United States Environmental Protection Agency
Region 9 Laboratory

1337 S. 46th Street Building 201
Richmond, CA 94804

Date: 2/3/2012

Subject: **Analytical Testing Results - Project R33911**
SDG: 12030A

From: **Brenda Bettencourt, Director**
EPA Region 9 Laboratory
MTS-2

To: **Richard Fetzer**
US EPA Region 3, Eastern Response Branch
3HS31

Attached are the results from the analysis of samples from the **Dimock Residential Groundwater** project. These data have been reviewed in accordance with EPA Region 9 Laboratory policy.

A full documentation package for these data, including raw data and sample custody documentation, is on file at the EPA Region 9 Laboratory. If you would like to request additional review and/or validation of the data, please contact Eugenia McNaughton at the Region 9 Quality Assurance Office.

If you have any questions, please ask for Richard Bauer, the Lab Project Manager at (510)412-2300.

Analyses included in this report:

Extractable Petroleum Hydrocarbons by GC/FID

DIM0276600

United States Environmental Protection Agency
Region 9 Laboratory

1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12030A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/03/12 15:00
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
FB04	1201034-01	Water	01/26/12 09:13	01/30/12 09:23
HW05	1201034-02	Water	01/26/12 11:35	01/30/12 09:23
HW06	1201034-03	Water	01/26/12 15:30	01/30/12 09:23
HW12	1201034-04	Water	01/26/12 13:23	01/30/12 09:23
HW14-P	1201034-05	Water	01/26/12 19:15	01/30/12 09:23
HW14	1201034-06	Water	01/26/12 17:13	01/30/12 09:23
FB05	1201034-09	Water	01/27/12 09:40	01/30/12 09:23
HW01	1201034-10	Water	01/25/12 16:31	01/30/12 09:23
HW24-P	1201034-11	Water	01/27/12 13:18	01/30/12 09:23
HW17	1201034-15	Water	01/27/12 11:40	01/30/12 09:23
HW24	1201034-16	Water	01/27/12 12:09	01/30/12 09:23

SDG ID 12030A
TPH DRO: Small background contamination was found in the blank. Contamination is < ½ times the quantitation limit. No affect on sample results is anticipated. MS/MSD were not extracted with this sample set due to insufficient amount of samples.

Work Order(s)

1201034

United States Environmental Protection Agency
Region 9 Laboratory
1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12030A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/03/12 15:00
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1201034-01									**Water - Sampled: 01/26/12 09:13**
Sample ID: FB04									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2A0071	01/30/12	01/31/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			94 %	*60-127%*		"	"	"	
Lab ID: 1201034-02									**Water - Sampled: 01/26/12 11:35**
Sample ID: HW05									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2A0071	01/30/12	01/31/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			94 %	*60-127%*		"	"	"	
Lab ID: 1201034-03									**Water - Sampled: 01/26/12 15:30**
Sample ID: HW06									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2A0071	01/30/12	01/31/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			86 %	*60-127%*		"	"	"	
Lab ID: 1201034-04									**Water - Sampled: 01/26/12 13:23**
Sample ID: HW12									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2A0071	01/30/12	01/31/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			97 %	*60-127%*		"	"	"	
Lab ID: 1201034-05									**Water - Sampled: 01/26/12 19:15**
Sample ID: HW14-P									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2A0071	01/30/12	01/31/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			98 %	*60-127%*		"	"	"	
Lab ID: 1201034-06									**Water - Sampled: 01/26/12 17:13**
Sample ID: HW14									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2A0071	01/30/12	01/31/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			93 %	*60-127%*		"	"	"	
Lab ID: 1201034-09									**Water - Sampled: 01/27/12 09:40**
Sample ID: FB05									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2A0071	01/30/12	01/31/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			95 %	*60-127%*		"	"	"	
Lab ID: 1201034-10									**Water - Sampled: 01/25/12 16:31**

United States Environmental Protection Agency
Region 9 Laboratory
1337 S. 46th Street, Building 201, Richmond, CA 94804
Phone:(510) 412-2300 Fax:(510) 412-2302

Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12030A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/03/12 15:00
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1201034-10									**Water - Sampled: 01/25/12 16:31**
Sample ID: HW01									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2A0071	01/30/12	01/31/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			94 %	*60-127%*		"	"	"	
Lab ID: 1201034-11									**Water - Sampled: 01/27/12 13:18**
Sample ID: HW24-P									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	240	ug/L	B2A0071	01/30/12	01/31/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	950	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			87 %	*60-127%*		"	"	"	
Lab ID: 1201034-15									**Water - Sampled: 01/27/12 11:40**
Sample ID: HW17									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2A0071	01/30/12	01/31/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			88 %	*60-127%*		"	"	"	
Lab ID: 1201034-16									**Water - Sampled: 01/27/12 12:09**
Sample ID: HW24									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2A0071	01/30/12	01/31/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			90 %	*60-127%*		"	"	"	

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B2A0071 - 3520C CLLE - TPH - Extractable									**Prepared: 01/30/12 Analyzed: 01/31/12**	
									Extractable Petroleum Hydrocarbons by EPA Method 8015B - Quality Control	
Blank (B2A0071-BLK1)										
TPH - Diesel Range Organics	ND	U	250	ug/L						
TPH - Oil Range Organics	ND	U	1,000	"						
Surrogate: Hexacosane	*145*			"	*150*		96	*60-127*		
LCS (B2A0071-BS1)										
TPH - Diesel Range Organics	1,220		250	ug/L	1500		82	54-115		
Surrogate: Hexacosane	*130*			"	*150*		87	*60-127*		

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Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/03/12 15:00
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Qualifiers and Comments

U	Not Detected
NR	Not Reported
RE1, RE2, etc:	Result is from a sample re-analysis.

00003

ICF INTERNATIONAL

ICF International / Laboratory Data Consultants
Environmental Services Assistance Team, Region 9
1337 South 46th Street, Building 201, Richmond, CA 94804-4698
Phone: (510) 412-2300 Fax: (510) 412-2304

DATE: February ~~7~~ 3, 2012

TO: Richard Bauer, Chemistry TOM, EPA Region 9, Laboratory Section, MTS-2

FROM: Ziyad Rajabi, Organic Group Leader

SUBJECT: Analytical Results for TDF 01001084

As assigned under EPA Contract No. EP-W-06-041, TDF 01001084, ESAT completed analysis of 11 water samples for the Dimock Residential Groundwater Site project, Case R33911, SDG 12030A, Work Order 1201034 for extractable TPH following EPA Region 9 Laboratory SOP 385 based on method SW8015B. The draft analytical report and raw data package are attached.

If you have any questions regarding this information please contact me at extension 22390.

G:\USER\ESAT\# LAB DATA Deliverables\R33911\12030A-TPH-d-14468.docx

EPA Region 9 Laboratory

DATA PACKAGE

Analysis:	**TPH-d**
Project Number:	**R33911**
SDG Number:	**12030A**
Work Order:	**1201034**
ESAT DCN:	**14468**

Contents

- **Review Forms**
- **Tracking Forms**
- ***Sample Preparation***
- **Data**
  -Initial Calibration Data
  -Sample Data
- ***Miscellaneous Data***
- **Standard Records**
- ***Canister Certification Data***

Sections in italics are included as applicable

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REVIEW FORMS

: 00002

General Project Management and ESAT Contractor Oversight Review

Project Number: R33911 SDG: 12030A

Analysis: extractable TPH Number of Pages: 304

Reviewer: JACK BERGES

- Review project notes and requirements (including TDF) and verify that correct analytical procedures and any special instructions were followed. Note any significant deviations or omissions in report narrative or return to contractor for correction.
- Review project memo field for each work order and include information pertinent to data users in report narrative. (Information important only to chemist reviewing the raw data package should be included in data package, but not in the report narrative).
- Review chain of custody documentation and verify that information in report corresponds correctly. Verify that any sample shipping or handling issues are properly documented and reported.
- Review analytical report and QC report and verify that qualifier flags for holding times, sample handling, surrogates, blanks, blank spikes, matrix QC, and calibration range have been appropriately applied.
- Review LIMS Data Entry table for unaddressed outliers.
- Verify that all major sections of data package are present.

Comments: 6M

Reviewer Signature [signature] Date 2/3/12

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ESAT Region 9 | **ICF International**
Case: R33911 | **Analysis:** TPH-d | **TDF:** 01001084 | **Matrix:** water
DCN: 14468 | **Site:** Dimock Residential Groundwater Site | **SDG:** 12030A

ESAT REGION 9 DATA PACKAGE TECHNICAL REVIEW GUIDE

Reviewer:	Package Prep (P): TD	Technical (T): [illegible]	Final (F): [illegible]
	Date: 02-03-12	Date: 02-03-12	Date: 2-3-12

P T F N/A (indicates that the item is present and reviewed for accuracy and completeness)

Report Section

- ☑ ☑ ☑ ESAT Cover Memo (original)
- ☑ ☑ ☑ TDF included and requirements met (e.g. project analytes, project QLs, special procedures)
- ☑ ☑ ☑ Draft LIMS Report

Data Package Cover

- ☑ ☑ ☑ Case, SDG, Work Order(s), TDF#-DCN [First numbered page in the data package]

Review Forms

- ☑ ☑ ☑ EPA Review Form and Technical Review Guide included and complete.
- ☑ ☑ ☑ ☐ LIMS memo field; include as applicable.
- ☐ ☐ ☐ ☑ Discrepancy form(s) include as applicable
- ☑ ☑ ☐ ☐ Daily folder review forms are complete and reviewed; QC outliers noted
- ☑ ☑ ☐ ☐ Analysis matrix listing all analytical runs is included, as applicable

Tracking Forms

- ☑ ☑ ☑ Work Orders and Chains of Custody forms included and reviewed.
- ☑ ☑ ☑ Preparation and analyses performed within holding times. Qualify and/or explain deviations in memo field
- ☑ ☑ ☑ ☐ Cooler temperatures recorded on COC are within specification. Qualify and/or explain deviations in memo field

Sample Preparation

- ☑ ☑ ☑ ☐ Bench sheets and extraction logs, where applicable
- ☐ ☐ ☐ ☑ Sample cleanup data and records (e.g. GPC logs)
- ☐ ☐ ☐ ☑ Homogenization and Moisture data

Initial Calibration Data

Group ICAL data by instrument and analysis date:

- ☑ ☑ ☐ ☐ All ICALs associated with samples are present, reviewed, and pass SOP criteria. (If failure, discrepancy form must be included)
- ☑ ☑ ☐ ☐ Check for misidentification (e.g. isomers such as dichlorobenzene)

Sample Data

Group data for the following areas in sections by method, instrument, and analysis date.

