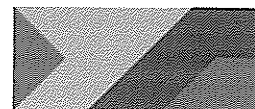


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1:58 pm, Jul 09, 2009

Alameda County
Environmental Health

YRC Worldwide Inc.
10390 Roe Avenue
Overland Park, KS 66211-1213
Phone 913 696 6100
yrc.com



June 29, 2009

To Whom It May Concern:

Attached is the "Second Quarter 2009 Groundwater Monitoring Report" for the YRC Inc. property located at 1708 Wood Street in Oakland, CA 94607, Fuel Leak Case No. RO 0000039. I declare, under penalty of perjury, that the information and/or recommendations contained in the attached report are true and correct to the best of my knowledge.

YRC Inc. is a subsidiary of YRC Worldwide, Inc., and as Supervisor of Environmental Services at YRC North American Transportation I have been charged by YRC Worldwide, Inc. to represent YRC Inc. regarding environmental matters.

Sincerely,

Ruben D. Byerley
Supervisor – Environmental Services

July 7, 2009

Mr. Paresh C. Khatri
Hazardous Materials Specialist
Alameda County Environmental Health Services
1131 Harbor Bay Parkway, 2nd Floor
Alameda, California 94502

Subject: Second Quarter 2009 Groundwater Monitoring Report
YRC, Inc.
1708 Wood Street
Oakland, California
Fuel Leak Case No. RO0000039
Burns & McDonnell Project No. 48791

Dear Mr. Khatri,

Burns & McDonnell Engineering Company, Inc. (Burns & McDonnell) has been retained by YRC North American Transportation, Inc. (YRC) to prepare a letter report summarizing the groundwater sampling activities conducted in the second quarter of 2009 at the YRC Inc. (formerly Roadway Express, Inc.) truck terminal located at 1708 Wood Street, Oakland, California (Site). Figure 1 shows the location of the Site.

1.0 Site Description and Location

The Site is currently operating as a trucking facility, which includes a terminal, loading dock, warehouse, business office, with the perimeter used for trailer storage (Figure 2). The Site is secured with a full perimeter fence and staffed by professional security guards.

The Site is situated between Wood Street to the west, 18th Street to the north, 17th Street to the south, and Campbell Street to the east. Across 18th Street is a community park and surrounding businesses are industrial complexes.

2.0 Regional and Site Geology

The Site is located approximately 1 mile east of the central-east portion of the San Francisco Bay, at an elevation of approximately 10 feet above mean sea level (MSL). The Site is near the current eastern extent of the San Francisco Bay, and in the recent geologic past, was part of the San Francisco Bay. The near-surface geology has largely been controlled by the changing morphology of the San Francisco Bay over geologic time. The closest surface-water bodies to the Site are the Oakland Outer Harbor, located approximately 1 mile west of the Site and the Oakland Inner Harbor, located approximately 1.75 miles south of the Site.

The Site's lithology is characterized by: dark gray, very soft, moist clay inter-bedded with silt and sand layers to a depth of approximately 8 to 10 feet below ground surface (bgs); this is overlying a 5 to 10 foot layer of blackish-brown to gray, soft, clay layer with a distinct peat layer and high organics content; approximately 5 to 10 feet of brown, soft, wet, silty sand and clay extends from approximately 15 to 25 feet bgs; approximately 4 feet of brown, wet, silty clayey sand that extends from approximately 25 to 29 feet bgs.

The Site's hydrology is divided into two separate groundwater zones, a shallow water zone and a deeper water zone. The shallow zone is made up of sand and silt layers extending from the near surface to approximately 8 to 10 feet bgs. Static groundwater measured in monitoring wells screened in the shallow zone are higher than the first encountered groundwater so it appears this zone is under semi-confined conditions with a clay layer above and below it. The deeper zone is made up of silty and sandy layers which grade into medium and coarse sand to a depth of approximately 30 feet. This zone also appears to be under confined conditions as the static groundwater level is significantly higher than the confining soft clay layer. The two water zones are separated by a 5 to 10 foot thick layer of soft clay with a characteristic peat layer and high organic content, designated as bay mud.

3.0 Site History and Underground Storage Tank Overview

According to an internal document review conducted by the consultant firm Marshall Miller & Associates, (*Marshall Miller & Associates 2006*) between the years 1987 to 1996, three underground storage tanks (USTs) were properly removed and two USTs were abandoned-in-place.

In March 1987, two USTs (one 10,000 gallon gasoline tank and one 2,000 gallon motor oil tank) were removed from the central-eastern area of the Site (Figure 2). During this work, two other USTs were identified at the northwest corner of the property (one 2,000 gallon waste oil tank and one 10,000 gallon tank of unknown contents). These two USTs were abandoned-in-place (filled with sand slurry and grout) by R.S. Eagan & Co. At that time, R.S. Eagan & Co. installed two monitoring wells, MW-1 and MW-2, within the footprint of the central-eastern excavation.

In April 1996, the remaining 10,000 gallon diesel UST and all associated piping were removed from the central-eastern area of the Site.

In September 2000, One Environment installed three monitoring wells (MW-3, MW-4, and MW-5) around the location of the removed USTs in the central-eastern area of the Site. Well construction details are summarized in Table 1.

In August 2008, Burns & McDonnell removed monitoring wells MW-1 and MW-2. These wells were constructed without a proper sanitary seal and posed a risk as a pathway to the subsurface for contaminants.

In February 2009, Burns & McDonnell supervised the installation of monitoring wells (MW-6, MW-7, and MW-8) in the central-eastern portion of the Site surrounding the location of the former USTs (Figure 3). These wells were installed to monitor the shallow groundwater zone and are screened between 5 and 10 ft bgs.

4.0 Groundwater Monitoring

On April 13, 2009, Burns & McDonnell gauged depth-to-water (DTW) and collected groundwater samples from the Site's existing groundwater monitoring wells: MW-3 through MW-8 (Figures 3 and 4).

4.1 Depth to Water

Prior to collecting groundwater samples, DTW was measured from the top of casing (TOC) at each well using a clean, battery-operated, oil/water interface probe. Well gauging and groundwater elevations are summarized in Table 2. The DTW for each well was recorded on Groundwater Sampling Forms (Appendix A). The interface probe was cleaned between each well with an Alconox water solution and rinsed with deionized water.

4.2 Well Sampling

All wells were purged and sampled using low-flow sampling methods. Clean, new polyethylene tubing was lowered to a depth corresponding to near the middle of the screened interval. Where possible, the intake depth was set so that it was adjacent to the sand layer based on the soil borings logged during the installation of the wells. A peristaltic pump was used to maintain a flow rate of approximately 0.5 Liters per minute (L/min). Water levels were monitored and recorded to ensure minimal drawn down. Groundwater parameters (temperature, pH, and specific conductance) were measured using a flow-through cell and recorded on Groundwater Sampling Forms (Appendix A). Once a minimum of 1 Liter was purged and groundwater parameters stabilized, groundwater samples were collected in laboratory supplied sampling bottles while keeping the flow rate constant.

Groundwater samples were uniquely labeled with the well identification, date, time of collection, type of preservative, and analyses to be performed. A duplicate sample was taken from MW-5, and submitted to the laboratory as DUP-1. Once collected, each groundwater sample was immediately placed into an insulated, ice-filled cooler. Samples were transferred under Chain-of-Custody protocol to Accutest Laboratories Inc., a California State Certified Laboratory.

5.0 Groundwater Monitoring Results

5.1 Groundwater Flow Direction and Gradient

On April 13, 2009, static groundwater was observed in the Site's shallow groundwater monitoring wells, at depths ranging from 0.95 feet (MW-7) to 1.64 feet (MW-8) below the TOC, with groundwater elevations ranging from 8.19 feet (MW-8) to 9.07 feet (MW-6) above MSL.

Static groundwater in the Site's deep groundwater monitoring wells was observed at depths ranging from 3.06 feet (MW-4) to 3.81 feet (MW-3) below the TOC, with groundwater elevations ranging from 6.30 feet (MW-3) to 6.46 feet (MW-4) above MSL.

Burns & McDonnell used gauging and well casing elevation data to calculate groundwater elevations. For this sampling event, there is an average difference of 2.36 feet between the shallow groundwater zone elevations and the deep groundwater zone evaluations. In the area of the removed USTs, the flow direction in the shallow groundwater zone was to the east with a gradient of approximately 0.02 feet per foot (ft/ft). The flow direction in the deep groundwater zone was to the west with a gradient of approximately 0.002 ft/ft.

Groundwater elevations are summarized in Table 2 and presented on Figures 3 and 4.

5.2 Groundwater Analytical Results

Samples were analyzed for Total Petroleum Hydrocarbons (TPH) in the Diesel (TPH-d) and Motor Oil (TPH-mo) ranges using Environmental Protection Agency (EPA) Method 8015M. Silica gel cleanup, EPA Method 3630C, was used prior to analysis for TPH-d and TPH-mo, to remove naturally occurring organic compounds and are flagged with an 'SG' qualifier in Table 2. TPH-d was detected in MW-8 at a concentration of 77.1 micrograms per Liter ($\mu\text{g/L}$); however, this result was flagged as an estimate (J qualifier) from the laboratory. TPH-d and TPH-mo were not detected in any of the other samples.

Samples were also analyzed for TPH in the gasoline range (TPH-g), benzene, toluene, ethylbenzene, xylenes (BTEX), and Methyl tert-butyl ether (MTBE) using EPA Method 8260B. None of the samples submitted for analysis had concentrations above the method detection limits for TPH-g, BTEX, or MTBE.

Current and historical groundwater data for all Site monitoring wells is presented in Table 2. Copies of the certified analytical reports and Chain-of-Custody documentation are included as Appendix F.

6.0 Summary

Groundwater samples from the monitoring wells screened in both the shallow and deep water zones did not show any petroleum impacts above laboratory detection limits except for MW-8. Quarterly groundwater sampling will continue to monitor for potential impacts to the shallow and deep water zones. The next quarterly groundwater monitoring event is scheduled for August 2009.

7.0 Certification

This report was prepared under the supervision of a California Professional Geologist. All statements, conclusions and recommendations are based solely upon published results from previous consultants, field observations by Burns & McDonnell and laboratory analysis

performed by a California state-certified laboratory related to the work performed by Burns & McDonnell.

If you have any questions regarding this project please feel free to contact either of the undersigned at (650) 871-2926.

Sincerely,



Patrick Bratton
Project Manager



Gary P. Messerotes, P.G.
Senior Geologist



Attachments:

- Figure 1 – Site Location Map
- Figure 2 – Site Map
- Figure 3 – Groundwater Elevations Shallow Zone – 2Q2009 – Former USTs Area
- Figure 4 – Groundwater Elevations Deep Zone – 2Q2009 – Former USTs Area

- Table 1: Well Construction Details
- Table 2: Monitoring Well Groundwater Summary

- Appendix A – Groundwater Sampling Forms
- Appendix B – Laboratory Analytical Reports

TABLES

TABLE 1
Well Construction Details
USF Roadway Express Facility
1708 Wood Street
Oakland, California

Well ID	Casing Diameter	Casing Elevation	Construction Depth	Screened Interval
	(Inches)	Feet (1)	Feet (2)	Feet (2)
MW-1	4	unknown	10	0.5-10
MW-2	4	9.89	9.5	0.5-9.5
MW-3	2	10.11	30	10-30
MW-4	2	9.52	30	10-30
MW-5	2	9.97	30	10-30
MW-6	1	10.13	10	5-10
MW-7	1	9.93	10	5-10
MW-8	1	9.83	10	5-10

1 - Elevation in feet above mean sea level

2 - Depth in feet below ground surface

Notes:

- Construction depth and screened intervals for MW-3, MW-4, and MW-5 based on boring logs located in the *Additional Groundwater Investigation Report by One Environment, 2001*
- Casing elevation for MW-2, MW-3, MW-4, and MW-5 resurveyed by Luk and Associates on December 20, 2007
- Casing elevation for MW-6, MW-7, and MW-8 surveyed by Luk and Associates on March 3, 2009

- In August 2008, Burns & McDonnell removed monitoring wells MW-1 and MW-2; these wells were constructed without a proper sanitary seal and posed a risk as a pathway to the subsurface for contaminants.

TABLE 2
Monitoring Well Groundwater Summary
Groundwater Elevations and Total Petroleum Hydrocarbons in Groundwater
Roadway Express
1708 Wood Street
Oakland, California

Well ID	Aquifer Zone	Date	Depth to Water (ft below Top of Casing)	Groundwater Elevation (ft MSL)	TPHd (µg/L)	TPHg (µg/L)	TPHmo (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	Total Oil & Grease (mg/L)	MTBE (8021B) (µg/L)	MTBE (8260B) (µg/L)
MW-1	Shallow	24-Jul-97	---	---	1,200	50 U	---	---	---	---	---	1.4	---	---
Well Abandoned August 2008														
MW-2	Shallow	24-Jul-97	---	---	940	50 U	---	---	---	---	---	6.2	---	---
MW-2	Shallow	17-Dec-07	1.56	8.33	140	---	---	---	---	---	---	---	---	---
MW-2	Shallow	28-Mar-08	1.03	8.86	180 BI, SG	50 U	300 U,SG	0.5 U	0.5 U	0.5 U	---	---	---	0.5 U
MW-2 (DUP-1)	Shallow	28-Mar-08	---	---	160 BI, SG	50 U	300 U,SG	0.5 U	0.5 U	0.5 U	---	---	---	0.5 U
MW-2	Shallow	02-Jun-08	1.44	8.45	---	---	---	---	---	---	---	---	---	---
MW-2	Shallow	03-Jun-08	---	---	120 SG	50 U	300 U,SG	0.5 U	0.5 U	0.5 U	---	---	2 U	---
MW-2 (DUP-1)	Shallow	03-Jun-08	---	---	150 SG	50 U	300 U,SG	0.5 U	0.5 U	0.5 U	---	---	2 U	---
Well Abandoned August 2008														
MW-3	Deep	22-Mar-07	4.04	6.07	50 U	50 U	---	---	---	---	---	4.75 U	---	0.5 U
MW-3	Deep	28-Mar-08	4.12	5.99	50 U	50 U	300 U	0.5 U	0.5 U	0.5 U	---	---	---	0.5 U
MW-3	Deep	02-Jun-08	4.35	5.76	---	---	---	---	---	---	---	---	---	---
MW-3	Deep	03-Jun-08	---	---	50 U	50 U	300 U	0.5 U	0.5 U	0.5 U	---	---	2 U	---
MW-3	Deep	10-Sep-08	4.48	5.63	50 U	50 U	300 U	0.5 U	0.5 U	0.5 U	---	---	2 U	---
MW-3	Deep	29-Dec-08	4.42	5.69	50 U	50 U	300 U	0.5 U	0.5 U	0.5 U	---	---	2 U	---
MW-3 (DUP-1)	Deep	29-Dec-08	---	---	50 U	50 U	300 U	0.5 U	0.5 U	0.5 U	---	---	2 U	---
MW-3	Deep	06-Mar-09	3.68	6.43	95 U	50 U	190 U	1 U	1 U	1 U	2 U	---	---	1 U
MW-3	Deep	13-May-09	3.81	6.30	94 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-4	Deep	22-Mar-07	3.25	6.27	50 U	50 U	---	---	---	---	---	4.75 U	---	0.5 U
MW-4	Deep	28-Mar-08	3.32	6.2	50 U	50 U	300 U	0.5 U	0.5 U	0.5 U	---	---	---	0.5 U
MW-4	Deep	02-Jun-08	3.56	5.96	50 U	50 U	300 U	0.5 U	0.5 U	0.5 U	---	---	2 U	---
MW-4	Deep	10-Sep-08	3.91	5.61	50 U	50 U	300 U	0.5 U	0.5 U	0.5 U	---	---	2 U	---
MW-4	Deep	29-Dec-08	3.71	5.81	50 U	50 U	300 U	0.5 U	0.5 U	0.5 U	---	---	2 U	---
MW-4	Deep	06-Mar-09	2.90	6.62	95 U	50 U	190 U	1 U	1 U	1 U	2 U	---	---	1 U
MW-4	Deep	13-May-09	3.06	6.46	94 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-5	Deep	22-Mar-07	3.73	6.24	500 BI	50 U	---	---	---	---	---	4.85 U	---	0.5 U
MW-5 (DUP-1)	Deep	22-Mar-07	---	---	710 BI	50 U	---	---	---	---	---	4.75 U	---	0.5 U
MW-5	Deep	28-Mar-08	3.82	6.15	50 U,SG	50 U	300 U,SG	0.5 U	0.5 U	0.5 U	---	---	---	0.5 U
MW-5	Deep	02-Jun-08	4.05	5.92	50 U,SG	50 U	300 U,SG	0.5 U	0.5 U	0.5 U	---	---	2 U	---
MW-5	Deep	10-Sep-08	3.45	6.52	50 U,SG	50 U	300 U,SG	0.5 U	0.5 U	0.5 U	---	---	2 U	---
MW-5 (DUP-1)	Deep	10-Sep-08	---	---	50 U,SG	50 U	300 U,SG	0.5 U	0.5 U	0.5 U	---	---	2 U	---
MW-5	Deep	29-Dec-08	4.19	5.78	50 U,SG	50 U	300 U,SG	0.5 U	0.5 U	0.5 U	---	---	2 U	---
MW-5	Deep	06-Mar-09	3.32	6.65	95 U	50 U	190 U	1 U	1 U	1 U	2 U	---	---	1 U
MW-5 (DUP-1)	Deep	06-Mar-09	---	---	95 U	50 U	190 U	1 U	1 U	1 U	2 U	---	---	1 U
MW-5	Deep	13-May-09	3.54	6.43	94 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-5 (DUP-1)	Deep	13-May-09	---	---	94 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-6	Shallow	06-Mar-09	0.60	9.53	95 U	50 U	190 U	1 U	1 U	1 U	2 U	---	---	1 U
MW-6	Shallow	13-May-09	1.06	9.07	95 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-7	Shallow	06-Mar-09	0.42	9.51	95 U,SG	50 U	190 U	1 U	1 U	1 U	2 U	---	---	1 U
MW-7	Shallow	13-May-09	0.95	8.98	94 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-8	Shallow	06-Mar-09	0.46	9.37	96 U,SG	50 U	190 U	1 U	1 U	1 U	2 U	---	---	1 U
MW-8	Shallow	13-May-09	1.64	8.19	77.1 SG,J	50 U	200 U,SG	1 U	1 U	1 U	2 U	---	---	1 U

Notes:

ft MSL Feet above mean sea level
µg/L Micrograms per Liter
--- No data for the cell, indicates "not measured" or "not analyzed for this constituent"

Laboratory Qualifiers:

BI Sample does not resemble standard
SG SGCU, Silica Gel Clean-up, EPA Method 3630C
J EPA Flag - Estimated value
U Compound was not detected above the indicated laboratory reporting limits

Chemical Abbreviations:

TPHd Total petroleum hydrocarbons as diesel range by EPA Method 8015M
TPHmo Total petroleum hydrocarbons as motor oil range by EPA Method 8015M
TPHg Total petroleum hydrocarbons as gasoline range by EPA Method 8260B
BTEX Benzene, ethyl-benzene, toluene, and total xylenes by EPA Method 8260B
MTBE (8021B) Methyl tert-butyl ether by EPA 8021B
MTBE (8260B) Methyl tert-butyl ether by EPA 8260B
TOG Total Oil and Grease by EPA Method 413.2

FIGURES

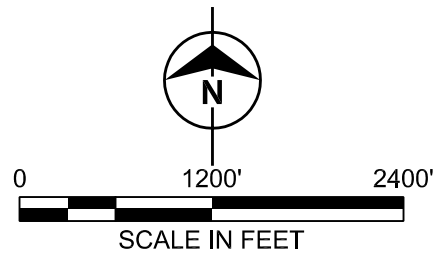
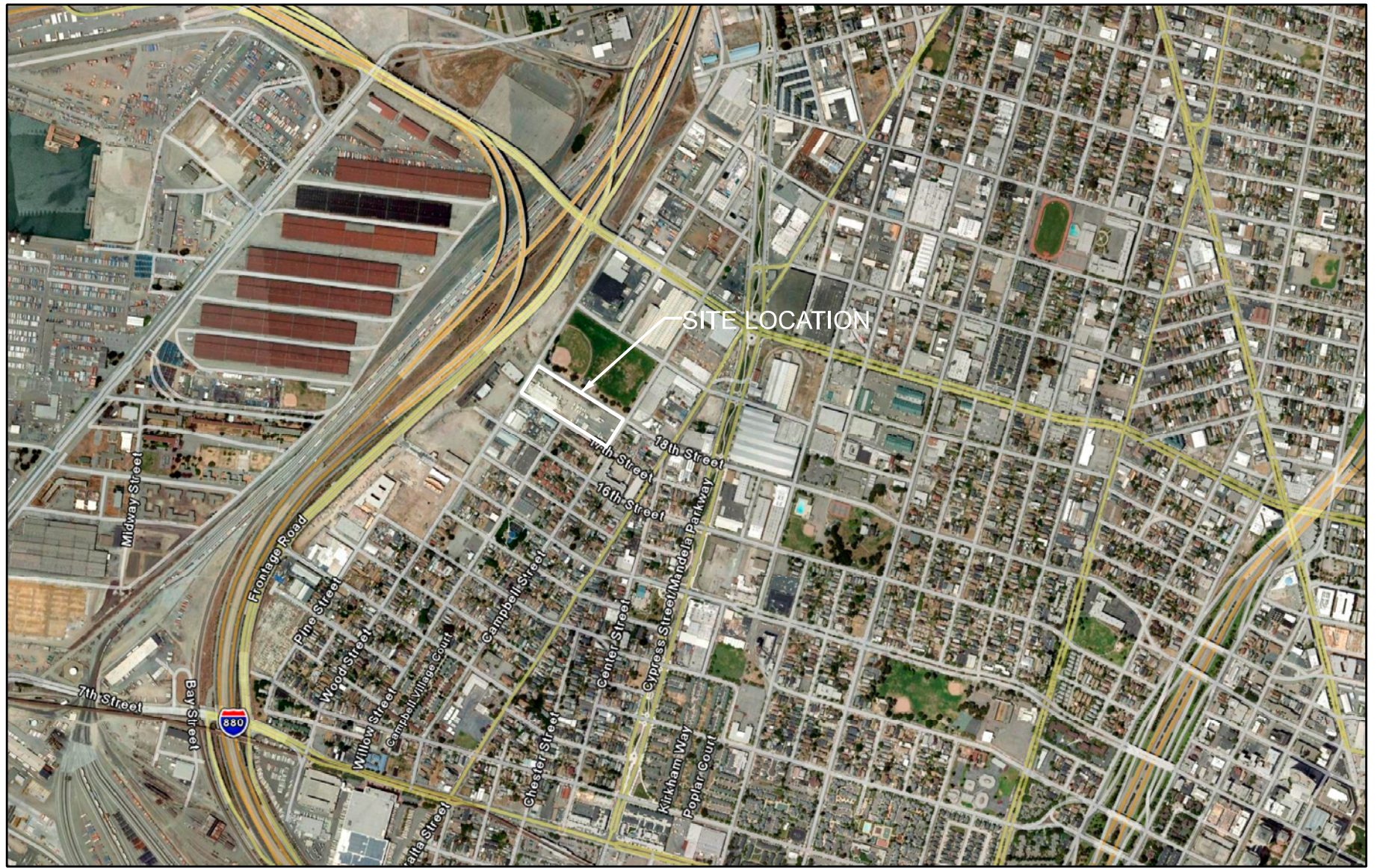


Figure 1
SITE LOCATION MAP
ROADWAY EXPRESS
1708 WOOD STREET
OAKLAND, CA

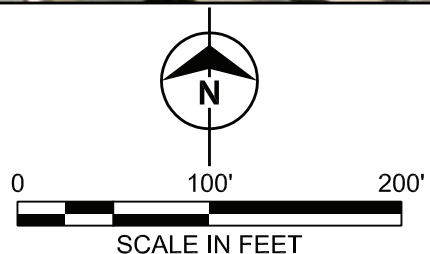
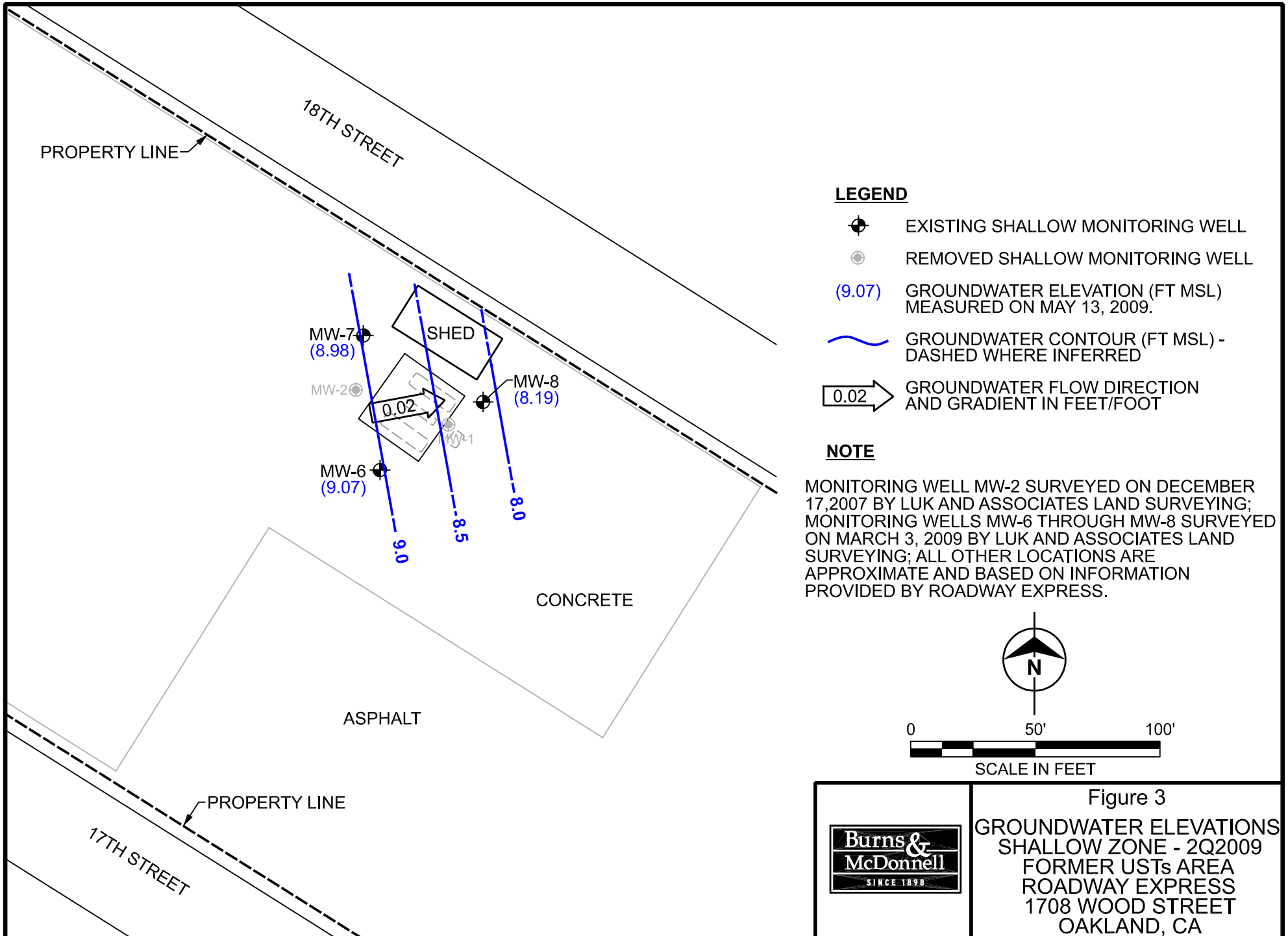
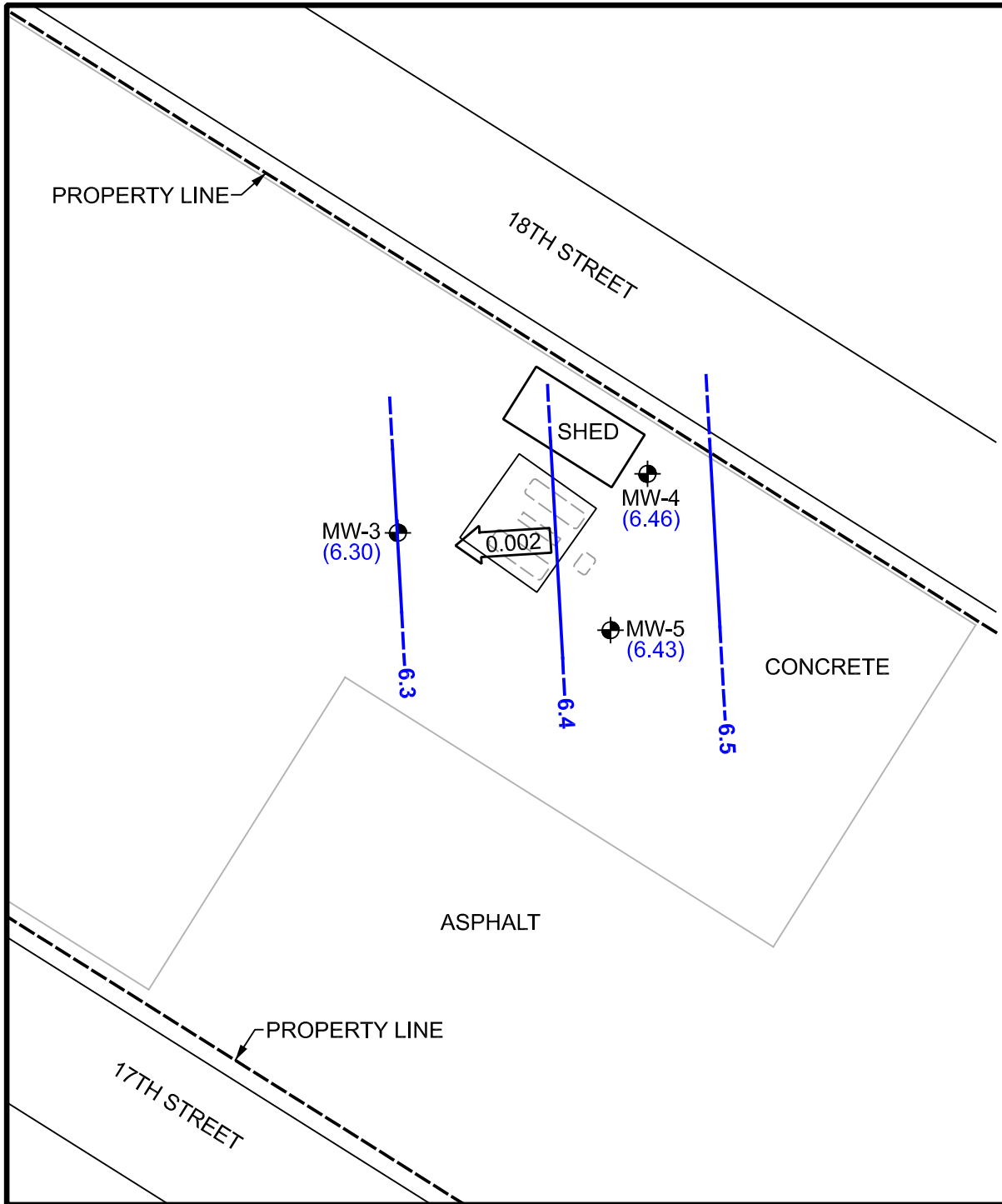


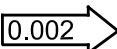


Figure 2
SITE MAP
ROADWAY EXPRESS
1708 WOOD STREET
OAKLAND, CA





LEGEND

-  EXISTING DEEP MONITORING WELL
- (6.43) GROUNDWATER ELEVATION (FT MSL) MEASURED ON MAY 13, 2009.
-  GROUNDWATER CONTOUR (FT MSL) - DASHED WHERE INFERRED
-  GROUNDWATER FLOW DIRECTION AND GRADIENT IN FEET/FOOT

NOTE

MONITORING WELLS MW-3 THROUGH MW-5 SURVEYED ON DECEMBER 17, 2007 BY LUK AND ASSOCIATES LAND SURVEYING; ALL OTHER LOCATIONS ARE APPROXIMATE AND BASED ON INFORMATION PROVIDED BY ROADWAY EXPRESS.



