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**FOURTH QUARTER 2009
GROUNDWATER MONITORING
REPORT**

YRC, Inc.
1708 Wood Street, Oakland, California
(Fuel Leak Case No. RO0000039)

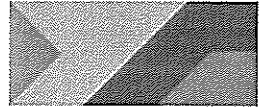
January 2010

Burns & McDonnell Project No. 48791



393 E. Grand Ave., Ste. J
South San Francisco, CA 94080

YRC Worldwide Inc.
10900 Roe Avenue
Overland Park, KS 66211-4213
Phone 913 696 6100
yrcworld



January 20, 2010

To Whom It May Concern:

Attached is the "Fourth 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



January 20, 2010

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

Fourth Quarter 2009 Groundwater Monitoring Results
No Further Action Request
Fuel Leak Case No. RO0000039

Dear Mr. Khatri:

On behalf of YRC North American Transportation (YRC), Burns & McDonnell Engineering Company is happy to present the Fourth Quarter 2009 Groundwater Monitoring Report for the YRC facility located at 1708 Wood Street, Oakland, CA (Site). Additionally, Burns & McDonnell recommends the Site for No Further Action candidacy. Our recommendation for the awarding of No Further Action is summarized as follows.

On November 20, 2009, Burns & McDonnell submitted a Proposed Groundwater Sampling Plan for the Site, as per your request in a letter dated August 13, 2009. The proposed plan asked for the Site to be considered for No Further Action candidacy and that the groundwater sampling program be terminated; dependant upon the Fourth Quarter 2009 analytical results.

Since the proper removal and abandonment of monitoring wells MW-1 and MW-2 in August 2008, there have been no non-qualified results in any Site well, including the Fourth Quarter 2009. The Fourth Quarter 2009 groundwater monitoring event additionally satisfies the State Water Resources Control Board Resolution 2009-0042 directive to sample newly installed wells for one hydrologic cycle, (i.e. four consecutive quarters). Over this cycle, Site wells MW-6 through MW-8 have been non-detect for the constituents of concern (CoC): TPHd, TPHmo, TPHg, BTEX, and MTBE.

At this time, based upon historical groundwater sampling results, Burns & McDonnell recommends that the groundwater monitoring and sampling program at the Site be terminated, and that the Site be granted No Further Action status.

Sincerely,

Simon Barber
Project Geologist

January 20, 2010

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

Subject: Fourth 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 this letter report summarizing the groundwater sampling activities conducted in the Fourth Quarter 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 operated as a trucking facility, which includes a terminal, loading dock, warehouse, business office. The open areas surrounding the building are covered by asphalt and concrete and are used for trailer storage (Figure 2). The Site is secured with a full perimeter fence and with professional security guards on staff.

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 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 Marshal 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 (Figure 3), 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 (Figure 3). 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 November 12, 2009, Burns & McDonnell gauged depth-to-water (DTW), and collected samples from all Site wells (MW-3 through MW-8) (Figure 3).

4.1 Depth to Water

Prior to collecting groundwater samples, all well caps were removed to allow for groundwater to equilibrate, DTW was then measured from the top of casing (TOC) at each well using a clean, battery-operated, oil/water interface probe. DTW 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 methods. 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) or less, water levels were monitored, and recorded. Groundwater extraction was halted when groundwater draw down exceeded 20% static groundwater elevation, or if the groundwater draw down reached the wells screened interval. 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, and type of preservative. A duplicate sample was taken from MW-7, 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 November 12, 2009, static groundwater was observed in the Site's shallow groundwater monitoring wells (MW-6, MW-7, and MW-8), at depths ranging from 1.65 feet (MW-7) to 1.93 feet (MW-8) below the TOC, with groundwater elevations ranging from 7.90 feet (MW-8) to 8.39 feet (MW-6) as referenced to MSL. Groundwater elevations in the shallow groundwater zone are summarized in Table 2, and shown on Figure 4.

Static groundwater in the Site's deep groundwater monitoring wells (MW-3, MW-4, and MW-5), was observed at depths ranging from 3.31 feet (MW-4) to 3.98 feet (MW-3) below TOC, with groundwater elevations ranging from 6.13 feet (MW-3) to 3.21 feet (MW-4) as referenced to MSL. Groundwater elevations in the deep groundwater zone are summarized in Table 2, and shown on Figure 5.

Gauging and well casing elevation data were used to calculate groundwater elevations. For this sampling event, there was an average difference of 2.02 feet between the shallow groundwater zone elevations and the deep groundwater zone elevations. In the area of the removed USTs, the flow direction in the shallow groundwater zone (Figure 4) was to the northeast with a gradient of approximately 0.01 feet per foot (ft/ft). The flow direction in the deep groundwater zone (Figure 5) was to the west with a gradient of approximately 0.001 ft/ft.

Historical groundwater elevations are summarized in Table 3.

5.2 Groundwater Analytical Results

Samples were analyzed for total petroleum hydrocarbons (TPH) in the diesel (TPH_d), motor oil (TPH_{mo}), and gasoline ranges; (C10-C28, C28-C40, and C6-C10, respectively). TPH_d and TPH_{mo} were analyzed by Environmental Protection Agency (EPA) Method 8015M with silica gel cleanup (SG), EPA Method 3630C, prior to analysis to remove naturally occurring organic compounds. TPH_g, benzene, toluene, ethylbenzene, xylenes (BTEX), and methyl tert-butyl ether (MTBE) were analyzed by EPA Method 8260B. Fourth Quarter 2009 analytical results are summarized below:

- TPH_d: Was not detected in any sample at or above method detection limits.
- TPH_{mo}: Was not detected in any sample at or above method detection limits.
- TPH_g: Was not detected in any sample at or above method detection limits.
- BTEX: Was not detected in any sample at or above method detection limits.
- MTBE: Was not detected in any sample at or above method detection limits.

Fourth Quarter groundwater data is presented in Table 2; historical groundwater data for all Site monitoring wells is presented in Table 3. As a quality assurance/quality control (QA/QC) measure, a duplicate sample was taken from well MW-7 and designated MW-7(DUP-1). Copies of the Fourth Quarter 2009 certified analytical report and Chain-of-Custody documentation are included as Appendix B.

The certified analytical report was reviewed by a Burns & McDonnell senior environmental scientist. Burns & McDonnell concludes that the duplicate sample set was adequately replicated; and all data are usable in reporting the results of this investigation. No qualifiers were added by the analytical laboratory, or as a result of Burns & McDonnell's QA/QC review (Appendix B).

6.0 Summary

Groundwater elevation indicates two non-correlative groundwater zones in the former UST area. Groundwater flow direction in the shallow zone is to the northeast, and groundwater flow direction in the deep zone is to the west (Figure 4 & Figure 5, respectively). All Site wells were sampled during the Fourth Quarter 2009 groundwater monitoring event. Analytical analyses of the submitted samples showed no detections of TPHd, TPHmo, TPHg, BTEX, and MTBE at or above the method detection limits (Table 2).

7.0 Conclusions and No Further Action Recommendation

Since the proper removal and abandonment of monitoring wells MW-1 and MW-2 in August 2008, there have been no non-qualified results in any Site well (Table 3). The Fourth Quarter 2009 groundwater monitoring event satisfies the State Water Resources Control Board Resolution 2009-0042 directive to sample newly installed wells for one hydrologic cycle, (i.e. four consecutive quarters). Over this cycle, newly installed wells MW-6 through MW-8 have been non-detect for the constituents of concern (CoC): TPHd, TPHmo, TPHg, BTEX, and MTBE, with the exception of three detections in wells MW-7 and MW-8 that were qualified as estimates by the analytical laboratory; as the detections were between the method detection limit and the method reporting limit.

On November 20, 2009, Burns & McDonnell submitted a *Proposed Groundwater Sampling Plan* as per your request in a letter dated August 13, 2009. The proposed plan asked for the Site to be considered for No Further Action candidacy and that the groundwater sampling program be terminated; dependant upon the Fourth Quarter 2009 analytical results.

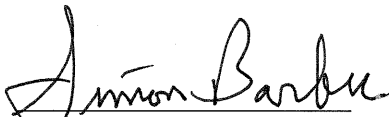
At this time, based upon historical groundwater sampling results, Burns & McDonnell recommends that the groundwater monitoring and sampling program at the Site be terminated, and that the Site be considered for No Further Action status.

8.0 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.

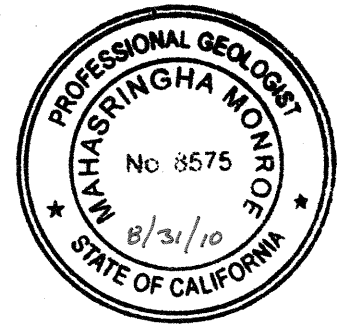
Sincerely,



Simon Barber
Project Geologist



Mahasingha Monroe, P.G.
Senior Project Geologist



Attachments:

- Figure 1 – Site Location Map
- Figure 2 – Site Map
- Figure 3 – Groundwater Wells – Former UST Area
- Figure 4 – Groundwater Elevations Shallow Zone – 4Q2009 – Former USTs Area
- Figure 5 – Groundwater Elevations Deep Zone – 4Q2009 – Former USTs Area

- Table 1: Well Construction Details
- Table 2: Current Event Groundwater Summary
- Table 3: Historical Monitoring Well Groundwater Summary

- Appendix A – Groundwater Sampling Forms
- Appendix B – Laboratory Analytical Reports & Burns & McDonnell QA/QC Report

Cc: Ruben Byerley YRC Worldwide
Steve Shinnors YRC Worldwide

TABLES

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

Well ID	Installation Date	Casing Diameter	Casing Elevation	Construction Depth	Screened Interval	Comments
		(Inches)	(ft MSL)	(ft bgs)	(ft bgs)	
MW-1	March 1987	4	unknown	10	0.5-10	Well Abandoned August 2009
MW-2	March 1987	4	9.89	9.5	0.5-9.5	Well Abandoned August 2009
MW-3	September 2000	2	10.11	30	10-30	Deep Zone
MW-4	September 2000	2	9.52	30	10-30	Deep Zone
MW-5	September 2000	2	9.97	30	10-30	Deep Zone
MW-6	February 2009	1	10.13	10	5-10	Shallow Zone
MW-7	February 2009	1	9.93	10	5-10	Shallow Zone
MW-8	February 2009	1	9.83	10	5-10	Shallow Zone

- ft MSL Elevation in feet as referenced to Mean Sea Level.
- ft bgs 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
Current Event 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-3	Deep	12-Nov-09	3.98	6.13	94 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-4	Deep	12-Nov-09	3.31	6.21	94 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-5	Deep	12-Nov-09	3.79	6.18	94 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-6	Shallow	12-Nov-09	1.74	8.39	94 U, SG	50 U	190 U,SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-7	Shallow	12-Nov-09	1.65	8.28	94 U,SG	50 U	190 U, SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-7 (DUP-1)	Shallow	12-Nov-09	---	---	94 U,SG	50 U	190 U, SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-8	Shallow	12-Nov-09	1.93	7.90	94 U,SG	50 U	190 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

TABLE 3
Historical 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-3	Deep	19-Sep-09	4.58	5.53	---	---	---	---	---	---	---	---	---	---
MW-3	Deep	12-Nov-09	3.98	6.13	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-4	Deep	18-Sep-09	3.76	5.76	---	---	---	---	---	---	---	---	---	---
MW-4	Deep	12-Nov-09	3.31	6.21	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-5	Deep	18-Sep-09	4.25	5.72	---	---	---	---	---	---	---	---	---	---
MW-5	Deep	12-Nov-09	3.79	6.18	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-6	Shallow	18-Sep-09	1.91	8.22	94 U, SG	50 U	190 U, SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-6	Shallow	12-Nov-09	1.74	8.39	94 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-7	Shallow	18-Sep-09	1.75	8.18	84.5 SG, J	50 U	190 U,SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-7 (DUP-1)	Shallow	18-Sep-09	---	---	56.7 SG, J	50 U	190 U, SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-7	Shallow	12-Nov-09	1.65	8.28	94 U,SG	50 U	190 U, SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-7 (DUP-1)	Shallow	12-Nov-09	---	---	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
MW-8	Shallow	18-Sep-09	2.08	7.75	94 U,SG	50 U	190 U,SG	1 U	1 U	1 U	2 U	---	---	1 U
MW-8	Shallow	12-Nov-09	1.93	7.90	94 U,SG	50 U	190 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

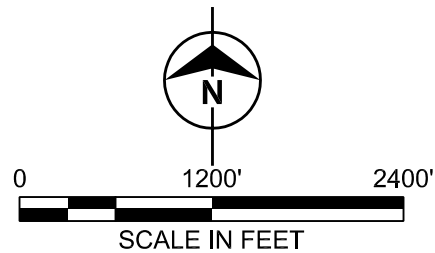
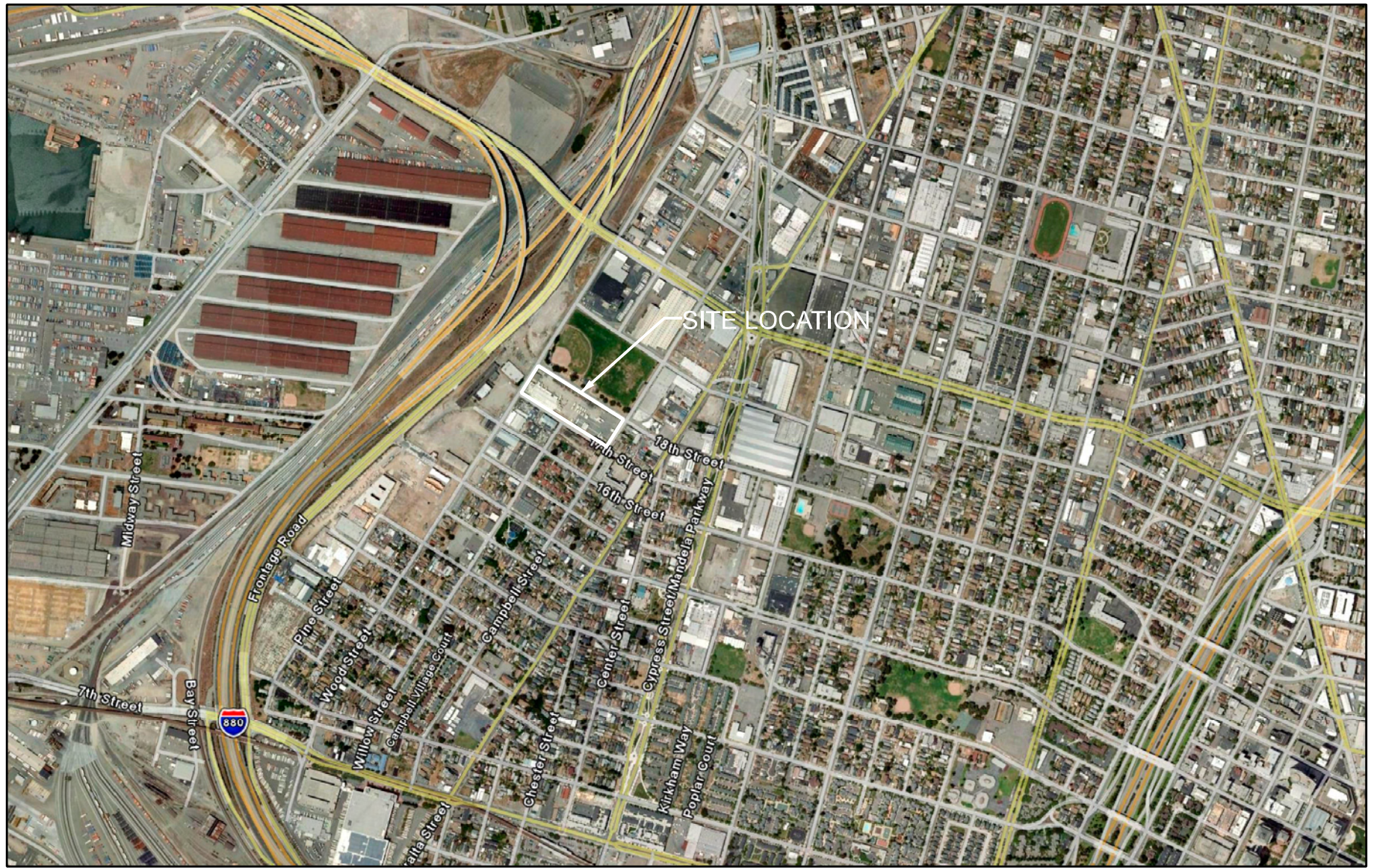


Figure 1
SITE LOCATION MAP
ROADWAY EXPRESS
1708 WOOD STREET
OAKLAND, CA

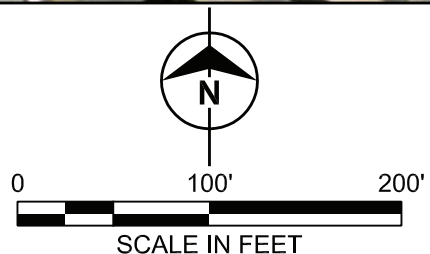
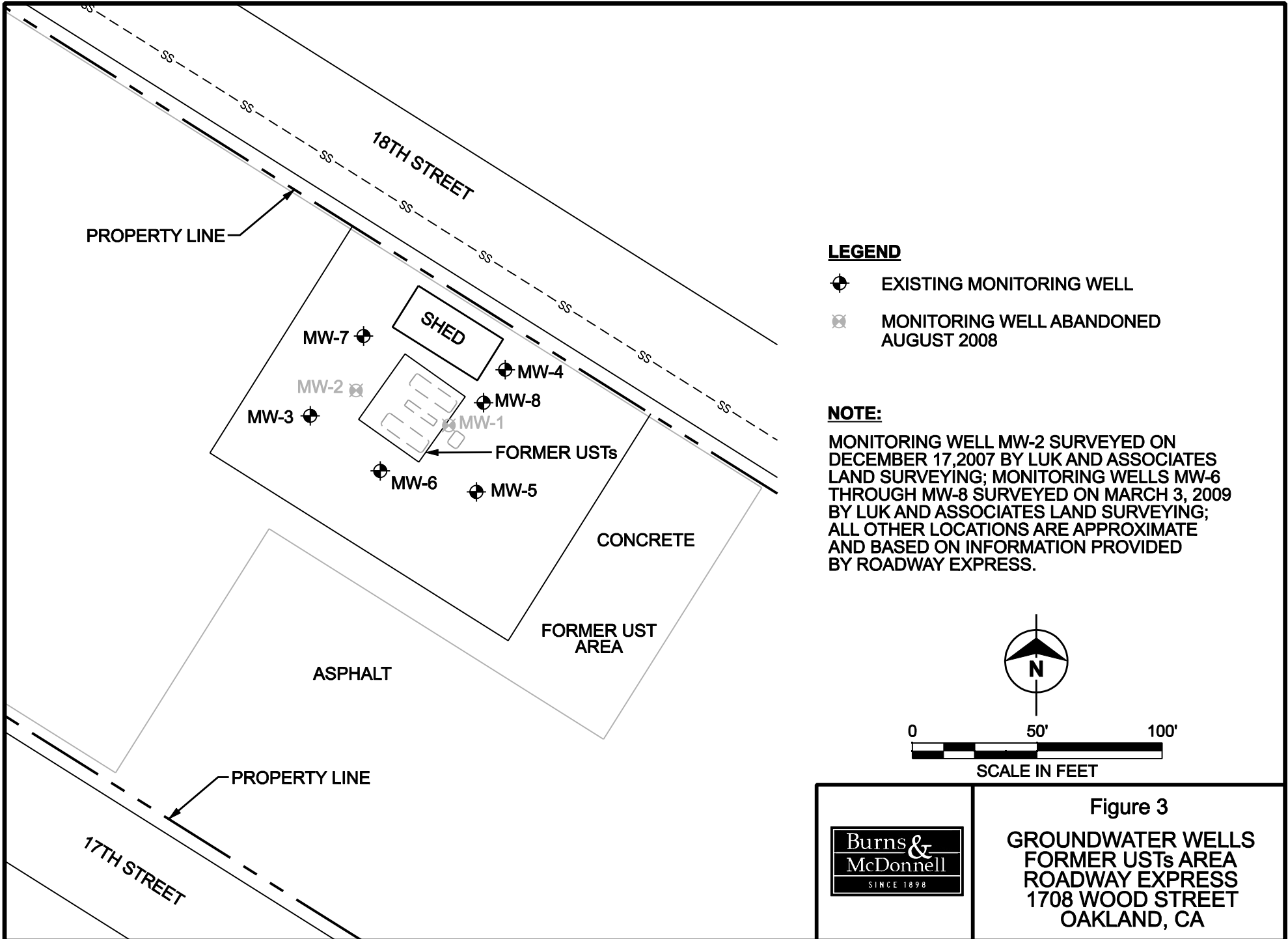


Figure 2
SITE MAP
ROADWAY EXPRESS
1708 WOOD STREET
OAKLAND, CA



LEGEND

- ⊕ EXISTING MONITORING WELL
- ⊗ MONITORING WELL ABANDONED AUGUST 2008

NOTE:

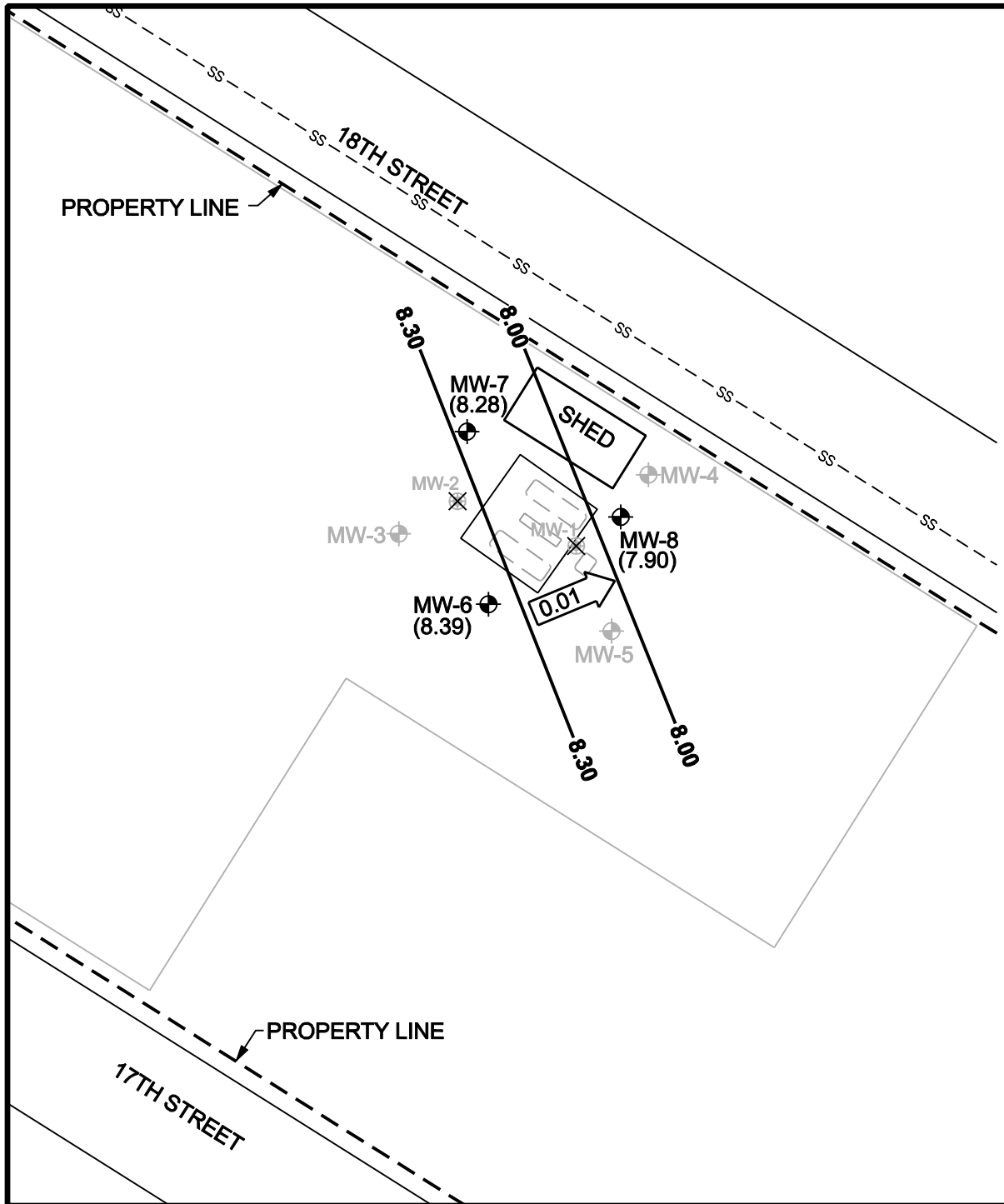
MONITORING WELL MW-2 SURVEYED ON DECEMBER 17, 2007 BY LUK AND ASSOCIATES LAND SURVEYING; MONITORING WELLS MW-6 THROUGH MW-8 SURVEYED ON MARCH 3, 2009 BY LUK AND ASSOCIATES LAND SURVEYING; ALL OTHER LOCATIONS ARE APPROXIMATE AND BASED ON INFORMATION PROVIDED BY ROADWAY EXPRESS.