Continuing Calibrations

- ☑ ☑ ☐ ☐ All CCALs associated with samples are present and meet SOP criteria. If not, discrepancy form included.
- ☑ ☑ ☐ Average RRFs from associated ICAL are correctly transposed to CCAL summary form
- ☑ ☑ ☐ CCAL RRFs and %Ds calculated correctly. Check at least 1 surrogate & 1 target analyte
- ☑ ☑ ☐ Check %Ds and RRFs against SOP criteria

ESAT Region 9 | **ICF International**
Case: R33911 | **Analysis:** TPH-d | **TDF:** 01001084 | **Matrix:** water
DCN: 14468 | **Site:** Dimock Residential Groundwater Site | **SDG:** 12030A

P T F N/A (indicates that the item is present and reviewed for accuracy and completeness)

Quantitation Limit Standards
☑ ☑ ☐ ☐ Percent recoveries of 60-140% met; outliers noted and flagged

Laboratory Control Samples
☑ ☐ ☑ Percent recoveries met. If not, discrepancy form included unless not required because: _____

Method Blanks
☑ ☐ ☑ Present and no target analyte results > ½ QL; if not, flag data as appropriate

MS/MSD or Duplicate Data
☐ ☐ ☐ ☑ Percent recoveries and RPDs were met; outliers are noted and flagged. Note significant deviations in LIMS memo field

Sample Data
☑ ☑ ☑ ☐ Bench sheet(s) and injection or run logs present for all samples
☐ ☑ ☐ ☑ Internal standards meet SOP criteria
☑ ☐ ☑ ☐ System Monitoring Compound/Surrogate recoveries met; outliers are noted and flagged
☑ ☑ ☐ All non-detects are reported as ND on the quantitation report and explained for QC samples
☑ ☑ ☐ Quantitation results are correctly calculated. Check at least one surrogate or one target analyte
☐ ☐ ☑ Mass spectral data are present for all target analytes
☑ ☑ ☐ ☐ Check for manual integrations (m) identified on quantitation reports. Verify presence of manual integration data, initialed and dated by a supervisor
☐ ☐ ☐ ☑ Compound concentrations exceeding the upper range of the instrument are reported from the dilution run
☑ ☑ Check for carry-over contamination
☐ ☐ ☐ ☑ Dilutions and reruns appropriate.
☐ ☐ ☑ TICs properly identified; TIC report and data present; proper TIC name used (Organics)
☑ ☑ ☑ ☐ QC outliers are appropriately flagged in LIMS

Miscellaneous Data
☐ ☐ ☐ ☑ Storage blank data present
☐ ☐ ☐ ☐ Other data, as applicable _____

Standards Records
☑ ☑ ☑ ☐ Standards records from LIMS (and logbook pages as needed)

Canister Certification Data (TO 15 only)
☐ ☐ ☐ ☑ Data and supporting QC present

For ESAT Files: ESAT Review form (original) and Cover Memo (copy)

WORK ORDER NOTES - 1201034 [redacted]

1201034 - US EPA Region 3, Eastern Response
Dimock Residential Groundwater

Edit Done

Samples 1201034-12 and -13: Sample tag info and COC info disagreed. Used tag info for log in. - rjb 1/30/12

TPH DRO: Small background contamination in the blank. Contamination is < ½ QL. No affect on sample results is anticipated. MS/MSD were not extracted due to insufficient amount of samples. TD 02/02/12

TPH DRO: A review of the blank contamination issue revealed that the methylene chloride used for the extraction was certified for BNA analysis and not TPH-DRO. Since the contamination in the blank and associated samples was <½ QL, samples were ND, and the BS recovery was acceptable, No affect on sample results is anticipated. ZAR 2/2/12

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	TPH DRO	Analyst Initial	TD	Reviewer Initial	[illegible]	Batch/ Sequence	2010046
Instrument ID	AG7890-2	Date Analyzed	01-30-12	Date	01/31/12	Chemstation Last Update	01/31/12 09:45:52
Cases				SDGs	ICAL 013012DROA [1201006]		

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

NA	A	PR	Item Description
	✓	✓	Runlog (Present, legible, peer reviewed)
✓			Tune/ Degradation Standard
	✓	✓	Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review.
	✓	✓	Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation. /SCV
✓			QLS (level, frequency, and recovery) (include Chemstation summary)
	✓	✓	Method / Extraction / Storage Blanks (frequency and contamination levels) /B
✓			Surrogate Recoveries
✓			IS Areas (SOP criteria met)
✓			LCS (level, frequency, and recovery) (include Chemstation summary)
✓			MS/MSD
✓			Samples (within calibration range, results calculated correctly)
	✓	✓	Manual Integration Verified
✓			Standard Prep Log (all pages present, legible, peer reviewed, legible)
✓			Sample Prep/Extraction (all pages present, legible, peer reviewed)
			Others:

NA = not applicable A = Analyst check PR = Peer Review Check

Non-conformance Report

QC	File ID	Result	QC Limit	High Bias	Low Bias	Flag ND	Flag Hits	Discussion

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	TPH DRO	Analyst Initial	TD	Reviewer Initial	[illegible]	Batch/ Sequence	B2A0071 2010053
Instrument ID	AG7890-2	Date Analyzed	01-31-12	Date	02/1/12	Chemstation Last Update	01/31/12 09:45:52
Cases	R33911			SDGs	12027B; 12030A		

Review each item listed below. As problems are discovered list them in the non-conformance section of the form and provide and explanation in the discussion part of the table.

NA	A	PR	Item Description
	✓	✓	Runlog (Present, legible, peer reviewed)
✓			Tune/ Degradation Standard
	✓	✓	Initial Calibration (SOP criteria for number of levels, concentration, and %RSD). Manual calculation. Include summary for daily review.
	✓	✓	Continuing Calibration Verification (frequency, recovery, and %D). Manual calculation.
	✓	✓	QLS (level, frequency, and recovery) (include Chemstation summary)
	✓	✓	Method / Extraction / Storage Blanks (frequency and contamination levels)
	✓	✓	Surrogate Recoveries
✓			IS Areas (SOP criteria met)
	✓	✓	LCS (level, frequency, and recovery) (include Chemstation summary)
✓			MS/MSD
	✓	✓	Samples (within calibration range, results calculated correctly)
	✓	✓	Manual Integration Verified
✓			Standard Prep Log (all pages present, legible, peer reviewed, legible)
✓			Sample Prep/Extraction (all pages present, legible, peer reviewed)
			Others:

NA = not applicable A = Analyst check PR = Peer Review Check

Non-conformance Report

QC	File ID	Result	QC Limit	High Bias	Low Bias	Flag ND	Flag Hits	Discussion
								Small background
								cont in blank &
								samples. Discuss
								in MDOH U

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: 00008

USEPA Region 9 Laboratory
Organic Analysis Summary

Case: R33911
SDG: 12030A
Analysis: TPH DRO

TD

Sample ID	Sample Runs			
Instrument:	AG7890-2	INSTRUMENT	INSTRUMENT	INSTRUMENT
Analysis Date:	1/31/2012			
Sequence:	2010053			
1201034-01	RPT			
1201034-02	RPT			
1201034-03	RPT			
1201034-04	RPT			
1201034-05	RPT			
1201034-06	RPT			
1201034-09	RPT			
1201034-10	RPT			
1201034-11	RPT			
B2A0071-BLK1	RPT			
B2A0071-BS1	RPT			

Definitions

RPT	Report
NU	Not Used
OC	Over calibration
OTT	Out of tune time
nX	Dilution, where n is dilution factor

00013

SAMPLE TRACKING FORMS

:00010

DIM0276600

DIM0276615

WORK ORDER

Printed: 1/30/2012 10:47:48AM

1201034

EPA Region 9 Laboratory

Client: US EPA Region 3, Eastern Response Branch (3HS Project Number: R33911
Project: Dimock Residential Groundwater

Report To:
US EPA Region 3, Eastern Response Branch (3HS31)
Richard Fetzer
100 Gypsum Road
Stroudsburg, PA 18360
Phone: (215) 341-6307
Fax: XX

Project Contact
US EPA Region 3, Eastern Response Branch (3HS31)
Richard Fetzer
100 Gypsum Road
Stroudsburg, PA 18360
Phone :(215) 341-6307
Fax: XX

Shipping Containers	Description	Temp C	Custody Seals?	Containers Intact?	Labels COC Agree?	Preservation Confirmed?	Received on Ice?	Comments
1Cooler	Cooler	3	Yes	Yes	Yes	No	Yes	797998076136
2 Cooler	Cooler	3	Yes	Yes	Yes	No	Yes	793167711039
3 cooler	Cooler	1	Yes	Yes	Yes	No	Yes	797998076180
4Cooler	Cooler	3	Yes	Yes	Yes	No	Yes	797998076191

Date Due: 03/01/12 15:00 (21 day TAT) SDG: 12030A
Received By: Richard Bauer Date Received: 01/30/12 09:23
Logged In By: Richard Bauer Date Logged In: 01/30/12 09:23

Analysis	Hold Time Expires	Comments
1201034-01 FB04 [Water] Sampled 01/26/12 09:13 Pacific		
TPH - Purgeable	02/09/12	
TPH - Extractable	02/02/12	
Dissolved HC Gases	02/09/12	5 day prelim results
1201034-02 HW05 [Water] Sampled 01/26/12 11:35 Pacific		
TPH - Purgeable	02/09/12	
TPH - Extractable	02/02/12	
Dissolved HC Gases	02/09/12	5 day prelim results
1201034-03 HW06 [Water] Sampled 01/26/12 15:30 Pacific		
Dissolved HC Gases	02/09/12	5 day prelim results
TPH - Purgeable	02/09/12	
TPH - Extractable	02/02/12	
1201034-04 HW12 [Water] Sampled 01/26/12 13:23 Pacific		
TPH - Extractable	02/02/12	
Dissolved HC Gases	02/09/12	5 day prelim results
TPH - Purgeable	02/09/12	

WORK ORDER

Printed: 1/30/2012 10:47:48AM

1201034

EPA Region 9 Laboratory

Client: US EPA Region 3, Eastern Response Branch (3HS Project Number: R53911
Project: Dimock Residential Groundwater

