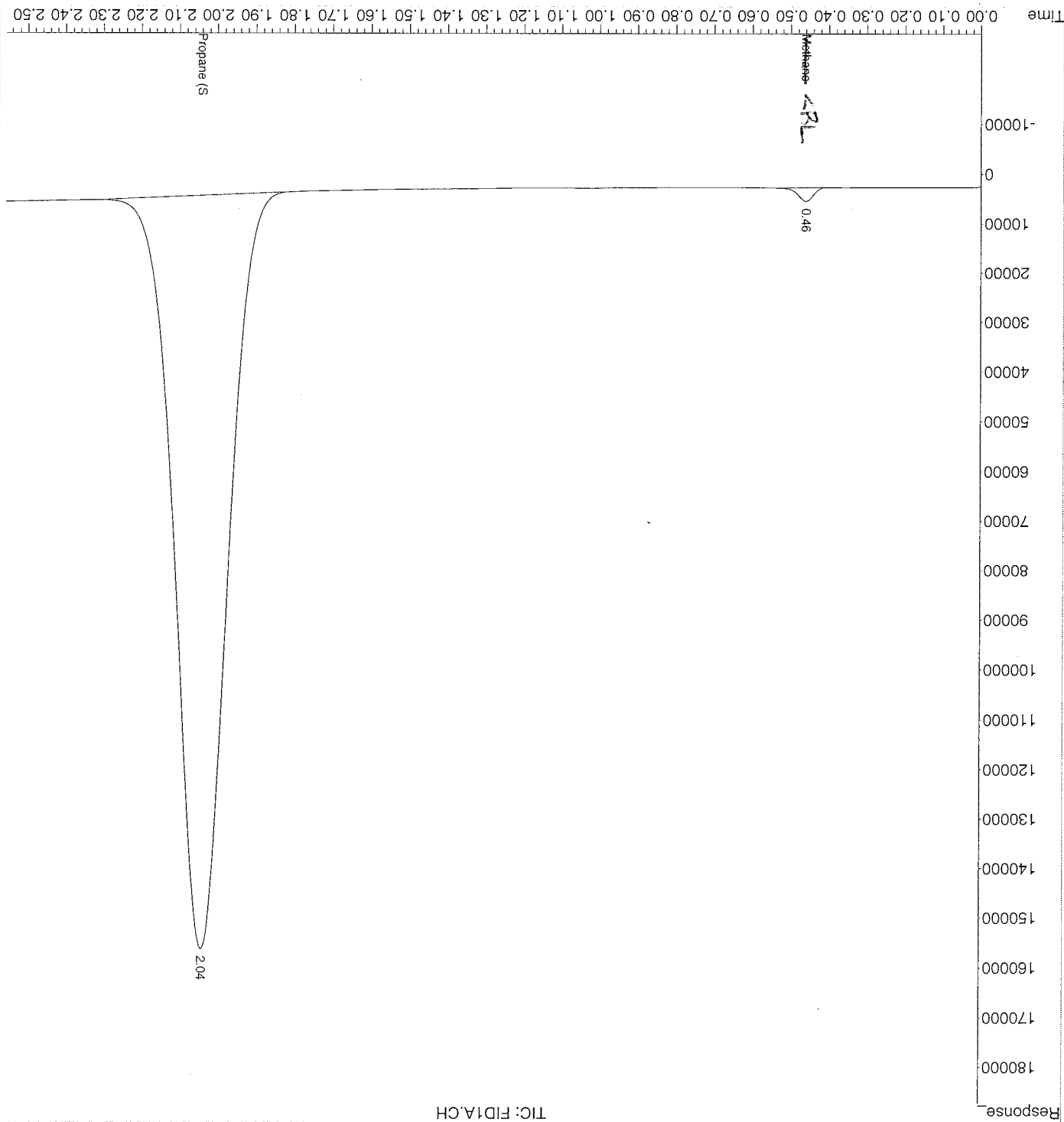
# Quantitation Report (Not Reviewed)

Data File : F:\DATA\032309\FB016.D  
 Acq On : 23 Mar 2009 4:03 pm  
 Sample : 09-1798-05B  
 Misc : SAMP, MEPP\_W, 1, 500uL  
 IntFile : autoint1.e  
 Quant Time: Mar 24 10:39 2009 Quant Results File: GAS0323.RES  
 Vial: 16  
 Operator: Virginia Meyer  
 Inst : FID4  
 Multiplr: 1.00

Quant Method : C:\MSDCHEM\2\METHODS\GAS0323.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Tue Mar 24 09:28:15 2009  
 Response via : Single Level Calibration  
 DataAcq Meth : GAS.M

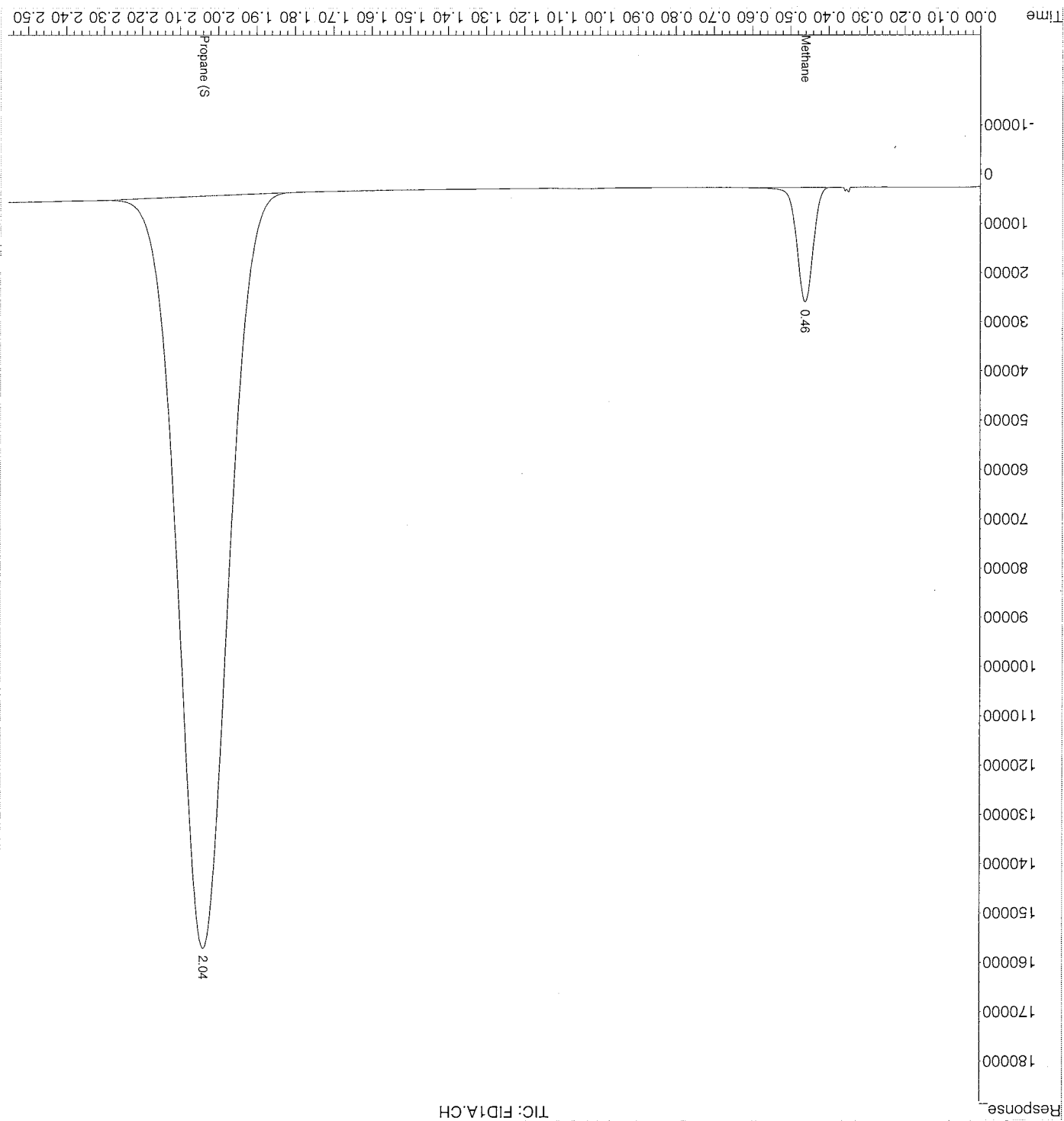
Volume Inj. : 100ul  
 Signal Phase : Porapak Q 80/100  
 Signal Info : 1/8 in

TIC: FID1A.CH



Data File : F:\DATA\032309\FB017.D  
 Acq On : 23 Mar 2009 4:07 pm  
 Sample : 09-1798-06B  
 Misc : SAMP, MEPP\_W, 1, 500uL  
 IntFile : autointl.e  
 Quant Time: Mar 24 10:39 2009 Quant Results File: GAS0323.RES  
 Quant Method : C:\MSDCHEM\2\METHODS\GAS0323.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethane, and Propane  
 Last Update : Tue Mar 24 09:28:15 2009  
 Response via : Single Level Calibration  
 DataAcq Meth : GAS.M  
 Volume Inj. : 100uL  
 Signal Phase : Porapak Q 80/100  
 Signal Info : 1/8 in

TIC: FID1A.CH



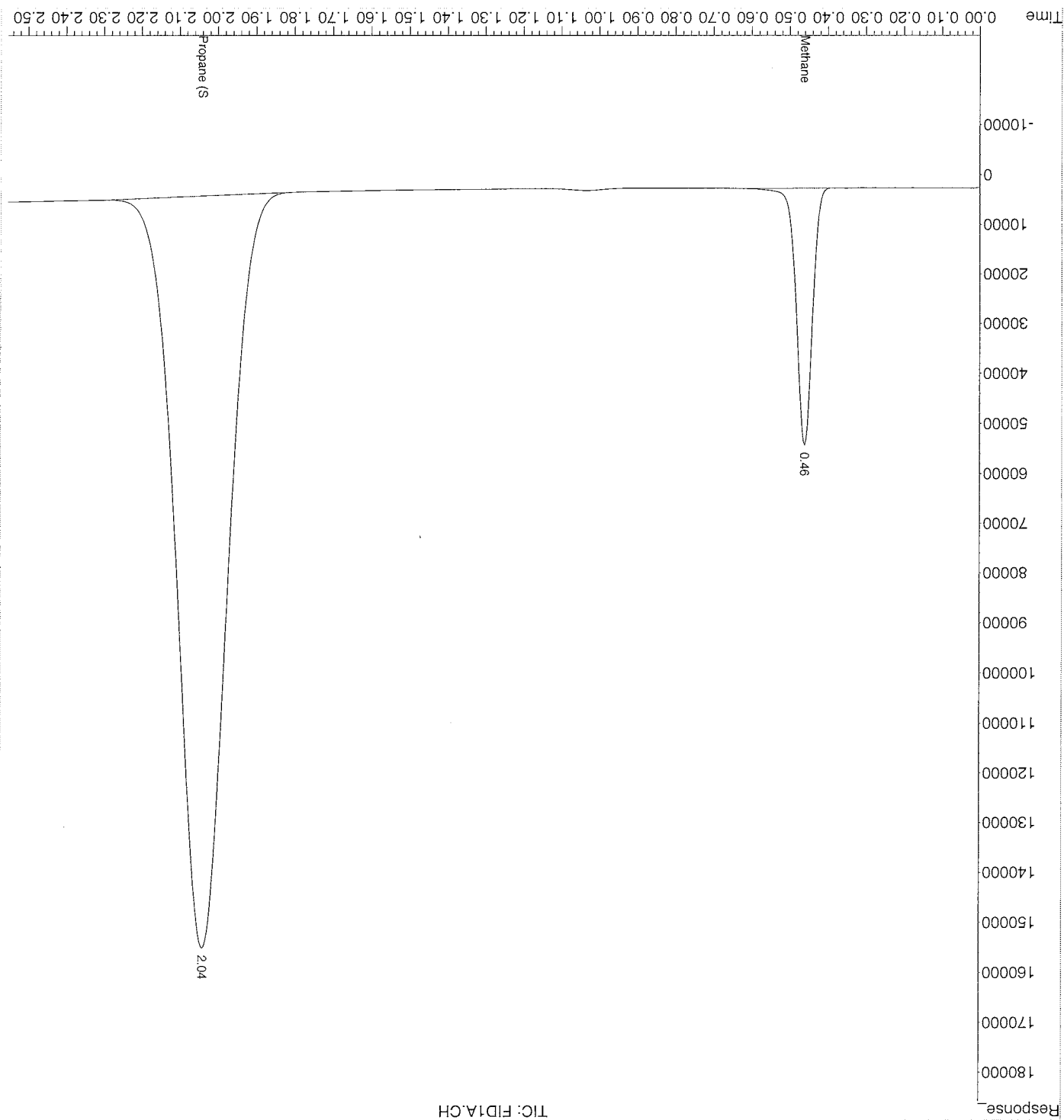
Quantitation Report (Not Reviewed)

