

July 7, 2011

Mr. Charlie Jensen  
Encana Oil & Gas (USA) Inc.  
2717 County Rd. 215, Suite 100  
Parachute, CO 81635

**Re: West Divide Seep Area Frist Quarter Monitoring Status Report for March 2011**

Dear Mr. Jensen:

Olsson Associates, Inc. (Olsson) has completed the first quarter of 2011 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 that was conducted in March 2011 and data collected since 2004 to monitor the impacts of the dissolved phase hydrocarbons comprised primarily of methane and benzene in the study area.

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

Olsson collected groundwater samples from 19 out of the 24 monitoring wells and the Eicher domestic water well during the first quarter on March 29, 2011 (**Figure 1**). Monitoring wells MW-15 and MW-25 were frozen. Monitoring wells MW-19 and monitoring well MW-13 were previously plugged and abandoned. Three duplicate samples were also collected during this monitoring period. Prior to sample collection, static water levels were measured in the monitoring wells to within 0.01 feet (ft) from the top of the PVC casing using an electronic water level meter. 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 and YSI water quality meter (**Appendix A**). Groundwater samples were collected following field parameter measurements.

Olsson collected eight (8) surface-water samples (DCS-1-8) on March 28 and March 29, 2011 from West Divide Creek extending from the former seep area to the northern Langegger property line (**Figure 1**). Field parameters including temperature, specific conductance, dissolved oxygen, pH, total dissolved solids, and turbidity were measured for each sample using a Quanta and YSI water quality meters (**Appendix A**).

Water-quality samples collected during this period were analyzed by Accutest Labs (AL), Wheat Ridge, CO for the following analyses:

- BTEX using EPA method 8021B;
- Total dissolved methane using method RSK 175M;

- Chloride (Cl) using method 300E; and
- Sodium (Na) using method SW6020.

Isotopic methane was analyzed by Isotech Laboratories, Inc of Champaign, IL (Isotech). 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 monitoring wells with a history of total dissolved methane greater than 1.0 mg/L (**Appendix B and Appendix C**).

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

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

For this monitoring period, groundwater was encountered from near surface (in the seep area) to 22.91 feet below ground surface (ft-bgs) in MW-21. The groundwater flow direction continues to be from the seep area towards the north, consistent with the flow direction of the creek (**Figure 2**). The groundwater gradient for this period of monitoring was 0.021 feet/foot (ft/ft) (December 2010 - 0.021 ft/ft). The flow in the creek was typical for this monitoring period and low compared to the spring flows.

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

A summary of laboratory analytical groundwater results for benzene, toluene, ethylbenzene, total xylenes (BTEX), and total dissolved methane for the first quarter 2011 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 first quarter 2011 BTEX and total dissolved methane concentrations are shown in **Figure 5**. The groundwater field parameters are presented in **Appendix A**. A summary of historical hydrocarbon analyses results for groundwater data collected since 2004 are contained in **Appendix B** and historic surface water sample results are presented in **Appendix C**. The QA/QC data are contained in **Appendix D**. The thermogenic methane data for this monitoring period are summarized in **Appendix E**. Graphs of chemical concentrations for selected wells are in **Appendix F**. The laboratory reports for March 2011 are in **Appendix G**. This report including all of the laboratory reports is enclosed on a disk in the Adobe Acrobat format.

For this monitoring period confirmed laboratory results are summarized as follows:

- Benzene was detected above the state standard of 5.0 µg/L in samples collected from MW-2 (57.5 µg/L), at MW-4 (26.1 µg/L) and at MW-17 (6.3 µg/L). Benzene was not detected above the laboratory reporting limit of 1.0 µg/L in groundwater samples from the other monitoring wells sampled;
- Toluene was not detected in any of the monitoring wells above the lower laboratory reporting limit of 2.0 µg/L. The state standard for toluene is 1,000 µg/L;
- Ethylbenzene was not detected in any of the monitoring wells above the lower laboratory reporting limit of 2.0 µg/L. The state standard for ethylbenzene is 680 µg/L; and
- Total xylenes were detected in MW-2 and MW-4 at concentrations of 14.5 µg/L and 5.3 µg/L, respectively. Both of these concentrations are well below the state standard of 10,000 µg/L for total xylenes.

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

The surface-water field parameters were measured using a Hach Quanta meter. The readings generally appeared consistent with previous quarterly data with the exception of the pH results which were reportedly greater than a pH of 9 in all eight surface-water locations. This is likely due to the meter being cold due to surface water and site conditions. Groundwater pH readings, measured with a downhole YSI meter, ranged from 7.33 to 8.37 standard pH units, which are consistent with the historic data for both surface and groundwater. Therefore, it appears that higher pH readings for the surface water are related to colder temperatures and likely do not exceed Table 910-1 levels.

**Table 2** contains the surface-water hydrocarbon results for March 2011. Laboratory results for this monitoring period indicate that BTEX compounds were not detected above the lower laboratory reporting limit in any of the Divide Creek surface-water samples (**Table 2**). The results to date continue to show that BTEX concentrations have not been detected in the creek since April of 2005 (**Appendix C**).

### **Methane Results for Groundwater and Surface Water**

The AL 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 lower method detection level of 0.0008 mg/L was detected in 12 monitoring wells in the study area. Total dissolved methane above a concentration of 1.0 mg/L continues to be found in monitoring wells MW-2, MW-4, MW-9, and MW-14. The laboratory reported a dissolved methane concentration of 0.924 mg/l in the MW-17 groundwater sample (**Table 1 and Figure 4**). Total dissolved methane concentrations were detected above the lower laboratory reporting limit of 0.0008 mg/L, but at concentrations that were well below 1.0 mg/L in all of the Divide Creek sample locations (**Table 2**).

Isotopic samples were collected and analyzed from monitoring wells MW-2, MW-4, MW-9, MW-14 and MW-17 during this monitoring period. The results for these locations are contained in **Appendix E**. All of these estimated thermogenic concentrations are less than the initial concentrations, but have remained stable at these estimated concentrations since 2007 (**Appendix E**).

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

The air sparge remediation system was operated during this quarter with minimum downtime. Monitoring has continuously shown that the air sparge remediation system has successfully contained migration of the hydrocarbon plume with the treatment time of 8 hr/day. The treatment time was reduced to 8 hr/day in April 2010 and the data continues to indicate the hydrocarbon concentrations are below the lower laboratory reporting limits within and downgradient of the area of the treatment wells. An air sparging line was reinstalled in MW-4 and was operated continuously for the quarter.

Benzene concentrations greater than the state standard and total dissolved methane concentrations greater than 1.0 mg/L in groundwater are primarily located within 250 feet of the seep and upgradient of the treatment system. Total dissolved methane concentrations have been significantly reduced from the initial concentrations downgradient of the remediation system (**Appendix B**). Concentrations of benzene in the area of treatment influence continue to

show reduced concentrations to below the lower laboratory reporting limit at MW-1 (slightly upgradient of the treatment wells) and at MW-8 (downgradient of the treatment wells).


***Planned Activities for the Next Quarter***

The following activities are planned for the next quarter:

- Obtain water levels from all monitoring wells;
- Sample all monitoring well and surface-water locations for analyses of BTEX, total dissolved methane, chloride and sodium;
- Obtain water quality samples for methane isotopic analysis at monitoring locations that have historically shown total dissolved methane concentrations greater than 1.0 mg/L at monitoring wells MW-2, MW-4, MW-9, MW-14 and MW-17;
- Obtain two duplicate samples and one field blank sample; and
- Evaluate remediation options while continuing to operate and maintain the air sparge system.

Olsson 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,



For J. Hix



James W. Hix, P.G.  
Senior Geologist

Timothy Dobransky  
Project Scientist

cc: Linda Spry-O'Rourke  
Lisa Bracken  
Steve Thompson  
Pepi Langedger  
Kathy Friesen

Attachments

# **TABLES**

**Table 1**  
 Summary of March 2011 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 GWQSs (ug/L)		5	1000	680	10000	None	None	
MW1	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		5953.57
MW2	29-Mar-11	<b>57.5</b>	< 2.0	< 2.0	14.5	8.20	5.6	5954.83
MW4	29-Mar-11	<b>26.1</b>	< 2.0	< 2.0	5.3	5.37	3.6	5956.46
MW6	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		5953.30
MW7	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		5952.62
MW8	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.0424		5950.91
MW9	29-Mar-11	1.0	< 2.0	< 2.0	< 2.0	4.71	2.7	5960.82
MW11	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.0010		5965.48
MW12	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		5962.39
MW13								ABANDONED
MW14	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	3.90	2.5	5960.32
MW15								FROZEN
MW16	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.0210		5955.33
MW16D	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.0483		5955.33
MW17	29-Mar-11	<b>6.3</b>	< 2.0	< 2.0	< 2.0	0.924	0.4	5952.67
MW19								PLUGGED
MW18	28-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.0482		5949.21
MW20	28-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		5946.29
MW21	28-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		5946.54
MW22	28-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		5947.79
MW23	28-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.0120		5937.39
MW23-D	28-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00938		5937.39
MW24	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		5949.65
MW25								FROZEN
MW26	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.722		5953.95
MW27	28-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		5950.38
EICH2	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.0283		NM

**Bold** - exceeds Colorado Groundwater Quality Standards (GWQS)

D - Duplicate sample

ft-msl - feet above mean sea level

mg/L - milligrams/Liter

ug/L - micrograms/Liter

NM - Not measured

< - Not detected above indicated reporting level

Blank cell - not analyzed/not collected

BTEX analyzed by EPA Method 8021

Total Dissolved Methane analyzed by EPA Method RSK175MOD

**Table 2**

Summary of Surface-Water Analytical Results for March 2011  
 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 GWQSs (ug/L)		5	1000	680	10,000	None	None
DCS1	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.0012	NA
DCS2	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00086	NA
DCS2-D	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00089	NA
DCS3	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00080	NA
DCS4	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00149	NA
DCS5	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00180	NA
DCS6	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00442	NA
DCS7	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00219	NA
DCS8	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00157	NA

**200 - Bold** exceeds Colorado Groundwater Quality Standards (GWQS)

NA - Not Analyzed

D - Duplicate Sample

mg/L - milligrams/Liter

ug/L - micrograms/liter

< - Not detected above indicated reporting level

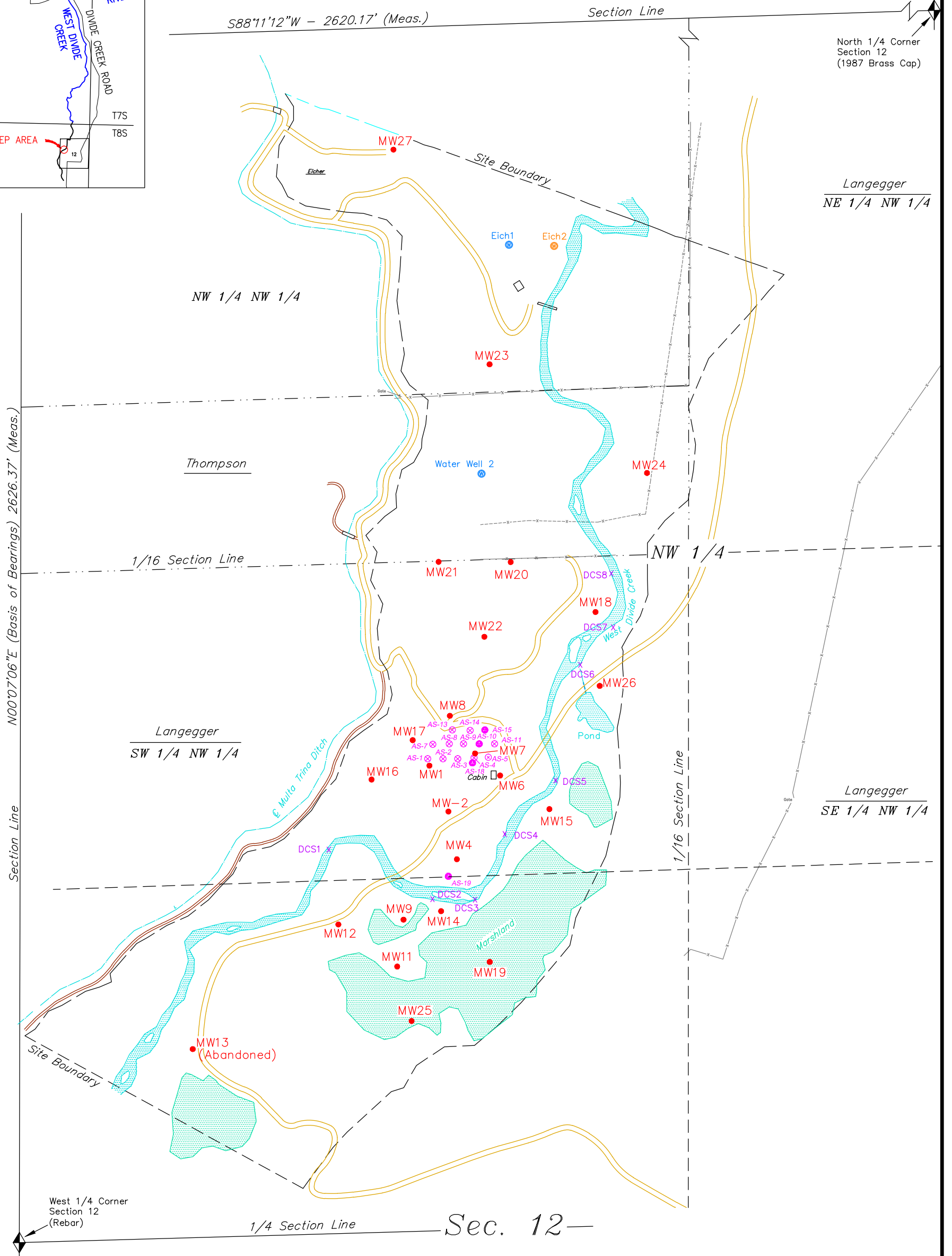
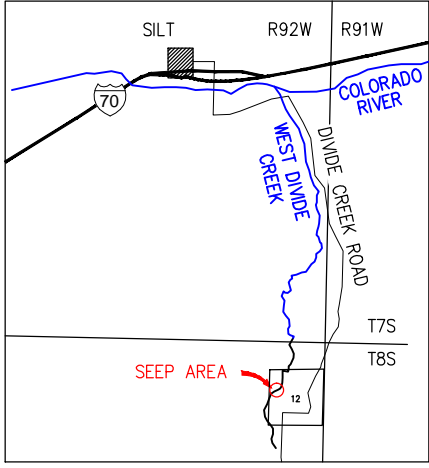
Blank cell - not analyzed/not collected

BTEX analyzed by EPA Method 8021

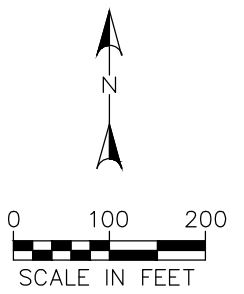
Total Dissolved Methane analyzed by EPA Method RSK175M

# FIGURES



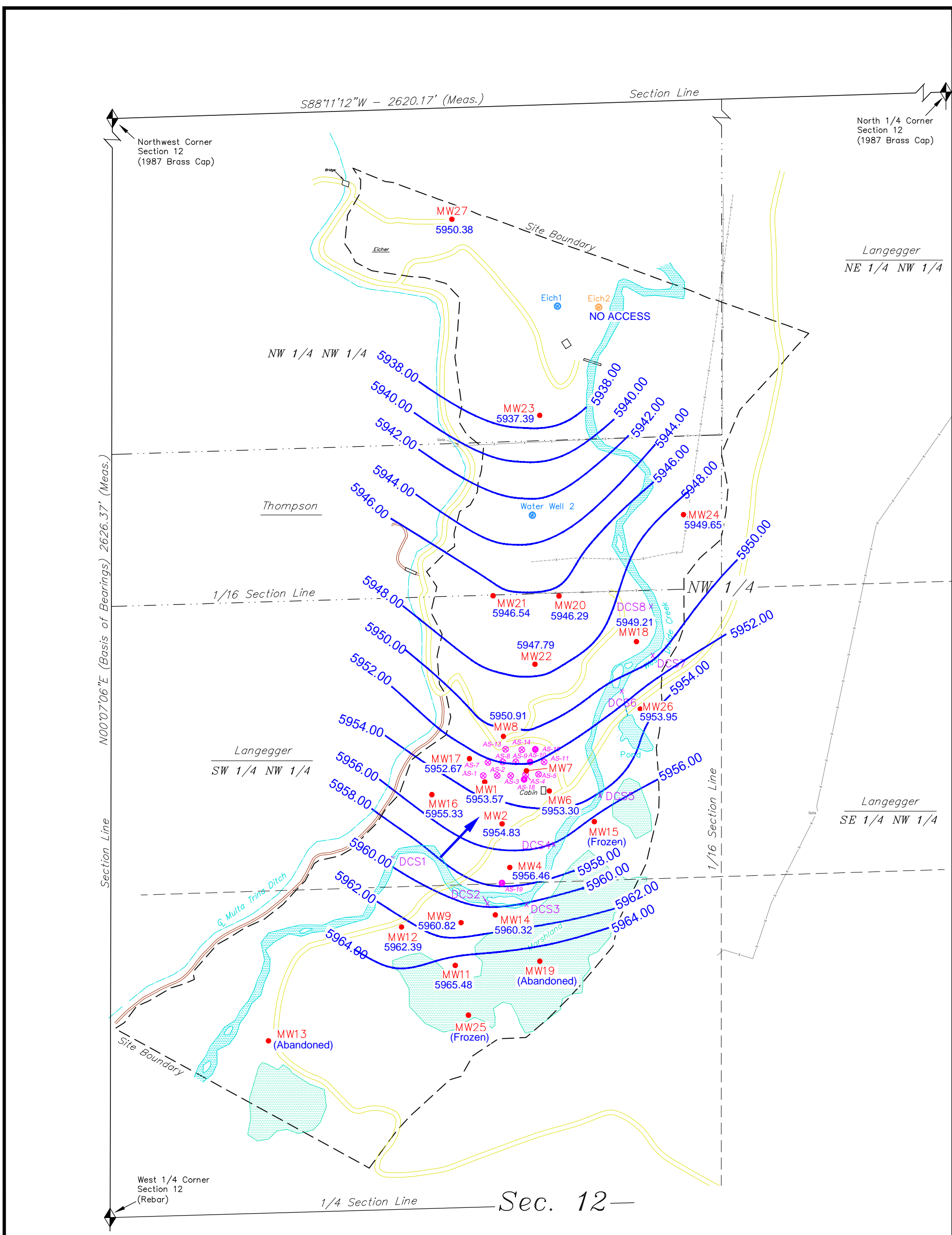


- LEGEND**
- = SECTION CORNERS FOUND
  - = TRAIL
  - = ROAD
  - = FENCE
  - = OLD FENCE
  - = PROPERTY LINE
  - = DRAINAGE
  - = MONITORING WELL LOCATION
  - = AIR SPARGE WELL LOCATION
  - = NESTED AIR SPARGE WELL LOCATION
  - = DIVIDE CREEK SAMPLE LOCATION



PROJECT NO: 008-2067	<b>SITE LOCATION MAP</b> <b>WEST DIVIDE CREEK SEEP AREA</b> <b>GARFIELD COUNTY, COLORADO</b>		4690 Table Mountain Drive Suite 200 Golden, CO 80403 TEL 303.237.2072 FAX 303.237.2659	FIGURE
DRAWN BY: SDS				1
DATE: 07.11.11				

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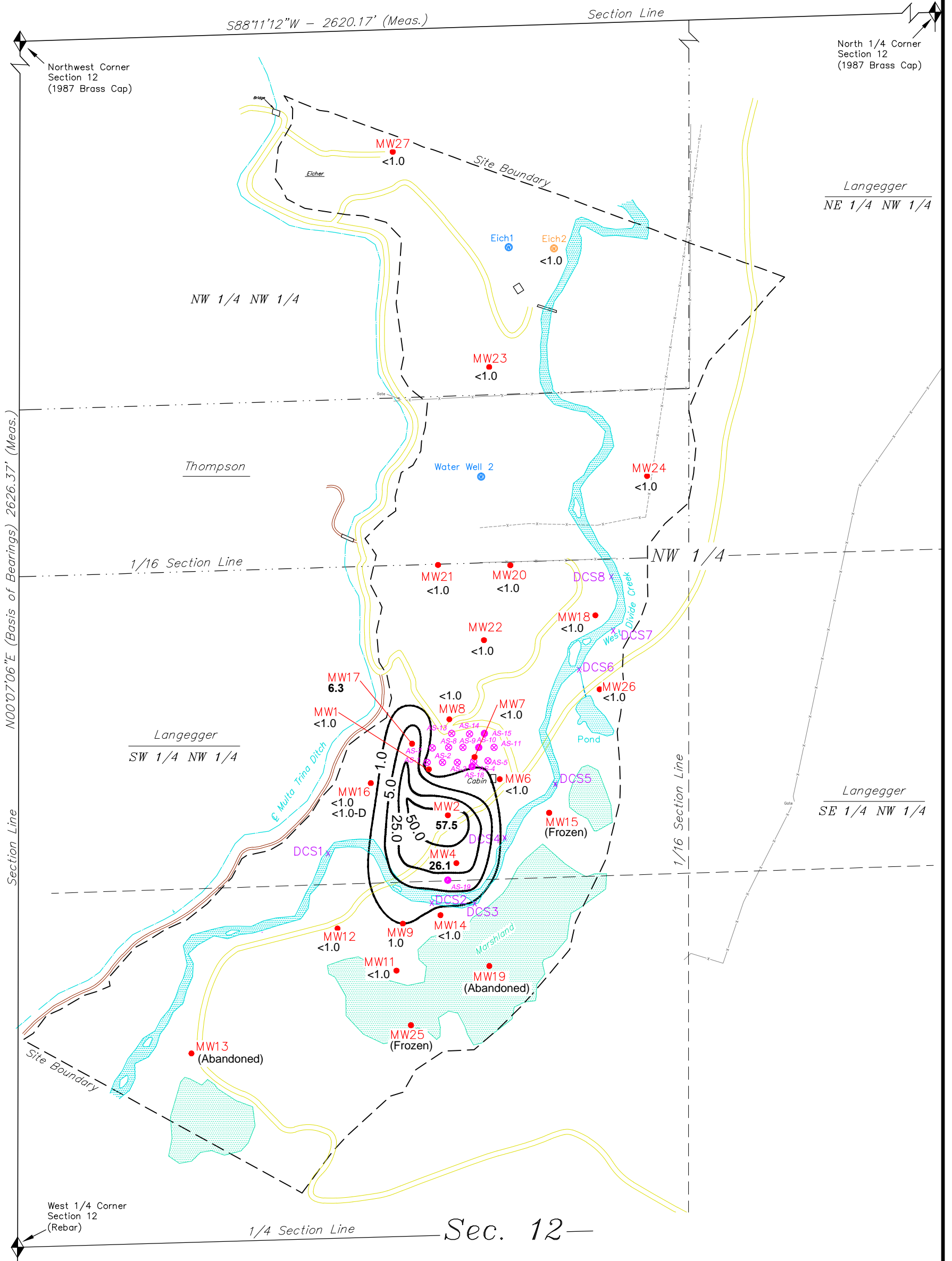
**LEGEND**

- = SECTION CORNERS FOUND
- = TRAIL
- = ROAD
- = FENCE
- = OLD FENCE
- = DRAINAGE
- = DIVIDE CREEK SAMPLE
- = MONITORING WELL LOCATION
- = AIR SPARGE WELL LOCATION
- = NESTED AIR SPARGE WELL LOCATION
- = GROUNDWATER ELEVATION CONTOUR (FEET)
- = GROUNDWATER ELEVATION (FEET)
- = APPROXIMATE GROUNDWATER FLOW DIRECTION
- = NOT USED FOR CONTOURS

SCALE IN FEET

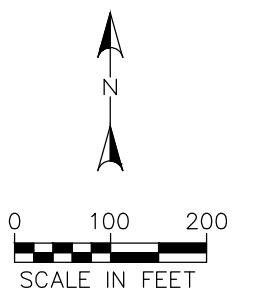
PROJECT NO: 008-2067	GROUNDWATER ELEVATION MAP - MARCH 2011 WEST DIVIDE CREEK SEEP AREA GARFIELD COUNTY, COLORADO		4690 Table Mountain Drive Suite 200 Golden, CO 80403 TEL 303.237.2072 FAX 303.237.2659	FIGURE 2
DRAWN BY: SDS				
DATE: 07.11.11				

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**LEGEND**

- = SECTION CORNERS FOUND
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- = ROAD
- = FENCE
- = OLD FENCE
- = DRAINAGE
- = 1.0 = BENZENE CONCENTRATION CONTOUR IN µg/L
- = 6.3 = BENZENE CONCENTRATION IN µg/L
- = >5 µg = EXCEEDS COLORADO GROUNDWATER QUALITY STANDARDS (GWQS)
- = DIVIDE CREEK SAMPLE LOCATION
- = MONITORING WELL LOCATION
- = AIR SPARGE WELL LOCATION
- = NESTED AIR SPARGE WELL LOCATION



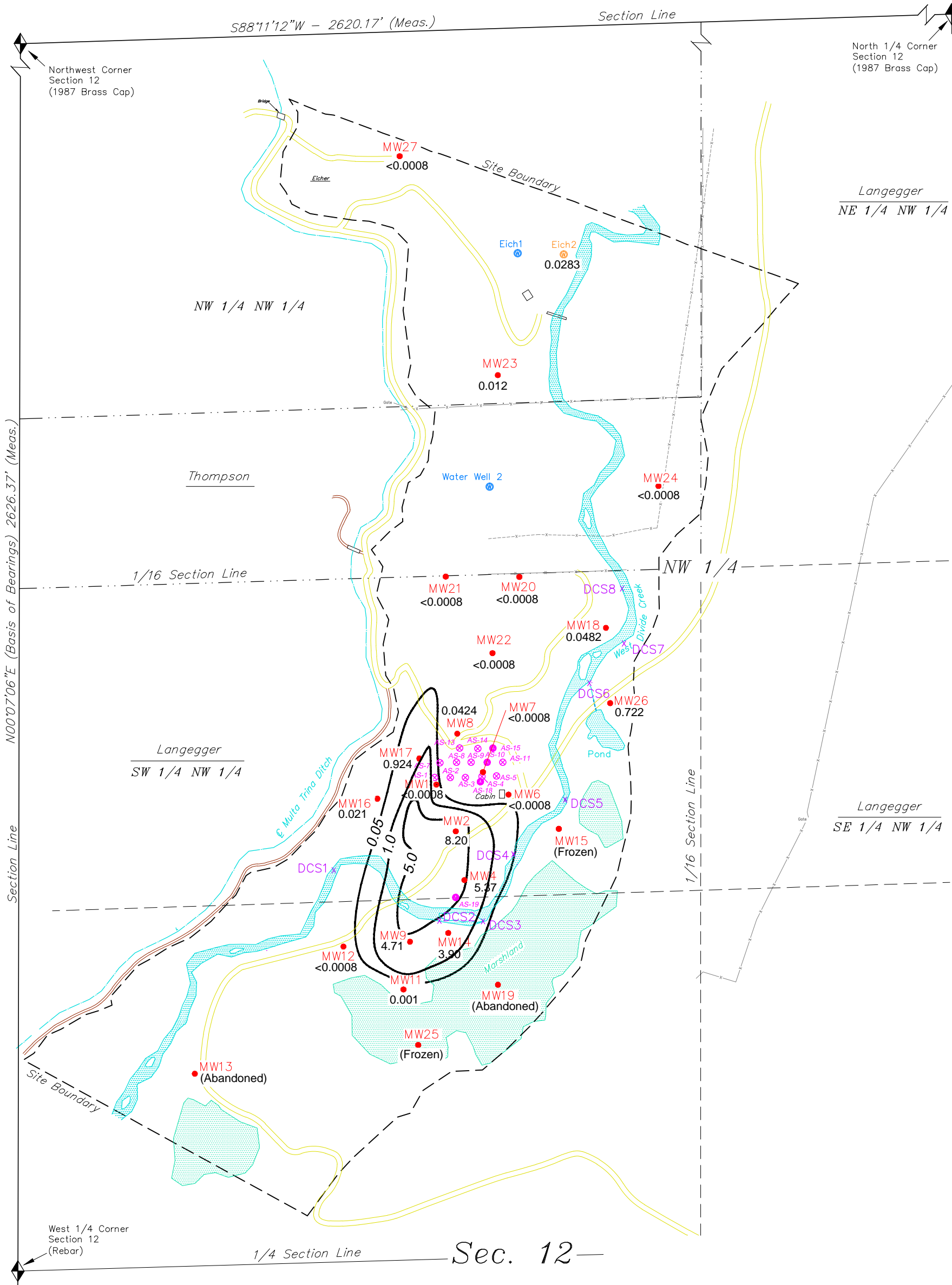
PROJECT NO:	008-2067
DRAWN BY:	SDS
DATE:	07.11.11

**BENZENE CONCENTRATIONS- MARCH 2011  
WEST DIVIDE CREEK SEEP AREA  
GARFIELD COUNTY, COLORADO**

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

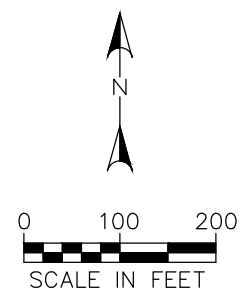
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**LEGEND**

- = SECTION CORNERS FOUND
- = TRAIL
- = ROAD
- = FENCE
- = OLD FENCE
- = DRAINAGE
- = 5.0 = THERMOGENIC & BIOGENIC METHANE CONCENTRATION CONTOUR IN mg/L
- = 5.37 = THERMOGENIC & BIOGENIC METHANE CONCENTRATION IN mg/L
- = DIVIDE CREEK SAMPLE
- = MONITORING WELL LOCATION
- = AIR SPARGE WELL LOCATION
- = NESTED AIR SPARGE WELL LOCATION



PROJECT NO:	008-2067
DRAWN BY:	SDS
DATE:	07.11.11

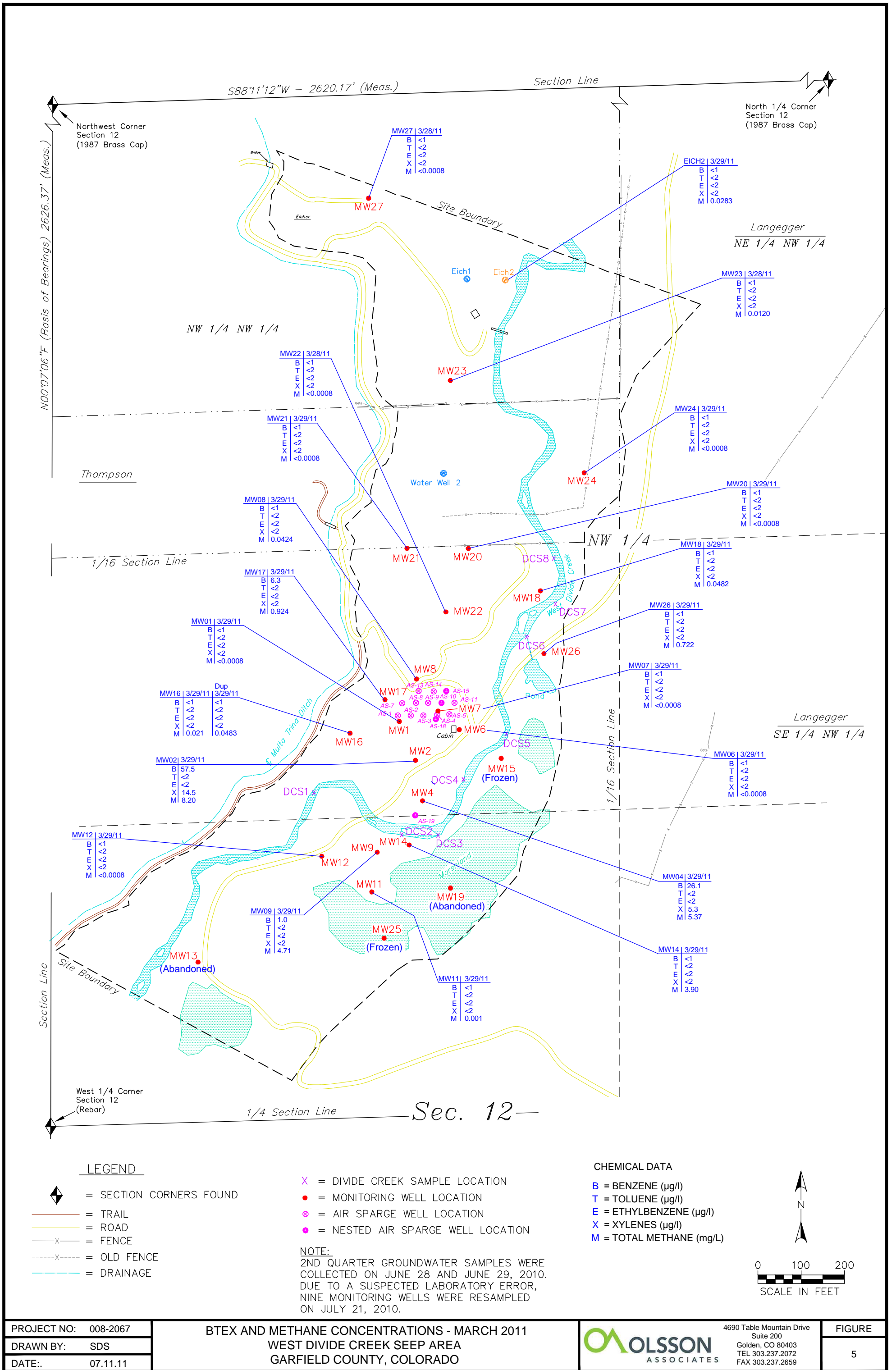
**DISSOLVED METHANE CONCENTRATIONS - MARCH 2011  
WEST DIVIDE CREEK SEEP AREA  
GARFIELD COUNTY, COLORADO**



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

<b>FIGURE</b>
4





# **APPENDIX A**

**Field Data  
included as .pdf file on CD in back**

**Appendix A**  
 Field Data for March 2011  
 Encana, West Divide Creek Seep  
 Garfield County, Colorado

Date	SampleName	Temp_Field	SpCond_Field	DO_Field	pH_Field	TDS_Field	DO_Percent	Turbidity_Field	DTW
29-Mar-11	EICH2	8.85	1.081	1.27	7.90	0.6	12.4	35.1	-88.8
28-Mar-11	MW23	10.13	1.71	1.18	8.03	1.1	22.8	535	15.30
28-Mar-11	MW27	6.33	0.423	0.68	8.28	0.3	16.5	54.6	5.84
29-Mar-11	DCS1	1.8	0.713	5.63	9.04	0.5	47.9	5999	-88.8
29-Mar-11	DCS2	1.61	0.715	11.21	9.19	0.5	96.2	370	-88.8
29-Mar-11	DCS2D	1.61	0.715	11.21	9.19	0.5	96.2	370	-88.8
29-Mar-11	DCS3	1.94	0.716	11.12	9.10	0.5	96.4	385	-88.8
29-Mar-11	DCS4	4.11	0.722	10.24	9.25	0.5	92.8	5999	-88.8
29-Mar-11	DCS5	3.12	0.709	10.56	9.26	0.5	95.4	362	-88.8
29-Mar-11	DCS6	4.45	0.714	9.98	9.18	0.5	90.7	345	-88.8
29-Mar-11	DCS7	9.01	0.712	10.24	9.22	0.5	93.9	383	-88.8
29-Mar-11	DCS8	4.40	1.706	0.50	9.24	0.5	92.1	304	-88.8
29-Mar-11	MW1	7.66	1.048	3.52	8.37	-88.8	-88.8	-88.8	5.22
29-Mar-11	MW11	4.76	0.698	0.16	7.88	0.5	1.5	306	4.18
29-Mar-11	MW12	4.47	1.146	0.53	7.74	0.7	4.6	58.8	1.21
29-Mar-11	MW14	6.29	0.846	0.24	7.93	0.5	2.2	2000	4.74
29-Mar-11	MW17	7.31	1.135	1.72	8.30	-88.8	-88.8	-88.8	5.82
28-Mar-11	MW18	6.43	0.779	0.32	7.99	0.5	14.5	329	3.22
29-Mar-11	MW2	6.8	0.799	1.22	7.33	-88.8	-88.8	-88.8	4.45
28-Mar-11	MW20	5.60	0.972	1.10	8.07	0.6	23.9	455	7.59
28-Mar-11	MW21	8.34	1.440	1.60	8.04	0.9	26.3	255	22.91
28-Mar-11	MW22	6.95	0.963	2.18	7.93	0.6	22.1	323	9.29
29-Mar-11	MW24	7.87	0.737	2.12	8.10	0.7	20.0	57.9	5.26
29-Mar-11	MW26	6.65	0.810	0.65	7.92	0.5	6.3	1230	0.70
29-Mar-11	MW4	-88.8	-88.8	-88.8	-88.8	-88.8	-88.8	-88.8	6.95
29-Mar-11	MW6	8.05	1.111	0.77	8.39	-88.8	-88.8	-88.8	5.12
29-Mar-11	MW6D	8.05	1.111	0.77	8.39	-88.8	-88.8	-88.8	5.12
29-Mar-11	MW7	6.84	0.984	2.73	7.87	-88.8	-88.8	-88.8	6.35
29-Mar-11	MW8	8.80	0.990	2.25	7.98	-88.8	-88.8	-88.8	8.38
29-Mar-11	MW9	5.61	0.826	0.68	7.94	0.5	7.2	68.6	4.31

## **APPENDIX B**

**Historical Groundwater Results  
included as .pdf file on CD in back**



## 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-bmp)	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-01	15-Jun-09	<1	<2	<2	<2	<0.0008		4.10	5954.69
MW-01	16-Sep-09	<1	<2	<2	<2	0.0022		7.24	5951.55
MW-01	15-Dec-09	<1	<2	<2	<2	0.019		6.60	5952.19
MW-01	29-Mar-10	<1	<2	<2	<2	<0.0008		5.66	5953.13
MW-01	28-Jun-10	<1	2.5	<2	<2	<0.0008		4.73	5954.06
MW-01 <sup>a</sup>	21-Jul-10	<1	<2	<2	<2				
MW-01	27-Sep-10	<1	<2	<2	<2	0.0200		6.59	5952.20
MW-01	14-Dec-10	<1	<2	<2	<2	0.00276		5.17	5953.62
MW-01	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		5.22	5953.57
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

## 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-bmp)	Groundwater Elevation (ft-msl)
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			
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-02	15-Jun-09	110	<2	<2	28.8	8.3	6.6	4.45	5954.83
MW-02	15-Jun-09	94	<2	<2	24.1	9.2	7.3	4.45	5954.83
MW-02	16-Sep-09	160	<2	2.5	20.1	7.5	5.7	9.00	5950.28
MW-02	15-Dec-09	110	<2	2.0	30.4	9.1	7.1	5.80	5953.48
MW-02	30-Mar-10	87.7	<2	<2	24.0	7.49	5.2	4.83	5954.45
MW-02	28-Jun-10	72	3.0	<2	24.9	8.71	6.4	5.09	5954.19
MW-02 <sup>a</sup>	21-Jul-10	144	2.2	<2	33.3				
MW-02	27-Sep-10	67.7	<2	<2	16.1	5.77	4.2	5.84	5953.44
MW-02	14-Dec-10	76.9	<2	<2	15.6	7.04	4.2	4.84	5954.44
MW-02	29-Mar-11	57.5	< 2.0	< 2.0	14.5	8.20	5.6	4.45	5954.83
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

## 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-bmp)	Groundwater Elevation (ft-msl)
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
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-04	16-Jun-09	5.4	<2	<2	7.0	6.8	5.0	8.00	5955.41
MW-04	14-Jul-09	27	<2	2.2	21.6	10		8.09	5955.32
MW-04	16-Sep-09	100	<2	3.7	32.9	8.1	6.1	8.58	5954.83
MW-04	15-Dec-09	35	<2	<2	21.4	8.8		8.40	5955.01
MW-04	30-Mar-10	21.6	<2	<2	8.0	6.28	3.8	7.78	5955.63
MW-04	28-Jun-10	59.4	3	2.2	21.7	8.35	6.3	8.10	5955.31
MW-04 <sup>a</sup>	21-Jul-20	41.2	<2	<2	15.8				
MW-04	27-Sep-10	13.7	<2	<2	7.0	5.07	3.2	7.76	5955.65

## 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-bmp)	Groundwater Elevation (ft-msl)
MW-04	14-Dec-10	21.8	<2	<2	6.3	3.2	2.1	7.36	5956.05
MW-04	29-Mar-11	26.1	< 2.0	< 2.0	5.3	5.37	3.6	6.95	5956.46
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			
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-06	15-Jun-09	<1	<2	<2	<2	0.0071		6.60	5953.34
MW-06	16-Sep-09	<1	<2	<2	<2	0.0014		7.45	5952.49

## 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-bmp)	Groundwater Elevation (ft-msl)
MW-06	15-Dec-09	<1	<2	<2	<2	0.0051		12.00	5947.94
MW-06	29-Mar-10	<1	<2	<2	<2	0.00197		6.91	5953.03
MW-06	28-Jun-10	<1	<2	<2	<2	0.00989		6.80	5953.14
MW-06	27-Sep-10	<1	<2	<2	<2	0.00434		7.53	5952.41
MW-06	14-Dec-10	<1	<2	<2	<2	<0.0008		7.08	5952.86
MW-06	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		5.12	5954.82
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
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

## 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-bmp)	Groundwater Elevation (ft-msl)
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-07	15-Jun-09	<1	<2	<2	<2	<0.0008		5.72	5953.25
MW-07	16-Sep-09	<1	<2	<2	<2	0.0028		7.92	5951.05
MW-07	15-Dec-09	<1	<2	<2	<2	<0.0008		7.60	5951.37
MW-07	29-Mar-10	<1	<2	<2	<2	<0.0008		7.50	5951.47
MW-07	28-Jun-10	<1	2.7	<2	<2	<0.0008		6.09	5952.88
MW-07 <sup>a</sup>	21-Jul-10	<1	<2	<2	<2				
MW-07	27-Sep-10	<1	<2	<2	<2	0.0014		8.24	5950.73
MW-07	14-Dec-10	<1	<2	<2	<2	<0.0008		7.00	5951.97
MW-07	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		6.35	5952.62
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
MW-08	12-Jul-05	<b>120</b>	<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

## 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-bmp)	Groundwater Elevation (ft-msl)
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-08	15-Jun-09	<1	<2	<2	<2	0.015		6.99	5952.30
MW-08	16-Sep-09	<1	<2	<2	<2	<0.0008		10.05	5949.24
MW-08	15-Dec-09	<1	<2	<2	<2	0.083		9.40	5949.89
MW-08	29-Mar-10	<1	<2	<2	<2	0.0752		8.96	5950.33
MW-08	28-Jun-10	<1	<2	<2	<2	0.0192		7.62	5951.67
MW-08	27-Sep-10	<1	<2	<2	<2	0.0531		10.25	5949.04
MW-08	14-Dec-10	<1	<2	<2	<2	0.00438		9.02	5950.27
MW-08	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.0424		8.38	5950.91
MW-09	09-Jul-04	<b>120</b>	NA	NA	NA	11			
MW-09	22-Jul-04	<b>130</b>	NA	NA	NA	10		4.88	5960.25
MW-09	03-Aug-04	<b>150</b>	50	2.8	21.3	9.5		4.85	5960.28
MW-09	15-Sep-04	<b>210</b>	140	6.2	59	11	9.0	4.61	5960.52
MW-09	13-Oct-04	<b>280</b>	230	9.8	96	9.9		4.15	5960.98
MW-09	09-Nov-04	<b>320</b>	170	11	104	9		4.05	5961.08
MW-09	09-Nov-04	<b>280</b>	160	9.8	100	14		4.05	5961.08
MW-09	09-Nov-04	<b>310</b>	160	10	98	10		4.05	5961.08

## 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-bmp)	Groundwater Elevation (ft-msl)
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-09	16-Jun-09	1.6	<2	<2	<2	7.2	5.0	4.35	5960.78
MW-09	14-Jul-09	2.5	<2	<2	<2	8.2		4.31	5960.82
MW-09	16-Sep-09	1.3	<2	<2	<2	6.6	4.4	4.38	5960.75
MW-09	15-Dec-09	2	<2	<2	<2	9.2	6.4	4.37	5960.76
MW-09	29-Mar-10	<1	<2	<2	<2	9.24	6.4	4.53	5960.60
MW-09	28-Jun-10	1.8	<2	<2	<2	6.8	4.3	4.44	5960.69
MW-09	27-Sep-10	<1	<2	<2	<2	3.65	1.7	4.34	5960.79
MW-09	14-Dec-10	<1	<2	<2	<2	3.39	1.5	4.35	5960.78
MW-09	29-Mar-11	1.0	< 2.0	< 2.0	< 2.0	4.71	2.7	4.31	5960.82
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			



## 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-bmp)	Groundwater Elevation (ft-msl)
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
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-11	15-Jun-09	<1	<2	<2	<2	0.037		4.51	5965.15
MW-11	17-Sep-09	<1	<2	<2	<2	0.16		4.48	5965.18
MW-11	15-Dec-09	<1	<2	<2	<2	0.019		4.23	5965.43
MW-11	29-Mar-10	<1	<2	<2	<2	0.0698		4.25	5965.41
MW-11	28-Jun-10	<1	2.3	<2	2.7	0.0615		4.80	5964.86
MW-11 <sup>a</sup>	21-Jul-10	<1	<2	<2	<2				
MW-11	27-Sep-10	<1	<2	<2	<2	0.0646		4.52	5965.14
MW-11	13-Dec-10	<1	<2	<2	<2	0.0187		4.51	5965.15
MW-11	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.0010		4.18	5965.48
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

## 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-bmp)	Groundwater Elevation (ft-msl)
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-12	15-Jun-09	<1	<2	<2	<2	0.25	0.02	2.21	5961.39
MW-12	16-Sep-09	1	<2	<2	<2	3.7		2.67	5960.93
MW-12	15-Dec-09	<1	<2	<2	<2	0.07		1.76	5961.84
MW-12	29-Mar-10	<1	<2	<2	<2	0.176		1.94	5961.66
MW-12	28-Jun-10	<1	<2	<2	<2	0.672		2.97	5960.63
MW-12	27-Sep-10	<1	<2	<2	<2	0.288		2.31	5961.29
MW-12	13-Dec-10								
MW-12	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		1.21	5962.39
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
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-13	15-Jun-09								plugged
MW-13	16-Sep-09								plugged
MW-13	15-Dec-09								plugged
MW-13									plugged
MW-13									plugged
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



## 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-bmp)	Groundwater Elevation (ft-msl)
MW-15	08-Dec-08								Frozen
MW-15	16-Mar-09								Frozen
MW-15	15-Jun-09								Flooded
MW-15	16-Sep-09								Flooded
MW-15	15-Dec-09								Flooded
MW-15	30-Mar-10	<1	<2	<2	<2	<0.0008		0.60	5957.19
MW-15	29-Jun-10	<1	<2	<2	<2	<0.0008		0.01	5957.78
MW-15	28-Sep-10	<1	<2	<2	<2	0.0035		0.30	5957.49
MW-15	13-Dec-10								
MW-15									Frozen
MW-16	21-Sep-04	<b>9.5</b>	<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	<b>7.6</b>	<2	<2	<2	1.1		7.20	5953.25
MW-16	09-Feb-05	<b>6.2</b>	<2	<2	<2	0.72	0.5	6.96	5953.49
MW-16	08-Mar-05	<b>6.1</b>	<2	<2	<2	0.83		7.27	5953.18
MW-16	08-Mar-05	<b>6.3</b>	<2	<2	<2	0.66		7.27	5953.18
MW-16	08-Mar-05	<b>6.2</b>	<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	<b>12</b>	<2	<2	<2	1.1		4.83	5955.62
MW-16	12-Sep-05	<b>6.4</b>	<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
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-16	15-Jun-09	<1	<2	<2	<2	0.076	0.001	2.58	5957.87
MW-16	16-Sep-09	<1	<2	<2	<2	1.8		6.39	5954.06
MW-16	16-Sep-09	<1	<2	<2	<2	1.5		6.39	5954.06
MW-16	15-Dec-09	<1	<2	<2	<2	0.76		5.90	5954.55
MW-16	15-Dec-09	<1	<2	<2	<2	0.75		5.90	5954.55
MW-16	30-Mar-10	<1	<2	<2	<2	0.636		5.05	5955.40
MW-16	30-Mar-10	<1	<2	<2	<2	0.527		5.05	5955.40
MW-16	28-Jun-10	<1	<2	<2	<2	0.0889		3.03	5957.42
MW-16 <sup>a</sup>	21-Jul-10	<1	<2	<2	<2				
MW-16	28-Jun-10	<1	2.4	<2	<2	0.0135		3.03	5957.42
MW-16 <sup>a</sup>	21-Jul-10	<1	<2	<2	<2				
MW-16	27-Sep-10	<1	<2	<2	<2	0.413		6.74	5953.71

## 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-bmp)	Groundwater Elevation (ft-msl)
MW-16	14-Dec-10	<1	<2	<2	<2	0.166		5.29	5955.16
MW-16	14-Dec-10	<1	<2	<2	<2	0.111		5.29	5955.16
MW-16	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.0210			5955.33
MW-16D	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.0483			5955.33
MW-17	21-Sep-04	<1	<2	<2	46.6	8.3			
MW-17	13-Oct-04	<b>230</b>	110	4.1	39.8	7.5	6.2	10.48	5948.01
MW-17	09-Nov-04	<b>140</b>	7.2	3	20.7	7.6		9.60	5948.89
MW-17	14-Dec-04	<b>110</b>	<2	2.1	16.1	9.4		8.76	5949.73
MW-17	12-Jan-05	<b>56</b>	<2	<2	<2	7.1	5.1	8.84	5949.65
MW-17	09-Feb-05	<b>76</b>	<2	<2	<2	6.6	4.9	8.69	5949.80
MW-17	08-Mar-05	<b>63</b>	<2	<2	<2	6.8		8.84	5949.65
MW-17	12-Apr-05	<b>44</b>	<2	<2	<2	6.6		6.19	5952.30
MW-17	10-May-05	<b>16</b>	<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	<b>19</b>	<2	<2	<2	2.7		5.53	5952.96
MW-17	12-Sep-05	<b>110</b>	3.6	<2	<2	5.3	3.3	7.02	5951.47
MW-17	11-Oct-05	<b>72</b>	<2	<2	<2	4.7			
MW-17	08-Nov-05	<b>31</b>	<2	<2	<2	3.2			
MW-17	07-Dec-05	<b>31</b>	<2	<2	<2	3.1		6.58	5951.91
MW-17	11-Jan-06	<b>30</b>	<2	<2	<2	3.2	1.8	6.88	5951.61
MW-17	14-Feb-06	<b>26</b>	<1	<1	<1	2.5		6.88	5951.61
MW-17	15-Mar-06	<b>19</b>	<2	<2	<2	3.5		6.55	5951.94
MW-17	12-Apr-06	<b>12</b>	<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	<b>24</b>	<5	<2	<2	3.5	2.2	8.27	5950.22
MW-17	05-Dec-06	<b>23</b>	<2	<2	<2	2.2	1.2	7.31	5951.18
MW-17	13-Mar-07	<b>66</b>	<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	<b>30</b>	<2	<2	<2	2	1.2	9.68	5948.81
MW-17	18-Dec-07	<b>16</b>	<2	<2	<2	2		7.59	5950.90
MW-17	03-Mar-08	<b>6.7</b>	<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	<b>31</b>	<2	<2	<2	1.9	1.1	8.20	5950.29
MW-17	09-Dec-08	<b>21</b>	<2	<2	<2	1.9	1.0	6.75	5951.74
MW-17	16-Mar-09	<b>13</b>	<2	<2	<2	2.2	1.0	6.71	5951.78
MW-17	15-Jun-09	<1	<2	<2	<2	0.0027	<0.0008	3.25	5955.24
MW-17	16-Sep-09	<b>41</b>	<2	<2	<2	4.2	2.3	8.10	5950.39
MW-17	15-Dec-09	<b>25</b>	<2	<2	<2	3.2	1.5	8.40	5950.09
MW-17	29-Mar-10	<b>24.6</b>	<2	<2	<2	3.25	1.6	6.52	5951.97
MW-17	28-Jun-10	<1	<2	<2	<2	0.0107	0.0008	4.05	5954.44
MW-17 <sup>a</sup>	21-Jul-10	<b>13.0</b>	<2	<2	<2				
MW-17	27-Sep-10	<b>27.4</b>	<2	<2	<2	2.74	1.5	8.46	5950.03
MW-17	14-Dec-10	<b>21.5</b>	<2	<2	<2	2.06	0.9	6.84	5951.65
MW-17	29-Mar-11	<b>6.3</b>	< 2.0	< 2.0	< 2.0	0.924	0.4	5.82	5952.67
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



## 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-bmp)	Groundwater Elevation (ft-msl)
MW-19	15-Dec-09								Flooded
MW-19									PLUGGED
MW-19									PLUGGED
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
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

## 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-bmp)	Groundwater Elevation (ft-msl)
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-20	15-Jun-09	<1	<2	<2	<2	0.00089		6.98	5946.90
MW-20	16-Sep-09	<1	<2	<2	<2	<0.0008		9.96	5943.92
MW-20	15-Dec-09	<1	<2	<2	<2	<0.0008		9.00	5944.88
MW-20	29-Mar-10	<1	<2	<2	<2	<0.0008		8.31	5945.57
MW-20	29-Jun-10	<1	<2	<2	<2	0.00369		8.64	5945.24
MW-20	27-Sep-10	<1	<2	<2	<2	0.00466		10.10	5943.78
MW-20	13-Dec-10	<1	<2	<2	<2	0.00251		8.71	5945.17
MW-20	28-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		7.59	5946.29
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
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



## 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-bmp)	Groundwater Elevation (ft-msl)
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-21	15-Jun-09	<1	<2	<2	<2	0.0011		21.55	5947.90
MW-21	16-Sep-09	<1	<2	<2	<2	0.002		25.12	5944.33
MW-21	15-Dec-09	<1	<2	<2	<2	<0.0008		24.24	5945.21
MW-21	29-Mar-10	<1	<2	<2	<2	<0.0008		23.76	5945.69
MW-21	29-Jun-10	<1	<2	<2	<2	0.00156		22.65	5946.80
MW-21	27-Sep-10	<1	<2	<2	<2	<0.0008		25.44	5944.01
MW-21	13-Dec-10	<1	<2	<2	<2	<0.0008		24.20	5945.25
MW-21	28-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		22.91	5946.54
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
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-22	15-Jun-09	<1	<2	<2	<2	<0.0008		8.35	5948.73

## 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-bmp)	Groundwater Elevation (ft-msl)
MW-22	16-Sep-09	<1	<2	<2	<2	<0.0008		11.74	5945.34
MW-22	15-Dec-09	<1	<2	<2	<2	<0.0008		10.60	5946.48
MW-22	29-Mar-10	<1	<2	<2	<2	<0.0008		10.21	5946.87
MW-22	29-Jun-10	<1	<2	<2	<2	<0.0008		9.36	5947.72
MW-22	27-Sep-10	<1	<2	<2	<2	<0.0008		11.75	5945.33
MW-22	13-Dec-10	<1	<2	<2	<2	0.00085		10.11	5946.97
MW-22	28-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		9.29	5947.79
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
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			

## 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-bmp)	Groundwater Elevation (ft-msl)
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-23	15-Jun-09	<1	<2	<2	<2	<0.0008	<0.0008	11.62	5941.07
MW-23	16-Sep-09	<1	<2	<2	<2	<0.0008	<0.0008	17.00	5935.69
MW-23	16-Sep-09	<1	<2	<2	<2	0.0011		17.00	5935.69
MW-23	16-Dec-09	<1	<2	<2	<2	0.37		16.12	5936.57
MW-23	30-Mar-10	<1	<2	<2	<2	0.0724		15.69	5937.00
MW-23	30-Mar-10	<1	<2	<2	<2	0.0964		15.69	5937.00
MW-23	28-Jun-10	<1	<2	<2	<2	<0.0008		11.46	5941.23
MW-23	28-Jun-10	<1	<2	<2	<2	<0.0008		11.86	5940.83
MW-23	27-Sep-10								
MW-23	16-Dec-10	<1	<2	<2	<2	<0.0008		16.37	5936.32
MW-23	16-Dec-10	<1	<2	<2	<2	<0.0008		16.37	5936.32
MW-23	28-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.0120		15.30	5937.39
MW-23D	28-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00938		15.30	5937.39
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

## 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-bmp)	Groundwater Elevation (ft-msl)
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
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-24	16-Jun-09	<1	<2	<2	<2	0.014		3.89	5951.02
MW-24	17-Sep-09	<1	<2	<2	<2	0.6		4.38	5950.53
MW-24	16-Dec-09	<1	<2	<2	<2	<0.0008		5.52	5949.39
MW-24	31-Mar-10	<1	<2	<2	<2	<0.0008		5.41	5949.50
MW-24	29-Jun-10	<1	<2	<2	<2	0.00178		4.85	5950.06
MW-24	27-Sep-10	<1	<2	<2	<2	0.00418		4.68	5950.23
MW-24	16-Dec-10	<1	<2	<2	<2	<0.0008		4.92	5949.99
MW-24	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		5.26	5949.65
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-25	15-Jun-09	<1	<2	<2	<2	0.011		4.03	5967.76
MW-25	17-Sep-09	<1	<2	<2	<2	0.11		3.73	5968.06
MW-25	15-Dec-09								Frozen
MW-25	29-Mar-10	<1	<2	<2	<2	0.004		4.04	5967.75
MW-25	28-Jun-10	<1	2	<2	<2	0.0103		3.40	5968.39
MW-25 <sup>a</sup>	21-Jul-10	<1	<2	<2	<2				
MW-25	27-Sep-10	<1	<2	<2	<2	0.0519		3.74	5968.05
MW-25	13-Dec-10								
MW-25									Frozen
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			

## Appendix B

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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-bmp)	Groundwater Elevation (ft-msl)
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
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-26	16-Jun-09	<1	<2	<2	<2	0.33		1.00	5953.65
MW-26	17-Sep-09	<1	<2	<2	<2	0.049		1.60	5953.05
MW-26	16-Dec-09	<1	<2	<2	<2	0.27		1.60	5953.05
MW-26	16-Dec-09	<1	<2	<2	<2	0.33		1.60	5953.05
MW-26	31-Mar-10	<1	<2	<2	<2	1.25		1.24	5953.41
MW-26	28-Jun-10	<1	<2	<2	<2	0.778		1.09	5953.56
MW-26	27-Sep-10	<1	<2	<2	<2	0.512		1.18	5953.47
MW-26	27-Sep-10	<1	<2	<2	<2	0.569		1.18	5953.47
MW-26	13-Dec-10	<1	<2	<2	<2	0.473		1.04	5953.61
MW-26	13-Dec-10	<1	<2	<2	<2	0.454		1.04	5953.61
MW-26	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.722		0.70	5953.95
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

## 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-bmp)	Groundwater Elevation (ft-msl)
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
MW-27	15-Jun-09	<1	<2	<2	<2	<0.0008		3.85	5952.37
MW-27	16-Sep-09	<1	<2	<2	<2	0.0015		11.42	5944.80
MW-27	16-Dec-09	<1	<2	<2	<2	<0.0008		8.90	5947.32
MW-27	30-Mar-10	<1	<2	<2	<2	<0.0008		6.78	5949.44
MW-27	28-Jun-10	<1	2.1	<2	<2	<0.0008		6.31	5949.91
MW-27 <sup>a</sup>	21-Jul-20	<1	<2	<2	<2				
MW-27	27-Sep-10								
MW-27	16-Dec-10	<1	<2	<2	<2	<0.0008		9.58	5946.64
MW-27	28-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	< 0.00080		5.84	5950.38
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			

## 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-bmp)	Groundwater Elevation (ft-msl)
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			
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			
EICH2	15-Jun-09	<1	<2	<2	<2	0.087			
EICH2WW	16-Sep-09	<1	<2	<2	<2	0.1			
EICH2	16-Dec-09	<1	<2	<2	<2	<0.0008			
EICH2	30-Mar-10	<1	<2	<2	<2	0.0254			

### 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-bmp)	Groundwater Elevation (ft-msl)
EICH2	29-Jun-10	<1	<2	<2	<2	0.014			
EICH2	27-Sep-10								
EICH2	16-Dec-10	<1	<2	<2	<2	<0.0008			
EICH2	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.0283			
LANGWW	17-Sep-09	<1	<2	<2	<2	< 0.0008			
<b>Bold - indicates value exceeds state standard</b>				<sup>a</sup> - Resampled due to suspected laboratory error					
mg/l - milligrams/liter				DTW - depth to water below measuring point				ft-msl - feet above mean sea level	
ug/l - micrograms/liter				ft - feet					
Total number of all groundwater samples over all dates = 1234						Blank cell - indicates not analyzed or not obtained			



## **APPENDIX C**

**Historical Surface-Water Results  
included as .pdf file on CD in back**

## 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	None	None
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	
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	

## 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	None	None
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	
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	

## 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	None	None
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	
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	

## 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	None	None
DCS-1	17-Mar-09	<1	<1	<1	<1	<0.001	
DCS-1	16-Jun-09	<1	<2	<2	<2	0.0015	
DCS-1	17-Sep-09	<1	<2	<2	<2	0.0015	
DCS-1	16-Dec-09	<1	<2	<2	<2	0.0013	
DCS-1	30-Mar-10	<1	<2	<2	<2	0.00094	
DCS-1	29-Jun-10	<1	2.6	<2	<2	0.00186	
DCS-1	28-Sep-10	<1	<2	<2	<2	0.00247	
DCS-1	16-Dec-10	<1	<2	<2	<2	0.00095	
DCS-1	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.0012	
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	
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	

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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	None	None
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	
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	

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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	None	None
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	
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	

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Summary of Historical Surface-Water Analytical Results  
Encana, West Divide Creek Seep  
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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	None	None
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-2	16-Jun-09	<1	<2	<2	<2	0.0017	<0.0008
DCS-2	17-Sep-09	<1	<2	<2	<2	0.0029	<0.0008
DCS-2	16-Dec-09	<1	<2	<2	<2	0.0032	0.002
DCS-2	30-Mar-10	<1	<2	<2	<2	0.0013	<0.0008
DCS-2	29-Jun-10	<1	<2	<2	<2	0.0013	
DCS-2	28-Sep-10	<1	<2	<2	<2	0.00579	
DCS-2	16-Dec-10	<1	<2	<2	<2	0.00211	
DCS-2	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00086	
DCS-2D	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00089	
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	
DCS-3	18-Apr-04	<b>6.4</b>	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	



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Summary of Historical Surface-Water Analytical Results  
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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	None	None
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	<b>6.2</b>	<2	<2	<2	0.67	
DCS-3	26-Oct-04	<b>5.8</b>	<2	<2	<2	0.64	
DCS-3	27-Oct-04	<b>5.3</b>	<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	<b>6.3</b>	<2	<2	<2	0.58	
DCS-3	01-Nov-04	<b>5.5</b>	<2	<2	<2	0.62	
DCS-3	02-Nov-04	<b>6.5</b>	<2	<2	<2	1.2	
DCS-3	03-Nov-04	<b>5.7</b>	<2	<2	<2	0.53	
DCS-3	04-Nov-04	<b>5.4</b>	<2	<2	<2	0.74	
DCS-3	05-Nov-04	<b>9.7</b>	<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	<b>5.1</b>	<2	<2	<2	0.39	
DCS-3	09-Nov-04	<b>5.7</b>	<2	<2	<2	0.58	
DCS-3	10-Nov-04	<b>5.4</b>	<2	<2	<2	0.57	
DCS-3	11-Nov-04	<b>7.1</b>	<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	
DCS-3	23-Nov-04	<b>9.2</b>	<2	<2	<2	0.98	
DCS-3	02-Dec-04	<b>12</b>	<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	

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Summary of Historical Surface-Water Analytical Results  
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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	None	None
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	
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

## 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	None	None
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	
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	

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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	None	None
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-3	16-Jun-09	<1	<2	<2	<2	0.0014	
DCS-3	16-Jun-09	<1	<2	<2	<2	0.0014	
DCS-3	17-Sep-09	<1	<2	<2	<2	0.0017	
DCS-3	16-Dec-09	<1	<2	<2	<2	0.0016	0.001
DCS-3	30-Mar-10	<1	<2	<2	<2	0.001	
DCS-3	29-Jun-10	<1	<2	<2	<2	0.001	
DCS-3	28-Sep-10	<1	<2	<2	<2	0.0176	
DCS-3	28-Sep-10	<1	<2	<2	<2	0.0153	
DCS-3	16-Dec-10	<1	<2	<2	<2	0.0013	
DCS-3	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00080	
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	
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	

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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	None	None
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	
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	

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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	None	None
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	
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	

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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	None	None
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-4	16-Jun-09	<1	<2	<2	<2	0.0029	
DCS-4	17-Sep-09	<1	<2	<2	<2	0.0042	
DCS-4	16-Dec-09	<1	<2	<2	<2	0.0063	
DCS-4	30-Mar-10	<1	<2	<2	<2	0.00263	
DCS-4	29-Jun-10	<1	<2	<2	<2	0.00165	
DCS-4	28-Sep-10	<1	<2	<2	<2	0.0101	
DCS-4	16-Dec-10	<1	<2	<2	<2	0.002	
DCS-4	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00149	
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	
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	

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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	None	None
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	
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	



## 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	None	None
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	
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	

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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	None	None
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	
DCS-5	17-Mar-09	<1	<2	<2	<2	0.0012	
DCS-5	16-Jun-09	<1	<2	<2	<2	0.0028	
DCS-5	17-Sep-09	<1	<2	<2	<2	0.0042	
DCS-5	16-Dec-09	<1	<2	<2	<2	0.006	
DCS-5	31-Mar-10	<1	<2	<2	<2	0.0013	
DCS-5	29-Jun-10	<1	<2	<2	<2	0.00176	
DCS-5	28-Sep-10	<1	<2	<2	<2	0.00626	
DCS-5	16-Dec-10	<1	<2	<2	<2	0.00217	
DCS-5	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00180	
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	

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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	None	None
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	
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	

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Summary of Historical Surface-Water Analytical Results  
Encana, West Divide Creek Seep  
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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	None	None
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	
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	

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### Summary of Historical Surface-Water Analytical Results

Encana, West Divide Creek Seep

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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	None	None
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	
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-6	16-Jun-09	<1	<2	<2	<2	0.0056	
DCS-6	17-Sep-09	<1	<2	<2	<2	0.0051	
DCS-6	16-Dec-09	<1	<2	<2	<2	0.0077	
DCS-6	31-Mar-10	<1	<2	<2	<2	0.00153	

## 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	None	None
DCS-6	29-Jun-10	<1	<2	<2	<2	0.00174	
DCS-6	28-Sep-10	<1	<2	<2	<2	0.0227	
DCS-6	13-Dec-10	<1	<2	<2	<2	0.00767	
DCS-6	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00442	
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	
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	

## 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	None	None
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	
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	

## 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	None	None
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-7	16-Jun-09	<1	<2	<2	<2	0.0037	
DCS-7	17-Sep-09	<1	<2	<2	<2	0.0054	
DCS-7	16-Dec-09	<1	<2	<2	<2	0.0069	
DCS-7	31-Mar-10	<1	<2	<2	<2	0.00156	
DCS-7	29-Jun-10	<1	<2	<2	<2	0.00186	
DCS-7	28-Sep-10	<1	<2	<2	<2	0.00561	
DCS-7	13-Dec-10	<1	<2	<2	<2	0.00277	
DCS-7	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00219	
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	
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	



## 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	None	None
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	
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	

## 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	None	None
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	
DCS-8	16-Jun-09	<1	<2	<2	<2	0.0032	
DCS-8	17-Sep-09	<1	<2	<2	<2	0.0038	
DCS-8	16-Dec-09	<1	<2	<2	<2	0.0058	
DCS-8	31-Mar-10	<1	<2	<2	<2	0.0013	
DCS-8	29-Jun-10	<1	<2	<2	<2	0.0015	
DCS-8	28-Sep-10	<1	<2	<2	<2	0.00381	
DCS-8	13-Dec-10	<1	<2	<2	<2	0.00255	
DCS-8	29-Mar-11	< 0.50	< 2.0	< 2.0	< 2.0	0.00157	

**Bold - indicates value exceeds state standard**

mg/l - milligrams/liter

ug/l - micrograms/liter

Total number of observations for all points over all dates = 1046

## **APPENDIX D**

**Historical QA/QC Results for  
Surface and Ground Water Samples  
included as .pdf file on CD in back**

**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-2	Dup	3/29/11	< 0.50	< 2.0	< 2.0	< 2.0	0.00089
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

**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	Dup	7/11/05	< 1	< 2	< 2	< 2	0.006
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-3		6/16/09	< 1	< 2	< 2	< 2	0.0014
DCS-3	Dup	6/16/09	< 1	< 2	< 2	< 2	0.0014
DCS-3		9/28/10	< 1	< 2	< 2	< 2	0.0176
DCS-3	Dup	9/28/10	< 1	< 2	< 2	< 2	0.0153
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

**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 RBLSs			5	1000	680	10000	
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
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	<b>420</b>	< 10	< 10	30	3
MW-2	Dup	2/9/05	<b>420</b>	2.4	8.6	43.5	2.6
MW-2	Split	2/9/05	<b>340</b>	< 5	6.7	33	0.65
MW-2		12/7/05	<b>290</b>	< 10	< 10	46	6.5
MW-2	Dup	12/7/05	<b>270</b>	< 10	< 10	42	5.1
MW-2	Split	12/7/05	<b>290</b>	35	8.1	49	8.4
MW-2		1/11/06	<b>310</b>	< 2	8.5	63.9	8
MW-2	Dup	1/11/06	<b>340</b>	< 2	8.8	62.5	9
MW-2	Split	1/11/06	<b>174</b>	< 2	4.9	36.9	3.1
MW-2		3/12/07	<b>230</b>	< 2	5.8	37.8	7.8
MW-2	Dup.	3/12/07	<b>250</b>	< 2	6.5	43.4	9.4
MW-2	Split	3/12/07	<b>212</b>	< 2	8.05	51.43	0.0691
MW-2		6/20/07	<b>220</b>	< 2	5.3	36.1	6.1
MW-2	Dup	6/20/07	<b>190</b>	< 2	4.6	31.6	4.5
MW-2	Split	6/20/07	<b>94</b>	< 0.25	5.5	43.49	0.979
MW-2		3/3/08	<b>120</b>	< 2	2.6	11	5.8
MW-2	Dup	3/3/08	<b>130</b>	< 2	2.7	12	5.9
MW-2	Split	3/3/08	<b>186</b>	< 0.5	5.1	31.2	1.86
MW-2		6/15/09	<b>110</b>	< 2	< 2	28.8	8.3
MW-2	Dup	6/15/09	<b>94</b>	< 2	< 2	24.1	9.2
MW-4		9/15/04	<b>320</b>	76	9.5	80.5	9.2
MW-4	Dup	9/15/04	<b>330</b>	76	9.1	77.1	8.6
MW-4	Split	9/15/04	<b>240</b>	59	6.7	60	27
MW-4		10/14/04	<b>300</b>	37	9	55.2	5.6

**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-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
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





**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-9		11/9/04	310	160	10	98	10
MW-9	Dup	11/9/04	320	170	11	104	9
MW-9	Split	11/9/04	280	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
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	6.1	< 2	< 2	< 2	0.83
MW-16	Dup	3/8/05	6.3	< 2	< 2	< 2	0.66
MW-16	Split	3/8/05	6.2	< 5	< 0.5	< 1.5	1.7
MW-16		9/16/09	< 1	< 2	< 2	< 2	1.8
MW-16	Dup	9/16/09	< 1	< 2	< 2	< 2	1.5
MW-16		12/15/09	< 1	< 2	< 2	< 2	0.76
MW-16	Dup	12/15/09	< 1	< 2	< 2	< 2	0.75
MW-16		3/30/10	< 1	< 2	< 2	< 2	0.636
MW-16	Dup	3/30/10	< 1	< 2	< 2	< 2	0.527
MW-16		6/28/10	< 1	< 2	< 2	< 2	0.0889
MW-16	Dup	6/28/10	< 1	2.4	< 2	< 2	0.0135
MW-16 <sup>a</sup>		7/21/10	< 1	< 2	< 2	< 2	
MW-16 <sup>a</sup>	Dup	7/21/10	< 1	< 2	< 2	< 2	
MW-16		12/14/10	< 1	< 2	< 2	< 2	0.166
MW-16	Dup	12/14/10	< 1	< 2	< 2	< 2	0.111
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-23		9/16/09	< 1	< 2	< 2	< 2	< 0.0008
MW-23	Dup	9/16/09	< 1	< 2	< 2	< 2	0.0011
MW-23		3/30/10	< 1	< 2	< 2	< 2	0.0724
MW-23	Dup	3/30/10	< 1	< 2	< 2	< 2	0.0964

**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-23		6/28/10	< 1	< 2	< 2	< 2	<0.0008
MW-23	Dup	6/28/10	< 1	< 2	< 2	< 2	<0.0008
MW-23		12/16/10	<1	<2	<2	<2	<0.0008
MW-23	Dup	12/16/10	<1	<2	<2	<2	<0.0008
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
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

**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		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
MW-26		12/16/09	< 1	< 2	< 2	< 2	0.27
MW-26	Dup	12/16/09	< 1	< 2	< 2	< 2	0.33
MW-26		9/27/10	< 1	< 2	< 2	< 2	0.512
MW-26	Dup	9/27/10	< 1	< 2	< 2	< 2	0.569
MW-26		12/13/10	<1	<2	<2	<2	0.473
MW-26	Dup	12/13/10	<1	<2	<2	<2	0.454
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
FB	Field Blank	7/21/10	< 1	< 2	< 2	< 2	

Bold - Indicates Value exceeds state standard  
<sup>a</sup> - Resampled due to suspected laboratory error  
 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

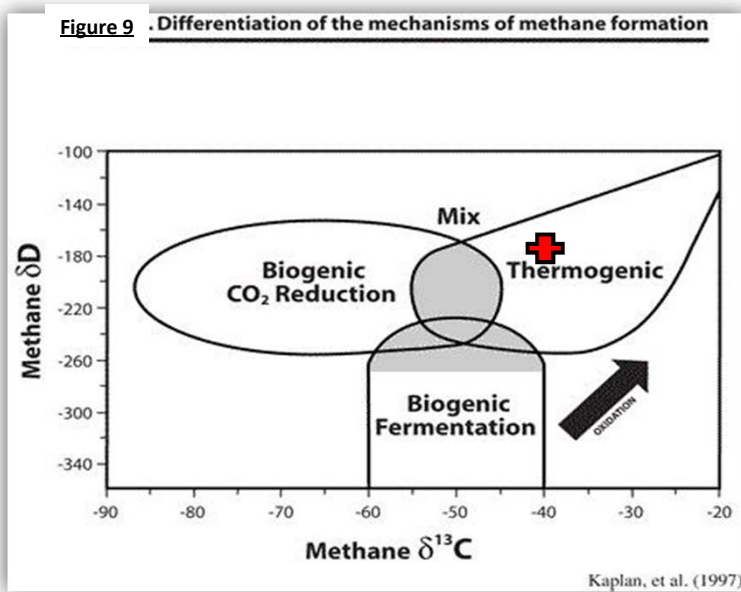
# **APPENDIX E**

**Thermogenic Methane Data  
included as .pdf file on CD in back**

Appendix E - An Estimation of Thermogenic Methane Data for West Divide Creek Seep Study Area

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	
29-Mar-11	MW-2	8.2	5.6	-40.75	-176.9	Consistent with thermogenic (or mostly thermogenic) formation
29-Mar-11	MW-17	0.924	0.4	-41.75	-163.2	Consistent with thermogenic (or mostly thermogenic) formation
29-Mar-11	MW-4	5.37	3.6	-39.29	-185.8	Consistent with thermogenic (or mostly thermogenic) formation
29-Mar-11	MW-9	4.71	2.7	-40.69	-190.3	Consistent with thermogenic (or mostly thermogenic) formation
29-Mar-11	MW-14	3.9	2.5	-39.14	-189.1	Consistent with thermogenic (or mostly thermogenic) formation

Ratiod data and Raw data show more information regarding results



Appendix E - Ratioed Thermogenic Methane Data for West Divide Creek Seep Study Area

Water Sample		Percentage, Hydrocarbon only basis																
Date	Site ID	Total Methane mg/L	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	iC <sub>4</sub>	nC <sub>4</sub>	iC <sub>5</sub>	nC <sub>5</sub>	C <sub>6+</sub>	δ <sup>13</sup> C <sub>1</sub> per mil	δDC <sub>1</sub> per mil	C1/ (C2 + C3)	Biogenic only?	Fraction from Biogenic Source	Biogenic Methane mg/L	Thermog Methane mg/L	Total Methane (check) mg/L
29-Mar-11	MW-2	8.2	85.747%	10.215%	2.919%	0.426%	0.445%	0.123%	0.036%	0.090%	-40.75	-176.9	6.5E+00		0.323	2.647	5.553	8.2
29-Mar-11	MW-17	0.924	91.248%	8.414%	#VALUE!	#VALUE!	#VALUE!	#VALUE!	0.338%	#VALUE!	-41.75	-163.2	#VALUE!		0.584	0.540	0.384	0.924
29-Mar-11	MW-4	5.37	85.810%	9.947%	2.995%	0.495%	0.507%	0.136%	0.007%	0.103%	-39.29	-185.8	6.6E+00		0.326	1.750	3.620	5.37
29-Mar-11	MW-9	4.71	87.852%	8.759%	2.557%	0.289%	0.336%	0.082%	0.069%	0.056%	-40.69	-190.3	7.8E+00		0.423	1.992	2.718	4.71
29-Mar-11	MW-14	3.9	86.247%	9.191%	3.324%	0.446%	0.580%	0.119%	0.000%	0.092%	-39.14	-189.1	6.9E+00		0.347	1.352	2.548	3.9

Appendix E - Raw Thermogenic Methane Data for West Divide Creek Seep Study Area

Water Sample			Isotech Gas Data																
Date	Isotech Lab No.	Site ID	Methane	Ar	O <sub>2</sub>	CO <sub>2</sub>	N <sub>2</sub>	C <sub>1</sub>	C <sub>2</sub>	C <sub>3</sub>	iC <sub>4</sub>	nC <sub>4</sub>	iC <sub>5</sub>	nC <sub>5</sub>	C <sub>6+</sub>	δ <sup>13</sup> C <sub>1</sub>	δDC <sub>1</sub>	δ <sup>13</sup> C <sub>2</sub>	δ <sup>13</sup> C <sub>3</sub>
			mg/L	%	%	%	%	%	%	%	%	%	%	%	%	%	per mil	per mil	per mil
29-Mar-11	206958	MW-2	8.20	0.577	0.13	4.13	29.33	56.41	6.72	1.92	0.28	0.293	0.0809	0.0238	0.0589	-40.75	-176.9	-26.98	-25.27
29-Mar-11	206959	MW-17	0.924	1.61	0.071	7.99	81.92	7.70	0.71	nd	nd	nd	nd	0.0285	nd	-41.75	-163.2	-25.5	
29-Mar-11	206960	MW-4	5.37	0.711	3.40	4.72	37.98	45.55	5.28	1.59	0.263	0.269	0.0721	0.0035	0.0545	-39.29	-185.8	-27.72	-25.59
29-Mar-11	206961	MW-9	4.71	0.953	7.08	4.49	45.21	37.11	3.70	1.08	0.122	0.142	0.0346	0.0293	0.0237	-40.69	-190.3	-28.24	-24.62
29-Mar-11	206962	MW-14	3.90	0.998	0.11	6.79	47.24	38.66	4.12	1.49	0.200	0.260	0.0534	0	0.0411	-39.14	-189.1	-28.10	-25.60

# **APPENDIX F**

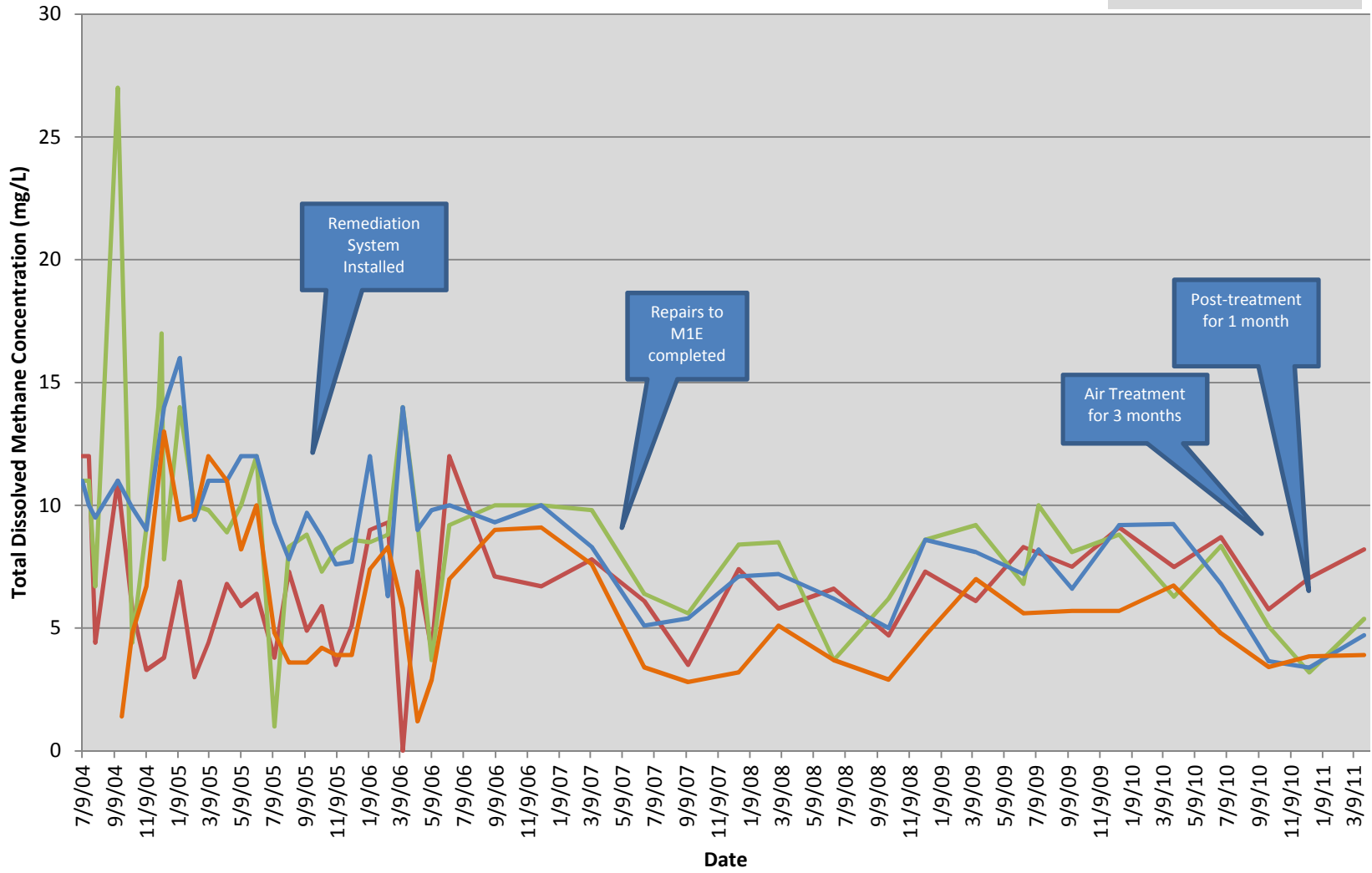
**Graphs  
included as .pdf file on CD in back**



# West Divide Creek

## Total Dissolved Methane Concentrations MW2, MW4, MW9, and MW14

- Methane - MW2
- Methane - MW4
- Methane - MW9
- Methane - MW14

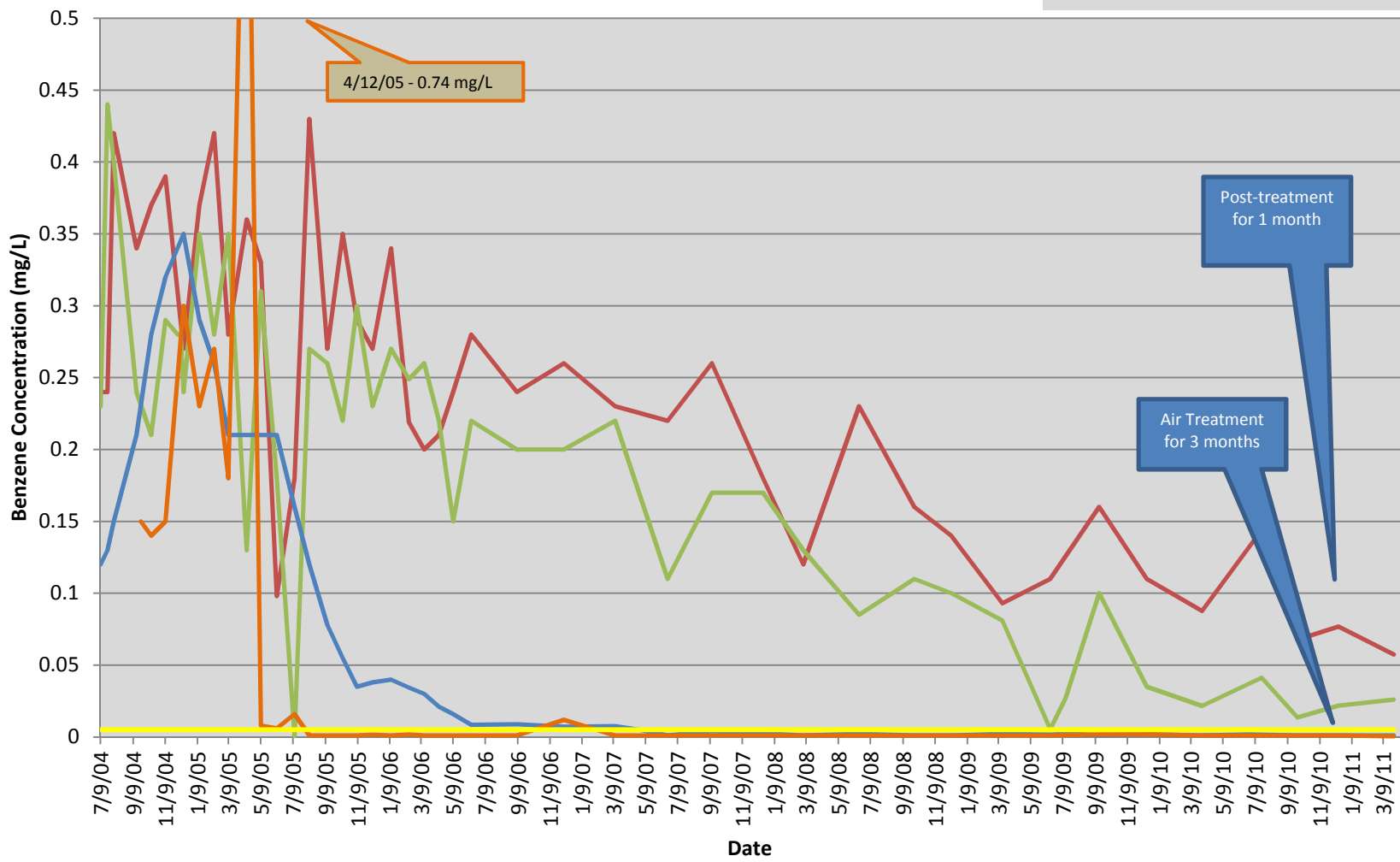


# West Divide Creek

## Benzene Concentrations

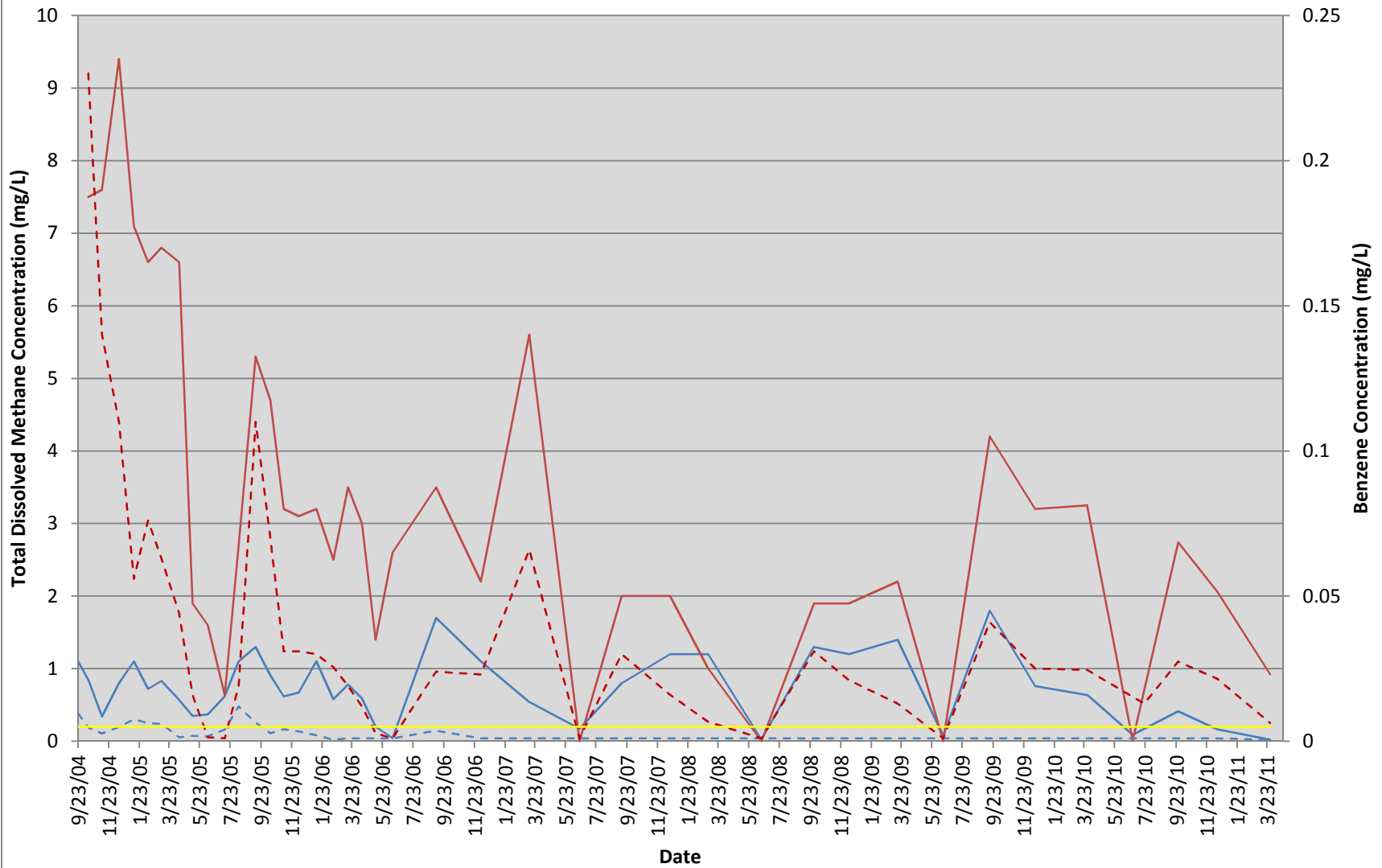
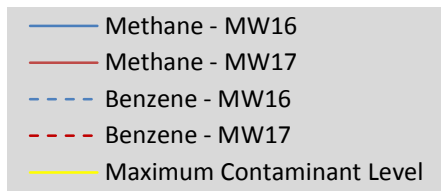
### MW2, MW4, MW9, and MW14

- Benzene - MW2
- Benzene - MW4
- Benzene - MW9
- Benzene - MW14
- Maximum Contaminant Level



# West Divide Creek

## Total Dissolved Methane Concentrations and Benzene Concentrations MW16 and MW17

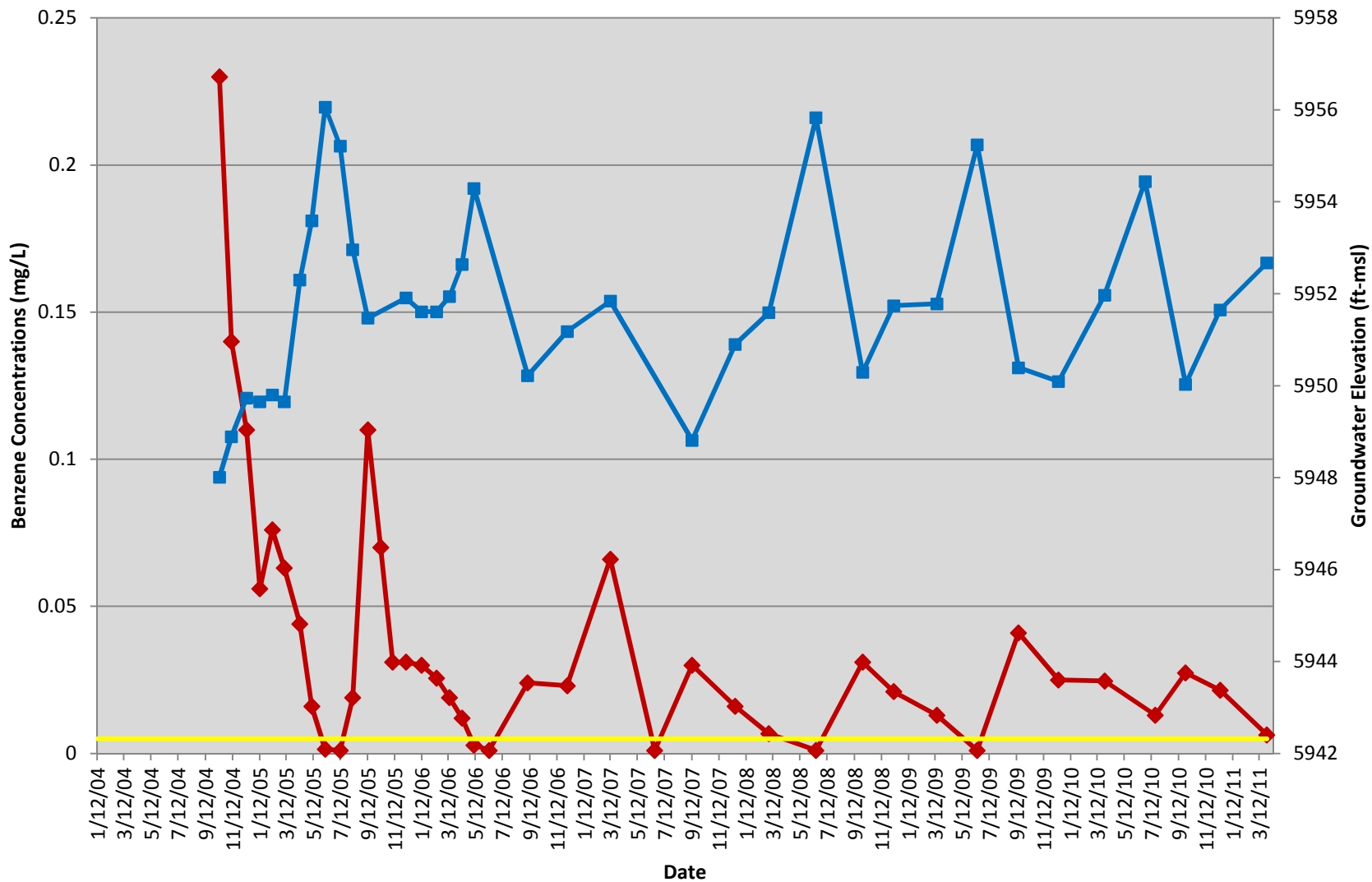
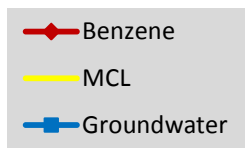




# West Divide Creek

Benzene Concentration vs. Groundwater Elevation

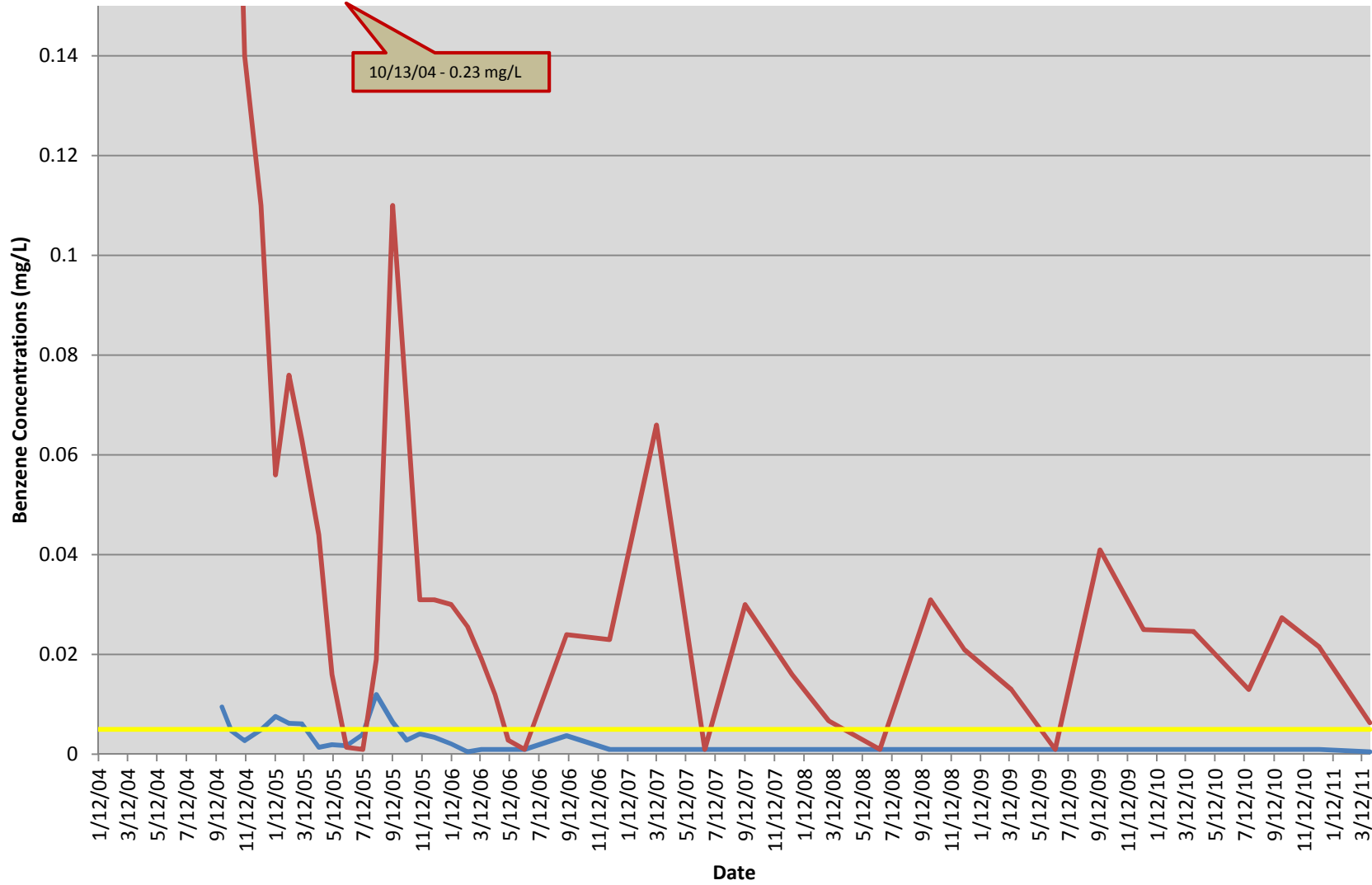
MW17



# West Divide Creek

## Benzene concentrations MW16 and MW17

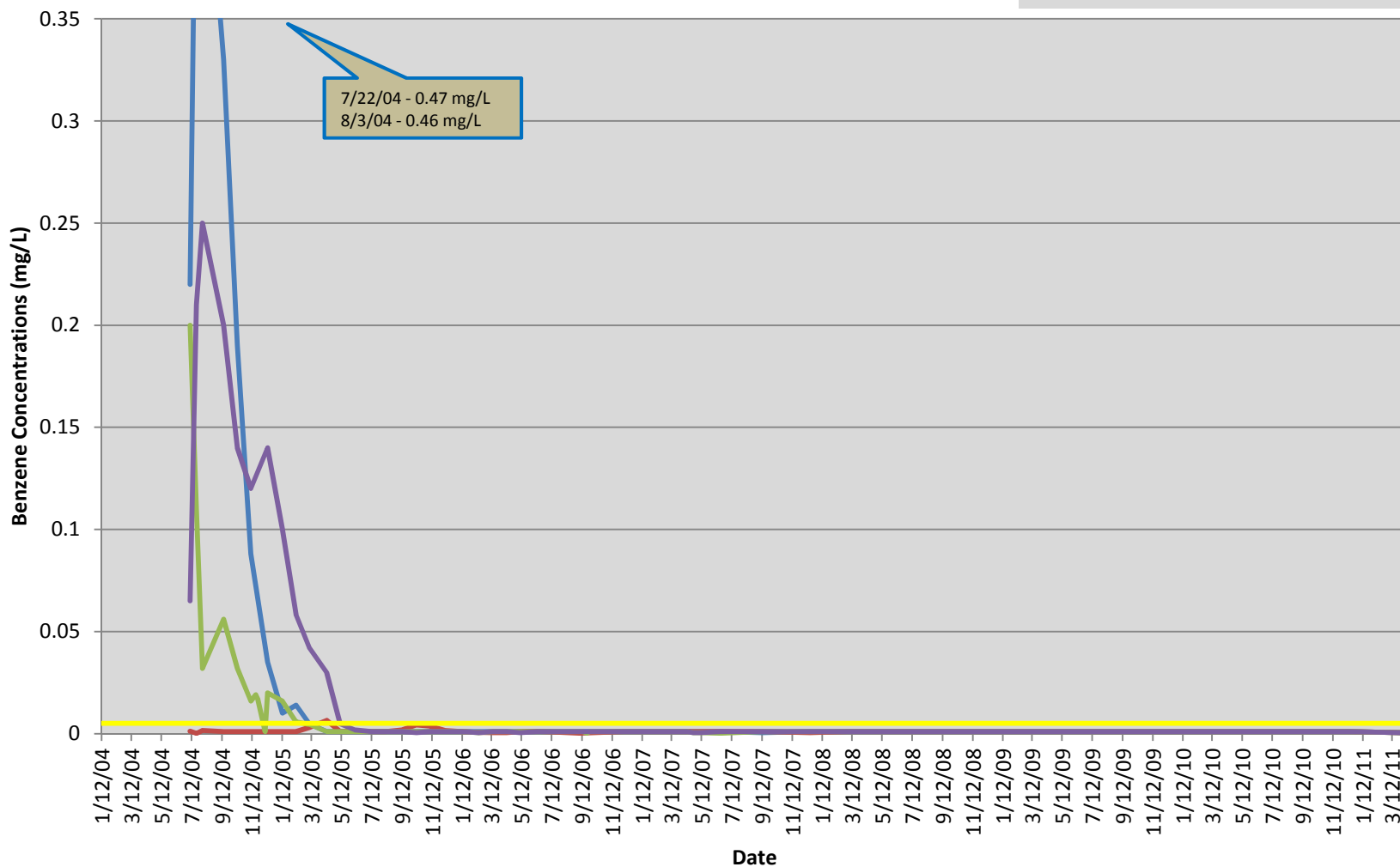
- Benzene - MW16
- Benzene - MW17
- Maximum Contaminant Level



# West Divide Creek

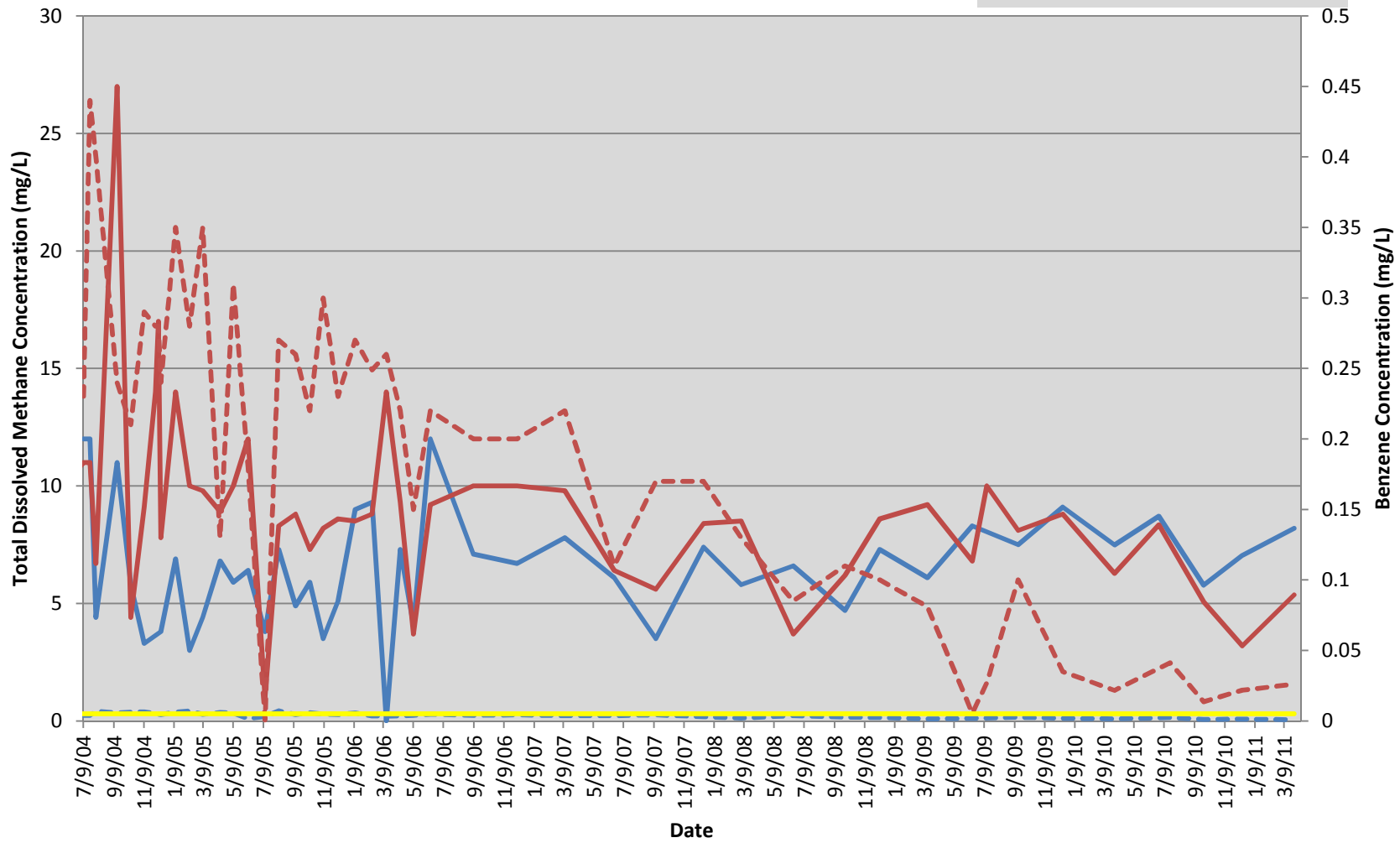
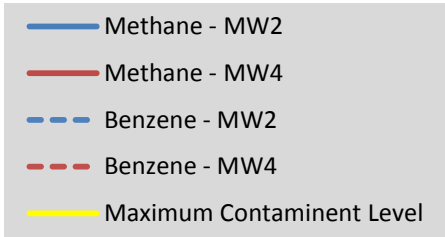
## Benzene concentrations MW1, MW6, MW7 and MW8

- Benzene - MW1
- Benzene - MW6
- Benzene - MW7
- Benzene - MW8
- Maximum Contaminant Level



# West Divide Creek

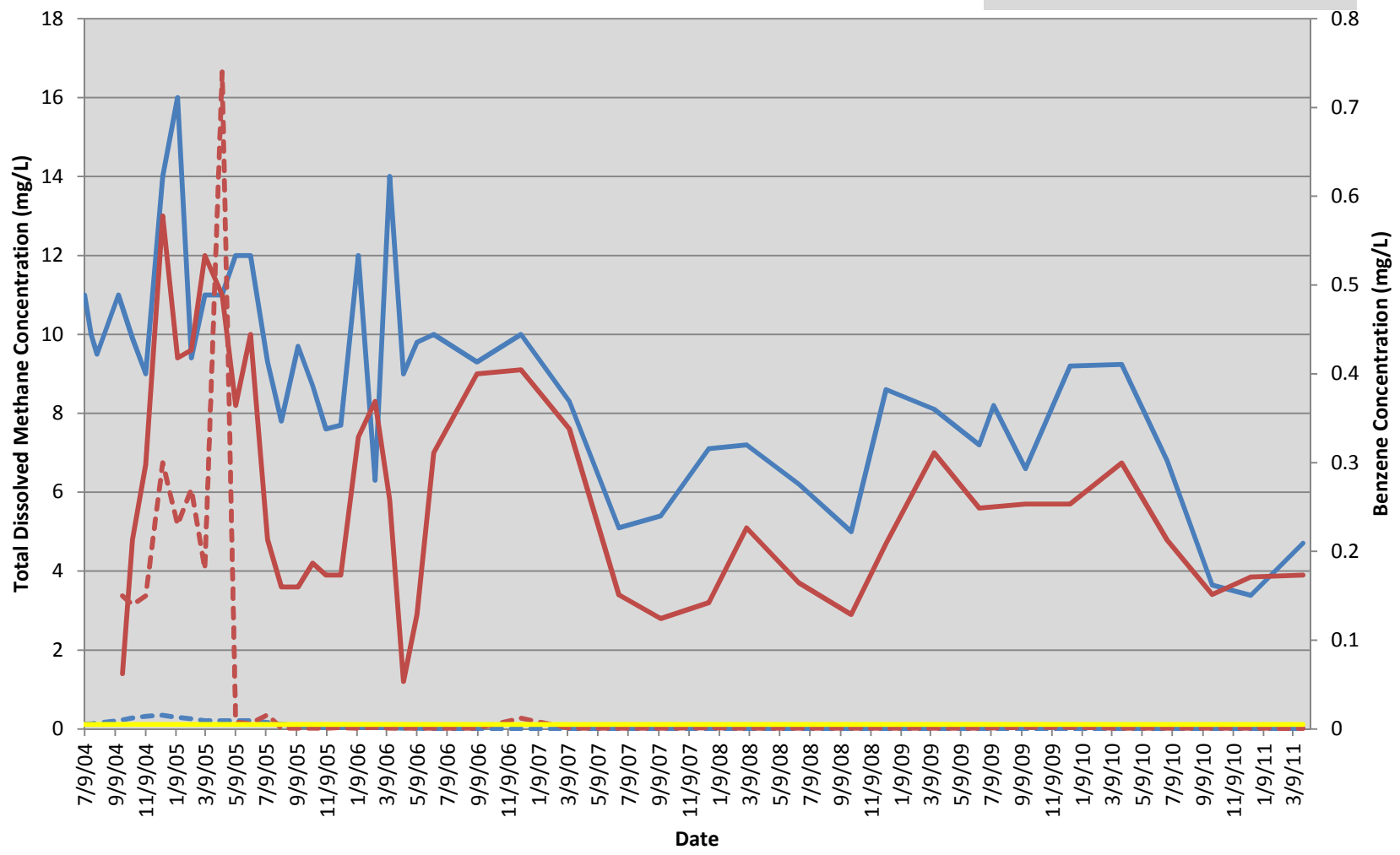
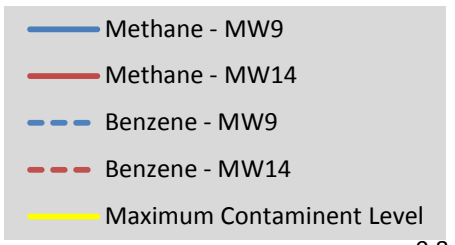
## Total Dissolved Methane Concentrations and Benzene Concentrations MW2 and MW4





# West Divide Creek

## Total Dissolved Methane Concentrations and Benzene Concentrations MW9 and MW14



# **APPENDIX G**

## **Lab Reports**

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

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

**Technical Report for**

**Olsson Associates - Denver**

**Divide Creek Quarterly**

**West 002-2067**

**Accutest Job Number: D22152**

**Sampling Date: 03/28/11**

**Report to:**

**Olsson Associates  
4690 Table Mountain Drive Suite 200  
Golden, CO 80403  
dcloutier@oaconsulting.com**

**ATTN: Dave Cloutier**

**Total number of pages in report: 129**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

**John Hamilton  
Laboratory Director**

**Client Service contact: Amanda Kissell 303-425-6021**

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

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Test results relate only to samples analyzed.

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## Sample Summary

Olsson Associates - Denver

**Job No:** D22152

Divide Creek Quarterly  
Project No: West 002-2067

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D22152-1	03/28/11	12:00 SHJC	03/29/11	AQ	Ground Water	MW23
D22152-1F	03/28/11	12:00 SHJC	03/29/11	AQ	Groundwater Filtered	MW23
D22152-2	03/28/11	12:00 SHJC	03/29/11	AQ	Ground Water	MW23-D
D22152-2F	03/28/11	12:00 SHJC	03/29/11	AQ	Groundwater Filtered	MW23-D
D22152-3	03/28/11	12:30 SHJC	03/29/11	AQ	Ground Water	MW27
D22152-3F	03/28/11	12:30 SHJC	03/29/11	AQ	Groundwater Filtered	MW27
D22152-4	03/28/11	13:15 SHJC	03/29/11	AQ	Ground Water	MW21
D22152-4F	03/28/11	13:15 SHJC	03/29/11	AQ	Groundwater Filtered	MW21
D22152-5	03/28/11	13:30 SHJC	03/29/11	AQ	Ground Water	MW20
D22152-5F	03/28/11	13:30 SHJC	03/29/11	AQ	Groundwater Filtered	MW20
D22152-6	03/28/11	13:45 SHJC	03/29/11	AQ	Ground Water	MW18
D22152-6F	03/28/11	13:45 SHJC	03/29/11	AQ	Groundwater Filtered	MW18
D22152-7	03/28/11	14:15 SHJC	03/29/11	AQ	Ground Water	MW22



### Sample Summary (continued)

Olsson Associates - Denver

Job No: D22152

Divide Creek Quarterly  
Project No: West 002-2067

Sample Number	Collected Date	Time By	Received	Matrix Code	Type	Client Sample ID
D22152-7F	03/28/11	14:15 SHJC	03/29/11	AQ	Groundwater Filtered	MW22
D22152-8	03/28/11	00:00 SHJC	03/29/11	AQ	Trip Blank Water	TRIP BLANK

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Olsson Associates - Denver

**Job No** D22152

**Site:** Divide Creek Quarterly

**Report Dat** 4/6/2011 12:00:16 PM

On 03/29/2011, 7 sample(s), 1 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3.8 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D22152 was assigned to the project. The lab sample IDs, client sample IDs, and dates of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### Volatiles by GC By Method RSK175 MOD

**Matrix** AQ

**Batch ID:** GFB102

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D22152-3MS, D22152-3MSD were used as the QC samples indicated.

### Volatiles by GC By Method SW846 8021B

**Matrix** AQ

**Batch ID:** GTB553

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D22152-1MS, D22152-1MSD were used as the QC samples indicated.

### Metals By Method SW846 6010B

**Matrix** AQ

**Batch ID:** MP4350

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D22152-1FMSD, D22152-1FMS were used as the QC samples for the metals analysis.
- The matrix spike and matrix spike duplicate (MS/MSD) recovery(s) of Sodium are outside control limits. Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

### Wet Chemistry By Method EPA 300/SW846 9056

**Matrix** AQ

**Batch ID:** GP4106

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D22152-6MS, D22152-6MSD were used as the QC samples for the Chloride analysis.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Sample Results

---

Report of Analysis

---



Accutest Laboratories

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b> MW23		<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-1		<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> RSK175 MOD		
<b>Project:</b> Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3515.D	1	03/30/11	JB	n/a	n/a	GFB102
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.0120	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Accutest Laboratories

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b> MW23		<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-1		<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB0172.D	1	03/30/11	BR	n/a	n/a	GTB553
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	84%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW23	<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-1	<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	45.8	1.0	mg/l	2	03/30/11 11:05	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW23	<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-1F	<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	359000	400	ug/l	1	03/30/11	03/31/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1424

(2) Prep QC Batch: MP4350

---

RL = Reporting Limit

Accutest Laboratories

## Report of Analysis

Page 1 of 1

**Client Sample ID:** MW23-D  
**Lab Sample ID:** D22152-2  
**Matrix:** AQ - Ground Water  
**Method:** RSK175 MOD  
**Project:** Divide Creek Quarterly

**Date Sampled:** 03/28/11  
**Date Received:** 03/29/11  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3516.D	1	03/30/11	JB	n/a	n/a	GFB102
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.00938	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b> MW23-D		<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-2		<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB0175.D	1	03/30/11	BR	n/a	n/a	GTB553
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	91%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW23-D	<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-2	<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	46.1	1.0	mg/l	2	03/30/11 11:17	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW23-D	<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-2F	<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	351000	400	ug/l	1	03/30/11	03/31/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1424

(2) Prep QC Batch: MP4350

---

RL = Reporting Limit



Accutest Laboratories

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b> MW27		
<b>Lab Sample ID:</b> D22152-3		<b>Date Sampled:</b> 03/28/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 03/29/11
<b>Method:</b> RSK175 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3517.D	1	03/30/11	JB	n/a	n/a	GFB102
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> MW27		<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-3		<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB0176.D	1	03/30/11	BR	n/a	n/a	GTB553
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	86%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW27	<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-3	<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	18.7	0.50	mg/l	1	03/30/11 11:30	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW27	<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-3F	<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	160000	400	ug/l	1	03/30/11	03/31/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1424

(2) Prep QC Batch: MP4350

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RL = Reporting Limit

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> MW21		
<b>Lab Sample ID:</b> D22152-4		<b>Date Sampled:</b> 03/28/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 03/29/11
<b>Method:</b> RSK175 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3518.D	1	03/30/11	JB	n/a	n/a	GFB102
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> MW21		
<b>Lab Sample ID:</b> D22152-4		<b>Date Sampled:</b> 03/28/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 03/29/11
<b>Method:</b> SW846 8021B		<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB0177.D	1	03/30/11	BR	n/a	n/a	GTB553
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	89%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW21	<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-4	<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	33.9	0.50	mg/l	1	03/30/11 11:43	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis



<b>Client Sample ID:</b> MW21	<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-4F	<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	278000	400	ug/l	1	03/30/11	03/31/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1424

(2) Prep QC Batch: MP4350

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RL = Reporting Limit



Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> MW20		
<b>Lab Sample ID:</b> D22152-5		<b>Date Sampled:</b> 03/28/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 03/29/11
<b>Method:</b> RSK175 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3520.D	1	03/30/11	JB	n/a	n/a	GFB102
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> MW20		<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-5		<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB0178.D	1	03/30/11	BR	n/a	n/a	GTB553
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	91%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW20	<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-5	<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	22.5	0.50	mg/l	1	03/30/11 11:55	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW20	<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-5F	<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	96600	400	ug/l	1	03/30/11	03/31/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1424

(2) Prep QC Batch: MP4350

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RL = Reporting Limit

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b>	MW18	<b>Date Sampled:</b>	03/28/11
<b>Lab Sample ID:</b>	D22152-6	<b>Date Received:</b>	03/29/11
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSK175 MOD		
<b>Project:</b>	Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3521.D	1	03/30/11	JB	n/a	n/a	GFB102
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.0482	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> MW18		<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-6		<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB0179.D	1	03/30/11	BR	n/a	n/a	GTB553
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	91%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW18	<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-6	<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	6.3	0.50	mg/l	1	03/30/11 12:08	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW18	<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-6F	<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	60600	400	ug/l	1	03/30/11	03/31/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1424

(2) Prep QC Batch: MP4350

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RL = Reporting Limit



Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b>	MW22	<b>Date Sampled:</b>	03/28/11
<b>Lab Sample ID:</b>	D22152-7	<b>Date Received:</b>	03/29/11
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSK175 MOD		
<b>Project:</b>	Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3522.D	1	03/30/11	JB	n/a	n/a	GFB102
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW22		<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-7		<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB0180.D	1	03/30/11	BR	n/a	n/a	GTB553
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	89%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW22	<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-7	<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	20.1	0.50	mg/l	1	03/30/11 12:20	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW22	<b>Date Sampled:</b> 03/28/11
<b>Lab Sample ID:</b> D22152-7F	<b>Date Received:</b> 03/29/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	95900	400	ug/l	1	03/30/11	03/31/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1424

(2) Prep QC Batch: MP4350

---

RL = Reporting Limit

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	03/28/11
<b>Lab Sample ID:</b>	D22152-8	<b>Date Received:</b>	03/29/11
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8021B		
<b>Project:</b>	Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TB0181.D	1	03/30/11	BR	n/a	n/a	GTB553
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	88%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



# CHAIN OF CUSTODY

4036 Youngfield Street, Wheat Ridge, CO 80033  
TEL: 303-425-6021 FAX: 303-425-6854  
www.accutest.com

FED-EX Tracking #	Bottle Order Control #
Accutest Quote #	Accutest Job # <b>D22152</b>

Client / Reporting Information		Project Information		Requested Analysis (see TEST CODE sheet)						Matrix Codes
Company Name <b>Olsson Associates</b>		Project Name <b>West Divide Creek Quarterly</b>		<b>V8021BTX, VMS+UNPR</b> <b>VR8K175CH4, VGC+UNPR</b> <b>CHL</b> <b>Diss NA 6010(Lab Filter)</b>						DW - Drinking Water GW - Ground Water WW - Water SW - Surface Water SO - Soil SL - Sludge SED - Sediment OI - Oil LIQ - Other Liquid AIR - Air SOL - Other Solid WP - Wipe FB - Field Blank EB - Equipment Blank RB - Rinse Blank TB - Trip Blank
Street Address <b>4690 Table Mountain Drive</b>		Street								
City <b>Golden, CO 80403</b>		City State <b>517 CO</b>								
Project Contact <b>Brad Stephenson</b>		Project # <b>002-2067</b>								
Phone # <b>303-548-4722</b>		Client Purchase Order #		Street Address		City		Attention:		
Sampler(s) Name(s) <b>Stuart Hull / Justin Covey</b>		Project Manager								

Accutest Sample #	Field ID / Point of Collection	MECH/DOI Val #	Collection		Sampled by	Matrix	# of bottles	Number of preserved Bottles										LAB USE ONLY			
			Date	Time				HCl	NaOH	HNO3	H2SO4	ROBIE	D1 Water	MECH	ENCORE	V8021BTX	VR8K175CH4		CHL	Diss NA 6010(Lab Filter)	
	MW23		3/28/10	1100	JS/SH	GW	8										X	X	X	X	01
	MW23-D		3/28/10	1200	JS/SH	GW	8										X	X	X	X	02
	MW27		3/28/10	1230	SC/SH	GW	8										X	X	X	X	03
	MW1		3/28/10	1315	JS/SH	GW	8										X	X	X	X	04
	MW10		3/28/10	1330	JS/SH	GW	8										X	X	X	X	05
	MW18		3/28/10	1345	JS/SH	GW	8										X	X	X	X	06
	MW22		3/28/10	1415	JS/SH	GW	8										X	X	X	X	07
	Trip Blank		3/28/10			GW	8										X	X	X	X	08
						GW	8										X	X	X	X	
						GW	8										X	X	X	X	
						GW	8										X	X	X	X	
						GW	8										X	X	X	X	

Turnaround Time (Business days)	Approved By (Accutest PI#) / Date:	Data Deliverable Information	Comments / Special Instructions
<input type="checkbox"/> Std. 15 Business Days <input checked="" type="checkbox"/> Std. 10 Business Days <input type="checkbox"/> 5 Day RUSH <input type="checkbox"/> 3 Day Emergency <input type="checkbox"/> 2 Day Emergency <input type="checkbox"/> 1 Day Emergency	_____	<input type="checkbox"/> Commercial "A" (Level 1) <input type="checkbox"/> Commercial "B" (Level 2) <input checked="" type="checkbox"/> COMMBN <input type="checkbox"/> COMMBN+ <input type="checkbox"/> Commercial "A" = Results Only <input type="checkbox"/> Commercial "B" = Results + QC Summary <input type="checkbox"/> Commercial BN = Results/QC Narrative (+ = chromatograms)	<input type="checkbox"/> State Forms Required <input type="checkbox"/> Send Forms to State <input type="checkbox"/> Report by Fax <input checked="" type="checkbox"/> Report by PDF ONLY <input type="checkbox"/> EDD Format
Emergency & Rush T/A data available VIA Lablink			Only 2 vials for TB - went one each go <a href="mailto:bstephenson@oaconsulting.com">bstephenson@oaconsulting.com</a>

Sample Custody must be documented below each time samples change possession, including courier delivery.							
Relinquished By: <b>JS/SH</b>	Date Time: <b>3/28/10 1700</b>	Received By: <b>JS/SH</b>	Date Time: <b>3/29/10 0830</b>	Relinquished By:	Date Time:	Received By:	Date Time:
Relinquished by Sampler:	Date Time:	Received By:	Date Time:	Relinquished By:	Date Time:	Received By:	Date Time:
Relinquished by:	Date Time:	Received By:	Date Time:	Custody Seal #	<input checked="" type="checkbox"/> Intact <input type="checkbox"/> Not Intact	Preserved where applicable	On Ice <input type="checkbox"/> Cooler Temp: <b>3.8</b>

## Accutest Laboratories Sample Receipt Summary

**Accutest Job Number:** D22152

**Client:** Olsson Ass.

**Immediate Client Services Action Required:** Yes

**Date / Time Received:** 3/29/2011 8:30:00 AM

**Delivery Method:**

**Project:** West Divide Qtr

**No. Coolers:**

**Airbill #'s:** Fedex

**Cooler Security**

Y or N

Y or N

- |                           |                                     |                          |                       |                                     |                          |
|---------------------------|-------------------------------------|--------------------------|-----------------------|-------------------------------------|--------------------------|
| 1. Custody Seals Present: | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 3. COC Present:       | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Custody Seals Intact:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 4. Smpl Dates/Time OK | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Cooler Temperature**

Y or N

- |                              |                                     |                          |
|------------------------------|-------------------------------------|--------------------------|
| 1. Temp criteria achieved:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Cooler temp verification: | Infrared gun                        |                          |
| 3. Cooler media:             | Ice (bag)                           |                          |

**Quality Control Preservation**

Y

N

N/A

- |                                 |                                     |                          |                                     |
|---------------------------------|-------------------------------------|--------------------------|-------------------------------------|
| 1. Trip Blank present / cooler: | <input type="checkbox"/>            | <input type="checkbox"/> |                                     |
| 2. Trip Blank listed on COC:    | <input type="checkbox"/>            | <input type="checkbox"/> |                                     |
| 3. Samples preserved properly:  | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                                     |
| 4. VOCs headspace free:         | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> |

**Comments**

On the trip blank there is only 2 vials. Nothing for Na or Chl. I have logged one trip for each btex and methane.