Analysis	Hold Time Expires	Comments
Analysis	**Expires**	**Comments**
1201034-05 HW14-P [Water] Sampled 01/26/12 19:15 Pacific		
TPH - Purgeable	02/09/12	
TPH - Extractable	02/02/12	
Dissolved HC Gases	02/09/12	5 day prelim results
1201034-06 HW14 [Water] Sampled 01/26/12 17:13 Pacific		
Dissolved HC Gases	02/09/12	5 day prelim results
TPH - Purgeable	02/09/12	
TPH - Extractable	02/02/12	
1201034-07 TB04 [Water] Sampled 01/26/12 08:31 Pacific		
Dissolved HC Gases	02/09/12	5 day prelim results
1201034-08 TB05 [Water] Sampled 01/26/12 08:34 Pacific		
Dissolved HC Gases	02/09/12	5 day prelim results
1201034-09 FB05 [Water] Sampled 01/27/12 09:40 Pacific		
TPH - Extractable	02/03/12	
Dissolved HC Gases	02/10/12	5 day prelim results
TPH - Purgeable	02/10/12	
1201034-10 HW01 [Water] Sampled 01/25/12 16:31 Pacific		
TPH - Purgeable	02/08/12	
TPH - Extractable	02/01/12	
1201034-11 HW24-P [Water] Sampled 01/27/12 13:18 Pacific		
TPH - Purgeable	02/10/12	
Dissolved HC Gases	02/10/12	5 day prelim results
TPH - Extractable	02/03/12	
1201034-12 TB02 [Water] Sampled 01/25/12 07:55 Pacific		COC & tags disagee - used info on tags for login
Dissolved HC Gases	02/08/12	5 day prelim results
1201034-13 TB03 [Water] Sampled 01/25/12 08:00 Pacific		COC & tags disagee - used info on tags for login
Dissolved HC Gases	02/08/12	5 day prelim results

WORK ORDER

Printed: 1/30/2012 10:47:48AM

1201034

EPA Region 9 Laboratory

Client: US EPA Region 3, Eastern Response Branch (3HS Project Number: R33911
Project: Dimock Residential Groundwater

Analysis	Hold Time Expires	Comments

Analysis	Expires	Comments
1201034-14 TB07 [Water] Sampled 01/25/12 08:00 Pacific		
Dissolved HC Gases	02/08/12	5 day prelim results
1201034-15 HW17 [Water] Sampled 01/27/12 11:40 Pacific		
TPH - Extractable	02/03/12	
TPH - Purgeable	02/10/12	
Dissolved HC Gases	02/10/12	5 day prelim results
1201034-16 HW24 [Water] Sampled 01/27/12 12:09 Pacific		
TPH - Purgeable	02/10/12	
TPH - Extractable	02/03/12	
Dissolved HC Gases	02/10/12	5 day prelim results
1201034-17 TB06 [Water] Sampled 01/27/12 08:05 Pacific		
Dissolved HC Gases	02/10/12	5 day prelim results

Reviewed By Date

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/28/2012
CarrierName: FedEx
AirbillNo: 7979 9807 6138

CHAIN OF CUSTODY RECORD
Site #: A3TA
Case Complete: False

No: 3-012812-114228-0015
Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
FB04	Aqueous/ Joel Munson	Grab	DRO(7), DRO(7)	631 (-NA- / 1000mlAmber), 661 (-NA- / 1000mlAmber) (2)	FB04	01/26/2012 09:13	
HW05	Drinking Water/ Tom Sedlacek	Grab	DRO(7), DRO(7)	662 (-NA- / 1000mlAmber), 692 (-NA- / 1000mlAmber) (2)	HW05	01/26/2012 11:35	
HW06	Drinking Water/ Bryan Berna	Grab	DRO(7), DRO(7)	505 (-NA- / 1000mlAmber), 535 (-NA- / 1000mlAmber) (2)	HW06	01/26/2012 15:30	
HW12	Drinking Water/ Mike Ferrier	Grab	DRO(7), DRO(7)	600 (-NA- / 1000mlAmber), 630 (-NA- / 1000mlAmber) (2)	HW12	01/26/2012 13:23	
HW14-P	Drinking Water/ Mike Ferrier	Grab	DRO(7), DRO(7)	567 (-NA- / 1000mlAmber), 597 (-NA- / 1000mlAmber) (2)	HW14-P	01/26/2012 19:15	

Special Instructions: Cooler #1 Rec'd @ 3°C
Custody Seals OK

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: DRO=11-Diesel Range Organics

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
10	[illegible]	1/28/12									
			[illegible]	1/30/12	8:30						

00017

00011

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/28/2012
CarrierName: FedEx
AirbillNo: 7931 6771 1039

CHAIN OF CUSTODY RECORD
Site #: A3TA
Case Complete: False

No: 3-012812-143039-0019
Lab: EPA R8 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Included on work order 1201033

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
FB05	Aqueous/ Joel Munson	Grab	DRO(7), GRO(7), GRO(7), RSK-175(7), RSK-175(7), DRO(7)	709 (-NA- / 1000mlAmber), 710 (HCl / 40mlGlassVial), 711 (HCl / 40mlGlassVial), 713 (HCl / 40mlGlassVial), 714 (HCl / 40mlGlassVial), 739 (-NA- / 1000mlAmber) (6)	FB05 vial broken upon receipt.	01/27/2012 09:40	No tags on containers 1/30/12
HW01	Drinking Water/ Bryan Berna	Grab	DRO(7), DRO(7), GRO(7), GRO(7)	918 (-NA- / 1000mlAmber), 919 (-NA- / 1000mlAmber), 920 (-NA- / 40mlGlassVial), 921 (-NA- / 40mlGlassVial) (4)	HW01	01/25/2012 16:31	
HW08a	Drinking Water/ Bryan Berna	Grab	RSK-175(7), RSK-175(7)	934 (-NA- / 40mlGlassVial), 935 (-NA- / 40mlGlassVial) (2)	HW08a	01/25/2012 11:46	
HW24-P	Drinking Water/ Mike Ferrier	Grab	DRO(7), GRO(7), GRO(7), RSK-175(7), RSK-175(7), DRO(7)	805 (-NA- / 1000mlAmber), 806 (HCl / 40mlGlassVial), 807 (HCl / 40mlGlassVial), 809 (HCl / 40mlGlassVial), 810 (HCl / 40mlGlassVial), 835 (-NA- / 1000mlAmber) (6)	HW24	01/27/2012 13:18	No tags
TB02	Aqueous/ Scout Dellamia	Grab	RSK-175(7), RSK-175(7)	223 ~~926~~ (HCl / 40mlGlassVial), 224 ~~927~~ (HCl / 40mlGlassVial) (2)	TB02	01/27/2012 08:07 1/25/12 07:55	labels and COC disagree
TB03	Aqueous/ Dan Buckley	Grab	RSK-175(7), RSK-175(7)	229 ~~932~~ (HCl / 40mlGlassVial); 230 ~~933~~ (HCl / 40mlGlassVial) (2)	TB03	01/25/2012 08:00	tag #s disagree

Special Instructions: Cooler # 2, 3°C Custody Seals OK

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

RB 1/30/12

Analysis Key: DRO=11-Diesel Range Organics, GRO=11-Gasoline Range Organics, RSK-175=11-Dissolved Gases_Meth,Ethe,Etha

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
22	[signature]	1/28/12	Fed Ex								
			[signature]	1/30/12	8:30						

00018

00015

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/28/2012
CarrierName: FedEx
AirbillNo: 7931 6771 1039

CHAIN OF CUSTODY RECORD
Site #: A3TA
Case Complete: False

No: 3-012812-143039-0019
Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
TB07	Aqueous/ Scout Dellamia	Grab	RSK-175(7), RSK-175(7)	707 (HCl / 40mlGlassVial), 708 (HCl / 40mlGlassVial) (2)	TB07	01/27/2012 08:07	No tags

Special Instructions: Cooler #2, Rec'd @ 3°C
Custody Seals Ok

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: DRO=11-Diesel Range Organics, GRO=11-Gasoline Range Organics, RSK-175=11-Dissolved Gases_Meth,Ethe,Etha

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
2	[illegible]	1/28/12	Fed Ex								
			[illegible]	1/30/12	8:30						

00019

000016

Cooler #3

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/26/2012
CarrierName: FedEx
AirbillNo: 7979 9807 6180

CHAIN OF CUSTODY RECORD
Site #: A3TA
Case Complete: False

No: 3-012812-115257-0016
Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
FB04	Aqueous/ Joel Munson	Grab	GRO(7), GRO(7), RSK-175(7), RSK-175(7)	632 (HCl / 40mlGlassVial), 633 (HCl / 40mlGlassVial), 635 (HCl / 40mlGlassVial), 636 (HCl / 40mlGlassVial) (4)	FB04	01/26/2012 09:13	
HW05	Drinking Water/ Tom Sedlacek	Grab	GRO(7), GRO(7), RSK-175(7), RSK-175(7)	663 (HCl / 40mlGlassVial), 664 (HCl / 40mlGlassVial), 666 (HCl / 40mlGlassVial), 667 (HCl / 40mlGlassVial) (4)	HW05	01/26/2012 11:35	
HW06	Drinking Water/ Bryan Berna	Grab	GRO(7), GRO(7), RSK-175(7), RSK-175(7)	506 (HCl / 40mlGlassVial), 507 (HCl / 40mlGlassVial), 509 (HCl / 40mlGlassVial), 510 (HCl / 40mlGlassVial) (4)	HW06	01/26/2012 15:30	
HW12	Drinking Water/ Mike Ferrier	Grab	GRO(7), GRO(7), RSK-175(7), RSK-175(7)	601 (HCl / 40mlGlassVial), 602 (HCl / 40mlGlassVial), 604 (HCl / 40mlGlassVial), 605 (HCl / 40mlGlassVial) (4)	HW12	01/26/2012 13:23	
HW14	Drinking Water/ Mike Ferrier	Grab	DRO(7), GRO(7), GRO(7), RSK-175(7), RSK-175(7), DRO(7)	536 (-NA- / 1000mlAmber), 537 (HCl / 40mlGlassVial), 538 (HCl / 40mlGlassVial), 540 (HCl / 40mlGlassVial), 541 (HCl / 40mlGlassVial), 566 (-NA- / 1000mlAmber) (6)	HW14	01/26/2012 17:13	

00026

Special Instructions: Cooler #3 - custody seals intact. received @ 1°C

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: GRO=11-Gasoline Range Organics, RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, DRO=11-Diesel Range Organics

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
22	Dal Tilly	1/29/12	FedEx	7979	9807	6180	→		RMM EPA R9 LAB	1/30/12	0830

00017

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/26/2012
CarrierName: FedEx
AirbillNo: 7979 9807 6180

CHAIN OF CUSTODY RECORD
Site #: A3TA
Case Complete: False

cooler #3

No: 3-012812-115257-0016
Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
HW14-P	Drinking Water/ Mike Ferrier	Grab	GRO(7), GRO(7), RSK-175(7), RSK-175(7)	568 (HCl / 40mlGlassVial), 569 (HCl / 40mlGlassVial), 571 (HCl / 40mlGlassVial), 572 (HCl / 40mlGlassVial) (4)	HW14-P	01/26/2012 19:15	
TB04	Aqueous/ Dan Buckley	Grab	RSK-175(7), RSK-175(7)	497 (HCl / 40mlGlassVial), 498 (HCl / 40mlGlassVial) (2)	TB04	01/26/2012 08:31	
TB05	Aqueous/ Dan Buckley	Grab	RSK-175(7), RSK-175(7)	503 (HCl / 40mlGlassVial), 504 (HCl / 40mlGlassVial) (2)	TB05	01/26/2012 08:34	