Data File : F:\DATA\032309\FB018.D  
 Acq On : 23 Mar 2009 4:11 pm  
 Sample : 09-1798-07B  
 Misc : SAMP, MEPP\_W, 1, 500ul  
 IntFile : autoint1.e  
 Quant Time: Mar 24 10:39 2009 Quant Results File: GAS0323.RES  
 Vial: 18  
 Operator: Virginia Meyer  
 Inst : FID4  
 Multiplr: 1.00

Quant Method : C:\MSDCHEM\2\METHODS\GAS0323.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethane, and Propane  
 Last Update : Tue Mar 24 09:28:15 2009  
 Response via : Single Level Calibration  
 DataAcq Meth : GAS.M

Volume Inj. : 100ul  
 Signal Phase : Porapak Q 80/100  
 Signal Info : 1/8 in

TIC: FID1A.CH

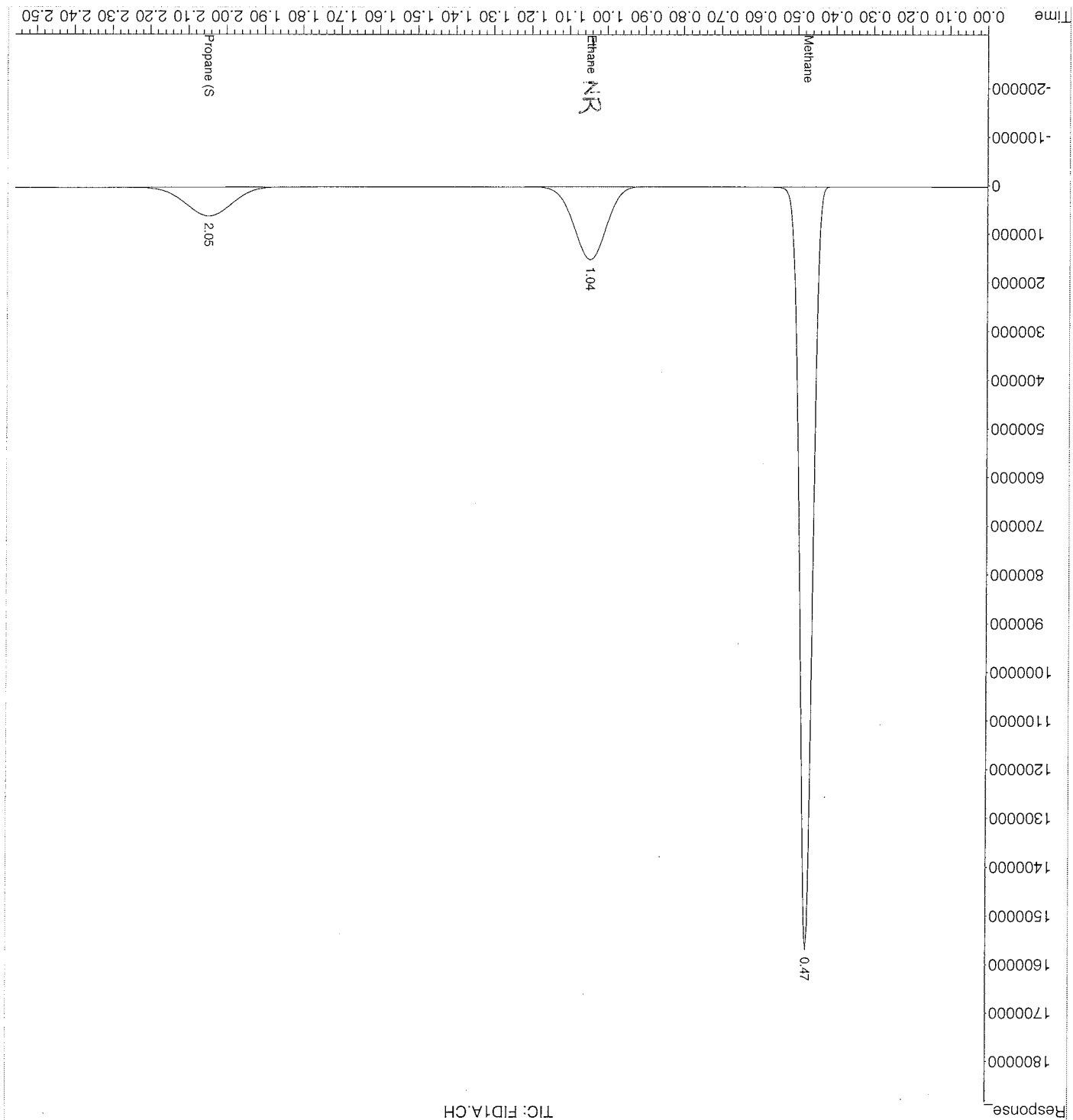




Quantitation Report (Not Reviewed)

Data File : F:\DATA\032309\FB027.D  
 Acq On : 23 Mar 2009 5:06 pm  
 Sample : 09-1798-08B  
 Misc : SAMP, MBEP\_W, 20, 25uL  
 IntFile : autointl.e  
 Quant Time: Mar 24 10:39 2009 Quant Results File: GAS0323.RES  
 Quant Method : C:\MSDCHEM\2\METHODS\GAS0323.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethane, and Propane  
 Last Update : Tue Mar 24 09:28:15 2009  
 Response via : Single Level Calibration  
 DataAcq Meth : GAS.M  
 Volume Inj. : 100uL  
 Signal Phase : Porapak Q 80/100  
 Signal Info : 1/8 in

TIC: FID1A.CH

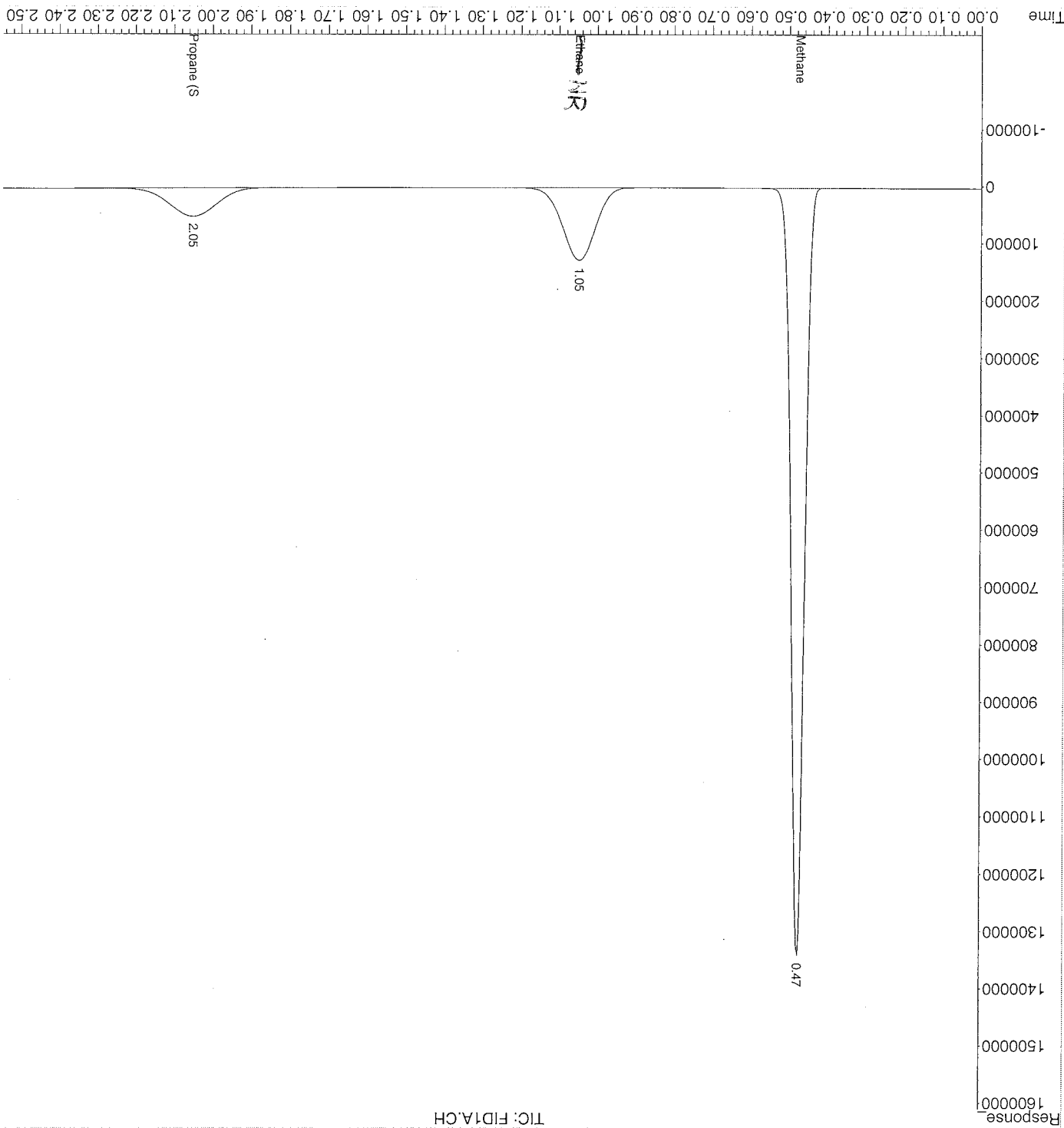


Quantitation Report (Not Reviewed)

Data File : F:\DATA\032309\FB028.D  
 Acq On : 23 Mar 2009 5:10 pm  
 Sample : 09-1798-09B  
 Misc : SAMP, MEHP-W, 20, 25ul  
 IntFile : autoint1.e  
 Quant Time: Mar 24 10:39 2009 Quant Results File: GAS0323.RES  
 Vial: 28  
 Operator: Virginia Meyer  
 Inst : FID4  
 Multiplr: 1.00

Quant Method : C:\MSDCHEM\2\METHODS\GAS0323.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Tue Mar 24 09:28:15 2009  
 Response via : Single Level Calibration  
 DataAcq Meth : GAS.M