SCALE IN FEET



Figure 4
 GROUNDWATER ELEVATIONS
 DEEP ZONE - 2Q2009
 FORMER USTs AREA
 ROADWAY EXPRESS
 1708 WOOD STREET
 OAKLAND, CA

APPENDIX A
GROUNDWATER SAMPLING FORMS



LOW-FLOW GROUNDWATER SAMPLING FORM

Site Name: YRC Oakland
 Project Number: 48791
 Recorded By: PB, MW

Well Number: MW-4
 Well Type: Monitor Extraction Other: _____
 Date: 5-13-09 Sample Time: 1430

Pump Type: Peristaltic
 Pump Intake Depth: 15 ft Bgs
 Screen Interval: 10-30 ft

Casing Diameter (D in inches): 2
 Total Depth of Casing (TD in feet BTOC): 29.45
 Water Level Depth (WL in feet BTOC): 3.05

Total Volume Generated (gallons): _____

Start Time: 1410 Stop Time: _____

Field Parameter Measurements

Time	Volume (gallons)	Temp (Celsius)	pH	Conductivity (uS/cm)	DTW (ft BTOC)	Remarks
1416	500	21.28	8.21	6028	3.28	Clear
1417	250	21.00	7.59	5858	3.30	Clear
1418	500	20.94	7.41	5830	3.30	Clear
1420	750	20.84	7.38	5833	3.32	Clear
1421	1000	20.75	7.32	5826	3.34	Clear
1423	1250	20.65	7.28	5816	3.38	Clear
1424	1500	20.68	7.25	5808	3.40	Clear
1425	1750	20.65	7.24	5804	3.39	Clear
1426	2000	20.69	7.22	5799	3.39	Clear

Notes:
 Temperature is measured in degrees Celsius
 Volume units are in Liters
 Conductivity units are in microsiemens per centimeter (mS/cm)

Sampling Information

Sample Point	Sample Designator	# of Containers	Preservatives	Analysis/Comments
MW-4	MW-4	2x 1L Amber 4x VOA's	HCl	TPH, NO TPH, BTEX, MDE



LOW-FLOW GROUNDWATER SAMPLING FORM

Site Name: YRC-Oakland

Well Number: MW-5

Project Number: 48791

Well Type: Monitor Extraction Other: _____

Recorded By: PB, MM

Date: 5-13-09 Sample Time: 1340

Pump Type: Peristaltic

Casing Diameter (D in inches): 2

Pump Intake Depth: 15 ft Bgs

Total Depth of Casing (TD in feet BTOC): 29.40

Screen Interval: 10-30 ft Bgs

Water Level Depth (WL in feet BTOC): 3.54

Total Volume Generated (gallons): _____

Start Time: 1320 Stop Time: _____

Field Parameter Measurements

Time	Volume (gallons)	Temp (Celsius)	pH	Conductivity (uS/cm)	DTW (ft BTOC)	Remarks
1328	250	21.47	7.54	6590	3.79	Clear
1330	250	21.51	7.44	6220	3.93	Clear
1331	500	21.50	7.17	6220	3.99	Clear
1332	750	21.53	7.09	6260	4.02	Clear
1333	1000	21.45	7.08	6263	4.05	Clear
1335	1250	21.52	7.03	6285	4.07	Clear
1336	1500	21.56	7.01	6352	4.10	Clear
1338	1750	21.53	6.99	6359	4.10	Clear
1339	2000	21.50	7.02	6380	4.12	Clear

Notes:
 Temperature is measured in degrees Celsius
 Volume units are in Liters
 Conductivity units are in microsiemens per centimeter (uS/cm)

Sampling information

Sample Point	Sample Designator	# of Containers	Preservatives	Analysis/Comments
MW-5	MW-5	2x 1L Amber	✓	TPH _g , no (8013)
	MW-5	4x VOA5	HCl	TPH _g , STEK, MBE (8260)
	Duo-1	2x 1L Amber	✓	TPH _g , no (8015)
	Duo-1	4x VOA5	HCl	TPH _g , STEK, MBE (8260)



LOW-FLOW GROUNDWATER SAMPLING FORM

Site Name: YRC-Oakland

Project Number: 48791

Recorded By: SPB

Well Number: MW-6

Well Type: Monitor Extraction Other: _____

Date: 5-13-09 Sample Time: 1310

Pump Type: Peristaltic

Casing Diameter (D in inches): 1 inch

Pump Intake Depth: 6ft Bgs

Total Depth of Casing (TD in feet BTOC): 9.45

Screen Interval: 4.5 - 8.3

Water Level Depth (WL in feet BTOC): 1.06

Total Volume Generated (gallons): _____

Start Time: 1247 Stop Time: _____

Field Parameter Measurements

Time	Volume (gallons)	Temp (Celsius)	pH	Conductivity (µS/cm)	DTW (ft BTOC)	Remarks
1250	100	19.40	7.89	4490	2.15	Clear
1253	250	19.6	7.35	4483	2.18	Clear
1255	500	20.06	7.09	4509	2.25	Clear
1257	750	19.43	7.04	4686	2.50	clear
1259	1000	19.41	7.02	4733	2.56	clear
1301	1250	19.43	7.01	4840	2.58	clear
1303	1500	19.34	7.02	4848	2.64	clear
1305	1750	19.37	7.02	4884	2.80	clear

Notes:

- Temperature is measured in degrees Celsius
- Volume units are in Liters
- Conductivity units are in microsiemens per centimeter (µS/cm)

Sampling Information

Sample Point	Sample Designator	# of Containers	Preservatives	Analysis/Comments
MW-06	MW-06	2 x 1L Amber	-	TPHd, Mo (2015)
	MW-06	4 x VDAs	HCL	EPHs, BTEX, MTBE (2260)



LOW-FLOW GROUNDWATER SAMPLING FORM

Site Name: YRC - Oakland
 Project Number: 48791
 Recorded By: PB, MW

Well Number: MW-7
 Well Type: Monitor Extraction Other: _____
 Date: 5-13-09 Sample Time: 1235

Pump Type: Peristaltic Pump
 Pump Intake Depth: 5 ft Bgs
 Screen Interval: 4.5 - 9.5 BGS

Casing Diameter (D in inches): 1 inch
 Total Depth of Casing (TD in feet BTOC): 8.86
 Water Level Depth (WL in feet BTOC): 0.95

Total Volume Generated (gallons): _____

Start Time: 1215 Stop Time: _____

Field Parameter Measurements

Time	Volume (gallons)	Temp (Celsius)	pH	Conductivity (uS/cm)	DTW (ft BTOC)	Remarks
1217	250	21.55	7.31	2026	1.45	Clear
1219	250	21.39	7.01	1684	1.65	Clear
1221	500	21.26	7.59	1549	1.73	Clear
1222	750	21.32	7.48	1523	1.69	Clear
1223	1000	21.26	7.46	1515	1.71	Clear
1225	1250	21.31	7.40	1504	1.81	Clear
1227	1500	21.25	7.38	1510	1.86	Clear
1229	2000	21.02	7.37	1502	1.95	Clear
1230	2250	20.98	7.34	1506	1.96	Clear

Notes:
 Temperature is measured in degrees Celsius
 Volume units are in Liters
 Conductivity units are in microsiemens per centimeter (uS/cm)

Sampling Information

Sample Point	Sample Designator	# of Containers	Preservatives	Analysis/Comments
MW-7	MW-7	2x 16 Amber	—	TPH, no (8015)
	MW-7	4x VOBs	HCl	TPH, BTEX, MTBE (8260)



LOW-FLOW GROUNDWATER SAMPLING FORM

Site Name: VPC-Oakland

Well Number: MW-8

Project Number: _____

Well Type: Monitor Extraction Other: _____

Recorded By: PB, MW

Date: 5-13-09 Sample Time: 1125

Pump Type: Per

Casing Diameter (D in inches): 1 inch

Pump Intake Depth: 6 ft BGS

Total Depth of Casing (TD in feet BTOC): 9.47

Screen Interval: _____

Water Level Depth (WL in feet BTOC): 1.64

Total Volume Generated (gallons): _____

Start Time: 1050 Stop Time: _____

Field Parameter Measurements

Time	Volume Col (gallons)	Temp (Celsius)	pH	Conductivity (uS/cm)	DTW (ft BTOC)	Remarks
1050	500ml	22.05	7.68	2371	3.4	Clear
1052	200ml	22.34	7.15	2303	4.5	Clear - well drawing down
1100	500ml	21.76	7.19	2035	3.35	Clear - well drawing down
1103	600ml	22.47	7.13	2176	5.50	Clear - well drawing down
1111	800ml	22.19	7.20	2077	5.50	Clear - well drawing down

Notes:
 Temperature is measured in degrees Celsius
 Volume units are in Liters
 Conductivity units are in microsiemens per centimeter (mS/cm)

Sampling Information

Sample Point	Sample Designator	# of Containers	Preservatives	Analysis/Comments
MW-8	MW-8	4 Vials	HCl	TPH, BTEX, MTBE (8260)
	MW-8	1 Canister		PH, no (8015)

APPENDIX B
LABRATORY ANALYTICAL REPORT



Technical Report for

Burns and McDonnell Engineering

T0600102107-YRC-Roadway Express, Oakland, CA

48791 YRC Oakland

Accutest Job Number: C5727

Sampling Date: 05/13/09

Report to:

Burns and McDonnell Engineering
393 East Grand Avenue Suite J
San Francisco, CA 94080
pbratton@burnsmcd.com; fbittner@burnsmcd.com

ATTN: Patrick Bratton

Total number of pages in report: **102**



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.

Laurie Glantz-Murphy
Laboratory Director

Client Service contact: Diane Theesen 408-588-0200

Certifications: CA (08258CA)

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Test results relate only to samples analyzed.



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Sample Summary

Burns and McDonnell Engineering

Job No: C5727

T0600102107-YRC-Roadway Express, Oakland, CA

Project No: 48791 YRC Oakland

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C5727-1	05/13/09	15:00 MW	05/15/09	AQ	Ground Water	MW-3
C5727-2	05/13/09	14:30 MW	05/15/09	AQ	Ground Water	MW-4
C5727-3	05/13/09	13:40 MW	05/15/09	AQ	Ground Water	MW-5
C5727-4	05/13/09	13:10 MW	05/15/09	AQ	Ground Water	MW-6
C5727-5	05/13/09	12:35 MW	05/15/09	AQ	Ground Water	MW-7
C5727-6	05/13/09	11:25 MW	05/15/09	AQ	Ground Water	MW-8
C5727-7	05/13/09	00:00 MW	05/15/09	AQ	Ground Water	DUP-1
C5727-8	05/13/09	00:00 MW	05/15/09	AQ	Trip Blank Water	TRIP BLANK



Sample Results

Report of Analysis

Accutest Laboratories

Report of Analysis

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Client Sample ID:	MW-3	Date Sampled:	05/13/09
Lab Sample ID:	C5727-1	Date Received:	05/15/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N07033.D	1	05/18/09	TF	n/a	n/a	VN234
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	104%		60-130%
2037-26-5	Toluene-D8	101%		60-130%
460-00-4	4-Bromofluorobenzene	95%		60-130%

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

Client Sample ID:	MW-3	Date Sampled:	05/13/09
Lab Sample ID:	C5727-1	Date Received:	05/15/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B M SW846 3510C		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG5661.D	1	05/18/09	JH	05/18/09	OP981	GGG210
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

TPH Extractable w/ Silica Gel Cleanup

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.094	0.047	mg/l	
	TPH (> C28-C40)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	79%		45-140%

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-4	Date Sampled:	05/13/09
Lab Sample ID:	C5727-2	Date Received:	05/15/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N07034.D	1	05/18/09	TF	n/a	n/a	VN234
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		60-130%
2037-26-5	Toluene-D8	99%		60-130%
460-00-4	4-Bromofluorobenzene	94%		60-130%

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

Client Sample ID:	MW-4	Date Sampled:	05/13/09
Lab Sample ID:	C5727-2	Date Received:	05/15/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B M SW846 3510C		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG5662.D	1	05/18/09	JH	05/18/09	OP981	GGG210
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

TPH Extractable w/ Silica Gel Cleanup

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.094	0.047	mg/l	
	TPH (> C28-C40)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	80%		45-140%

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-5	Date Sampled:	05/13/09
Lab Sample ID:	C5727-3	Date Received:	05/15/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N07035.D	1	05/18/09	TF	n/a	n/a	VN234
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		60-130%
2037-26-5	Toluene-D8	99%		60-130%
460-00-4	4-Bromofluorobenzene	94%		60-130%

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

Client Sample ID:	MW-5	Date Sampled:	05/13/09
Lab Sample ID:	C5727-3	Date Received:	05/15/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B M SW846 3510C		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG5665.D	1	05/19/09	JH	05/18/09	OP981	GGG210
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

TPH Extractable w/ Silica Gel Cleanup

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.094	0.047	mg/l	
	TPH (> C28-C40)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	59%		45-140%

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-6	Date Sampled:	05/13/09
Lab Sample ID:	C5727-4	Date Received:	05/15/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N07036.D	1	05/18/09	TF	n/a	n/a	VN234
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		60-130%
2037-26-5	Toluene-D8	100%		60-130%
460-00-4	4-Bromofluorobenzene	92%		60-130%

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

Client Sample ID:	MW-6	Date Sampled:	05/13/09
Lab Sample ID:	C5727-4	Date Received:	05/15/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B M SW846 3510C		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG5666.D	1	05/19/09	JH	05/18/09	OP981	GGG210
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1050 ml	1.0 ml
Run #2		

TPH Extractable w/ Silica Gel Cleanup

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.095	0.048	mg/l	
	TPH (> C28-C40)	ND	0.19	0.095	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	58%		45-140%

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-7	Date Sampled:	05/13/09
Lab Sample ID:	C5727-5	Date Received:	05/15/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N07037.D	1	05/18/09	TF	n/a	n/a	VN234
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		60-130%
2037-26-5	Toluene-D8	100%		60-130%
460-00-4	4-Bromofluorobenzene	93%		60-130%

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

Client Sample ID:	MW-7	Date Sampled:	05/13/09
Lab Sample ID:	C5727-5	Date Received:	05/15/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B M SW846 3510C		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG5667.D	1	05/19/09	JH	05/18/09	OP981	GGG210
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

TPH Extractable w/ Silica Gel Cleanup

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.094	0.047	mg/l	
	TPH (> C28-C40)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	72%		45-140%

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-8	Date Sampled:	05/13/09
Lab Sample ID:	C5727-6	Date Received:	05/15/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N07038.D	1	05/18/09	TF	n/a	n/a	VN234
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		60-130%
2037-26-5	Toluene-D8	97%		60-130%
460-00-4	4-Bromofluorobenzene	95%		60-130%

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

Client Sample ID:	MW-8	Date Sampled:	05/13/09
Lab Sample ID:	C5727-6	Date Received:	05/15/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B M SW846 3510C		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG5668.D	1	05/19/09	JH	05/18/09	OP981	GGG210
Run #2							

Run #	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

TPH Extractable w/ Silica Gel Cleanup

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	0.0771	0.10	0.050	mg/l	J
	TPH (> C28-C40)	ND	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	77%		45-140%

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	DUP-1	Date Sampled:	05/13/09
Lab Sample ID:	C5727-7	Date Received:	05/15/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

Run #1	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N07055.D	1	05/19/09	TF	n/a	n/a	VN235
Run #2							

Run #1	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		60-130%
2037-26-5	Toluene-D8	99%		60-130%
460-00-4	4-Bromofluorobenzene	97%		60-130%

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

Client Sample ID:	DUP-1	
Lab Sample ID:	C5727-7	Date Sampled: 05/13/09
Matrix:	AQ - Ground Water	Date Received: 05/15/09
Method:	SW846 8015B M SW846 3510C	Percent Solids: n/a
Project:	T0600102107-YRC-Roadway Express, Oakland, CA	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG5669.D	1	05/19/09	JH	05/18/09	OP981	GGG210
Run #2							

	Initial Volume	Final Volume
Run #1	1060 ml	1.0 ml
Run #2		

TPH Extractable w/ Silica Gel Cleanup

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.094	0.047	mg/l	
	TPH (> C28-C40)	ND	0.19	0.094	mg/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
630-01-3	Hexacosane	49%		45-140%

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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	TRIP BLANK	Date Sampled:	05/13/09
Lab Sample ID:	C5727-8	Date Received:	05/15/09
Matrix:	AQ - Trip Blank Water	Percent Solids:	n/a
Method:	SW846 8260B		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N07040.D	1	05/18/09	TF	n/a	n/a	VN234
Run #2							

Run #	Purge Volume
Run #1	10.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		60-130%
2037-26-5	Toluene-D8	101%		60-130%
460-00-4	4-Bromofluorobenzene	98%		60-130%

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

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



Request for Chemical Analysis and Chain of Custody Record

C5127

BMECAF 136

Burns & McDonnell Engineering
393 E. Grand Avenue, Suite J
So. San Francisco, CA 94080
Phone: (650) 871-2926 Fax: (650) 871-2653
Attention: Fabrizio B. Itiner
Patrick Bratton

Laboratory: Accutest
Address: 3334 Victor Ct.
City/State/Zip: Santa Clara
Telephone: (408) 588-0200

Document Control No: 051309 1 of 1
Lab. Reference No. or Episode No.:

Project Number: 48791

Sample Type

Client Name: YRC-Oakland

Matrix

Table with columns: Group or SWMU Name, Sample Point, Sample Designator, Sample Event (Round, Year), Sample Depth (From, To), Sample Collected (Date, Time), Matrix (Liquid, Solid, Gas), Number of Containers, Analysis (TPH, BTEX, MBE, etc.), and Remarks. Includes handwritten entries for MW-3 to MW-8, Dup-1, and Trip Blanks.

4 vials each (WHCL)
2 Lit Ambers each N/P
Cooler Temp: 2.0°C

Signature and date fields for Relinquished By and Received By, Special Instructions: Submit Geotracker EDF TOG00102107, and Laboratory Comments.

011102 Form WCD-KC1-SDO

C5127: Chain of Custody

Page 1 of 2

**Accutest Laboratories Northern California
STANDARD OPERATING PROCEDURE**

Sample Receiving Checklist

Job # C5727
Sample Control Initial EK

Review Chain of Custody The Chain of Custody is to be completely and legibly filled out by Client.

- Are these regulatory (NPDES) samples? **Yes / (No) circle one**
- Is pH requested? **Yes / (No) circle one** Was Client informed that hold time is 15 min? **Yes / No circle one**
If yes, did Client consent to continue?
- Are sample within hold time? **(Yes) / No circle one** Are sample in danger of exceeding its hold-time within 6-48 hours?
- Report to info is complete and legible, including:
 - Type of deliverable needed Name Address phone e-mail
 - Bill to info is complete and legible, including; PO# Credit card Contact address phone e-mail
 - Contact and/or Project Manager identified, including; phone e-mail
 - Project name / number Special requirements? **(Yes) / No circle one**
 - Sample IDs / date & time of collection provided? **(Yes) / No circle one**
 - Is Matrix listed and correct? **(Yes) / No circle one**
 - Analyses listed are those we do or client has authorized a subcontract? **(Yes) / No circle one**
 - Chain is signed and dated by both client and sample custodian? **(Yes) / No circle one**
 - TAT requested available? Approved by EK

Review Coolers:

- Were Coolers temperatures measured at ≤6°C? Cooler # 1 Temp 2 °C
 - If cooler is outside the ≤6°C; note down below the affected bottles in that cooler
 - Note that ANC does NOT accept evidentiary samples. (We do not lock refrigerators)
- Shipment Method AC
- Custody Seals: Present : **Yes / (No) circle one** Unbroken: **(Yes) / No circle one**

Review of Sample Bottles: If you answer no, explain below

- Sample ID / bottle number / Date / Time of bottle labels match the COC? **(Yes) / No circle one**
- Sample bottle intact? **(Yes) / No circle one**
- Is there enough samples for requested analyses? If so, were samples placed in proper containers? **(Yes) / No circle one**
- Proper Preservatives? Check pH on preserved samples except 1664, 625, 8270 and VOAs and list below
- Are VOAs received without headspace? Size of bubble (not greater than 6mm in diameter) **(Yes) / No circle one**
List sample ID and affected container

Lab #	Client Sample ID	pH Check	Other Comments/Issues

Non-Compliance issues and discrepancies on the COC are forwarded to Project Management

\\anc-srv-file1\Entech-Data\Laboratory\Sample_Control\Form_Sample Receipt Checklist_Rev0.doc

**C5727: Chain of Custody
Page 2 of 2**



GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary**Job Number:** C5727**Account:** BMECASF Burns and McDonnell Engineering**Project:** T0600102107-YRC-Roadway Express, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN234-MB	N07027.D	1	05/18/09	TF	n/a	n/a	VN234

The QC reported here applies to the following samples:**Method:** SW846 8260B

C5727-1, C5727-2, C5727-3, C5727-4, C5727-5, C5727-6, C5727-8

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	101% 60-130%
2037-26-5	Toluene-D8	99% 60-130%
460-00-4	4-Bromofluorobenzene	94% 60-130%

Method Blank Summary**Job Number:** C5727**Account:** BMECASF Burns and McDonnell Engineering**Project:** T0600102107-YRC-Roadway Express, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN235-MB	N07051.D	1	05/19/09	TF	n/a	n/a	VN235

The QC reported here applies to the following samples:**Method:** SW846 8260B

C5727-7

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	1.0	0.30	ug/l	
100-41-4	Ethylbenzene	ND	1.0	0.30	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	0.50	ug/l	
108-88-3	Toluene	ND	1.0	0.50	ug/l	
1330-20-7	Xylene (total)	ND	2.0	0.70	ug/l	
	TPH-GRO (C6-C10)	ND	50	25	ug/l	

CAS No.	Surrogate Recoveries	Result	Limits
1868-53-7	Dibromofluoromethane	99%	60-130%
2037-26-5	Toluene-D8	97%	60-130%
460-00-4	4-Bromofluorobenzene	95%	60-130%

Blank Spike Summary

Job Number: C5727

Account: BMECASF Burns and McDonnell Engineering

Project: T0600102107-YRC-Roadway Express, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN234-BS	N07030.D	1	05/18/09	TF	n/a	n/a	VN234

The QC reported here applies to the following samples:

Method: SW846 8260B

C5727-1, C5727-2, C5727-3, C5727-4, C5727-5, C5727-6, C5727-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	20.8	104	60-130
100-41-4	Ethylbenzene	20	17.9	90	60-130
1634-04-4	Methyl Tert Butyl Ether	20	21.6	108	60-130
108-88-3	Toluene	20	19.2	96	60-130
1330-20-7	Xylene (total)	60	52.1	87	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	101%	60-130%
2037-26-5	Toluene-D8	98%	60-130%
460-00-4	4-Bromofluorobenzene	100%	60-130%

Blank Spike Summary

Job Number: C5727

Account: BMECASF Burns and McDonnell Engineering

Project: T0600102107-YRC-Roadway Express, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN234-BS	N07031.D	1	05/18/09	TF	n/a	n/a	VN234

The QC reported here applies to the following samples:

Method: SW846 8260B

C5727-1, C5727-2, C5727-3, C5727-4, C5727-5, C5727-6, C5727-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
	TPH-GRO (C6-C10)	125	117	94	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	60-130%
2037-26-5	Toluene-D8	100%	60-130%
460-00-4	4-Bromofluorobenzene	98%	60-130%

4.2.2
4

Blank Spike Summary

Job Number: C5727

Account: BMECASF Burns and McDonnell Engineering

Project: T0600102107-YRC-Roadway Express, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN235-BS	N07052.D	1	05/19/09	TF	n/a	n/a	VN235

The QC reported here applies to the following samples:

Method: SW846 8260B

C5727-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	22.2	111	60-130
100-41-4	Ethylbenzene	20	18.2	91	60-130
1634-04-4	Methyl Tert Butyl Ether	20	22.6	113	60-130
108-88-3	Toluene	20	19.4	97	60-130
1330-20-7	Xylene (total)	60	52.6	88	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	60-130%
2037-26-5	Toluene-D8	96%	60-130%
460-00-4	4-Bromofluorobenzene	99%	60-130%

4.2.3
4

Blank Spike Summary

Job Number: C5727

Account: BMECASF Burns and McDonnell Engineering

Project: T0600102107-YRC-Roadway Express, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VN235-BS	N07053.D	1	05/19/09	TF	n/a	n/a	VN235

The QC reported here applies to the following samples:

Method: SW846 8260B

C5727-7

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
	TPH-GRO (C6-C10)	125	117	94	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	60-130%
2037-26-5	Toluene-D8	97%	60-130%
460-00-4	4-Bromofluorobenzene	97%	60-130%

4.2.4
4

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C5727

Account: BMECASFS Burns and McDonnell Engineering

Project: T0600102107-YRC-Roadway Express, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C5727-6MS	N07043.D	1	05/18/09	TF	n/a	n/a	VN234
C5727-6MSD	N07044.D	1	05/18/09	TF	n/a	n/a	VN234
C5727-6	N07038.D	1	05/18/09	TF	n/a	n/a	VN234

The QC reported here applies to the following samples:

Method: SW846 8260B

C5727-1, C5727-2, C5727-3, C5727-4, C5727-5, C5727-6, C5727-8

CAS No.	Compound	C5727-6 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	21.6	108	21.3	107	1	60-130/25
100-41-4	Ethylbenzene	ND	20	18.3	92	18.0	90	2	60-130/25
1634-04-4	Methyl Tert Butyl Ether	ND	20	21.5	108	21.7	109	1	60-130/25
108-88-3	Toluene	ND	20	20.1	101	19.3	97	4	60-130/25
1330-20-7	Xylene (total)	ND	60	53.0	88	51.7	86	2	60-130/25

CAS No.	Surrogate Recoveries	MS	MSD	C5727-6	Limits
1868-53-7	Dibromofluoromethane	102%	98%	101%	60-130%
2037-26-5	Toluene-D8	98%	98%	97%	60-130%
460-00-4	4-Bromofluorobenzene	98%	99%	95%	60-130%

4.3.1
4

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C5727

Account: BMECASFS Burns and McDonnell Engineering

Project: T0600102107-YRC-Roadway Express, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
C5746-4MS	N07093.D	1	05/20/09	TF	n/a	n/a	VN235
C5746-4MSD	N07094.D	1	05/20/09	TF	n/a	n/a	VN235
C5746-4	N07065.D	1	05/19/09	TF	n/a	n/a	VN235

The QC reported here applies to the following samples:

Method: SW846 8260B

C5727-7

CAS No.	Compound	C5746-4 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	21.6	108	20.7	104	4	60-130/25
100-41-4	Ethylbenzene	ND	20	18.1	91	17.2	86	5	60-130/25
1634-04-4	Methyl Tert Butyl Ether	ND	20	21.6	108	21.2	106	2	60-130/25
108-88-3	Toluene	ND	20	19.8	99	18.6	93	6	60-130/25
1330-20-7	Xylene (total)	ND	60	51.9	87	48.8	81	6	60-130/25

CAS No.	Surrogate Recoveries	MS	MSD	C5746-4	Limits
1868-53-7	Dibromofluoromethane	100%	101%	101%	60-130%
2037-26-5	Toluene-D8	96%	97%	98%	60-130%
460-00-4	4-Bromofluorobenzene	99%	98%	93%	60-130%

4.3.2
4



GC/MS Volatiles

5

Raw Data



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N090518\N07033.D Vial: 13
 Acq On : 18 May 2009 2:00 pm Operator: TitiaF
 Sample : C5727-1 Inst : VMS-02
 Misc : MS877,VN234,10,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 19 11:12 2009 Quant Results File: VN230W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration
 DataAcq Meth : VN230W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.41	168	2311656	10.00	ppb	0.00
40) 1,4-Difluorobenzene	12.72	114	3710454	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	3117830	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.36	152	1535564	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.36	152	1535564	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	1059886	10.42	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	104.20%
56) Toluene-d8	14.64	98	4339593	10.10	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	101.00%
74) 4-Bromofluorobenzene	17.88	95	1300648	9.47	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	94.70%

Target Compounds

						Qvalue
11) Acetone	7.74	58	20101	2.64	ppb	94
18) Methylene Chloride	8.91	84	145718	1.16	ppb	95
57) Toluene	14.73	92	63605	0.18	ppb	89
96) Naphthalene	21.85	128	25526	0.12	ppb	100
99) TPH-GRO (C6-C10)	13.59	TIC	5167063m	7.67	ppb	

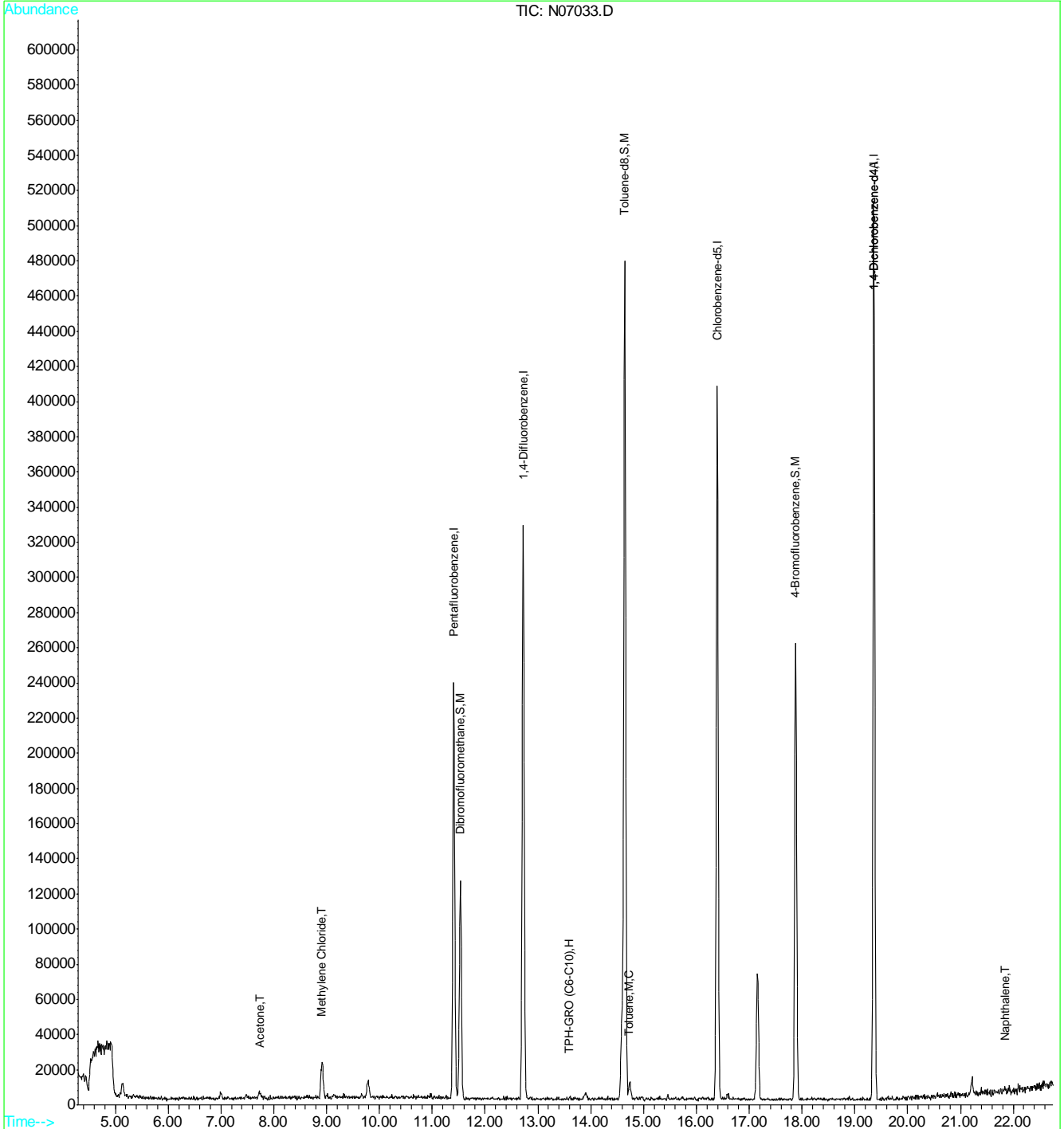
(#) = qualifier out of range (m) = manual integration
 N07033.D VN230W.M Tue May 19 11:13:08 2009 RPT1

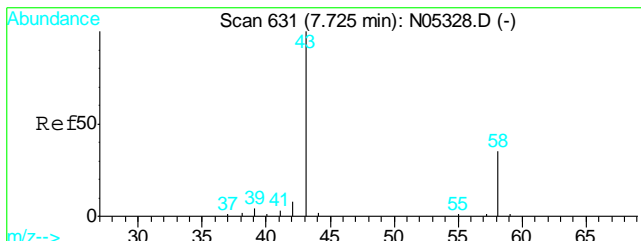
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N090518\N07033.D Vial: 13
 Acq On : 18 May 2009 2:00 pm Operator: TitiaF
 Sample : C5727-1 Inst : VMS-02
 Misc : MS877,VN234,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 19 11:12 2009 Quant Results File: VN230W.RES

Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration

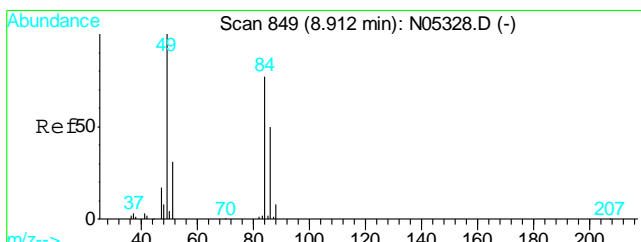
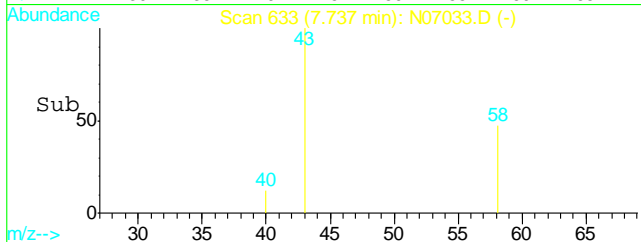
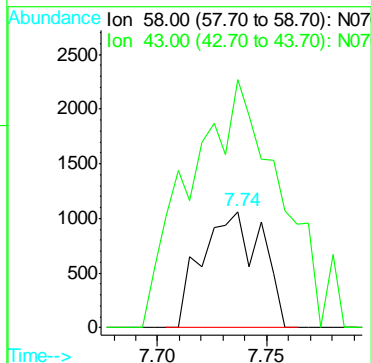
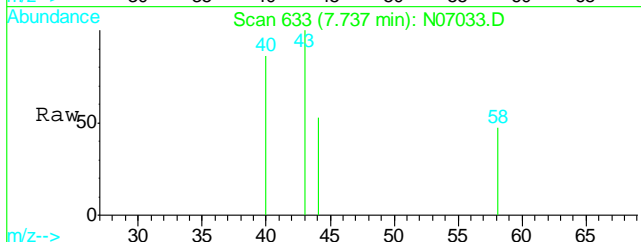
5.1.1
5





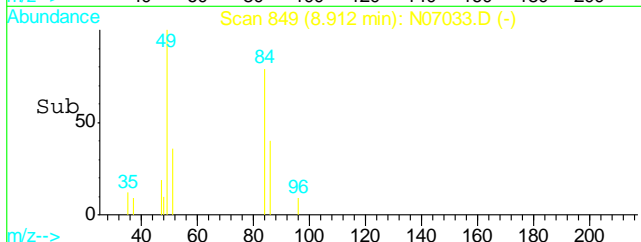
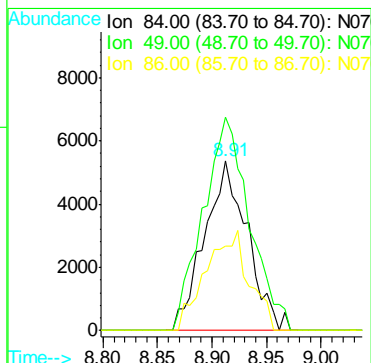
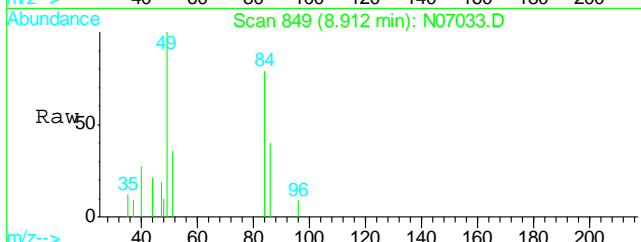
#11
Acetone
Concen: 2.64 ppb
RT: 7.74 min Scan# 633
Delta R.T. 0.01 min
Lab File: N07033.D
Acq: 18 May 2009 2:00 pm

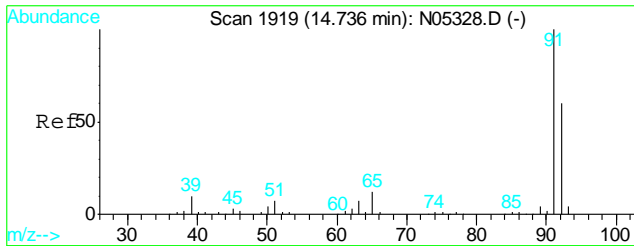
Tgt Ion	Resp	Lower	Upper
58	20101	100	
43	329.1	253.2	379.8



#18
Methylene Chloride
Concen: 1.16 ppb
RT: 8.91 min Scan# 849
Delta R.T. -0.00 min
Lab File: N07033.D
Acq: 18 May 2009 2:00 pm

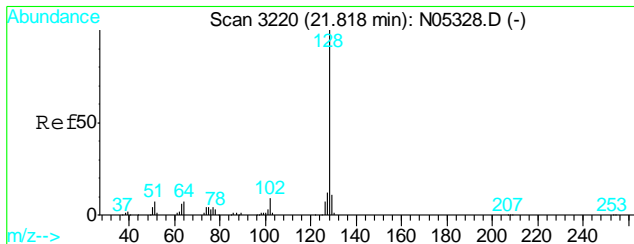
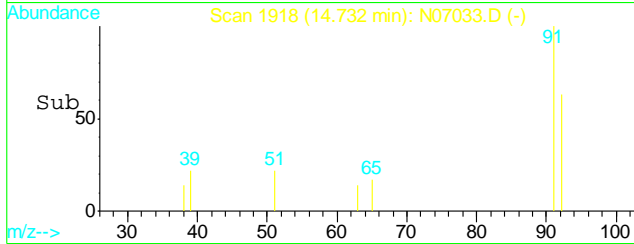
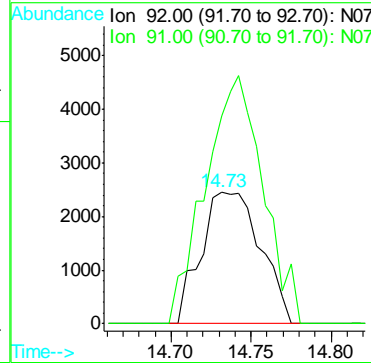
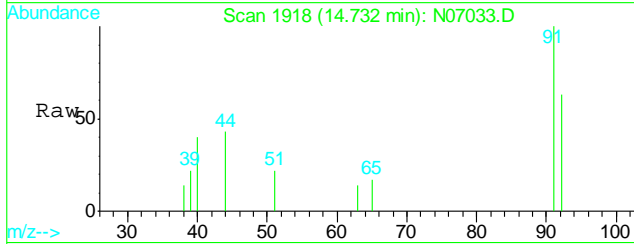
Tgt Ion	Resp	Lower	Upper
84	145718	100	
49	136.8	122.1	162.1
86	59.3	43.4	83.4