Special Instructions: cooler #3 - custody seals intact received @ 1°C

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: GRO=11-Gasoline Range Organics, RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, DRO=11-Diesel Range Organics

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
8	[signature]	1/28/12	Fed Ex	7979	9807	6180 →			[signature] EPA RC LAB	1/30/12	0830

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DIM0276600

DIM0276624

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/28/2012
CarrierName: FedEx
AirbillNo: 7979 9607 6191

CHAIN OF CUSTODY RECORD
Site #: A3TA
Case Complete: False

No: 3-012812-113023-0014
Lab: EPA R9 Laboratory
Lab Contact:
Lab Phone: 510.412.2389

Sample #	Matrix/Sampler	Coll. Method	Analysis/Turnaround	Tag/Preservative/Bottles	Station Location	Collected	For Lab Use Only
HW17	Drinking Water/ Bryan Berna	Grab	DRO(7), GRO(7), GRO(7), RSK-175(7), RSK-175(7), DRO(7)	741 (-NA- / 1000mlAmber), 742 (HCl / 40mlGlassVial), 743 (HCl / 40mlGlassVial), 745 (HCl / 40mlGlassVial), 746 (HCl / 40mlGlassVial), 771 (-NA- / 1000mlAmber) (6)	HW17	01/27/2012 11:40	No tags on containers
HW24	Drinking Water/ Mike Ferrier	Grab	DRO(7), GRO(7), GRO(7), RSK-175(7), RSK-175(7), DRO(7)	774 (-NA- / 1000mlAmber), 775 (HCl / 40mlGlassVial), 776 (HCl / 40mlGlassVial), 778 (HCl / 40mlGlassVial), 779 (HCl / 40mlGlassVial), 804 (-NA- / 1000mlAmber) (6)	HW24	01/27/2012 12:09	No tags on containers
TB06	Aqueous/ Scout Dellamia	Grab	RSK-175(7), RSK-175(7)	701 (HCl / 40mlGlassVial), 702 (HCl / 40mlGlassVial) (2)	TB06	01/27/2012 08:05	No tags

Special Instructions: Cooler # 4, Rec'd @ 3°C Custody Seals OK

Shipment for Case Complete? N
Samples Transferred From Chain of Custody #

Analysis Key: DRO=11-Diesel Range Organics, GRO=11-Gasoline Range Organics, RSK-175=11-Dissolved Gases_Meth,Ethe,Etha

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
14	[illegible]	1/28/12	Fed Ex								
			[illegible]	1/30/12	8:30						

00022

000019

00023

Sample Preparation

: 00020

DIM0276600 DIM0276626

PREPARATION BENCH SHEET

B2A0071

EPA Region 9 Laboratory

Printed: 1/30/2012 1:11:34PM

Project: R33911 - Dimock Residential Groundwater

Matrix: Water **Analysis:TPH - Extractable** **Prepared using: Extractables - 3520C CLLE** **Surrogate used: 1L27008**

Lab Number	Sample Name	Prepared	Initial Vol., mL	Final Vol.,mL	Spike ID	Source ID	uL Spike	uL Surrogate	Prepared By	pH	Initial wt., g	Final wt., g	Extraction Comments
1201033-01 B	FB03	01/30/12 11:07	992.44	3				500	SUL	5	1494.15	501.71	
1201033-02 B	HW02	01/30/12 11:07	981.45	3				500	SUL	6	1483.03	501.58	Yellow in color, with orange-colored particles
1201033-03 B	HW02z	01/30/12 11:07	1003.65	3				500	SUL	6	1505.88	502.23	Yellow in color, with orange-colored particles
1201033-04 B	HW08a	01/30/12 11:07	966.26	3				500	SUL	6	1469.8	503.54	Light yellow in color
1201034-01 A	FB04	01/30/12 11:07	973.84	3				500	SUL	5	1476.25	502.41	
1201034-02 A	HW05	01/30/12 11:07	1025.83	3				500	SUL	6	1526.95	501.12	Light yellow in color
1201034-03 A	HW06	01/30/12 11:07	1024.9	3				500	SUL	8	1527.92	503.02	Yellow in color, cloudy
1201034-04 A	HW12	01/30/12 11:07	977.96	3				500	SUL	7	1481.12	503.16	Yellow in color, with orange-colored particles
1201034-05 A	HW14-P	01/30/12 11:07	1042.38	3				500	SUL	6	1546.28	503.9	
1201034-06 A	HW14	01/30/12 11:07	1047.33	3				500	SUL	6	1552.2	504.87	
1201034-09 A	FB05	01/30/12 11:07	987.21	3				500	SUL	5	1490.4	503.19	
1201034-10 A	HW01	01/30/12 11:07	985.97	3				500	SUL	7	1489.44	503.47	
1201034-11 A	HW24-P	01/30/12 11:07	1056.02	3				500	SUL	8	1558.96	502.94	

00824

00021

TD 01-31-12

Preparation Reviewed By Date

PREPARATION BENCH SHEET

B2A0071

EPA Region 9 Laboratory **Printed: 1/30/2012 1:11:34PM**

Project: R33911 - Dimock Residential Groundwater

Matrix: Water **Analysis:TPH - Extractable** **Prepared using: Extractables , 3520C CLLE** **Surrogate used: 1L27008**

Lab Number	Sample Name	Prepared	Initial Vol., mL	Final Vol.,mL	Spike ID	Source ID	uL Spike	uL Surrogate	Prepared By	pH	Initial wt., g	Final wt., g	Extraction Comments
1201034-15 A	HW17	01/30/12 11:07	1047.68	3				500	SUL	7	1551.31	503.63	
1201034-16 A	HW24	01/30/12 11:07	1046.51	3				500	SUL	8	1549.8	503.29	
B2A0071-BLK1	Blank	01/30/12 11:07	1000	3			0	500	SUL		1624	624	pH 5
B2A0071-BS1	LCS	01/30/12 11:07	1000	3	1H09011		500	500	SUL		1624	624	pH 5

Spike Check witnessed by JH 1/30/12

Dimock TPH, SDGs 11027B & 12030A. All samples adjusted to pH <2. Glasswool rinsed 10/14/11. No MS/MSD for either SDG, per RJB (extra QC bottles not provided).

00025

Reagents

Reagent #	Description
1D15018	Sulfuric Acid 1:1
1G13002	Dichloromethane/LN:444 Recycled
1J04003	Sodium Sulfate/K19623
ZA13011	Dichloromethane/LN DE934

Start 1/30/12 1330
Stop 1/31/12 0730

00022

TD 01-31-12
Preparation Reviewed By Date

INITIAL CALIBRATION

DIM0276629

Injection Log

Operator: TD
Directory: C:\msdchem\1\2012\DATA\013012DA\

Vial	File Name	Mult	Sample Info	Misc Info		Date Acquired
1	01301201.D	1	2010046-IBL1	2A11003	IB	30 Jan 2012 12:01 pm
2	01301202.D	1	2010046-ICB1	2A11010	RT	30 Jan 2012 12:18 pm
3	01301203.D	1	2010046-CAL1	2A11004	DRO-QLS	30 Jan 2012 12:36 pm
4	01301204.D	1	2010046-CAL2	2A11006	DRO-B	30 Jan 2012 12:54 pm
5	01301205.D	1	2010046-CAL3	2A11005	DRO-CV	30 Jan 2012 1:12 pm
6	01301206.D	1	2010046-CAL4	2A11007	DRO-D	30 Jan 2012 1:30 pm
7	01301207.D	1	2010046-CAL5	2A11008	DRO-E	30 Jan 2012 1:48 pm
8	01301208.D	1	2010046-CAL6	2A11004	OIL-A	30 Jan 2012 2:06 pm
9	01301209.D	1	2010046-CAL7	2A11013	OIL-B	30 Jan 2012 2:25 pm
10	01301210.D	1	2010046-CAL8	2A11012	OIL-CV	30 Jan 2012 2:43 pm
11	01301211.D	1	2010046-CAL9	2A11014	OIL-D	30 Jan 2012 3:01 pm
12	01301212.D	1	2010046-CALA	2A11015	OIL-E	30 Jan 2012 3:19 pm
13	01301213.D	1	2010046-IBL2	2A11003	IB	30 Jan 2012 3:37 pm
14	01301214.D	1	2010046-SCV1	2A11009	DRO SCV	30 Jan 2012 3:55 pm
15	01301215.D	1	2010046-SCV2	2A11019	OIL SCV	30 Jan 2012 4:13 pm
16	01301216.D	1	2010046-ICB2	2A11022	Hydraulic Fluid	30 Jan 2012 4:31 pm
17	01301217.D	1	2010046-ICB3	2A11026	Mineral Spirit	30 Jan 2012 4:49 pm
18	01301218.D	1	2010046-ICB4	2A11027	Naphtha	30 Jan 2012 5:07 pm
19	01301219.D	1	2010046-ICB5	2A11021	GAS	30 Jan 2012 5:25 pm
20	01301220.D	1	2010046-ICB6	1G15010	Kerosene	30 Jan 2012 5:43 pm
21	01301221.D	1	2010046-ICB7	2A11023	Jet Fuel	30 Jan 2012 6:02 pm
22	01301222.D	1	2010046-ICB8	2A11028	Turpentine	30 Jan 2012 6:20 pm
23	01301223.D	1	2010046-ICB9	2A11029	Lacqure Thinner	30 Jan 2012 6:38 pm
24	01301224.D	1	2010046-ICBA	2A11025	Stodard Solvent	30 Jan 2012 6:56 pm

1201006

Response Factor Report AG7890_2

Method Path : C:\msdchem\1\2012\METHOD\
Method File : 013012DROA.M
Title : GC TPH Method
Last Update : Tue Jan 31 09:45:52 2012
Response Via : Initial Calibration

Calibration Files
50 =01301203.D 150 =01301204.D 500 =01301205.D
1250 =01301206.D 4000 =01301207.D OIL1 =01301208.D

		Compound	50	150	500	1250	4000	OIL1	Avg	%RSD
1)	HM	Diesel (TPH)	4.006	3.630	3.163	3.526	3.617		3.588 E6	8.38
2)	H	OIL						1.883	1.915 E6	4.11
3)	S	Surrogate	3.698	3.473	3.358	3.655	3.578		3.552 E6	3.89

(#) = Out of Range ### Number of calibration levels exceeded format ###

Compound List Report AG7890_2

Method Path : C:\msdchem\1\2012\METHOD\
Method File : 013012DROA.M
Title : GC TPH Method
Last Update : Tue Jan 31 09:45:52 2012
Response Via : Initial Calibration

Total Cpnds : 3

PK#		Compound Name	Exp_RT	Rel_RT	Cal	A/H	ID
1	HM	Diesel (TPH)	4.080	1.000	A	A	R
2	H	OIL	6.590	1.000	A	A	R
3	S	Surrogate	5.680	1.000	A	A	L