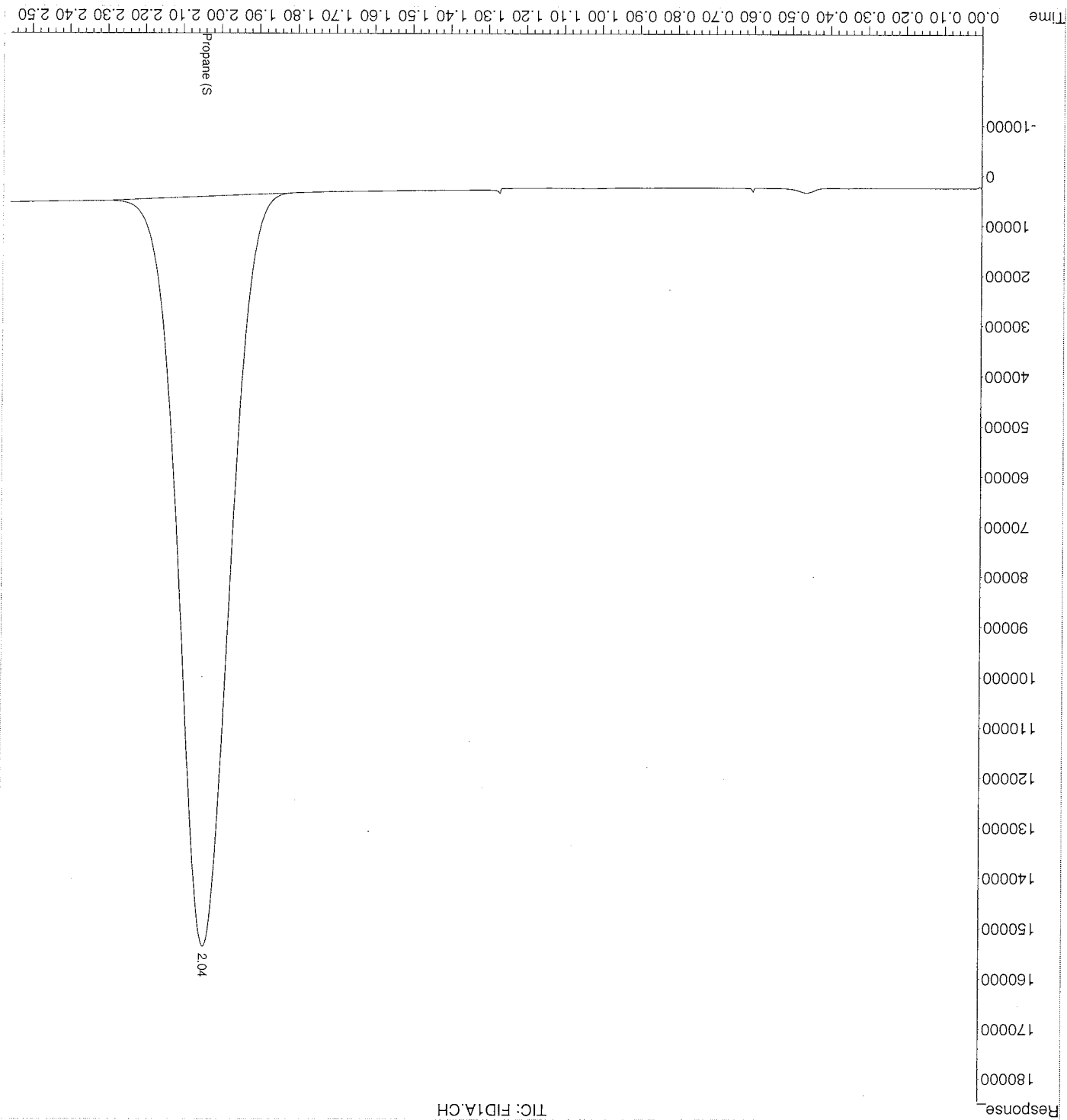
Volume Inj. : 100ul  
 Signal Phase : Porapak Q 80/100  
 Signal Info : 1/8 in



Quantitation Report (Not Reviewed)

Data File : F:\DATA\032309\FB019.D  
 Acq On : 23 Mar 2009 4:17 pm  
 Sample : 09-1798-10B  
 Misc : SAMP, MEFP\_W, 1, 500uL  
 IntFile : autoint1.e  
 Quant Time: Mar 24 10:39 2009 Quant Results File: GAS0323.RES  
 Quant Method : C:\MSDCHEM\2\METHODS\GAS0323.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethane, Ethene, and Propane  
 Last Update : Tue Mar 24 09:28:15 2009  
 Response via : Single Level Calibration  
 DataAcq Meth : GAS.M  
 Volume Inj. : 100ul  
 Signal Phase : Porapak Q 80/100  
 Signal Info : 1/8 in

TIC: FID1A.CH



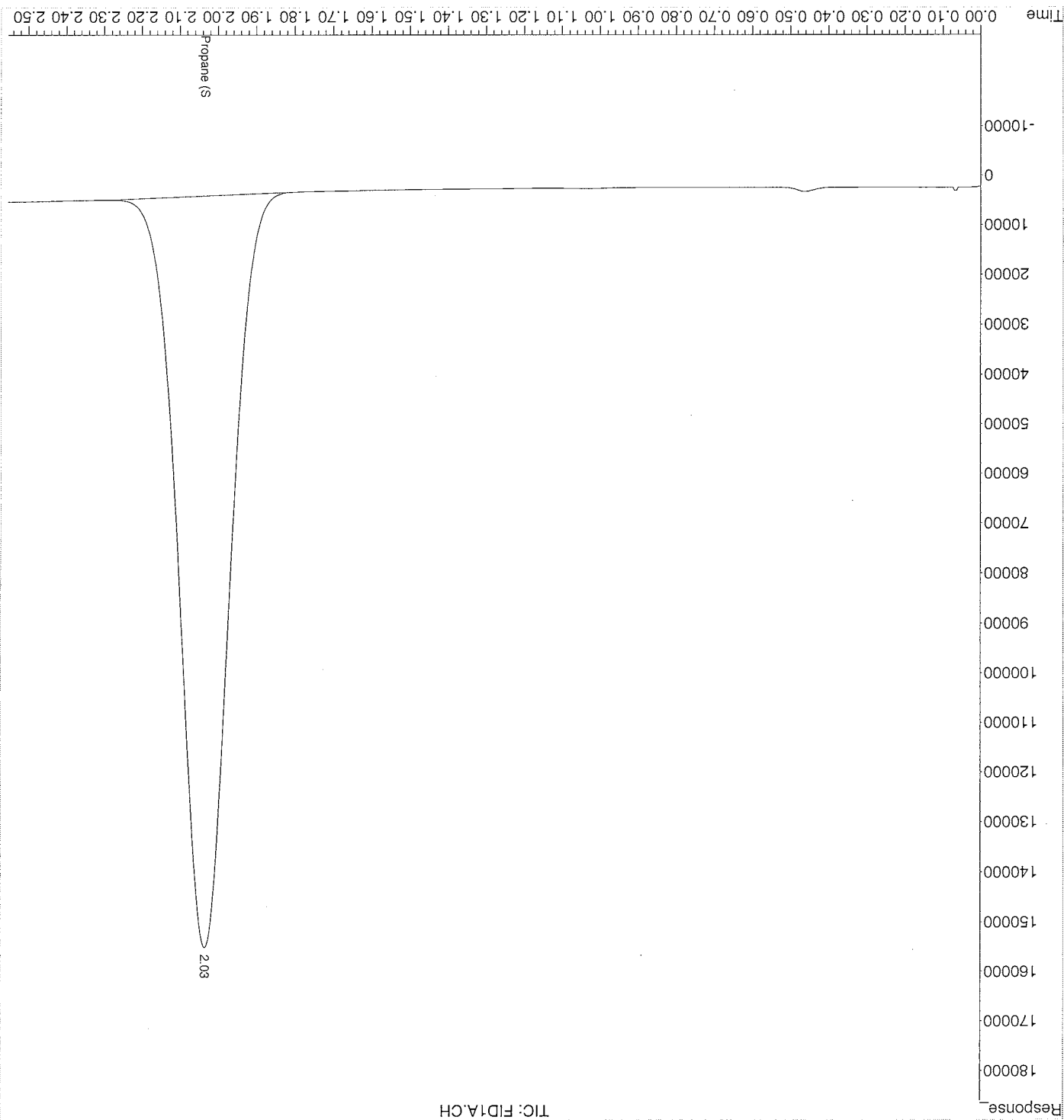
Quantitation Report (Not Reviewed)

Data File : F:\DATA\032309\FB020.D  
 Acq On : 23 Mar 2009 4:24 pm  
 Sample : 09-1798-11B  
 Misc : SAMP, MEHP\_W, 1, 500ul  
 IntFile : autoint1.e  
 Quant Time: Mar 24 10:39 2009 Quant Results File: GAS0323.RES  
 Vial: 20  
 Operator: Virginia Meyer  
 Inst : FID4  
 Multiplr: 1.00

Quant Method : C:\MSDCHEM\2\METHODS\GAS0323.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Tue Mar 24 09:28:15 2009  
 Response via : Single Level Calibration  
 DataAcq Meth : GAS.M

Volume Inf. : 100ul  
 Signal Phase : Porapak Q 80/100  
 Signal Info : 1/8 in

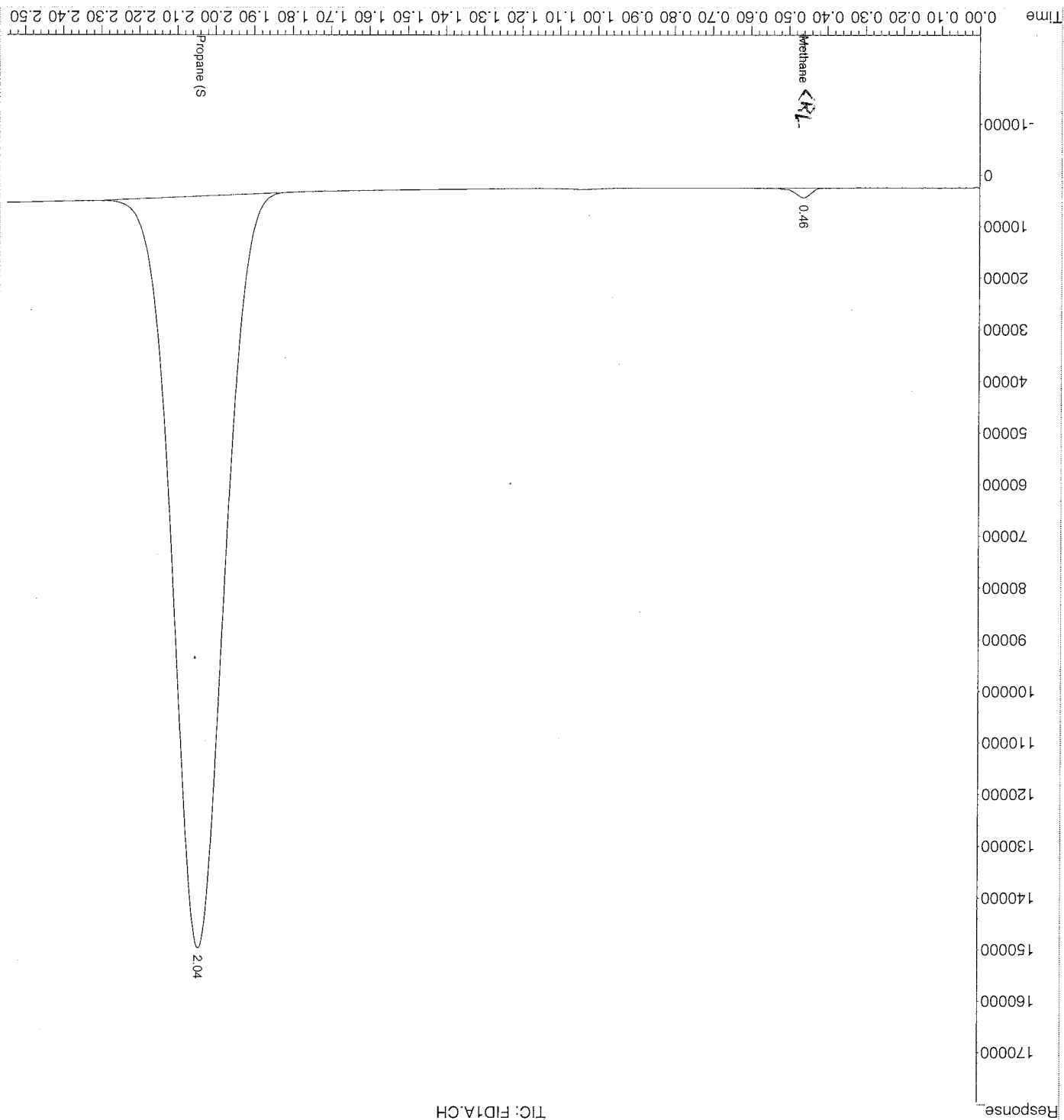
TIC: FID1A.CH



Quantitation Report (Not Reviewed)

Data File : F:\DATA\032309\FB021.D  
 Acq On : 23 Mar 2009 4:29 pm  
 Sample : 09-1798-12B  
 Misc : SAMP, MEPP\_W, 1, 500uL  
 IntFile : autoint1.e  
 Quant Time: Mar 24 10:39 2009 Quant Results File: GAS0323.RES  
 Quant Method : C:\MSDCHEM\2\METHODS\GAS0323.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Tue Mar 24 09:28:15 2009  
 Response via : Single Level Calibration  
 DataAcq Meth : GAS.M  
 Volume Inj. : 100ul  
 Signal Phase : Porapak Q 80/100  
 Signal Info : 1/8 in