**Sample Integrity - Documentation**

Y or N

- |  |                                     |                          |
|--|-------------------------------------|--------------------------|
| 1. Sample labels present on bottles:   | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 2. Container labeling complete:        | <input checked="" type="checkbox"/> | <input type="checkbox"/> |
| 3. Sample container label / COC agree: | <input checked="" type="checkbox"/> | <input type="checkbox"/> |

**Sample Integrity - Condition**

Y or N

- |                                  |                                     |                                     |
|----------------------------------|-------------------------------------|-------------------------------------|
| 1. Sample rec'd within HT:       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |
| 2. All containers accounted for: | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 3. Condition of sample:          | Intact                              |                                     |

**Sample Integrity - Instructions**

Y

N

N/A

- |   |                                     |                                     |                                     |
|---|-------------------------------------|-------------------------------------|-------------------------------------|
| 1. Analysis requested is clear:           | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 2. Bottles received for unspecified tests | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                                     |
| 3. Sufficient volume rec'd for analysis:  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                                     |
| 4. Compositing instructions clear:        | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |
| 5. Filtering instructions clear:          | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |

4.1  
4



**Accutest Job Number:** D22152

**CSR:** Amanda Kissell

**Response Date** 3/29/2011

**Response:** As per client, only 8021BTX is needed for the TB.

4.1

4

## GC Volatiles

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5

## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

**Method Blank Summary**

**Job Number:** D22152  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFB102-MB	FB3499.D	1	03/30/11	JB	n/a	n/a	GFB102

The QC reported here applies to the following samples:

Method: RSK175 MOD

D22152-1, D22152-2, D22152-3, D22152-4, D22152-5, D22152-6, D22152-7

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.00080	0.00080	mg/l	

**Method Blank Summary**

**Job Number:** D22152  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTB553-MB	TB0169.D	1	03/30/11	BR	n/a	n/a	GTB553

The QC reported here applies to the following samples:

Method: SW846 8021B

D22152-1, D22152-2, D22152-3, D22152-4, D22152-5, D22152-6, D22152-7, D22152-8

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	90% 60-140%

# Blank Spike Summary

**Job Number:** D22152  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTB553-BS	TB0170.D	1	03/30/11	BR	n/a	n/a	GTB553

The QC reported here applies to the following samples:

Method: SW846 8021B

D22152-1, D22152-2, D22152-3, D22152-4, D22152-5, D22152-6, D22152-7, D22152-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	27.2	29.0	107	70-130
100-41-4	Ethylbenzene	45.6	47.6	104	70-130
108-88-3	Toluene	212	209	99	70-130
1330-20-7	Xylenes (total)	246	226	92	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	101%	60-140%

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** D22152  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFB102-BS	FB3500.D	10	03/30/11	JB	n/a	n/a	GFB102
GFB102-BSD	FB3501.D	10	03/30/11	JB	n/a	n/a	GFB102

The QC reported here applies to the following samples:

Method: RSK175 MOD

D22152-1, D22152-2, D22152-3, D22152-4, D22152-5, D22152-6, D22152-7

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
74-82-8	Methane	0.5094	0.637	125	0.626	123	2	70-130/30

5.3.1  
5

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** D22152  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D22152-3MS	FB3538.D	10	03/30/11	JB	n/a	n/a	GFB102
D22152-3MSD	FB3539.D	10	03/30/11	JB	n/a	n/a	GFB102
D22152-3	FB3517.D	1	03/30/11	JB	n/a	n/a	GFB102

The QC reported here applies to the following samples:

Method: RSK175 MOD

D22152-1, D22152-2, D22152-3, D22152-4, D22152-5, D22152-6, D22152-7

CAS No.	Compound	D22152-3 mg/l	Spike Q mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
74-82-8	Methane	ND	0.5094	0.634	124	0.601	118	5	70-130/30

5.4.1  
5

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** D22152  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D22152-1MS	TB0173.D	1	03/30/11	BR	n/a	n/a	GTB553
D22152-1MSD	TB0174.D	1	03/30/11	BR	n/a	n/a	GTB553
D22152-1	TB0172.D	1	03/30/11	BR	n/a	n/a	GTB553

The QC reported here applies to the following samples:

Method: SW846 8021B

D22152-1, D22152-2, D22152-3, D22152-4, D22152-5, D22152-6, D22152-7, D22152-8

CAS No.	Compound	D22152-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	27.2	29.7	109	28.3	104	5	70-130/30
100-41-4	Ethylbenzene	ND	45.6	48.1	105	46.0	101	4	62-130/30
108-88-3	Toluene	ND	212	213	101	204	96	4	70-130/30
1330-20-7	Xylenes (total)	ND	246	229	93	220	89	4	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D22152-1	Limits
120-82-1	1,2,4-Trichlorobenzene	94%	97%	84%	60-140%

5.4.2  
5



GC Volatiles

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Raw Data

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Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3515.D Vial: 20
Acq On : 30 Mar 2011 2:56 pm Operator: jacobb
Sample : D22152-1 Inst : FID4
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 30 16:48:09 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Rows include System Monitoring Compounds (Propane) and Target Compounds (Methane).

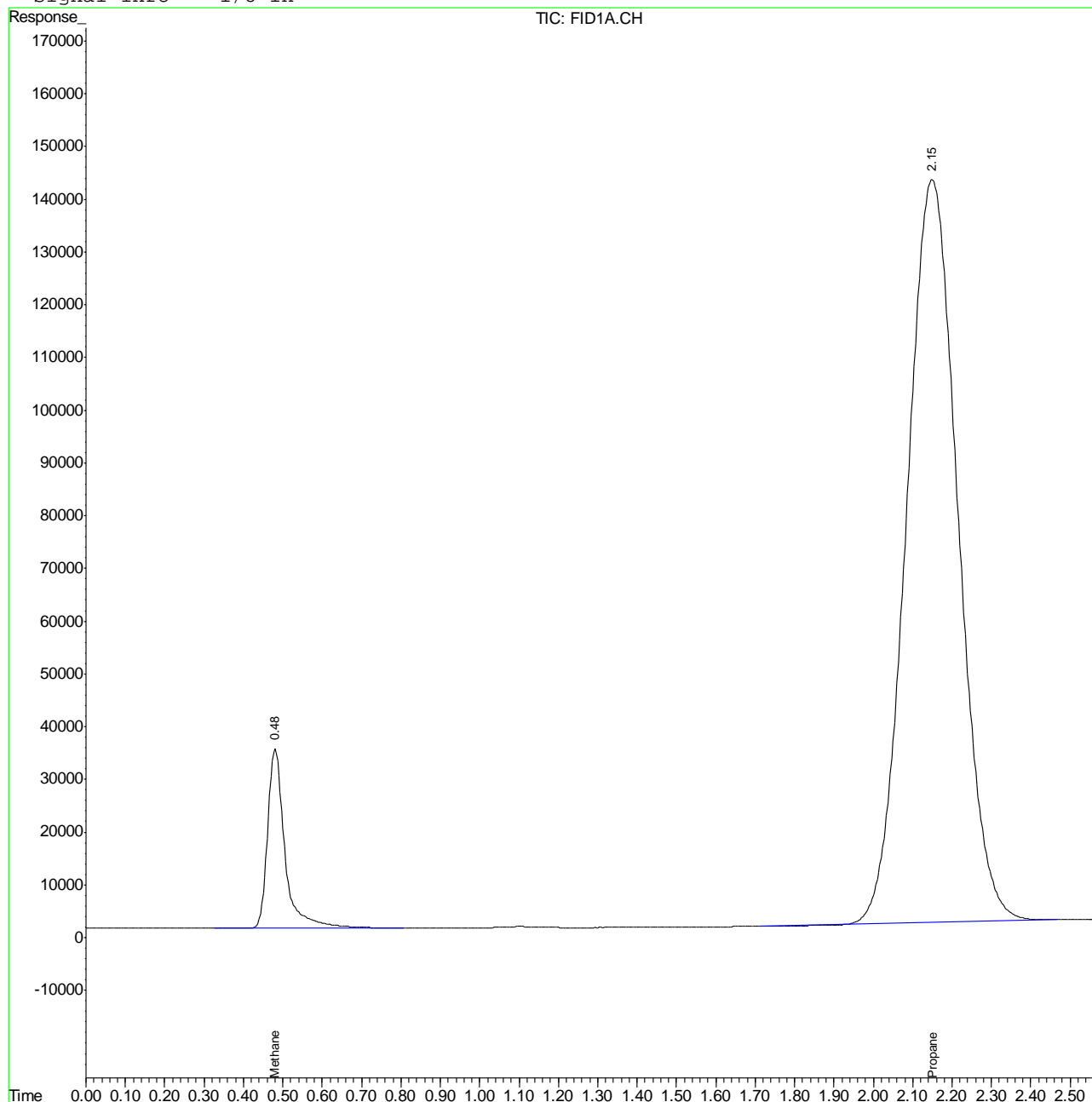
6.1.1
6

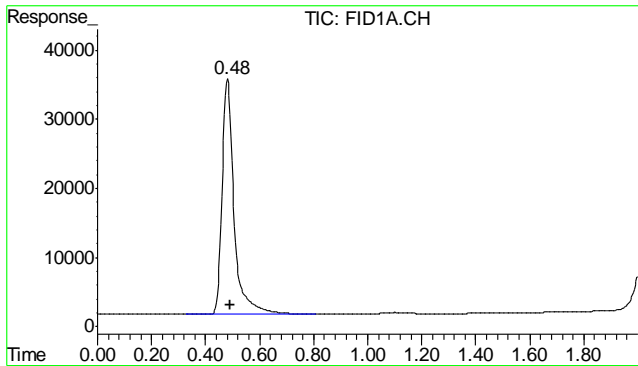
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3515.D Vial: 20  
Acq On : 30 Mar 2011 2:56 pm Operator: jacobb  
Sample : D22152-1 Inst : FID4  
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 17:51 2011 Quant Results File: MEEP-GFB91.RES

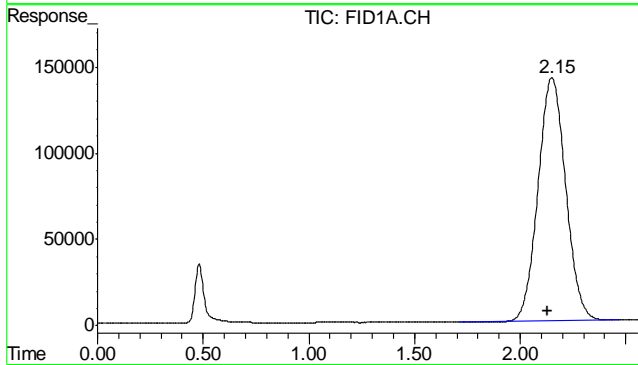
Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#1 Methane  
R.T.: 0.481 min  
Delta R.T.: -0.010 min  
Response: 1043568  
Conc: 80.92 rawvppm



#4 Propane  
R.T.: 2.150 min  
Delta R.T.: 0.022 min  
Response: 12825002  
Conc: 346.59 rawvppm

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3516.D Vial: 21
Acq On : 30 Mar 2011 3:09 pm Operator: jacobb
Sample : D22152-2 Inst : FID4
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 30 16:48:13 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Rows include System Monitoring Compounds (Propane) and Target Compounds (Methane).

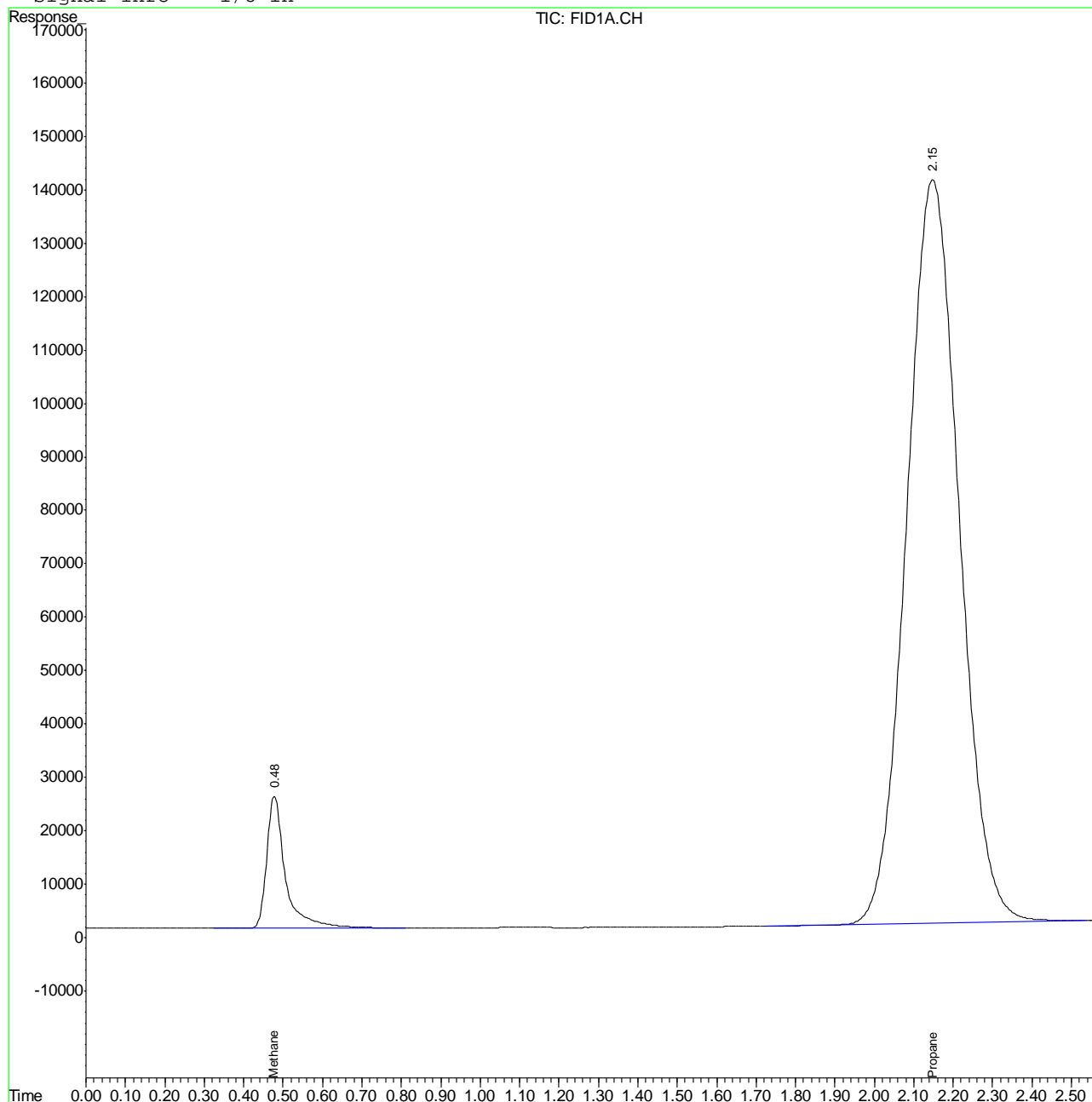
6.1.2
6

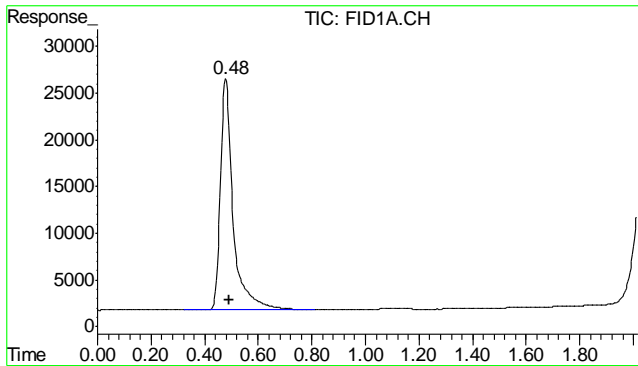
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3516.D Vial: 21  
Acq On : 30 Mar 2011 3:09 pm Operator: jacobb  
Sample : D22152-2 Inst : FID4  
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 17:51 2011 Quant Results File: MEEP-GFB91.RES

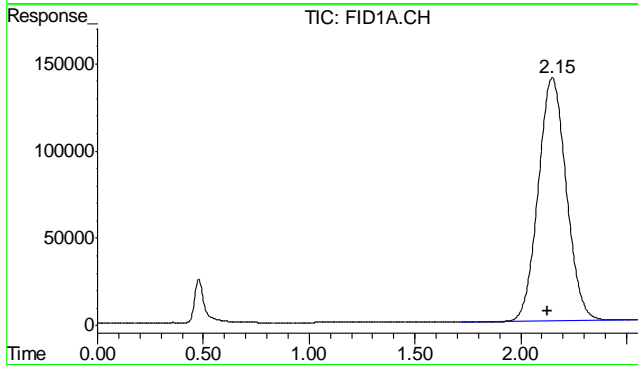
Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#1 Methane  
 R.T.: 0.479 min  
 Delta R.T.: -0.012 min  
 Response: 816304  
 Conc: 63.30 rawvppm



#4 Propane  
 R.T.: 2.149 min  
 Delta R.T.: 0.020 min  
 Response: 12832461  
 Conc: 346.79 rawvppm

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3517.D Vial: 22
Acq On : 30 Mar 2011 3:13 pm Operator: jacobb
Sample : D22152-3 Inst : FID4
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 30 16:48:17 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Row 1: System Monitoring Compounds. Row 2: 4) S Propane, 2.15, 12991491, 351.089 rawvp. Row 3: Target Compounds.

(f)=RT Delta > 1/2 Window (m)=manual int.
FB3517.D MEEP-GFB91.M Thu Mar 31 12:22:40 2011 GCFA

6.1.3
6

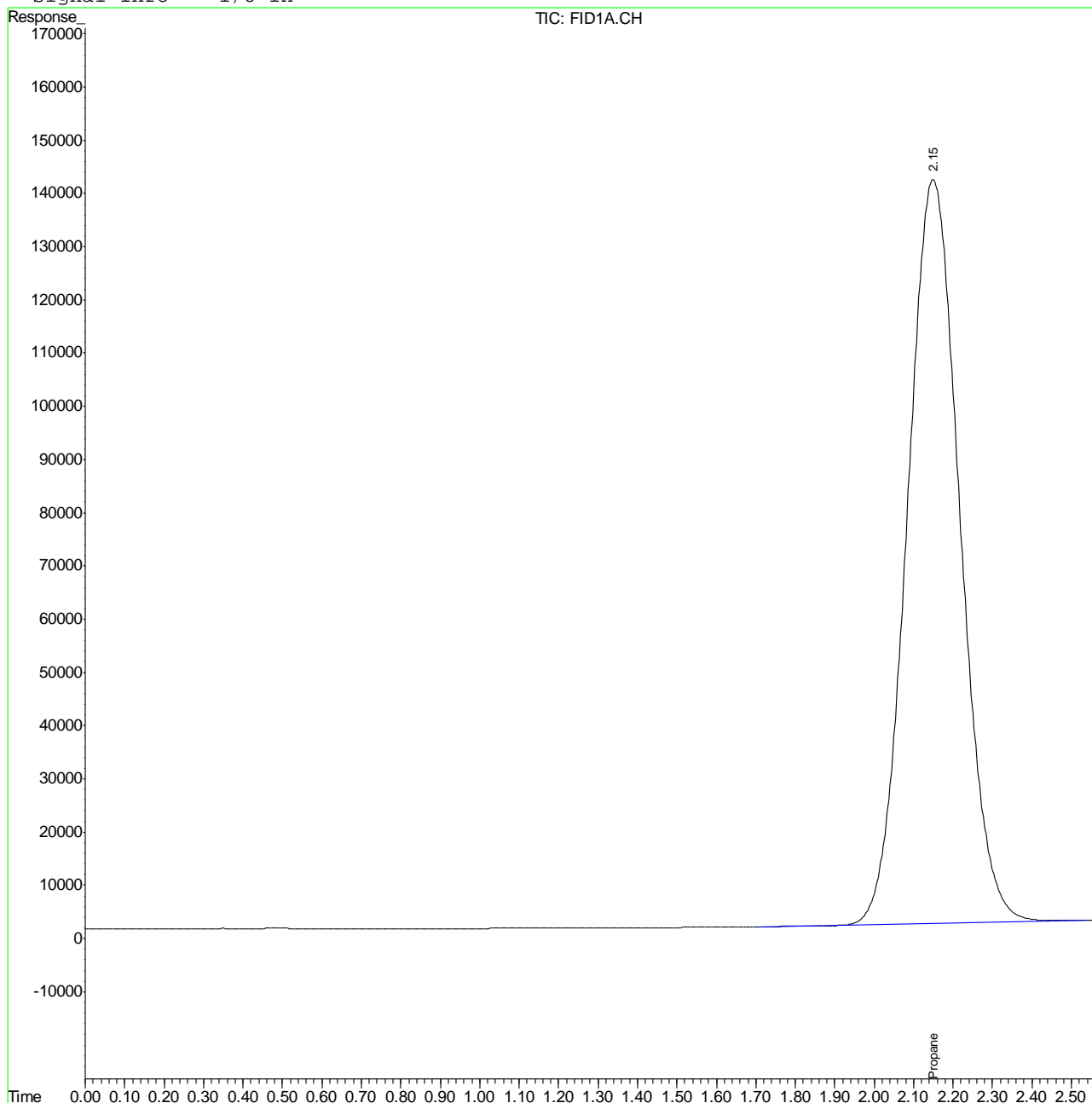


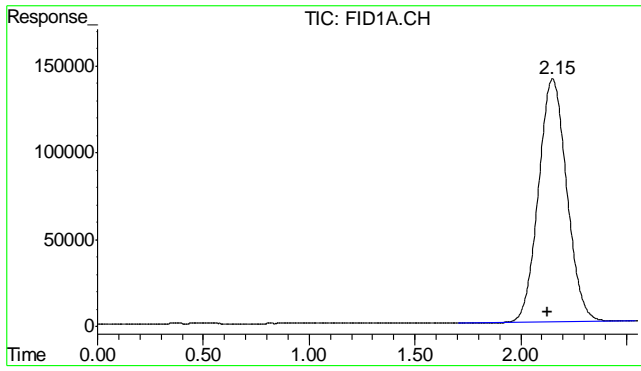
Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3517.D Vial: 22  
Acq On : 30 Mar 2011 3:13 pm Operator: jacobb  
Sample : D22152-3 Inst : FID4  
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 17:57 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#4 Propane  
R.T.: 2.150 min  
Delta R.T.: 0.022 min  
Response: 12991491  
Conc: 351.09 rawvppm

6.1.3

6

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3518.D Vial: 23
Acq On : 30 Mar 2011 3:19 pm Operator: jacobb
Sample : D22152-4 Inst : FID4
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 30 16:48:21 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Row 1: System Monitoring Compounds. Row 2: 4) S Propane, 2.15, 12563114, 339.513 rawvp. Row 3: Target Compounds.

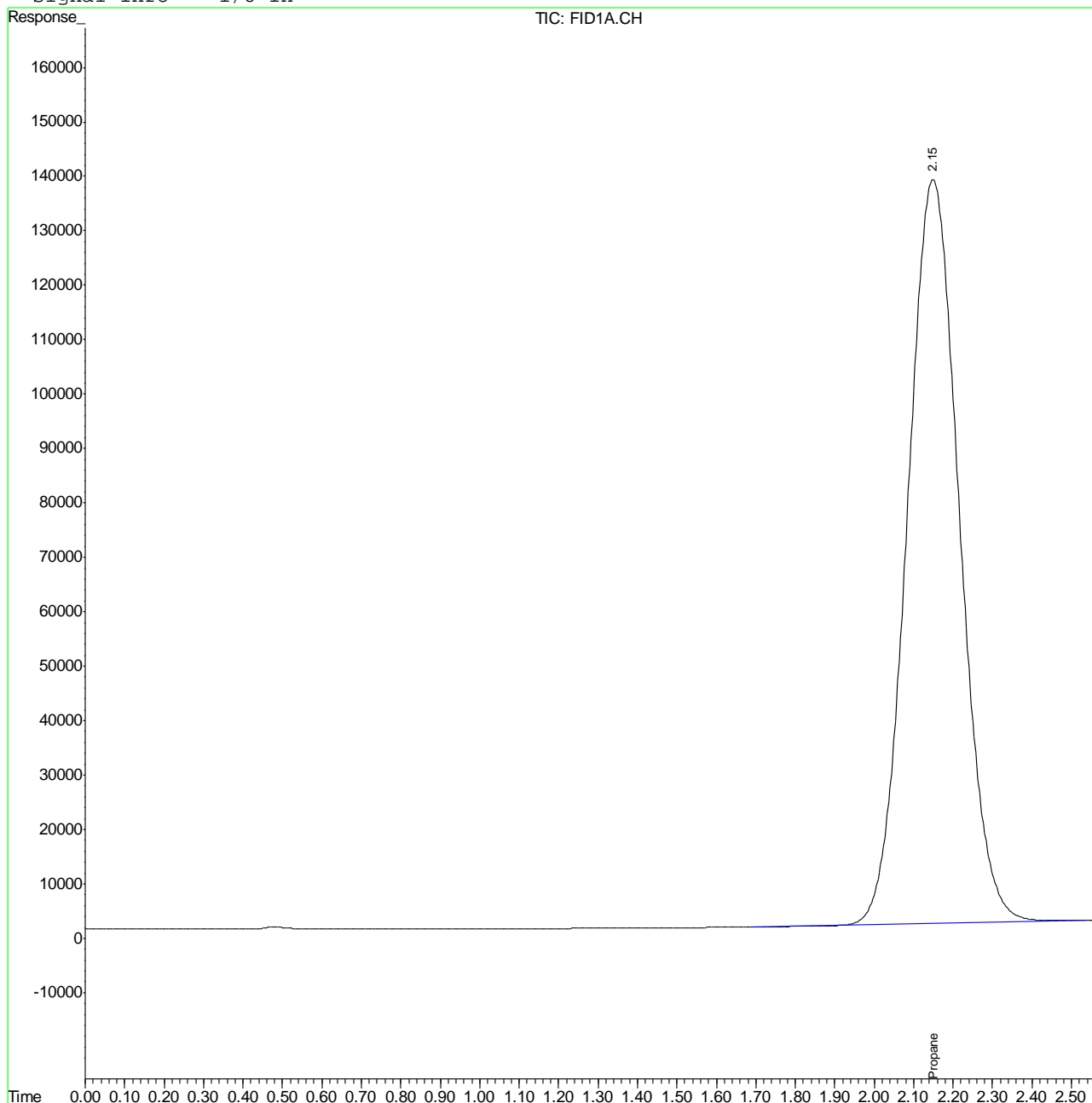
(f)=RT Delta > 1/2 Window (m)=manual int.
FB3518.D MEEP-GFB91.M Thu Mar 31 12:22:43 2011 GCFA

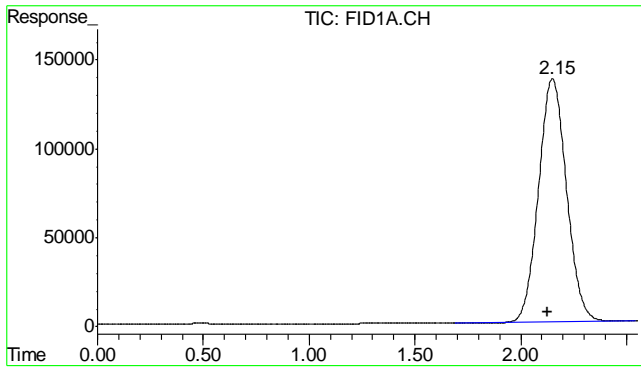
Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3518.D Vial: 23  
Acq On : 30 Mar 2011 3:19 pm Operator: jacobb  
Sample : D22152-4 Inst : FID4  
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 17:57 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#4 Propane  
R.T.: 2.150 min  
Delta R.T.: 0.021 min  
Response: 12563114  
Conc: 339.51 rawvppm

6.1.4  
6

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3520.D Vial: 25
Acq On : 30 Mar 2011 3:33 pm Operator: jacobb
Sample : D22152-5 Inst : FID4
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 30 16:48:25 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Row 1: System Monitoring Compounds. Row 2: 4) S Propane, 2.15, 12521363, 338.384 rawvp.

Target Compounds

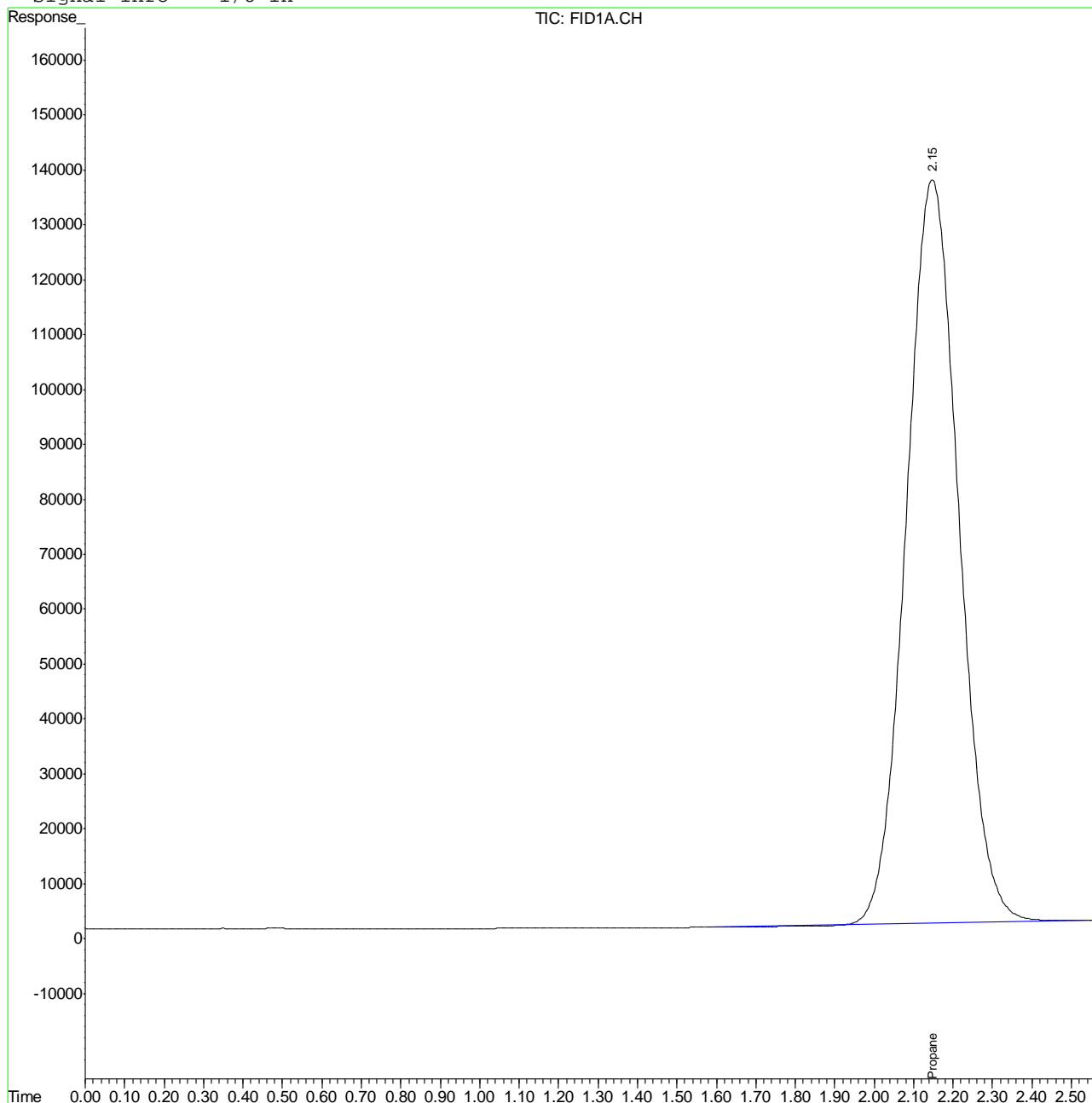
6.1.5
6

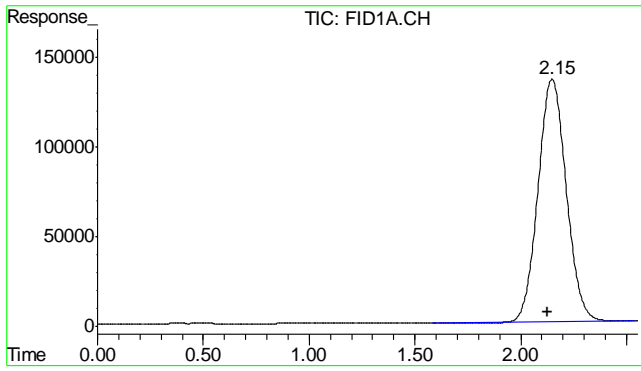
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3520.D Vial: 25  
Acq On : 30 Mar 2011 3:33 pm Operator: jacobb  
Sample : D22152-5 Inst : FID4  
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 17:57 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#4 Propane  
R.T.: 2.148 min  
Delta R.T.: 0.019 min  
Response: 12521363  
Conc: 338.38 rawvppm



Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3521.D Vial: 26
Acq On : 30 Mar 2011 3:39 pm Operator: jacobb
Sample : D22152-6 Inst : FID4
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 30 16:48:29 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Rows include System Monitoring Compounds (Propane) and Target Compounds (Methane).

6.1.6
6

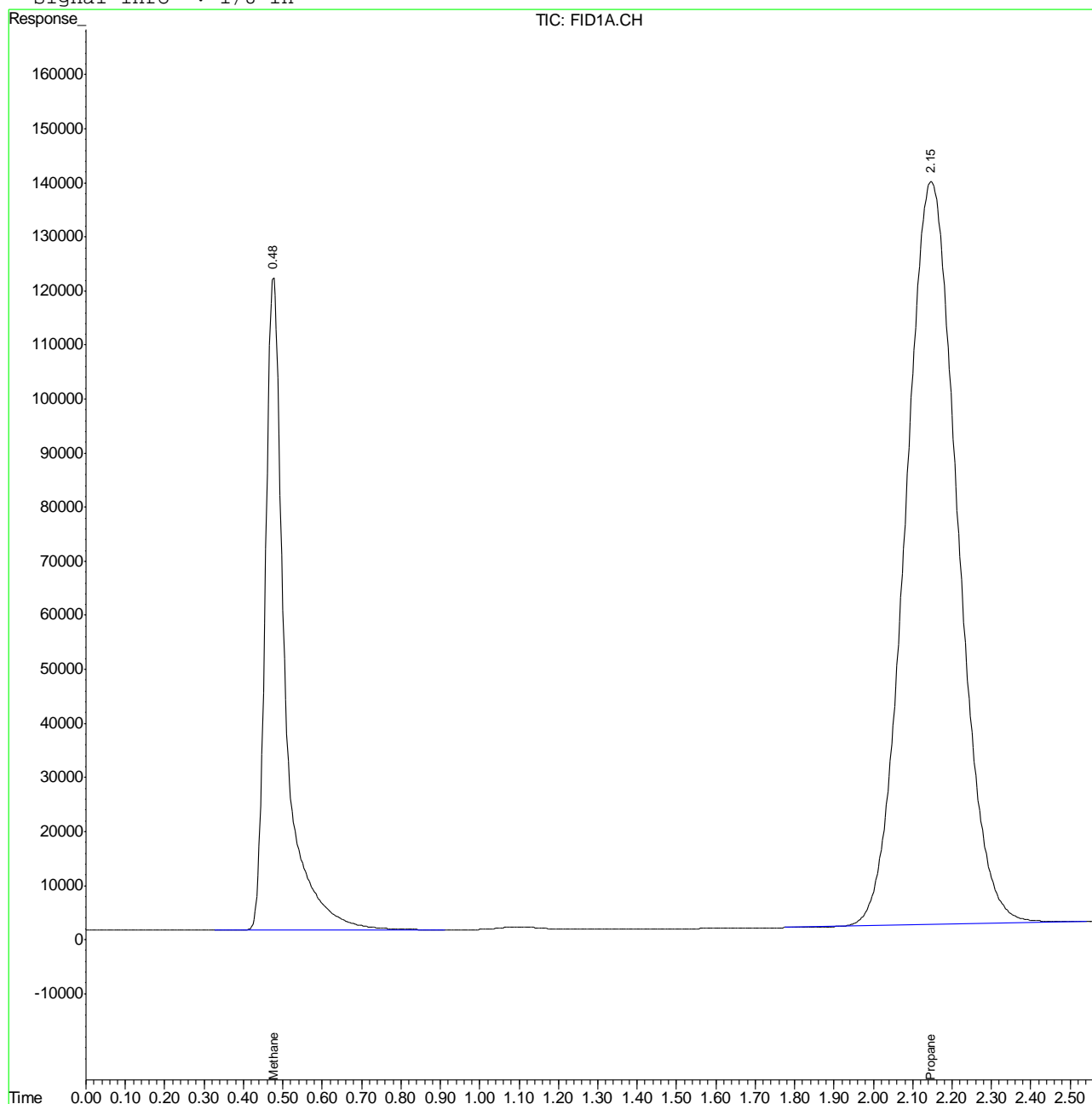
(f)=RT Delta > 1/2 Window (m)=manual int.
FB3521.D MEEP-GFB91.M Thu Mar 31 12:22:52 2011 GCFA

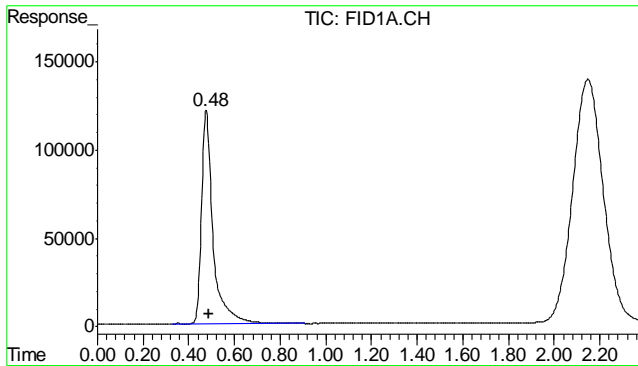
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3521.D Vial: 26  
Acq On : 30 Mar 2011 3:39 pm Operator: jacobb  
Sample : D22152-6 Inst : FID4  
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 17:58 2011 Quant Results File: MEEP-GFB91.RES

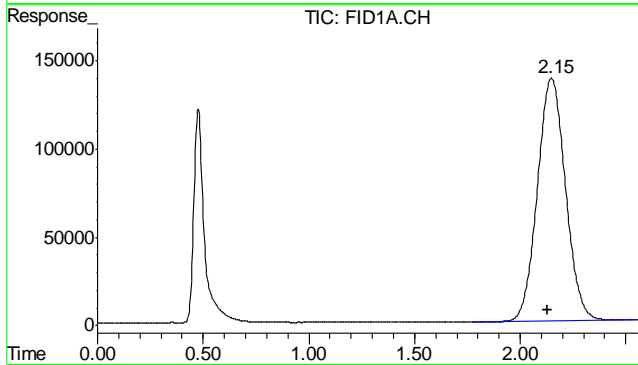
Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethane, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#1 Methane  
R.T.: 0.477 min  
Delta R.T.: -0.014 min  
Response: 4192823  
Conc: 325.13 rawvppm



#4 Propane  
R.T.: 2.148 min  
Delta R.T.: 0.019 min  
Response: 12694923  
Conc: 343.07 rawvppm

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3522.D Vial: 27
Acq On : 30 Mar 2011 3:44 pm Operator: jacobb
Sample : D22152-7 Inst : FID4
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 30 16:48:33 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Row 1: System Monitoring Compounds. Row 2: 4) S Propane, 2.15, 12428169, 335.866 rawvp.

Target Compounds

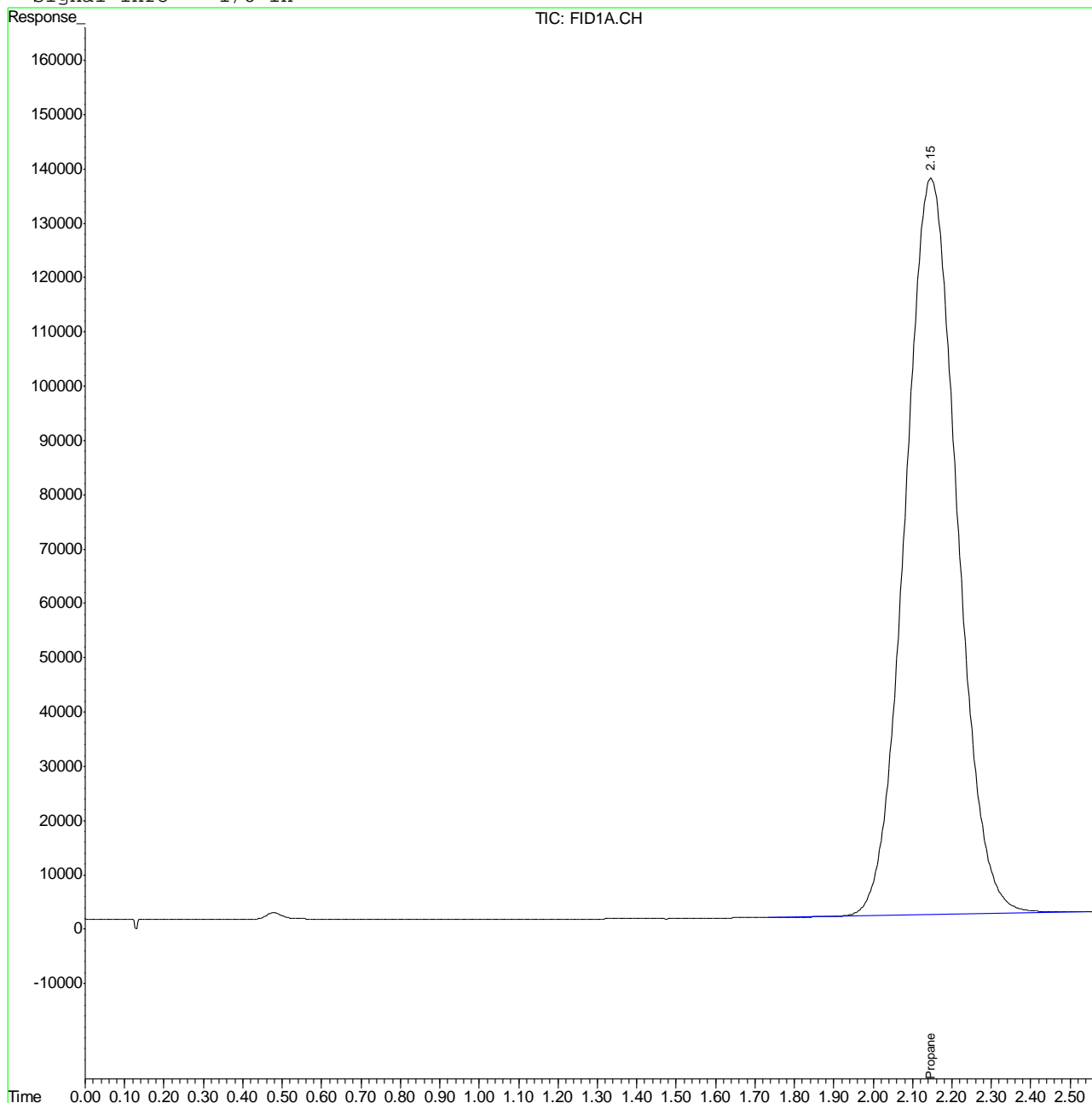
6.1.7
6

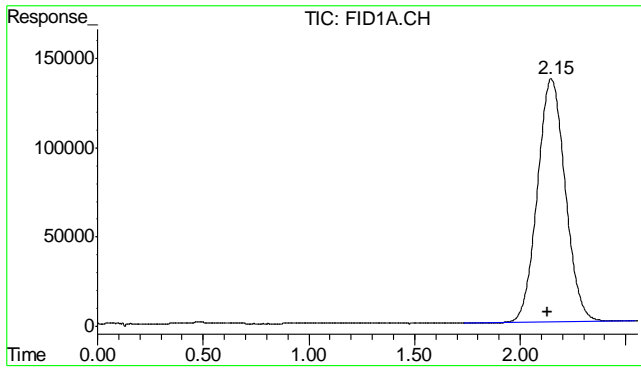
Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3522.D Vial: 27  
Acq On : 30 Mar 2011 3:44 pm Operator: jacobb  
Sample : D22152-7 Inst : FID4  
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 17:58 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#4 Propane  
R.T.: 2.147 min  
Delta R.T.: 0.019 min  
Response: 12428169  
Conc: 335.87 rawvppm

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0172.D\FID1A.CH Vial: 20
Signal #2 : Y:\1\DATA\032911\BTEX\TB0172.D\FID2B.CH
Acq On : 30 Mar 2011 2:03 am Operator: BrianR
Sample : D22152-1 Inst : GC/MS Ins
Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 30 11:31:53 2011 Quant Results File: TB510GB510.RES

Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 10 09:05:18 2011
Response via : Initial Calibration
DataAcq Meth : TVB4.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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (e.g., 1,2,4-Trichlorobenzene) and Target Compounds (e.g., TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

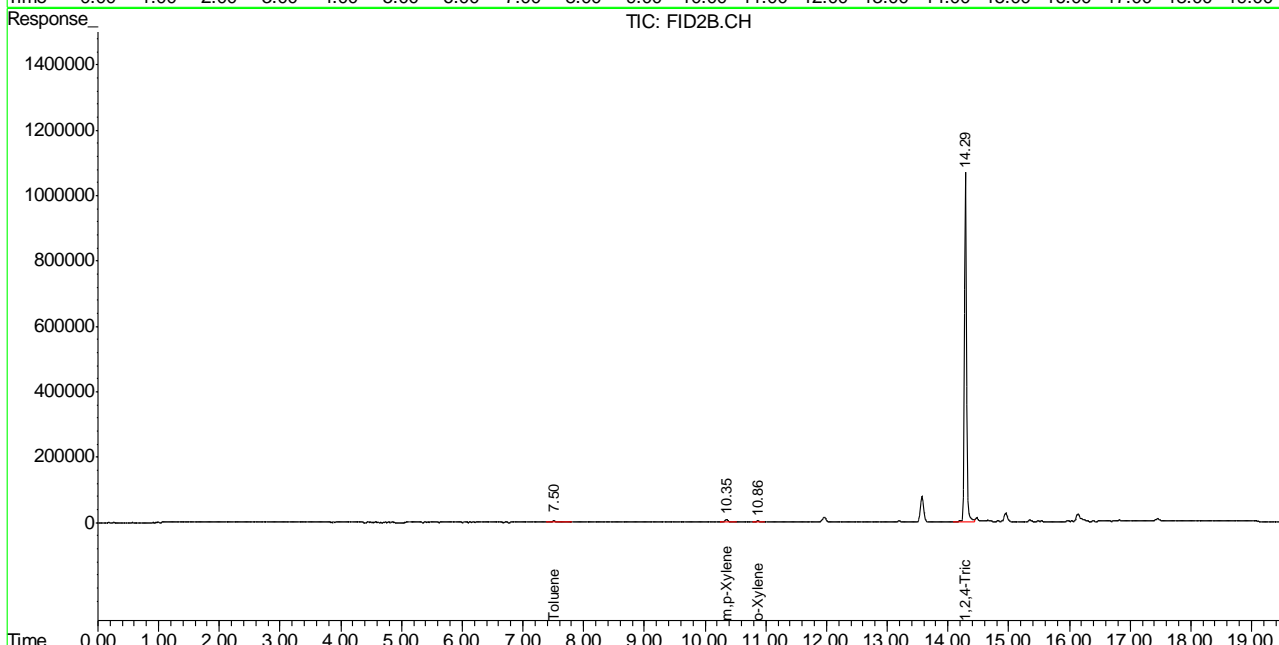
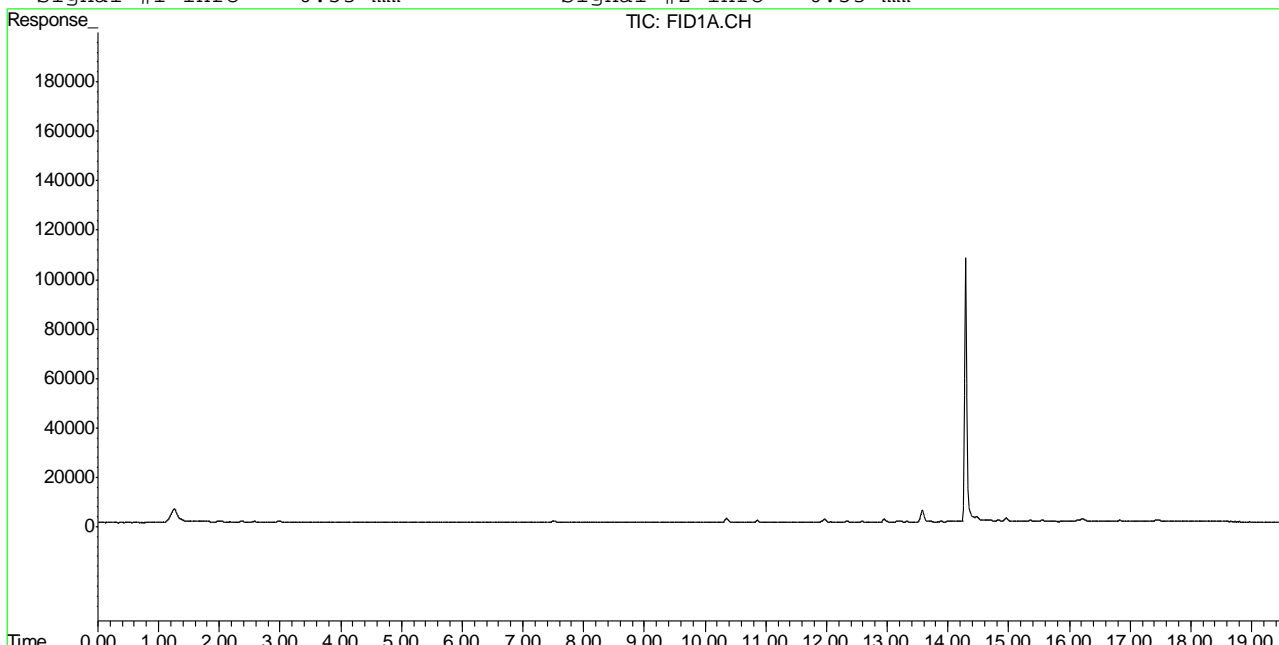
(f)=RT Delta > 1/2 Window (m)=manual int.
TB0172.D TB510GB510.M Wed Mar 30 11:46:07 2011 GC

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0172.D\FID1A.CH Vial: 20  
 Signal #2 : Y:\1\DATA\032911\BTEX\TB0172.D\FID2B.CH  
 Acq On : 30 Mar 2011 2:03 am Operator: BrianR  
 Sample : D22152-1 Inst : GC/MS Ins  
 Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Mar 30 11:39 2011 Quant Results File: TB510GB510.RES

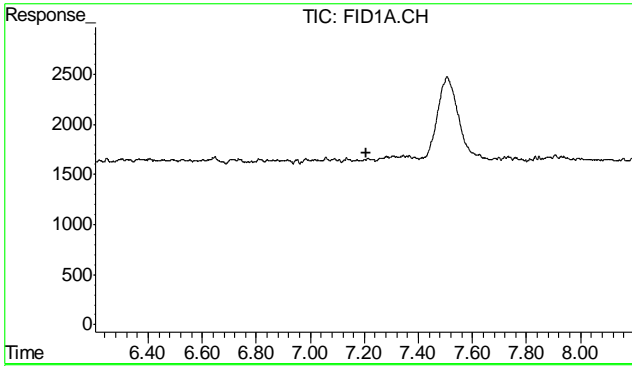
Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Thu Mar 10 09:05:18 2011  
 Response via : Single Level Calibration  
 DataAcq Meth : TVB4.M

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

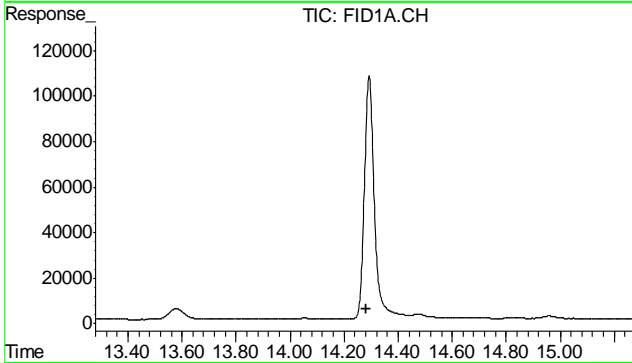


6.1.8  
**6**

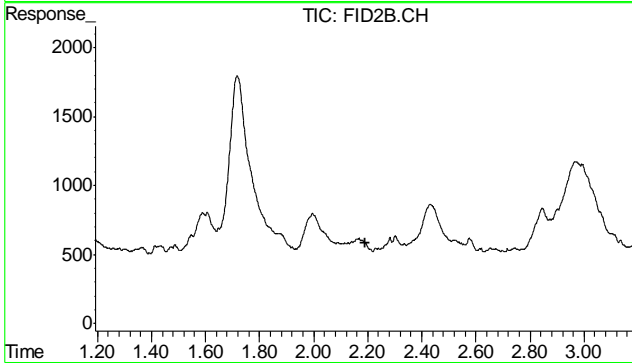




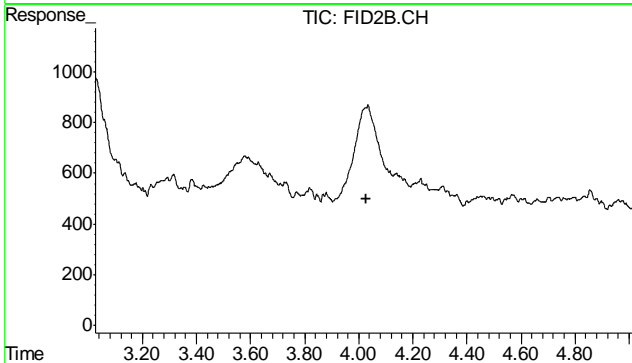
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.205 min  
 Response: 0  
 Conc: N.D.



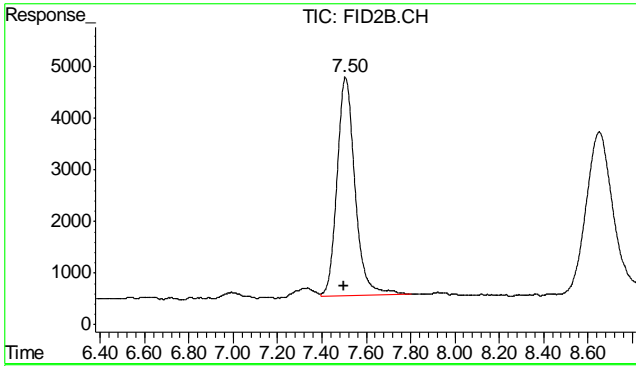
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.280 min  
 Response: 0  
 Conc: N.D.



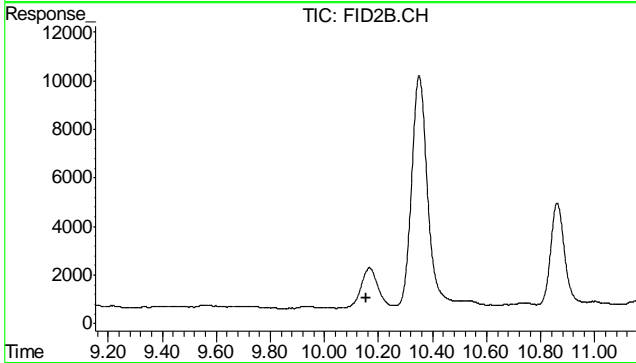
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.192 min  
 Response: 0  
 Conc: N.D.



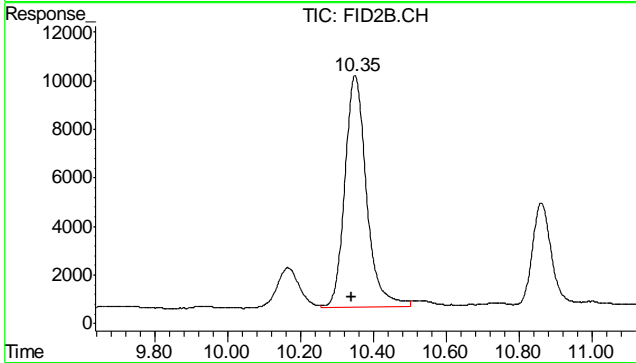
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.026 min  
 Response: 0  
 Conc: N.D.



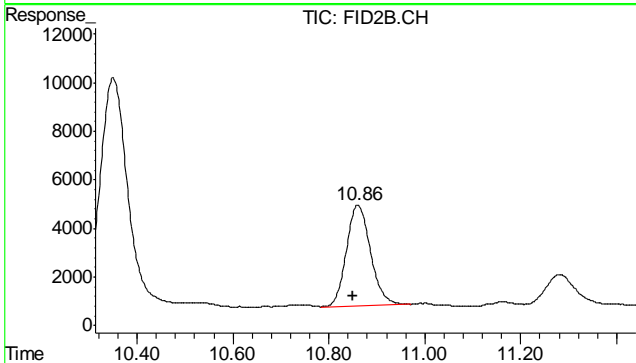
#6 Toluene  
 R.T.: 7.505 min  
 Delta R.T.: 0.008 min  
 Response: 239160  
 Conc: 0.40 ug/L



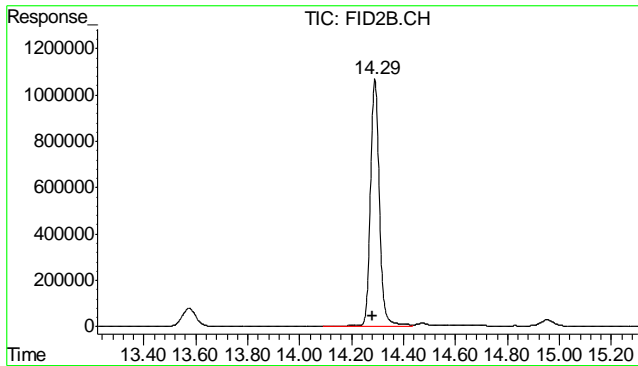
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.153 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 10.350 min  
 Delta R.T.: 0.011 min  
 Response: 390949  
 Conc: 0.62 ug/L

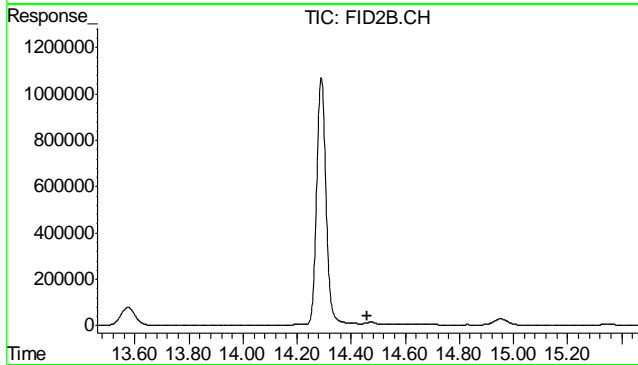


#9 o-Xylene  
 R.T.: 10.861 min  
 Delta R.T.: 0.011 min  
 Response: 144225  
 Conc: 0.28 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.289 min  
 Delta R.T.: 0.010 min  
 Response: 25713245  
 Conc: 83.61 %



#11 Naphthalene

R.T.: 0.000 min  
 Exp R.T. : 14.461 min  
 Response: 0  
 Conc: N.D.

Manual Integrations  
APPROVED  
(compounds with "m" flag)  
Judy Melson  
03/30/11 16:08

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0175.D\FID1A.CH Vial: 23  
Signal #2 : Y:\1\DATA\032911\BTEX\TB0175.D\FID2B.CH  
Acq On : 30 Mar 2011 3:50 am Operator: BrianR  
Sample : D22152-2 Inst : GC/MS Ins  
Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00  
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
Quant Time: Mar 30 11:32:02 2011 Quant Results File: TB510GB510.RES

Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX  
Last Update : Thu Mar 10 09:05:18 2011  
Response via : Initial Calibration  
DataAcq Meth : TVB4.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

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	0.00	0	N.D.	% d
10) S 1,2,4-Trichlorobenzene (P)	14.28	28011842	91.083	%
Target Compounds				
1) H TVH-Gasoline	0.00	0	N.D.	mg/L
4) T Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T Benzene	0.00	0	N.D.	ug/L d
6) T Toluene	7.50	237352	0.397	ug/L
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	10.34	323083	0.515	ug/L
9) T o-Xylene	10.85	117585	0.226	ug/L m
11) T Naphthalene	14.46	1535299	2.338	ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.  
TB0175.D TB510GB510.M Wed Mar 30 11:46:14 2011 GC

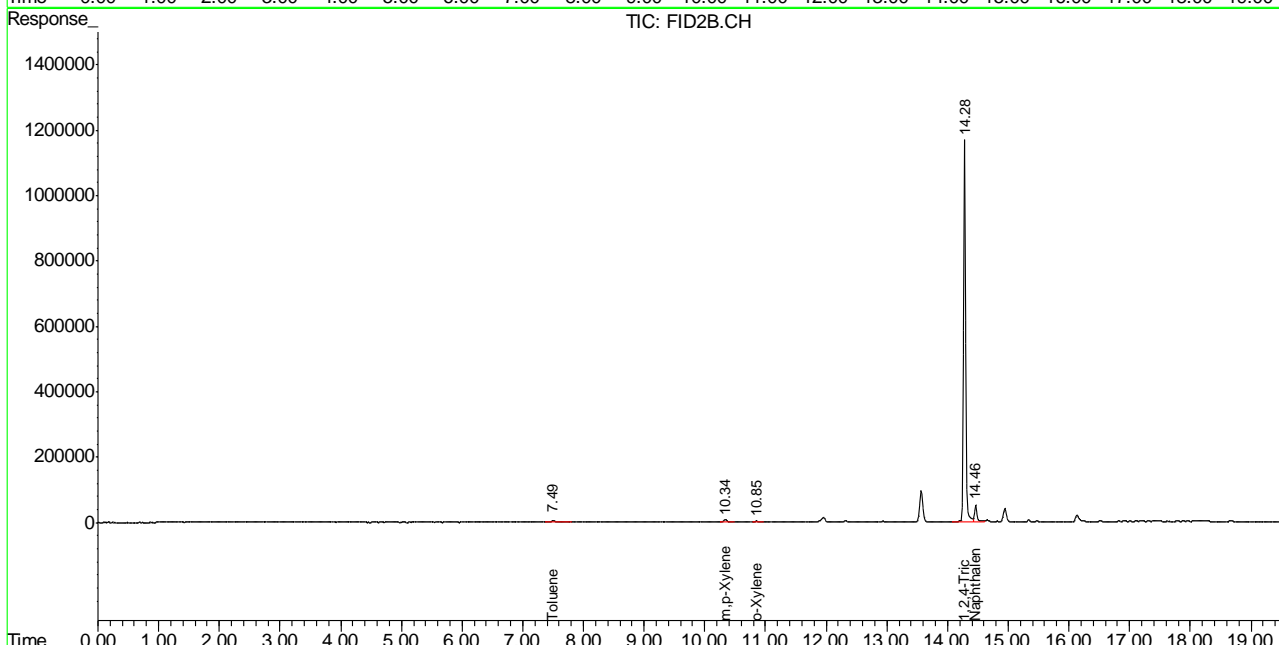
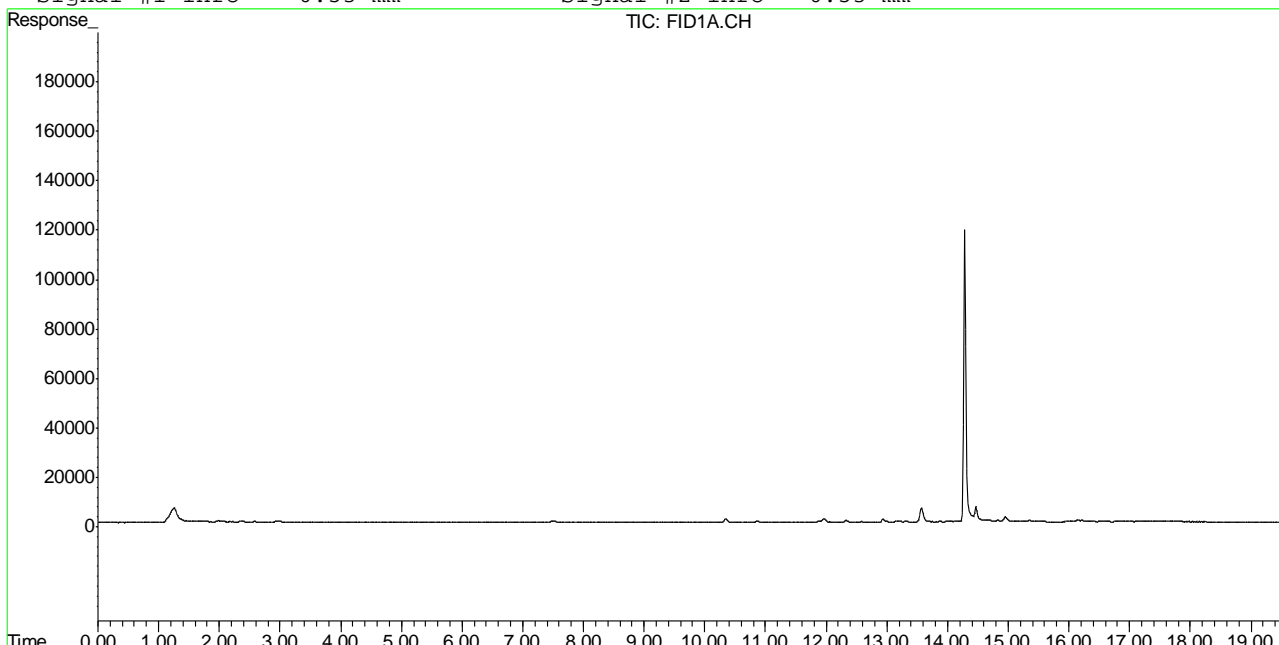
6.1.9  
6

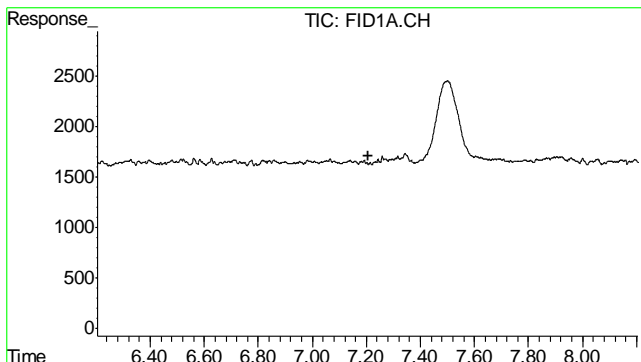
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0175.D\FID1A.CH Vial: 23  
 Signal #2 : Y:\1\DATA\032911\BTEX\TB0175.D\FID2B.CH  
 Acq On : 30 Mar 2011 3:50 am Operator: BrianR  
 Sample : D22152-2 Inst : GC/MS Ins  
 Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Mar 30 11:41 2011 Quant Results File: TB510GB510.RES

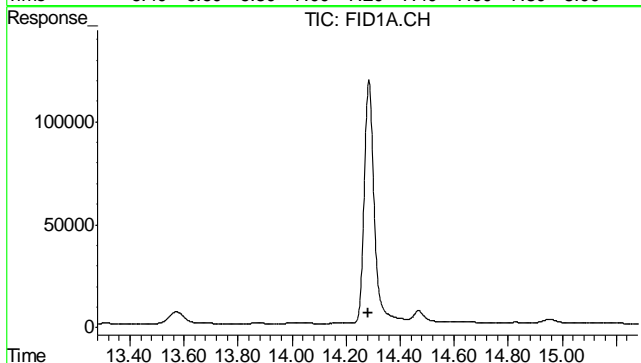
Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Thu Mar 10 09:05:18 2011  
 Response via : Single Level Calibration  
 DataAcq Meth : TVB4.M

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

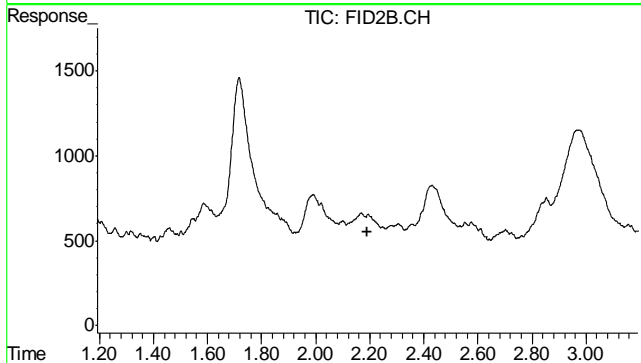




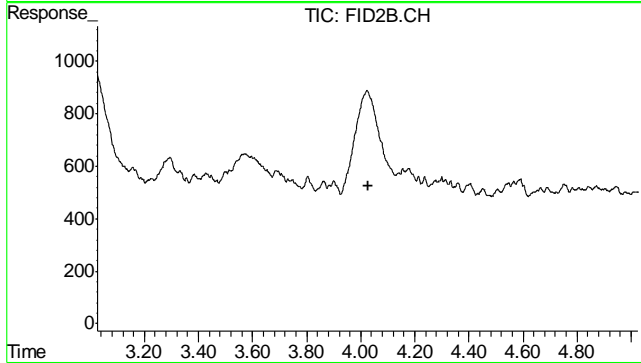
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.205 min  
 Response: 0  
 Conc: N.D.



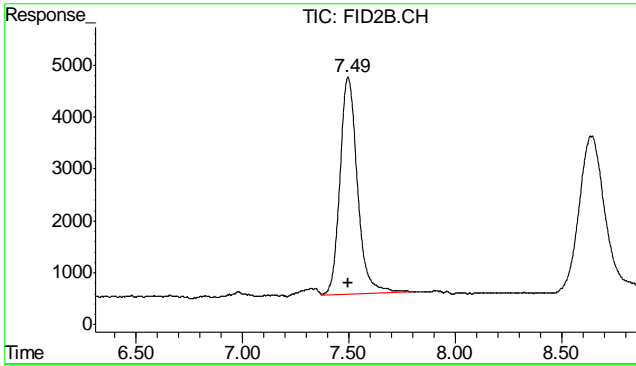
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.280 min  
 Response: 0  
 Conc: N.D.



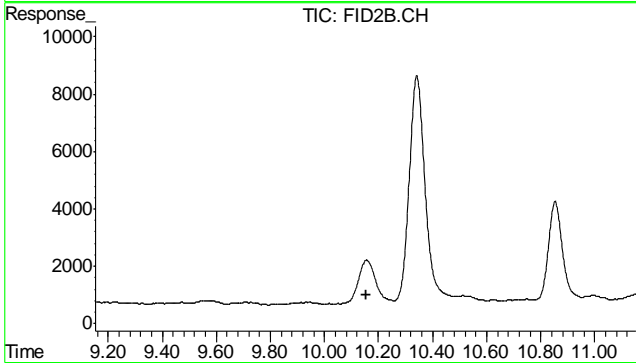
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.192 min  
 Response: 0  
 Conc: N.D.



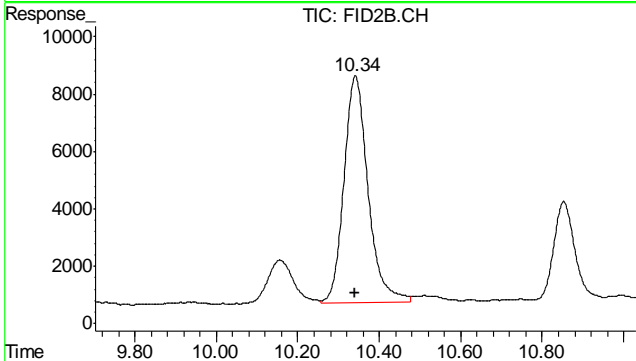
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.026 min  
 Response: 0  
 Conc: N.D.



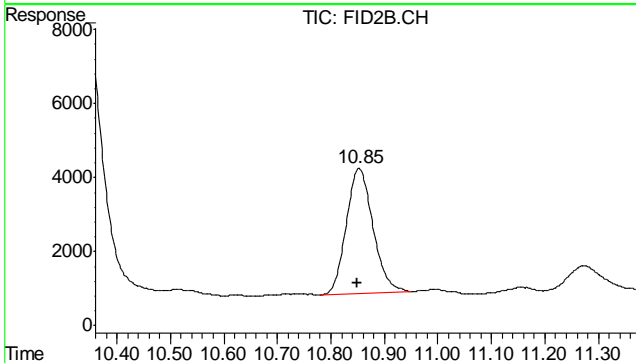
#6 Toluene  
 R.T.: 7.496 min  
 Delta R.T.: -0.002 min  
 Response: 237352  
 Conc: 0.40 ug/L



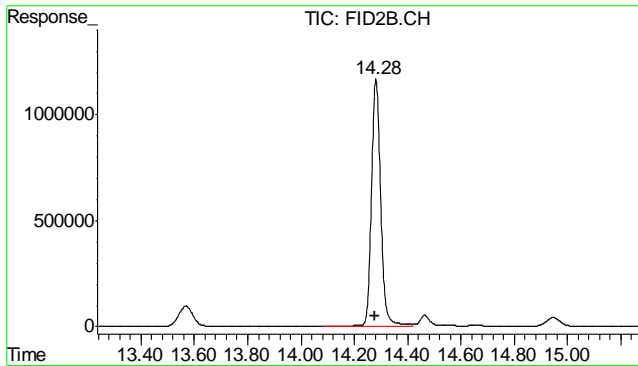
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.153 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 10.342 min  
 Delta R.T.: 0.002 min  
 Response: 323083  
 Conc: 0.52 ug/L

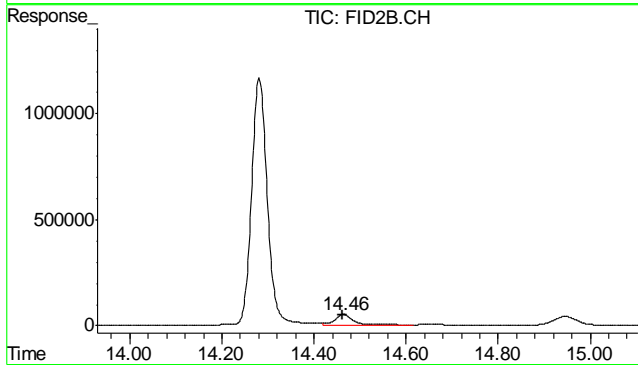


#9 o-Xylene  
 R.T.: 10.852 min  
 Delta R.T.: 0.002 min  
 Response: 117585  
 Conc: 0.23 ug/L m



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.281 min  
 Delta R.T.: 0.002 min  
 Response: 28011842  
 Conc: 91.08 %



#11 Naphthalene

R.T.: 14.464 min  
 Delta R.T.: 0.003 min  
 Response: 1535299  
 Conc: 2.34 ug/L



Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0176.D\FID1A.CH Vial: 24
Signal #2 : Y:\1\DATA\032911\BTEX\TB0176.D\FID2B.CH
Acq On : 30 Mar 2011 4:25 am Operator: BrianR
Sample : D22152-3 Inst : GC/MS Ins
Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 30 11:32:05 2011 Quant Results File: TB510GB510.RES

Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 10 09:05:18 2011
Response via : Initial Calibration
DataAcq Meth : TVB4.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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (e.g., 1,2,4-Trichlorobenzene) and Target Compounds (e.g., TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

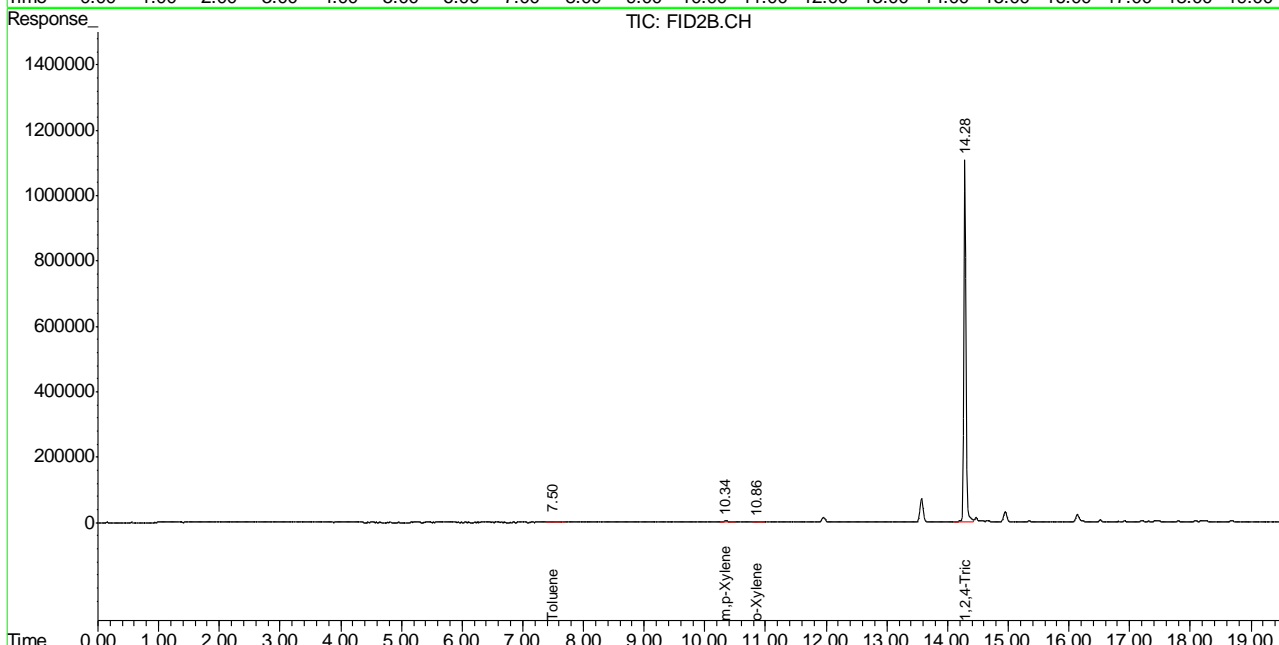
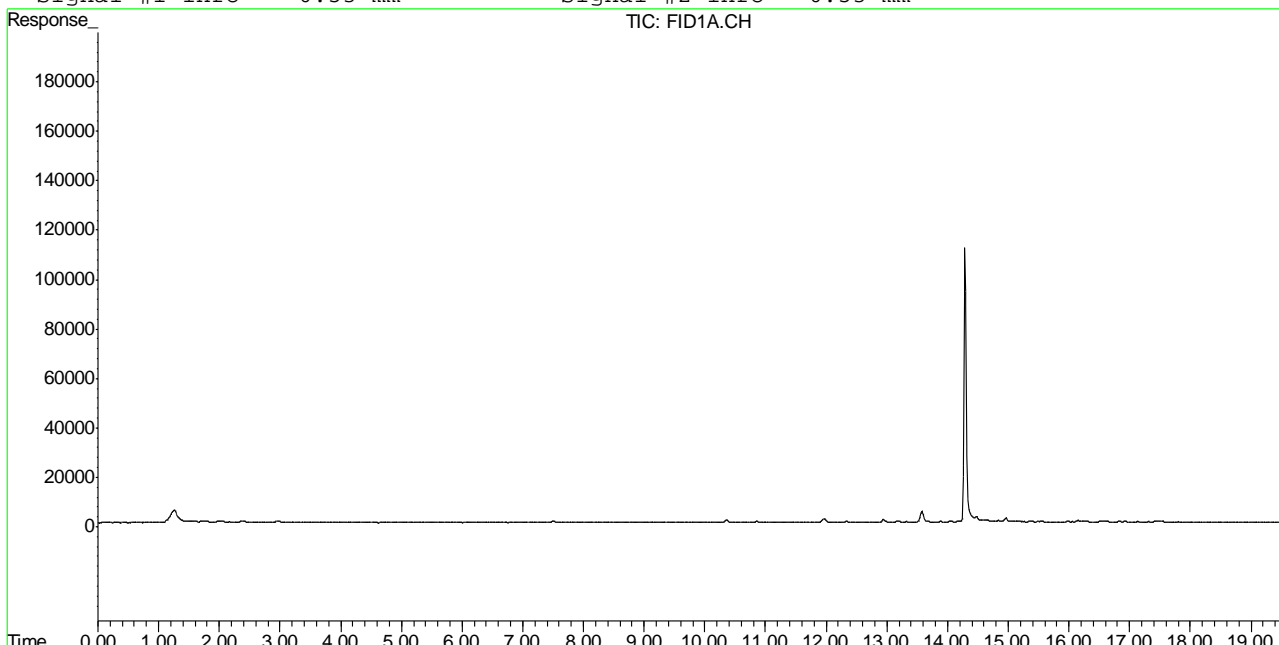
(f)=RT Delta > 1/2 Window (m)=manual int.
TB0176.D TB510GB510.M Wed Mar 30 11:46:17 2011 GC

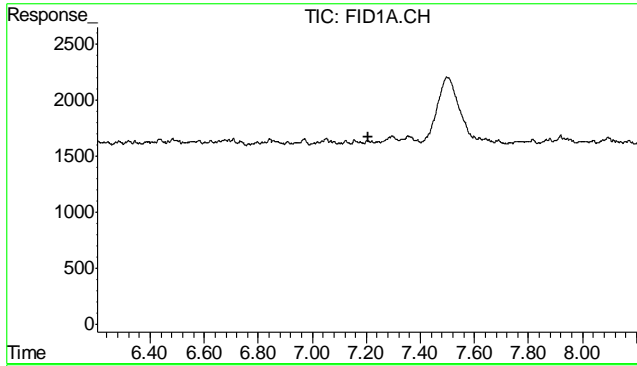
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0176.D\FID1A.CH Vial: 24  
 Signal #2 : Y:\1\DATA\032911\BTEX\TB0176.D\FID2B.CH  
 Acq On : 30 Mar 2011 4:25 am Operator: BrianR  
 Sample : D22152-3 Inst : GC/MS Ins  
 Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Mar 30 11:42 2011 Quant Results File: TB510GB510.RES

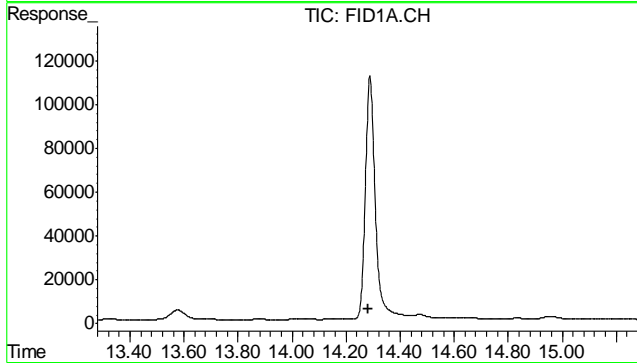
Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Thu Mar 10 09:05:18 2011  
 Response via : Single Level Calibration  
 DataAcq Meth : TVB4.M

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

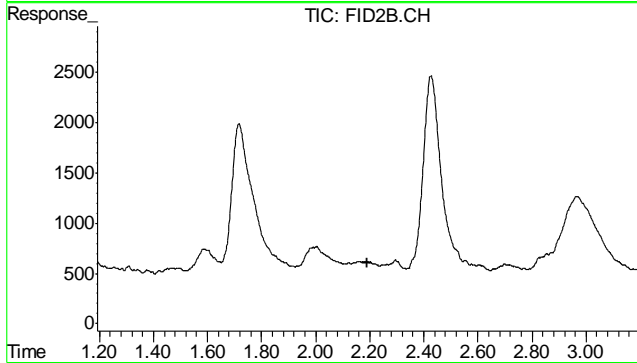




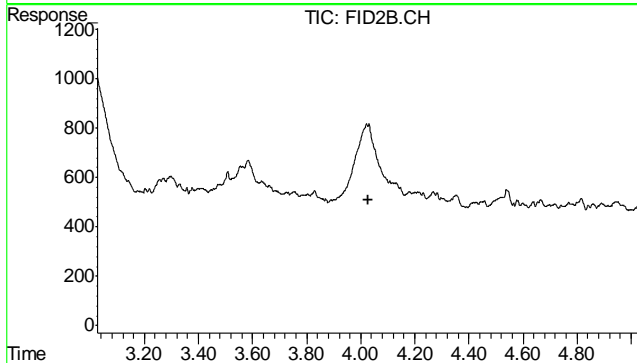
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.205 min  
 Response: 0  
 Conc: N.D.



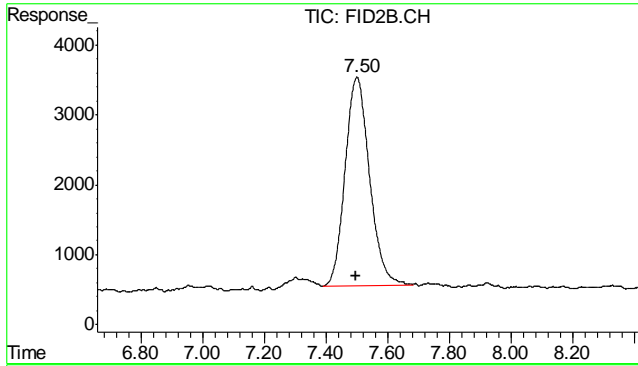
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.280 min  
 Response: 0  
 Conc: N.D.



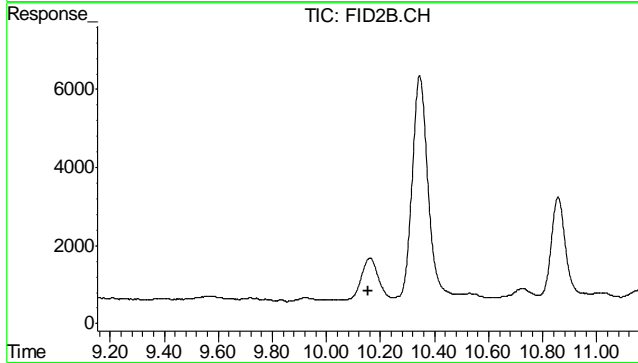
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.192 min  
 Response: 0  
 Conc: N.D.



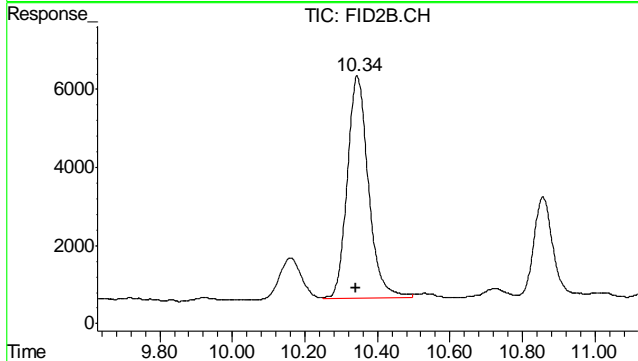
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.026 min  
 Response: 0  
 Conc: N.D.



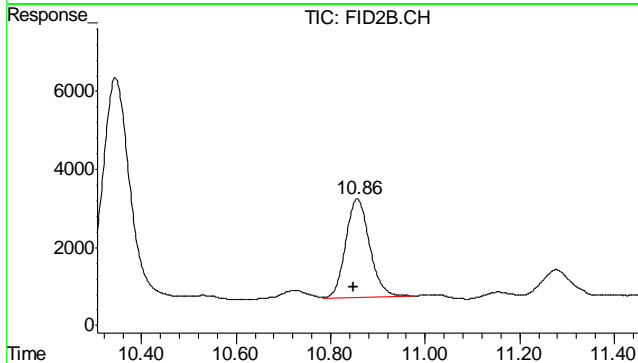
#6 Toluene  
 R.T.: 7.501 min  
 Delta R.T.: 0.003 min  
 Response: 163163  
 Conc: 0.27 ug/L



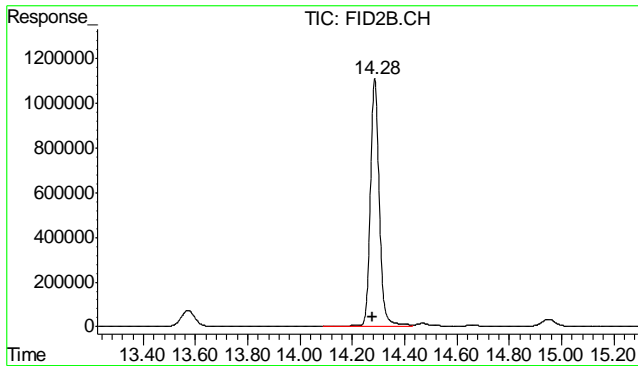
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.153 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 10.345 min  
 Delta R.T.: 0.005 min  
 Response: 232054  
 Conc: 0.37 ug/L

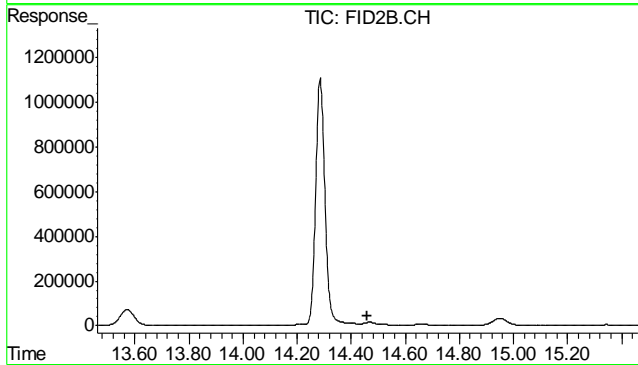


#9 o-Xylene  
 R.T.: 10.857 min  
 Delta R.T.: 0.007 min  
 Response: 88985  
 Conc: 0.17 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.285 min  
 Delta R.T.: 0.006 min  
 Response: 26389947  
 Conc: 85.81 %



#11 Naphthalene

R.T.: 0.000 min  
 Exp R.T. : 14.461 min  
 Response: 0  
 Conc: N.D.

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0177.D\FID1A.CH Vial: 25
Signal #2 : Y:\1\DATA\032911\BTEX\TB0177.D\FID2B.CH
Acq On : 30 Mar 2011 5:01 am Operator: BrianR
Sample : D22152-4 Inst : GC/MS Ins
Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 30 11:32:08 2011 Quant Results File: TB510GB510.RES

Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 10 09:05:18 2011
Response via : Initial Calibration
DataAcq Meth : TVB4.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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (e.g., 1,2,4-Trichlorobenzene) and Target Compounds (e.g., TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

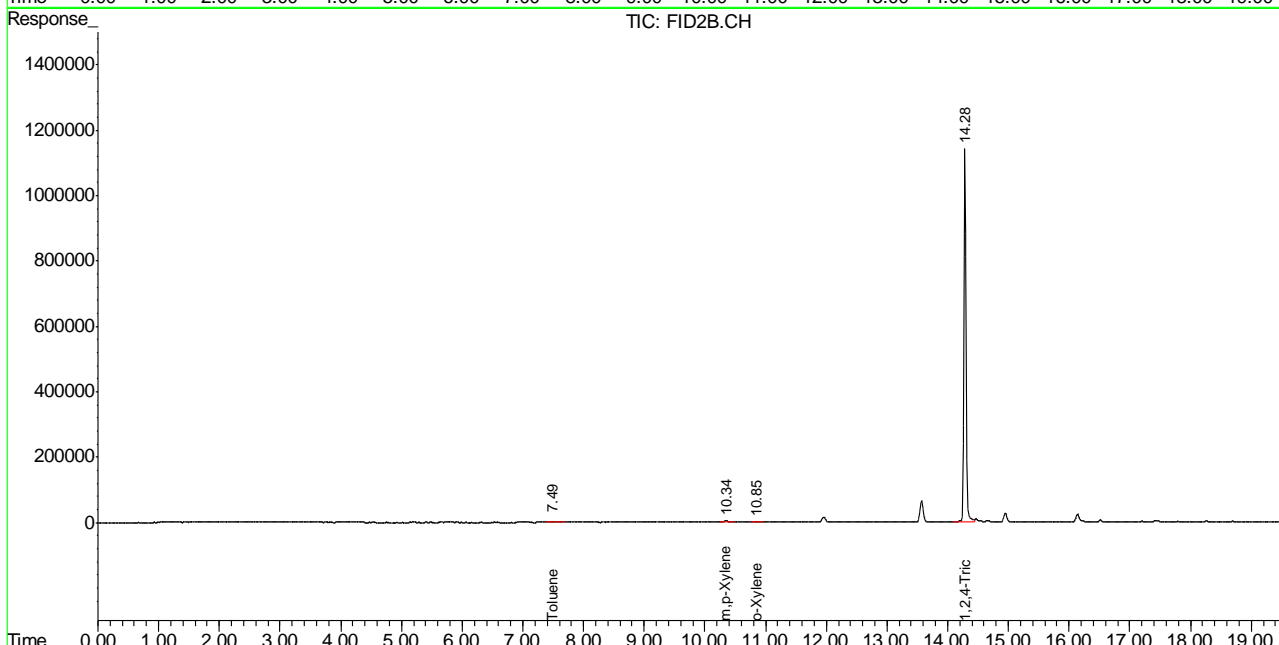
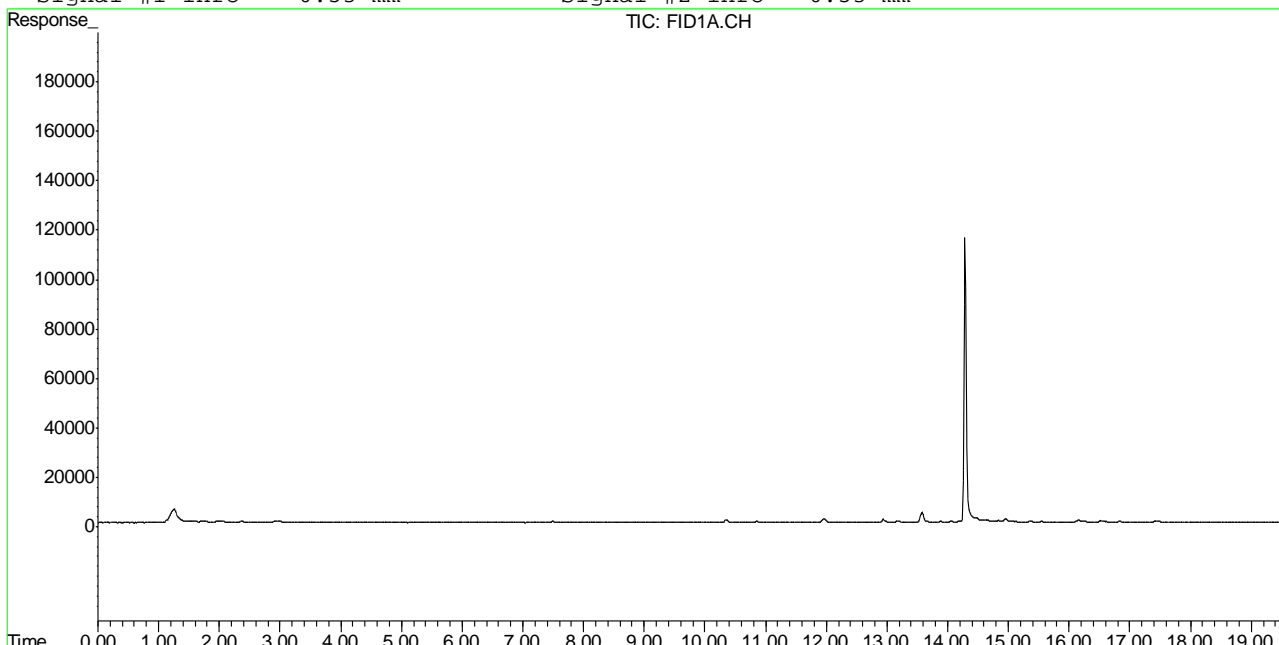
(f)=RT Delta > 1/2 Window (m)=manual int.
TB0177.D TB510GB510.M Wed Mar 30 11:46:19 2011 GC

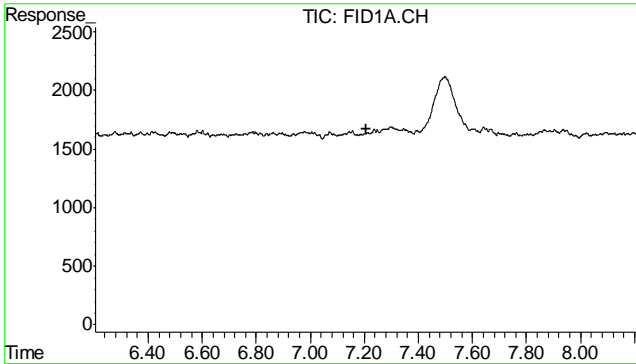
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0177.D\FID1A.CH Vial: 25  
 Signal #2 : Y:\1\DATA\032911\BTEX\TB0177.D\FID2B.CH  
 Acq On : 30 Mar 2011 5:01 am Operator: BrianR  
 Sample : D22152-4 Inst : GC/MS Ins  
 Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Mar 30 11:42 2011 Quant Results File: TB510GB510.RES

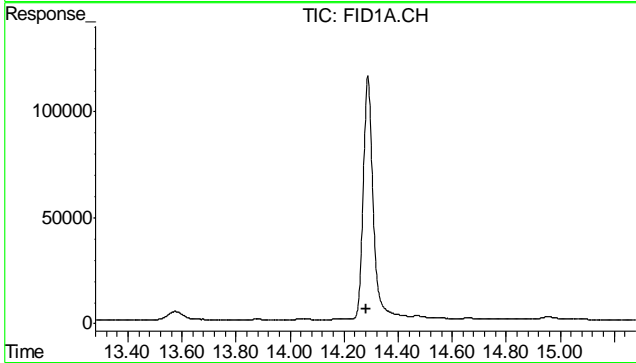
Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Thu Mar 10 09:05:18 2011  
 Response via : Single Level Calibration  
 DataAcq Meth : TVB4.M

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

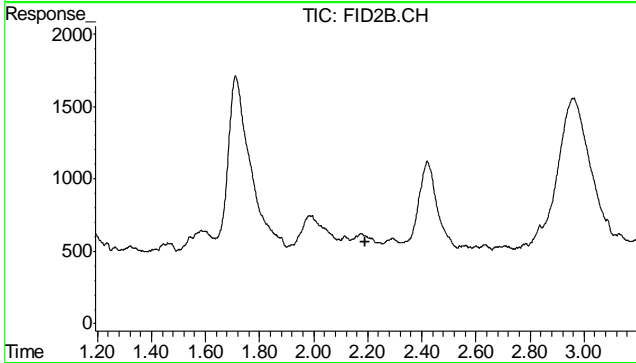




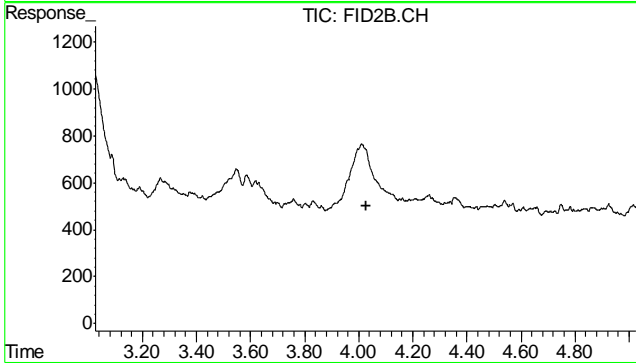
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.205 min  
 Response: 0  
 Conc: N.D.



#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.280 min  
 Response: 0  
 Conc: N.D.

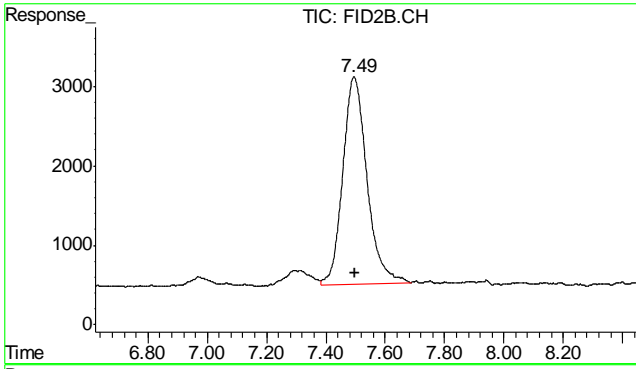


#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.192 min  
 Response: 0  
 Conc: N.D.

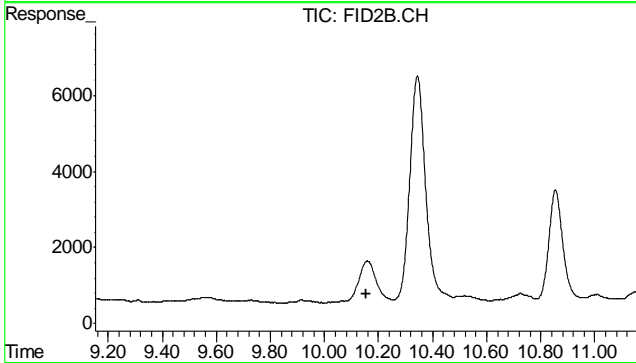


#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.026 min  
 Response: 0  
 Conc: N.D.

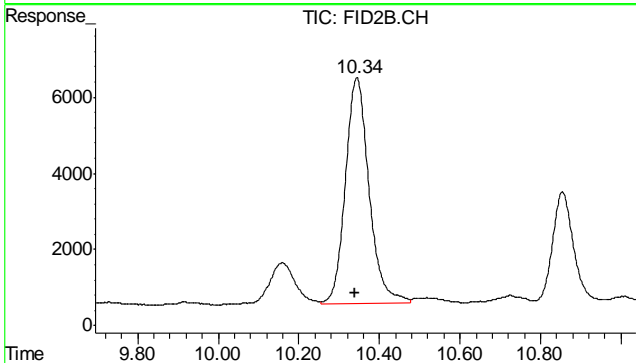




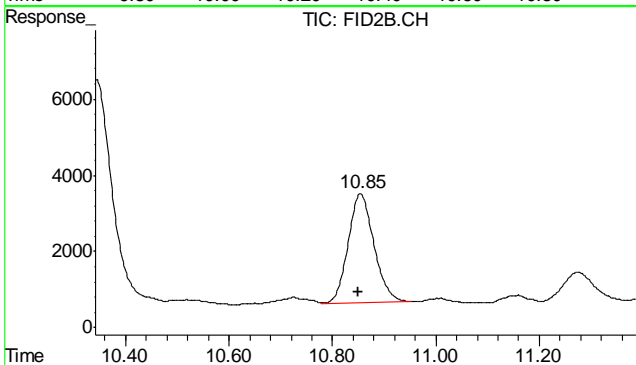
#6 Toluene  
 R.T.: 7.495 min  
 Delta R.T.: -0.003 min  
 Response: 147770  
 Conc: 0.25 ug/L



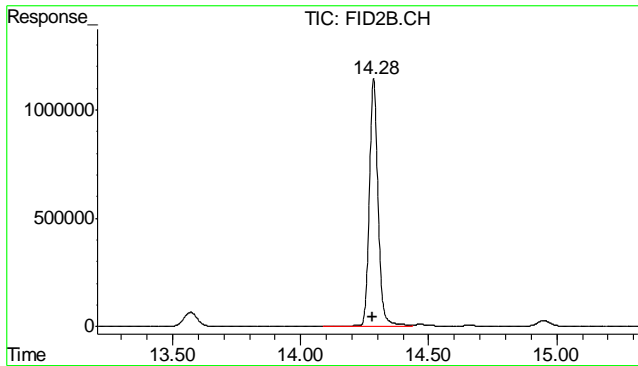
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.153 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 10.344 min  
 Delta R.T.: 0.005 min  
 Response: 242363  
 Conc: 0.39 ug/L

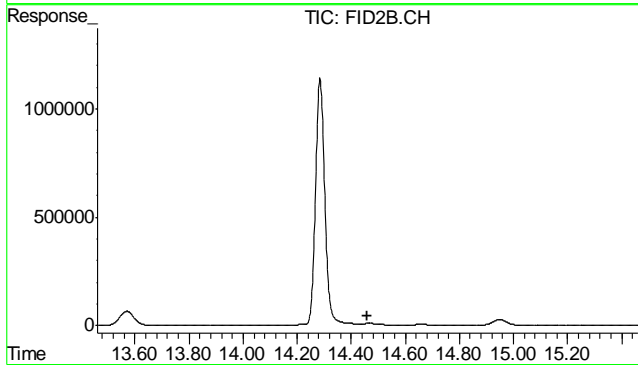


#9 o-Xylene  
 R.T.: 10.854 min  
 Delta R.T.: 0.005 min  
 Response: 98908  
 Conc: 0.19 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.285 min  
 Delta R.T.: 0.006 min  
 Response: 27242740  
 Conc: 88.58 %



#11 Naphthalene

R.T.: 0.000 min  
 Exp R.T. : 14.461 min  
 Response: 0  
 Conc: N.D.

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0178.D\FID1A.CH Vial: 26
Signal #2 : Y:\1\DATA\032911\BTEX\TB0178.D\FID2B.CH
Acq On : 30 Mar 2011 5:36 am Operator: BrianR
Sample : D22152-5 Inst : GC/MS Ins
Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 30 11:32:11 2011 Quant Results File: TB510GB510.RES

Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 10 09:05:18 2011
Response via : Initial Calibration
DataAcq Meth : TVB4.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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (e.g., 1,2,4-Trichlorobenzene) and Target Compounds (e.g., TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

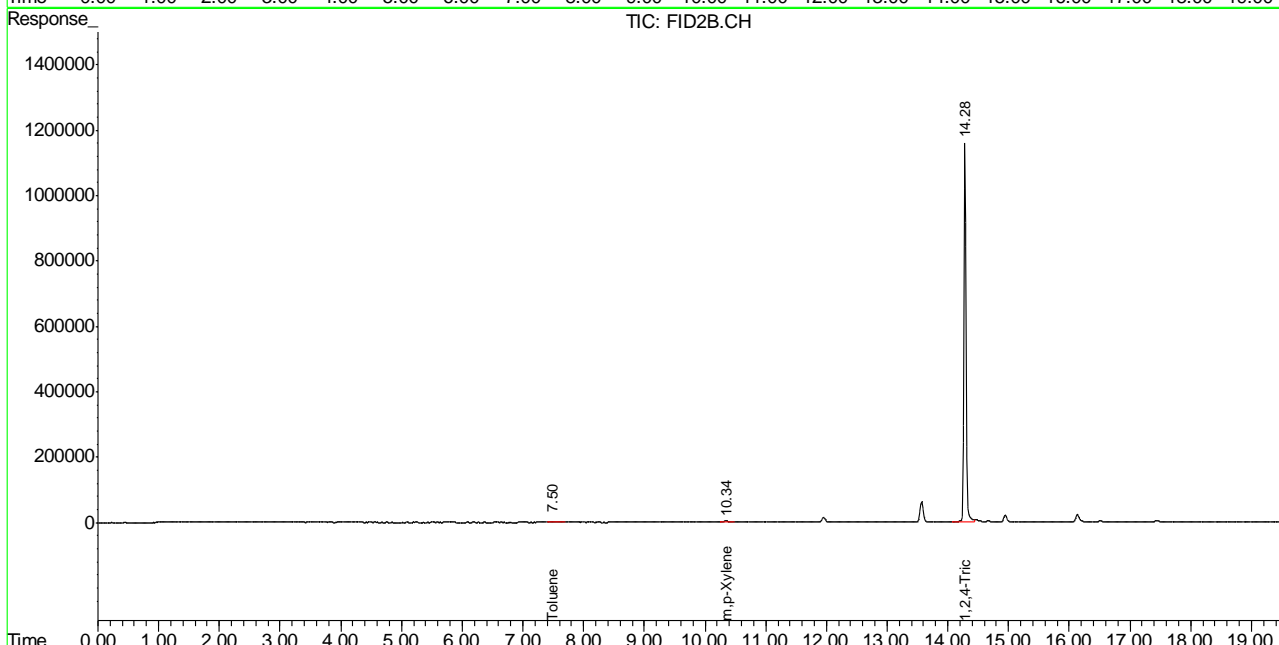
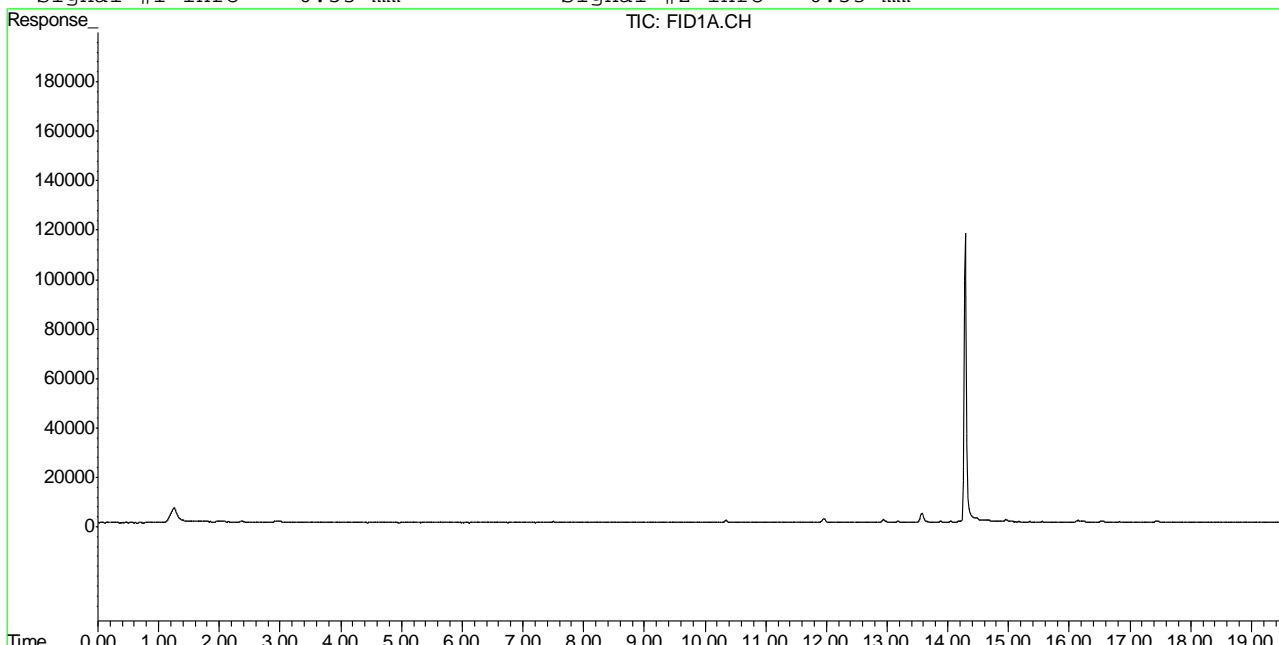
(f)=RT Delta > 1/2 Window (m)=manual int.
TB0178.D TB510GB510.M Wed Mar 30 11:46:21 2011 GC

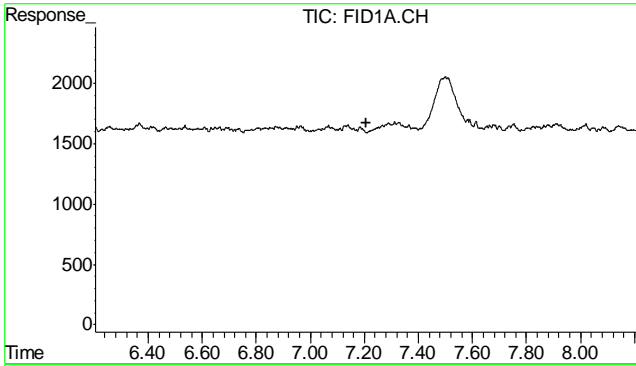
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0178.D\FID1A.CH Vial: 26  
 Signal #2 : Y:\1\DATA\032911\BTEX\TB0178.D\FID2B.CH  
 Acq On : 30 Mar 2011 5:36 am Operator: BrianR  
 Sample : D22152-5 Inst : GC/MS Ins  
 Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Mar 30 11:42 2011 Quant Results File: TB510GB510.RES

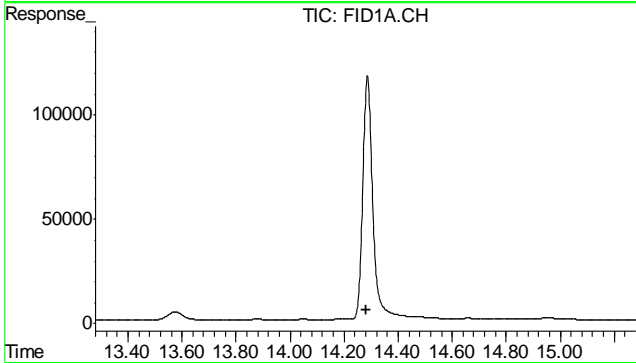
Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Thu Mar 10 09:05:18 2011  
 Response via : Single Level Calibration  
 DataAcq Meth : TVB4.M

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

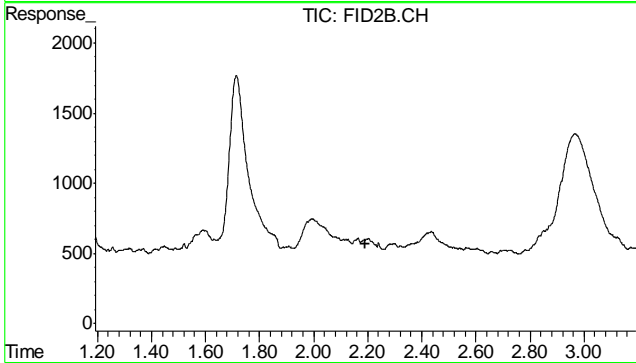




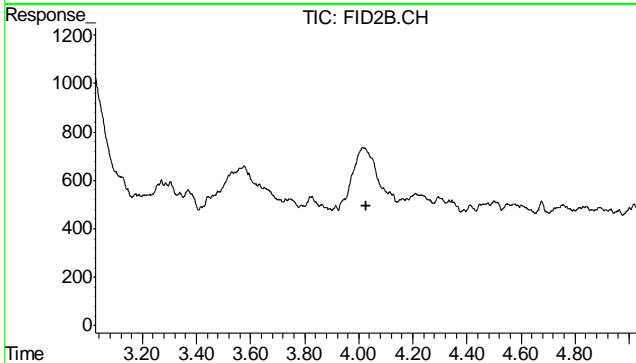
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.205 min  
 Response: 0  
 Conc: N.D.



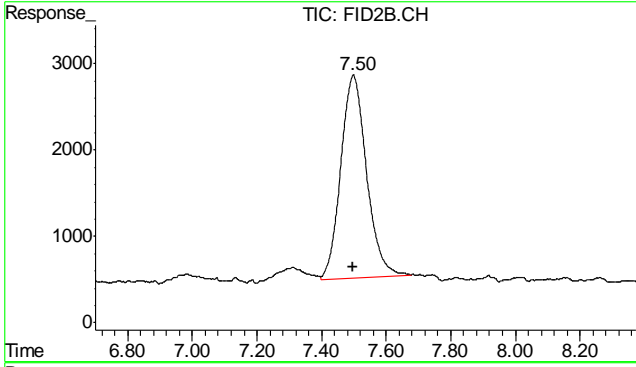
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.280 min  
 Response: 0  
 Conc: N.D.



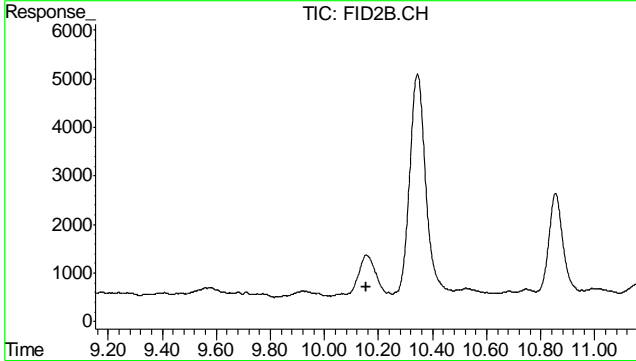
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.192 min  
 Response: 0  
 Conc: N.D.



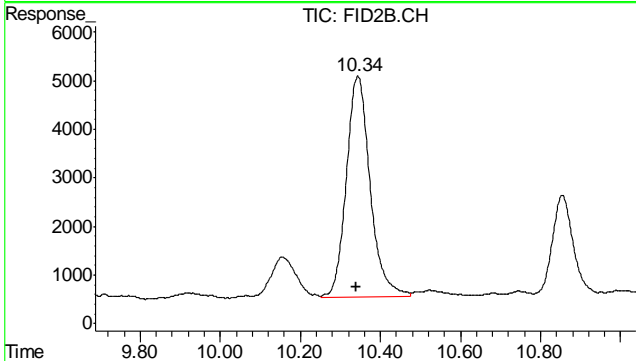
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.026 min  
 Response: 0  
 Conc: N.D.



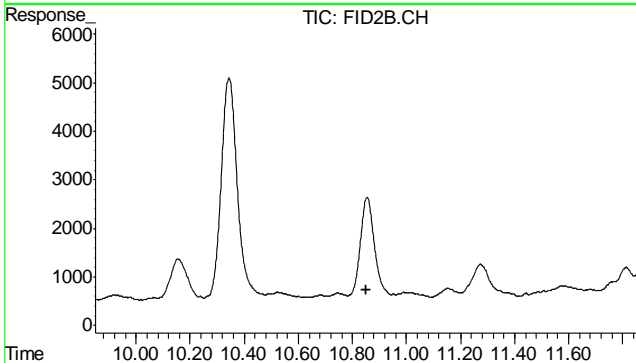
#6 Toluene  
 R.T.: 7.499 min  
 Delta R.T.: 0.000 min  
 Response: 129893  
 Conc: 0.22 ug/L



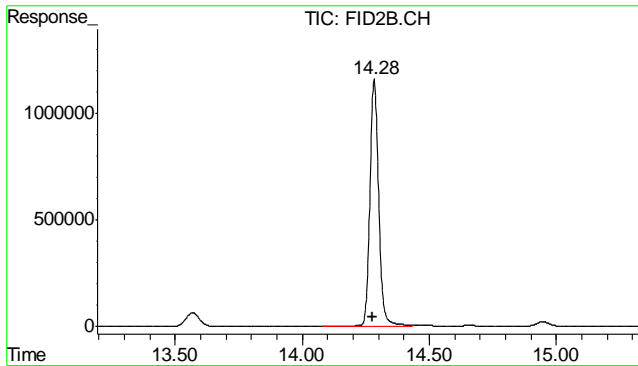
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.153 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 10.344 min  
 Delta R.T.: 0.005 min  
 Response: 187807  
 Conc: 0.30 ug/L

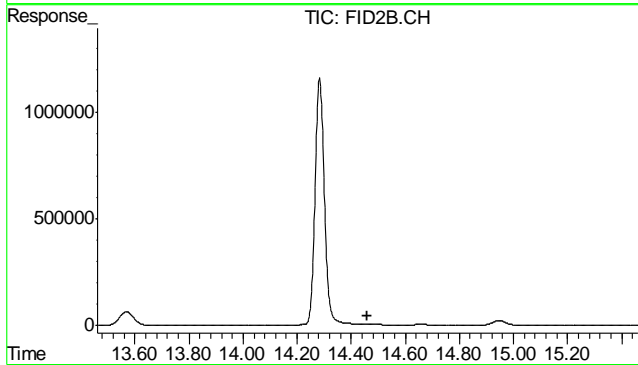


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.850 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.283 min  
 Delta R.T.: 0.004 min  
 Response: 27911052  
 Conc: 90.76 %



#11 Naphthalene

R.T.: 0.000 min  
 Exp R.T. : 14.461 min  
 Response: 0  
 Conc: N.D.