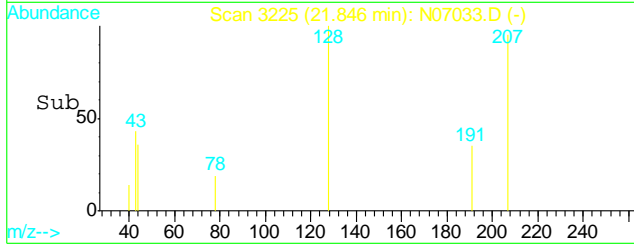
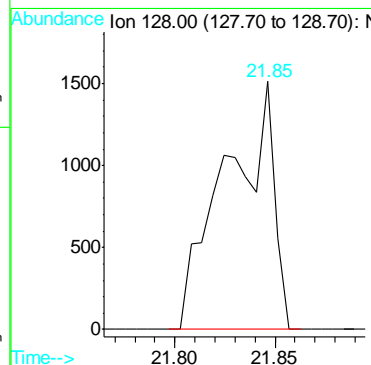
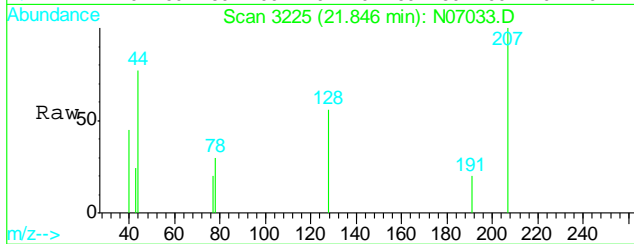
#57
Toluene
Concen: 0.18 ppb
RT: 14.73 min Scan# 1918
Delta R.T. -0.01 min
Lab File: N07033.D
Acq: 18 May 2009 2:00 pm

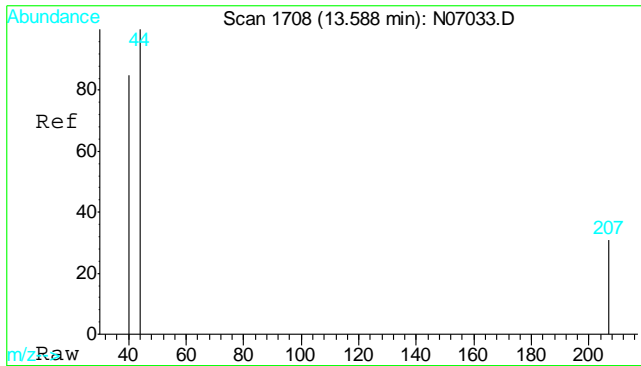
Tgt Ion: 92 Resp: 63605
Ion Ratio Lower Upper
92 100
91 182.9 147.3 187.3



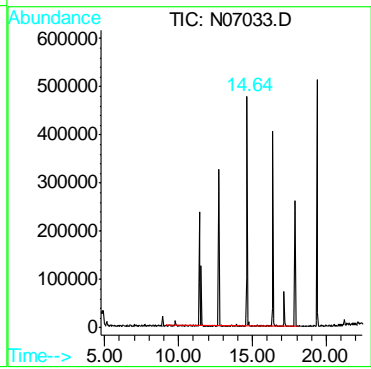
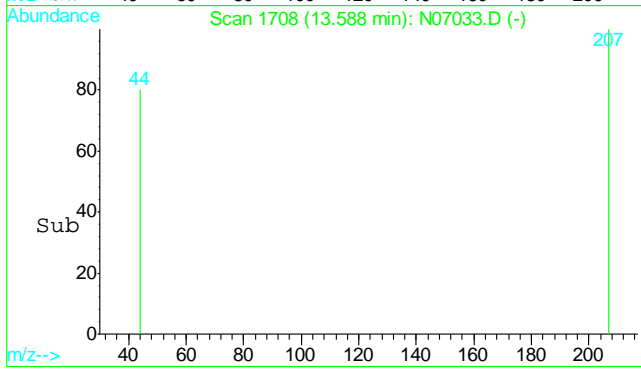
#96
Naphthalene
Concen: 0.12 ppb
RT: 21.85 min Scan# 3225
Delta R.T. 0.03 min
Lab File: N07033.D
Acq: 18 May 2009 2:00 pm

Tgt Ion: 128 Resp: 25526





#99
 TPH-GRO (C6-C10)
 Concen: 7.67 ppb m
 RT: 13.59 min Scan# 1708
 Delta R.T. 0.00 min
 Lab File: N07033.D
 Acq: 18 May 2009 2:00 pm
 Tgt Ion:TIC Resp: 5167063



5.1.1
5

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N090518\N07034.D Vial: 14
 Acq On : 18 May 2009 2:30 pm Operator: TitiaF
 Sample : C5727-2 Inst : VMS-02
 Misc : MS877,VN234,10,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 19 11:14 2009 Quant Results File: VN230W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration
 DataAcq Meth : VN230W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.41	168	2241778	10.00	ppb	-0.01
40) 1,4-Difluorobenzene	12.73	114	3623594	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	3094381	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.36	152	1468556	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.36	152	1468556	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	1004741	10.18	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	101.80%
56) Toluene-d8	14.64	98	4217009	9.89	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	98.90%
74) 4-Bromofluorobenzene	17.88	95	1280429	9.39	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	93.90%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
11) Acetone	7.73	58	12227	1.66	ppb	# 4
18) Methylene Chloride	8.91	84	135671	1.11	ppb	98
57) Toluene	14.74	92	55501	0.16	ppb	99
99) TPH-GRO (C6-C10)	13.59	TIC	2584602m	4.01	ppb	

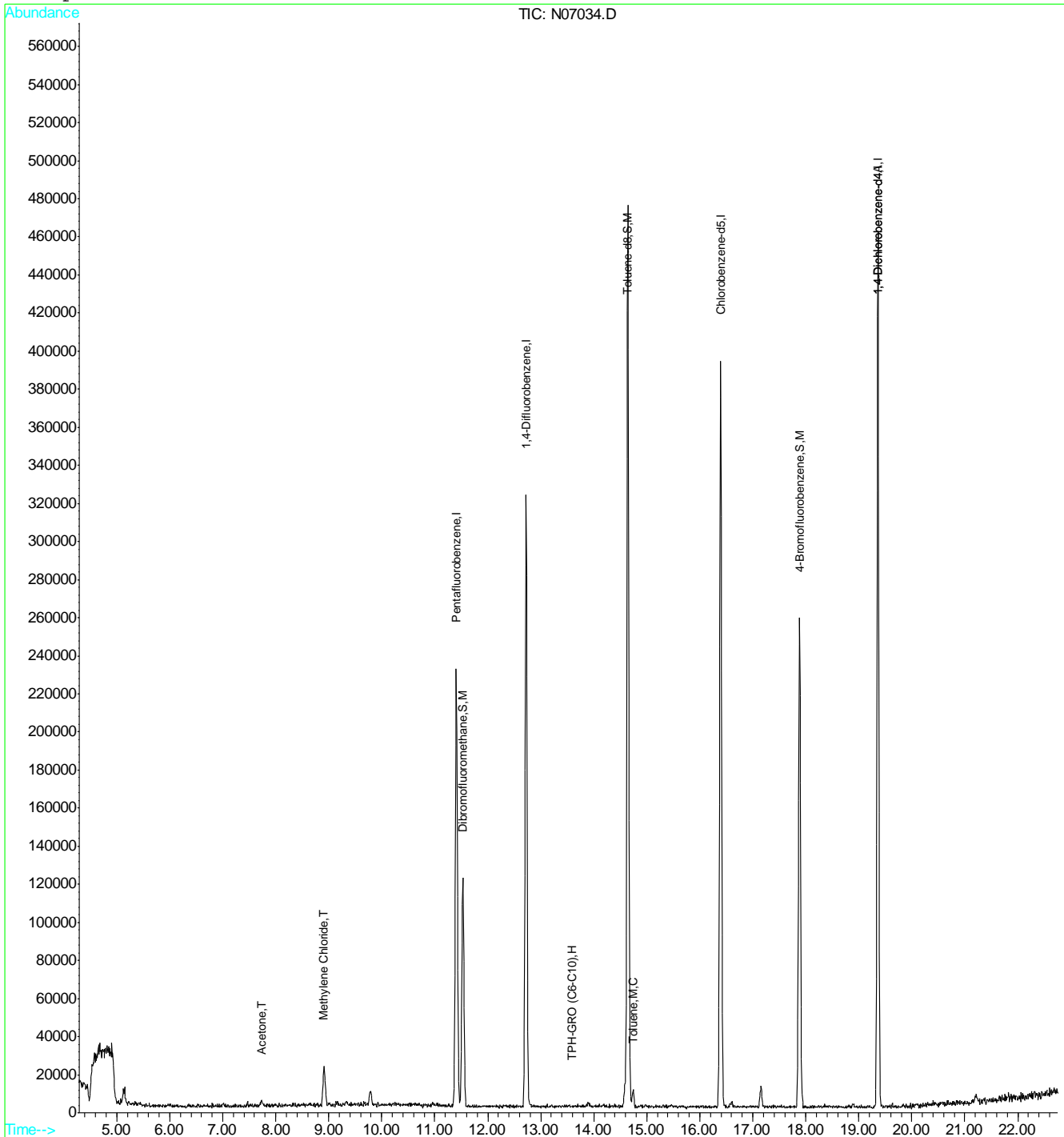
(#) = qualifier out of range (m) = manual integration
 N07034.D VN230W.M Tue May 19 11:14:58 2009 RPT1

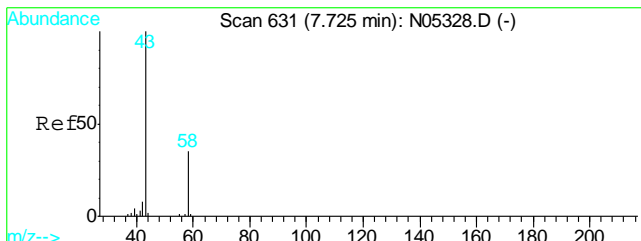
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N090518\N07034.D Vial: 14
Acq On : 18 May 2009 2:30 pm Operator: TitiaF
Sample : C5727-2 Inst : VMS-02
Misc : MS877,VN234,10,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 19 11:14 2009 Quant Results File: VN230W.RES

Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
Title : WATER-EPA 8260B
Last Update : Wed May 13 11:51:51 2009
Response via : Initial Calibration

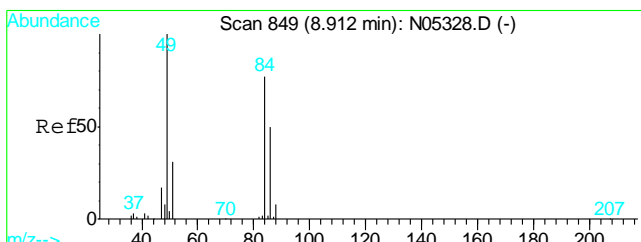
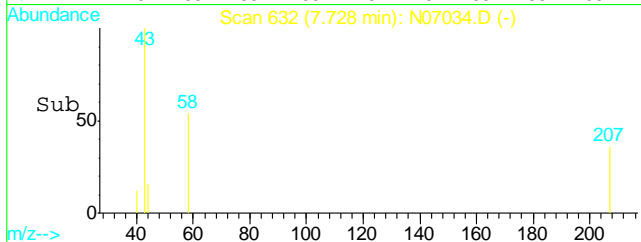
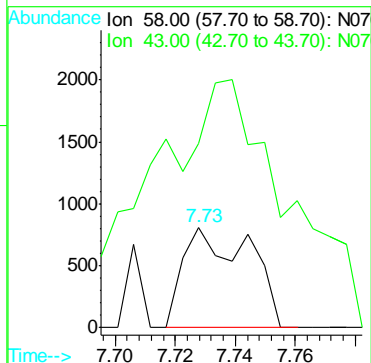
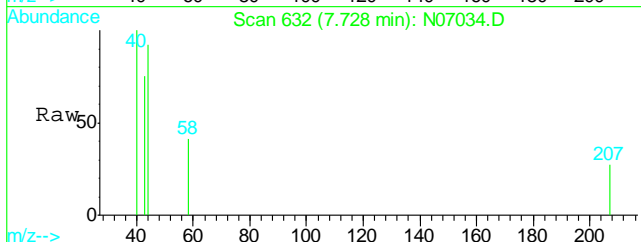
5.1.2
5





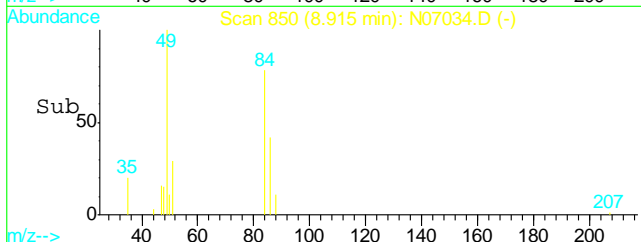
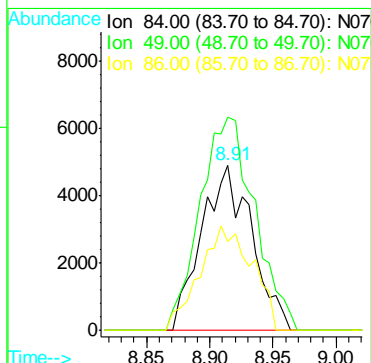
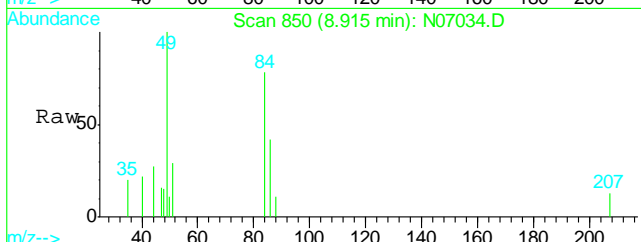
#11
Acetone
Concen: 1.66 ppb
RT: 7.73 min Scan# 632
Delta R.T. 0.00 min
Lab File: N07034.D
Acq: 18 May 2009 2:30 pm

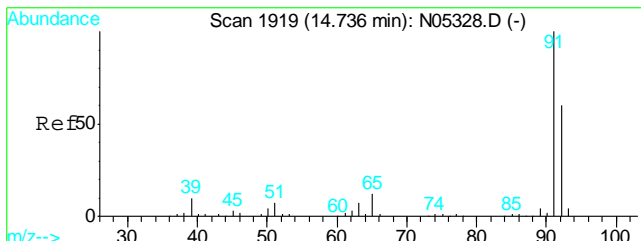
Tgt Ion	Resp	Lower	Upper
58	12227		
58	100		
43	511.5	253.2	379.8#



#18
Methylene Chloride
Concen: 1.11 ppb
RT: 8.91 min Scan# 850
Delta R.T. 0.00 min
Lab File: N07034.D
Acq: 18 May 2009 2:30 pm

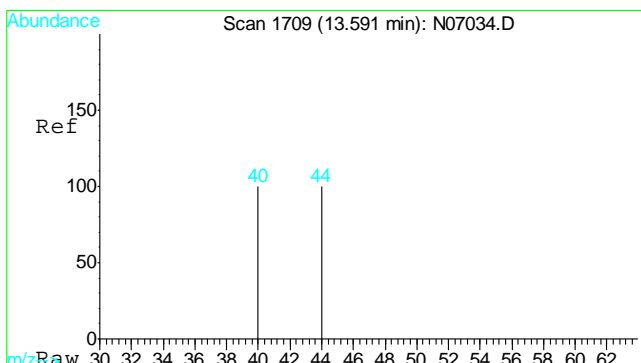
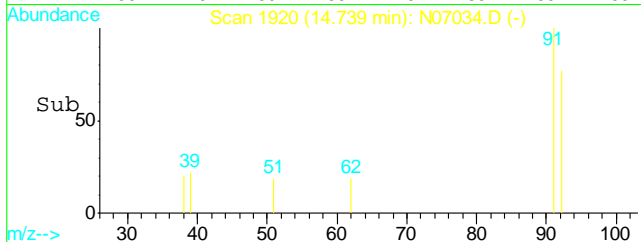
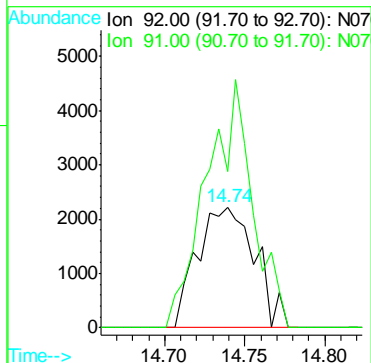
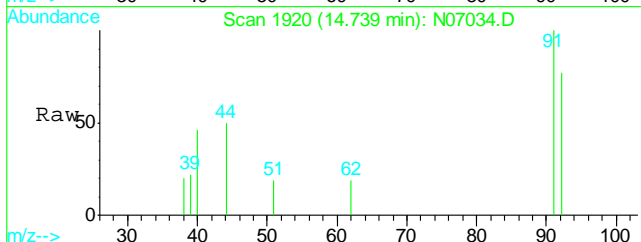
Tgt Ion	Resp	Lower	Upper
84	135671		
84	100		
49	140.2	122.1	162.1
86	66.0	43.4	83.4





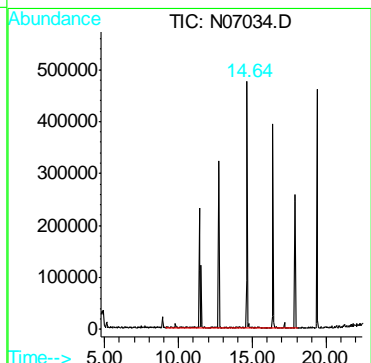
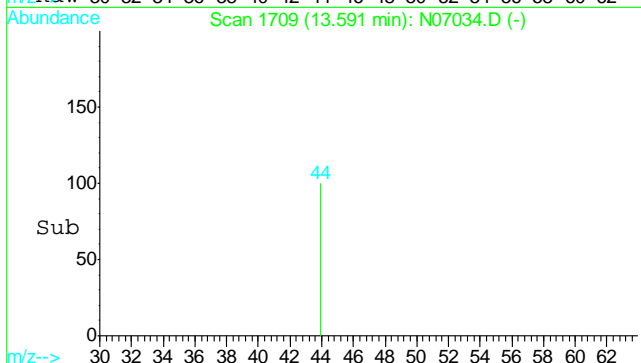
#57
 Toluene
 Concen: 0.16 ppb
 RT: 14.74 min Scan# 1920
 Delta R.T. -0.00 min
 Lab File: N07034.D
 Acq: 18 May 2009 2:30 pm

Tgt Ion: 92 Resp: 55501
 Ion Ratio Lower Upper
 92 100
 91 165.6 147.3 187.3



#99
 TPH-GRO (C6-C10)
 Concen: 4.01 ppb m
 RT: 13.59 min Scan# 1709
 Delta R.T. 0.00 min
 Lab File: N07034.D
 Acq: 18 May 2009 2:30 pm

Tgt Ion:TIC Resp: 2584602



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N090518\N07035.D Vial: 15
 Acq On : 18 May 2009 3:01 pm Operator: TitiaF
 Sample : C5727-3 Inst : VMS-02
 Misc : MS877,VN234,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 19 11:17 2009 Quant Results File: VN230W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration
 DataAcq Meth : VN230W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.41	168	2232886	10.00	ppb	-0.01
40) 1,4-Difluorobenzene	12.72	114	3623535	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	3062536	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.36	152	1493127	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.36	152	1493127	10.00	ppb	0.00

System Monitoring Compounds	R.T.	QIon	Response	Conc	Units	Dev(Min)
37) Dibromofluoromethane	11.54	111	1009690	10.27	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	102.70%	
56) Toluene-d8	14.64	98	4195616	9.94	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	99.40%	
74) 4-Bromofluorobenzene	17.88	95	1274550	9.44	ppb	0.00
Spiked Amount 10.000	Range	70 - 130	Recovery	=	94.40%	

Target Compounds	R.T.	QIon	Response	Conc	Units	Qvalue
11) Acetone	7.74	58	40342m	5.48	ppb	
18) Methylene Chloride	8.91	84	147078	1.21	ppb	94
20) Carbon Disulfide	9.03	76	37411m	0.13	ppb	
23) Diisopropyl Ether	10.07	45	507612	1.31	ppb	95
57) Toluene	14.73	92	55593	0.16	ppb	88
99) TPH-GRO (C6-C10)	13.59	TIC	2504227m	3.82	ppb	

(#) = qualifier out of range (m) = manual integration
 N07035.D VN230W.M Tue May 19 11:17:49 2009 RPT1

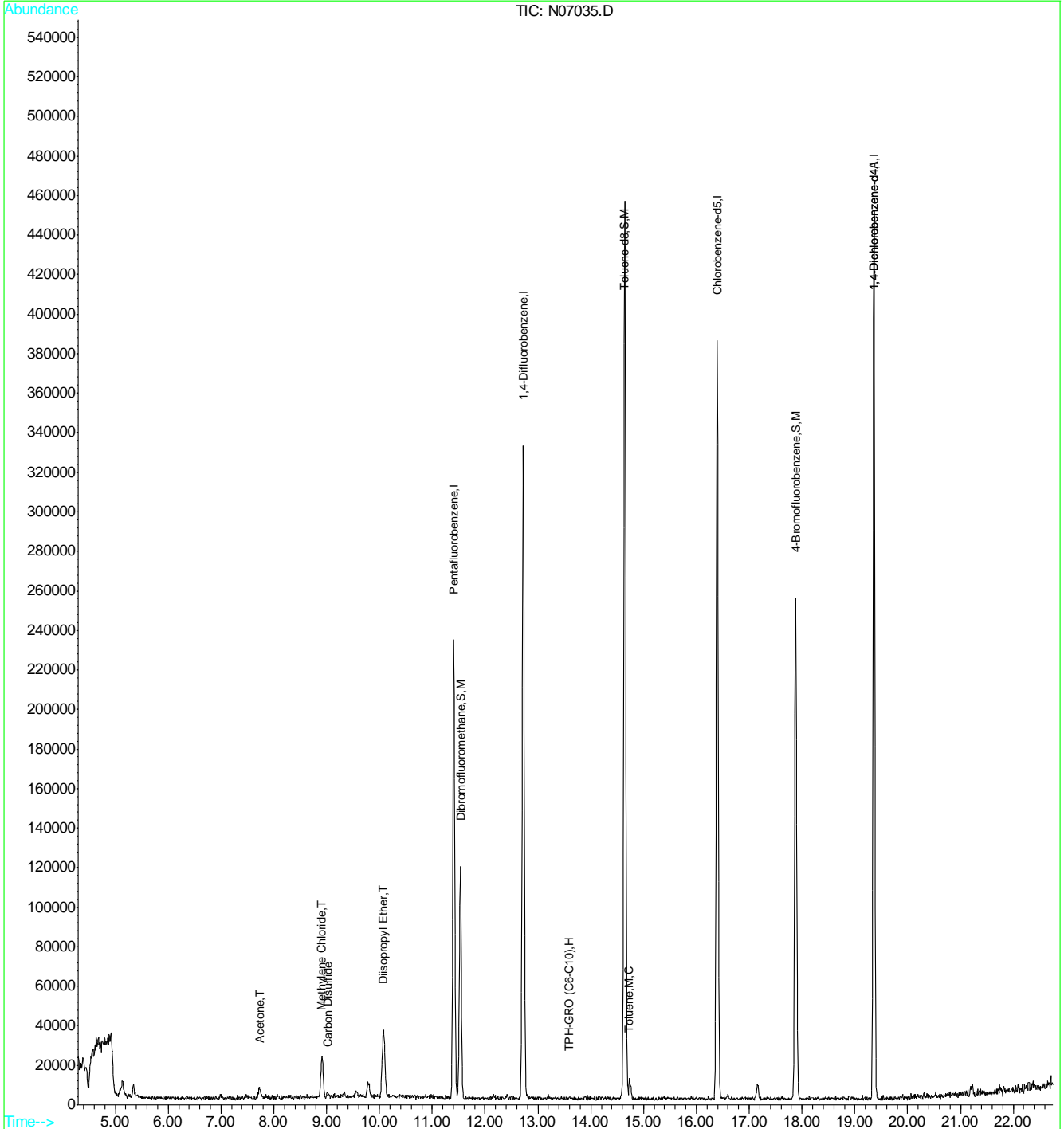
5.1.3
 5

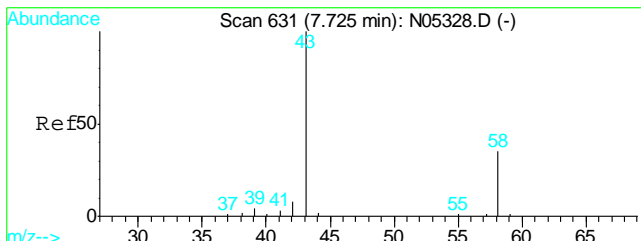
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N090518\N07035.D Vial: 15
 Acq On : 18 May 2009 3:01 pm Operator: TitiaF
 Sample : C5727-3 Inst : VMS-02
 Misc : MS877,VN234,10,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 19 11:17 2009 Quant Results File: VN230W.RES

Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration

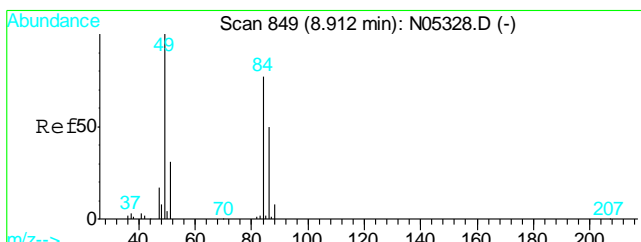
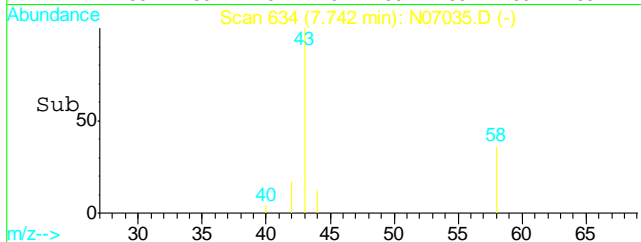
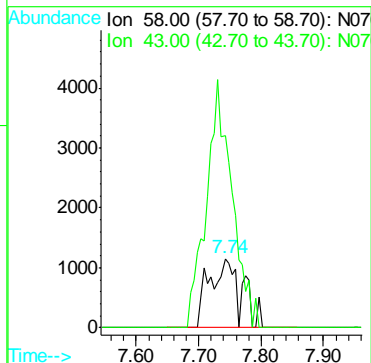
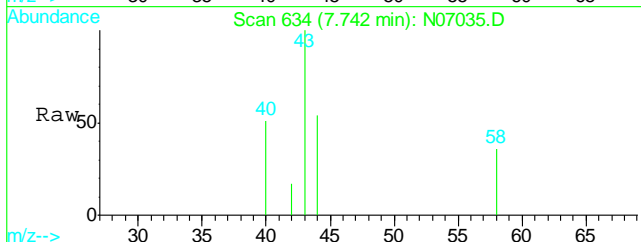
5.1.3
5





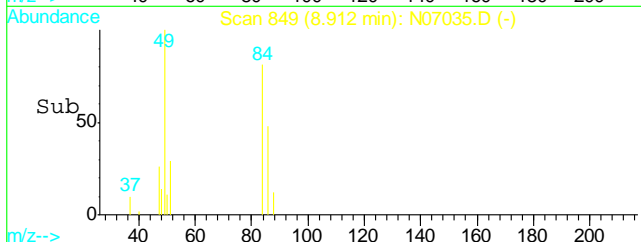
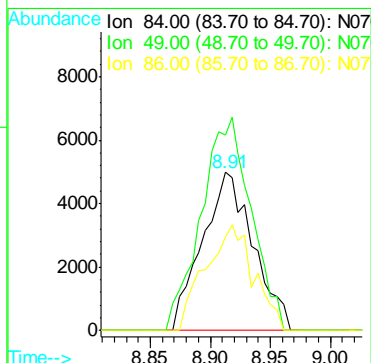
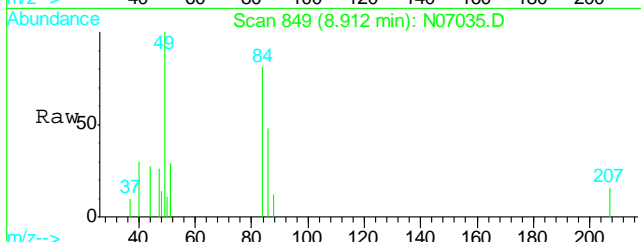
#11
Acetone
Concen: 5.48 ppb m
RT: 7.74 min Scan# 634
Delta R.T. 0.01 min
Lab File: N07035.D
Acq: 18 May 2009 3:01 pm

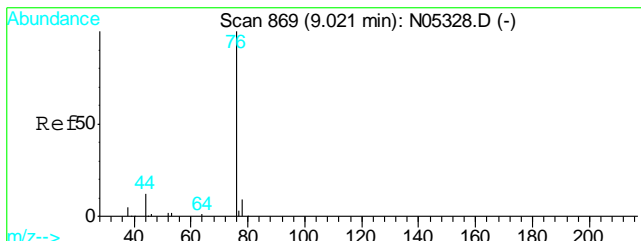
Tgt Ion: 58 Resp: 40342
Ion Ratio Lower Upper
58 100
43 0.0 253.2 379.8#



#18
Methylene Chloride
Concen: 1.21 ppb
RT: 8.91 min Scan# 849
Delta R.T. -0.00 min
Lab File: N07035.D
Acq: 18 May 2009 3:01 pm

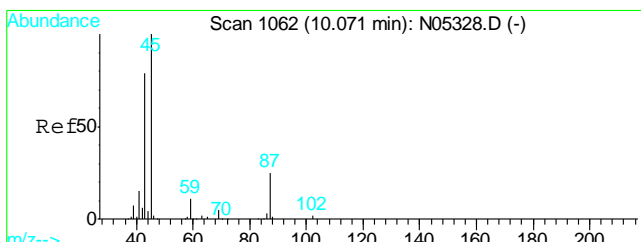
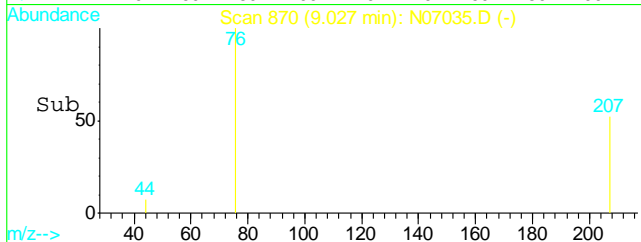
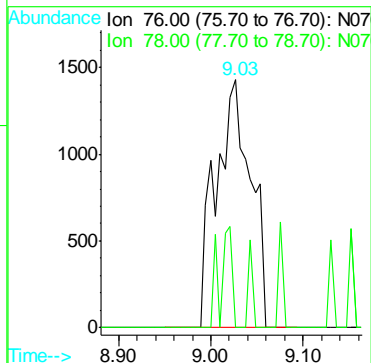
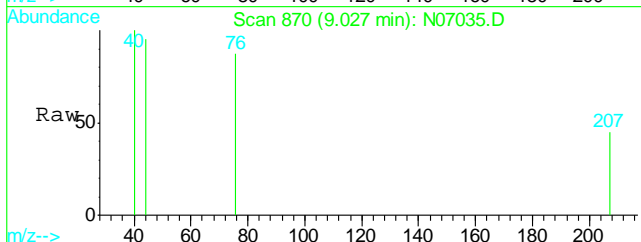
Tgt Ion: 84 Resp: 147078
Ion Ratio Lower Upper
84 100
49 131.9 122.1 162.1
86 63.7 43.4 83.4





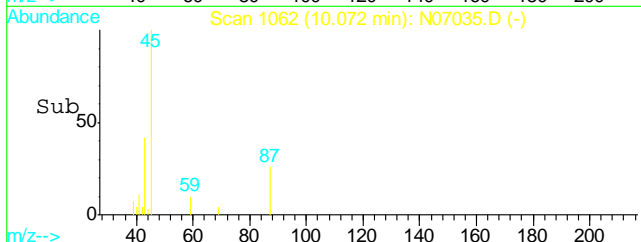
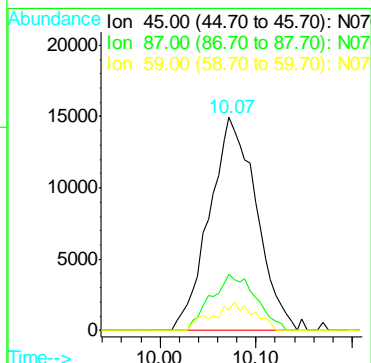
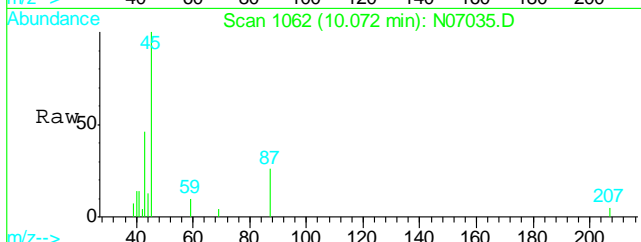
#20
Carbon Disulfide
Concen: 0.13 ppb m
RT: 9.03 min Scan# 870
Delta R.T. -0.01 min
Lab File: N07035.D
Acq: 18 May 2009 3:01 pm

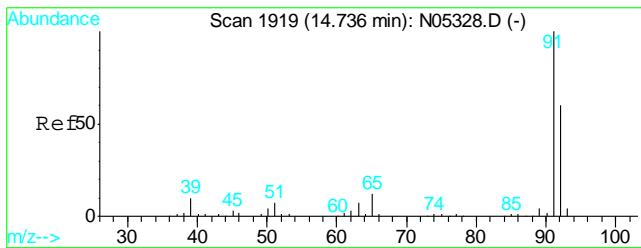
Tgt Ion	Resp	Lower	Upper
76	37411	100	
78	0.0	7.4	11.0#



#23
Diisopropyl Ether
Concen: 1.31 ppb
RT: 10.07 min Scan# 1062
Delta R.T. -0.00 min
Lab File: N07035.D
Acq: 18 May 2009 3:01 pm