TIC: FID1A.CH

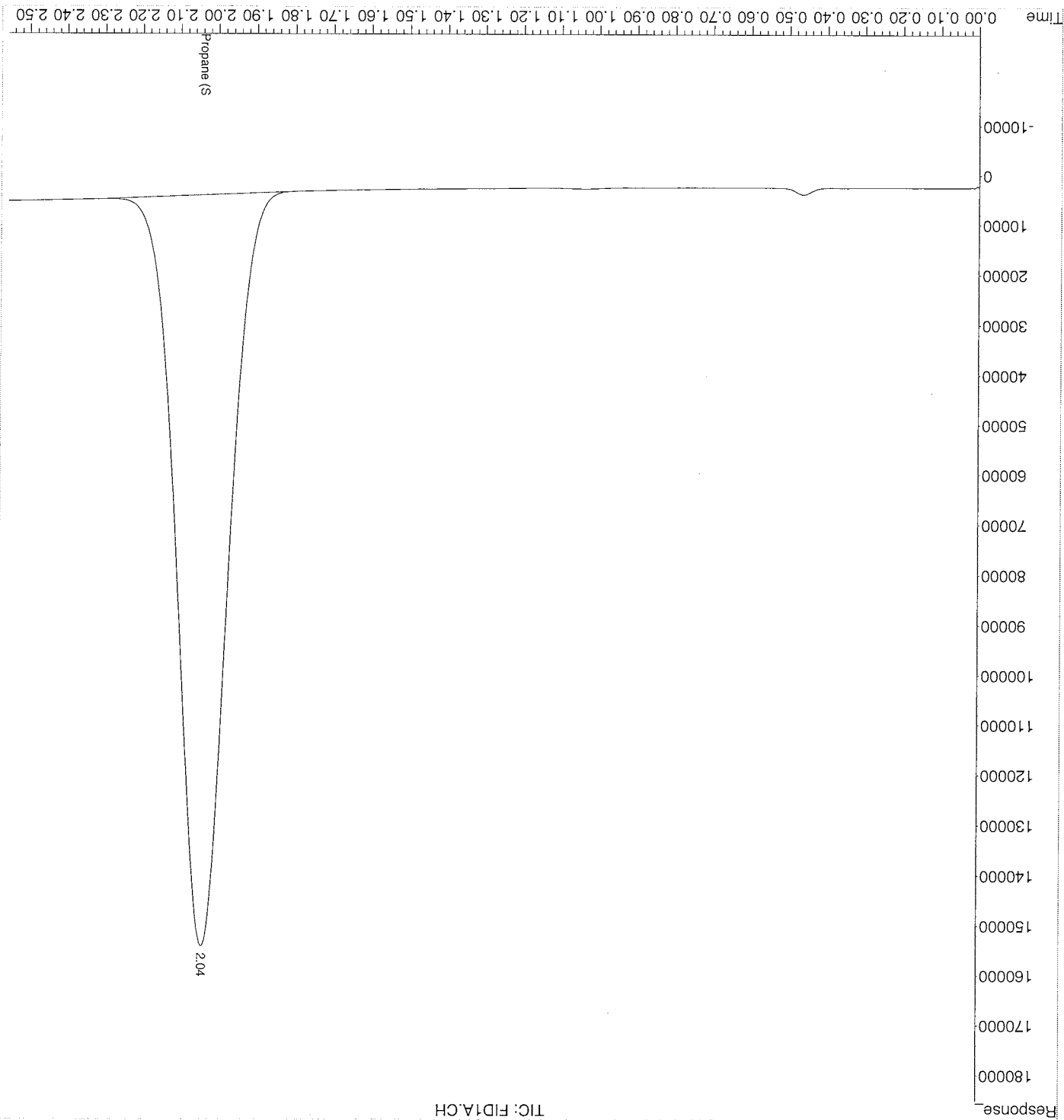


# Quantitation Report (Not Reviewed)

Data File : F:\DATA\032309\FB022.D  
 Acq On : 23 Mar 2009 4:33 pm  
 Sample : 09-1798-13B  
 Misc : SAMP, MEEP\_W, 1, 500uL  
 IntFile : autoInt1.e  
 Quant Time: Mar 24 10:39 2009 Quant Results File: GAS0323.RES  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Tue Mar 24 09:28:15 2009  
 Response via : Single Level Calibration  
 DataAcq Meth : GAS.M  
 Volume Inj. : 100uL  
 Signal Phase : Porapak Q 80/100  
 Signal Info : 1/8 in

Quant Method : C:\MSDCHEM\2\METHODS\GAS0323.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Tue Mar 24 09:28:15 2009  
 Response via : Single Level Calibration  
 DataAcq Meth : GAS.M  
 Volume Inj. : 100uL  
 Signal Phase : Porapak Q 80/100  
 Signal Info : 1/8 in

TIC: FID1A.CH



**Evergreen Analytical, Inc.**  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Project ID 008-2067  
Date Received: 3/18/09

Lab Order: 09-1798  
Date Prepared: 3/21/09  
Units: mg/L

**Dissolved Metals**

**Sodium**

Prep Method: E200.7/SW3010A

Method: SW6010B

Lab ID	Client ID	Matrix	Date Collected	Date Analyzed	Results	LQL	DF
09-1798-01C	MW 1	Water	3/17/09	3/21/09	170	0.40	1
09-1798-02C	MW 2	Water	3/17/09	3/21/09	110	0.40	1
09-1798-03C	MW 26	Water	3/17/09	3/21/09	91	0.40	1
09-1798-04C	MW 24	Water	3/17/09	3/21/09	42	0.40	1
09-1798-05C	MW 25	Water	3/17/09	3/21/09	34	0.40	1
09-1798-06C	MW 11	Water	3/17/09	3/21/09	38	0.40	1
09-1798-07C	MW 12	Water	3/17/09	3/21/09	83	0.40	1
09-1798-08C	MW 9	Water	3/17/09	3/22/09	61	0.40	1
09-1798-09C	MW 14	Water	3/17/09	3/22/09	47	0.40	1
09-1798-10C	DCS 1	Water	3/17/09	3/22/09	64	0.40	1
09-1798-11C	DCS 0	Water	3/17/09	3/22/09	65	0.40	1
09-1798-12C	DCS 2	Water	3/17/09	3/22/09	64	0.40	1
09-1798-13C	DCS 3	Water	3/17/09	3/22/09	65	0.40	1

**Analyst**

**Approved**

**Qualifiers:** B - Analyte detected in the associated Method Blank, value not subtracted from result

**Definitions:** DF - Dilution Factor

PF - Prep Factor

LQL - Lower Quantitation Limit

H - Sample analysis exceeded analytical holding time  
J - Indicates an estimated value when the compound is detected, but is below the LQL  
S - Spike Recovery outside accepted limits

U - Compound analyzed for but not detected

X - See case narrative

\* - Value exceeded the Maximum Contamination Level (MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Print Date: 3/26/2009

**Evergreen Analytical, Inc.**  
4036 Youngfield Street, Wheat Ridge, Colorado 80033-3862  
(303) 425-6021

Client Project ID 008-2067  
Collection Date: 3/17/09 1020

Lab Order: 09-1798  
Date Received: 3/18/09  
Units: mg/L

**Anions by IC**  
**Chloride**

**Method: E300.0**

**Prep Method:**

Lab ID	Client ID	Matrix	Date Prepared	Date Analyzed	Results	LQL	DF
09-1798-01D	MW 1	Water	3/18/09	3/18/09 1333	22.4	0.50	1
09-1798-02D	MW 2	Water	3/18/09	3/18/09 1344	41.2	0.50	1
09-1798-03D	MW 26	Water	3/18/09	3/18/09 1355	5.0	0.50	1
09-1798-04D	MW 24	Water	3/18/09	3/18/09 1405	3.9	0.50	1
09-1798-05D	MW 25	Water	3/18/09	3/18/09 1416	31.2	0.50	1
09-1798-06D	MW 11	Water	3/18/09	3/18/09 1426	31.3	0.50	1
09-1798-07D	MW 12	Water	3/18/09	3/18/09 1458	18.3	0.50	1
09-1798-08D	MW 9	Water	3/19/09	3/19/09 1121	27.9	0.50	1
09-1798-09D	MW 14	Water	3/19/09	3/19/09 1132	27.2	0.50	1
09-1798-10D	DCS 1	Water	3/19/09	3/19/09 1142	14.7	0.50	1
09-1798-11D	DCS 0	Water	3/19/09	3/19/09 1153	14.4	0.50	1
09-1798-12D	DCS 2	Water	3/19/09	3/19/09 1203	14.5	0.50	1
09-1798-13D	DCS 3	Water	3/19/09	3/19/09 1214	14.9	0.50	1

**Comments**

**Analyst**

**Approved**

**Qualifiers:** J - Indicates an estimated value when the compound is detected, but is below the LQL

H - Sample analysis exceeded analytical holding time  
U - Compound analyzed for but not detected  
X - See case narrative  
\* - Value exceeds Maximum Contamination Level(MCL), TCLP limit, or if compound is undetected, LQL exceeds MCL.

Print Date: 3/20/09

**Definitions:** DF - Dilution Factor  
LQL - Lower Quantitation Limit



# QUALITY ASSURANCE REPORTS

METHOD BLANKS (MB)

LABORATORY CONTROL SPIKES (LCS)

MATRIX SPIKES (MS/MSD)\*

DUPLICATES (DUP)\*

• For Metals or Wet Chemistry analyses: only included if requested.

Work Order: 09-1798  
Client Project ID: 008-2067

# ANALYTICAL QC SUMMARY REPORT

BatchID: R45951

Sample ID: MB2031909	SampType: MBLK	TestCode: 8021_W	Run ID: TVHBTX2_090319A	Prep Date: 3/19/2009	Units: µg/L						
	Batch ID: R45951	TestNo: SW8021B	FileID: 031909\TA004	Analysis Date: 3/19/2009	SeqNo: 815279						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual

Sample ID: LCS2031909	SampType: LCS	TestCode: 8021_W	Run ID: TVHBTX2_090319A	Prep Date: 3/19/2009	Units: µg/L						
	Batch ID: R45951	TestNo: SW8021B	FileID: 031909\TA005	Analysis Date: 3/19/2009	SeqNo: 815280						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	22.28	1.0	25.5	0	87.4	70	130	0	0		
Toluene	173.1	2.0	183.6	0	94.3	70	130	0	0		
Ethylbenzene	39.28	2.0	36.8	0	107	70	130	0	0		
m,p-Xylene	145	2.0	136.3	0	106	70	130	0	0		
o-Xylene	61.88	2.0	57.2	0	108	70	130	0	0		
Surr: 1,2,4-Trichlorobenzene (S)	118.9	0	100	0	119	60	140	0	0		

Sample ID: 09-1798-01AMS		Samp Type: MS		TestCode: 8021_W		Run ID: TVHBTX2_090319A		Prep Date: 3/19/2009		Units: µg/L	
Client ID: MW 1		Batch ID: R45951		TestNo: SW8021B		FileID: 031909\TA007		Analysis Date: 3/19/2009		SeqNo: 815305	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	22.46	1.0	25.5	0	88.1	70	130	0	0		
Toluene	173.8	2.0	183.6	0	94.7	70	130	0	0		
Ethylbenzene	39.45	2.0	36.8	0	107	62	130	0	0		
m,p-Xylene	145.7	2.0	136.3	0	107	70	134	0	0		
o-Xylene	62.08	2.0	57.2	0	109	63	130	0	0		
Surr: 1,2,4-Trichlorobenzene (S)		0	100	0	122	60	140	0	0		

**Qualifiers:** U - Not detected at or above the Reporting Limit  
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E - Extrapolated value, value exceeds calibration range.  
R - RPD outside acceptance limits  
B - Analyte detected in the associated Method Blank  
H - Prep or analytical holding time exceeded  
X - See case narrative

Work Order: 09-1798  
Client Project ID: 008-2067

# ANALYTICAL QC SUMMARY REPORT

BatchID: R45951

Sample ID: 09-1798-01A		MSD	SampType:		TestCode: 8021_W		Run ID: TVHBTX2_090319A		Prep Date: 3/19/2009		Units: µg/L	
Client ID: MW 1		R45951	Batch ID:		TestNo: SW8021B		FileID: 031909\TA008		Analysis Date: 3/19/2009		SeqNo: 815307	
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual	
Benzene	22.6	1.0	25.5	0	88.6	70	130	22.46	0.648	30		
Toluene	174.6	2.0	183.6	0	95.1	70	130	173.8	0.428	30		
Ethylbenzene	39.57	2.0	36.8	0	108	62	130	39.45	0.283	30		
m,p-Xylene	145.9	2.0	136.3	0	107	70	134	145.7	0.117	30		
o-Xylene	62.16	2.0	57.2	0	109	63	130	62.08	0.124	30		
Surr: 1,2,4-Trichlorobenzene (S)	122.7	0	100	0	123	60	140	0	0	0		