SCALE IN FEET



Figure 3
GROUNDWATER WELLS
FORMER USTs AREA
ROADWAY EXPRESS
1708 WOOD STREET
OAKLAND, CA



LEGEND

- ⊕ EXISTING MONITORING WELL
- ⊗ MONITORING WELL ABANDONED AUG. 2008
- (7.90) GROUNDWATER ELEVATION (FT MSL) MEASURED ON NOVEMBER 12, 2009.
- ~ GROUNDWATER CONTOUR (FT MSL) - DASHED WHERE INFERRED
- 0.01 → GROUNDWATER FLOW DIRECTION AND GRADIENT IN FEET/FOOT
- (8.86*) WATER LEVEL FROM SHALLOW SCREENED INTERVAL DOES NOT CORRELATE TO OTHER WELLS

NOTE:

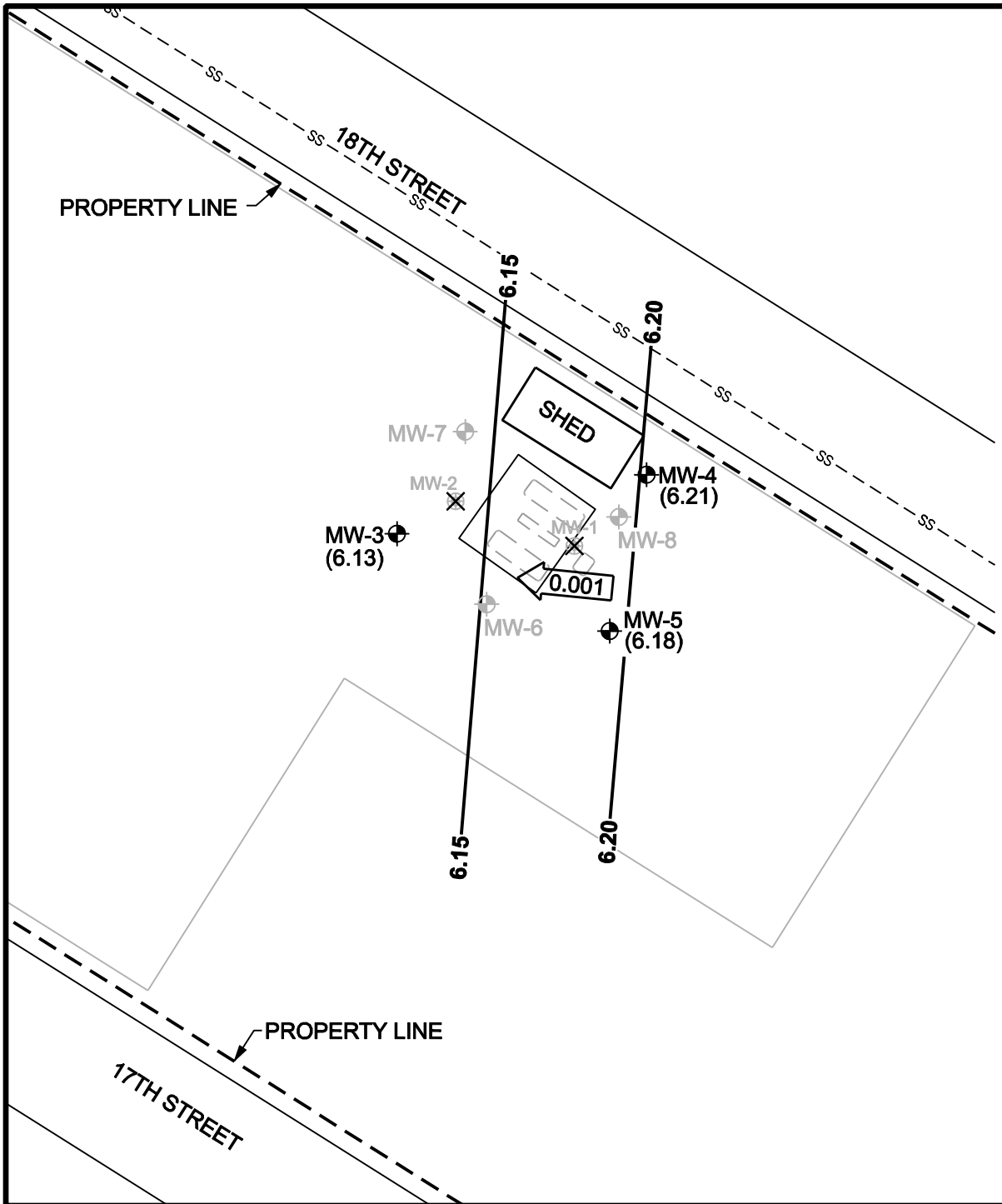
MONITORING WELLS MW-2 THROUGH MW-5 SURVEYED ON DECEMBER 17, 2007 BY LUK AND ASSOCIATES LAND SURVEYING; ALL OTHER LOCATIONS ARE APPROXIMATE AND BASED ON INFORMATION PROVIDED BY ROADWAY EXPRESS.



SCALE IN FEET



Figure 4
 GROUNDWATER ELEVATIONS
 SHALLOW ZONE 4Q-2009
 FORMER USTs AREA
 ROADWAY EXPRESS
 1708 WOOD STREET
 OAKLAND, CA



LEGEND

- ⊕ EXISTING MONITORING WELL
- ⊗ MONITORING WELL ABANDONED AUG. 2008
- (6.18) GROUNDWATER ELEVATION (FT MSL) MEASURED ON NOVEMBER 12, 2009.
- ~ GROUNDWATER CONTOUR (FT MSL) - DASHED WHERE INFERRED
- 0.001 → GROUNDWATER FLOW DIRECTION AND GRADIENT IN FEET/FOOT
- (8.86*) WATER LEVEL FROM SHALLOW SCREENED INTERVAL DOES NOT CORRELATE TO OTHER WELLS

NOTE:

MONITORING WELLS MW-2 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

	<p align="center">Figure 5 GROUNDWATER ELEVATIONS DEEP ZONE 4Q-2009 FORMER USTs AREA ROADWAY EXPRESS 1708 WOOD STREET OAKLAND, CA</p>
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APPENDIX A
GROUNDWATER SAMPLING FORMS



LOW-FLOW GROUNDWATER SAMPLING FORM

Site Name: YRC-Oakland
 Project Number: 48791
 Recorded By: Simon Barber

Well Number: MW-3
 Well Type: Monitoring
 Date: 11-2-09 Sample Time: 1035

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

Casing Diameter (inches): 2
 Total Depth of Casing (feet BTOC): 398 29.20
 Water Level Depth (feet BTOC): 3.98

Total Volume Generated (gallons): 4 1.8
 Start Time: 1008 Stop Time: 1050

Field Parameter Measurements

Time	Volume (mL)	Temp (Celsius)	pH SU	Conductivity (uS/cm)	DTW (ft BTOC)	Remarks
1028	300	20.08	6.33	7862	7.02	clear
1029	600	20.08	6.45	7831	7.04	clear
1030	900	19.91	6.52	7811	7.05	clear
1032	1200	20.00	6.55	7798	7.10	clear
1038	1500	20.13	6.56	7793	7.12	clear
1034	1800	20.01	6.59	7801	7.12	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-3		2	—	TPHd TPHmo
		4	HCl	TPHd 9/07



LOW-FLOW GROUNDWATER SAMPLING FORM

Site Name: YRC-Oakland
 Project Number: 48791
 Recorded By: Simon Barber

Well Number: MW-6
 Well Type: Monitoring
 Date: 11.12.09 Sample Time: 1115

Pump Type: Peristaltic
 Pump Intake Depth: 6
 Screen Interval: 4.5 - 9.3

Casing Diameter (inches): 1
 Total Depth of Casing (feet BTOC): 945
 Water Level Depth (feet BTOC): 1.74

Total Volume Generated (gallons): 0.6
 Start Time: 1055 Stop Time: 1125

Field Parameter Measurements

Time	Volume (mL)	Temp (Celsius)	pH SU	Conductivity (uS/cm)	DTW (ft BTOC)	Remarks
1103	200	18.71	7.07	4725	2.6	clear brown hue organics draw down
1106	400				2.7	wait for recharge.
1106	400	18.63	6.75	4670	2.1	same
1107	600	18.95	6.69	4670	2.7	water same - draw down will recharge + sample

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-6		2		TRIT d mo
		4	HCl	704g B/M



LOW-FLOW GROUNDWATER SAMPLING FORM

Site Name: YRC-Oakland
 Project Number: 48791
 Recorded By: Simon Barber

Well Number: MW-5
 Well Type: Monitoring
 Date: 11.12.09 Sample Time: 1155

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

Casing Diameter (inches): 2
 Total Depth of Casing (feet BTOC): 29.4
 Water Level Depth (feet BTOC): 3.79

Total Volume Generated (^{Liters}gallons): 0.9

Start Time: 1135 Stop Time: 1200

Field Parameter Measurements

Time	Volume (mL)	Temp (Celsius)	pH SU	Conductivity (uS/cm)	DTW (ft BTOC)	Remarks
1143	150	21.69	6.84	8652	4.08	clear
1144	300	21.71	6.83	8719	4.14	clear
1146	450	21.79	6.83	8767	4.18	clear
1147	600	21.81	6.84	8844	4.19	clear
1148	750	21.62	6.85	8842	4.21	clear
1149	900	21.54	6.86	8856	4.22	clear
						seal.

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
<u>MW-5</u>		<u>2</u>	<u>—</u>	<u>RPID mo</u>
		<u>4</u>	<u>HCL</u>	<u>TRTS D/M</u>



LOW-FLOW GROUNDWATER SAMPLING FORM

Site Name: YRC-Oakland
 Project Number: 48791
 Recorded By: Simon Barber

Well Number: MW-7 + Dup-1
 Well Type: Monitoring
 Date: 11.12.09 Sample Time: 1225
 Casing Diameter (inches): 1
 Total Depth of Casing (feet BTOC): 8.86
 Water Level Depth (feet BTOC): 6.65

Pump Type: Peristaltic
 Pump Intake Depth: 5'
 Screen Interval: 4.5' - 9.5'

Total Volume Generated (gallons): 1 ^{liter}

Start Time: 1205 Stop Time: 1245

Field Parameter Measurements

Time	Volume (mL)	Temp (Celsius)	pH SU	Conductivity (uS/cm)	DTW (ft BTOC)	Remarks
1215	150	21.61	7.39	1962	2.45	clear
1216	300	21.56	7.24	1829	2.10	clear
1217	450	21.64	7.09	1656	2.35	clear
1218	600	21.66	7.05	1615	2.45	clear
1219	750	21.72	6.99	1610	2.50	clear
1220	900	21.72	6.95	1588	2.55	clear
1221	1050	21.81	6.91	1586	2.56	clear
						Sample 1/2 g/L

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-7		2	none	+DUd no
Dup-1		2	none	+DUd no
MW-7		2	HCl	+DUd B/m
Dup-1		4	HCl	+DUd B/m



LOW-FLOW GROUNDWATER SAMPLING FORM

Site Name: YRC-Oakland
 Project Number: 48791
 Recorded By: Simon Barber

Well Number: MW-8
 Well Type: Monitoring
 Date: 11.12.09 Sample Time: 1325

Pump Type: Peristaltic
 Pump Intake Depth: 6
 Screen Interval: 5'-10'

Casing Diameter (inches): 1
 Total Depth of Casing (feet BTOC): 193
 Water Level Depth (feet BTOC): 9.5

Total Volume Generated (^{liter}gallons): 0.7
 Start Time: 1250 Stop Time: 1345

Field Parameter Measurements

Time	Volume (mL)	Temp (Celsius)	pH SU	Conductivity (uS/cm)	DTW (ft BTOC)	Remarks
1256	250	21.74	6.83	2354	5.10	clear → brownish stopped
1257	300	22.13	6.77	2685	5.00	clear wait on recharge
1311	400	22.13	6.85	2559	3.55	clear
1314	500	22.01	6.80	2269	3.52	clear
1316	600	22.00	6.78	2113	3.60	clear
1317	700	21.96	6.86	2000	3.90	clear
						sample

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		2	None	Field mo
		4	HCl	Teitg O/m



LOW-FLOW GROUNDWATER SAMPLING FORM

Site Name: YRC-Oakland
 Project Number: 48791
 Recorded By: Simon Barber

Well Number: MW-4
 Well Type: Monitoring
 Date: 11/2/09 Sample Time: 1405

Pump Type: Peristaltic
 Pump Intake Depth: 15'
 Screen Interval: 16-3'

Casing Diameter (inches): 2
 Total Depth of Casing (feet BTOC): 29.4
 Water Level Depth (feet BTOC): 3.31

Total Volume Generated (gallons): ^{liters} 0.9

Start Time: 1350 Stop Time: 1416

Field Parameter Measurements

Time	Volume (mL)	Temp (Celsius)	pH SU	Conductivity (uS/cm)	DTW (ft BTOC)	Remarks
1356	150	21.53	7.36	5853	3.40	clear
1357	300	21.02	7.31	6001	3.45	clear
1358	450	20.88	7.23	6012	3.50	clear
1359	600	20.88	7.17	6015	3.55	clear
1400	750	20.87	7.14	6067	3.55	clear
1401	900	20.89	7.14	6015	3.56	clear
						samples

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
<u>MW-4</u>		<u>2</u>	<u>none</u>	<u>total no</u>
		<u>4</u>	<u>yes</u>	<u>total \$/m</u>

APPENDIX B

**LABRATORY ANALYTICAL REPORT
BURNS & MCDONNELL QA/QC REPORT**



Date: December 24, 2009

To: Matt Cox

From: Michelle Beckman

Re: QA/QC Review of Analytical Data
 Yellow Freight – Oakland 4th Quarter Groundwater Samples
Project Number (48791 – Yellow Freight - Oakland)

Groundwater samples were collected on November 12, 2009. Samples were analyzed for one or more of the following parameters:

Analysis	Method
Groundwater Samples – Accutest of San Jose, California	
Total Petroleum Hydrocarbons (TPH) Gasoline Range Organics (GRO) C6-C10 Diesel C10-C28 (Silica Gel Cleanup [SGCU]) Motor Oil >C28-C40 (SGCU)	SW-846 Methods 5030B / 8015B SW-846 Methods 3510C / 3630C / 8015B SW-846 Methods 3510C / 3630C / 8015B
Volatile Organic Compounds (VOCs) Methyl-tert-butyl ether (MTBE) Benzene, Toluene, Ethylbenzene, and Xylene (BTEX)	SW-846 Methods 5030B / 8260B

The following data set was reviewed in support of this investigation:

Lab	Data Set	Date Collected	Matrix
Accutest	C8422	11/12/2009	Groundwater

The quality assurance/quality control (QA/QC) results for the analyses were evaluated for achievement of any method-specific QA/QC criteria. Data qualifiers, when appropriate, were assigned according to the guidelines presented in *USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review* (NFGO), 1999 and 2008. No data required qualification as a result of the data review. The QA/QC review results are discussed in the following paragraphs.

1. Chain-of-Custody – No problems were noted with the chain-of-custody (COC) forms.
2. Requested Analyses Completed – All samples were analyzed as requested on the COCs.
3. Holding Times – All samples were extracted and/or analyzed within the method holding times.
4. Sample Preservation – No problems were noted with sample preservation.
5. Laboratory Method Blanks – Method blanks were reviewed to determine the potential for sample cross contamination due to handling within the laboratory. No detections of target compounds were noted in the method blanks.



Memorandum
December 14, 2009
Page 2

6. Trip Blanks – Trip blank results were reviewed to determine the potential for sample cross contamination during transportation to the laboratory. No detections of target compounds were noted in the trip blank.
7. Surrogates – Surrogates are added for organic analyses. Surrogates are compounds not normally found in the environment that are added (spiked) into samples and analyzed for percent recovery (REC). Maximum and minimum limits on the REC are set by the laboratory for the method used.

All surrogate RECs were within control limits.

8. Blank Spike (BS)/Blank Spike Duplicate (BSD) – The BS contains a matrix similar to that of the sample that has been spiked with known concentrations of target analytes. The BS is prepared and analyzed by the same method as the samples. As a measure of analytical accuracy, the results of the BS are compared against the known analyte concentrations in the spike to determine REC. The purpose of the BS is to determine the performance of the laboratory with respect to analyte recovery, independent of field sample matrix interference. The BSD is a duplicate preparation and analysis of the BS. Results of the BS and BSD are compared to each other to determine analytical precision using the relative percent difference (RPD).

All BS/BSD results were within QC limits.

9. Matrix Spike and Matrix Spike Duplicate (MS/MSD) – MS and MSDs are typically run for organic analyses performed using a soil or water matrix. A sample is split into three portions (original, MS, and MSD), and a known amount of a target analyte is added (spiked) to two portions (MS and MSD) of the sample. The results are compared against the unspiked portion of the sample for REC of the spike. Additionally, the results are compared against each other using a RPD to determine reproducibility.

- A project-specific MS/MSD analysis was conducted using Sample MW-4 (C8422-7) for BTEX and MTBE. All results were within control limits.
- No project-specific MS/MSD analysis was conducted for the TPH-GRO, TPH-Diesel, or TPH-Motor Oil analyses. Analytical accuracy and precision for these analyses were assessed based on the associated surrogate and/or BS/BSD results. All results were within control limits and no qualifiers were added based on this omission.

10. Field Duplicate Results – Table 1 provides a summary of the field duplicate results. The following field duplicate sample was collected:

- MW-4 and Dup-1: All analytes were adequately replicated.

11. Detection and Quantitation Limits – No dilutions were required to account for matrix interference and/or high concentrations of target analytes.



Memorandum
December 14, 2009
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12. Conclusion – No data were qualified as a result of the QA/QC review. All data are usable in reporting the results of this investigation.

Attachments

Table 1 – Field Duplicate Results – MW-7 and Dup-1

Table 1
Field Duplicate Results - MW-7 and Dup-1
Yellow Freight - Oakland

Sample Name		MW-7	Dup-1	Meets Criteria? (Yes/No)
Date Sampled		11/12/2009	11/12/2009	
Laboratory Number		C8422-4	C8422-5	
Parameter	Units			
Volatile Organic Compounds				
All VOCs	µg/L	Not Detected	Not Detected	Yes
Total Petroleum Hydrocarbons				
GRO (C6-C10)	µg/L	50 U	50 U	Yes
TPH (C10-C28) (SGCU)	µg/L	94 U	94 U	Yes
TPH (>C28-C40) (SGCU)	µg/L	190 U	190 U	Yes

GRO = Gasoline range organics
 TPH = Total petroleum hydrocarbons
 SGCU = Silica gel cleanup
 U = Not Detected. Value reported is the detection limit.
 µg/L = micrograms per liter



Technical Report for

Burns and McDonnell Engineering

T0600102107-YRC-Roadway Express, Oakland, CA
48791

Accutest Job Number: C8422

Sampling Date: 11/12/09

Report to:

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

ATTN: Simon Barber

Total number of pages in report: **79**



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: Anne Kathain 408-588-0200

Certifications: CA (08258CA)

This report shall not be reproduced, except in its entirety, without the written approval of Accutest Laboratories.
Test results relate only to samples analyzed.



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1

2

3

4

5

6

7



Sample Summary

Burns and McDonnell Engineering

Job No: C8422

T0600102107-YRC-Roadway Express, Oakland, CA
 Project No: 48791

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
C8422-1	11/12/09	10:35 SB	11/13/09	AQ	Ground Water	MW-3
C8422-2	11/12/09	11:15 SB	11/13/09	AQ	Ground Water	MW-6
C8422-3	11/12/09	11:55 SB	11/13/09	AQ	Ground Water	MW-5
C8422-4	11/12/09	12:25 SB	11/13/09	AQ	Ground Water	MW-7
C8422-5	11/12/09	00:00 SB	11/13/09	AQ	Ground Water	DUP-1
C8422-6	11/12/09	13:25 SB	11/13/09	AQ	Ground Water	MW-8
C8422-7	11/12/09	14:05 SB	11/13/09	AQ	Ground Water	MW-4
C8422-8	11/12/09	00:00 SB	11/13/09	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:	11/12/09
Lab Sample ID:	C8422-1	Date Received:	11/13/09
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	N11024.D	1	11/19/09	TF	n/a	n/a	VN368
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	99%		60-130%
2037-26-5	Toluene-D8	107%		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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-3	Date Sampled:	11/12/09
Lab Sample ID:	C8422-1	Date Received:	11/13/09
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	GG9485.D	1	11/17/09	JH	11/16/09	OP1511	GGG326
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	98%		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:	11/12/09
Lab Sample ID:	C8422-2	Date Received:	11/13/09
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	N11025.D	1	11/19/09	TF	n/a	n/a	VN368
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	99%		60-130%
2037-26-5	Toluene-D8	107%		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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-6	Date Sampled:	11/12/09
Lab Sample ID:	C8422-2	Date Received:	11/13/09
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	GG9486.D	1	11/17/09	JH	11/16/09	OP1511	GGG326
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	89%		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:	11/12/09
Lab Sample ID:	C8422-3	Date Received:	11/13/09
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	N11026.D	1	11/19/09	TF	n/a	n/a	VN368
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	97%		60-130%
2037-26-5	Toluene-D8	108%		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

Report of Analysis

Client Sample ID:	MW-5	Date Sampled:	11/12/09
Lab Sample ID:	C8422-3	Date Received:	11/13/09
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	GG9487.D	1	11/17/09	JH	11/16/09	OP1511	GGG326
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	88%		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

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Client Sample ID:	MW-7	Date Sampled:	11/12/09
Lab Sample ID:	C8422-4	Date Received:	11/13/09
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	N11027.D	1	11/19/09	TF	n/a	n/a	VN368
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	99%		60-130%
2037-26-5	Toluene-D8	109%		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

Accutest Laboratories

Report of Analysis

Page 1 of 1

Client Sample ID:	MW-7	Date Sampled:	11/12/09
Lab Sample ID:	C8422-4	Date Received:	11/13/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B M SW846 3510C		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG9488.D	1	11/17/09	JH	11/16/09	OP1511	GGG326
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	87%		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

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Client Sample ID:	DUP-1	
Lab Sample ID:	C8422-5	Date Sampled: 11/12/09
Matrix:	AQ - Ground Water	Date Received: 11/13/09
Method:	SW846 8260B	Percent Solids: n/a
Project:	T0600102107-YRC-Roadway Express, Oakland, CA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N11028.D	1	11/19/09	TF	n/a	n/a	VN368
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	98%		60-130%
2037-26-5	Toluene-D8	107%		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

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Client Sample ID:	DUP-1	
Lab Sample ID:	C8422-5	Date Sampled: 11/12/09
Matrix:	AQ - Ground Water	Date Received: 11/13/09
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	GG9489.D	1	11/17/09	JH	11/16/09	OP1511	GGG326
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	84%		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

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Client Sample ID:	MW-8	Date Sampled:	11/12/09
Lab Sample ID:	C8422-6	Date Received:	11/13/09
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	N11029.D	1	11/19/09	TF	n/a	n/a	VN368
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	99%		60-130%
2037-26-5	Toluene-D8	108%		60-130%
460-00-4	4-Bromofluorobenzene	91%		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-8	Date Sampled:	11/12/09
Lab Sample ID:	C8422-6	Date Received:	11/13/09
Matrix:	AQ - Ground Water	Percent Solids:	n/a
Method:	SW846 8015B M SW846 3510C		
Project:	T0600102107-YRC-Roadway Express, Oakland, CA		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	GG9490.D	1	11/17/09	JH	11/16/09	OP1511	GGG326
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	88%		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