6.1.12  
 6

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0179.D\FID1A.CH Vial: 27
Signal #2 : Y:\1\DATA\032911\BTEX\TB0179.D\FID2B.CH
Acq On : 30 Mar 2011 6:12 am Operator: BrianR
Sample : D22152-6 Inst : GC/MS Ins
Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 30 11:32:14 2011 Quant Results File: TB510GB510.RES

Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 10 09:05:18 2011
Response via : Initial Calibration
DataAcq Meth : TVB4.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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (e.g., 1,2,4-Trichlorobenzene) and Target Compounds (e.g., TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

(f)=RT Delta > 1/2 Window (m)=manual int.
TB0179.D TB510GB510.M Wed Mar 30 11:46:24 2011 GC

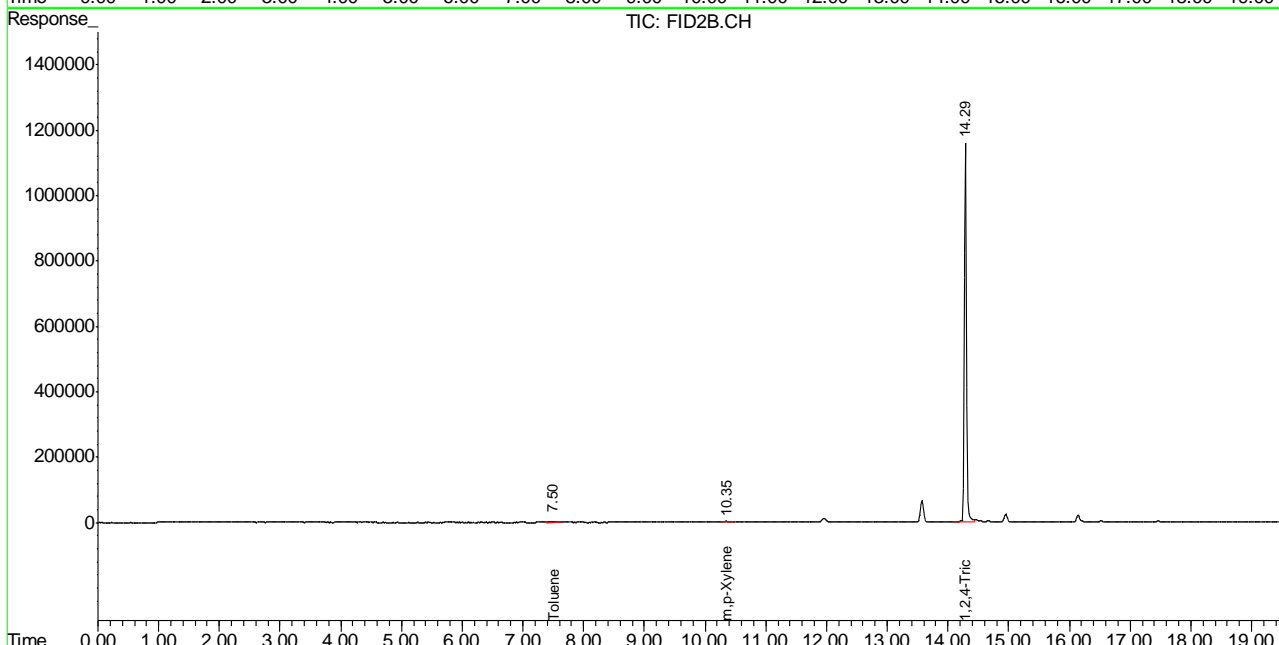
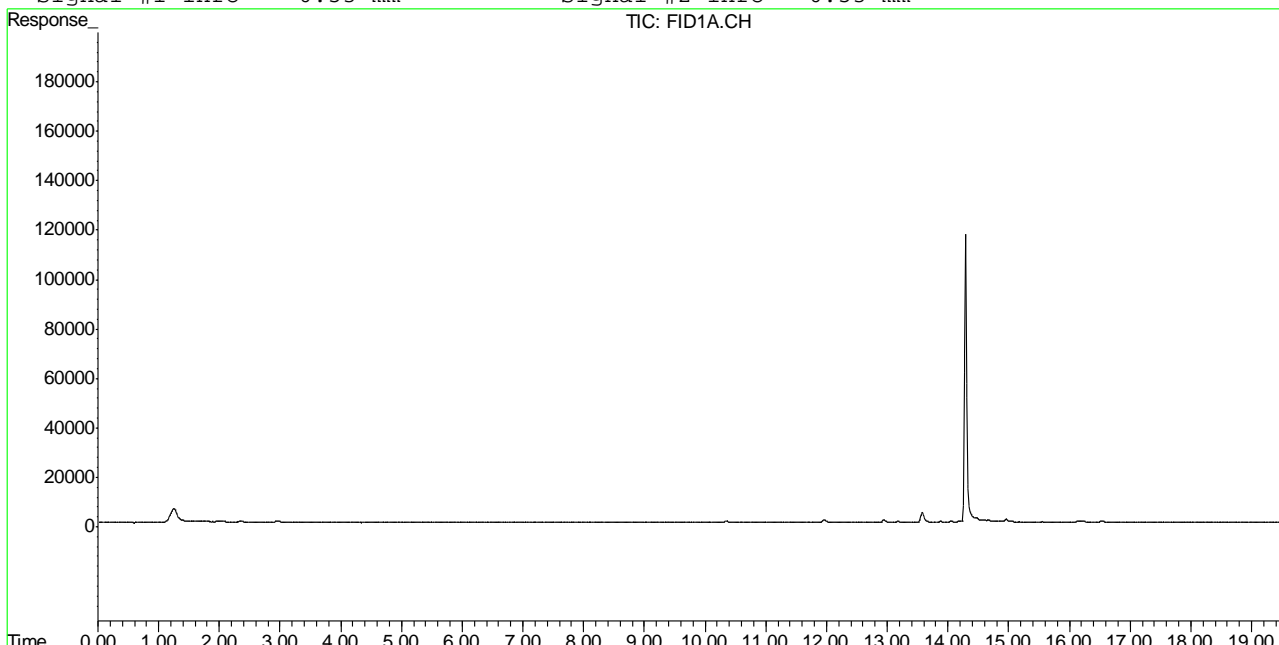


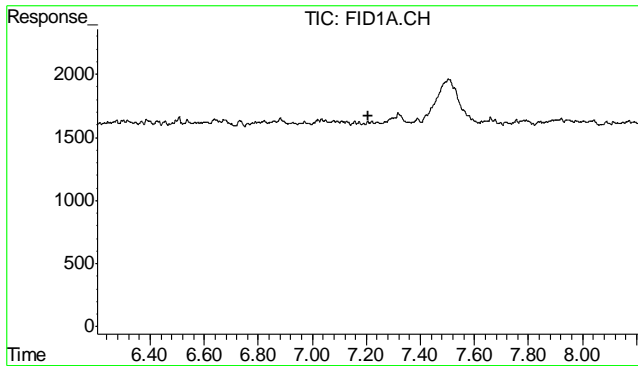
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0179.D\FID1A.CH Vial: 27  
 Signal #2 : Y:\1\DATA\032911\BTEX\TB0179.D\FID2B.CH  
 Acq On : 30 Mar 2011 6:12 am Operator: BrianR  
 Sample : D22152-6 Inst : GC/MS Ins  
 Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Mar 30 11:43 2011 Quant Results File: TB510GB510.RES

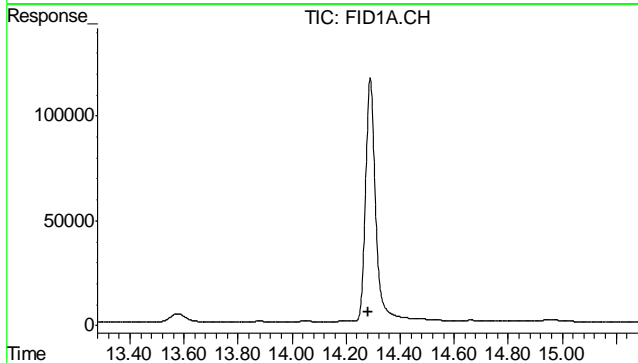
Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Thu Mar 10 09:05:18 2011  
 Response via : Single Level Calibration  
 DataAcq Meth : TVB4.M

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

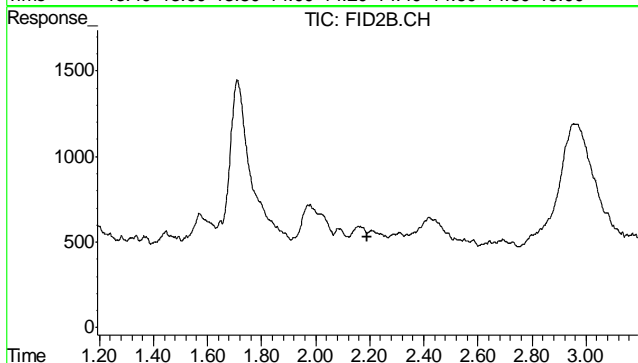




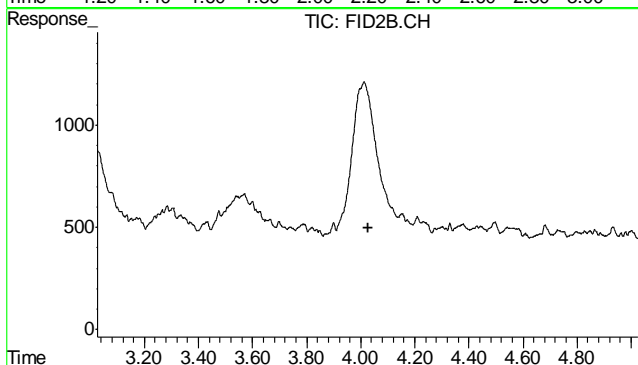
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.205 min  
 Response: 0  
 Conc: N.D.



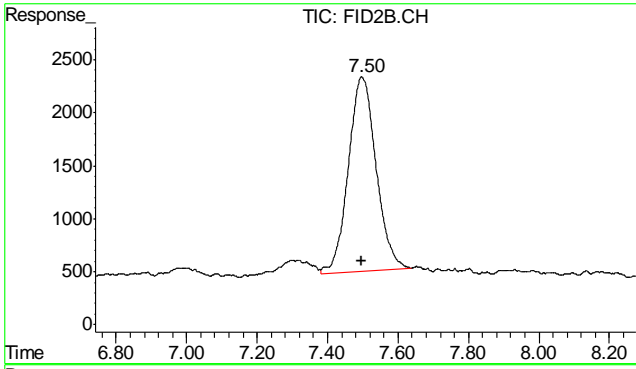
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.280 min  
 Response: 0  
 Conc: N.D.



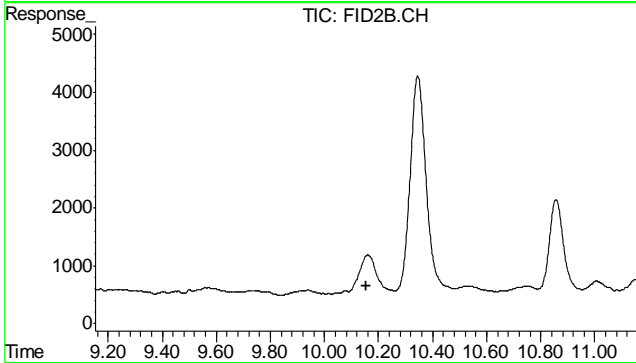
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.192 min  
 Response: 0  
 Conc: N.D.



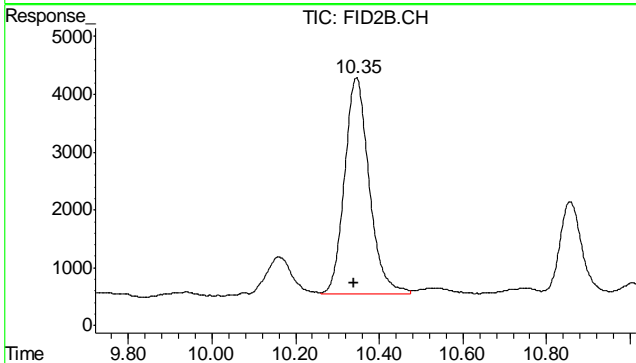
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.026 min  
 Response: 0  
 Conc: N.D.



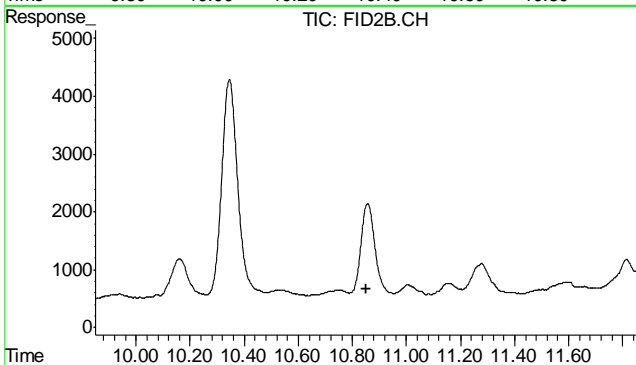
#6 Toluene  
 R.T.: 7.497 min  
 Delta R.T.: 0.000 min  
 Response: 100131  
 Conc: 0.17 ug/L



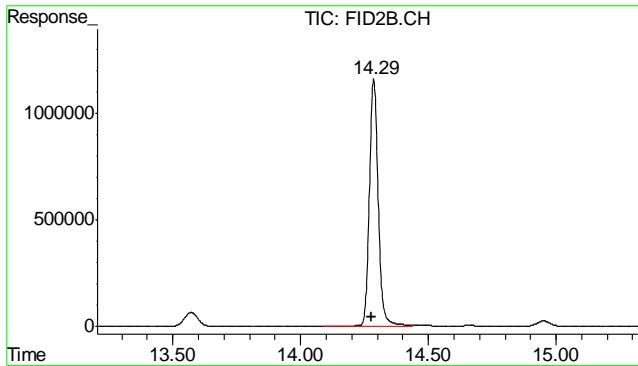
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.153 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 10.345 min  
 Delta R.T.: 0.006 min  
 Response: 152404  
 Conc: 0.24 ug/L

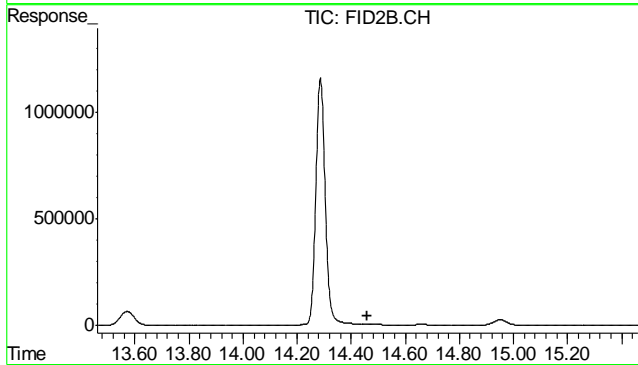


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.850 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.286 min  
 Delta R.T.: 0.007 min  
 Response: 28040963  
 Conc: 91.18 %



#11 Naphthalene

R.T.: 0.000 min  
 Exp R.T. : 14.461 min  
 Response: 0  
 Conc: N.D.

6.1.13

6

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0180.D\FID1A.CH Vial: 28
Signal #2 : Y:\1\DATA\032911\BTEX\TB0180.D\FID2B.CH
Acq On : 30 Mar 2011 6:47 am Operator: BrianR
Sample : D22152-7 Inst : GC/MS Ins
Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 30 11:32:17 2011 Quant Results File: TB510GB510.RES

Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 10 09:05:18 2011
Response via : Initial Calibration
DataAcq Meth : TVB4.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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (e.g., 1,2,4-Trichlorobenzene) and Target Compounds (e.g., TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

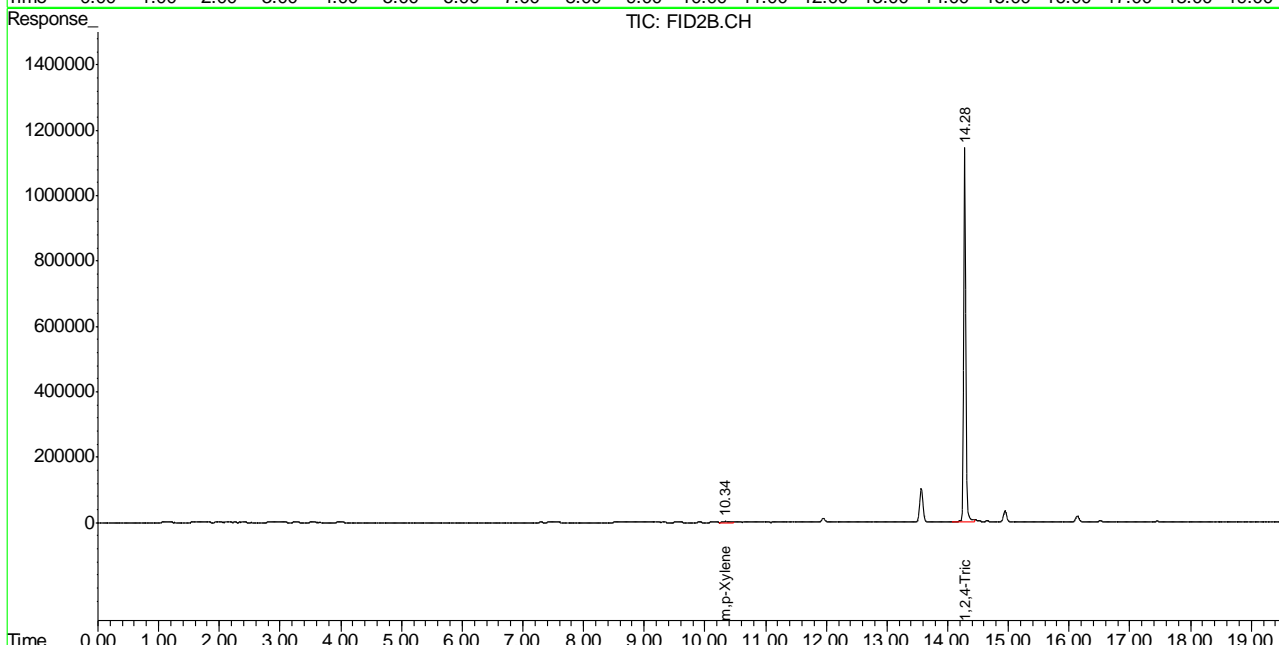
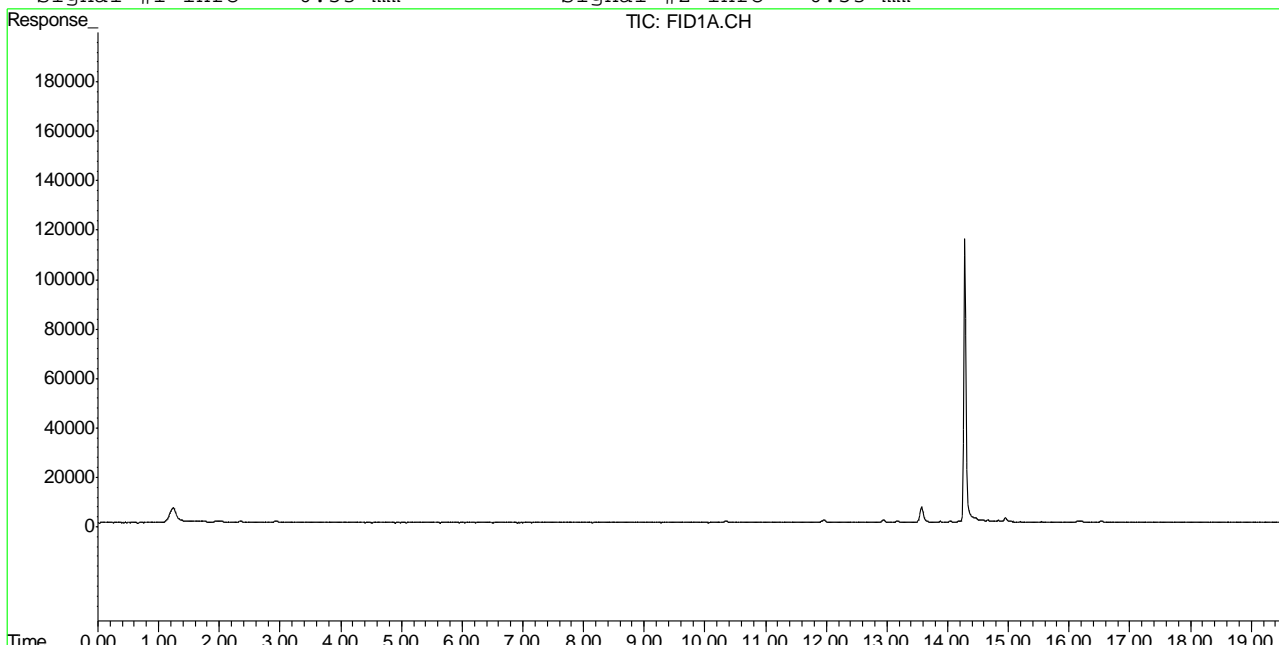
(f)=RT Delta > 1/2 Window (m)=manual int.
TB0180.D TB510GB510.M Wed Mar 30 11:46:26 2011 GC

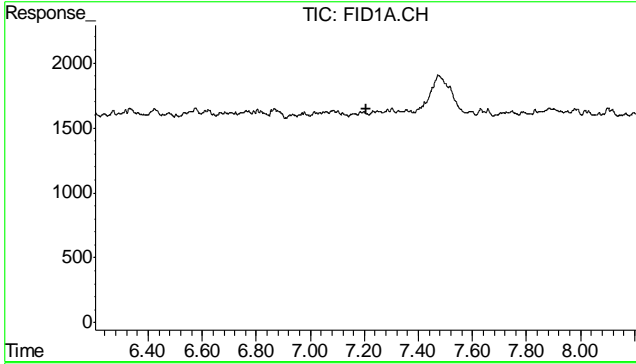
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0180.D\FID1A.CH Vial: 28  
 Signal #2 : Y:\1\DATA\032911\BTEX\TB0180.D\FID2B.CH  
 Acq On : 30 Mar 2011 6:47 am Operator: BrianR  
 Sample : D22152-7 Inst : GC/MS Ins  
 Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Mar 30 11:43 2011 Quant Results File: TB510GB510.RES

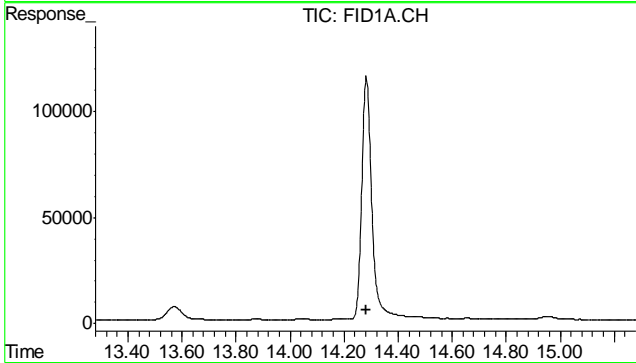
Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Thu Mar 10 09:05:18 2011  
 Response via : Single Level Calibration  
 DataAcq Meth : TVB4.M

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

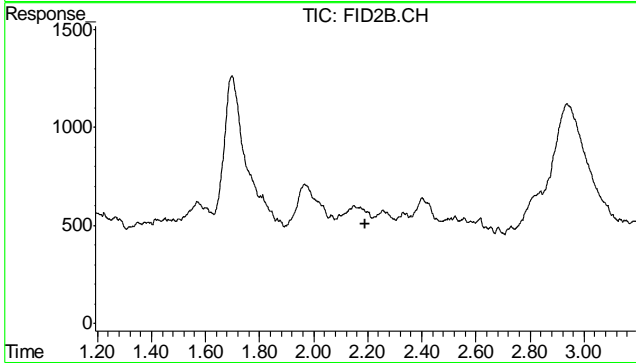




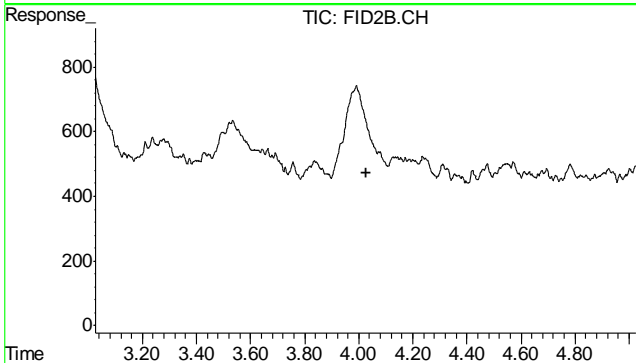
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.205 min  
 Response: 0  
 Conc: N.D.



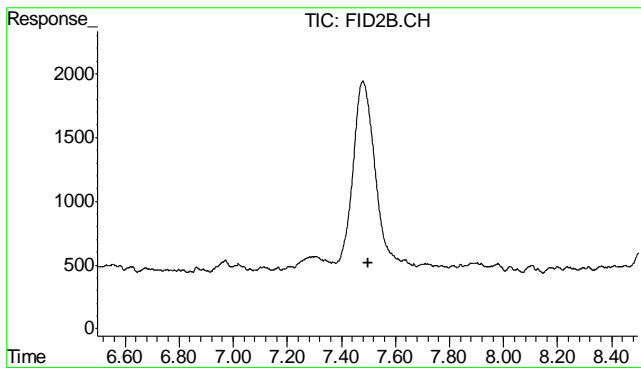
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.280 min  
 Response: 0  
 Conc: N.D.



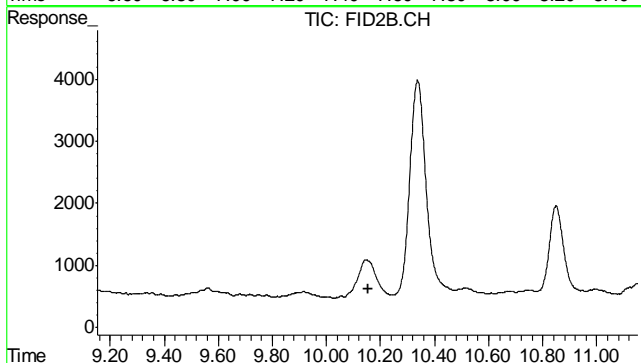
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.192 min  
 Response: 0  
 Conc: N.D.



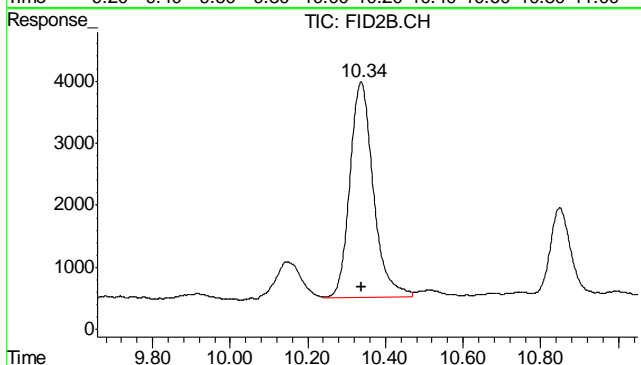
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.026 min  
 Response: 0  
 Conc: N.D.



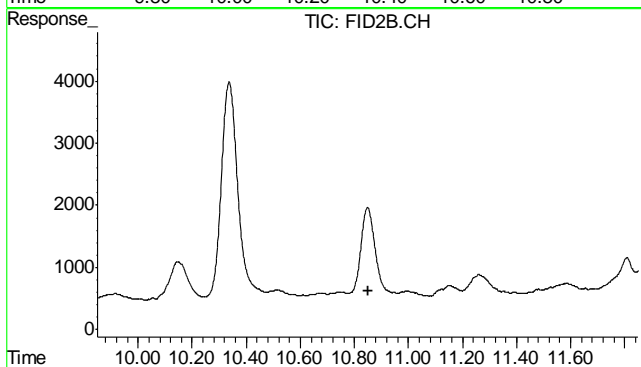
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 7.498 min  
 Response: 0  
 Conc: N.D.



#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.153 min  
 Response: 0  
 Conc: N.D.

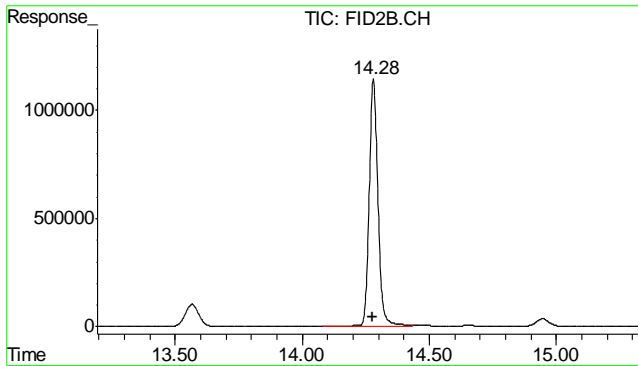


#8 m,p-Xylene  
 R.T.: 10.338 min  
 Delta R.T.: -0.002 min  
 Response: 145452  
 Conc: 0.23 ug/L



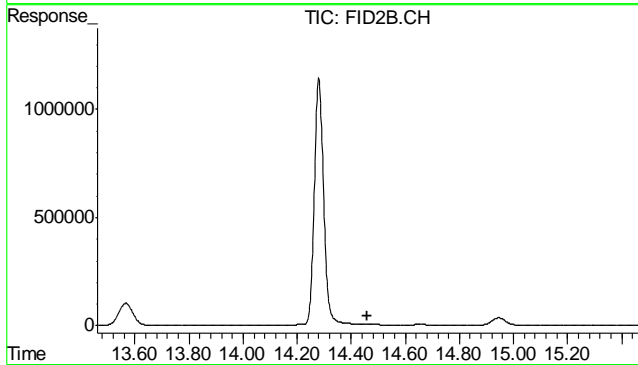
#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.850 min  
 Response: 0  
 Conc: N.D.





#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.281 min  
 Delta R.T.: 0.001 min  
 Response: 27508421  
 Conc: 89.45 %



#11 Naphthalene

R.T.: 0.000 min  
 Exp R.T. : 14.461 min  
 Response: 0  
 Conc: N.D.

6.1.14

6

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0181.D\FID1A.CH Vial: 29
Signal #2 : Y:\1\DATA\032911\BTEX\TB0181.D\FID2B.CH
Acq On : 30 Mar 2011 8:39 am Operator: BrianR
Sample : D22152-8 Inst : GC/MS Ins
Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Mar 30 11:32:20 2011 Quant Results File: TB510GB510.RES

Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Thu Mar 10 09:05:18 2011
Response via : Initial Calibration
DataAcq Meth : TVB4.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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (e.g., 1,2,4-Trichlorobenzene) and Target Compounds (e.g., TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

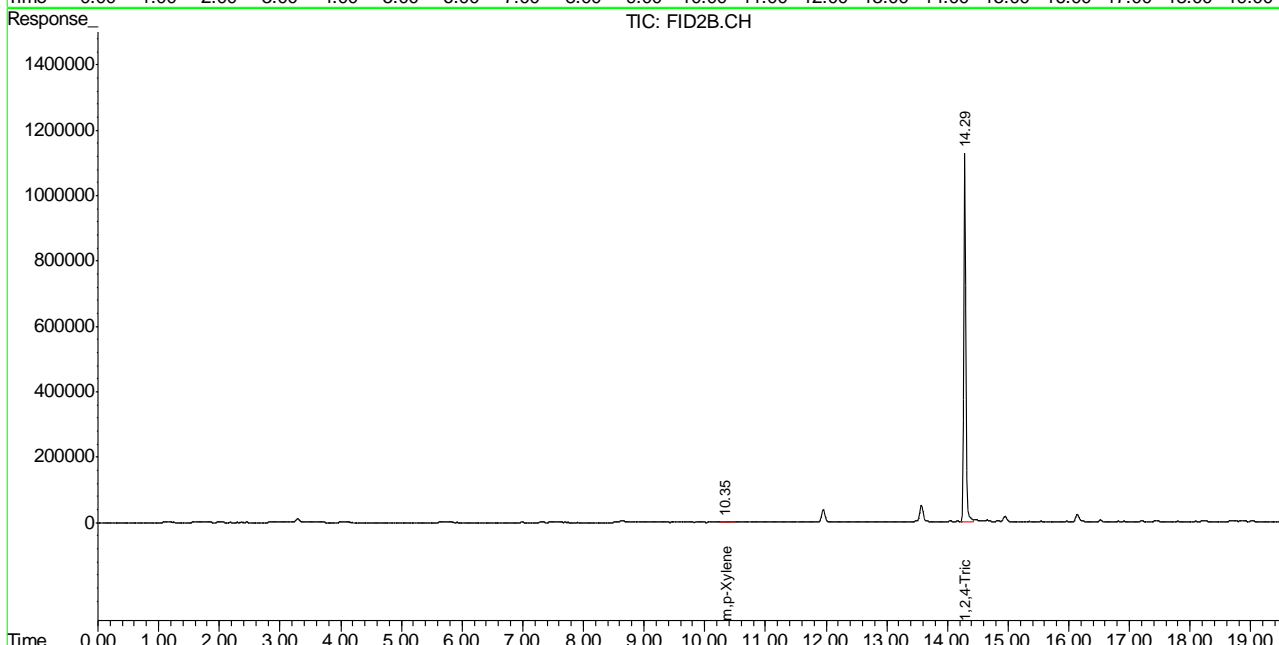
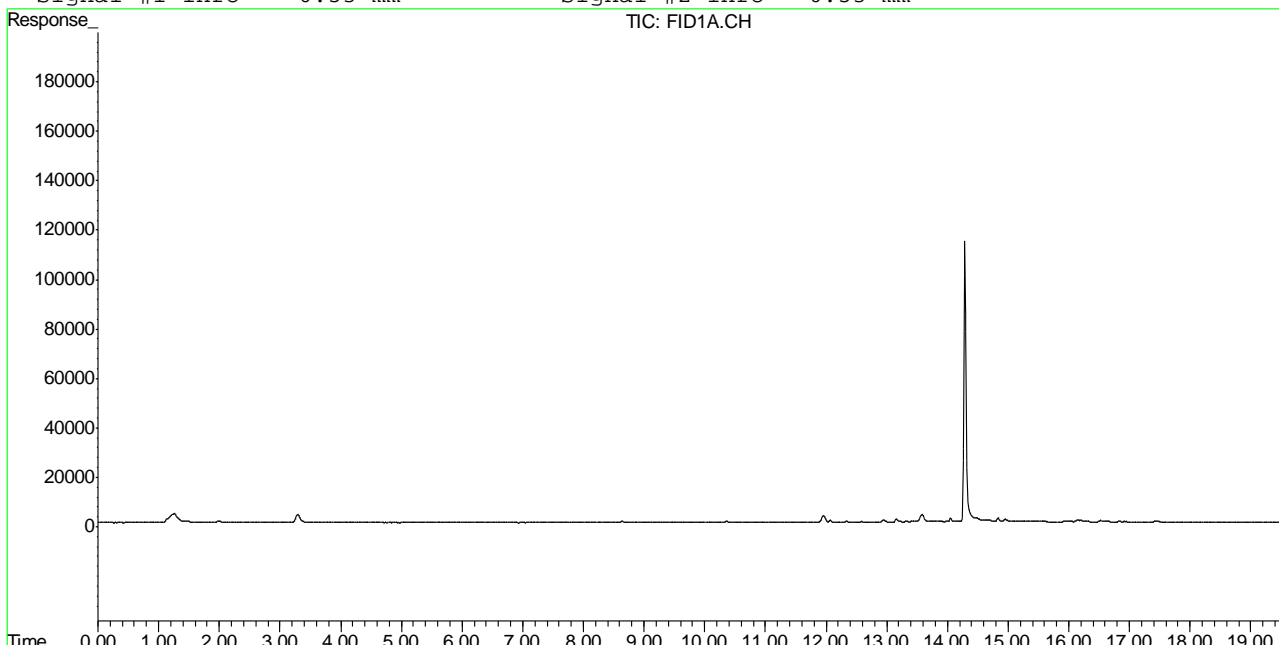
(f)=RT Delta > 1/2 Window (m)=manual int.
TB0181.D TB510GB510.M Wed Mar 30 11:46:29 2011 GC

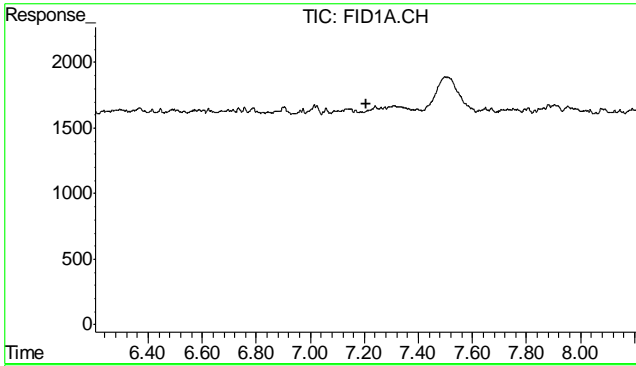
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0181.D\FID1A.CH Vial: 29  
 Signal #2 : Y:\1\DATA\032911\BTEX\TB0181.D\FID2B.CH  
 Acq On : 30 Mar 2011 8:39 am Operator: BrianR  
 Sample : D22152-8 Inst : GC/MS Ins  
 Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Mar 30 11:43 2011 Quant Results File: TB510GB510.RES

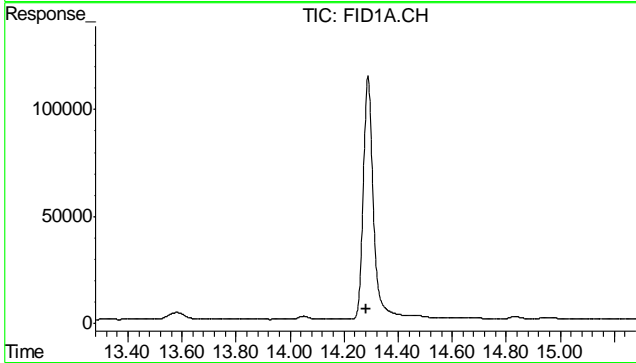
Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Thu Mar 10 09:05:18 2011  
 Response via : Single Level Calibration  
 DataAcq Meth : TVB4.M

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

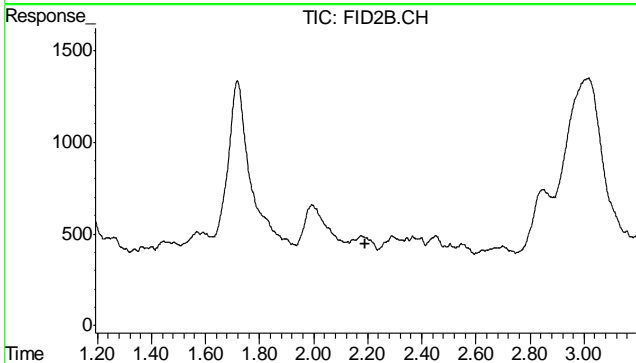




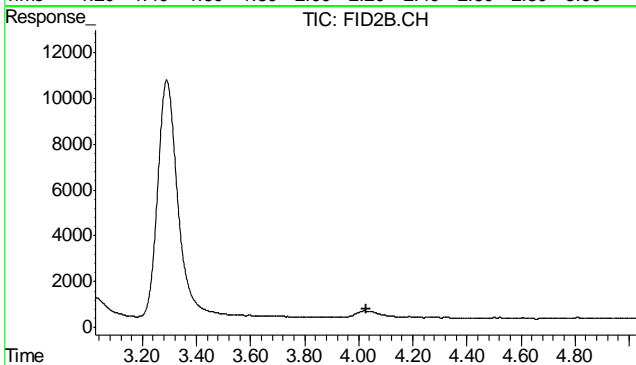
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.205 min  
 Response: 0  
 Conc: N.D.



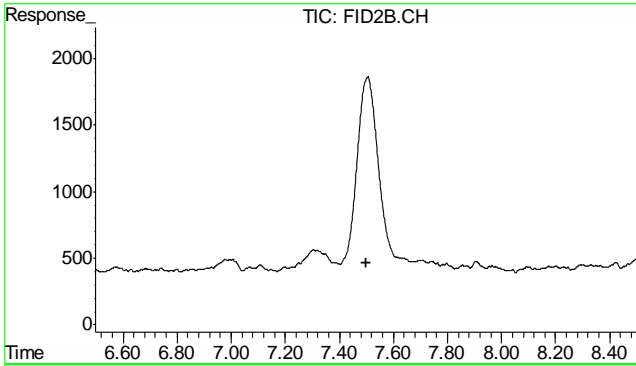
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.280 min  
 Response: 0  
 Conc: N.D.



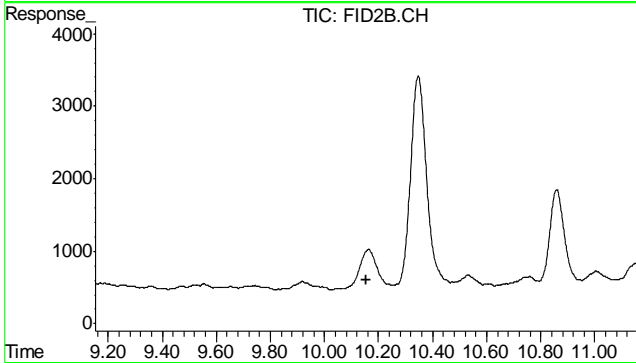
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.192 min  
 Response: 0  
 Conc: N.D.



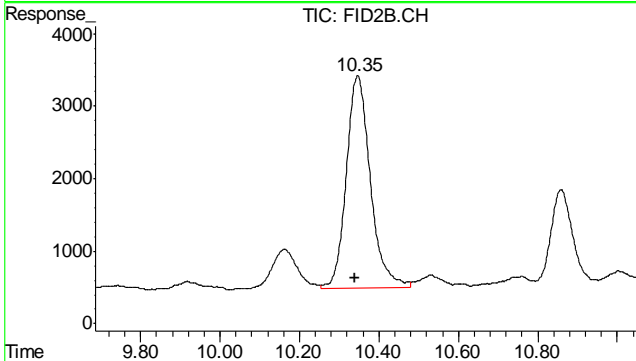
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.026 min  
 Response: 0  
 Conc: N.D.



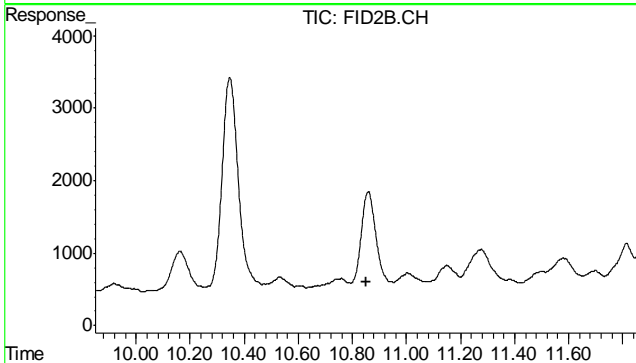
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 7.498 min  
 Response: 0  
 Conc: N.D.



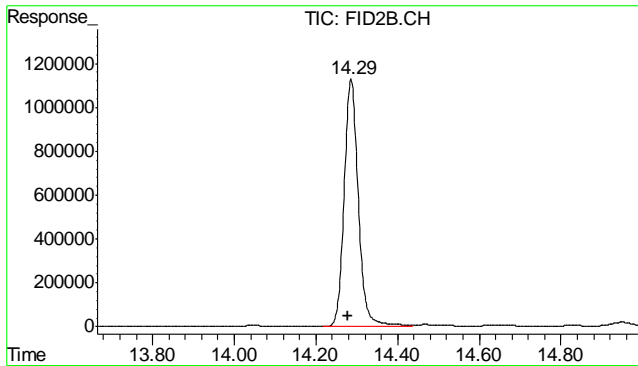
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.153 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 10.347 min  
 Delta R.T.: 0.007 min  
 Response: 122815  
 Conc: 0.20 ug/L

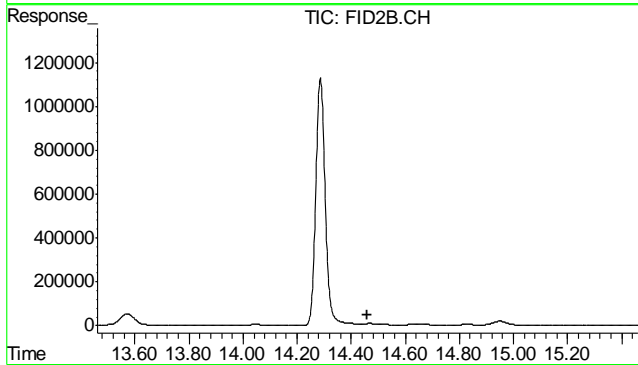


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.850 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.286 min  
 Delta R.T.: 0.007 min  
 Response: 27125196  
 Conc: 88.20 %



#11 Naphthalene

R.T.: 0.000 min  
 Exp R.T. : 14.461 min  
 Response: 0  
 Conc: N.D.

6.1.15

6

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3499.D Vial: 4  
 Acq On : 30 Mar 2011 12:35 pm Operator: jacobb  
 Sample : MB Inst : FID4  
 Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Mar 30 12:39:12 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Tue Jan 11 10:48:20 2011  
 Response via : Initial Calibration  
 DataAcq Meth : GAS.M

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

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) S Propane	2.15	13516011	365.264 rawvp
Target Compounds			

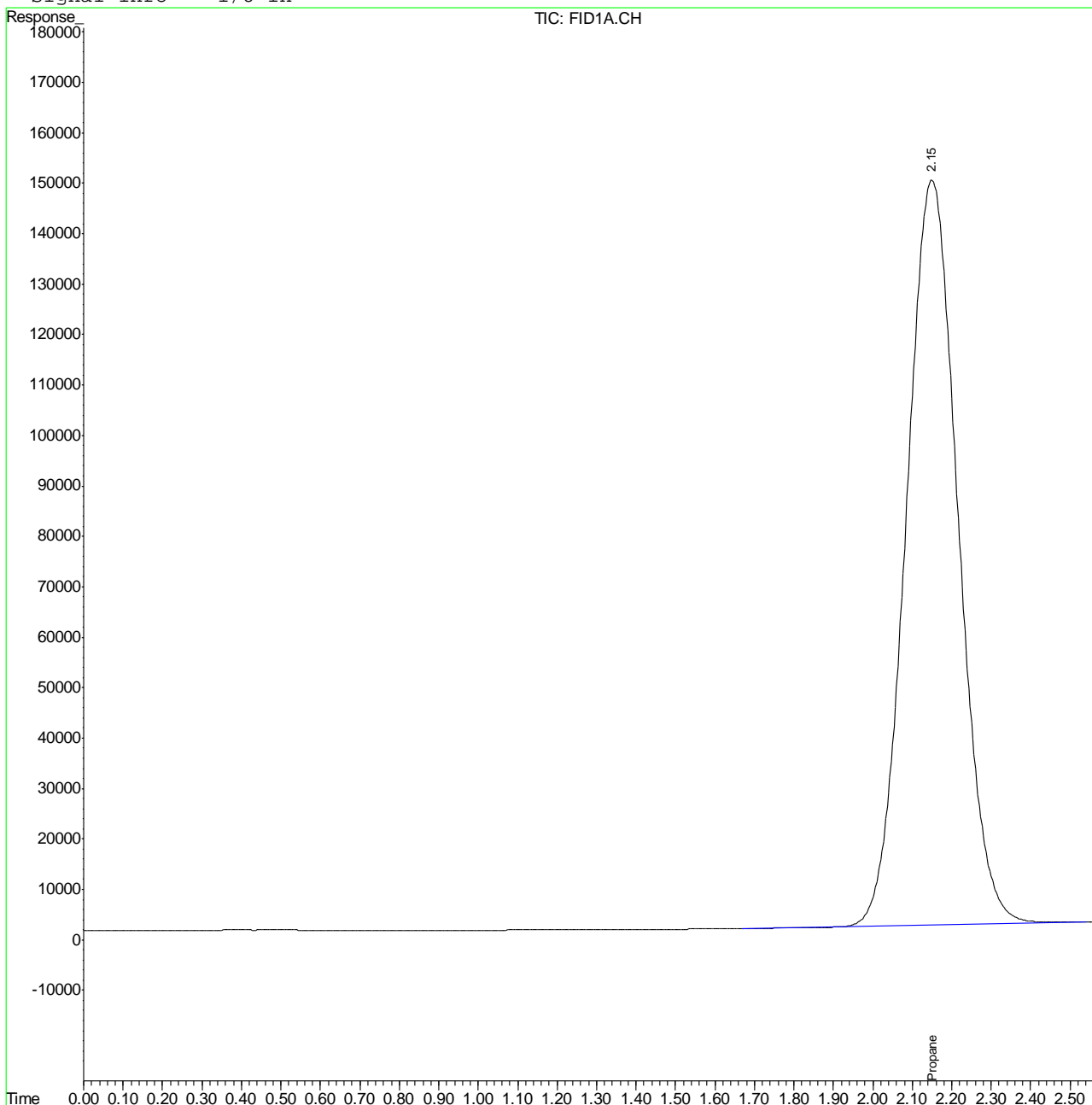
-----  
 (f)=RT Delta > 1/2 Window (m)=manual int.  
 FB3499.D MEEP-GFB91.M Thu Mar 31 12:21:46 2011 GCFA

Quantitation Report (QT Reviewed)

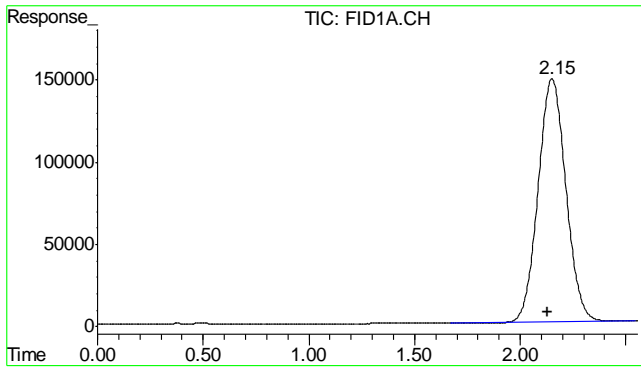
Data File : F:\DATA\FB033011\FB3499.D Vial: 4  
 Acq On : 30 Mar 2011 12:35 pm Operator: jacobb  
 Sample : MB Inst : FID4  
 Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Mar 30 13:45 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Tue Jan 11 10:48:20 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : GAS.M

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







#4 Propane  
R.T.: 2.150 min  
Delta R.T.: 0.022 min  
Response: 13516011  
Conc: 365.26 rawvppm

Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0169.D\FID1A.CH Vial: 17  
 Signal #2 : Y:\1\DATA\032911\BTEX\TB0169.D\FID2B.CH  
 Acq On : 30 Mar 2011 12:16 am Operator: BrianR  
 Sample : MB, W Inst : GC/MS Ins  
 Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Mar 30 11:31:44 2011 Quant Results File: TB510GB510.RES

Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Thu Mar 10 09:05:18 2011  
 Response via : Initial Calibration  
 DataAcq Meth : TVB4.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

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	0.00	0	N.D.	% d
10) S 1,2,4-Trichlorobenzene (P)	14.29	27585873	89.698	%
Target Compounds				
1) H TVH-Gasoline	0.00	0	N.D.	mg/L
4) T Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T Benzene	0.00	0	N.D.	ug/L d
6) T Toluene	7.51	267327	0.447	ug/L
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	10.35	167807	0.268	ug/L
9) T o-Xylene	0.00	0	N.D.	ug/L d
11) T Naphthalene	14.47	1270903	1.564	ug/L

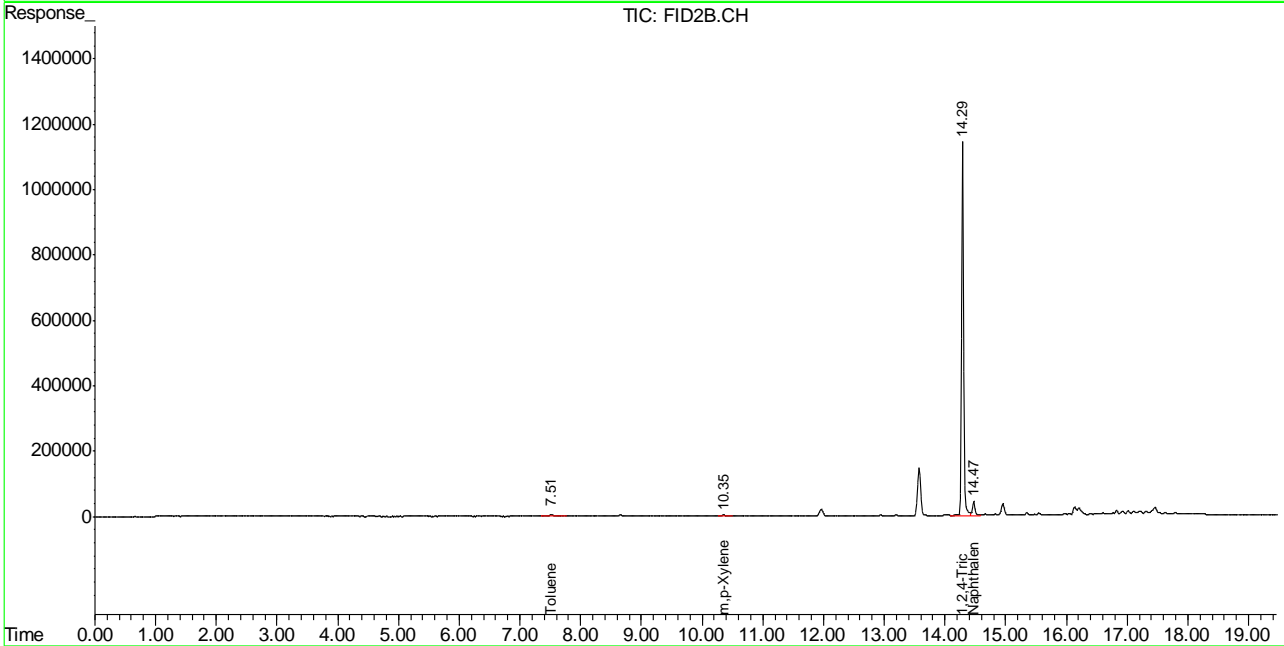
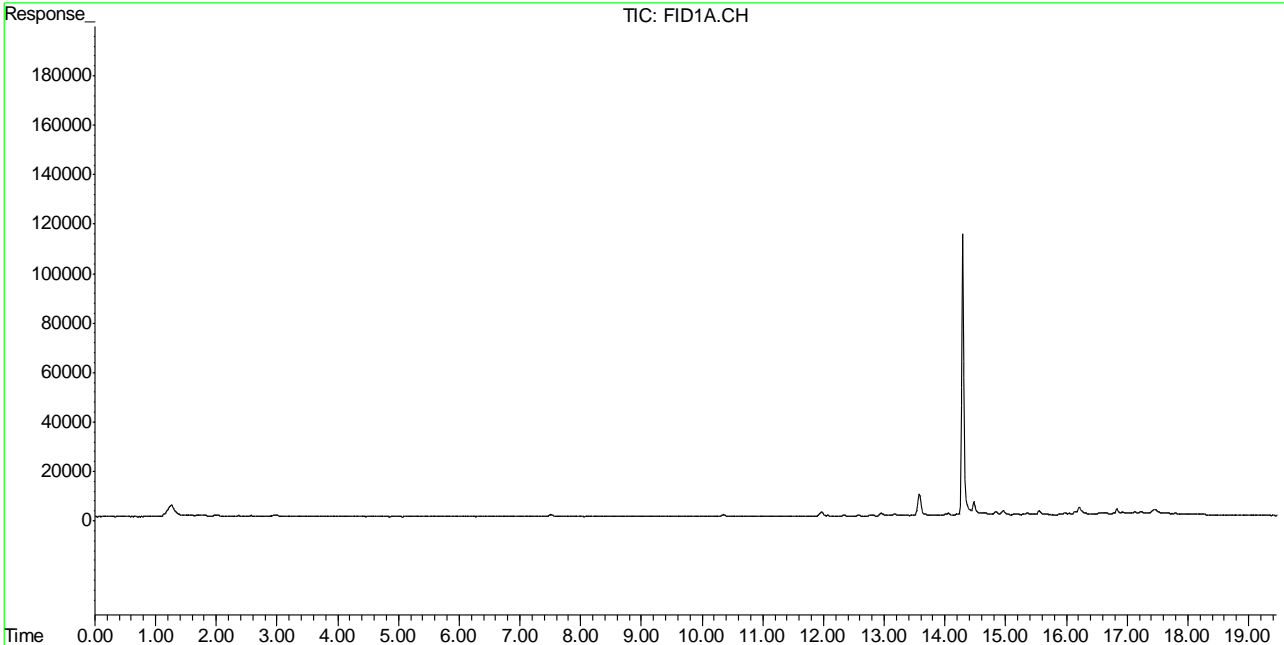
(f)=RT Delta > 1/2 Window (m)=manual int.  
 TB0169.D TB510GB510.M Wed Mar 30 11:46:00 2011 GC

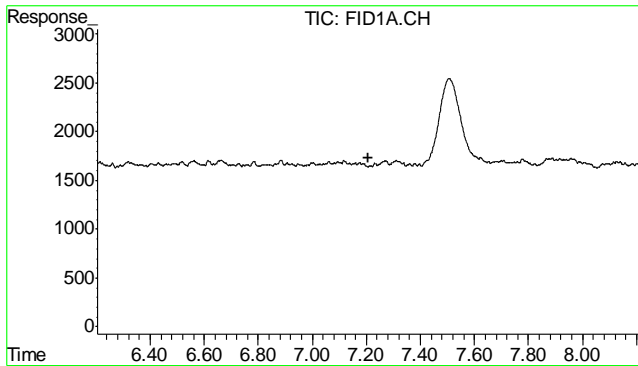
Quantitation Report (QT Reviewed)

Signal #1 : Y:\1\DATA\032911\BTEX\TB0169.D\FID1A.CH Vial: 17  
 Signal #2 : Y:\1\DATA\032911\BTEX\TB0169.D\FID2B.CH  
 Acq On : 30 Mar 2011 12:16 am Operator: BrianR  
 Sample : MB, W Inst : GC/MS Ins  
 Misc : GC1767,GTB553,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Mar 30 11:36 2011 Quant Results File: TB510GB510.RES

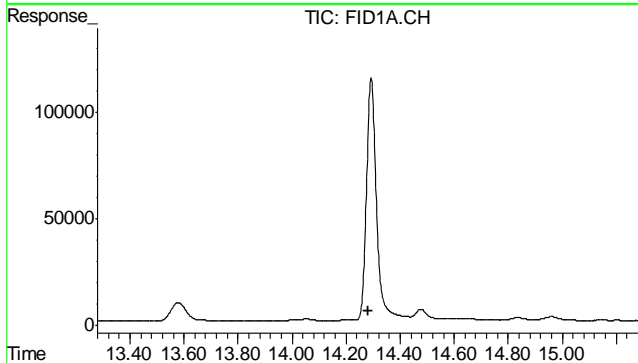
Quant Method : C:\MSDCHEM\1\METHODS\TB510GB510.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Thu Mar 10 09:05:18 2011  
 Response via : Single Level Calibration  
 DataAcq Meth : TVB4.M

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

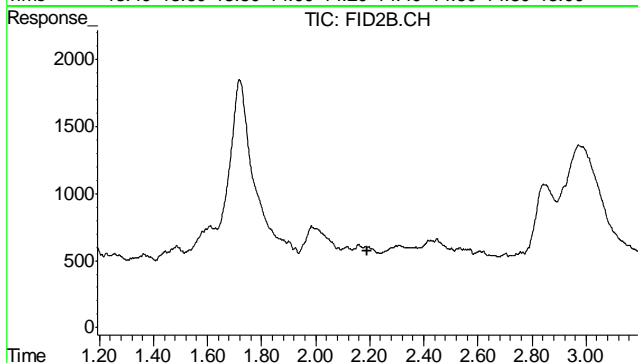




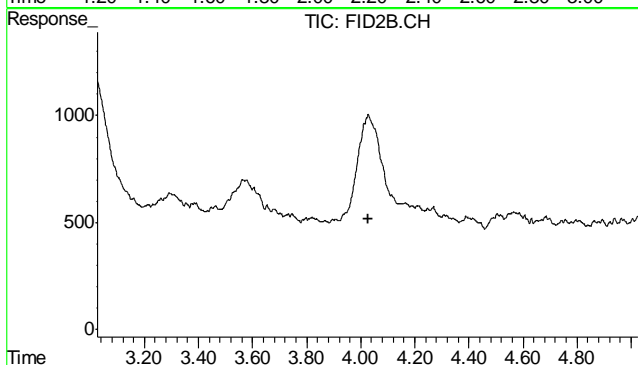
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.205 min  
 Response: 0  
 Conc: N.D.



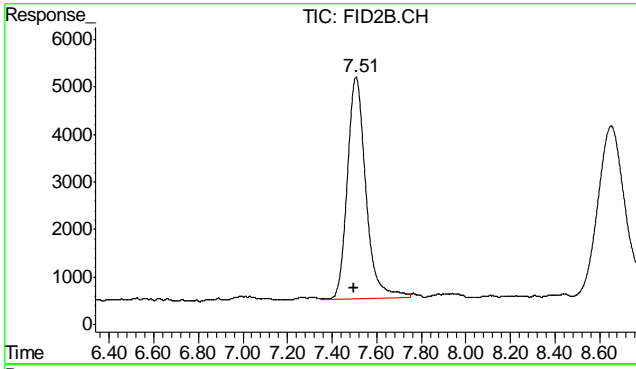
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.280 min  
 Response: 0  
 Conc: N.D.



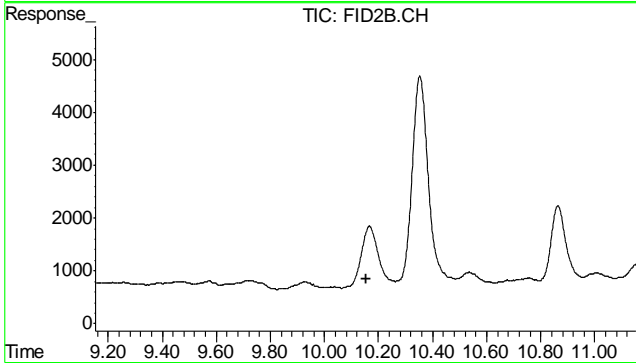
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.192 min  
 Response: 0  
 Conc: N.D.



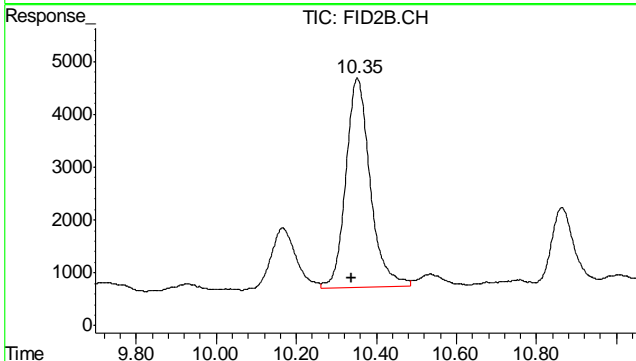
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.026 min  
 Response: 0  
 Conc: N.D.



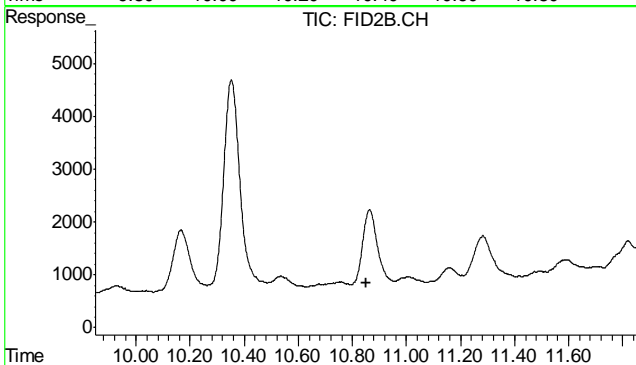
#6 Toluene  
 R.T.: 7.508 min  
 Delta R.T.: 0.010 min  
 Response: 267327  
 Conc: 0.45 ug/L



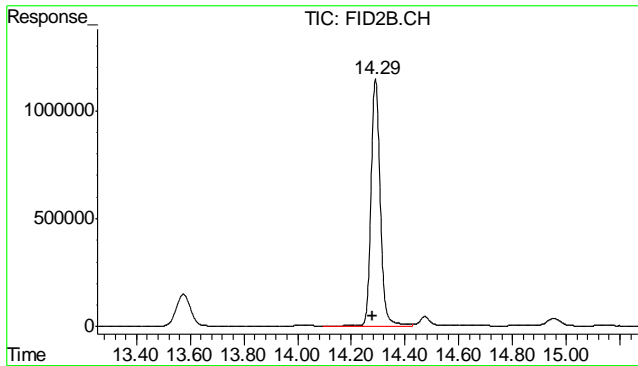
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.153 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 10.353 min  
 Delta R.T.: 0.013 min  
 Response: 167807  
 Conc: 0.27 ug/L

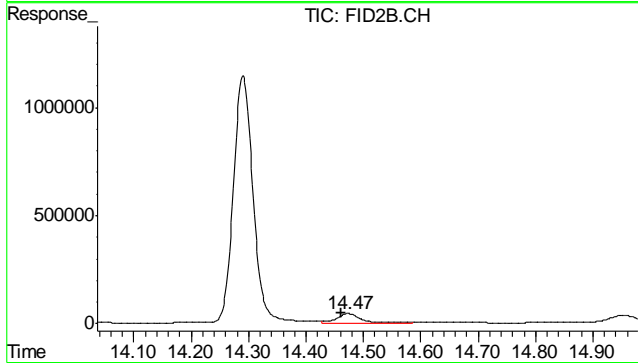


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.850 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.290 min  
 Delta R.T.: 0.011 min  
 Response: 27585873  
 Conc: 89.70 %



#11 Naphthalene

R.T.: 14.474 min  
 Delta R.T.: 0.013 min  
 Response: 1270903  
 Conc: 1.56 ug/L

## Metals Analysis

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: D22152  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

QC Batch ID: MP4350  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 03/30/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	7	49		
Antimony	30	1.7	13		
Arsenic	25	2.8	6.5		
Barium	10	.14	2.4		
Beryllium	10	1.4	4.4		
Boron	50	3.5	19		
Cadmium	10	.22	1.2		
Calcium	400	17	9.2		
Chromium	10	.27	1.6		
Cobalt	5.0	.48	.3		
Copper	10	1.6	2.7		
Iron	70	7.7	10		
Lead	50	1.3	3.2		
Lithium	2.0	.76	1.6		
Magnesium	200	5.8	12		
Manganese	5.0	.21	.7		
Molybdenum	10	.41	1.2		
Nickel	30	.38	.6		
Phosphorus	100	15	54		
Potassium	1000	380	540		
Selenium	50	2.8	7.2		
Silicon	50	12	20		
Silver	30	.98	.3		
Sodium	400	230	23	-110	<400
Strontium	5.0	.091	3.4		
Thallium	10	3.1	2.1		
Tin	50	14	4.4		
Titanium	10	.098	.7		
Uranium	50	2.2	3.9		
Vanadium	10	.27	.3		
Zinc	30	.76	1.7		

Associated samples MP4350: D22152-1F, D22152-2F, D22152-3F, D22152-4F, D22152-5F, D22152-6F, D22152-7F

Results < IDL are shown as zero for calculation purposes  
(\* ) Outside of QC limits

7.1.1  
7



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: D22152  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

QC Batch ID: MP4350  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

7.1.1

7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D22152  
 Account: COCSCOG - Olsson Associates - Denver  
 Project: Divide Creek Quarterly

QC Batch ID: MP4350  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 03/30/11

Metal	D22152-1F Original MS	SpikeLot MPICPALL % Rec		QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt				
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel				
Phosphorus				
Potassium	anr			
Selenium				
Silicon				
Silver	anr			
Sodium	359000	391000	25000	128.0(a) 75-125
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	anr			

Associated samples MP4350: D22152-1F, D22152-2F, D22152-3F, D22152-4F, D22152-5F, D22152-6F, D22152-7F

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D22152  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

QC Batch ID: MP4350  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
- (a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D22152  
 Account: COCSCOG - Olsson Associates - Denver  
 Project: Divide Creek Quarterly

QC Batch ID: MP4350  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 03/30/11

Metal	D22152-1F Original MSD	SpikeLot MPICPALL % Rec	MSD RPD	QC Limit		
Aluminum						
Antimony						
Arsenic	anr					
Barium	anr					
Beryllium						
Boron						
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt						
Copper	anr					
Iron	anr					
Lead	anr					
Lithium						
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel						
Phosphorus						
Potassium	anr					
Selenium						
Silicon						
Silver	anr					
Sodium	359000	376000	25000	68.0 (a)	3.9	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc	anr					

Associated samples MP4350: D22152-1F, D22152-2F, D22152-3F, D22152-4F, D22152-5F, D22152-6F, D22152-7F

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits

7.1.2  
 7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D22152  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

QC Batch ID: MP4350  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

- (N) Matrix Spike Rec. outside of QC limits
- (anr) Analyte not requested
- (a) Spike amount low relative to the sample amount. Refer to lab control or spike blank for recovery information.

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D22152  
 Account: COCSCOG - Olsson Associates - Denver  
 Project: Divide Creek Quarterly

QC Batch ID: MP4350  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 03/30/11

Metal	BSP Result	SpikeLot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium	anr			
Beryllium				
Boron				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt				
Copper	anr			
Iron	anr			
Lead	anr			
Lithium				
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel				
Phosphorus				
Potassium	anr			
Selenium				
Silicon				
Silver	anr			
Sodium	26400	25000	105.6	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	anr			

Associated samples MP4350: D22152-1F, D22152-2F, D22152-3F, D22152-4F, D22152-5F, D22152-6F, D22152-7F

Results < IDL are shown as zero for calculation purposes  
 (\*) Outside of QC limits

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D22152  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

QC Batch ID: MP4350  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

(anr) Analyte not requested

## General Chemistry

---

### QC Data Summaries

---

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries



METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D22152  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP4106/GN8916	0.50	0.0	mg/l	20	19.6	98.0	90-110%

Associated Samples:

Batch GP4106: D22152-1, D22152-2, D22152-3, D22152-4, D22152-5, D22152-6, D22152-7

(\*) Outside of QC limits

8.1

8

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D22152  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP4106/GN8916	D22152-6	mg/l	6.3	10	16.7	104.0	80-120%

Associated Samples:

Batch GP4106: D22152-1, D22152-2, D22152-3, D22152-4, D22152-5, D22152-6, D22152-7

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

8.2

8

MATRIX SPIKE DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D22152  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP4106/GN8916	D22152-6	mg/l	6.3	10	16.9	1.2	20%

Associated Samples:

Batch GP4106: D22152-1, D22152-2, D22152-3, D22152-4, D22152-5, D22152-6, D22152-7

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits



Technical Report for

Olsson Associates - Denver

Divide Creek Quarterly

West

Accutest Job Number: D22181

Sampling Date: 03/29/11

Report to:

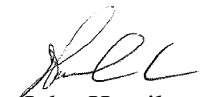
Olsson Associates  
4690 Table Mountain Drive Suite 200  
Golden, CO 80403  
bstephenson@oaconsulting.com

ATTN: Brad Stephenson

Total number of pages in report: **198**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.



John Hamilton  
Laboratory Director

Client Service contact: Amanda Kissell 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

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Test results relate only to samples analyzed.

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## Sample Summary

Olsson Associates - Denver

**Job No:** D22181

Divide Creek Quarterly  
Project No: West

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D22181-1	03/29/11	10:25 SH	03/30/11	AQ	Ground Water	DCS1
D22181-1F	03/29/11	10:25 SH	03/30/11	AQ	Groundwater Filtered	DCS1
D22181-2	03/29/11	10:40 SH	03/30/11	AQ	Ground Water	DCS2
D22181-2F	03/29/11	10:40 SH	03/30/11	AQ	Groundwater Filtered	DCS2
D22181-3	03/29/11	10:40 SH	03/30/11	AQ	Ground Water	DCS2-D
D22181-3F	03/29/11	10:40 SH	03/30/11	AQ	Groundwater Filtered	DCS2-D
D22181-4	03/29/11	10:55 SH	03/30/11	AQ	Ground Water	DCS3
D22181-4F	03/29/11	10:55 SH	03/30/11	AQ	Groundwater Filtered	DCS3
D22181-5	03/29/11	11:45 SH	03/30/11	AQ	Ground Water	DCS4
D22181-5F	03/29/11	11:45 SH	03/30/11	AQ	Groundwater Filtered	DCS4
D22181-6	03/29/11	12:05 SH	03/30/11	AQ	Ground Water	DCS5
D22181-6F	03/29/11	12:05 SH	03/30/11	AQ	Groundwater Filtered	DCS5
D22181-7	03/29/11	12:15 SH	03/30/11	AQ	Ground Water	DCS6



## Sample Summary

(continued)

Olsson Associates - Denver

Job No: D22181

Divide Creek Quarterly  
Project No: West

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D22181-7F	03/29/11	12:15 SH	03/30/11	AQ	Groundwater Filtered	DCS6
D22181-8	03/29/11	12:30 SH	03/30/11	AQ	Ground Water	DCS7
D22181-8F	03/29/11	12:30 SH	03/30/11	AQ	Groundwater Filtered	DCS7
D22181-9	03/29/11	12:45 SH	03/30/11	AQ	Ground Water	DCS8
D22181-9F	03/29/11	12:45 SH	03/30/11	AQ	Groundwater Filtered	DCS8
D22181-10	03/29/11	10:00 BS	03/30/11	AQ	Ground Water	MW2
D22181-10F	03/29/11	10:00 BS	03/30/11	AQ	Groundwater Filtered	MW2
D22181-11	03/29/11	10:30 BS	03/30/11	AQ	Ground Water	MW6
D22181-11F	03/29/11	10:30 BS	03/30/11	AQ	Groundwater Filtered	MW6
D22181-12	03/29/11	11:00 BS	03/30/11	AQ	Ground Water	MW7
D22181-12F	03/29/11	11:00 BS	03/30/11	AQ	Groundwater Filtered	MW7
D22181-13	03/29/11	00:00 SH	03/30/11	AQ	Trip Blank Water	TRIP BLANK



## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Olsson Associates - Denver

**Job No** D22181

**Site:** Divide Creek Quarterly

**Report Dat** 4/7/2011 11:39:31 AM

On 03/30/2011, 12 sample(s), 1 Trip Blank(s), and 0 Field Blank(s) were received at Accutest Mountain States (AMS) at a temperature of 3.2 °C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D22181 was assigned to the project. The lab sample IDs, client sample IDs, and dates of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### Volatiles by GC By Method RSK175 MOD

<b>Matrix</b> AQ	<b>Batch ID:</b> GFB103
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D22181-9MS, D22181-9MSD were used as the QC samples indicated.

### Volatiles by GC By Method SW846 8021B

<b>Matrix</b> AQ	<b>Batch ID:</b> GTA601
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D22183-1MS, D22183-1MSD were used as the QC samples indicated.

<b>Matrix</b> AQ	<b>Batch ID:</b> GTA602
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D22181-7MS, D22181-7MSD were used as the QC samples indicated.

### Metals By Method SW846 6010B

<b>Matrix</b> AQ	<b>Batch ID:</b> MP4364
------------------	-------------------------

- All samples were digested and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D22181-1FMS, D22181-1FMSD were used as the QC samples for the metals analysis.

### Wet Chemistry By Method EPA 300/SW846 9056

<b>Matrix</b> AQ	<b>Batch ID:</b> GP4117
------------------	-------------------------

- All samples were prepared and analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) D22183-13MS, D22183-13MSD were used as the QC samples for the Chloride analysis.

AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Sample Results

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Report of Analysis

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## Report of Analysis

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<b>Client Sample ID:</b> DCS1	
<b>Lab Sample ID:</b> D22181-1	<b>Date Sampled:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 03/30/11
<b>Method:</b> RSK175 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3553.D	1	04/05/11	JB	n/a	n/a	GFB103
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.0012	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b> DCS1	
<b>Lab Sample ID:</b> D22181-1	<b>Date Sampled:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 03/30/11
<b>Method:</b> SW846 8021B	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0849.D	1	03/31/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	103%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> DCS1	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-1	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	16.6	0.50	mg/l	1	03/31/11 10:51	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> DCS1	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-1F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	72600	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4364

---

RL = Reporting Limit

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b>	DCS2		<b>Date Sampled:</b>	03/29/11
<b>Lab Sample ID:</b>	D22181-2		<b>Date Received:</b>	03/30/11
<b>Matrix:</b>	AQ - Ground Water		<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSK175 MOD			
<b>Project:</b>	Divide Creek Quarterly			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3569.D	1	04/05/11	JB	n/a	n/a	GFB103
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.00086	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



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## Report of Analysis

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<b>Client Sample ID:</b> DCS2	
<b>Lab Sample ID:</b> D22181-2	<b>Date Sampled:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 03/30/11
<b>Method:</b> SW846 8021B	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0850.D	1	03/31/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	103%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> DCS2	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-2	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	16.7	0.50	mg/l	1	03/31/11 11:04	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> DCS2	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-2F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	75400	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4364

---

RL = Reporting Limit

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> DCS2-D		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-3		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> RSK175 MOD		
<b>Project:</b> Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3570.D	1	04/05/11	JB	n/a	n/a	GFB103
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.00089	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

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<b>Client Sample ID:</b> DCS2-D		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-3		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0851.D	1	03/31/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	102%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> DCS2-D	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-3	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	16.8	0.50	mg/l	1	03/31/11 11:16	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> DCS2-D	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-3F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	76700	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4364

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RL = Reporting Limit

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## Report of Analysis

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<b>Client Sample ID:</b> DCS3		
<b>Lab Sample ID:</b> D22181-4		<b>Date Sampled:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 03/30/11
<b>Method:</b> RSK175 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3571.D	1	04/05/11	JB	n/a	n/a	GFB103
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.00080	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



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<b>Client Sample ID:</b> DCS3	
<b>Lab Sample ID:</b> D22181-4	<b>Date Sampled:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 03/30/11
<b>Method:</b> SW846 8021B	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0852.D	1	03/31/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	101%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> DCS3	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-4	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	16.7	0.50	mg/l	1	03/31/11 11:29	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis



<b>Client Sample ID:</b> DCS3	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-4F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	74900	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4364

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RL = Reporting Limit

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<b>Client Sample ID:</b> DCS4	
<b>Lab Sample ID:</b> D22181-5	<b>Date Sampled:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 03/30/11
<b>Method:</b> RSK175 MOD	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3572.D	1	04/05/11	JB	n/a	n/a	GFB103
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.00149	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b> DCS4	
<b>Lab Sample ID:</b> D22181-5	<b>Date Sampled:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 03/30/11
<b>Method:</b> SW846 8021B	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0853.D	1	03/31/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	100%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> DCS4	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-5	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	17.5	0.50	mg/l	1	03/31/11 11:41	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> DCS4	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-5F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	75900	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4364

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RL = Reporting Limit

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<b>Client Sample ID:</b>	DCS5		<b>Date Sampled:</b>	03/29/11
<b>Lab Sample ID:</b>	D22181-6		<b>Date Received:</b>	03/30/11
<b>Matrix:</b>	AQ - Ground Water		<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSK175 MOD			
<b>Project:</b>	Divide Creek Quarterly			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3559.D	1	04/05/11	JB	n/a	n/a	GFB103
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.00180	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



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<b>Client Sample ID:</b> DCS5	
<b>Lab Sample ID:</b> D22181-6	<b>Date Sampled:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 03/30/11
<b>Method:</b> SW846 8021B	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0854.D	1	03/31/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	104%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> DCS5	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-6	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	17.4	0.50	mg/l	1	03/31/11 11:54	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> DCS5	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-6F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	73200	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4364

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RL = Reporting Limit

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<b>Client Sample ID:</b> DCS6							
<b>Lab Sample ID:</b> D22181-7				<b>Date Sampled:</b> 03/29/11			
<b>Matrix:</b> AQ - Ground Water				<b>Date Received:</b> 03/30/11			
<b>Method:</b> RSK175 MOD				<b>Percent Solids:</b> n/a			
<b>Project:</b> Divide Creek Quarterly							

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3560.D	1	04/05/11	JB	n/a	n/a	GFB103
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.00442	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b> DCS6	
<b>Lab Sample ID:</b> D22181-7	<b>Date Sampled:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 03/30/11
<b>Method:</b> SW846 8021B	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0858.D	1	03/31/11	BR	n/a	n/a	GTA602
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	104%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> DCS6	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-7	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	16.6	0.50	mg/l	1	03/31/11 12:07	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> DCS6	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-7F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	71800	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4364

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RL = Reporting Limit

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<b>Client Sample ID:</b>	DCS7		<b>Date Sampled:</b>	03/29/11
<b>Lab Sample ID:</b>	D22181-8		<b>Date Received:</b>	03/30/11
<b>Matrix:</b>	AQ - Ground Water		<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSK175 MOD			
<b>Project:</b>	Divide Creek Quarterly			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3561.D	1	04/05/11	JB	n/a	n/a	GFB103
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.00219	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



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<b>Client Sample ID:</b> DCS7	
<b>Lab Sample ID:</b> D22181-8	<b>Date Sampled:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 03/30/11
<b>Method:</b> SW846 8021B	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0861.D	1	03/31/11	BR	n/a	n/a	GTA602
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	101%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> DCS7	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-8	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	17.3	0.50	mg/l	1	03/31/11 12:19	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> DCS7	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-8F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	72800	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4364

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RL = Reporting Limit

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<b>Client Sample ID:</b>	DCS8		<b>Date Sampled:</b>	03/29/11
<b>Lab Sample ID:</b>	D22181-9		<b>Date Received:</b>	03/30/11
<b>Matrix:</b>	AQ - Ground Water		<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSK175 MOD			
<b>Project:</b>	Divide Creek Quarterly			

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3562.D	1	04/05/11	JB	n/a	n/a	GFB103
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.00157	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b> DCS8	
<b>Lab Sample ID:</b> D22181-9	<b>Date Sampled:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water	<b>Date Received:</b> 03/30/11
<b>Method:</b> SW846 8021B	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0862.D	1	03/31/11	BR	n/a	n/a	GTA602
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	100%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> DCS8	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-9	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	17.4	0.50	mg/l	1	03/31/11 12:57	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> DCS8	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-9F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	75200	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4364

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RL = Reporting Limit

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<b>Client Sample ID:</b> MW2		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-10		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> RSK175 MOD		
<b>Project:</b> Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3573.D	20	04/05/11	JB	n/a	n/a	GFB103
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	8.20	0.016	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



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<b>Client Sample ID:</b> MW2		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-10		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0863.D	1	03/31/11	BR	n/a	n/a	GTA602
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	57.5	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	14.5	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	99%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW2	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-10	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	45.2	0.50	mg/l	1	03/31/11 13:10	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW2	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-10F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	119000	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4364

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RL = Reporting Limit

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> MW6		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-11		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> RSK175 MOD		
<b>Project:</b> Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3564.D	1	04/05/11	JB	n/a	n/a	GFB103
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> MW6		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-11		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0864.D	1	03/31/11	BR	n/a	n/a	GTA602
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	100%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW6	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-11	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	27.3	0.50	mg/l	1	03/31/11 13:22	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW6	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-11F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	103000	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4364

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RL = Reporting Limit

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b>	MW7	<b>Date Sampled:</b>	03/29/11
<b>Lab Sample ID:</b>	D22181-12	<b>Date Received:</b>	03/30/11
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSK175 MOD		
<b>Project:</b>	Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3565.D	1	04/05/11	JB	n/a	n/a	GFB103
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



Accutest Laboratories

## Report of Analysis

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3

<b>Client Sample ID:</b> MW7		
<b>Lab Sample ID:</b> D22181-12		<b>Date Sampled:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 03/30/11
<b>Method:</b> SW846 8021B		<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0865.D	1	03/31/11	BR	n/a	n/a	GTA602
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	99%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW7	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-12	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	35.1	0.50	mg/l	1	03/31/11 13:35	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW7	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22181-12F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	119000	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4364

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RL = Reporting Limit

Accutest Laboratories

## Report of Analysis

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3

<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	03/29/11
<b>Lab Sample ID:</b>	D22181-13	<b>Date Received:</b>	03/30/11
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8021B		
<b>Project:</b>	Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0866.D	1	03/31/11	BR	n/a	n/a	GTA602
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	100%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody



## Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D22181

Client: OLSSON

Immediate Client Services Action Required: No

Date / Time Received: 3/30/2011 8:45:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: WEST DIVIDE CREEK QUARTERLY

Airbill #'s: FEDEX

<u>Cooler Security</u>	<u>Y or N</u>		<u>Y or N</u>	
1. Custody Seals Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/> <input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/> <input type="checkbox"/>

<u>Cooler Temperature</u>	<u>Y or N</u>	
1. Temp criteria achieved:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Cooler temp verification:	Infrared gun	
3. Cooler media:	Ice (bag)	

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Sample Integrity - Documentation</u>	<u>Y or N</u>	
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>	<input type="checkbox"/>

<u>Sample Integrity - Condition</u>	<u>Y or N</u>	
1. Sample recvd within HT:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
3. Condition of sample:	Intact	

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume rec'd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

4.1  
4

## GC Volatiles

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5

## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries



## Method Blank Summary

**Job Number:** D22181  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFB103-MB	FB3543.D	1	04/05/11	JB	n/a	n/a	GFB103

The QC reported here applies to the following samples:

Method: RSK175 MOD

D22181-1, D22181-2, D22181-3, D22181-4, D22181-5, D22181-6, D22181-7, D22181-8, D22181-9, D22181-10, D22181-11, D22181-12

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.00080	0.00080	mg/l	

**Method Blank Summary**

**Job Number:** D22181  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA601-MB	TA0830.D	1	03/30/11	BR	n/a	n/a	GTA601

The QC reported here applies to the following samples:

Method: SW846 8021B

D22181-1, D22181-2, D22181-3, D22181-4, D22181-5, D22181-6

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	122% 60-140%

**Method Blank Summary**

**Job Number:** D22181  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA602-MB	TA0856.D	1	03/31/11	BR	n/a	n/a	GTA602

The QC reported here applies to the following samples:

Method: SW846 8021B

D22181-7, D22181-8, D22181-9, D22181-10, D22181-11, D22181-12, D22181-13

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	103% 60-140%

# Blank Spike Summary

**Job Number:** D22181  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA601-BS	TA0831.D	1	03/30/11	BR	n/a	n/a	GTA601

The QC reported here applies to the following samples:

Method: SW846 8021B

D22181-1, D22181-2, D22181-3, D22181-4, D22181-5, D22181-6

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	27.2	26.2	96	70-130
100-41-4	Ethylbenzene	45.6	43.4	95	70-130
108-88-3	Toluene	212	196	93	70-130
1330-20-7	Xylenes (total)	246	216	88	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	125%	60-140%

# Blank Spike Summary

**Job Number:** D22181  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA602-BS	TA0857.D	1	03/31/11	BR	n/a	n/a	GTA602

The QC reported here applies to the following samples:

Method: SW846 8021B

D22181-7, D22181-8, D22181-9, D22181-10, D22181-11, D22181-12, D22181-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	27.2	22.8	84	70-130
100-41-4	Ethylbenzene	45.6	37.2	82	70-130
108-88-3	Toluene	212	169	80	70-130
1330-20-7	Xylenes (total)	246	185	75	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	107%	60-140%

# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** D22181  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFB103-BS	FB3544.D	1	04/05/11	JB	n/a	n/a	GFB103
GFB103-BSD	FB3546.D	10	04/05/11	JB	n/a	n/a	GFB103

The QC reported here applies to the following samples:

Method: RSK175 MOD

D22181-1, D22181-2, D22181-3, D22181-4, D22181-5, D22181-6, D22181-7, D22181-8, D22181-9, D22181-10, D22181-11, D22181-12

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
74-82-8	Methane	0.5094	0.655	129	0.632	124	4	70-130/30

5.3.1  
5

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** D22181  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D22181-9MS	FB3574.D	10	04/05/11	JB	n/a	n/a	GFB103
D22181-9MSD	FB3575.D	10	04/05/11	JB	n/a	n/a	GFB103
D22181-9	FB3562.D	1	04/05/11	JB	n/a	n/a	GFB103

The QC reported here applies to the following samples:

Method: RSK175 MOD

D22181-1, D22181-2, D22181-3, D22181-4, D22181-5, D22181-6, D22181-7, D22181-8, D22181-9, D22181-10, D22181-11, D22181-12

CAS No.	Compound	D22181-9 mg/l	Spike Q mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
74-82-8	Methane	0.00157	0.5094	0.595	117	0.590	116	1	70-130/30

5.4.1  
5

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** D22181  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D22183-1MS	TA0833.D	1	03/30/11	BR	n/a	n/a	GTA601
D22183-1MSD	TA0834.D	1	03/30/11	BR	n/a	n/a	GTA601
D22183-1	TA0832.D	1	03/30/11	BR	n/a	n/a	GTA601

The QC reported here applies to the following samples:

Method: SW846 8021B

D22181-1, D22181-2, D22181-3, D22181-4, D22181-5, D22181-6

CAS No.	Compound	D22183-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	27.2	24.2	89	24.1	89	0	70-130/30
100-41-4	Ethylbenzene	ND	45.6	39.8	87	40.1	88	1	62-130/30
108-88-3	Toluene	ND	212	180	85	181	86	1	70-130/30
1330-20-7	Xylenes (total)	ND	246	198	80	199	81	1	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D22183-1	Limits
120-82-1	1,2,4-Trichlorobenzene	108%	111%	105%	60-140%

5.4.2  
5



# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** D22181  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D22181-7MS	TA0859.D	1	03/31/11	BR	n/a	n/a	GTA602
D22181-7MSD	TA0860.D	1	03/31/11	BR	n/a	n/a	GTA602
D22181-7	TA0858.D	1	03/31/11	BR	n/a	n/a	GTA602

The QC reported here applies to the following samples:

Method: SW846 8021B

D22181-7, D22181-8, D22181-9, D22181-10, D22181-11, D22181-12, D22181-13

CAS No.	Compound	D22181-7 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	27.2	24.4	90	23.9	88	2	70-130/30
100-41-4	Ethylbenzene	ND	45.6	39.7	87	38.6	85	3	62-130/30
108-88-3	Toluene	ND	212	180	85	176	83	2	70-130/30
1330-20-7	Xylenes (total)	ND	246	197	80	192	78	3	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D22181-7	Limits
120-82-1	1,2,4-Trichlorobenzene	107%	107%	104%	60-140%

5.4.3  
5

GC Volatiles

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Raw Data

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Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3553.D Vial: 14
Acq On : 5 Apr 2011 3:29 am Operator: jacobb
Sample : D22181-1 Inst : FID4
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 04 16:04:37 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Rows include System Monitoring Compounds (Propane) and Target Compounds (Methane).

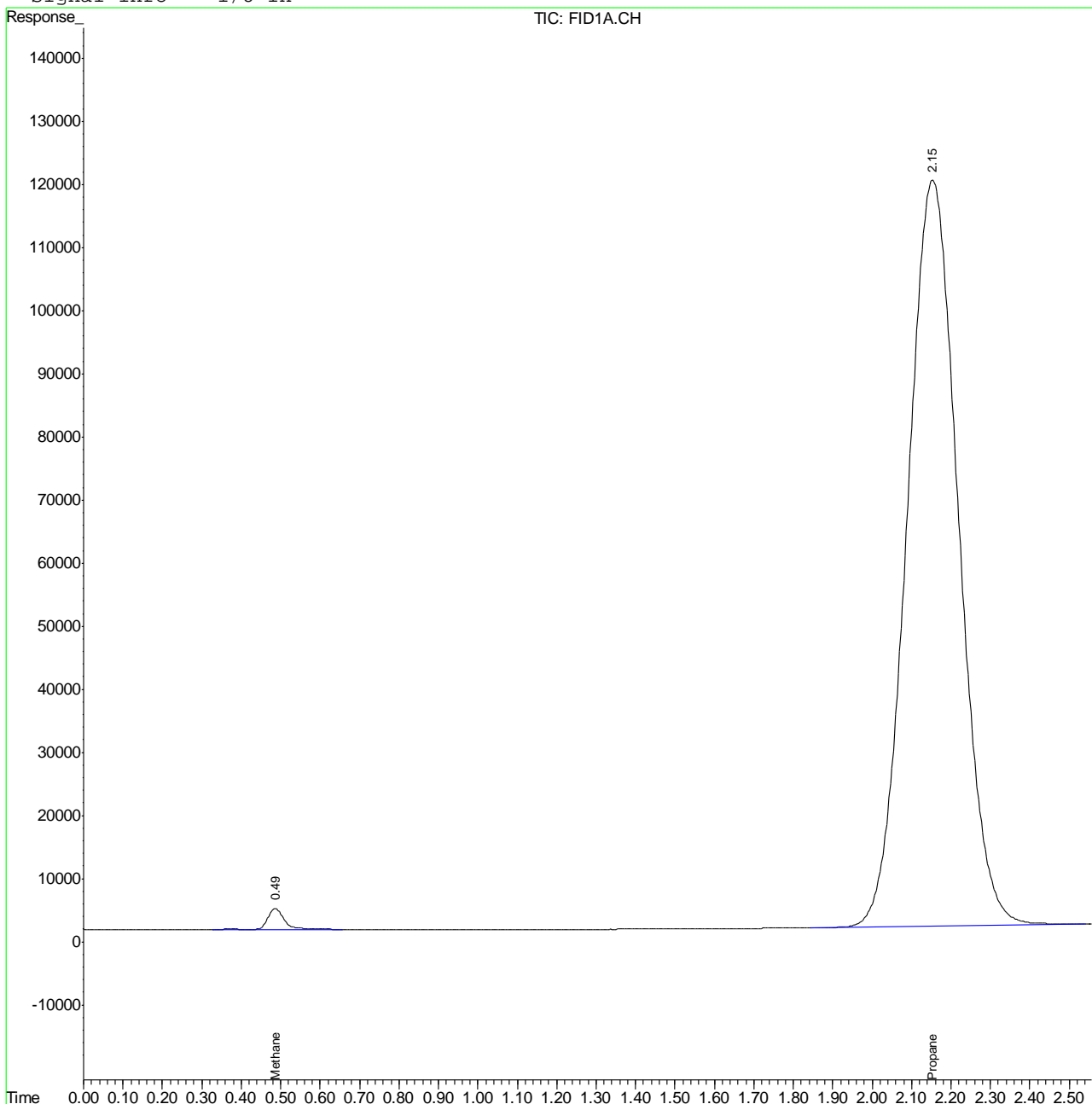
6.1.1
6

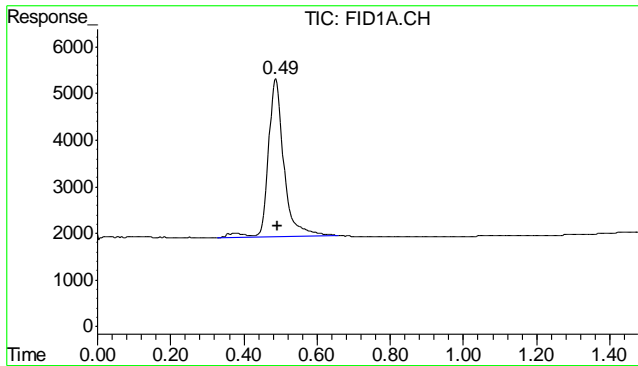
Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3553.D Vial: 14  
Acq On : 5 Apr 2011 3:29 am Operator: jacobb  
Sample : D22181-1 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 5 4:02 2011 Quant Results File: MEEP-GFB91.RES

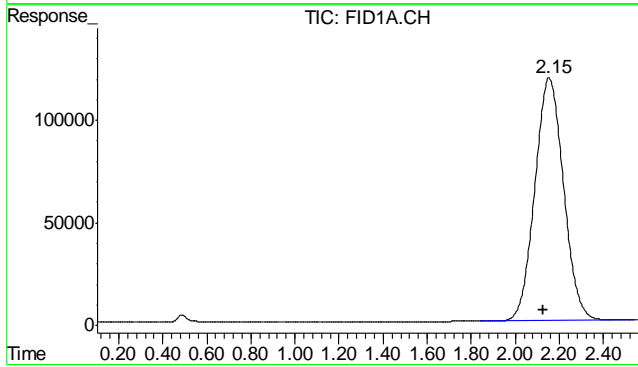
Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#1 Methane  
R.T.: 0.487 min  
Delta R.T.: -0.004 min  
Response: 99536  
Conc: 7.72 rawvppm



#4 Propane  
R.T.: 2.154 min  
Delta R.T.: 0.026 min  
Response: 10701253  
Conc: 289.20 rawvppm

Manual Integrations  
APPROVED  
(compounds with "m" flag)  
John Hamilton  
04/06/11 14:44

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3569.D Vial: 30  
Acq On : 5 Apr 2011 6:12 am Operator: jacobb  
Sample : D22181-2 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 04 18:18:53 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Initial Calibration  
DataAcq Meth : GAS.M

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S Propane	2.15	13116237	354.461 rawvp
Target Compounds			
1) Methane	0.48	74639	5.788 rawvpm

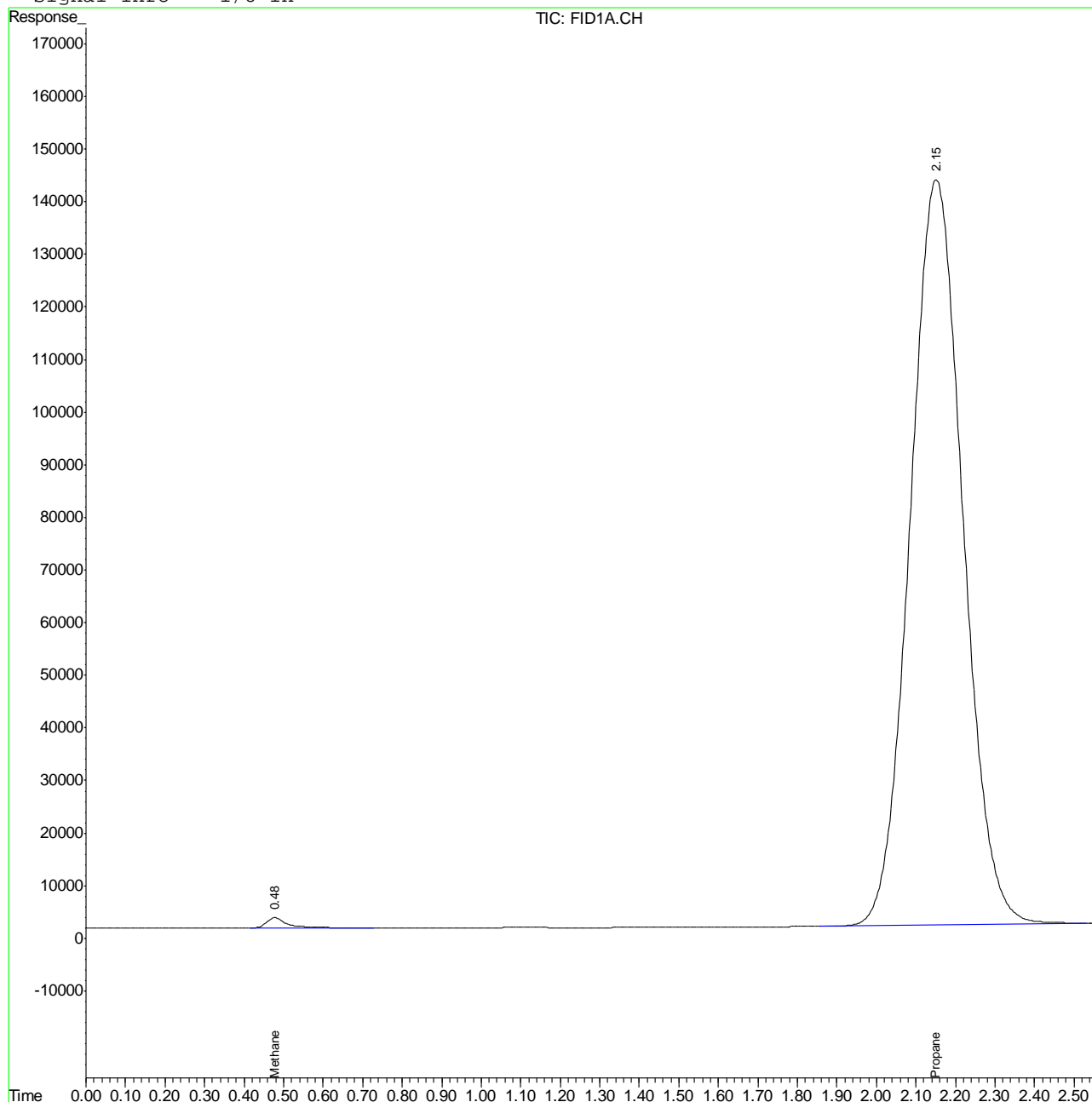
6.1.2  
6

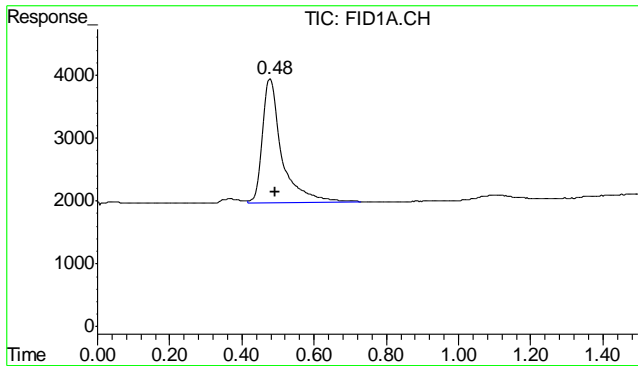
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3569.D Vial: 30  
Acq On : 5 Apr 2011 6:12 am Operator: jacobb  
Sample : D22181-2 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 6 22:25 2011 Quant Results File: MEEP-GFB91.RES

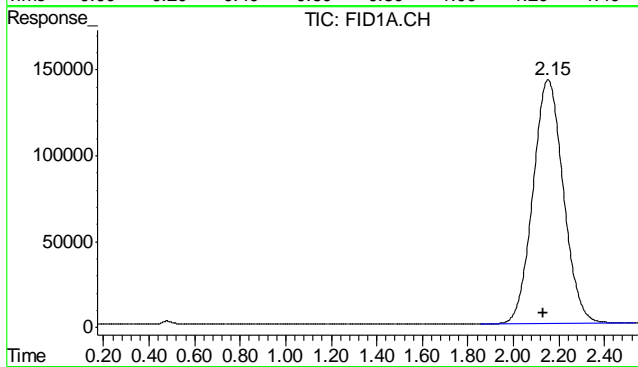
Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#1 Methane  
 R.T.: 0.477 min  
 Delta R.T.: -0.014 min  
 Response: 74639  
 Conc: 5.79 rawvppm m



#4 Propane  
 R.T.: 2.152 min  
 Delta R.T.: 0.024 min  
 Response: 13116237  
 Conc: 354.46 rawvppm

6.1.2  
 6



Manual Integrations  
APPROVED  
(compounds with "m" flag)  
John Hamilton  
04/06/11 14:44

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3570.D Vial: 31  
Acq On : 5 Apr 2011 6:17 am Operator: jacobb  
Sample : D22181-3 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 04 18:29:09 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Initial Calibration  
DataAcq Meth : GAS.M

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S Propane	2.15	12962628	350.309 rawvp
Target Compounds			
1) Methane	0.48	77429	6.004 rawvpm

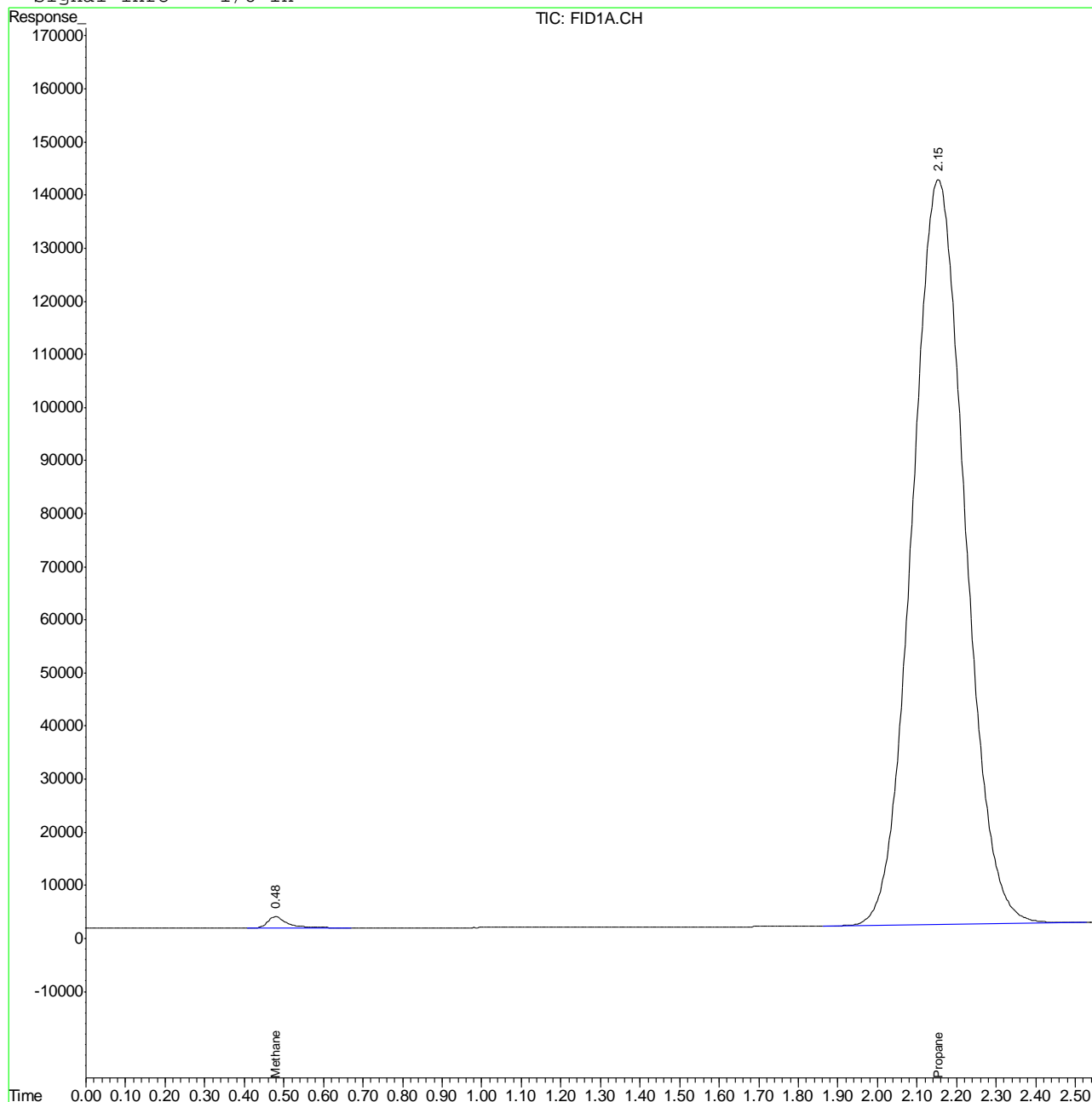
6.1.3  
6

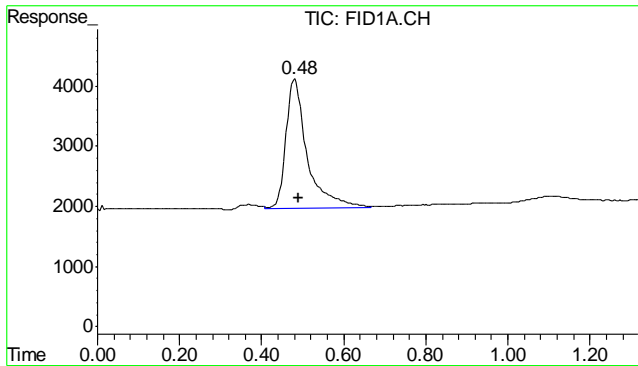
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3570.D Vial: 31  
Acq On : 5 Apr 2011 6:17 am Operator: jacobb  
Sample : D22181-3 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 6 22:26 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





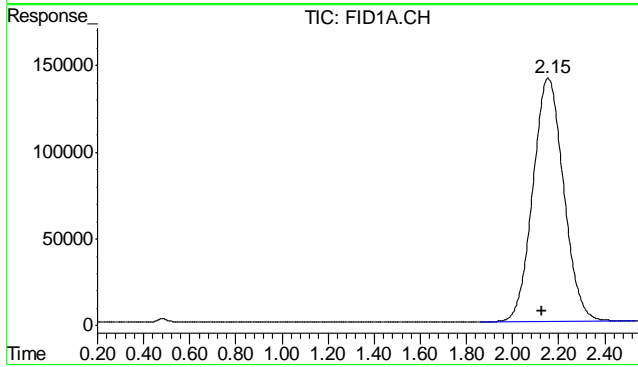
#1 Methane

R.T.: 0.479 min

Delta R.T.: -0.012 min

Response: 77429

Conc: 6.00 rawvppm m



#4 Propane

R.T.: 2.155 min

Delta R.T.: 0.026 min

Response: 12962628

Conc: 350.31 rawvppm

Manual Integrations  
APPROVED  
(compounds with "m" flag)  
John Hamilton  
04/06/11 14:44

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3571.D Vial: 32  
Acq On : 5 Apr 2011 6:21 am Operator: jacobb  
Sample : D22181-4 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 04 18:29:16 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Initial Calibration  
DataAcq Meth : GAS.M

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S Propane	2.16	13068142	353.161 rawvp
Target Compounds			
1) Methane	0.48	69319	5.375 rawvpm

6.1.4  
6

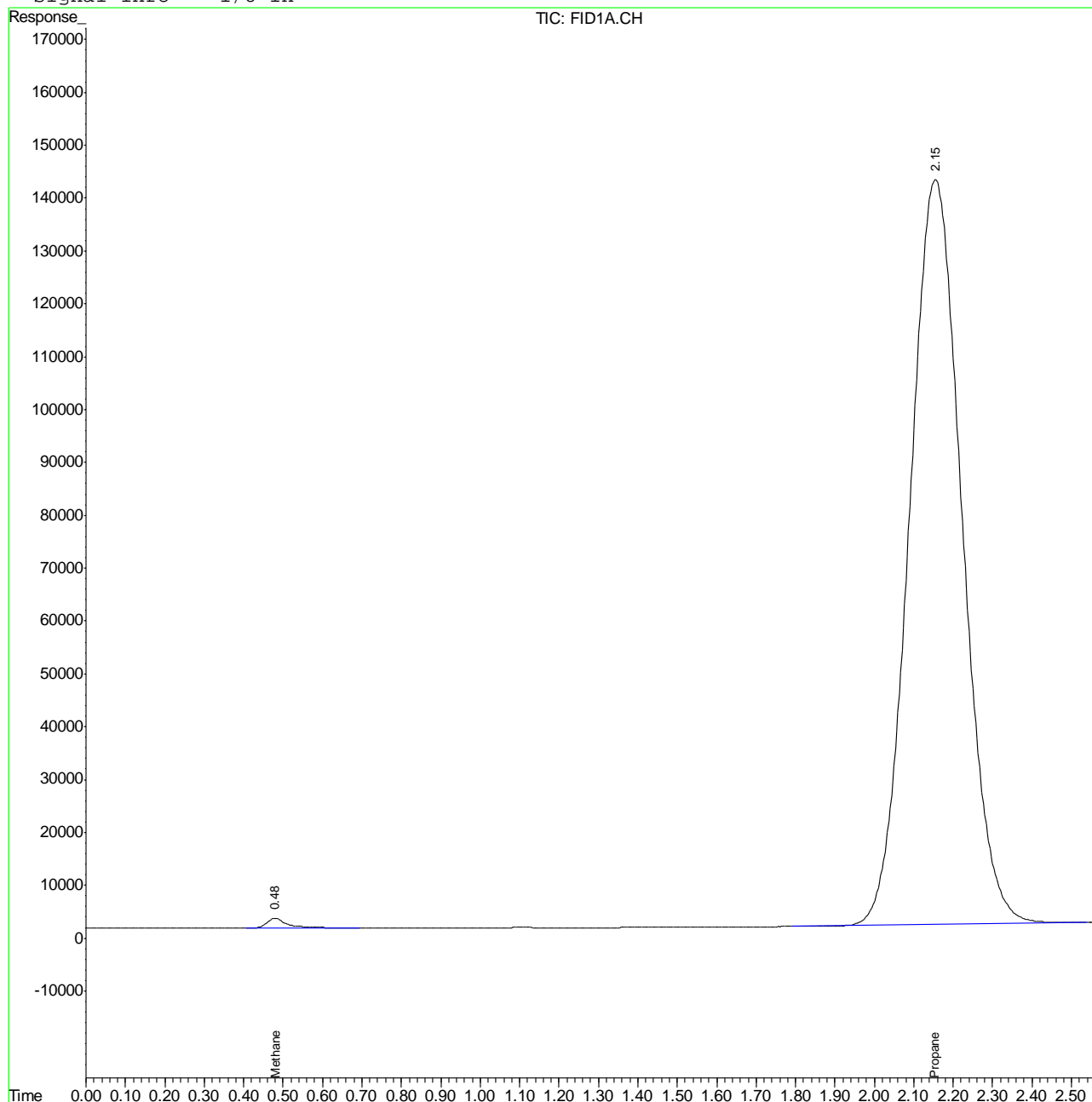
(f)=RT Delta > 1/2 Window (m)=manual int.  
FB3571.D MEEP-GFB91.M Wed Apr 06 10:58:58 2011 GCFA

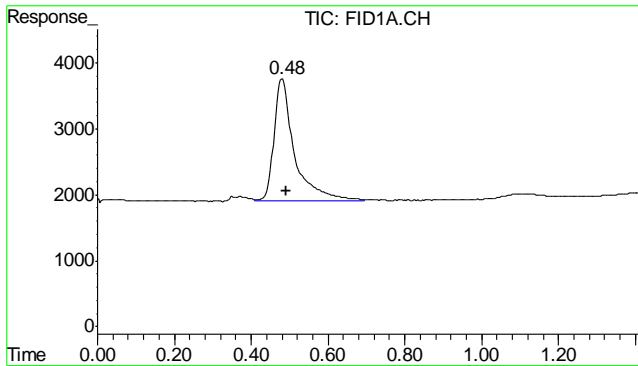
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3571.D Vial: 32  
Acq On : 5 Apr 2011 6:21 am Operator: jacobb  
Sample : D22181-4 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 6 22:41 2011 Quant Results File: MEEP-GFB91.RES

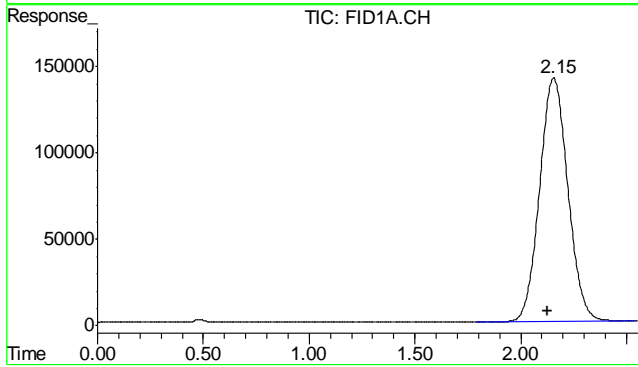
Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#1 Methane  
 R.T.: 0.479 min  
 Delta R.T.: -0.012 min  
 Response: 69319  
 Conc: 5.38 rawvppm m



#4 Propane  
 R.T.: 2.156 min  
 Delta R.T.: 0.027 min  
 Response: 13068142  
 Conc: 353.16 rawvppm

Manual Integrations  
APPROVED  
(compounds with "m" flag)  
John Hamilton  
04/06/11 14:44

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3572.D Vial: 33  
Acq On : 5 Apr 2011 6:27 am Operator: jacobbb  
Sample : D22181-5 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 04 18:33:40 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Initial Calibration  
DataAcq Meth : GAS.M

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S Propane	2.16	13015052	351.726 rawvp
Target Compounds			
1) Methane	0.48	129502	10.042 rawvpm

6.1.5  
6

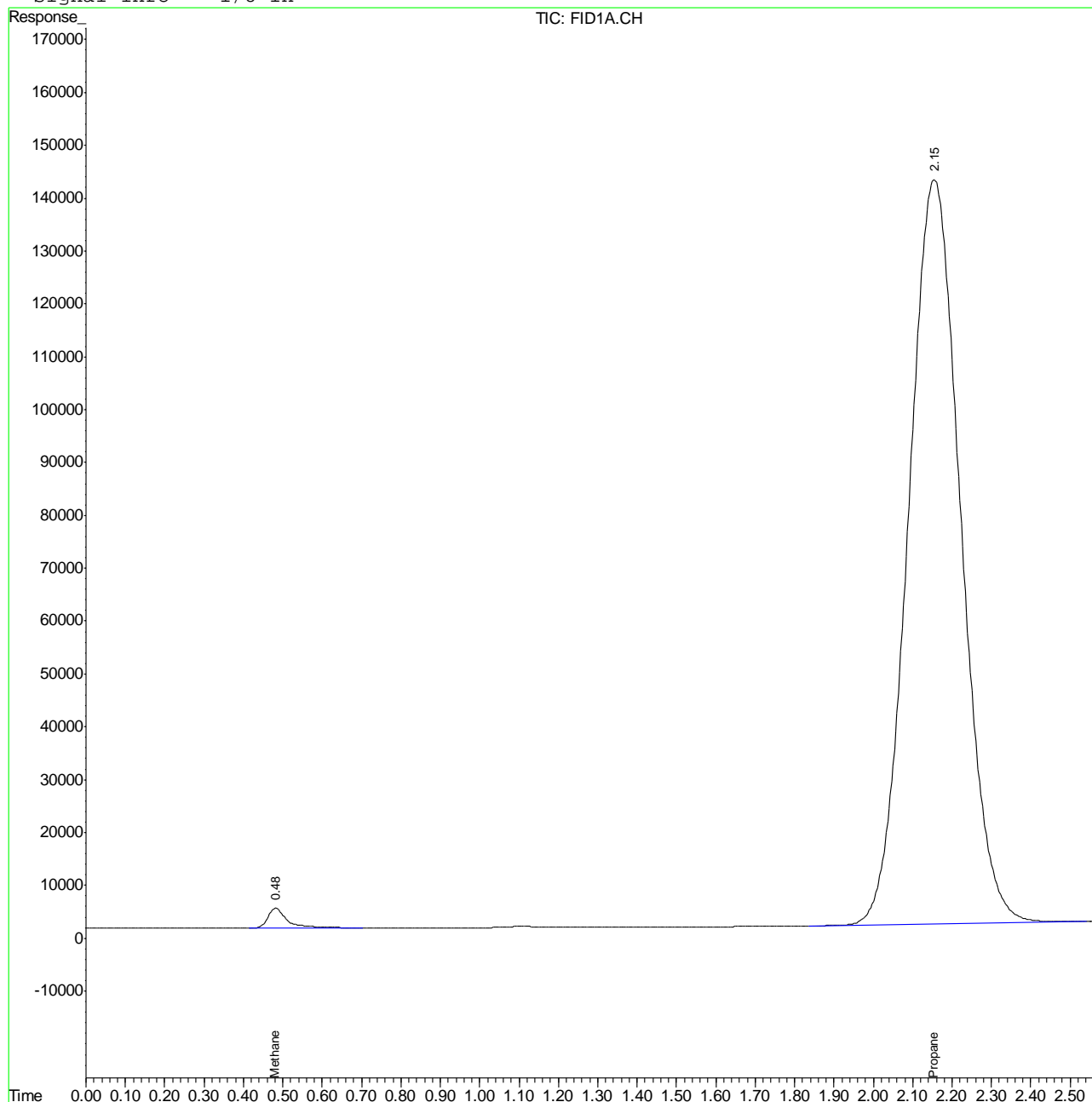
(f)=RT Delta > 1/2 Window (m)=manual int.  
FB3572.D MEEP-GFB91.M Wed Apr 06 10:59:00 2011 GCFA

## Quantitation Report (QT Reviewed)

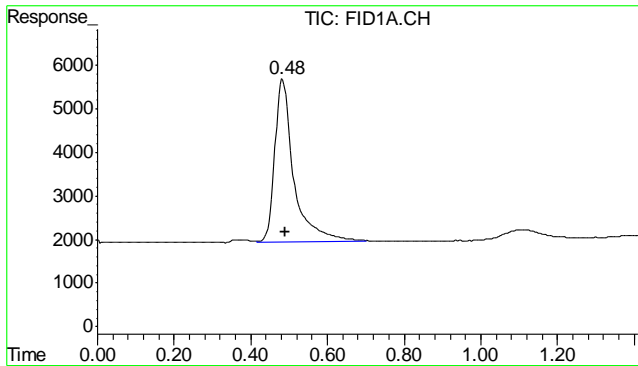
Data File : F:\DATA\FB040411\FB3572.D Vial: 33  
Acq On : 5 Apr 2011 6:27 am Operator: jacobb  
Sample : D22181-5 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 6 22:42 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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







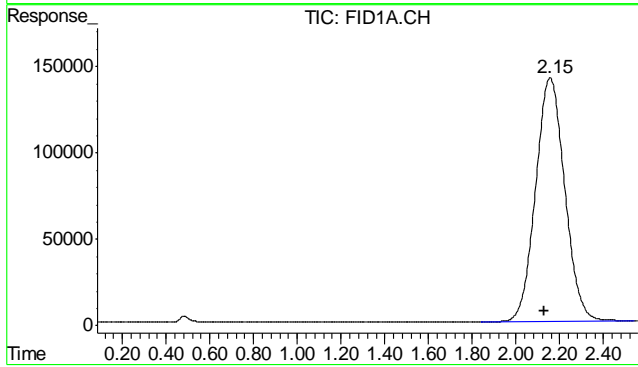
#1 Methane

R.T.: 0.481 min

Delta R.T.: -0.010 min

Response: 129502

Conc: 10.04 rawvppm m



#4 Propane

R.T.: 2.156 min

Delta R.T.: 0.027 min

Response: 13015052

Conc: 351.73 rawvppm

6.1.5

6

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3559.D Vial: 20
Acq On : 5 Apr 2011 4:16 am Operator: jacobb
Sample : D22181-6 Inst : FID4
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 04 17:40:31 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Rows include System Monitoring Compounds (Propane) and Target Compounds (Methane).