Cal A = Average L = Linear LO = Linear w/origin Q = Quad QO = Quad w/origin
A/H = Area or Height
ID R = R.T. B = R.T. & Q Q = Qvalue L = Largest A = All

013012DROA.M Tue Jan 31 09:58:36 2012

Edit Compounds -- Compound #1 -- Diesel (TPH)

Search by: Ret Time | Name | Index | Find Compound

- Compound Database
- External Standard Compoun
  - Diesel (TPH)
  - OIL
  - Surrogate

Identification | Calibration | User-Defined | Advanced | Reporting

Name: Diesel (TPH) | Concentration Units: ug/mL | Compound Type: HM

Signals to Be Used for Quantitation

Ret Time: 4.080 | RRT:

Extract signals from: 1.500 + 1.500 Min %

This is: 2.580 to 5.580 minutes

Quant signal: TIC | % Uncertainty

m/z | Relative Response: Rel

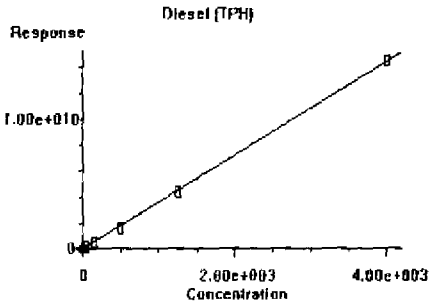
Target: TIC 100.00

Q1	0.00	0.00	20.00
Q2	0.00	0.00	20.00
Q3	0.00	0.00	20.00

Level	Concentration	Response
50	50.000000	20031453236
150	150.000000	544460939.14416
500	500.000000	1581624107.1356
1250	1250.000000	4407640392.9995
4000	4000.000000	14468039897.07
OIL1		
OIL2		
OIL3		
OIL4		
OIL5		

Quantitation Options

Quantitation type	Target compound
Sample ISTD Concentration	1.000000
Measure response by	Area
Identify by	Best RT Match
Maximum number of hits	1
Subtraction Method	Extend Area Quant
Curve Fit	Avg of Response Factors
Weight	Equal weighting



OK | Cancel | Help | Print Calibration Curve | Copy Calibration Curve

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301201.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 12:01 pm
Operator : TD
Sample : 2010046-IBL1
Misc : 2A11003 IB
ALS Vial : 1 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:24 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.695	170061334	47.872 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	95.74%
Target Compounds			
1) HM Diesel (TPH)	4.080	11154728	3.108 ug/mL
2) H OIL	6.590	3238147	1.691 ug/mL

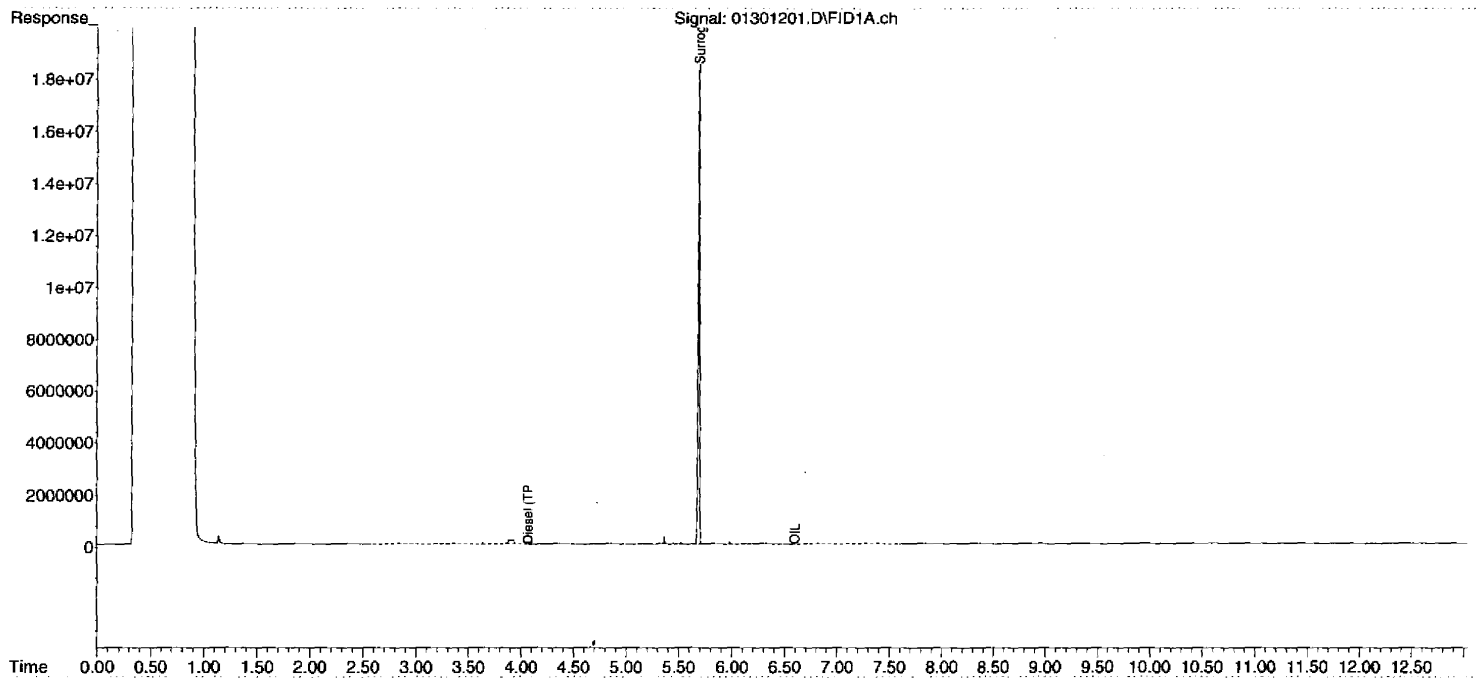
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301201.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 12:01 pm
Operator : TD
Sample : 2010046-IBL1
Misc : 2A11003 IB
ALS Vial : 1 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:24 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



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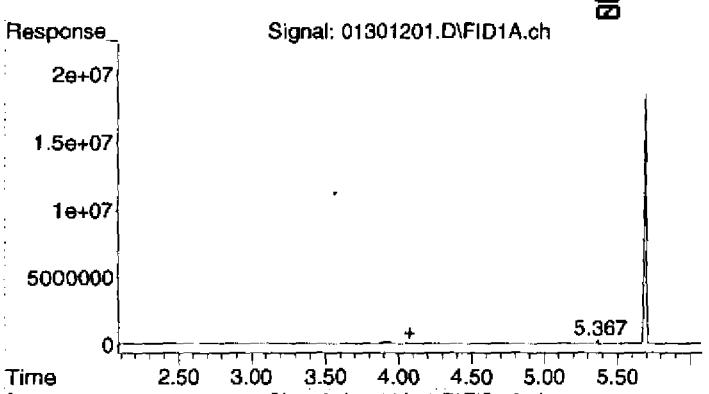
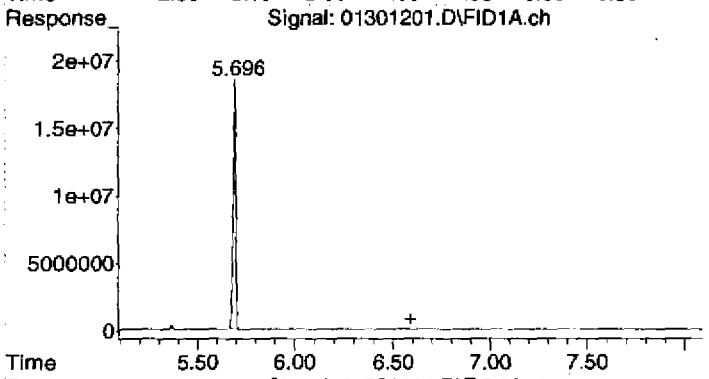


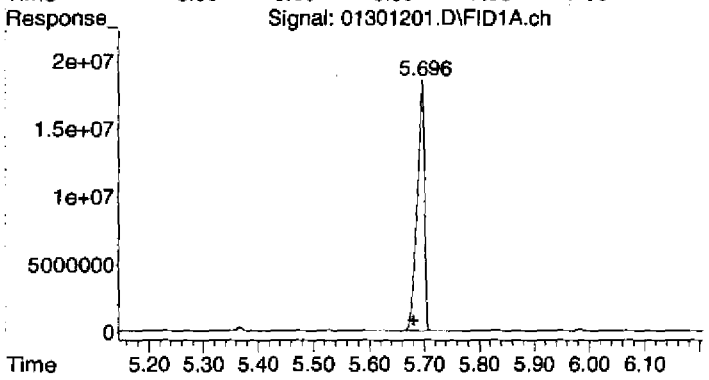
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 11154728
Conc: 3.11 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3238147
Conc: 1.69 ug/mL



#3 Surrogate

R.T.: 5.695 min
Delta R.T.: 0.015 min
Response: 170061334
Conc: 47.87 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301202.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 12:18 pm
Operator : TD
Sample : 2010046-ICB1
Misc : 2A11010 RT
ALS Vial : 2 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:28 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.674	63016276	17.739 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	35.48%#
Target Compounds			
1) HM Diesel (TPH)	4.080	482105677	134.348 ug/mL
2) H OIL	6.590	451958354	236.025 ug/mL