Report of Analysis

Client Sample ID:	MW-4	Date Sampled:	11/12/09
Lab Sample ID:	C8422-7	Date Received:	11/13/09
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	N11030.D	1	11/19/09	TF	n/a	n/a	VN368
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	106%		60-130%
460-00-4	4-Bromofluorobenzene	91%		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:	11/12/09
Lab Sample ID:	C8422-7	Date Received:	11/13/09
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	GG9491.D	1	11/17/09	JH	11/16/09	OP1511	GGG326
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	91%		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

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Client Sample ID:	TRIP BLANK	
Lab Sample ID:	C8422-8	Date Sampled: 11/12/09
Matrix:	AQ - Trip Blank Water	Date Received: 11/13/09
Method:	SW846 8260B	Percent Solids: n/a
Project:	T0600102107-YRC-Roadway Express, Oakland, CA	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	N11023.D	1	11/19/09	TF	n/a	n/a	VN368
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	107%		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



Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody



Request for Chemical Analysis and Chain of Custody Record
 "BMECASF 736"

C8422

Burns & McDonnell Engineering 393 E. Grand Avenue, Suite J So. San Francisco, CA 94080 Phone: (650) 871-2926 Fax: (650) 871-2653 Attention: Simon Barber			Laboratory: Accutest Address: 2105 Lundy Ave City/State/Zip: San Jose, CA 95131 Telephone: 408-588-0200				Document Control No: 11.12.2009 1.0P.1 Lab. Reference No. or Episode No.:							
Project Number: 48791					Sample Type									
Client Name: yrc worldwide					Matrix									
Sample Number			Sample Event		Sample Depth (in feet)		Sample Collected		Liquid	Solid	Gas	Number of Containers	Analysis	Remarks
Group or SWMU Name	Sample Point	Sample Designator	Round	Year	From	To	Date	Time						
-1	MW-3		4 Qtr	2009			11.12	1035	W4			6	X X X	
-2	MW-6		4 Qtr	2009			11.12	1115	W4			6	X X X	indrad
-3	MW-5		4 Qtr	2009			11.12	1155	W4			6	X X X	turn around time
-4	MW-7		4 Qtr	2009			11.12	1225	W4			6	X X X	Combbt
-5	DUP-1		4 Qtr	2009			11.12	-	W4			6	X X X	
-6	MW-8		4 Qtr	2009			11.12	1325	W4			5	X X X	1 lit Amber only
-7	MW-4		4 Qtr	2009			11.12	1405	W4			6	X X X	
-8	In-p blanks		-	-			11.12	-	W			3	X	
													4 vials (colic)	
													2 lit Ambers each NIP	
Sampler (signature): <i>Simon Barber</i>			Sampler (signature):			Special Instructions: Please submit EDF Geotracker Global ID# T0600102107								
Relinquished By (signature): 1. <i>Anna Dale</i>		Date/Time: 11.13.09 09:05	Received By (signature):		Date/Time: 11/13/09 09:22	Ice Present in Container: Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Temperature Upon Receipt: 5.3 + 0.4 = 5.7 °C						
Relinquished By (signature): 2. <i>[Signature]</i>		Date/Time: 11/13/09 09:15	Received By (signature): <i>[Signature]</i>		Date/Time: 11/13/09 09:22	Laboratory Comments: Bmev P.O. # 39289								

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C8422: Chain of Custody

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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:** C8422**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
VN368-MB1	N11017.D	1	11/19/09	TF	n/a	n/a	VN368

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

C8422-1, C8422-2, C8422-3, C8422-4, C8422-5, C8422-6, C8422-7, C8422-8

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	Result	Limits
1868-53-7	Dibromofluoromethane	100%	60-130%
2037-26-5	Toluene-D8	108%	60-130%
460-00-4	4-Bromofluorobenzene	94%	60-130%

Method Blank Summary

Job Number: C8422

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
VN368-MB	N11004.D	1	11/19/09	TF	n/a	n/a	VN368

The QC reported here applies to the following samples:

Method: SW846 8260B

VN368-BS

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	100% 60-130%
2037-26-5	Toluene-D8	108% 60-130%
460-00-4	4-Bromofluorobenzene	90% 60-130%

Blank Spike Summary

Job Number: C8422

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
VN368-BS	N11005.D	1	11/19/09	TF	n/a	n/a	VN368

The QC reported here applies to the following samples:

Method: SW846 8260B

C8422-1, C8422-2, C8422-3, C8422-4, C8422-5, C8422-6, C8422-7, C8422-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	20	18.7	94	60-130
100-41-4	Ethylbenzene	20	20.6	103	60-130
1634-04-4	Methyl Tert Butyl Ether	20	17.4	87	60-130
108-88-3	Toluene	20	19.5	98	60-130
1330-20-7	Xylene (total)	60	64.3	107	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	99%	60-130%
2037-26-5	Toluene-D8	103%	60-130%
460-00-4	4-Bromofluorobenzene	97%	60-130%

4.2.1
4

Blank Spike Summary

Job Number: C8422
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
VN368-BS	N11006.D	1	11/19/09	TF	n/a	n/a	VN368

The QC reported here applies to the following samples:

Method: SW846 8260B

C8422-1, C8422-2, C8422-3, C8422-4, C8422-5, C8422-6, C8422-7, C8422-8

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
	TPH-GRO (C6-C10)	125	125	100	60-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	100%	60-130%
2037-26-5	Toluene-D8	107%	60-130%
460-00-4	4-Bromofluorobenzene	91%	60-130%

4.2.2
4

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: C8422
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
C8422-7MS	N11031.D	1	11/19/09	TF	n/a	n/a	VN368
C8422-7MSD	N11032.D	1	11/20/09	TF	n/a	n/a	VN368
C8422-7	N11030.D	1	11/19/09	TF	n/a	n/a	VN368

The QC reported here applies to the following samples:

Method: SW846 8260B

C8422-1, C8422-2, C8422-3, C8422-4, C8422-5, C8422-6, C8422-7, C8422-8

CAS No.	Compound	C8422-7 ug/l	Spike Q ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND	20	18.8	94	18.3	92	3	60-130/25
100-41-4	Ethylbenzene	ND	20	20.4	102	19.8	99	3	60-130/25
1634-04-4	Methyl Tert Butyl Ether	ND	20	17.6	88	17.3	87	2	60-130/25
108-88-3	Toluene	ND	20	19.5	98	18.9	95	3	60-130/25
1330-20-7	Xylene (total)	ND	60	64.1	107	61.9	103	3	60-130/25

CAS No.	Surrogate Recoveries	MS	MSD	C8422-7	Limits
1868-53-7	Dibromofluoromethane	98%	98%	100%	60-130%
2037-26-5	Toluene-D8	105%	103%	106%	60-130%
460-00-4	4-Bromofluorobenzene	97%	97%	91%	60-130%

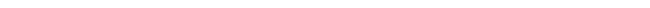
4.3.1
4



GC/MS Volatiles

5

Raw Data



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N091119\N11024.D Vial: 25
 Acq On : 19 Nov 2009 8:21 pm Operator: TitiaF
 Sample : C8422-1 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:37 2009 Quant Results File: VN360W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration
 DataAcq Meth : VN360W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.41	168	2210131	10.00	ppb	0.00
40) 1,4-Difluorobenzene	12.72	114	3483934	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	2919553	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.36	152	1401781	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.36	152	1401781	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	987133	9.92	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	99.20%
56) Toluene-d8	14.64	98	4245846	10.67	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	106.70%
74) 4-Bromofluorobenzene	17.87	95	1412975	9.30	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	93.00%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
57) Toluene	14.73	92	48819	0.11	ppb	95
99) TPH-GRO (C6-C10)	13.59	TIC	720273m	1.01	ppb	

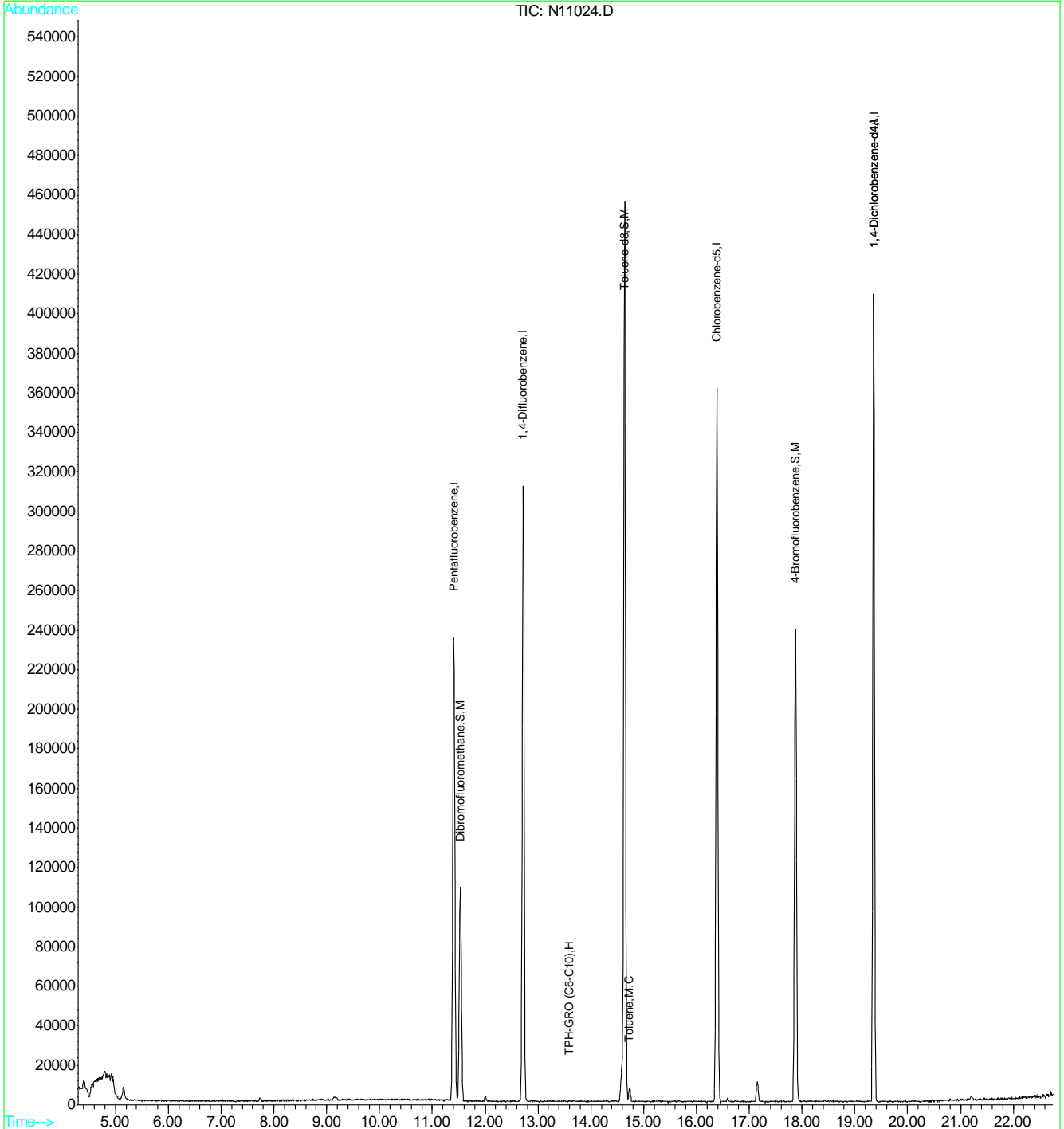
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 N11024.D VN360W.M Fri Nov 20 14:37:26 2009 RPT1

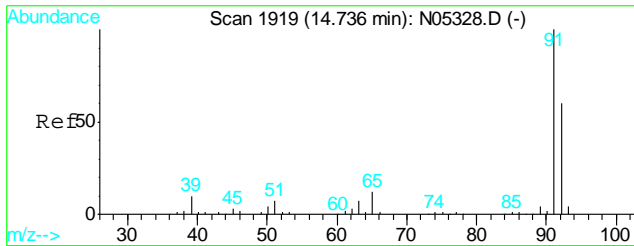
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N091119\N11024.D Vial: 25
 Acq On : 19 Nov 2009 8:21 pm Operator: TitiaF
 Sample : C8422-1 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:37 2009 Quant Results File: VN360W.RES

Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration

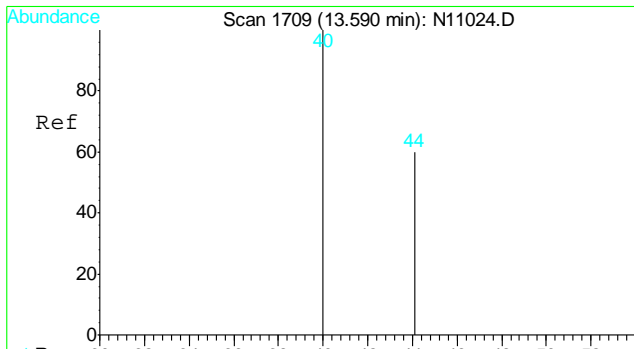
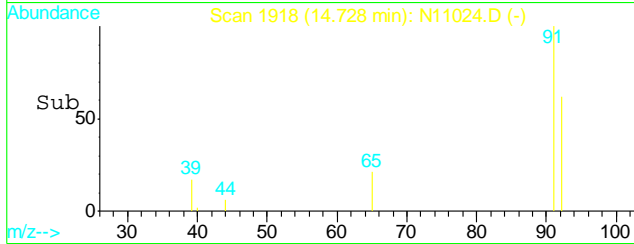
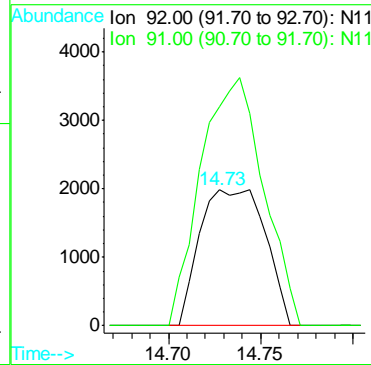
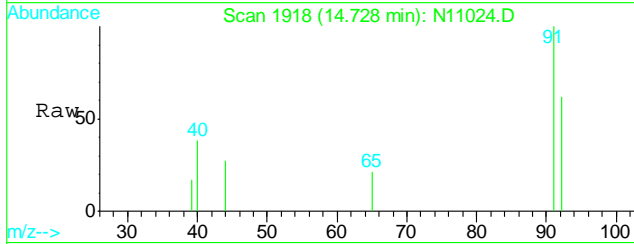
5.1.1
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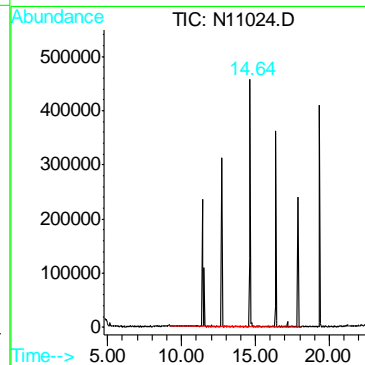
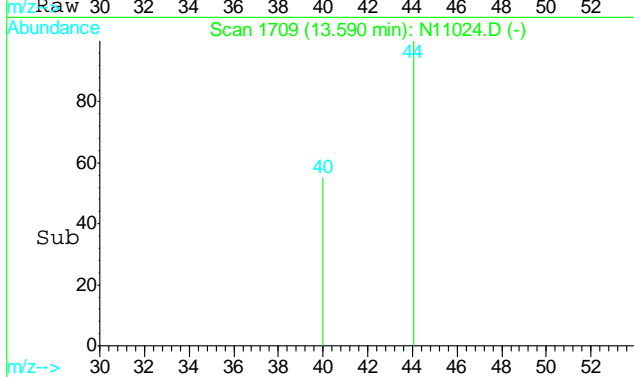


#57
Toluene
Concen: 0.11 ppb
RT: 14.73 min Scan# 1918
Delta R.T. -0.01 min
Lab File: N11024.D
Acq: 19 Nov 2009 8:21 pm

Tgt Ion: 92 Resp: 48819
Ion Ratio Lower Upper
92 100
91 174.5 147.3 187.3



#99
TPH-GRO (C6-C10)
Concen: 1.01 ppb m
RT: 13.59 min Scan# 1709
Delta R.T. 0.00 min
Lab File: N11024.D
Acq: 19 Nov 2009 8:21 pm
Tgt Ion:TIC Resp: 720273



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N091119\N11025.D Vial: 26
 Acq On : 19 Nov 2009 8:50 pm Operator: TitiaF
 Sample : C8422-2 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:38 2009 Quant Results File: VN360W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration
 DataAcq Meth : VN360W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.41	168	2095287	10.00	ppb	0.00
40) 1,4-Difluorobenzene	12.72	114	3272788	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	2732215	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.36	152	1319506	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.36	152	1319506	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	931580	9.88	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	98.80%
56) Toluene-d8	14.64	98	3994023	10.72	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	107.20%
74) 4-Bromofluorobenzene	17.87	95	1314870	9.25	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.50%

Target Compounds

						Qvalue
20) Carbon Disulfide	9.03	76	59041	0.13	ppb	# 75
57) Toluene	14.73	92	50271	0.12	ppb	96
99) TPH-GRO (C6-C10)	13.59	TIC	-357917m	Below	Cal	

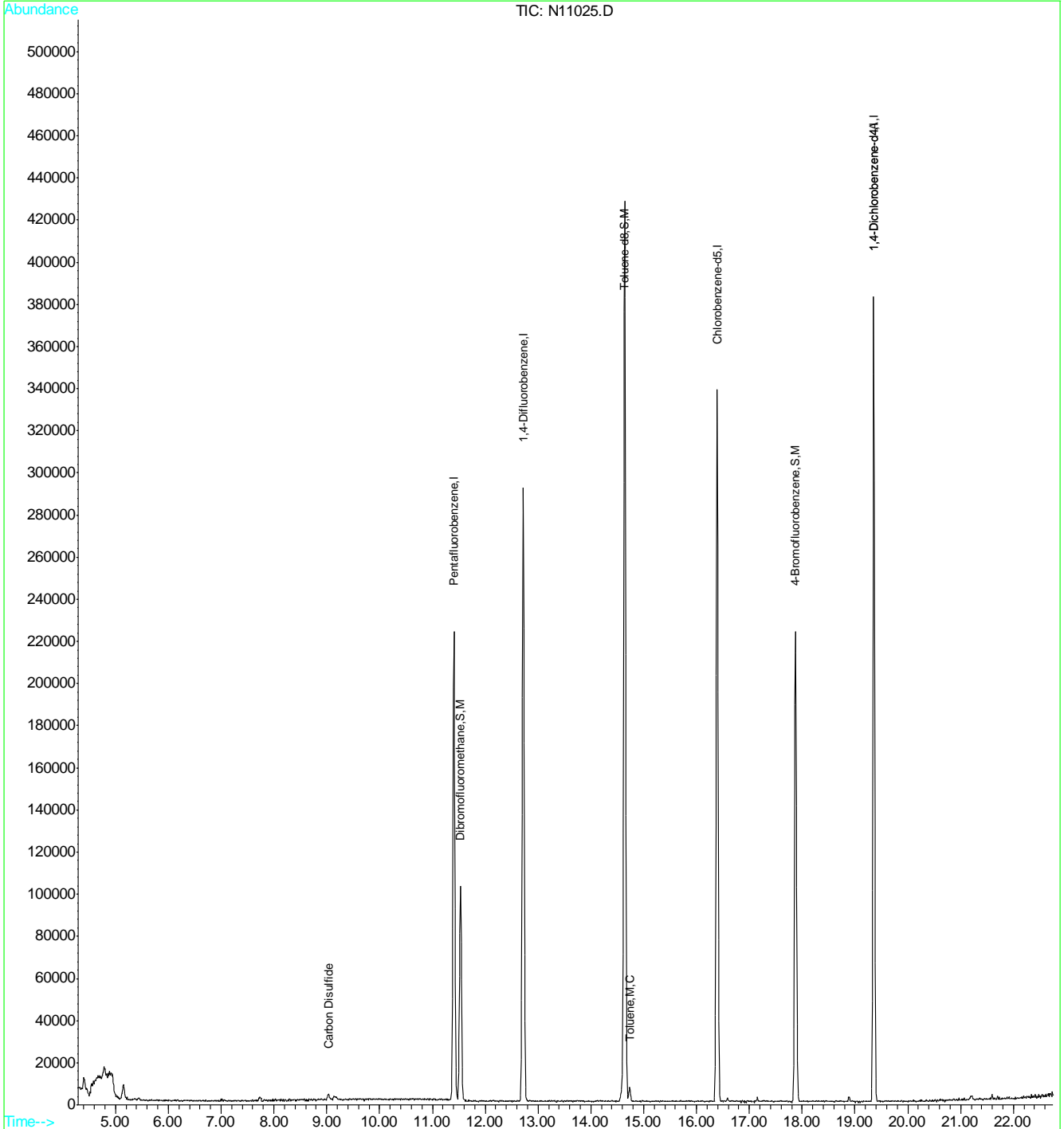
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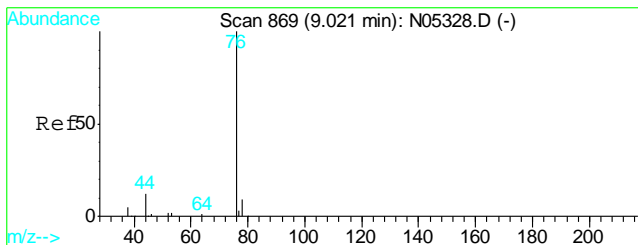
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N091119\N11025.D Vial: 26
 Acq On : 19 Nov 2009 8:50 pm Operator: TitiaF
 Sample : C8422-2 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:38 2009 Quant Results File: VN360W.RES

Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration

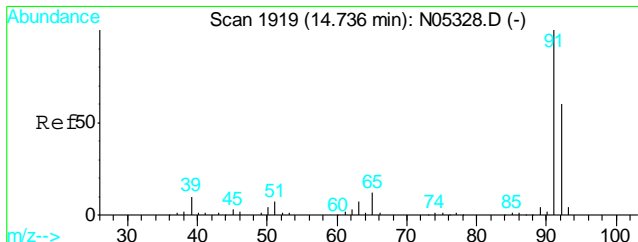
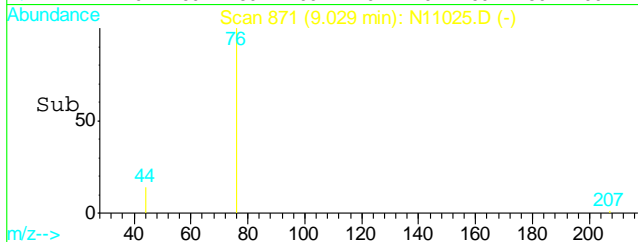
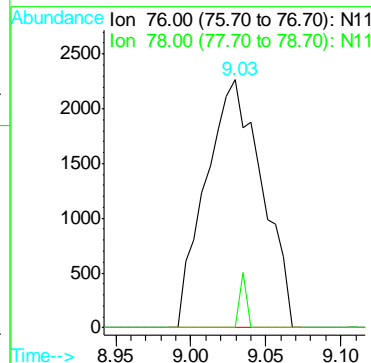
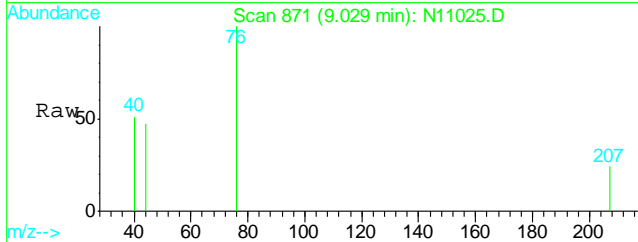
5.1.2
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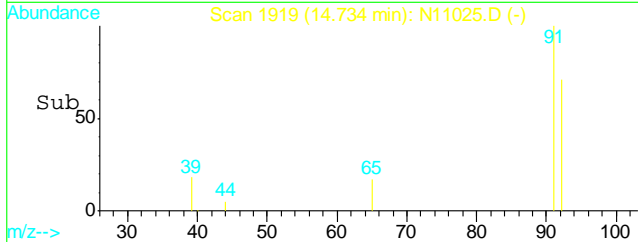
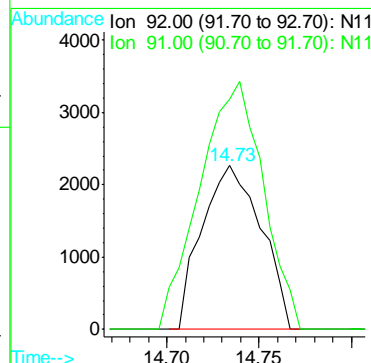
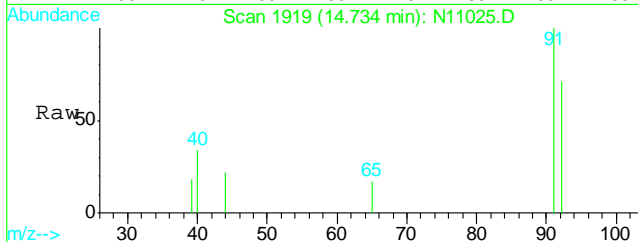
#20
Carbon Disulfide
Concen: 0.13 ppb
RT: 9.03 min Scan# 871
Delta R.T. 0.00 min
Lab File: N11025.D
Acq: 19 Nov 2009 8:50 pm