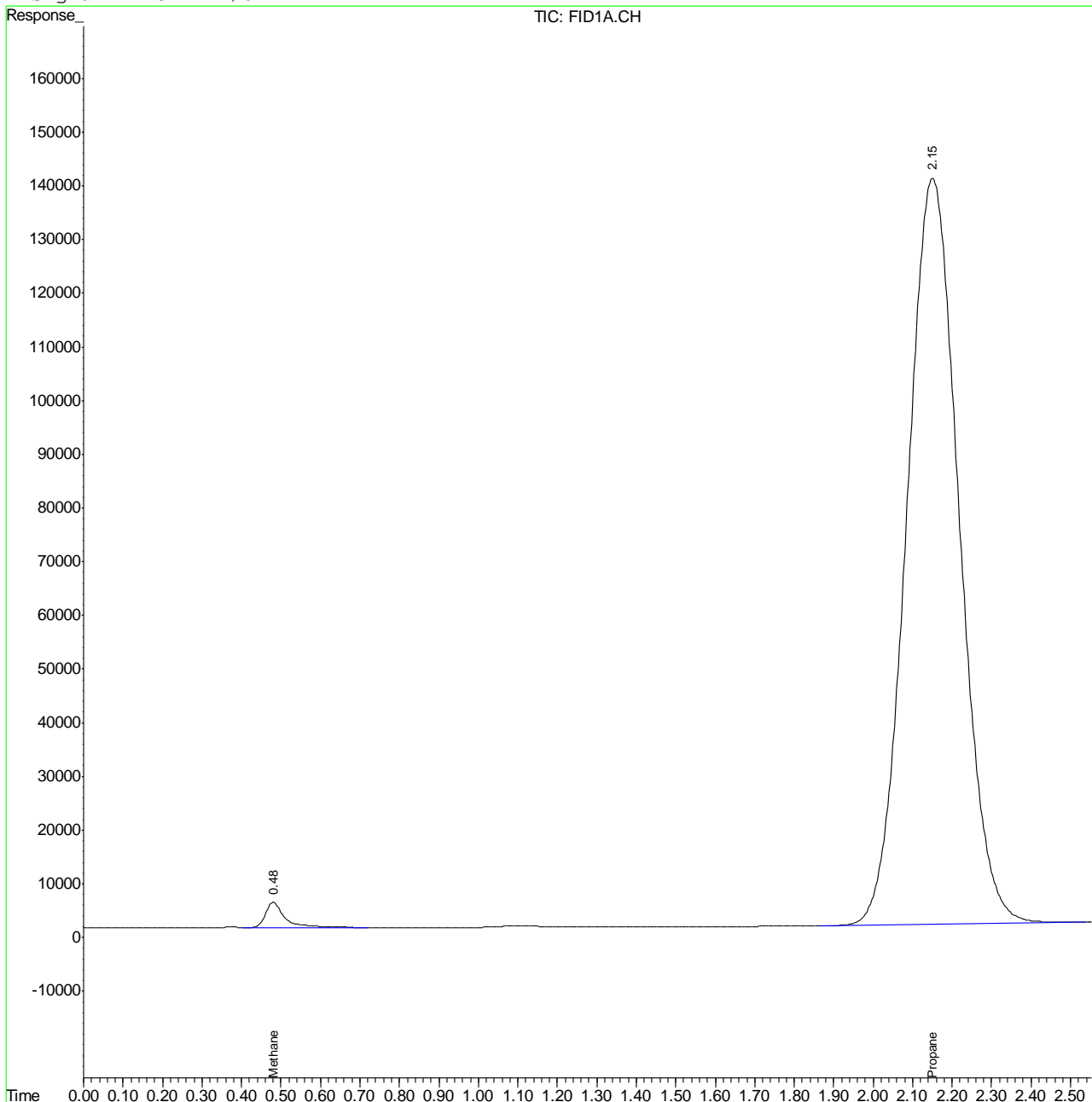
6.1.6
6

Quantitation Report (QT Reviewed)

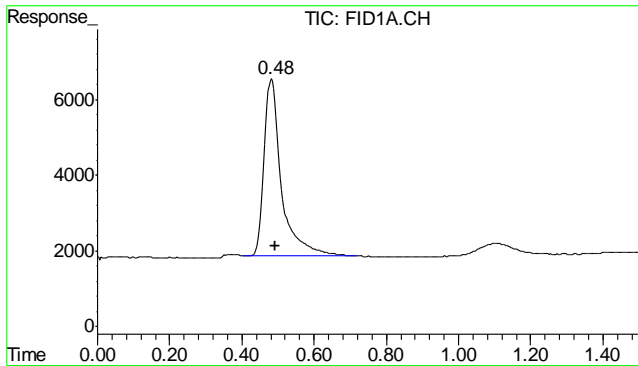
Data File : F:\DATA\FB040411\FB3559.D Vial: 20  
Acq On : 5 Apr 2011 4:16 am Operator: jacobb  
Sample : D22181-6 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 5 5:38 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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



6.1.6  
6



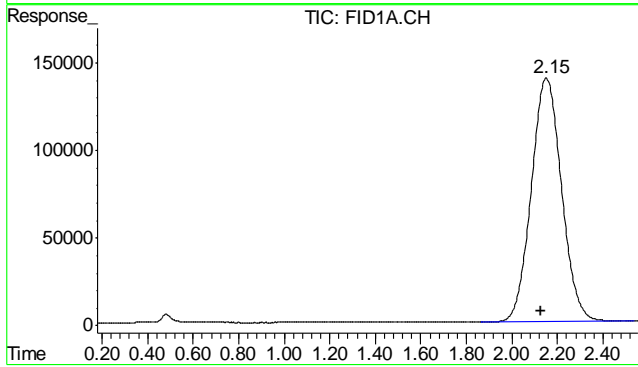
#1 Methane

R.T.: 0.482 min

Delta R.T.: -0.009 min

Response: 155816

Conc: 12.08 rawvppm



#4 Propane

R.T.: 2.151 min

Delta R.T.: 0.023 min

Response: 12827168

Conc: 346.65 rawvppm

Manual Integrations  
APPROVED  
(compounds with "m" flag)  
John Hamilton  
04/06/11 14:44

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3560.D Vial: 21  
Acq On : 5 Apr 2011 4:34 am Operator: jacobb  
Sample : D22181-7 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 04 17:40:34 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Initial Calibration  
DataAcq Meth : GAS.M

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S Propane	2.15	12887920	348.290 rawvp
Target Compounds			
1) Methane	0.48	382745	29.679 rawvpm

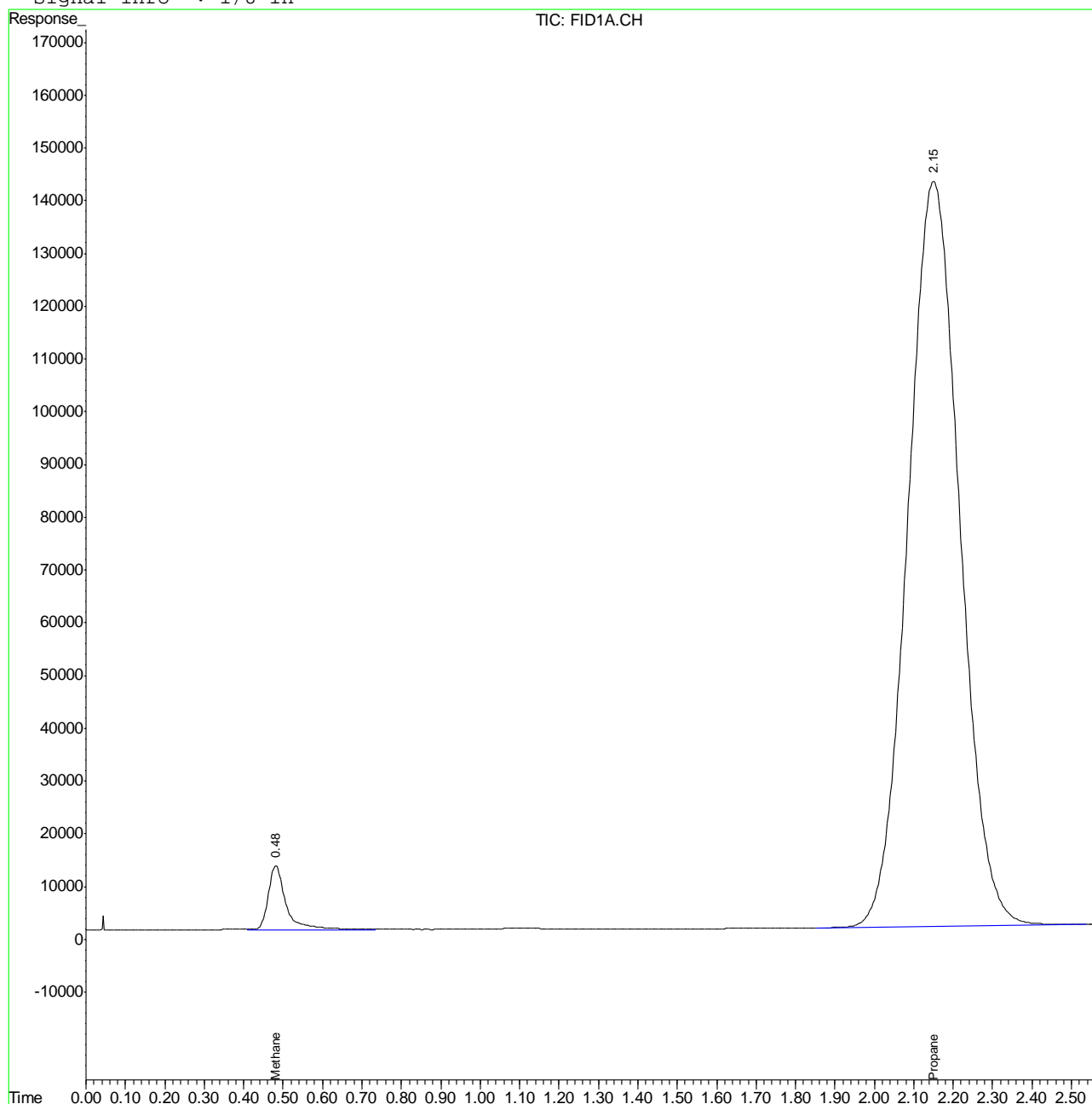
6.1.7  
6

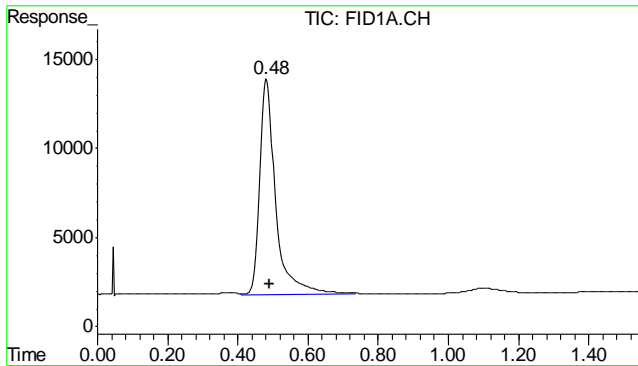
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3560.D Vial: 21  
Acq On : 5 Apr 2011 4:34 am Operator: jacobb  
Sample : D22181-7 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 6 22:17 2011 Quant Results File: MEEP-GFB91.RES

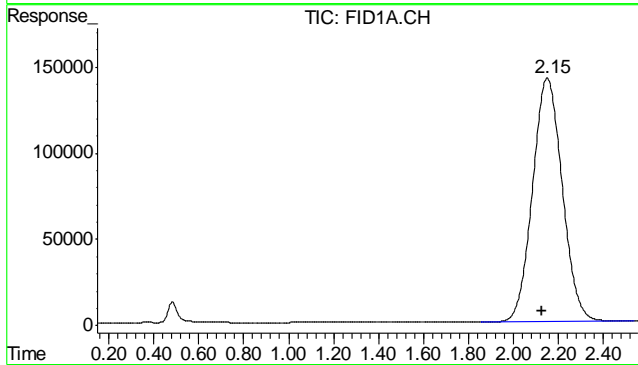
Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#1 Methane  
 R.T.: 0.481 min  
 Delta R.T.: -0.010 min  
 Response: 382745  
 Conc: 29.68 rawvppm m



#4 Propane  
 R.T.: 2.151 min  
 Delta R.T.: 0.023 min  
 Response: 12887920  
 Conc: 348.29 rawvppm

6.1.7  
**6**

Manual Integrations  
APPROVED  
(compounds with "m" flag)  
John Hamilton  
04/06/11 14:44

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3561.D Vial: 22  
Acq On : 5 Apr 2011 4:42 am Operator: jacobb  
Sample : D22181-8 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 04 17:40:37 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Initial Calibration  
DataAcq Meth : GAS.M

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S Propane	2.15	13019853	351.856 rawvp
Target Compounds			
1) Methane	0.48	189950	14.729 rawvpm

6.18  
6

(f)=RT Delta > 1/2 Window (m)=manual int.  
FB3561.D MEEP-GFB91.M Wed Apr 06 10:58:37 2011 GCFA

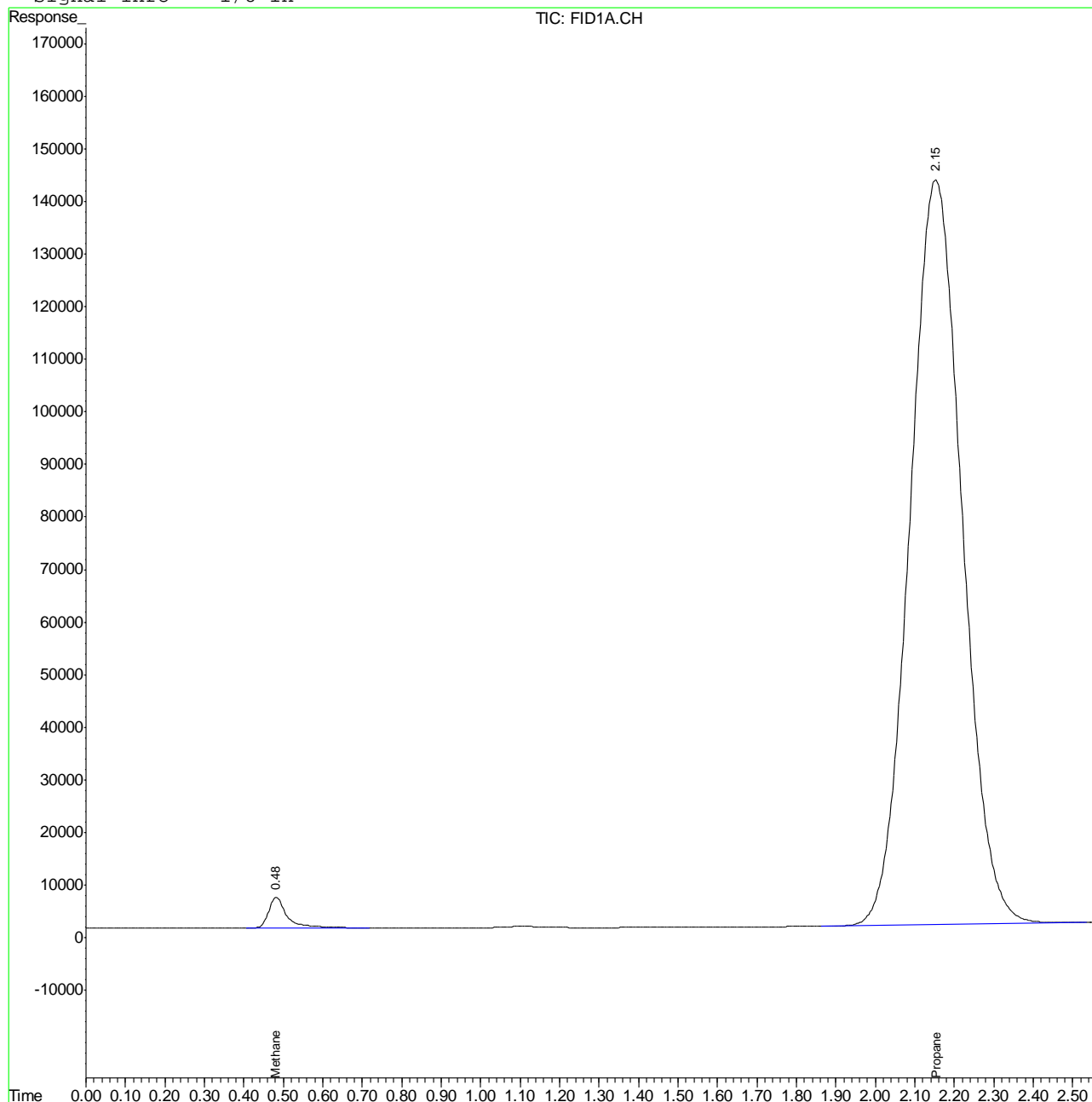


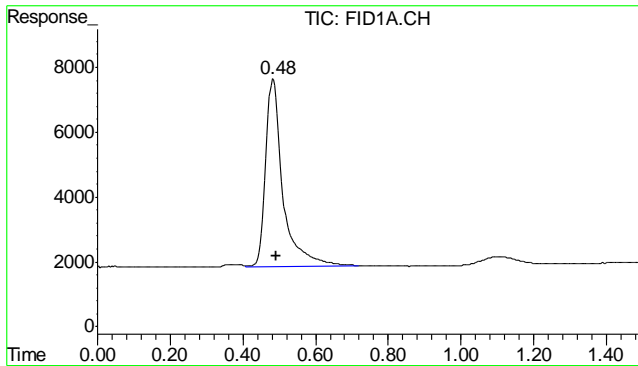
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3561.D Vial: 22  
Acq On : 5 Apr 2011 4:42 am Operator: jacobb  
Sample : D22181-8 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 6 22:18 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





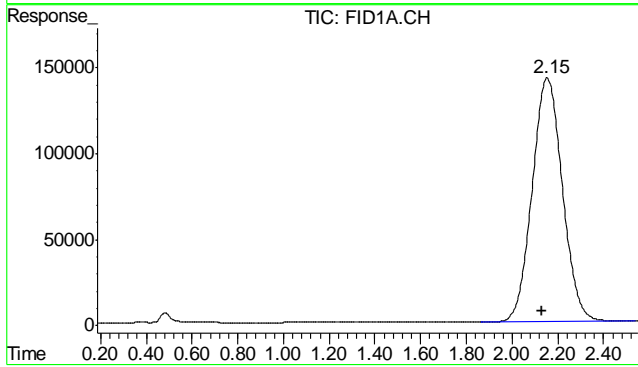
#1 Methane

R.T.: 0.481 min

Delta R.T.: -0.010 min

Response: 189950

Conc: 14.73 rawvppm m



#4 Propane

R.T.: 2.154 min

Delta R.T.: 0.025 min

Response: 13019853

Conc: 351.86 rawvppm

Manual Integrations  
**APPROVED**  
 (compounds with "m" flag)  
**John Hamilton**  
**04/06/11 14:44**

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3562.D Vial: 23  
 Acq On : 5 Apr 2011 4:46 am Operator: jacobb  
 Sample : D22181-9 Inst : FID4  
 Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Apr 04 17:40:40 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Tue Jan 11 10:48:20 2011  
 Response via : Initial Calibration  
 DataAcq Meth : GAS.M

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

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) S Propane	2.15	12893809	348.450 rawvp
Target Compounds			
1) Methane	0.48	135981	10.544 rawvpm

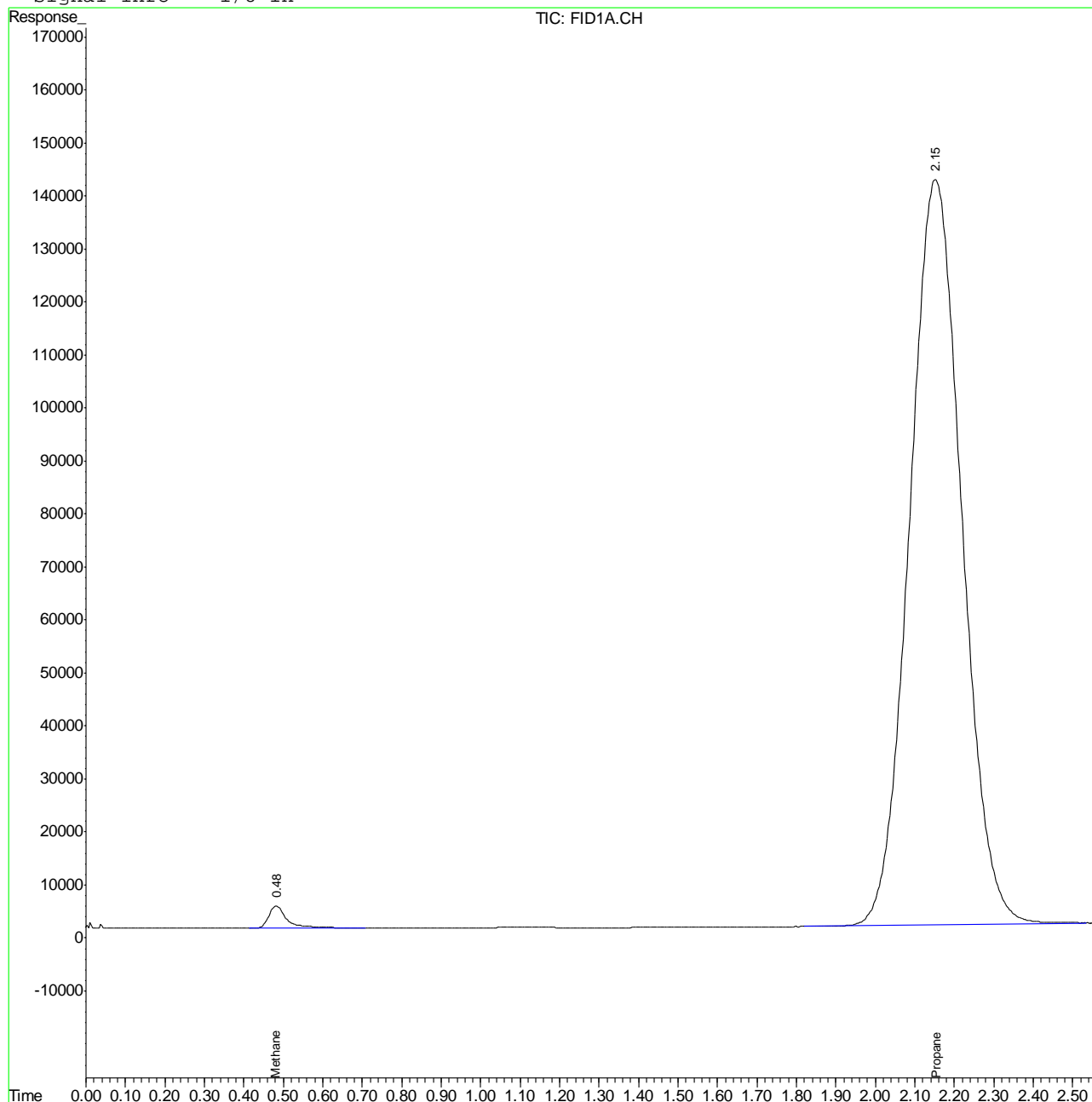
6.1.9  
**6**

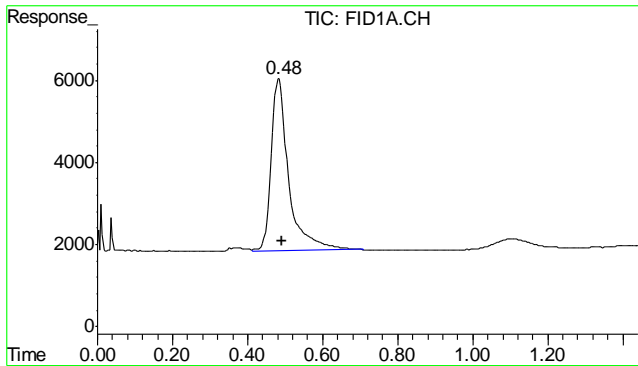
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3562.D Vial: 23  
Acq On : 5 Apr 2011 4:46 am Operator: jacobb  
Sample : D22181-9 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 6 22:18 2011 Quant Results File: MEEP-GFB91.RES

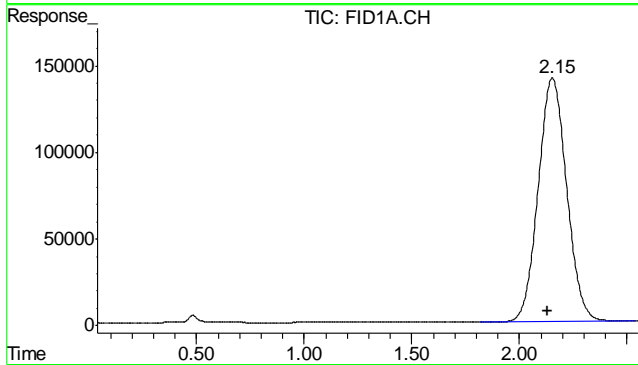
Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#1 Methane  
 R.T.: 0.482 min  
 Delta R.T.: -0.009 min  
 Response: 135981  
 Conc: 10.54 rawvppm m



#4 Propane  
 R.T.: 2.153 min  
 Delta R.T.: 0.025 min  
 Response: 12893809  
 Conc: 348.45 rawvppm

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3573.D Vial: 34
Acq On : 5 Apr 2011 6:31 am Operator: jacobbb
Sample : D22181-10, 20x Inst : FID4
Misc : 25uL|GC1787,GFB103,,,,,20 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 04 18:44:04 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Rows include System Monitoring Compounds (Propane) and Target Compounds (Methane, Ethane).

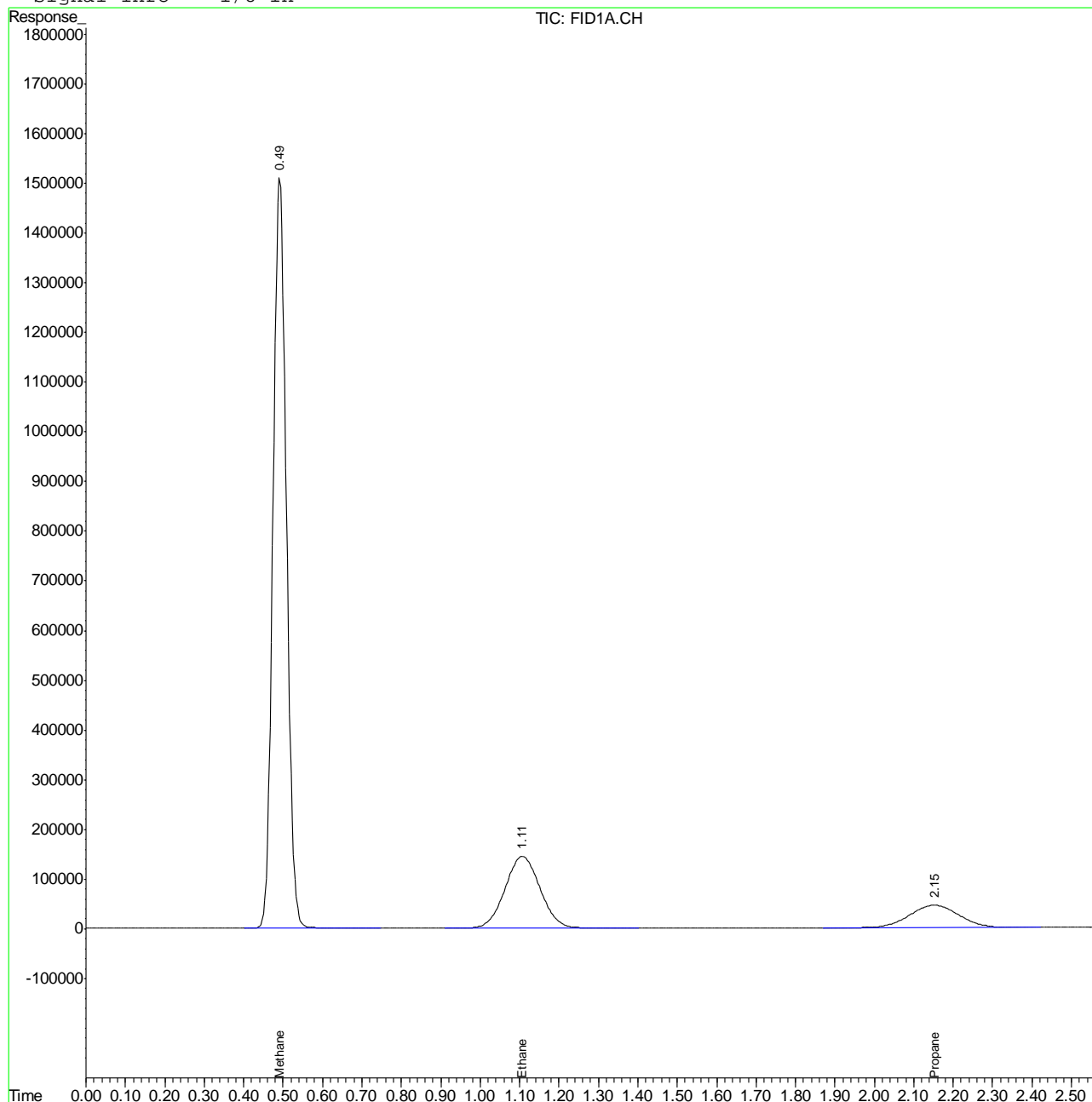
6.1.10 6

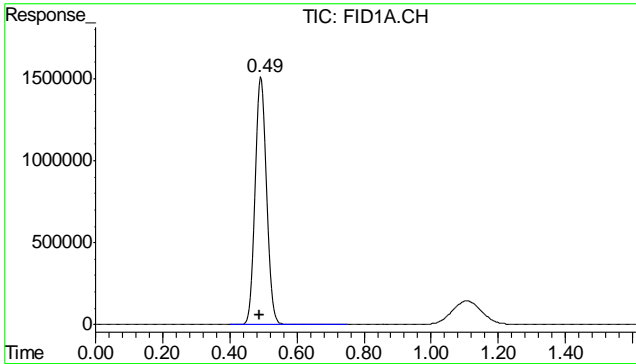
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3573.D Vial: 34  
Acq On : 5 Apr 2011 6:31 am Operator: jacobb  
Sample : D22181-10, 20x Inst : FID4  
Misc : 25uL|GC1787,GFB103,,,,,20 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 5 6:41 2011 Quant Results File: MEEP-GFB91.RES

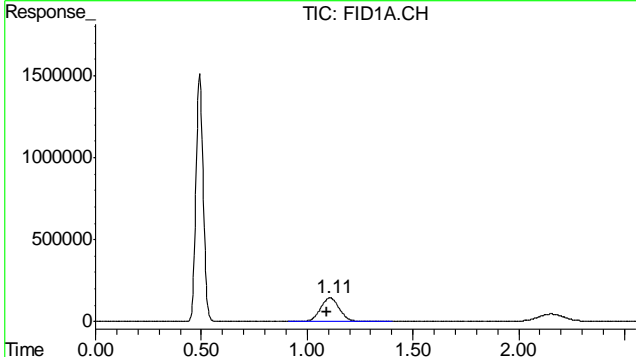
Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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

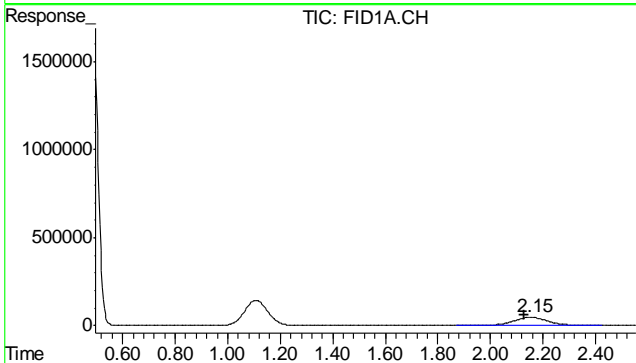




#1 Methane  
 R.T.: 0.492 min  
 Delta R.T.: 0.001 min  
 Response: 35541115  
 Conc: 2755.99 rawvppm



#3 Ethane  
 R.T.: 1.108 min  
 Delta R.T.: 0.014 min  
 Response: 8840744  
 Conc: 344.11 rawvppm



#4 Propane  
 R.T.: 2.153 min  
 Delta R.T.: 0.024 min  
 Response: 3936236  
 Conc: 106.38 rawvppm



Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3564.D Vial: 25
Acq On : 5 Apr 2011 4:55 am Operator: jacobb
Sample : D22181-11 Inst : FID4
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 04 17:40:46 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Row 1: System Monitoring Compounds. Row 2: 4) S Propane, 2.15, 12884478, 348.197 rawvp. Row 3: Target Compounds.

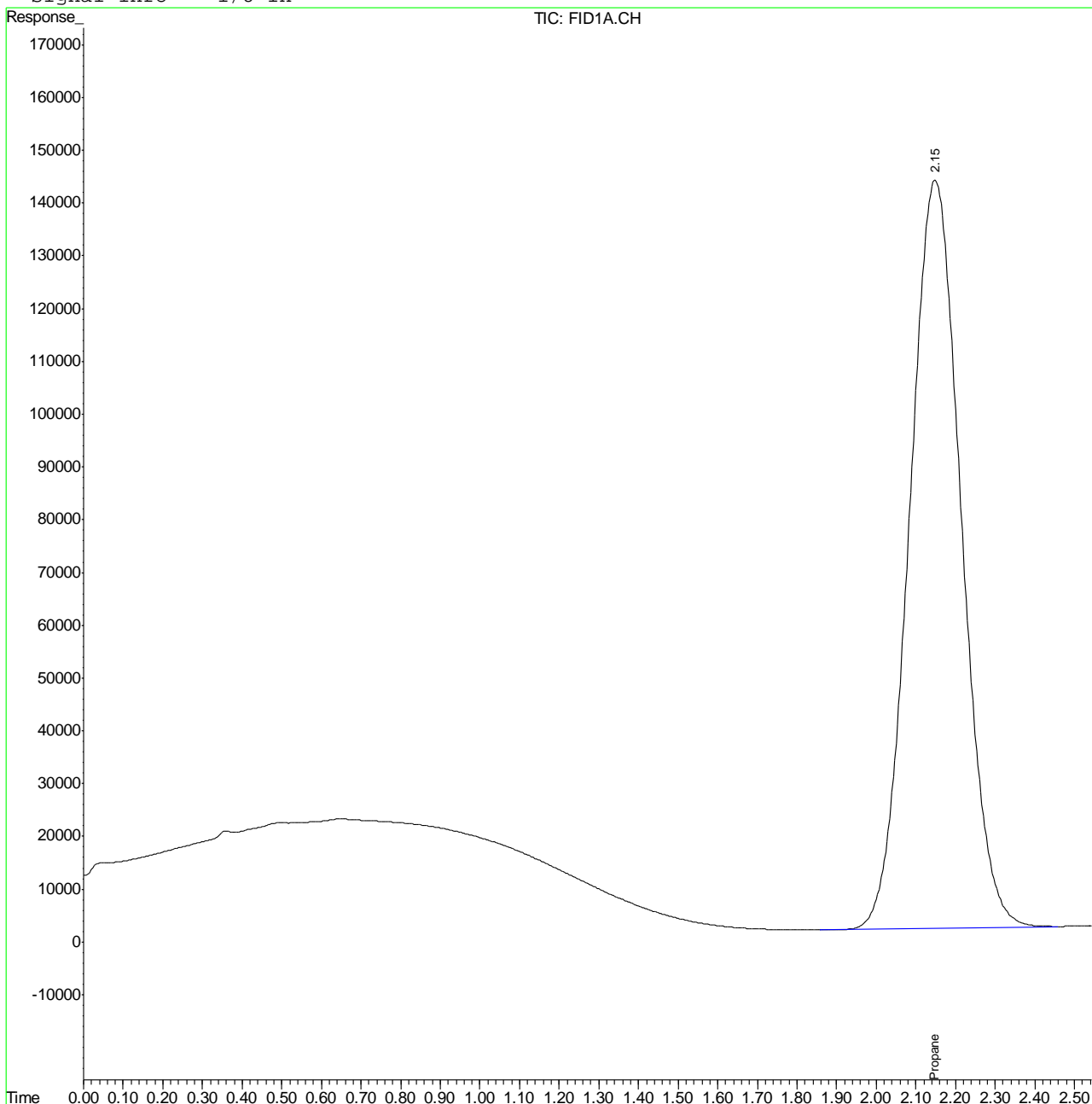
6.1.11
6

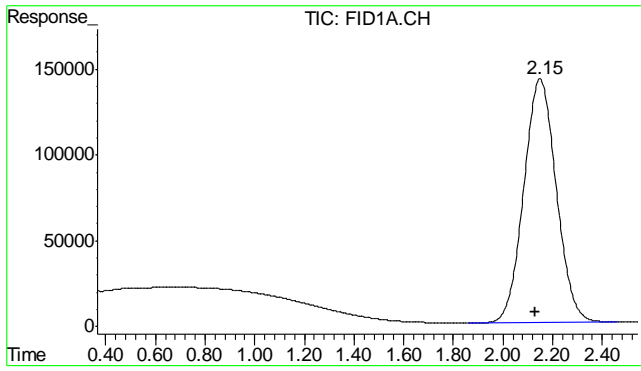
Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3564.D Vial: 25  
Acq On : 5 Apr 2011 4:55 am Operator: jacobb  
Sample : D22181-11 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 6 22:19 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#4 Propane  
R.T.: 2.149 min  
Delta R.T.: 0.021 min  
Response: 12884478  
Conc: 348.20 rawvppm

6.1.11

6

Manual Integrations  
APPROVED  
(compounds with "m" flag)  
John Hamilton  
04/06/11 14:44

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3565.D Vial: 26  
Acq On : 5 Apr 2011 5:00 am Operator: jacobbb  
Sample : D22181-12 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 04 17:40:49 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Initial Calibration  
DataAcq Meth : GAS.M

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S Propane	2.15	13323835	360.071 rawvpm

Target Compounds

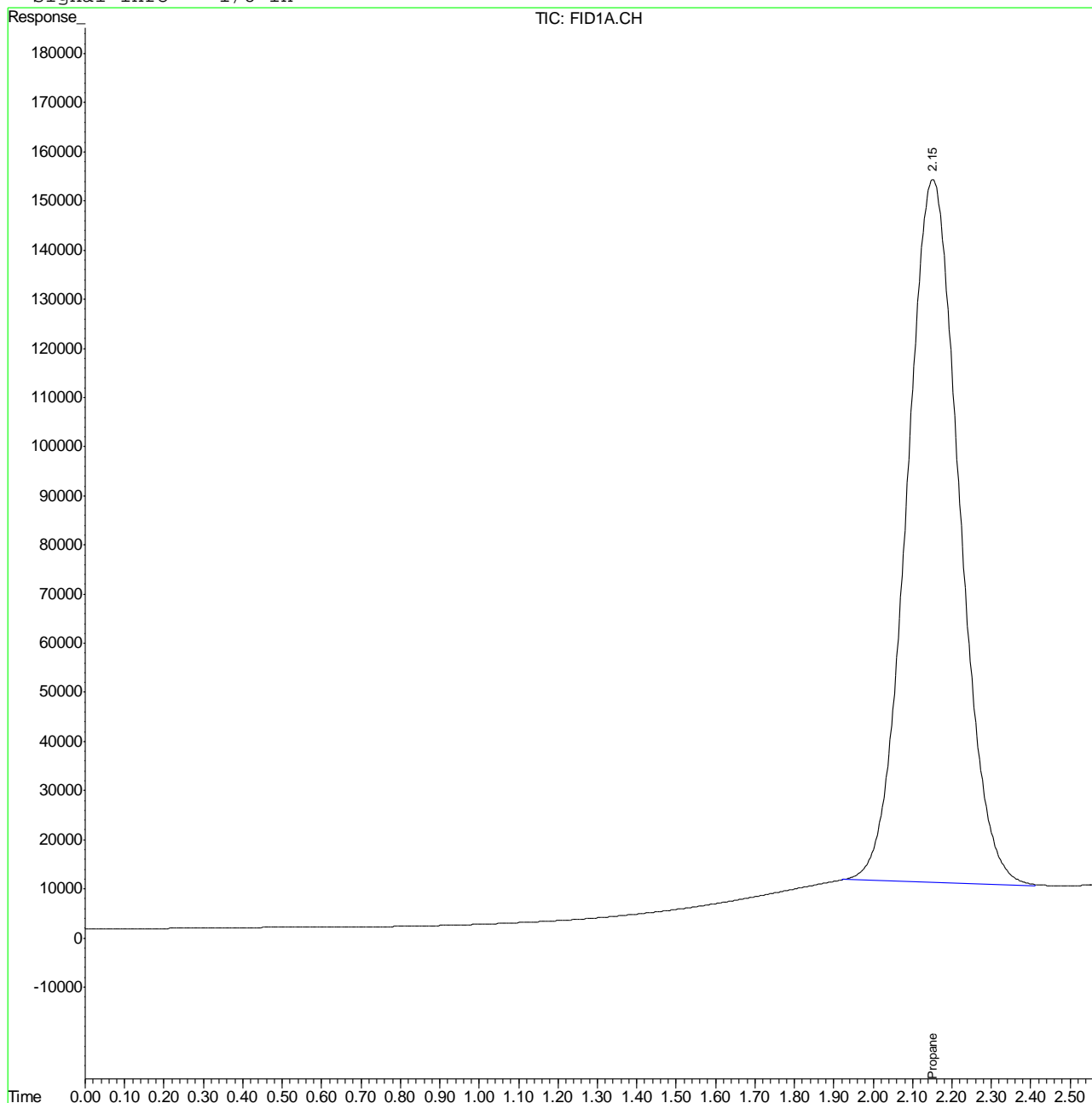
6.1.12  
6

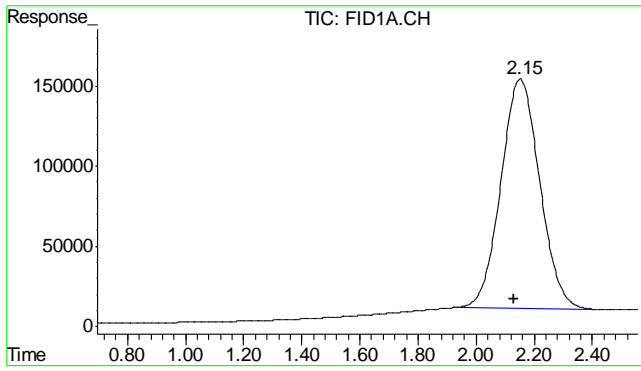
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3565.D Vial: 26  
Acq On : 5 Apr 2011 5:00 am Operator: jacobb  
Sample : D22181-12 Inst : FID4  
Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 6 22:20 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#4 Propane  
R.T.: 2.151 min  
Delta R.T.: 0.022 min  
Response: 13323835  
Conc: 360.07 rawvppm m

6.1.12  
6

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0849.D\FID1A.CH Vial: 23
Signal #2 : Z:\033011\TA0849.D\FID2B.CH
Acq On : 31 Mar 2011 3:07 am Operator: BrianR
Sample : D22181-1 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:52:46 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:52:07 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (e.g., 1,2,4-Trichlorobenzene) and Target Compounds (e.g., TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

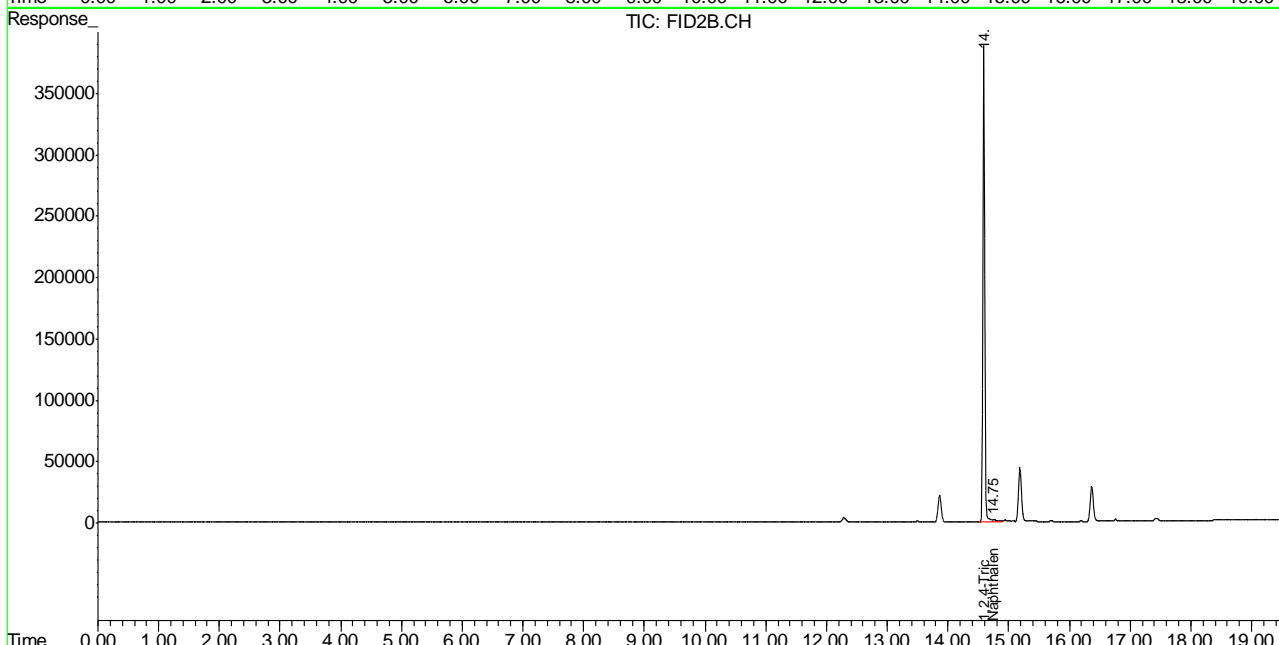
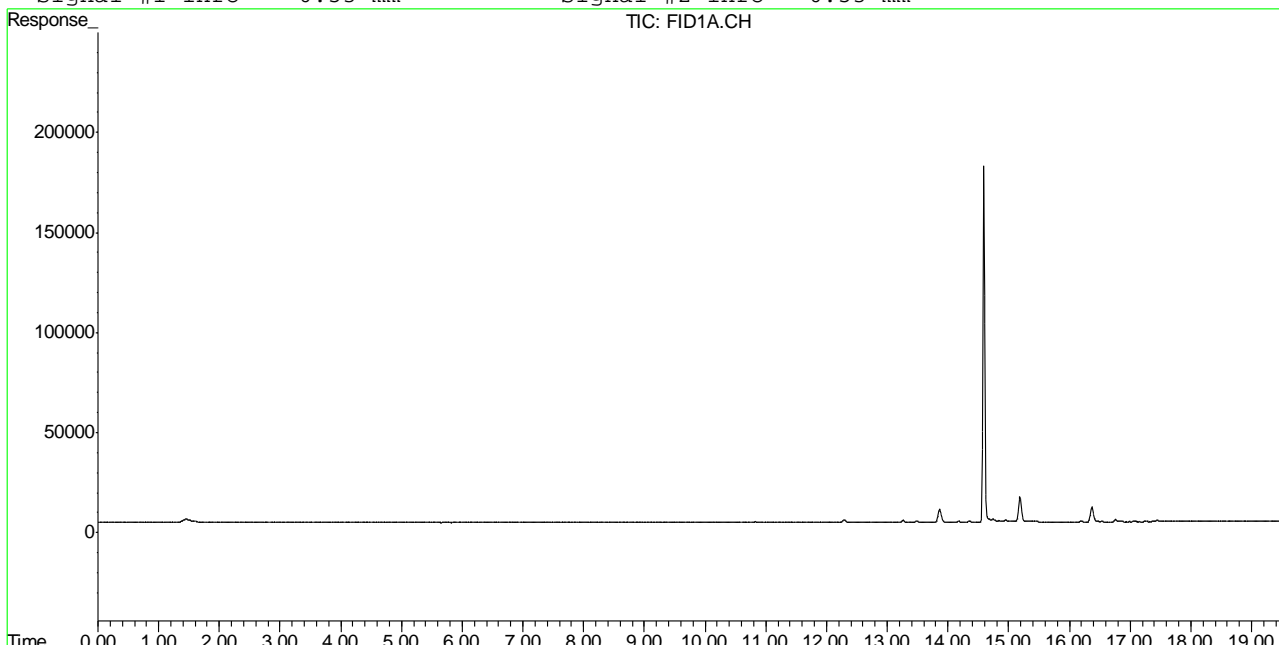
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0849.D TA582GA534.M Fri Apr 01 09:34:09 2011 GC

Quantitation Report (QT Reviewed)

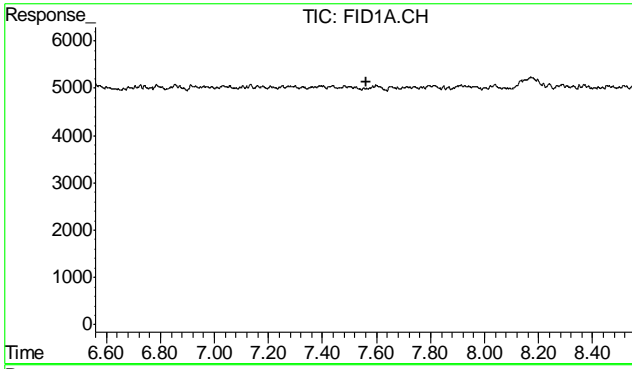
Signal #1 : Z:\033011\TA0849.D\FID1A.CH Vial: 23  
 Signal #2 : Z:\033011\TA0849.D\FID2B.CH  
 Acq On : 31 Mar 2011 3:07 am Operator: BrianR  
 Sample : D22181-1 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:53 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:52:07 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

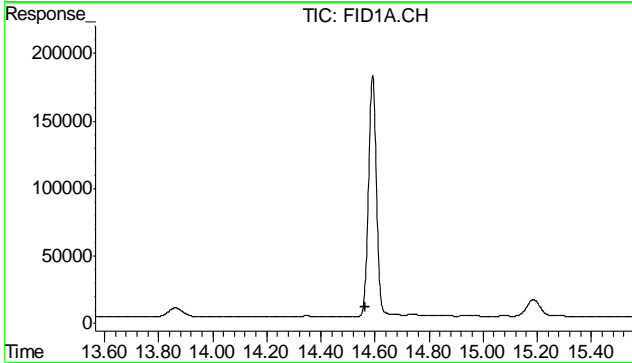
Volume Inj. :  
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624  
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm



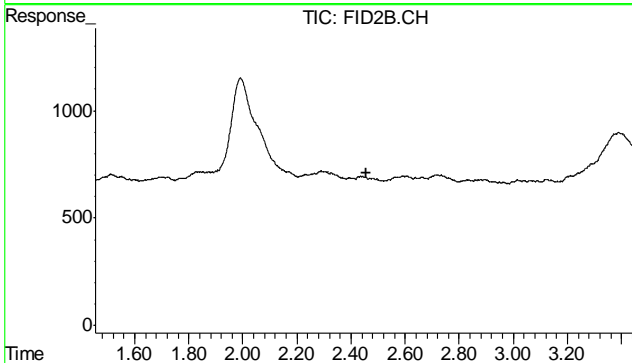




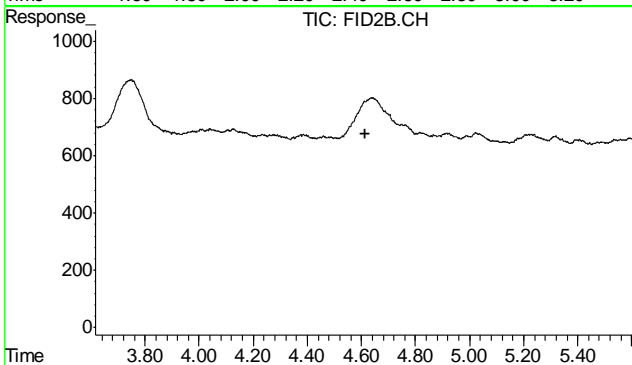
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



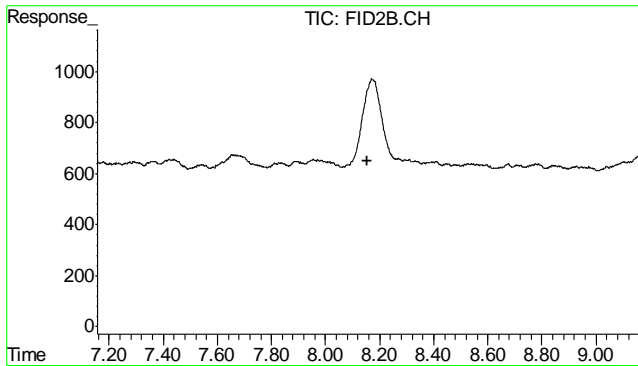
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



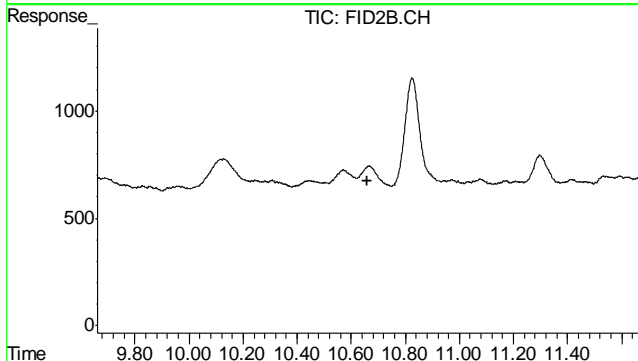
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.454 min  
 Response: 0  
 Conc: N.D.



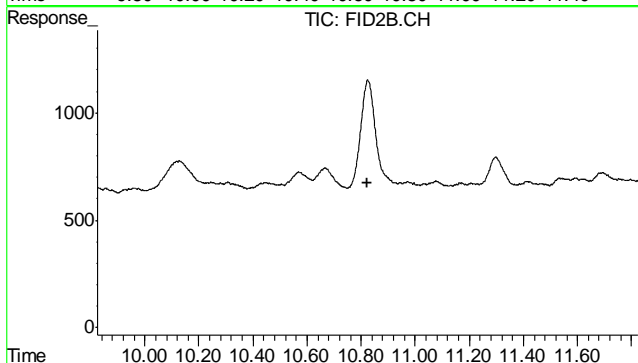
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.616 min  
 Response: 0  
 Conc: N.D.



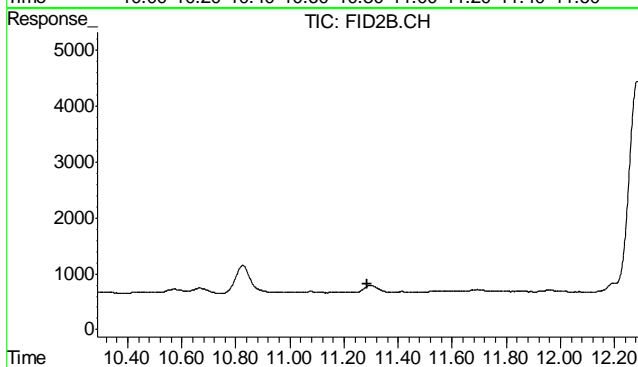
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 8.155 min  
 Response: 0  
 Conc: N.D.



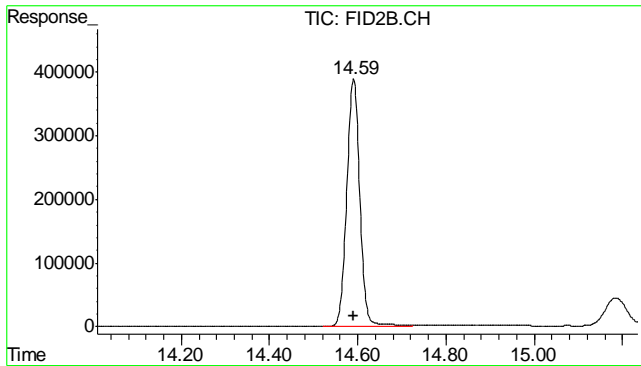
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.661 min  
 Response: 0  
 Conc: N.D.



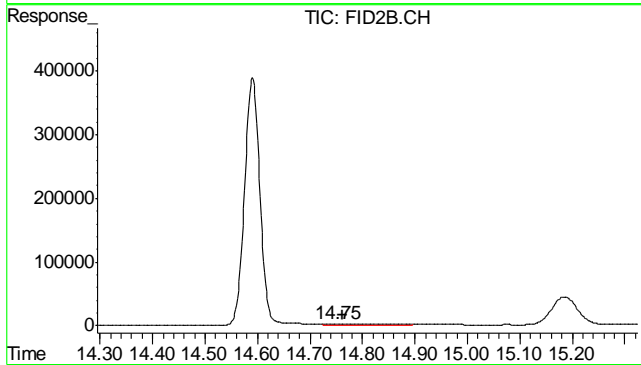
#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.824 min  
 Response: 0  
 Conc: N.D.



#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.287 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)  
 R.T.: 14.591 min  
 Delta R.T.: 0.000 min  
 Response: 7990717  
 Conc: 102.55 %



#11 Naphthalene  
 R.T.: 14.750 min  
 Delta R.T.: -0.012 min  
 Response: 123755  
 Conc: 0.88 ug/L

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0850.D\FID1A.CH Vial: 24
Signal #2 : Z:\033011\TA0850.D\FID2B.CH
Acq On : 31 Mar 2011 3:42 am Operator: BrianR
Sample : D22181-2 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:52:49 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:52:07 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

6.1.14 6

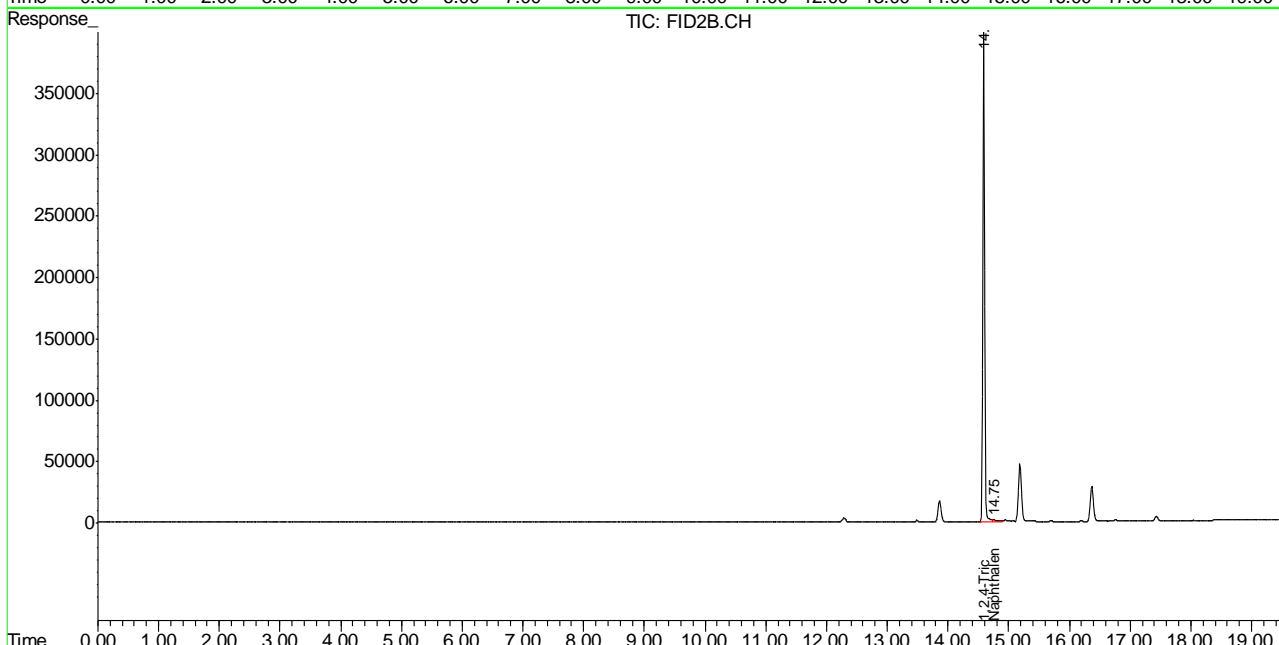
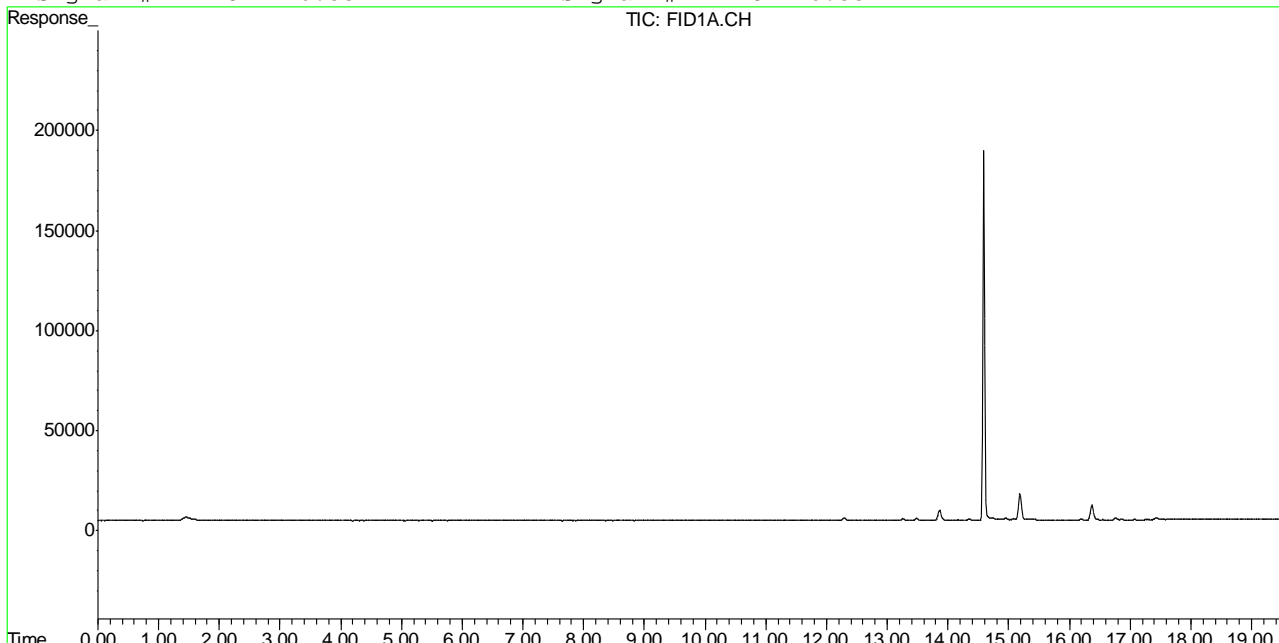
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0850.D TA582GA534.M Fri Apr 01 09:34:11 2011 GC

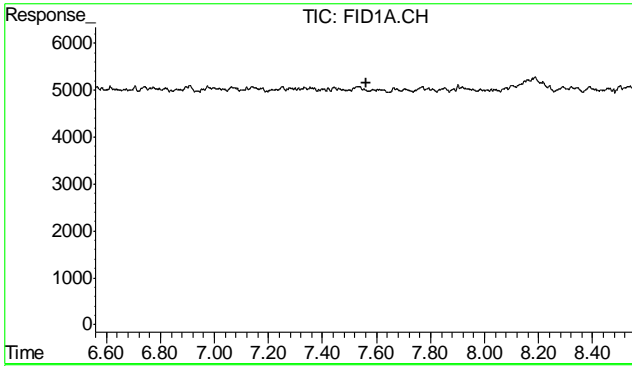
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0850.D\FID1A.CH Vial: 24  
 Signal #2 : Z:\033011\TA0850.D\FID2B.CH  
 Acq On : 31 Mar 2011 3:42 am Operator: BrianR  
 Sample : D22181-2 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:54 2011 Quant Results File: TA582GA534.RES

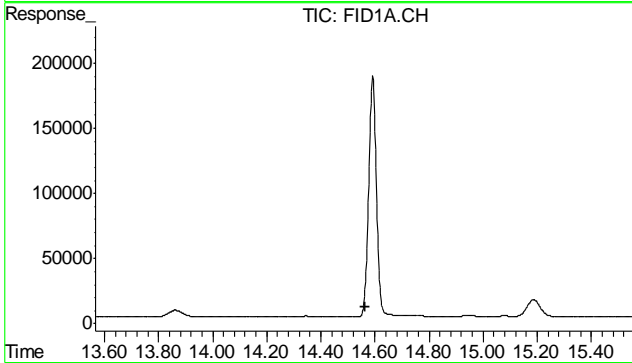
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:52:07 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

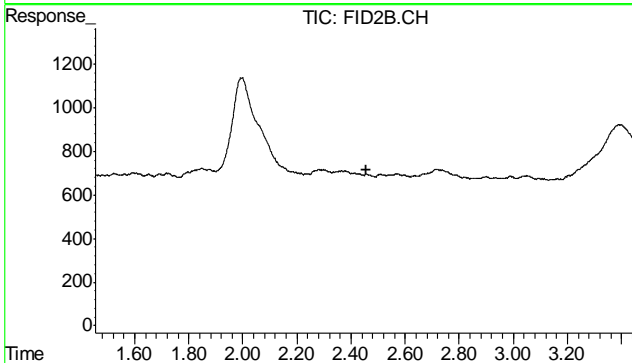




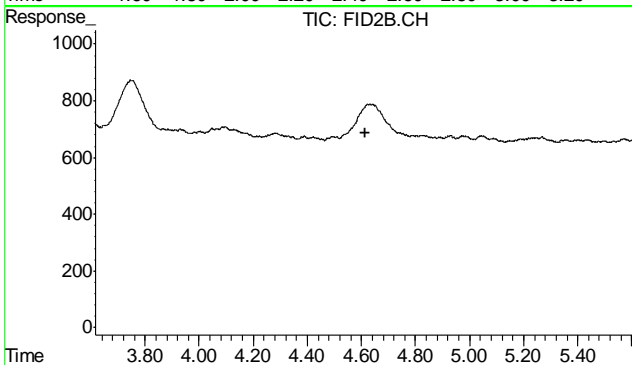
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



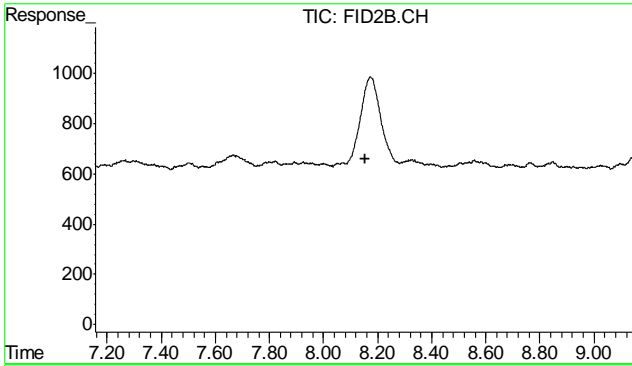
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



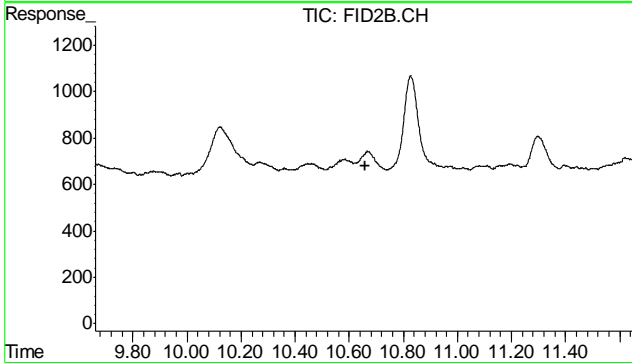
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.454 min  
 Response: 0  
 Conc: N.D.



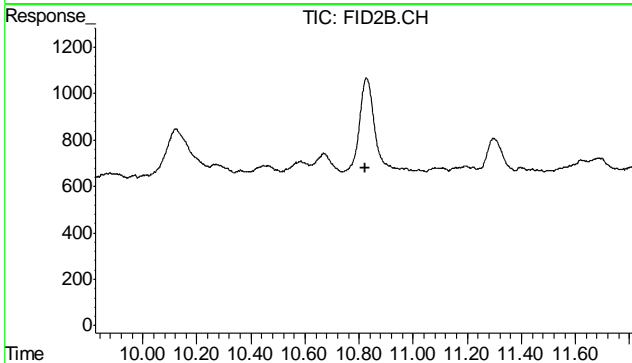
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.616 min  
 Response: 0  
 Conc: N.D.



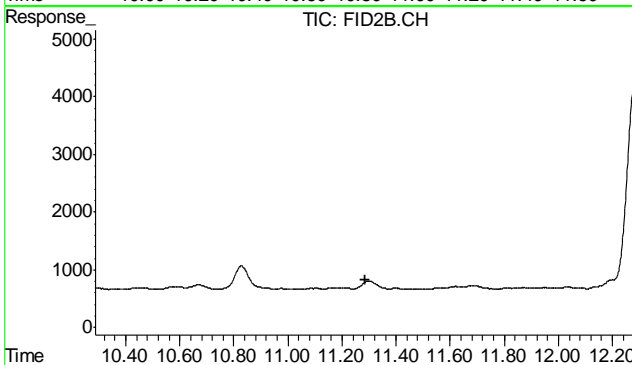
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 8.155 min  
 Response: 0  
 Conc: N.D.



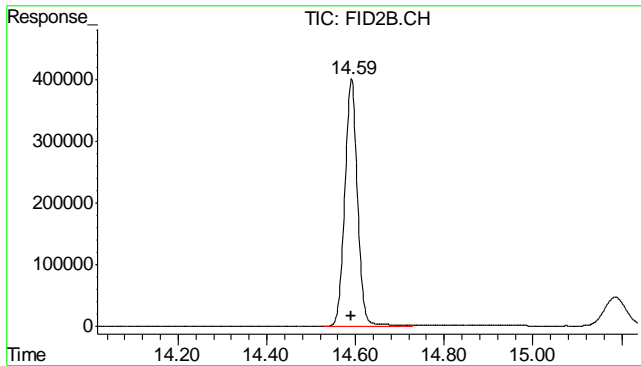
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.661 min  
 Response: 0  
 Conc: N.D.



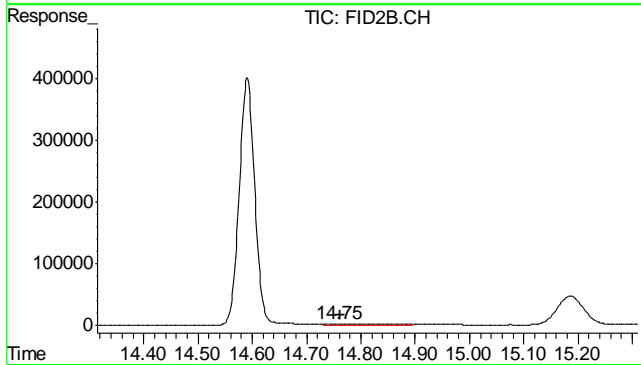
#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.824 min  
 Response: 0  
 Conc: N.D.



#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.287 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)  
R.T.: 14.591 min  
Delta R.T.: 0.000 min  
Response: 8028466  
Conc: 103.03 %



#11 Naphthalene  
R.T.: 14.755 min  
Delta R.T.: -0.008 min  
Response: 109830  
Conc: 0.78 ug/L



Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0851.D\FID1A.CH Vial: 25
Signal #2 : Z:\033011\TA0851.D\FID2B.CH
Acq On : 31 Mar 2011 4:18 am Operator: BrianR
Sample : D22181-3 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:52:52 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:52:07 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (e.g., 1,2,4-Trichlorobenzene) and Target Compounds (e.g., TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

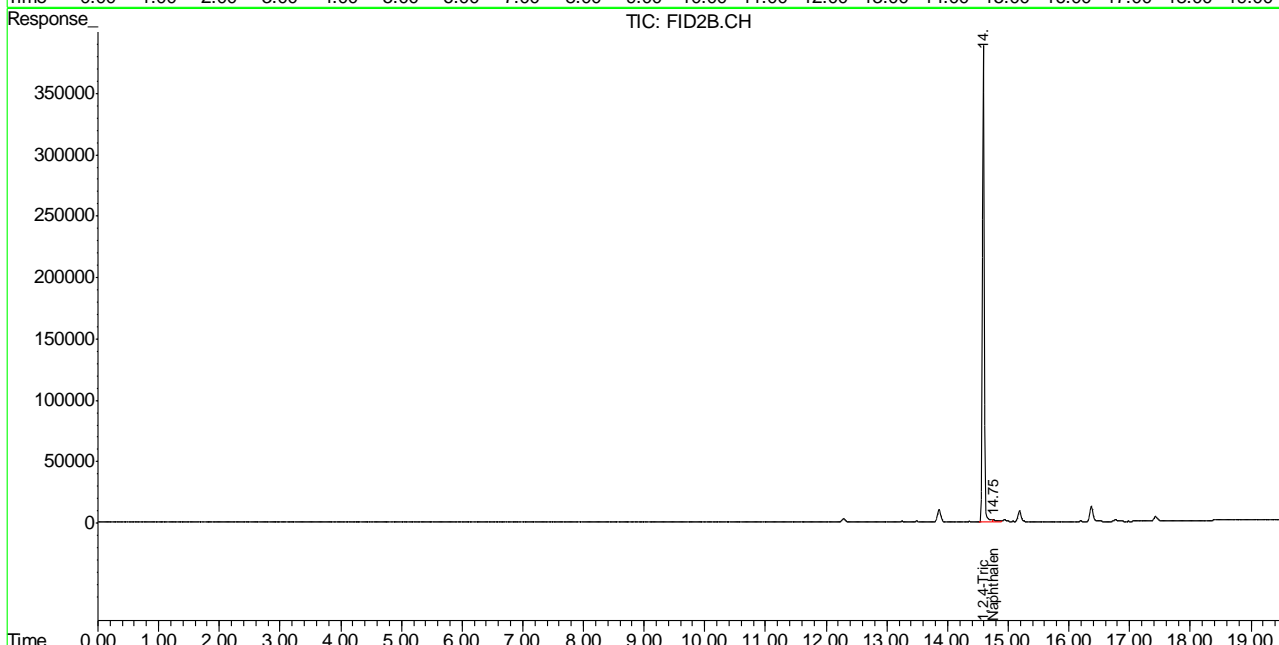
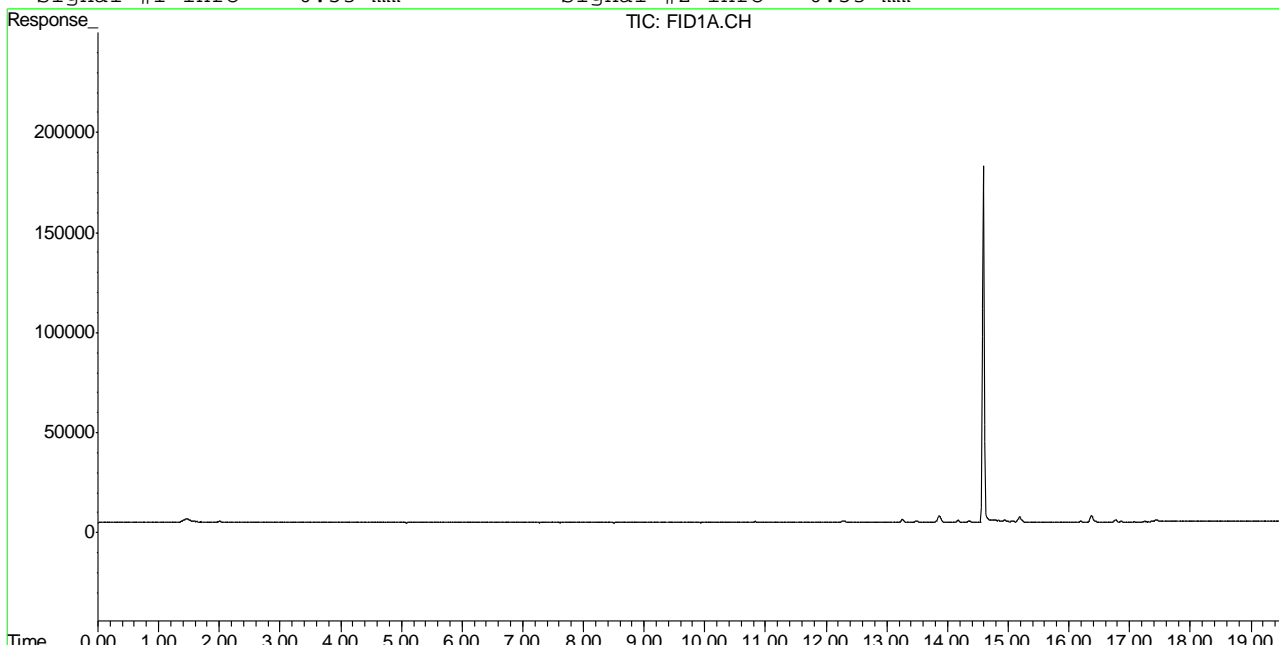
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0851.D TA582GA534.M Fri Apr 01 09:34:14 2011 GC

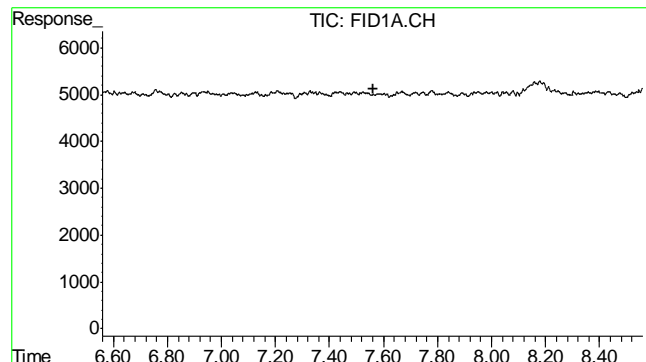
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0851.D\FID1A.CH Vial: 25  
 Signal #2 : Z:\033011\TA0851.D\FID2B.CH  
 Acq On : 31 Mar 2011 4:18 am Operator: BrianR  
 Sample : D22181-3 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:54 2011 Quant Results File: TA582GA534.RES

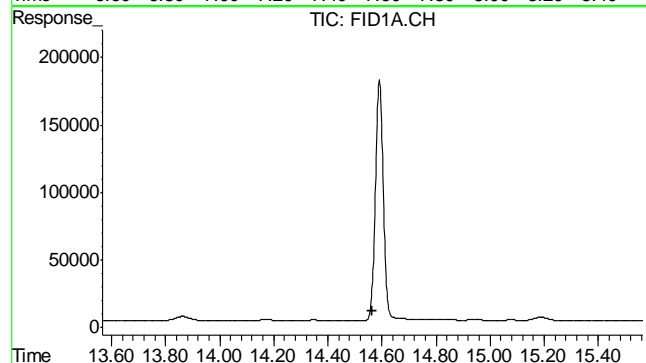
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:52:07 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

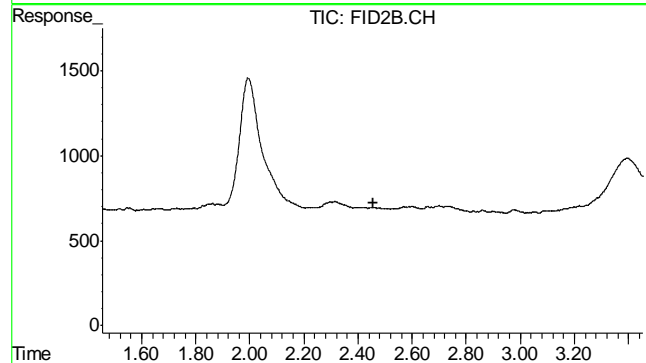




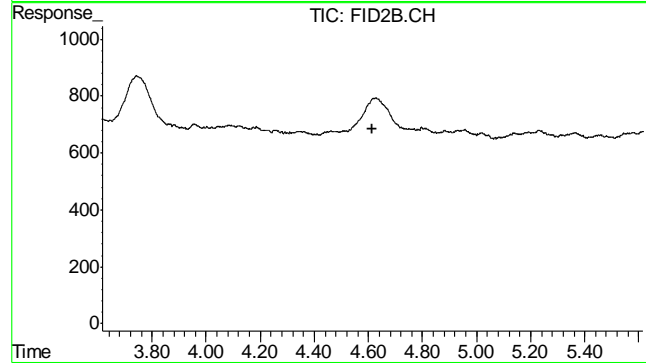
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



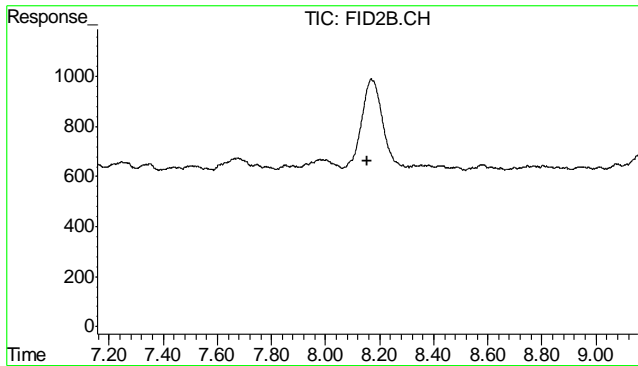
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



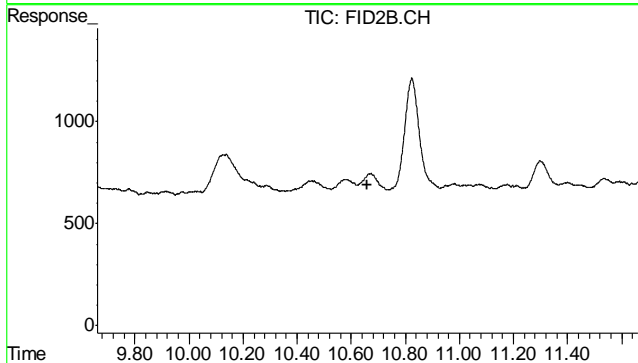
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.454 min  
 Response: 0  
 Conc: N.D.



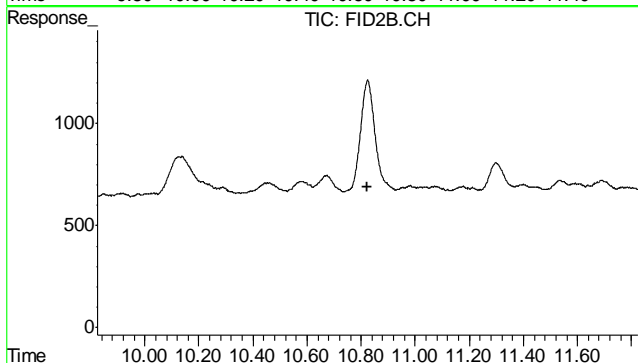
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.616 min  
 Response: 0  
 Conc: N.D.



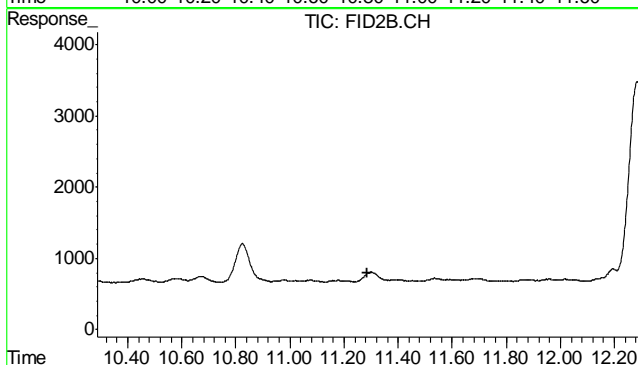
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 8.155 min  
 Response: 0  
 Conc: N.D.



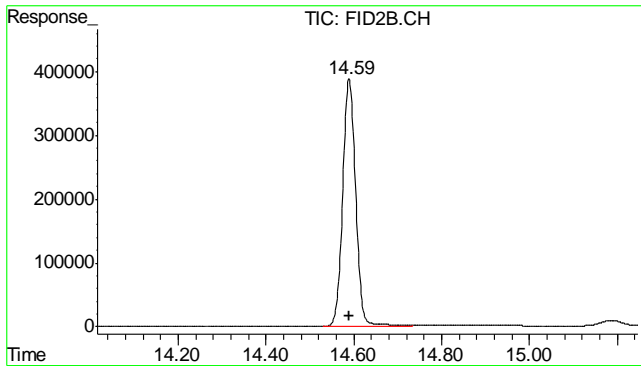
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.661 min  
 Response: 0  
 Conc: N.D.



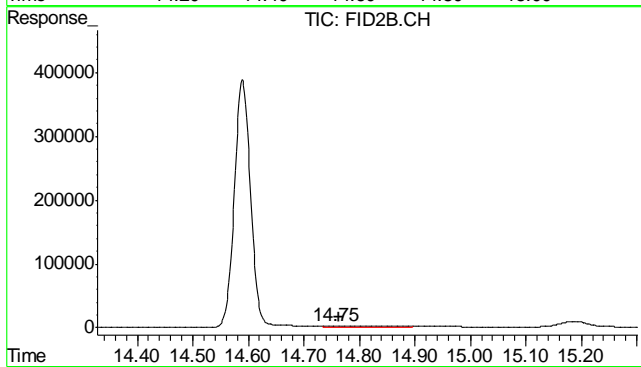
#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.824 min  
 Response: 0  
 Conc: N.D.



#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.287 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)  
 R.T.: 14.590 min  
 Delta R.T.: 0.000 min  
 Response: 7920146  
 Conc: 101.64 %



#11 Naphthalene  
 R.T.: 14.753 min  
 Delta R.T.: -0.010 min  
 Response: 111887  
 Conc: 0.80 ug/L

6.1.15  
**6**

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0852.D\FID1A.CH Vial: 26
Signal #2 : Z:\033011\TA0852.D\FID2B.CH
Acq On : 31 Mar 2011 4:53 am Operator: BrianR
Sample : D22181-4 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:52:55 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:52:07 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

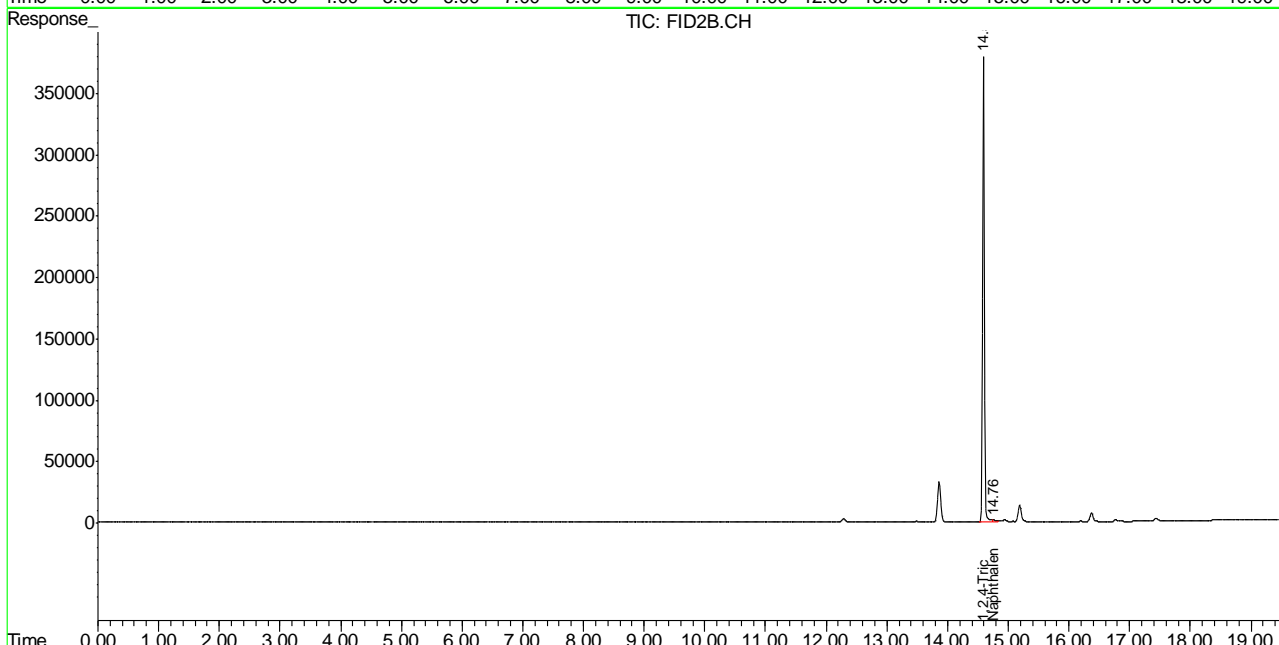
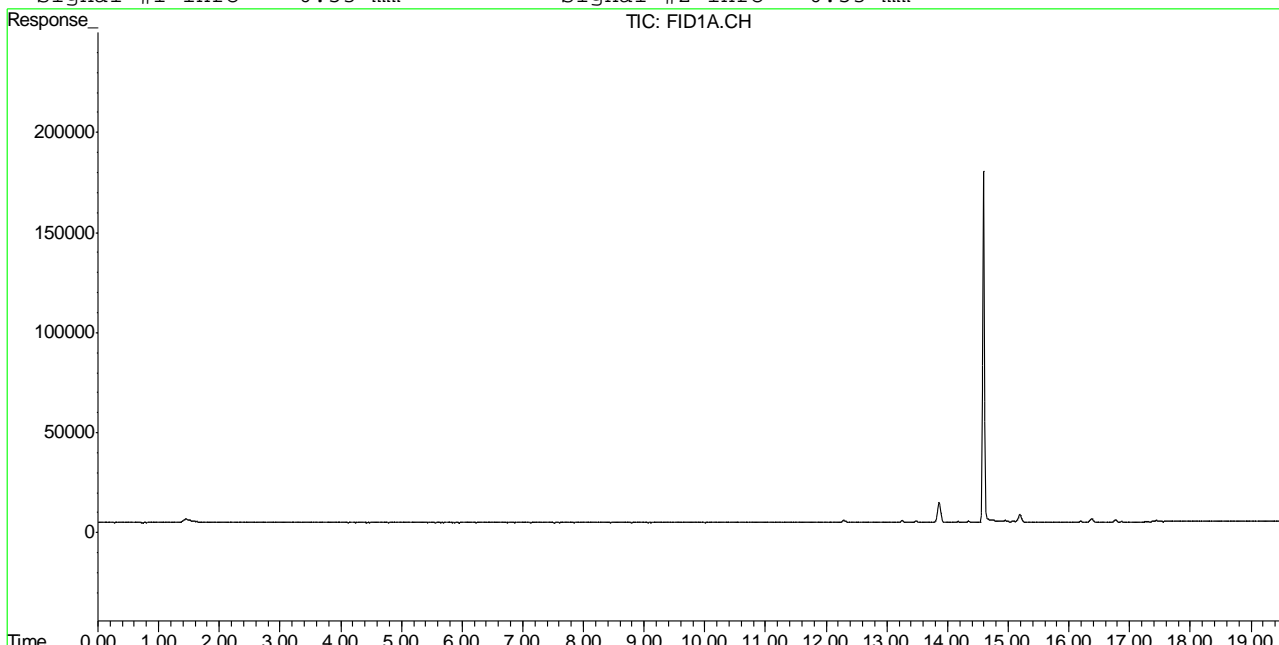
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0852.D TA582GA534.M Fri Apr 01 09:34:15 2011 GC

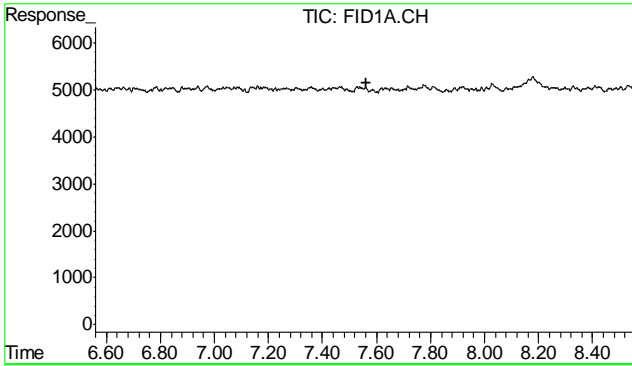
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0852.D\FID1A.CH Vial: 26  
 Signal #2 : Z:\033011\TA0852.D\FID2B.CH  
 Acq On : 31 Mar 2011 4:53 am Operator: BrianR  
 Sample : D22181-4 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:54 2011 Quant Results File: TA582GA534.RES

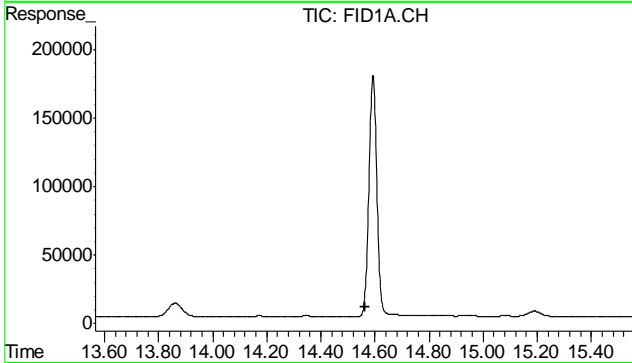
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:52:07 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

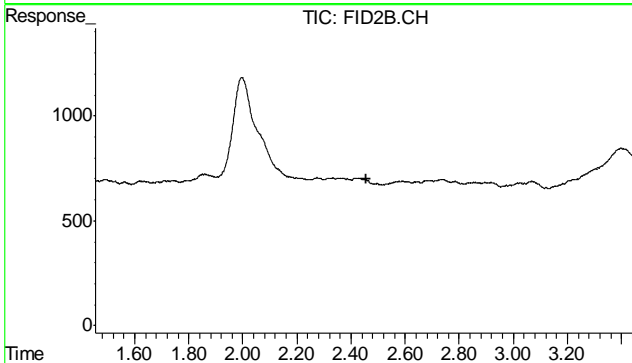




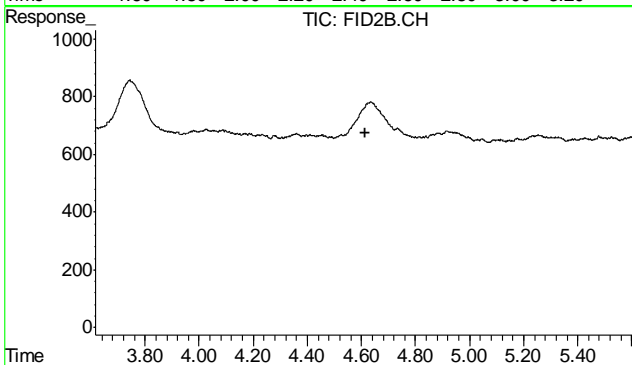
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.

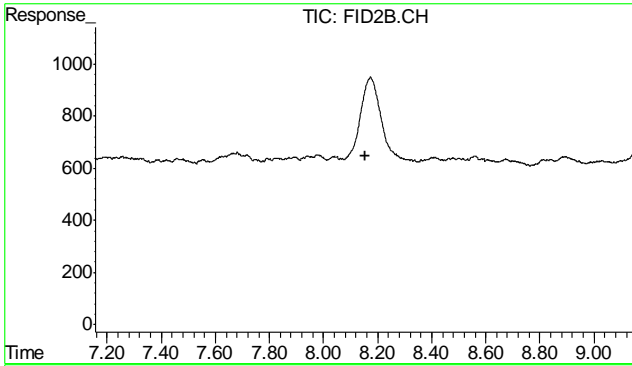


#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.454 min  
 Response: 0  
 Conc: N.D.

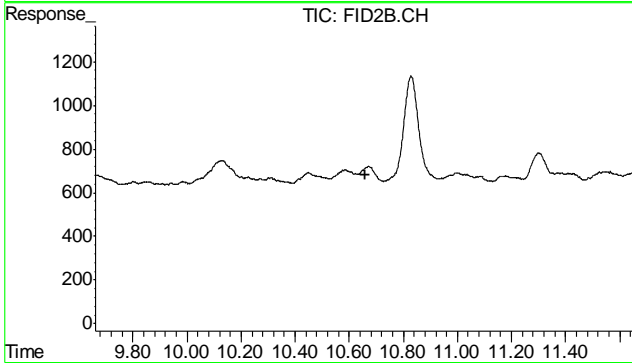


#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.616 min  
 Response: 0  
 Conc: N.D.

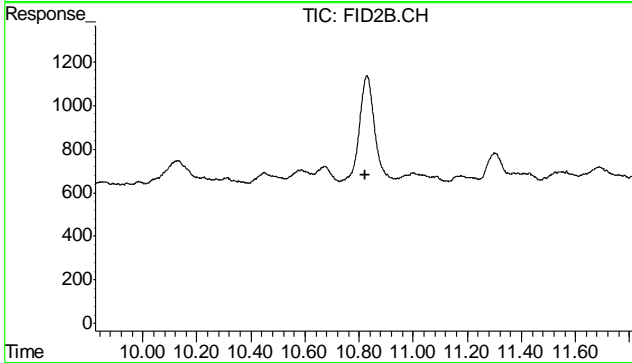




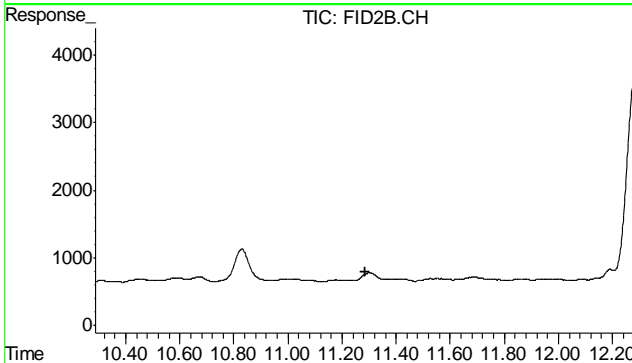
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 8.155 min  
 Response: 0  
 Conc: N.D.



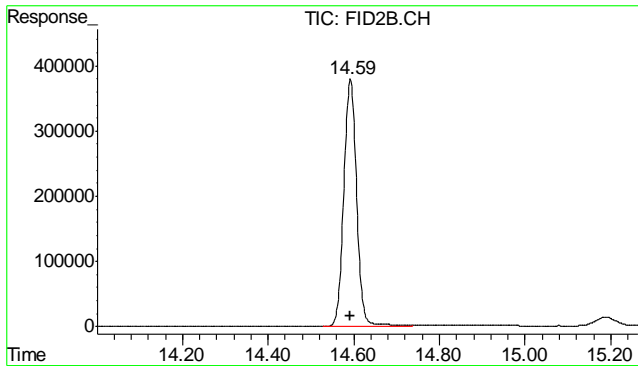
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.661 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.824 min  
 Response: 0  
 Conc: N.D.

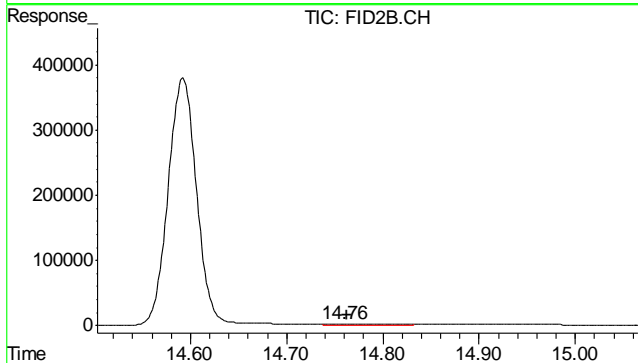


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.287 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.592 min  
 Delta R.T.: 0.002 min  
 Response: 7871934  
 Conc: 101.03 %



#11 Naphthalene

R.T.: 14.758 min  
 Delta R.T.: -0.005 min  
 Response: 72323  
 Conc: 0.52 ug/L

6.1.16  
 6

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0853.D\FID1A.CH Vial: 27
Signal #2 : Z:\033011\TA0853.D\FID2B.CH
Acq On : 31 Mar 2011 5:28 am Operator: BrianR
Sample : D22181-5 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:52:58 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:52:07 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

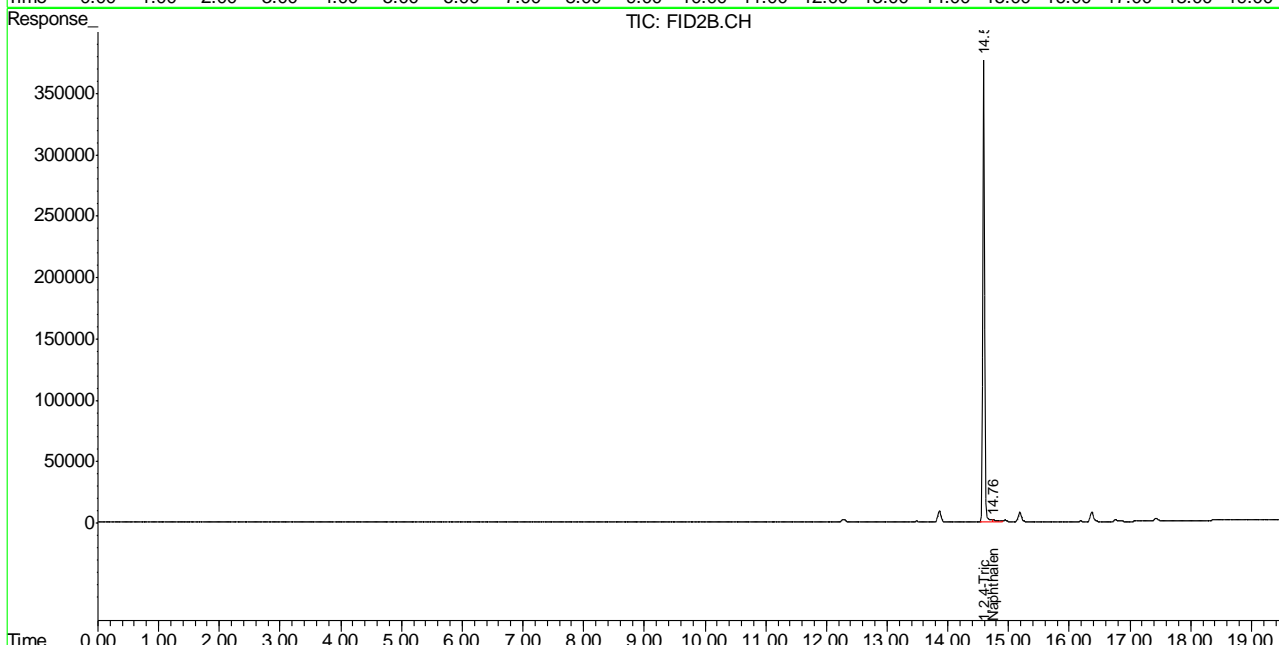
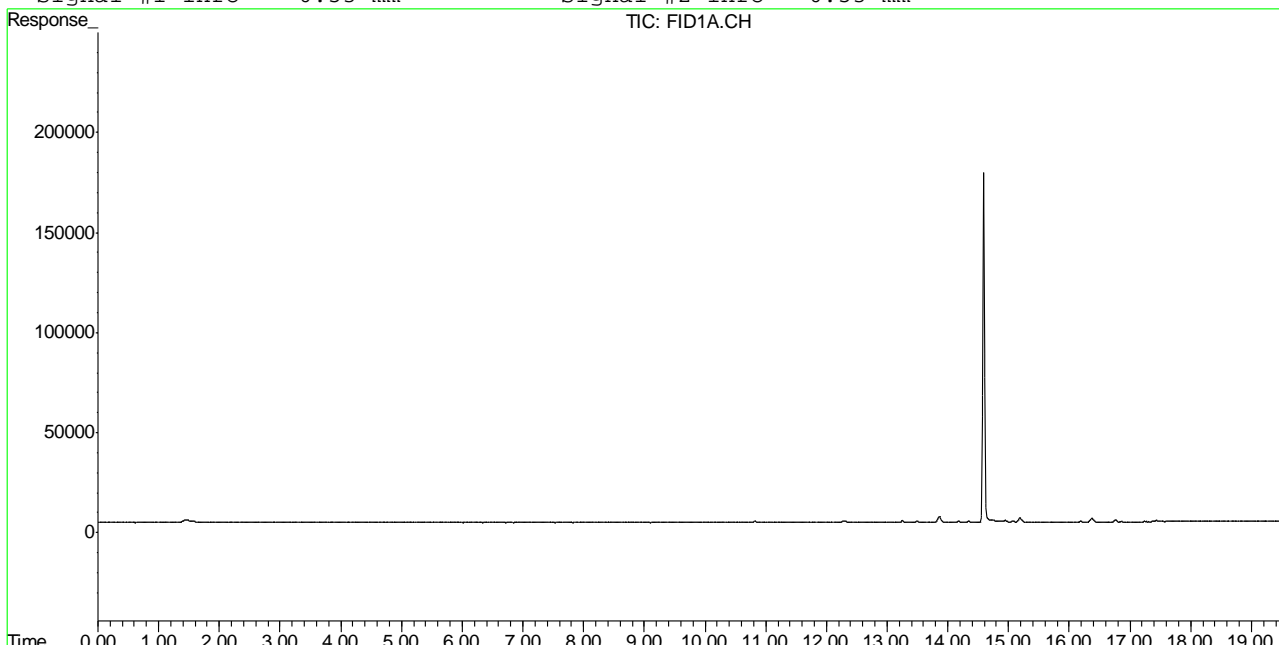
6.1.17
6

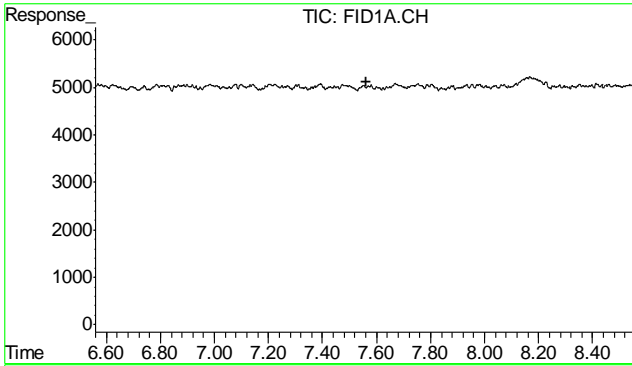
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0853.D\FID1A.CH Vial: 27  
 Signal #2 : Z:\033011\TA0853.D\FID2B.CH  
 Acq On : 31 Mar 2011 5:28 am Operator: BrianR  
 Sample : D22181-5 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:54 2011 Quant Results File: TA582GA534.RES

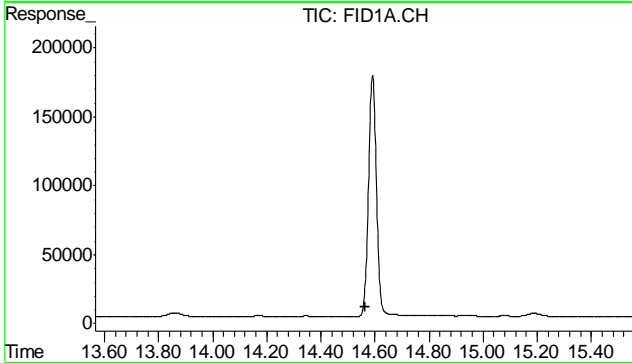
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:52:07 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

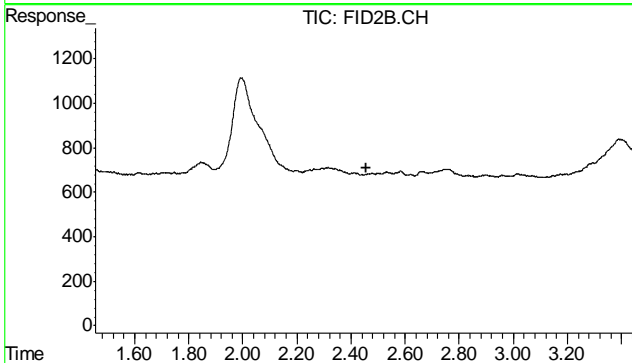




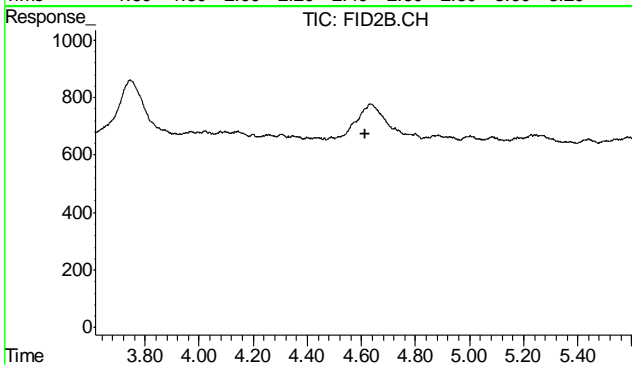
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



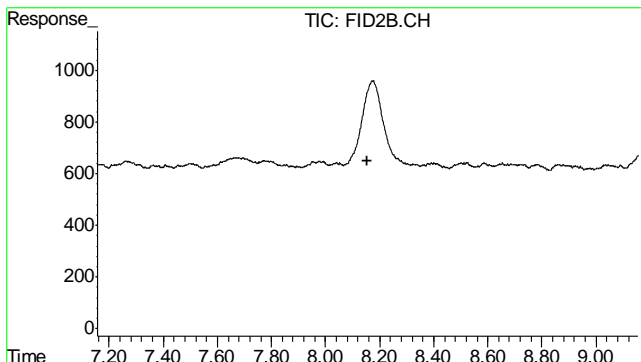
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



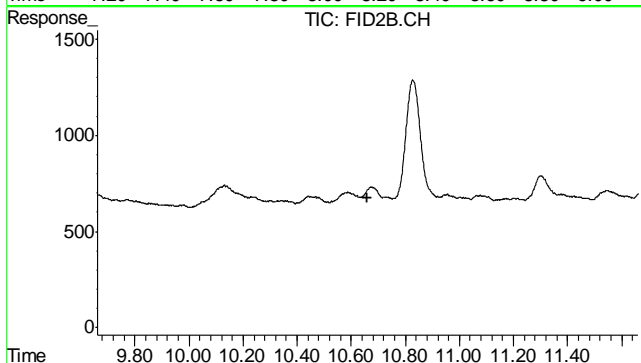
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.454 min  
 Response: 0  
 Conc: N.D.



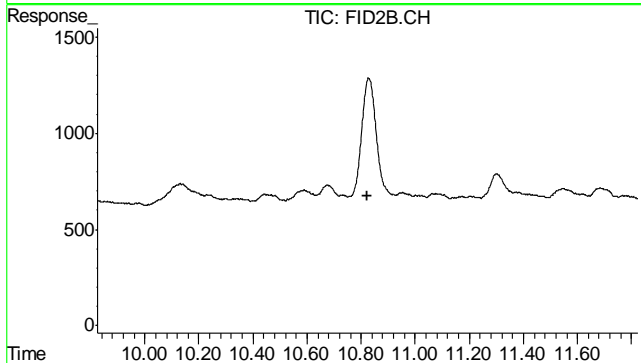
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.616 min  
 Response: 0  
 Conc: N.D.



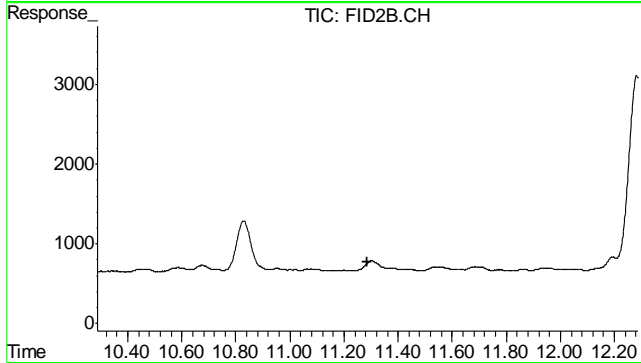
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 8.155 min  
 Response: 0  
 Conc: N.D.



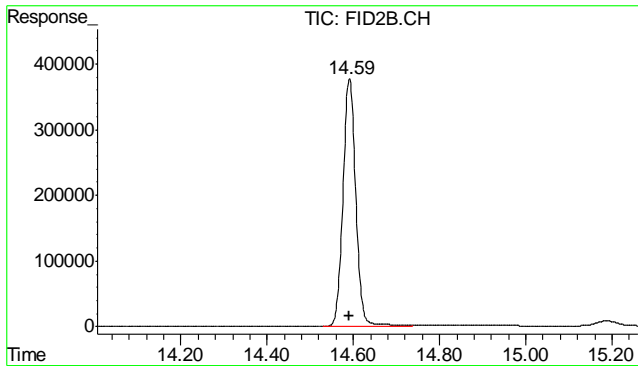
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.661 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.824 min  
 Response: 0  
 Conc: N.D.

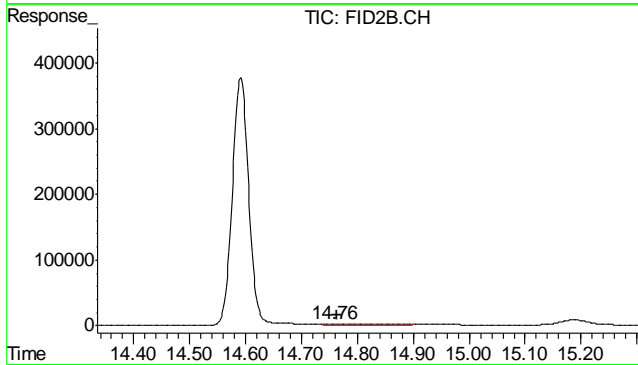


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.287 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.591 min  
 Delta R.T.: 0.000 min  
 Response: 7789098  
 Conc: 99.96 %



#11 Naphthalene

R.T.: 14.757 min  
 Delta R.T.: -0.006 min  
 Response: 103049  
 Conc: 0.73 ug/L

6.1.17

6

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0854.D\FID1A.CH Vial: 28
Signal #2 : Z:\033011\TA0854.D\FID2B.CH
Acq On : 31 Mar 2011 6:04 am Operator: BrianR
Sample : D22181-6 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:53:01 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:52:07 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

6.1.18
6

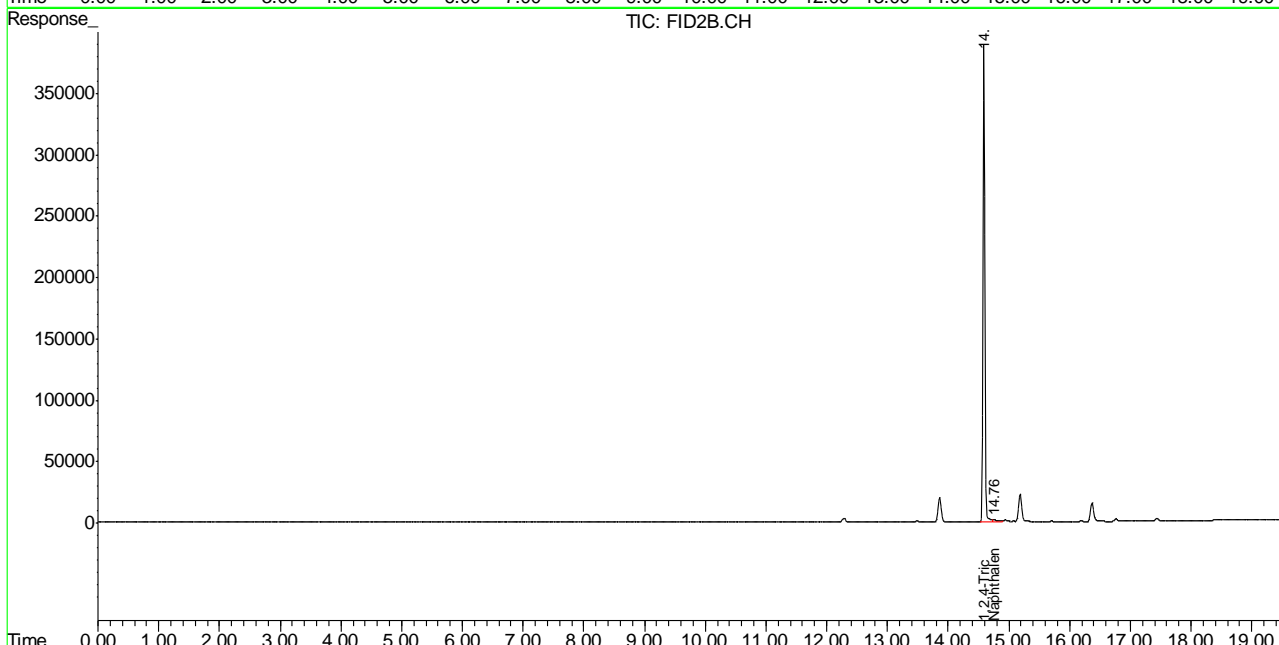
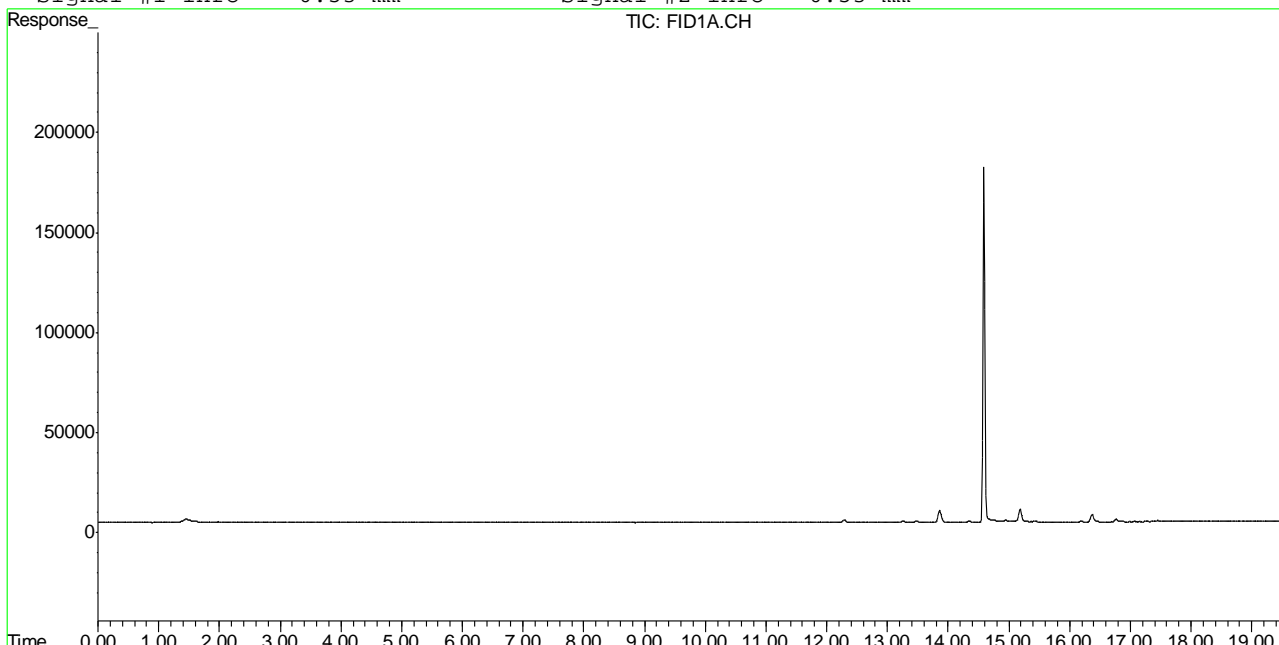


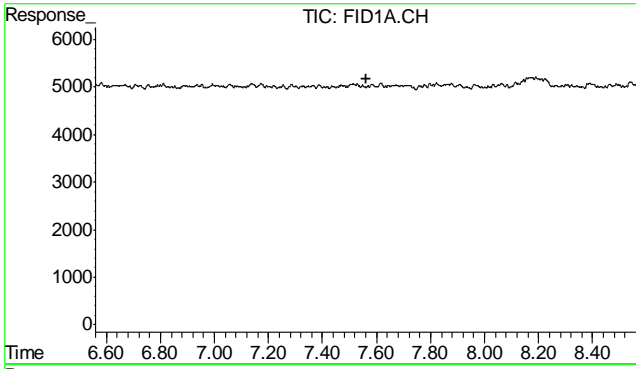
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0854.D\FID1A.CH Vial: 28  
 Signal #2 : Z:\033011\TA0854.D\FID2B.CH  
 Acq On : 31 Mar 2011 6:04 am Operator: BrianR  
 Sample : D22181-6 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:55 2011 Quant Results File: TA582GA534.RES

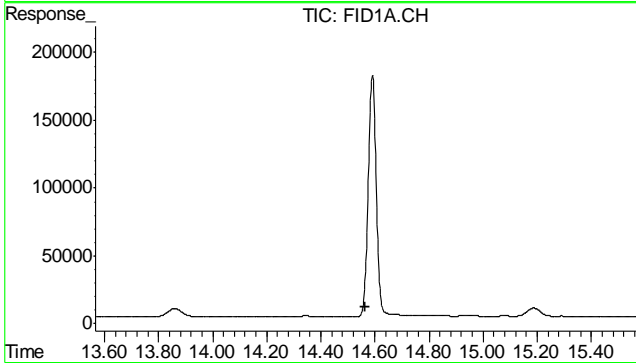
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:52:07 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

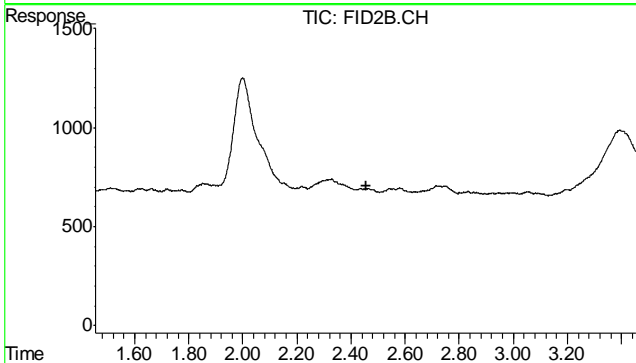




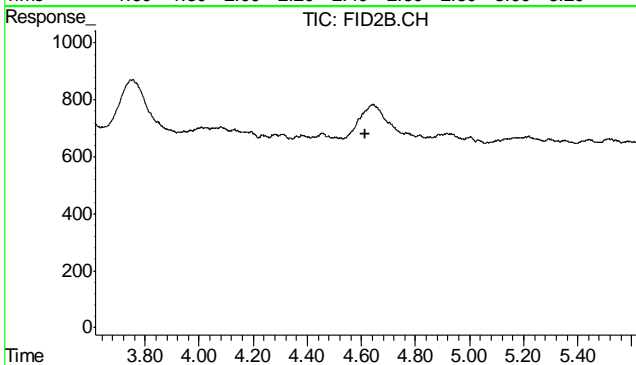
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



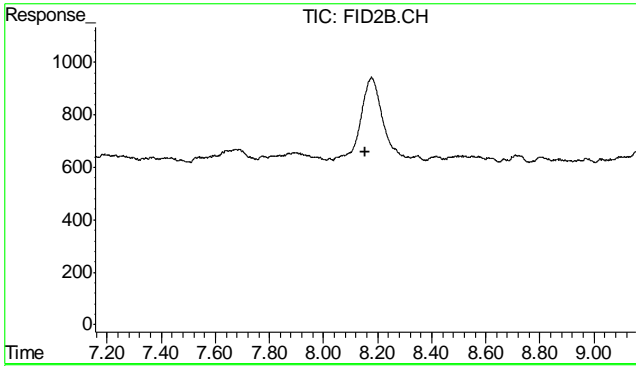
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



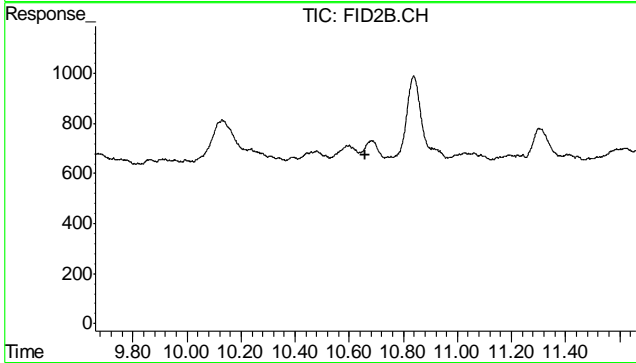
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.454 min  
 Response: 0  
 Conc: N.D.



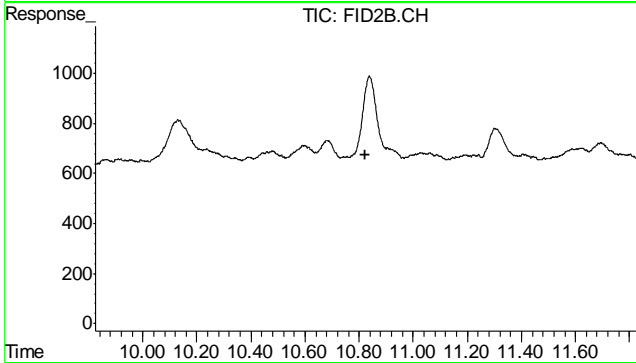
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.616 min  
 Response: 0  
 Conc: N.D.



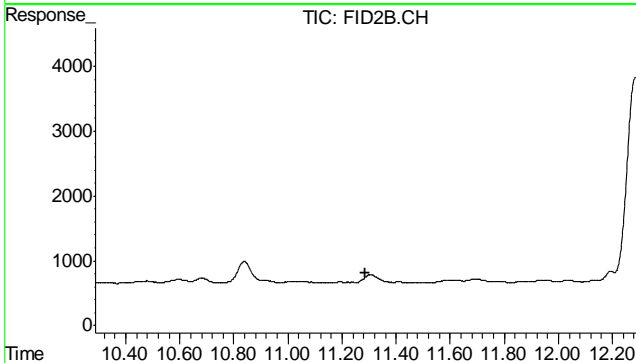
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 8.155 min  
 Response: 0  
 Conc: N.D.



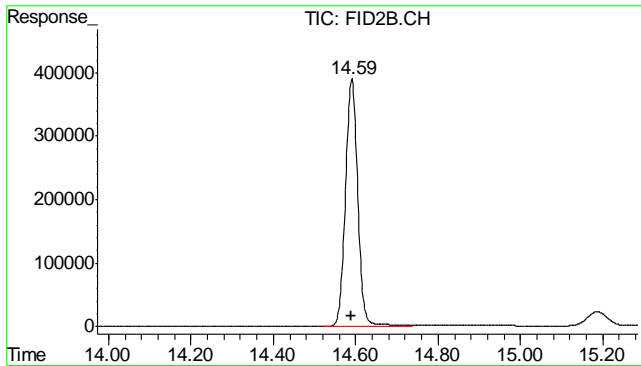
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.661 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.824 min  
 Response: 0  
 Conc: N.D.