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X - See case narrative

Work Order: 09-1798

Client Project ID: 008-2067

## ANALYTICAL QC SUMMARY REPORT

TestCode: MEEP\_W

Sample ID: <b>GB032309</b>	SampType: <b>MBLK</b>	TestCode: <b>MEEP_W</b>	Run ID: <b>FID4_090323A</b>	Prep Date: <b>3/23/2009</b>	Units: <b>mg/L</b>						
Batch ID: <b>GAS032309</b>	TestNo: <b>RSKSOP175</b>	FileID: <b>FB010</b>		Analysis Date: <b>3/23/2009</b>	SeqNo: <b>816379</b>						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	U	0.00080									

Sample ID: LCS032309	SampType: LCS	TestCode: MEEP_W	Run ID: FID4_090323A	Prep Date: 3/23/2009	Units: mg/L						
Batch ID: GAS032309	TestNo: RSKSOP175	FileID: FB011		Analysis Date: 3/23/2009	SeqNo: 816380						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	0.6068	0.0080	0.5094	0	119	70	130	0	0		

Sample ID: LCS032309	SampType: LCSD	TestCode: MEEP_W	Run ID: FID4_090323A	Prep Date: 3/23/2009	Units: mg/L						
Batch ID: GAS032309	TestNo: RSKSOP175	FileID: FB012		Analysis Date: 3/23/2009	SeqNo: 816383						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	0.5947	0.0080	0.5094	0	117	70	130	0.6068	2.02	30	

Sample ID: 09-1798-11BMS	SampType: MS	TestCode: MEEP_W	Run ID: FID4_090323A	Prep Date: 3/23/2009	Units: mg/L						
Client ID: DCS 0	Batch ID: GAS032309	TestNo: RSKSOP175	FileID: FB031	Analysis Date: 3/23/2009	SeqNo: 816386						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	0.566	0.0080	0.5094	0	111	70	130	0	0		

Sample ID: 09-1798-04BDUP	SampType: DUP	TestCode: MEEP_W	Run ID: FID4_090323A	Prep Date: 3/23/2009	Units: mg/L						
Client ID: MW 24	Batch ID: GAS032309	TestNo: RSKSOP175	FileID: FB030	Analysis Date: 3/23/2009	SeqNo: 816385						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Methane	U	0.00080	0	0	0	0	0	0	0	0	30

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 X - See case narrative

Work Order: 09-1798

Client Project ID: 008-2067

## ANALYTICAL QC SUMMARY REPORT

BatchID: 18534

Sample ID	MB-18534	SampType:	MBLK	TestCode:	200.7_D	Run ID:	ICP-OPTIMA 5300 DV_090321A	Prep Date:	3/21/2009	Units:	mg/L
	Batch ID: 18534			TestNo:	E200.7, Rev.	FileID:	032109AM	Analysis Date:	3/21/2009	SeqNo:	815872
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	U	0.400									

Sample ID	LCS-18534	SampType:	LCS	TestCode:	200.7_D	Run ID:	ICP-OPTIMA 5300 DV_090321A	Prep Date:	3/21/2009	Units:	mg/L
	Batch ID: 18534			TestNo:	E200.7, Rev.	FileID:	032109AM	Analysis Date:	3/21/2009	SeqNo:	815873
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	9.78	0.400	10	0.1944	97.8	85	115	0	0	0	

Sample ID	09-1747-01FMS	SampType:	MS	TestCode:	200.7_SAR	Run ID:	ICP-OPTIMA 5300 DV_090321A	Prep Date:	3/21/2009	Units:	mg/L
	Batch ID: 18534			TestNo:	E200.7, Rev.	FileID:	032109AM	Analysis Date:	3/21/2009	SeqNo:	815875
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	114.6	0.50	12.5	104.5	81.1	75	125	0	0	0	

Sample ID	09-1747-01FMSD	SampType:	MSD	TestCode:	200.7_SAR	Run ID:	ICP-OPTIMA 5300 DV_090321A	Prep Date:	3/21/2009	Units:	mg/L
	Batch ID: 18534			TestNo:	E200.7, Rev.	FileID:	032109AM	Analysis Date:	3/21/2009	SeqNo:	815876
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Sodium	115	0.50	12.5	104.5	84.1	75	125	114.6	0.328	20	

**Qualifiers:** U - Not detected at or above the Reporting Limit  
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X - See case narrative

Work Order: 09-1798  
Client Project ID: 008-2067

## ANALYTICAL QC SUMMARY REPORT

TestCode: ANIONS\_nondw

Sample ID: METHOD BLANK 03	SampType: MBLK	TestCode: ANIONS_non	Run ID: IC-DX300_090318A	Prep Date: 3/18/09	Units: mg/L						
	Batch ID: R45935	TestNo: E300.0	FileID:	Analysis Date: 3/18/09	SeqNo: 814846						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	U	0.50									

Sample ID: METHOD BLANK 03		SampType: MBLK	TestCode: ANIONS_non		Run ID: IC-DX300_090319A	Prep Date: 3/19/09		Units: mg/L			
		Batch ID: R45955	TestNo: E300.0		FileID:	Analysis Date: 3/19/09		SeqNo: 815111			
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	U	0.50									

Sample ID: LCS ALLT218076	SampType: LCS	TestCode: ANIONS_non	Run ID: IC-DX300_090318A	Prep Date: 3/18/09	Units: mg/L						
	Batch ID: R45935	TestNo: E300.0	FileID:	Analysis Date: 3/18/09	SeqNo: 814845						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	18.54	1.0	20	0	92.7	90	110	0	0	0	

Sample ID: LCS ALLT218076	SampType: LCS	TestCode: ANIONS_non	Run ID: IC-DX300_090319A	Prep Date: 3/19/09	Units: mg/L						
	Batch ID: R45955	TestNo: E300.0	FileID:	Analysis Date: 3/19/09	SeqNo: 815110						
Analyte	Result	LQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Chloride	18.22	1.0	20	0	91.1	90	110	0	0	0	

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## ANALYTICAL SUMMARY REPORT

April 02, 2009

Cordilleran Compliance Services Inc  
826 21½ Rd  
Grand Junction, CO 81505

Workorder No.: C09030610

Project Name: Divide Creek Quality

Energy Laboratories, Inc. received the following 2 samples for Cordilleran Compliance Services Inc on 3/19/2009 for analysis.

Sample ID	Client Sample ID	Collect Date	Receive Date	Matrix	Test
C09030610-001	MW4	03/16/09 13:55	03/19/09	Aqueous	Metals by ICP/ICPMS, Dissolved Sample Filtering SW8021B, BTEX Methane E300.0 Anions
C09030610-002	DCS1	03/17/09 12:30	03/19/09	Aqueous	Same As Above

As appropriate, any exceptions or problems with the analyses are noted in the Laboratory Analytical Report, the QA/QC Summary Report, or the Case Narrative.

If you have any questions regarding these tests results, please call.

Report Approved By: *Stephanie Walldrop*



## LABORATORY ANALYTICAL REPORT

**Client:** Cordilleran Compliance Services Inc  
**Project:** Divide Creek Quality  
**Lab ID:** C09030610-001  
**Client Sample ID:** MW4

**Report Date:** 04/02/09  
**Collection Date:** 03/16/09 13:55  
**Date Received:** 03/19/09  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	27	mg/L		1		E300.0	03/23/09 23:56 / ljl
Sodium	95	mg/L		1		E200.7	04/01/09 18:42 / rdw
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Benzene	73	ug/L		1.0		SW8021B	03/20/09 18:18 / jlr
Ethylbenzene	ND	ug/L		1.0		SW8021B	03/20/09 18:18 / jlr
m+p-Xylenes	13	ug/L		1.0		SW8021B	03/20/09 18:18 / jlr
o-Xylene	2.7	ug/L		1.0		SW8021B	03/20/09 18:18 / jlr
Toluene	ND	ug/L		1.0		SW8021B	03/20/09 18:18 / jlr
Surr: Trifluorotoluene	98.0	%REC		80-120		SW8021B	03/20/09 18:18 / jlr
<b>NATURAL GAS COMPOUNDS</b>							
Methane	5.99	mg/L		0.001		SW8015M	03/23/09 07:09 / eli-b

**Report** RL - Analyte reporting limit.  
**Definitions:** QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.





## LABORATORY ANALYTICAL REPORT

**Client:** Cordilleran Compliance Services Inc  
**Project:** Divide Creek Quality  
**Lab ID:** C09030610-002  
**Client Sample ID:** DCS1

**Report Date:** 04/02/09  
**Collection Date:** 03/17/09 12:30  
**Date Received:** 03/19/09  
**Matrix:** Aqueous

Analyses	Result	Units	Qualifiers	RL	MCL/ QCL	Method	Analysis Date / By
<b>MAJOR IONS</b>							
Chloride	13	mg/L		1		E300.0	03/24/09 00:42 / ljl
Sodium	58	mg/L		1		E200.7	04/01/09 18:47 / rdw
<b>VOLATILE ORGANIC COMPOUNDS</b>							
Benzene	ND	ug/L		1.0		SW8021B	03/20/09 18:53 / jlr
Ethylbenzene	ND	ug/L		1.0		SW8021B	03/20/09 18:53 / jlr
m+p-Xylenes	ND	ug/L		1.0		SW8021B	03/20/09 18:53 / jlr
o-Xylene	ND	ug/L		1.0		SW8021B	03/20/09 18:53 / jlr
Toluene	ND	ug/L		1.0		SW8021B	03/20/09 18:53 / jlr
Surr: Trifluorotoluene	99.0	%REC		80-120		SW8021B	03/20/09 18:53 / jlr
<b>NATURAL GAS COMPOUNDS</b>							
Methane	ND	mg/L		0.001		SW8015M	03/23/09 07:38 / eli-b

**Report Definitions:** RL - Analyte reporting limit.  
QCL - Quality control limit.

MCL - Maximum contaminant level.  
ND - Not detected at the reporting limit.



## QA/QC Summary Report

**Client:** Cordilleran Compliance Services Inc

**Report Date:** 04/02/09

**Project:** Divide Creek Quality

**Work Order:** C09030610

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
<b>Method: E300.0</b>							Batch: R116185		
<b>Sample ID: LCS</b>	Laboratory Control Sample				Run: IC1-C_090323A		03/23/09 14:41		
Chloride	9.60	mg/L	1.0	96	90	110			
<b>Sample ID: MBLK</b>	Method Blank				Run: IC1-C_090323A		03/23/09 14:57		
Chloride	ND	mg/L	0.02						
<b>Sample ID: C09030610-001AMS</b>	Sample Matrix Spike				Run: IC1-C_090323A		03/24/09 00:11		
Chloride	77.9	mg/L	1.0	104	90	110			
<b>Sample ID: C09030610-001AMSD</b>	Sample Matrix Spike Duplicate				Run: IC1-C_090323A		03/24/09 00:27		
Chloride	78.0	mg/L	1.0	104	90	110	0	20	
<b>Method: SW8015M</b>							Analytical Run: SUB-B126546		
<b>Sample ID: CCV</b>	Continuing Calibration Verification Standard						03/23/09 06:34		
Methane	1000	ppm	2.0	101	85	115			
<b>Sample ID: CCV2</b>	Continuing Calibration Verification Standard						03/23/09 09:43		
Methane	100	ppm	2.0	107	80	120			
<b>Method: SW8015M</b>							Batch: B_R126546		
<b>Sample ID: MBLK</b>	Method Blank				Run: SUB-B126546		03/23/09 06:38		
Methane	ND	mg/L	0.0010						
<b>Sample ID: C09030610-001C</b>	Sample Duplicate				Run: SUB-B126546		03/23/09 07:18		
Methane	5.89	mg/L	0.0010				1.8	30	

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



## QA/QC Summary Report

Client: Cordilleran Compliance Services Inc

Project: Divide Creek Quality

Report Date: 04/02/09

Work Order: C09030610

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: E200.7									Batch: R116509
Sample ID: LRB	Method Blank					Run: ICP3-C_090401B			04/01/09 13:08
Sodium	ND	mg/L	0.1						
Sample ID: LFB	Laboratory Fortified Blank					Run: ICP3-C_090401B			04/01/09 13:13
Sodium	46.1	mg/L	0.50	92	80	120			
Sample ID: C09030649-002DMS	Sample Matrix Spike					Run: ICP3-C_090401B			04/01/09 19:25
Sodium	47.8	mg/L	1.0	86	70	130			
Sample ID: C09030649-002DMSD	Sample Matrix Spike Duplicate					Run: ICP3-C_090401B			04/01/09 19:30
Sodium	44.6	mg/L	1.0	79	70	130	7	20	