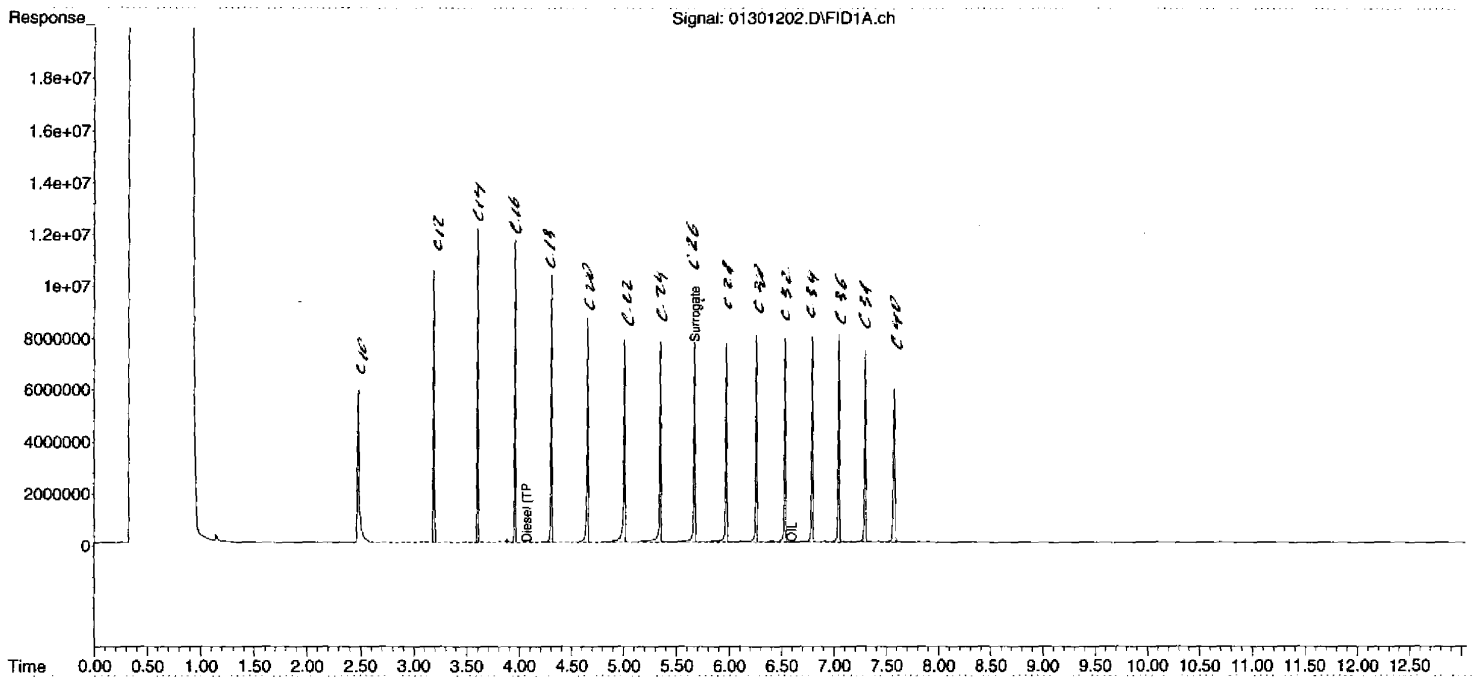
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301202.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 12:18 pm
Operator : TD
Sample : 2010046-ICB1
Misc : 2A11010 RT
ALS Vial : 2 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:28 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



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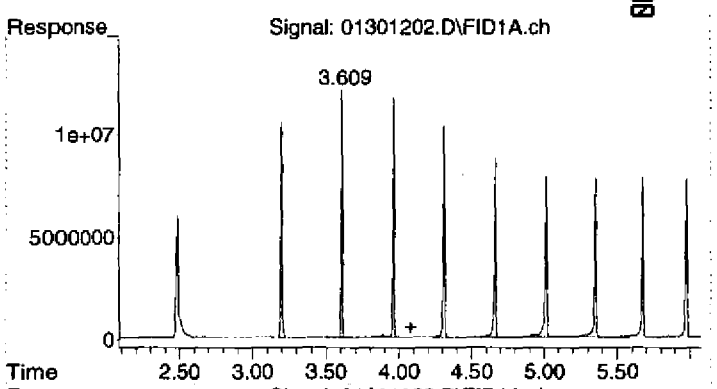
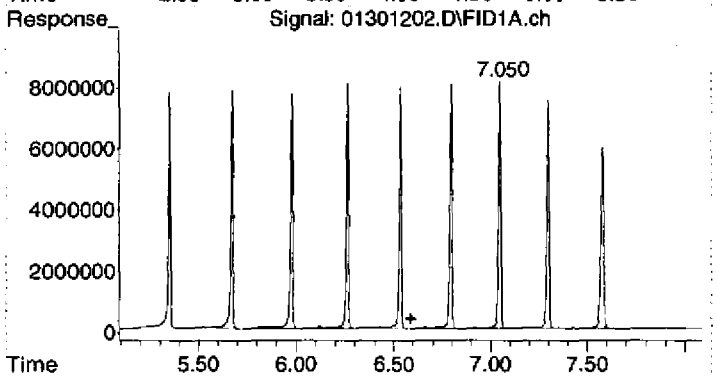


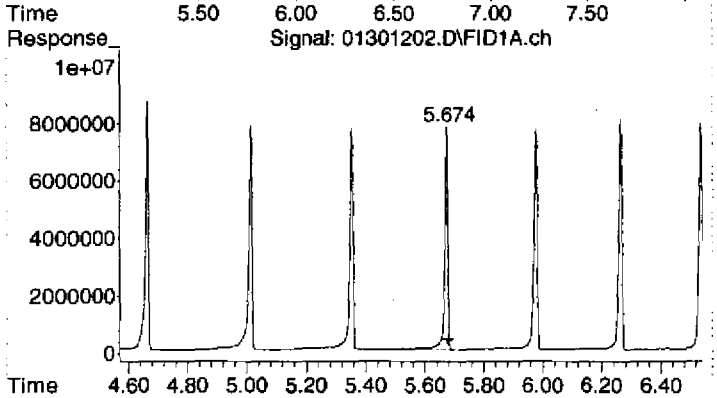
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 482105677
Conc: 134.35 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 451958354
Conc: 236.02 ug/mL



#3 Surrogate

R.T.: 5.674 min
Delta R.T.: -0.005 min
Response: 63016276
Conc: 17.74 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301203.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 12:36 pm
Operator : TD
Sample : 2010046-CAL1
Misc : 2A11004 DRO-QLS
ALS Vial : 3 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:31 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.670	36984079	9.197 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	18.39%#
Target Compounds			
1) HM Diesel (TPH)	4.080	200314592	58.211 ug/mL
2) H OIL	6.590	1833888	1.107 ug/mL

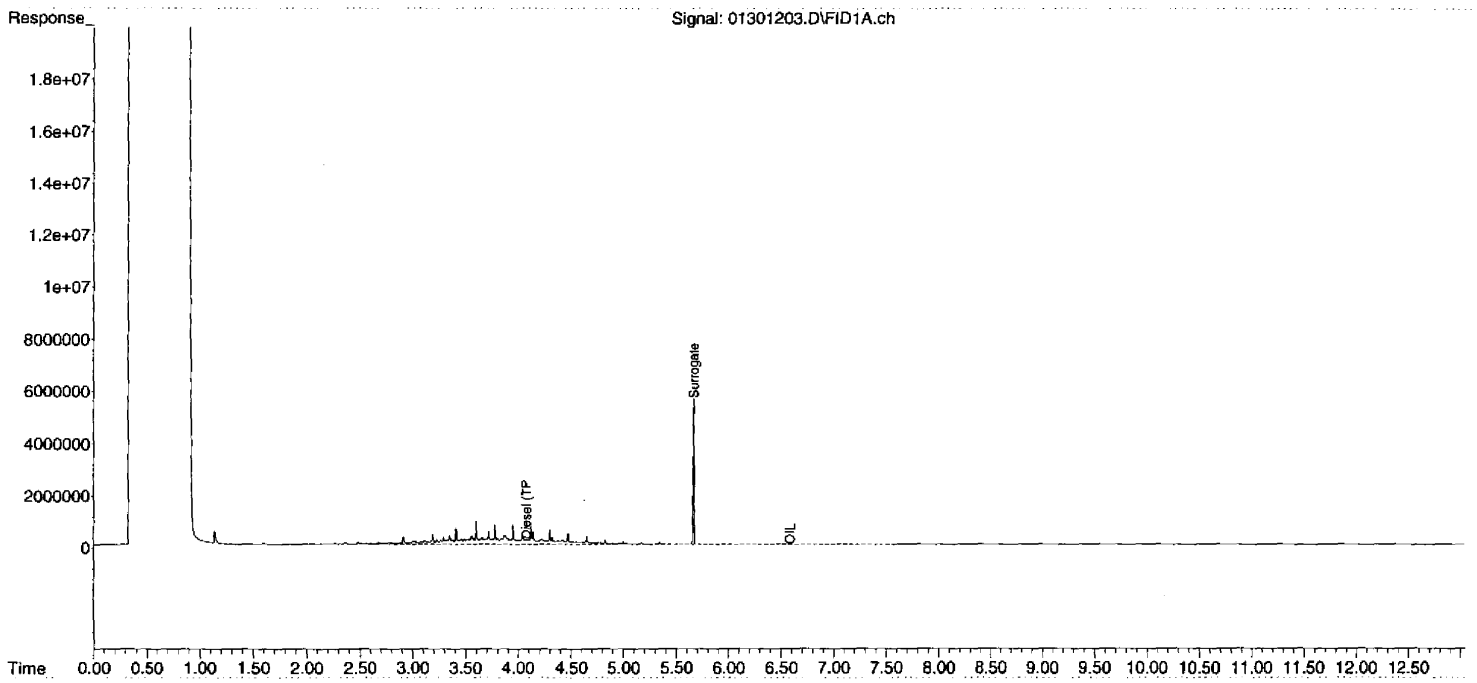
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301203.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 12:36 pm
Operator : TD
Sample : 2010046-CAL1
Misc : 2A11004 DRO-QLS
ALS Vial : 3 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:31 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



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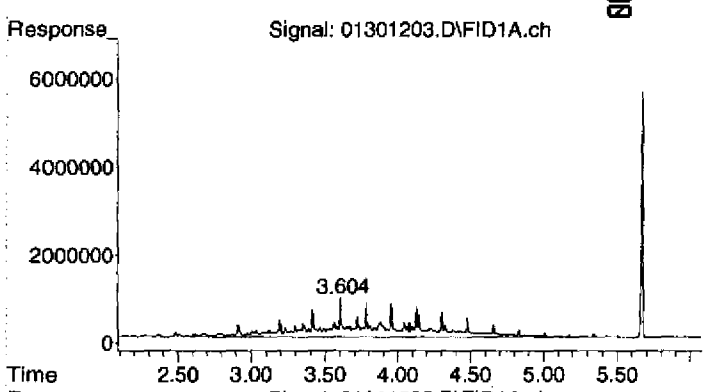
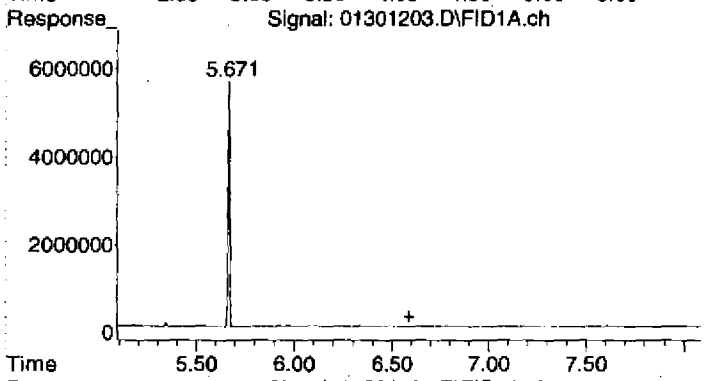