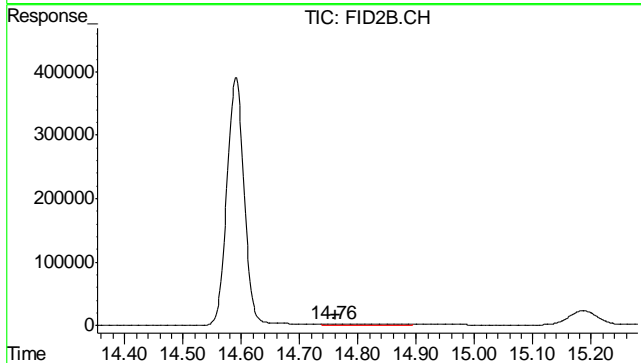


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.287 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.591 min  
Delta R.T.: 0.000 min  
Response: 8080508  
Conc: 103.70 %



#11 Naphthalene

R.T.: 14.755 min  
Delta R.T.: -0.007 min  
Response: 103160  
Conc: 0.73 ug/L

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0858.D\FID1A.CH Vial: 32
Signal #2 : Z:\033011\TA0858.D\FID2B.CH
Acq On : 31 Mar 2011 8:25 am Operator: BrianR
Sample : D22181-7 Inst : BTEX2
Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:58:36 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:58:05 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

6.1.19
6

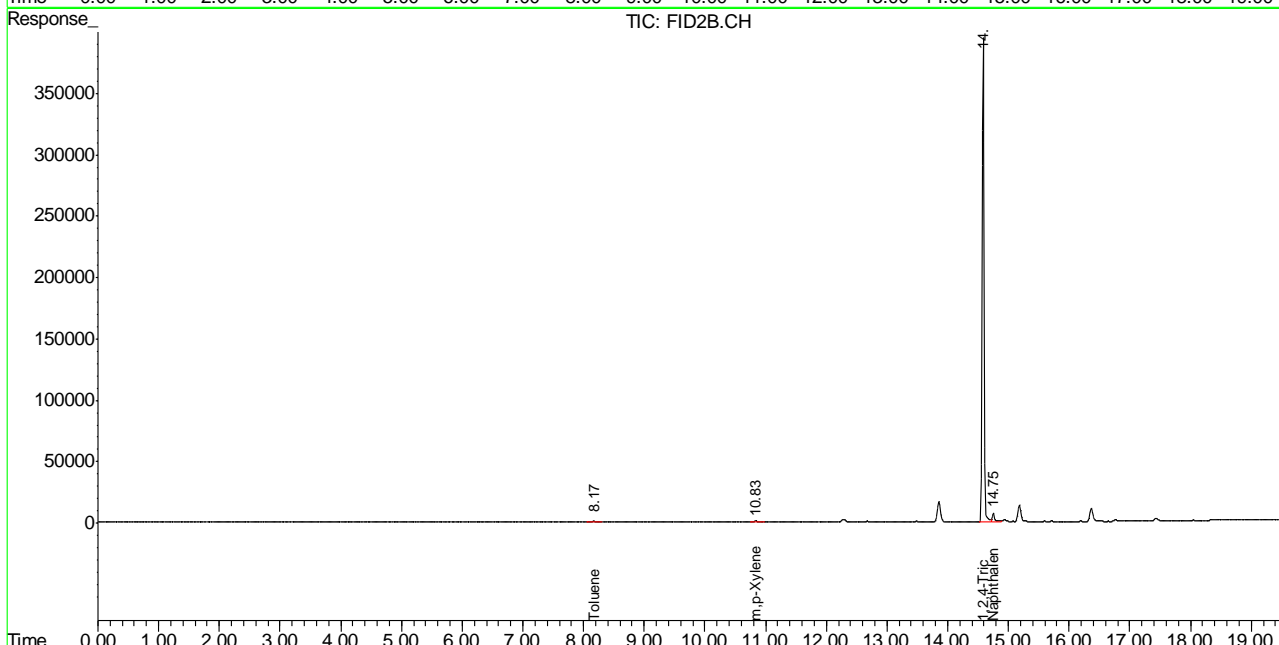
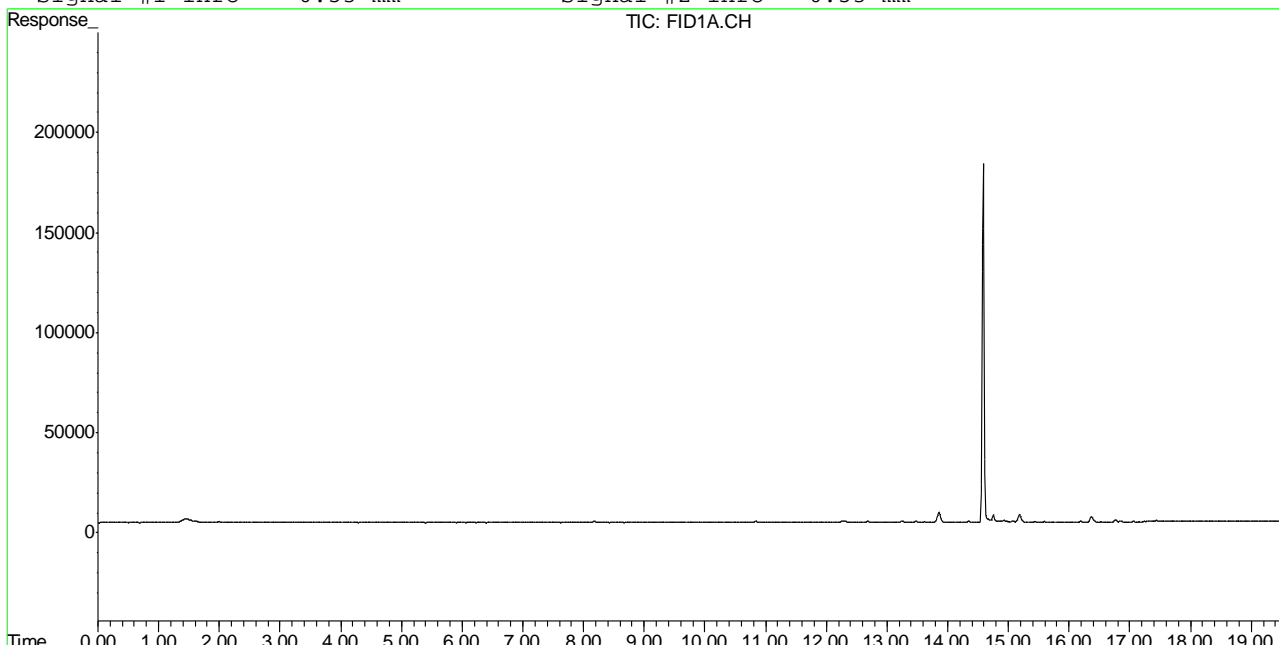
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0858.D TA582GA534.M Fri Apr 01 09:34:32 2011 GC

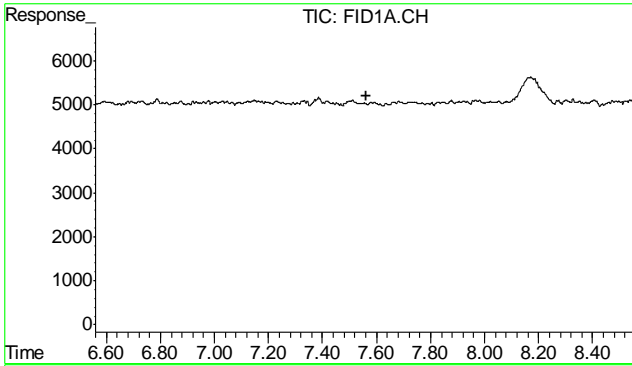
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0858.D\FID1A.CH Vial: 32  
 Signal #2 : Z:\033011\TA0858.D\FID2B.CH  
 Acq On : 31 Mar 2011 8:25 am Operator: BrianR  
 Sample : D22181-7 Inst : BTEX2  
 Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:59 2011 Quant Results File: TA582GA534.RES

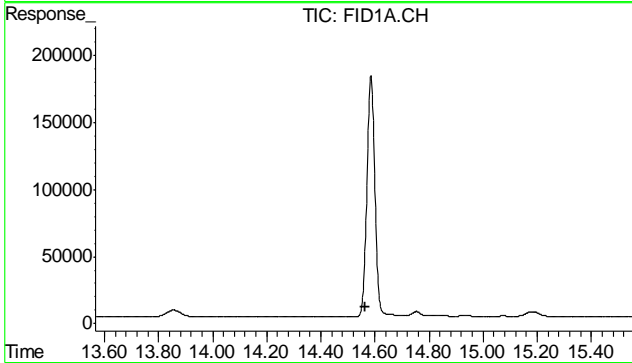
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:58:05 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

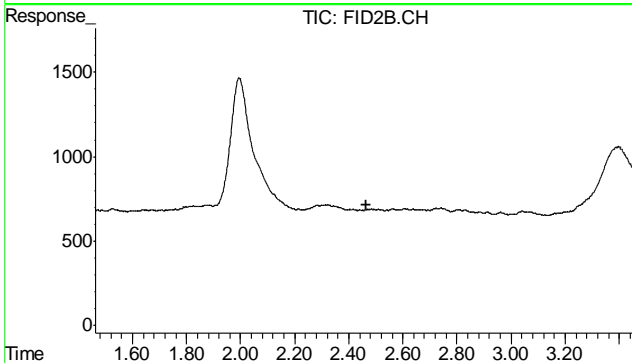




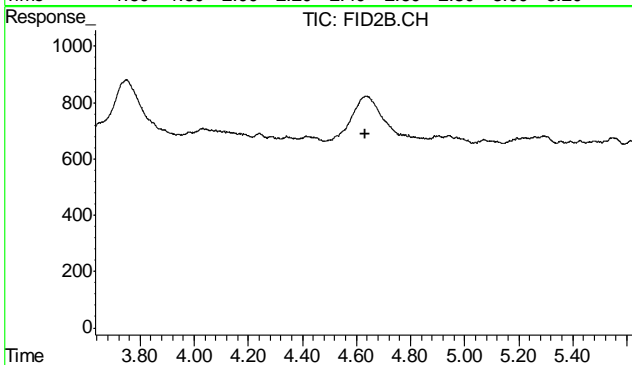
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



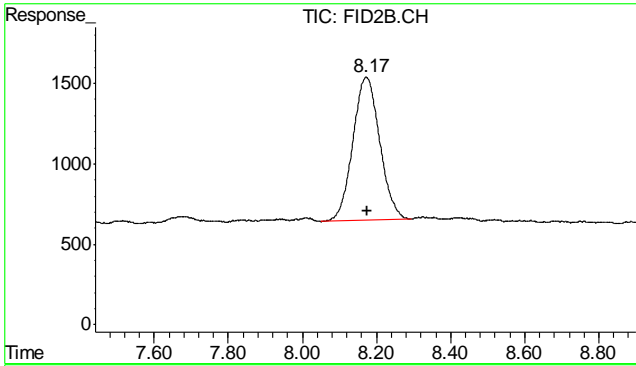
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



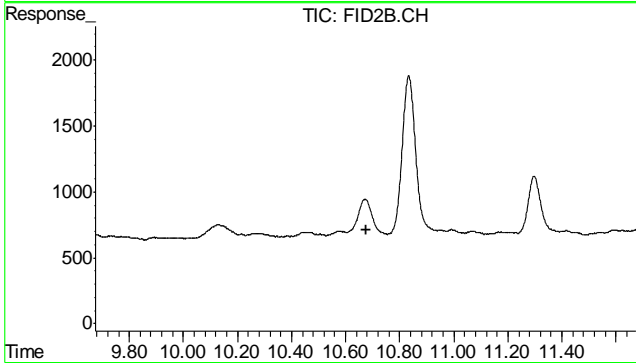
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.463 min  
 Response: 0  
 Conc: N.D.



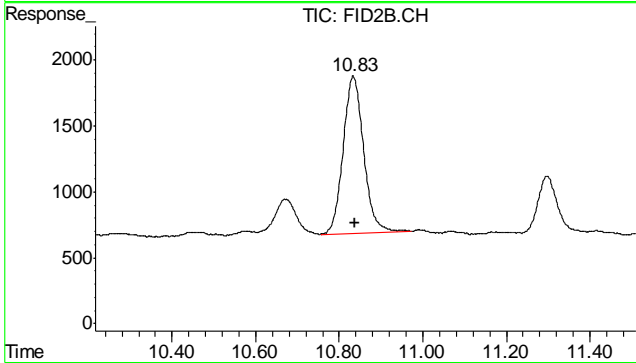
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.634 min  
 Response: 0  
 Conc: N.D.



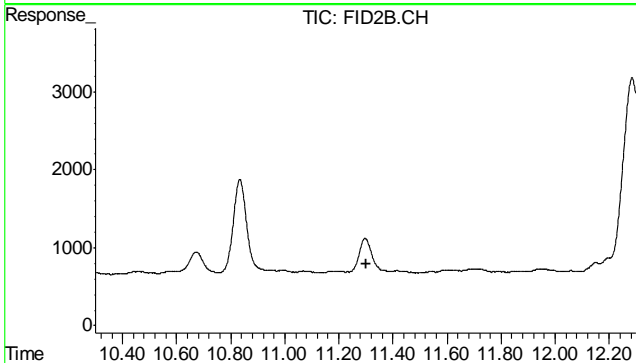
#6 Toluene  
 R.T.: 8.172 min  
 Delta R.T.: -0.003 min  
 Response: 44941  
 Conc: 0.18 ug/L



#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.675 min  
 Response: 0  
 Conc: N.D.

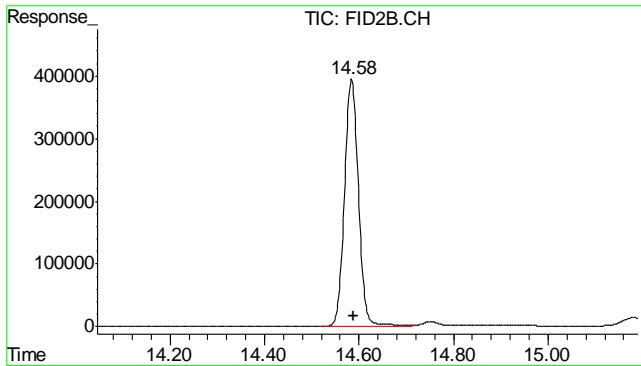


#8 m,p-Xylene  
 R.T.: 10.834 min  
 Delta R.T.: -0.004 min  
 Response: 40530  
 Conc: 0.16 ug/L



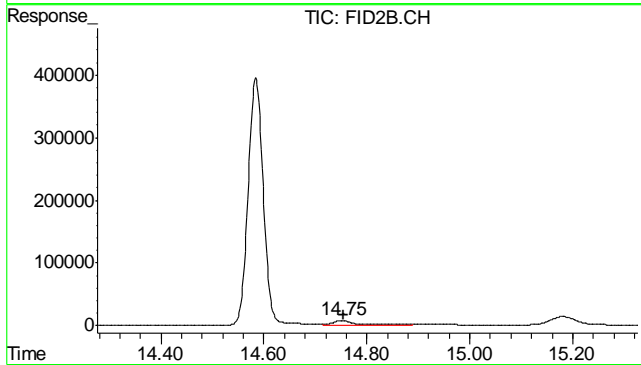
#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.300 min  
 Response: 0  
 Conc: N.D.





#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.585 min  
Delta R.T.: -0.004 min  
Response: 8103526  
Conc: 104.00 %



#11 Naphthalene

R.T.: 14.752 min  
Delta R.T.: -0.003 min  
Response: 238366  
Conc: 1.70 ug/L

Manual Integrations  
APPROVED  
(compounds with "m" flag)  
John Hamilton  
04/01/11 13:25

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0861.D\FID1A.CH Vial: 35  
Signal #2 : Z:\033011\TA0861.D\FID2B.CH  
Acq On : 31 Mar 2011 10:11 am Operator: BrianR  
Sample : D22181-8 Inst : BTEX2  
Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00  
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
Quant Time: Apr 01 09:15:44 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX  
Last Update : Fri Apr 01 09:15:19 2011  
Response via : Initial 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

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	0.00	0	N.D.	% d
10) S 1,2,4-Trichlorobenzene (P)	14.51	7906327	101.467	%
Target Compounds				
1) H TVH-Gasoline	0.00	0	N.D.	mg/L
4) T Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T Benzene	0.00	0	N.D.	ug/L d
6) T Toluene	7.99	52542	0.206	ug/L m
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	10.71	46798	0.181	ug/L
9) T o-Xylene	0.00	0	N.D.	ug/L d
11) T Naphthalene	14.68	261894	1.866	ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.  
TA0861.D TA582GA534.M Fri Apr 01 09:34:40 2011 GC

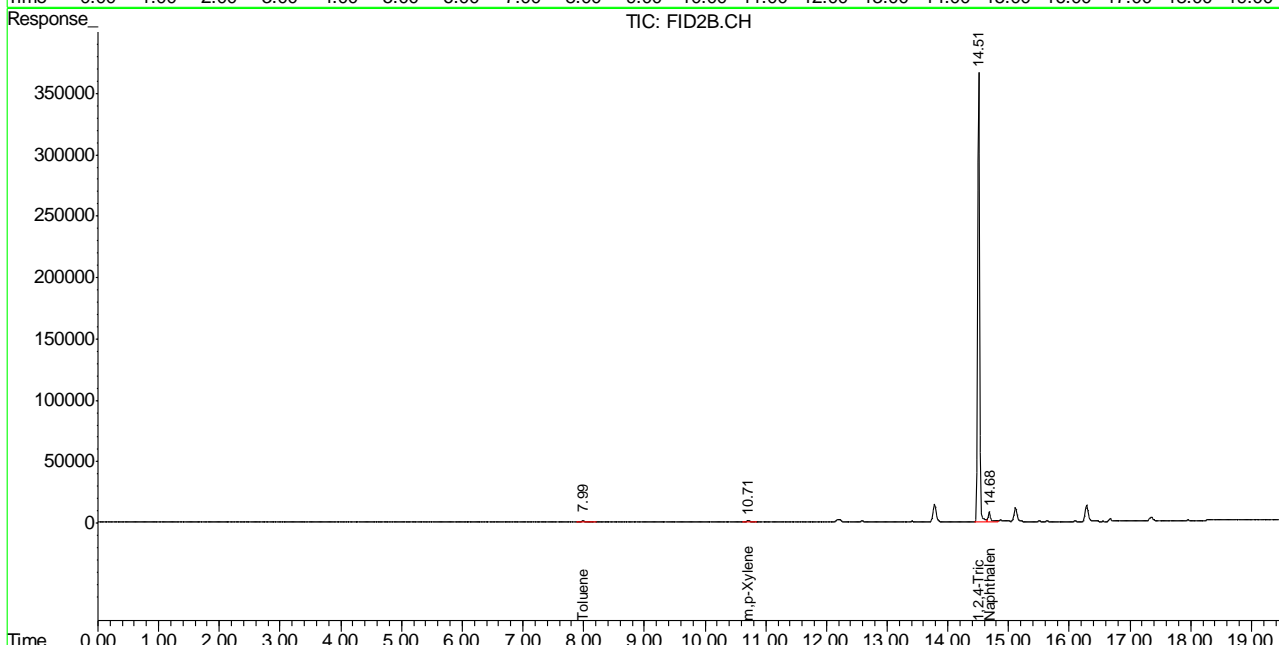
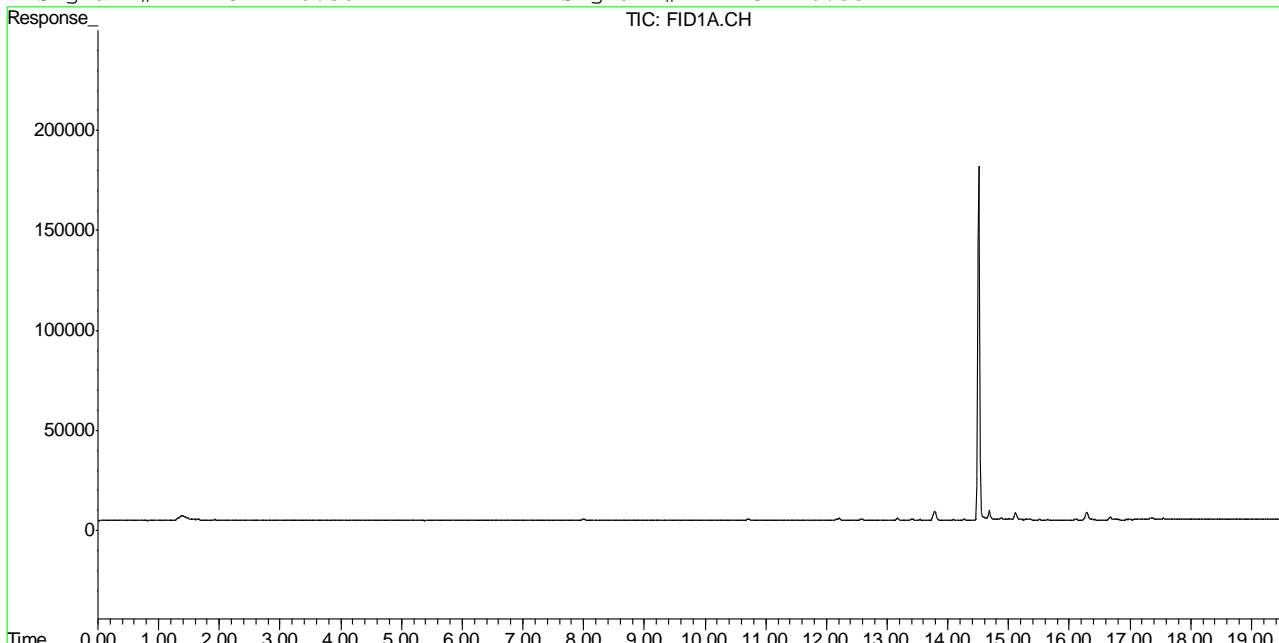
6.1.20  
6

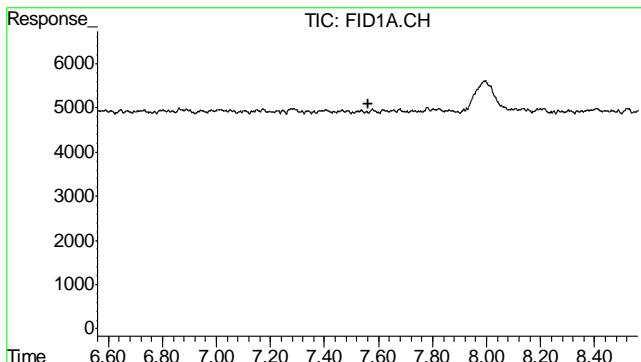
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0861.D\FID1A.CH Vial: 35  
 Signal #2 : Z:\033011\TA0861.D\FID2B.CH  
 Acq On : 31 Mar 2011 10:11 am Operator: BrianR  
 Sample : D22181-8 Inst : BTEX2  
 Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 7:16 2011 Quant Results File: TA582GA534.RES

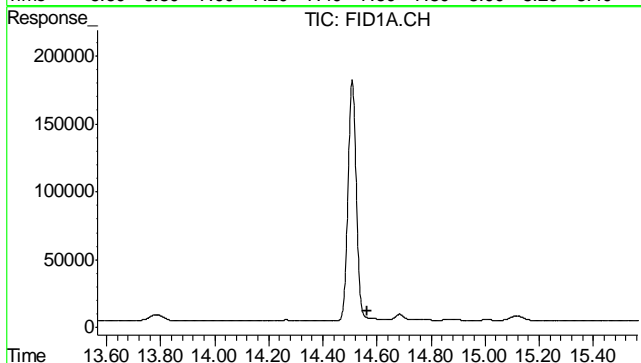
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 09:15:19 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

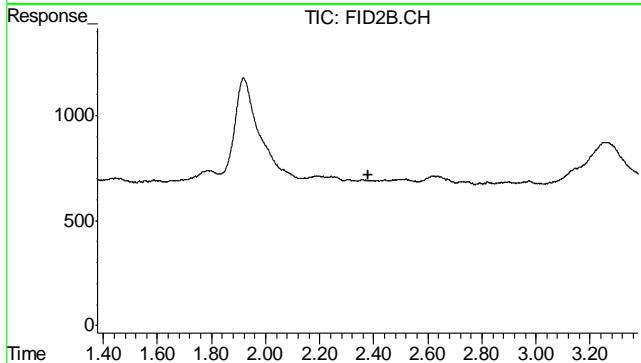




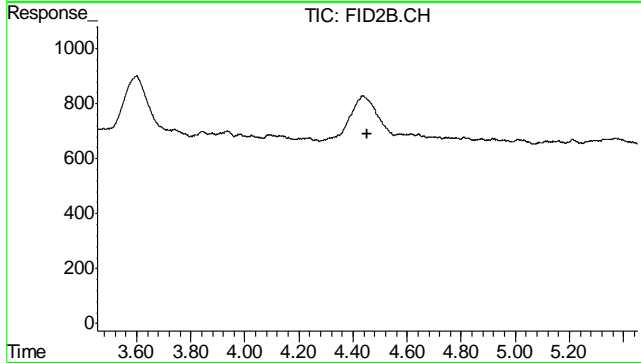
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



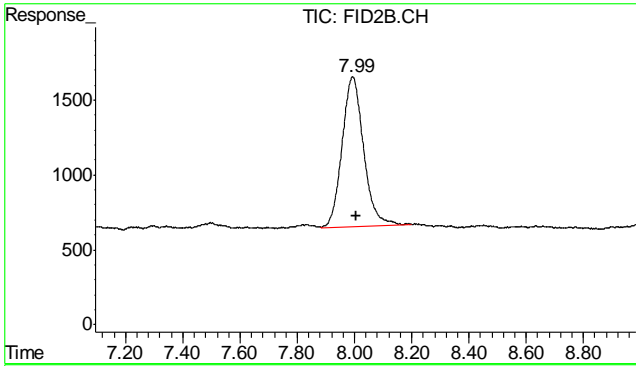
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



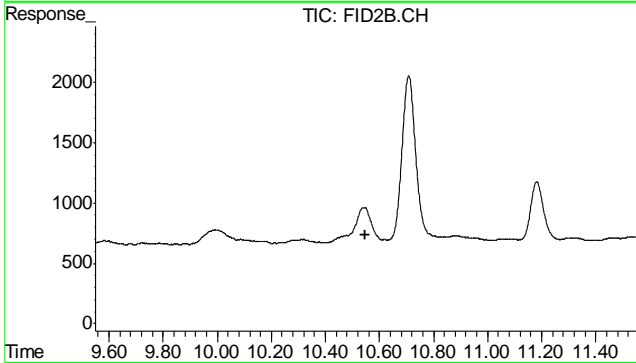
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.378 min  
 Response: 0  
 Conc: N.D.



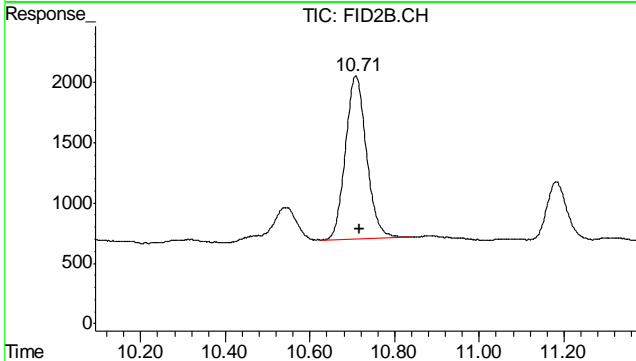
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.453 min  
 Response: 0  
 Conc: N.D.



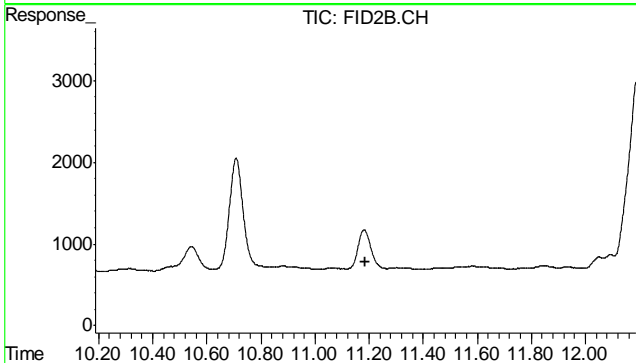
#6 Toluene  
 R.T.: 7.992 min  
 Delta R.T.: -0.015 min  
 Response: 52542  
 Conc: 0.21 ug/L m



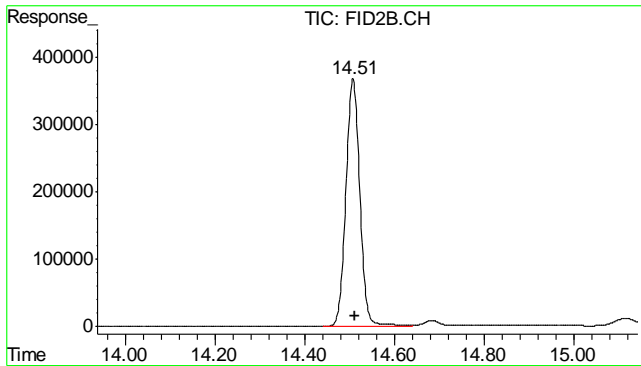
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.549 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 10.709 min  
 Delta R.T.: -0.008 min  
 Response: 46798  
 Conc: 0.18 ug/L

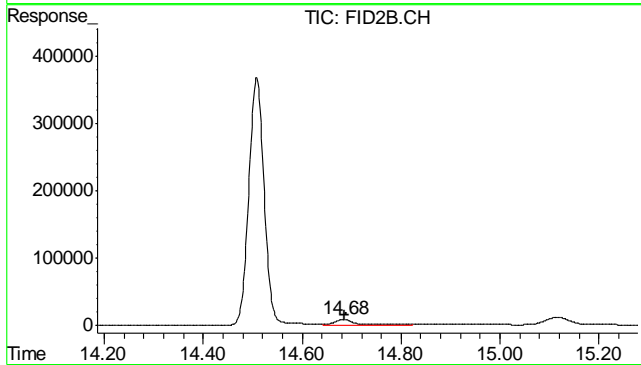


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.187 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.508 min  
 Delta R.T.: -0.005 min  
 Response: 7906327  
 Conc: 101.47 %



#11 Naphthalene

R.T.: 14.684 min  
 Delta R.T.: -0.002 min  
 Response: 261894  
 Conc: 1.87 ug/L

6.1.20

6

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0862.D\FID1A.CH Vial: 36
Signal #2 : Z:\033011\TA0862.D\FID2B.CH
Acq On : 31 Mar 2011 10:46 am Operator: BrianR
Sample : D22181-9 Inst : BTEX2
Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 09:15:47 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 09:15:19 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (e.g., 1,2,4-Trichlorobenzene) and Target Compounds (e.g., TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

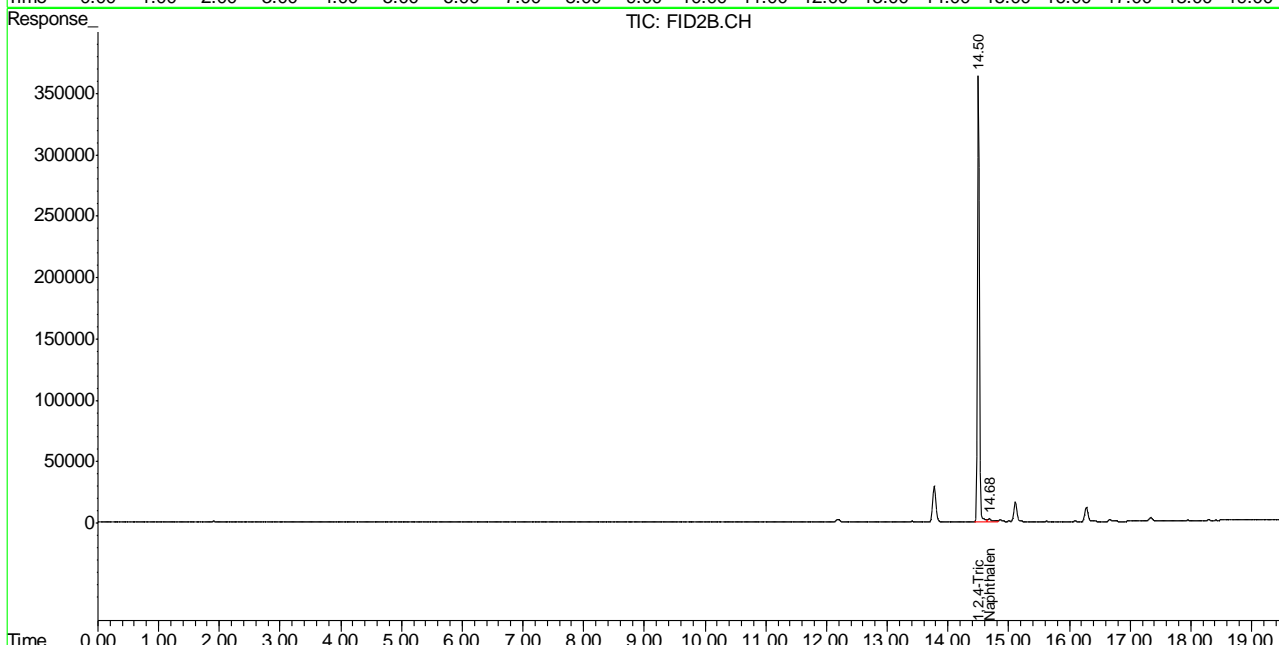
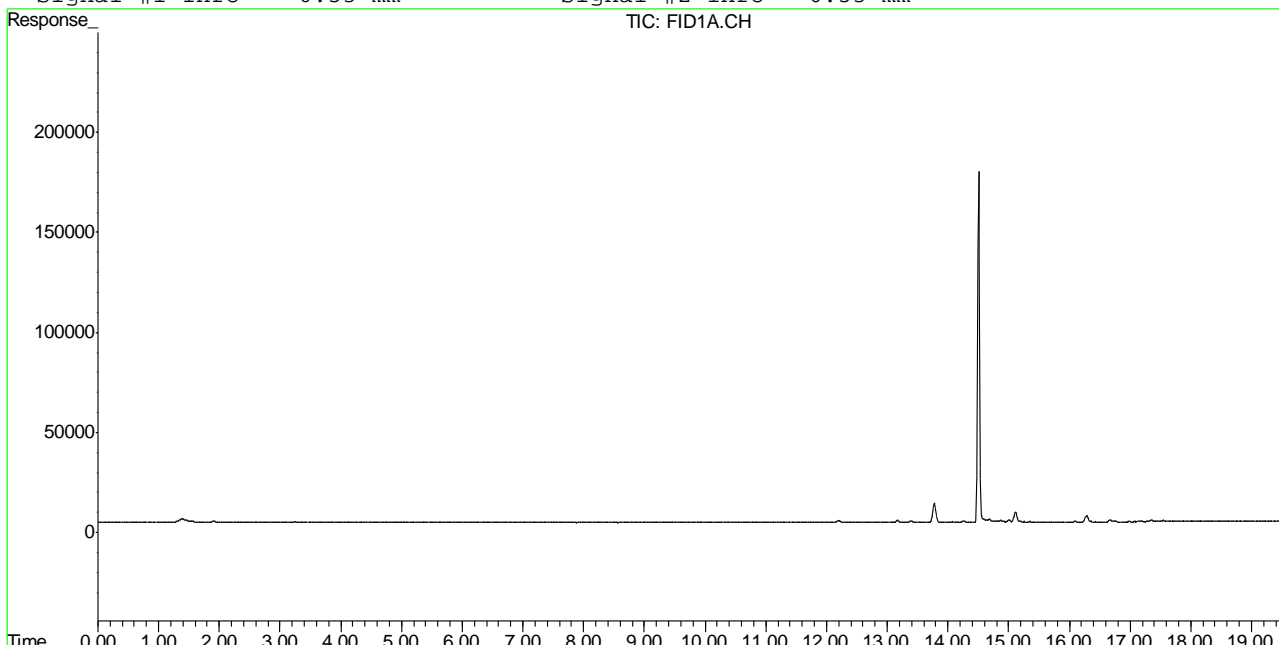
6.1.21
6

Quantitation Report (QT Reviewed)

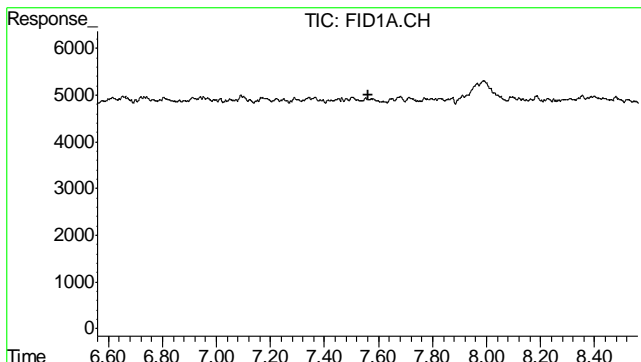
Signal #1 : Z:\033011\TA0862.D\FID1A.CH Vial: 36  
 Signal #2 : Z:\033011\TA0862.D\FID2B.CH  
 Acq On : 31 Mar 2011 10:46 am Operator: BrianR  
 Sample : D22181-9 Inst : BTEX2  
 Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 7:16 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 09:15:19 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

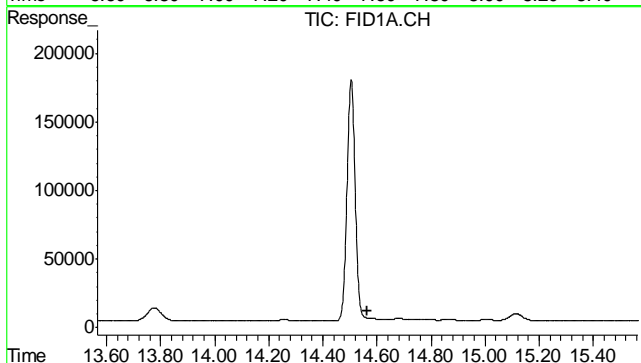
Volume Inj. :  
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624  
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm



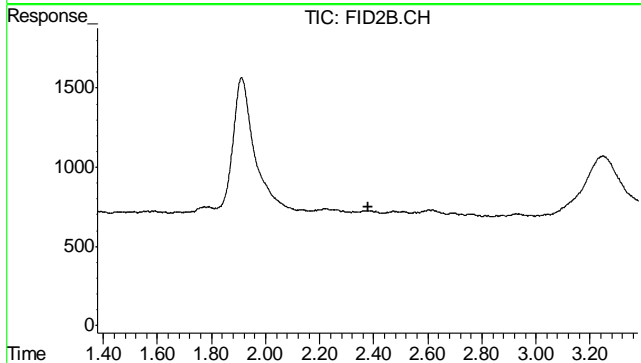




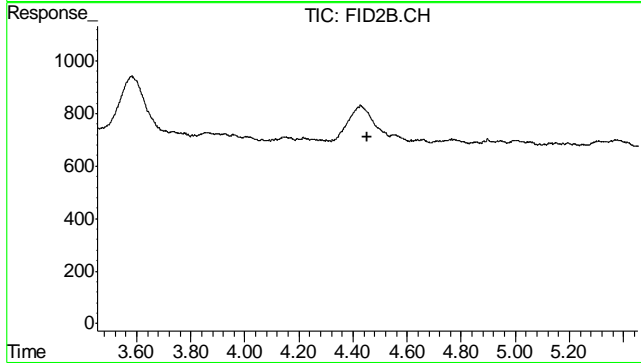
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



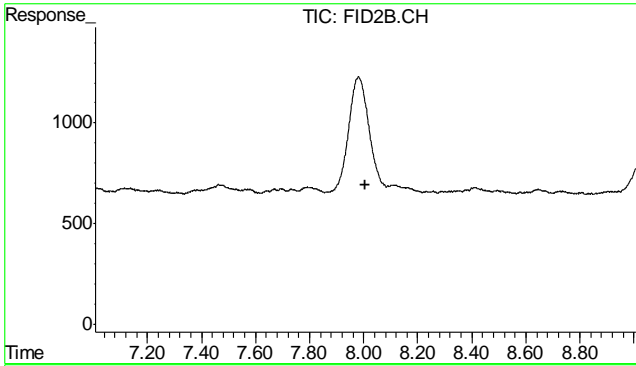
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



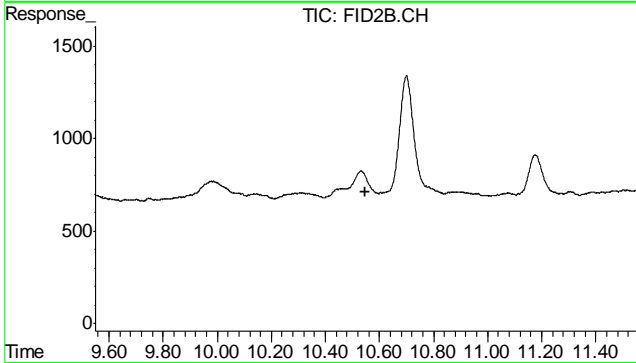
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.378 min  
 Response: 0  
 Conc: N.D.



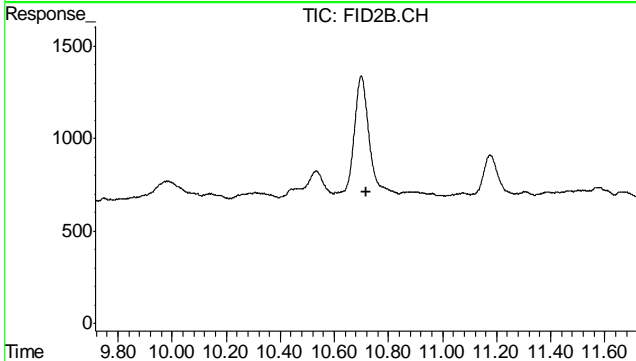
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.453 min  
 Response: 0  
 Conc: N.D.



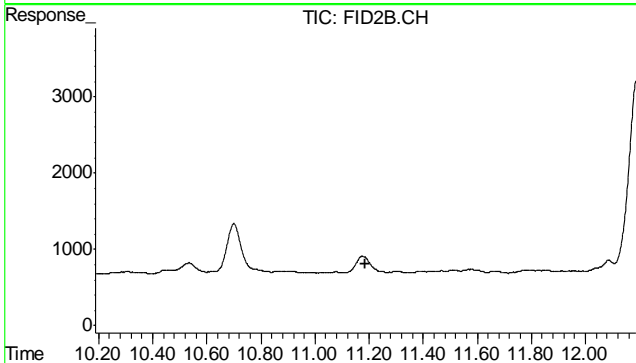
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 8.007 min  
 Response: 0  
 Conc: N.D.



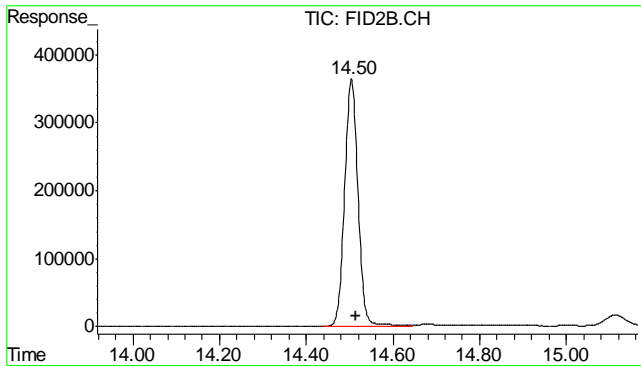
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.549 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.717 min  
 Response: 0  
 Conc: N.D.

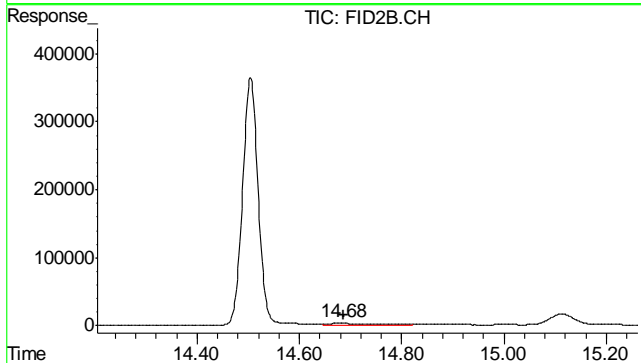


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.187 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.505 min  
 Delta R.T.: -0.009 min  
 Response: 7782047  
 Conc: 99.87 %



#11 Naphthalene

R.T.: 14.682 min  
 Delta R.T.: -0.005 min  
 Response: 140778  
 Conc: 1.00 ug/L

6.1.21

6

Manual Integrations  
APPROVED  
(compounds with "m" flag)  
John Hamilton  
04/01/11 13:25

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0863.D\FID1A.CH Vial: 37  
Signal #2 : Z:\033011\TA0863.D\FID2B.CH  
Acq On : 31 Mar 2011 11:22 am Operator: BrianR  
Sample : D22181-10 Inst : BTEX2  
Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00  
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
Quant Time: Apr 01 09:15:50 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX  
Last Update : Fri Apr 01 09:15:19 2011  
Response via : Initial 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

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	0.00	0	N.D.	% d
10) S 1,2,4-Trichlorobenzene (P)	14.50	7683654	98.609	%
Target Compounds				
1) H TVH-Gasoline	0.00	0	N.D.	mg/L
4) T Methyl-t-butyl-ether	2.36	86660	0.999	ug/L m
5) T Benzene	4.42	15805564	57.536	ug/L m
6) T Toluene	7.97	45577	0.179	ug/L
7) T Ethylbenzene	10.52	83727	0.369	ug/L
8) T m,p-Xylene	10.69	3230455	12.506	ug/L
9) T o-Xylene	11.16	414947	1.956	ug/L
11) T Naphthalene	14.68	116517	0.830	ug/L

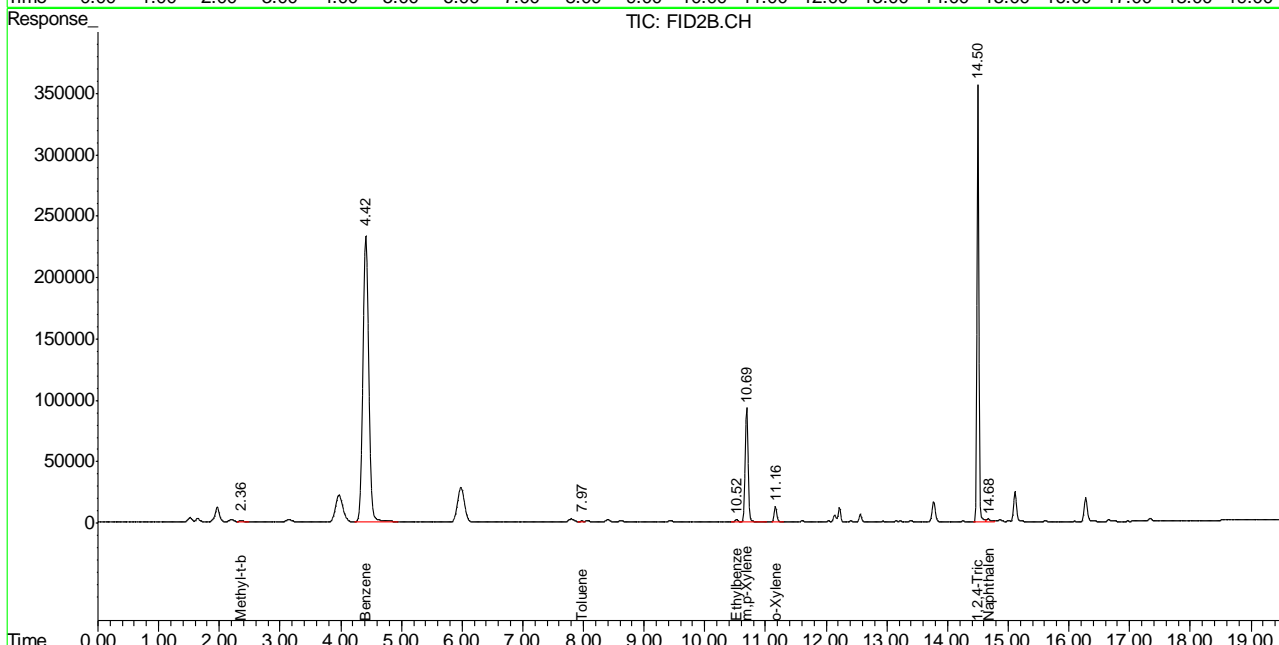
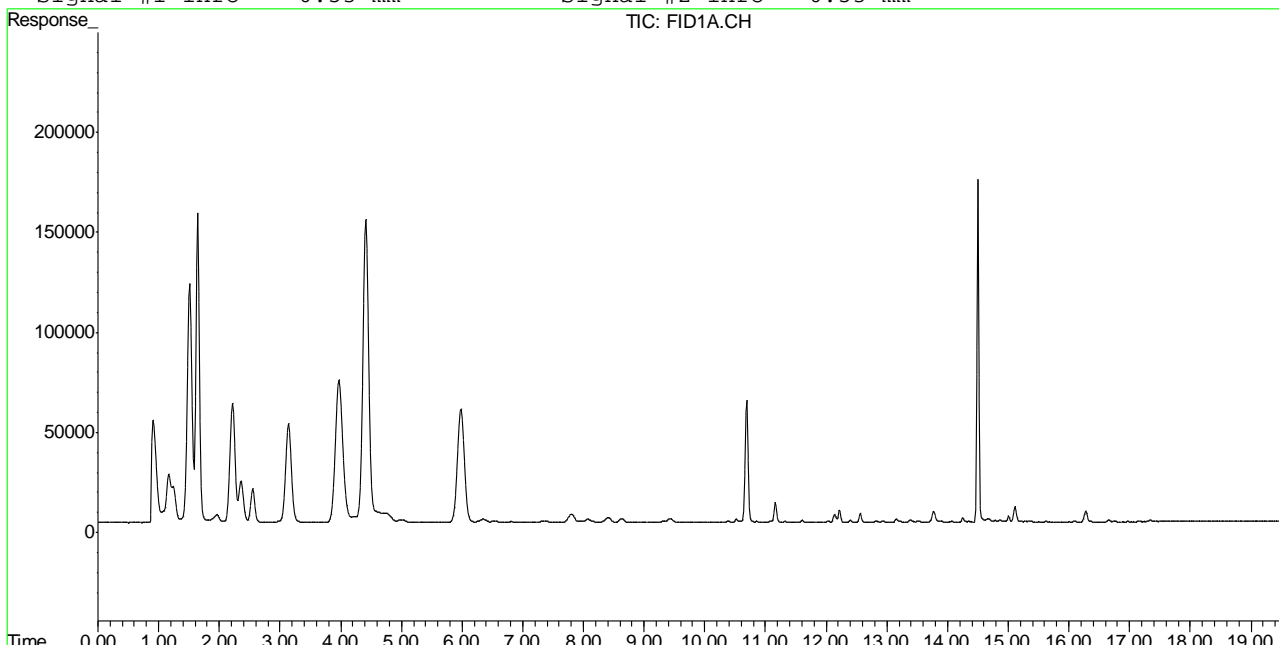
6.1.22  
6

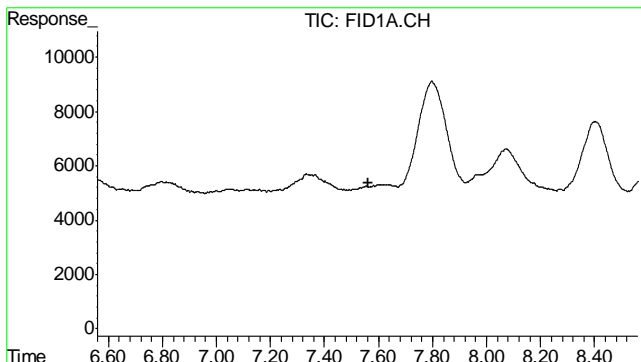
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0863.D\FID1A.CH Vial: 37
Signal #2 : Z:\033011\TA0863.D\FID2B.CH
Acq On : 31 Mar 2011 11:22 am Operator: BrianR
Sample : D22181-10 Inst : BTEX2
Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 1 7:17 2011 Quant Results File: TA582GA534.RES

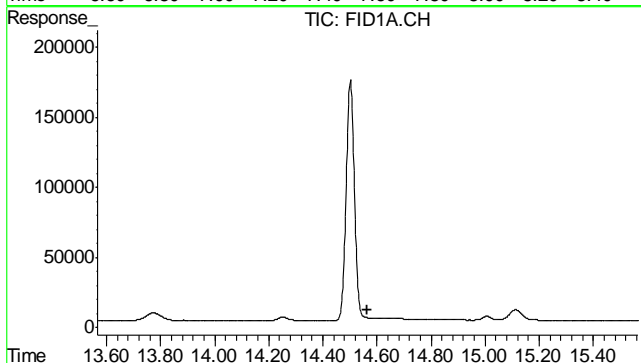
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 09:15:19 2011
Response via : Multiple Level Calibration
DataAcq Meth : TVB2.M

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

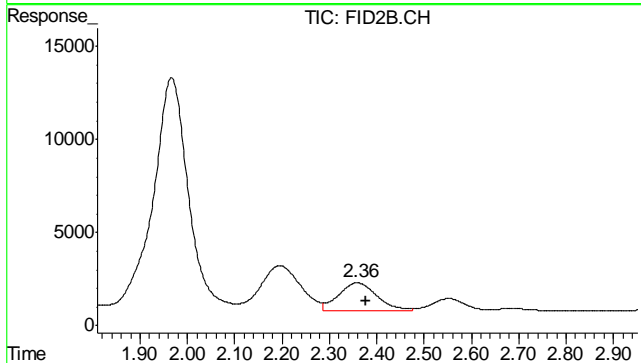




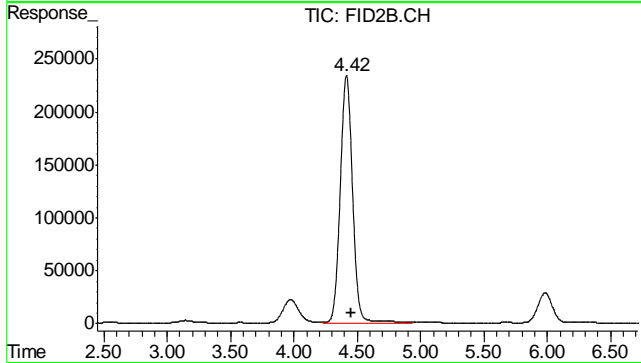
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T.: 7.560 min  
 Response: 0  
 Conc: N.D.



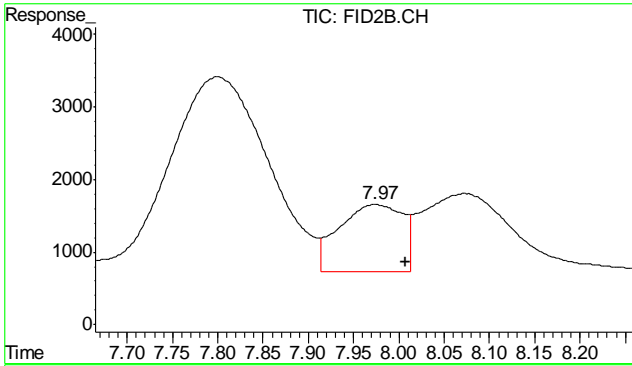
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T.: 14.565 min  
 Response: 0  
 Conc: N.D.



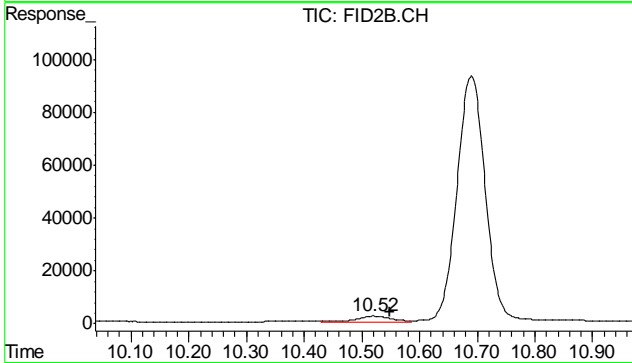
#4 Methyl-t-butyl-ether  
 R.T.: 2.357 min  
 Delta R.T.: -0.021 min  
 Response: 86660  
 Conc: 1.00 ug/L m



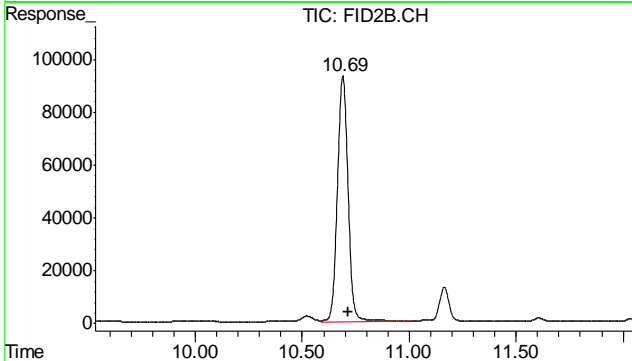
#5 Benzene  
 R.T.: 4.416 min  
 Delta R.T.: -0.038 min  
 Response: 1580564  
 Conc: 57.54 ug/L m



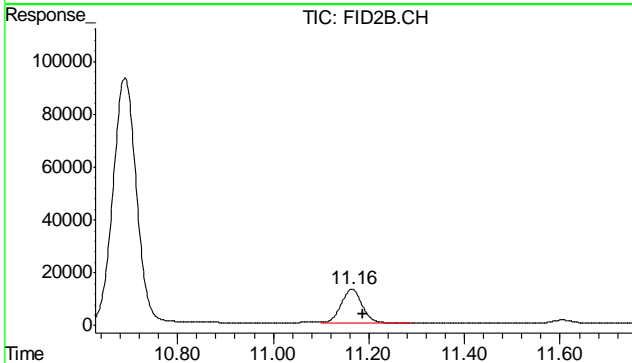
#6 Toluene  
 R.T.: 7.974 min  
 Delta R.T.: -0.033 min  
 Response: 45577  
 Conc: 0.18 ug/L



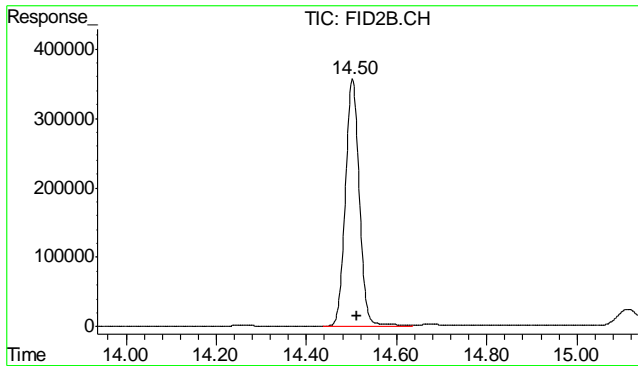
#7 Ethylbenzene  
 R.T.: 10.521 min  
 Delta R.T.: -0.027 min  
 Response: 83727  
 Conc: 0.37 ug/L



#8 m,p-Xylene  
 R.T.: 10.690 min  
 Delta R.T.: -0.027 min  
 Response: 3230455  
 Conc: 12.51 ug/L

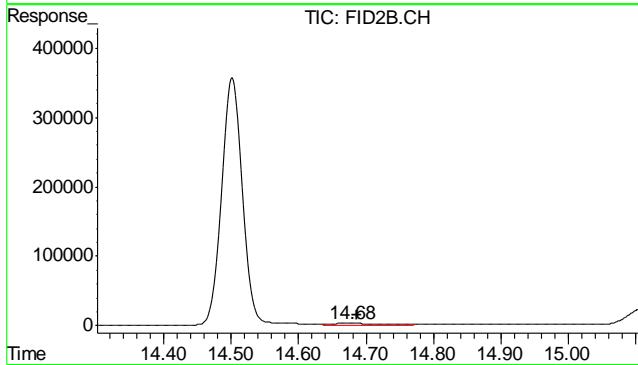


#9 o-Xylene  
 R.T.: 11.165 min  
 Delta R.T.: -0.022 min  
 Response: 414947  
 Conc: 1.96 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.502 min  
 Delta R.T.: -0.011 min  
 Response: 7683654  
 Conc: 98.61 %



#11 Naphthalene

R.T.: 14.677 min  
 Delta R.T.: -0.009 min  
 Response: 116517  
 Conc: 0.83 ug/L

6.1.22

6



Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0864.D\FID1A.CH Vial: 38
Signal #2 : Z:\033011\TA0864.D\FID2B.CH
Acq On : 31 Mar 2011 11:58 am Operator: BrianR
Sample : D22181-11 Inst : BTEX2
Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 09:15:53 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 09:15:19 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

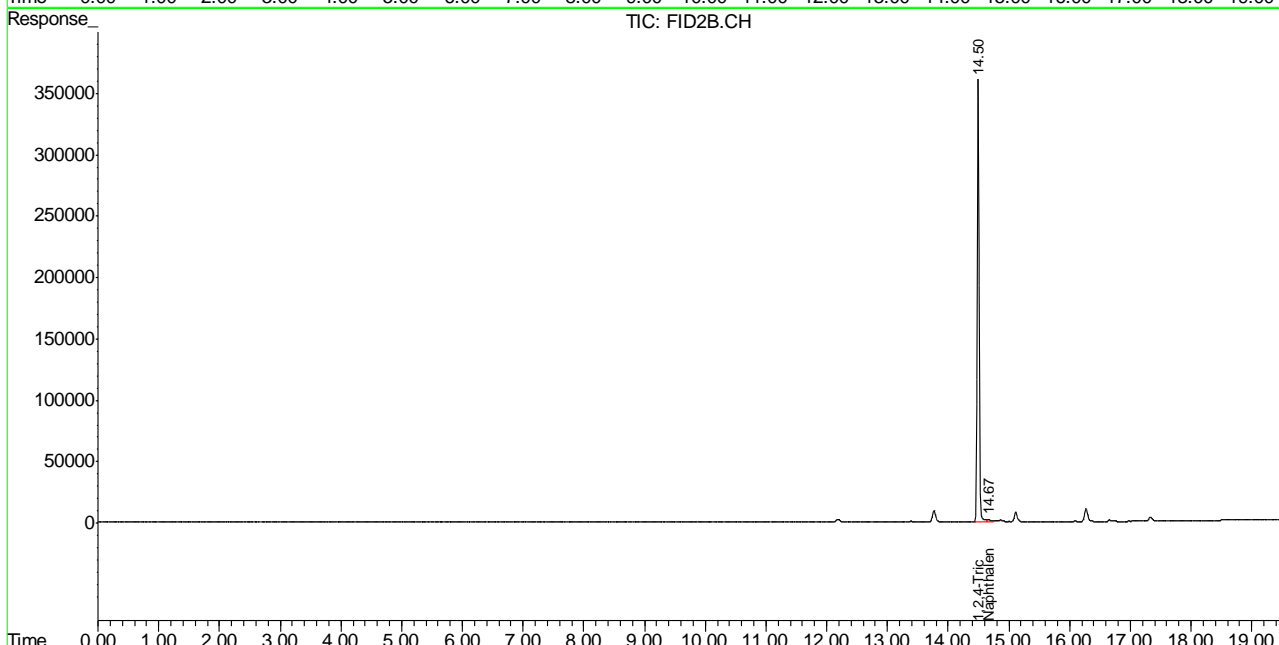
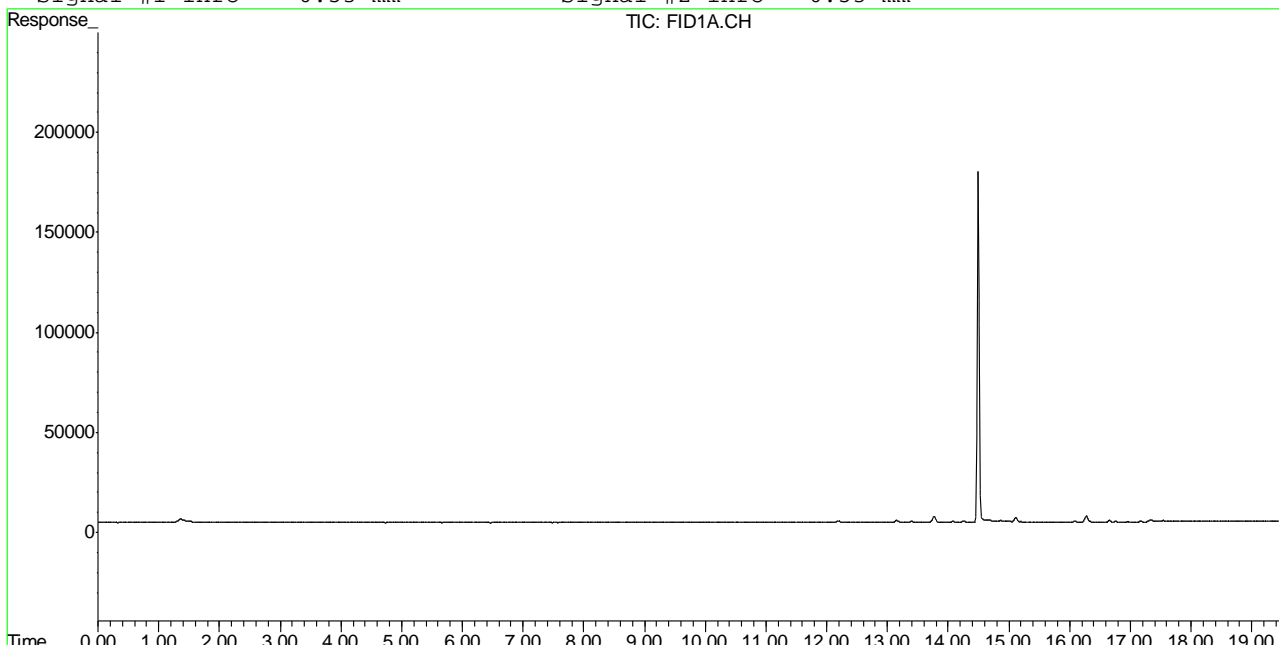
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0864.D TA582GA534.M Fri Apr 01 09:34:47 2011 GC

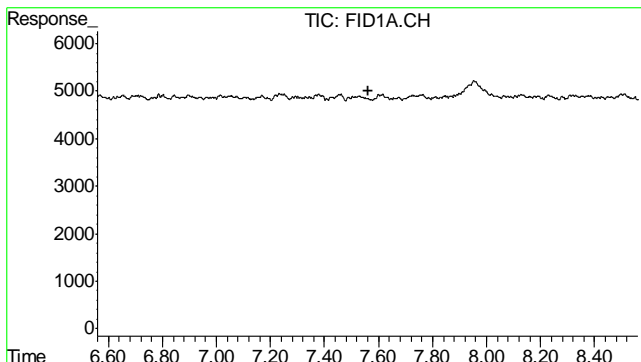
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0864.D\FID1A.CH Vial: 38  
 Signal #2 : Z:\033011\TA0864.D\FID2B.CH  
 Acq On : 31 Mar 2011 11:58 am Operator: BrianR  
 Sample : D22181-11 Inst : BTEX2  
 Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 7:18 2011 Quant Results File: TA582GA534.RES

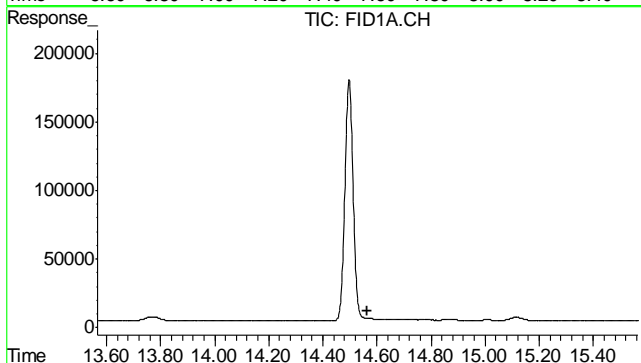
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 09:15:19 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

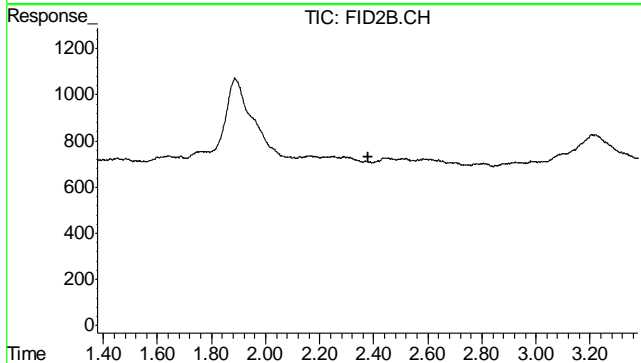




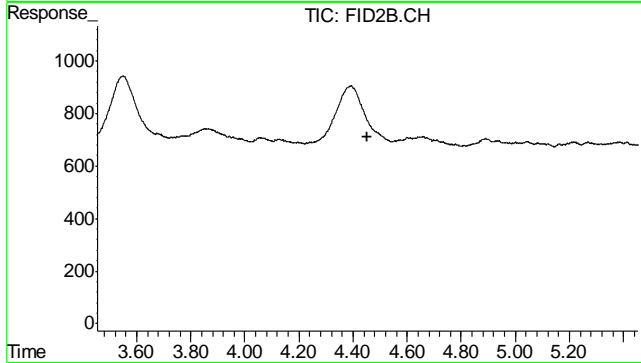
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



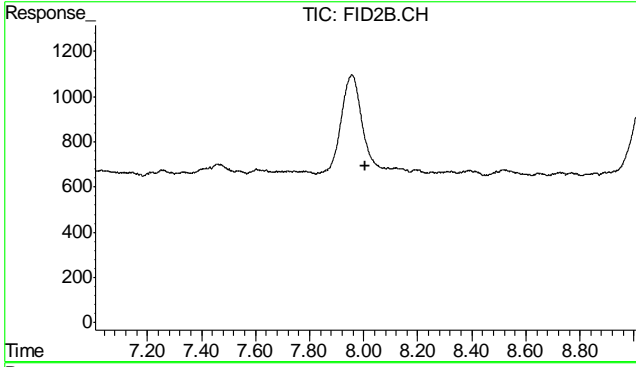
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



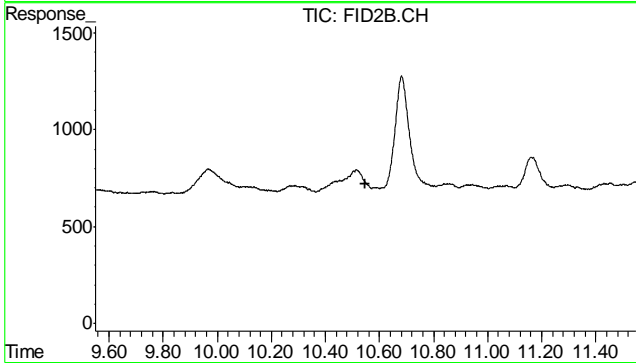
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.378 min  
 Response: 0  
 Conc: N.D.



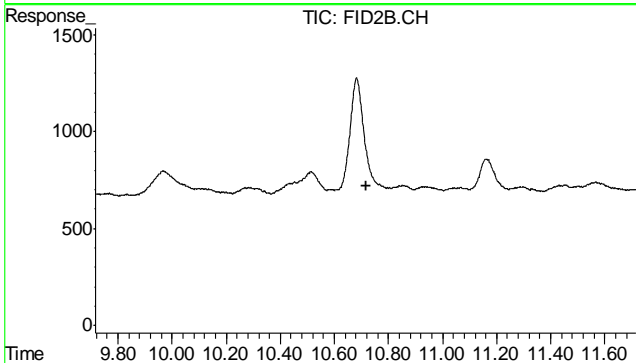
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.453 min  
 Response: 0  
 Conc: N.D.



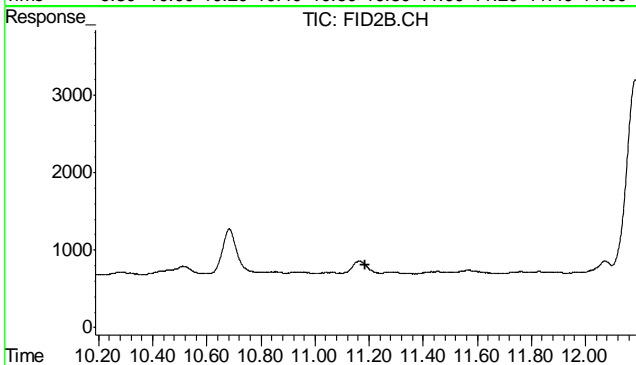
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 8.007 min  
 Response: 0  
 Conc: N.D.



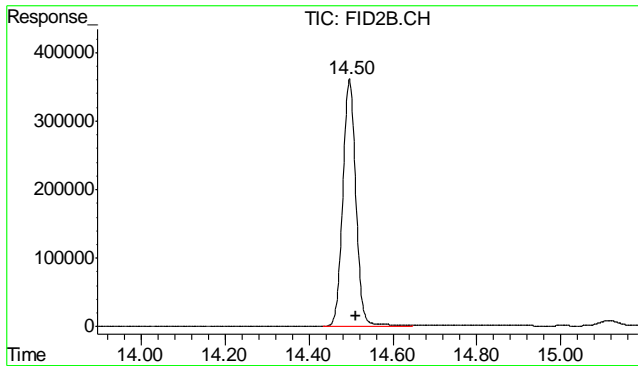
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.549 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.717 min  
 Response: 0  
 Conc: N.D.

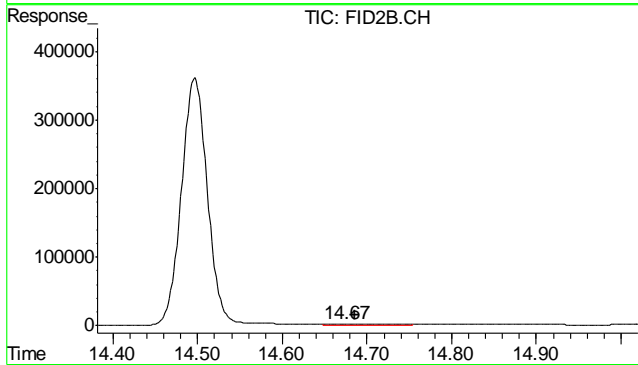


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.187 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.497 min  
 Delta R.T.: -0.017 min  
 Response: 7787925  
 Conc: 99.95 %



#11 Naphthalene

R.T.: 14.675 min  
 Delta R.T.: -0.012 min  
 Response: 83890  
 Conc: 0.60 ug/L

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0865.D\FID1A.CH Vial: 39
Signal #2 : Z:\033011\TA0865.D\FID2B.CH
Acq On : 31 Mar 2011 12:33 pm Operator: BrianR
Sample : D22181-12 Inst : BTEX2
Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 09:15:56 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 09:15:19 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

6.1.24 6

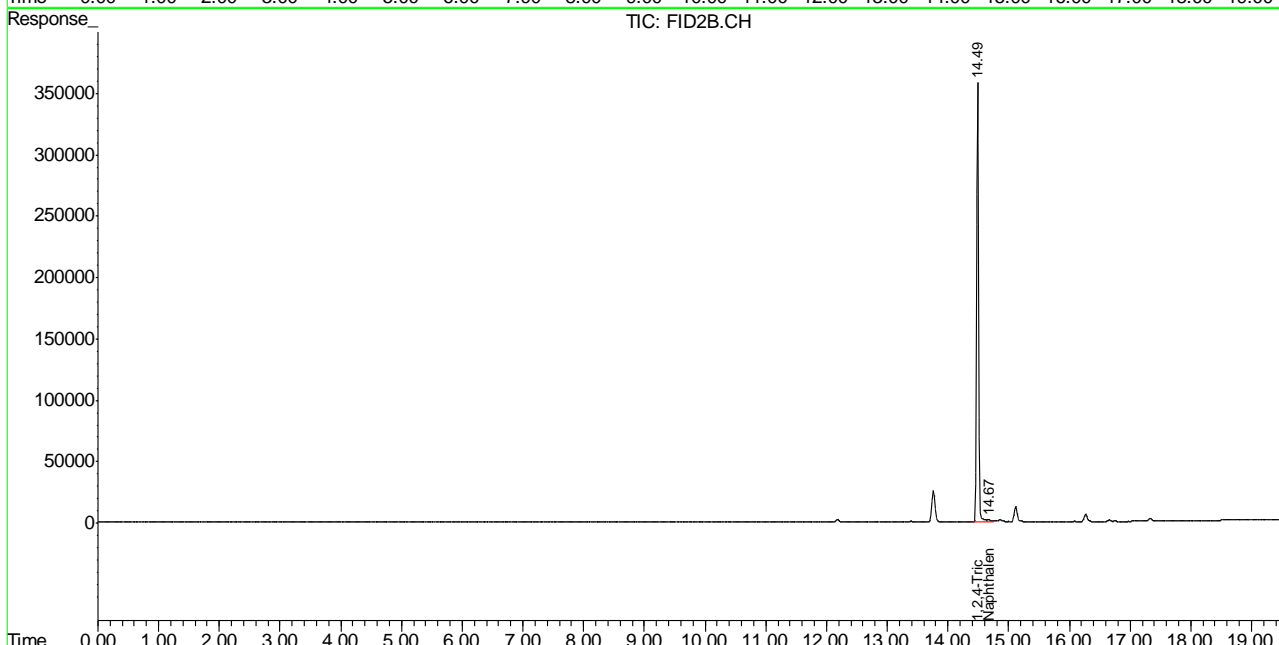
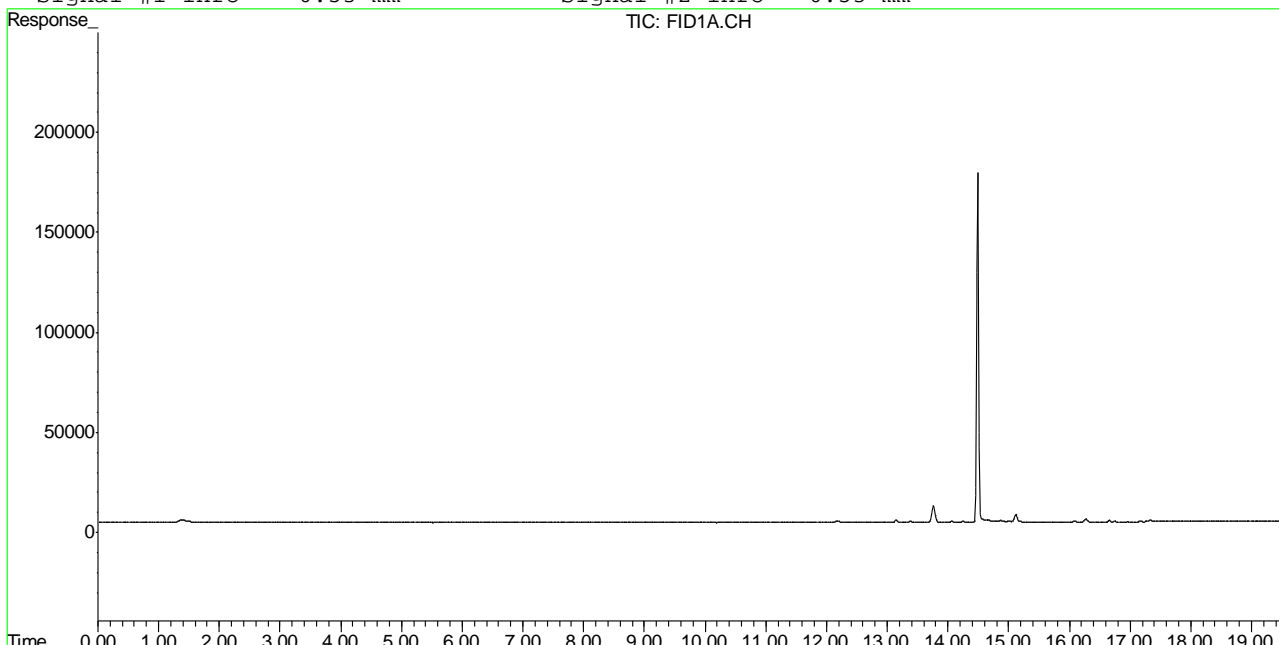
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0865.D TA582GA534.M Fri Apr 01 09:34:50 2011 GC

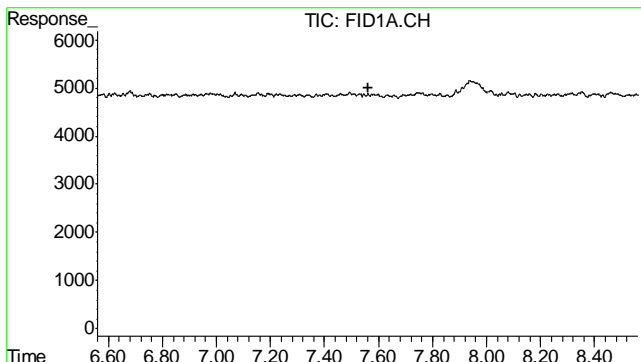
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0865.D\FID1A.CH Vial: 39  
 Signal #2 : Z:\033011\TA0865.D\FID2B.CH  
 Acq On : 31 Mar 2011 12:33 pm Operator: BrianR  
 Sample : D22181-12 Inst : BTEX2  
 Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 7:18 2011 Quant Results File: TA582GA534.RES

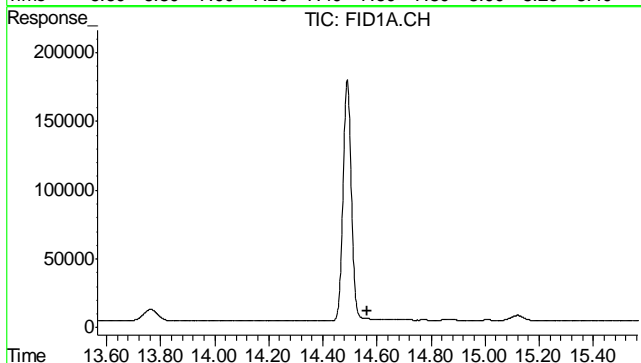
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 09:15:19 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

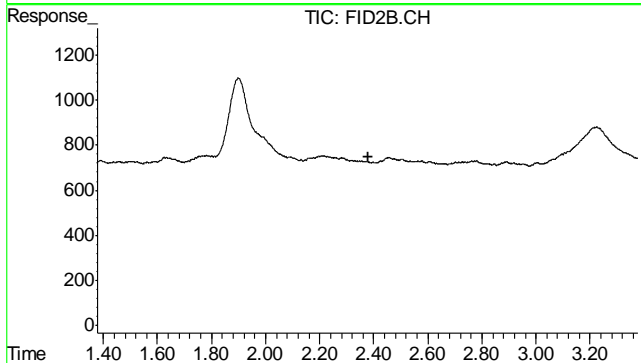




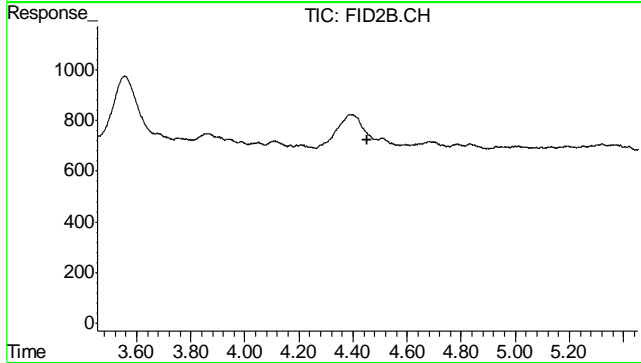
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.

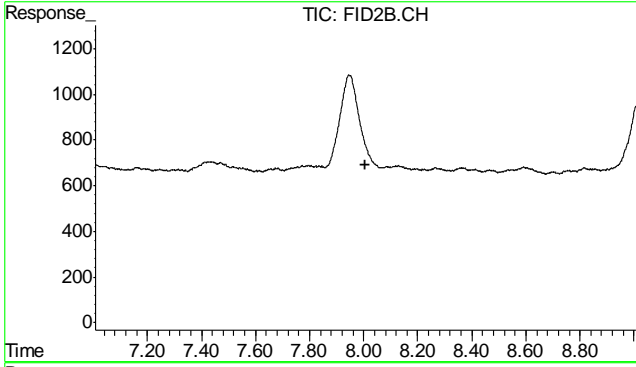


#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.378 min  
 Response: 0  
 Conc: N.D.

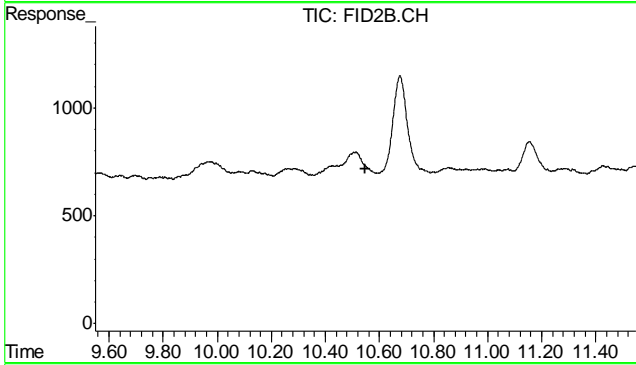


#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.453 min  
 Response: 0  
 Conc: N.D.

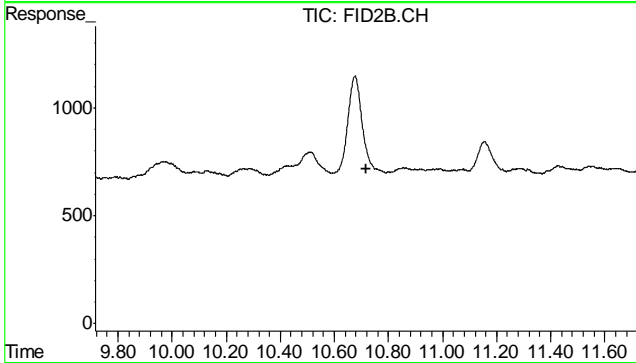




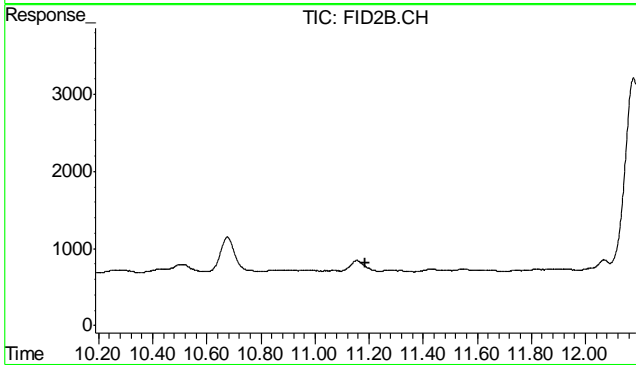
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 8.007 min  
 Response: 0  
 Conc: N.D.



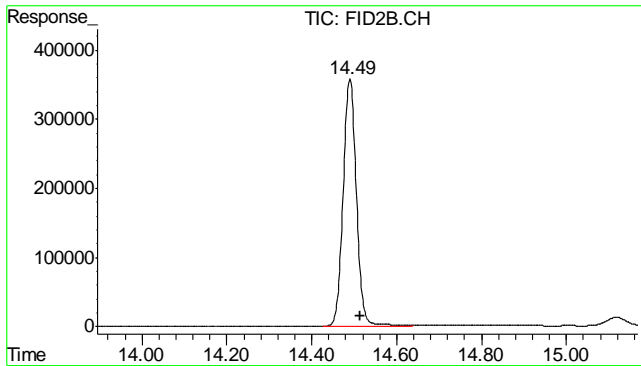
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.549 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.717 min  
 Response: 0  
 Conc: N.D.

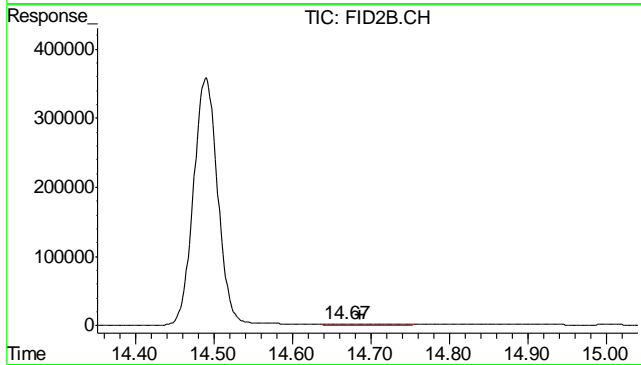


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.187 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.490 min  
 Delta R.T.: -0.023 min  
 Response: 7747040  
 Conc: 99.42 %



#11 Naphthalene

R.T.: 14.668 min  
 Delta R.T.: -0.018 min  
 Response: 76633  
 Conc: 0.55 ug/L

6.1.24

6

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0866.D\FID1A.CH Vial: 40
Signal #2 : Z:\033011\TA0866.D\FID2B.CH
Acq On : 31 Mar 2011 1:09 pm Operator: BrianR
Sample : D22181-13 Inst : BTEX2
Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 09:15:59 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 09:15:19 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds and Target Compounds sections.

6.1.25 6

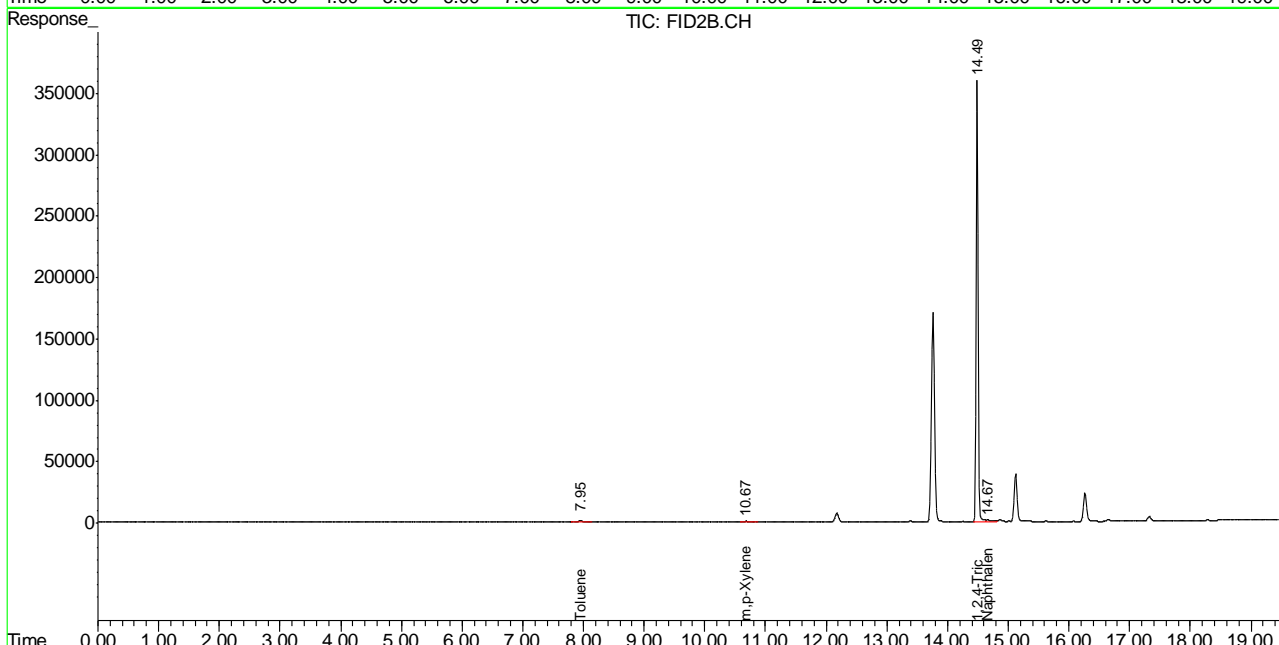
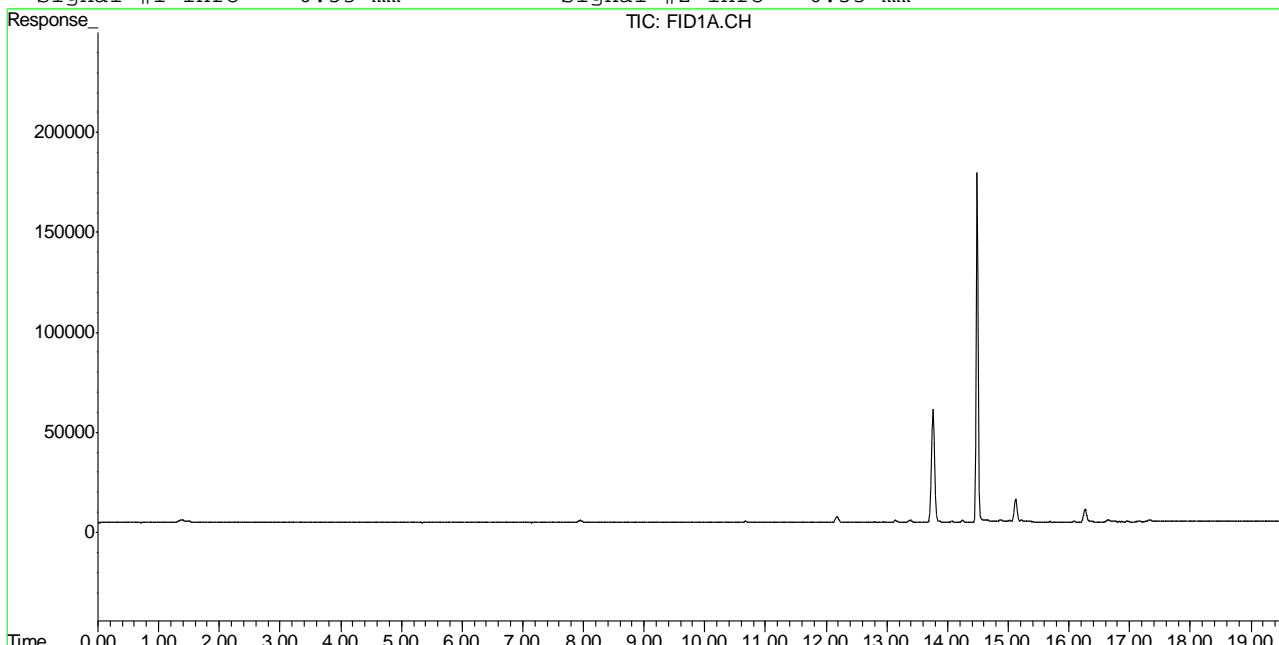
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0866.D TA582GA534.M Fri Apr 01 09:34:52 2011 GC

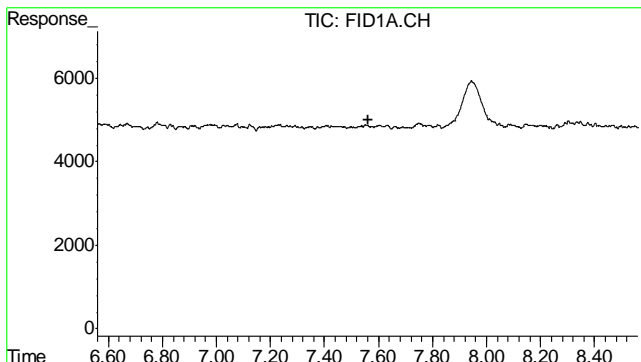
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0866.D\FID1A.CH Vial: 40  
 Signal #2 : Z:\033011\TA0866.D\FID2B.CH  
 Acq On : 31 Mar 2011 1:09 pm Operator: BrianR  
 Sample : D22181-13 Inst : BTEX2  
 Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 7:18 2011 Quant Results File: TA582GA534.RES

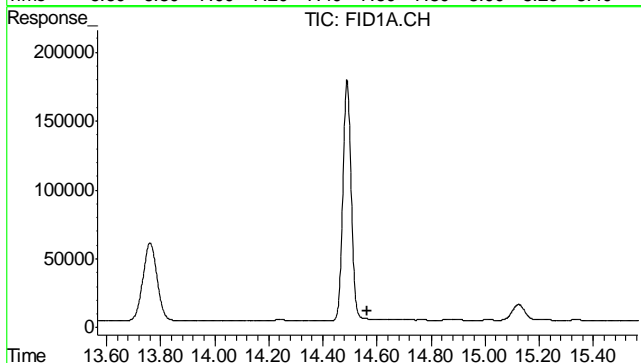
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 09:15:19 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

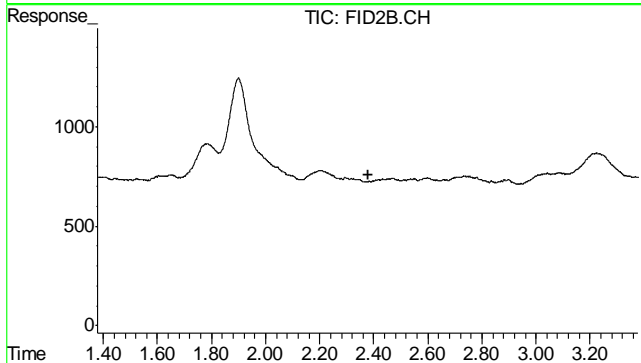




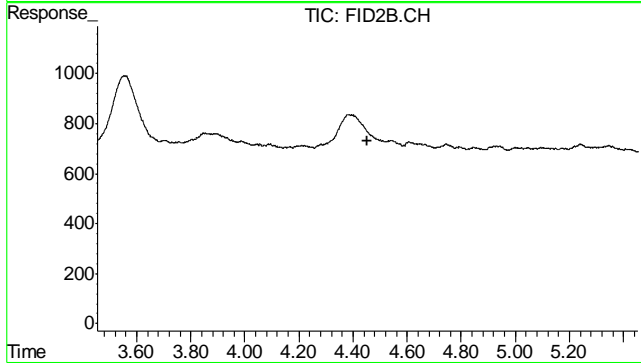
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



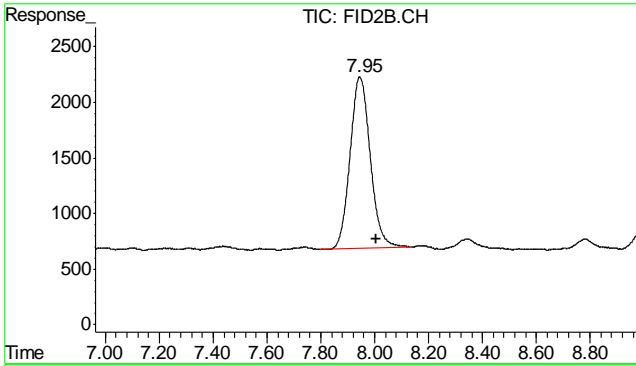
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.378 min  
 Response: 0  
 Conc: N.D.



#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.453 min  
 Response: 0  
 Conc: N.D.



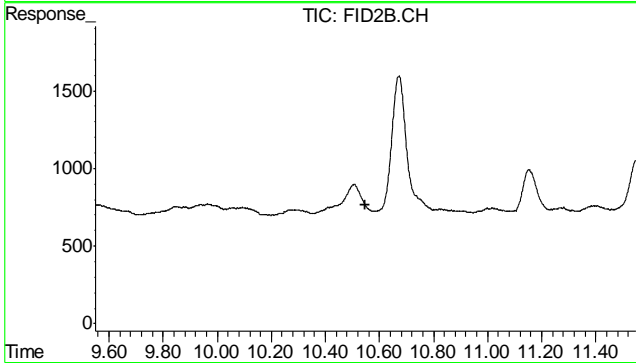
#6 Toluene

R.T.: 7.945 min

Delta R.T.: -0.062 min

Response: 79670

Conc: 0.31 ug/L



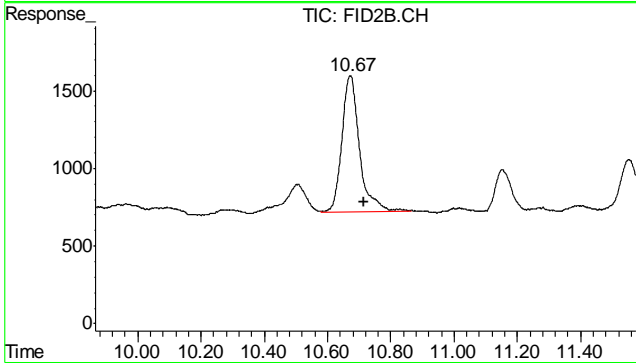
#7 Ethylbenzene

R.T.: 0.000 min

Exp R.T. : 10.549 min

Response: 0

Conc: N.D.



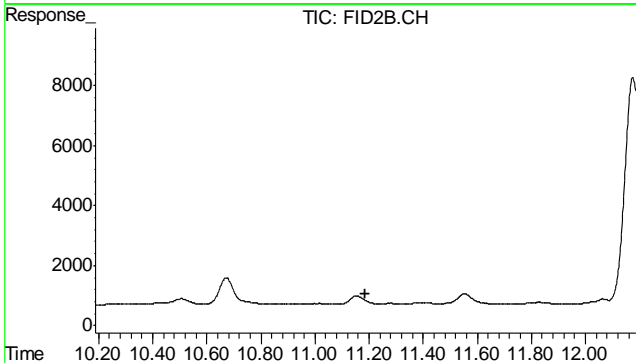
#8 m,p-Xylene

R.T.: 10.672 min

Delta R.T.: -0.044 min

Response: 34137

Conc: 0.13 ug/L



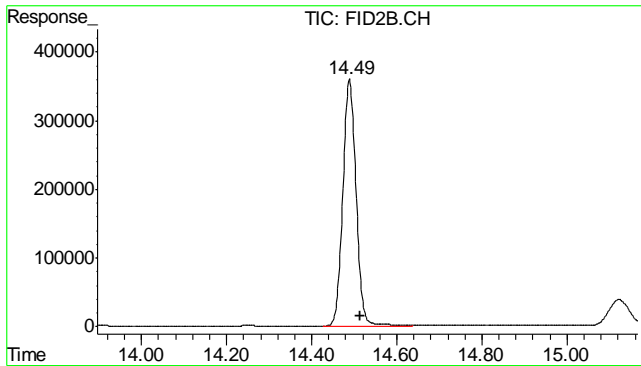
#9 o-Xylene

R.T.: 0.000 min

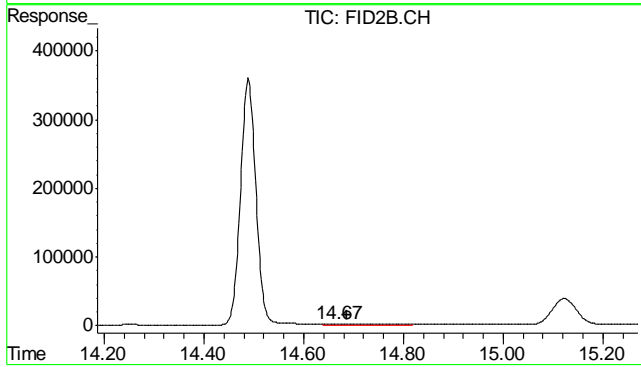
Exp R.T. : 11.187 min

Response: 0

Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)  
 R.T.: 14.489 min  
 Delta R.T.: -0.024 min  
 Response: 7805265  
 Conc: 100.17 %



#11 Naphthalene  
 R.T.: 14.667 min  
 Delta R.T.: -0.019 min  
 Response: 109723  
 Conc: 0.78 ug/L

6.1.25

6

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3543.D Vial: 4  
 Acq On : 5 Apr 2011 12:36 am Operator: jacobb  
 Sample : MB Inst : FID4  
 Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Apr 04 12:50:17 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Tue Jan 11 10:48:20 2011  
 Response via : Initial Calibration  
 DataAcq Meth : GAS.M

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

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) S Propane	2.15	14118323	381.542 rawvp
Target Compounds			

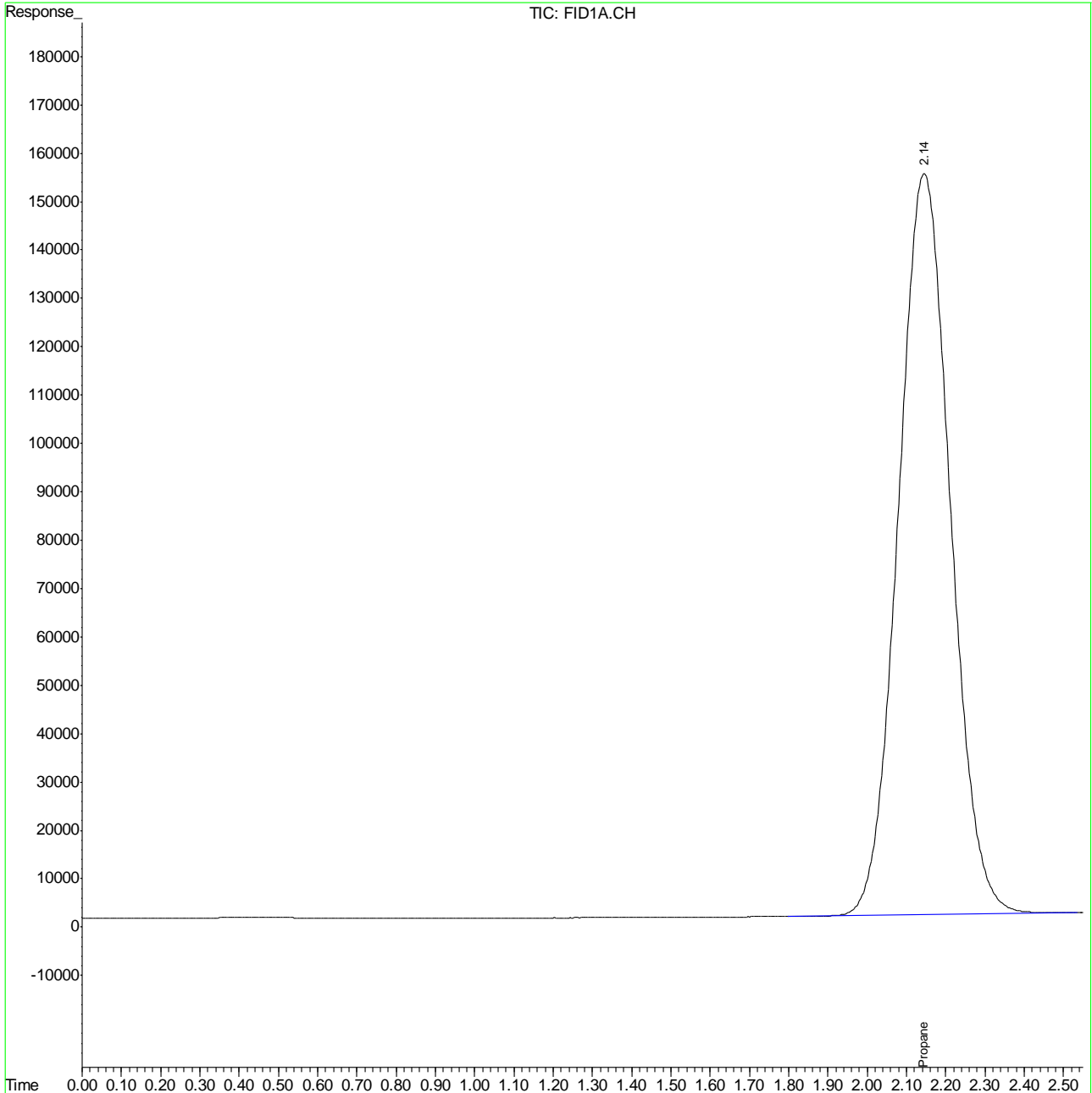


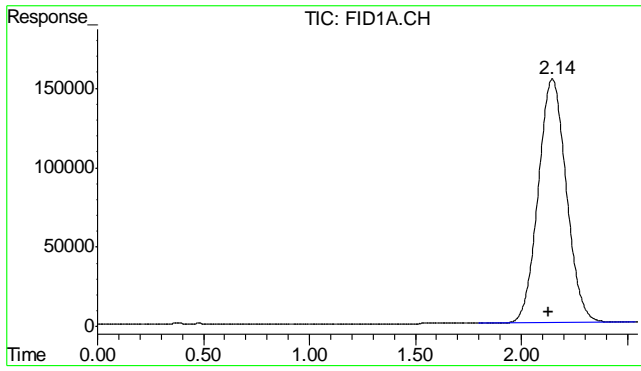
Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040411\FB3543.D Vial: 4  
 Acq On : 5 Apr 2011 12:36 am Operator: jacobb  
 Sample : MB Inst : FID4  
 Misc : 500uL|GC1787,GFB103,,,,,1 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Apr 6 22:10 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Tue Jan 11 10:48:20 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : GAS.M

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





#4 Propane  
R.T.: 2.146 min  
Delta R.T.: 0.017 min  
Response: 14118323  
Conc: 381.54 rawvppm

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0830.D\FID1A.CH Vial: 4  
 Signal #2 : Z:\033011\TA0830.D\FID2B.CH  
 Acq On : 30 Mar 2011 3:54 pm Operator: BrianR  
 Sample : MB, W Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 01 08:29:27 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:29:08 2011  
 Response via : Initial 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

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	0.00	0	N.D.	% d
10) S 1,2,4-Trichlorobenzene (P)	14.77	9537977	122.407	%
Target Compounds				
1) H TVH-Gasoline	0.00	0	N.D.	mg/L
4) T Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T Benzene	0.00	0	N.D.	ug/L d
6) T Toluene	8.55	163484	0.642	ug/L
7) T Ethylbenzene	0.00	0	N.D.	ug/L
8) T m,p-Xylene	11.09	47613	0.184	ug/L
9) T o-Xylene	0.00	0	N.D.	ug/L
11) T Naphthalene	14.94	302789	2.157	ug/L

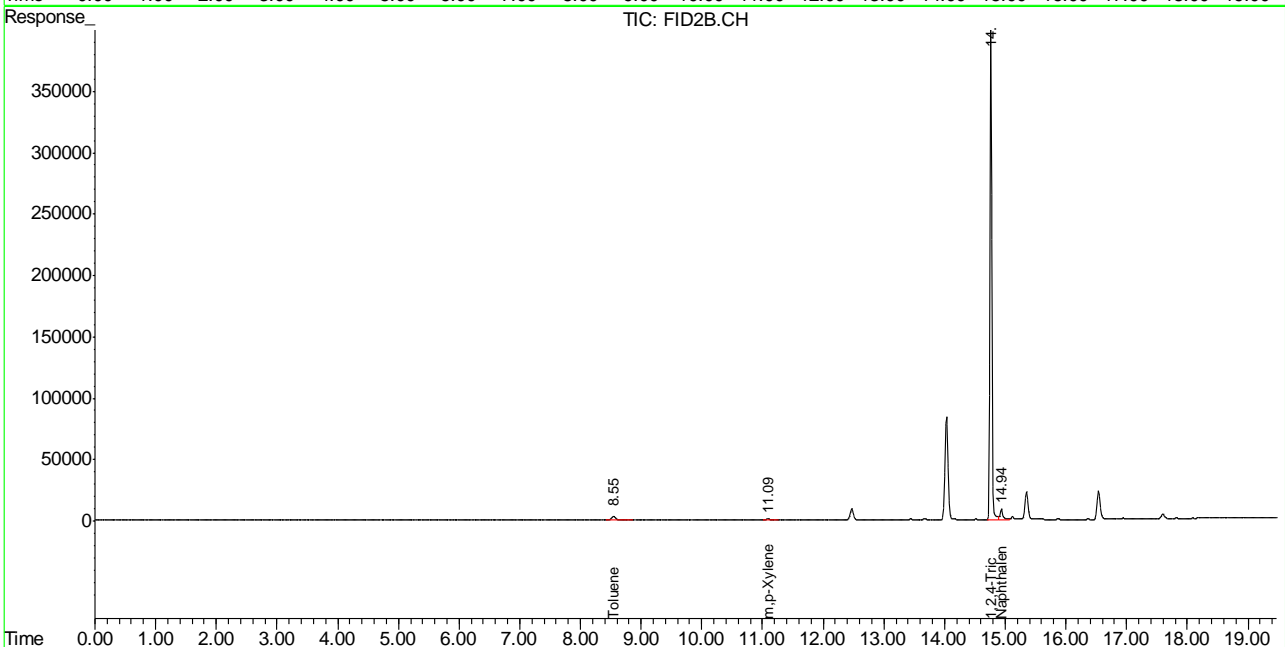
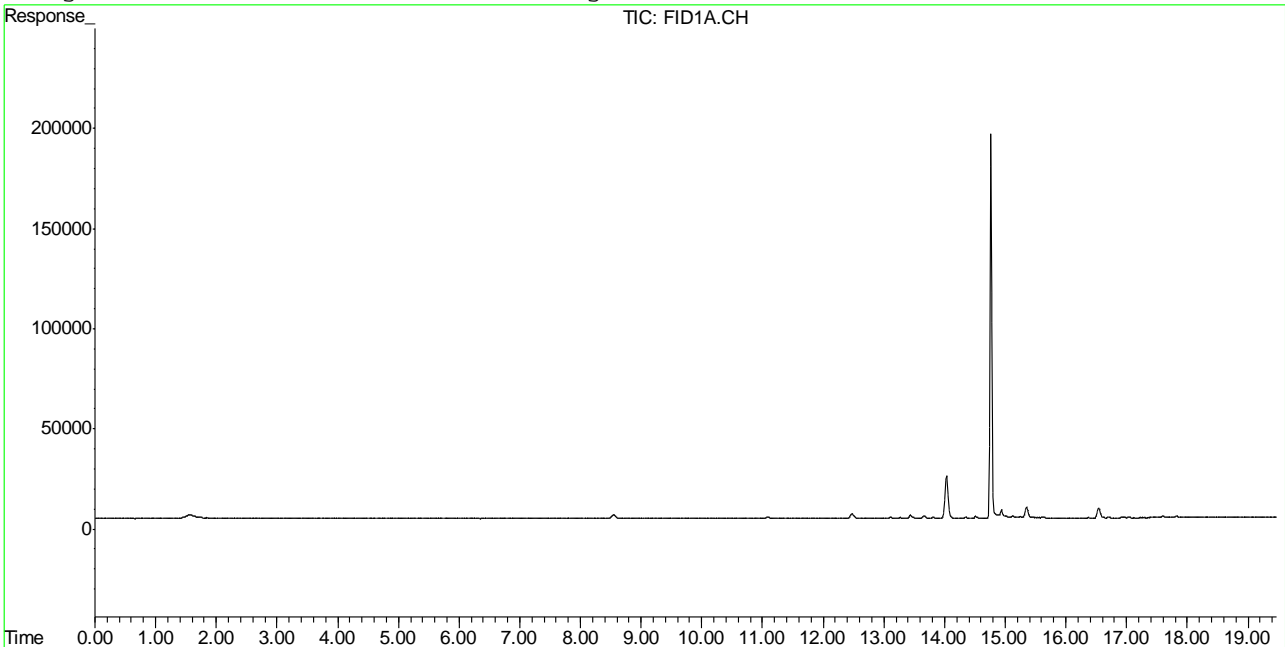
(f)=RT Delta > 1/2 Window (m)=manual int.  
 TA0830.D TA582GA534.M Fri Apr 01 09:33:19 2011 GC

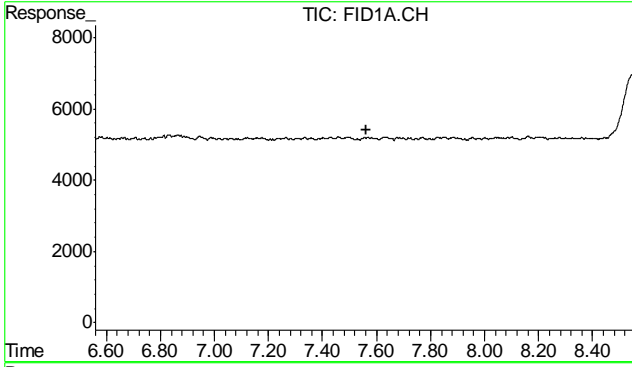
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0830.D\FID1A.CH Vial: 4  
 Signal #2 : Z:\033011\TA0830.D\FID2B.CH  
 Acq On : 30 Mar 2011 3:54 pm Operator: BrianR  
 Sample : MB, W Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:29 2011 Quant Results File: TA582GA534.RES

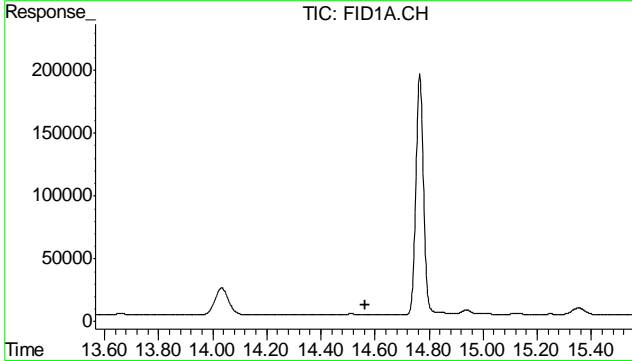
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:29:08 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

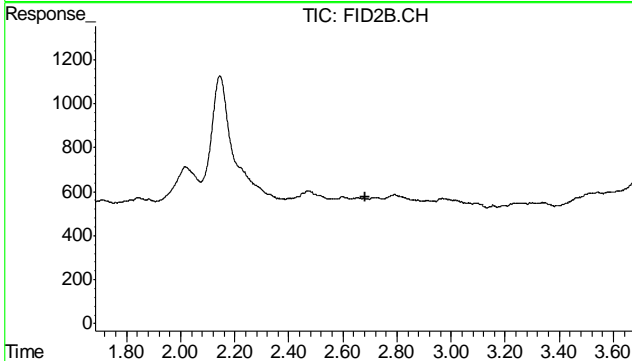




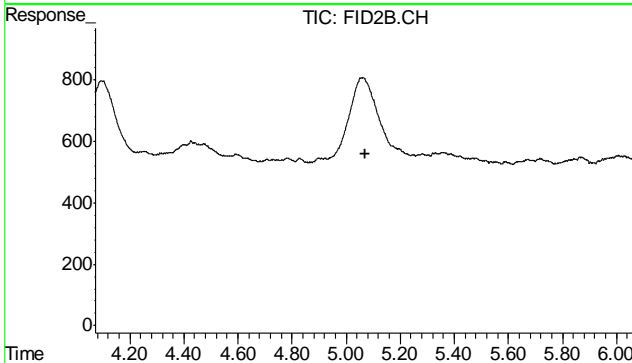
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



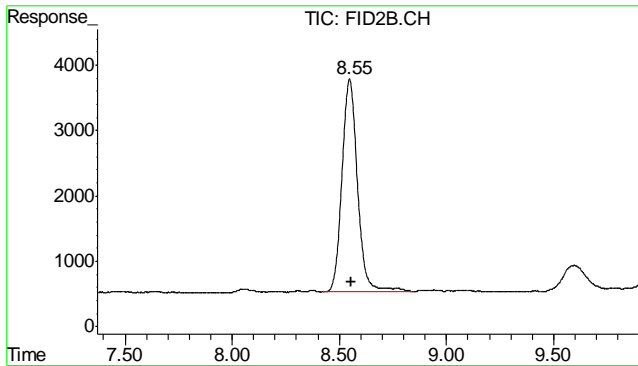
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



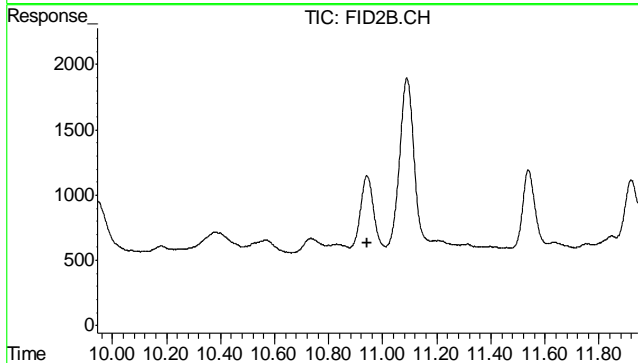
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.684 min  
 Response: 0  
 Conc: N.D.



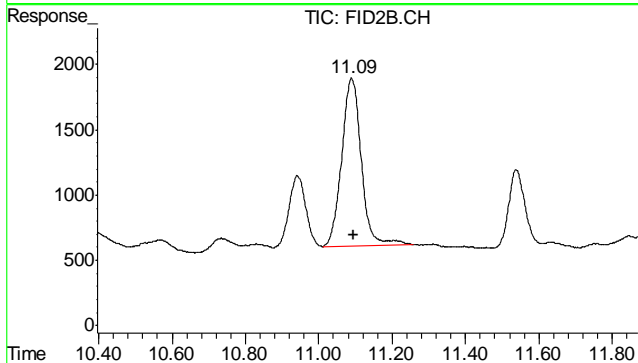
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 5.072 min  
 Response: 0  
 Conc: N.D.



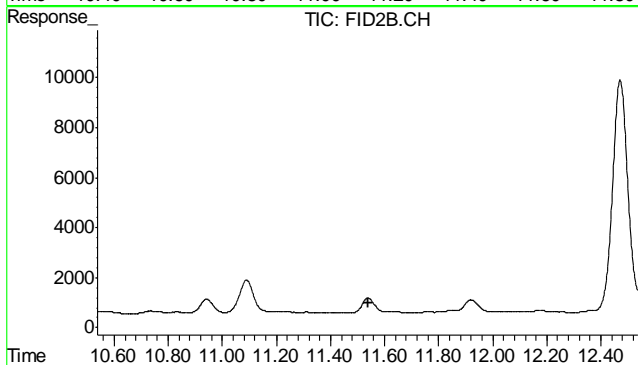
#6 Toluene  
 R.T.: 8.548 min  
 Delta R.T.: -0.010 min  
 Response: 163484  
 Conc: 0.64 ug/L



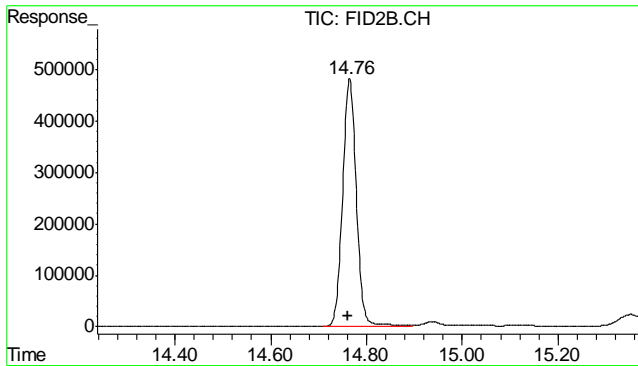
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.944 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 11.090 min  
 Delta R.T.: -0.006 min  
 Response: 47613  
 Conc: 0.18 ug/L

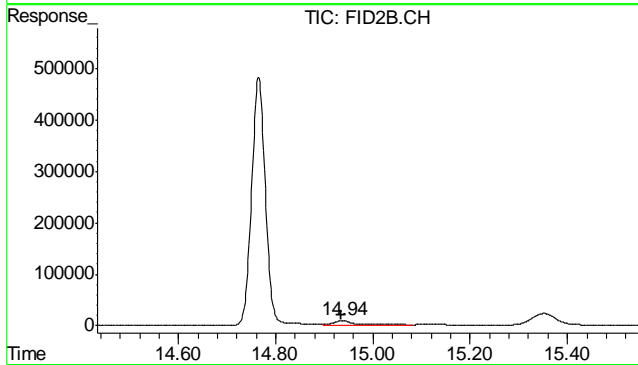


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.538 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.765 min  
 Delta R.T.: 0.003 min  
 Response: 9537977  
 Conc: 122.41 %



#11 Naphthalene

R.T.: 14.938 min  
 Delta R.T.: 0.003 min  
 Response: 302789  
 Conc: 2.16 ug/L

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0856.D\FID1A.CH Vial: 30  
 Signal #2 : Z:\033011\TA0856.D\FID2B.CH  
 Acq On : 31 Mar 2011 7:14 am Operator: BrianR  
 Sample : MB, W Inst : BTEX2  
 Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 01 08:58:30 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:58:05 2011  
 Response via : Initial 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

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	0.00	0	N.D.	% d
10) S 1,2,4-Trichlorobenzene (P)	14.59	7992240	102.569	%
Target Compounds				
1) H TVH-Gasoline	0.00	0	N.D.	mg/L
4) T Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T Benzene	0.00	0	N.D.	ug/L d
6) T Toluene	8.18	89794	0.353	ug/L
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	10.84	37389	0.145	ug/L
9) T o-Xylene	0.00	0	N.D.	ug/L d
11) T Naphthalene	14.75	243944	1.738	ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.  
 TA0856.D TA582GA534.M Fri Apr 01 09:34:27 2011 GC

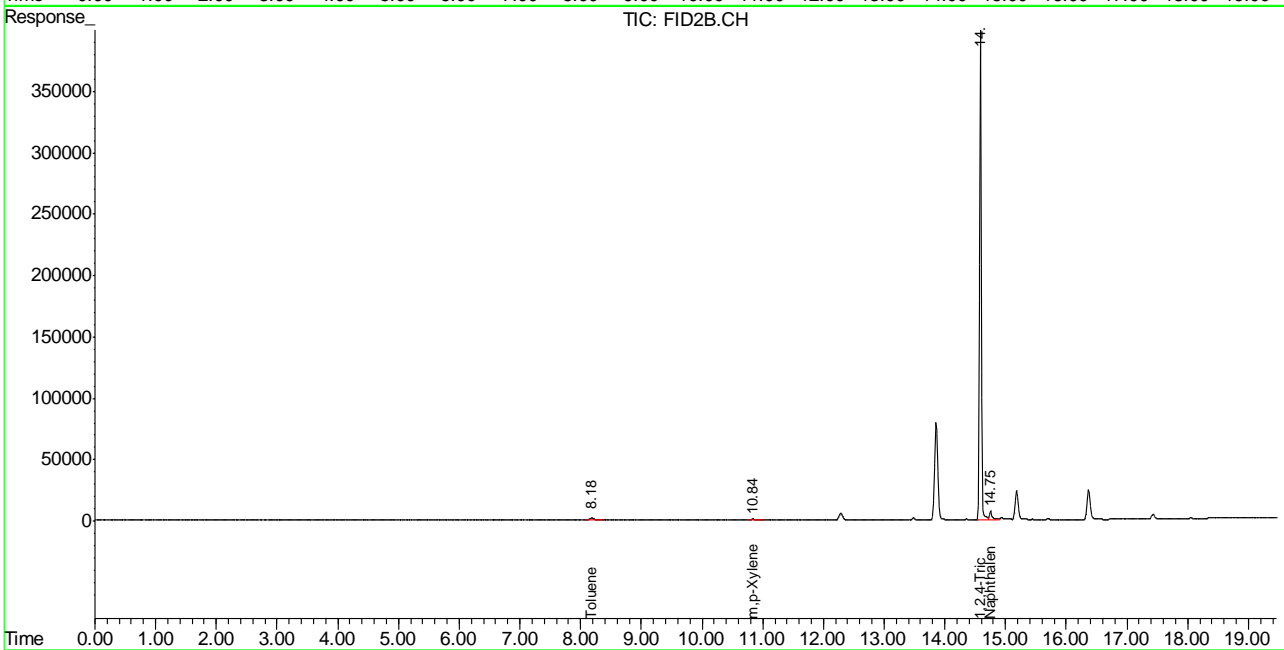
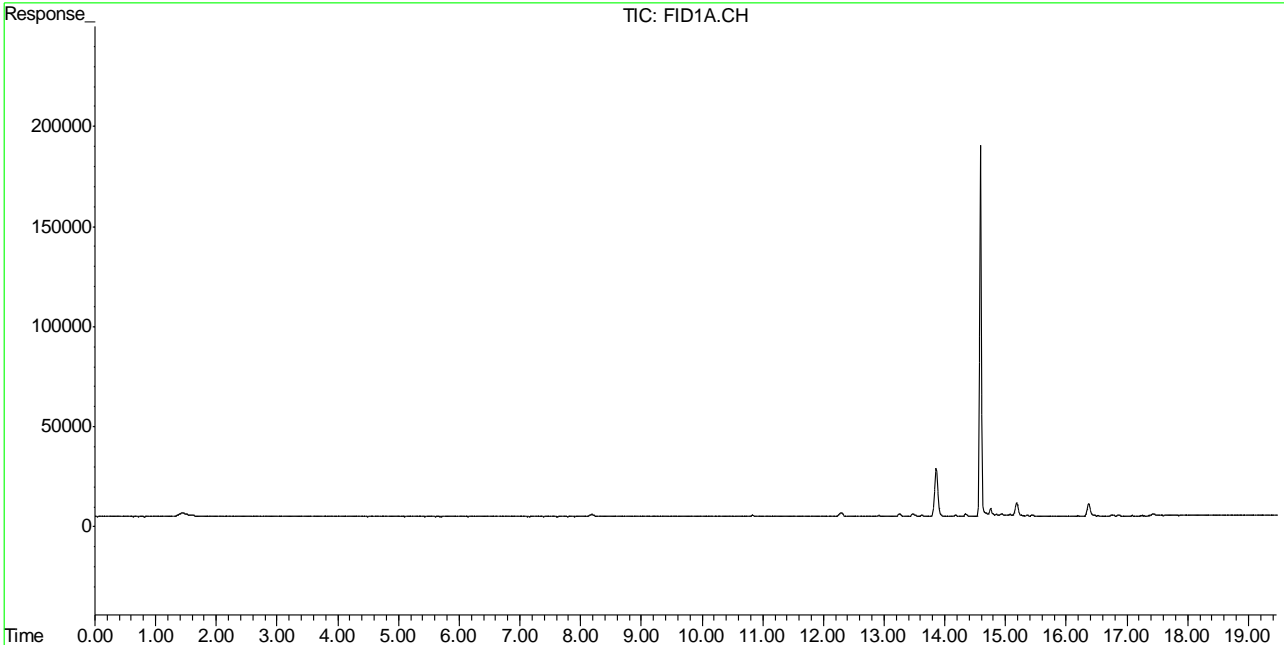


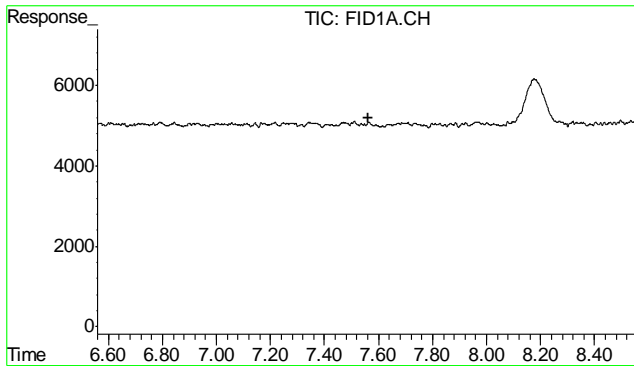
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0856.D\FID1A.CH Vial: 30  
 Signal #2 : Z:\033011\TA0856.D\FID2B.CH  
 Acq On : 31 Mar 2011 7:14 am Operator: BrianR  
 Sample : MB, W Inst : BTEX2  
 Misc : GC1774,GTA602,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:57 2011 Quant Results File: TA582GA534.RES

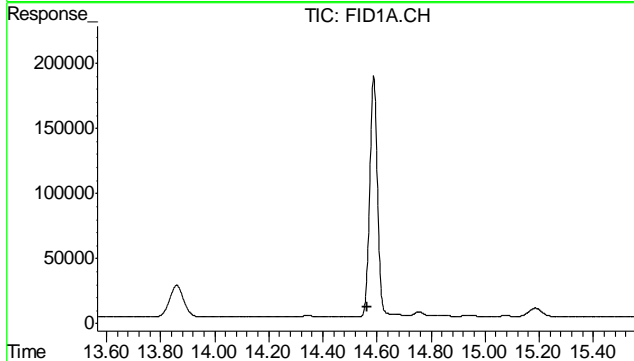
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:58:05 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

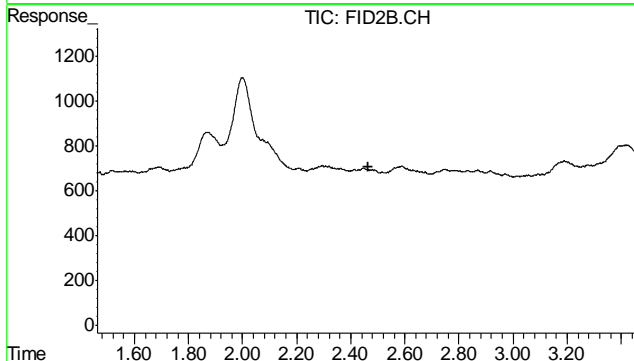




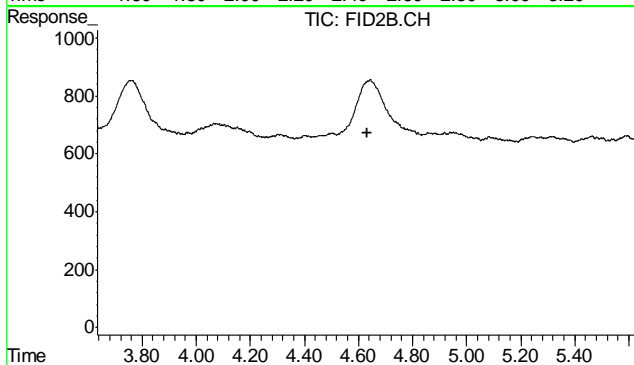
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



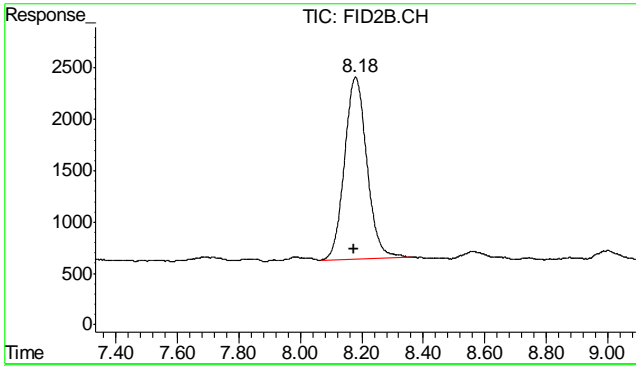
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



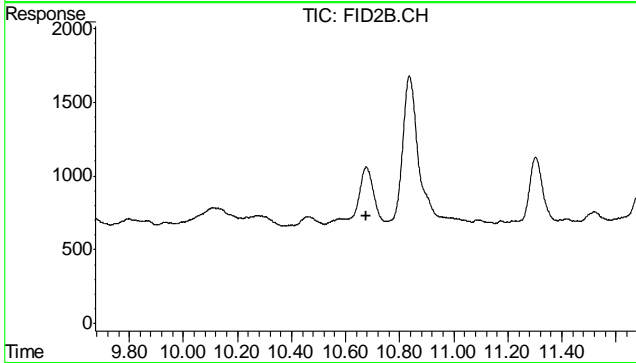
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.463 min  
 Response: 0  
 Conc: N.D.