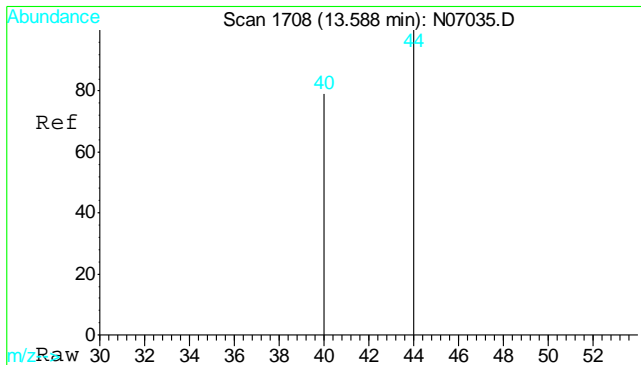
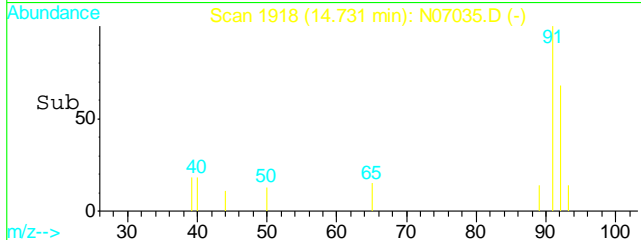
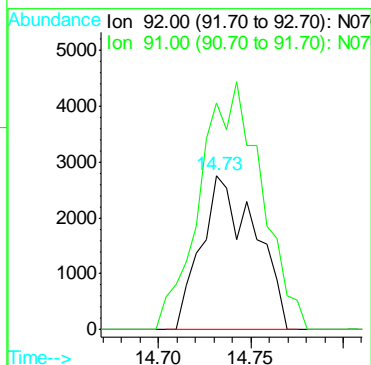
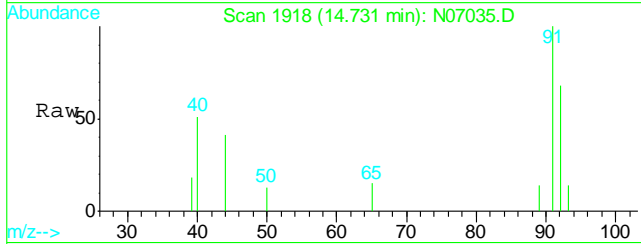
Tgt Ion	Resp	Lower	Upper
45	507612	100	
87	25.2	0.0	78.8
59	9.6	0.0	42.0





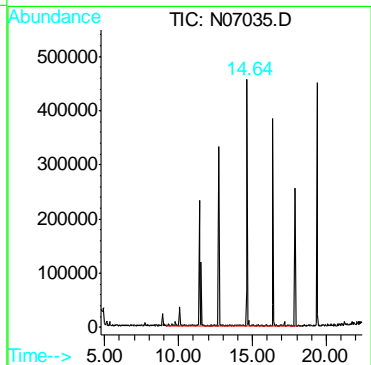
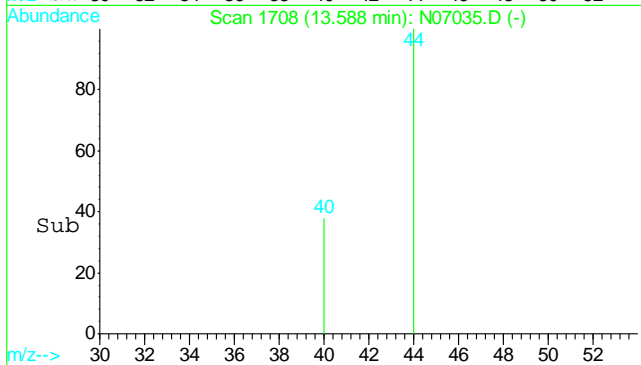
#57
Toluene
Concen: 0.16 ppb
RT: 14.73 min Scan# 1918
Delta R.T. -0.01 min
Lab File: N07035.D
Acq: 18 May 2009 3:01 pm

Tgt Ion: 92 Resp: 55593
Ion Ratio Lower Upper
92 100
91 183.0 147.3 187.3



#99
TPH-GRO (C6-C10)
Concen: 3.82 ppb m
RT: 13.59 min Scan# 1708
Delta R.T. 0.00 min
Lab File: N07035.D
Acq: 18 May 2009 3:01 pm

Tgt Ion:TIC Resp: 2504227



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N090518\N07036.D Vial: 16
 Acq On : 18 May 2009 3:31 pm Operator: TitiaF
 Sample : C5727-4 Inst : VMS-02
 Misc : MS877,VN234,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 19 11:22 2009 Quant Results File: VN230W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration
 DataAcq Meth : VN230W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.41	168	2264604	10.00	ppb	-0.01
40) 1,4-Difluorobenzene	12.72	114	3567986	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	3055407	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.37	152	1449271	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.37	152	1449271	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	999484	10.03	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	100.30%
56) Toluene-d8	14.65	98	4203664	9.99	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	99.90%
74) 4-Bromofluorobenzene	17.88	95	1239309	9.20	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.00%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
11) Acetone	7.73	58	17774m	2.38	ppb	
18) Methylene Chloride	8.90	84	156451	1.27	ppb	95
20) Carbon Disulfide	9.02	76	75676	0.26	ppb	# 75
57) Toluene	14.74	92	64238	0.19	ppb	100
99) TPH-GRO (C6-C10)	16.39	TIC	8928156m	14.05	ppb	

(#) = qualifier out of range (m) = manual integration
 N07036.D VN230W.M Tue May 19 11:22:25 2009 RPT1

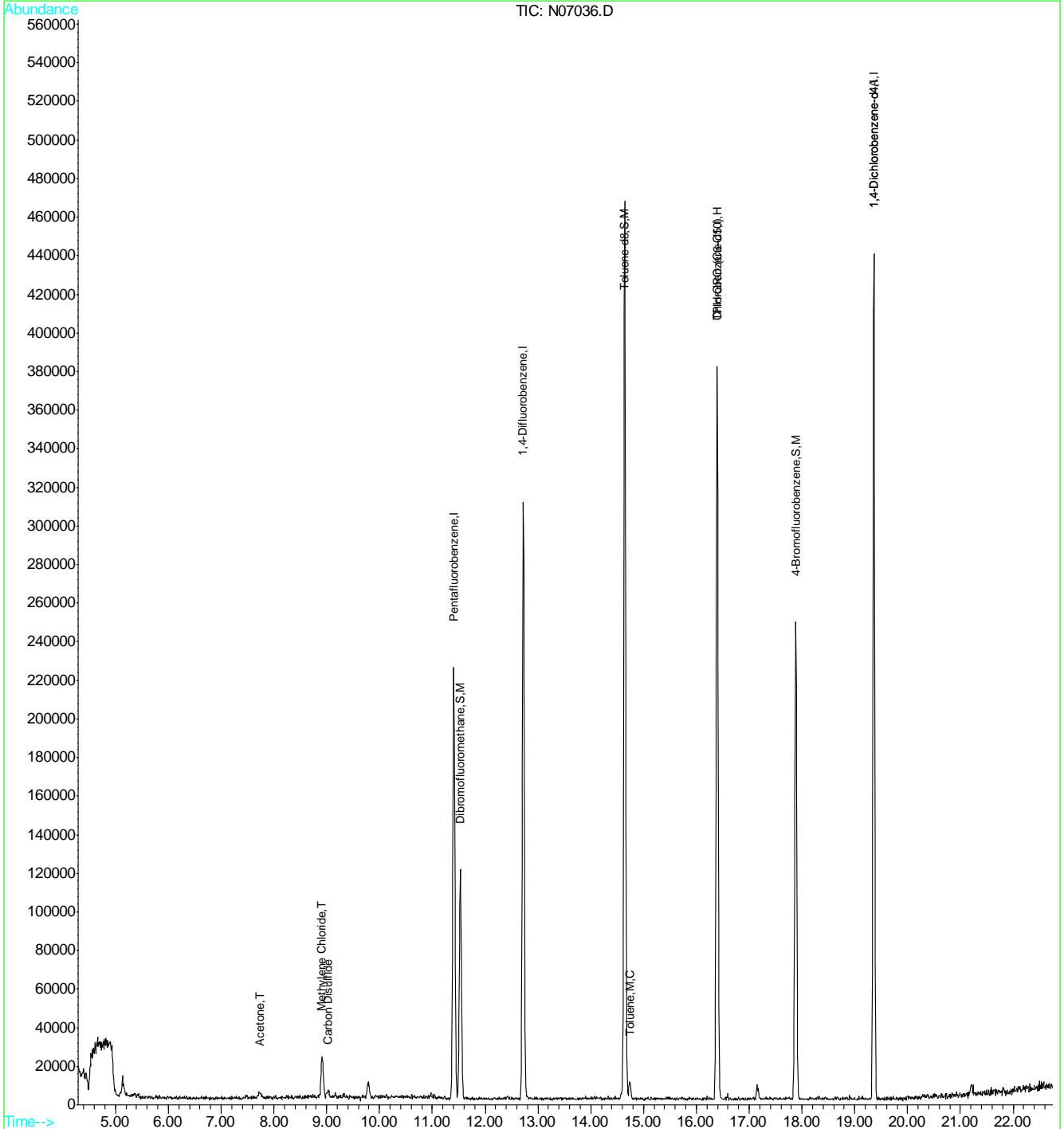
5.14
 5

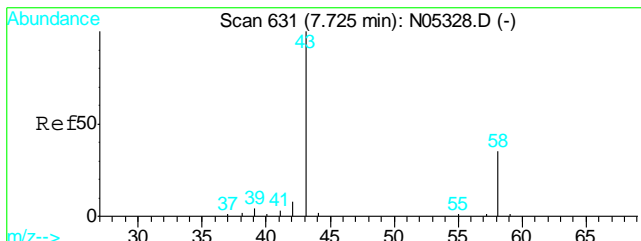
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N090518\N07036.D Vial: 16
 Acq On : 18 May 2009 3:31 pm Operator: TitiaF
 Sample : C5727-4 Inst : VMS-02
 Misc : MS877,VN234,10,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 19 11:22 2009 Quant Results File: VN230W.RES

Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration

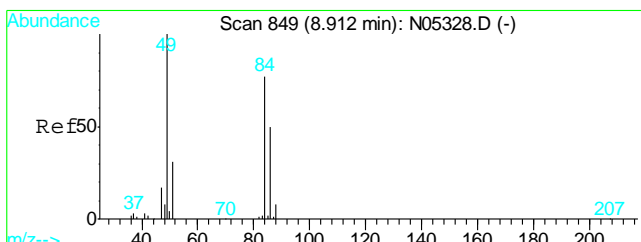
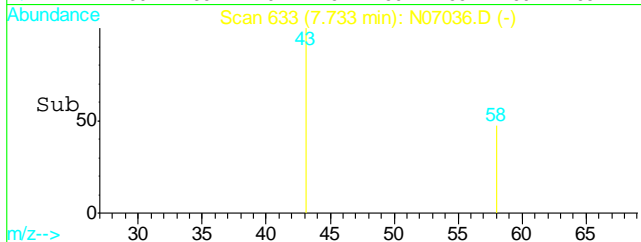
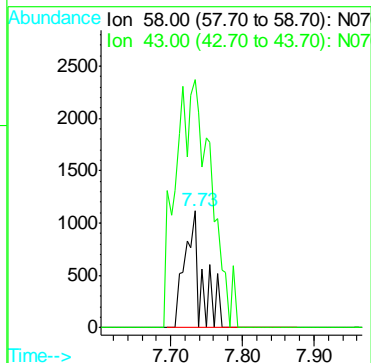
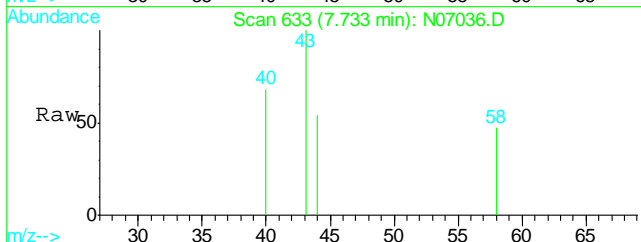
5.14
5





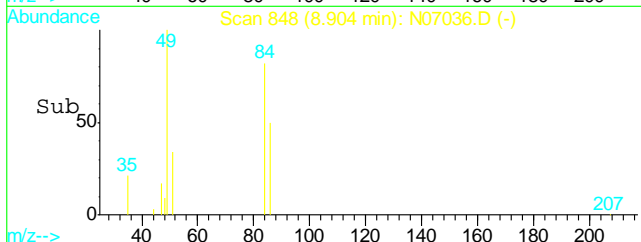
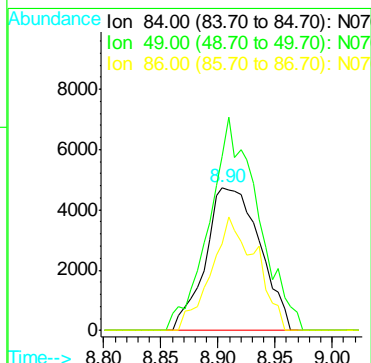
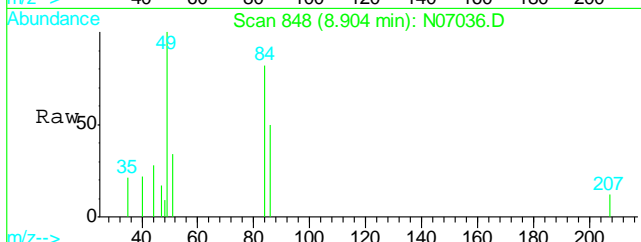
#11
Acetone
Concen: 2.38 ppb m
RT: 7.73 min Scan# 633
Delta R.T. 0.01 min
Lab File: N07036.D
Acq: 18 May 2009 3:31 pm

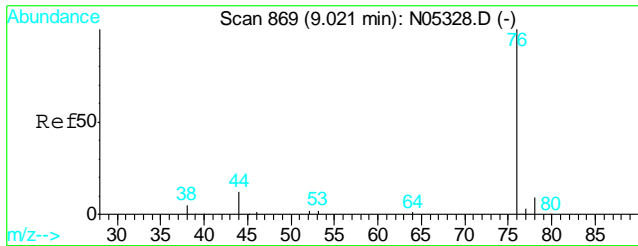
Tgt Ion	Resp	Lower	Upper
58	17774		
58	100		
43	285.1	253.2	379.8



#18
Methylene Chloride
Concen: 1.27 ppb
RT: 8.90 min Scan# 848
Delta R.T. -0.01 min
Lab File: N07036.D
Acq: 18 May 2009 3:31 pm

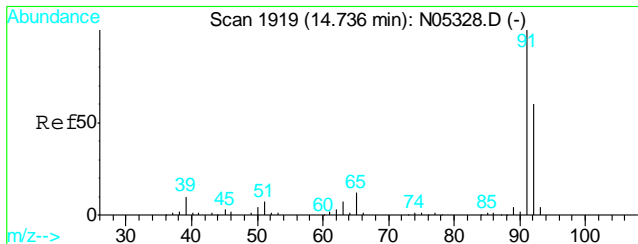
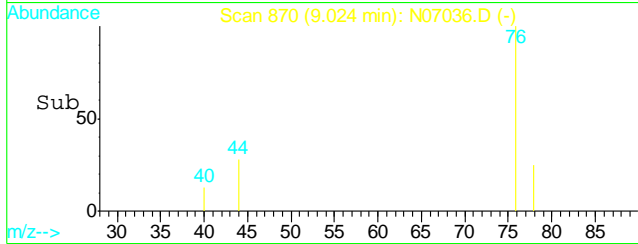
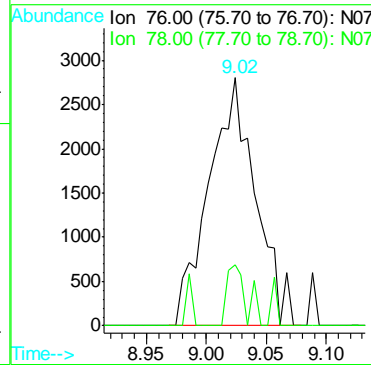
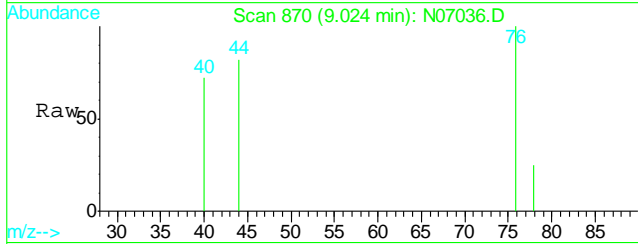
Tgt Ion	Resp	Lower	Upper
84	156451		
84	100		
49	134.6	122.1	162.1
86	66.1	43.4	83.4





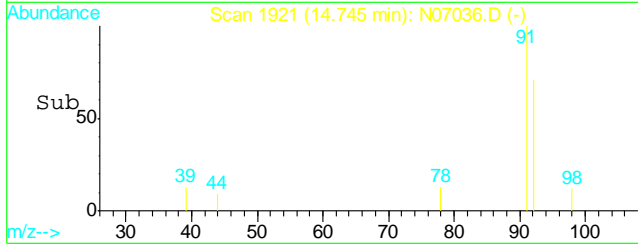
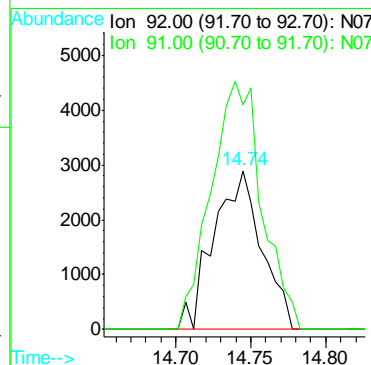
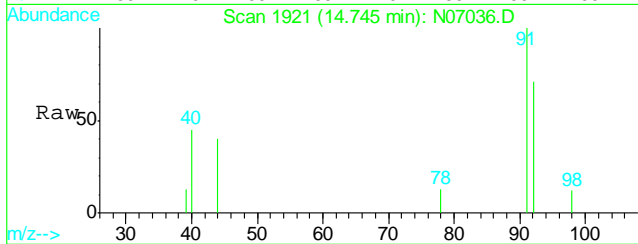
#20
Carbon Disulfide
Concen: 0.26 ppb
RT: 9.02 min Scan# 870
Delta R.T. -0.01 min
Lab File: N07036.D
Acq: 18 May 2009 3:31 pm

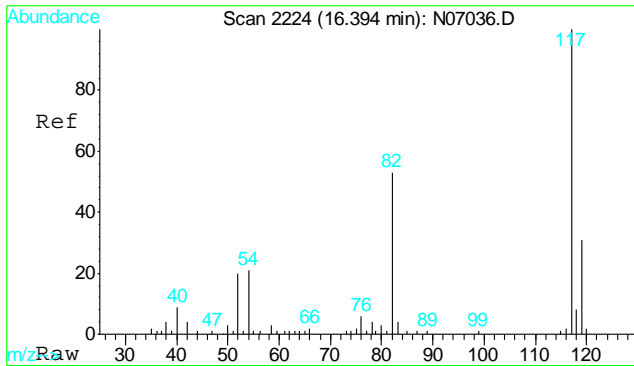
Tgt Ion: 76 Resp: 75676
Ion Ratio Lower Upper
76 100
78 0.0 7.4 11.0#



#57
Toluene
Concen: 0.19 ppb
RT: 14.74 min Scan# 1921
Delta R.T. 0.00 min
Lab File: N07036.D
Acq: 18 May 2009 3:31 pm

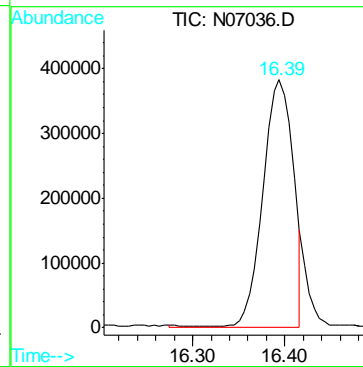
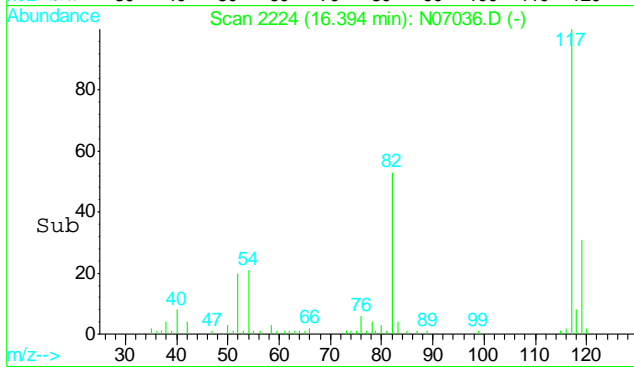
Tgt Ion: 92 Resp: 64238
Ion Ratio Lower Upper
92 100
91 166.7 147.3 187.3





#99
TPH-GRO (C6-C10)
Concen: 14.05 ppb m
RT: 16.39 min Scan# 2224
Delta R.T. 2.80 min
Lab File: N07036.D
Acq: 18 May 2009 3:31 pm

Tgt Ion:TIC Resp: 8928156



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N090518\N07037.D Vial: 17
 Acq On : 18 May 2009 4:02 pm Operator: TitiaF
 Sample : C5727-5 Inst : VMS-02
 Misc : MS877,VN234,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 19 11:26 2009 Quant Results File: VN230W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration
 DataAcq Meth : VN230W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.41	168	2196071	10.00	ppb	-0.01
40) 1,4-Difluorobenzene	12.72	114	3584417	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	3013808	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.37	152	1418048	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.37	152	1418048	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	982340	10.16	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	101.60%
56) Toluene-d8	14.64	98	4159286	10.02	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	100.20%
74) 4-Bromofluorobenzene	17.88	95	1232477	9.28	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.80%

Target Compounds

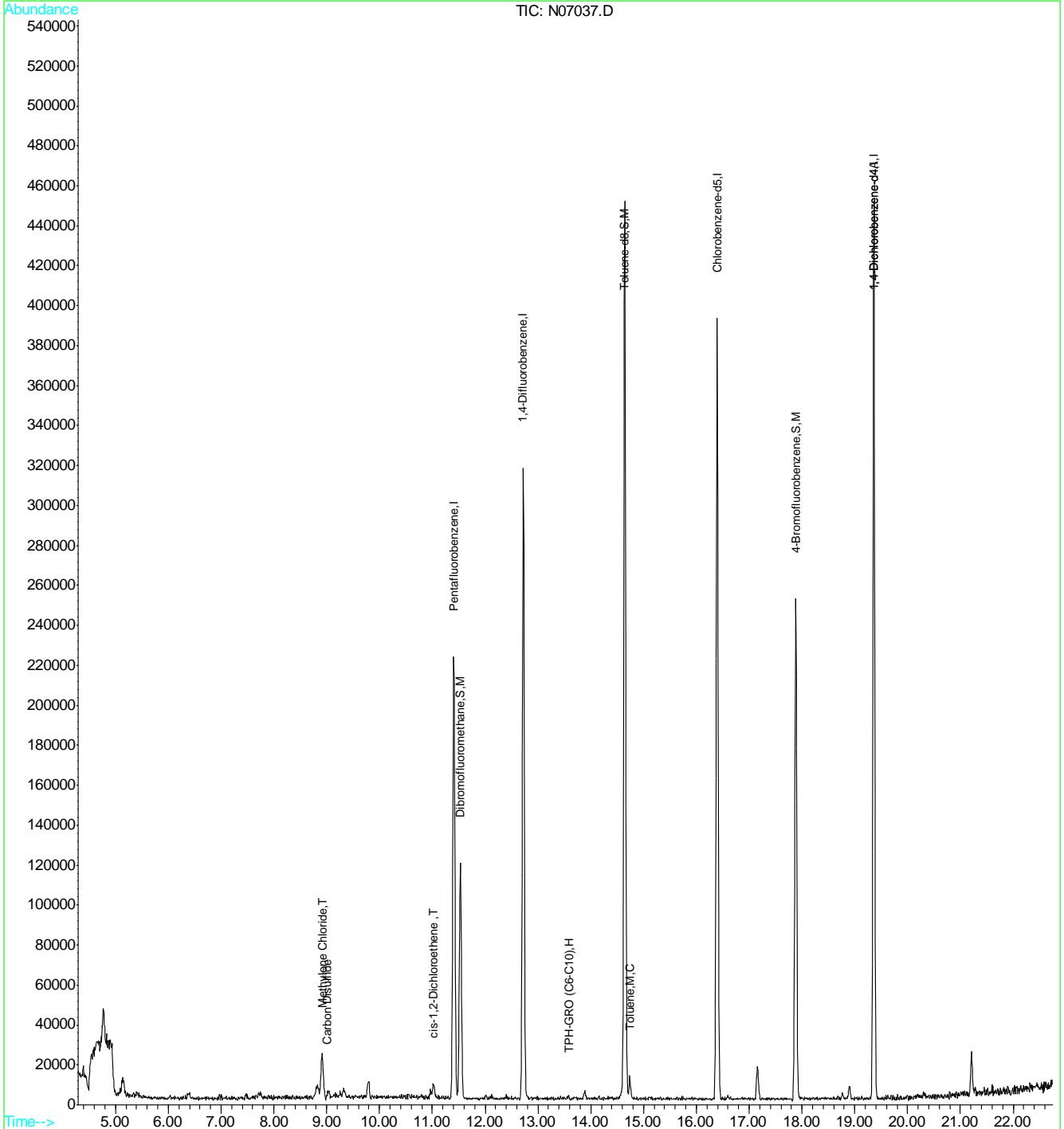
						Qvalue
18) Methylene Chloride	8.91	84	150644	1.26	ppb	97
20) Carbon Disulfide	9.01	76	63871	0.22	ppb	# 75
34) cis-1,2-Dichloroethene	11.02	96	51930	0.39	ppb	# 78
57) Toluene	14.74	92	59593	0.17	ppb	95
99) TPH-GRO (C6-C10)	13.59	TIC	2333310m	3.75	ppb	

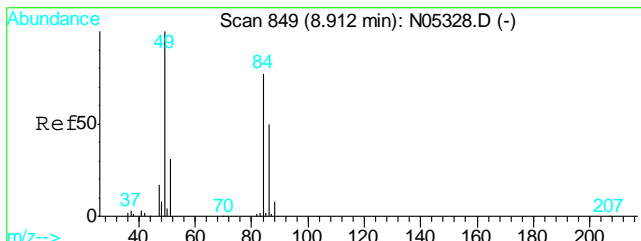
(#) = qualifier out of range (m) = manual integration
 N07037.D VN230W.M Tue May 19 11:26:51 2009 RPT1

Quantitation Report

Data File : C:\HPCHEM\1\DATA\N090518\N07037.D Vial: 17
 Acq On : 18 May 2009 4:02 pm Operator: TitiaF
 Sample : C5727-5 Inst : VMS-02
 Misc : MS877,VN234,10,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 19 11:26 2009 Quant Results File: VN230W.RES

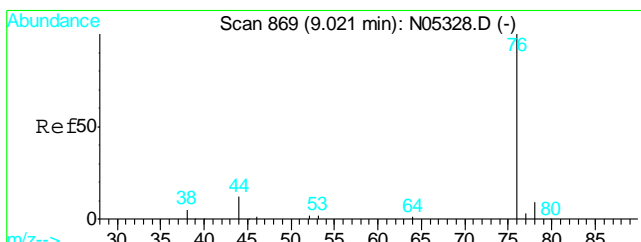
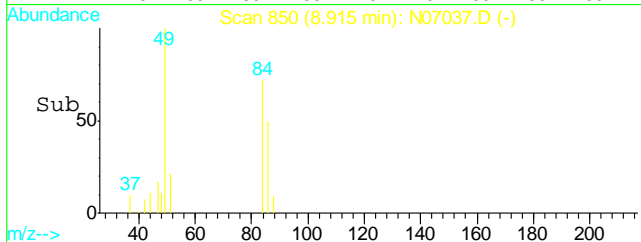
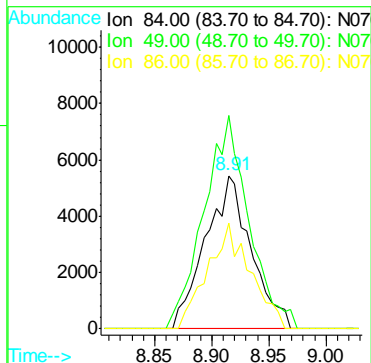
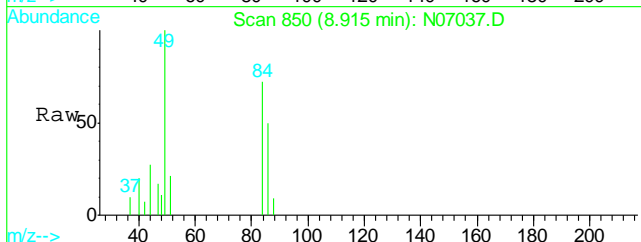
Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration





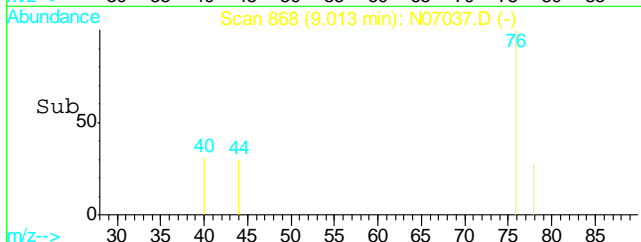
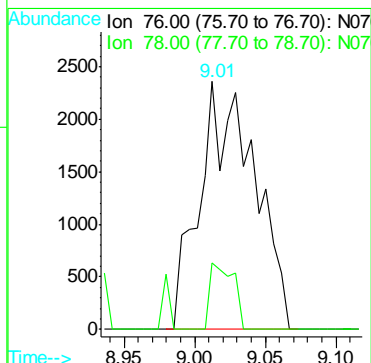
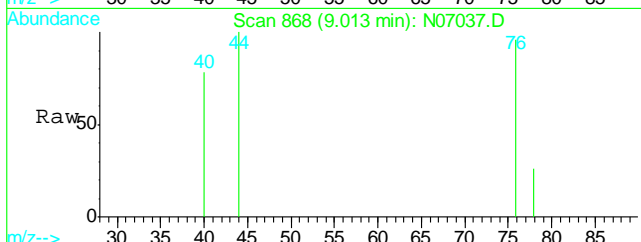
#18
Methylene Chloride
Concen: 1.26 ppb
RT: 8.91 min Scan# 850
Delta R.T. 0.00 min
Lab File: N07037.D
Acq: 18 May 2009 4:02 pm

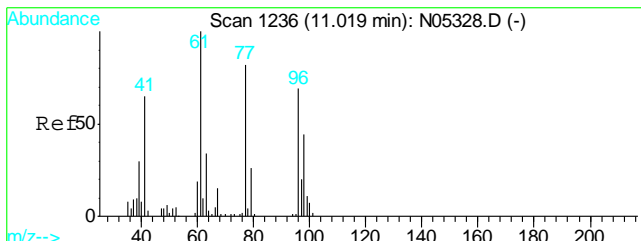
Tgt Ion	Resp	Lower	Upper
84	150644		
49	137.9	122.1	162.1
86	64.6	43.4	83.4



#20
Carbon Disulfide
Concen: 0.22 ppb
RT: 9.01 min Scan# 868
Delta R.T. -0.02 min
Lab File: N07037.D
Acq: 18 May 2009 4:02 pm

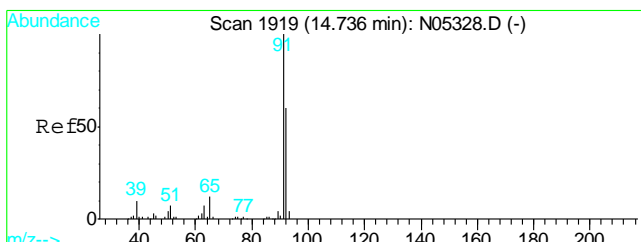
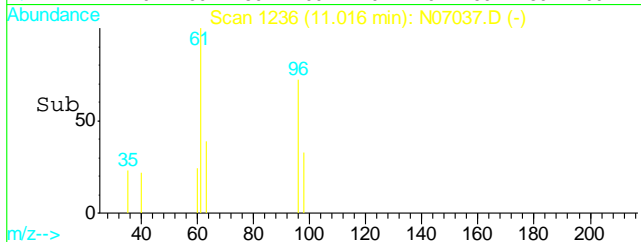
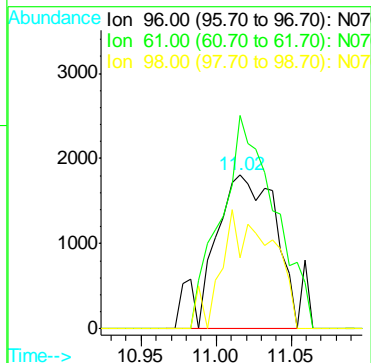
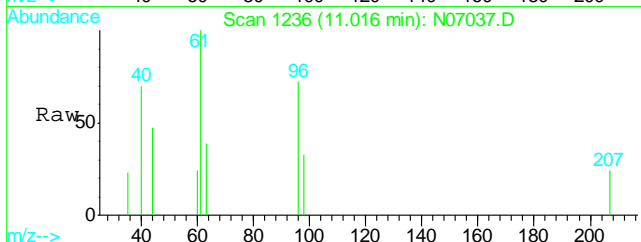
Tgt Ion	Resp	Lower	Upper
76	63871		
76	100		
78	0.0	7.4	11.0#





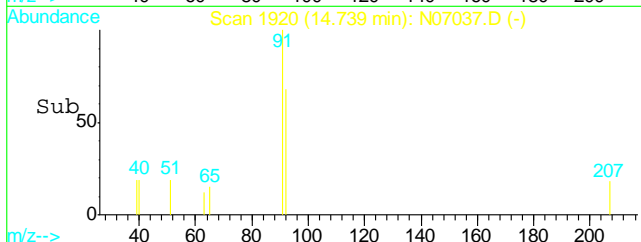
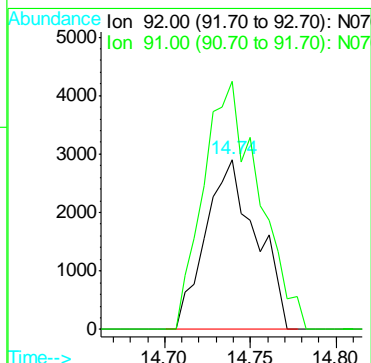
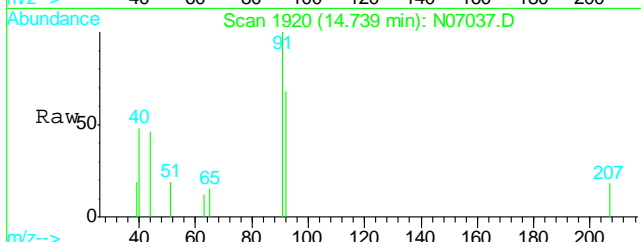
#34
 cis-1,2-Dichloroethene
 Concen: 0.39 ppb
 RT: 11.02 min Scan# 1236
 Delta R.T. -0.01 min
 Lab File: N07037.D
 Acq: 18 May 2009 4:02 pm

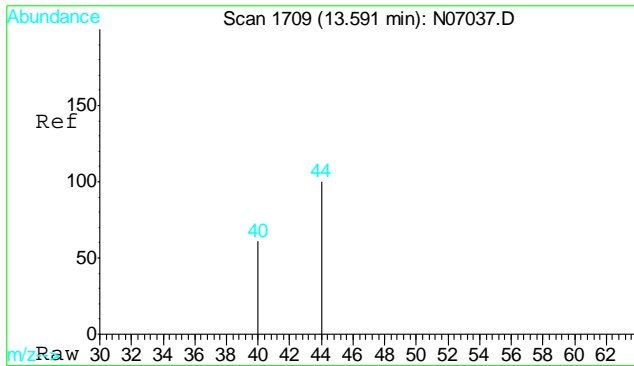
Tgt Ion	Resp	Lower	Upper
96	51930		
61	120.5	140.0	180.0#
98	62.4	43.7	83.7