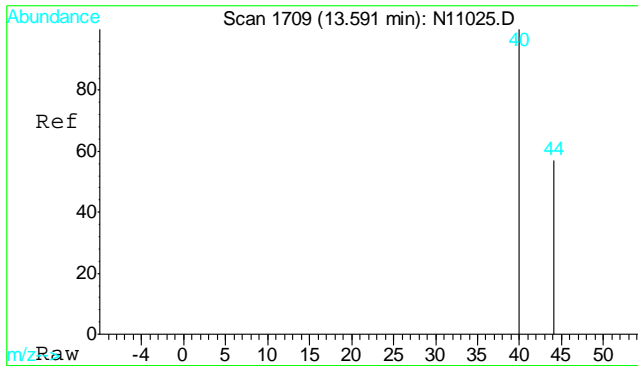
Tgt Ion	Resp	Lower	Upper
76	59041	100	
78	0.0	7.4	11.0#



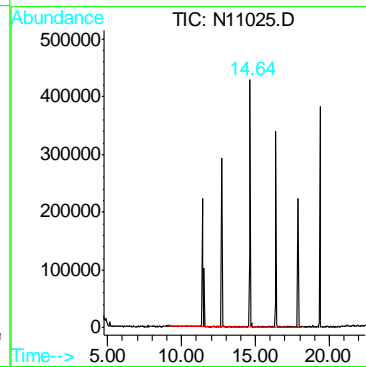
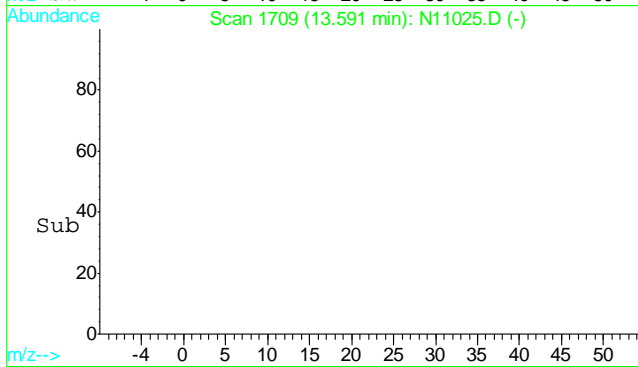
#57
Toluene
Concen: 0.12 ppb
RT: 14.73 min Scan# 1919
Delta R.T. 0.00 min
Lab File: N11025.D
Acq: 19 Nov 2009 8:50 pm

Tgt Ion	Resp	Lower	Upper
92	50271	100	
91	162.3	147.3	187.3





#99
 TPH-GRO (C6-C10)
 Concen: Below Cal m
 RT: 13.59 min Scan# 1709
 Delta R.T. 0.00 min
 Lab File: N11025.D
 Acq: 19 Nov 2009 8:50 pm
 Tgt Ion:TIC Resp: -357917



5.1.2
5

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N091119\N11026.D Vial: 27
 Acq On : 19 Nov 2009 9:19 pm Operator: TitiaF
 Sample : C8422-3 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:38 2009 Quant Results File: VN360W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration
 DataAcq Meth : VN360W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.41	168	2119977	10.00	ppb	0.00
40) 1,4-Difluorobenzene	12.72	114	3307449	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	2747219	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.36	152	1305499	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.36	152	1305499	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	928973	9.73	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	97.30%
56) Toluene-d8	14.64	98	4042959	10.79	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	107.90%
74) 4-Bromofluorobenzene	17.87	95	1315285	9.20	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.00%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
23) Diisopropyl Ether	10.08	45	125064	0.22	ppb	# 88
99) TPH-GRO (C6-C10)	13.59	TIC	162552m	0.24	ppb	

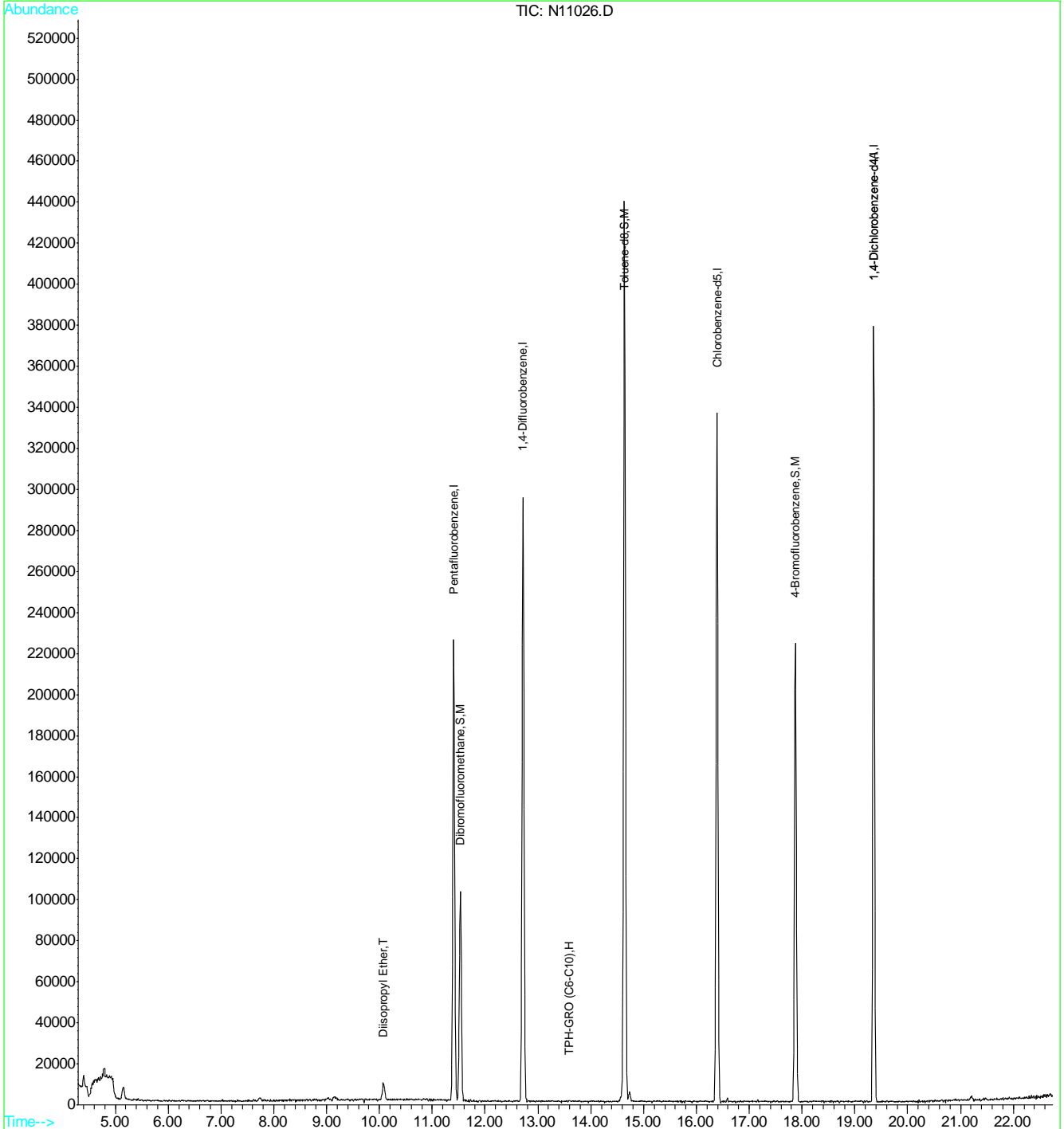
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 N11026.D VN360W.M Fri Nov 20 14:40:00 2009 RPT1

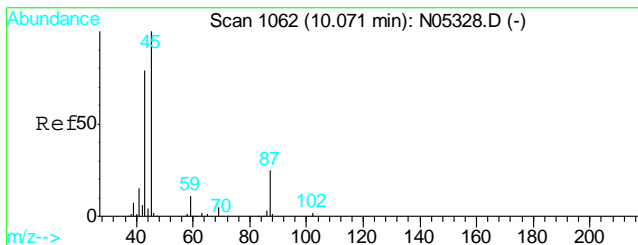
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N091119\N11026.D Vial: 27
 Acq On : 19 Nov 2009 9:19 pm Operator: TitiaF
 Sample : C8422-3 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:38 2009 Quant Results File: VN360W.RES

Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration

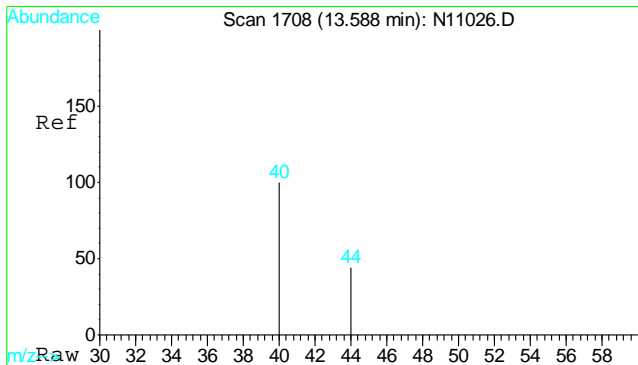
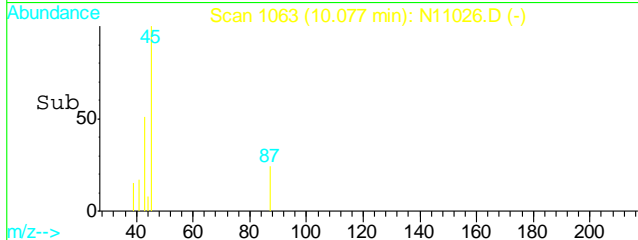
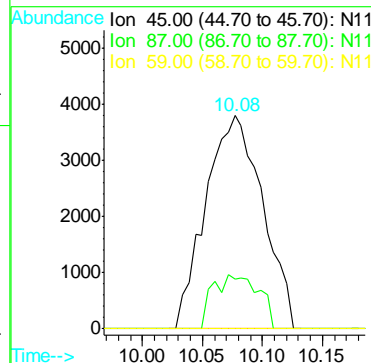
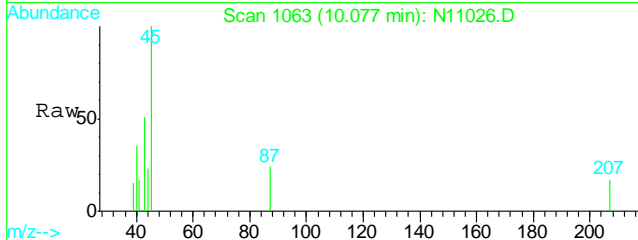
5.1.3
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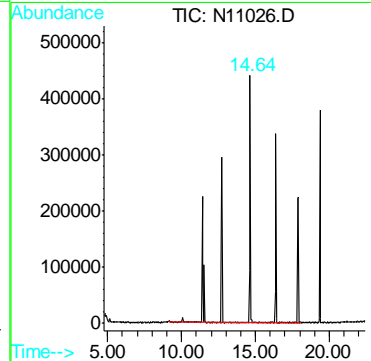
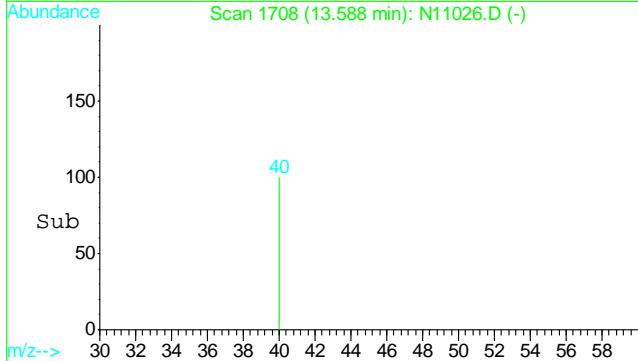
#23
Diisopropyl Ether
Concen: 0.22 ppb
RT: 10.08 min Scan# 1063
Delta R.T. 0.00 min
Lab File: N11026.D
Acq: 19 Nov 2009 9:19 pm

Tgt Ion	Resp	Lower	Upper
45	125064		
87	20.4	0.0	78.8
59	0.0	0.0	42.0



#99
TPH-GRO (C6-C10)
Concen: 0.24 ppb m
RT: 13.59 min Scan# 1708
Delta R.T. 0.00 min
Lab File: N11026.D
Acq: 19 Nov 2009 9:19 pm

Tgt Ion:TIC Resp: 162552



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N091119\N11027.D Vial: 28
 Acq On : 19 Nov 2009 9:48 pm Operator: TitiaF
 Sample : C8422-4 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:40 2009 Quant Results File: VN360W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration
 DataAcq Meth : VN360W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.40	168	2031129	10.00	ppb	0.00
40) 1,4-Difluorobenzene	12.72	114	3210730	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	2621086	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.36	152	1256271	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.36	152	1256271	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	903295	9.88	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	98.80%
56) Toluene-d8	14.64	98	3893797	10.90	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	109.00%
74) 4-Bromofluorobenzene	17.88	95	1268467	9.30	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	93.00%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
14) tert-Butanol (TBA)	8.21	59	26768	2.44	ppb	# 76
34) cis-1,2-Dichloroethene	11.02	96	54461	0.31	ppb	# 76
57) Toluene	14.73	92	41908	0.11	ppb	89
99) TPH-GRO (C6-C10)	13.59	TIC	882209m	1.38	ppb	

(#) = qualifier out of range (m) = manual integration
 N11027.D VN360W.M Fri Nov 20 14:41:10 2009 RPT1

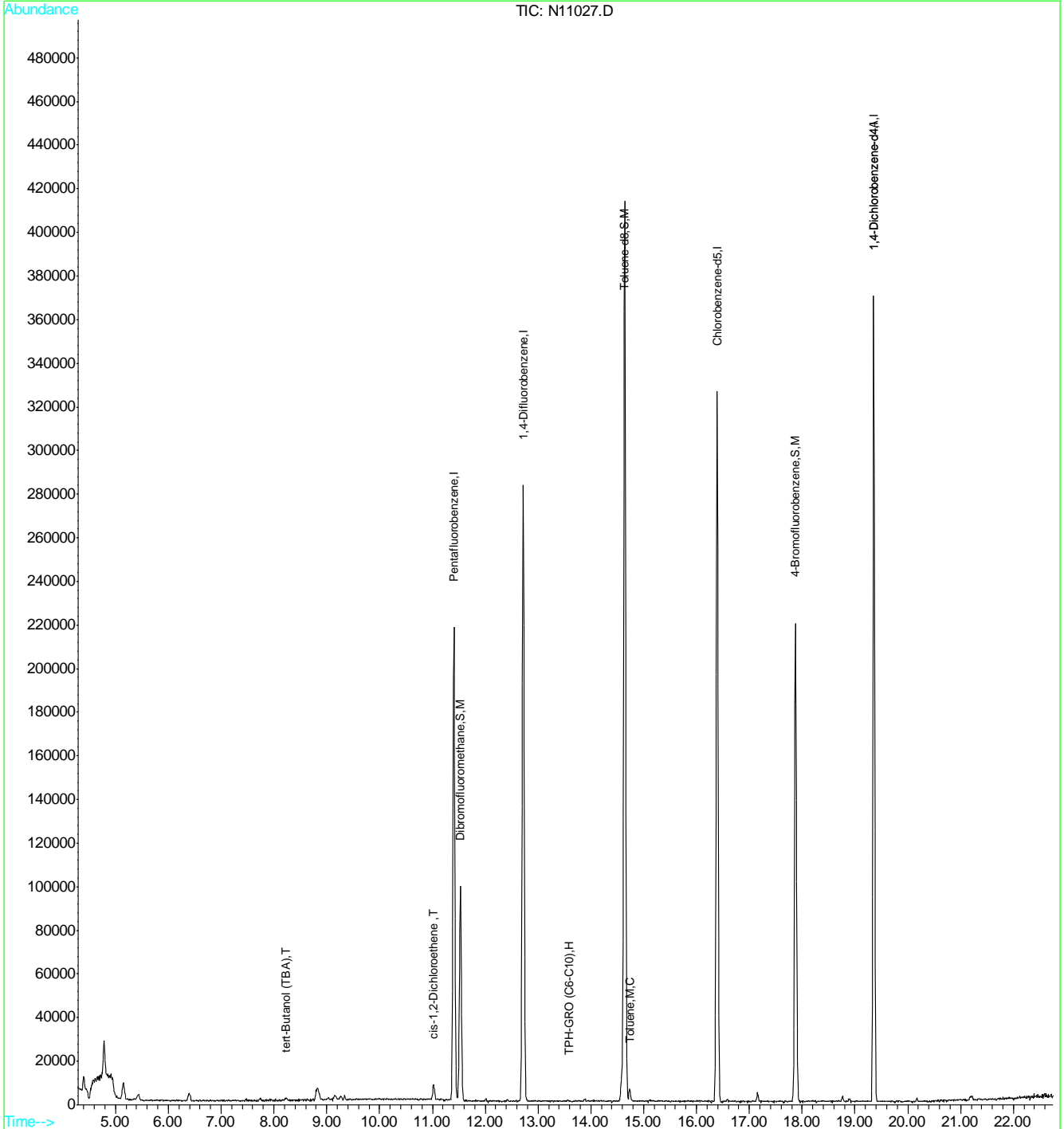
5.14
 5

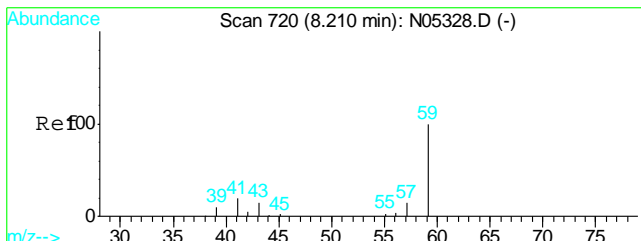
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N091119\N11027.D Vial: 28
 Acq On : 19 Nov 2009 9:48 pm Operator: TitiaF
 Sample : C8422-4 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:40 2009 Quant Results File: VN360W.RES

Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration

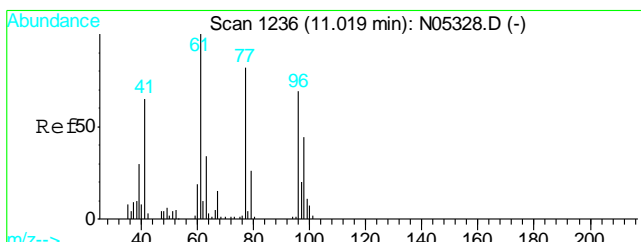
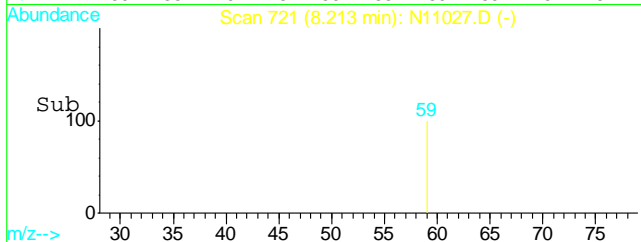
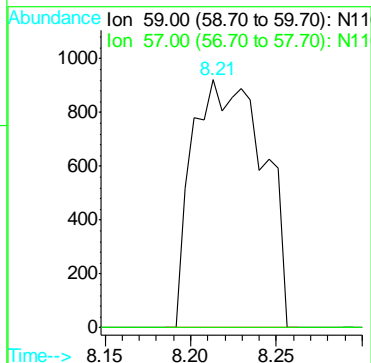
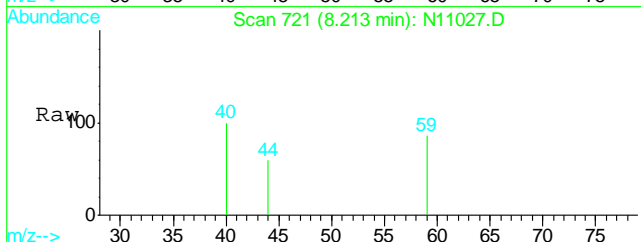
5.14
5





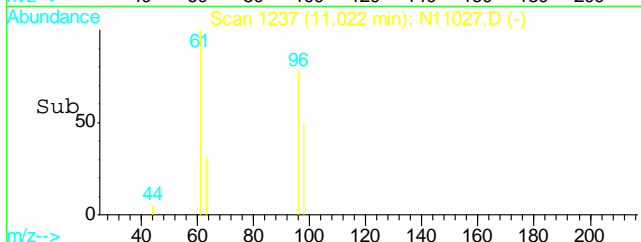
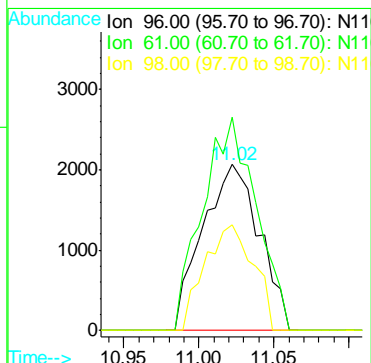
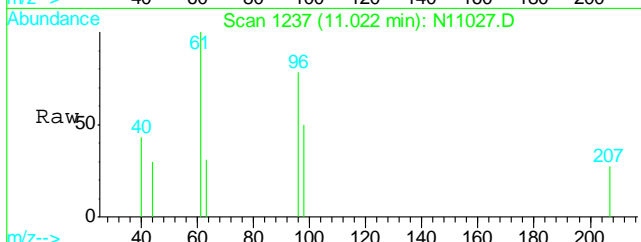
#14
tert-Butanol (TBA)
Concen: 2.44 ppb
RT: 8.21 min Scan# 721
Delta R.T. 0.00 min
Lab File: N11027.D
Acq: 19 Nov 2009 9:48 pm

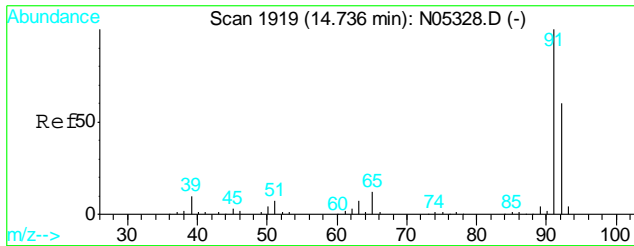
Tgt Ion	Resp	Lower	Upper
59	26768	100	
57	0.0	5.3	12.3#



#34
cis-1,2-Dichloroethene
Concen: 0.31 ppb
RT: 11.02 min Scan# 1237
Delta R.T. 0.00 min
Lab File: N11027.D
Acq: 19 Nov 2009 9:48 pm