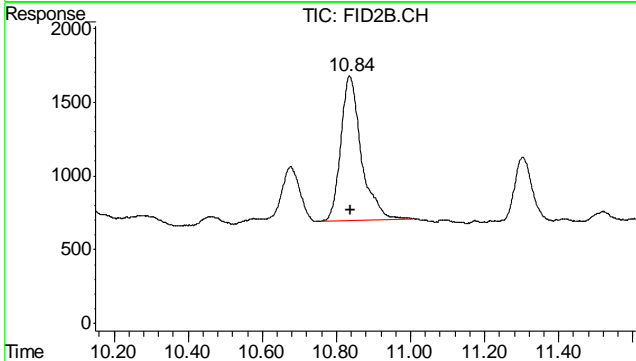
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.634 min  
 Response: 0  
 Conc: N.D.



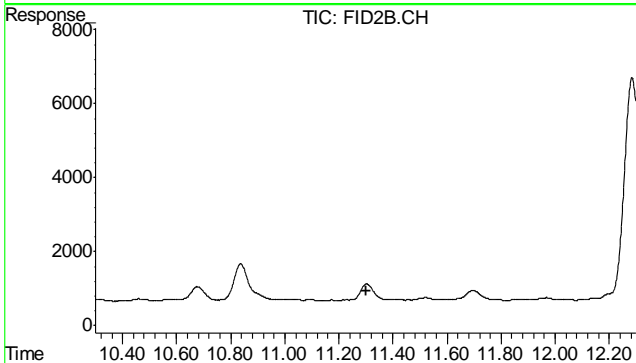
#6 Toluene  
 R.T.: 8.180 min  
 Delta R.T.: 0.005 min  
 Response: 89794  
 Conc: 0.35 ug/L



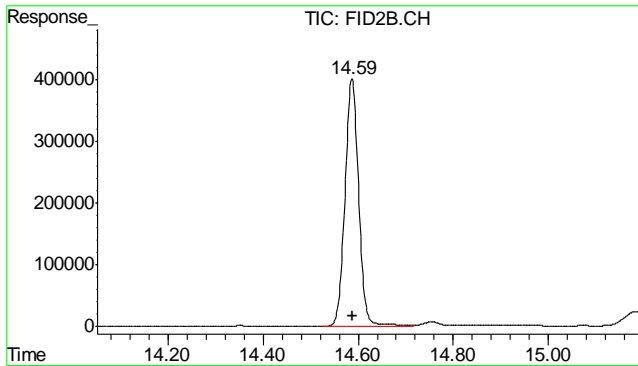
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.675 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 10.836 min  
 Delta R.T.: -0.001 min  
 Response: 37389  
 Conc: 0.14 ug/L

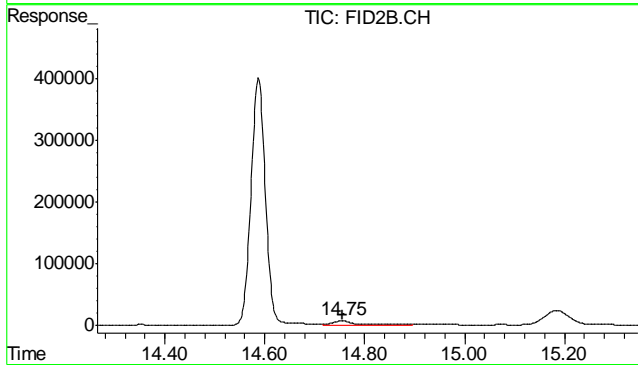


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.300 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.587 min  
Delta R.T.: 0.000 min  
Response: 7992240  
Conc: 102.57 %



#11 Naphthalene

R.T.: 14.755 min  
Delta R.T.: 0.000 min  
Response: 243944  
Conc: 1.74 ug/L

## Metals Analysis

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: D22181  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

QC Batch ID: MP4364  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 03/31/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	7	49		
Antimony	30	1.7	13		
Arsenic	25	2.8	6.5		
Barium	10	.14	2.4		
Beryllium	10	1.4	4.4		
Boron	50	3.5	19		
Cadmium	10	.22	1.2		
Calcium	400	17	9.2		
Chromium	10	.27	1.6		
Cobalt	5.0	.48	.3		
Copper	10	1.6	2.7		
Iron	70	7.7	10		
Lead	50	1.3	3.2		
Lithium	2.0	.76	1.6		
Magnesium	200	5.8	12		
Manganese	5.0	.21	.7		
Molybdenum	10	.41	1.2		
Nickel	30	.38	.6		
Phosphorus	100	15	54		
Potassium	1000	380	540		
Selenium	50	2.8	7.2		
Silicon	50	12	20		
Silver	30	.98	.3		
Sodium	400	230	23	-78	<400
Strontium	5.0	.091	3.4		
Thallium	10	3.1	2.1		
Tin	50	14	4.4		
Titanium	10	.098	.7		
Uranium	50	2.2	3.9		
Vanadium	10	.27	.3		
Zinc	30	.76	1.7		

Associated samples MP4364: D22181-1F, D22181-2F, D22181-3F, D22181-4F, D22181-5F, D22181-6F, D22181-7F, D22181-8F, D22181-9F, D22181-10F, D22181-11F, D22181-12F

Results < IDL are shown as zero for calculation purposes

7.1.1  
7

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: D22181  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

QC Batch ID: MP4364  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

(\*) Outside of QC limits  
(anr) Analyte not requested

7.1.1

7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D22181  
 Account: COCSCOG - Olsson Associates - Denver  
 Project: Divide Creek Quarterly

QC Batch ID: MP4364  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 03/31/11

Metal	D22181-1F Original MS	SpikeLot MPICPALL % Rec		QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium				
Beryllium				
Boron				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt				
Copper				
Iron	anr			
Lead	anr			
Lithium				
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium	anr			
Silicon				
Silver				
Sodium	72600 101000	25000	113.6	75-125
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	anr			

Associated samples MP4364: D22181-1F, D22181-2F, D22181-3F, D22181-4F, D22181-5F, D22181-6F, D22181-7F, D22181-8F, D22181-9F, D22181-10F, D22181-11F, D22181-12F

Results < IDL are shown as zero for calculation purposes

7.1.2  
 7



MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D22181  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

QC Batch ID: MP4364  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

(\*) Outside of QC limits  
(N) Matrix Spike Rec. outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D22181  
 Account: COCSCOG - Olsson Associates - Denver  
 Project: Divide Creek Quarterly

QC Batch ID: MP4364  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 03/31/11

Metal	D22181-1F Original MSD	Spikelot MPICPALL % Rec	MSD RPD	QC Limit		
Aluminum						
Antimony						
Arsenic	anr					
Barium						
Beryllium						
Boron						
Cadmium	anr					
Calcium	anr					
Chromium	anr					
Cobalt						
Copper						
Iron	anr					
Lead	anr					
Lithium						
Magnesium	anr					
Manganese	anr					
Molybdenum						
Nickel						
Phosphorus						
Potassium						
Selenium	anr					
Silicon						
Silver						
Sodium	72600	100000	25000	109.6	1.0	20
Strontium						
Thallium						
Tin						
Titanium						
Uranium						
Vanadium						
Zinc	anr					

Associated samples MP4364: D22181-1F, D22181-2F, D22181-3F, D22181-4F, D22181-5F, D22181-6F, D22181-7F, D22181-8F, D22181-9F, D22181-10F, D22181-11F, D22181-12F

Results < IDL are shown as zero for calculation purposes

7.1.2  
 7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D22181  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

QC Batch ID: MP4364  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

(\* ) Outside of QC limits  
(N) Matrix Spike Rec. outside of QC limits  
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D22181  
 Account: COCSCOG - Olsson Associates - Denver  
 Project: Divide Creek Quarterly

QC Batch ID: MP4364  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 03/31/11

Metal	BSP Result	SpikeLot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic	anr			
Barium				
Beryllium				
Boron				
Cadmium	anr			
Calcium	anr			
Chromium	anr			
Cobalt				
Copper				
Iron	anr			
Lead	anr			
Lithium				
Magnesium	anr			
Manganese	anr			
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium	anr			
Silicon				
Silver				
Sodium	26700	25000	106.8	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc	anr			

Associated samples MP4364: D22181-1F, D22181-2F, D22181-3F, D22181-4F, D22181-5F, D22181-6F, D22181-7F, D22181-8F, D22181-9F, D22181-10F, D22181-11F, D22181-12F

Results < IDL are shown as zero for calculation purposes

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D22181  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

QC Batch ID: MP4364  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

(\*) Outside of QC limits  
(anr) Analyte not requested

## General Chemistry

---

### QC Data Summaries

---

Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries

METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D22181  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP4117/GN8924	0.50	0.0	mg/l	20	18.7	93.5	90-110%
Sulfate	GP4117/GN8924	0.50	0.0	mg/l	30	29.0	96.7	90-110%

Associated Samples:

Batch GP4117: D22181-1, D22181-10, D22181-11, D22181-12, D22181-2, D22181-3, D22181-4, D22181-5, D22181-6, D22181-7, D22181-8, D22181-9

(\*) Outside of QC limits

8.1

8

MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D22181  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP4117/GN8924	D22183-13	mg/l	14.4	10	25.3	109.0	80-120%
Sulfate	GP4117/GN8924	D22183-13	mg/l	5.2	10	15.6	104.0	80-120%

Associated Samples:

Batch GP4117: D22181-1, D22181-10, D22181-11, D22181-12, D22181-2, D22181-3, D22181-4, D22181-5, D22181-6, D22181-7, D22181-8, D22181-9

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

8.2

8



MATRIX SPIKE DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D22181  
Account: COCSCOG - Olsson Associates - Denver  
Project: Divide Creek Quarterly

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP4117/GN8924	D22183-13	mg/l	14.4	10	24.8	2.0	20%
Sulfate	GP4117/GN8924	D22183-13	mg/l	5.2	10	15.5	0.6	20%

Associated Samples:

Batch GP4117: D22181-1, D22181-10, D22181-11, D22181-12, D22181-2, D22181-3, D22181-4, D22181-5, D22181-6, D22181-7, D22181-8, D22181-9

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits



Technical Report for

Olsson Associates - Denver

West Divide Creek Quarterly

008-2067

Accutest Job Number: D22183

Sampling Date: 03/29/11

Report to:

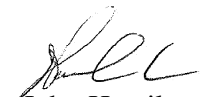
Olsson Associates  
4690 Table Mountain Drive Suite 200  
Golden, CO 80403  
bstephenson@oaconsulting.com

ATTN: Brad Stephenson

Total number of pages in report: **210**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.



John Hamilton  
Laboratory Director

Client Service contact: Amanda Kissell 303-425-6021

Certifications: CO, ID, NE, NM, ND (R-027) (PW) UT (NELAP CO00049)

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Test results relate only to samples analyzed.

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## Sample Summary

Olsson Associates - Denver

**Job No:** D22183

West Divide Creek Quarterly  
Project No: 008-2067

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D22183-1	03/29/11	11:15 BS	03/30/11	AQ	Ground Water	MW8
D22183-1F	03/29/11	11:15 BS	03/30/11	AQ	Groundwater Filtered	MW8
D22183-2	03/29/11	11:45 BS	03/30/11	AQ	Ground Water	MW17
D22183-2F	03/29/11	11:45 BS	03/30/11	AQ	Groundwater Filtered	MW17
D22183-3	03/29/11	12:10 BS	03/30/11	AQ	Ground Water	MW4
D22183-3F	03/29/11	12:10 BS	03/30/11	AQ	Groundwater Filtered	MW4
D22183-4	03/29/11	13:00 BS	03/30/11	AQ	Ground Water	MW16
D22183-4F	03/29/11	13:00 BS	03/30/11	AQ	Groundwater Filtered	MW16
D22183-5	03/29/11	13:00 BS	03/30/11	AQ	Ground Water	MW16D
D22183-5F	03/29/11	13:00 BS	03/30/11	AQ	Groundwater Filtered	MW16D
D22183-6	03/29/11	13:30 BS	03/30/11	AQ	Ground Water	MW1
D22183-6F	03/29/11	13:30 BS	03/30/11	AQ	Groundwater Filtered	MW1
D22183-7	03/29/11	13:30 SH	03/30/11	AQ	Ground Water	EICH2



## Sample Summary

(continued)

Olsson Associates - Denver

**Job No:** D22183

West Divide Creek Quarterly  
Project No: 008-2067

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D22183-7F	03/29/11	13:30 SH	03/30/11	AQ	Groundwater Filtered	EICH2
D22183-8	03/29/11	10:50 JC	03/30/11	AQ	Ground Water	MW24
D22183-8F	03/29/11	10:50 JC	03/30/11	AQ	Groundwater Filtered	MW24
D22183-9	03/29/11	11:15 JC	03/30/11	AQ	Ground Water	MW-26
D22183-9F	03/29/11	11:15 JC	03/30/11	AQ	Groundwater Filtered	MW-26
D22183-10	03/29/11	12:00 JC	03/30/11	AQ	Ground Water	MW-12
D22183-10F	03/29/11	12:00 JC	03/30/11	AQ	Groundwater Filtered	MW-12
D22183-11	03/29/11	12:20 JC	03/30/11	AQ	Ground Water	MW-11
D22183-11F	03/29/11	12:20 JC	03/30/11	AQ	Groundwater Filtered	MW-11
D22183-12	03/29/11	12:50 JC	03/30/11	AQ	Ground Water	MW-9
D22183-12F	03/29/11	12:50 JC	03/30/11	AQ	Groundwater Filtered	MW-9
D22183-13	03/29/11	13:45 JC	03/30/11	AQ	Ground Water	MW-14
D22183-13F	03/29/11	13:45 JC	03/30/11	AQ	Groundwater Filtered	MW-14



## Sample Summary

(continued)

Olsson Associates - Denver

**Job No:** D22183

West Divide Creek Quarterly  
Project No: 008-2067

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
D22183-14	03/29/11	00:00	03/30/11	AQ	Trip Blank Water	TRIP BLANK

## CASE NARRATIVE / CONFORMANCE SUMMARY

**Client:** Olsson Associates - Denver

**Job No** D22183

**Site:** Divide Creek Quarterly

**Report Dat** 4/8/2011 3:47:03 PM

On 03/30/2011, 13 samples, 1 Trip Blank, and 0 Field Blanks were received at Accutest Mountain States (AMS) at a temperature of 3.2°C. The samples were intact and properly preserved, unless noted below. An AMS Job Number of D22183 was assigned to the project. The lab sample IDs, client sample IDs, and dates of sample collection are detailed in the report's Results Summary.

Specified quality control criteria were achieved for this job except as noted below. For more information, please refer to the analytical results and QC summary pages.

### Volatiles by GC By Method RSK175 MOD

<b>Matrix</b> AQ	<b>Batch ID:</b> GFB102
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D22152-3MS and D22152-3MSD were used as the QC samples indicated.

<b>Matrix</b> AQ	<b>Batch ID:</b> GFB104
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- Samples D22183-8MS and D22183-8MSD were used as the QC samples indicated.
- The method blank for this batch meets method specific criteria.

### Volatiles by GC By Method SW846 8021B

<b>Matrix</b> AQ	<b>Batch ID:</b> GTA601
------------------	-------------------------

- All samples were analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D22183-1MS and D22183-1MSD were used as the QC samples indicated.

### Metals By Method SW846 6010B

<b>Matrix</b> AQ	<b>Batch ID:</b> MP4365
------------------	-------------------------

- All samples were digested and analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D22183-1FMS and D22183-1FMSD were used as the QC samples for the metals analysis.

### Wet Chemistry By Method EPA 300/SW846 9056

<b>Matrix</b> AQ	<b>Batch ID:</b> GP4106
------------------	-------------------------

- All samples were prepared and analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D22152-6MS and D22152-6MSD were used as the QC samples for the Chloride analysis.

<b>Matrix</b> AQ	<b>Batch ID:</b> GP4117
------------------	-------------------------

- All samples were prepared and analyzed within the recommended method holding time.
- The method blank for this batch meets method specific criteria.
- Samples D22183-13MS and D22183-13MSD were used as the QC samples for the Chloride analysis.



AMS certifies that data reported for samples received, listed on the associated custody chain or analytical task order, were produced to specifications meeting AMS's Quality System precision, accuracy and completeness objectives except as noted.

Estimated non-standard method measurement uncertainty data is available on request, based on quality control bias and implicit for standard methods. Acceptable uncertainty requires tested parameter quality control data to meet method criteria.

AMS is not responsible for data quality assumptions if partial reports are used and recommends that this report be used in its entirety. This report is authorized by AMS indicated via signature on the report cover.

Sample Results

---

Report of Analysis

---

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## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b> MW8		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-1		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> RSK175 MOD		
<b>Project:</b> West Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3523.D	1	03/30/11	JB	n/a	n/a	GFB102
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.0424	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b> MW8		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-1		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> West Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0832.D	1	03/30/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	105%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW8	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-1	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	35.3	0.50	mg/l	1	03/30/11 12:33	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW8		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-1F		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered		<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly		

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	132000	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4365

---

RL = Reporting Limit

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## Report of Analysis

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<b>Client Sample ID:</b> MW17		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-2		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> RSK175 MOD		
<b>Project:</b> West Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3536.D	1	03/30/11	JB	n/a	n/a	GFB102
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.924	0.0016	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> MW17		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-2		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> West Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0835.D	1	03/30/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	6.3	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	108%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> MW17	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-2	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	31.5	0.50	mg/l	1	03/30/11 12:46	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW17	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-2F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	248000	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4365

---

RL = Reporting Limit

Accutest Laboratories

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b> MW4		
<b>Lab Sample ID:</b> D22183-3		<b>Date Sampled:</b> 03/29/11
<b>Matrix:</b> AQ - Ground Water		<b>Date Received:</b> 03/30/11
<b>Method:</b> RSK175 MOD		<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3537.D	1	03/30/11	JB	n/a	n/a	GFB102
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	5.37	0.020	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Accutest Laboratories

## Report of Analysis

Page 1 of 1

<b>Client Sample ID:</b> MW4		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-3		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> West Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0836.D	1	03/30/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	26.1	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	5.3	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	107%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW4	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-3	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	26.1	0.50	mg/l	1	03/30/11 12:58	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW4	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-3F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	105000	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4365

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RL = Reporting Limit

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## Report of Analysis

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<b>Client Sample ID:</b> MW16		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-4		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> RSK175 MOD		
<b>Project:</b> West Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3526.D	1	03/30/11	JB	n/a	n/a	GFB102
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.0210	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b> MW16		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-4		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> West Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0837.D	1	03/30/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	106%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> MW16	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-4	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	30.2	0.50	mg/l	1	03/30/11 13:36	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis



<b>Client Sample ID:</b> MW16	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-4F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	240000	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4365

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RL = Reporting Limit

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<b>Client Sample ID:</b>	MW16D	<b>Date Sampled:</b>	03/29/11
<b>Lab Sample ID:</b>	D22183-5	<b>Date Received:</b>	03/30/11
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSK175 MOD		
<b>Project:</b>	West Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3527.D	1	03/30/11	JB	n/a	n/a	GFB102
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.0483	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b> MW16D		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-5		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> West Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0838.D	1	03/30/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	103%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW16D	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-5	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	32.7	0.50	mg/l	1	03/30/11 13:49	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW16D	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-5F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	248000	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4365

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RL = Reporting Limit

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<b>Client Sample ID:</b>	MW1	<b>Date Sampled:</b>	03/29/11
<b>Lab Sample ID:</b>	D22183-6	<b>Date Received:</b>	03/30/11
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSK175 MOD		
<b>Project:</b>	West Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3528.D	1	03/30/11	JB	n/a	n/a	GFB102
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b> MW1		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-6		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> West Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0839.D	1	03/30/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	107%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> MW1	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-6	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	22.2	0.50	mg/l	1	03/30/11 14:01	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW1	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-6F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	182000	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4365

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RL = Reporting Limit

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<b>Client Sample ID:</b>	EICH2	<b>Date Sampled:</b>	03/29/11
<b>Lab Sample ID:</b>	D22183-7	<b>Date Received:</b>	03/30/11
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSK175 MOD		
<b>Project:</b>	West Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3529.D	1	03/30/11	JB	n/a	n/a	GFB102
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.0283	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b> EICH2		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-7		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> West Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0840.D	1	03/30/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	108%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> EICH2	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-7	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	21.0	0.50	mg/l	1	03/30/11 14:14	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> EICH2	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-7F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	80200	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4365

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RL = Reporting Limit

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<b>Client Sample ID:</b>	MW24	<b>Date Sampled:</b>	03/29/11
<b>Lab Sample ID:</b>	D22183-8	<b>Date Received:</b>	03/30/11
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSK175 MOD		
<b>Project:</b>	West Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3615.D	1	04/07/11	EH	n/a	n/a	GFB104
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b> MW24		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-8		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> West Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0841.D	1	03/30/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	106%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> MW24	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-8	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	4.9	0.50	mg/l	1	03/30/11 14:26	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW24	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-8F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	40700	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4365

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RL = Reporting Limit

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<b>Client Sample ID:</b> MW-26		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-9		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> RSK175 MOD		
<b>Project:</b> West Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3616.D	1	04/07/11	EH	n/a	n/a	GFB104
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.722	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b> MW-26		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-9		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> West Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0842.D	1	03/30/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	104%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW-26	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-9	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	5.4	0.50	mg/l	1	03/30/11 14:39	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW-26	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-9F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	73800	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4365

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RL = Reporting Limit

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<b>Client Sample ID:</b>	MW-12	<b>Date Sampled:</b>	03/29/11
<b>Lab Sample ID:</b>	D22183-10	<b>Date Received:</b>	03/30/11
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSK175 MOD		
<b>Project:</b>	West Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3617.D	1	04/07/11	EH	n/a	n/a	GFB104
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

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<b>Client Sample ID:</b> MW-12		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-10		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> West Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0843.D	1	03/30/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	103%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> MW-12	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-10	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	28.7	0.50	mg/l	1	03/30/11 14:52	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW-12	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-10F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	78300	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4365

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RL = Reporting Limit

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b>	MW-11	<b>Date Sampled:</b>	03/29/11
<b>Lab Sample ID:</b>	D22183-11	<b>Date Received:</b>	03/30/11
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSK175 MOD		
<b>Project:</b>	West Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3618.D	1	04/07/11	EH	n/a	n/a	GFB104
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	0.0010	0.00080	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Accutest Laboratories

## Report of Analysis

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**Client Sample ID:** MW-11  
**Lab Sample ID:** D22183-11  
**Matrix:** AQ - Ground Water  
**Method:** SW846 8021B  
**Project:** West Divide Creek Quarterly

**Date Sampled:** 03/29/11  
**Date Received:** 03/30/11  
**Percent Solids:** n/a

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0845.D	1	03/31/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	101%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW-11	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-11	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	16.1	0.50	mg/l	1	03/30/11 15:04	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW-11	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-11F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	34300	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4365

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RL = Reporting Limit

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> MW-9		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-12		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> RSK175 MOD		
<b>Project:</b> West Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3630.D	20	04/07/11	EH	n/a	n/a	GFB104
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	4.71	0.016	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> MW-9		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-12		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> West Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0846.D	1	03/31/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.0	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	104%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound



## Report of Analysis

<b>Client Sample ID:</b> MW-9	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-12	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	24.9	0.50	mg/l	1	03/31/11 10:26	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW-9	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-12F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	56600	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4365

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RL = Reporting Limit

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b>	MW-14	<b>Date Sampled:</b>	03/29/11
<b>Lab Sample ID:</b>	D22183-13	<b>Date Received:</b>	03/30/11
<b>Matrix:</b>	AQ - Ground Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	RSK175 MOD		
<b>Project:</b>	West Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	FB3631.D	20	04/07/11	EH	n/a	n/a	GFB104
Run #2							

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	3.90	0.016	0.00080	mg/l	

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

Accutest Laboratories

## Report of Analysis

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<b>Client Sample ID:</b> MW-14		<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-13		<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water		<b>Percent Solids:</b> n/a
<b>Method:</b> SW846 8021B		
<b>Project:</b> West Divide Creek Quarterly		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0847.D	1	03/31/11	BR	n/a	n/a	GTA601
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	101%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Report of Analysis

<b>Client Sample ID:</b> MW-14	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-13	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Ground Water	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### General Chemistry

Analyte	Result	RL	Units	DF	Analyzed	By	Method
Chloride	14.4	0.50	mg/l	1	03/31/11 10:38	CB	EPA 300/SW846 9056

RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b> MW-14	<b>Date Sampled:</b> 03/29/11
<b>Lab Sample ID:</b> D22183-13F	<b>Date Received:</b> 03/30/11
<b>Matrix:</b> AQ - Groundwater Filtered	<b>Percent Solids:</b> n/a
<b>Project:</b> West Divide Creek Quarterly	

### Dissolved Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Sodium	45800	400	ug/l	1	03/31/11	04/01/11 JY	SW846 6010B <sup>1</sup>	SW846 3010A <sup>2</sup>

(1) Instrument QC Batch: MA1428

(2) Prep QC Batch: MP4365

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RL = Reporting Limit

## Report of Analysis

<b>Client Sample ID:</b>	TRIP BLANK	<b>Date Sampled:</b>	03/29/11
<b>Lab Sample ID:</b>	D22183-14	<b>Date Received:</b>	03/30/11
<b>Matrix:</b>	AQ - Trip Blank Water	<b>Percent Solids:</b>	n/a
<b>Method:</b>	SW846 8021B		
<b>Project:</b>	West Divide Creek Quarterly		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	TA0848.D	1	03/31/11	BR	n/a	n/a	GTA601
Run #2							

Run #	Purge Volume
Run #1	5.0 ml
Run #2	

## Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
120-82-1	1,2,4-Trichlorobenzene	104%		60-140%

ND = Not detected      MDL - Method Detection Limit  
 RL = Reporting Limit  
 E = Indicates value exceeds calibration range

J = Indicates an estimated value  
 B = Indicates analyte found in associated method blank  
 N = Indicates presumptive evidence of a compound

## Misc. Forms

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### Custody Documents and Other Forms

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Includes the following where applicable:

- Chain of Custody





CHAIN OF CUSTODY

4036 Youngfield Street, Wheat Ridge, CO 80033
TEL: 303-425-6021 FAX: 303-425-6854
www.accutest.com

FED-EX Tracking #
Bottle Order Control #
Accutest Quote #
Accutest Job # D22183

Table with columns: Client / Reporting Information, Project Information, Requested Analysis (see TEST CODE sheet), Matrix Codes. Includes fields for Company Name, Project Name, Street Address, City, State, Project Contact, Project #, Client Purchase Order #, Sampler(s) Name(s), Project Manager, Attention, and a detailed table of sample collection data with columns for Field ID, Date, Time, Matrix, # of bottles, and various chemical analysis results.

Turnaround Time (Business days)
Data Deliverable Information
Comments / Special Instructions
Includes checkboxes for business days, emergency, and report format options.

Sample Custody must be documented below each time samples change possession, including courier delivery.
Table with columns: Relinquished by Sampler, Date/Time, Received By, Date/Time, Relinquished By, Date/Time, Received By, Date/Time, Custody Seal, Intact/Not Intact, Preserved where applicable, On log, Cooler Temp.

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## Accutest Laboratories Sample Receipt Summary

Accutest Job Number: D22183

Client: OLSSON

Immediate Client Services Action Required: No

Date / Time Received: 3/30/2011 8:45:00 AM

No. Coolers: 1

Client Service Action Required at Login: No

Project: WEST DIVIDE CREEK QUARTERLY

Airbill #'s: FEDEX

<u>Cooler Security</u>	<u>Y or N</u>		<u>Y or N</u>	
1. Custody Seals Present:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	3. COC Present:	<input checked="" type="checkbox"/> <input type="checkbox"/>
2. Custody Seals Intact:	<input checked="" type="checkbox"/>	<input type="checkbox"/>	4. Smpl Dates/Time OK	<input checked="" type="checkbox"/> <input type="checkbox"/>

<u>Cooler Temperature</u>	<u>Y or N</u>	
1. Temp criteria achieved:	<input checked="" type="checkbox"/>	<input type="checkbox"/>
2. Cooler temp verification:	Infrared gun	
3. Cooler media:	Ice (bag)	

<u>Quality Control Preservation</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Trip Blank present / cooler:	<input type="checkbox"/>		<input type="checkbox"/>	
2. Trip Blank listed on COC:	<input type="checkbox"/>		<input type="checkbox"/>	
3. Samples preserved properly:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. VOCs headspace free:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

<u>Sample Integrity - Documentation</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample labels present on bottles:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. Container labeling complete:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Sample container label / COC agree:	<input checked="" type="checkbox"/>		<input type="checkbox"/>

<u>Sample Integrity - Condition</u>	<u>Y</u>	<u>or</u>	<u>N</u>
1. Sample recvd within HT:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
2. All containers accounted for:	<input checked="" type="checkbox"/>		<input type="checkbox"/>
3. Condition of sample:	Intact		

<u>Sample Integrity - Instructions</u>	<u>Y</u>	<u>or</u>	<u>N</u>	<u>N/A</u>
1. Analysis requested is clear:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
2. Bottles received for unspecified tests	<input type="checkbox"/>		<input checked="" type="checkbox"/>	
3. Sufficient volume rec'd for analysis:	<input checked="" type="checkbox"/>		<input type="checkbox"/>	
4. Compositing instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>
5. Filtering instructions clear:	<input type="checkbox"/>		<input type="checkbox"/>	<input checked="" type="checkbox"/>

Comments

4.1  
4

## GC Volatiles

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5

## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

**Method Blank Summary**

**Job Number:** D22183  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** West Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFB102-MB	FB3499.D	1	03/30/11	JB	n/a	n/a	GFB102

The QC reported here applies to the following samples:

Method: RSK175 MOD

D22183-1, D22183-2, D22183-3, D22183-4, D22183-5, D22183-6, D22183-7

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.00080	0.00080	mg/l	

**Method Blank Summary**

**Job Number:** D22183  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** West Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFB104-MB	FB3611.D	1	04/07/11	EH	n/a	n/a	GFB104

The QC reported here applies to the following samples:

Method: RSK175 MOD

D22183-8, D22183-9, D22183-10, D22183-11, D22183-12, D22183-13

CAS No.	Compound	Result	RL	MDL	Units	Q
74-82-8	Methane	ND	0.00080	0.00080	mg/l	

**Method Blank Summary**

**Job Number:** D22183  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** West Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA601-MB	TA0830.D	1	03/30/11	BR	n/a	n/a	GTA601

The QC reported here applies to the following samples:

Method: SW846 8021B

D22183-1, D22183-2, D22183-3, D22183-4, D22183-5, D22183-6, D22183-7, D22183-8, D22183-9, D22183-10, D22183-11, D22183-12, D22183-13, D22183-14

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	2.0	2.0	ug/l	
108-88-3	Toluene	ND	2.0	2.0	ug/l	
1330-20-7	Xylenes (total)	ND	2.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Limits
120-82-1	1,2,4-Trichlorobenzene	122% 60-140%

# Blank Spike Summary

**Job Number:** D22183  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** West Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GTA601-BS	TA0831.D	1	03/30/11	BR	n/a	n/a	GTA601

The QC reported here applies to the following samples:

Method: SW846 8021B

D22183-1, D22183-2, D22183-3, D22183-4, D22183-5, D22183-6, D22183-7, D22183-8, D22183-9, D22183-10, D22183-11, D22183-12, D22183-13, D22183-14

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	27.2	26.2	96	70-130
100-41-4	Ethylbenzene	45.6	43.4	95	70-130
108-88-3	Toluene	212	196	93	70-130
1330-20-7	Xylenes (total)	246	216	88	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
120-82-1	1,2,4-Trichlorobenzene	125%	60-140%



# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** D22183  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** West Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFB102-BS	FB3500.D	10	03/30/11	JB	n/a	n/a	GFB102
GFB102-BSD	FB3501.D	10	03/30/11	JB	n/a	n/a	GFB102

The QC reported here applies to the following samples:

Method: RSK175 MOD

D22183-1, D22183-2, D22183-3, D22183-4, D22183-5, D22183-6, D22183-7

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
74-82-8	Methane	0.5094	0.637	125	0.626	123	2	70-130/30

5.3.1  
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# Blank Spike/Blank Spike Duplicate Summary

**Job Number:** D22183  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** West Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
GFB104-BS	FB3612.D	10	04/07/11	EH	n/a	n/a	GFB104
GFB104-BSD	FB3613.D	10	04/07/11	EH	n/a	n/a	GFB104

The QC reported here applies to the following samples:

Method: RSK175 MOD

D22183-8, D22183-9, D22183-10, D22183-11, D22183-12, D22183-13

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
74-82-8	Methane	0.5094	0.645	127	0.652	128	1	70-130/30

5.3.2  
5

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** D22183  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** West Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D22152-3MS	FB3538.D	10	03/30/11	JB	n/a	n/a	GFB102
D22152-3MSD	FB3539.D	10	03/30/11	JB	n/a	n/a	GFB102
D22152-3	FB3517.D	1	03/30/11	JB	n/a	n/a	GFB102

The QC reported here applies to the following samples:

Method: RSK175 MOD

D22183-1, D22183-2, D22183-3, D22183-4, D22183-5, D22183-6, D22183-7

CAS No.	Compound	D22152-3 mg/l	Spike Q mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
74-82-8	Methane	ND	0.5094	0.634	124	0.601	118	5	70-130/30

5.4.1  
5

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** D22183  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** West Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D22183-8MS	FB3633.D	10	04/07/11	EH	n/a	n/a	GFB104
D22183-8MSD	FB3634.D	10	04/07/11	EH	n/a	n/a	GFB104
D22183-8	FB3615.D	1	04/07/11	EH	n/a	n/a	GFB104

The QC reported here applies to the following samples:

Method: RSK175 MOD

D22183-8, D22183-9, D22183-10, D22183-11, D22183-12, D22183-13

CAS No.	Compound	D22183-8 mg/l	Spike Q mg/l	MS mg/l	MS %	MSD mg/l	MSD %	RPD	Limits Rec/RPD
74-82-8	Methane	ND	0.5094	0.631	124	0.629	123	0	70-130/30

5.4.2  
5

# Matrix Spike/Matrix Spike Duplicate Summary

**Job Number:** D22183  
**Account:** COCSCOG Olsson Associates - Denver  
**Project:** West Divide Creek Quarterly

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
D22183-1MS	TA0833.D	1	03/30/11	BR	n/a	n/a	GTA601
D22183-1MSD	TA0834.D	1	03/30/11	BR	n/a	n/a	GTA601
D22183-1	TA0832.D	1	03/30/11	BR	n/a	n/a	GTA601

The QC reported here applies to the following samples:

Method: SW846 8021B

D22183-1, D22183-2, D22183-3, D22183-4, D22183-5, D22183-6, D22183-7, D22183-8, D22183-9, D22183-10, D22183-11, D22183-12, D22183-13, D22183-14

CAS No.	Compound	D22183-1 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	27.2	24.2	89	24.1	89	0	70-130/30
100-41-4	Ethylbenzene	ND	45.6	39.8	87	40.1	88	1	62-130/30
108-88-3	Toluene	ND	212	180	85	181	86	1	70-130/30
1330-20-7	Xylenes (total)	ND	246	198	80	199	81	1	70-130/30

CAS No.	Surrogate Recoveries	MS	MSD	D22183-1	Limits
120-82-1	1,2,4-Trichlorobenzene	108%	111%	105%	60-140%

GC Volatiles

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Raw Data

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Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3523.D Vial: 28
Acq On : 30 Mar 2011 3:48 pm Operator: jacobb
Sample : D22183-1 Inst : FID4
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 30 16:48:37 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Rows include System Monitoring Compounds (Propane) and Target Compounds (Methane, Ethane).

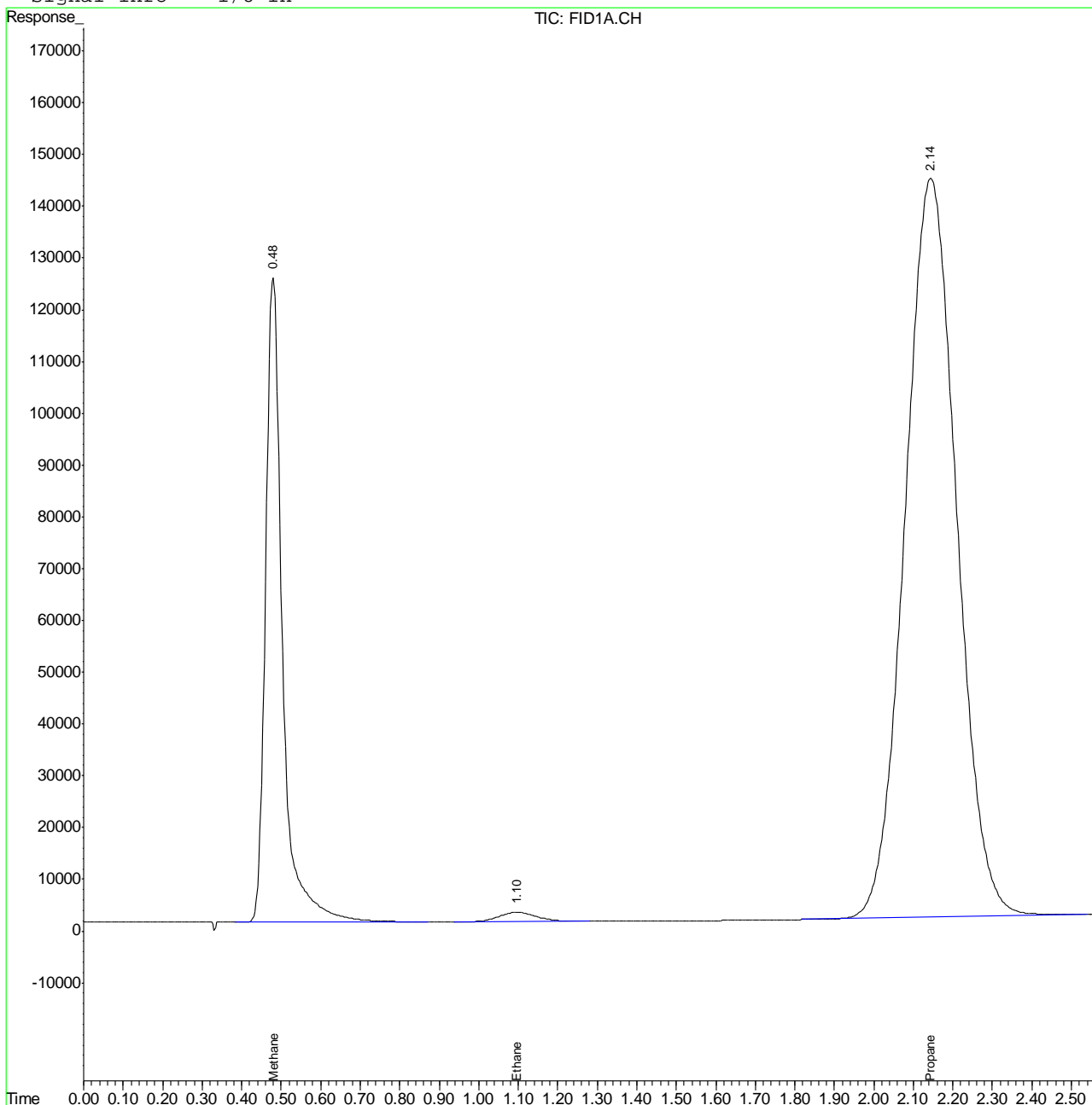
6.1.1
6

Quantitation Report (QT Reviewed)

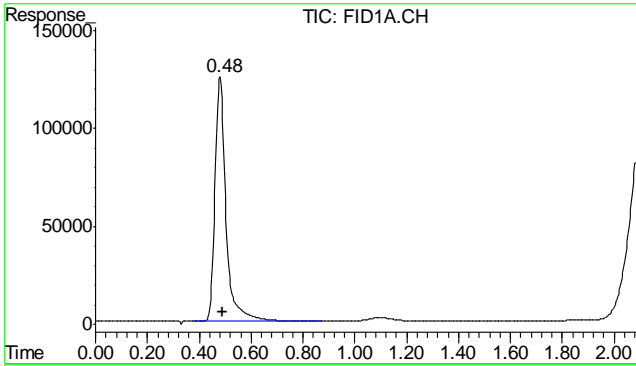
Data File : F:\DATA\FB033011\FB3523.D Vial: 28  
Acq On : 30 Mar 2011 3:48 pm Operator: jacobb  
Sample : D22183-1 Inst : FID4  
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 17:52 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethane, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

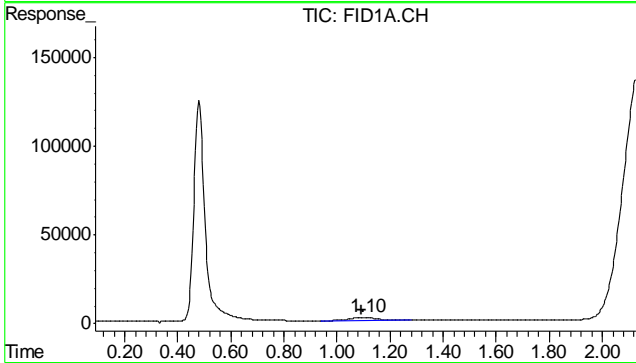
Volume Inj. : 100ul  
Signal Phase : Porapak Q 80/100  
Signal Info : 1/8 in



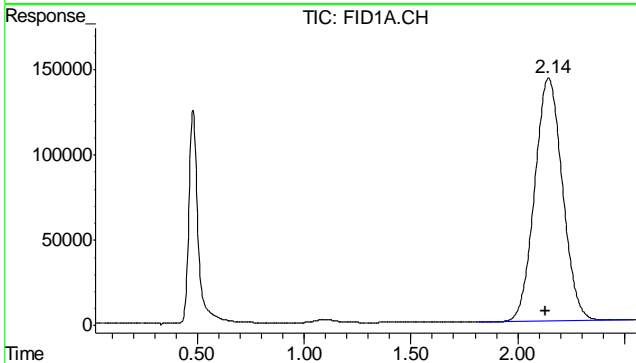




#1 Methane  
 R.T.: 0.480 min  
 Delta R.T.: -0.011 min  
 Response: 3687971  
 Conc: 285.98 rawvppm



#3 Ethane  
 R.T.: 1.099 min  
 Delta R.T.: 0.004 min  
 Response: 118008  
 Conc: 4.59 rawvppm



#4 Propane  
 R.T.: 2.145 min  
 Delta R.T.: 0.016 min  
 Response: 12913154  
 Conc: 348.97 rawvppm

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3536.D Vial: 41
Acq On : 30 Mar 2011 5:49 pm Operator: jacobb
Sample : D22183-2, 2x Inst : FID4
Misc : 250uL|GC1772,GFB102,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 30 17:50:52 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Rows include System Monitoring Compounds (Propane) and Target Compounds (Methane, Ethane).

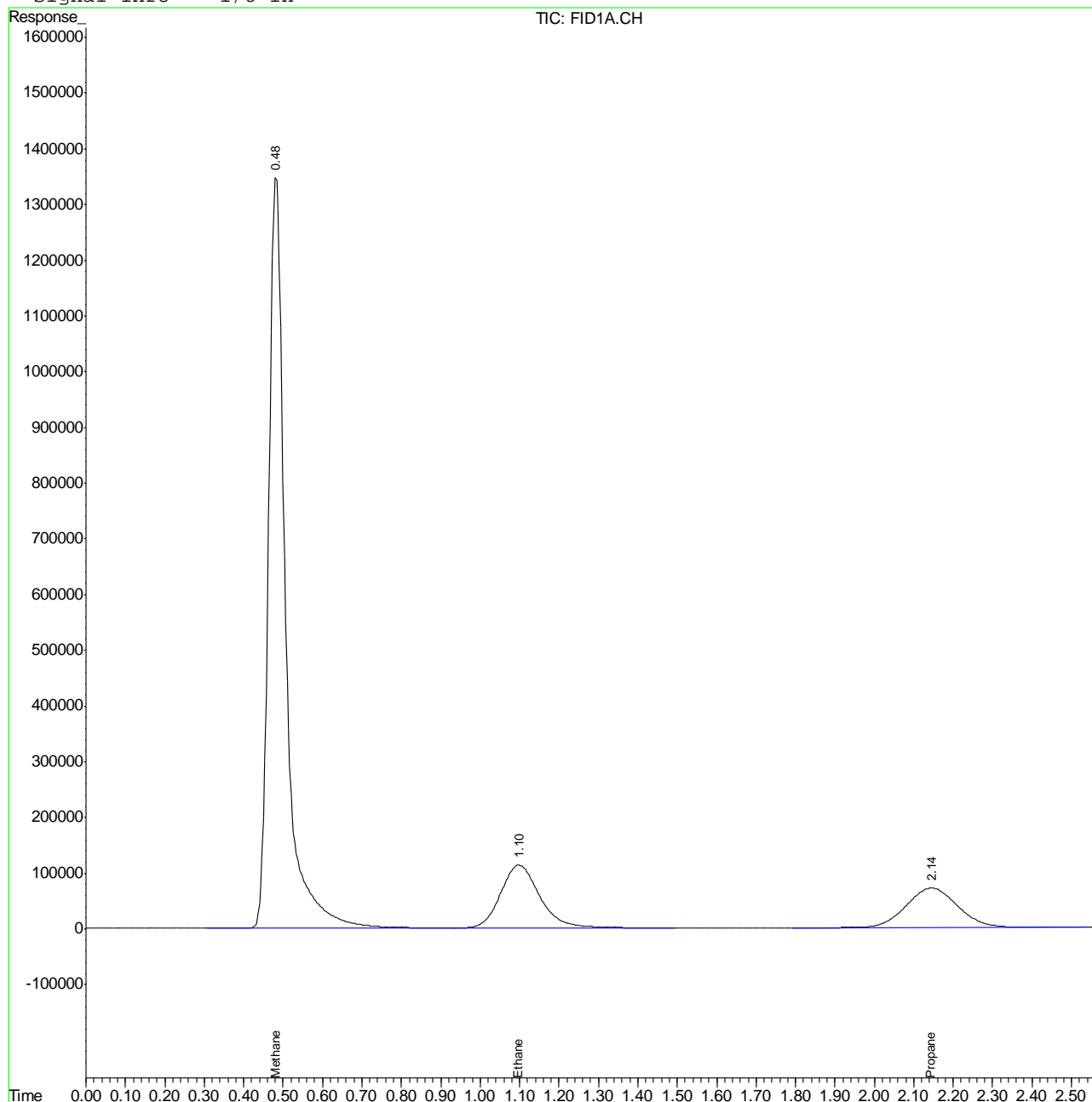
6.12
6

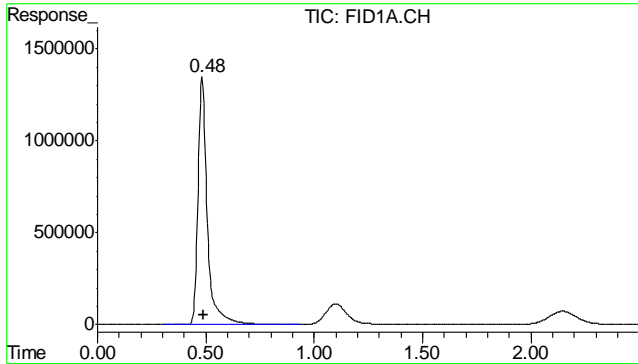
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3536.D Vial: 41  
Acq On : 30 Mar 2011 5:49 pm Operator: jacobbb  
Sample : D22183-2, 2x Inst : FID4  
Misc : 250uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 18:54 2011 Quant Results File: MEEP-GFB91.RES

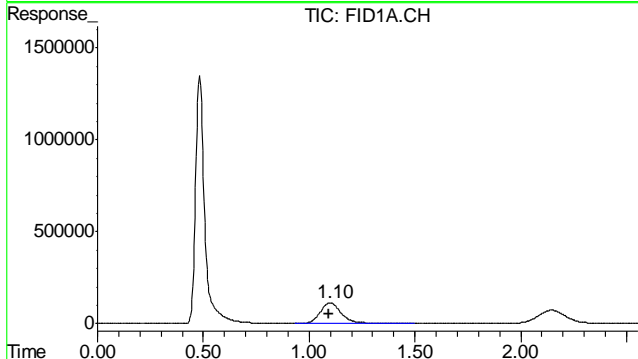
Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethane, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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

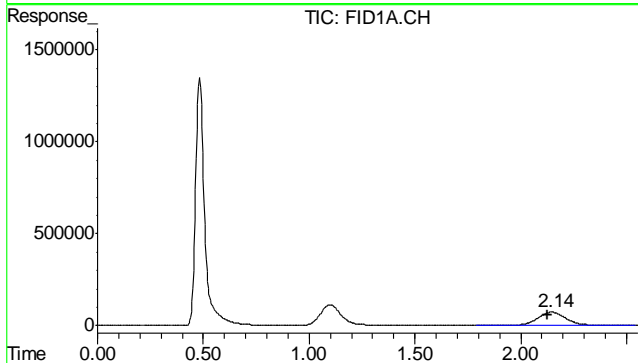




#1 Methane  
R.T.: 0.483 min  
Delta R.T.: -0.008 min  
Response: 40230340  
Conc: 3119.61 rawvppm



#3 Ethane  
R.T.: 1.099 min  
Delta R.T.: 0.004 min  
Response: 7715604  
Conc: 300.32 rawvppm



#4 Propane  
R.T.: 2.146 min  
Delta R.T.: 0.017 min  
Response: 6419510  
Conc: 173.48 rawvppm

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3537.D Vial: 42
Acq On : 30 Mar 2011 5:55 pm Operator: jacobb
Sample : D22183-3, 25x Inst : FID4
Misc : 20uL|GC1772,GFB102,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 30 17:56:07 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Rows include System Monitoring Compounds (Propane) and Target Compounds (Methane, Ethane).

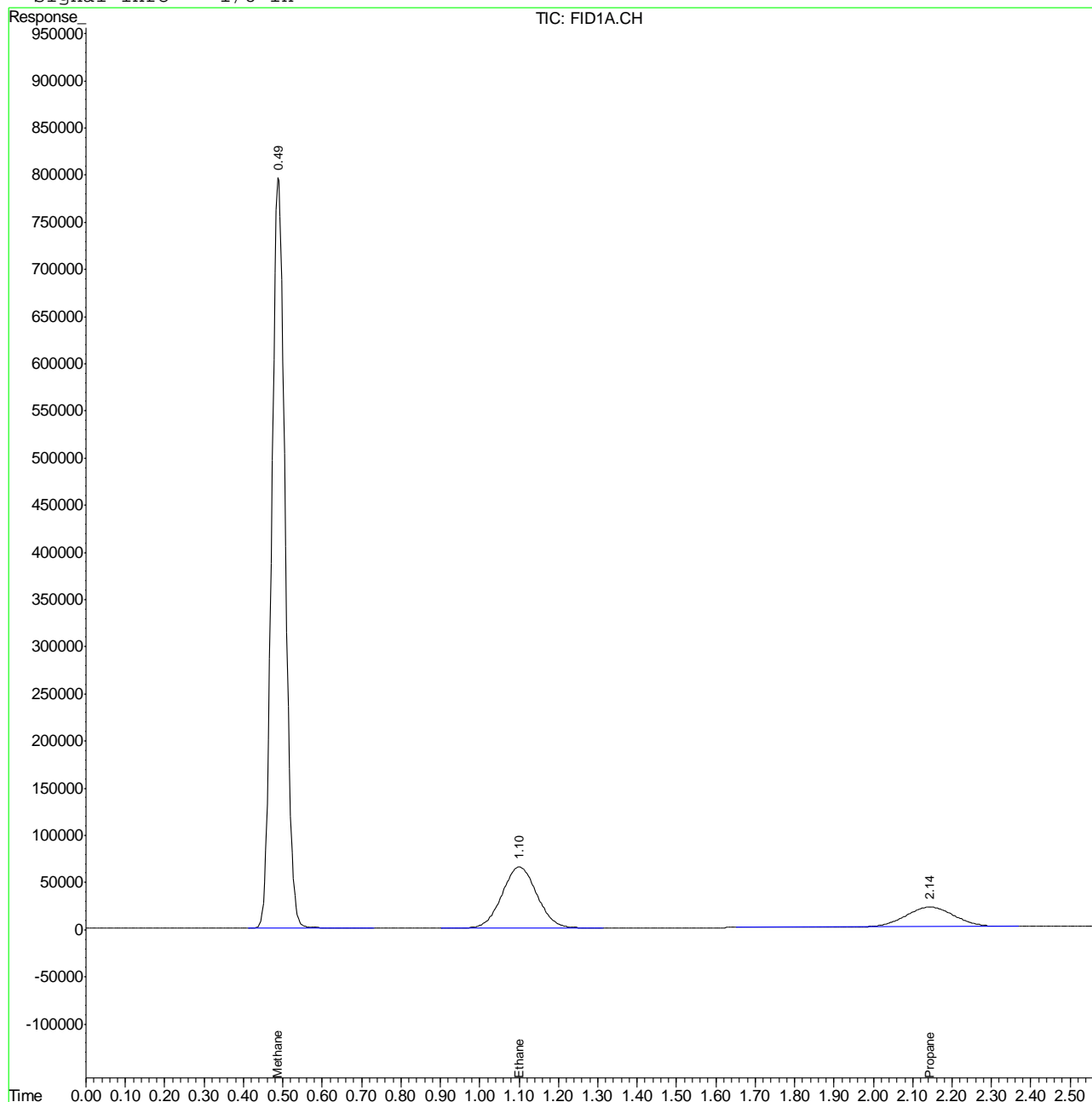
6.1.3
6

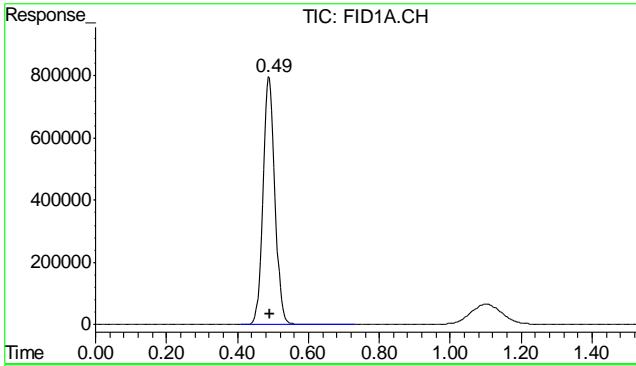
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3537.D Vial: 42  
Acq On : 30 Mar 2011 5:55 pm Operator: jacobb  
Sample : D22183-3, 25x Inst : FID4  
Misc : 20uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 18:59 2011 Quant Results File: MEEP-GFB91.RES

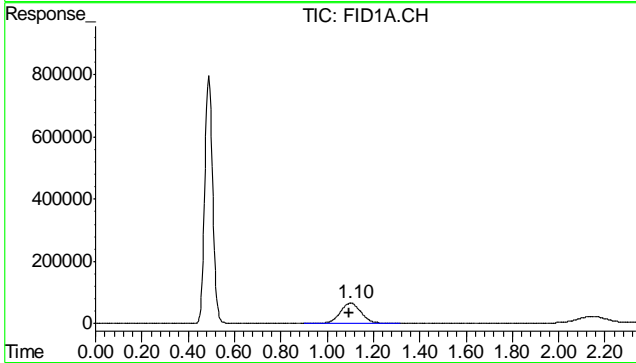
Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethane, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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

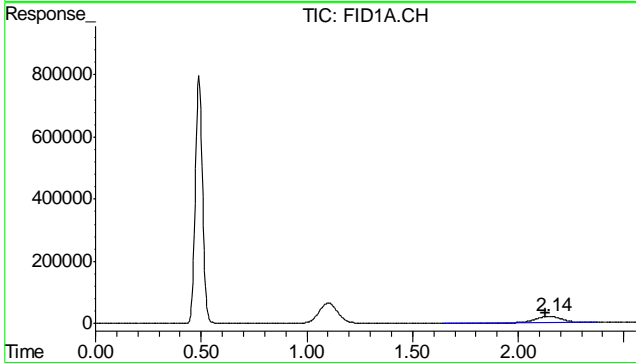




#1 Methane  
 R.T.: 0.489 min  
 Delta R.T.: -0.002 min  
 Response: 18703432  
 Conc: 1450.33 rawvppm



#3 Ethane  
 R.T.: 1.102 min  
 Delta R.T.: 0.007 min  
 Response: 3957826  
 Conc: 154.05 rawvppm



#4 Propane  
 R.T.: 2.145 min  
 Delta R.T.: 0.016 min  
 Response: 1799805  
 Conc: 48.64 rawvppm

Manual Integrations  
APPROVED  
(compounds with "m" flag)  
John Hamilton  
04/06/11 10:44

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3526.D Vial: 31  
Acq On : 30 Mar 2011 4:14 pm Operator: jacobbb  
Sample : D22183-4 Inst : FID4  
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 16:48:49 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Initial Calibration  
DataAcq Meth : GAS.M

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S Propane	2.14	12972243	350.569 rawvp
Target Compounds			
1) Methane	0.48	1823687	141.415 rawvpm

6.1.4  
6

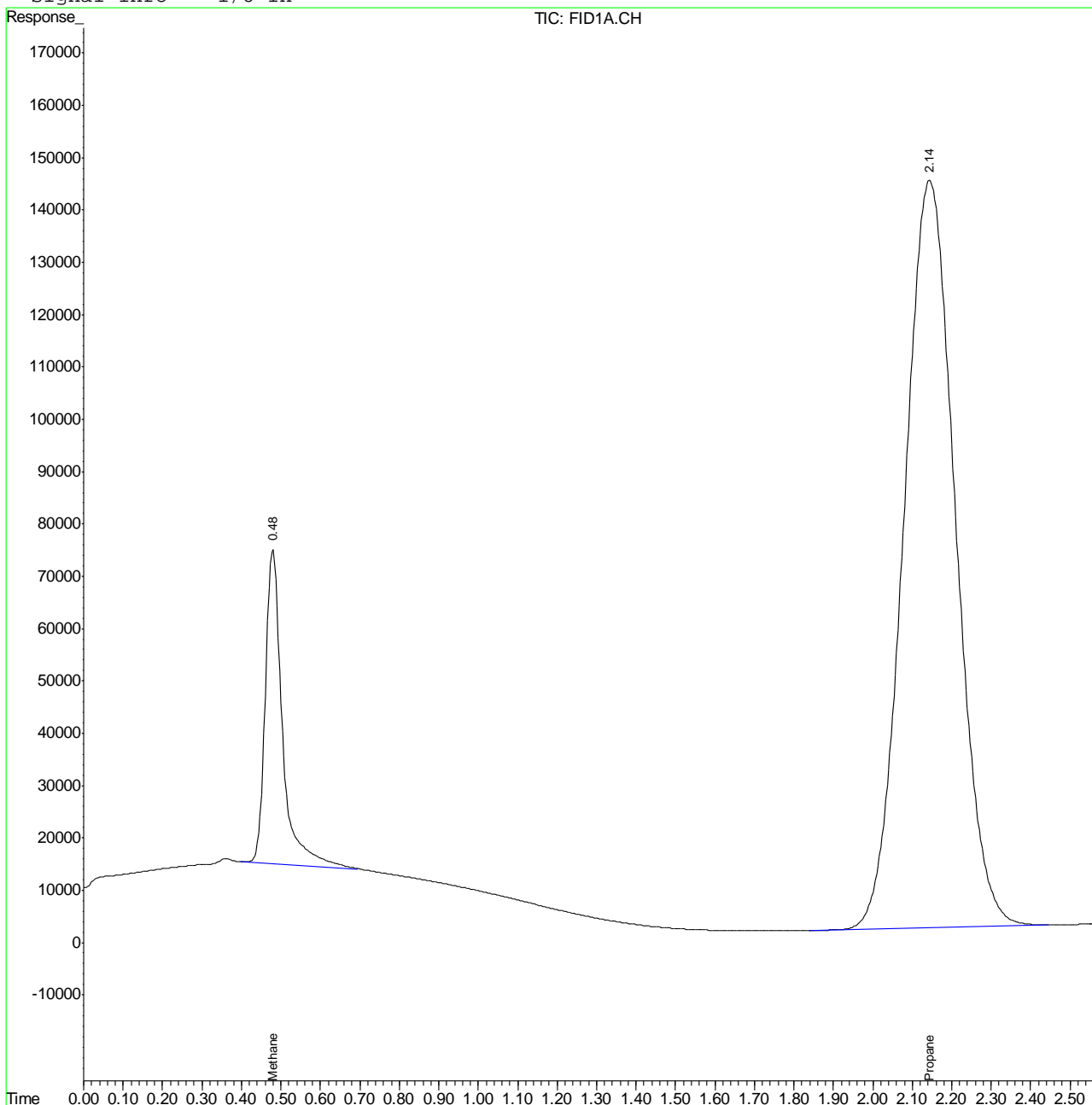


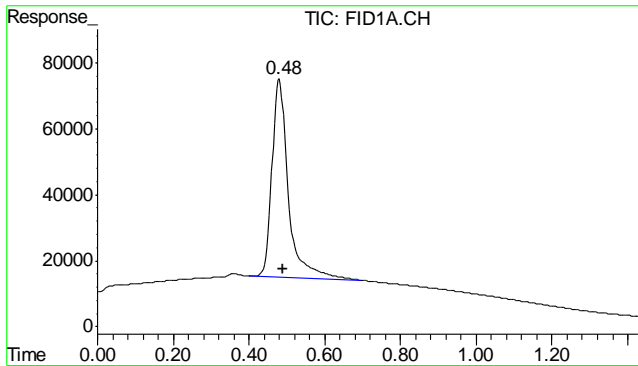
Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3526.D Vial: 31  
Acq On : 30 Mar 2011 4:14 pm Operator: jacobb  
Sample : D22183-4 Inst : FID4  
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 18:00 2011 Quant Results File: MEEP-GFB91.RES

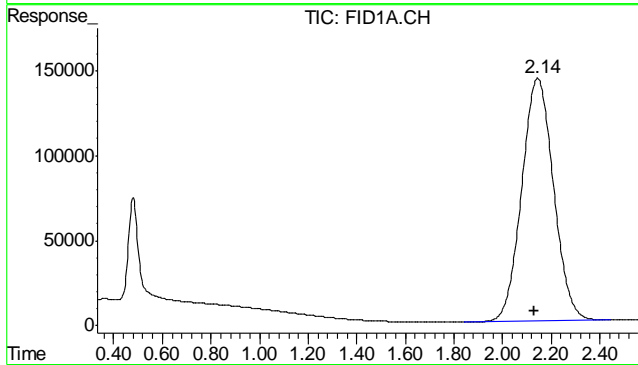
Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#1 Methane  
 R.T.: 0.479 min  
 Delta R.T.: -0.012 min  
 Response: 1823687  
 Conc: 141.42 rawvppm m



#4 Propane  
 R.T.: 2.144 min  
 Delta R.T.: 0.016 min  
 Response: 12972243  
 Conc: 350.57 rawvppm

Manual Integrations  
APPROVED  
(compounds with "m" flag)  
John Hamilton  
04/06/11 10:44

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3527.D Vial: 32  
Acq On : 30 Mar 2011 4:18 pm Operator: jacobb  
Sample : D22183-5 Inst : FID4  
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 16:48:53 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Initial Calibration  
DataAcq Meth : GAS.M

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S Propane	2.14	13240439	357.817 rawvpm
Target Compounds			
1) Methane	0.48	4203183	325.930 rawvp

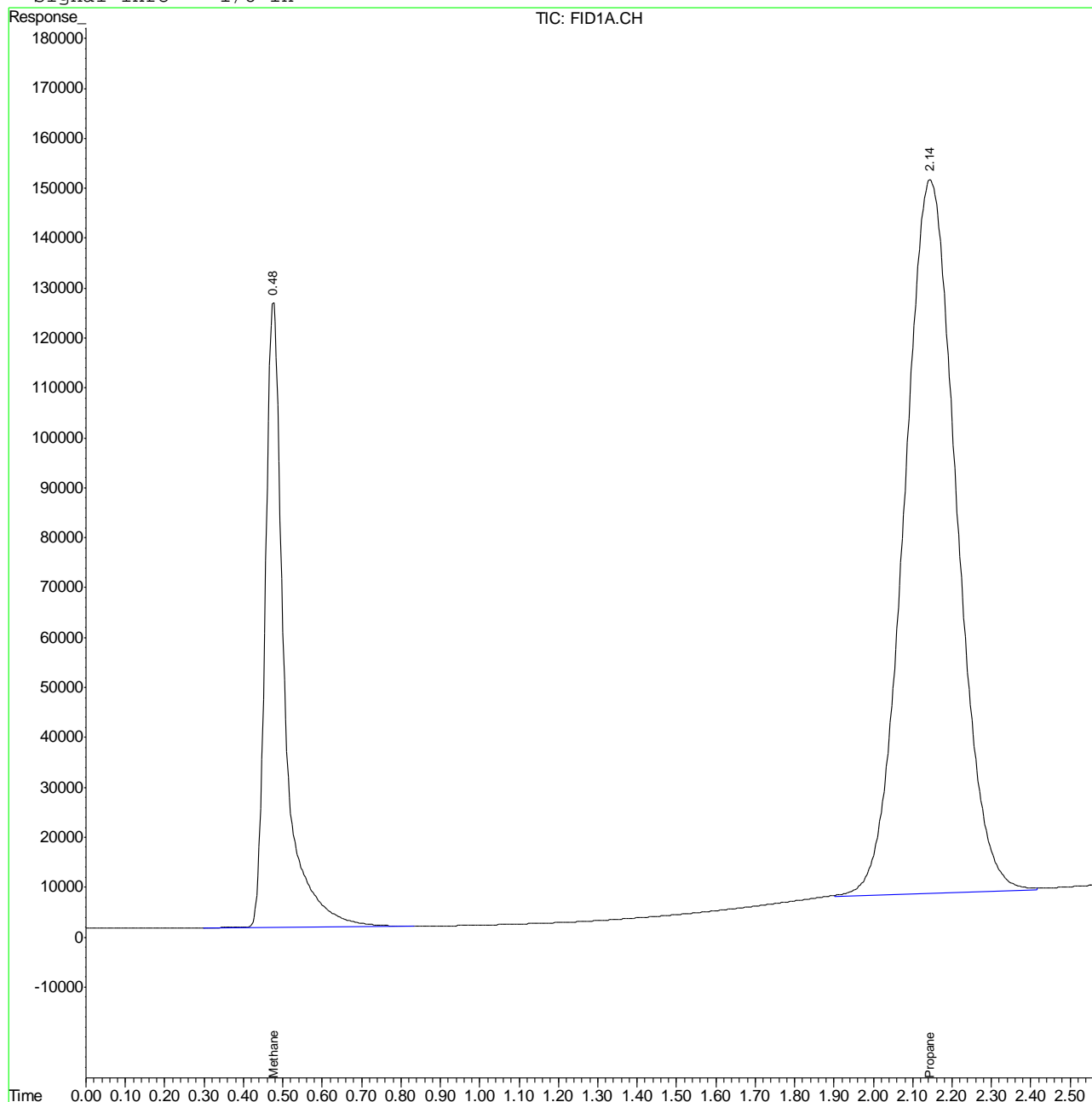
6.1.5  
6

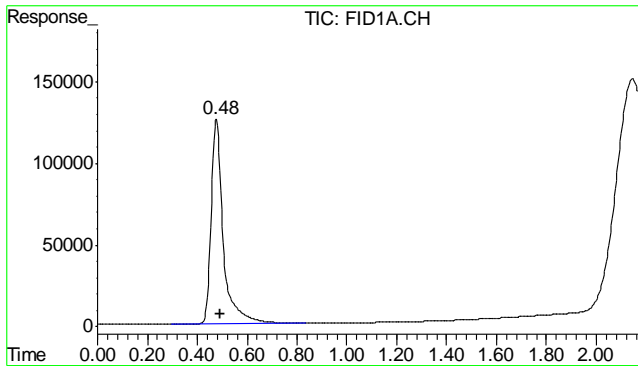
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3527.D Vial: 32  
Acq On : 30 Mar 2011 4:18 pm Operator: jacobb  
Sample : D22183-5 Inst : FID4  
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 18:01 2011 Quant Results File: MEEP-GFB91.RES

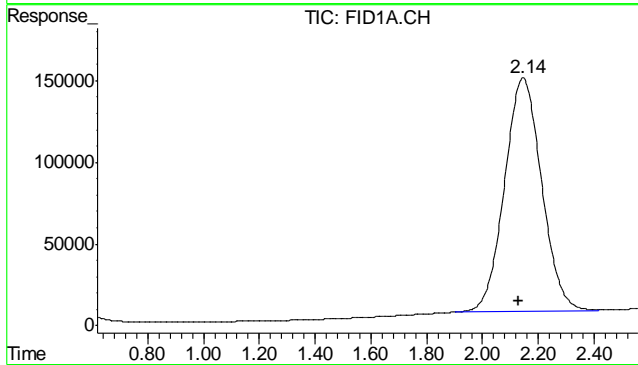
Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethane, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#1 Methane  
 R.T.: 0.477 min  
 Delta R.T.: -0.014 min  
 Response: 4203183  
 Conc: 325.93 rawvppm



#4 Propane  
 R.T.: 2.144 min  
 Delta R.T.: 0.015 min  
 Response: 13240439  
 Conc: 357.82 rawvppm m

6.1.5

6

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3528.D Vial: 33
Acq On : 30 Mar 2011 4:25 pm Operator: jacobb
Sample : D22183-6 Inst : FID4
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 30 16:48:57 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Row 1: System Monitoring Compounds. Row 2: 4) S Propane, 2.15, 12464256, 336.841 rawvp.

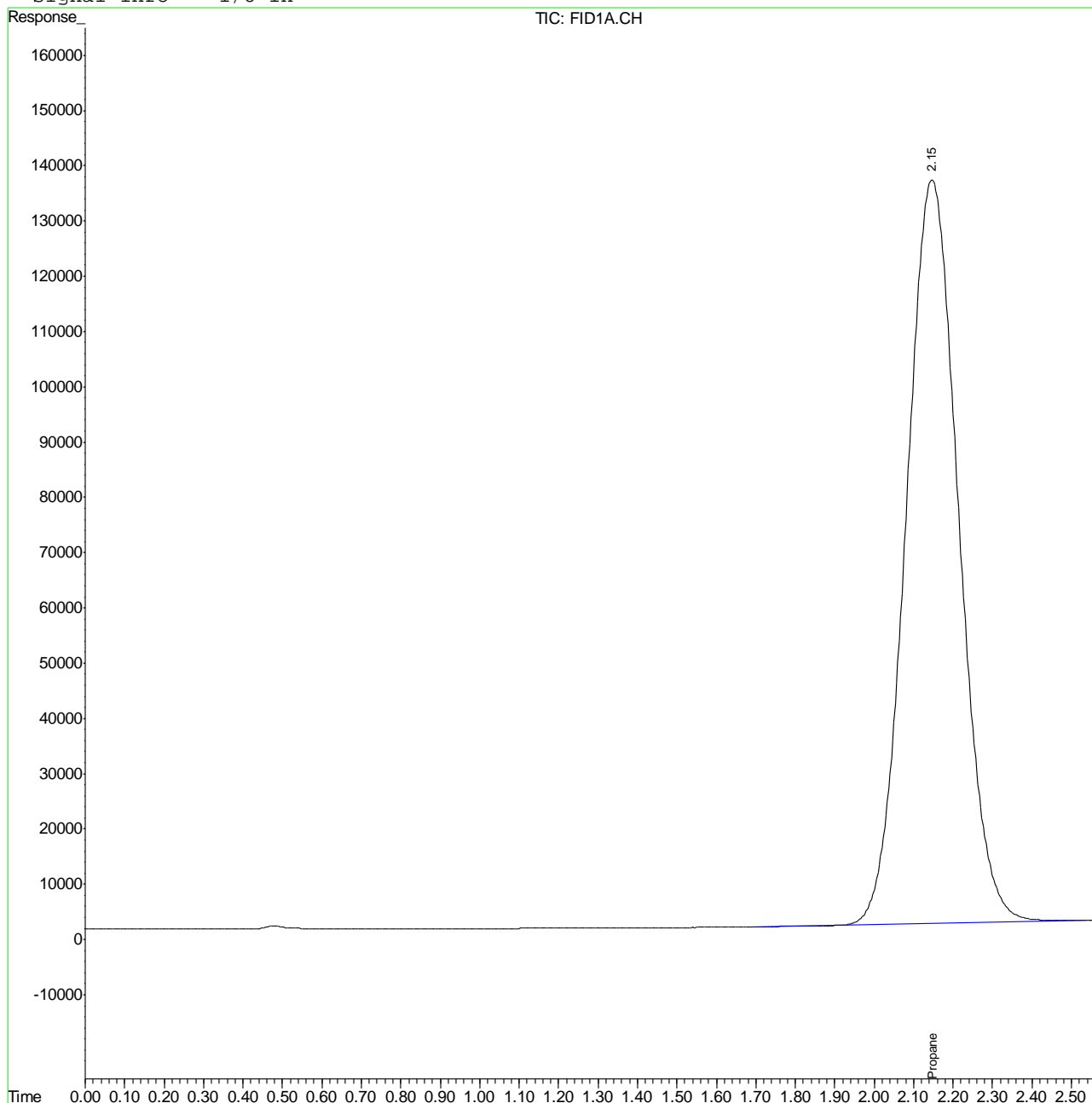
Target Compounds

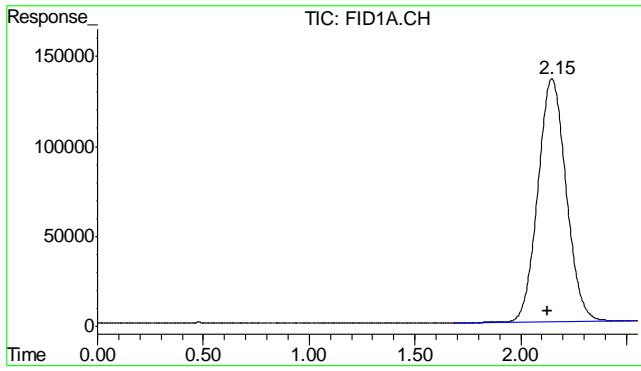
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3528.D Vial: 33  
Acq On : 30 Mar 2011 4:25 pm Operator: jacobb  
Sample : D22183-6 Inst : FID4  
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 18:01 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#4 Propane  
R.T.: 2.148 min  
Delta R.T.: 0.019 min  
Response: 12464256  
Conc: 336.84 rawvppm



Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3529.D Vial: 34
Acq On : 30 Mar 2011 4:30 pm Operator: jacobb
Sample : D22183-7 Inst : FID4
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Mar 30 16:49:01 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Tue Jan 11 10:48:20 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Rows include System Monitoring Compounds (Propane) and Target Compounds (Methane).

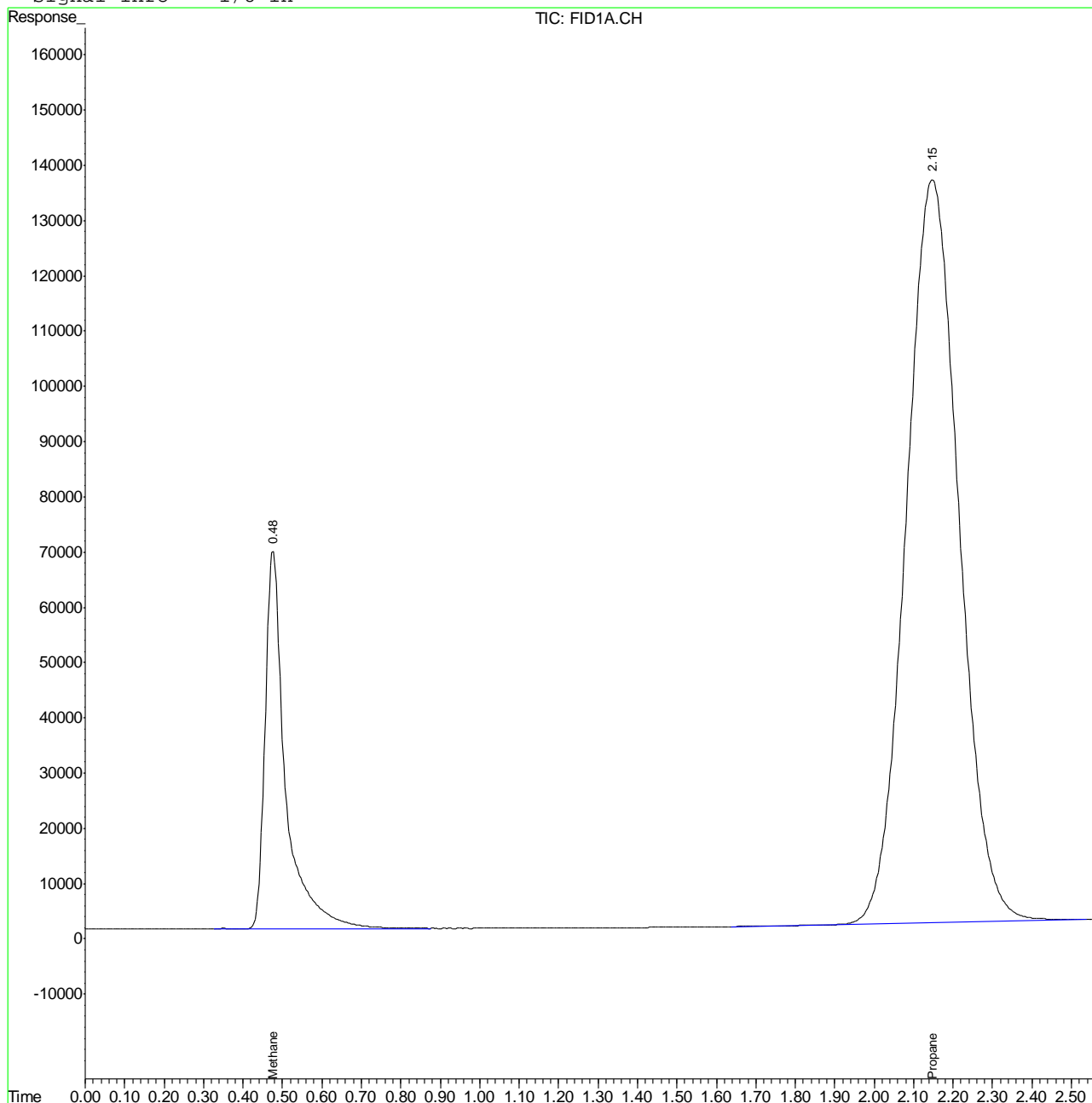
6.1.7
6

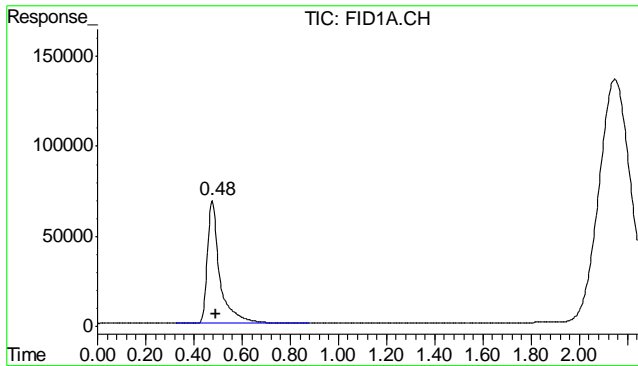
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3529.D Vial: 34  
Acq On : 30 Mar 2011 4:30 pm Operator: jacobb  
Sample : D22183-7 Inst : FID4  
Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Mar 30 17:52 2011 Quant Results File: MEEP-GFB91.RES

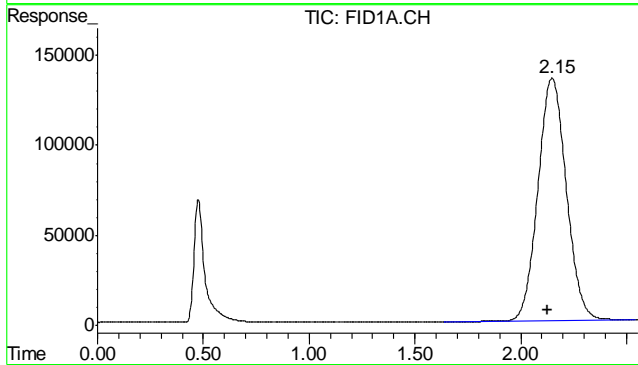
Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Tue Jan 11 10:48:20 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#1 Methane  
R.T.: 0.477 min  
Delta R.T.: -0.014 min  
Response: 2462339  
Conc: 190.94 rawvppm



#4 Propane  
R.T.: 2.148 min  
Delta R.T.: 0.019 min  
Response: 12470015  
Conc: 337.00 rawvppm

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040711\FB3615.D Vial: 39
Acq On : 7 Apr 2011 4:08 pm Operator: erikah
Sample : D22183-8 Inst : FID4
Misc : 500uL|GC1795,GFB104,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 07 16:20:47 2011 Quant Results File: MEEP-GFB104.RES

Quant Method : C:\MSDCHEM\2...\MEEP-GFB104.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Thu Apr 07 15:45:28 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Row 1: System Monitoring Compounds. Row 2: 4) S Propane, 2.13, 12974027, 356.951 rawvp. Row 3: Target Compounds.

6.1.8
6

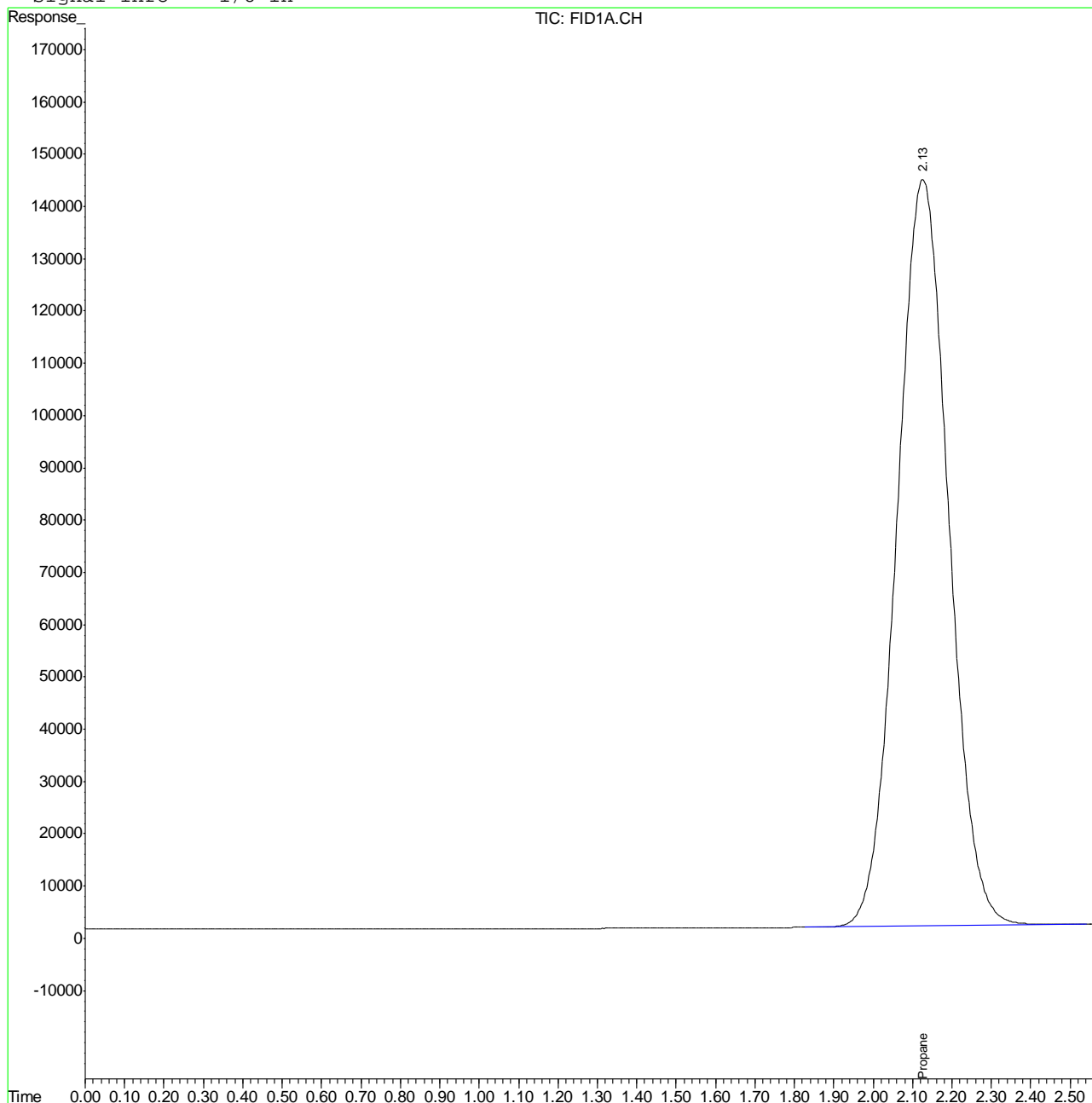
(f)=RT Delta > 1/2 Window (m)=manual int.
FB3615.D MEEP-GFB104.M Thu Apr 07 16:21:50 2011 GCFA

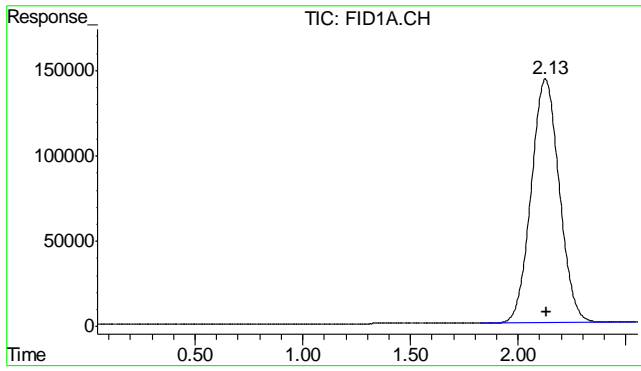
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040711\FB3615.D Vial: 39  
Acq On : 7 Apr 2011 4:08 pm Operator: erikah  
Sample : D22183-8 Inst : FID4  
Misc : 500uL|GC1795,GFB104,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 7 16:12 2011 Quant Results File: MEEP-GFB104.RES

Quant Method : C:\MSDCHEM\2...\MEEP-GFB104.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Thu Apr 07 15:45:28 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#4 Propane  
R.T.: 2.127 min  
Delta R.T.: -0.003 min  
Response: 12974027  
Conc: 356.95 rawvppm

6.18

6

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040711\FB3616.D Vial: 40
Acq On : 7 Apr 2011 4:12 pm Operator: erikah
Sample : D22183-9 Inst : FID4
Misc : 500uL|GC1795,GFB104,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 07 16:24:54 2011 Quant Results File: MEEP-GFB104.RES

Quant Method : C:\MSDCHEM\2...\MEEP-GFB104.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Thu Apr 07 15:45:28 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Rows include System Monitoring Compounds (Propane) and Target Compounds (Methane).

6.1.9
6

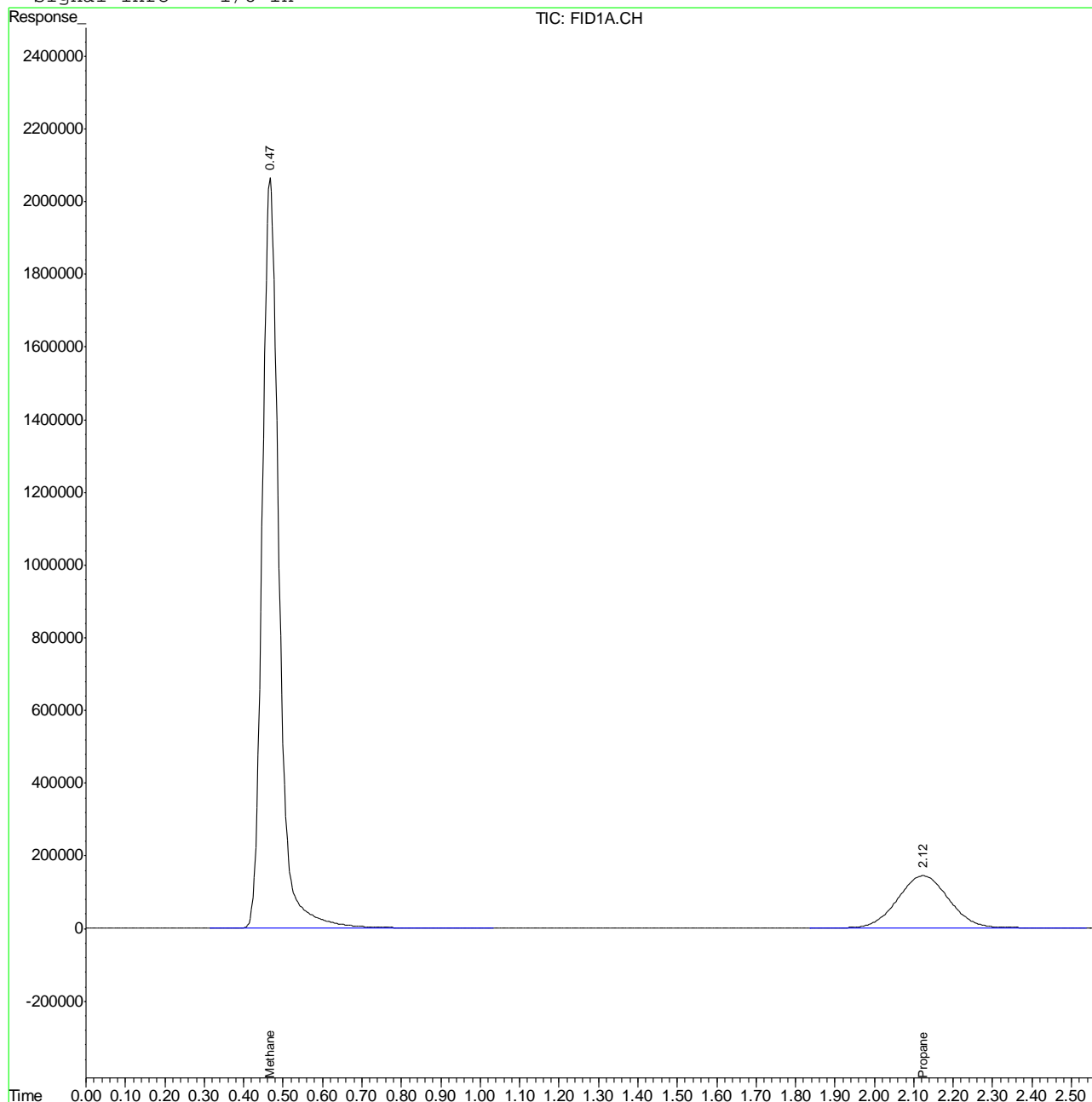
(f)=RT Delta > 1/2 Window (m)=manual int.
FB3616.D MEEP-GFB104.M Thu Apr 07 16:25:56 2011 GCFA

## Quantitation Report (QT Reviewed)

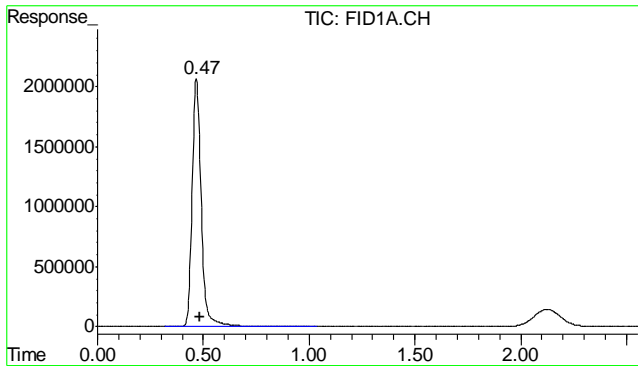
Data File : F:\DATA\FB040711\FB3616.D Vial: 40  
Acq On : 7 Apr 2011 4:12 pm Operator: erikah  
Sample : D22183-9 Inst : FID4  
Misc : 500uL|GC1795,GFB104,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 7 16:16 2011 Quant Results File: MEEP-GFB104.RES

Quant Method : C:\MSDCHEM\2...\MEEP-GFB104.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Thu Apr 07 15:45:28 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

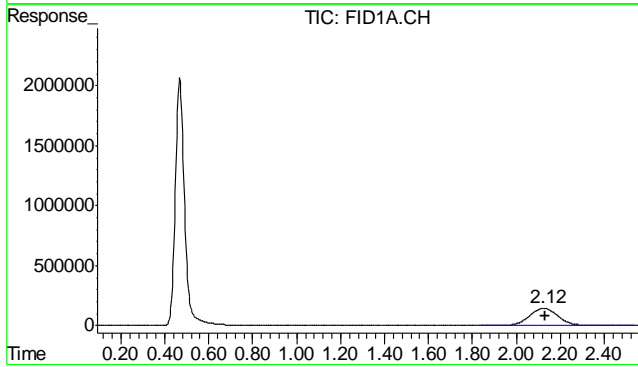
Volume Inj. : 100ul  
Signal Phase : Porapak Q 80/100  
Signal Info : 1/8 in







#1 Methane  
R.T.: 0.468 min  
Delta R.T.: -0.015 min  
Response: 61164350  
Conc: 4854.55 rawvppm



#4 Propane  
R.T.: 2.124 min  
Delta R.T.: -0.006 min  
Response: 12869242  
Conc: 354.07 rawvppm

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040711\FB3617.D Vial: 41
Acq On : 7 Apr 2011 4:17 pm Operator: erikah
Sample : D22183-10 Inst : FID4
Misc : 500uL|GC1795,GFB104,,,,,1 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 07 16:29:29 2011 Quant Results File: MEEP-GFB104.RES

Quant Method : C:\MSDCHEM\2...\MEEP-GFB104.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Thu Apr 07 15:45:28 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Row 1: System Monitoring Compounds. Row 2: 4) S Propane, 2.13, 12683419, 348.955 rawvp.

Target Compounds

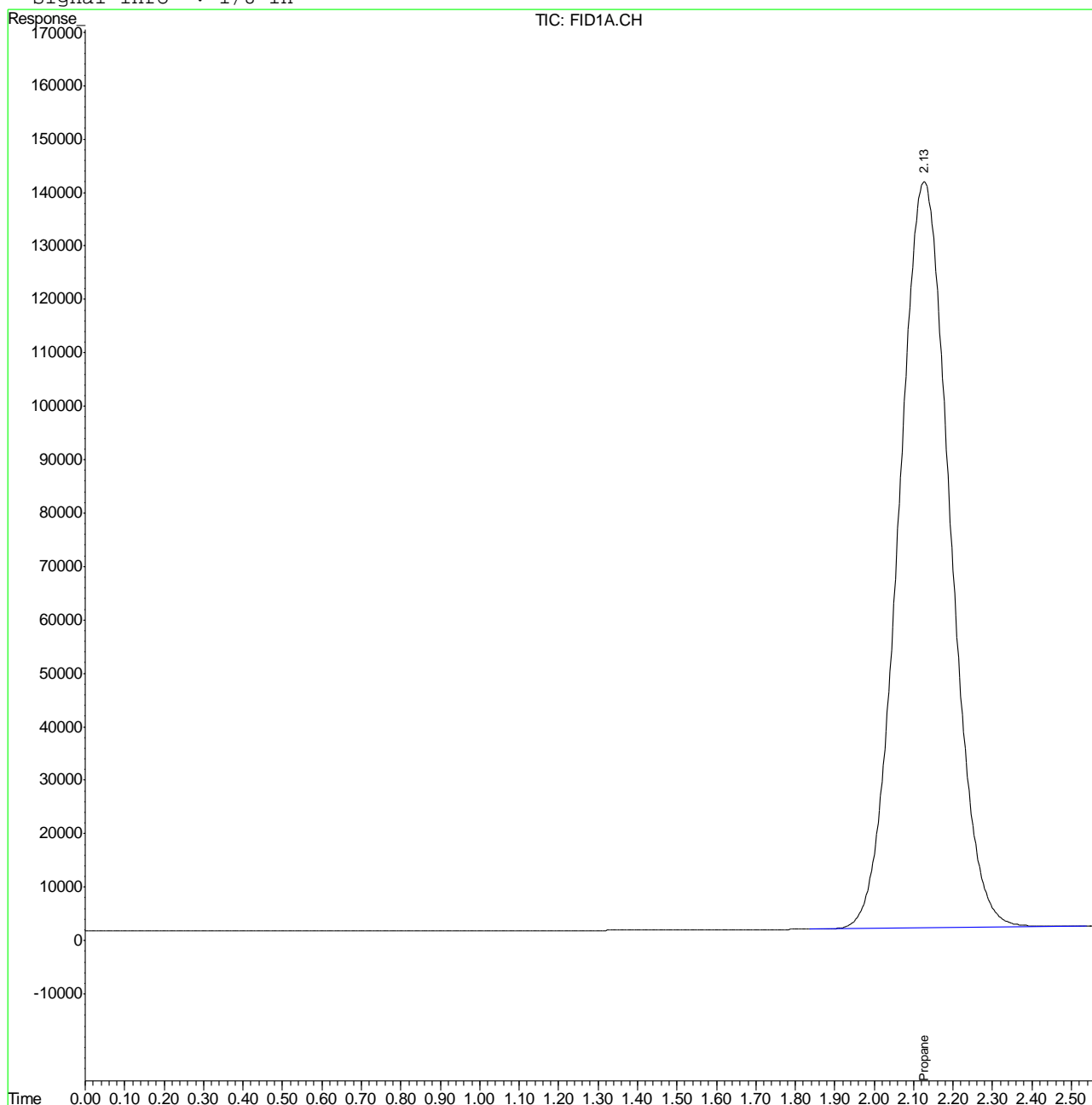
6.1.10
6

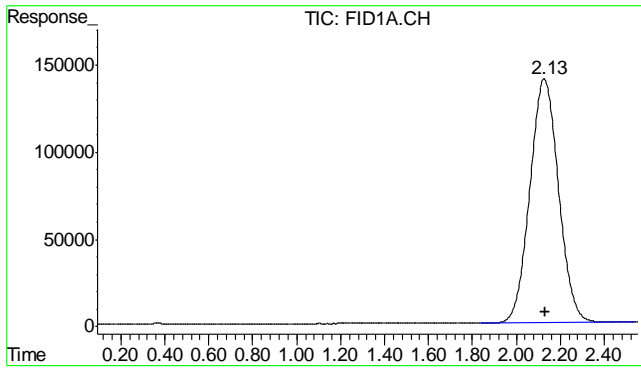
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040711\FB3617.D Vial: 41  
Acq On : 7 Apr 2011 4:17 pm Operator: erikah  
Sample : D22183-10 Inst : FID4  
Misc : 500uL|GC1795,GFB104,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 7 16:20 2011 Quant Results File: MEEP-GFB104.RES

Quant Method : C:\MSDCHEM\2...\MEEP-GFB104.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Thu Apr 07 15:45:28 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#4 Propane  
R.T.: 2.127 min  
Delta R.T.: -0.002 min  
Response: 12683419  
Conc: 348.96 rawvppm

6.1.10

6

Manual Integrations  
APPROVED  
(compounds with "m" flag)  
John Hamilton  
04/08/11 15:28

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040711\FB3618.D Vial: 42  
Acq On : 7 Apr 2011 4:21 pm Operator: erikah  
Sample : D22183-11 Inst : FID4  
Misc : 500uL|GC1795,GFB104,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 07 16:33:41 2011 Quant Results File: MEEP-GFB104.RES

Quant Method : C:\MSDCHEM\2...\MEEP-GFB104.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Thu Apr 07 15:45:28 2011  
Response via : Initial Calibration  
DataAcq Meth : GAS.M

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
4) S Propane	2.13	12979677	357.106 rawvp
Target Compounds			
1) Methane	0.47	88080	6.991 rawvpm

6.1.11  
6

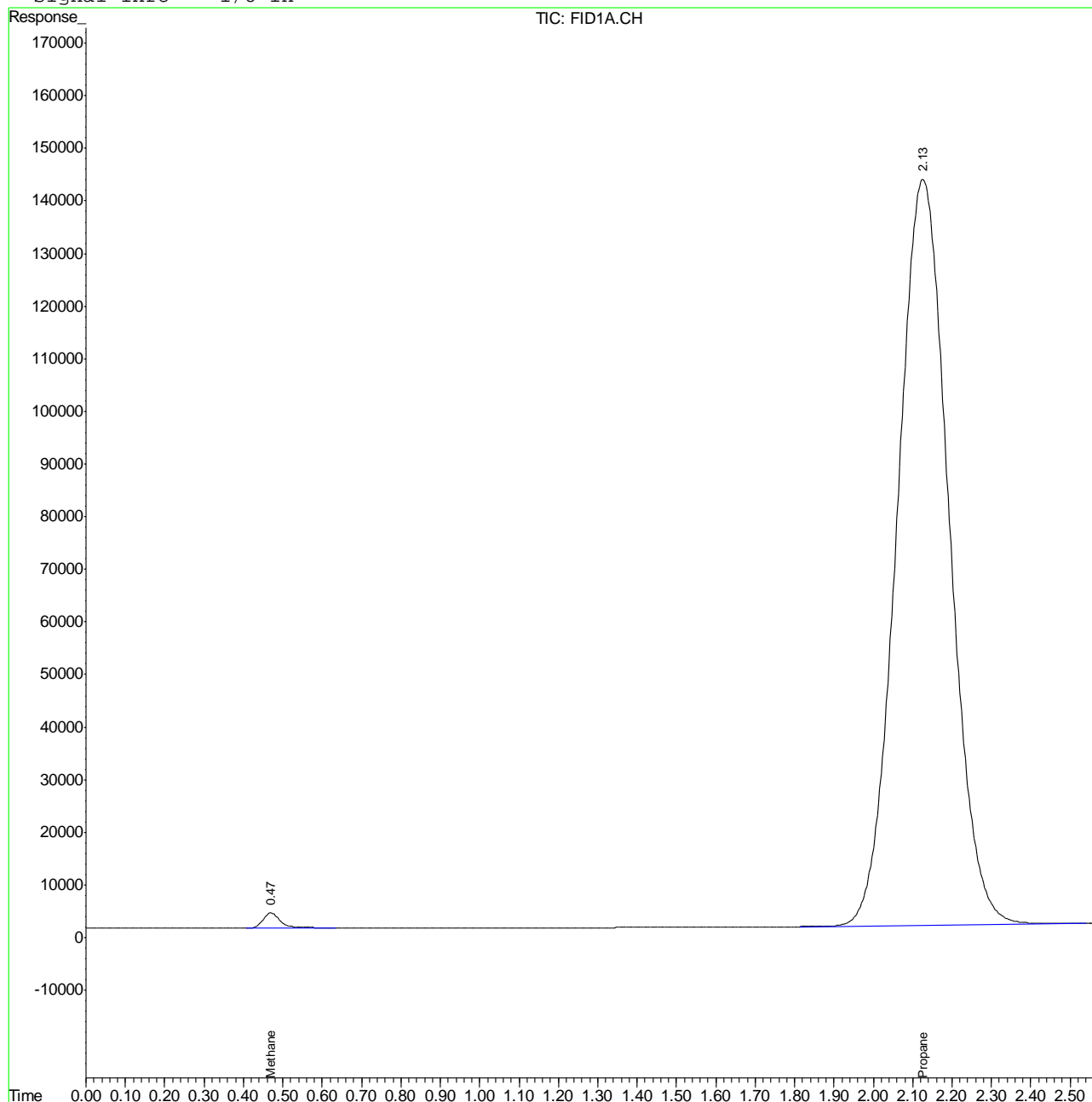
(f)=RT Delta > 1/2 Window (m)=manual int.  
FB3618.D MEEP-GFB104.M Thu Apr 07 16:34:36 2011 GCFA

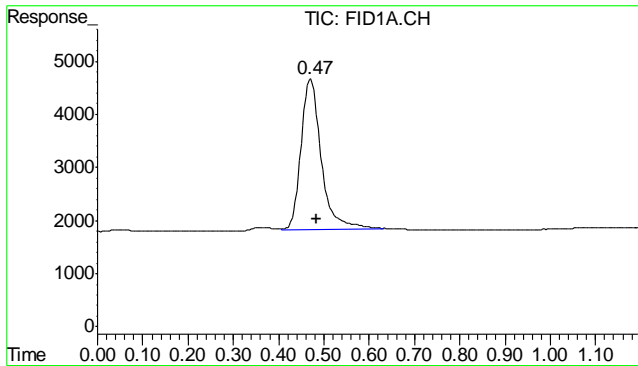
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040711\FB3618.D Vial: 42  
Acq On : 7 Apr 2011 4:21 pm Operator: erikah  
Sample : D22183-11 Inst : FID4  
Misc : 500uL|GC1795,GFB104,,,,,1 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 7 16:25 2011 Quant Results File: MEEP-GFB104.RES

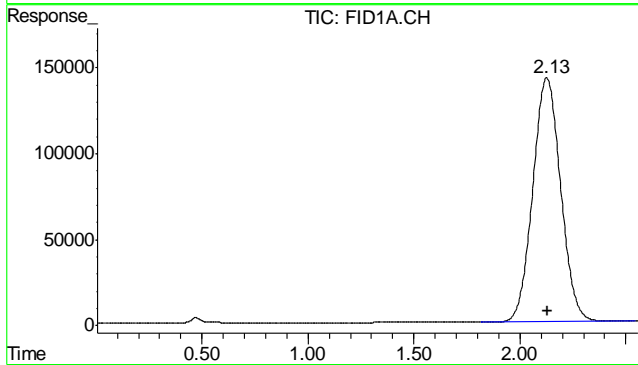
Quant Method : C:\MSDCHEM\2...\MEEP-GFB104.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Thu Apr 07 15:45:28 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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





#1 Methane  
 R.T.: 0.469 min  
 Delta R.T.: -0.014 min  
 Response: 88080  
 Conc: 6.99 rawvppm m



#4 Propane  
 R.T.: 2.127 min  
 Delta R.T.: -0.003 min  
 Response: 12979677  
 Conc: 357.11 rawvppm

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040711\FB3630.D Vial: 54
Acq On : 7 Apr 2011 5:16 pm Operator: erikah
Sample : D22183-12, 20x Inst : FID4
Misc : 25uL|GC1795,GFB104,,,,,20 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 07 17:32:42 2011 Quant Results File: MEEP-GFB104.RES

Quant Method : C:\MSDCHEM\2...\MEEP-GFB104.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Thu Apr 07 15:45:28 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Rows include System Monitoring Compounds (Propane) and Target Compounds (Methane, Ethane).

6.1.12
6

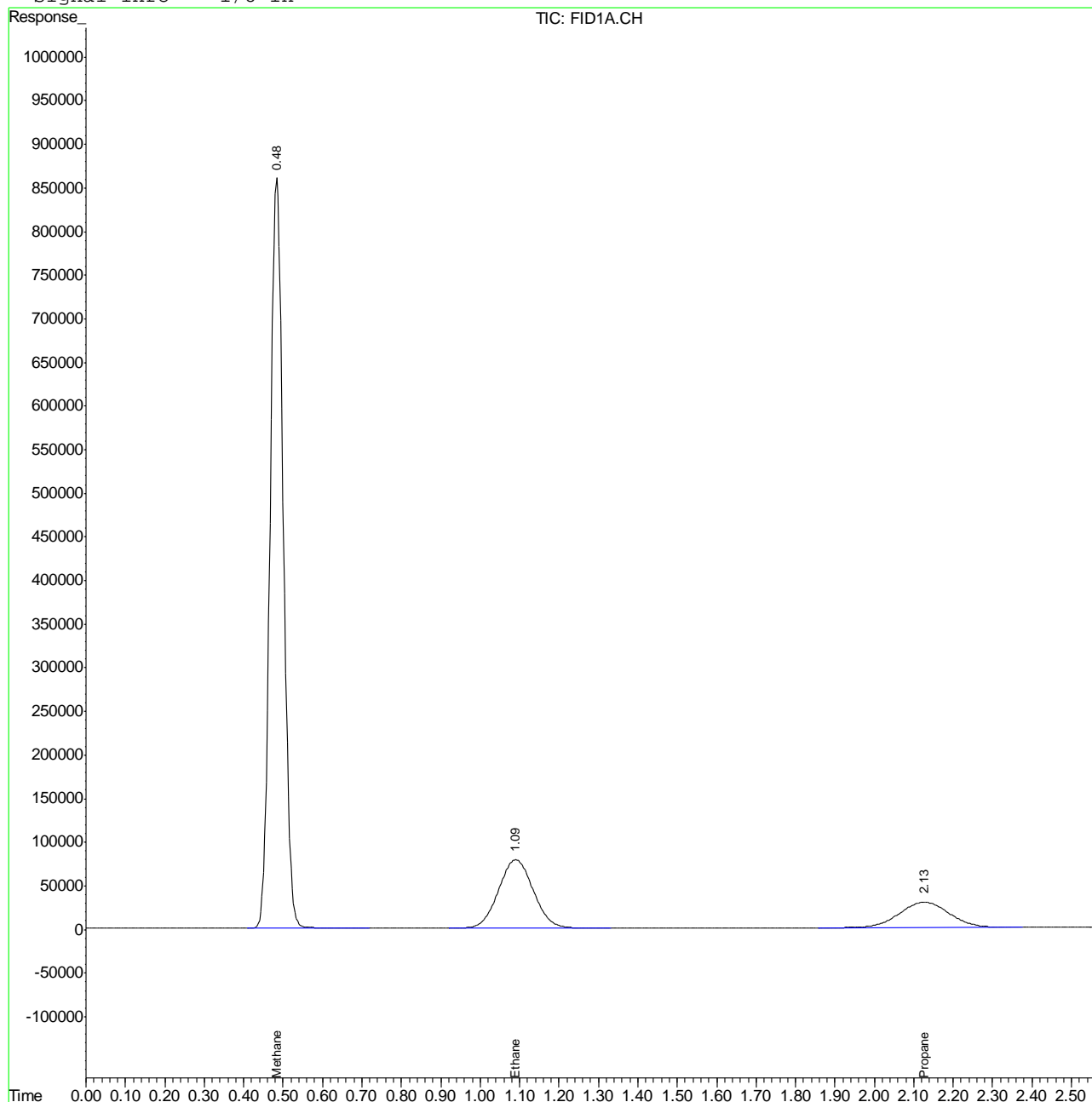


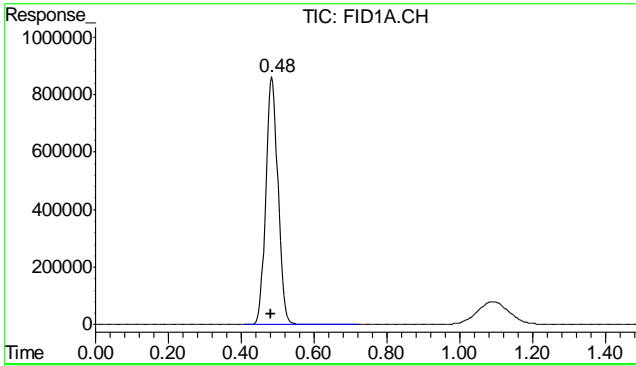
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040711\FB3630.D Vial: 54  
Acq On : 7 Apr 2011 5:16 pm Operator: erikah  
Sample : D22183-12, 20x Inst : FID4  
Misc : 25uL|GC1795,GFB104,,,,,20 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 7 17:24 2011 Quant Results File: MEEP-GFB104.RES

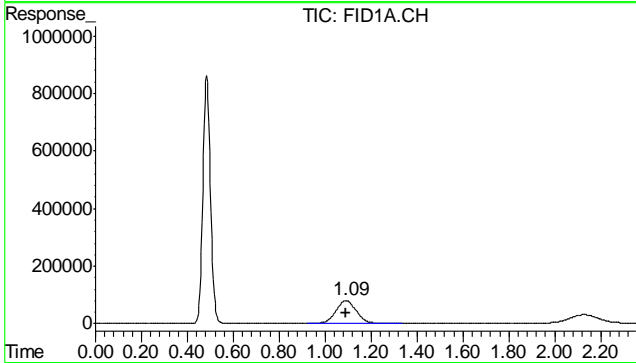
Quant Method : C:\MSDCHEM\2...\MEEP-GFB104.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Thu Apr 07 15:45:28 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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

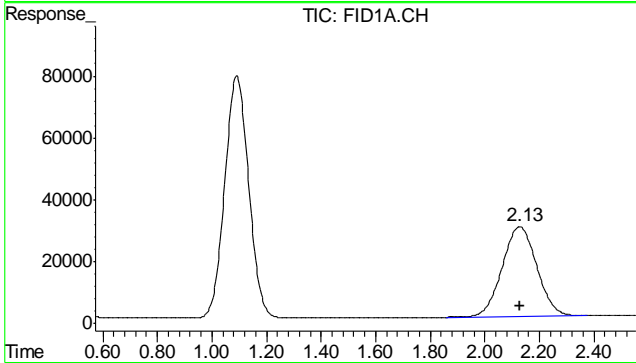




#1 Methane  
 R.T.: 0.485 min  
 Delta R.T.: 0.002 min  
 Response: 19945959  
 Conc: 1583.09 rawvppm



#3 Ethane  
 R.T.: 1.091 min  
 Delta R.T.: 0.000 min  
 Response: 4767700  
 Conc: 190.13 rawvppm



#4 Propane  
 R.T.: 2.128 min  
 Delta R.T.: -0.002 min  
 Response: 2545167  
 Conc: 70.02 rawvppm

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040711\FB3631.D Vial: 55
Acq On : 7 Apr 2011 5:24 pm Operator: erikah
Sample : D22183-13, 20x Inst : FID4
Misc : 25uL|GC1795,GFB104,,,,,20 Multiplr: 1.00
IntFile : autoint1.e
Quant Time: Apr 07 17:43:16 2011 Quant Results File: MEEP-GFB104.RES

Quant Method : C:\MSDCHEM\2...\MEEP-GFB104.M (Chemstation Integrator)
Title : RSK 175 Methane, Ethene, Ethane, and Propane
Last Update : Thu Apr 07 15:45:28 2011
Response via : Initial Calibration
DataAcq Meth : GAS.M

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

Table with 4 columns: Compound, R.T., Response, Conc Units. Rows include System Monitoring Compounds (Propane) and Target Compounds (Methane, Ethane).