#57
 Toluene
 Concen: 0.17 ppb
 RT: 14.74 min Scan# 1920
 Delta R.T. -0.00 min
 Lab File: N07037.D
 Acq: 18 May 2009 4:02 pm

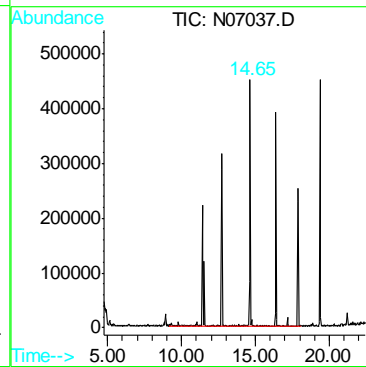
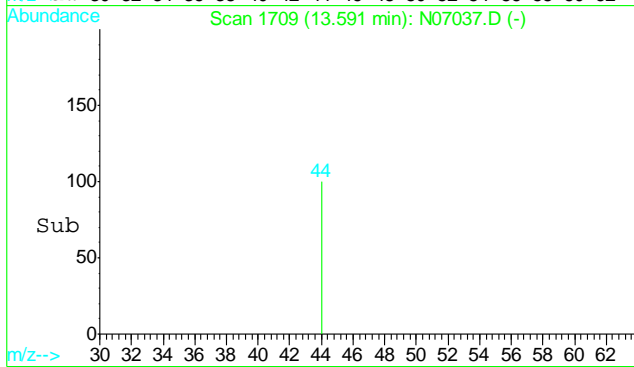
Tgt Ion	Resp	Lower	Upper
92	59593		
91	160.5	147.3	187.3





#99
TPH-GRO (C6-C10)
Concen: 3.75 ppb m
RT: 13.59 min Scan# 1709
Delta R.T. 0.00 min
Lab File: N07037.D
Acq: 18 May 2009 4:02 pm

Tgt Ion:TIC Resp: 2333310



5.1.5
5

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N090518\N07038.D Vial: 18
 Acq On : 18 May 2009 4:32 pm Operator: TitiaF
 Sample : C5727-6 Inst : VMS-02
 Misc : MS877,VN234,10,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 19 11:32 2009 Quant Results File: VN230W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration
 DataAcq Meth : VN230W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.41	168	2162677	10.00	ppb	0.00
40) 1,4-Difluorobenzene	12.72	114	3508757	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	2960742	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.36	152	1475533	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.36	152	1475533	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	961778	10.10	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	101.00%
56) Toluene-d8	14.64	98	3962059	9.71	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	97.10%
74) 4-Bromofluorobenzene	17.88	95	1233315	9.45	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	94.50%

Target Compounds

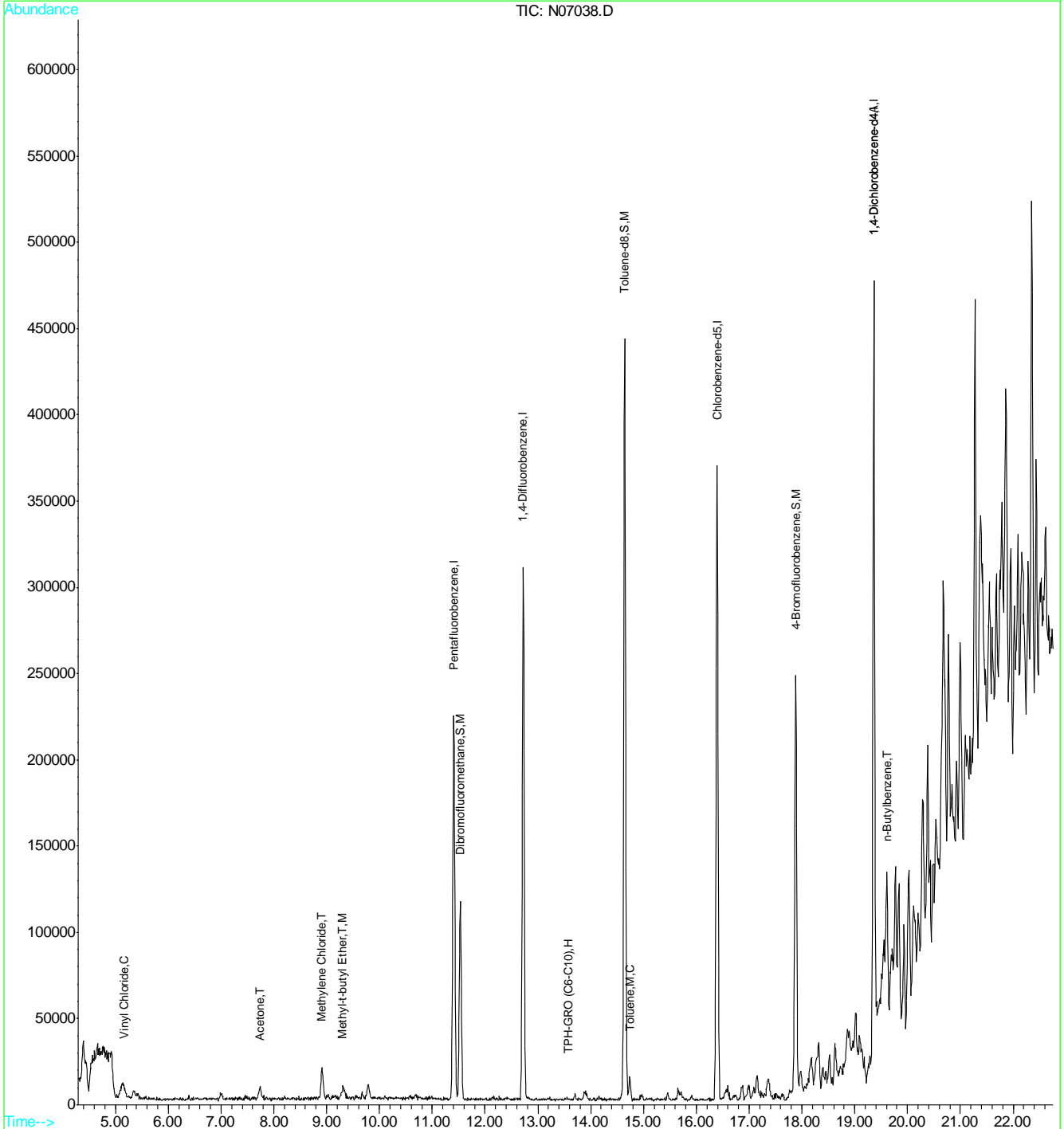
	R.T.	QIon	Response	Conc	Units	Qvalue
4) Vinyl Chloride	5.17	62	49320	0.21	ppb	# 43
11) Acetone	7.74	58	66965	9.40	ppb	# 62
18) Methylene Chloride	8.92	84	116599	0.99	ppb	96
21) Methyl-t-butyl Ether	9.31	73	91757	0.36	ppb	# 63
57) Toluene	14.75	92	76091	0.23	ppb	93
86) 1,2,4-Trimethylbenzene	18.81	105	21593	Below	Cal	# 24
87) sec-Butylbenzene	19.02	105	54157	Below	Cal	# 57
91) n-Butylbenzene	19.62	91	70973	1.54	ppb	# 76
99) TPH-GRO (C6-C10)	13.59	TIC	4777241m	7.38	ppb	

(#) = qualifier out of range (m) = manual integration
 N07038.D VN230W.M Tue May 19 11:32:56 2009 RPT1

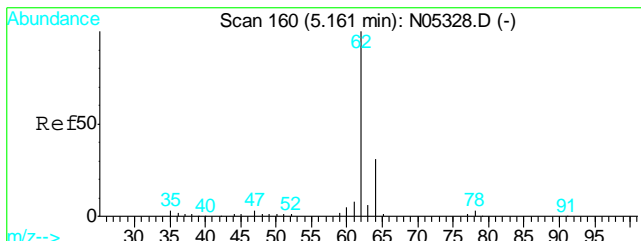
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N090518\N07038.D Vial: 18
 Acq On : 18 May 2009 4:32 pm Operator: TitiaF
 Sample : C5727-6 Inst : VMS-02
 Misc : MS877,VN234,10,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 19 11:32 2009 Quant Results File: VN230W.RES

Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration

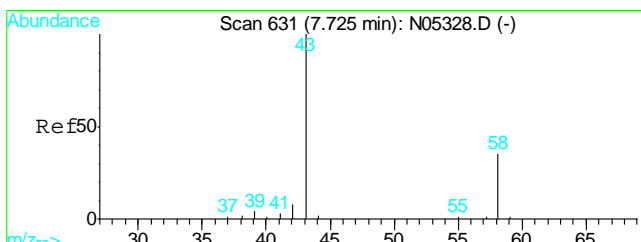
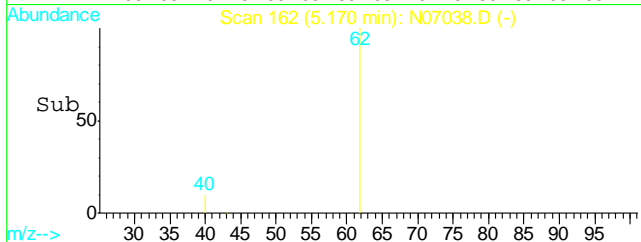
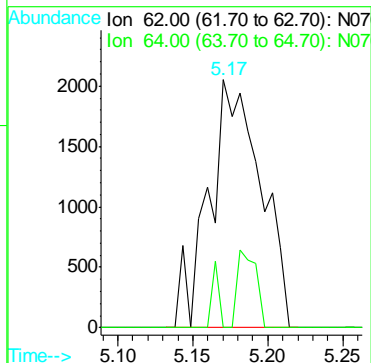
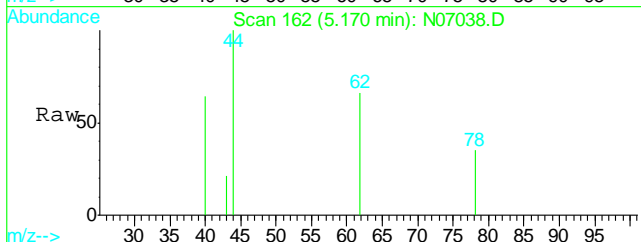


5.1.6
 5



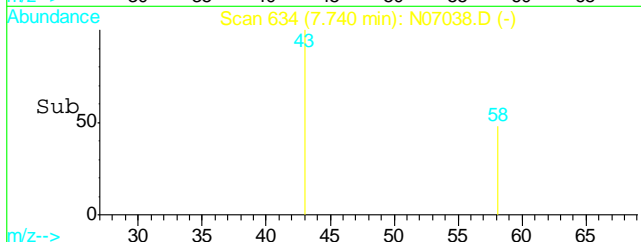
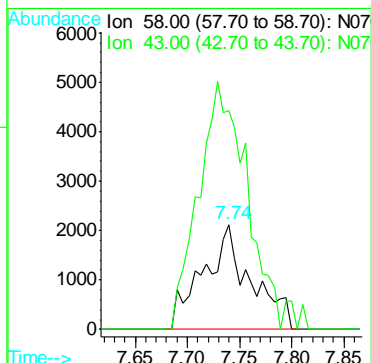
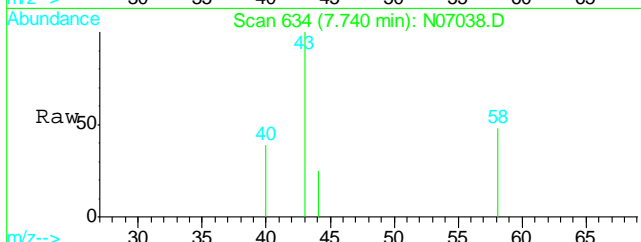
#4
 Vinyl Chloride
 Concen: 0.21 ppb
 RT: 5.17 min Scan# 162
 Delta R.T. -0.01 min
 Lab File: N07038.D
 Acq: 18 May 2009 4:32 pm

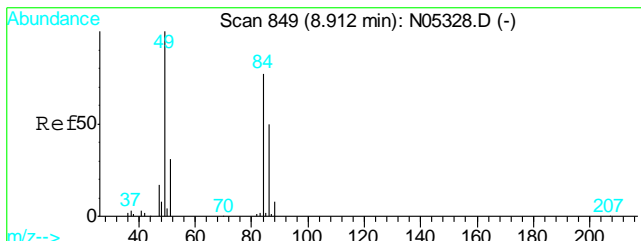
Tgt Ion	Resp	Lower	Upper
62	49320		
64	0.0	11.6	51.6#



#11
 Acetone
 Concen: 9.40 ppb
 RT: 7.74 min Scan# 634
 Delta R.T. 0.01 min
 Lab File: N07038.D
 Acq: 18 May 2009 4:32 pm

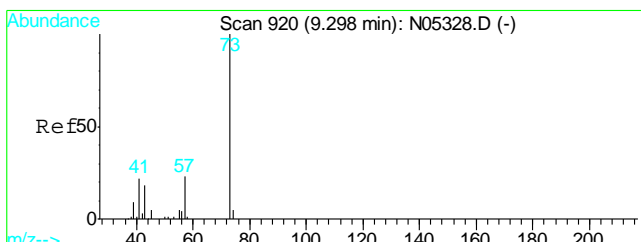
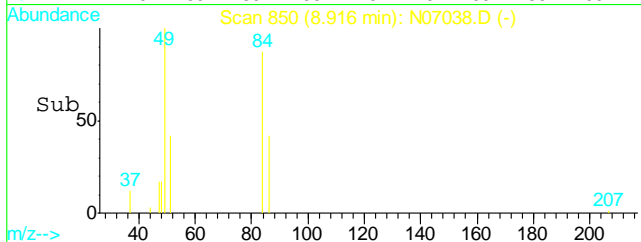
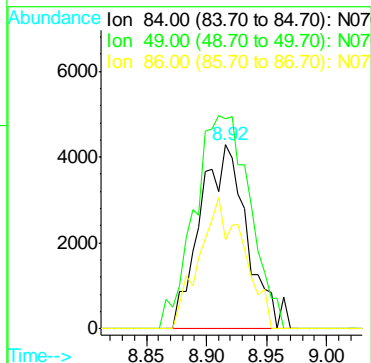
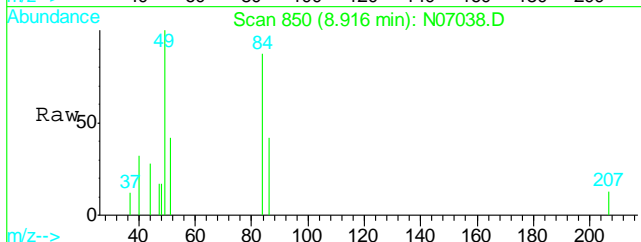
Tgt Ion	Resp	Lower	Upper
58	66965		
43	239.3	253.2	379.8#





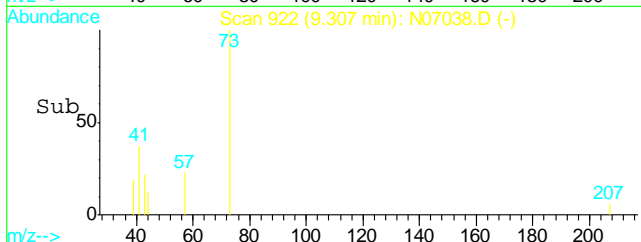
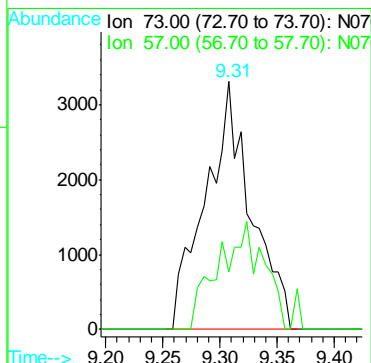
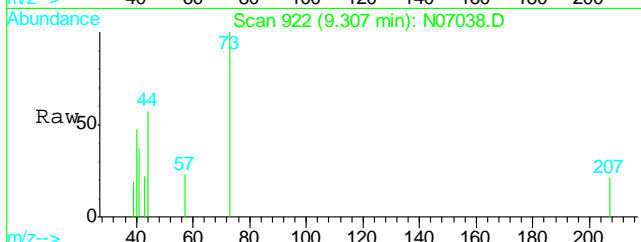
#18
Methylene Chloride
Concen: 0.99 ppb
RT: 8.92 min Scan# 850
Delta R.T. 0.00 min
Lab File: N07038.D
Acq: 18 May 2009 4:32 pm

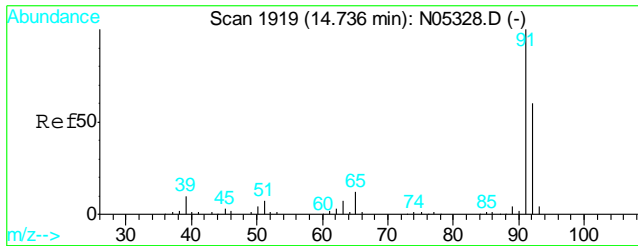
Tgt Ion	Resp	Lower	Upper
84	116599		
49	136.9	122.1	162.1
86	66.9	43.4	83.4



#21
Methyl-t-butyl Ether
Concen: 0.36 ppb
RT: 9.31 min Scan# 922
Delta R.T. 0.00 min
Lab File: N07038.D
Acq: 18 May 2009 4:32 pm

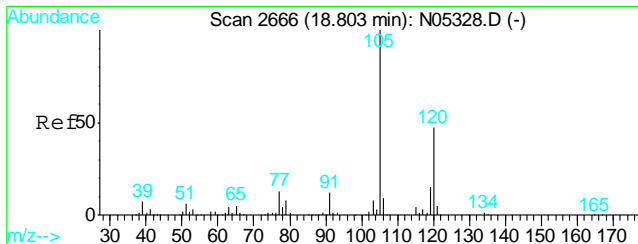
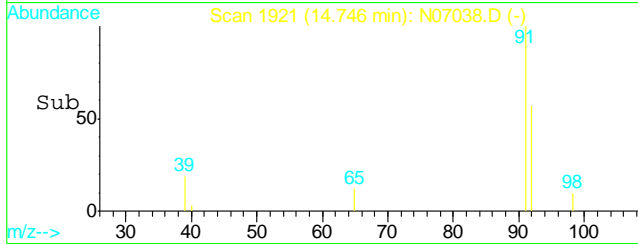
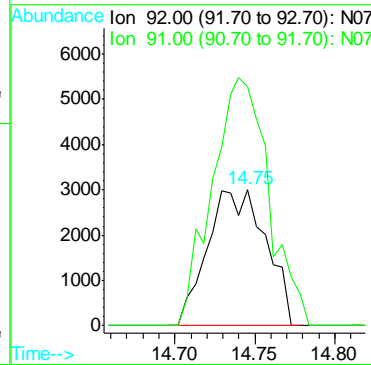
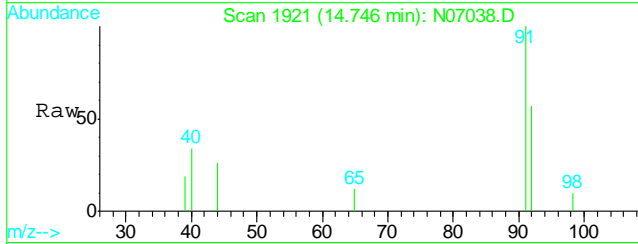
Tgt Ion	Resp	Lower	Upper
73	91757		
57	43.1	17.2	32.0#





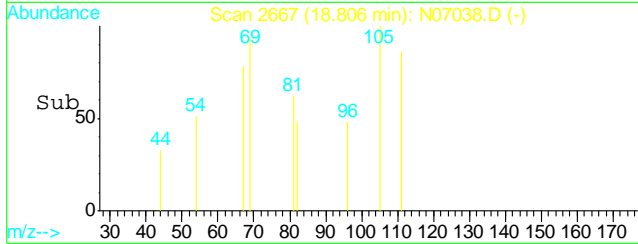
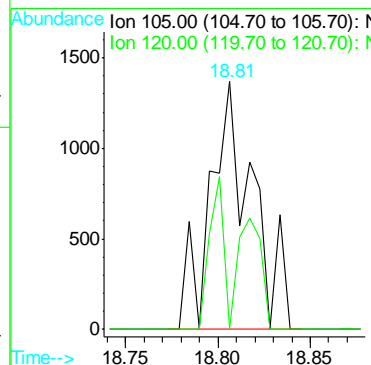
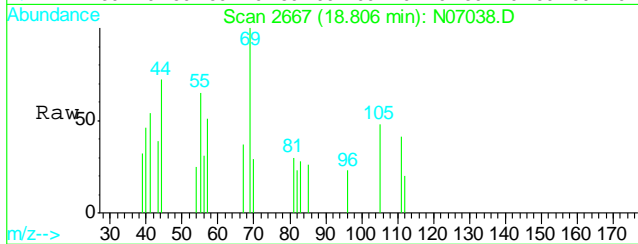
#57
Toluene
Concen: 0.23 ppb
RT: 14.75 min Scan# 1921
Delta R.T. 0.00 min
Lab File: N07038.D
Acq: 18 May 2009 4:32 pm

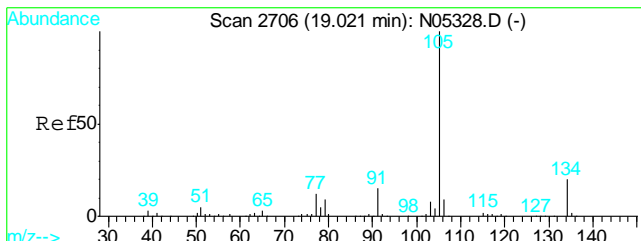
Tgt Ion	Resp	Lower	Upper
92	76091	100	
91	177.0	147.3	187.3



#86
1,2,4-Trimethylbenzene
Concen: Below Cal
RT: 18.81 min Scan# 2667
Delta R.T. 0.00 min
Lab File: N07038.D
Acq: 18 May 2009 4:32 pm

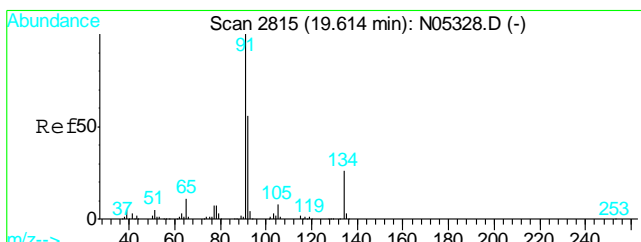
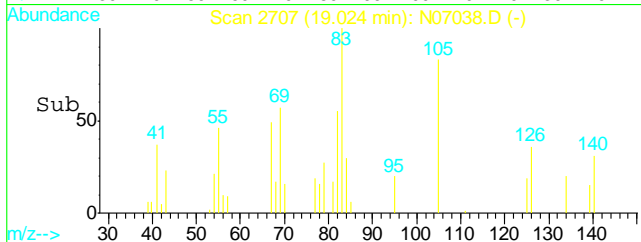
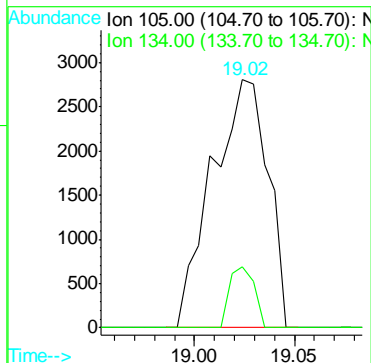
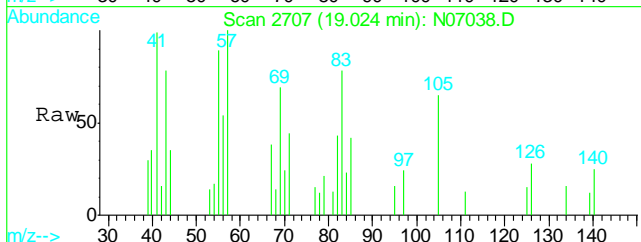
Tgt Ion	Resp	Lower	Upper
105	21593	100	
120	0.0	44.0	66.0#





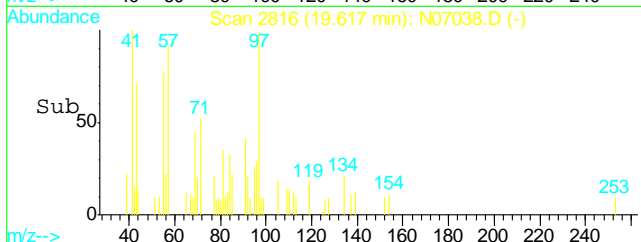
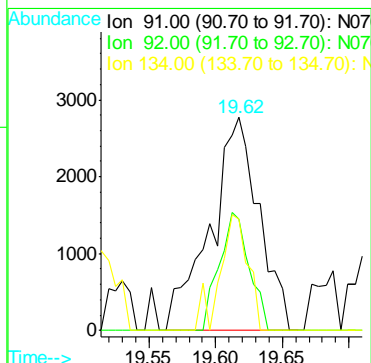
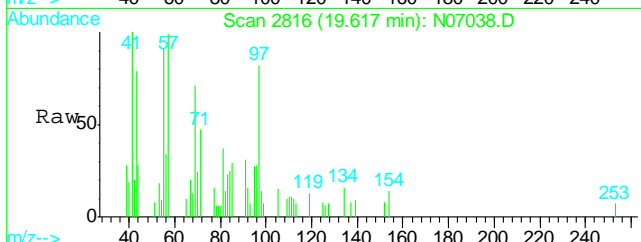
#87
 sec-Butylbenzene
 Concen: Below Cal
 RT: 19.02 min Scan# 2707
 Delta R.T. 0.00 min
 Lab File: N07038.D
 Acq: 18 May 2009 4:32 pm

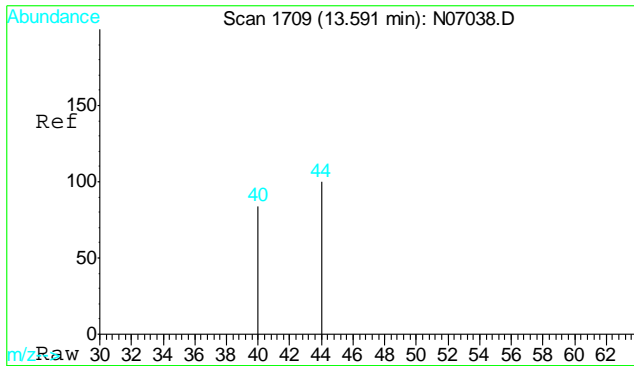
Tgt Ion	Resp	Lower	Upper
105	54157	100	
134	0.0	15.7	23.5#



#91
 n-Butylbenzene
 Concen: 1.54 ppb
 RT: 19.62 min Scan# 2816
 Delta R.T. 0.01 min
 Lab File: N07038.D
 Acq: 18 May 2009 4:32 pm

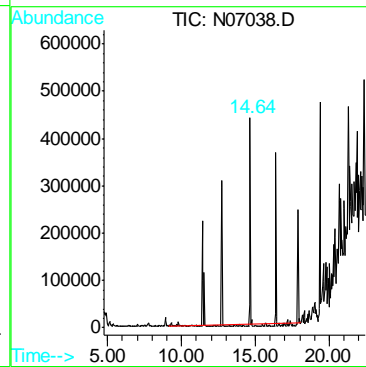
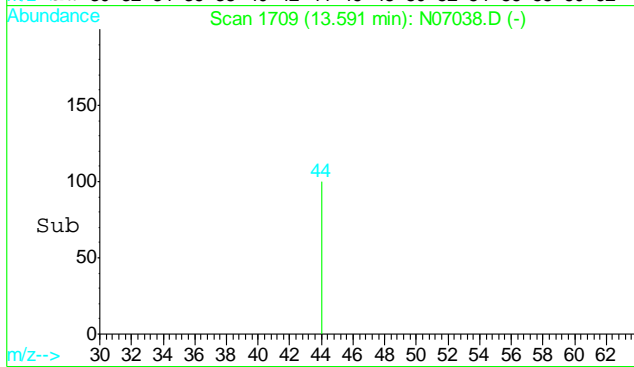
Tgt Ion	Resp	Lower	Upper
91	70973	100	
92	34.4	44.3	66.5#
134	31.2	19.8	29.8#





#99
TPH-GRO (C6-C10)
Concen: 7.38 ppb m
RT: 13.59 min Scan# 1709
Delta R.T. 0.00 min
Lab File: N07038.D
Acq: 18 May 2009 4:32 pm

Tgt Ion:TIC Resp: 4777241



5.1.6
5

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N090519\N07055.D Vial: 8
Acq On : 19 May 2009 12:05 pm Operator: TitiaF
Sample : C5727-7 Inst : VMS-02
Misc : MS877,VN235,10,,,,,1 Multiplr: 1.00
MS Integration Params: RTEINT.P
Quant Time: May 20 10:39 2009 Quant Results File: VN230W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
Title : WATER-EPA 8260B
Last Update : Wed May 13 11:51:51 2009
Response via : Initial Calibration
DataAcq Meth : VN230W

Table with 7 columns: Internal Standards, R.T., QIon, Response, Conc, Units, Dev(Min). Rows include Pentafluorobenzene, 1,4-Difluorobenzene, Chlorobenzene-d5, 1,4-Dichlorobenzene-d4, and 1,4-Dichlorobenzene-d4A.

System Monitoring Compounds

Table with 7 columns: Compound Name, Spiked Amount, R.T., QIon, Response, Conc, Units, Dev(Min). Rows include Dibromofluoromethane and Toluene-d8.

Target Compounds

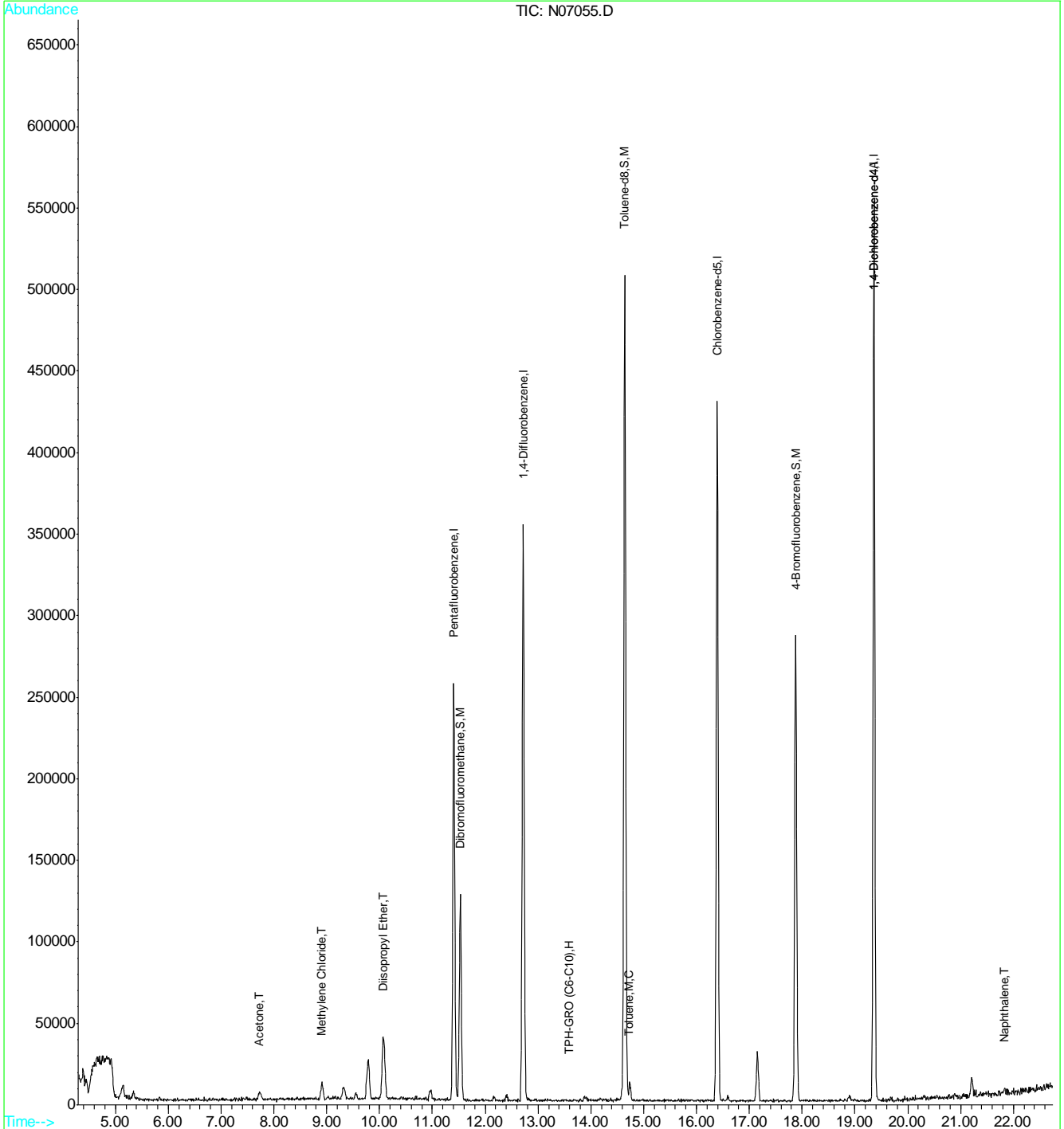
Table with 7 columns: Compound Name, R.T., QIon, Response, Conc, Units, Dev(Min), Qvalue. Rows include Acetone, Methylene Chloride, Diisopropyl Ether, Toluene, Naphthalene, and TPH-GRO (C6-C10).