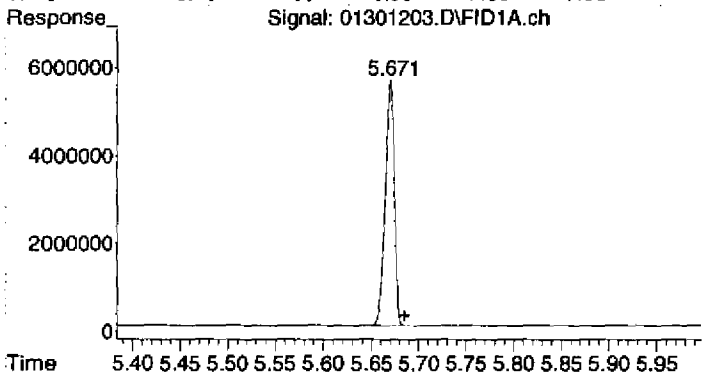
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 200314592
Conc: 58.21 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1833888
Conc: 1.11 ug/mL



#3 Surrogate

R.T.: 5.670 min
Delta R.T.: -0.015 min
Response: 36984079
Conc: 9.20 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301204.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 12:54 pm
Operator : TD
Sample : 2010046-CAL2
Misc : 2A11006 DRO-B
ALS Vial : 4 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:36 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.675	86828290	21.592 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	43.18%#
Target Compounds			
1) HM Diesel (TPH)	4.080	544460939	158.218 ug/mL
2) H OIL	6.590	2396182	1.447 ug/mL

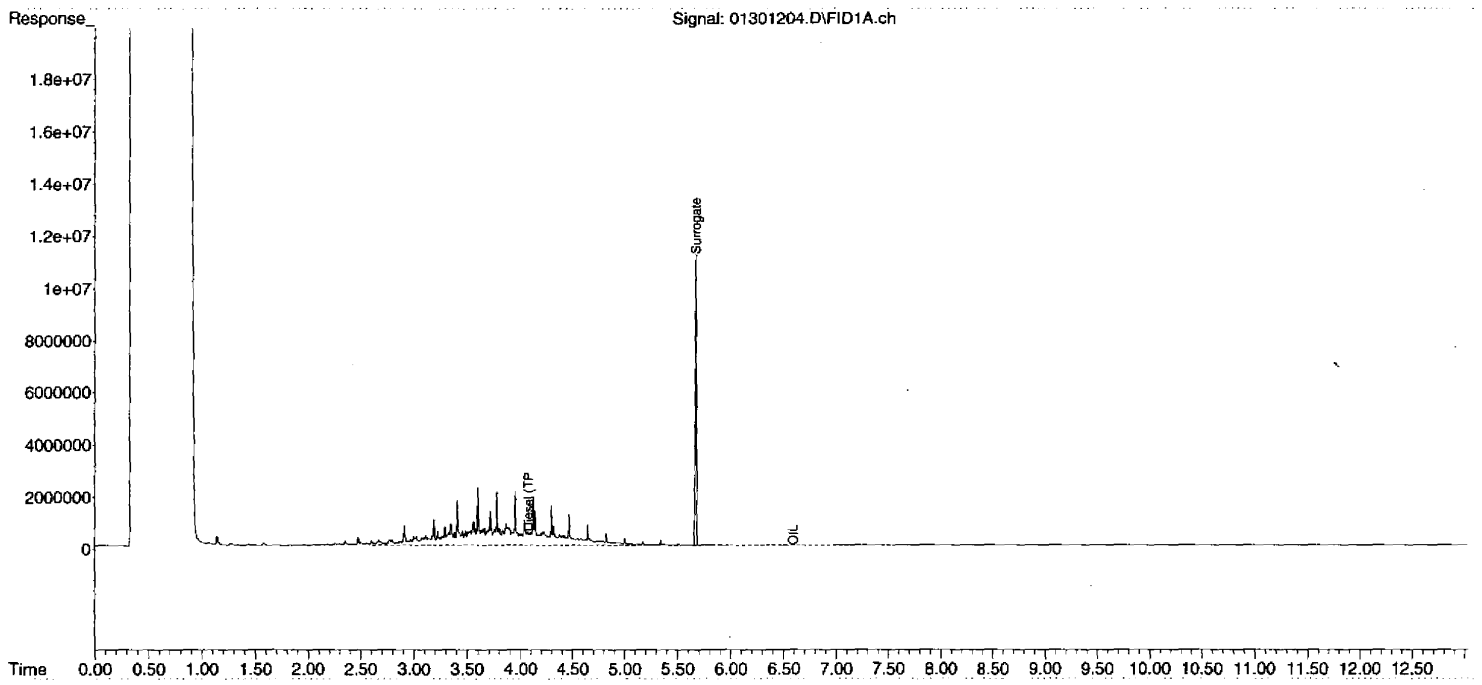
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301204.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 12:54 pm
Operator : TD
Sample : 2010046-CAL2
Misc : 2A11006 DRO-B
ALS Vial : 4 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:36 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



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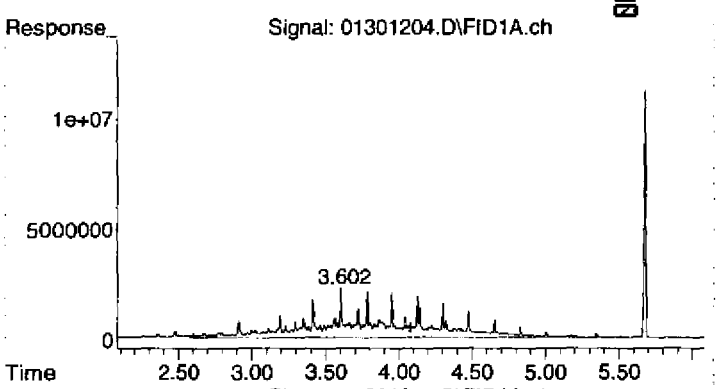
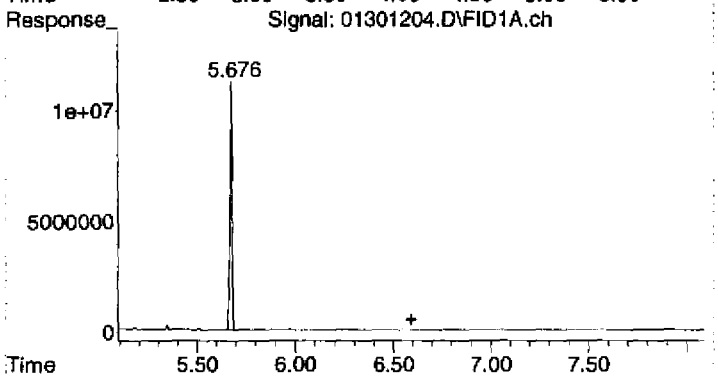


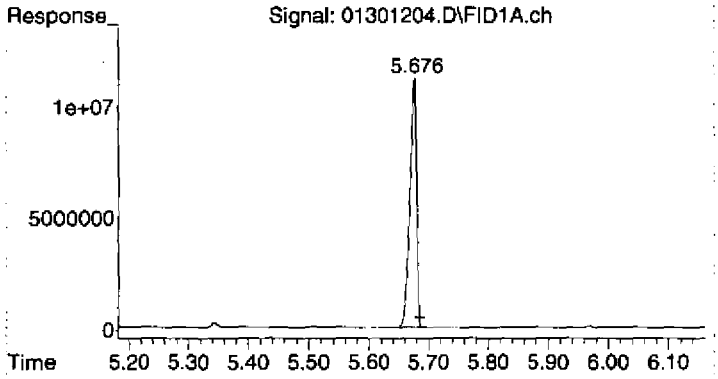
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 544460939
Conc: 158.22 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 2396182
Conc: 1.45 ug/mL



#3 Surrogate

R.T.: 5.675 min
Delta R.T.: -0.010 min
Response: 86828290
Conc: 21.59 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301205.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 1:12 pm
Operator : TD
Sample : 2010046-CAL3
Misc : 2A11005 DRO-CV
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:40 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.680	167895701	41.751 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	83.50%
Target Compounds			
1) HM Diesel (TPH)	4.080	1581624107	459.613 ug/mL
2) H OIL	6.590	3879417	2.342 ug/mL

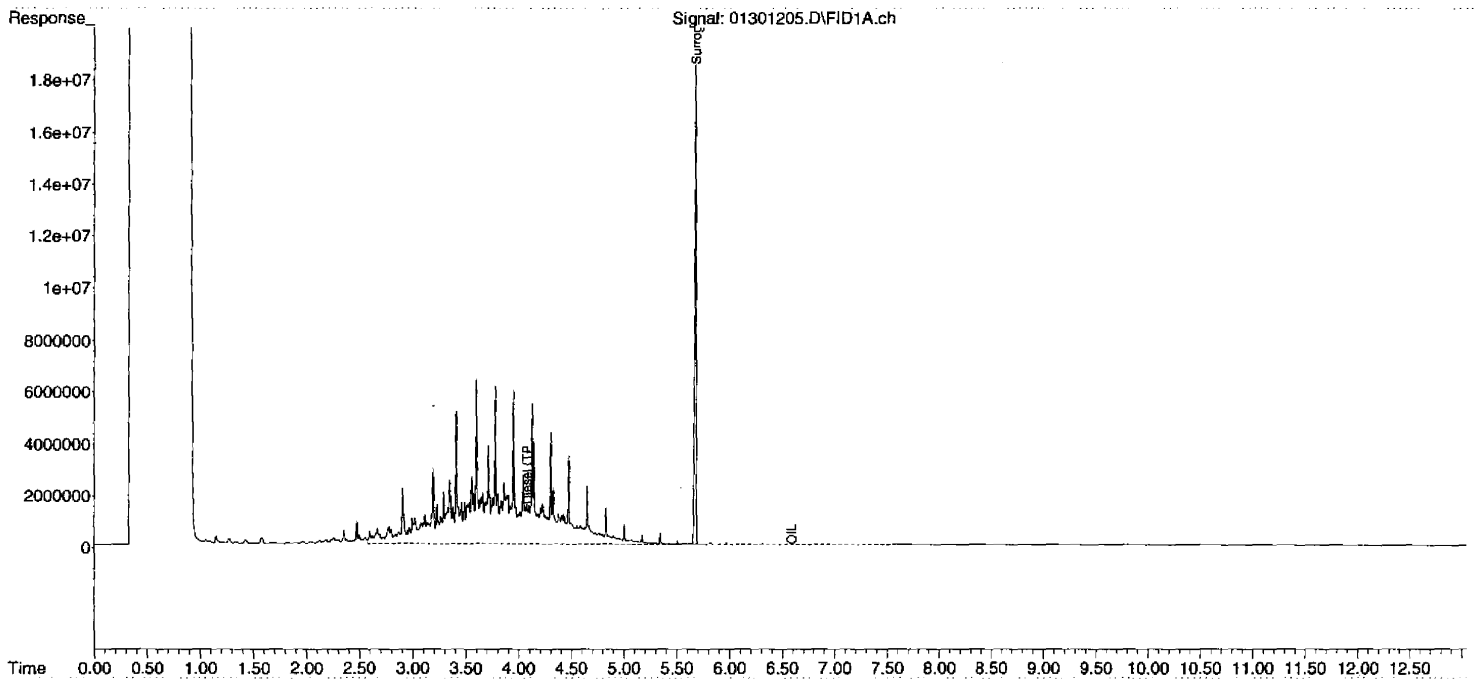
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301205.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 1:12 pm
Operator : TD
Sample : 2010046-CAL3
Misc : 2A11005 DRO-CV
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:40 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