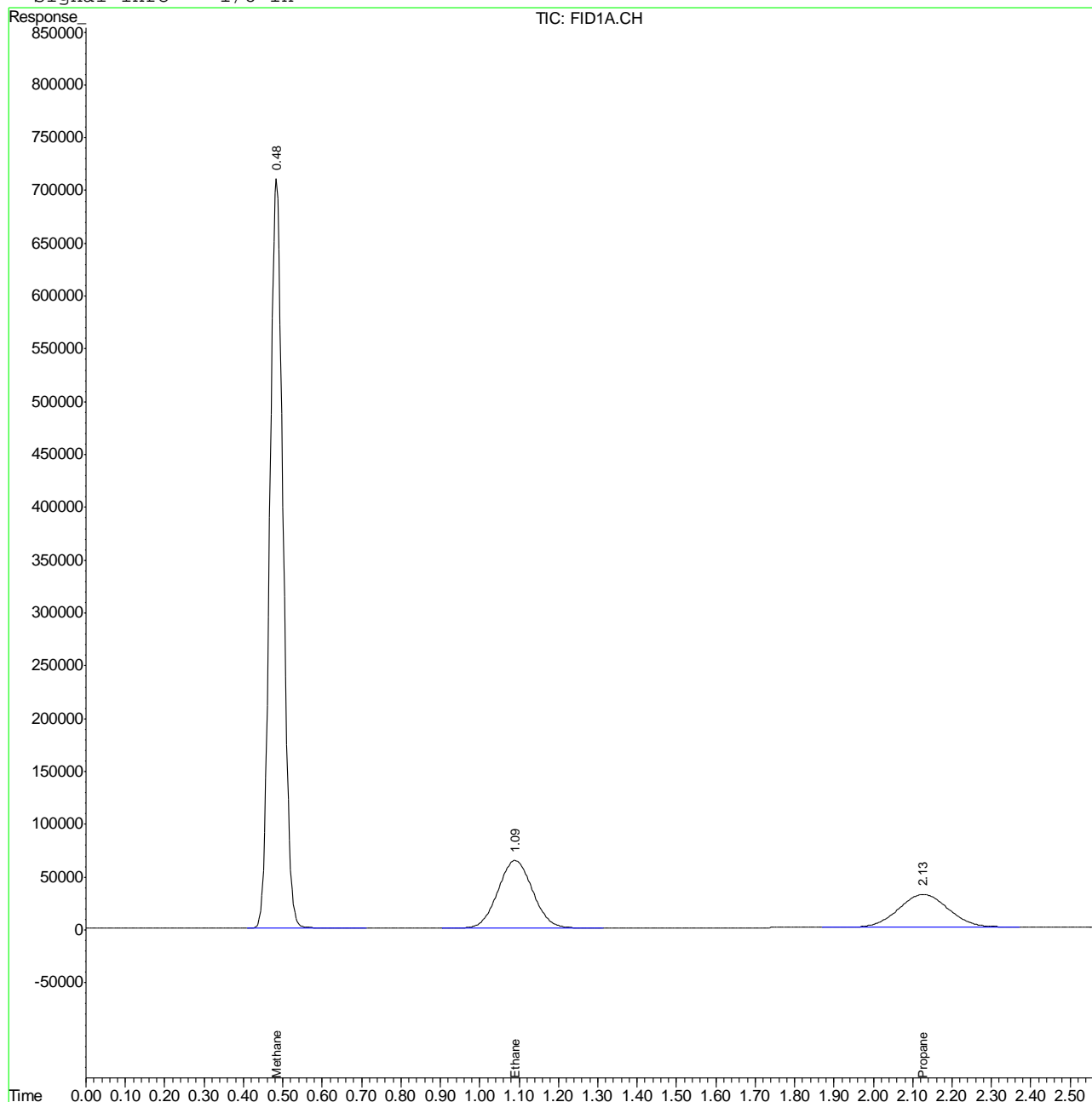
6.1.13
6

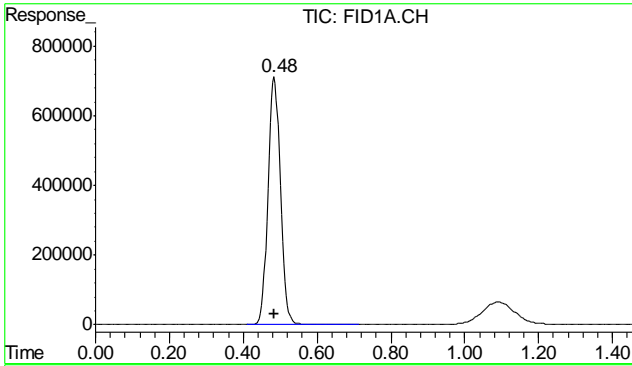
## Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040711\FB3631.D Vial: 55  
Acq On : 7 Apr 2011 5:24 pm Operator: erikah  
Sample : D22183-13, 20x Inst : FID4  
Misc : 25uL|GC1795,GFB104,,,,,20 Multiplr: 1.00  
IntFile : autoint1.e  
Quant Time: Apr 7 17:34 2011 Quant Results File: MEEP-GFB104.RES

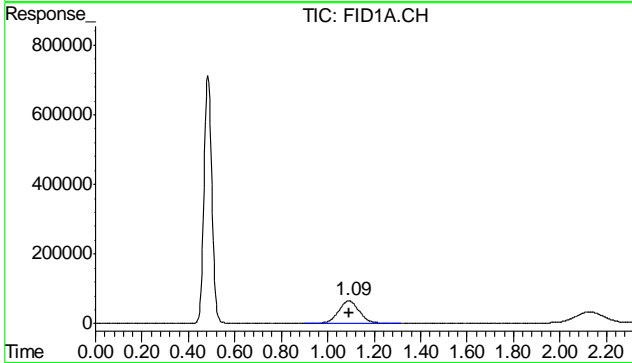
Quant Method : C:\MSDCHEM\2...\MEEP-GFB104.M (Chemstation Integrator)  
Title : RSK 175 Methane, Ethene, Ethane, and Propane  
Last Update : Thu Apr 07 15:45:28 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : GAS.M

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

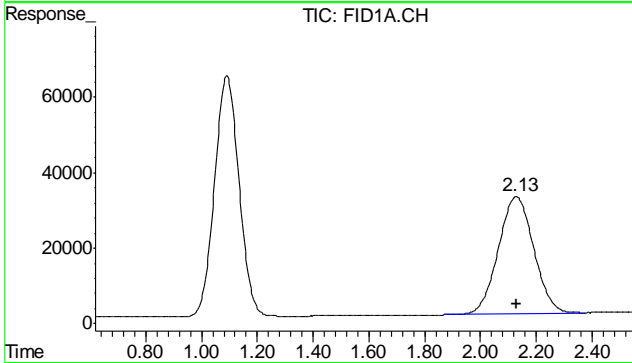




#1 Methane  
 R.T.: 0.484 min  
 Delta R.T.: 0.002 min  
 Response: 16488852  
 Conc: 1308.70 rawvppm



#3 Ethane  
 R.T.: 1.091 min  
 Delta R.T.: 0.000 min  
 Response: 3883080  
 Conc: 154.85 rawvppm



#4 Propane  
 R.T.: 2.128 min  
 Delta R.T.: -0.002 min  
 Response: 2736219  
 Conc: 75.28 rawvppm

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0832.D\FID1A.CH Vial: 6
Signal #2 : Z:\033011\TA0832.D\FID2B.CH
Acq On : 30 Mar 2011 5:05 pm Operator: BrianR
Sample : D22183-1 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:37:21 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:36:51 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

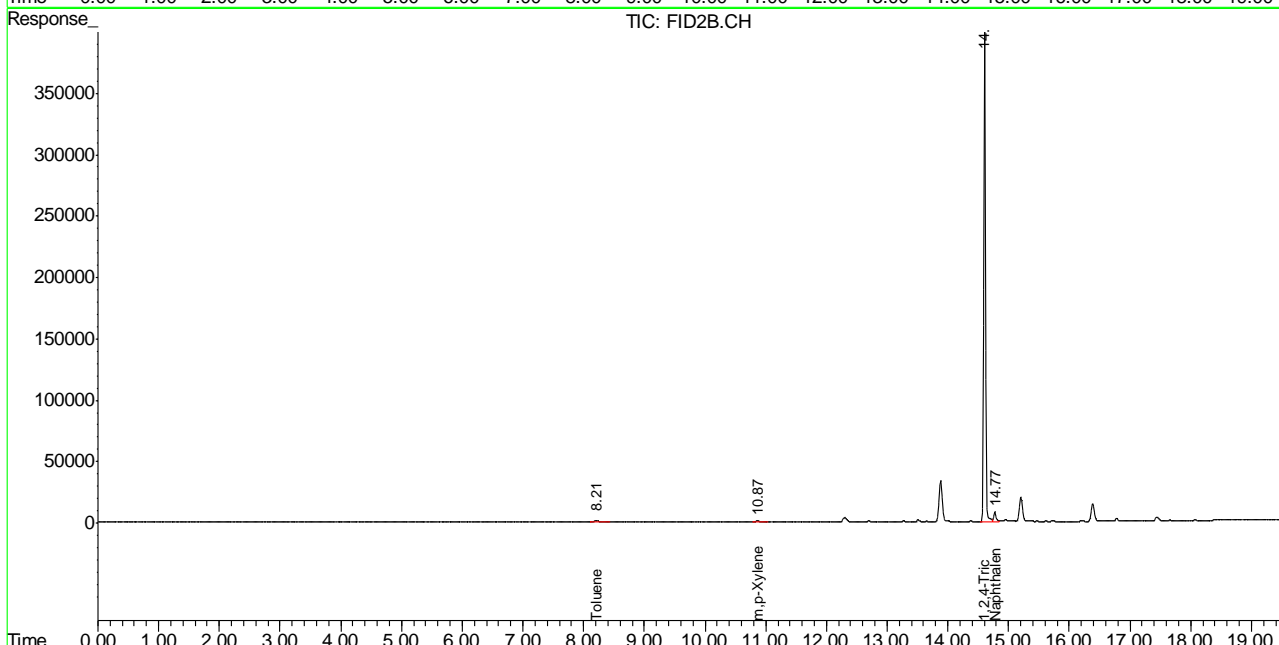
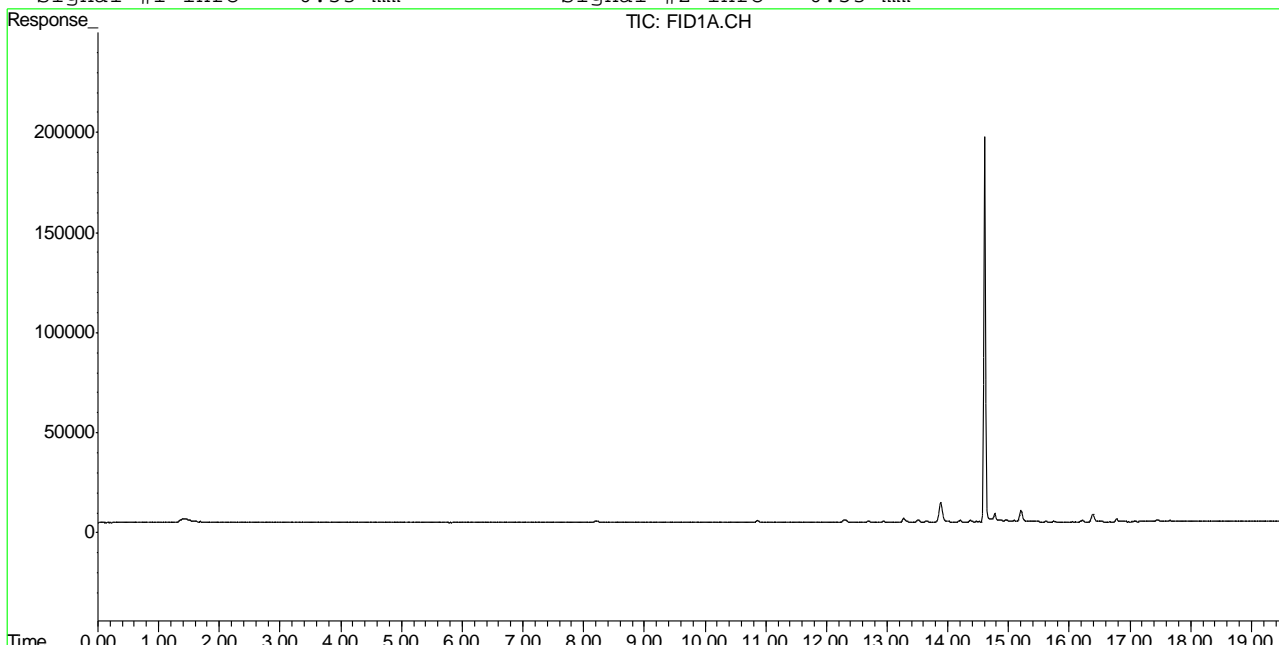
6.1.14 6

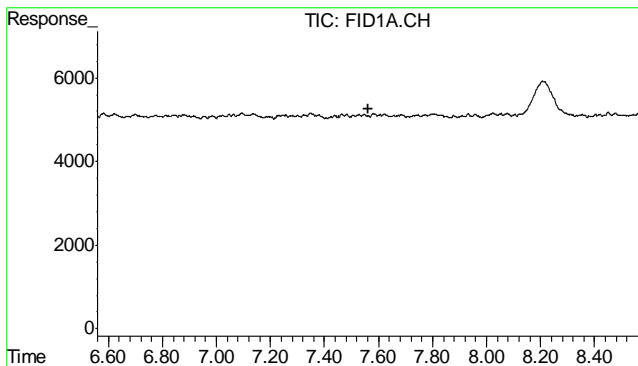
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0832.D\FID1A.CH Vial: 6  
 Signal #2 : Z:\033011\TA0832.D\FID2B.CH  
 Acq On : 30 Mar 2011 5:05 pm Operator: BrianR  
 Sample : D22183-1 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:40 2011 Quant Results File: TA582GA534.RES

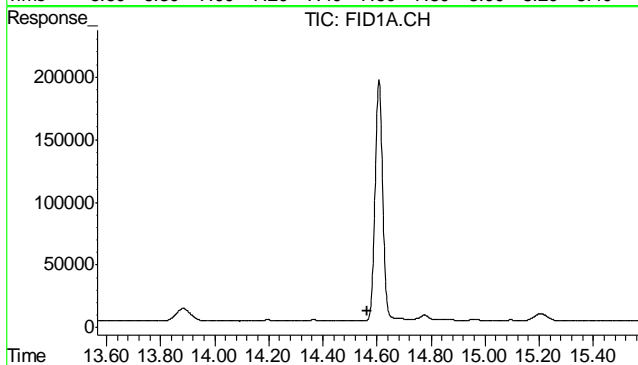
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:36:51 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

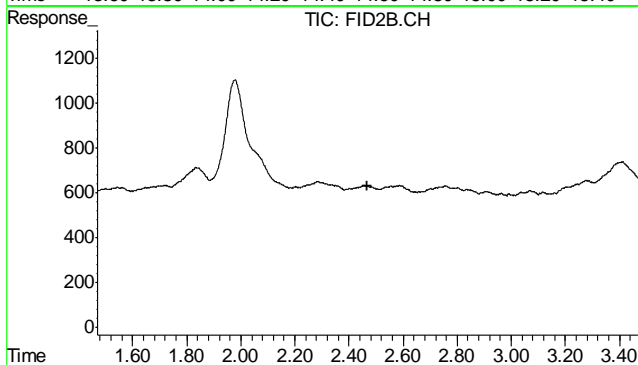




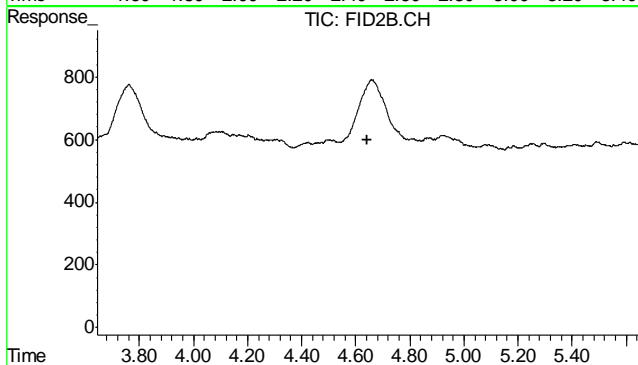
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.

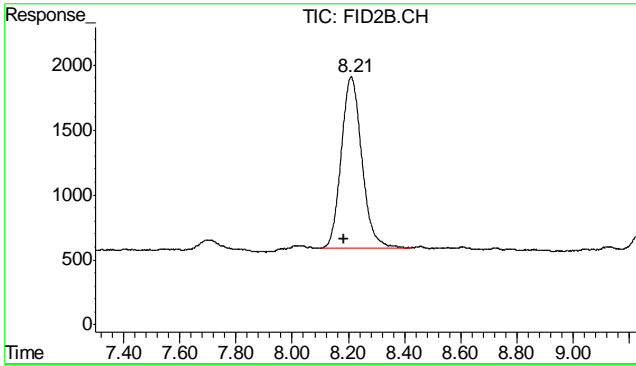


#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.469 min  
 Response: 0  
 Conc: N.D.

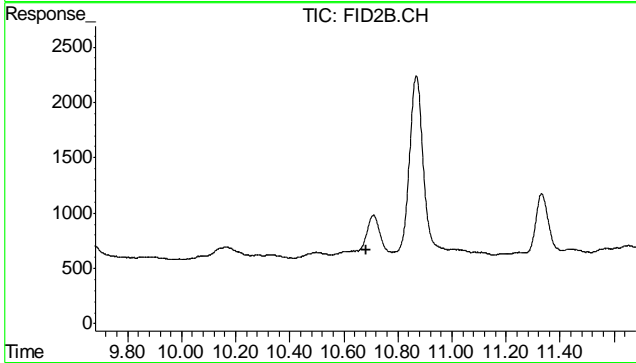


#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.644 min  
 Response: 0  
 Conc: N.D.

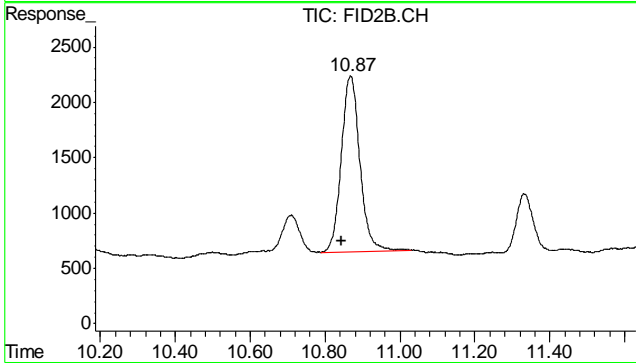




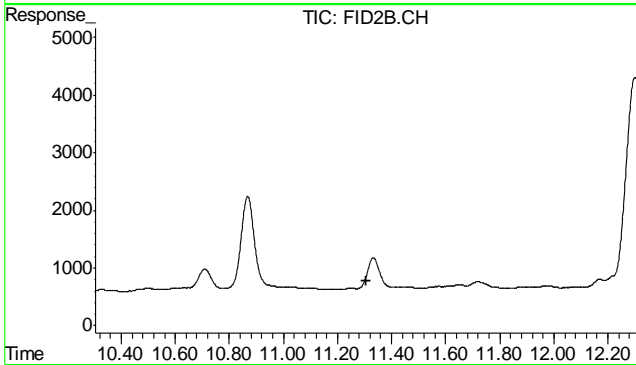
#6 Toluene  
 R.T.: 8.210 min  
 Delta R.T.: 0.025 min  
 Response: 67304  
 Conc: 0.26 ug/L



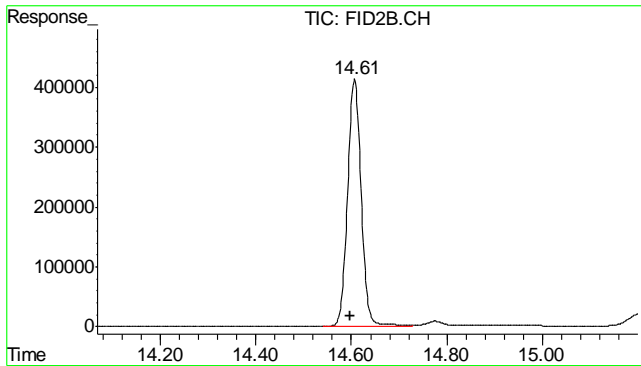
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.681 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 10.868 min  
 Delta R.T.: 0.023 min  
 Response: 54628  
 Conc: 0.21 ug/L

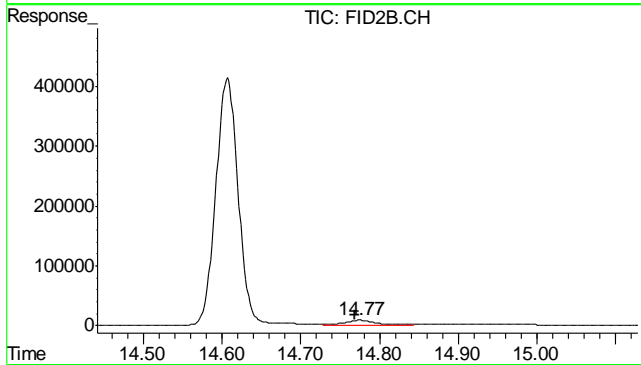


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.305 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.607 min  
 Delta R.T.: 0.008 min  
 Response: 8164075  
 Conc: 104.77 %



#11 Naphthalene

R.T.: 14.775 min  
 Delta R.T.: 0.007 min  
 Response: 237354  
 Conc: 1.69 ug/L

6.1.14  
**6**

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0835.D\FID1A.CH Vial: 9
Signal #2 : Z:\033011\TA0835.D\FID2B.CH
Acq On : 30 Mar 2011 6:51 pm Operator: BrianR
Sample : D22183-2 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:37:30 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:36:51 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

6.1.15
6

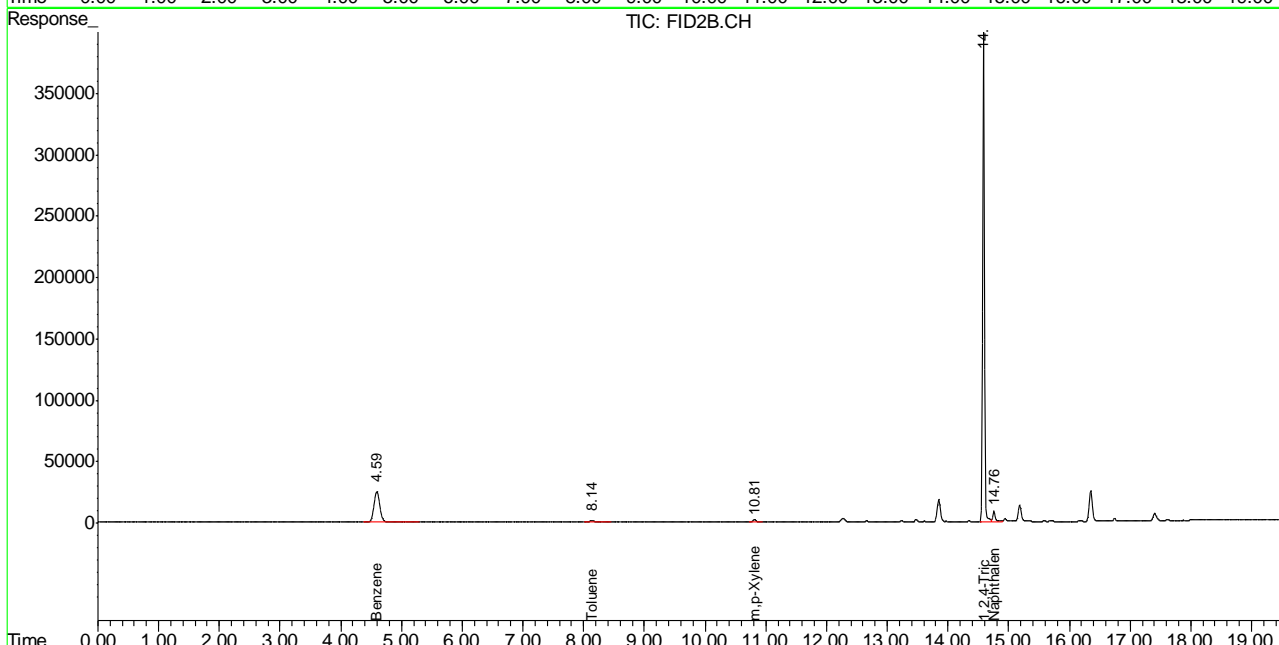
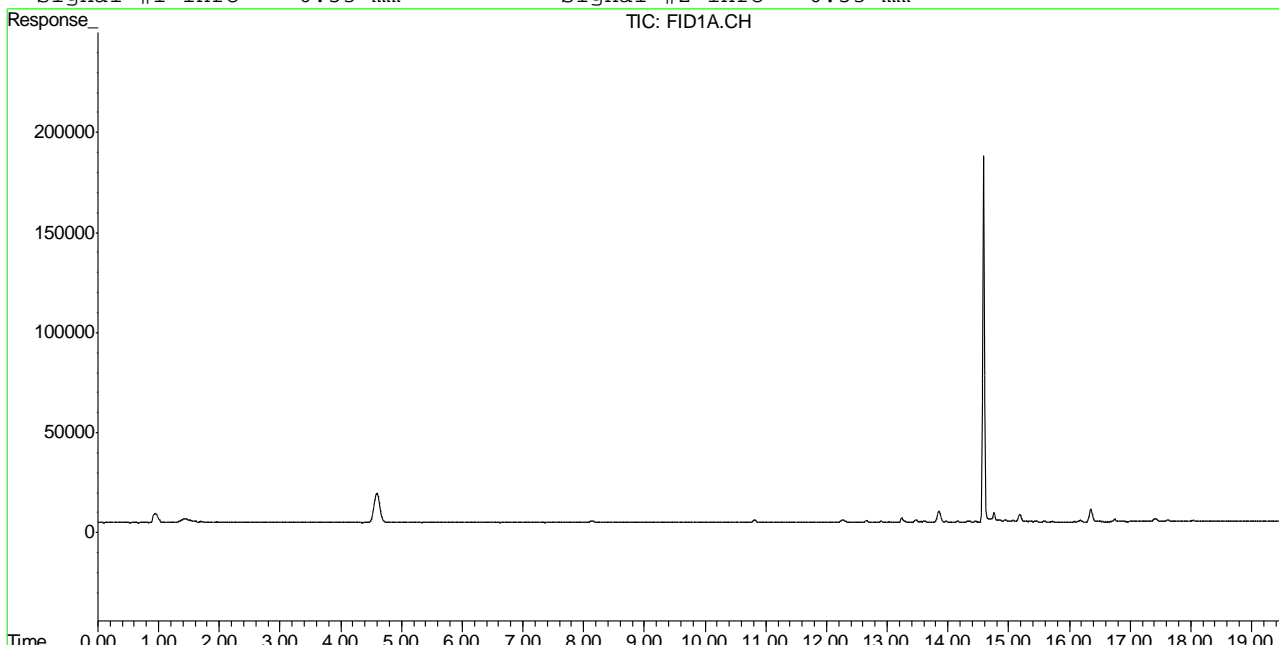
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0835.D TA582GA534.M Fri Apr 01 09:33:34 2011 GC

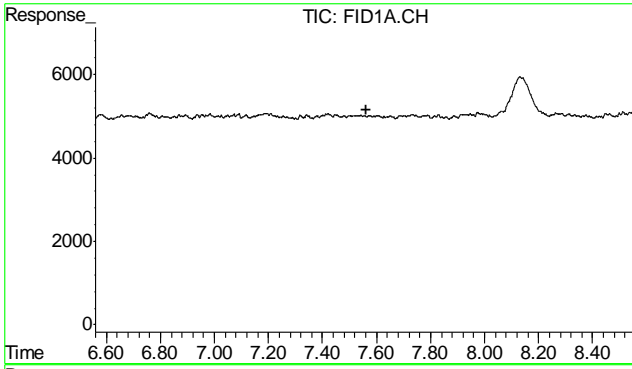
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0835.D\FID1A.CH Vial: 9  
 Signal #2 : Z:\033011\TA0835.D\FID2B.CH  
 Acq On : 30 Mar 2011 6:51 pm Operator: BrianR  
 Sample : D22183-2 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:45 2011 Quant Results File: TA582GA534.RES

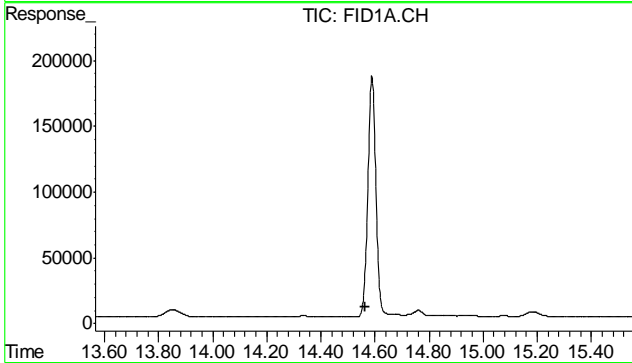
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:36:51 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

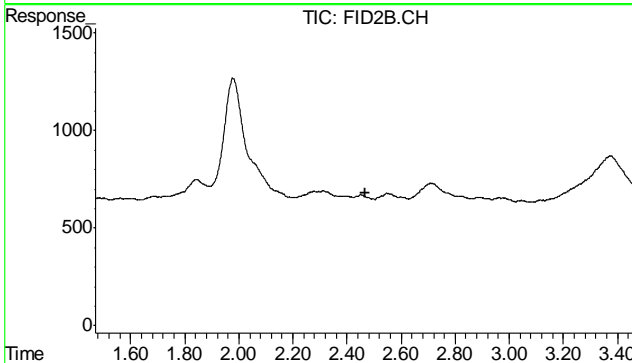




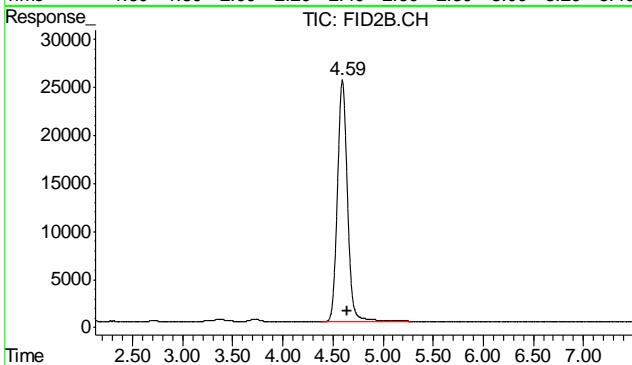
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



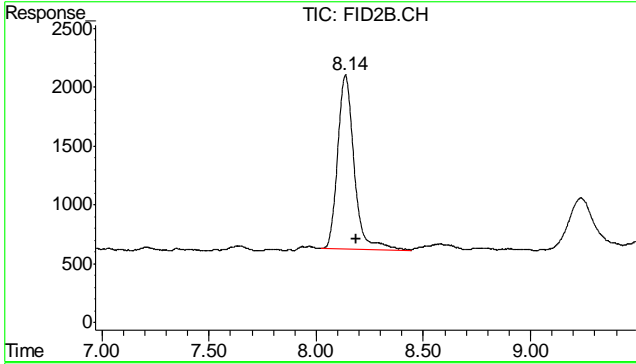
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



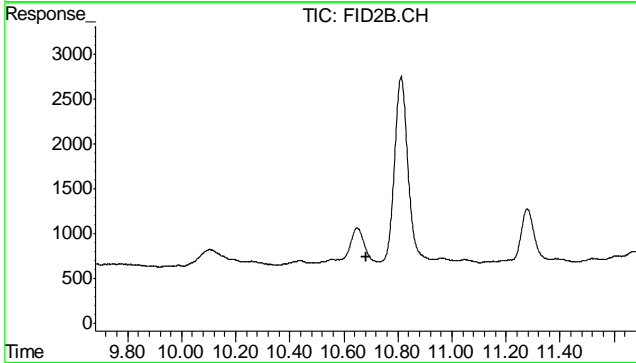
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.469 min  
 Response: 0  
 Conc: N.D.



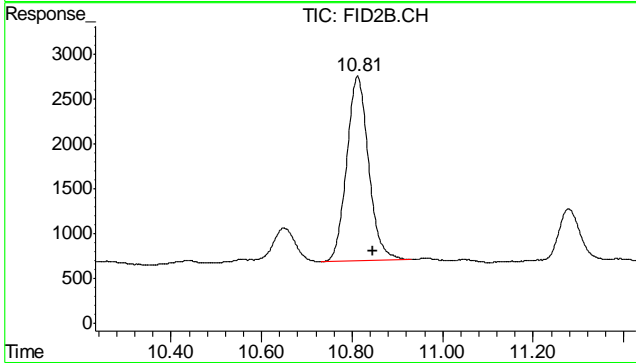
#5 Benzene  
 R.T.: 4.594 min  
 Delta R.T.: -0.050 min  
 Response: 1737189  
 Conc: 6.32 ug/L



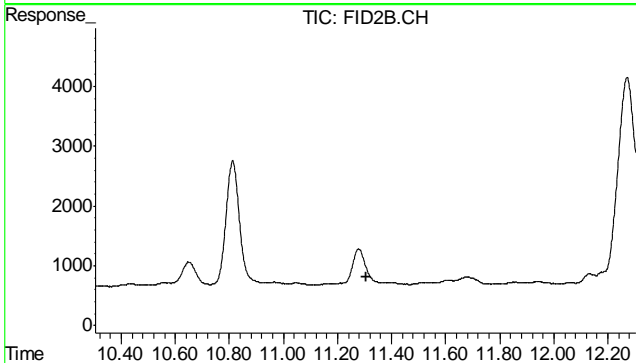
#6 Toluene  
 R.T.: 8.136 min  
 Delta R.T.: -0.049 min  
 Response: 78893  
 Conc: 0.31 ug/L



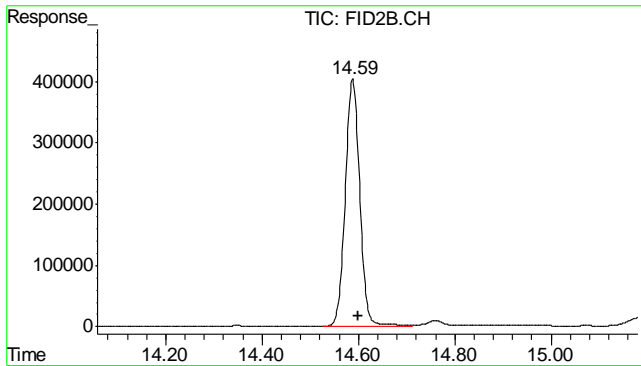
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.681 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 10.812 min  
 Delta R.T.: -0.033 min  
 Response: 69438  
 Conc: 0.27 ug/L

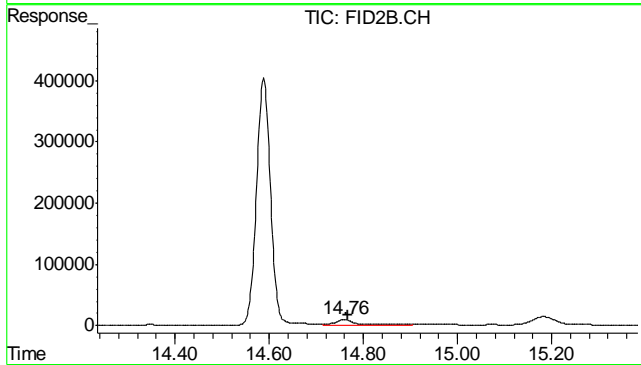


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.305 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.588 min  
 Delta R.T.: -0.010 min  
 Response: 8381937  
 Conc: 107.57 %



#11 Naphthalene

R.T.: 14.760 min  
 Delta R.T.: -0.009 min  
 Response: 299849  
 Conc: 2.14 ug/L

6.1.15  
**6**

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0836.D\FID1A.CH Vial: 10
Signal #2 : Z:\033011\TA0836.D\FID2B.CH
Acq On : 30 Mar 2011 7:27 pm Operator: BrianR
Sample : D22183-3 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:37:33 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:36:51 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

6.1.16 6

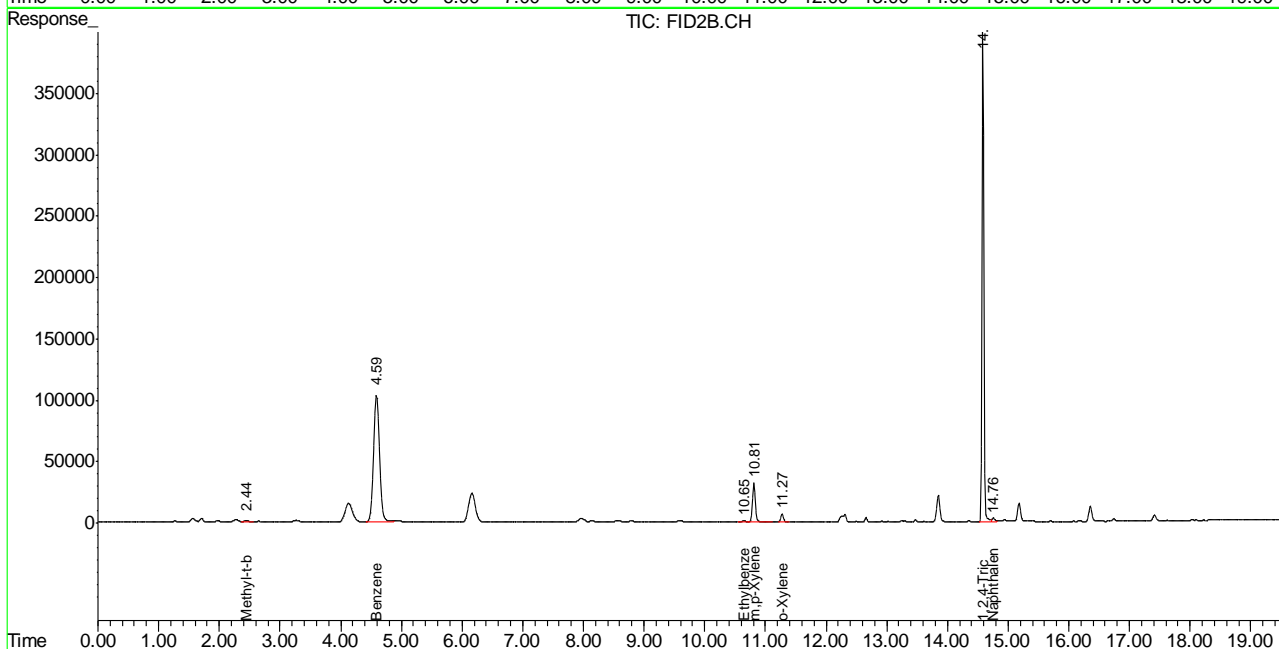
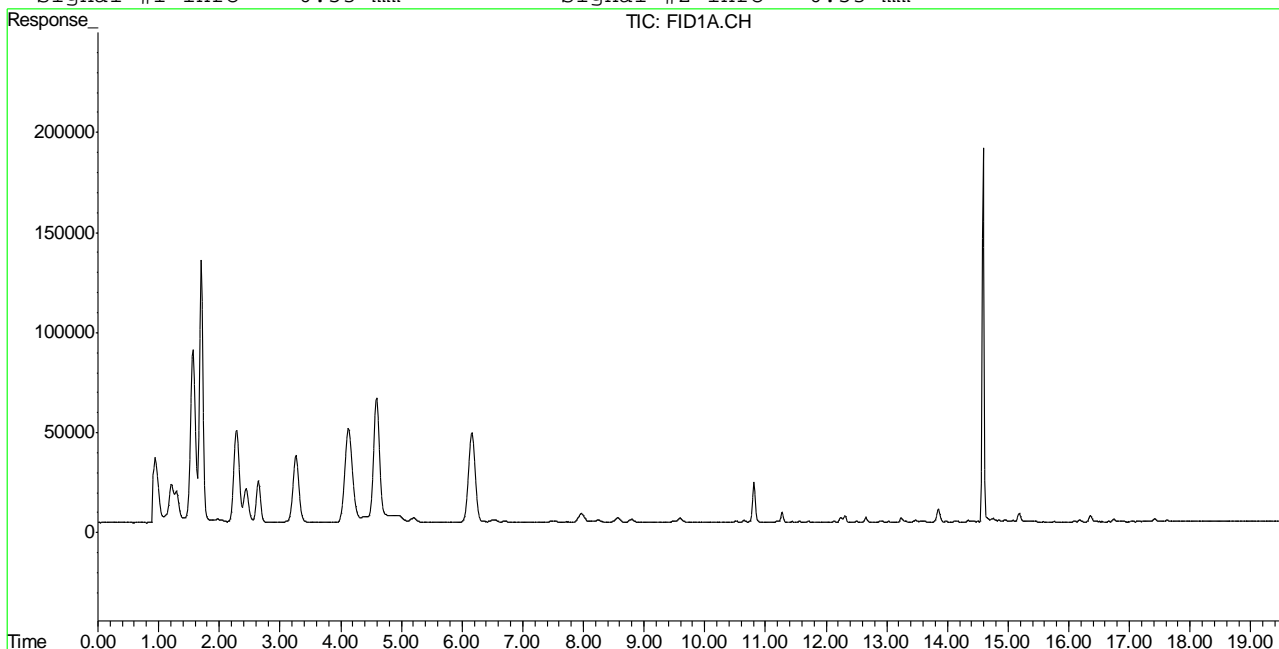


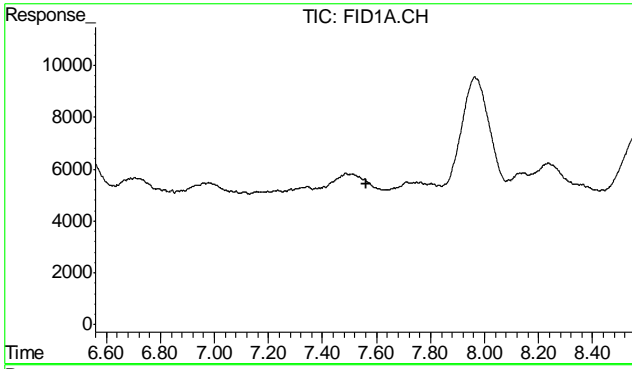
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0836.D\FID1A.CH Vial: 10  
 Signal #2 : Z:\033011\TA0836.D\FID2B.CH  
 Acq On : 30 Mar 2011 7:27 pm Operator: BrianR  
 Sample : D22183-3 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:46 2011 Quant Results File: TA582GA534.RES

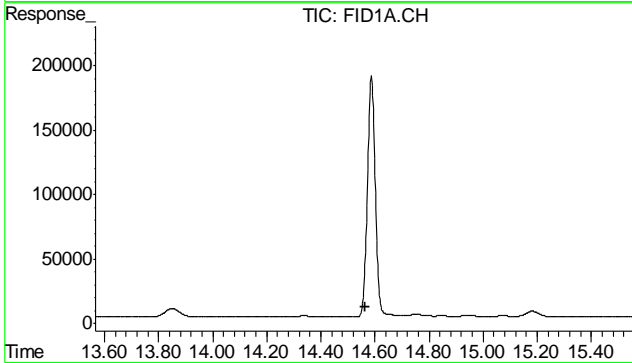
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:36:51 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

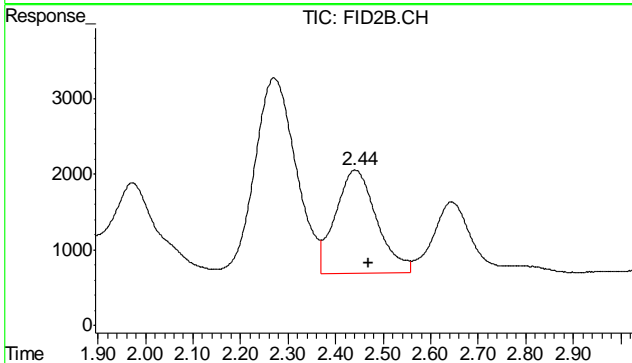




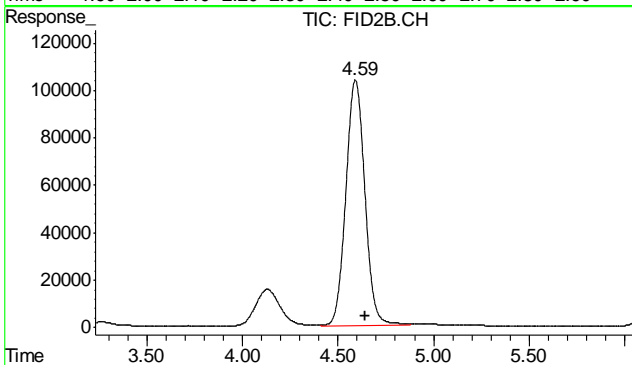
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



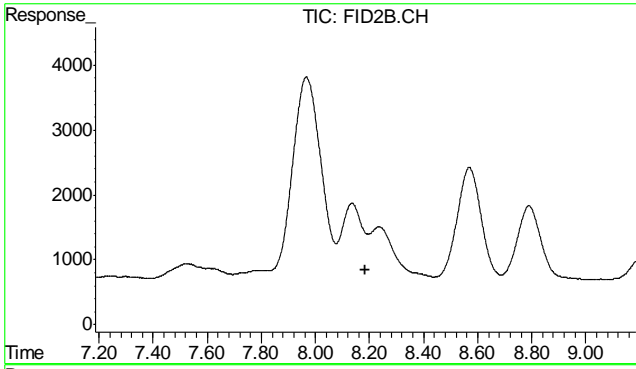
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



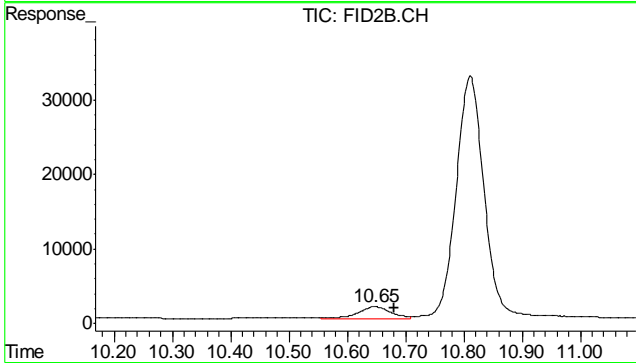
#4 Methyl-t-butyl-ether  
 R.T.: 2.442 min  
 Delta R.T.: -0.027 min  
 Response: 82487  
 Conc: 0.95 ug/L



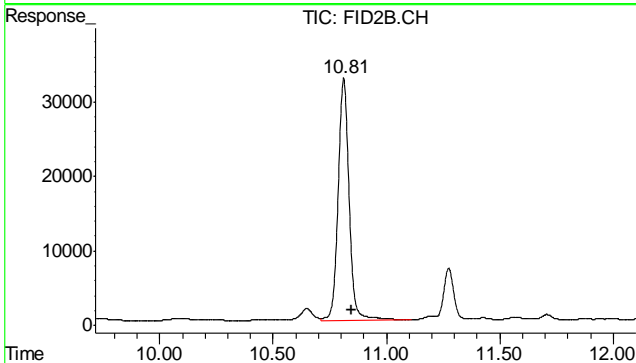
#5 Benzene  
 R.T.: 4.591 min  
 Delta R.T.: -0.053 min  
 Response: 718318  
 Conc: 26.15 ug/L



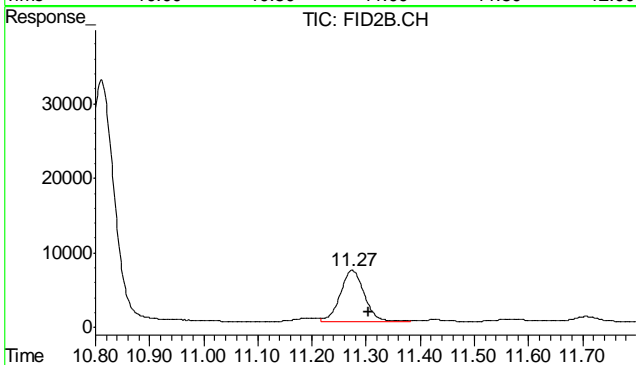
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T.: 8.185 min  
 Response: 0  
 Conc: N.D.



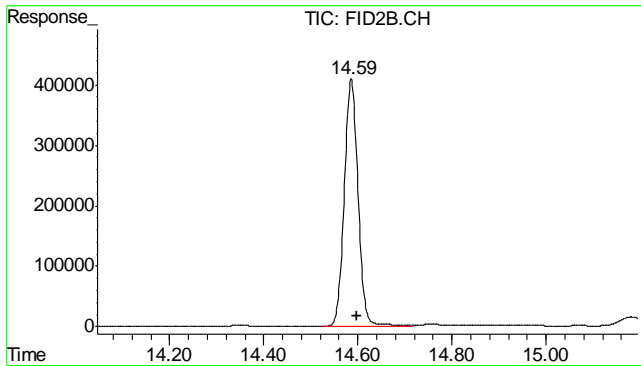
#7 Ethylbenzene  
 R.T.: 10.648 min  
 Delta R.T.: -0.034 min  
 Response: 60517  
 Conc: 0.27 ug/L



#8 m,p-Xylene  
 R.T.: 10.811 min  
 Delta R.T.: -0.034 min  
 Response: 1104469  
 Conc: 4.28 ug/L

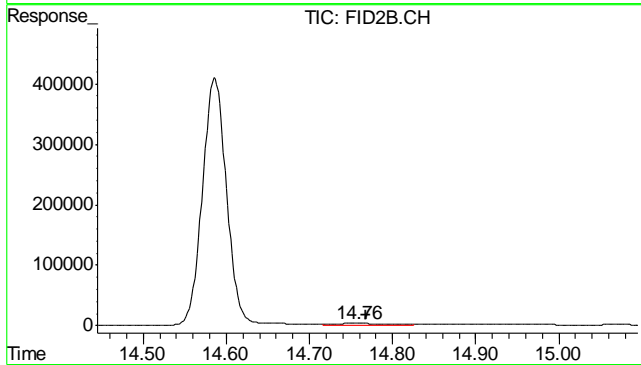


#9 o-Xylene  
 R.T.: 11.274 min  
 Delta R.T.: -0.030 min  
 Response: 218721  
 Conc: 1.03 ug/L



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.586 min  
 Delta R.T.: -0.012 min  
 Response: 8299677  
 Conc: 106.51 %



#11 Naphthalene

R.T.: 14.757 min  
 Delta R.T.: -0.011 min  
 Response: 123511  
 Conc: 0.88 ug/L

6.1.16  
 6

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0837.D\FID1A.CH Vial: 11
Signal #2 : Z:\033011\TA0837.D\FID2B.CH
Acq On : 30 Mar 2011 8:02 pm Operator: BrianR
Sample : D22183-4 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:37:36 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:36:51 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

6.1.17
6

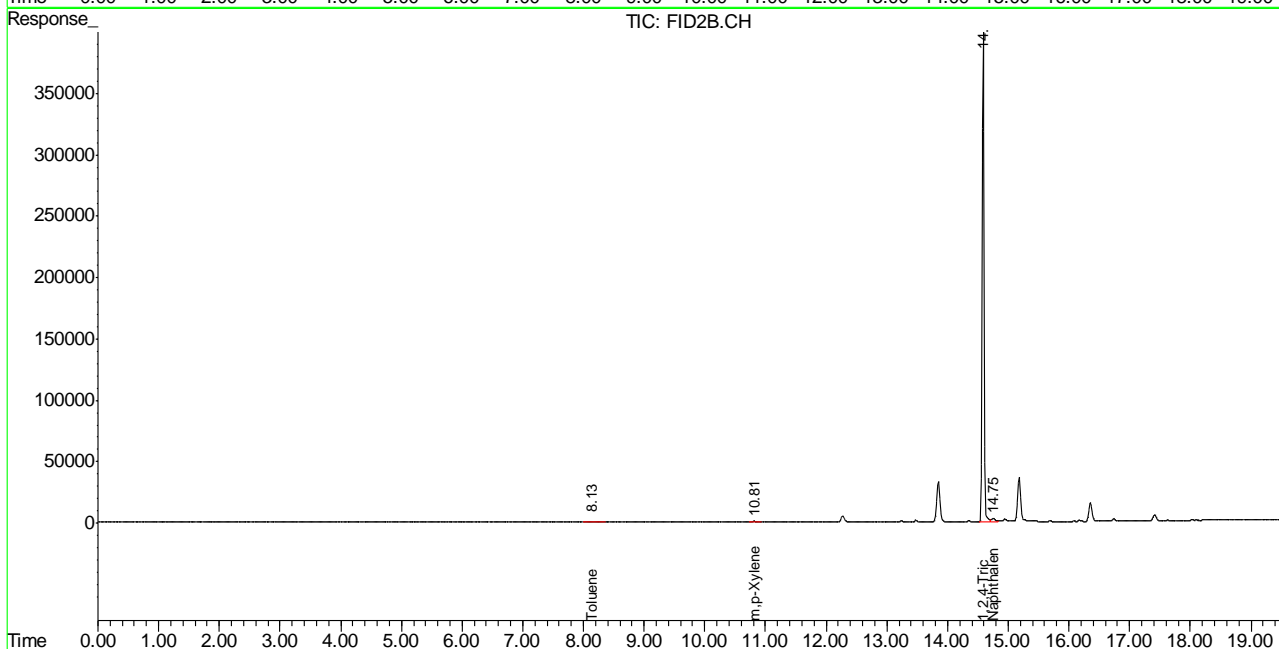
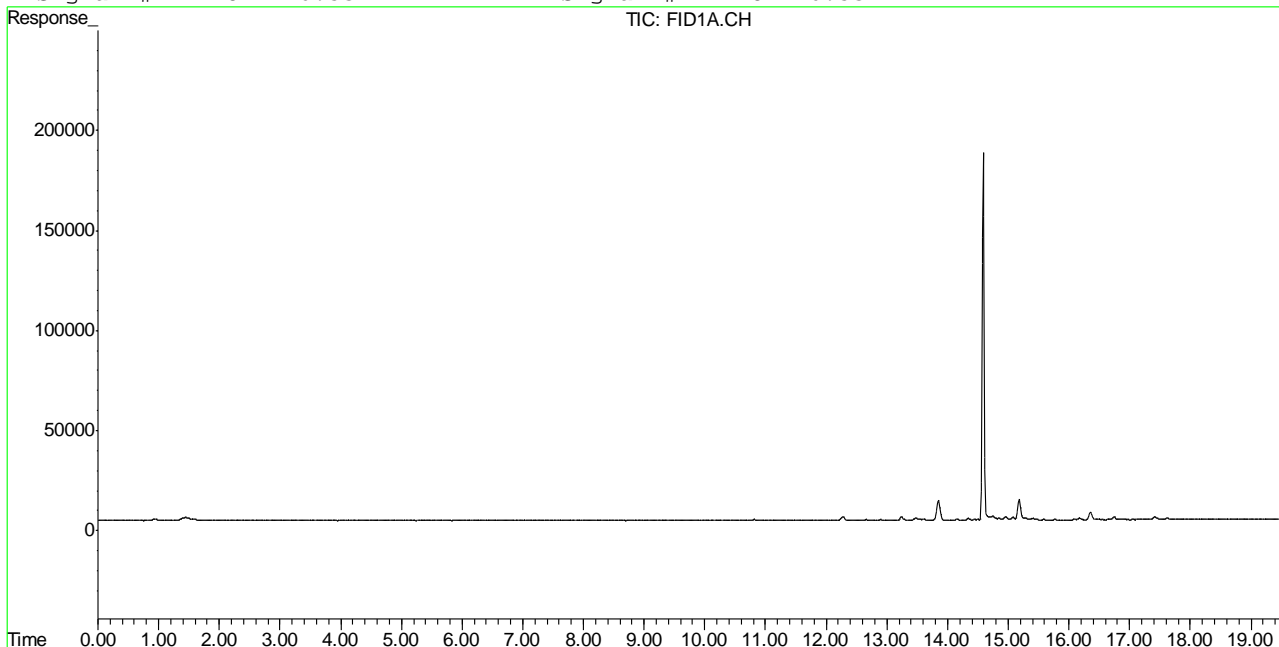
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0837.D TA582GA534.M Fri Apr 01 09:33:39 2011 GC

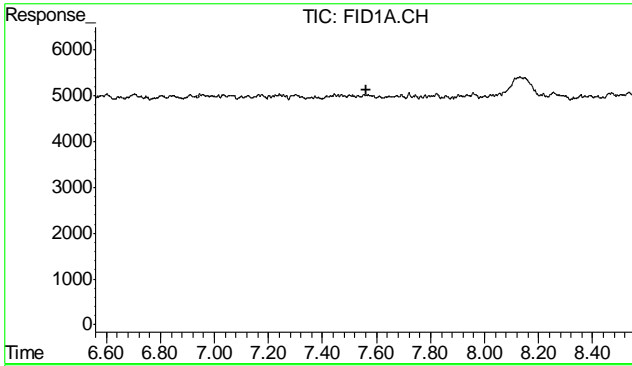
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0837.D\FID1A.CH Vial: 11  
 Signal #2 : Z:\033011\TA0837.D\FID2B.CH  
 Acq On : 30 Mar 2011 8:02 pm Operator: BrianR  
 Sample : D22183-4 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:47 2011 Quant Results File: TA582GA534.RES

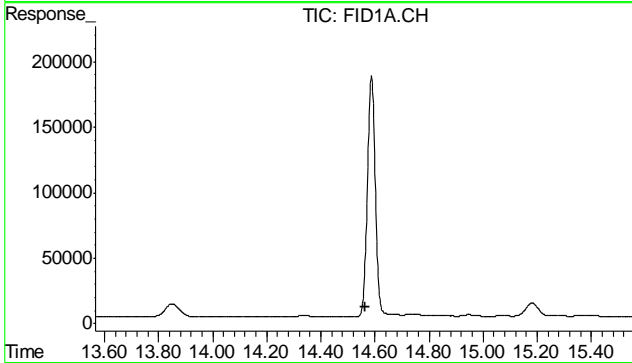
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:36:51 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

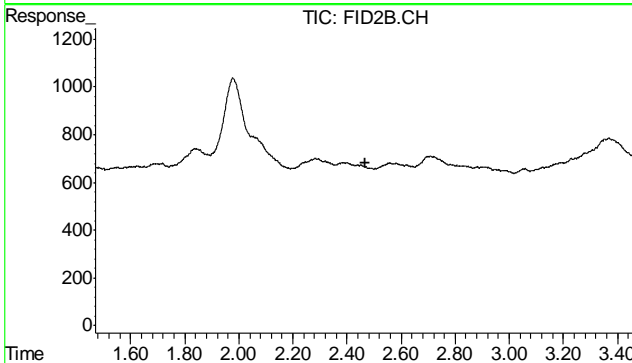




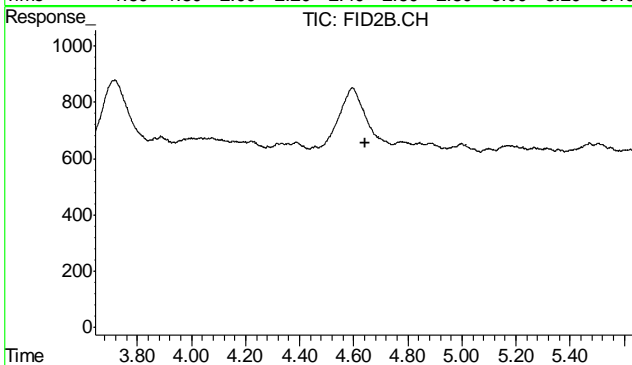
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



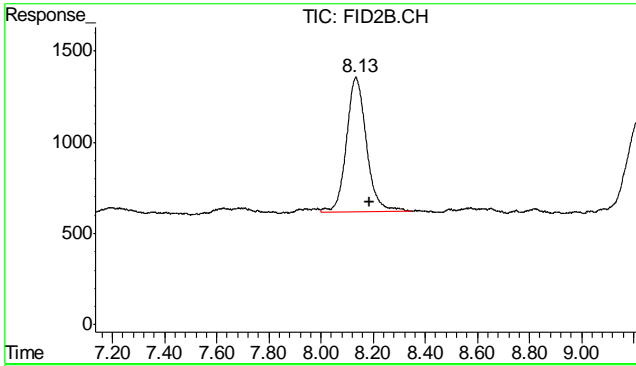
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



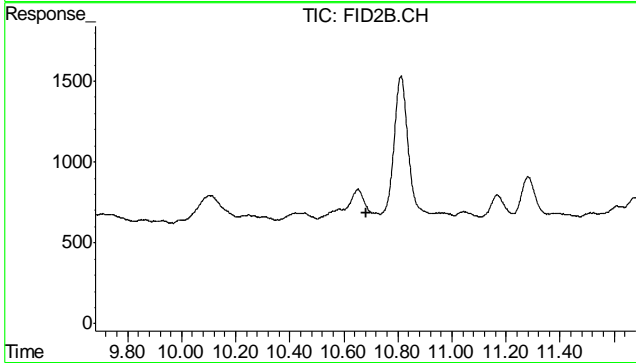
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.469 min  
 Response: 0  
 Conc: N.D.



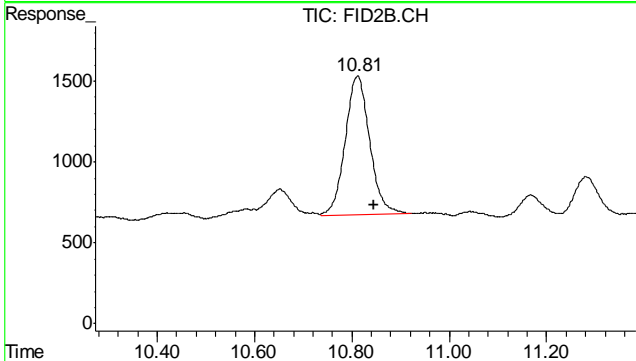
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.644 min  
 Response: 0  
 Conc: N.D.



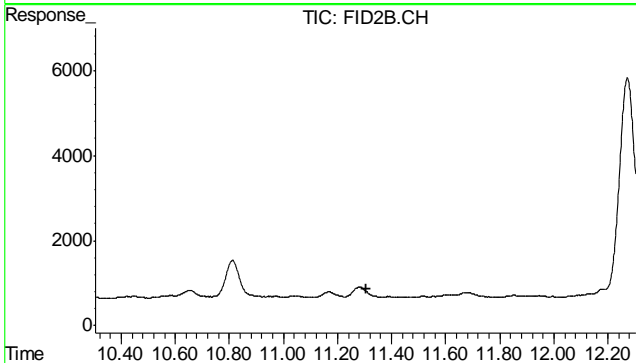
#6 Toluene  
R.T.: 8.134 min  
Delta R.T.: -0.051 min  
Response: 39049  
Conc: 0.15 ug/L



#7 Ethylbenzene  
R.T.: 0.000 min  
Exp R.T.: 10.681 min  
Response: 0  
Conc: N.D.

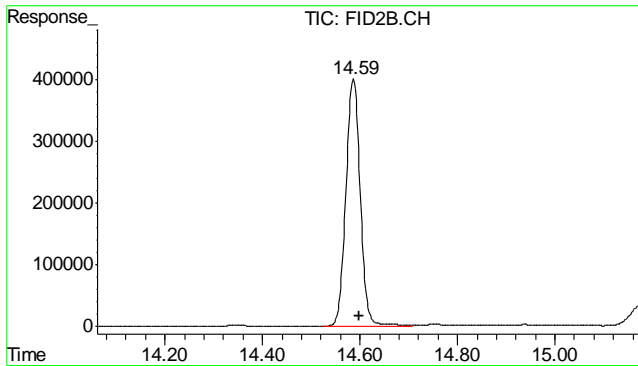


#8 m,p-Xylene  
R.T.: 10.812 min  
Delta R.T.: -0.033 min  
Response: 30195  
Conc: 0.12 ug/L



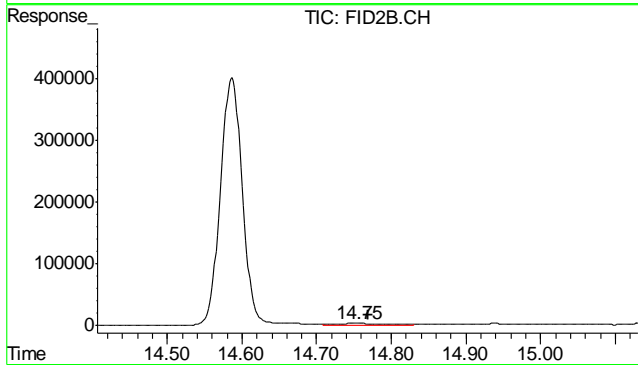
#9 o-Xylene  
R.T.: 0.000 min  
Exp R.T.: 11.305 min  
Response: 0  
Conc: N.D.





#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.587 min  
Delta R.T.: -0.012 min  
Response: 8225287  
Conc: 105.56 %



#11 Naphthalene

R.T.: 14.755 min  
Delta R.T.: -0.014 min  
Response: 130005  
Conc: 0.93 ug/L

6.1.17

6

Manual Integrations  
APPROVED  
(compounds with "m" flag)  
John Hamilton  
04/01/11 13:16

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0838.D\FID1A.CH Vial: 12  
Signal #2 : Z:\033011\TA0838.D\FID2B.CH  
Acq On : 30 Mar 2011 8:38 pm Operator: BrianR  
Sample : D22183-5 Inst : BTEX2  
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
Quant Time: Apr 01 08:37:39 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX  
Last Update : Fri Apr 01 08:36:51 2011  
Response via : Initial 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

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	0.00	0	N.D.	% d
10) S 1,2,4-Trichlorobenzene (P)	14.58	8026671	103.011	%
Target Compounds				
1) H TVH-Gasoline	0.00	0	N.D.	mg/L
4) T Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T Benzene	0.00	0	N.D.	ug/L d
6) T Toluene	8.14	33252	0.131	ug/L m
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	0.00	0	N.D.	ug/L d
9) T o-Xylene	0.00	0	N.D.	ug/L d
11) T Naphthalene	14.73	143011	1.019	ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.  
TA0838.D TA582GA534.M Fri Apr 01 09:33:40 2011 GC

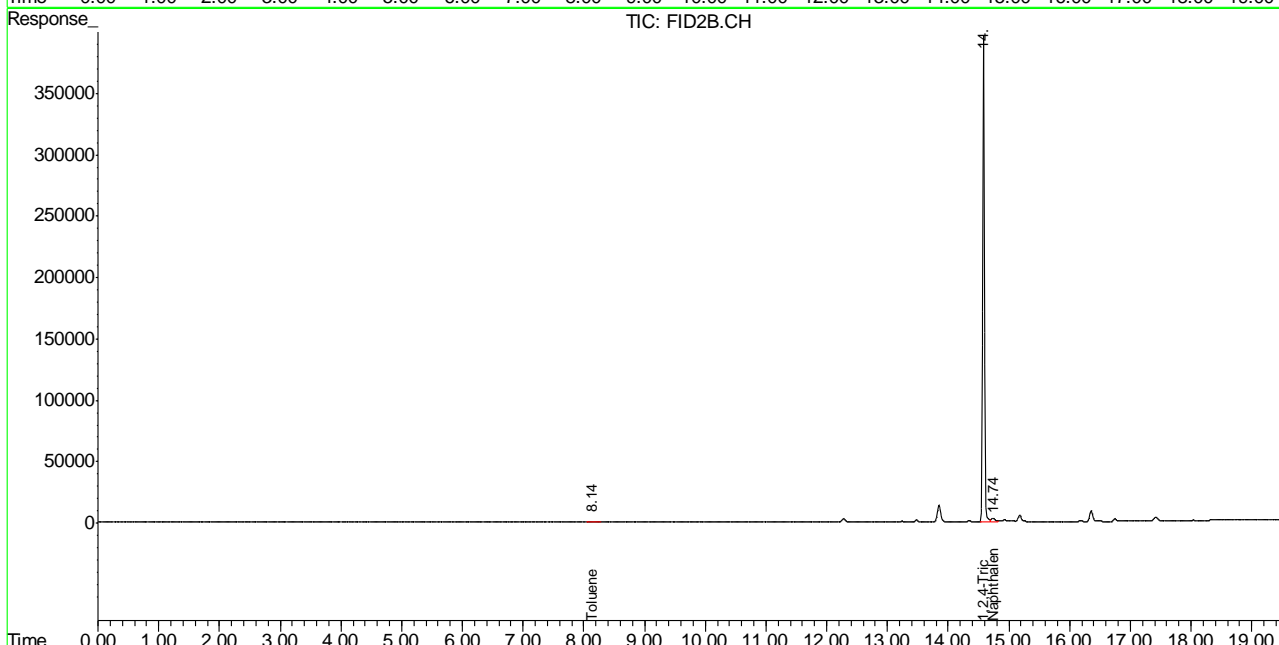
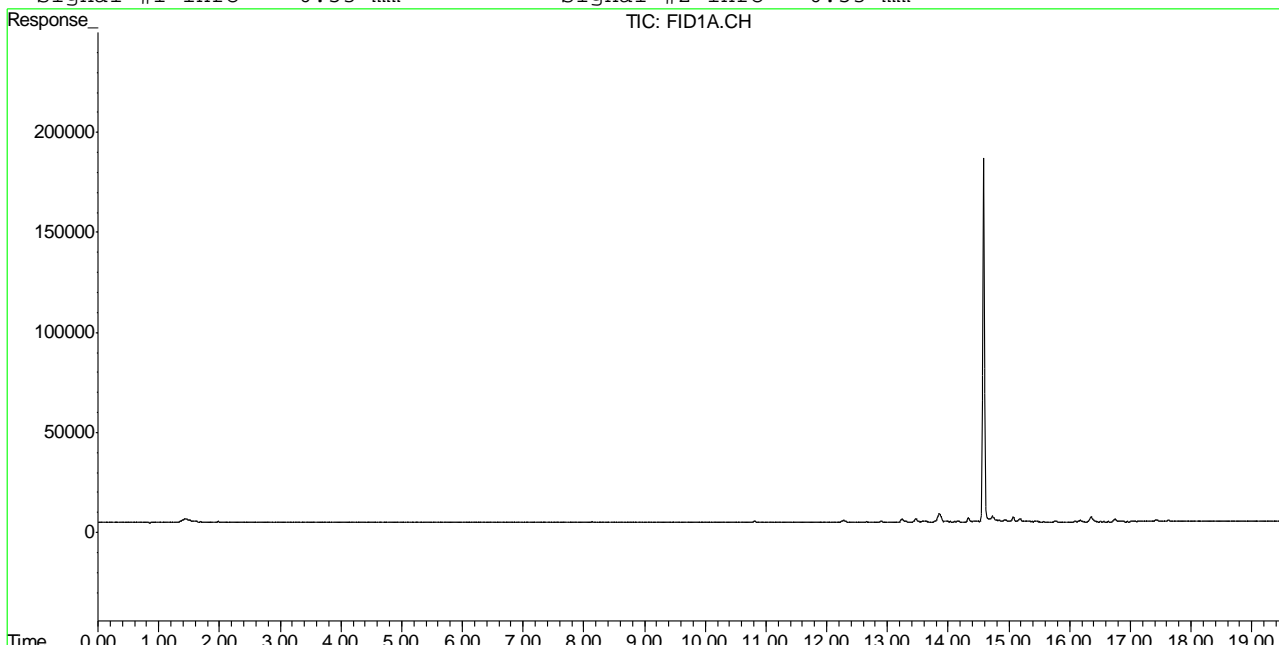
6.1.18  
6

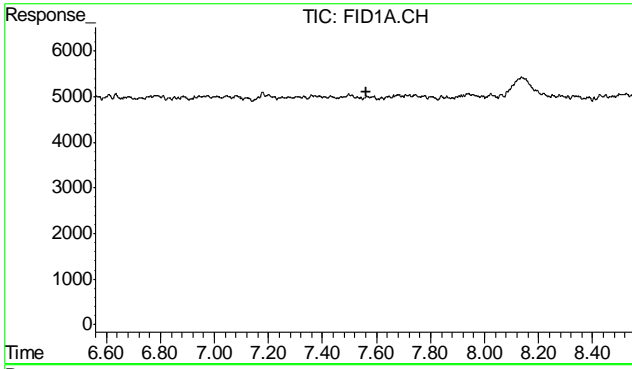
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0838.D\FID1A.CH Vial: 12  
 Signal #2 : Z:\033011\TA0838.D\FID2B.CH  
 Acq On : 30 Mar 2011 8:38 pm Operator: BrianR  
 Sample : D22183-5 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:47 2011 Quant Results File: TA582GA534.RES

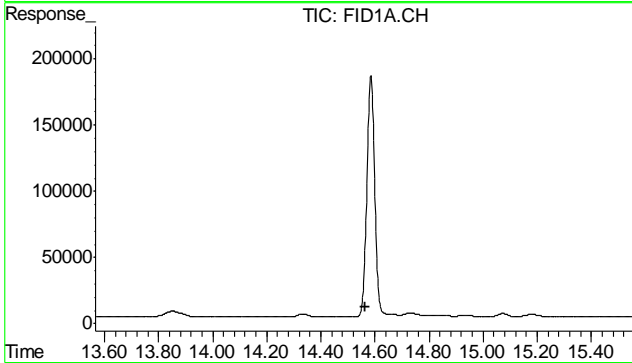
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:36:51 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

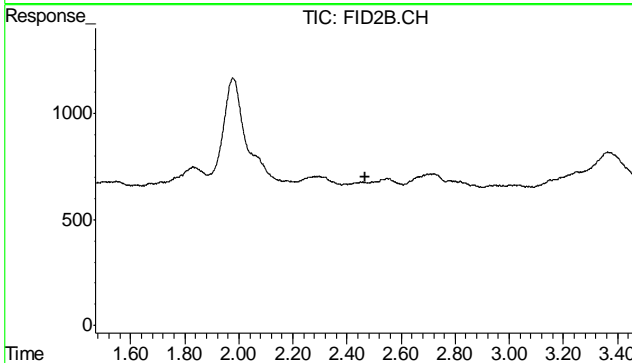




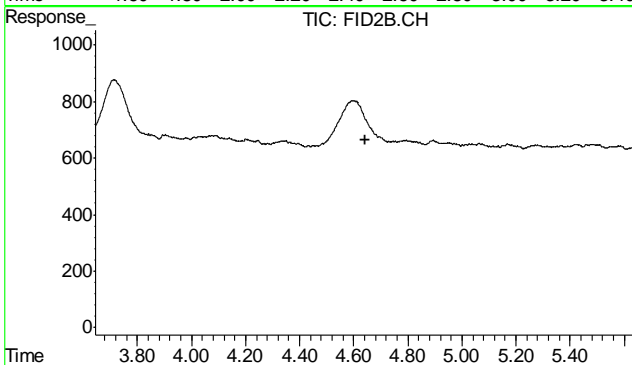
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



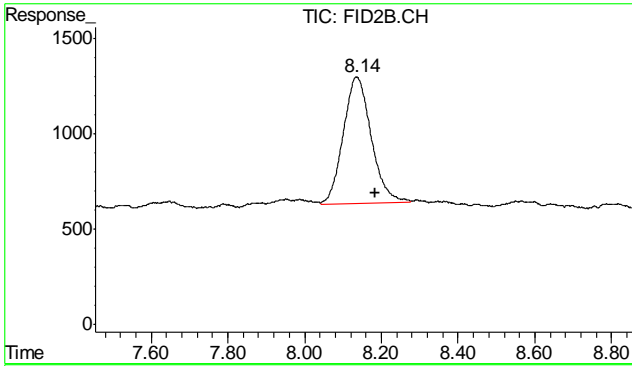
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



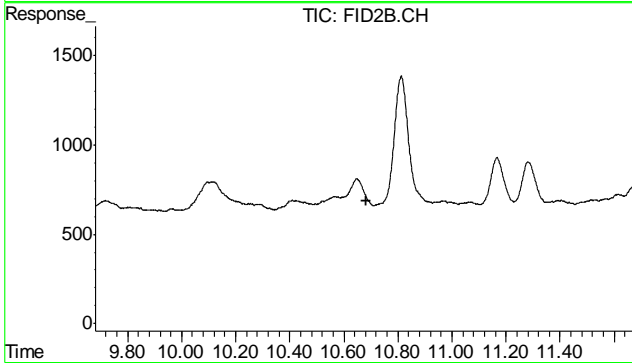
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.469 min  
 Response: 0  
 Conc: N.D.



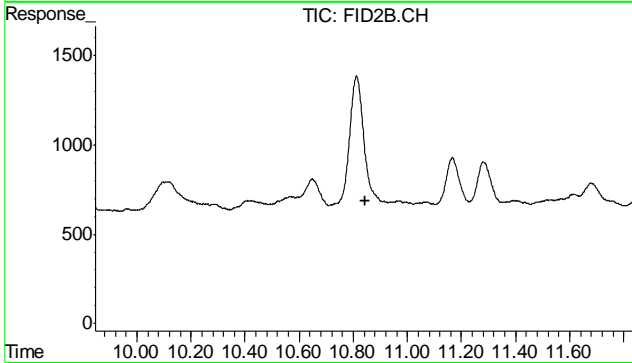
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.644 min  
 Response: 0  
 Conc: N.D.



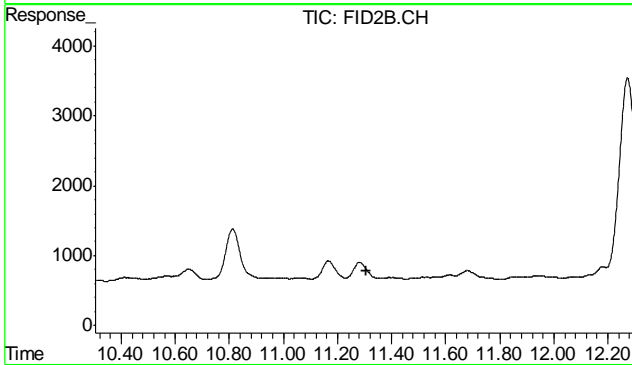
#6 Toluene  
 R.T.: 8.136 min  
 Delta R.T.: -0.049 min  
 Response: 33252  
 Conc: 0.13 ug/L m



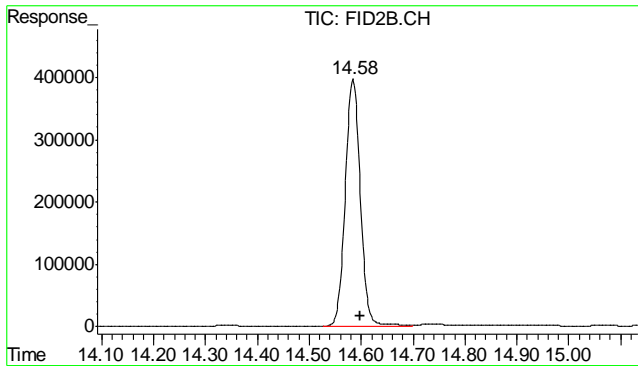
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.681 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.845 min  
 Response: 0  
 Conc: N.D.

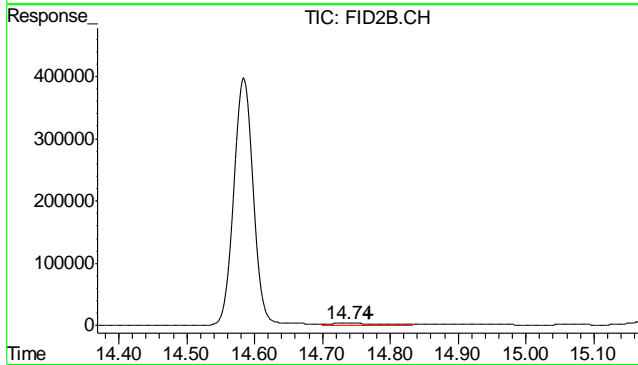


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.305 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.584 min  
 Delta R.T.: -0.014 min  
 Response: 8026671  
 Conc: 103.01 %



#11 Naphthalene

R.T.: 14.735 min  
 Delta R.T.: -0.034 min  
 Response: 143011  
 Conc: 1.02 ug/L

6.1.18

6

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0839.D\FID1A.CH Vial: 13
Signal #2 : Z:\033011\TA0839.D\FID2B.CH
Acq On : 30 Mar 2011 9:13 pm Operator: BrianR
Sample : D22183-6 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:37:42 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:36:51 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

6.1.19
6

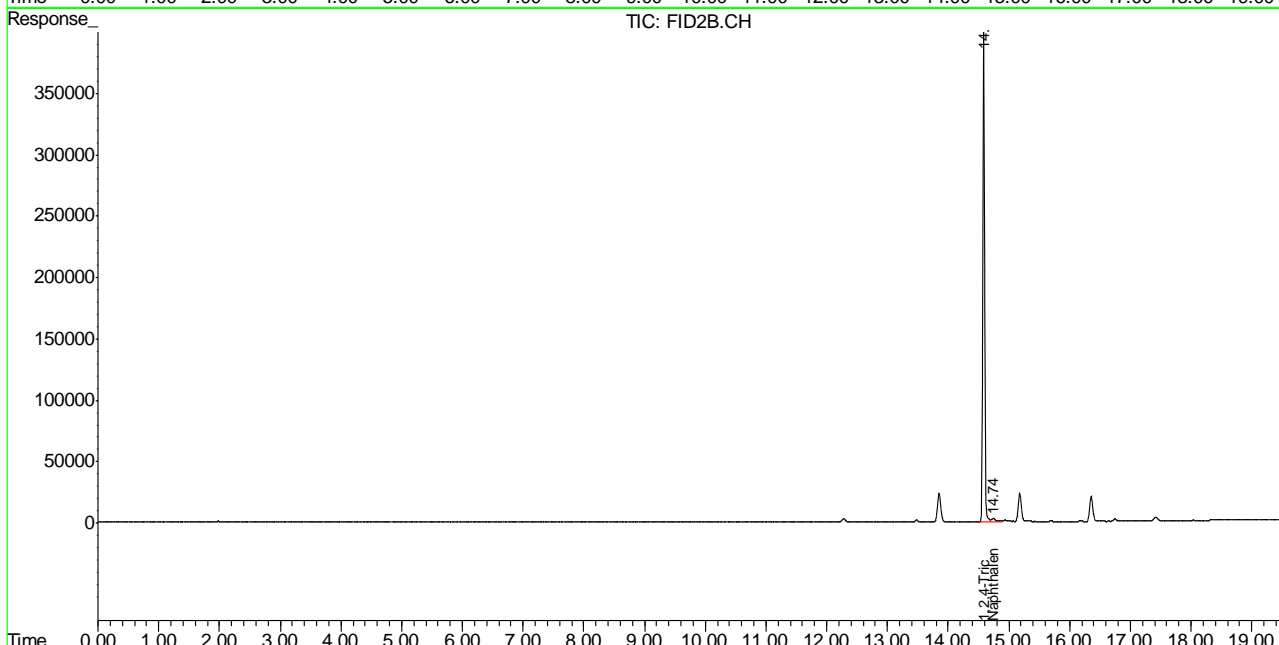
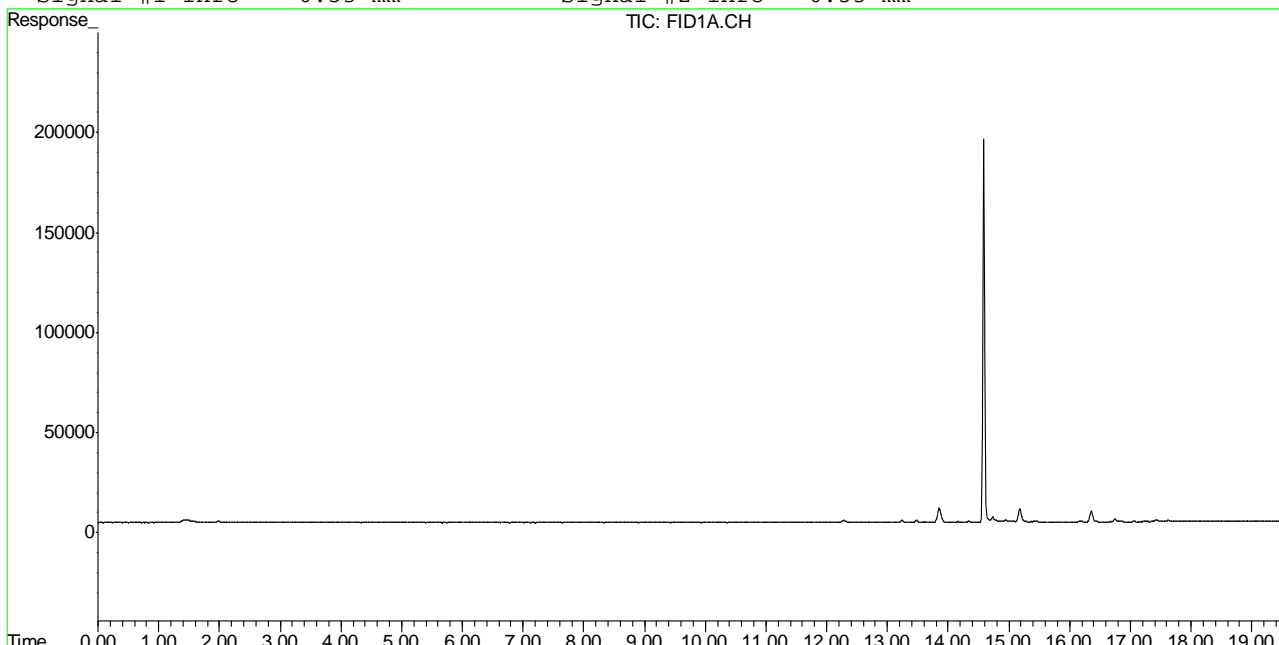
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0839.D TA582GA534.M Fri Apr 01 09:33:44 2011 GC

Quantitation Report (QT Reviewed)

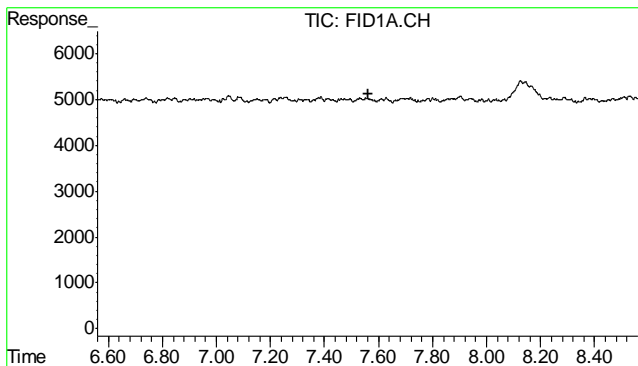
Signal #1 : Z:\033011\TA0839.D\FID1A.CH Vial: 13  
 Signal #2 : Z:\033011\TA0839.D\FID2B.CH  
 Acq On : 30 Mar 2011 9:13 pm Operator: BrianR  
 Sample : D22183-6 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:48 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:36:51 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

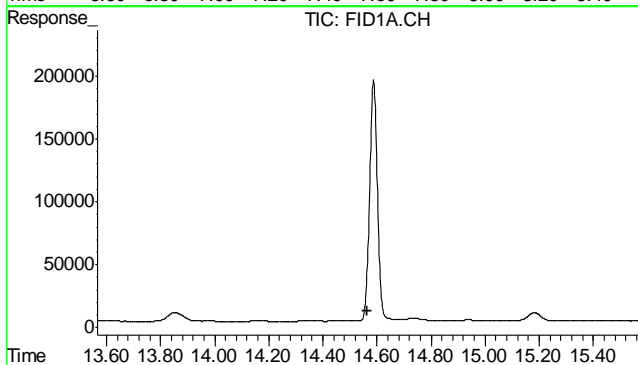
Volume Inj. :  
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624  
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm



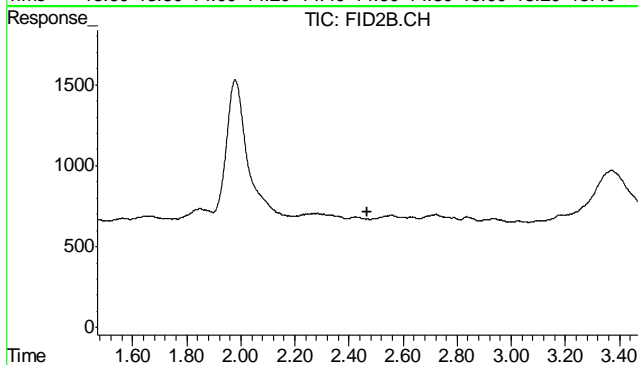




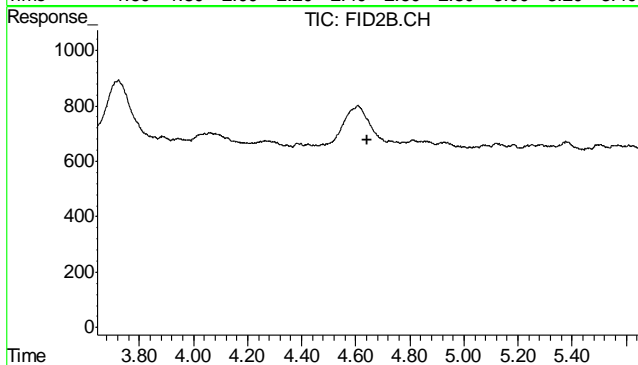
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



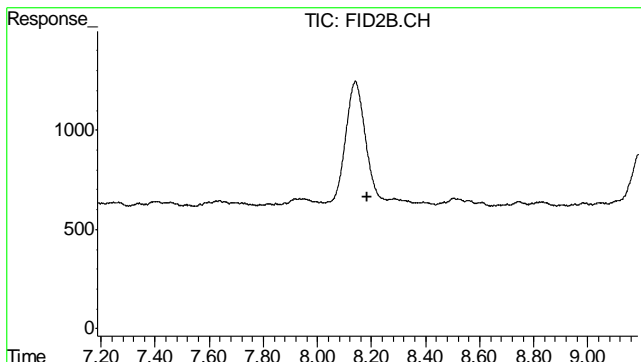
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



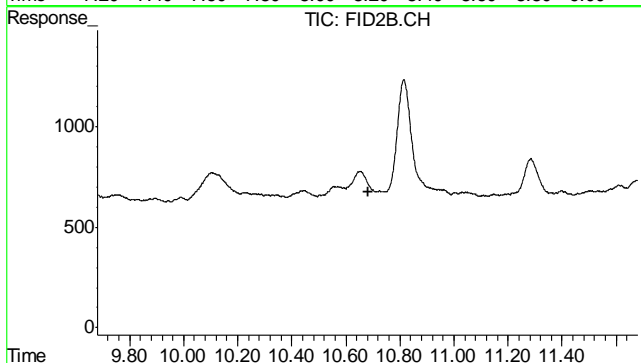
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.469 min  
 Response: 0  
 Conc: N.D.



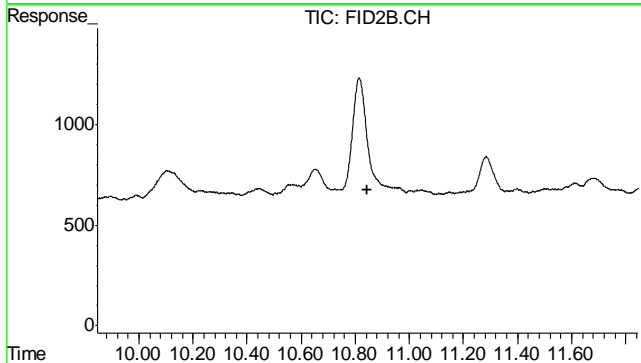
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.644 min  
 Response: 0  
 Conc: N.D.



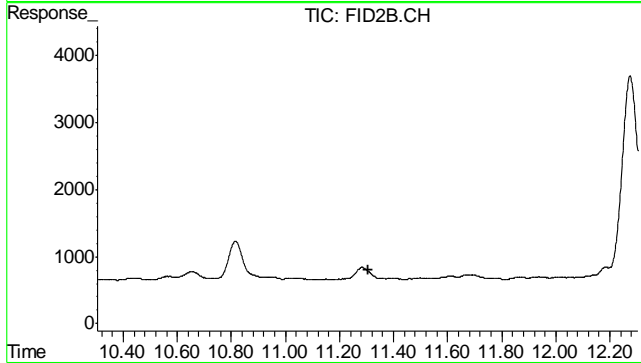
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 8.185 min  
 Response: 0  
 Conc: N.D.



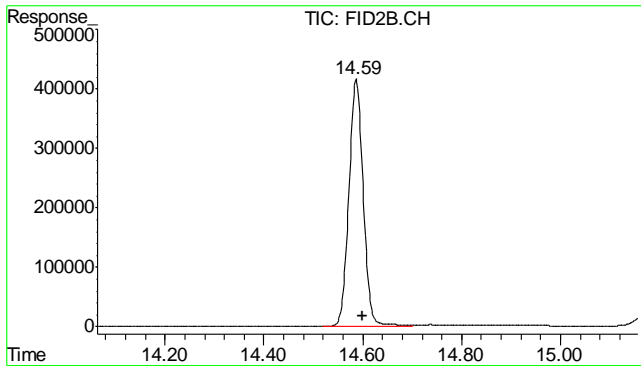
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.681 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.845 min  
 Response: 0  
 Conc: N.D.

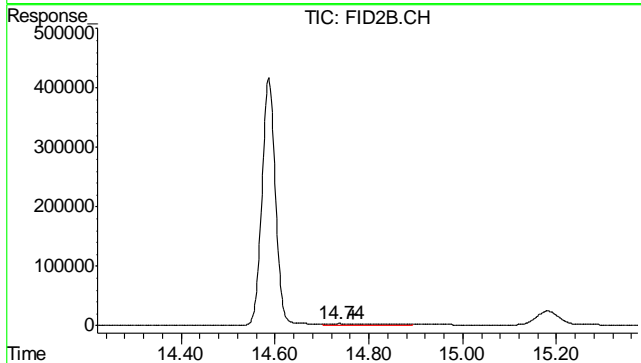


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.305 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.587 min  
 Delta R.T.: -0.012 min  
 Response: 8371810  
 Conc: 107.44 %



#11 Naphthalene

R.T.: 14.737 min  
 Delta R.T.: -0.031 min  
 Response: 170107  
 Conc: 1.21 ug/L

6.1.19  
**6**

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0840.D\FID1A.CH Vial: 14
Signal #2 : Z:\033011\TA0840.D\FID2B.CH
Acq On : 30 Mar 2011 9:48 pm Operator: BrianR
Sample : D22183-7 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:37:45 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:36:51 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

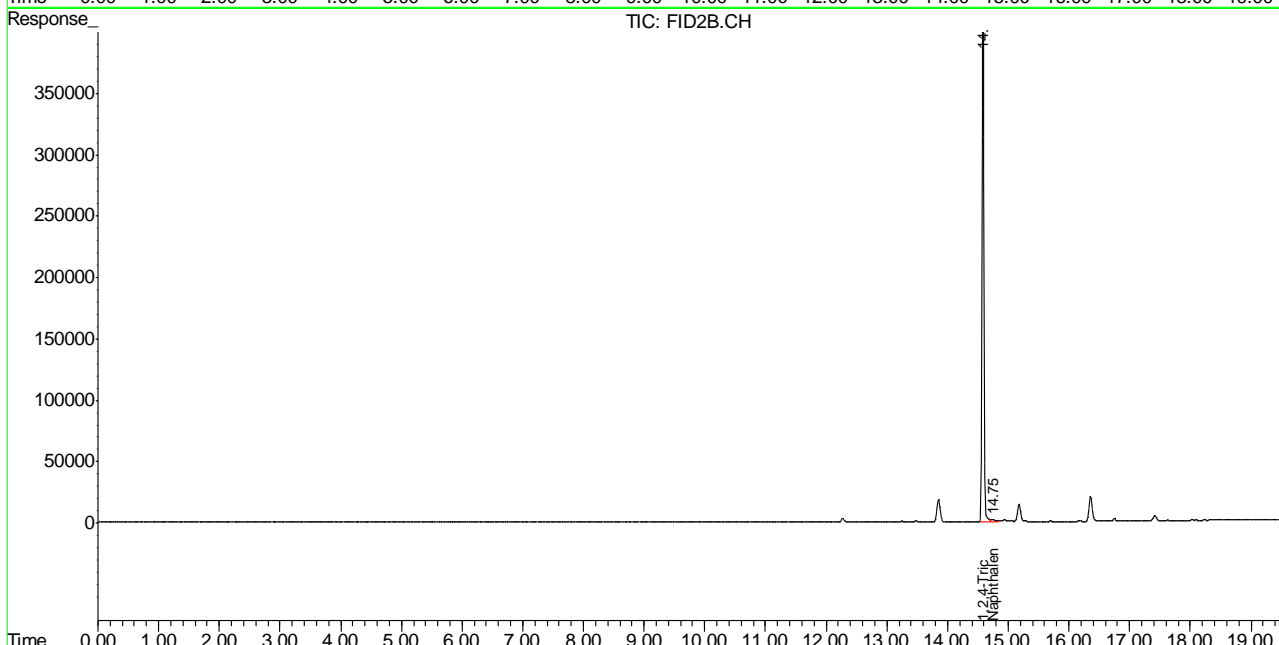
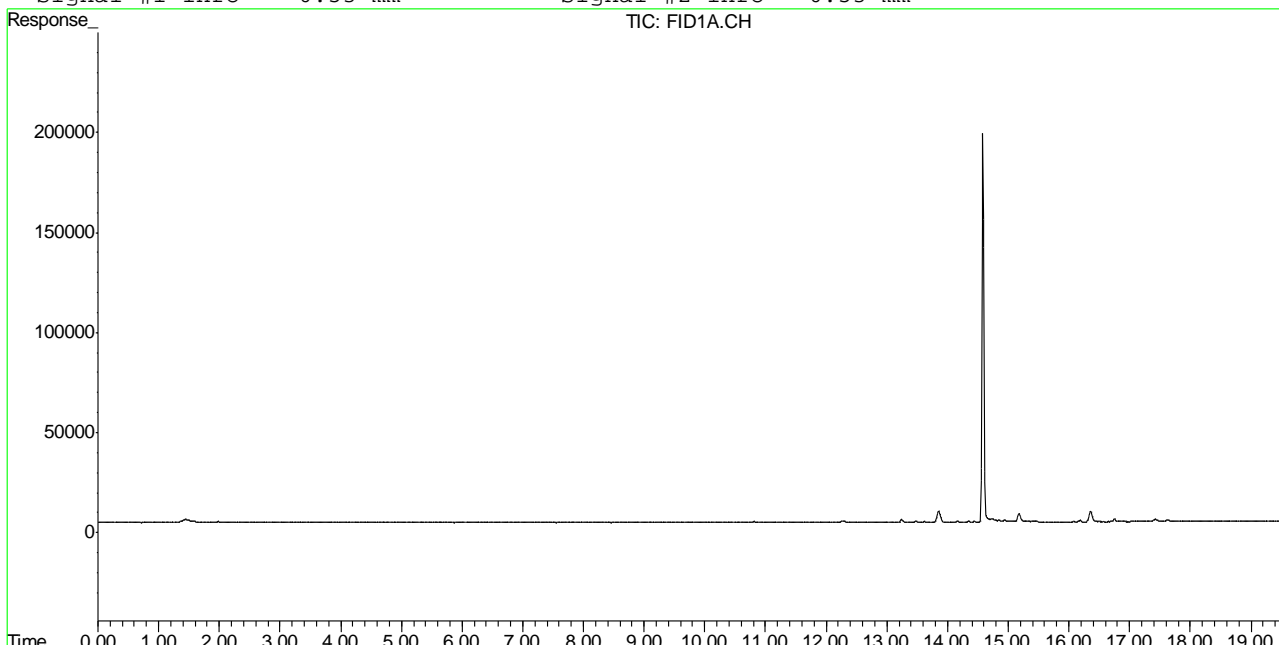
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0840.D TA582GA534.M Fri Apr 01 09:33:46 2011 GC

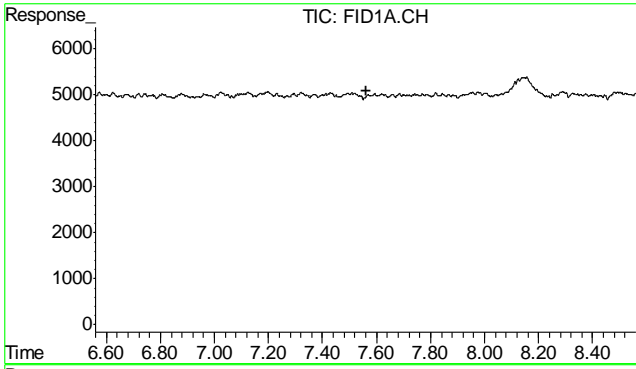
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0840.D\FID1A.CH Vial: 14  
 Signal #2 : Z:\033011\TA0840.D\FID2B.CH  
 Acq On : 30 Mar 2011 9:48 pm Operator: BrianR  
 Sample : D22183-7 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:48 2011 Quant Results File: TA582GA534.RES

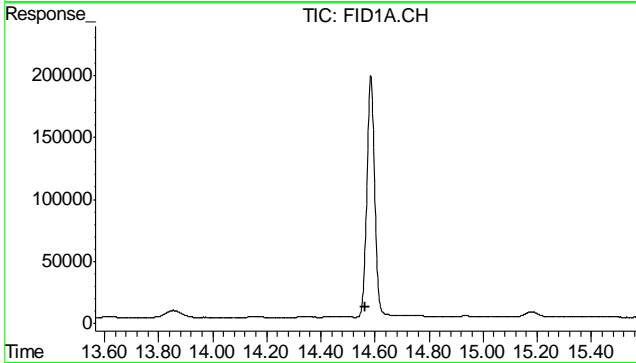
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:36:51 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

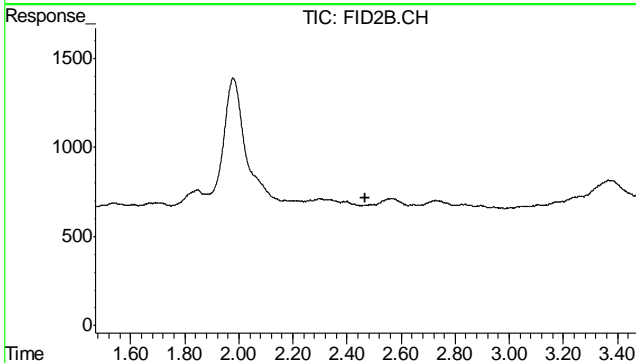




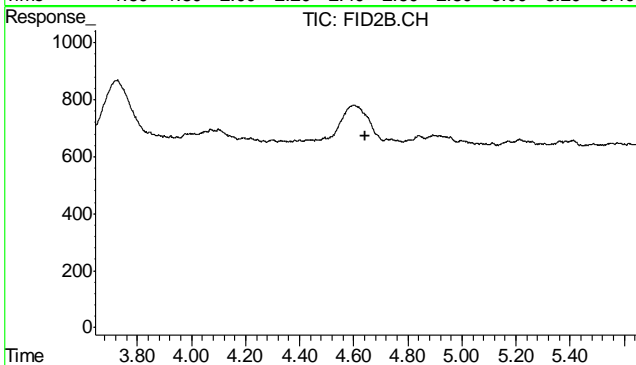
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



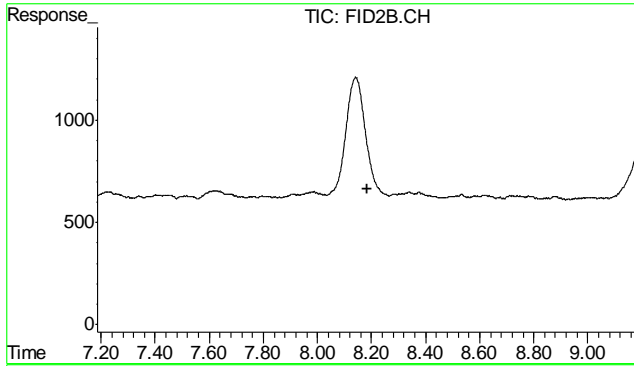
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



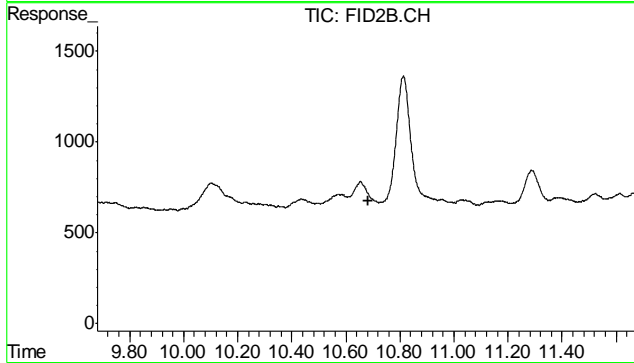
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.469 min  
 Response: 0  
 Conc: N.D.



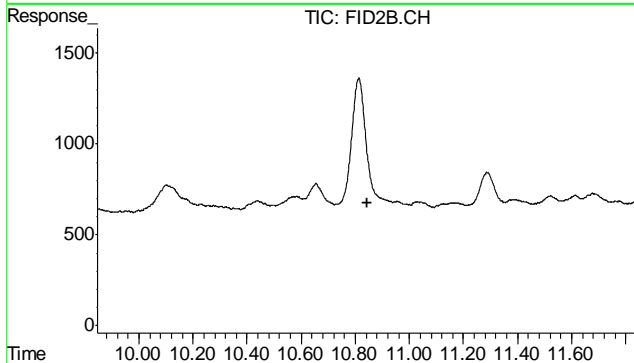
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.644 min  
 Response: 0  
 Conc: N.D.



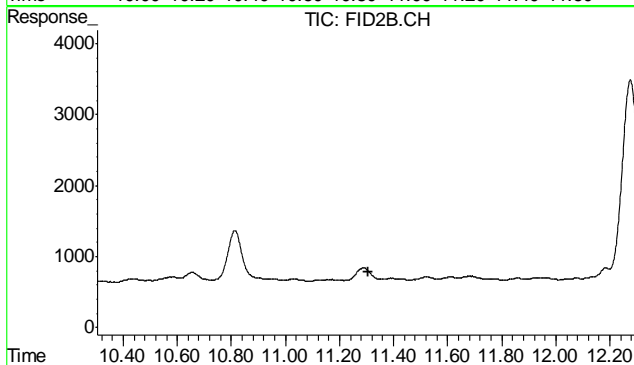
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 8.185 min  
 Response: 0  
 Conc: N.D.



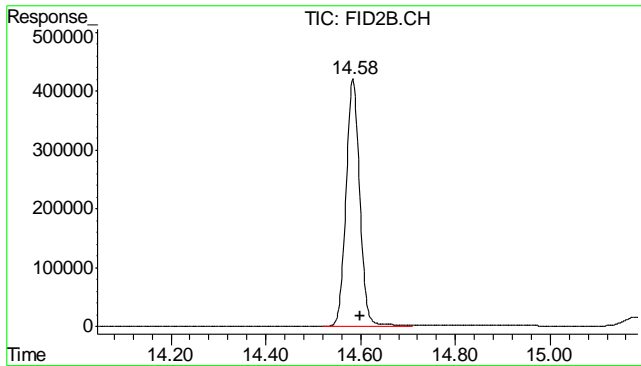
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.681 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.845 min  
 Response: 0  
 Conc: N.D.

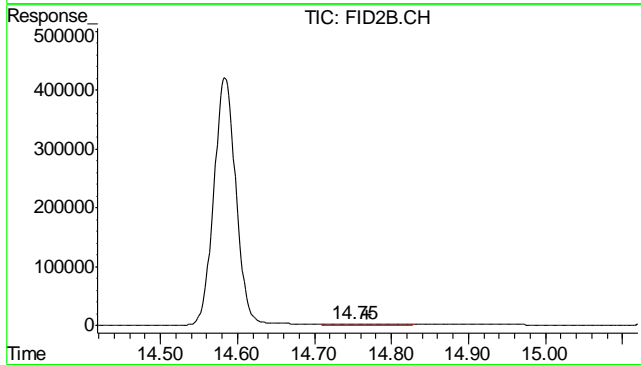


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.305 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.584 min  
 Delta R.T.: -0.015 min  
 Response: 8441358  
 Conc: 108.33 %



#11 Naphthalene

R.T.: 14.750 min  
 Delta R.T.: -0.018 min  
 Response: 115254  
 Conc: 0.82 ug/L

6.1.20

6



Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0841.D\FID1A.CH Vial: 15
Signal #2 : Z:\033011\TA0841.D\FID2B.CH
Acq On : 30 Mar 2011 10:24 pm Operator: BrianR
Sample : D22183-8 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:37:48 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:36:51 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds and Target Compounds sections.

6.1.21 6

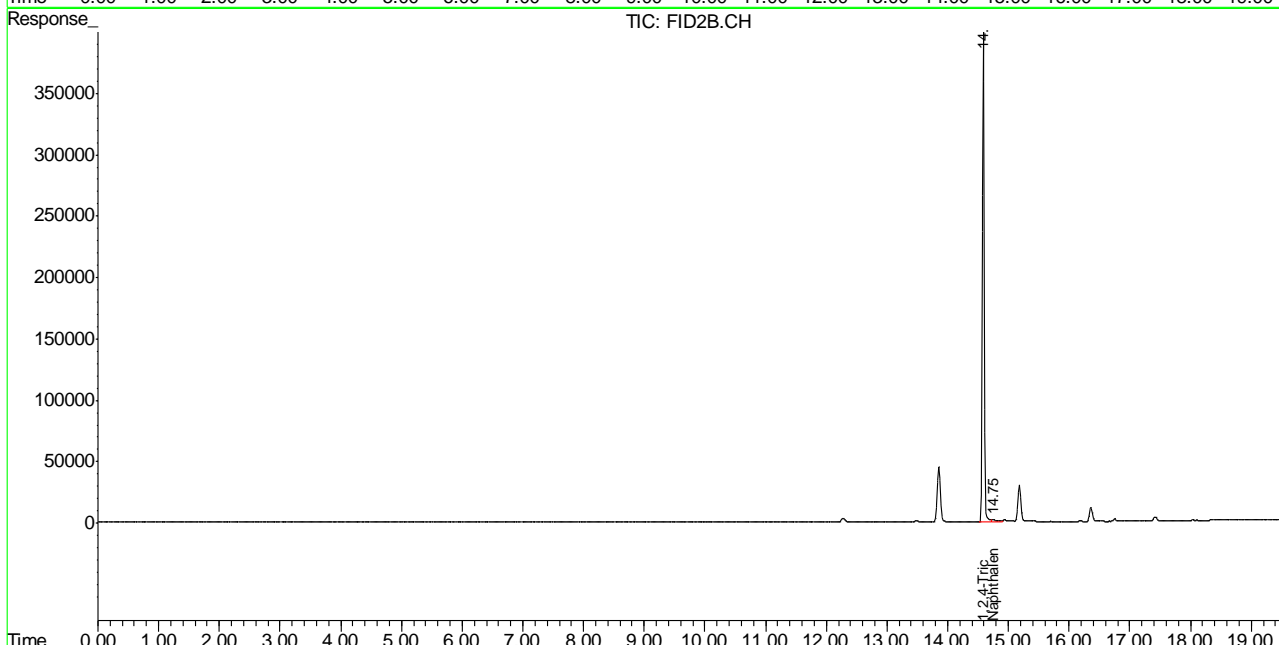
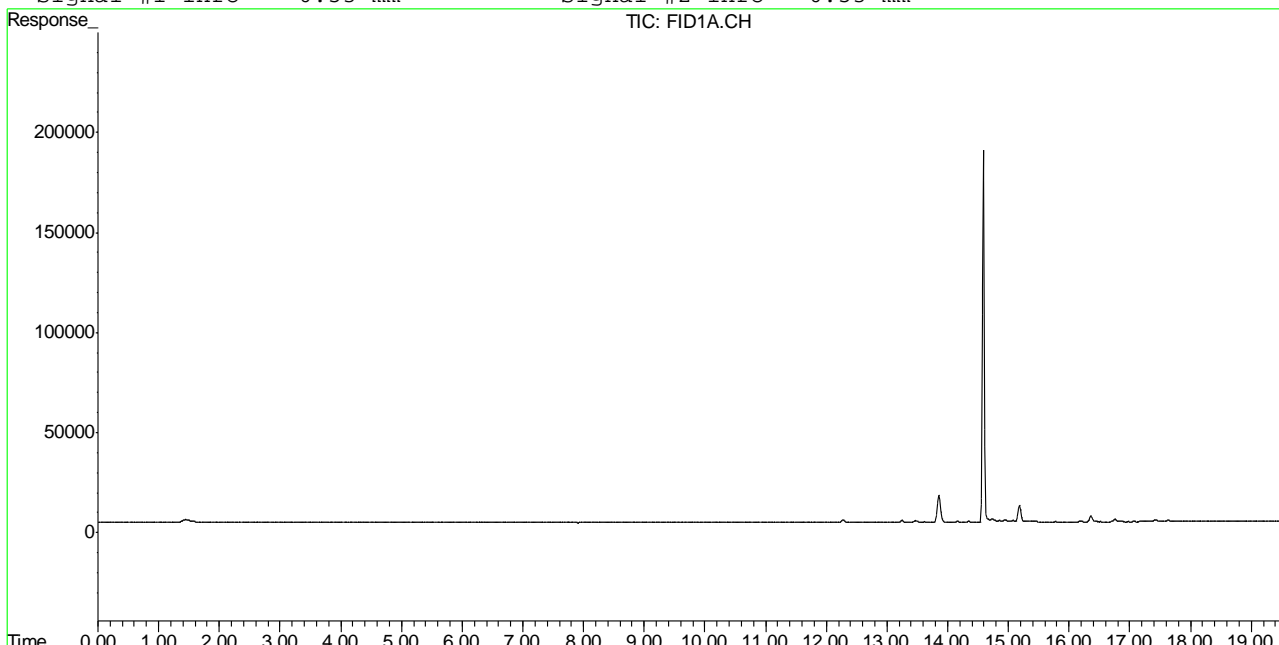
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0841.D TA582GA534.M Fri Apr 01 09:33:48 2011 GC

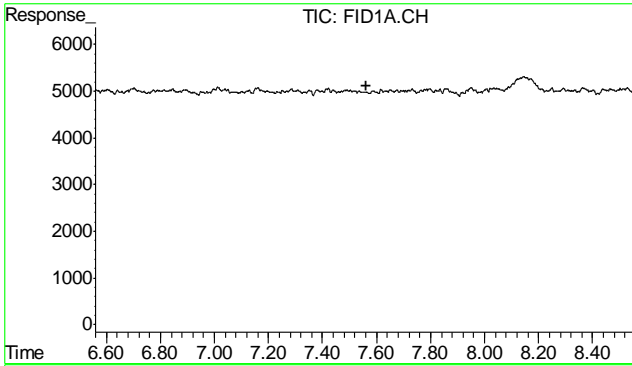
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0841.D\FID1A.CH Vial: 15  
 Signal #2 : Z:\033011\TA0841.D\FID2B.CH  
 Acq On : 30 Mar 2011 10:24 pm Operator: BrianR  
 Sample : D22183-8 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:48 2011 Quant Results File: TA582GA534.RES

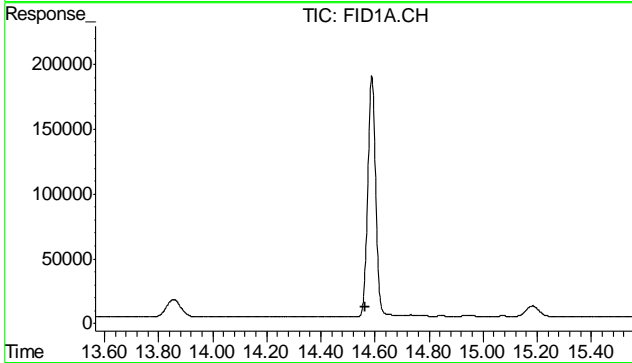
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:36:51 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

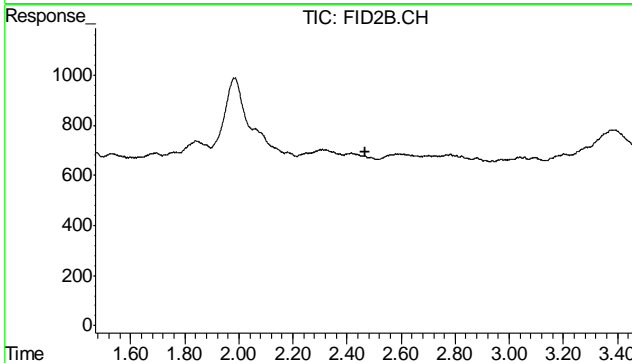




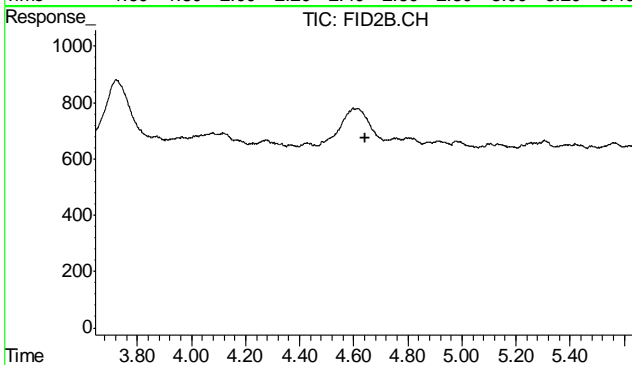
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



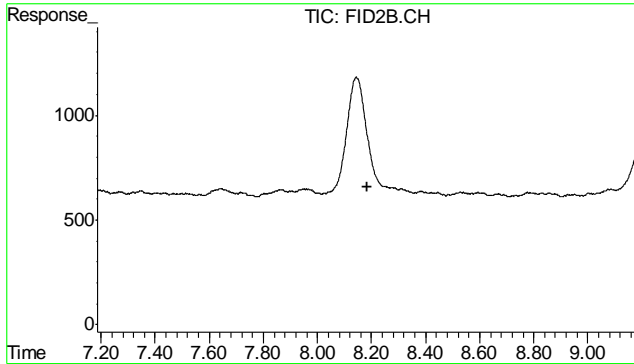
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



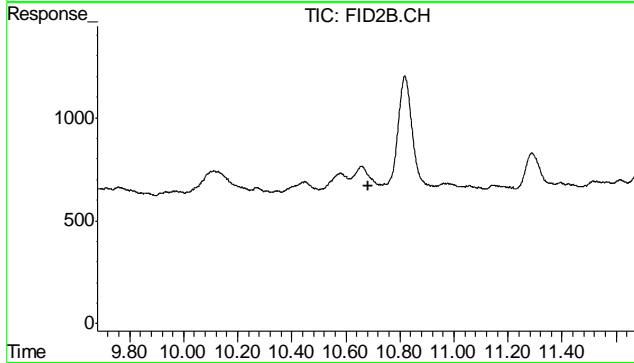
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.469 min  
 Response: 0  
 Conc: N.D.



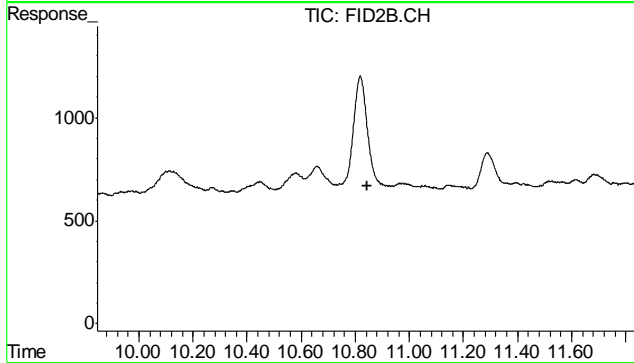
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.644 min  
 Response: 0  
 Conc: N.D.



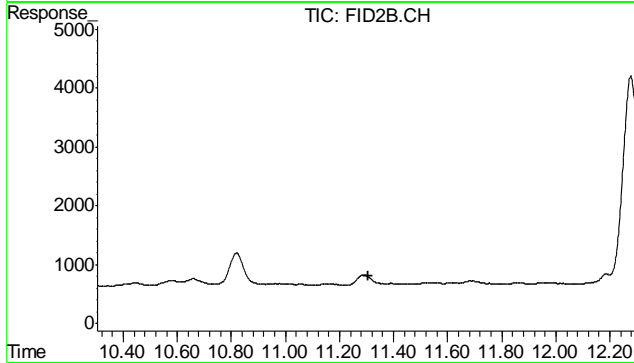
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 8.185 min  
 Response: 0  
 Conc: N.D.



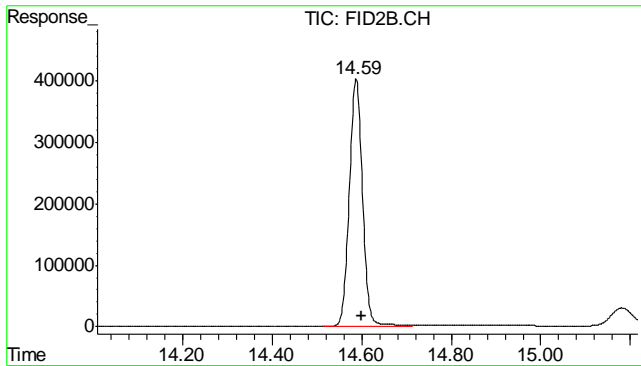
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.681 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.845 min  
 Response: 0  
 Conc: N.D.

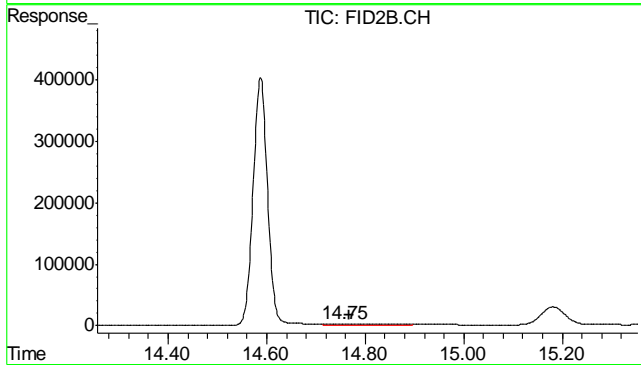


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.305 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.588 min  
 Delta R.T.: -0.011 min  
 Response: 8220818  
 Conc: 105.50 %



#11 Naphthalene

R.T.: 14.753 min  
 Delta R.T.: -0.016 min  
 Response: 136578  
 Conc: 0.97 ug/L

6.1.21

6

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0842.D\FID1A.CH Vial: 16
Signal #2 : Z:\033011\TA0842.D\FID2B.CH
Acq On : 30 Mar 2011 10:59 pm Operator: BrianR
Sample : D22183-9 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:37:51 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:36:51 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

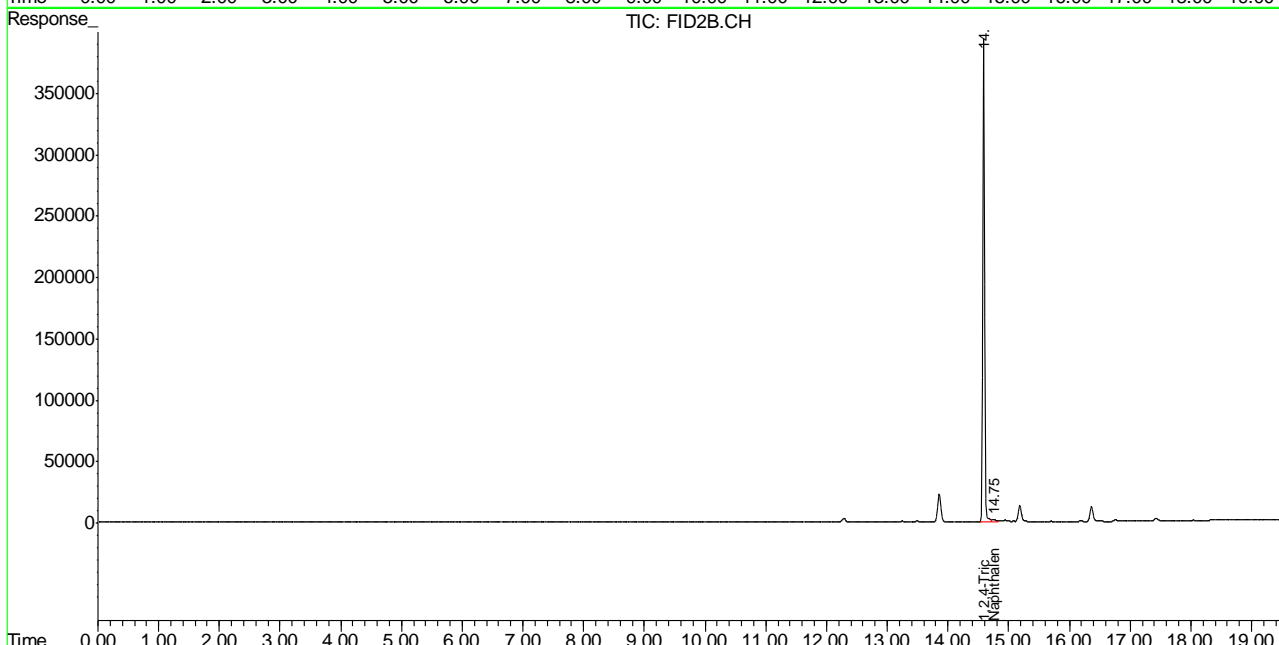
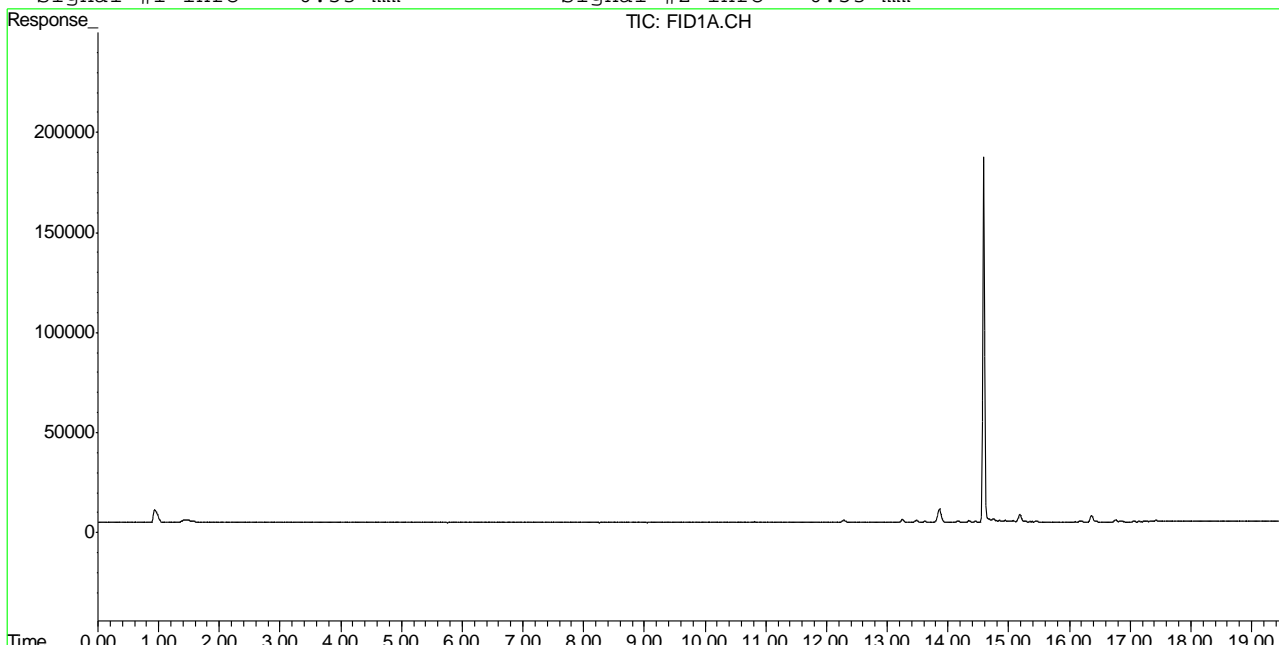
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0842.D TA582GA534.M Fri Apr 01 09:33:50 2011 GC

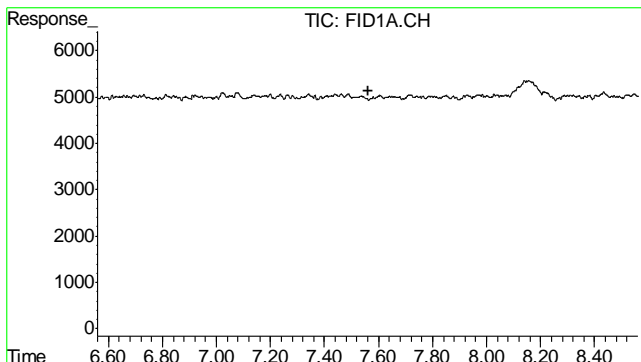
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0842.D\FID1A.CH Vial: 16  
Signal #2 : Z:\033011\TA0842.D\FID2B.CH  
Acq On : 30 Mar 2011 10:59 pm Operator: BrianR  
Sample : D22183-9 Inst : BTEX2  
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
Quant Time: Apr 1 6:48 2011 Quant Results File: TA582GA534.RES

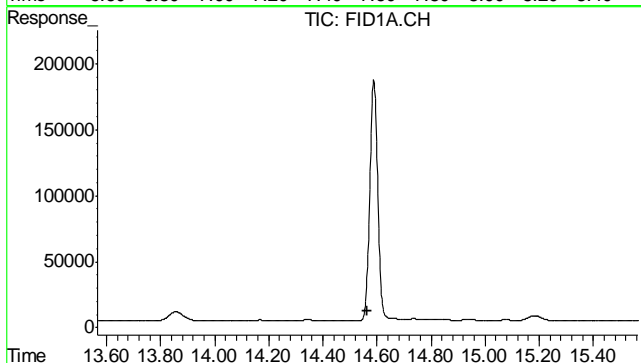
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX  
Last Update : Fri Apr 01 08:36:51 2011  
Response via : Multiple Level Calibration  
DataAcq Meth : TVB2.M

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

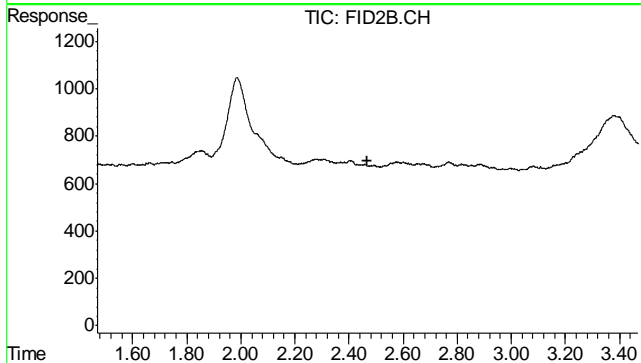




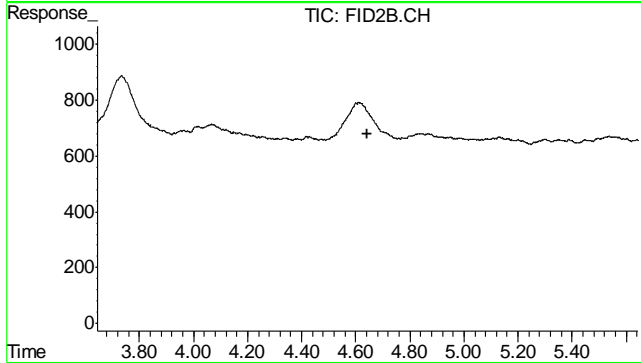
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.