(#) = qualifier out of range (m) = manual integration
N07055.D VN230W.M Wed May 20 10:40:16 2009 RPT1

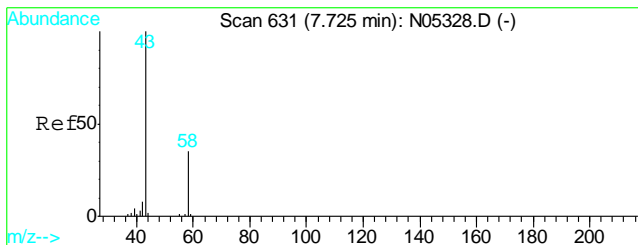
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N090519\N07055.D Vial: 8
 Acq On : 19 May 2009 12:05 pm Operator: TitiaF
 Sample : C5727-7 Inst : VMS-02
 Misc : MS877,VN235,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 20 10:39 2009 Quant Results File: VN230W.RES

Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration

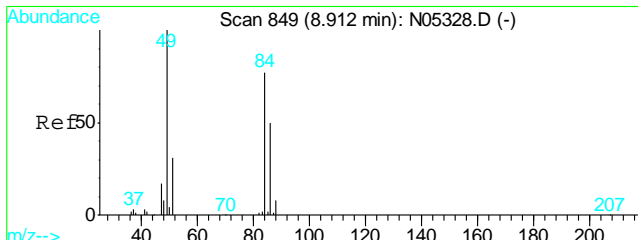
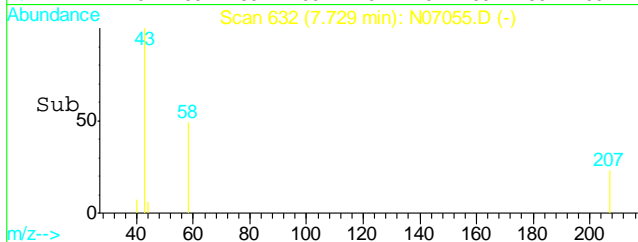
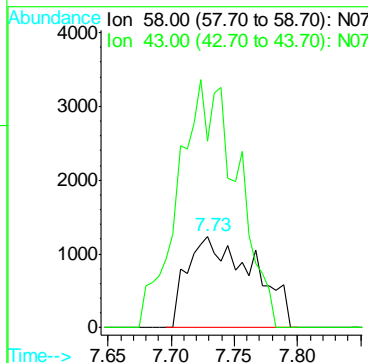
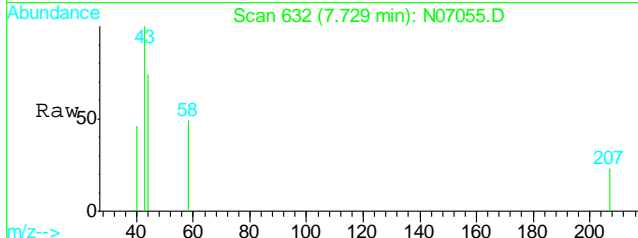


5.17
5



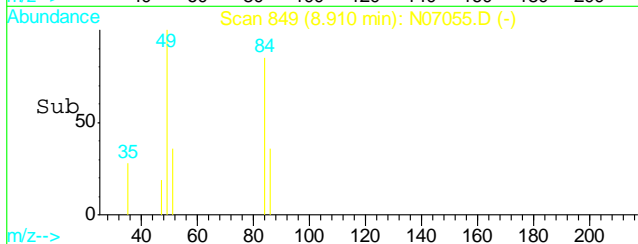
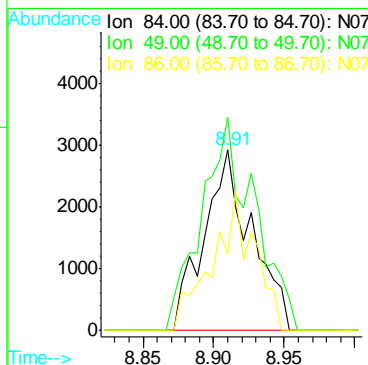
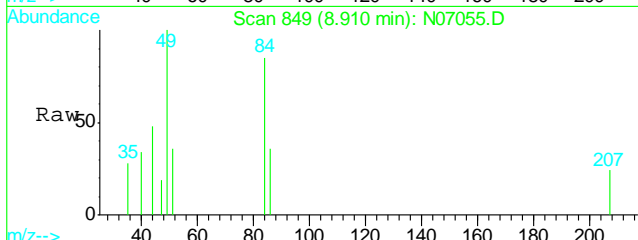
#11
Acetone
Concen: 5.36 ppb
RT: 7.73 min Scan# 632
Delta R.T. 0.00 min
Lab File: N07055.D
Acq: 19 May 2009 12:05 pm

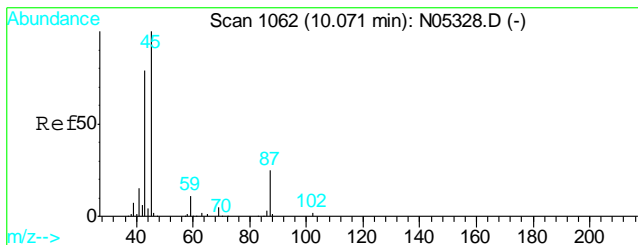
Tgt Ion: 58 Resp: 44298
Ion Ratio Lower Upper
58 100
43 249.3 253.2 379.8#



#18
Methylene Chloride
Concen: 0.50 ppb
RT: 8.91 min Scan# 849
Delta R.T. -0.00 min
Lab File: N07055.D
Acq: 19 May 2009 12:05 pm

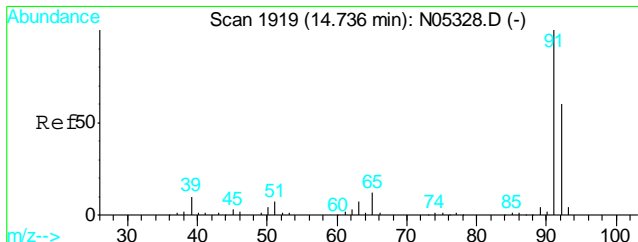
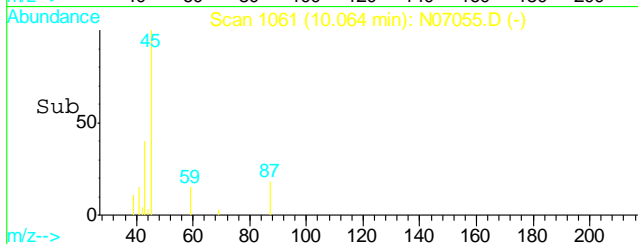
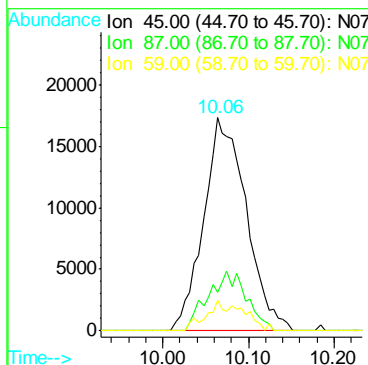
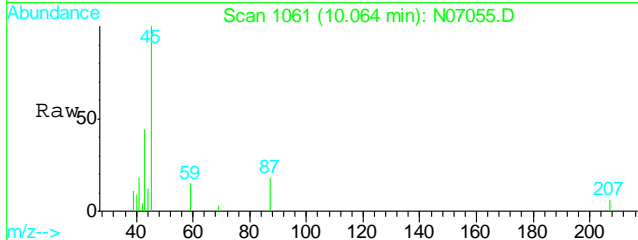
Tgt Ion: 84 Resp: 68231
Ion Ratio Lower Upper
84 100
49 130.9 122.1 162.1
86 68.3 43.4 83.4





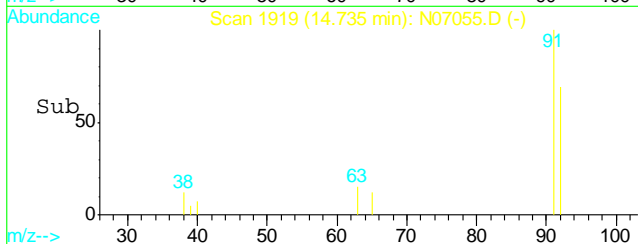
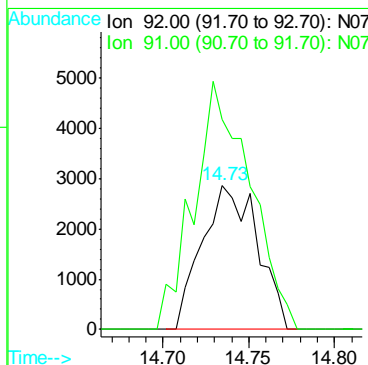
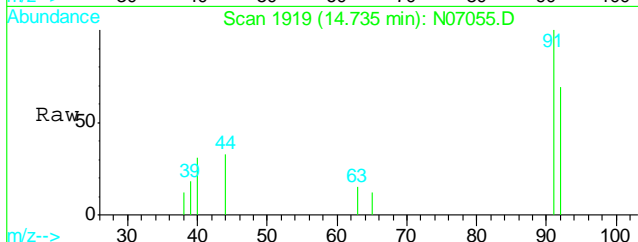
#23
Diisopropyl Ether
Concen: 1.37 ppb
RT: 10.06 min Scan# 1061
Delta R.T. -0.01 min
Lab File: N07055.D
Acq: 19 May 2009 12:05 pm

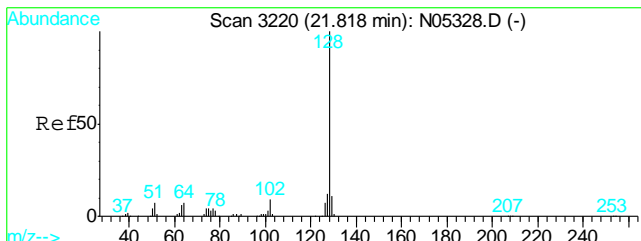
Tgt Ion	Ratio	Lower	Upper
45	100		
87	0.0	0.0	78.8
59	6.7	0.0	42.0



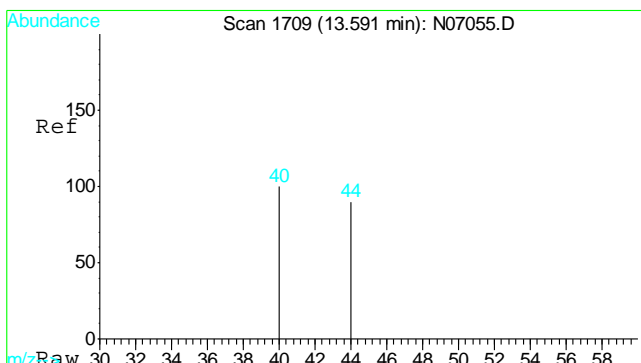
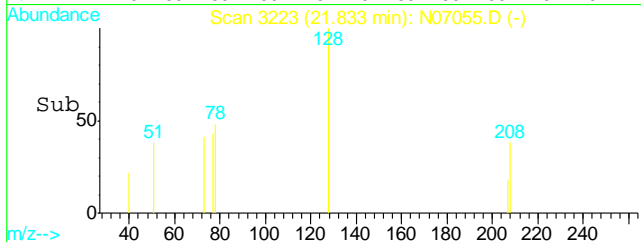
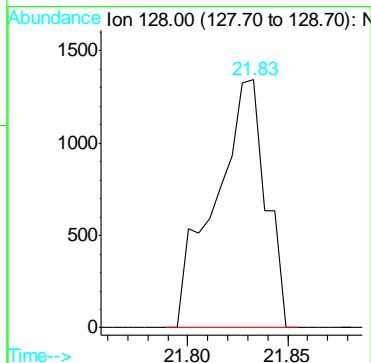
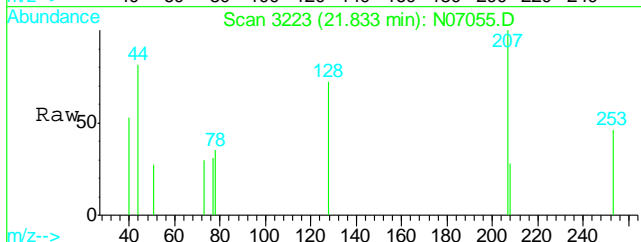
#57
Toluene
Concen: 0.17 ppb
RT: 14.73 min Scan# 1919
Delta R.T. -0.01 min
Lab File: N07055.D
Acq: 19 May 2009 12:05 pm

Tgt Ion	Ratio	Lower	Upper
92	100		
91	175.2	147.3	187.3

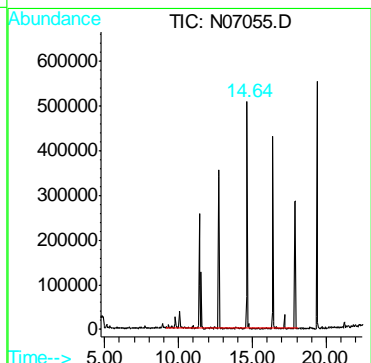
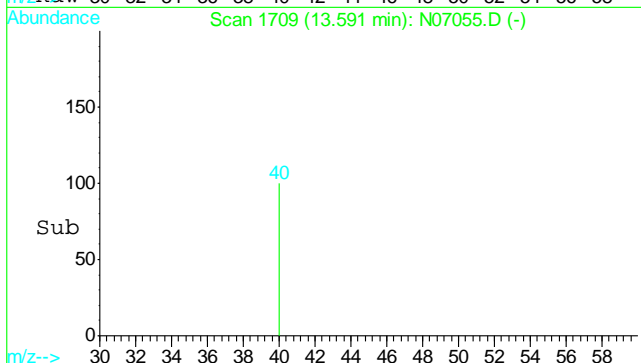




#96
 Naphthalene
 Concen: 0.10 ppb
 RT: 21.83 min Scan# 3223
 Delta R.T. 0.02 min
 Lab File: N07055.D
 Acq: 19 May 2009 12:05 pm
 Tgt Ion:128 Resp: 23794



#99
 TPH-GRO (C6-C10)
 Concen: 7.54 ppb m
 RT: 13.59 min Scan# 1709
 Delta R.T. 0.00 min
 Lab File: N07055.D
 Acq: 19 May 2009 12:05 pm
 Tgt Ion:TIC Resp: 5524855



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N090518\N07040.D Vial: 20
 Acq On : 18 May 2009 5:32 pm Operator: TitiaF
 Sample : C5727-8 Inst : VMS-02
 Misc : MS877,VN234,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 19 11:34 2009 Quant Results File: VN230W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration
 DataAcq Meth : VN230W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.41	168	2456628	10.00	ppb	-0.01
40) 1,4-Difluorobenzene	12.72	114	3980792	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	3311557	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.37	152	1643439	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.37	152	1643439	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	1076393	9.95	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	99.50%
56) Toluene-d8	14.64	98	4616981	10.12	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	101.20%
74) 4-Bromofluorobenzene	17.88	95	1427840	9.78	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	97.80%

Target Compounds

						Qvalue
11) Acetone	7.74	58	48174	5.95	ppb	96
14) tert-Butanol (TBA)	8.22	59	71839	11.80	ppb	# 76
18) Methylene Chloride	8.91	84	175814	1.31	ppb	94
35) Chloroform	11.26	83	1205753	5.50	ppb	98
49) Bromodichloromethane	13.66	83	41390	1.62	ppb	# 80
57) Toluene	14.74	92	47784	0.13	ppb	# 70
99) TPH-GRO (C6-C10)	13.59	TIC	7546572m	10.47	ppb	

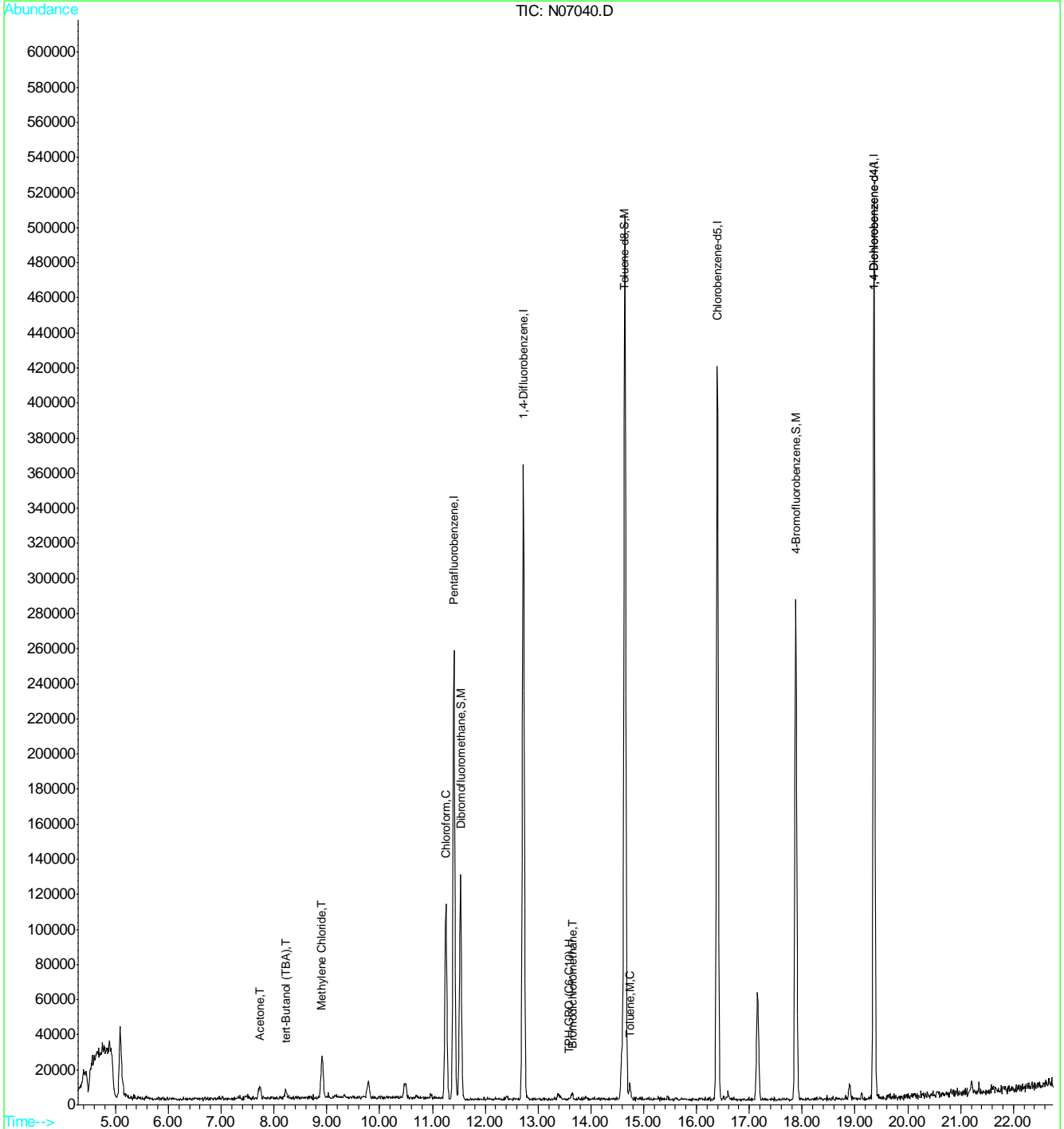
(#) = qualifier out of range (m) = manual integration
 N07040.D VN230W.M Tue May 19 11:34:46 2009 RPT1

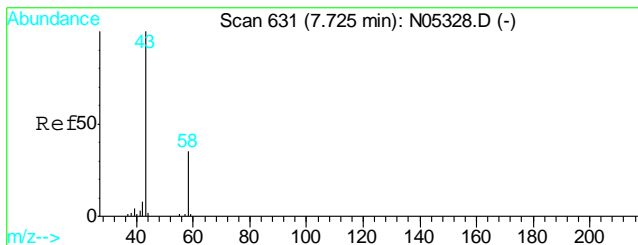
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N090518\N07040.D Vial: 20
 Acq On : 18 May 2009 5:32 pm Operator: TitiaF
 Sample : C5727-8 Inst : VMS-02
 Misc : MS877,VN234,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 19 11:34 2009 Quant Results File: VN230W.RES

Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration

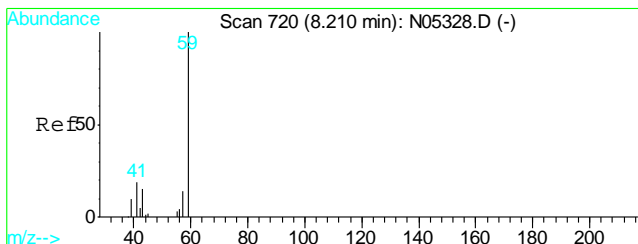
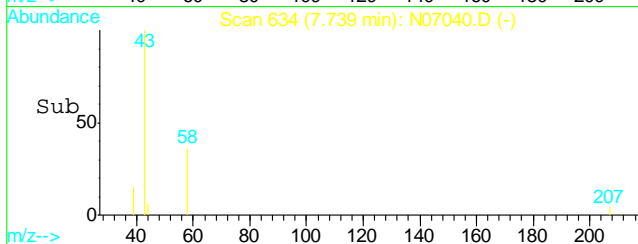
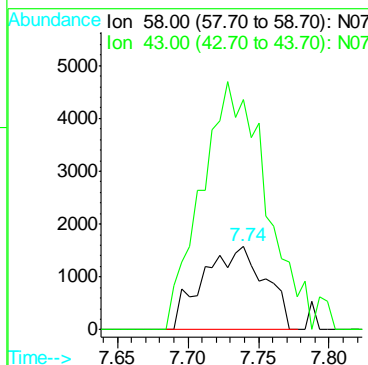
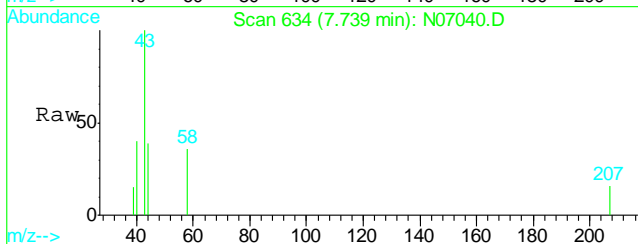
5.1.8
5





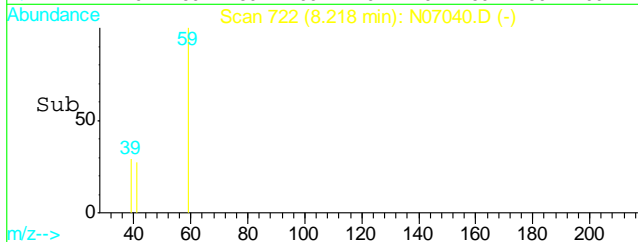
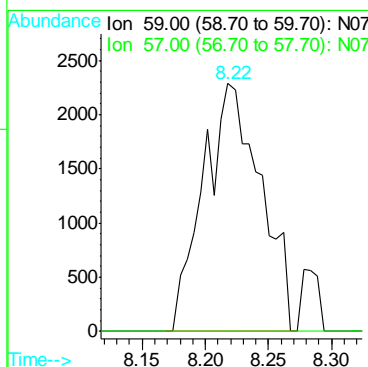
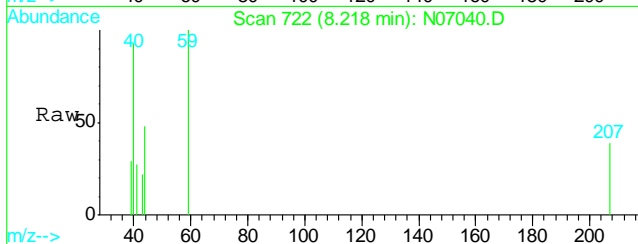
#11
Acetone
Concen: 5.95 ppb
RT: 7.74 min Scan# 634
Delta R.T. 0.01 min
Lab File: N07040.D
Acq: 18 May 2009 5:32 pm

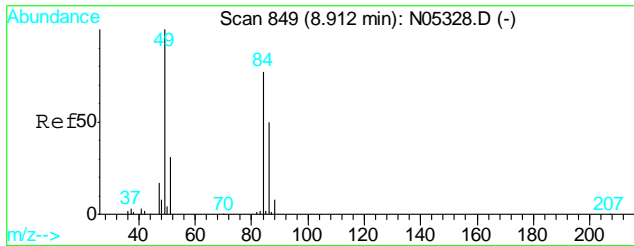
Tgt Ion: 58 Resp: 48174
Ion Ratio Lower Upper
58 100
43 309.2 253.2 379.8



#14
tert-Butanol (TBA)
Concen: 11.80 ppb
RT: 8.22 min Scan# 722
Delta R.T. 0.01 min
Lab File: N07040.D
Acq: 18 May 2009 5:32 pm

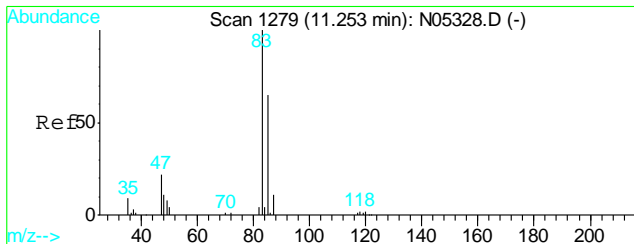
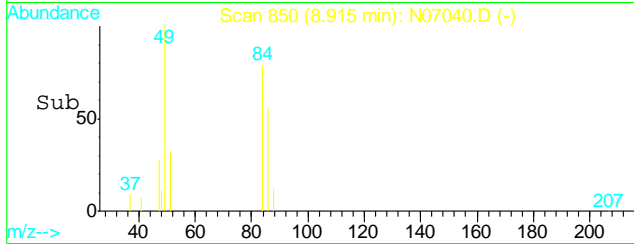
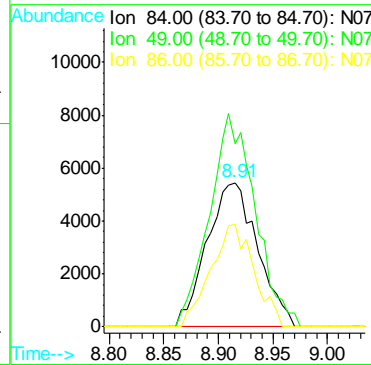
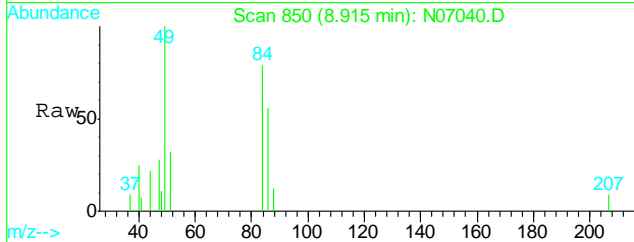
Tgt Ion: 59 Resp: 71839
Ion Ratio Lower Upper
59 100
57 0.0 5.3 12.3#





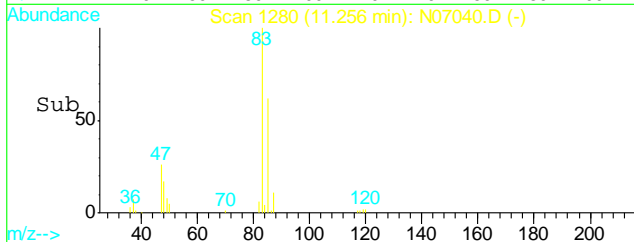
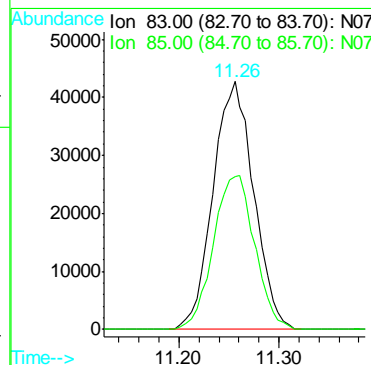
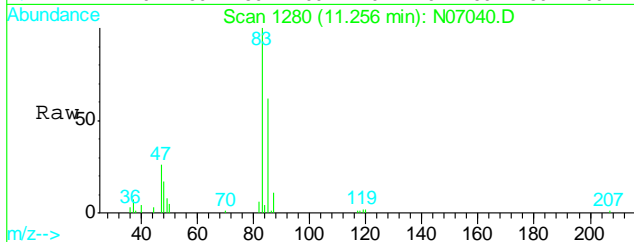
#18
Methylene Chloride
Concen: 1.31 ppb
RT: 8.91 min Scan# 850
Delta R.T. 0.00 min
Lab File: N07040.D
Acq: 18 May 2009 5:32 pm

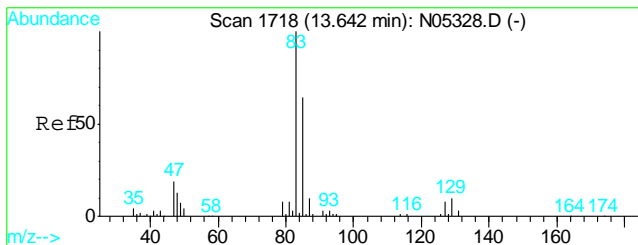
Tgt Ion	Resp	Lower	Upper
84	175814		
49	133.8	122.1	162.1
86	60.6	43.4	83.4



#35
Chloroform
Concen: 5.50 ppb
RT: 11.26 min Scan# 1280
Delta R.T. 0.00 min
Lab File: N07040.D
Acq: 18 May 2009 5:32 pm

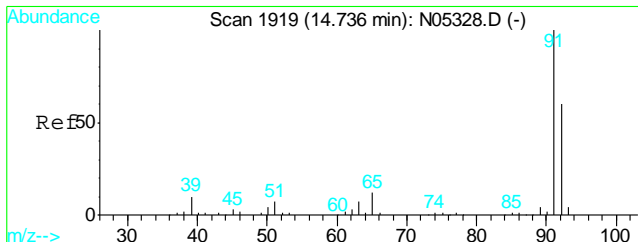
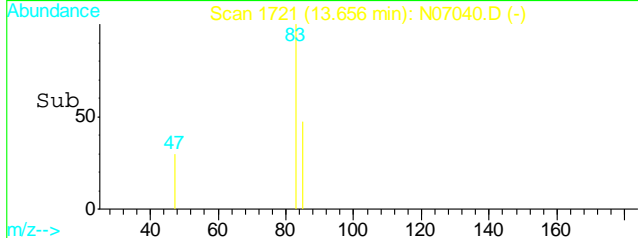
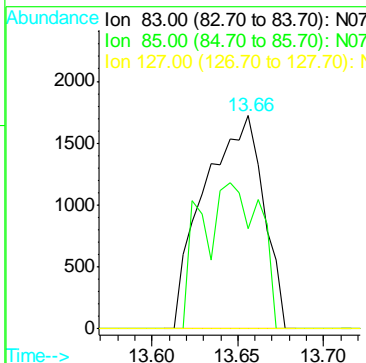
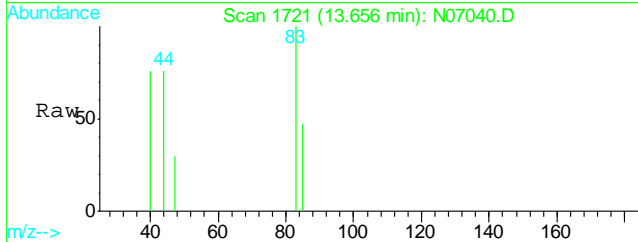
Tgt Ion	Resp	Lower	Upper
83	1205753		
85	63.1	44.6	84.6





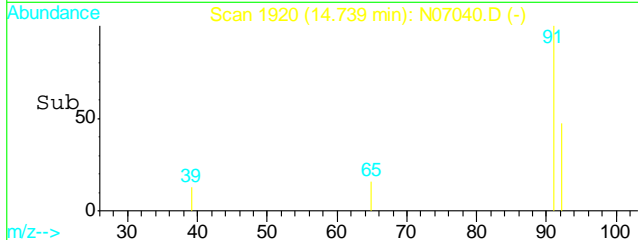
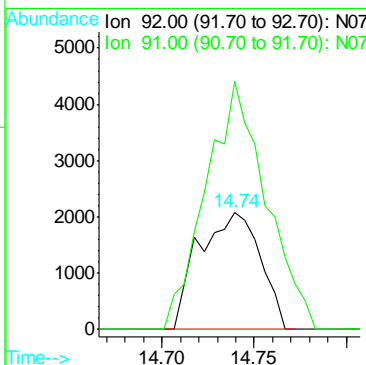
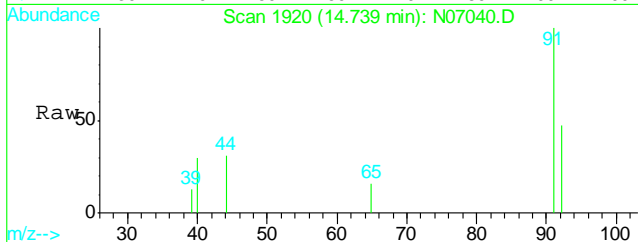
#49
 Bromodichloromethane
 Concen: 1.62 ppb
 RT: 13.66 min Scan# 1721
 Delta R.T. 0.01 min
 Lab File: N07040.D
 Acq: 18 May 2009 5:32 pm

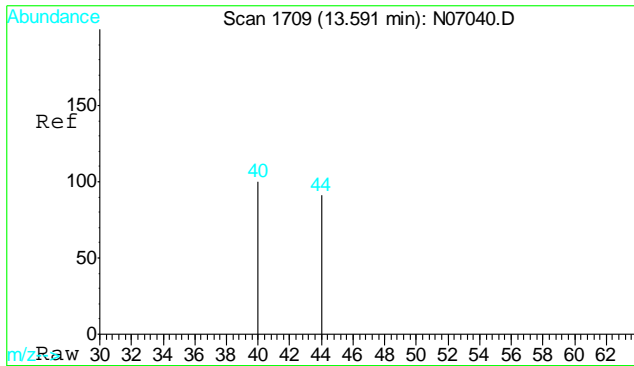
Tgt Ion	Resp	Lower	Upper
83	41390		
85	48.1	43.2	83.2
127	0.0	0.0	27.6



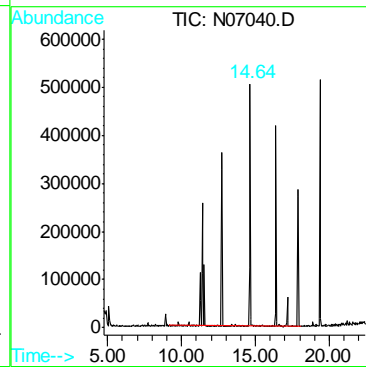
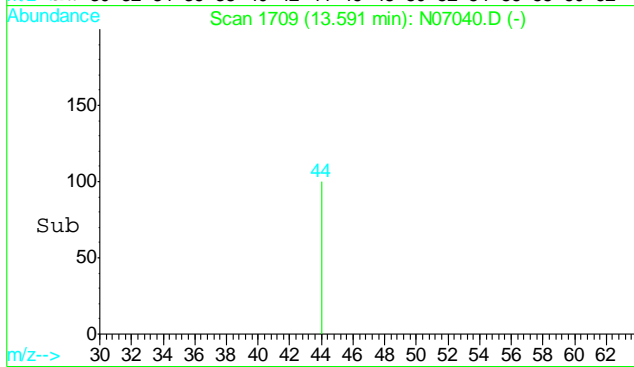
#57
 Toluene
 Concen: 0.13 ppb
 RT: 14.74 min Scan# 1920
 Delta R.T. -0.00 min
 Lab File: N07040.D
 Acq: 18 May 2009 5:32 pm

Tgt Ion	Resp	Lower	Upper
92	47784		
91	208.0	147.3	187.3#





#99
 TPH-GRO (C6-C10)
 Concen: 10.47 ppb m
 RT: 13.59 min Scan# 1709
 Delta R.T. 0.00 min
 Lab File: N07040.D
 Acq: 18 May 2009 5:32 pm
 Tgt Ion:TIC Resp: 7546572



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N090518\N07027.D Vial: 7
 Acq On : 18 May 2009 10:58 am Operator: TitiaF
 Sample : MB Inst : VMS-02
 Misc : MS871,VN234,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 19 10:25 2009 Quant Results File: VN230W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration
 DataAcq Meth : VN230W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.40	168	2278872	10.00	ppb	-0.01
40) 1,4-Difluorobenzene	12.72	114	3630809	10.00	ppb	0.00
55) Chlorobenzene-d5	16.40	117	3083009	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.36	152	1462632	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.36	152	1462632	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	1011444	10.08	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	100.80%
56) Toluene-d8	14.64	98	4202055	9.89	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	98.90%
74) 4-Bromofluorobenzene	17.88	95	1275892	9.39	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	93.90%

Target Compounds

						Qvalue
18) Methylene Chloride	8.91	84	204575	1.65	ppb	97
57) Toluene	14.73	92	39498	0.11	ppb	# 82
96) Naphthalene	21.83	128	39511	0.20	ppb	100
99) TPH-GRO (C6-C10)	13.59	TIC	1165118m	1.82	ppb	

(#) = qualifier out of range (m) = manual integration
 N07027.D VN230W.M Tue May 19 10:26:10 2009 RPT1