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



## QA/QC Summary Report

Client: Cordilleran Compliance Services Inc

Report Date: 04/02/09

Project: Divide Creek Quality

Work Order: C09030610

Analyte	Result	Units	RL	%REC	Low Limit	High Limit	RPD	RPDLimit	Qual
Method: SW8021B							Batch: R116153		
Sample ID: LCS_0320HP206r	Laboratory Control Sample			Run: PIDFID1-C_090320A			03/20/09 14:48		
Benzene	10	ug/L	0.50	103	80	120			
Ethylbenzene	10	ug/L	0.50	103	80	120			
m+p-Xylenes	21	ug/L	0.50	103	80	120			
o-Xylene	10	ug/L	0.50	102	80	120			
Toluene	10	ug/L	0.50	103	80	120			
Surr: Trifluorotoluene			0.50	102	80	120			
Sample ID: MBLK_0320HP208r	Method Blank			Run: PIDFID1-C_090320A			03/20/09 15:58		
Benzene	ND	ug/L	0.50						
Ethylbenzene	ND	ug/L	0.50						
m+p-Xylenes	ND	ug/L	0.50						
o-Xylene	ND	ug/L	0.50						
Toluene	ND	ug/L	0.50						
Surr: Trifluorotoluene			0.50	102	80	120			
Sample ID: C09030608-001FMS	Sample Matrix Spike			Run: PIDFID1-C_090320A			03/20/09 20:38		
Benzene	210	ug/L	10	104	80	120			
Ethylbenzene	210	ug/L	10	103	80	120			
m+p-Xylenes	410	ug/L	10	103	80	120			
o-Xylene	210	ug/L	10	103	80	120			
Toluene	210	ug/L	10	104	80	120			
Surr: Trifluorotoluene			10	101	80	120			
Sample ID: C09030608-001FMSD	Sample Matrix Spike Duplicate			Run: PIDFID1-C_090320A			03/20/09 21:13		
Benzene	210	ug/L	10	105	80	120	1.5	20	
Ethylbenzene	210	ug/L	10	104	80	120	1.1	20	
m+p-Xylenes	420	ug/L	10	105	80	120	1.2	20	
o-Xylene	210	ug/L	10	104	80	120	1.3	20	
Toluene	210	ug/L	10	105	80	120	1.1	20	
Surr: Trifluorotoluene			10	101	80	120	0	10	

### Qualifiers:

RL - Analyte reporting limit.

ND - Not detected at the reporting limit.



# Chain of Custody and Analytical Request Record

Page 1 of 1

PLEASE PRINT- Provide as much information as possible.

Company Name: <b>Olsson Associates</b>		Project Name, PWS, Permit, Etc. <b>Divide Creek Quarterly</b>		Sample Origin State: <b>CO</b>		EPA/State Compliance: Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Report Mail Address: <b>826 21 1/2 Road Grand Junction, CO 81505</b>		Contact Name: <b>Stuart Hall</b>		Phone/Fax: <b>970.263.7800</b>		Email: <b>shall@olssonconsulting.com</b>	
Invoice Address: <b>Same</b>		Invoice Contact & Phone: <b>Same</b>		Purchase Order:		Quote/Bottle Order: <b>Stuart Hall</b>	
Special Report/Formats – ELI must be notified prior to sample submittal for the following:  <input type="checkbox"/> DW <input type="checkbox"/> GSA <input type="checkbox"/> POT/WWWTP State: _____ Other: _____  <input type="checkbox"/> A2LA <input type="checkbox"/> EDD/EDT (Electronic Data) Format: _____ <input type="checkbox"/> LEVEL IV <input type="checkbox"/> NELAC		ANALYSIS REQUESTED  SEE ATTACHED  Normal Turnaround (TAT)  <b>R U S H</b>		Contact ELI prior to RUSH sample submittal for charges and scheduling – See Instruction Page  Comments:  <b>Shipped by: <u>ELI</u> Cooler ID(s): <u>shant</u> Receipt Temp: <u>4</u> °C On Ice: <u>Yes</u> <input checked="" type="checkbox"/> No <input type="checkbox"/> Custody Seal Intact: <u>Y</u> <input checked="" type="checkbox"/> N <input type="checkbox"/> Signature Match: <u>Y</u> <input checked="" type="checkbox"/> N <input type="checkbox"/></b>		LABORATORY USE ONLY	
SAMPLE IDENTIFICATION (Name, Location, Interval, etc.)		Collection Date		Collection Time		MATRIX	
1 MW4		3/16/09		1355		GW	
2 DCS1		3/17/09		1230		GW	
3							
4							
5							
6							
7							
8							
9							
10							
Relinquished by (print): <b>Stuart Hall</b>		Date/Time: <b>3/17/09 1630</b>		Signature: <b>[Signature]</b>		Received by (print):	
Relinquished by (print):		Date/Time:		Signature:		Received by (print):	
Sample Disposal: _____		Return to Client: _____		Lab Disposal: _____		Received by Laboratory: <b>[Signature]</b>	
Custody Record MUST be Signed		Date/Time: <b>3-19-09 9:15</b>		Signature: _____		Signature: _____	

In certain circumstances, samples submitted to Energy Laboratories, Inc. may be subcontracted to other certified laboratories in order to complete the analysis requested. This serves as notice of this possibility. All sub-contract data will be clearly notated on your analytical report. Visit our web site at [www.energylab.com](http://www.energylab.com) for additional information, downloadable fee schedule, forms, and links.

# Energy Laboratories Inc

## Workorder Receipt Checklist



Cordilleran Compliance Services Inc

C09030610

Login completed by: Kimberly Humiston

Date and Time Received: 3/19/2009 9:15 AM

Reviewed by:

Received by: pb

Reviewed Date:

Carrier name: Next Day Air

Shipping container/cooler in good condition?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on shipping container/cooler?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Present <input type="checkbox"/>
Custody seals intact on sample bottles?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	Not Present <input checked="" type="checkbox"/>
Chain of custody present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody signed when relinquished and received?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Chain of custody agrees with sample labels?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Samples in proper container/bottle?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sample containers intact?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Sufficient sample volume for indicated test?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
All samples received within holding time?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Container/Temp Blank temperature:	4°C On Ice		
Water - VOA vials have zero headspace?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	No VOA vials submitted <input type="checkbox"/>
Water - pH acceptable upon receipt?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	Not Applicable <input type="checkbox"/>

-----  
Contact and Corrective Action Comments:

None



CLIENT: Cordilleran Compliance Services Inc  
Project: Divide Creek Quality  
Sample Delivery Group: C09030610

Date: 03-Apr-09

## CASE NARRATIVE

### ORIGINAL SAMPLE SUBMITTAL(S)

All original sample submittals have been returned with the data package.

### SAMPLE TEMPERATURE COMPLIANCE: 4°C (±2°C)

Temperature of samples received may not be considered properly preserved by accepted standards. Samples that are hand delivered immediately after collection shall be considered acceptable if there is evidence that the chilling process has begun.

### GROSS ALPHA ANALYSIS

Method 900.0 for gross alpha and gross beta is intended as a drinking water method for low TDS waters. Data provided by this method for non potable waters should be viewed as inconsistent.

### RADON IN AIR ANALYSIS

The desired exposure time is 48 hours (2 days). The time delay in returning the canister to the laboratory for processing should be as short as possible to avoid excessive decay. Maximum recommended delay between end of exposure to beginning of counting should not exceed 8 days.

### SOIL/SOLID SAMPLES

All samples reported on an as received basis unless otherwise indicated.

### ATRAZINE, SIMAZINE AND PCB ANALYSIS USING EPA 505

Data for Atrazine and Simazine are reported from EPA 525.2, not from EPA 505. Data reported by ELI using EPA method 505 reflects the results for seven individual Aroclors. When the results for all seven are ND (not detected), the sample meets EPA compliance criteria for PCB monitoring.

### SUBCONTRACTING ANALYSIS

Subcontracting of sample analyses to an outside laboratory may be required. If so, ENERGY LABORATORIES will utilize its branch laboratories or qualified contract laboratories for this service. Any such laboratories will be indicated within the Laboratory Analytical Report.

### BRANCH LABORATORY LOCATIONS

eli-b - Energy Laboratories, Inc. - Billings, MT  
eli-g - Energy Laboratories, Inc. - Gillette, WY  
eli-h - Energy Laboratories, Inc. - Helena, MT  
eli-r - Energy Laboratories, Inc. - Rapid City, SD  
eli-t - Energy Laboratories, Inc. - College Station, TX

### CERTIFICATIONS:

USEPA: WY00002; FL-DOH NELAC: E87641; California: 02118CA  
Oregon: WY200001; Utah: 3072350515; Virginia: 00057; Washington: C1903

### ISO 17025 DISCLAIMER:

The results of this Analytical Report relate only to the items submitted for analysis.

ENERGY LABORATORIES, INC. - CASPER, WY certifies that certain method selections contained in this report meet requirements as set forth by the above accrediting authorities. Some results requested by the client may not be covered under these certifications. All analysis data to be submitted for regulatory enforcement should be certified in the sample state of origin. Please verify ELI's certification coverage by visiting [www.energylab.com](http://www.energylab.com)

ELI appreciates the opportunity to provide you with this analytical service. For additional information and services visit our web page [www.energylab.com](http://www.energylab.com).

THIS IS THE FINAL PAGE OF THE LABORATORY ANALYTICAL REPORT

Lab #: 158873 Job #: 11182  
Sample Name: MW4D Co. Lab#:  
Company: Cordilleran, Div. of Olsson Assoc.  
Date Sampled: 3/16/2009  
Container: Dissolved Gas Bottle  
Field/Site Name: 008-2067  
Location: Divide Creek  
Formation/Depth:  
Sampling Point:  
Date Received: 3/23/2009 Date Reported: 4/24/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide -----	nd			
Hydrogen Sulfide -----	nd			
Helium -----	nd			
Hydrogen -----	nd			
Argon -----	0.486			
Oxygen -----	7.25			
Nitrogen -----	26.49			
Carbon Dioxide -----	1.90			
Methane -----	54.27	-39.73	-187.3	
Ethane -----	6.48	-28.35		
Ethylene -----	nd			
Propane -----	2.31	-25.82		
Iso-butane -----	0.331			
N-butane -----	0.340			
Iso-pentane -----	0.0810			
N-pentane -----	0.0381			
Hexanes + -----	0.0279			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 752  
Specific gravity, calculated: 0.792

Remarks: Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.66

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen is relative to VSMOW. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %. Chemical analysis based on standards accurate to within 2%



Lab #: 158874 Job #: 11182  
Sample Name: MW4 Co. Lab#:  
Company: Cordilleran, Div. of Olsson Assoc.  
Date Sampled: 3/16/2009  
Container: Dissolved Gas Bottle  
Field/Site Name: 008-2067  
Location: Divide Creek  
Formation/Depth:  
Sampling Point:  
Date Received: 3/23/2009 Date Reported: 4/24/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide -----	nd			
Hydrogen Sulfide -----	nd			
Helium -----	nd			
Hydrogen -----	nd			
Argon -----	0.485			
Oxygen -----	7.02			
Nitrogen -----	26.37			
Carbon Dioxide -----	1.91			
Methane -----	54.55	-39.70	-187.5	
Ethane -----	6.51	-28.35		
Ethylene -----	nd			
Propane -----	2.32	-25.85		
Iso-butane -----	0.337			
N-butane -----	0.344			
Iso-pentane -----	0.0854			
N-pentane -----	0.0415			
Hexanes + -----	0.0308			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 756

Specific gravity, calculated: 0.791

Remarks: Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.66

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen is relative to VSMOW. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %. Chemical analysis based on standards accurate to within 2%

Lab #: 158875 Job #: 11182  
Sample Name: MW16 Co. Lab#:  
Company: Cordilleran, Div. of Olsson Assoc.  
Date Sampled: 3/16/2009  
Container: Dissolved Gas Bottle  
Field/Site Name: 008-2067  
Location: Divide Creek  
Formation/Depth:  
Sampling Point:  
Date Received: 3/23/2009 Date Reported: 4/24/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide -----	0.017			
Hydrogen Sulfide -----	nd			
Helium -----	nd			
Hydrogen -----	nd			
Argon -----	1.30			
Oxygen -----	8.25			
Nitrogen -----	76.63			
Carbon Dioxide -----	1.60			
Methane -----	12.15	-36.23	-164.2	
Ethane -----	0.0503			
Ethylene -----	nd			
Propane -----	nd			
Iso-butane -----	nd			
N-butane -----	nd			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 124

Specific gravity, calculated: 0.943

Remarks: Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.74

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen is relative to VSMOW. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %. Chemical analysis based on standards accurate to within 2%

Lab #: 158876 Job #: 11182  
 Sample Name: MW17 Co. Lab#:  
 Company: Cordilleran, Div. of Olsson Assoc.  
 Date Sampled: 3/16/2009  
 Container: Dissolved Gas Bottle  
 Field/Site Name: 008-2067  
 Location: Divide Creek  
 Formation/Depth:  
 Sampling Point:  
 Date Received: 3/23/2009 Date Reported: 4/24/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide -----	nd			
Hydrogen Sulfide -----	nd			
Helium -----	nd			
Hydrogen -----	nd			
Argon -----	1.25			
Oxygen -----	0.134			
Nitrogen -----	70.24			
Carbon Dioxide -----	7.45			
Methane -----	18.89	-45.17	-202.3	
Ethane -----	1.90	-27.25		
Ethylene -----	nd			
Propane -----	0.125	-22.98		
Iso-butane -----	0.0073			
N-butane -----	0.0061			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 229  
 Specific gravity, calculated: 0.938

Remarks: Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.74  
 Ethane and propane isotopes obtained online via GC-C-IRMS.