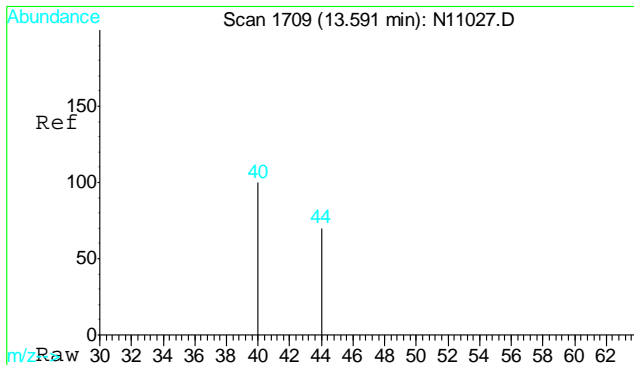
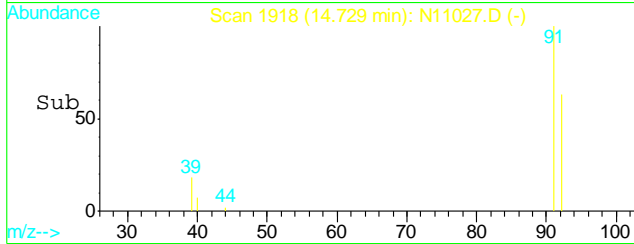
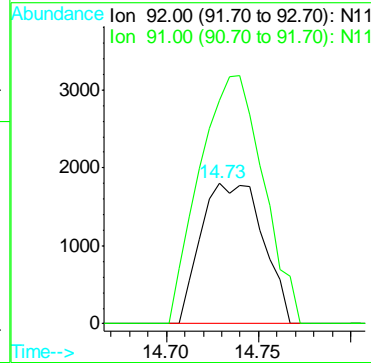
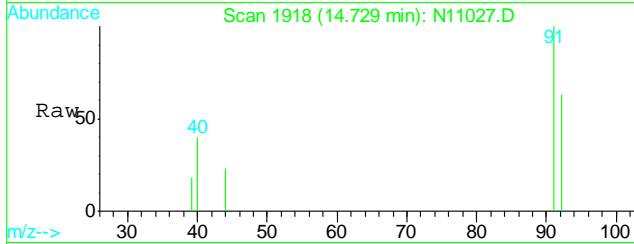
Tgt Ion	Resp	Lower	Upper
96	54461	100	
61	121.6	140.0	180.0#
98	54.4	43.7	83.7





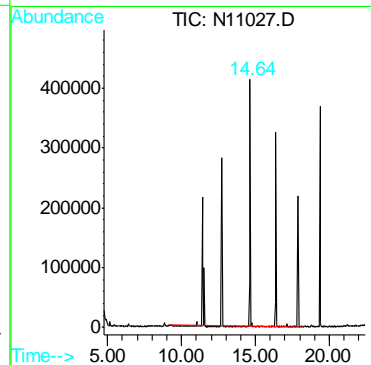
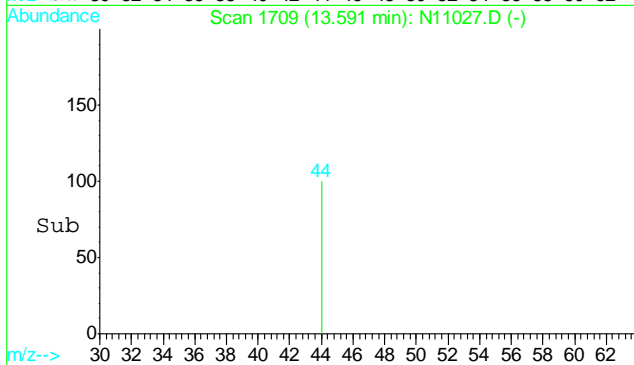
#57
Toluene
Concen: 0.11 ppb
RT: 14.73 min Scan# 1918
Delta R.T. -0.00 min
Lab File: N11027.D
Acq: 19 Nov 2009 9:48 pm

Tgt Ion: 92 Resp: 41908
Ion Ratio Lower Upper
92 100
91 181.9 147.3 187.3



#99
TPH-GRO (C6-C10)
Concen: 1.38 ppb m
RT: 13.59 min Scan# 1709
Delta R.T. 0.00 min
Lab File: N11027.D
Acq: 19 Nov 2009 9:48 pm

Tgt Ion:TIC Resp: 882209



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N091119\N11028.D Vial: 29
 Acq On : 19 Nov 2009 10:17 pm Operator: TitiaF
 Sample : C8422-5 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:42 2009 Quant Results File: VN360W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration
 DataAcq Meth : VN360W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.41	168	1979332	10.00	ppb	0.00
40) 1,4-Difluorobenzene	12.72	114	3108618	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	2589481	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.36	152	1232288	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.36	152	1232288	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	870843	9.77	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	97.70%
56) Toluene-d8	14.64	98	3778531	10.70	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	107.00%
74) 4-Bromofluorobenzene	17.88	95	1233930	9.16	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	91.60%

Target Compounds

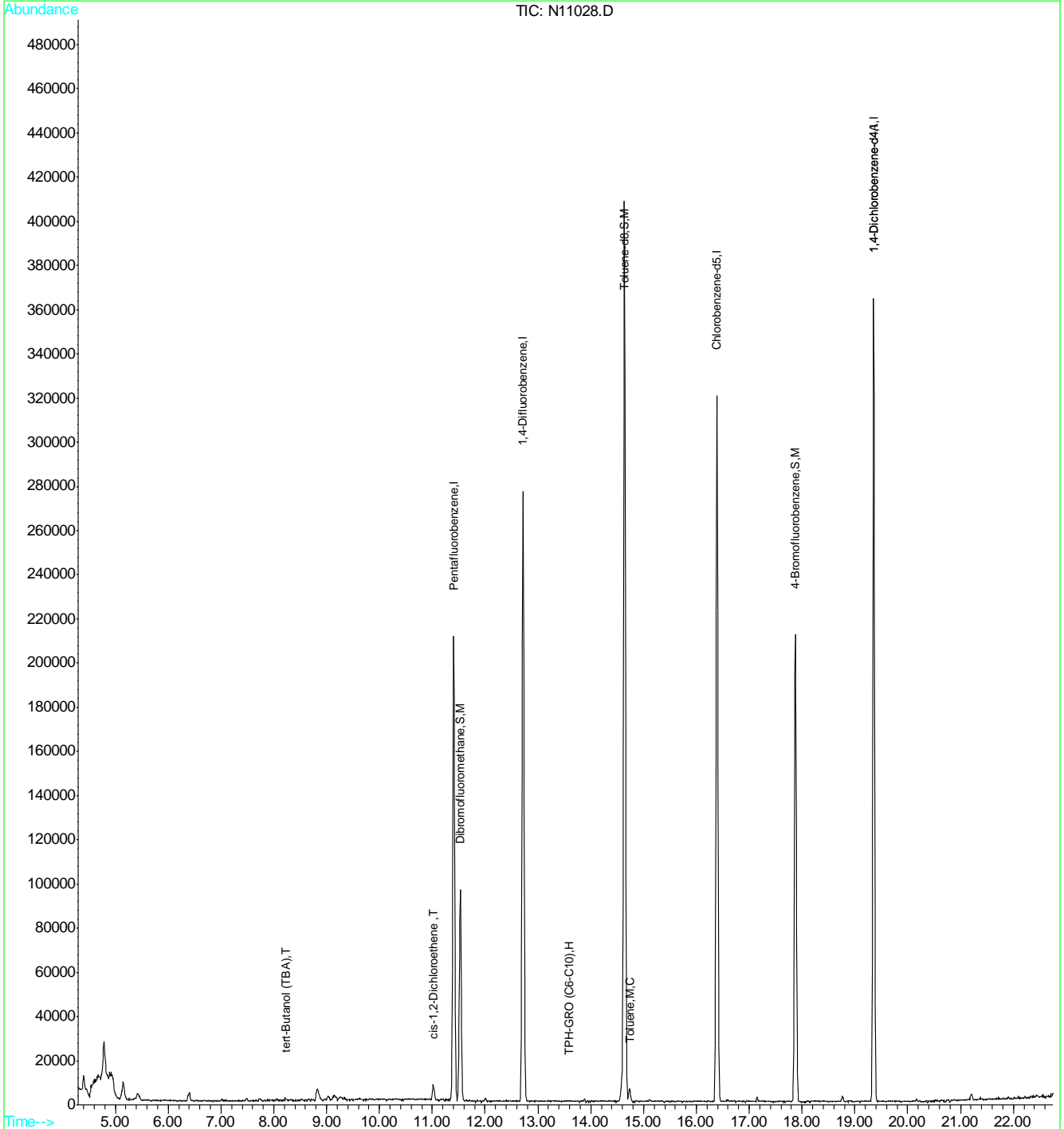
						Qvalue
14) tert-Butanol (TBA)	8.22	59	23010	2.15	ppb	# 76
34) cis-1,2-Dichloroethene	11.02	96	47951	0.28	ppb	# 80
57) Toluene	14.74	92	41928	0.11	ppb	# 81
99) TPH-GRO (C6-C10)	13.59	TIC	589073m	0.94	ppb	

(#) = qualifier out of range (m) = manual integration
 N11028.D VN360W.M Fri Nov 20 14:42:29 2009 RPT1

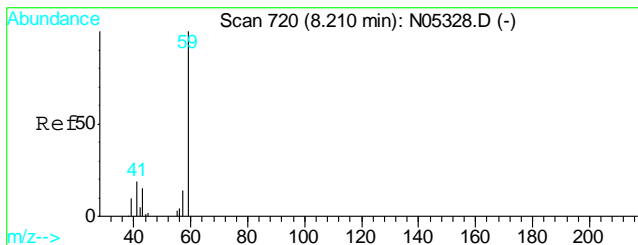
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N091119\N11028.D Vial: 29
 Acq On : 19 Nov 2009 10:17 pm Operator: TitiaF
 Sample : C8422-5 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:42 2009 Quant Results File: VN360W.RES

Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration

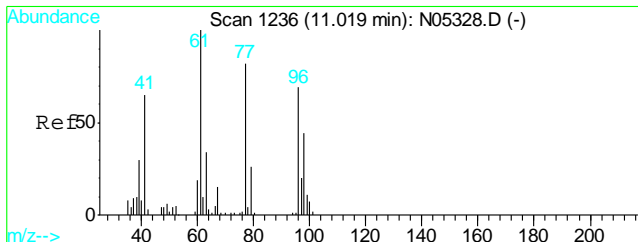
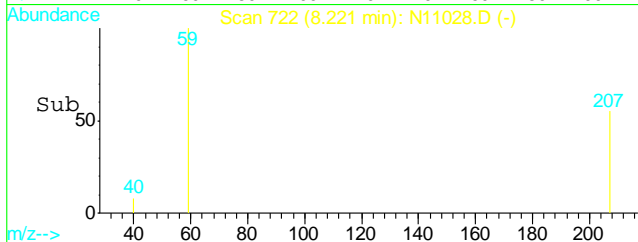
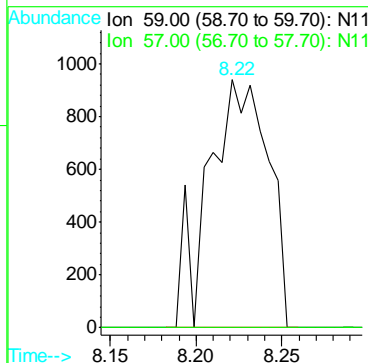
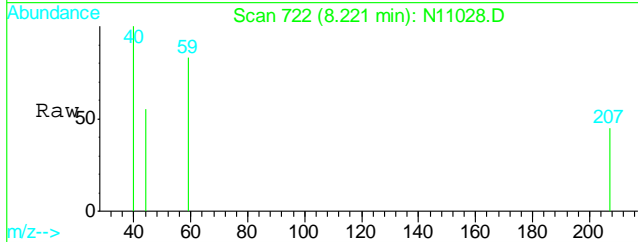


5.1.5
5



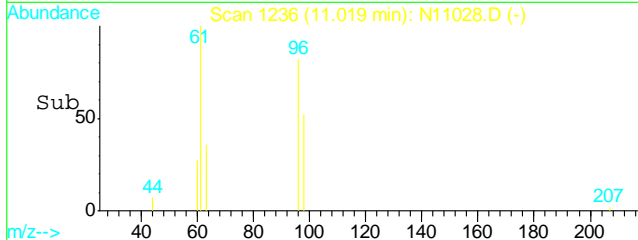
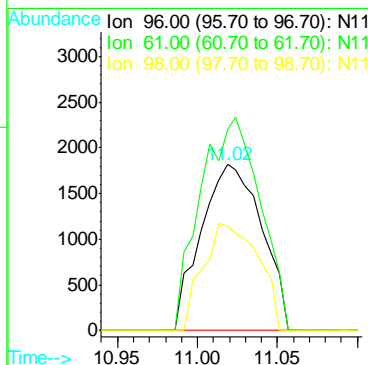
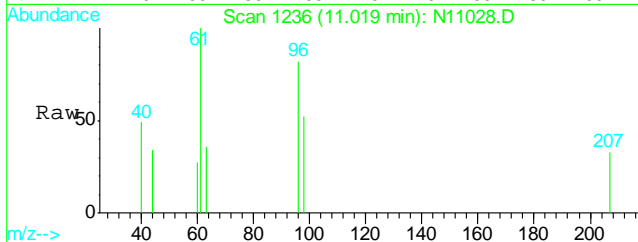
#14
tert-Butanol (TBA)
Concen: 2.15 ppb
RT: 8.22 min Scan# 722
Delta R.T. 0.01 min
Lab File: N11028.D
Acq: 19 Nov 2009 10:17 pm

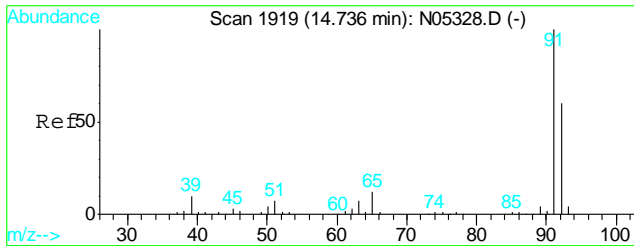
Tgt Ion: 59 Resp: 23010
Ion Ratio Lower Upper
59 100
57 0.0 5.3 12.3#



#34
cis-1,2-Dichloroethene
Concen: 0.28 ppb
RT: 11.02 min Scan# 1236
Delta R.T. -0.00 min
Lab File: N11028.D
Acq: 19 Nov 2009 10:17 pm

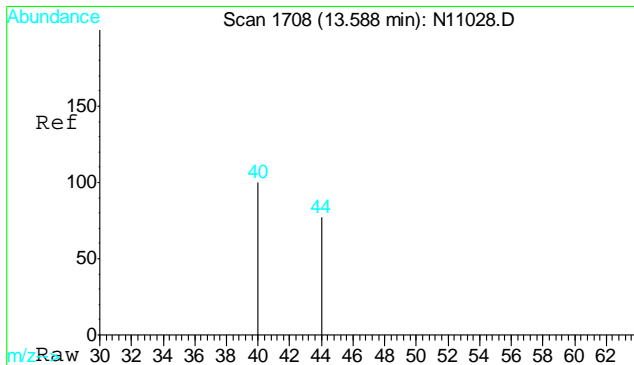
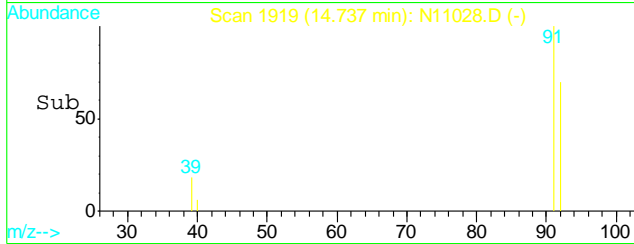
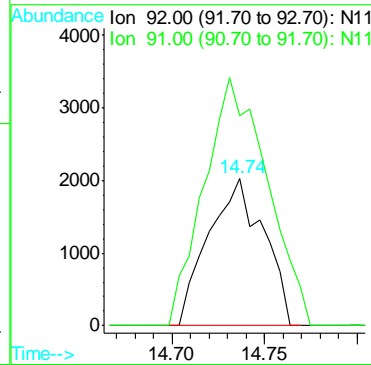
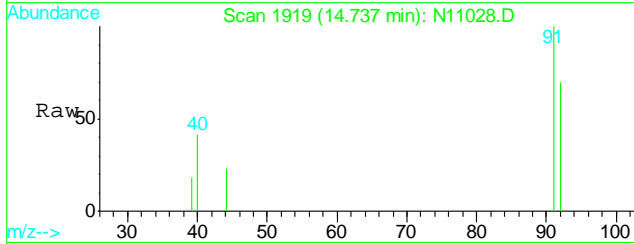
Tgt Ion: 96 Resp: 47951
Ion Ratio Lower Upper
96 100
61 126.5 140.0 180.0#
98 58.4 43.7 83.7





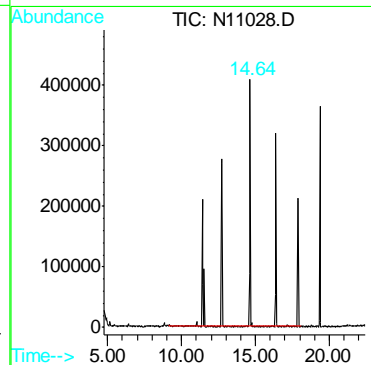
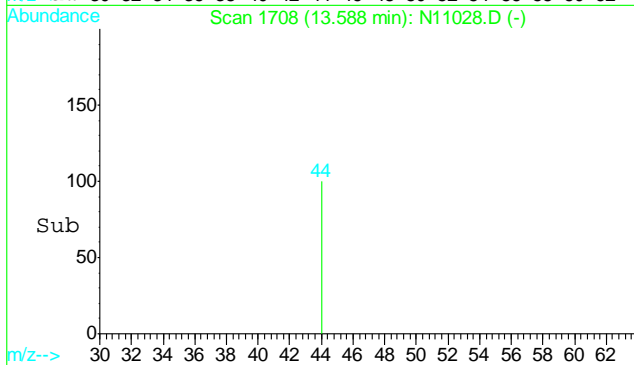
#57
Toluene
Concen: 0.11 ppb
RT: 14.74 min Scan# 1919
Delta R.T. 0.00 min
Lab File: N11028.D
Acq: 19 Nov 2009 10:17 pm

Tgt Ion: 92 Resp: 41928
Ion Ratio Lower Upper
92 100
91 192.8 147.3 187.3#



#99
TPH-GRO (C6-C10)
Concen: 0.94 ppb m
RT: 13.59 min Scan# 1708
Delta R.T. 0.00 min
Lab File: N11028.D
Acq: 19 Nov 2009 10:17 pm

Tgt Ion:TIC Resp: 589073



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N091119\N11029.D Vial: 30
 Acq On : 19 Nov 2009 10:46 pm Operator: TitiaF
 Sample : C8422-6 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:46 2009 Quant Results File: VN360W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration
 DataAcq Meth : VN360W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.40	168	1966883	10.00	ppb	0.00
40) 1,4-Difluorobenzene	12.72	114	3116966	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	2612441	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.36	152	1241416	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.36	152	1241416	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	876807	9.90	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	99.00%
56) Toluene-d8	14.64	98	3828745	10.75	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	107.50%
74) 4-Bromofluorobenzene	17.88	95	1237533	9.11	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	91.10%

Target Compounds

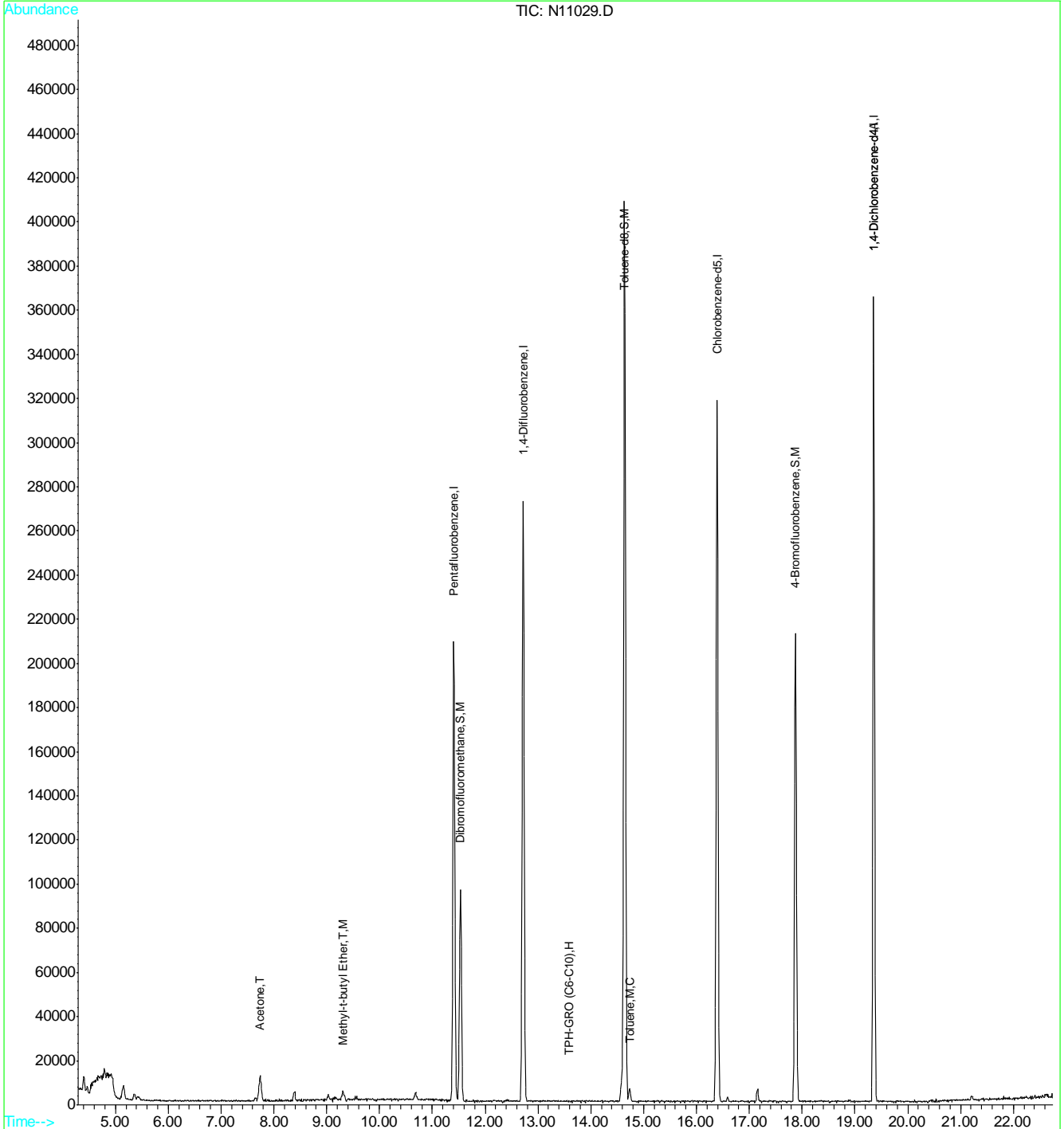
	R.T.	QIon	Response	Conc	Units	Qvalue
11) Acetone	7.74	58	81375	9.86	ppb	95
21) Methyl-t-butyl Ether	9.32	73	83085	0.25	ppb	# 51
57) Toluene	14.74	92	44162	0.11	ppb	90
99) TPH-GRO (C6-C10)	13.59	TIC	914623m	1.45	ppb	

(#) = qualifier out of range (m) = manual integration
 N11029.D VN360W.M Fri Nov 20 14:47:21 2009 RPT1

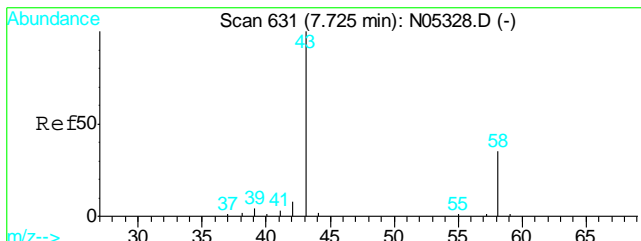
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N091119\N11029.D Vial: 30
 Acq On : 19 Nov 2009 10:46 pm Operator: TitiaF
 Sample : C8422-6 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:46 2009 Quant Results File: VN360W.RES

Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration

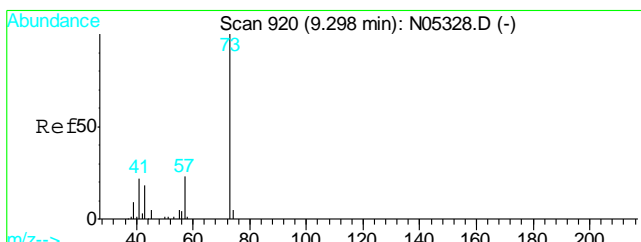
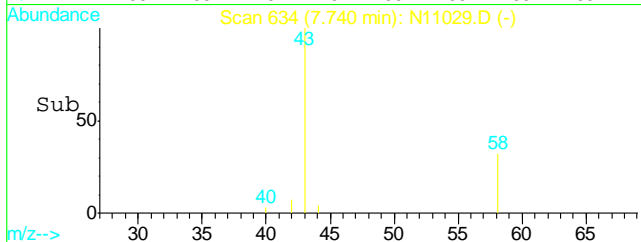
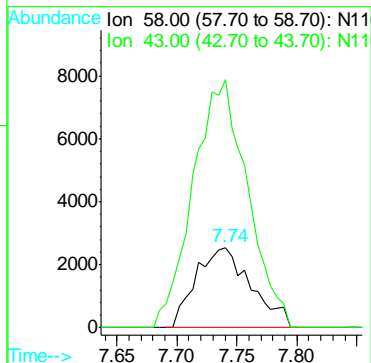
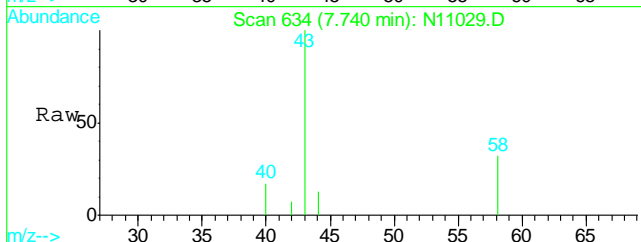


5.1.6
5



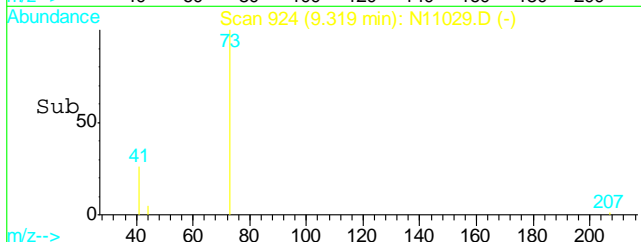
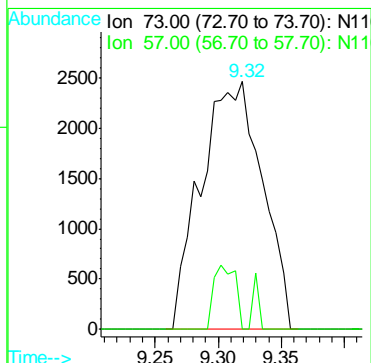
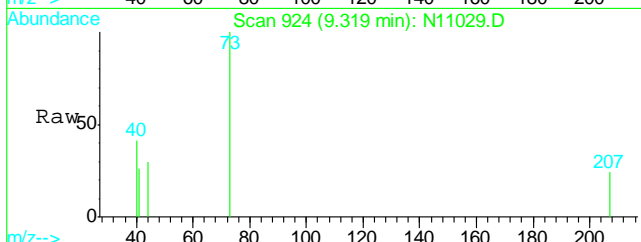
#11
Acetone
Concen: 9.86 ppb
RT: 7.74 min Scan# 634
Delta R.T. 0.01 min
Lab File: N11029.D
Acq: 19 Nov 2009 10:46 pm

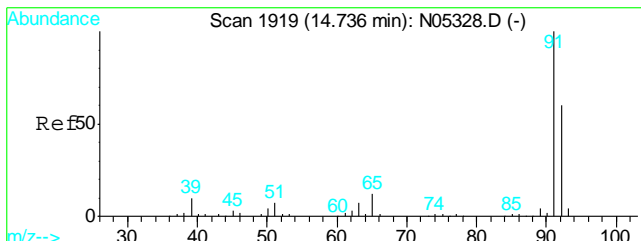
Tgt Ion:	58	Resp:	81375
Ion Ratio	Lower	Upper	
58	100		
43	305.5	253.2	379.8



#21
Methyl-t-butyl Ether
Concen: 0.25 ppb
RT: 9.32 min Scan# 924
Delta R.T. 0.01 min
Lab File: N11029.D
Acq: 19 Nov 2009 10:46 pm

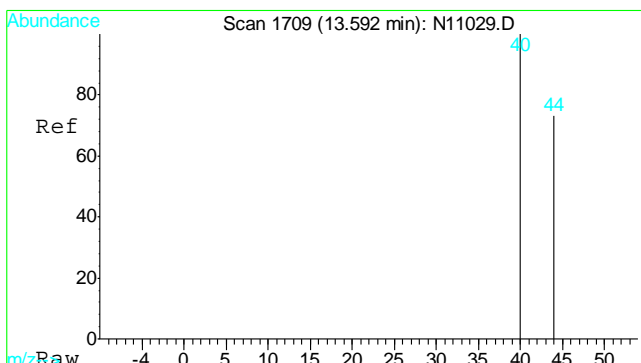
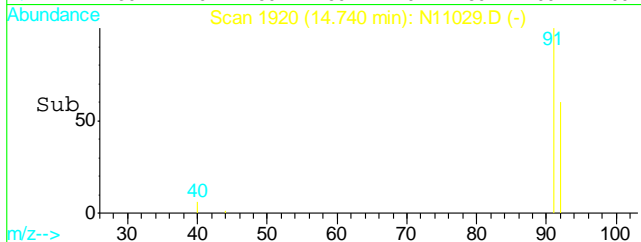
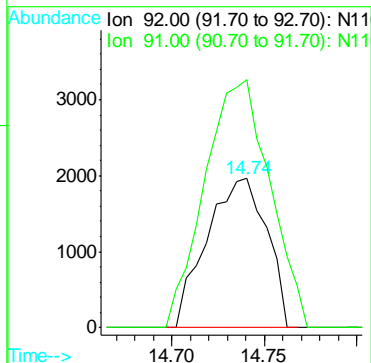
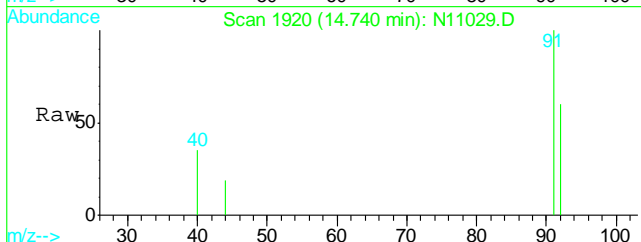
Tgt Ion:	73	Resp:	83085
Ion Ratio	Lower	Upper	
73	100		
57	0.0	17.2	32.0#





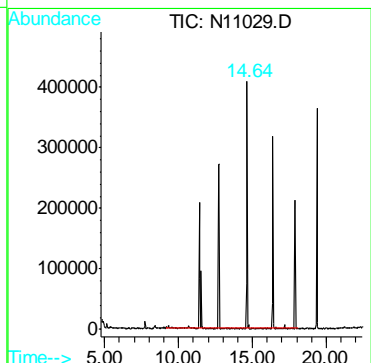
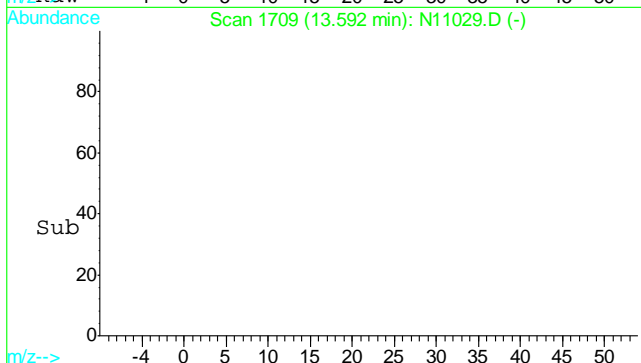
#57
Toluene
Concen: 0.11 ppb
RT: 14.74 min Scan# 1920
Delta R.T. 0.01 min
Lab File: N11029.D
Acq: 19 Nov 2009 10:46 pm

Tgt Ion:	92	Resp:	44162
Ion Ratio	Lower	Upper	
92	100		
91	180.5	147.3	187.3



#99
TPH-GRO (C6-C10)
Concen: 1.45 ppb m
RT: 13.59 min Scan# 1709
Delta R.T. 0.00 min
Lab File: N11029.D
Acq: 19 Nov 2009 10:46 pm

Tgt Ion:TIC Resp: 914623



Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N091119\N11030.D Vial: 31
 Acq On : 19 Nov 2009 11:15 pm Operator: TitiaF
 Sample : C8422-7 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:48 2009 Quant Results File: VN360W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration
 DataAcq Meth : VN360W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.41	168	1934011	10.00	ppb	0.00
40) 1,4-Difluorobenzene	12.72	114	3074033	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	2576101	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.36	152	1227744	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.36	152	1227744	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	869481	9.99	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	99.90%
56) Toluene-d8	14.64	98	3739188	10.65	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	106.50%
74) 4-Bromofluorobenzene	17.87	95	1226011	9.15	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	91.50%

Target Compounds

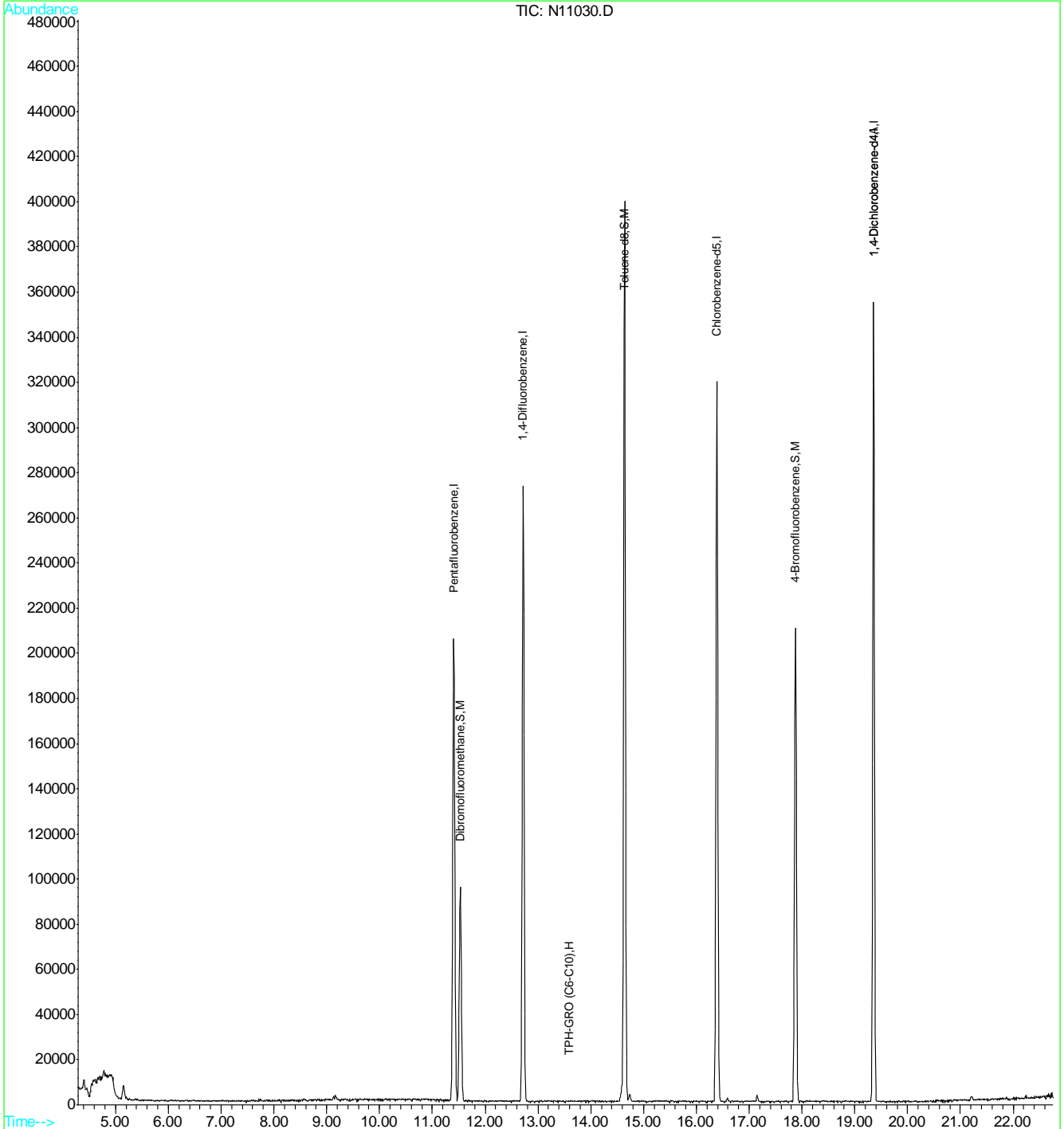
99) TPH-GRO (C6-C10)	13.59	TIC	384028m	0.61	ppb	Qvalue
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(#) = qualifier out of range (m) = manual integration
 N11030.D VN360W.M Fri Nov 20 14:48:41 2009 RPT1

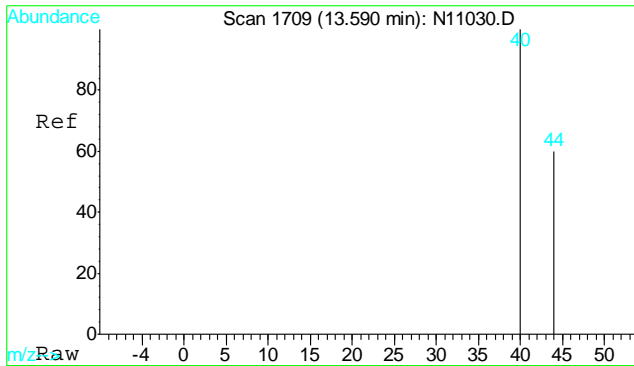
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N091119\N11030.D Vial: 31
 Acq On : 19 Nov 2009 11:15 pm Operator: TitiaF
 Sample : C8422-7 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:48 2009 Quant Results File: VN360W.RES

Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration

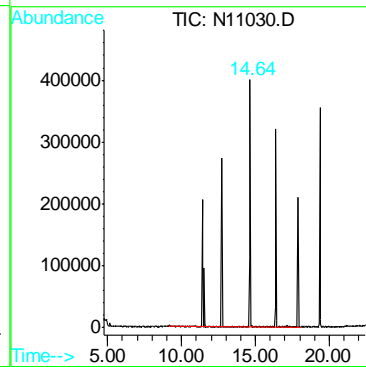
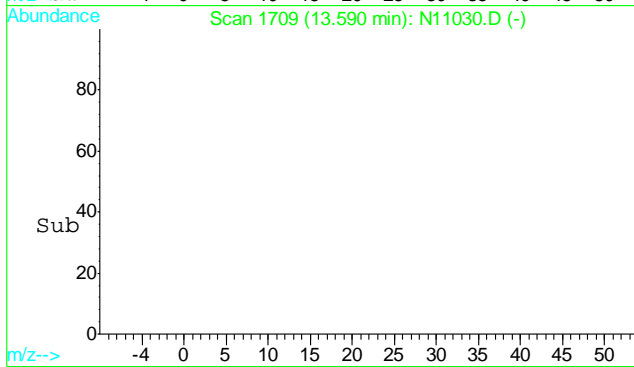


5.17
5



#99
TPH-GRO (C6-C10)
Concen: 0.61 ppb m
RT: 13.59 min Scan# 1709
Delta R.T. 0.00 min
Lab File: N11030.D
Acq: 19 Nov 2009 11:15 pm

Tgt Ion:TIC Resp: 384028



5.1.7
5

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N091119\N11023.D Vial: 24
 Acq On : 19 Nov 2009 7:52 pm Operator: TitiaF
 Sample : C8422-8 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:36 2009 Quant Results File: VN360W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration
 DataAcq Meth : VN360W

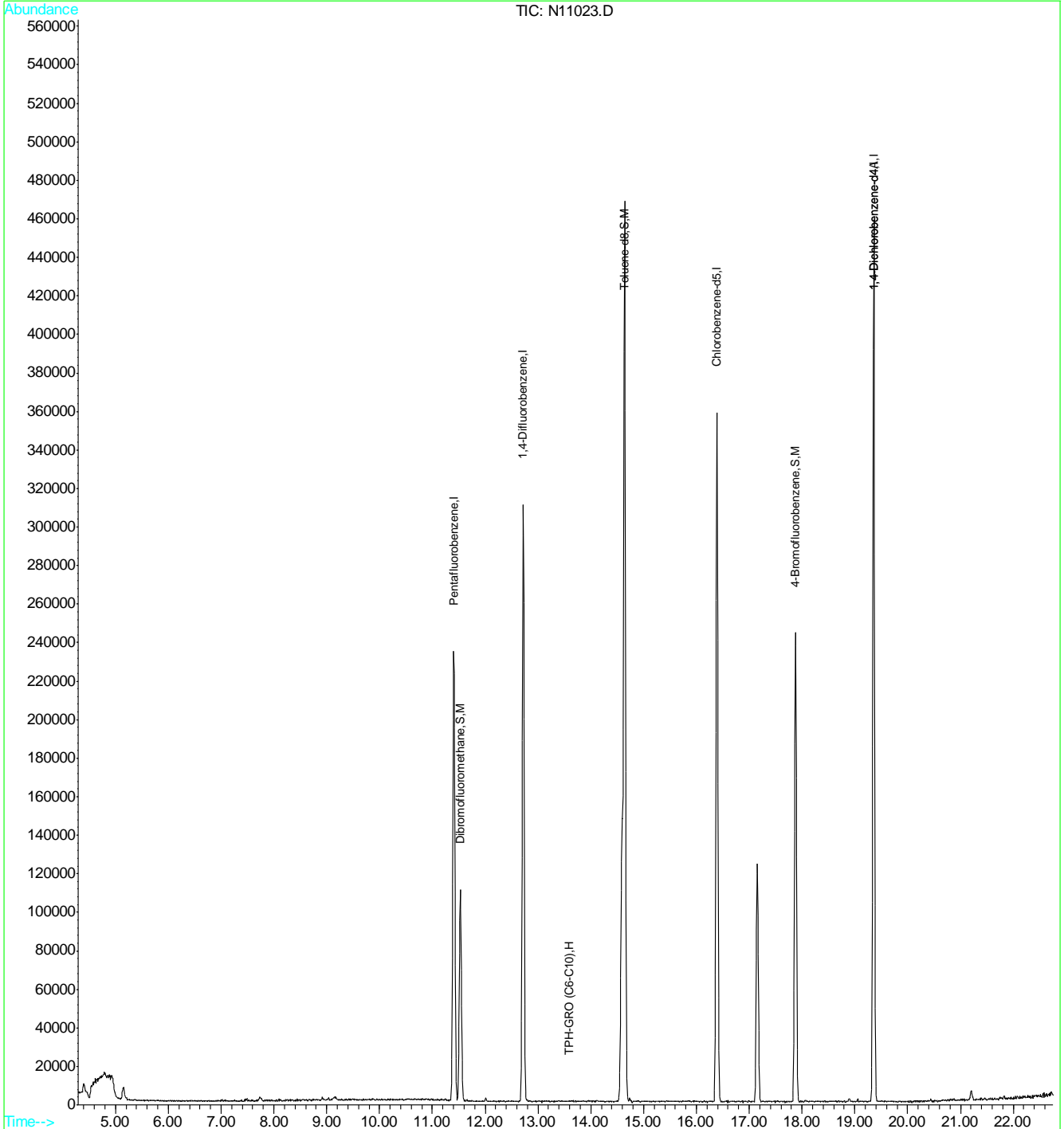
Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.41	168	2183821	10.00	ppb	0.00
40) 1,4-Difluorobenzene	12.72	114	3494592	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	2934567	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.36	152	1414501	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.36	152	1414501	10.00	ppb	0.00
System Monitoring Compounds						
37) Dibromofluoromethane	11.53	111	988302	10.05	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	100.50%
56) Toluene-d8	14.64	98	4268563	10.67	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	106.70%
74) 4-Bromofluorobenzene	17.87	95	1416526	9.28	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	92.80%
Target Compounds						
99) TPH-GRO (C6-C10)	13.59	TIC	6953633m	9.65	ppb	Qvalue

(#) = qualifier out of range (m) = manual integration
 N11023.D VN360W.M Fri Nov 20 14:36:32 2009 RPT1

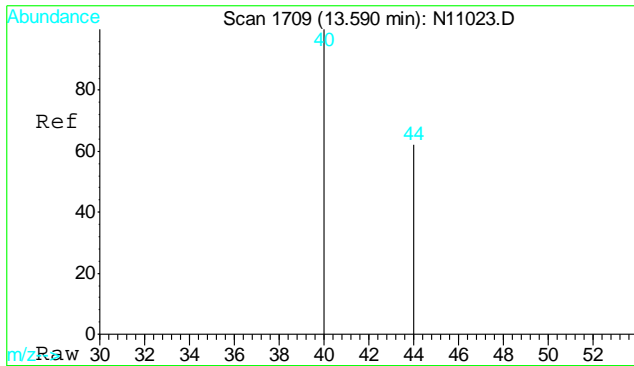
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N091119\N11023.D Vial: 24
 Acq On : 19 Nov 2009 7:52 pm Operator: TitiaF
 Sample : C8422-8 Inst : VMS-02
 Misc : MS1111,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:36 2009 Quant Results File: VN360W.RES

Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration

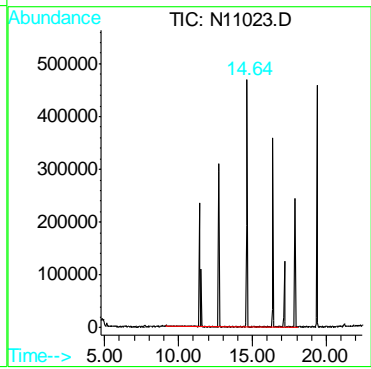
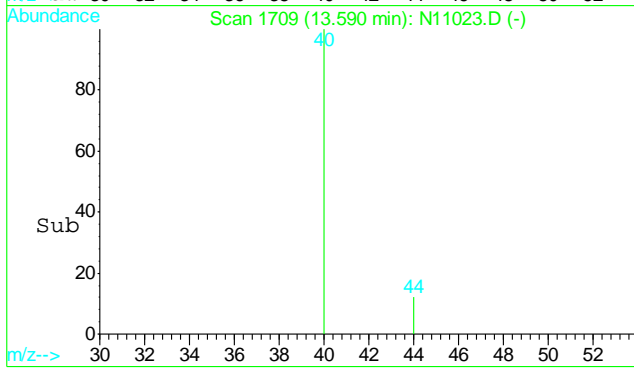


5.1.8
 5



#99
TPH-GRO (C6-C10)
Concen: 9.65 ppb m
RT: 13.59 min Scan# 1709
Delta R.T. 0.00 min
Lab File: N11023.D
Acq: 19 Nov 2009 7:52 pm

Tgt Ion:TIC Resp: 6953633



5.1.8
5

Quantitation Report (QT Reviewed)

Data File : C:\HPCHEM\1\DATA\N091119\N11017.D Vial: 16
 Acq On : 19 Nov 2009 4:56 pm Operator: TitiaF
 Sample : MB1 Inst : VMS-02
 Misc : MS1108,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:09 2009 Quant Results File: VN360W.RES

Quant Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration
 DataAcq Meth : VN360W

Internal Standards	R.T.	QIon	Response	Conc	Units	Dev(Min)
1) Pentafluorobenzene	11.41	168	2449258	10.00	ppb	0.00
40) 1,4-Difluorobenzene	12.72	114	3890538	10.00	ppb	0.00
55) Chlorobenzene-d5	16.39	117	3210644	10.00	ppb	0.00
77) 1,4-Dichlorobenzene-d4	19.36	152	1539406	10.00	ppb	0.00
98) 1,4-Dichlorobenzene-d4A	19.36	152	1539406	10.00	ppb	0.00

System Monitoring Compounds

37) Dibromofluoromethane	11.53	111	1098754	9.97	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	99.70%
56) Toluene-d8	14.64	98	4708919	10.76	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	107.60%
74) 4-Bromofluorobenzene	17.88	95	1563950	9.37	ppb	0.00
Spiked Amount	10.000	Range	70 - 130	Recovery	=	93.70%

Target Compounds

	R.T.	QIon	Response	Conc	Units	Qvalue
96) Naphthalene	21.81	128	40026	0.14	ppb	100
99) TPH-GRO (C6-C10)	13.59	TIC	214793m	0.27	ppb	