5.2.1
5

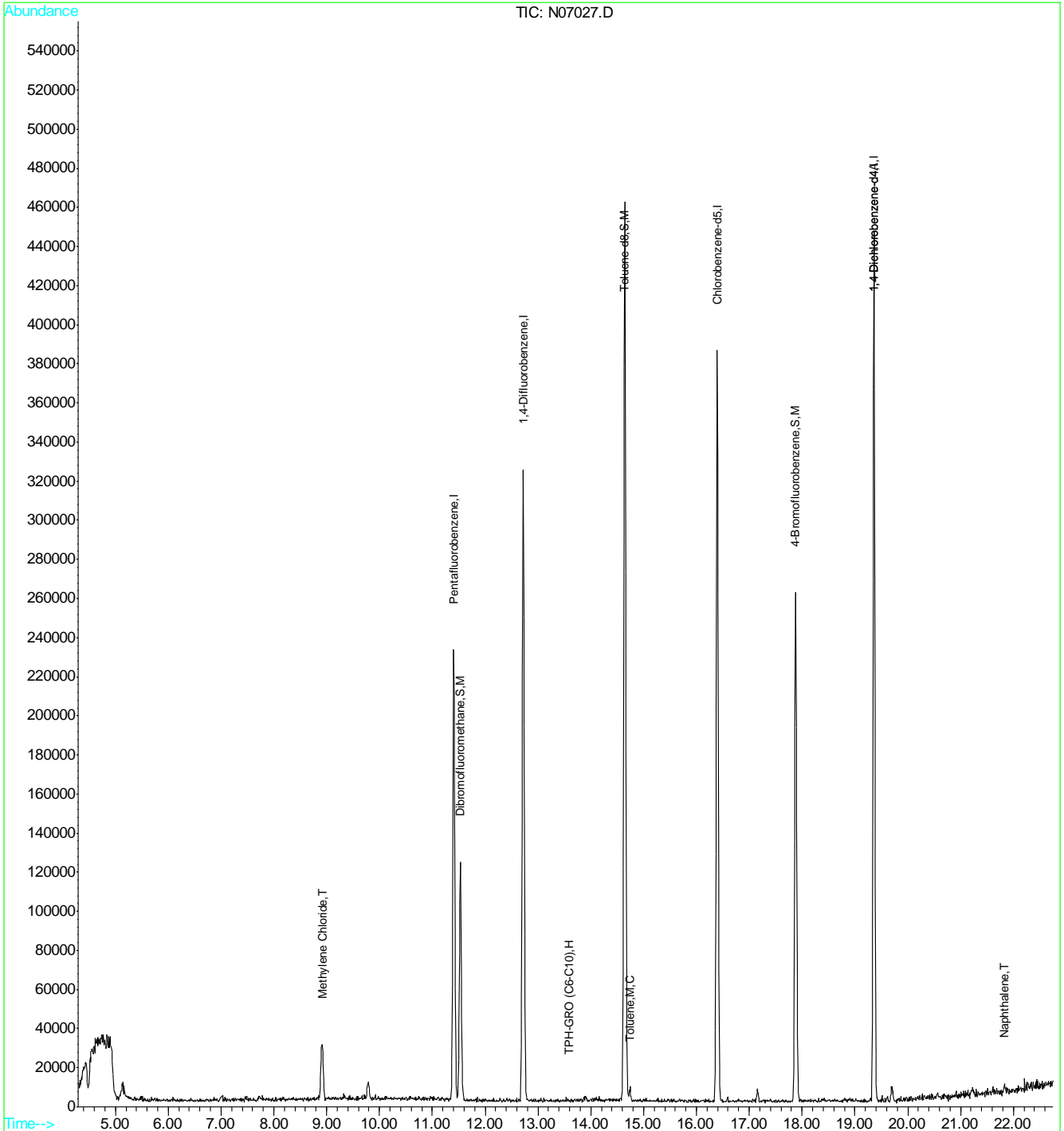
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N090518\N07027.D
 Acq On : 18 May 2009 10:58 am
 Sample : MB
 Misc : MS871,VN234,10,,,1
 MS Integration Params: RTEINT.P
 Quant Time: May 19 10:25 2009

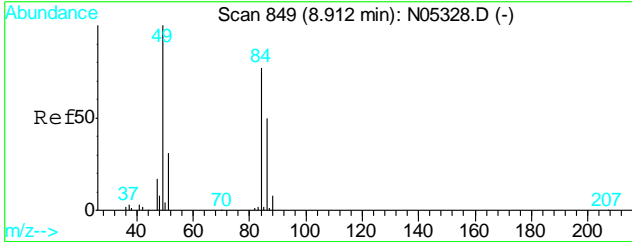
Vial: 7
 Operator: TitiaF
 Inst : VMS-02
 Multiplr: 1.00

Quant Results File: VN230W.RES

Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration

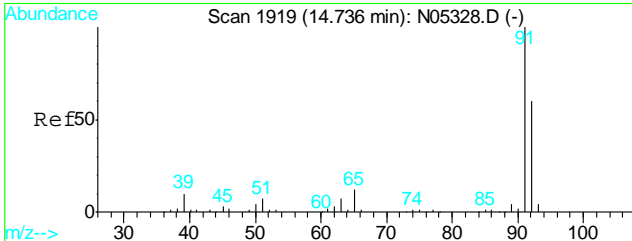
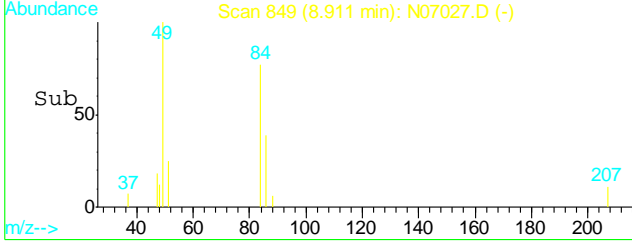
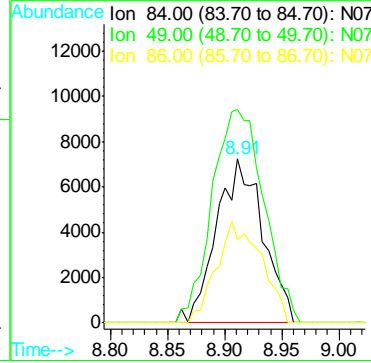
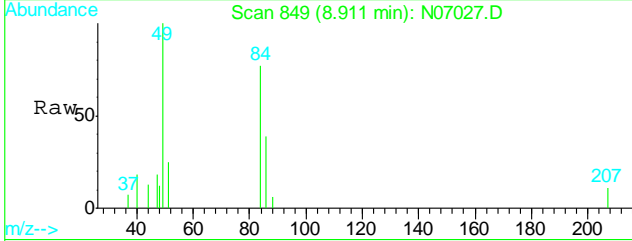


5.21
5



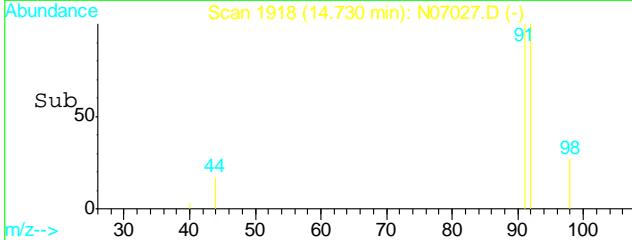
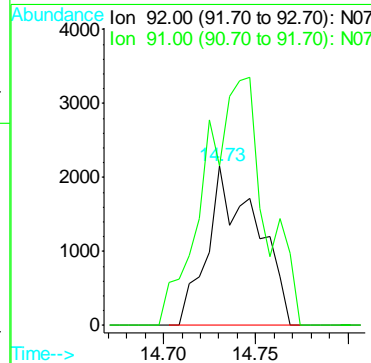
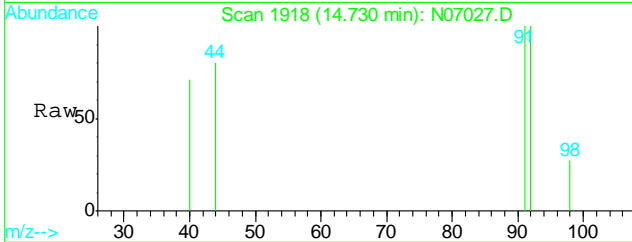
#18
Methylene Chloride
Concen: 1.65 ppb
RT: 8.91 min Scan# 849
Delta R.T. -0.00 min
Lab File: N07027.D
Acq: 18 May 2009 10:58 am

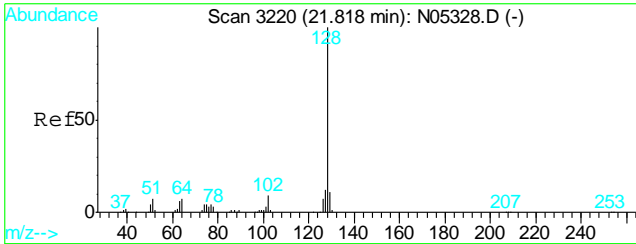
Tgt Ion	Resp	Lower	Upper
84	204575		
49	145.4	122.1	162.1
86	59.7	43.4	83.4



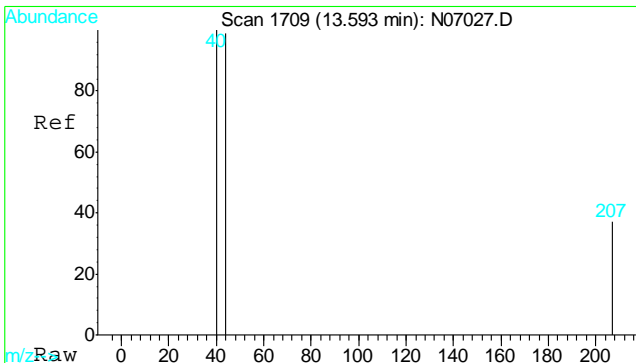
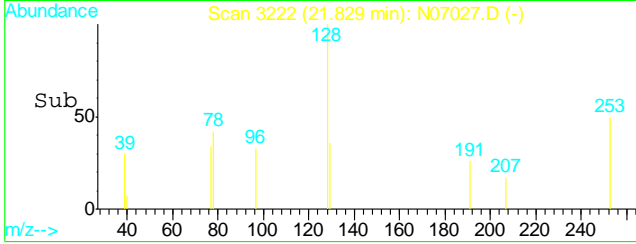
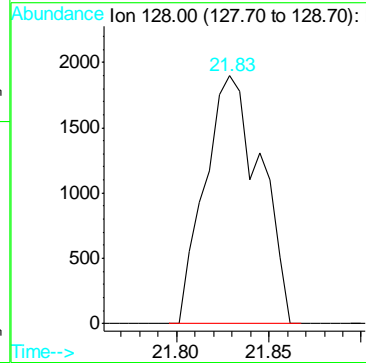
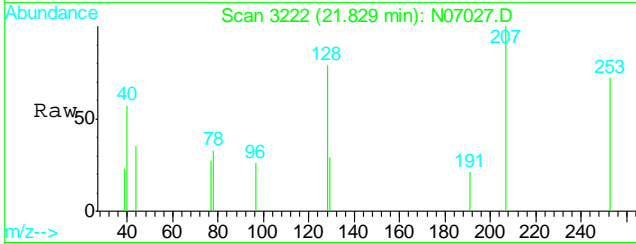
#57
Toluene
Concen: 0.11 ppb
RT: 14.73 min Scan# 1918
Delta R.T. -0.01 min
Lab File: N07027.D
Acq: 18 May 2009 10:58 am

Tgt Ion	Resp	Lower	Upper
92	39498		
91	191.9	147.3	187.3#

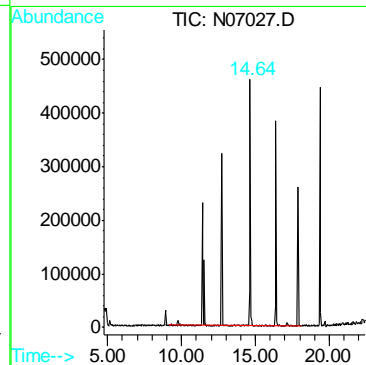
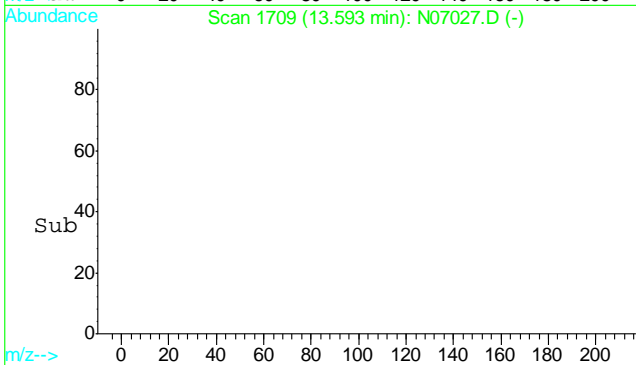




#96
 Naphthalene
 Concen: 0.20 ppb
 RT: 21.83 min Scan# 3222
 Delta R.T. 0.01 min
 Lab File: N07027.D
 Acq: 18 May 2009 10:58 am
 Tgt Ion:128 Resp: 39511



#99
 TPH-GRO (C6-C10)
 Concen: 1.82 ppb m
 RT: 13.59 min Scan# 1709
 Delta R.T. 0.00 min
 Lab File: N07027.D
 Acq: 18 May 2009 10:58 am
 Tgt Ion:TIC Resp: 1165118



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N090519\N07051.D Vial: 4
 Acq On : 19 May 2009 10:06 am Operator: TitiaF
 Sample : MB Inst : VMS-02
 Misc : MS877,VN235,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 20 10:27 2009 Quant Results File: VN230W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration
 DataAcq Meth : VN230W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.41	168	2575368	10.00	ppb	-0.01
40) 1,4-Difluorobenzene	12.72	114	4112354	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	3546378	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.36	152	1669205	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.36	152	1669205	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	1121333	9.89	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	98.90%
56) Toluene-d8	14.64	98	4757486	9.74	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	97.40%
74) 4-Bromofluorobenzene	17.88	95	1489792	9.53	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	95.30%

Target Compounds

						Qvalue
18) Methylene Chloride	8.91	84	190372	1.36	ppb	98
31) Tetrahydrofuran	11.52	42	22427	0.72	ppb	# 41
96) Naphthalene	21.83	128	43467	0.19	ppb	100
99) TPH-GRO (C6-C10)	13.59	TIC	2616099m	3.57	ppb	

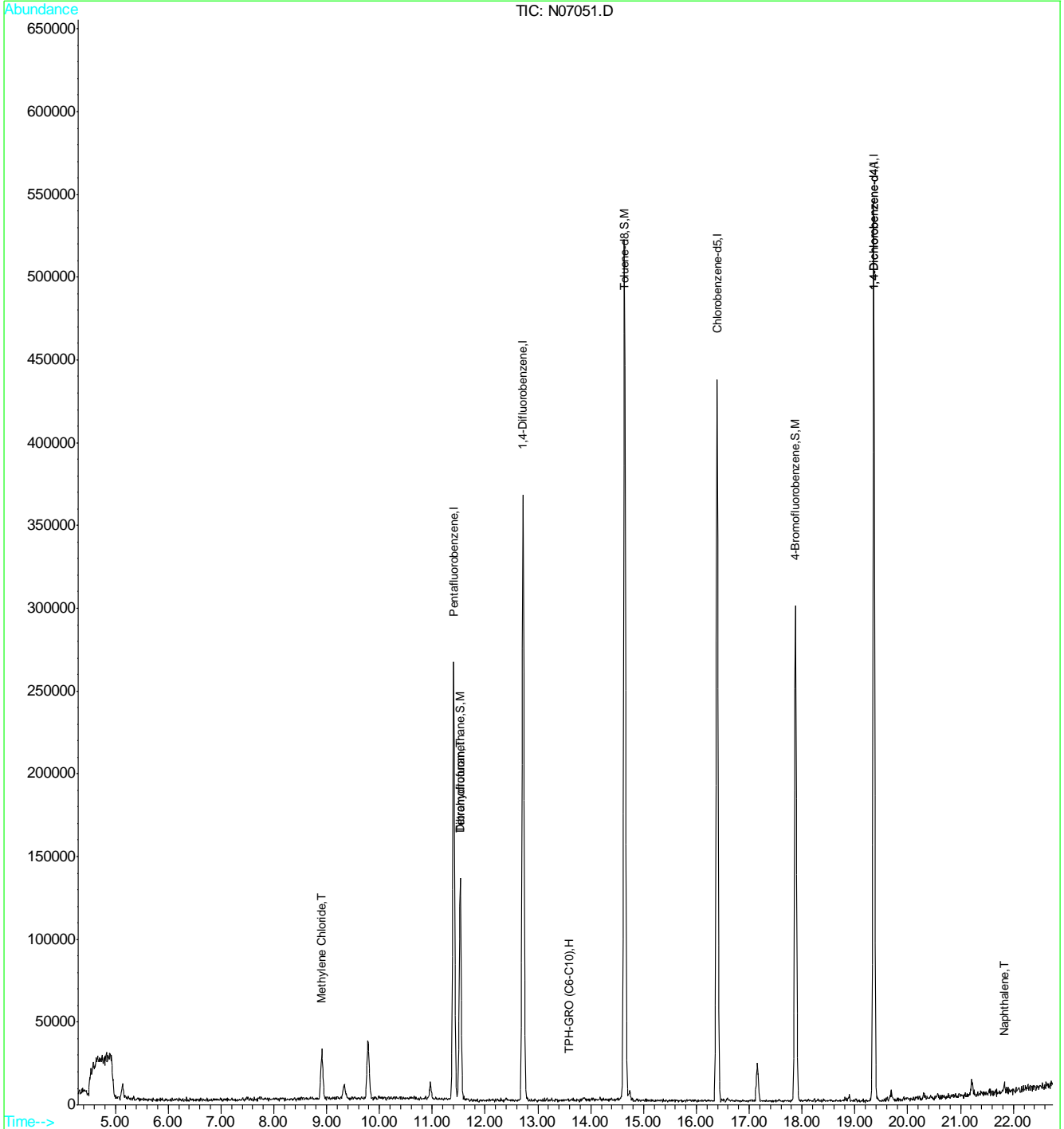
(#) = qualifier out of range (m) = manual integration
 N07051.D VN230W.M Wed May 20 10:27:41 2009 RPT1

5.2.2
5

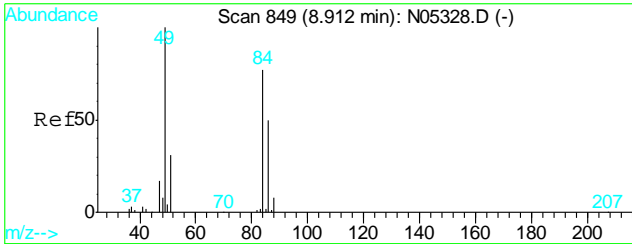
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N090519\N07051.D Vial: 4
 Acq On : 19 May 2009 10:06 am Operator: TitiaF
 Sample : MB Inst : VMS-02
 Misc : MS877,VN235,10,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: May 20 10:27 2009 Quant Results File: VN230W.RES

Method : C:\HPCHEM\1\METHODS\VN230W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Wed May 13 11:51:51 2009
 Response via : Initial Calibration

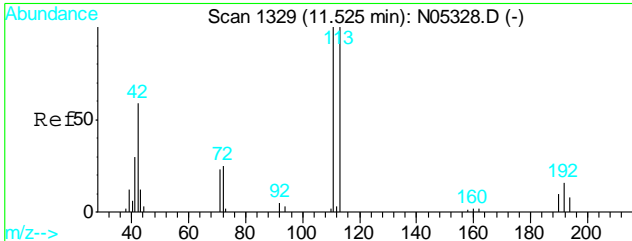
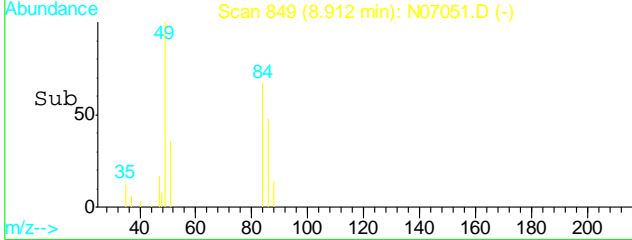
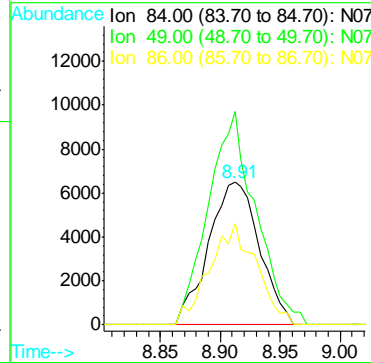
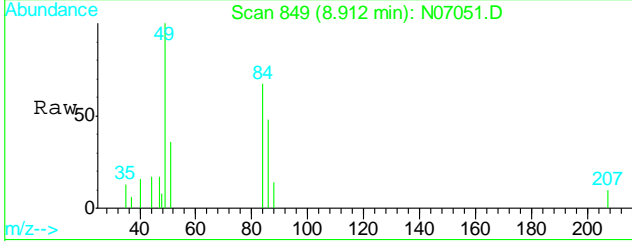


5.2.2
5



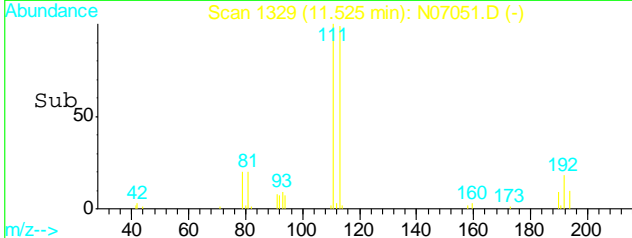
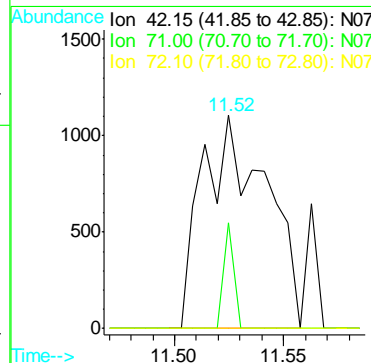
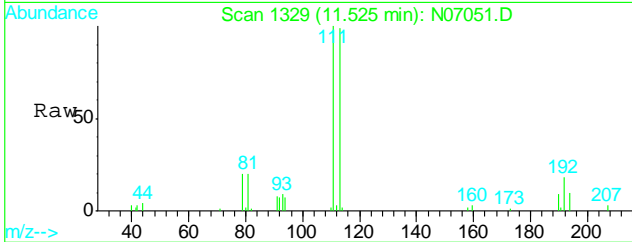
#18
Methylene Chloride
Concen: 1.36 ppb
RT: 8.91 min Scan# 849
Delta R.T. -0.00 min
Lab File: N07051.D
Acq: 19 May 2009 10:06 am

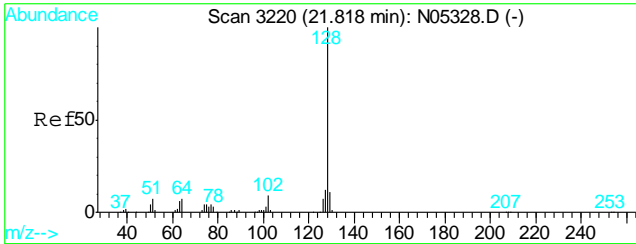
Tgt Ion	Resp	Lower	Upper
84	190372		
49	139.4	122.1	162.1
86	65.9	43.4	83.4



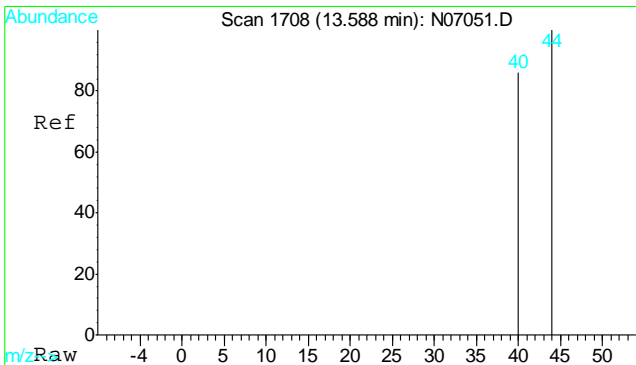
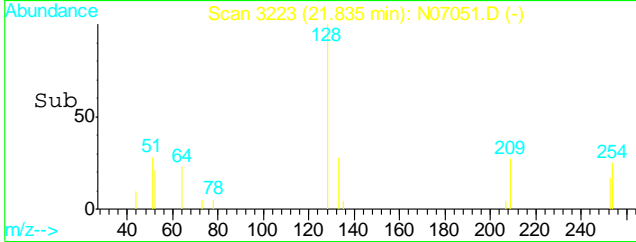
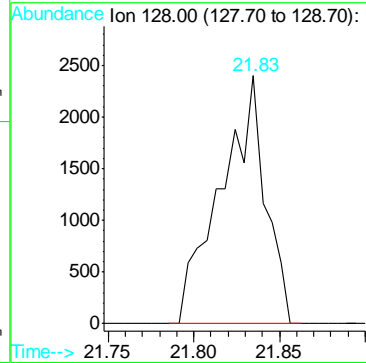
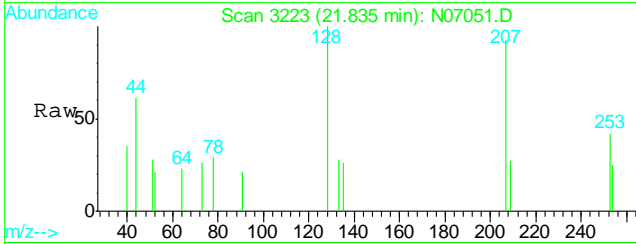
#31
Tetrahydrofuran
Concen: 0.72 ppb
RT: 11.52 min Scan# 1329
Delta R.T. 0.00 min
Lab File: N07051.D
Acq: 19 May 2009 10:06 am

Tgt Ion	Resp	Lower	Upper
42	22427		
71	0.0	26.2	39.2#
72	0.0	27.8	41.6#

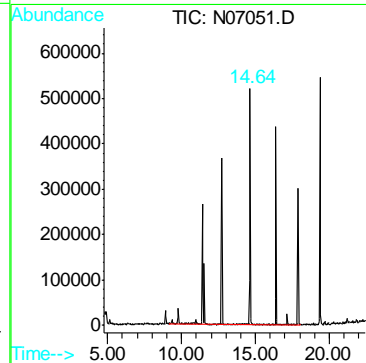
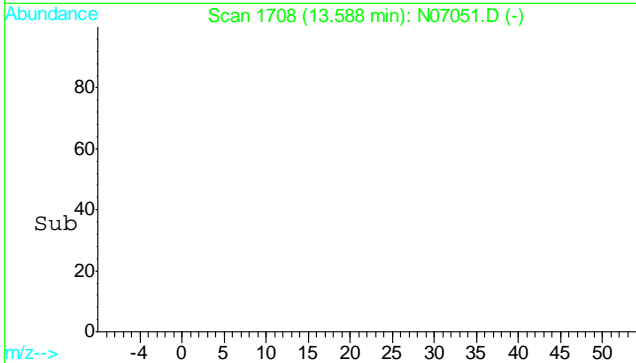




#96
Naphthalene
Concen: 0.19 ppb
RT: 21.83 min Scan# 3223
Delta R.T. 0.02 min
Lab File: N07051.D
Acq: 19 May 2009 10:06 am
Tgt Ion:128 Resp: 43467



#99
TPH-GRO (C6-C10)
Concen: 3.57 ppb m
RT: 13.59 min Scan# 1708
Delta R.T. 0.00 min
Lab File: N07051.D
Acq: 19 May 2009 10:06 am
Tgt Ion:TIC Resp: 2616099





GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

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

Method Blank Summary**Job Number:** C5727**Account:** BMECASF Burns and McDonnell Engineering**Project:** T0600102107-YRC-Roadway Express, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP981-MB	GG5653.D	1	05/18/09	JH	05/18/09	OP981	GGG210

The QC reported here applies to the following samples:**Method:** SW846 8015B M

C5727-1, C5727-2, C5727-3, C5727-4, C5727-5, C5727-6, C5727-7

CAS No.	Compound	Result	RL	MDL	Units	Q
	TPH (C10-C28)	ND	0.10	0.050	mg/l	
	TPH (> C28-C40)	ND	0.20	0.10	mg/l	

CAS No.	Surrogate Recoveries	Limits
630-01-3	Hexacosane	83% 45-140%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C5727

Account: BMECASF Burns and McDonnell Engineering

Project: T0600102107-YRC-Roadway Express, Oakland, CA

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP981-BS	GG5654.D	1	05/18/09	JH	05/18/09	OP981	GGG210
OP981-BSD	GG5655.D	1	05/18/09	JH	05/18/09	OP981	GGG210

The QC reported here applies to the following samples:

Method: SW846 8015B M

C5727-1, C5727-2, C5727-3, C5727-4, C5727-5, C5727-6, C5727-7

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	1	0.743	74	0.690	69	7	45-140/30
	TPH (> C28-C40)	1	0.733	73	0.722	72	2	45-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	83%	78%	45-140%



GC Semi-volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5661.D Vial: 23
 Acq On : 5-18-09 10:48:33 PM Operator: JAMESH
 Sample : C5727-1 Inst : Diesel 2
 Misc : OP981,GGG210,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: May 19 7:55 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri May 15 11:52:58 2009
 Response via : Initial Calibration
 DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
 Signal Phase : HP-5
 Signal Info : 0.32 mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S,M Hexacosane	10.24	101560047	79.485 ppm
Spiked Amount 100.000		Recovery =	79.48%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	12665275	12.247 ppm
3) H TPH (>C28-C40)	12.59	9457480	9.564 ppm
4) H TPH (Mineral Spirits)	0.00	0	N.D. ppm
5) H TPH (Kerosene)	0.00	0	N.D. ppm
6) H,M TPH (Diesel)	0.00	0	N.D. ppm
7) H TPH (Motor Oil)	0.00	0	N.D. ppm

7.1.1
7

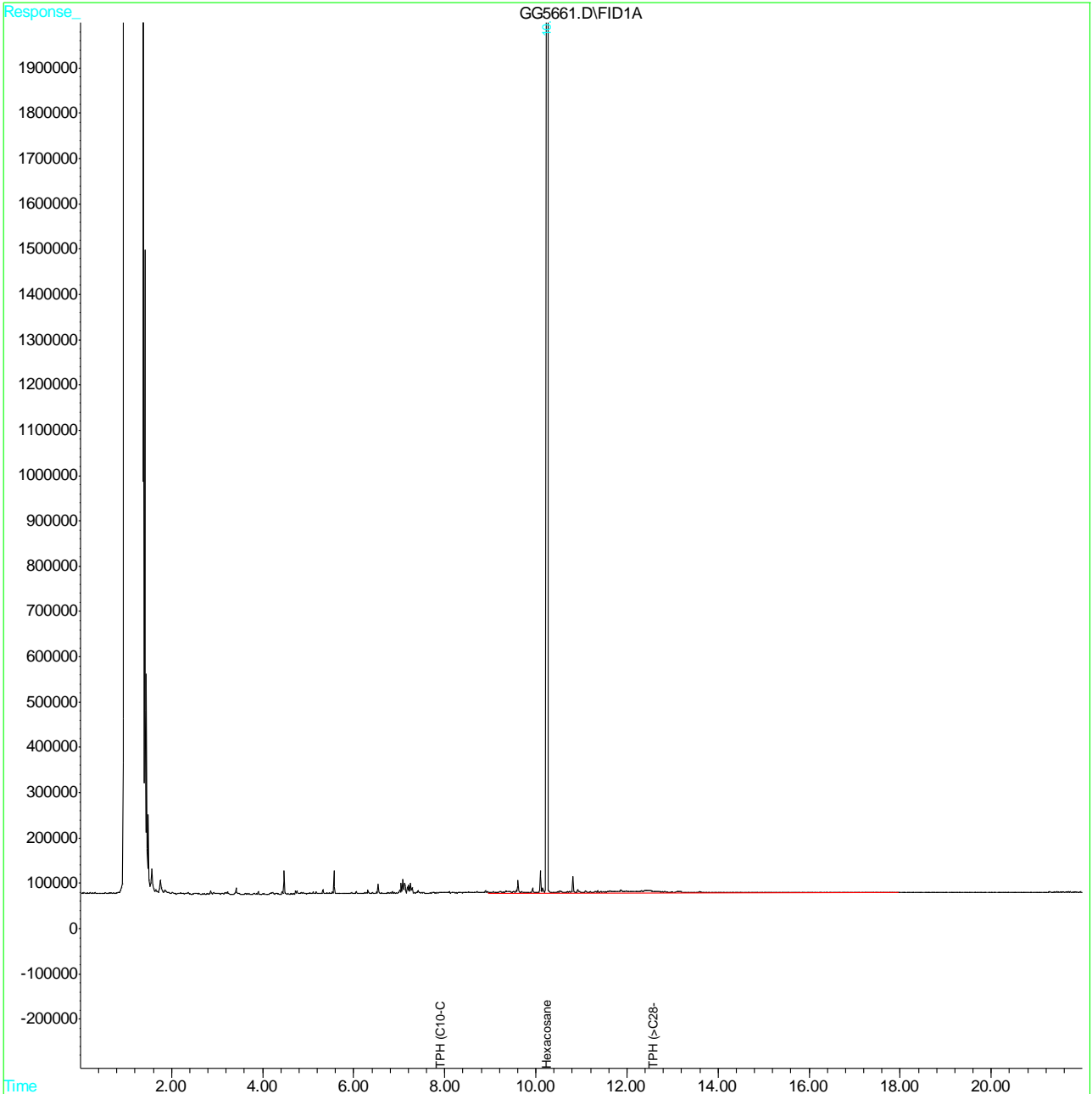
(f)=RT Delta > 1/2 Window (m)=manual int.
 GG5661.D GGG190.M Tue May 19 15:16:19 2009

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5661.D Vial: 23
 Acq On : 5-18-09 10:48:33 PM Operator: JAMESH
 Sample : C5727-1 Inst : Diesel 2
 Misc : OP981,GGG210,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: May 19 7:55 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri May 15 11:52:58 2009
 Response via : Multiple Level Calibration
 DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
 Signal Phase : HP-5
 Signal Info : 0.32 mm



7.1.1
7

Quantitation Report (QT Reviewed)

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5662.D Vial: 24
 Acq On : 5-18-09 11:17:40 PM Operator: JAMESH
 Sample : C5727-2 Inst : Diesel 2
 Misc : OP981,GGG210,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: May 19 7:56 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri May 15 11:52:58 2009
 Response via : Initial Calibration
 DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
 Signal Phase : HP-5
 Signal Info : 0.32 mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S,M Hexacosane	10.24	102253922	80.028 ppm
Spiked Amount 100.000		Recovery =	80.03%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	11050889	10.686 ppm
3) H TPH (>C28-C40)	12.59	8521115	8.617 ppm
4) H TPH (Mineral Spirits)	0.00	0	N.D. ppm
5) H TPH (Kerosene)	0.00	0	N.D. ppm
6) H,M TPH (Diesel)	0.00	0	N.D. ppm
7) H TPH (Motor Oil)	0.00	0	N.D. ppm