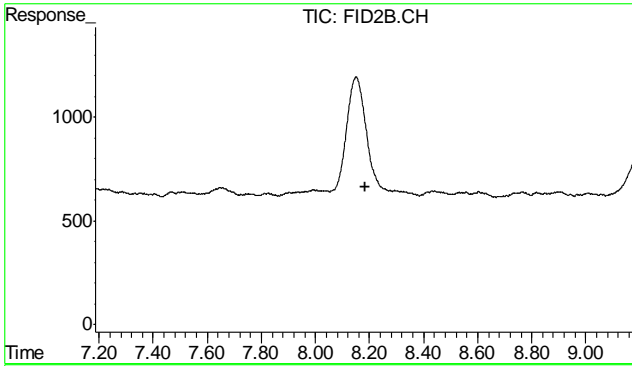


#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.469 min  
 Response: 0  
 Conc: N.D.

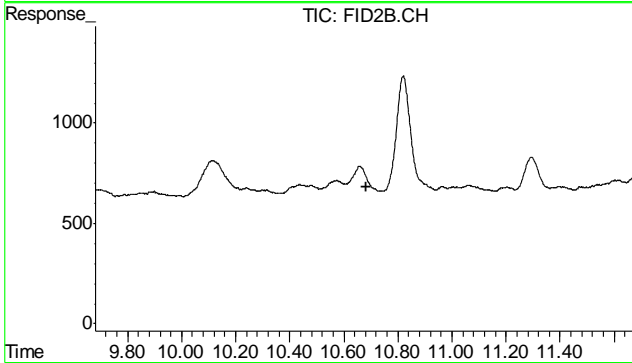


#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.644 min  
 Response: 0  
 Conc: N.D.

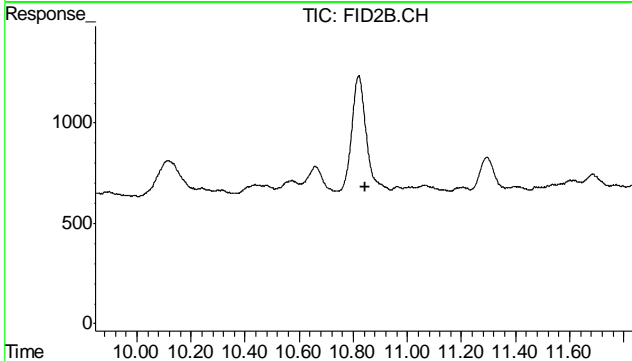




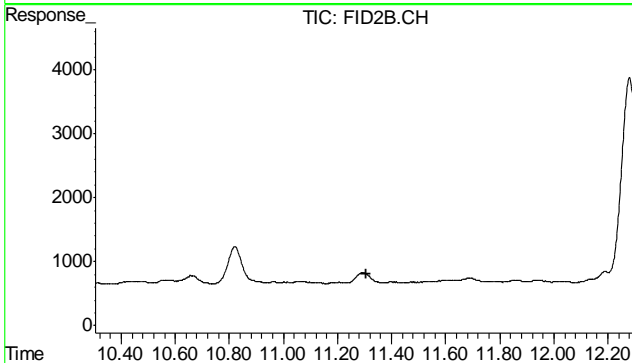
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 8.185 min  
 Response: 0  
 Conc: N.D.



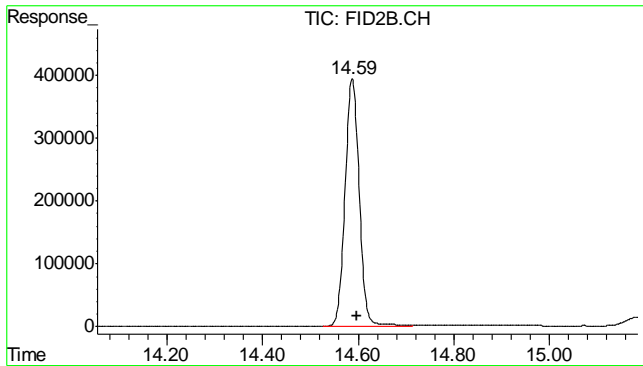
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.681 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.845 min  
 Response: 0  
 Conc: N.D.

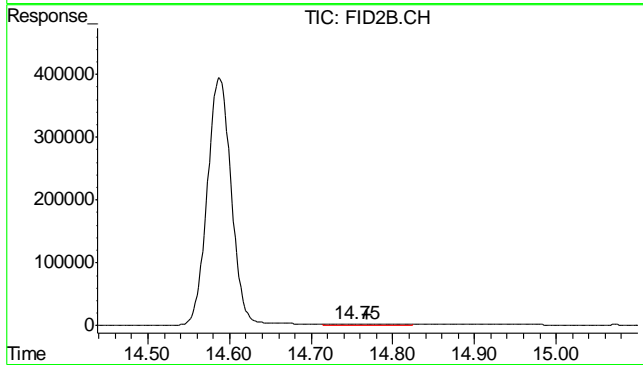


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.305 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.588 min  
 Delta R.T.: -0.011 min  
 Response: 8106378  
 Conc: 104.03 %



#11 Naphthalene

R.T.: 14.753 min  
 Delta R.T.: -0.016 min  
 Response: 101005  
 Conc: 0.72 ug/L

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0843.D\FID1A.CH Vial: 17
Signal #2 : Z:\033011\TA0843.D\FID2B.CH
Acq On : 30 Mar 2011 11:35 pm Operator: BrianR
Sample : D22183-10 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:37:54 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:36:51 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

6.1.23
6

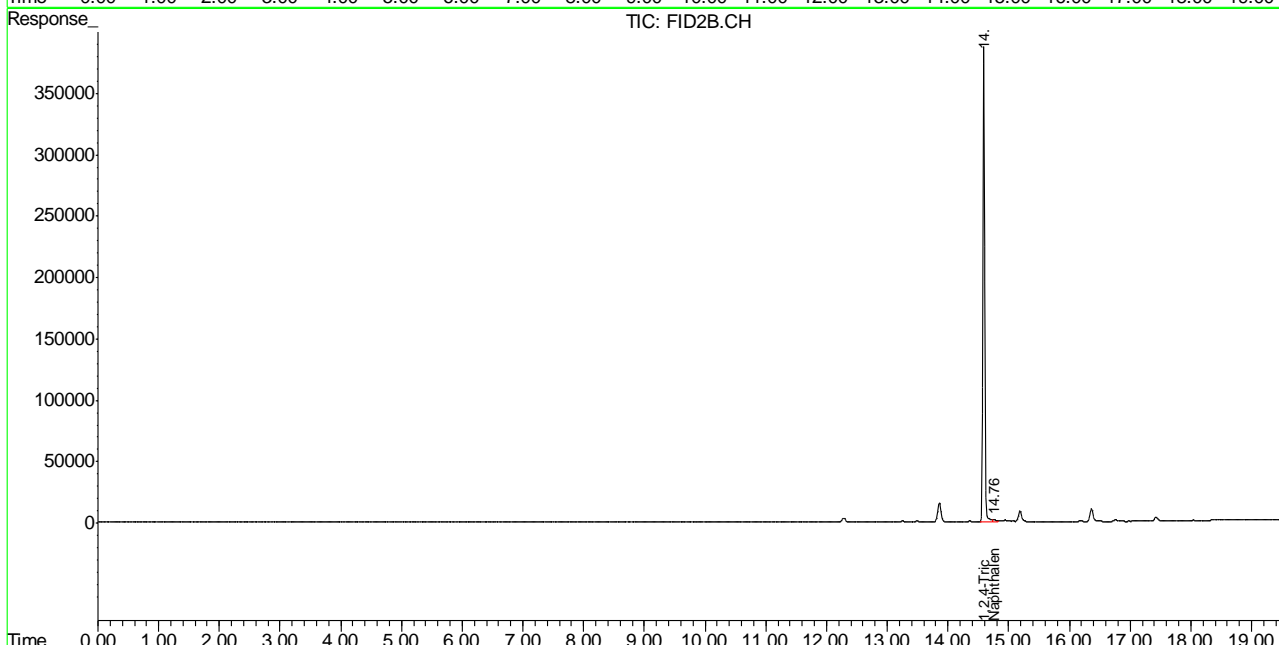
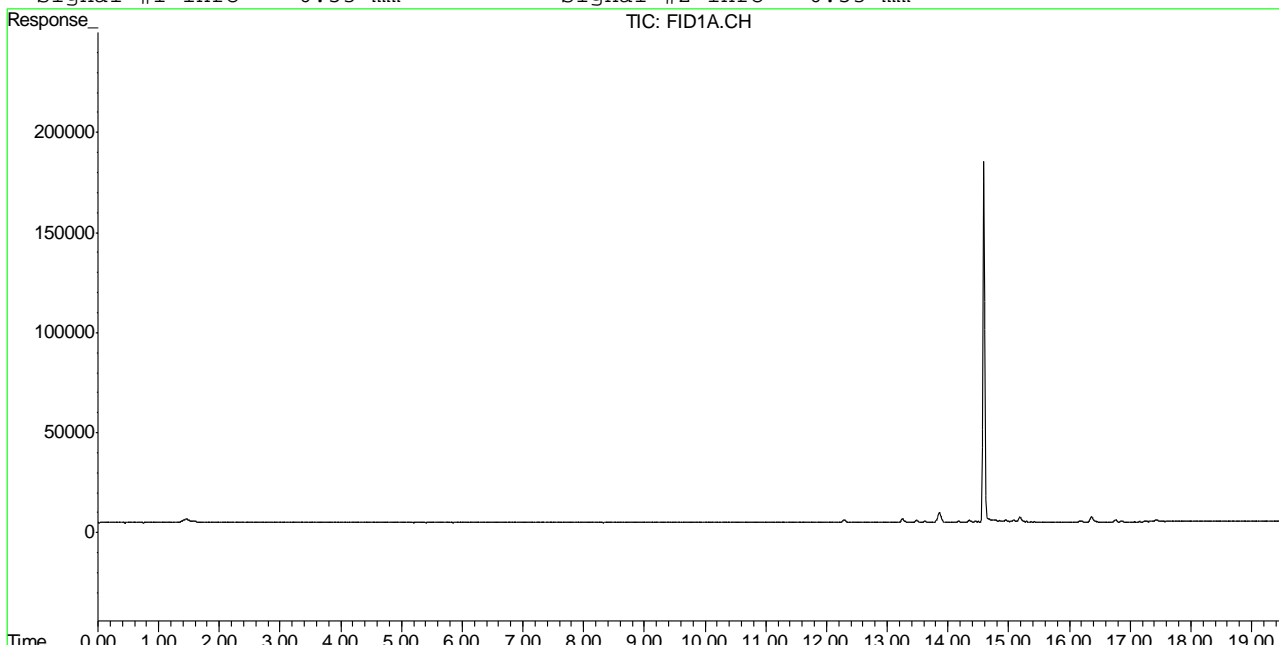
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0843.D TA582GA534.M Fri Apr 01 09:33:53 2011 GC

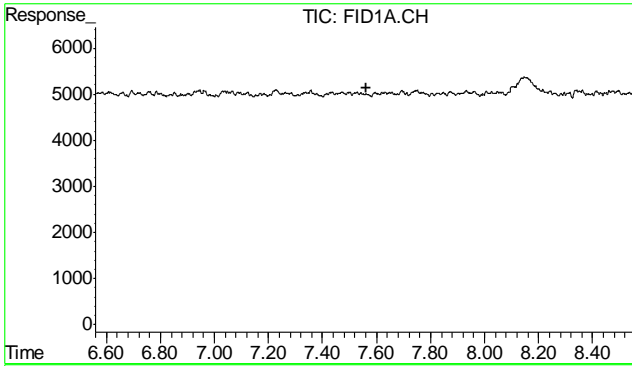
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0843.D\FID1A.CH Vial: 17  
 Signal #2 : Z:\033011\TA0843.D\FID2B.CH  
 Acq On : 30 Mar 2011 11:35 pm Operator: BrianR  
 Sample : D22183-10 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:49 2011 Quant Results File: TA582GA534.RES

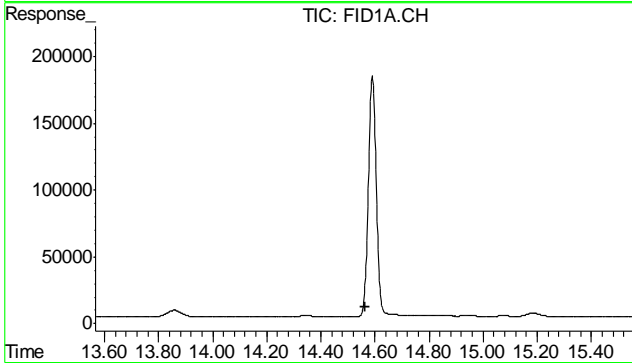
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:36:51 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

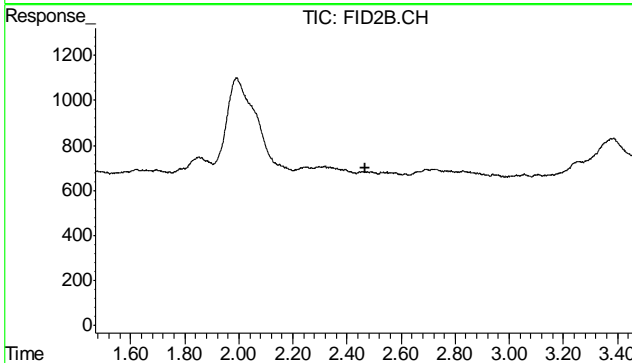




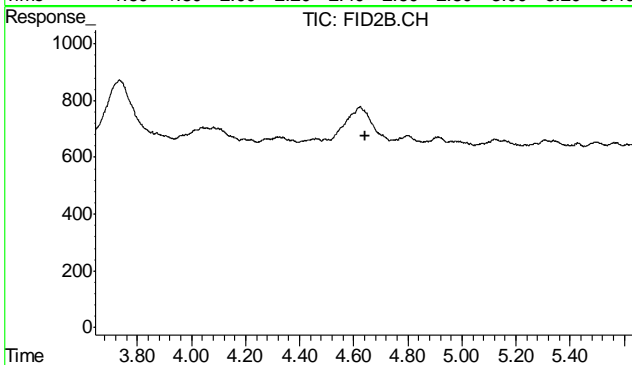
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



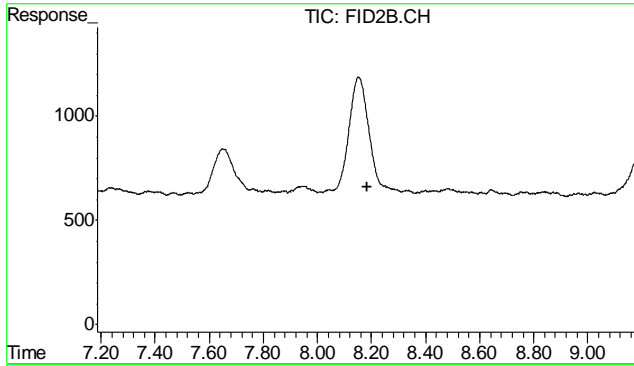
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



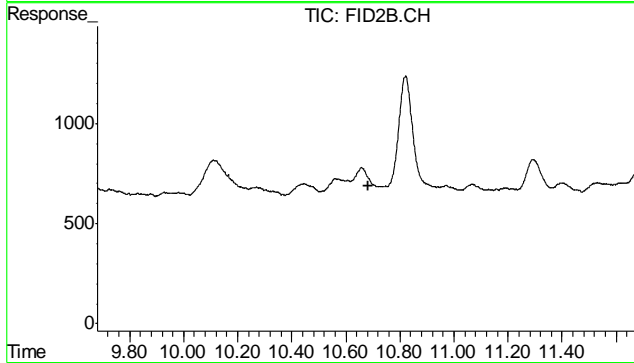
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.469 min  
 Response: 0  
 Conc: N.D.



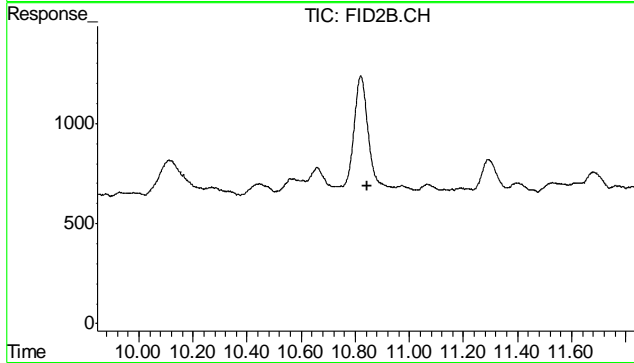
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.644 min  
 Response: 0  
 Conc: N.D.



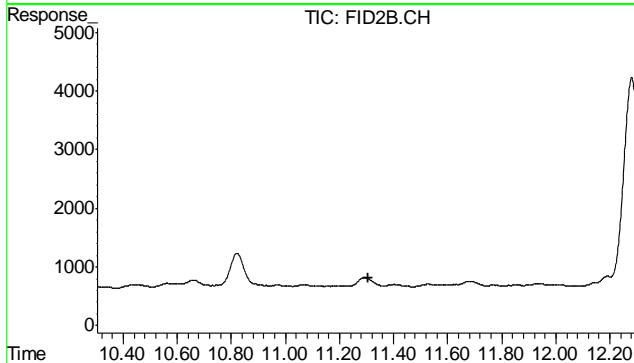
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 8.185 min  
 Response: 0  
 Conc: N.D.



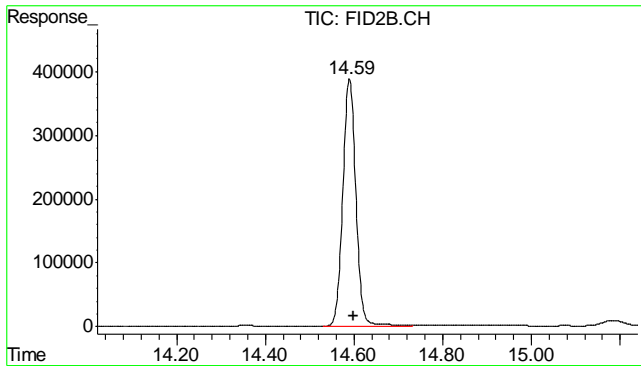
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.681 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.845 min  
 Response: 0  
 Conc: N.D.

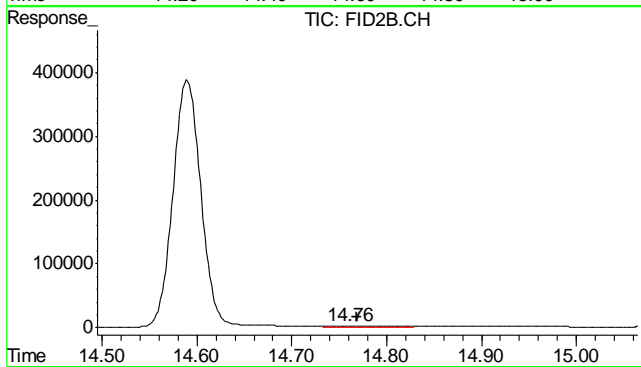


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.305 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.590 min  
 Delta R.T.: -0.009 min  
 Response: 8006093  
 Conc: 102.75 %



#11 Naphthalene

R.T.: 14.759 min  
 Delta R.T.: -0.009 min  
 Response: 80028  
 Conc: 0.57 ug/L

6.1.23

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Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0845.D\FID1A.CH Vial: 19
Signal #2 : Z:\033011\TA0845.D\FID2B.CH
Acq On : 31 Mar 2011 12:46 am Operator: BrianR
Sample : D22183-11 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:52:34 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:52:07 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (e.g., 1,2,4-Trichlorobenzene) and Target Compounds (e.g., TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

(f)=RT Delta > 1/2 Window (m)=manual int.
TA0845.D TA582GA534.M Fri Apr 01 09:33:59 2011 GC

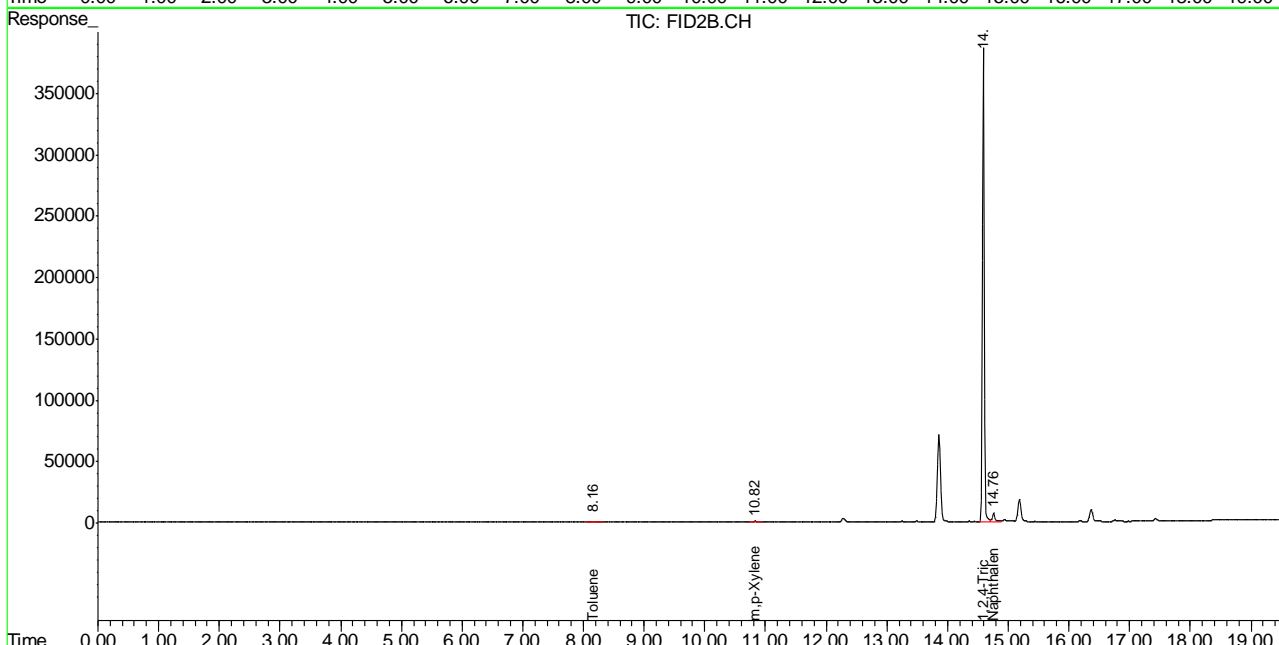
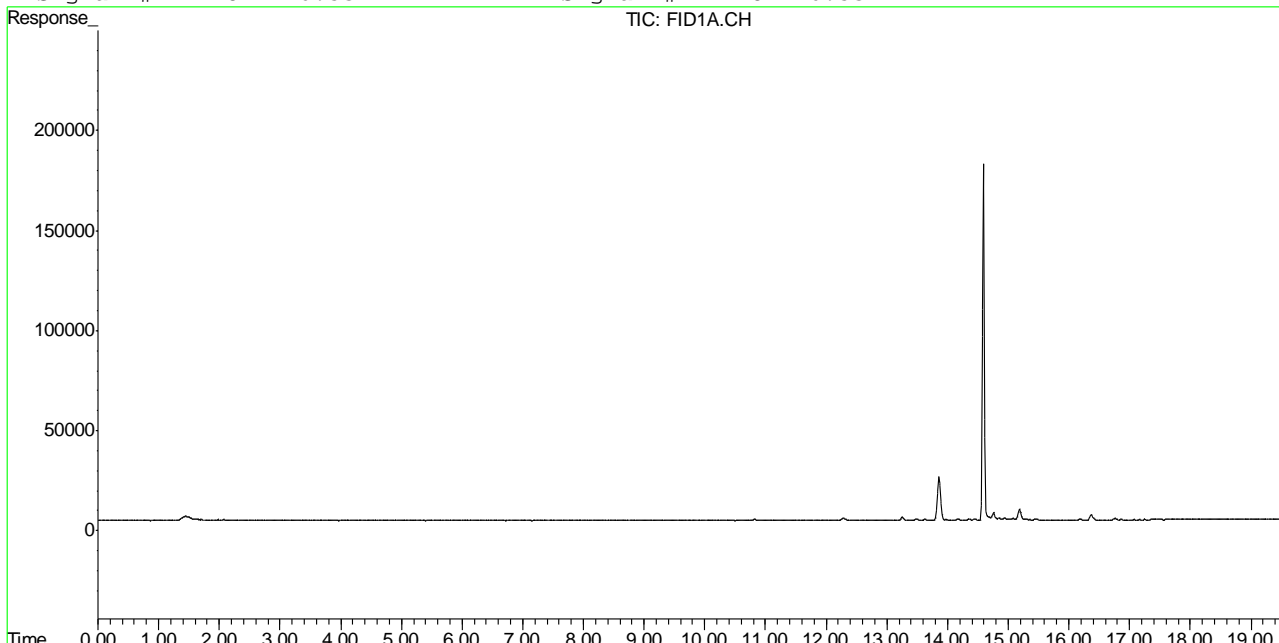


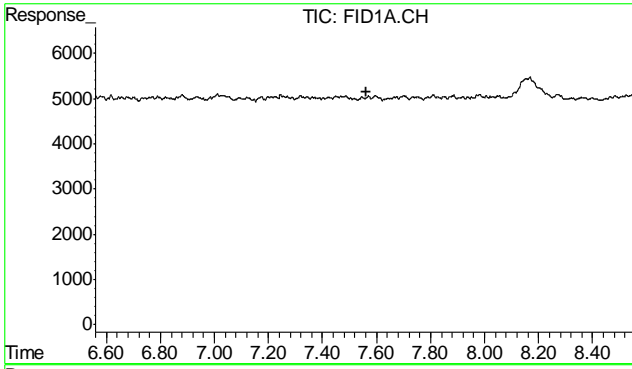
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0845.D\FID1A.CH Vial: 19  
 Signal #2 : Z:\033011\TA0845.D\FID2B.CH  
 Acq On : 31 Mar 2011 12:46 am Operator: BrianR  
 Sample : D22183-11 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:52 2011 Quant Results File: TA582GA534.RES

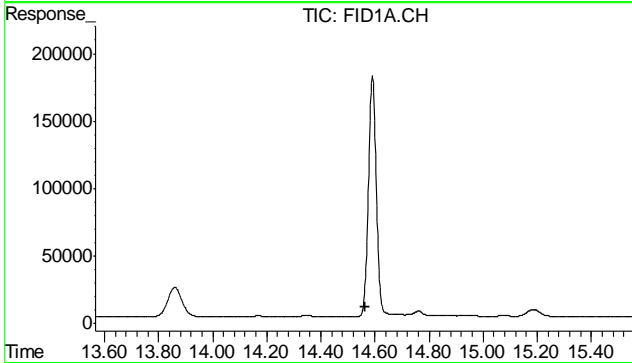
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:52:07 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

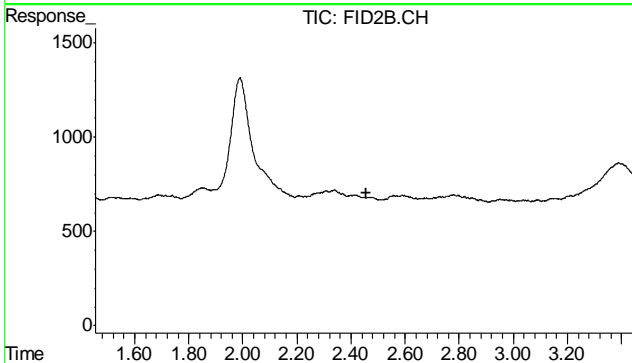




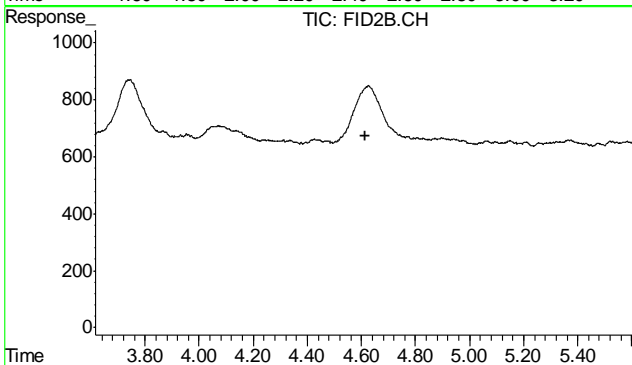
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



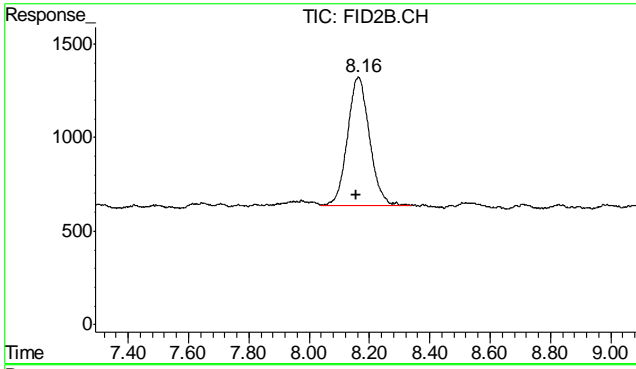
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



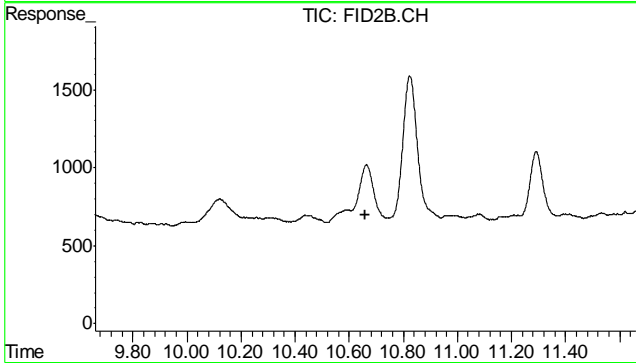
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.454 min  
 Response: 0  
 Conc: N.D.



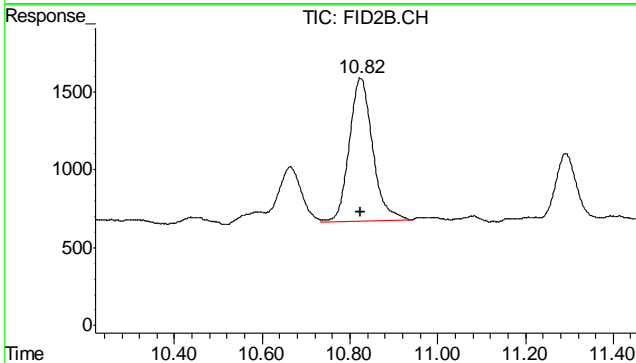
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.616 min  
 Response: 0  
 Conc: N.D.



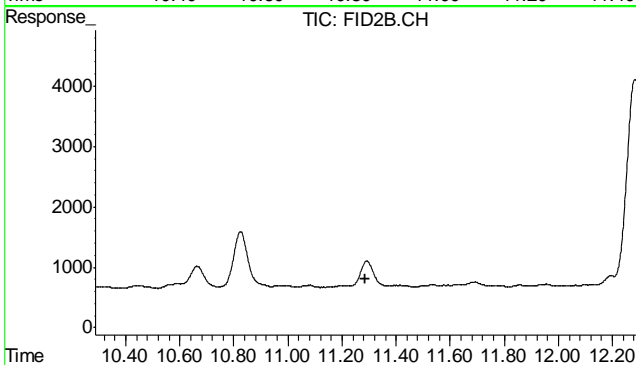
#6 Toluene  
 R.T.: 8.164 min  
 Delta R.T.: 0.008 min  
 Response: 34513  
 Conc: 0.14 ug/L



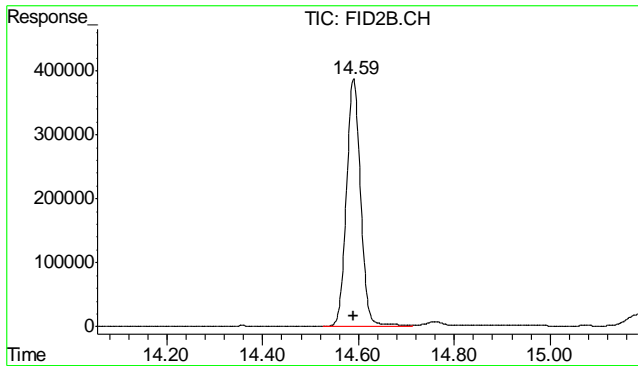
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.661 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 10.825 min  
 Delta R.T.: 0.000 min  
 Response: 34015  
 Conc: 0.13 ug/L

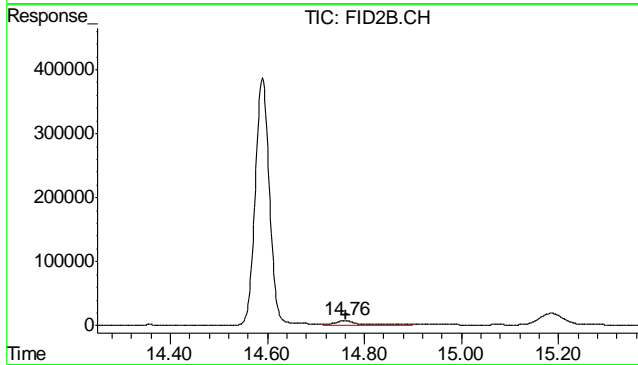


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.287 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.590 min  
 Delta R.T.: 0.000 min  
 Response: 7896175  
 Conc: 101.34 %



#11 Naphthalene

R.T.: 14.761 min  
 Delta R.T.: -0.002 min  
 Response: 250101  
 Conc: 1.78 ug/L

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0846.D\FID1A.CH Vial: 20
Signal #2 : Z:\033011\TA0846.D\FID2B.CH
Acq On : 31 Mar 2011 1:21 am Operator: BrianR
Sample : D22183-12 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:52:37 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:52:07 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

6.1.25
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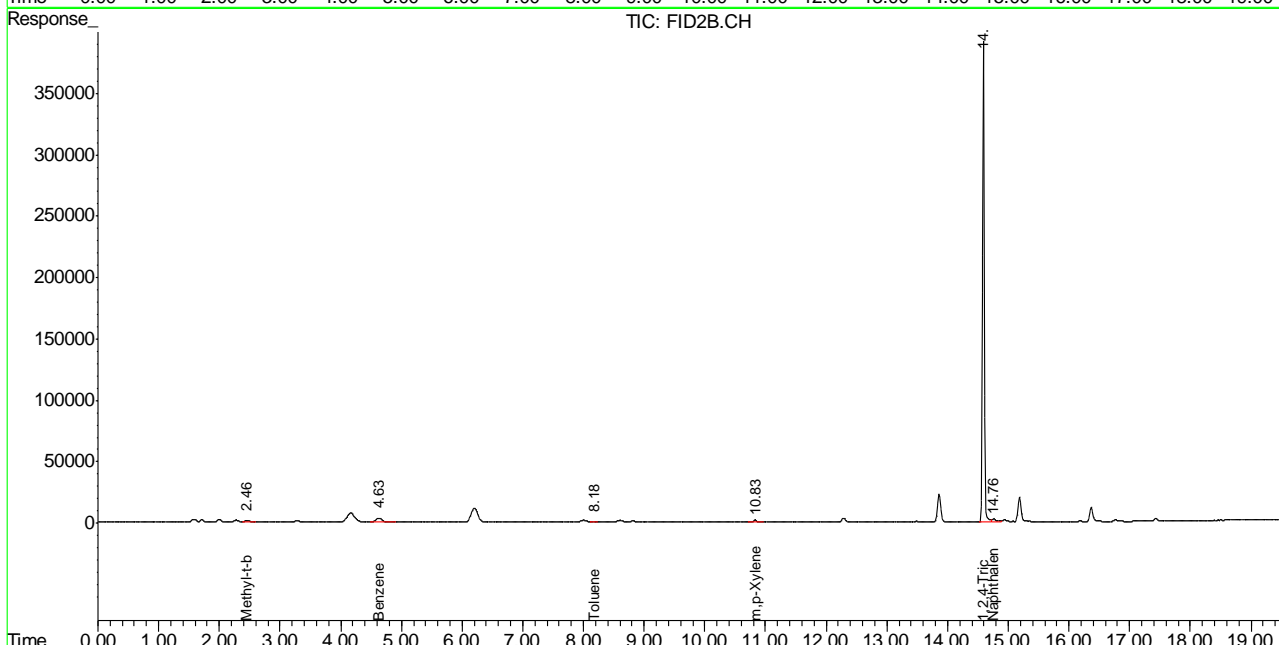
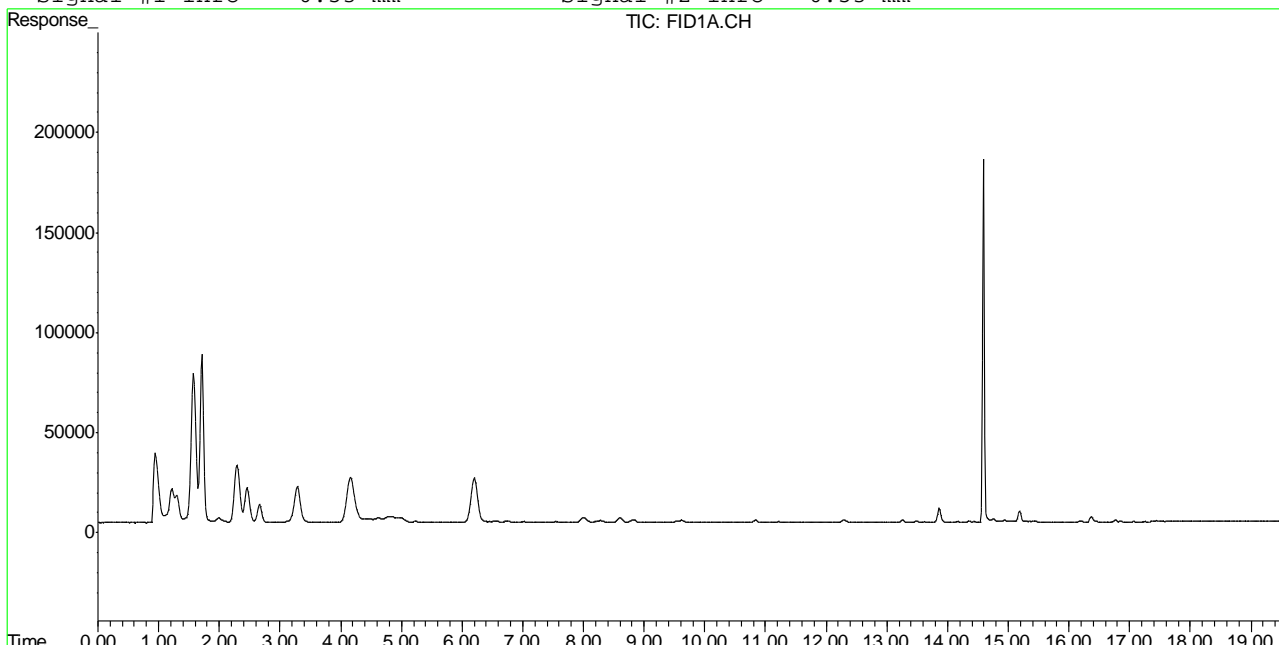
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0846.D TA582GA534.M Fri Apr 01 09:34:01 2011 GC

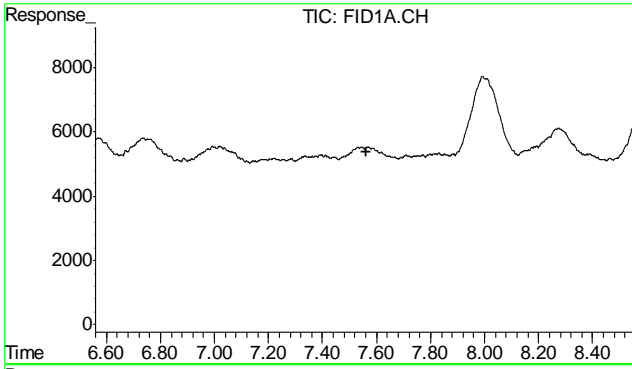
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0846.D\FID1A.CH Vial: 20  
 Signal #2 : Z:\033011\TA0846.D\FID2B.CH  
 Acq On : 31 Mar 2011 1:21 am Operator: BrianR  
 Sample : D22183-12 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:52 2011 Quant Results File: TA582GA534.RES

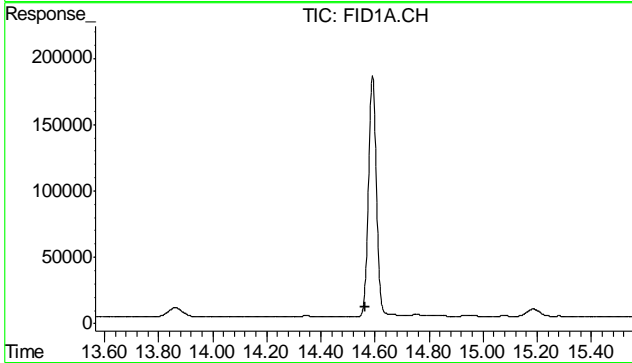
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:52:07 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

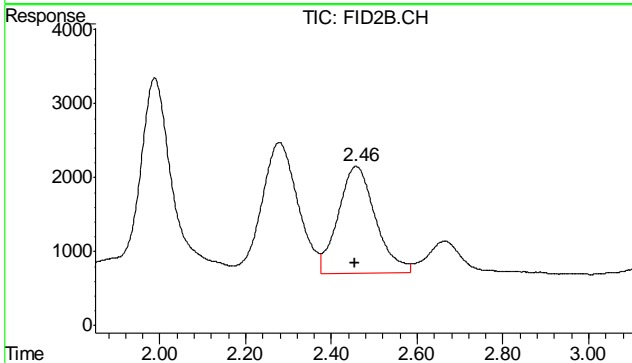




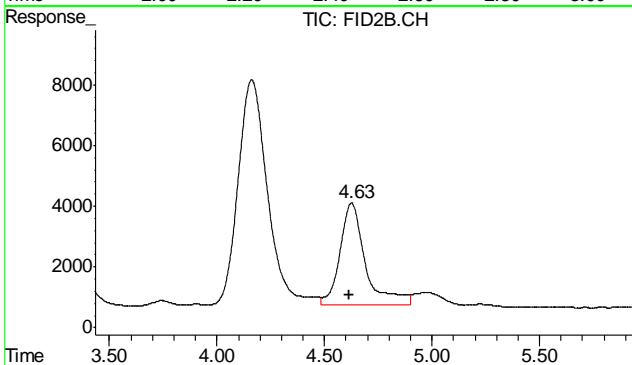
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



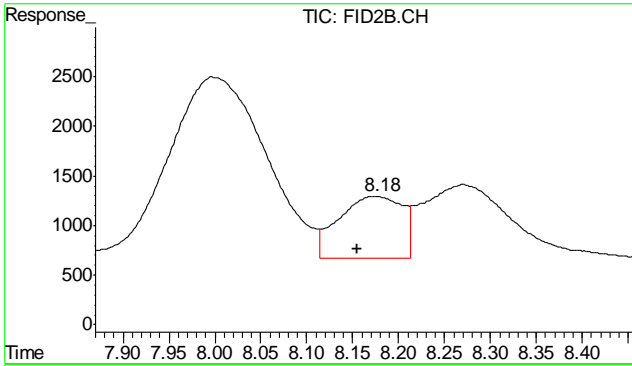
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



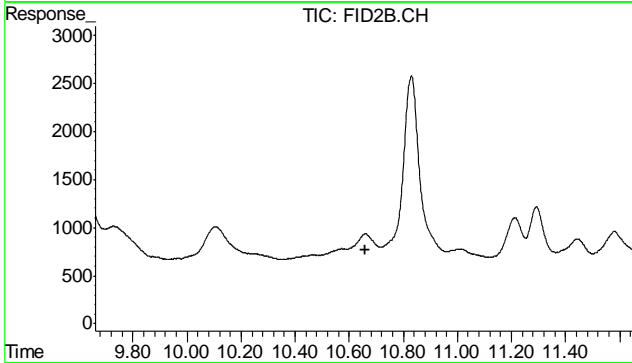
#4 Methyl-t-butyl-ether  
 R.T.: 2.458 min  
 Delta R.T.: 0.004 min  
 Response: 87230  
 Conc: 1.01 ug/L



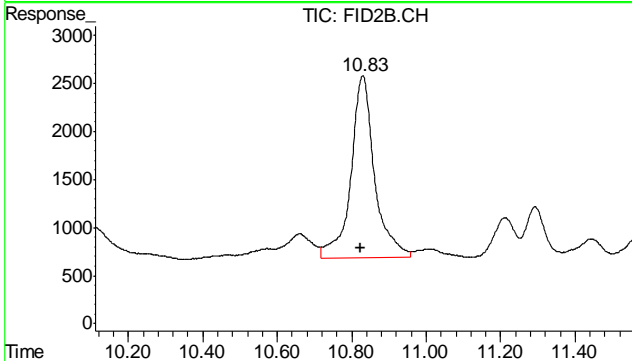
#5 Benzene  
 R.T.: 4.625 min  
 Delta R.T.: 0.009 min  
 Response: 281199  
 Conc: 1.02 ug/L



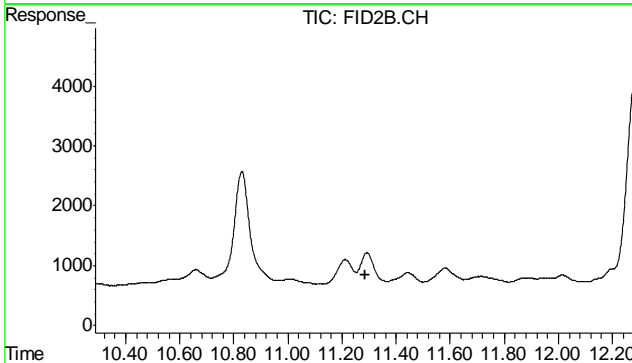
#6 Toluene  
 R.T.: 8.176 min  
 Delta R.T.: 0.020 min  
 Response: 30350  
 Conc: 0.12 ug/L



#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.661 min  
 Response: 0  
 Conc: N.D.

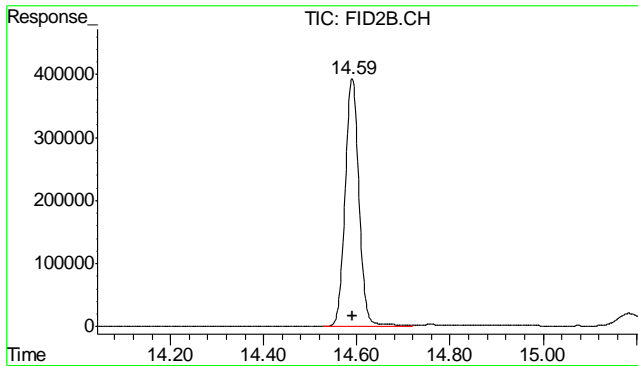


#8 m,p-Xylene  
 R.T.: 10.830 min  
 Delta R.T.: 0.006 min  
 Response: 84247  
 Conc: 0.33 ug/L



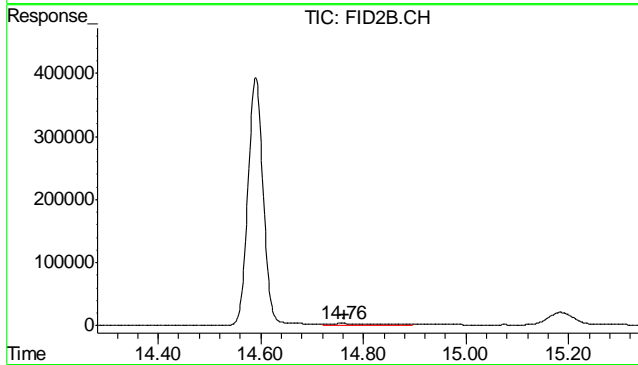
#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.287 min  
 Response: 0  
 Conc: N.D.





#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.590 min  
 Delta R.T.: 0.000 min  
 Response: 8097764  
 Conc: 103.92 %



#11 Naphthalene

R.T.: 14.758 min  
 Delta R.T.: -0.004 min  
 Response: 115405  
 Conc: 0.82 ug/L

6.1.25

6

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0847.D\FID1A.CH Vial: 21  
Signal #2 : Z:\033011\TA0847.D\FID2B.CH  
Acq On : 31 Mar 2011 1:56 am Operator: BrianR  
Sample : D22183-13 Inst : BTEX2  
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
Quant Time: Apr 01 08:52:40 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
Title : 8015B/8021B TVH/BTEX  
Last Update : Fri Apr 01 08:52:07 2011  
Response via : Initial 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

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	0.00	0	N.D.	% d
10) S 1,2,4-Trichlorobenzene (P)	14.59	7887972	101.231	% m
Target Compounds				
1) H TVH-Gasoline	0.00	0	N.D.	mg/L
4) T Methyl-t-butyl-ether	2.46	125887	1.451	ug/L
5) T Benzene	4.63	67609	0.246	ug/L
6) T Toluene	8.18	32792	0.129	ug/L
7) T Ethylbenzene	0.00	0	N.D.	ug/L d
8) T m,p-Xylene	10.83	74051	0.287	ug/L
9) T o-Xylene	0.00	0	N.D.	ug/L d
11) T Naphthalene	14.76	91751	0.654	ug/L

(f)=RT Delta > 1/2 Window (m)=manual int.  
TA0847.D TA582GA534.M Fri Apr 01 09:34:04 2011 GC

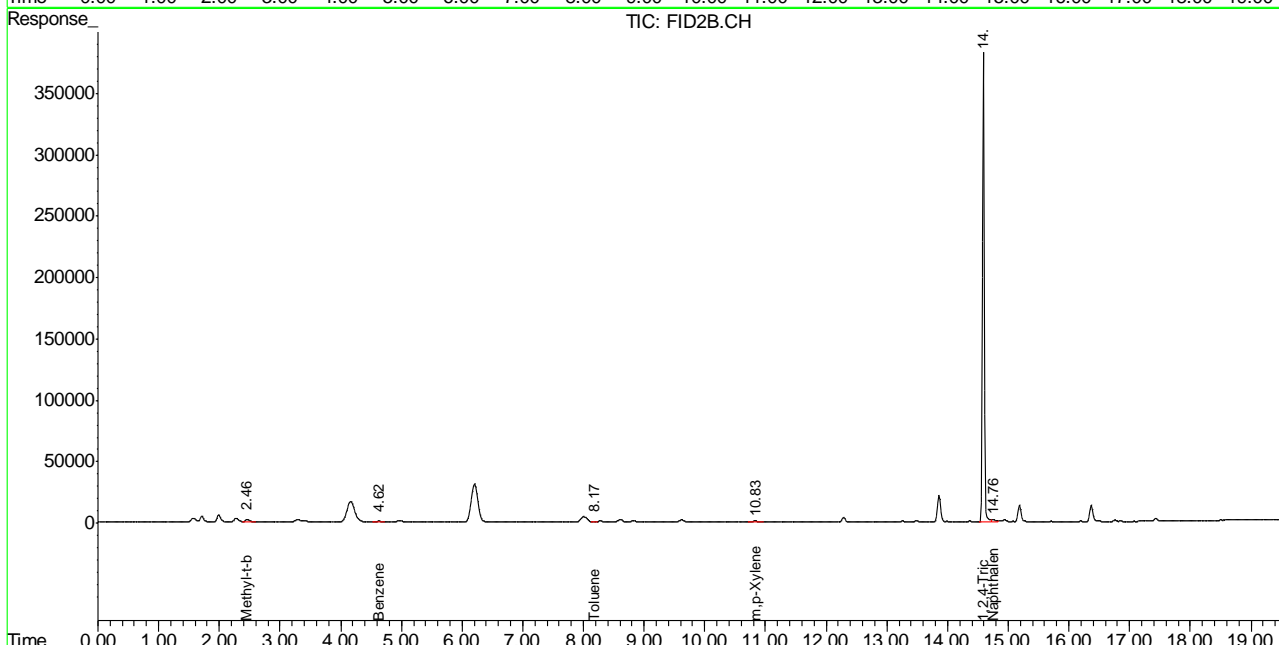
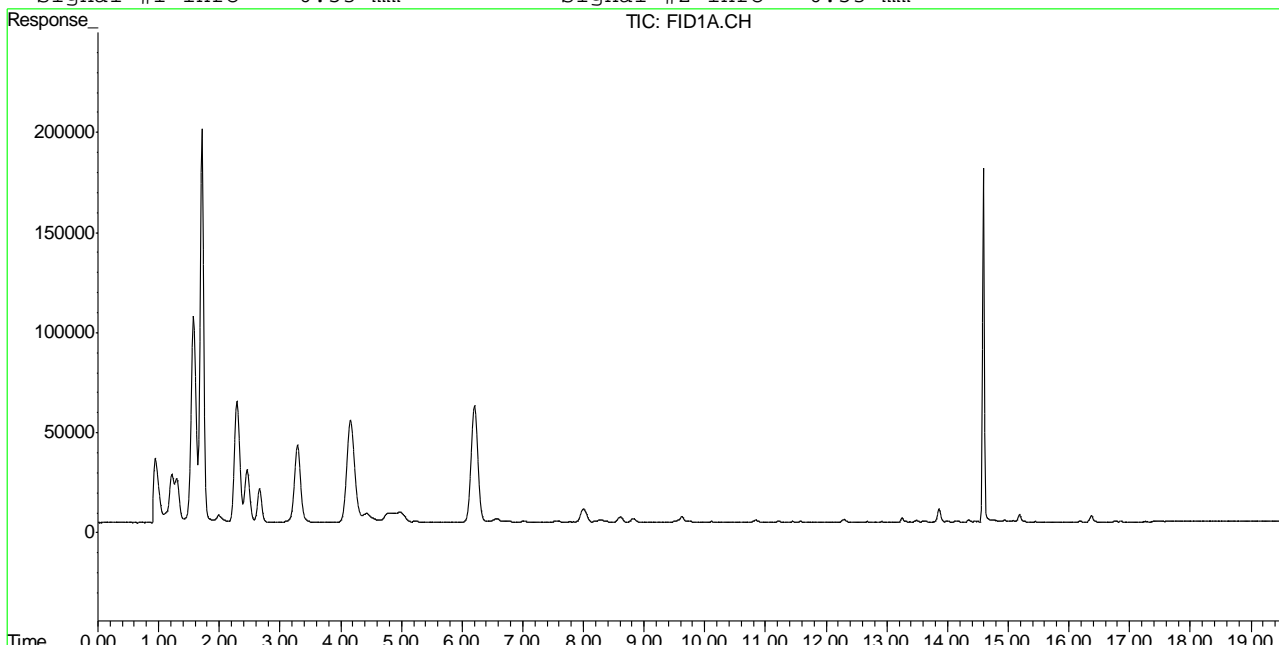
6.1.26  
6

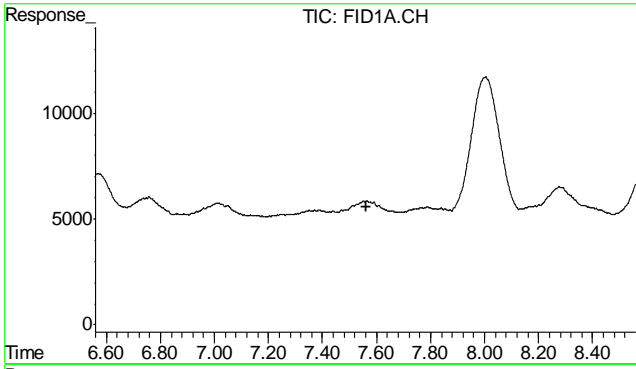
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0847.D\FID1A.CH Vial: 21  
 Signal #2 : Z:\033011\TA0847.D\FID2B.CH  
 Acq On : 31 Mar 2011 1:56 am Operator: BrianR  
 Sample : D22183-13 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:53 2011 Quant Results File: TA582GA534.RES

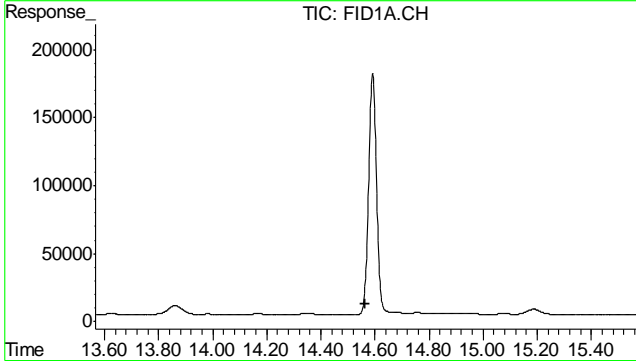
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:52:07 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

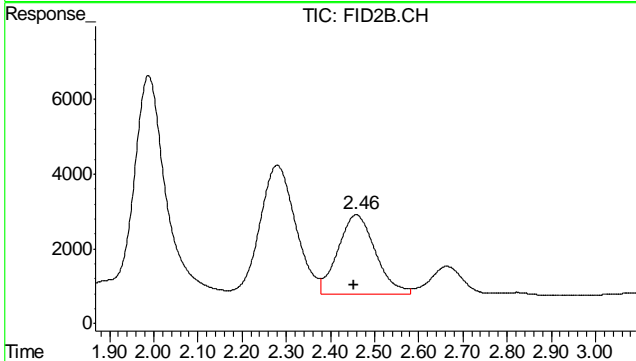




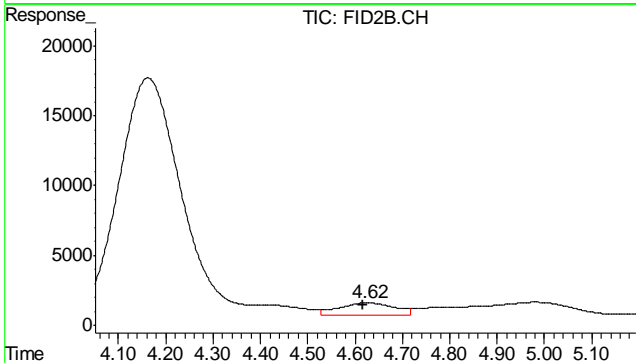
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T.: 7.560 min  
 Response: 0  
 Conc: N.D.



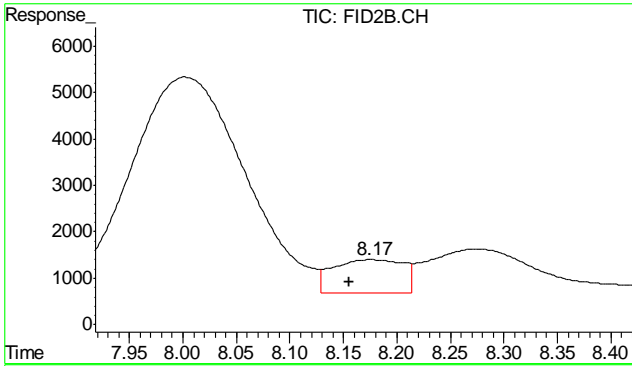
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T.: 14.565 min  
 Response: 0  
 Conc: N.D.



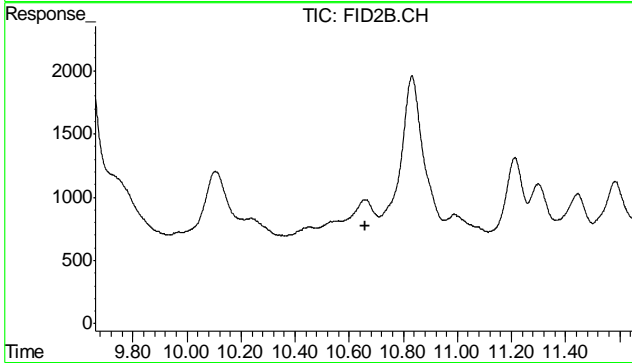
#4 Methyl-t-butyl-ether  
 R.T.: 2.459 min  
 Delta R.T.: 0.004 min  
 Response: 125887  
 Conc: 1.45 ug/L



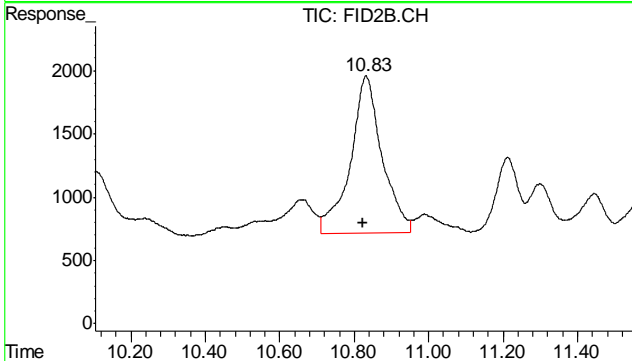
#5 Benzene  
 R.T.: 4.626 min  
 Delta R.T.: 0.010 min  
 Response: 67609  
 Conc: 0.25 ug/L



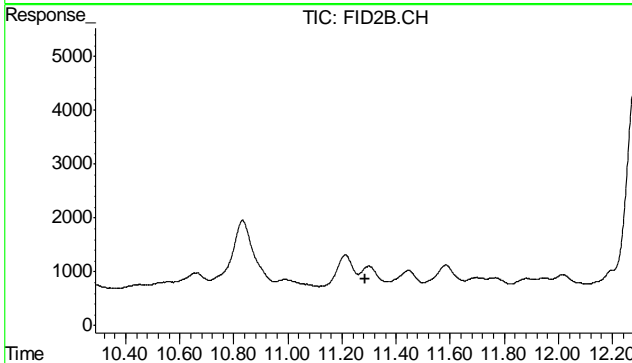
#6 Toluene  
 R.T.: 8.175 min  
 Delta R.T.: 0.020 min  
 Response: 32792  
 Conc: 0.13 ug/L



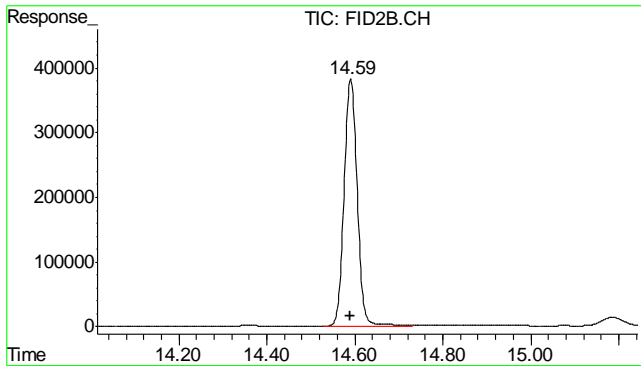
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.661 min  
 Response: 0  
 Conc: N.D.



#8 m,p-Xylene  
 R.T.: 10.832 min  
 Delta R.T.: 0.008 min  
 Response: 74051  
 Conc: 0.29 ug/L

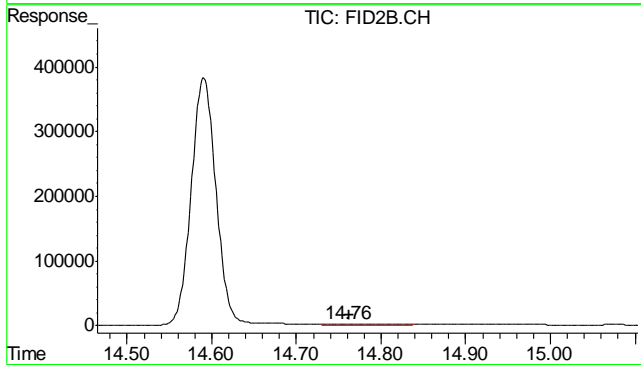


#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.287 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.590 min  
 Delta R.T.: 0.000 min  
 Response: 7887972  
 Conc: 101.23 % m



#11 Naphthalene

R.T.: 14.759 min  
 Delta R.T.: -0.004 min  
 Response: 91751  
 Conc: 0.65 ug/L

6.1.26

6

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0848.D\FID1A.CH Vial: 22
Signal #2 : Z:\033011\TA0848.D\FID2B.CH
Acq On : 31 Mar 2011 2:32 am Operator: BrianR
Sample : D22183-14 Inst : BTEX2
Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00
IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E
Quant Time: Apr 01 08:52:43 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)
Title : 8015B/8021B TVH/BTEX
Last Update : Fri Apr 01 08:52:07 2011
Response via : Initial 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

Table with 4 columns: Compound, R.T., Response, Conc Units. Includes System Monitoring Compounds (1,2,4-Trichlorobenzene) and Target Compounds (TVH-Gasoline, Methyl-t-butyl-ether, Benzene, Toluene, Ethylbenzene, m,p-Xylene, o-Xylene, Naphthalene).

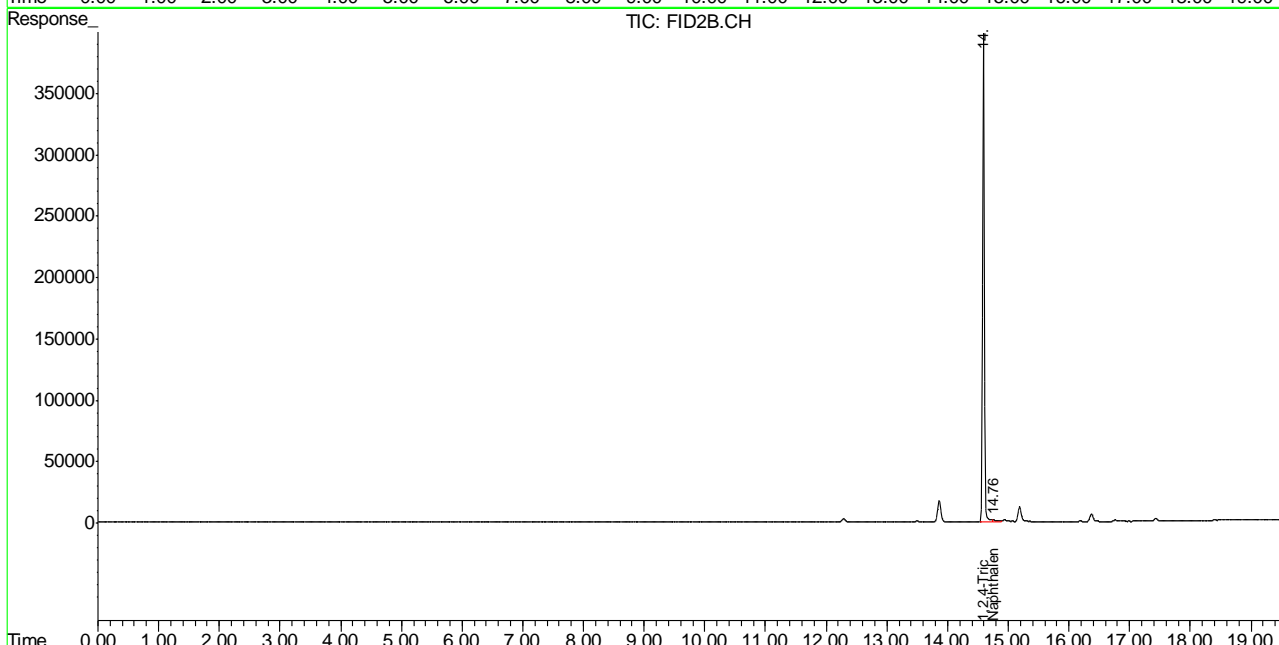
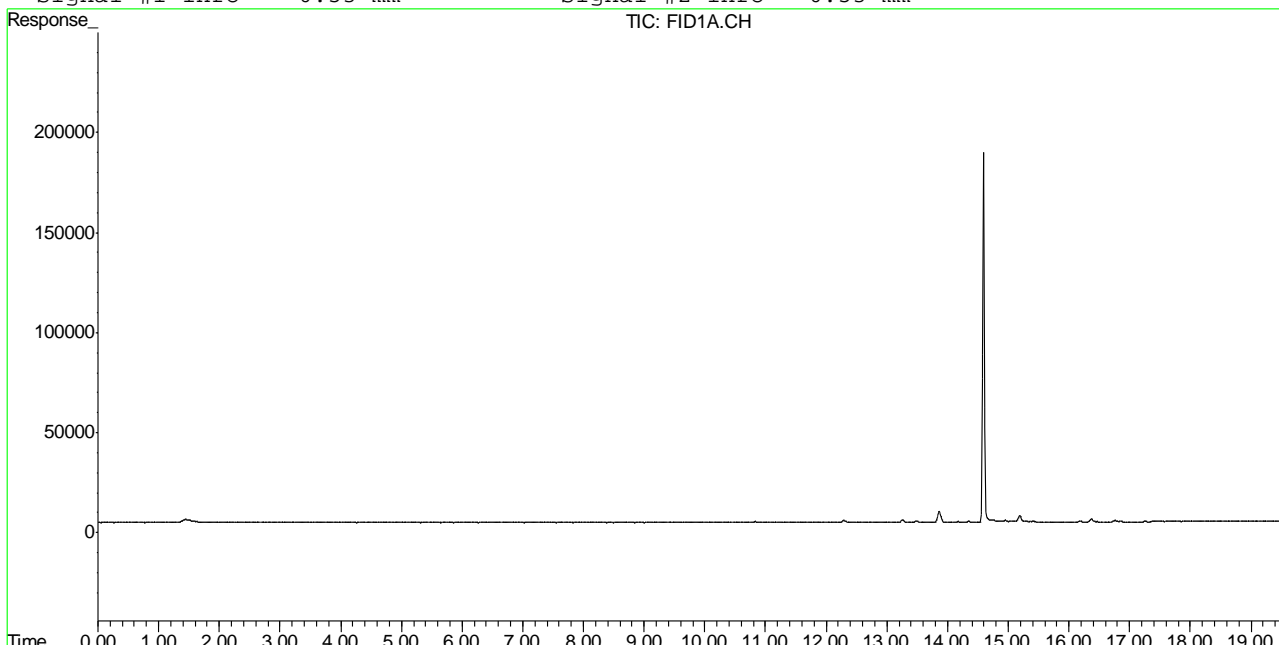
(f)=RT Delta > 1/2 Window (m)=manual int.
TA0848.D TA582GA534.M Fri Apr 01 09:34:06 2011 GC

Quantitation Report (QT Reviewed)

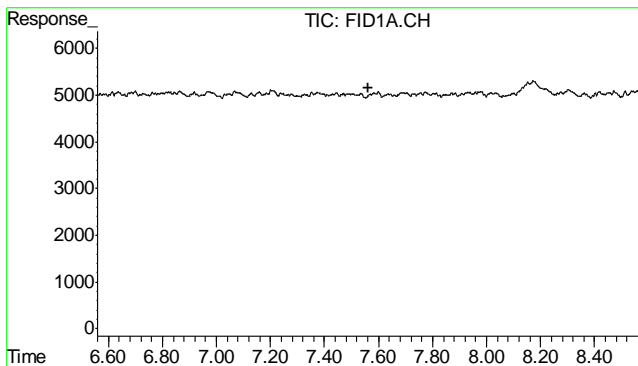
Signal #1 : Z:\033011\TA0848.D\FID1A.CH Vial: 22  
 Signal #2 : Z:\033011\TA0848.D\FID2B.CH  
 Acq On : 31 Mar 2011 2:32 am Operator: BrianR  
 Sample : D22183-14 Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:53 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:52:07 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

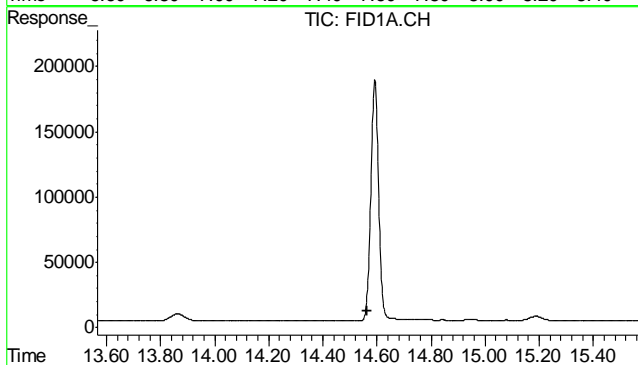
Volume Inj. :  
 Signal #1 Phase : DB-624 Signal #2 Phase: DB-624  
 Signal #1 Info : 0.53 mm Signal #2 Info : 0.53 mm



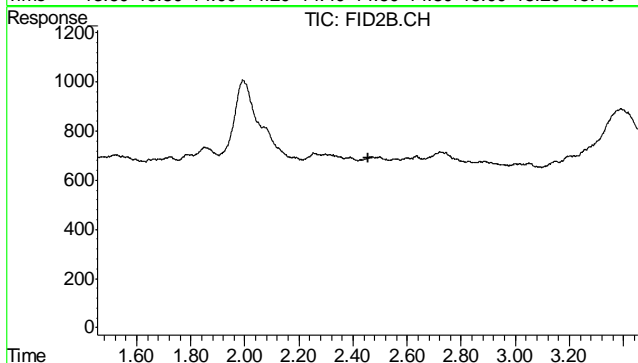




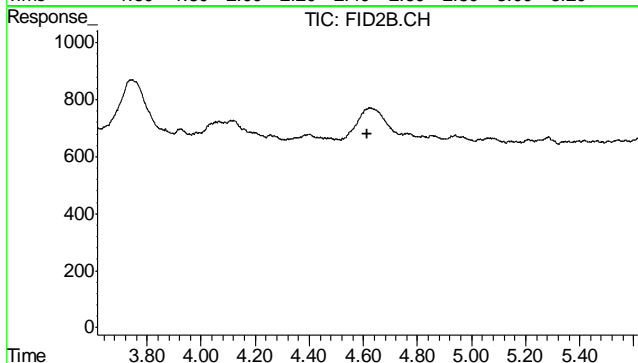
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



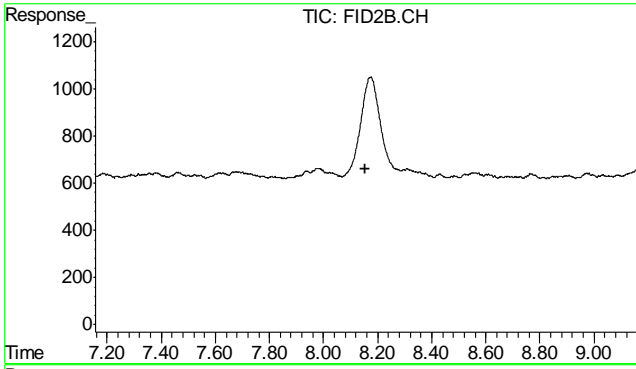
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



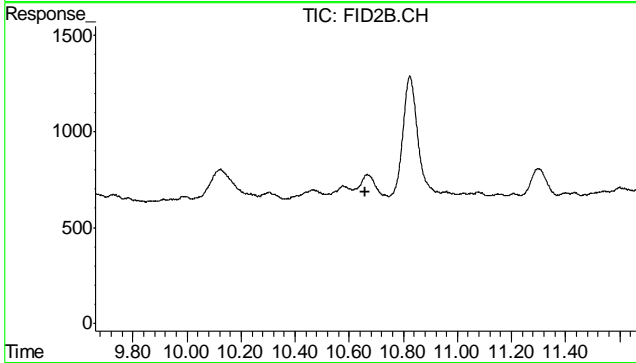
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.454 min  
 Response: 0  
 Conc: N.D.



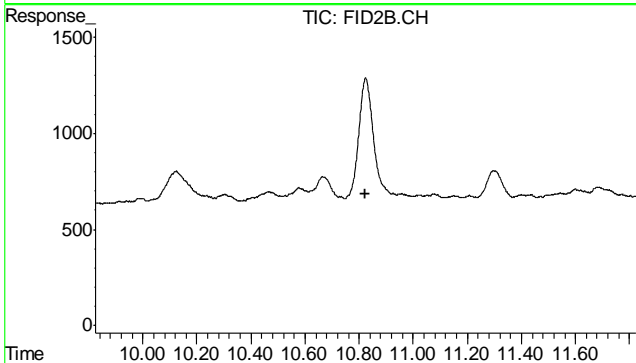
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 4.616 min  
 Response: 0  
 Conc: N.D.



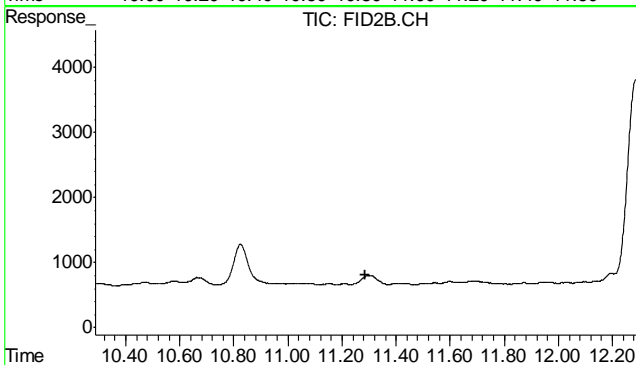
#6 Toluene  
 R.T.: 0.000 min  
 Exp R.T. : 8.155 min  
 Response: 0  
 Conc: N.D.



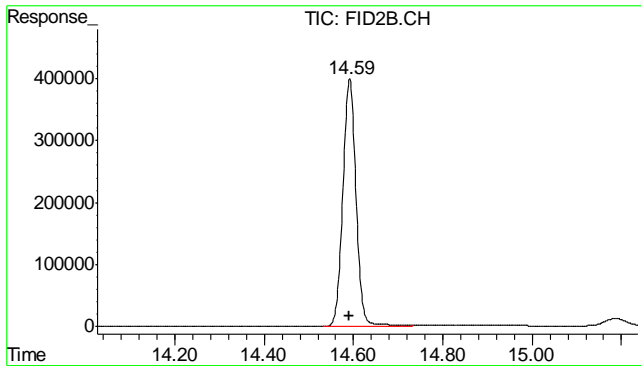
#7 Ethylbenzene  
 R.T.: 0.000 min  
 Exp R.T. : 10.661 min  
 Response: 0  
 Conc: N.D.



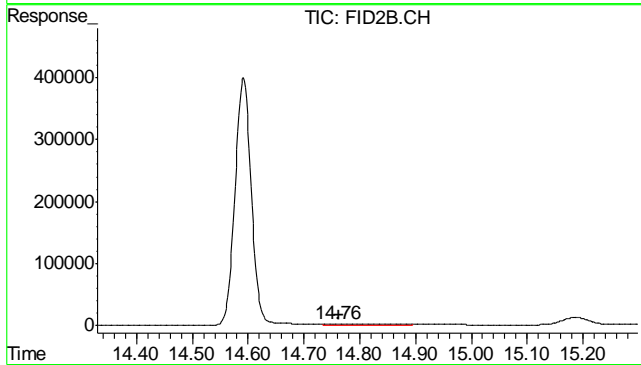
#8 m,p-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 10.824 min  
 Response: 0  
 Conc: N.D.



#9 o-Xylene  
 R.T.: 0.000 min  
 Exp R.T. : 11.287 min  
 Response: 0  
 Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)  
 R.T.: 14.592 min  
 Delta R.T.: 0.000 min  
 Response: 8128735  
 Conc: 104.32 %



#11 Naphthalene  
 R.T.: 14.757 min  
 Delta R.T.: -0.006 min  
 Response: 114312  
 Conc: 0.81 ug/L

6.1.27

6

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3499.D Vial: 4  
 Acq On : 30 Mar 2011 12:35 pm Operator: jacobb  
 Sample : MB Inst : FID4  
 Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Mar 30 12:39:12 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Tue Jan 11 10:48:20 2011  
 Response via : Initial Calibration  
 DataAcq Meth : GAS.M

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

Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) S Propane	2.15	13516011	365.264 rawvp
Target Compounds			

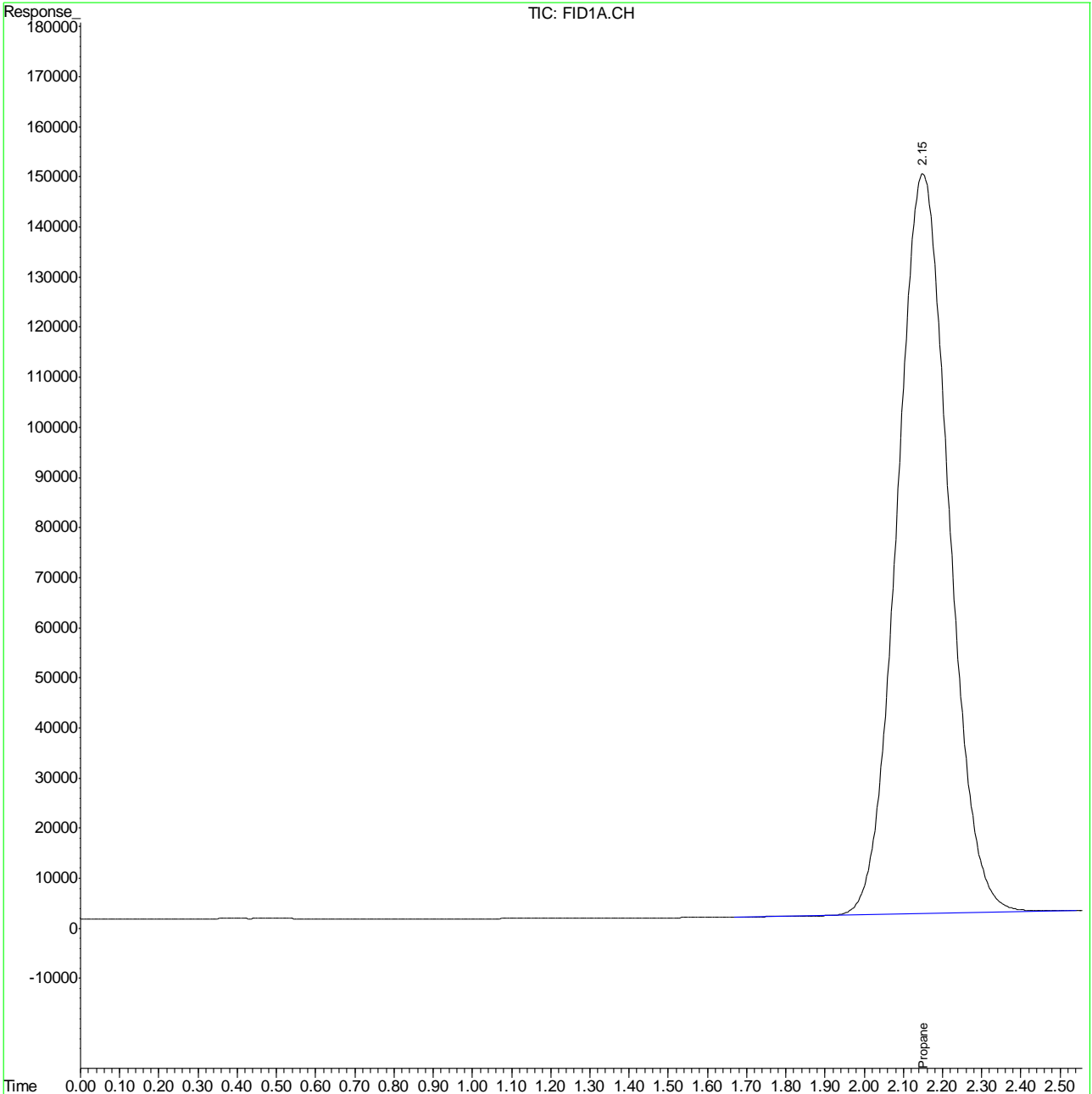
-----  
 (f)=RT Delta > 1/2 Window (m)=manual int.  
 FB3499.D MEEP-GFB91.M Thu Mar 31 12:21:46 2011 GCFA

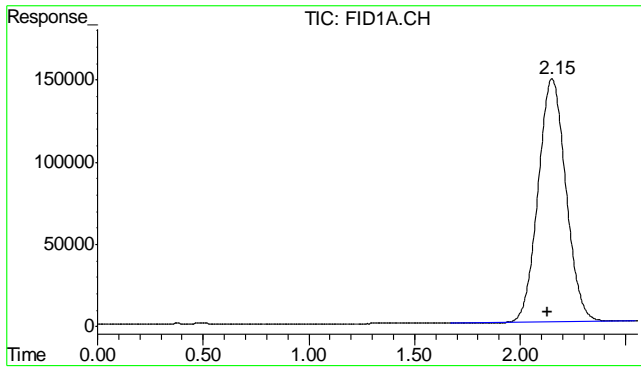
Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB033011\FB3499.D Vial: 4  
 Acq On : 30 Mar 2011 12:35 pm Operator: jacobb  
 Sample : MB Inst : FID4  
 Misc : 500uL|GC1772,GFB102,,,,,1 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Mar 30 13:45 2011 Quant Results File: MEEP-GFB91.RES

Quant Method : C:\MSDCHEM\2\METHODS\MEEP-GFB91.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Tue Jan 11 10:48:20 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : GAS.M

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





#4 Propane  
R.T.: 2.150 min  
Delta R.T.: 0.022 min  
Response: 13516011  
Conc: 365.26 rawvppm

Quantitation Report (QT Reviewed)

Data File : F:\DATA\FB040711\FB3611.D Vial: 35  
 Acq On : 7 Apr 2011 3:39 pm Operator: erikah  
 Sample : MB Inst : FID4  
 Misc : 500uL|GC1795,GFB104,,,,,1 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Apr 07 15:51:33 2011 Quant Results File: MEEP-GFB104.RES

Quant Method : C:\MSDCHEM\2...\MEEP-GFB104.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Thu Apr 07 15:45:28 2011  
 Response via : Initial Calibration  
 DataAcq Meth : GAS.M

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

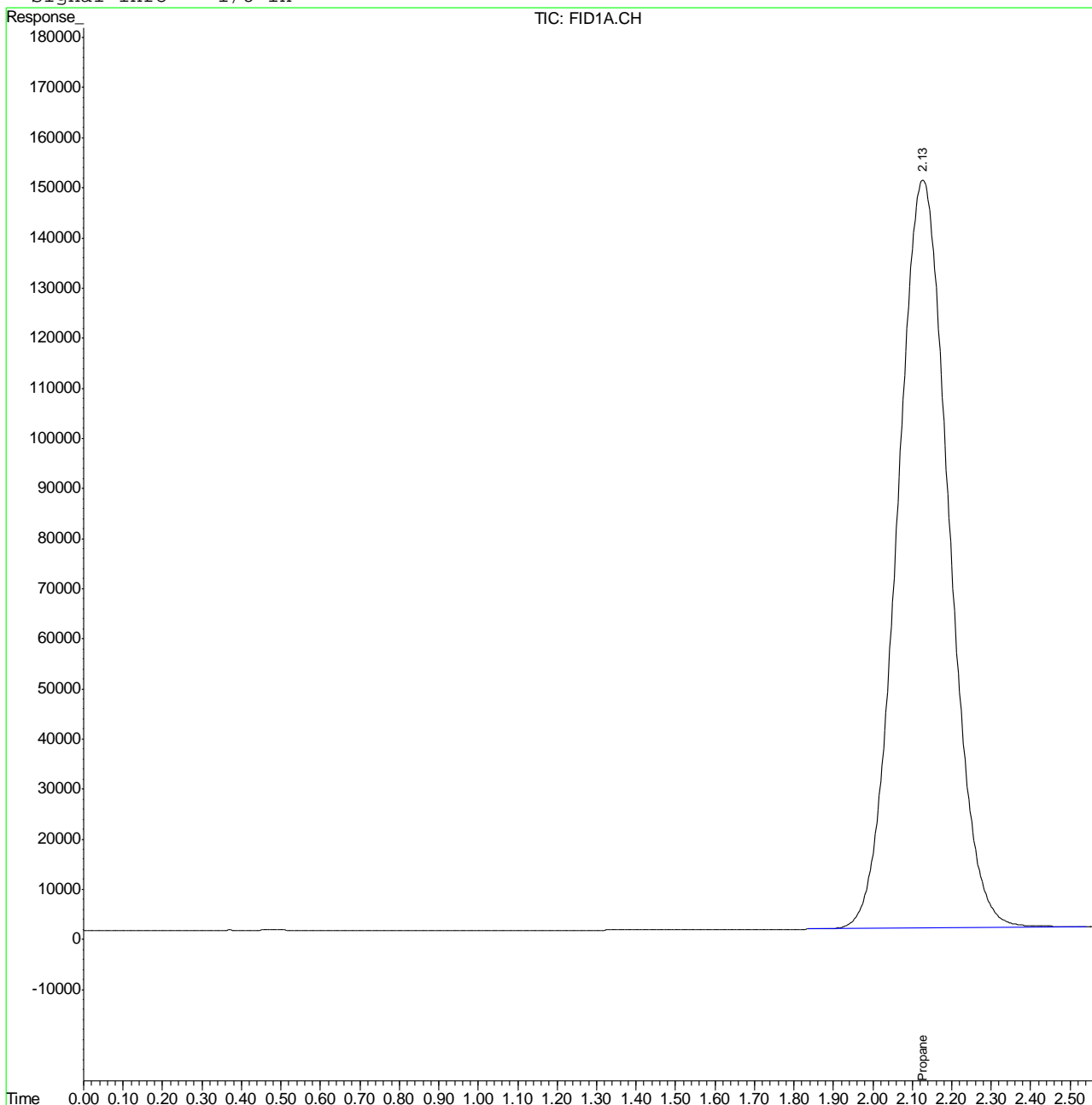
Compound	R.T.	Response	Conc Units
-----			
System Monitoring Compounds			
4) S Propane	2.13	13612601	374.519 rawvp
Target Compounds			

Quantitation Report (QT Reviewed)

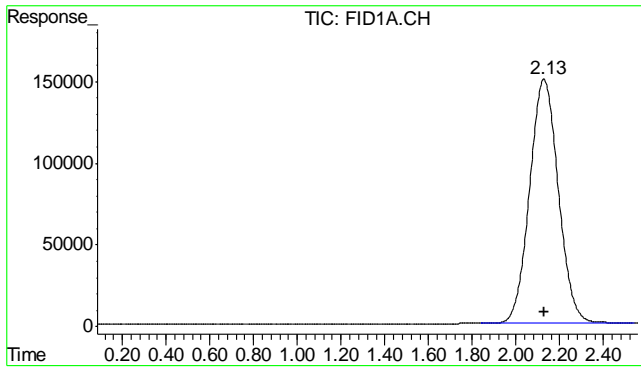
Data File : F:\DATA\FB040711\FB3611.D Vial: 35  
 Acq On : 7 Apr 2011 3:39 pm Operator: erikah  
 Sample : MB Inst : FID4  
 Misc : 500uL|GC1795,GFB104,,,,,1 Multiplr: 1.00  
 IntFile : autoint1.e  
 Quant Time: Apr 7 15:43 2011 Quant Results File: MEEP-GFB104.RES

Quant Method : C:\MSDCHEM\2...\MEEP-GFB104.M (Chemstation Integrator)  
 Title : RSK 175 Methane, Ethene, Ethane, and Propane  
 Last Update : Thu Apr 07 15:45:28 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : GAS.M

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







#4 Propane

R.T.: 2.128 min  
Delta R.T.: -0.002 min  
Response: 13612601  
Conc: 374.52 rawvppm

Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0830.D\FID1A.CH Vial: 4  
 Signal #2 : Z:\033011\TA0830.D\FID2B.CH  
 Acq On : 30 Mar 2011 3:54 pm Operator: BrianR  
 Sample : MB, W Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 01 08:29:27 2011 Quant Results File: TA582GA534.RES

Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:29:08 2011  
 Response via : Initial 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

Compound	R.T.	Response	Conc	Units
System Monitoring Compounds				
2) S 1,2,4-Trichlorobenzene	0.00	0	N.D.	% d
10) S 1,2,4-Trichlorobenzene (P)	14.77	9537977	122.407	%
Target Compounds				
1) H TVH-Gasoline	0.00	0	N.D.	mg/L
4) T Methyl-t-butyl-ether	0.00	0	N.D.	ug/L d
5) T Benzene	0.00	0	N.D.	ug/L d
6) T Toluene	8.55	163484	0.642	ug/L
7) T Ethylbenzene	0.00	0	N.D.	ug/L
8) T m,p-Xylene	11.09	47613	0.184	ug/L
9) T o-Xylene	0.00	0	N.D.	ug/L
11) T Naphthalene	14.94	302789	2.157	ug/L

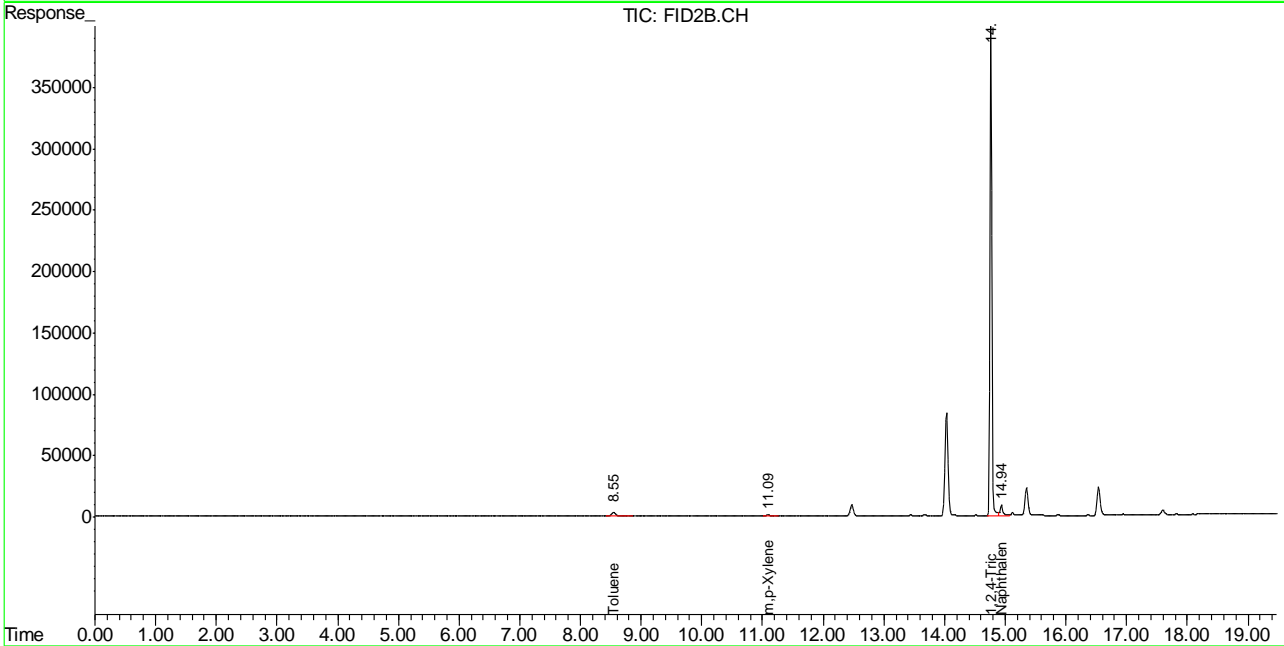
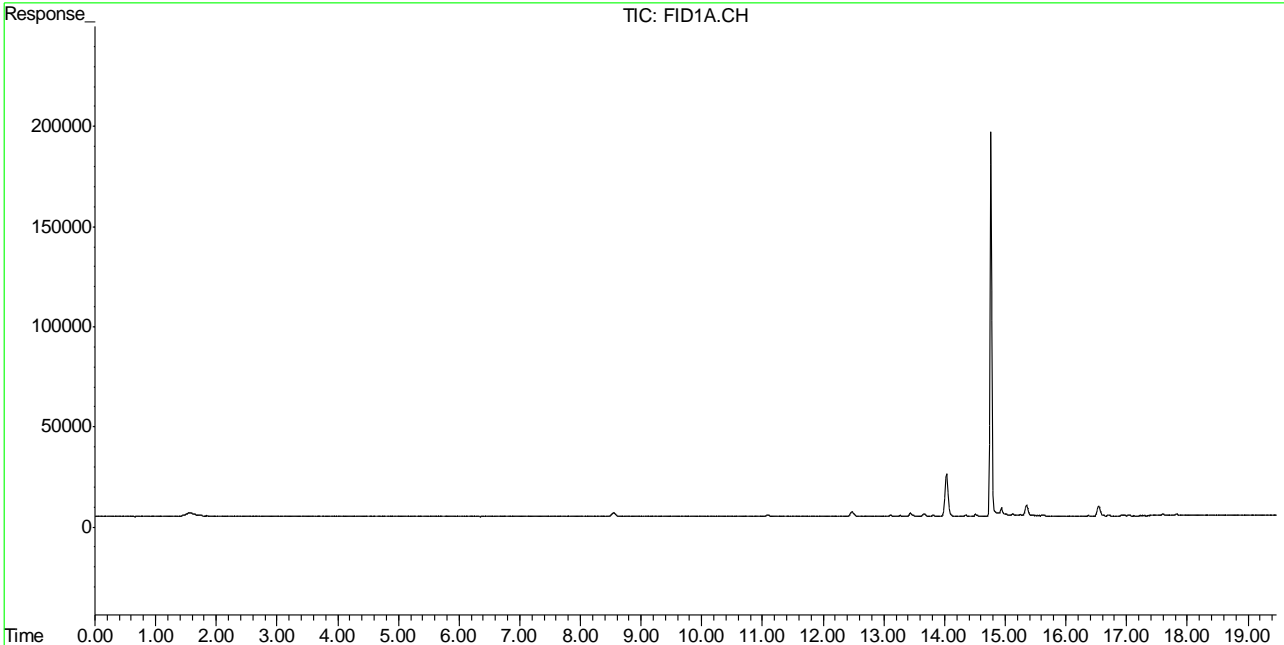
(f)=RT Delta > 1/2 Window (m)=manual int.  
 TA0830.D TA582GA534.M Fri Apr 01 09:33:19 2011 GC

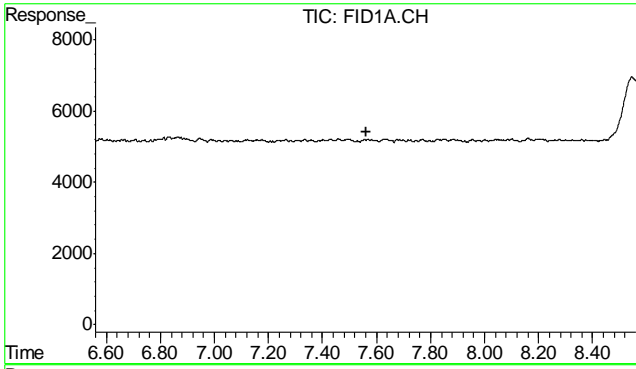
Quantitation Report (QT Reviewed)

Signal #1 : Z:\033011\TA0830.D\FID1A.CH Vial: 4  
 Signal #2 : Z:\033011\TA0830.D\FID2B.CH  
 Acq On : 30 Mar 2011 3:54 pm Operator: BrianR  
 Sample : MB, W Inst : BTEX2  
 Misc : GC1773,GTA601,,,,,1 Multiplr: 1.00  
 IntFile Signal #1: TVH1.E IntFile Signal #2: FB2.E  
 Quant Time: Apr 1 6:29 2011 Quant Results File: TA582GA534.RES

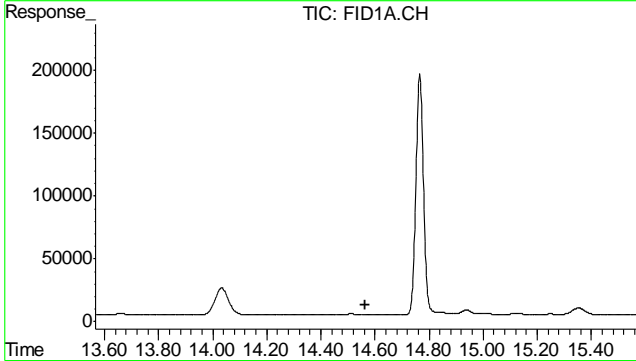
Quant Method : C:\MSDCHEM\1\METHODS\TA582GA534.M (Chemstation Integrator)  
 Title : 8015B/8021B TVH/BTEX  
 Last Update : Fri Apr 01 08:29:08 2011  
 Response via : Multiple Level Calibration  
 DataAcq Meth : TVB2.M

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

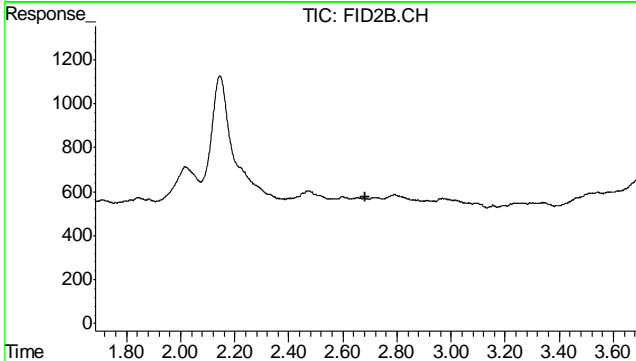




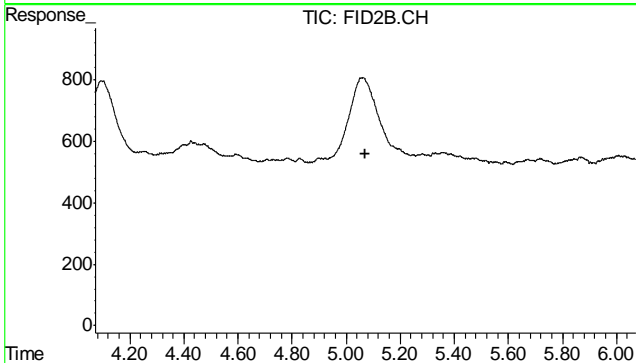
#1 TVH-Gasoline  
 R.T.: 0.000 min  
 Exp R.T. : 7.560 min  
 Response: 0  
 Conc: N.D.



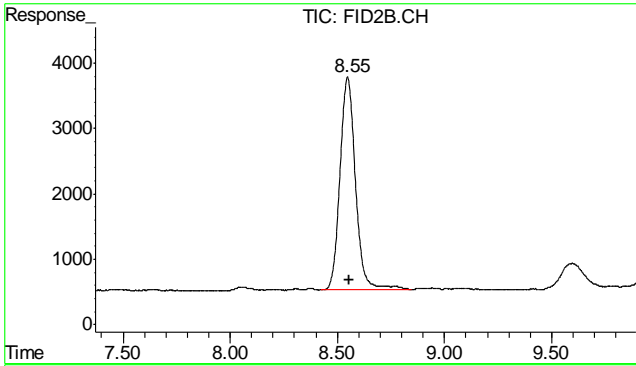
#2 1,2,4-Trichlorobenzene  
 R.T.: 0.000 min  
 Exp R.T. : 14.565 min  
 Response: 0  
 Conc: N.D.



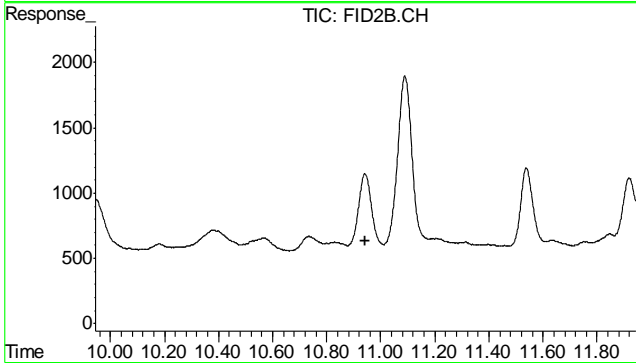
#4 Methyl-t-butyl-ether  
 R.T.: 0.000 min  
 Exp R.T. : 2.684 min  
 Response: 0  
 Conc: N.D.



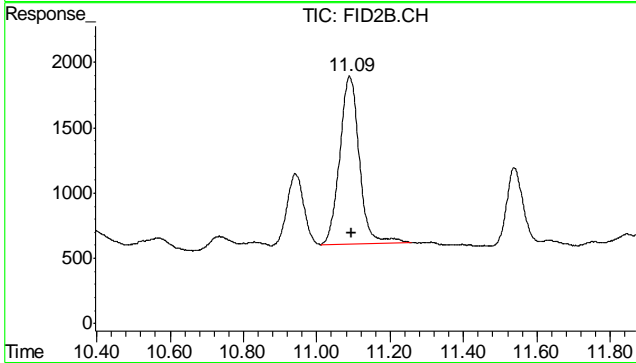
#5 Benzene  
 R.T.: 0.000 min  
 Exp R.T. : 5.072 min  
 Response: 0  
 Conc: N.D.



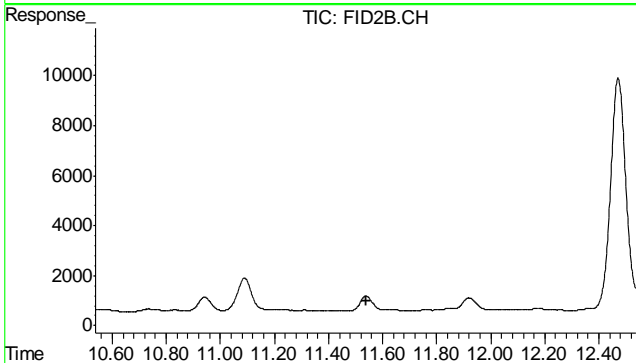
#6 Toluene  
R.T.: 8.548 min  
Delta R.T.: -0.010 min  
Response: 163484  
Conc: 0.64 ug/L



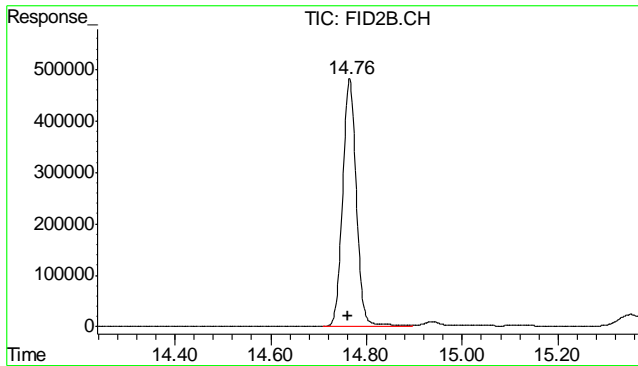
#7 Ethylbenzene  
R.T.: 0.000 min  
Exp R.T.: 10.944 min  
Response: 0  
Conc: N.D.



#8 m,p-Xylene  
R.T.: 11.090 min  
Delta R.T.: -0.006 min  
Response: 47613  
Conc: 0.18 ug/L

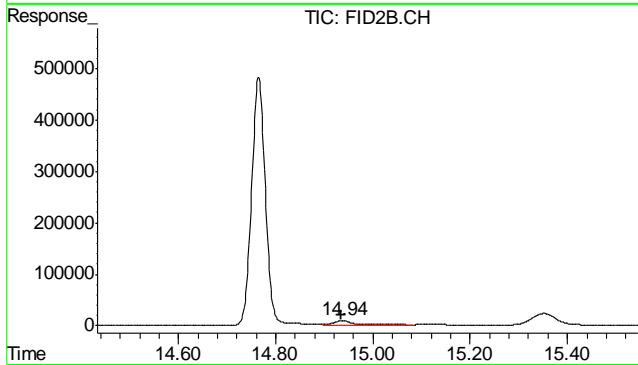


#9 o-Xylene  
R.T.: 0.000 min  
Exp R.T.: 11.538 min  
Response: 0  
Conc: N.D.



#10 1,2,4-Trichlorobenzene (P)

R.T.: 14.765 min  
 Delta R.T.: 0.003 min  
 Response: 9537977  
 Conc: 122.41 %



#11 Naphthalene

R.T.: 14.938 min  
 Delta R.T.: 0.003 min  
 Response: 302789  
 Conc: 2.16 ug/L

## Metals Analysis

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## QC Data Summaries

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Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: D22183  
Account: COCSCOG - Olsson Associates - Denver  
Project: West Divide Creek Quarterly

QC Batch ID: MP4365  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date: 03/31/11

Metal	RL	IDL	MDL	MB raw	final
Aluminum	100	7	49		
Antimony	30	1.7	13		
Arsenic	25	2.8	6.5		
Barium	10	.14	2.4		
Beryllium	10	1.4	4.4		
Boron	50	3.5	19		
Cadmium	10	.22	1.2		
Calcium	400	17	9.2		
Chromium	10	.27	1.6		
Cobalt	5.0	.48	.3		
Copper	10	1.6	2.7		
Iron	70	7.7	10		
Lead	50	1.3	3.2		
Lithium	2.0	.76	1.6		
Magnesium	200	5.8	12		
Manganese	5.0	.21	.7		
Molybdenum	10	.41	1.2		
Nickel	30	.38	.6		
Phosphorus	100	15	54		
Potassium	1000	380	540		
Selenium	50	2.8	7.2		
Silicon	50	12	20		
Silver	30	.98	.3		
Sodium	400	230	23	13.9	<400
Strontium	5.0	.091	3.4		
Thallium	10	3.1	2.1		
Tin	50	14	4.4		
Titanium	10	.098	.7		
Uranium	50	2.2	3.9		
Vanadium	10	.27	.3		
Zinc	30	.76	1.7		

Associated samples MP4365: D22183-1F, D22183-2F, D22183-3F, D22183-4F, D22183-5F, D22183-6F, D22183-7F, D22183-8F, D22183-9F, D22183-10F, D22183-11F, D22183-12F, D22183-13F

Results < IDL are shown as zero for calculation purposes

7.1.1  
7



BLANK RESULTS SUMMARY  
Part 2 - Method Blanks

Login Number: D22183  
Account: COCSCOG - Olsson Associates - Denver  
Project: West Divide Creek Quarterly

QC Batch ID: MP4365  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

(\*) Outside of QC limits  
(anr) Analyte not requested

7.1.1

7

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D22183  
 Account: COCSCOG - Olsson Associates - Denver  
 Project: West Divide Creek Quarterly

QC Batch ID: MP4365  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 03/31/11

Metal	D22183-1F Original MS		SpikeLot MPICPALL % Rec		QC Limits
Aluminum					
Antimony					
Arsenic					
Barium					
Beryllium					
Boron					
Cadmium					
Calcium					
Chromium					
Cobalt					
Copper					
Iron					
Lead					
Lithium					
Magnesium					
Manganese					
Molybdenum					
Nickel					
Phosphorus					
Potassium					
Selenium					
Silicon					
Silver					
Sodium	132000	158000	25000	104.0	75-125
Strontium					
Thallium					
Tin					
Titanium					
Uranium					
Vanadium					
Zinc					

Associated samples MP4365: D22183-1F, D22183-2F, D22183-3F, D22183-4F, D22183-5F, D22183-6F, D22183-7F, D22183-8F, D22183-9F, D22183-10F, D22183-11F, D22183-12F, D22183-13F

Results < IDL are shown as zero for calculation purposes

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D22183  
Account: COCSCOG - Olsson Associates - Denver  
Project: West Divide Creek Quarterly

QC Batch ID: MP4365  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

(\* ) Outside of QC limits  
(N) Matrix Spike Rec. outside of QC limits  
(anr) Analyte not requested

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D22183  
 Account: COCSCOG - Olsson Associates - Denver  
 Project: West Divide Creek Quarterly

QC Batch ID: MP4365  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 03/31/11

Metal	D22183-1F Original MSD	Spikelot MPICPALL % Rec	MSD RPD	QC Limit
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	132000 158000	25000 104.0	0.0	20
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP4365: D22183-1F, D22183-2F, D22183-3F, D22183-4F, D22183-5F, D22183-6F, D22183-7F, D22183-8F, D22183-9F, D22183-10F, D22183-11F, D22183-12F, D22183-13F

Results < IDL are shown as zero for calculation purposes

MATRIX SPIKE AND DUPLICATE RESULTS SUMMARY

Login Number: D22183  
Account: COCSCOG - Olsson Associates - Denver  
Project: West Divide Creek Quarterly

QC Batch ID: MP4365  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

(\* ) Outside of QC limits  
(N) Matrix Spike Rec. outside of QC limits  
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D22183  
 Account: COCSCOG - Olsson Associates - Denver  
 Project: West Divide Creek Quarterly

QC Batch ID: MP4365  
 Matrix Type: AQUEOUS

Methods: SW846 6010B  
 Units: ug/l

Prep Date: 03/31/11

Metal	BSP Result	Spikelot MPICPALL	% Rec	QC Limits
Aluminum				
Antimony				
Arsenic				
Barium				
Beryllium				
Boron				
Cadmium				
Calcium				
Chromium				
Cobalt				
Copper				
Iron				
Lead				
Lithium				
Magnesium				
Manganese				
Molybdenum				
Nickel				
Phosphorus				
Potassium				
Selenium				
Silicon				
Silver				
Sodium	26900	25000	107.6	80-120
Strontium				
Thallium				
Tin				
Titanium				
Uranium				
Vanadium				
Zinc				

Associated samples MP4365: D22183-1F, D22183-2F, D22183-3F, D22183-4F, D22183-5F, D22183-6F, D22183-7F, D22183-8F, D22183-9F, D22183-10F, D22183-11F, D22183-12F, D22183-13F

Results < IDL are shown as zero for calculation purposes

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: D22183  
Account: COCSCOG - Olsson Associates - Denver  
Project: West Divide Creek Quarterly

QC Batch ID: MP4365  
Matrix Type: AQUEOUS

Methods: SW846 6010B  
Units: ug/l

Prep Date:

Metal

(\*) Outside of QC limits  
(anr) Analyte not requested

## General Chemistry

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### QC Data Summaries

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Includes the following where applicable:

- Method Blank and Blank Spike Summaries
- Duplicate Summaries
- Matrix Spike Summaries



METHOD BLANK AND SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D22183  
Account: COCSCOG - Olsson Associates - Denver  
Project: West Divide Creek Quarterly

Analyte	Batch ID	RL	MB Result	Units	Spike Amount	BSP Result	BSP %Recov	QC Limits
Chloride	GP4106/GN8916	0.50	0.0	mg/l	20	19.6	98.0	90-110%
Chloride	GP4117/GN8924	0.50	0.0	mg/l	20	18.7	93.5	90-110%
Sulfate	GP4117/GN8924	0.50	0.0	mg/l	30	29.0	96.7	90-110%

Associated Samples:

Batch GP4106: D22183-1, D22183-10, D22183-11, D22183-2, D22183-3, D22183-4, D22183-5, D22183-6, D22183-7, D22183-8, D22183-9

Batch GP4117: D22183-12, D22183-13

(\* ) Outside of QC limits

8.1

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MATRIX SPIKE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D22183  
Account: COCSCOG - Olsson Associates - Denver  
Project: West Divide Creek Quarterly

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MS Result	%Rec	QC Limits
Chloride	GP4106/GN8916	D22152-6	mg/l	6.3	10	16.7	104.0	80-120%
Chloride	GP4117/GN8924	D22183-13	mg/l	14.4	10	25.3	109.0	80-120%
Sulfate	GP4117/GN8924	D22183-13	mg/l	5.2	10	15.6	104.0	80-120%

Associated Samples:

Batch GP4106: D22183-1, D22183-10, D22183-11, D22183-2, D22183-3, D22183-4, D22183-5, D22183-6, D22183-7, D22183-8, D22183-9

Batch GP4117: D22183-12, D22183-13

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits

8.2

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MATRIX SPIKE DUPLICATE RESULTS SUMMARY  
GENERAL CHEMISTRY

Login Number: D22183  
Account: COCSCOG - Olsson Associates - Denver  
Project: West Divide Creek Quarterly

Analyte	Batch ID	QC Sample	Units	Original Result	Spike Amount	MSD Result	RPD	QC Limit
Chloride	GP4106/GN8916	D22152-6	mg/l	6.3	10	16.9	1.2	20%
Chloride	GP4117/GN8924	D22183-13	mg/l	14.4	10	24.8	2.0	20%
Sulfate	GP4117/GN8924	D22183-13	mg/l	5.2	10	15.5	0.6	20%

Associated Samples:

Batch GP4106: D22183-1, D22183-10, D22183-11, D22183-2, D22183-3, D22183-4, D22183-5, D22183-6, D22183-7, D22183-8, D22183-9

Batch GP4117: D22183-12, D22183-13

(\*) Outside of QC limits

(N) Matrix Spike Rec. outside of QC limits



Lab #: 206958 Job #: 15001  
 Sample Name/Number: MW-2  
 Company: Olsson Associates  
 Date Sampled: 3/29/2011  
 Container: Dissolved Gas Bottle  
 Field/Site Name: Divide Creek Quarterly  
 Location:  
 Formation/Depth:  
 Sampling Point:  
 Date Received: 3/31/2011 Date Reported: 5/10/2011

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	$\delta\text{D}$ ‰	$\delta^{18}\text{O}$ ‰
Carbon Monoxide -----	0.031			
Hydrogen Sulfide -----	nd			
Helium -----	na			
Hydrogen -----	na			
Argon -----	0.577			
Oxygen -----	0.13			
Nitrogen -----	29.33			
Carbon Dioxide -----	4.13			
Methane -----	56.41	-40.75	-176.9	
Ethane -----	6.72	-26.98		
Ethylene -----	nd			
Propane -----	1.92	-25.27		
Iso-butane -----	0.280			
N-butane -----	0.293			
Iso-pentane -----	0.0809			
N-pentane -----	0.0425			
Hexanes + -----	0.0589			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 766

Specific gravity, calculated: 0.784

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

\*Addition of helium negates the ability to detect native helium or hydrogen.

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen and oxygen are relative to VSMOW. Calculations for BTU and specific gravity per D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

Lab #: 206959 Job #: 15001  
 Sample Name/Number: MW-17  
 Company: Olsson Associates  
 Date Sampled: 3/29/2011  
 Container: Dissolved Gas Bottle  
 Field/Site Name: Divide Creek Quarterly  
 Location:  
 Formation/Depth:  
 Sampling Point:  
 Date Received: 3/31/2011 Date Reported: 5/10/2011

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	$\delta\text{D}$ ‰	$\delta^{18}\text{O}$ ‰
Carbon Monoxide -----	nd			
Hydrogen Sulfide -----	nd			
Helium -----	na			
Hydrogen -----	na			
Argon -----	1.61			
Oxygen -----	0.071			
Nitrogen -----	81.92			
Carbon Dioxide -----	7.99			
Methane -----	7.70	-41.75	-163.2	
Ethane -----	0.710	-25.50		
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: 91 Specific gravity, calculated: 0.987

Remarks:

Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.76

\*Addition of helium negates the ability to detect native helium or hydrogen.

\*\* ethane 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 and oxygen are relative to VSMOW. Calculations for BTU and specific gravity per D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

Lab #: 206960 Job #: 15001  
 Sample Name/Number: MW-4  
 Company: Olsson Associates  
 Date Sampled: 3/29/2011  
 Container: Dissolved Gas Bottle  
 Field/Site Name: Divide Creek Quarterly  
 Location:  
 Formation/Depth:  
 Sampling Point:  
 Date Received: 3/31/2011 Date Reported: 5/10/2011

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	$\delta\text{D}$ ‰	$\delta^{18}\text{O}$ ‰
Carbon Monoxide -----	0.068			
Hydrogen Sulfide -----	nd			
Helium -----	na			
Hydrogen -----	na			
Argon -----	0.711			
Oxygen -----	3.40			
Nitrogen -----	37.98			
Carbon Dioxide -----	4.72			
Methane -----	45.55	-39.29	-185.8	
Ethane -----	5.28	-27.72		
Ethylene -----	nd			
Propane -----	1.59	-25.59		
Iso-butane -----	0.263			
N-butane -----	0.269			
Iso-pentane -----	0.0721			
N-pentane -----	0.0427			
Hexanes + -----	0.0545			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 620 Specific gravity, calculated: 0.834

Remarks:

Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.67

\*Addition of helium negates the ability to detect native helium or hydrogen.

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen and oxygen are relative to VSMOW. Calculations for BTU and specific gravity per D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

Lab #: 206961 Job #: 15001  
 Sample Name/Number: MW-9  
 Company: Olsson Associates  
 Date Sampled: 3/29/2011  
 Container: Dissolved Gas Bottle  
 Field/Site Name: Divide Creek Quarterly  
 Location:  
 Formation/Depth:  
 Sampling Point:  
 Date Received: 3/31/2011 Date Reported: 5/10/2011

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	$\delta\text{D}$ ‰	$\delta^{18}\text{O}$ ‰
Carbon Monoxide -----	0.037			
Hydrogen Sulfide -----	nd			
Helium -----	na			
Hydrogen -----	na			
Argon -----	0.953			
Oxygen -----	7.08			
Nitrogen -----	45.21			
Carbon Dioxide -----	4.49			
Methane -----	37.11	-40.69	-190.3	
Ethane -----	3.70	-28.24		
Ethylene -----	nd			
Propane -----	1.08	-24.62		
Iso-butane -----	0.122			
N-butane -----	0.142			
Iso-pentane -----	0.0346			
N-pentane -----	0.0153			
Hexanes + -----	0.0237			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 481

Specific gravity, calculated: 0.865

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

\*Addition of helium negates the ability to detect native helium or hydrogen.

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen and oxygen are relative to VSMOW. Calculations for BTU and specific gravity per D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.

Lab #: 206962 Job #: 15001  
 Sample Name/Number: MW-14  
 Company: Olsson Associates  
 Date Sampled: 3/29/2011  
 Container: Dissolved Gas Bottle  
 Field/Site Name: Divide Creek Quarterly  
 Location:  
 Formation/Depth:  
 Sampling Point:  
 Date Received: 3/31/2011 Date Reported: 5/10/2011

Component	Chemical mol. %	$\delta^{13}\text{C}$ ‰	$\delta\text{D}$ ‰	$\delta^{18}\text{O}$ ‰
Carbon Monoxide -----	nd			
Hydrogen Sulfide -----	nd			
Helium -----	na			
Hydrogen -----	na			
Argon -----	0.998			
Oxygen -----	0.11			
Nitrogen -----	47.24			
Carbon Dioxide -----	6.79			
Methane -----	38.66	-39.14	-189.1	
Ethane -----	4.12	-28.10		
Ethylene -----	nd			
Propane -----	1.49	-25.60		
Iso-butane -----	0.200			
N-butane -----	0.260			
Iso-pentane -----	0.0534			
N-pentane -----	0.0383			
Hexanes + -----	0.0411			

Total BTU/cu.ft. dry @ 60deg F & 14.7psia, calculated: 523

Specific gravity, calculated: 0.867

Remarks:

Analysis is of gas extracted from water by headspace equilibration. Analysis has been corrected for helium added to create headspace. Helium dilution factor = 0.72

\*Addition of helium negates the ability to detect native helium or hydrogen.

nd = not detected. na = not analyzed. Isotopic composition of carbon is relative to VPDB. Isotopic composition of hydrogen and oxygen are relative to VSMOW. Calculations for BTU and specific gravity per D3588. Chemical compositions are normalized to 100%. Mol. % is approximately equal to vol. %.