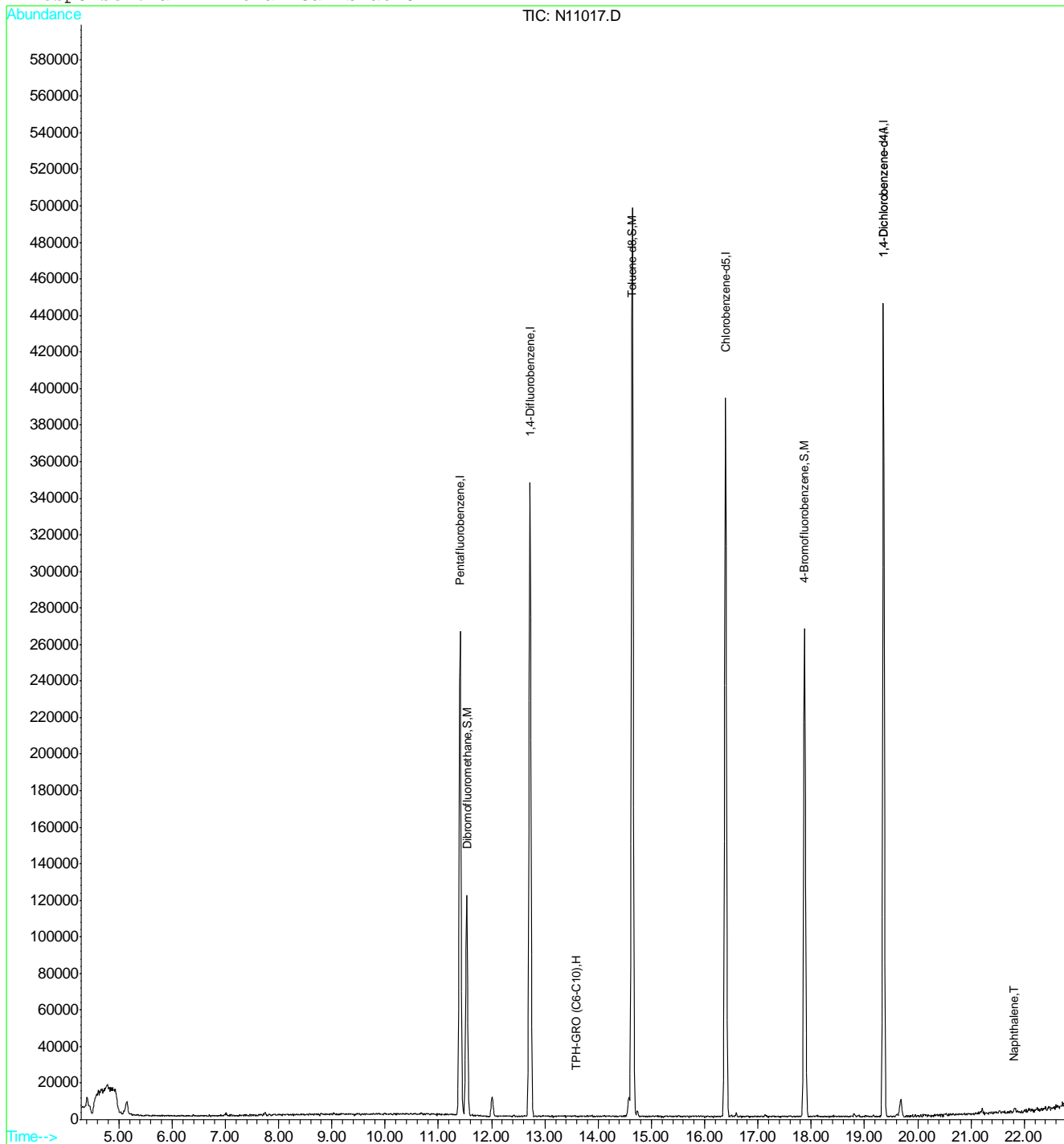
(#) = qualifier out of range (m) = manual integration
 N11017.D VN360W.M Fri Nov 20 14:10:20 2009 RPT1

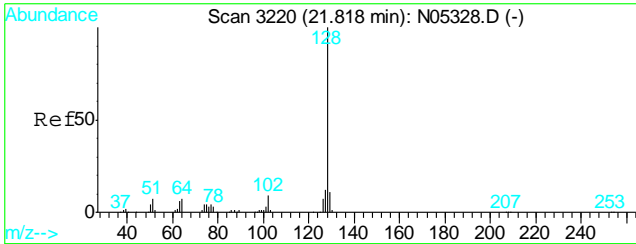
Quantitation Report

Data File : C:\HPCHEM\1\DATA\N091119\N11017.D Vial: 16
 Acq On : 19 Nov 2009 4:56 pm Operator: TitiaF
 Sample : MB1 Inst : VMS-02
 Misc : MS1108,VN368,10,,,,,1 Multiplr: 1.00
 MS Integration Params: RTEINT.P
 Quant Time: Nov 20 14:09 2009 Quant Results File: VN360W.RES

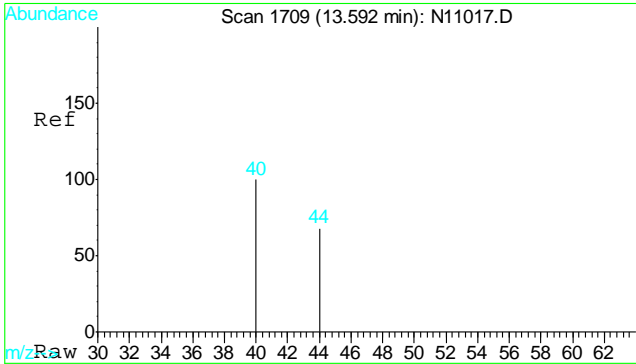
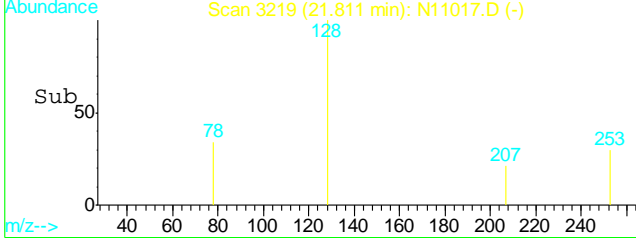
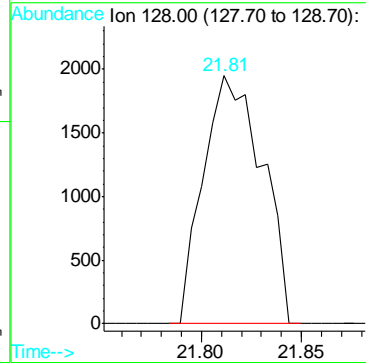
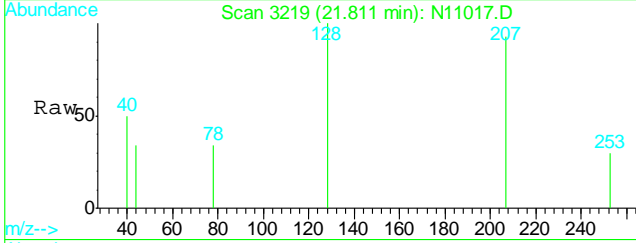
Method : C:\HPCHEM\1\METHODS\VN360W.M (RTE Integrator)
 Title : WATER-EPA 8260B
 Last Update : Thu Nov 12 10:52:54 2009
 Response via : Initial Calibration

5.21
5

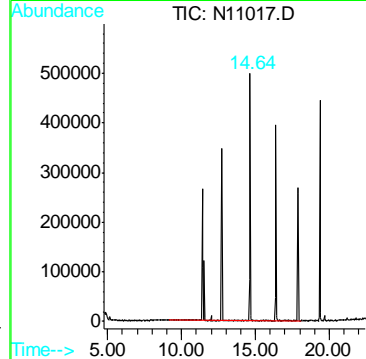
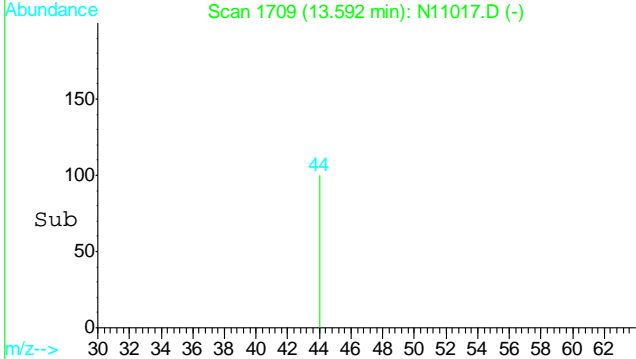




#96
 Naphthalene
 Concen: 0.14 ppb
 RT: 21.81 min Scan# 3219
 Delta R.T. 0.00 min
 Lab File: N11017.D
 Acq: 19 Nov 2009 4:56 pm
 Tgt Ion:128 Resp: 40026



#99
 TPH-GRO (C6-C10)
 Concen: 0.27 ppb m
 RT: 13.59 min Scan# 1709
 Delta R.T. 0.00 min
 Lab File: N11017.D
 Acq: 19 Nov 2009 4:56 pm
 Tgt Ion:TIC Resp: 214793





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:** C8422**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
OP1511-MB	GG9460.D	1	11/17/09	JH	11/16/09	OP1511	GGG326

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

C8422-1, C8422-2, C8422-3, C8422-4, C8422-5, C8422-6, C8422-7

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	88% 45-140%

Blank Spike/Blank Spike Duplicate Summary

Job Number: C8422
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
OP1511-BS	GG9461.D	1	11/17/09	JH	11/16/09	OP1511	GGG326
OP1511-BSD	GG9462.D	1	11/17/09	JH	11/16/09	OP1511	GGG326

The QC reported here applies to the following samples:

Method: SW846 8015B M

C8422-1, C8422-2, C8422-3, C8422-4, C8422-5, C8422-6, C8422-7

CAS No.	Compound	Spike mg/l	BSP mg/l	BSP %	BSD mg/l	BSD %	RPD	Limits Rec/RPD
	TPH (C10-C28)	1	0.720	72	0.758	76	5	45-140/30
	TPH (> C28-C40)	1	0.722	72	0.728	73	1	45-140/30

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
630-01-3	Hexacosane	87%	87%	45-140%

6.2.1
6



GC Semi-volatiles

Raw Data

7

Quantitation Report (QT Reviewed)

Data File : C:\DIESEL\D#2\DATA\GGG326\GG9485.D Vial: 24
 Acq On : 11-17-09 8:46:14 PM Operator: JAMESH
 Sample : C8422-1 Inst : Diesel 2
 Misc : OP1511,GGG326,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: Nov 18 14:03 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri Sep 11 10:19:00 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	10.19f	118694977	98.431 ppm
Spiked Amount	100.000	Recovery	= 98.43%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	24622304	23.467 ppm
3) H TPH (>C28-C40)	12.59	11663823	12.189 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.
 GG9485.D GGG278.M Wed Nov 18 14:21:38 2009

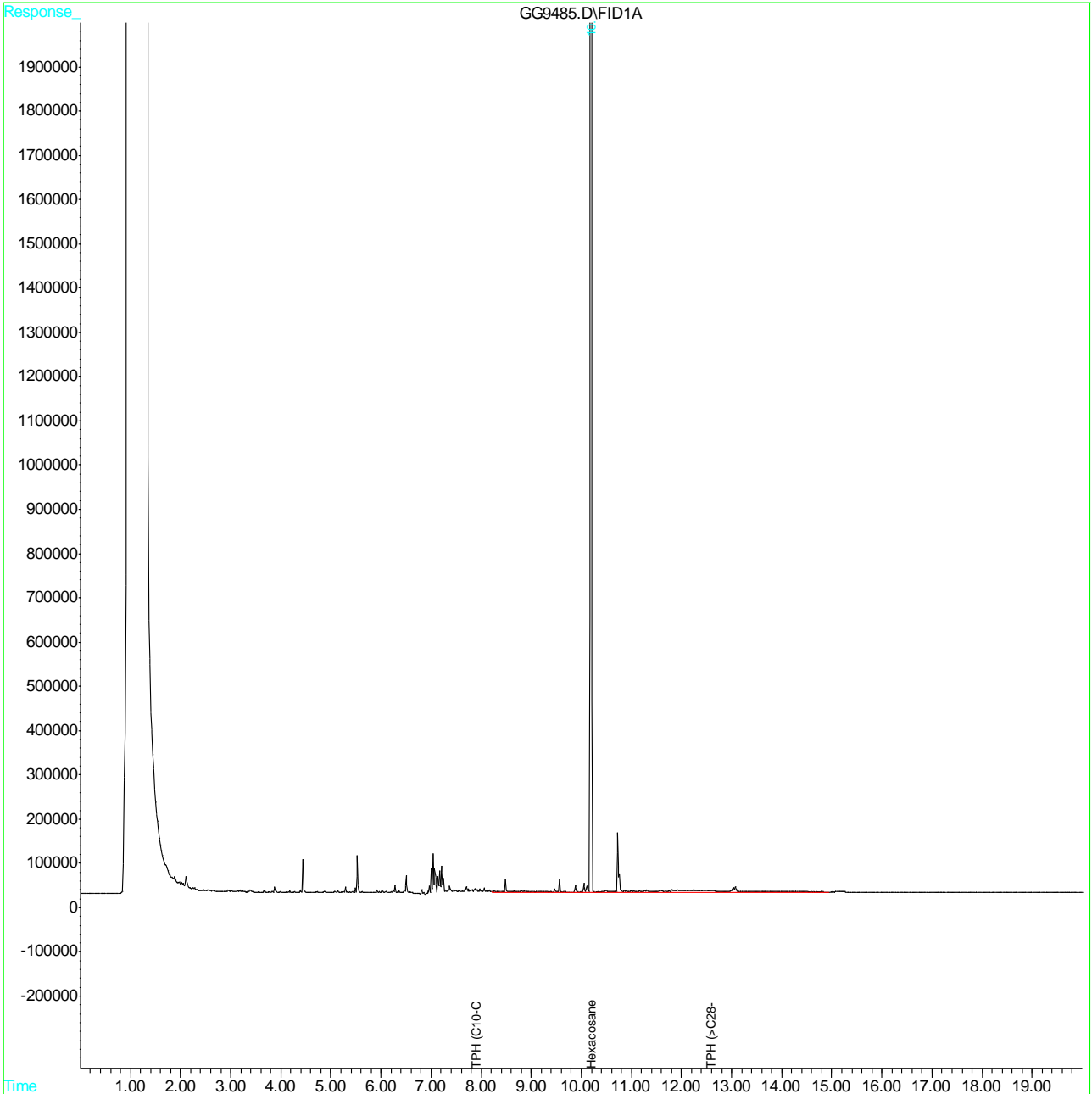
7.1.1
 7

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG326\GG9485.D Vial: 24
 Acq On : 11-17-09 8:46:14 PM Operator: JAMESH
 Sample : C8422-1 Inst : Diesel 2
 Misc : OP1511,GGG326,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: Nov 18 14:03 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri Sep 11 10:19:00 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\GGG326\GG9486.D Vial: 25
 Acq On : 11-17-09 9:12:57 PM Operator: JAMESH
 Sample : C8422-2 Inst : Diesel 2
 Misc : OP1511,GGG326,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: Nov 18 14:04 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri Sep 11 10:19:00 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	10.19f	107039687	88.765 ppm
Spiked Amount	100.000	Recovery	= 88.77%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	29313732	27.938 ppm
3) H TPH (>C28-C40)	12.59	16454112	17.195 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

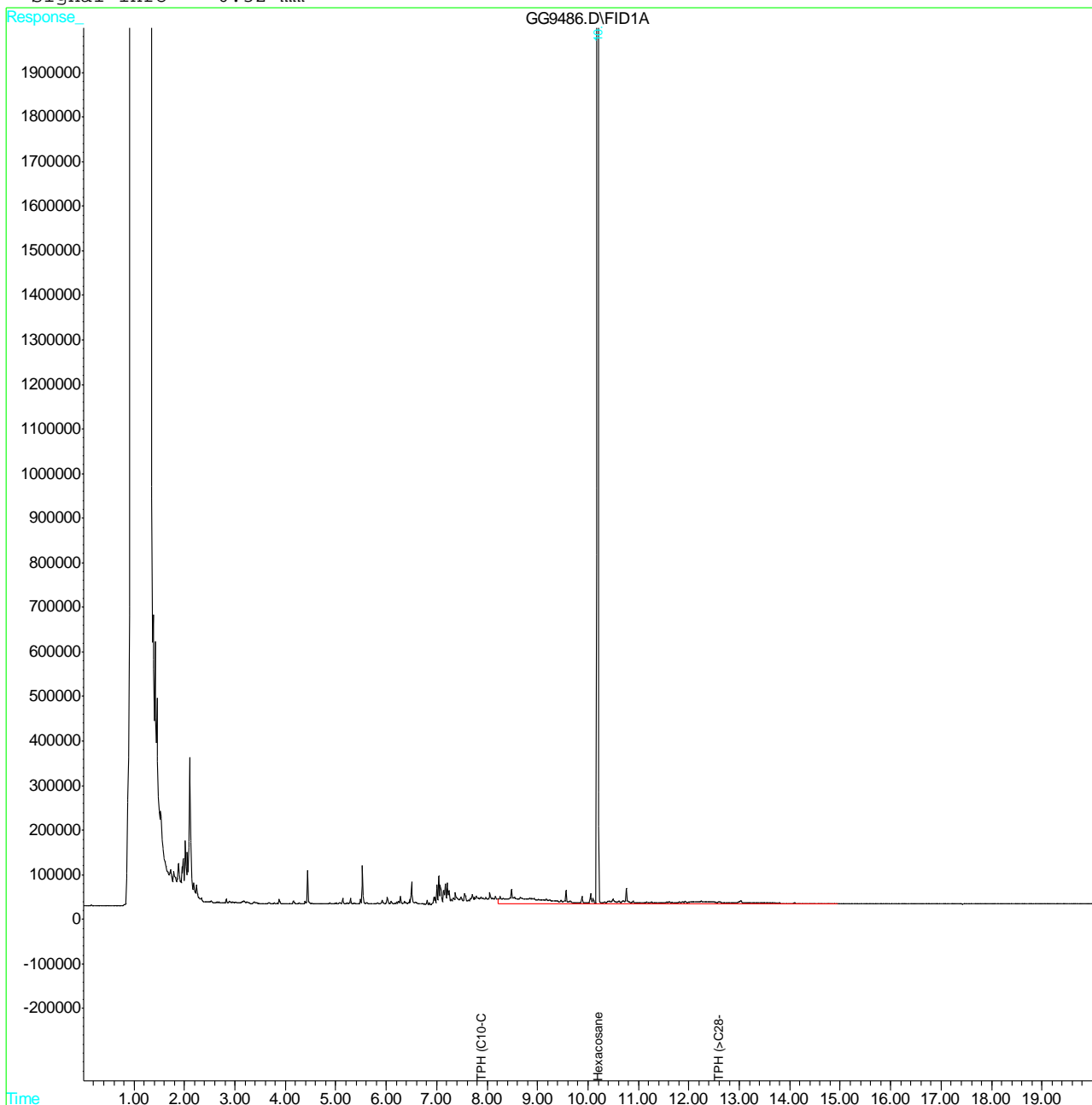
(f)=RT Delta > 1/2 Window (m)=manual int.
 GG9486.D GGG278.M Wed Nov 18 14:21:39 2009

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG326\GG9486.D Vial: 25
Acq On : 11-17-09 9:12:57 PM Operator: JAMESH
Sample : C8422-2 Inst : Diesel 2
Misc : OP1511,GGG326,1060,,,1,1,WATER Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 18 14:04 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
Title : DRO calibration: Back column
Last Update : Fri Sep 11 10:19:00 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\GGG326\GG9487.D Vial: 26
 Acq On : 11-17-09 9:39:32 PM Operator: JAMESH
 Sample : C8422-3 Inst : Diesel 2
 Misc : OP1511,GGG326,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: Nov 18 14:04 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri Sep 11 10:19:00 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	10.19f	106353312	88.196 ppm
Spiked Amount	100.000	Recovery	= 88.20%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	19177835	18.278 ppm
3) H TPH (>C28-C40)	12.59	5134228	5.365 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.
 GG9487.D GGG278.M Wed Nov 18 14:21:40 2009

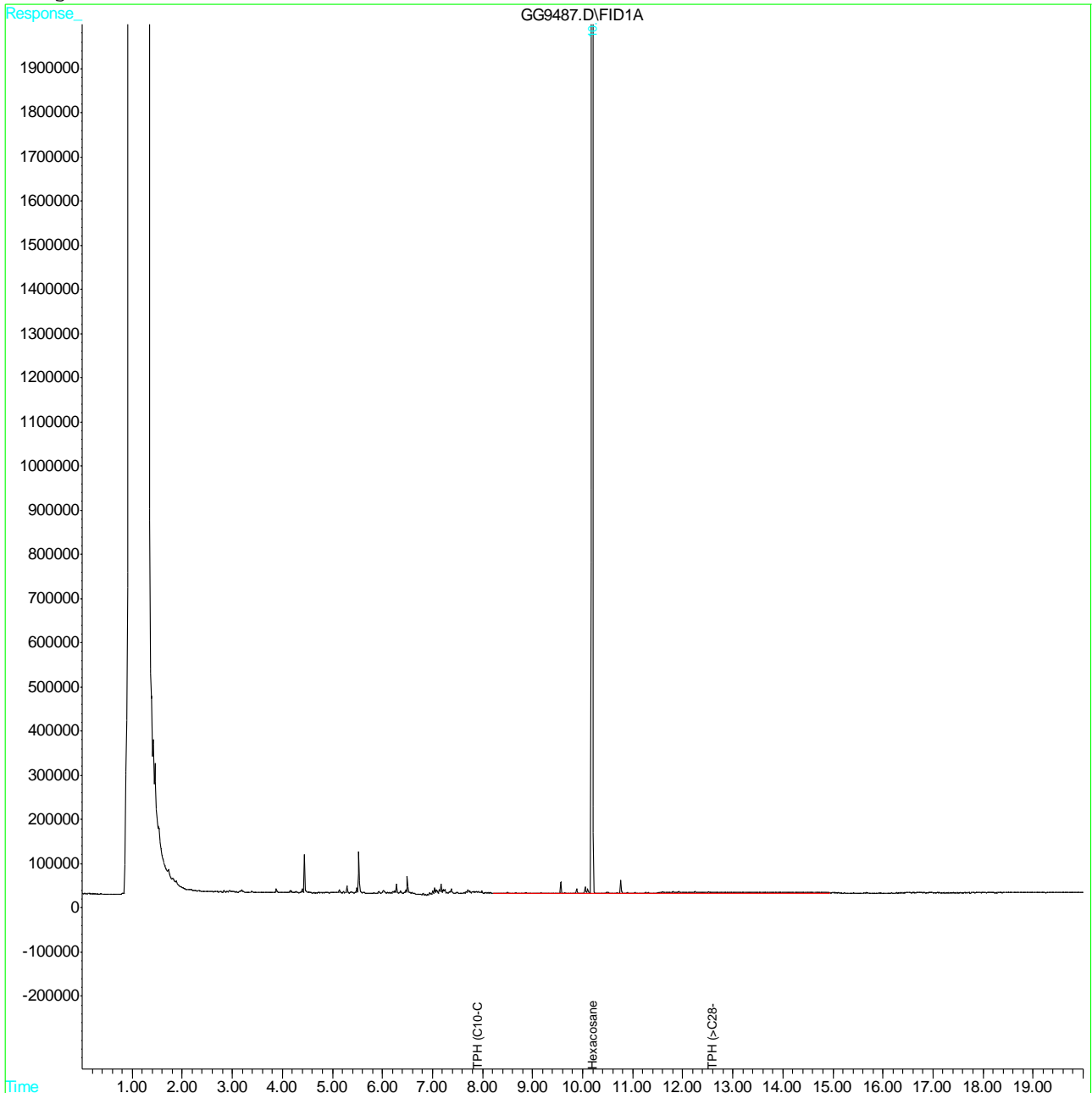
7.1.3
 7

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG326\GG9487.D Vial: 26
 Acq On : 11-17-09 9:39:32 PM Operator: JAMESH
 Sample : C8422-3 Inst : Diesel 2
 Misc : OP1511,GGG326,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: Nov 18 14:04 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri Sep 11 10:19:00 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\GGG326\GG9488.D Vial: 27
 Acq On : 11-17-09 10:06:09 PM Operator: JAMESH
 Sample : C8422-4 Inst : Diesel 2
 Misc : OP1511,GGG326,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: Nov 18 14:04 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri Sep 11 10:19:00 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	10.19f	104661486	86.793 ppm
Spiked Amount	100.000	Recovery	= 86.79%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	18838364	17.954 ppm
3) H TPH (>C28-C40)	12.59	5941095	6.209 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