7.12
7

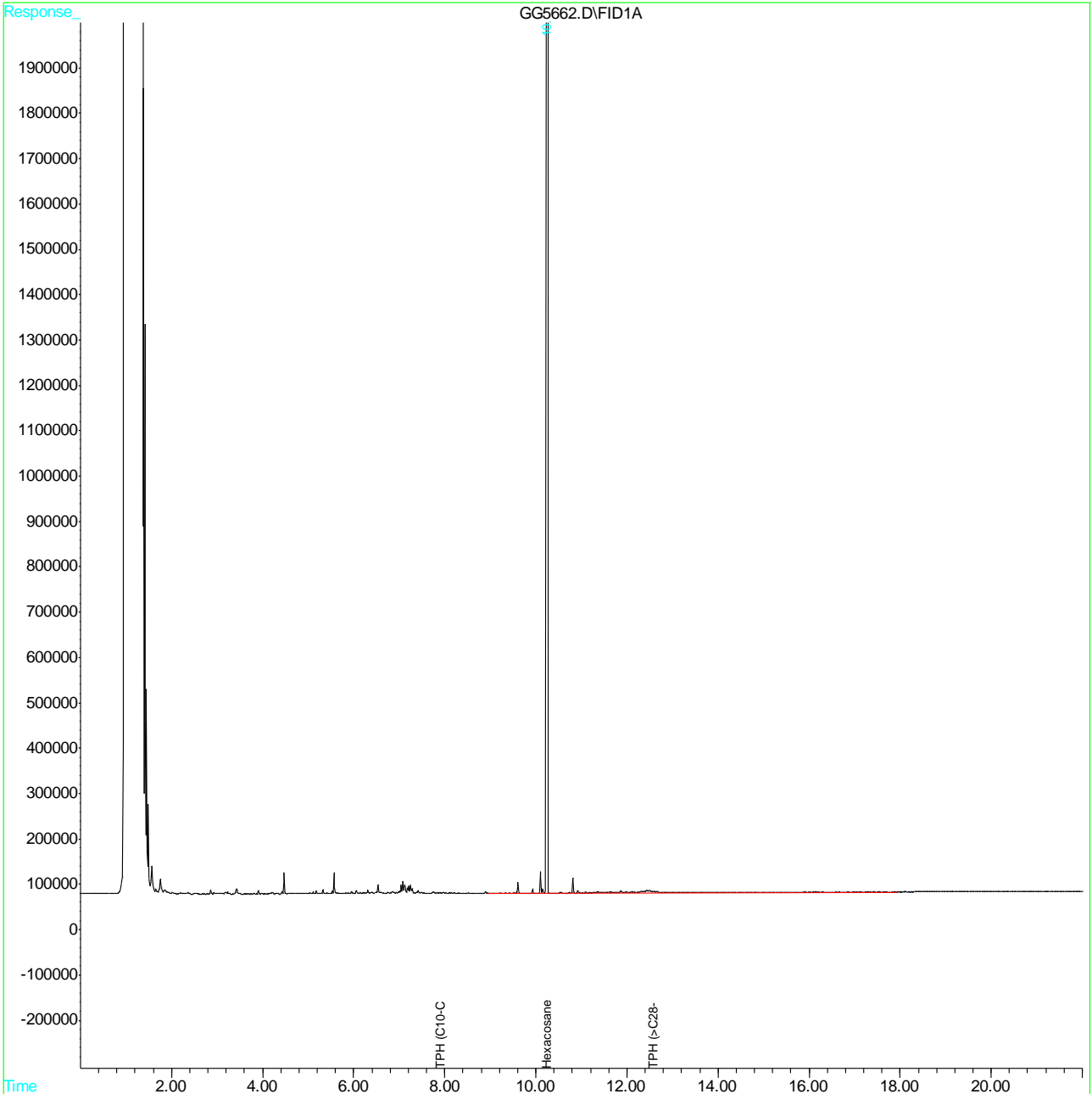
(f)=RT Delta > 1/2 Window (m)=manual int.
 GG5662.D GGG190.M Tue May 19 15:16:20 2009

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5662.D Vial: 24
Acq On : 5-18-09 11:17:40 PM Operator: JAMESH
Sample : C5727-2 Inst : Diesel 2
Misc : OP981,GGG210,1060,,,1,1,WATER Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 19 7:56 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
Title : DRO calibration: Back column
Last Update : Fri May 15 11:52:58 2009
Response via : Multiple Level Calibration
DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
Signal Phase : HP-5
Signal Info : 0.32 mm



7.12
7

Quantitation Report (QT Reviewed)

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5665.D Vial: 25
 Acq On : 5-19-09 12:44:41 AM Operator: JAMESH
 Sample : C5727-3 Inst : Diesel 2
 Misc : OP981,GGG210,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: May 19 7:57 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri May 15 11:52:58 2009
 Response via : Initial Calibration
 DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
 Signal Phase : HP-5
 Signal Info : 0.32 mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S,M Hexacosane	10.24	75635078	59.195 ppm
Spiked Amount 100.000		Recovery =	59.20%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	17988132	17.395 ppm
3) H TPH (>C28-C40)	12.59	7932979	8.022 ppm
4) H TPH (Mineral Spirits)	0.00	0	N.D. ppm
5) H TPH (Kerosene)	0.00	0	N.D. ppm
6) H,M TPH (Diesel)	0.00	0	N.D. ppm
7) H TPH (Motor Oil)	0.00	0	N.D. ppm

7.1.3
7

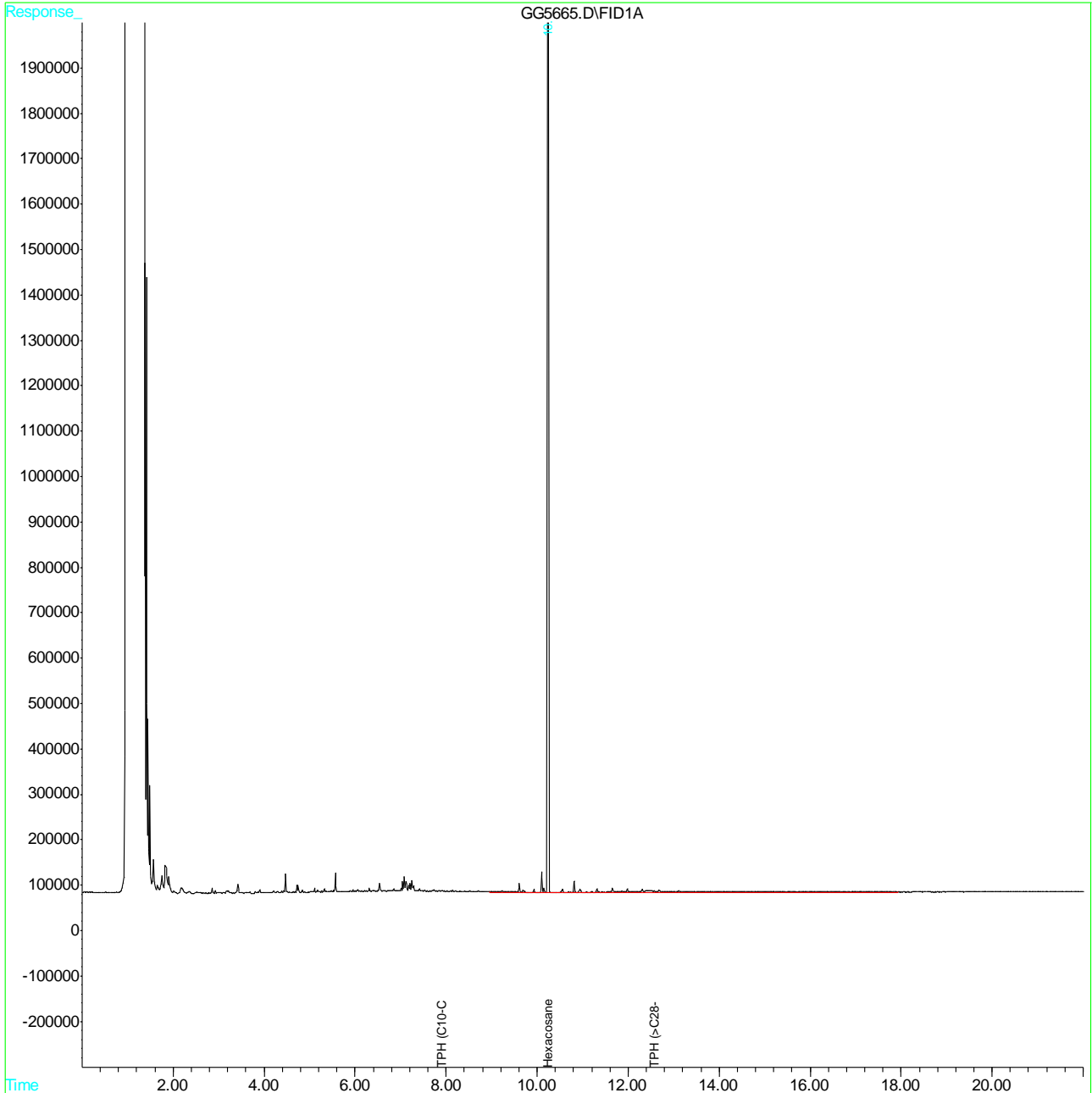
(f)=RT Delta > 1/2 Window (m)=manual int.
 GG5665.D GGG190.M Tue May 19 15:16:24 2009

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5665.D Vial: 25
Acq On : 5-19-09 12:44:41 AM Operator: JAMESH
Sample : C5727-3 Inst : Diesel 2
Misc : OP981,GGG210,1060,,,1,1,WATER Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 19 7:57 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
Title : DRO calibration: Back column
Last Update : Fri May 15 11:52:58 2009
Response via : Multiple Level Calibration
DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
Signal Phase : HP-5
Signal Info : 0.32 mm



7.1.3
7

Quantitation Report (QT Reviewed)

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5666.D Vial: 26
 Acq On : 5-19-09 1:13:39 AM Operator: JAMESH
 Sample : C5727-4 Inst : Diesel 2
 Misc : OP981,GGG210,1050,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: May 19 7:57 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri May 15 11:52:58 2009
 Response via : Initial Calibration
 DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
 Signal Phase : HP-5
 Signal Info : 0.32 mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S,M Hexacosane	10.24	74347324	58.187 ppm
Spiked Amount 100.000		Recovery =	58.19%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	18742837	18.124 ppm
3) H TPH (>C28-C40)	12.59	7300628	7.383 ppm
4) H TPH (Mineral Spirits)	0.00	0	N.D. ppm
5) H TPH (Kerosene)	0.00	0	N.D. ppm
6) H,M TPH (Diesel)	0.00	0	N.D. ppm
7) H TPH (Motor Oil)	0.00	0	N.D. ppm

7.1.4
7

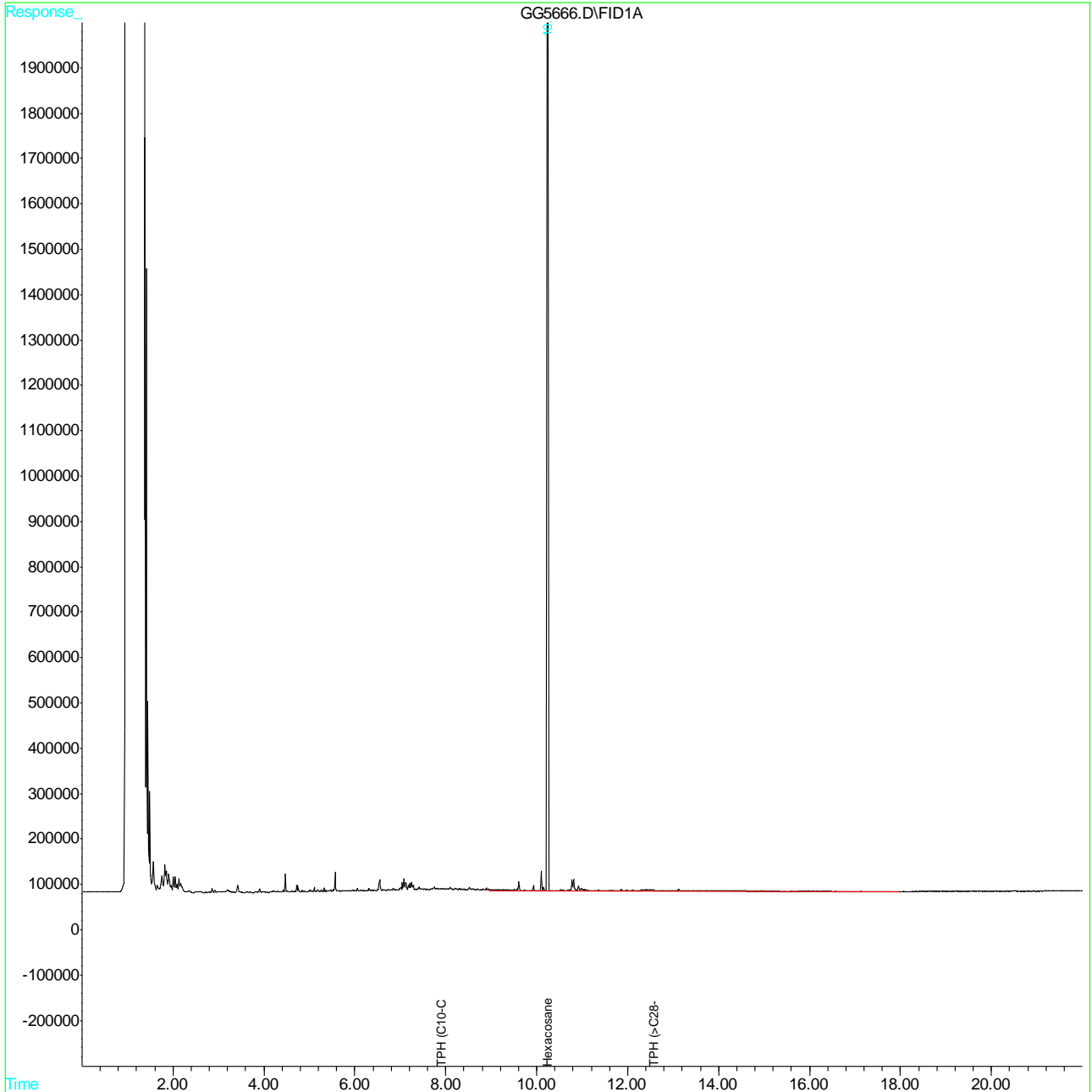
(f)=RT Delta > 1/2 Window (m)=manual int.
 GG5666.D GGG190.M Tue May 19 15:16:25 2009

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5666.D Vial: 26
Acq On : 5-19-09 1:13:39 AM Operator: JAMESH
Sample : C5727-4 Inst : Diesel 2
Misc : OP981,GGG210,1050,,,1,1,WATER Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 19 7:57 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
Title : DRO calibration: Back column
Last Update : Fri May 15 11:52:58 2009
Response via : Multiple Level Calibration
DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
Signal Phase : HP-5
Signal Info : 0.32 mm



7.1.4
7

Quantitation Report (QT Reviewed)

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5667.D Vial: 27
 Acq On : 5-19-09 1:42:35 AM Operator: JAMESH
 Sample : C5727-5 Inst : Diesel 2
 Misc : OP981,GGG210,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: May 19 7:57 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri May 15 11:52:58 2009
 Response via : Initial Calibration
 DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
 Signal Phase : HP-5
 Signal Info : 0.32 mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S,M Hexacosane	10.24	92086644	72.071 ppm
Spiked Amount 100.000		Recovery =	72.07%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	44207618	42.749 ppm
3) H TPH (>C28-C40)	0.00	0	N.D. ppm
4) H TPH (Mineral Spirits)	0.00	0	N.D. ppm
5) H TPH (Kerosene)	0.00	0	N.D. ppm
6) H,M TPH (Diesel)	0.00	0	N.D. ppm
7) H TPH (Motor Oil)	0.00	0	N.D. ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
 GG5667.D GGG190.M Tue May 19 15:16:26 2009

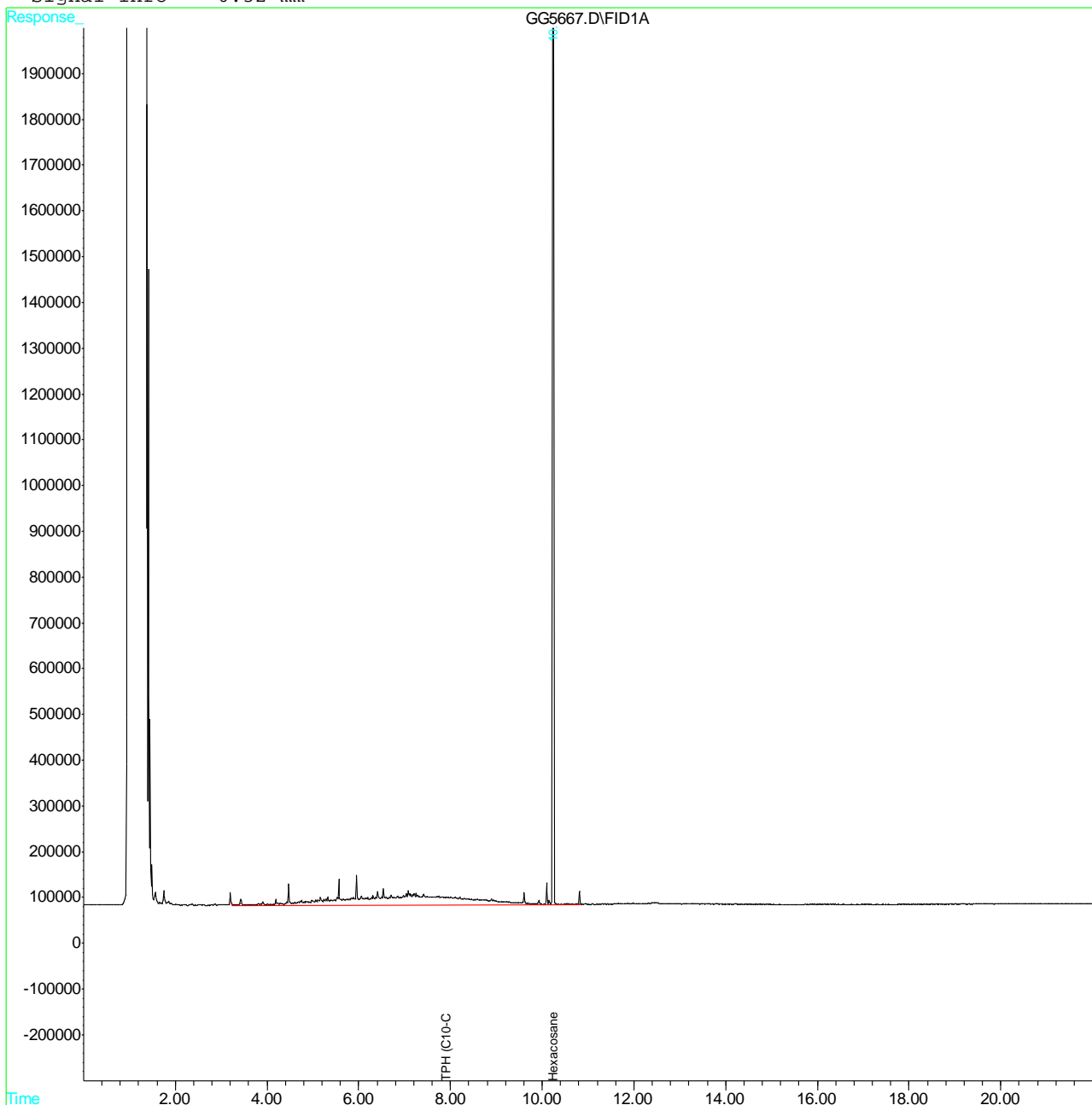
7.1.5
7

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5667.D Vial: 27
Acq On : 5-19-09 1:42:35 AM Operator: JAMESH
Sample : C5727-5 Inst : Diesel 2
Misc : OP981,GGG210,1060,,,1,1,WATER Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 19 7:57 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
Title : DRO calibration: Back column
Last Update : Fri May 15 11:52:58 2009
Response via : Multiple Level Calibration
DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
Signal Phase : HP-5
Signal Info : 0.32 mm



7.15
7

Quantitation Report (QT Reviewed)

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5668.D Vial: 28
 Acq On : 5-19-09 2:11:32 AM Operator: JAMESH
 Sample : C5727-6 Inst : Diesel 2
 Misc : OP981,GGG210,1000,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: May 19 7:57 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri May 15 11:52:58 2009
 Response via : Initial Calibration
 DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
 Signal Phase : HP-5
 Signal Info : 0.32 mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S,M Hexacosane	10.24	98384306	77.000 ppm
Spiked Amount 100.000		Recovery =	77.00%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	79701051	77.071 ppm
3) H TPH (>C28-C40)	0.00	0	N.D. ppm
4) H TPH (Mineral Spirits)	0.00	0	N.D. ppm
5) H TPH (Kerosene)	0.00	0	N.D. ppm
6) H,M TPH (Diesel)	0.00	0	N.D. ppm
7) H TPH (Motor Oil)	0.00	0	N.D. ppm

7.1.6
7

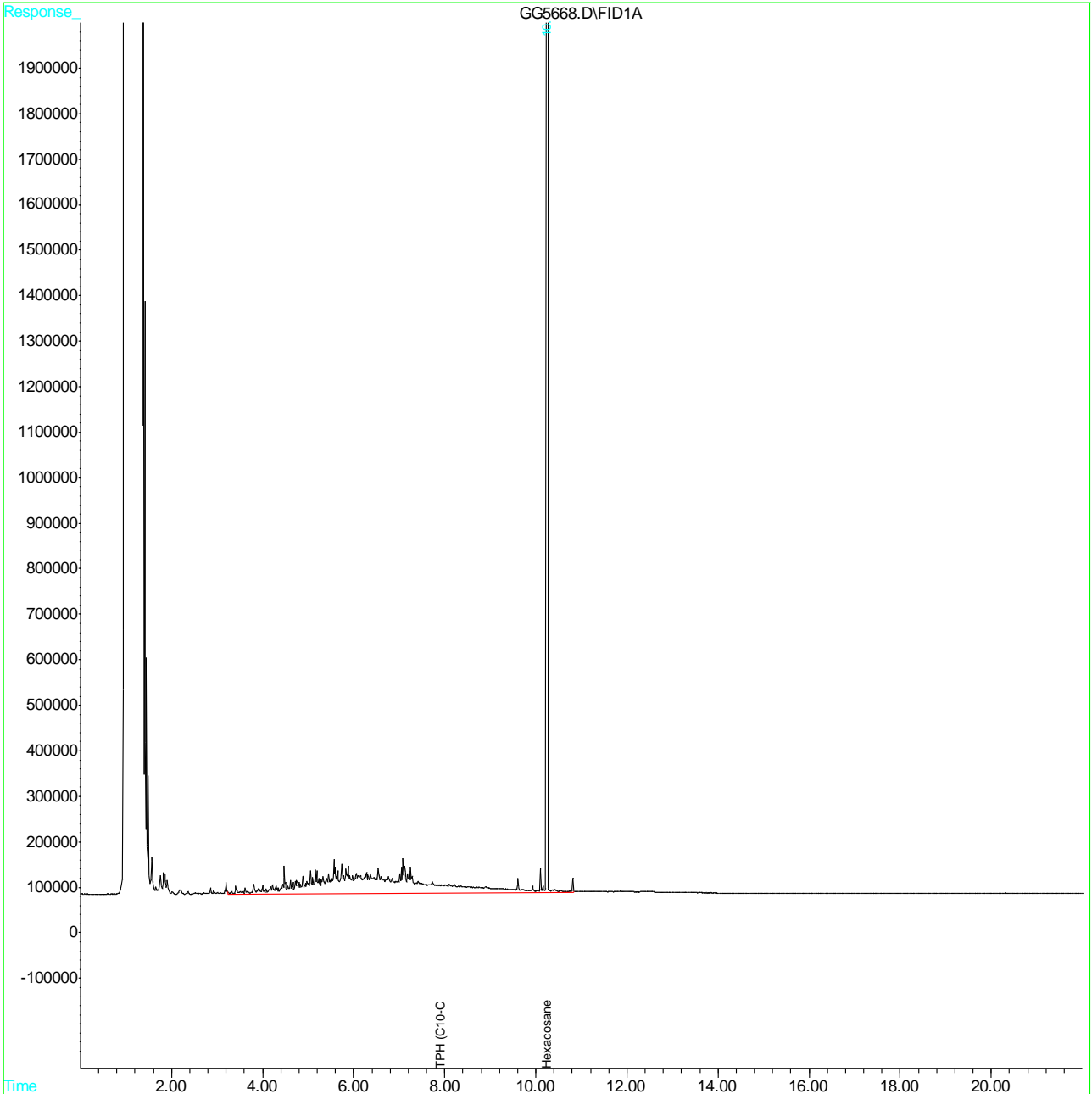
(f)=RT Delta > 1/2 Window (m)=manual int.
 GG5668.D GGG190.M Tue May 19 15:16:28 2009

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5668.D Vial: 28
Acq On : 5-19-09 2:11:32 AM Operator: JAMESH
Sample : C5727-6 Inst : Diesel 2
Misc : OP981,GGG210,1000,,,1,1,WATER Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: May 19 7:57 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
Title : DRO calibration: Back column
Last Update : Fri May 15 11:52:58 2009
Response via : Multiple Level Calibration
DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
Signal Phase : HP-5
Signal Info : 0.32 mm



7.1.6
7

Quantitation Report (QT Reviewed)

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5669.D Vial: 29
 Acq On : 5-19-09 2:40:26 AM Operator: JAMESH
 Sample : C5727-7 Inst : Diesel 2
 Misc : OP981,GGG210,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: May 19 7:58 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri May 15 11:52:58 2009
 Response via : Initial Calibration
 DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
 Signal Phase : HP-5
 Signal Info : 0.32 mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S,M Hexacosane	10.24	62254279	48.723 ppm
Spiked Amount 100.000		Recovery =	48.72%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	39918648	38.601 ppm
3) H TPH (>C28-C40)	0.00	0	N.D. ppm
4) H TPH (Mineral Spirits)	0.00	0	N.D. ppm
5) H TPH (Kerosene)	0.00	0	N.D. ppm
6) H,M TPH (Diesel)	0.00	0	N.D. ppm
7) H TPH (Motor Oil)	0.00	0	N.D. ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
 GG5669.D GGG190.M Tue May 19 15:16:29 2009

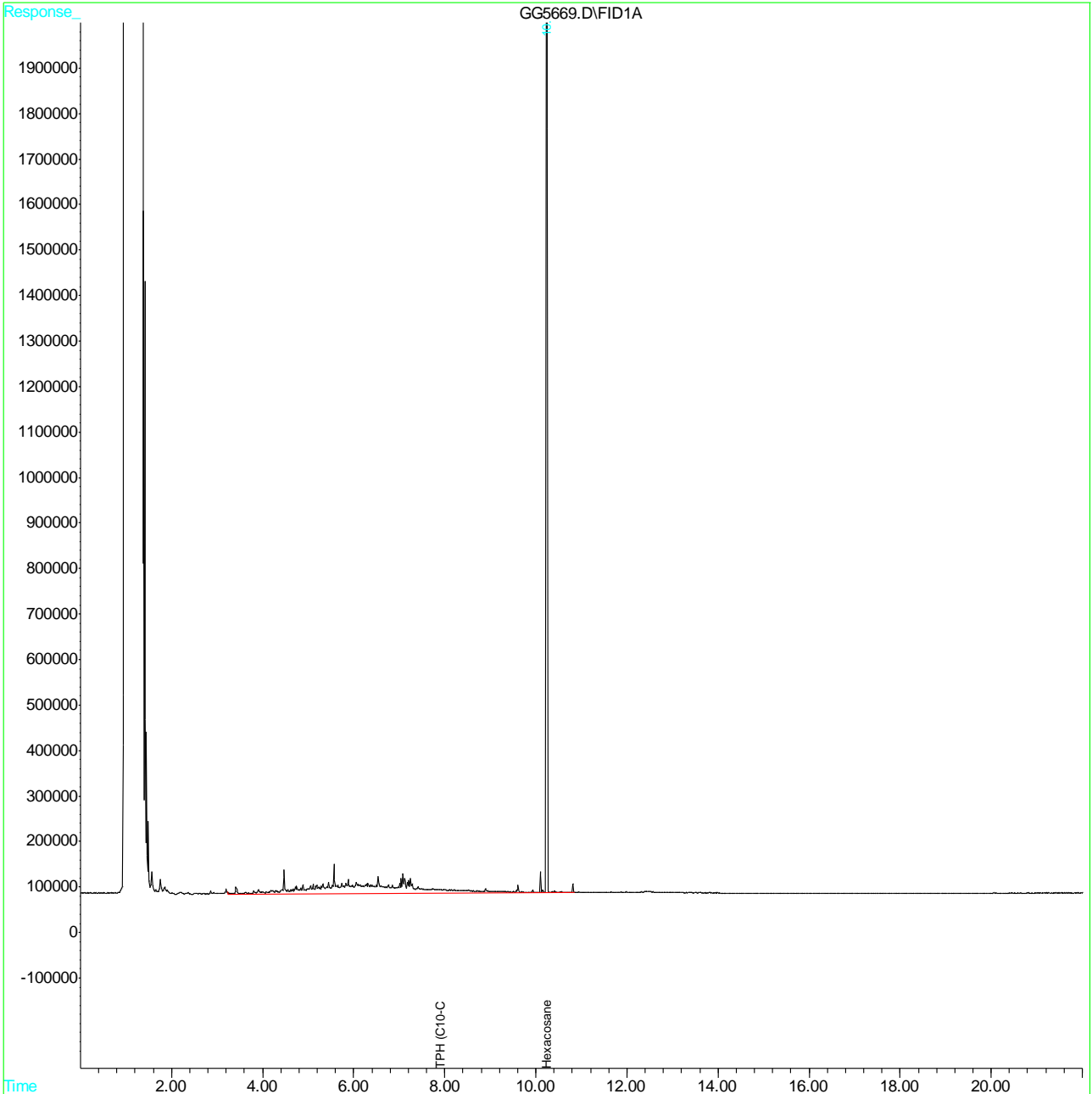
7.17
 7

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5669.D Vial: 29
 Acq On : 5-19-09 2:40:26 AM Operator: JAMESH
 Sample : C5727-7 Inst : Diesel 2
 Misc : OP981,GGG210,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: May 19 7:58 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri May 15 11:52:58 2009
 Response via : Multiple Level Calibration
 DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
 Signal Phase : HP-5
 Signal Info : 0.32 mm



7.17
7

Quantitation Report (QT Reviewed)

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5653.D Vial: 15
 Acq On : 5-18-09 6:54:45 PM Operator: JAMESH
 Sample : OP981-MB Inst : Diesel 2
 Misc : OP981,GGG210,1000,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: May 19 7:53 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri May 15 11:52:58 2009
 Response via : Initial Calibration
 DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
 Signal Phase : HP-5
 Signal Info : 0.32 mm

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
1) S,M Hexacosane	10.24	105609628	82.655 ppm
Spiked Amount 100.000		Recovery =	82.66%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	11376983	11.002 ppm
3) H TPH (>C28-C40)	12.59	10216153	10.331 ppm
4) H TPH (Mineral Spirits)	0.00	0	N.D. ppm
5) H TPH (Kerosene)	0.00	0	N.D. ppm
6) H,M TPH (Diesel)	7.90	11376983	11.002 ppm
7) H TPH (Motor Oil)	12.59	10216153	10.331 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
 GG5653.D GGG190.M Tue May 19 15:16:07 2009

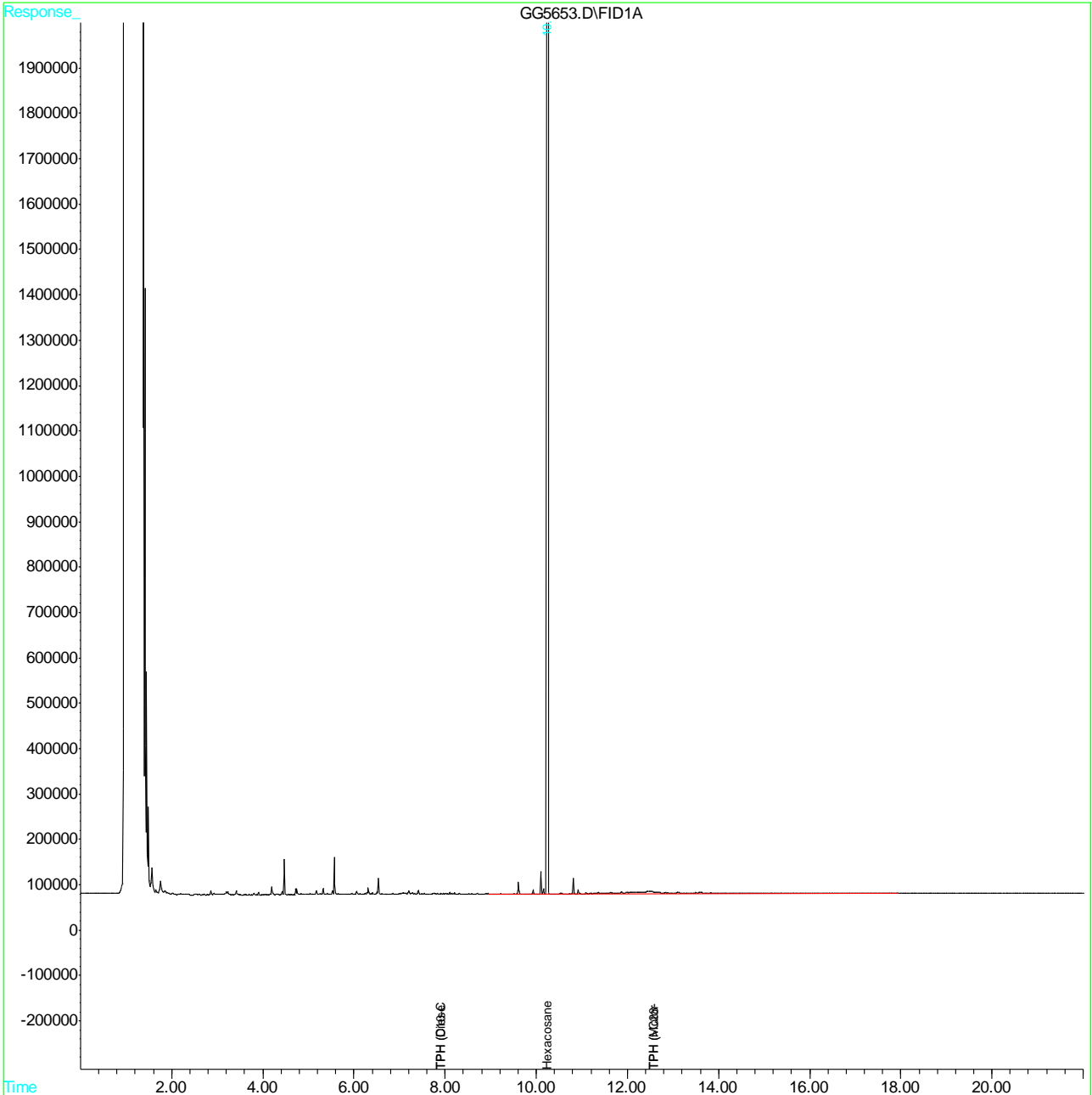
7.2.1
 7

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG210\GG5653.D Vial: 15
 Acq On : 5-18-09 6:54:45 PM Operator: JAMESH
 Sample : OP981-MB Inst : Diesel 2
 Misc : OP981,GGG210,1000,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: May 19 7:53 2009 Quant Results File: GGG190.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG190.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri May 15 11:52:58 2009
 Response via : Multiple Level Calibration
 DataAcq Meth : ACQ_TPH2.M

Volume Inj. : 1.0 uL
 Signal Phase : HP-5
 Signal Info : 0.32 mm



7.2.1

7