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen is relative to VSMOW. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %. Chemical analysis based on standards accurate to within 2%

Lab #: 158877 Job #: 11182  
 Sample Name: MW2 Co. Lab#:  
 Company: Cordilleran, Div. of Olsson Assoc.  
 Date Sampled: 3/17/2009  
 Container: Dissolved Gas Bottle  
 Field/Site Name: 008-2067  
 Location: Divide Creek  
 Formation/Depth:  
 Sampling Point:  
 Date Received: 3/23/2009 Date Reported: 4/24/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide -----	0.009			
Hydrogen Sulfide -----	nd			
Helium -----	nd			
Hydrogen -----	nd			
Argon -----	0.598			
Oxygen -----	7.24			
Nitrogen -----	33.18			
Carbon Dioxide -----	4.95			
Methane -----	47.77	-40.06	-161.0	
Ethane -----	4.66	-26.31		
Ethylene -----	nd			
Propane -----	1.23	-24.78		
Iso-butane -----	0.159			
N-butane -----	0.143			
Iso-pentane -----	0.0380			
N-pentane -----	0.0126			
Hexanes + -----	0.0116			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 610

Specific gravity, calculated: 0.824

Remarks: Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.69  
 Propane isotope obtained online via GC-C-IRMS.

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen is relative to VSMOW. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %. Chemical analysis based on standards accurate to within 2%

Lab #: 158878 Job #: 11182  
Sample Name: MW9 Co. Lab#:  
Company: Cordilleran, Div. of Olsson Assoc.  
Date Sampled: 3/17/2009  
Container: Dissolved Gas Bottle  
Field/Site Name: 008-2067  
Location: Divide Creek  
Formation/Depth:  
Sampling Point:  
Date Received: 3/23/2009 Date Reported: 4/24/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide -----	0.017			
Hydrogen Sulfide -----	nd			
Helium -----	nd			
Hydrogen -----	nd			
Argon -----	0.639			
Oxygen -----	4.62			
Nitrogen -----	32.89			
Carbon Dioxide -----	5.35			
Methane -----	48.46	-39.88	-186.7	
Ethane -----	5.37	-28.38		
Ethylene -----	nd			
Propane -----	1.95	-25.51		
Iso-butane -----	0.289			
N-butane -----	0.285			
Iso-pentane -----	0.0784			
N-pentane -----	0.0316			
Hexanes + -----	0.0222			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 660

Specific gravity, calculated: 0.828

Remarks: Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.64

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen is relative to VSMOW. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %. Chemical analysis based on standards accurate to within 2%

Lab #: 158879 Job #: 11182  
Sample Name: MW12 Co. Lab#:  
Company: Cordilleran, Div. of Olsson Assoc.  
Date Sampled: 3/17/2009  
Container: Dissolved Gas Bottle  
Field/Site Name: 008-2067  
Location: Divide Creek  
Formation/Depth:  
Sampling Point:  
Date Received: 3/23/2009 Date Reported: 4/24/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide -----	0.045			
Hydrogen Sulfide -----	nd			
Helium -----	nd			
Hydrogen -----	nd			
Argon -----	1.43			
Oxygen -----	9.63			
Nitrogen -----	75.10			
Carbon Dioxide -----	13.04			
Methane -----	0.702			
Ethane -----	0.0492			
Ethylene -----	nd			
Propane -----	nd			
Iso-butane -----	nd			
N-butane -----	nd			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 8  
Specific gravity, calculated: 1.055

Remarks: Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.73

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen is relative to VSMOW. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %. Chemical analysis based on standards accurate to within 2%

Lab #: 158880 Job #: 11182  
Sample Name: MW14 Co. Lab#:  
Company: Cordilleran, Div. of Olsson Assoc.  
Date Sampled: 3/17/2009  
Container: Dissolved Gas Bottle  
Field/Site Name: 008-2067  
Location: Divide Creek  
Formation/Depth:  
Sampling Point:  
Date Received: 3/23/2009 Date Reported: 4/24/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide -----	nd			
Hydrogen Sulfide -----	nd			
Helium -----	nd			
Hydrogen -----	nd			
Argon -----	0.697			
Oxygen -----	0.144			
Nitrogen -----	36.42			
Carbon Dioxide -----	5.40			
Methane -----	49.45	-39.70	-190.3	
Ethane -----	5.45	-28.34		
Ethylene -----	nd			
Propane -----	1.88	-25.44		
Iso-butane -----	0.186			
N-butane -----	0.282			
Iso-pentane -----	0.0462			
N-pentane -----	0.0265			
Hexanes + -----	0.0215			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 665  
Specific gravity, calculated: 0.817

Remarks: Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.68

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen is relative to VSMOW. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %. Chemical analysis based on standards accurate to within 2%

Lab #: 158881 Job #: 11182  
Sample Name: DCS2 Co. Lab#:  
Company: Cordilleran, Div. of Olsson Assoc.  
Date Sampled: 3/17/2009  
Container: Dissolved Gas Bottle  
Field/Site Name: 008-2067  
Location: Divide Creek  
Formation/Depth:  
Sampling Point:  
Date Received: 3/23/2009 Date Reported: 4/24/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide -----	nd			
Hydrogen Sulfide -----	nd			
Helium -----	nd			
Hydrogen -----	nd			
Argon -----	1.35			
Oxygen -----	28.23			
Nitrogen -----	69.60			
Carbon Dioxide -----	0.81			
Methane -----	0.0086			
Ethane -----	nd			
Ethylene -----	nd			
Propane -----	nd			
Iso-butane -----	nd			
N-butane -----	nd			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 0  
Specific gravity, calculated: 1.016

Remarks: Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.74

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen is relative to VSMOW. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %. Chemical analysis based on standards accurate to within 2%



Lab #: 158882 Job #: 11182  
 Sample Name: DCS3 Co. Lab#:  
 Company: Cordilleran, Div. of Olsson Assoc.  
 Date Sampled: 3/17/2009  
 Container: Dissolved Gas Bottle  
 Field/Site Name: 008-2067  
 Location: Divide Creek  
 Formation/Depth:  
 Sampling Point:  
 Date Received: 3/23/2009 Date Reported: 4/24/2009

Component	Chemical mol. %	Delta 13C per mil	Delta D per mil	Delta 15N per mil
Carbon Monoxide -----	nd			
Hydrogen Sulfide -----	nd			
Helium -----	nd			
Hydrogen -----	nd			
Argon -----	1.35			
Oxygen -----	28.11			
Nitrogen -----	69.71			
Carbon Dioxide -----	0.83			
Methane -----	nd			
Ethane -----	nd			
Ethylene -----	nd			
Propane -----	nd			
Iso-butane -----	nd			
N-butane -----	nd			
Iso-pentane -----	nd			
N-pentane -----	nd			
Hexanes + -----	nd			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 0  
 Specific gravity, calculated: 1.016

Remarks: Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.74

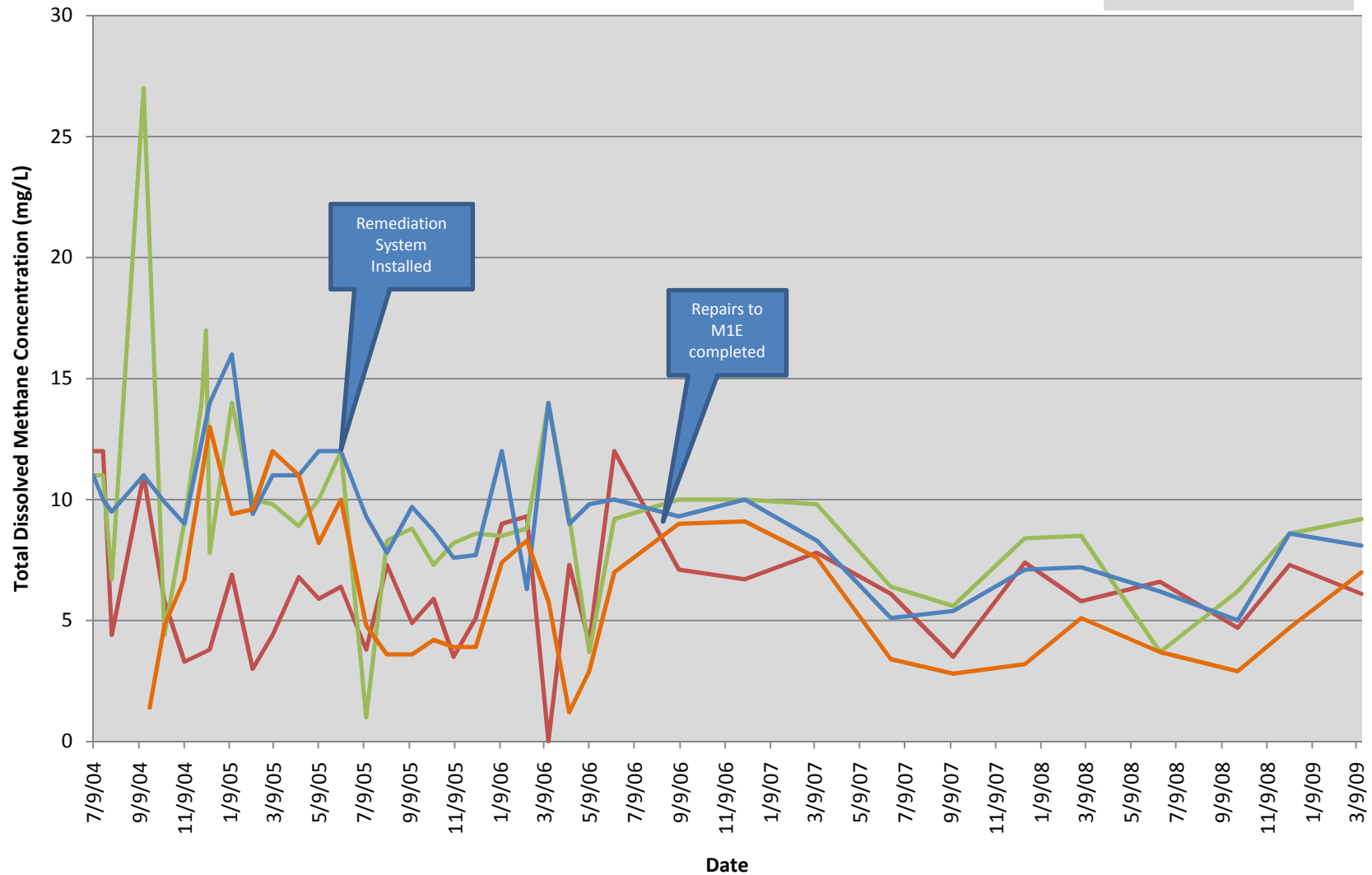
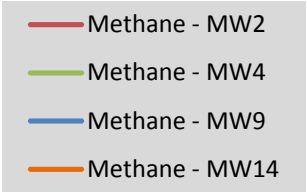
nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen is relative to VSMOW. Calculations for BTU and specific gravity per ASTM D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %. Chemical analysis based on standards accurate to within 2%