7.14
7

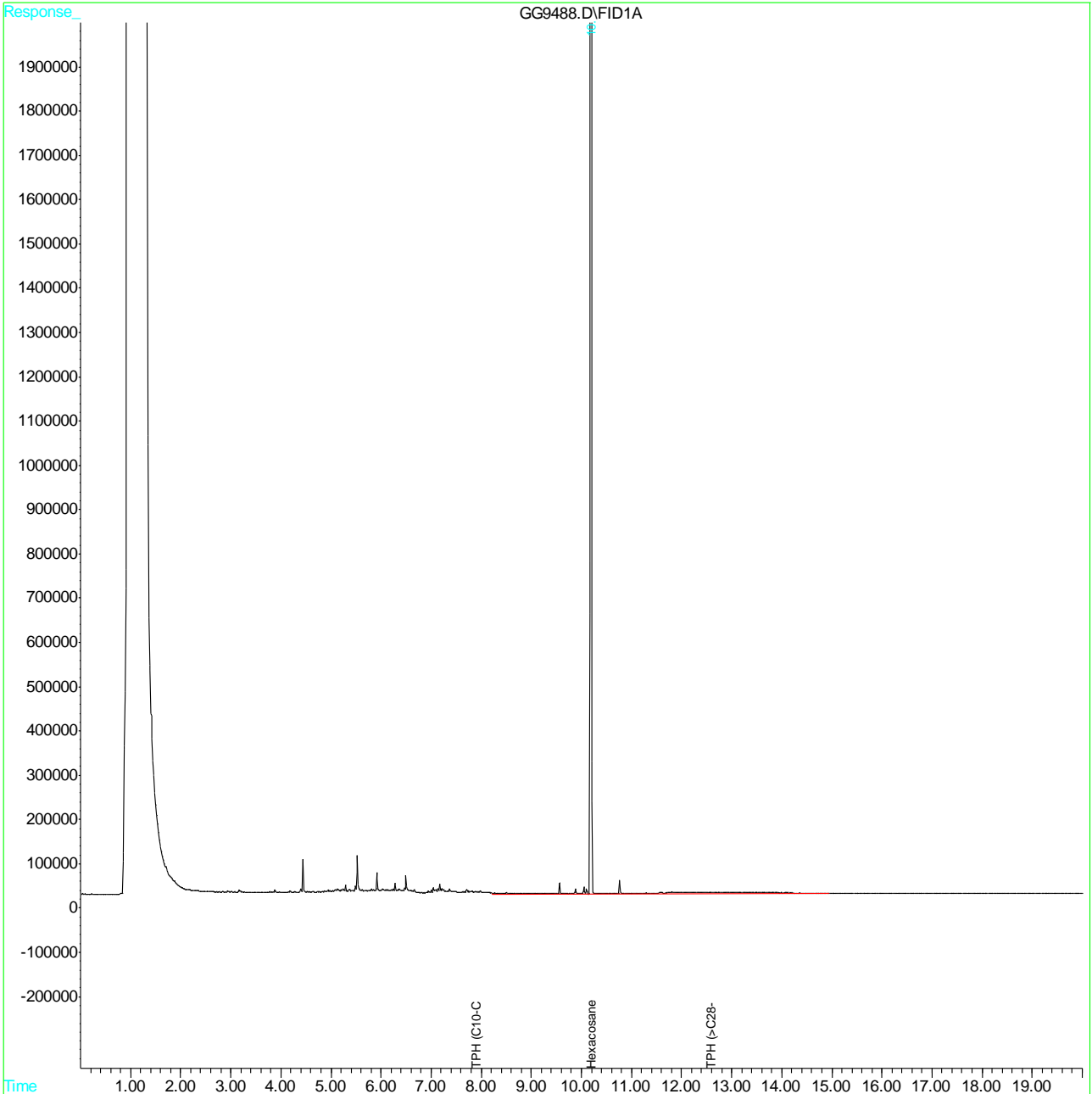
(f)=RT Delta > 1/2 Window (m)=manual int.
 GG9488.D GGG278.M Wed Nov 18 14:21:41 2009

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG326\GG9488.D Vial: 27
 Acq On : 11-17-09 10:06:09 PM Operator: JAMESH
 Sample : C8422-4 Inst : Diesel 2
 Misc : OP1511,GGG326,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: Nov 18 14:04 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri Sep 11 10:19:00 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\GGG326\GG9489.D Vial: 28
 Acq On : 11-17-09 10:32:42 PM Operator: JAMESH
 Sample : C8422-5 Inst : Diesel 2
 Misc : OP1511,GGG326,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: Nov 18 14:04 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri Sep 11 10:19:00 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	10.19f	101067155	83.813 ppm
Spiked Amount 100.000		Recovery =	83.81%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	21826253	20.802 ppm
3) H TPH (>C28-C40)	12.59	5852107	6.116 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

7.15
7

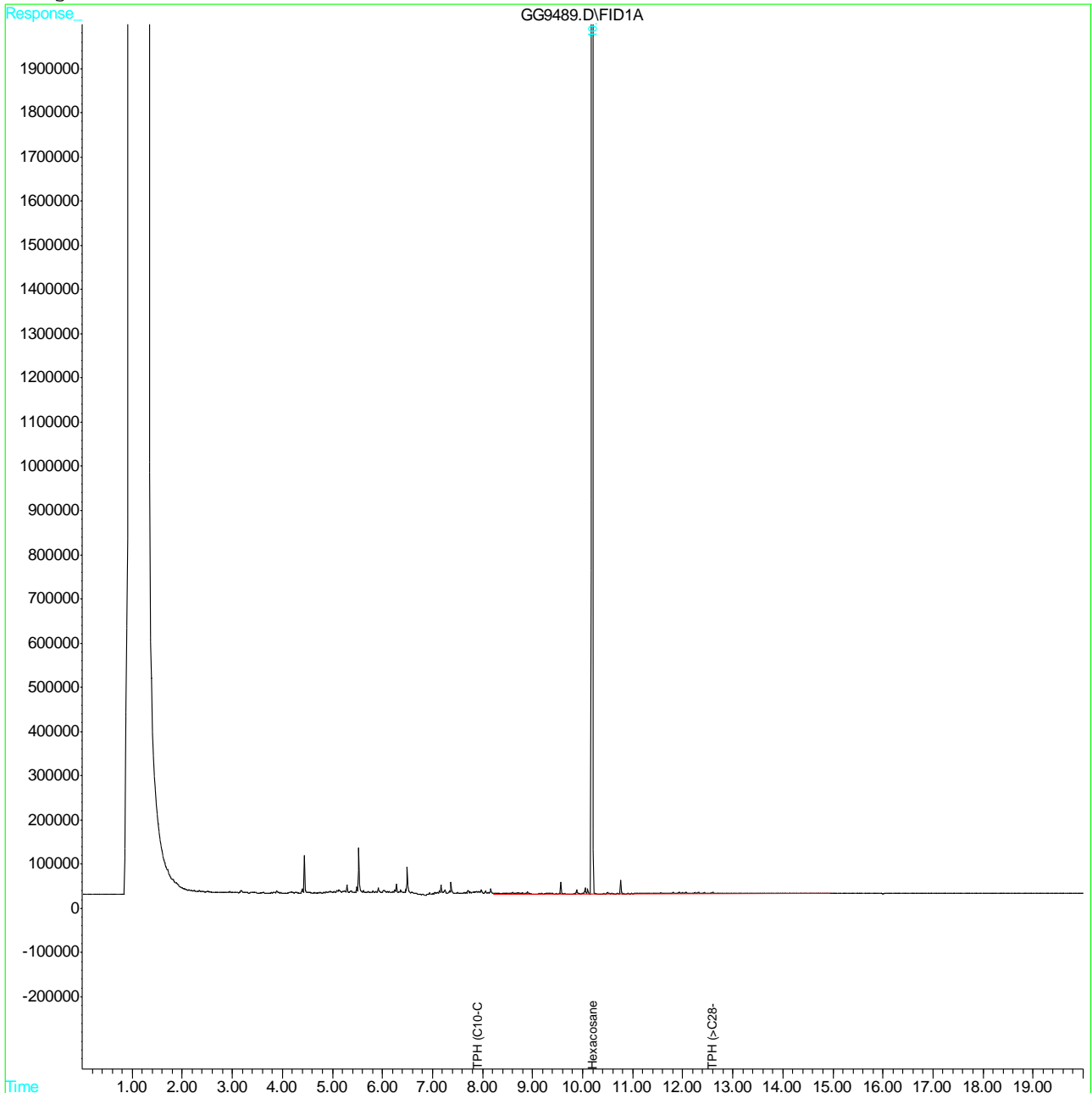
(f)=RT Delta > 1/2 Window (m)=manual int.
 GG9489.D GGG278.M Wed Nov 18 14:21:42 2009

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG326\GG9489.D Vial: 28
Acq On : 11-17-09 10:32:42 PM Operator: JAMESH
Sample : C8422-5 Inst : Diesel 2
Misc : OP1511,GGG326,1060,,,1,1,WATER Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 18 14:04 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
Title : DRO calibration: Back column
Last Update : Fri Sep 11 10:19:00 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



7.1.5
7

Quantitation Report (QT Reviewed)

Data File : C:\DIESEL\D#2\DATA\GGG326\GG9490.D Vial: 29
 Acq On : 11-17-09 10:59:17 PM Operator: JAMESH
 Sample : C8422-6 Inst : Diesel 2
 Misc : OP1511,GGG326,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: Nov 18 14:05 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri Sep 11 10:19:00 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	10.19f	105764156	87.708 ppm
Spiked Amount 100.000		Recovery =	87.71%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	20349039	19.394 ppm
3) H TPH (>C28-C40)	12.59	4965372	5.189 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.
 GG9490.D GGG278.M Wed Nov 18 14:21:43 2009

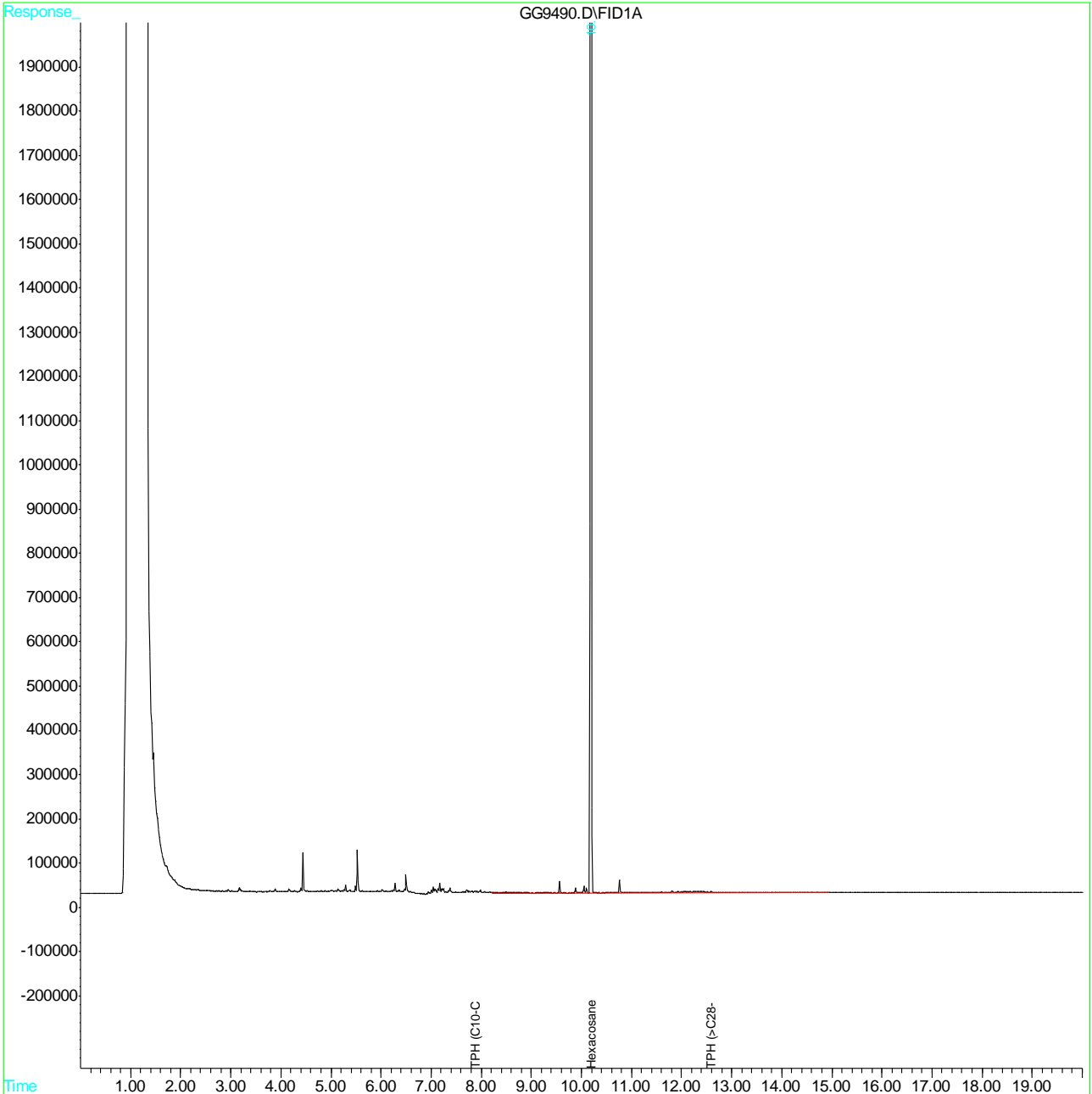
7.1.6
 7

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG326\GG9490.D Vial: 29
Acq On : 11-17-09 10:59:17 PM Operator: JAMESH
Sample : C8422-6 Inst : Diesel 2
Misc : OP1511,GGG326,1060,,,1,1,WATER Multiplr: 1.00
IntFile : AUTOINT1.E
Quant Time: Nov 18 14:05 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
Title : DRO calibration: Back column
Last Update : Fri Sep 11 10:19:00 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\GGG326\GG9491.D Vial: 30
 Acq On : 11-17-09 11:25:50 PM Operator: JAMESH
 Sample : C8422-7 Inst : Diesel 2
 Misc : OP1511,GGG326,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: Nov 18 14:05 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri Sep 11 10:19:00 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	10.19f	109805281	91.059 ppm
Spiked Amount		Recovery	= 91.06%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	20344619	19.390 ppm
3) H TPH (>C28-C40)	12.59	4740625	4.954 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

7.17
7

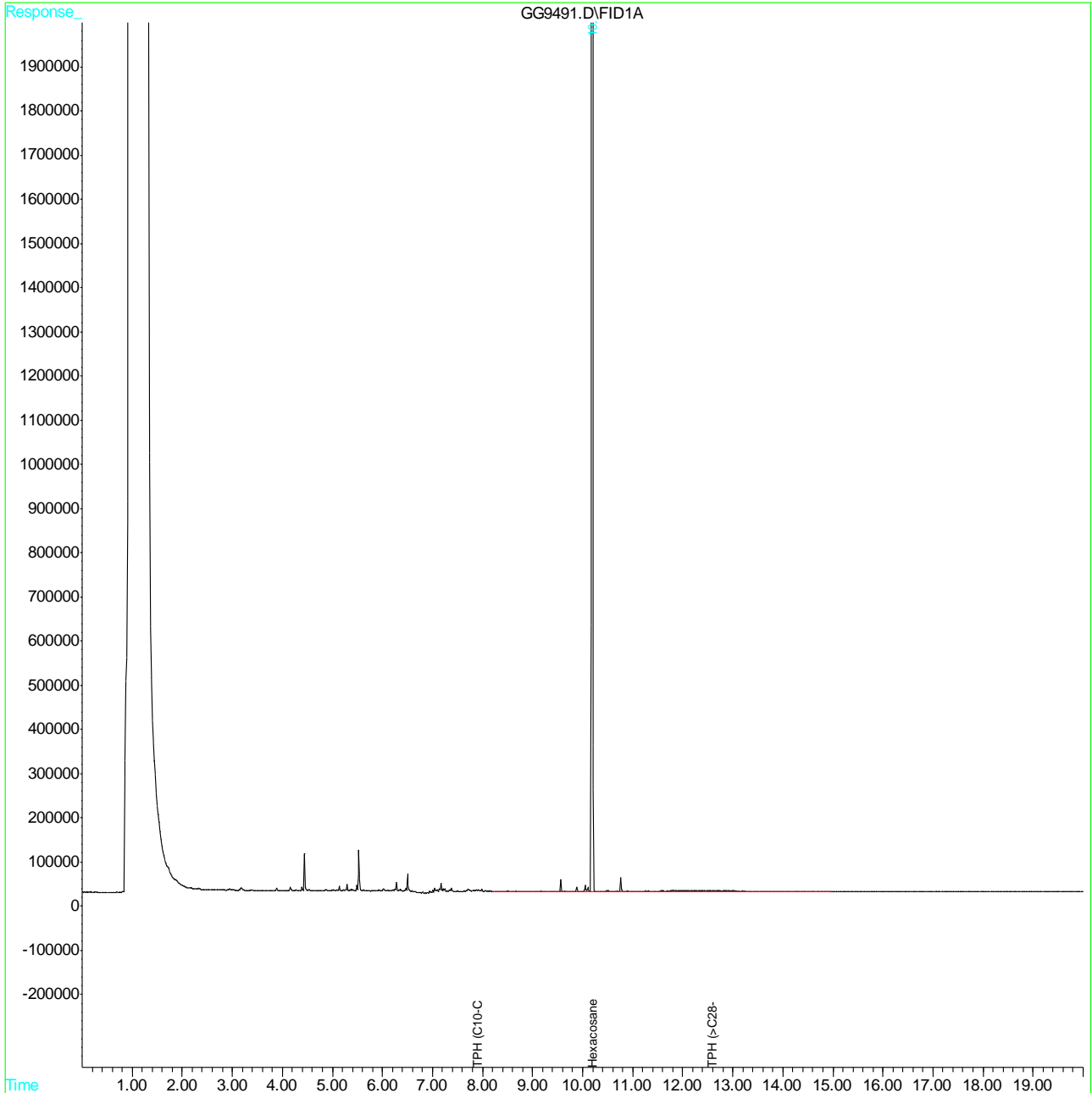
(f)=RT Delta > 1/2 Window (m)=manual int.
 GG9491.D GGG278.M Wed Nov 18 14:21:43 2009

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG326\GG9491.D Vial: 30
 Acq On : 11-17-09 11:25:50 PM Operator: JAMESH
 Sample : C8422-7 Inst : Diesel 2
 Misc : OP1511,GGG326,1060,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: Nov 18 14:05 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri Sep 11 10:19:00 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\GGG326\GG9460.D Vial: 4
 Acq On : 11-17-09 9:36:43 AM Operator: JAMESH
 Sample : OP1511-MB Inst : Diesel 2
 Misc : OP1511,GGG326,1000,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: Nov 17 10:56 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri Sep 11 10:19:00 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	10.19f	106598345	88.399 ppm
Spiked Amount	100.000	Recovery	= 88.40%
Target Compounds			
2) H,M TPH (C10-C28)	7.90	20663140	19.693 ppm
3) H TPH (>C28-C40)	12.59	6843509	7.152 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	20663140	19.693 ppm
7) H TPH (Motor Oil)	12.59	6843509	7.152 ppm

(f)=RT Delta > 1/2 Window (m)=manual int.
 GG9460.D GGG278.M Wed Nov 18 13:49:19 2009

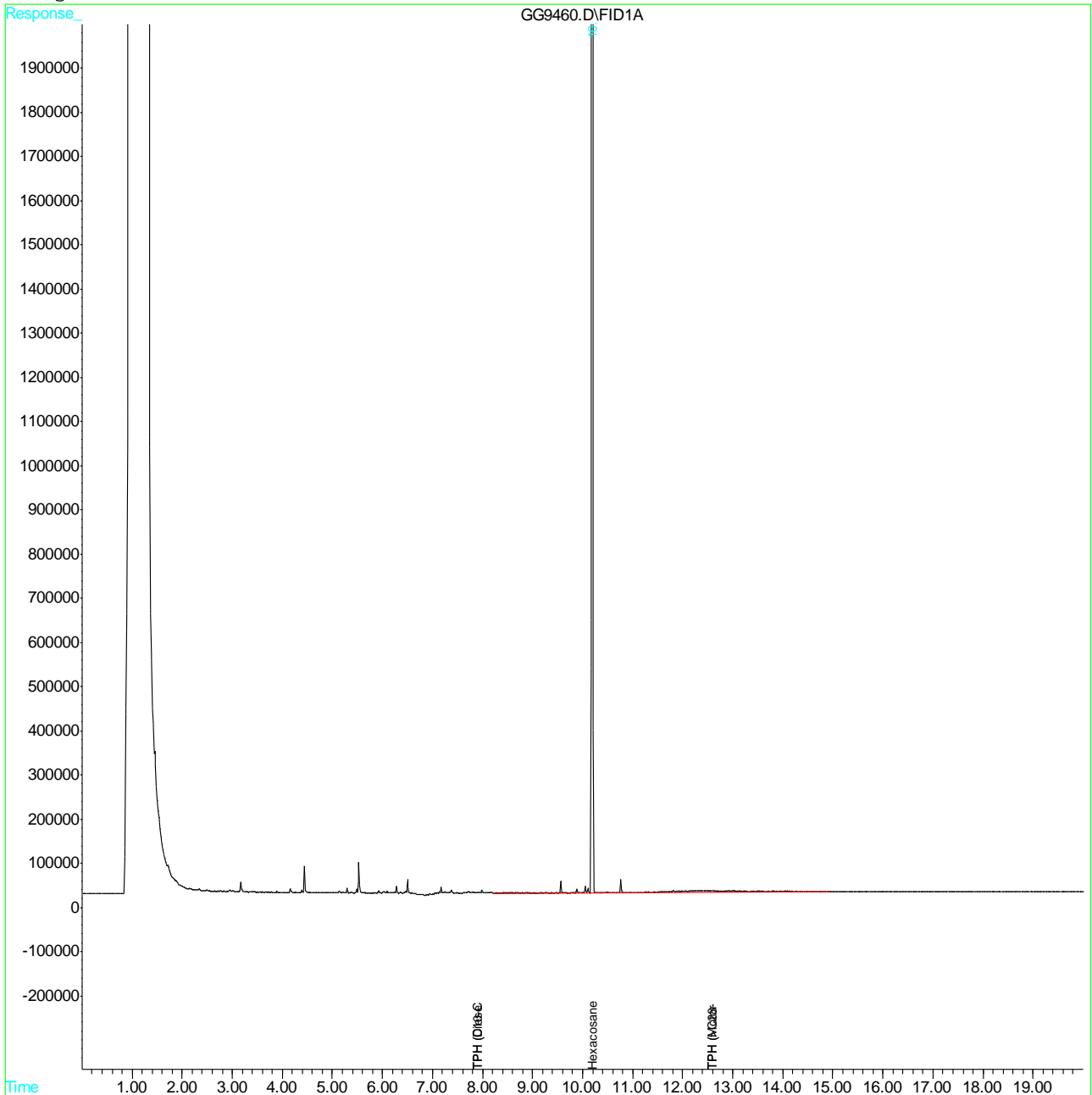
7.2.1
 7

Quantitation Report

Data File : C:\DIESEL\D#2\DATA\GGG326\GG9460.D Vial: 4
 Acq On : 11-17-09 9:36:43 AM Operator: JAMESH
 Sample : OP1511-MB Inst : Diesel 2
 Misc : OP1511,GGG326,1000,,,1,1,WATER Multiplr: 1.00
 IntFile : AUTOINT1.E
 Quant Time: Nov 17 10:56 2009 Quant Results File: GGG278.RES

Quant Method : C:\DIESEL\D#2\METHODS\GGG278.M (Chemstation Integrator)
 Title : DRO calibration: Back column
 Last Update : Fri Sep 11 10:19:00 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