# **Appendix G**

## **Graphs**

# West Divide Creek

## Total Dissolved Methane Concentrations MW2, MW4, MW9, and MW14

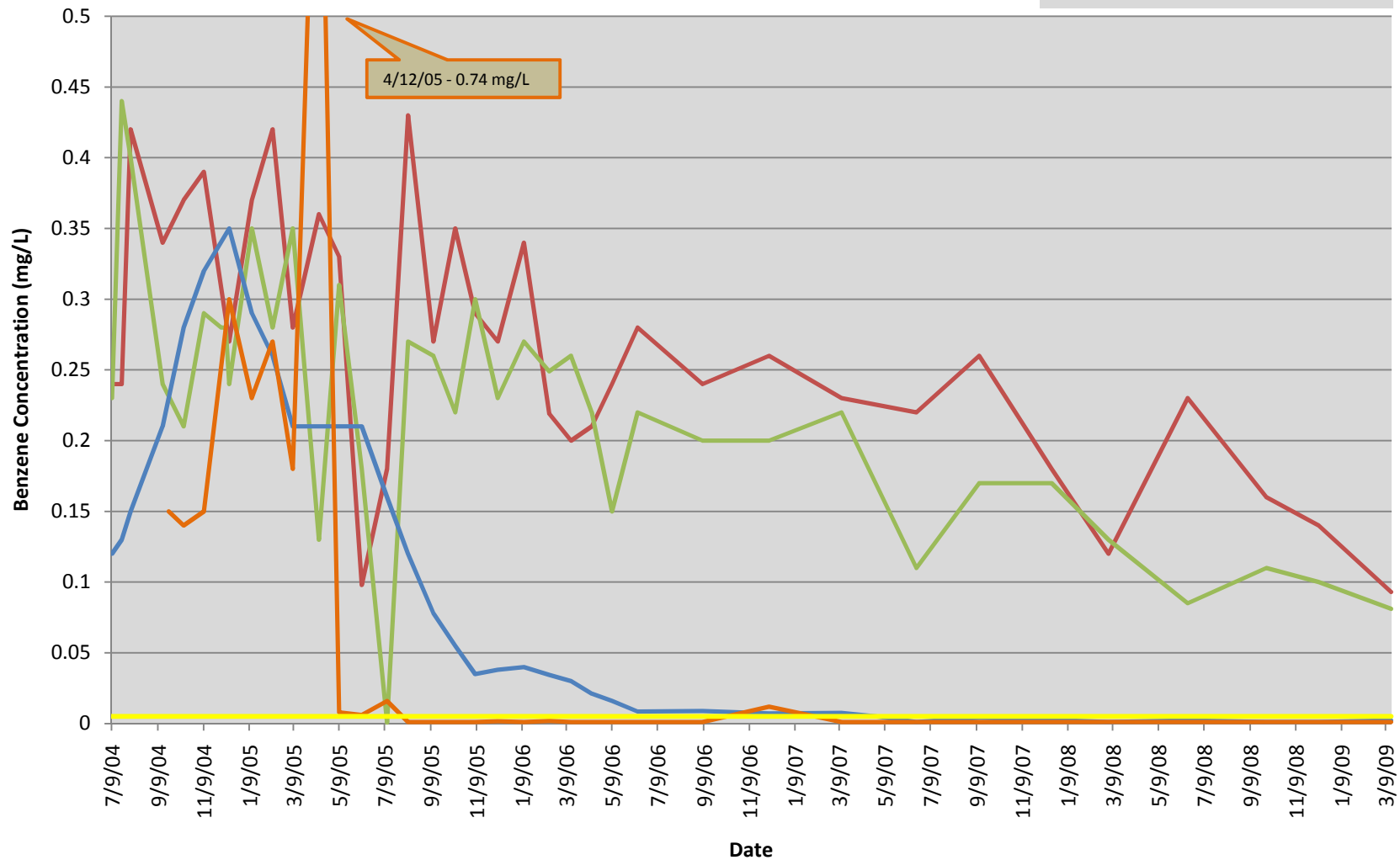


# West Divide Creek

## Benzene Concentrations

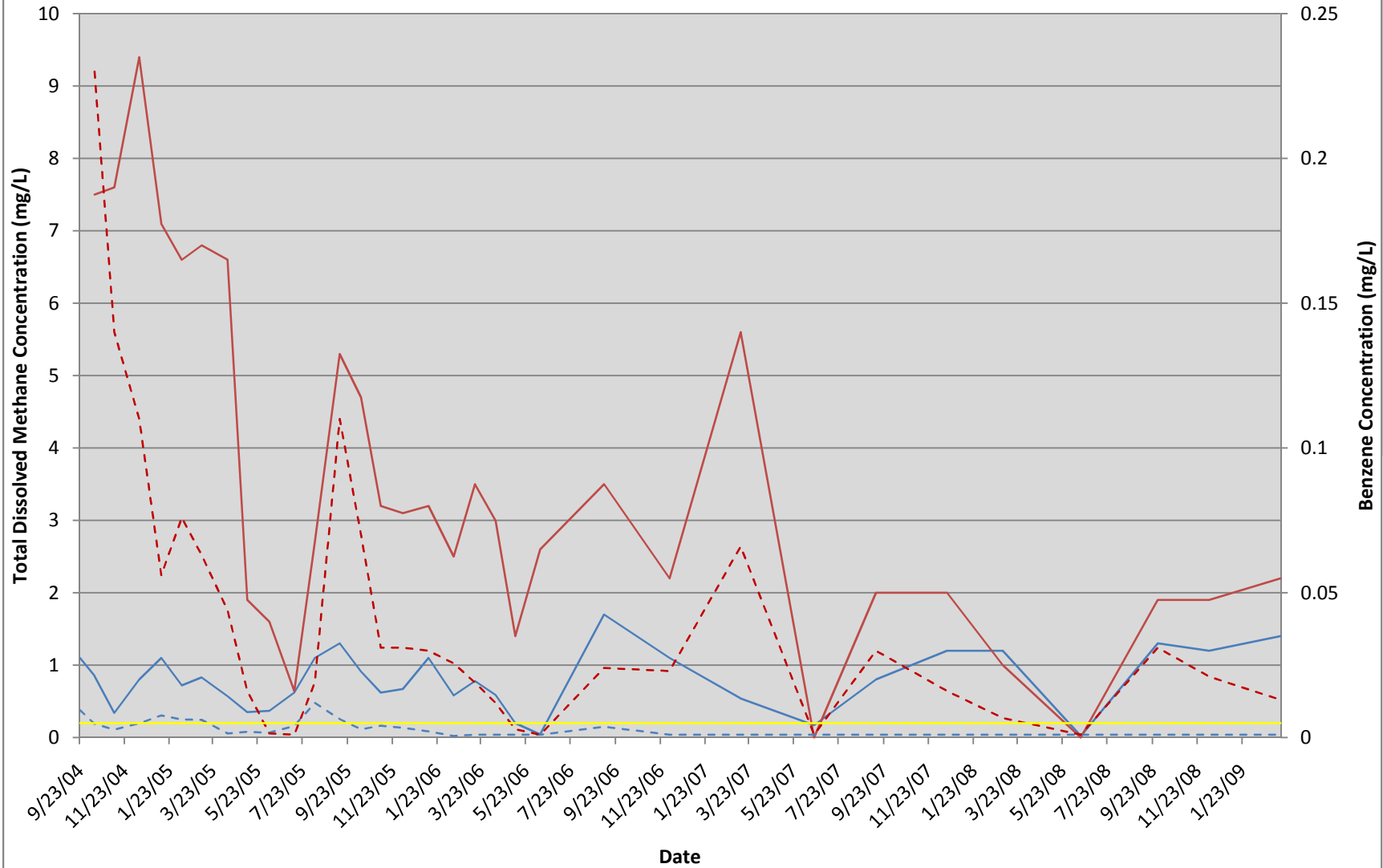
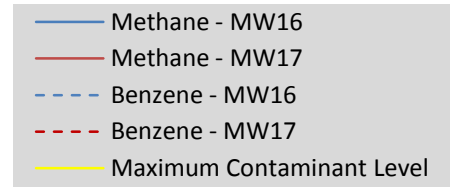
MW2, MW4, MW9, and MW14

- Benzene - MW2
- Benzene - MW4
- Benzene - MW9
- Benzene - MW14
- Maximum Contaminant Level



# West Divide Creek

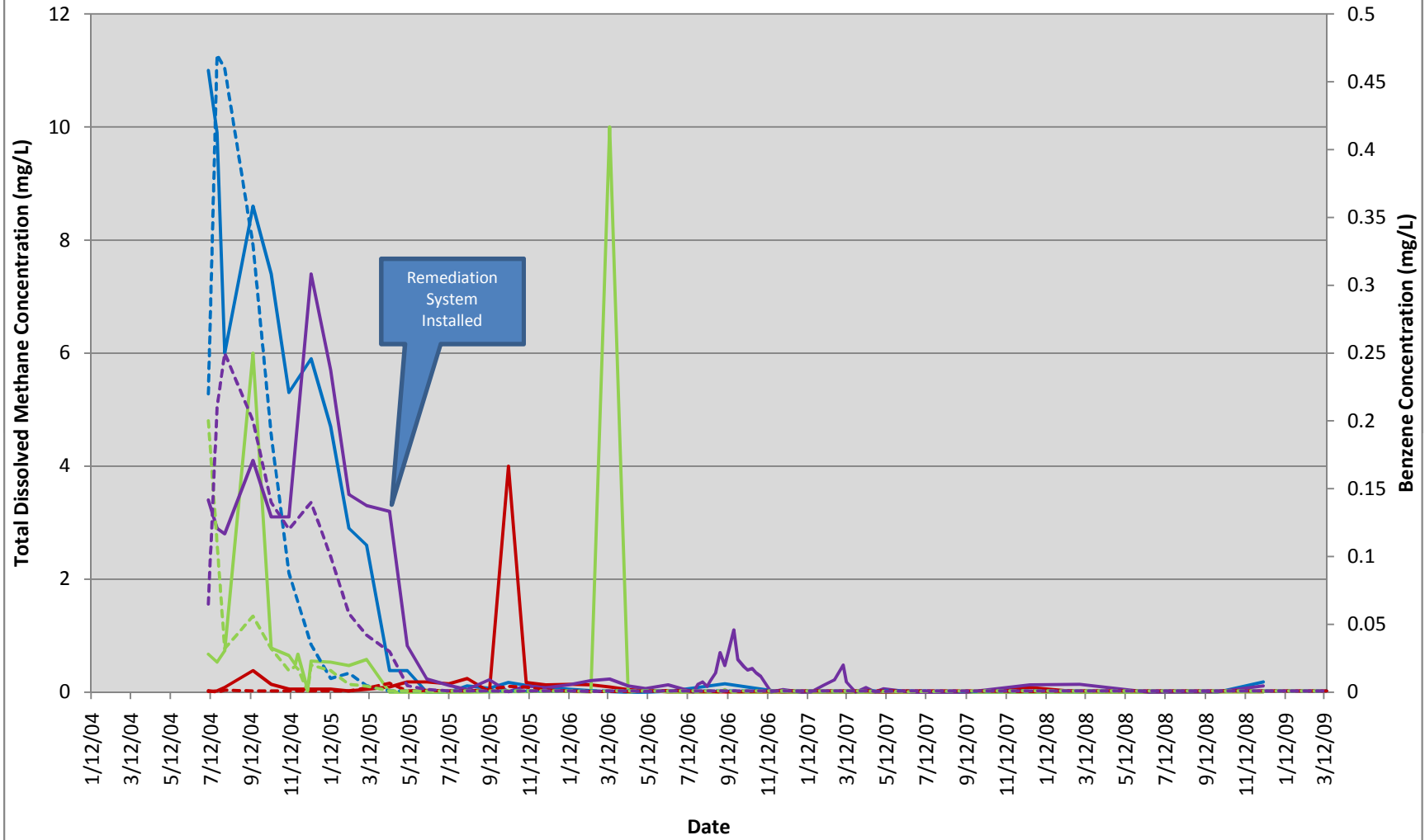
## Total Dissolved Methane Concentrations and Benzene Concentrations MW16 and MW17



# West Divide Creek

## Total Dissolved Methane Concentrations MW1, MW6, MW7 and MW8

- Methane - MW1
- Methane - MW6
- Methane - MW7
- Methane - MW8
- Benzene - MW1
- Benzene - MW6
- Benzene - MW7
- Benzene - MW8



# West Divide Creek

Benzene Concentration vs. Groundwater Elevation

MW17