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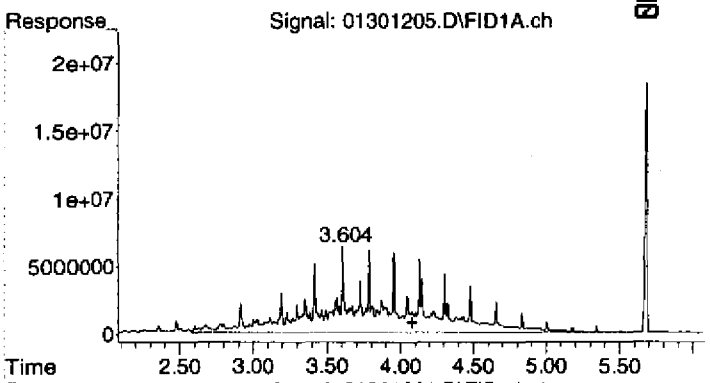
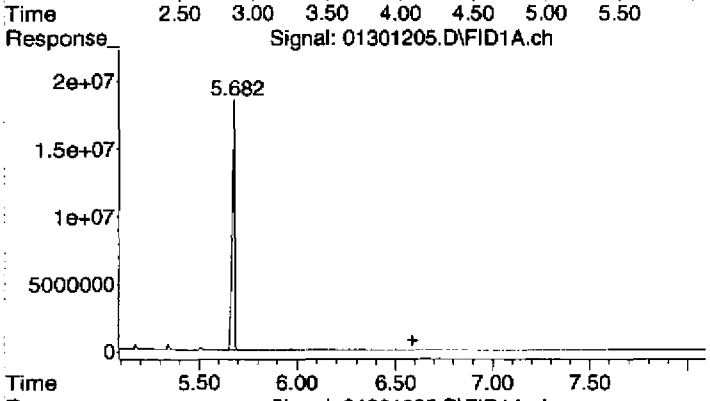


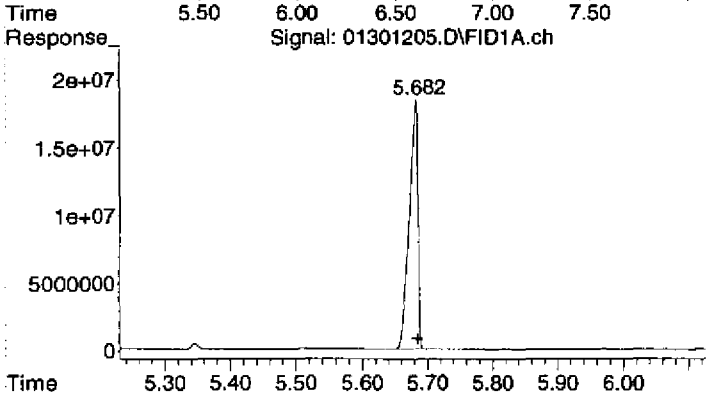
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1581624107
Conc: 459.61 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3879417
Conc: 2.34 ug/mL



#3 Surrogate

R.T.: 5.680 min
Delta R.T.: -0.005 min
Response: 167895701
Conc: 41.75 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301206.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 1:30 pm
Operator : TD
Sample : 2010046-CAL4
Misc : 2A11007 DRO-D
ALS Vial : 6 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:44 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.685	274098828	68.160 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	136.32%#
Target Compounds			
1) HM Diesel (TPH)	4.080	4407640393	1280.841 ug/mL
2) H OIL	6.590	13182105	7.958 ug/mL

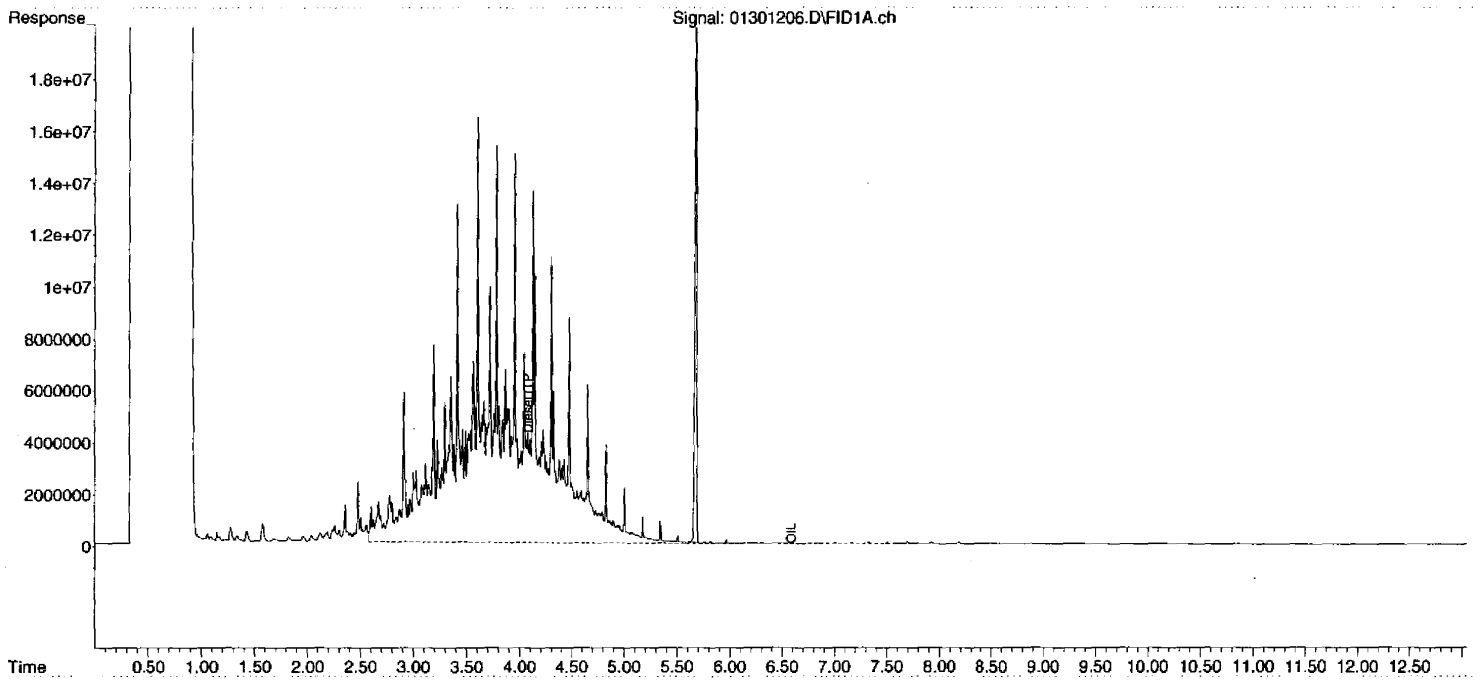
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301206.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 1:30 pm
Operator : TD
Sample : 2010046-CAL4
Misc : 2A11007 DRO-D
ALS Vial : 6 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:44 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



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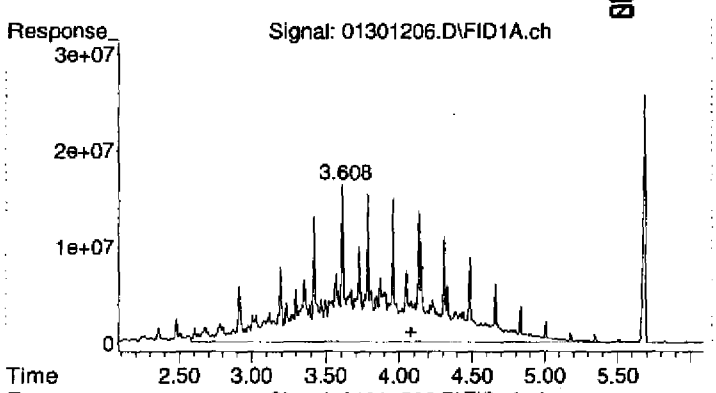
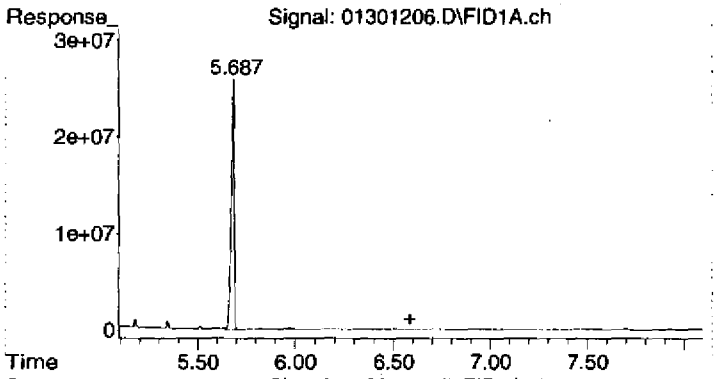
DIM0276600



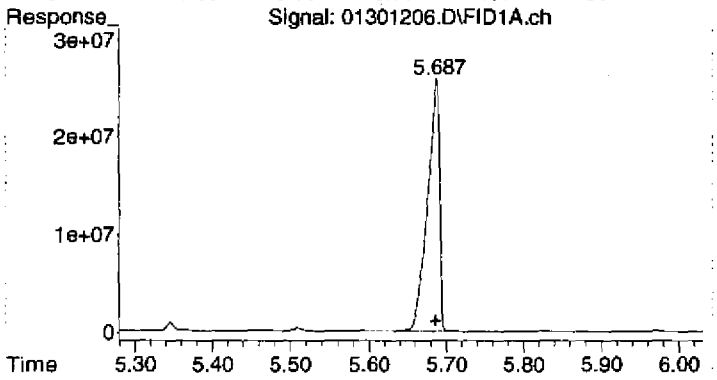
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 4407640393
Conc: 1280.84 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 13182105
Conc: 7.96 ug/mL



#3 Surrogate

R.T.: 5.685 min
Delta R.T.: 0.000 min
Response: 274098828
Conc: 68.16 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301207.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 1:48 pm
Operator : TD
Sample : 2010046-CAL5
Misc : 2A11008 DRO-E
ALS Vial : 7 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:48 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.689	357793068	88.973 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	177.95%#
Target Compounds			
1) HM Diesel (TPH)	4.080	14468099897	4204.367 ug/mL
2) H OIL	6.590	31531096	19.035 ug/mL

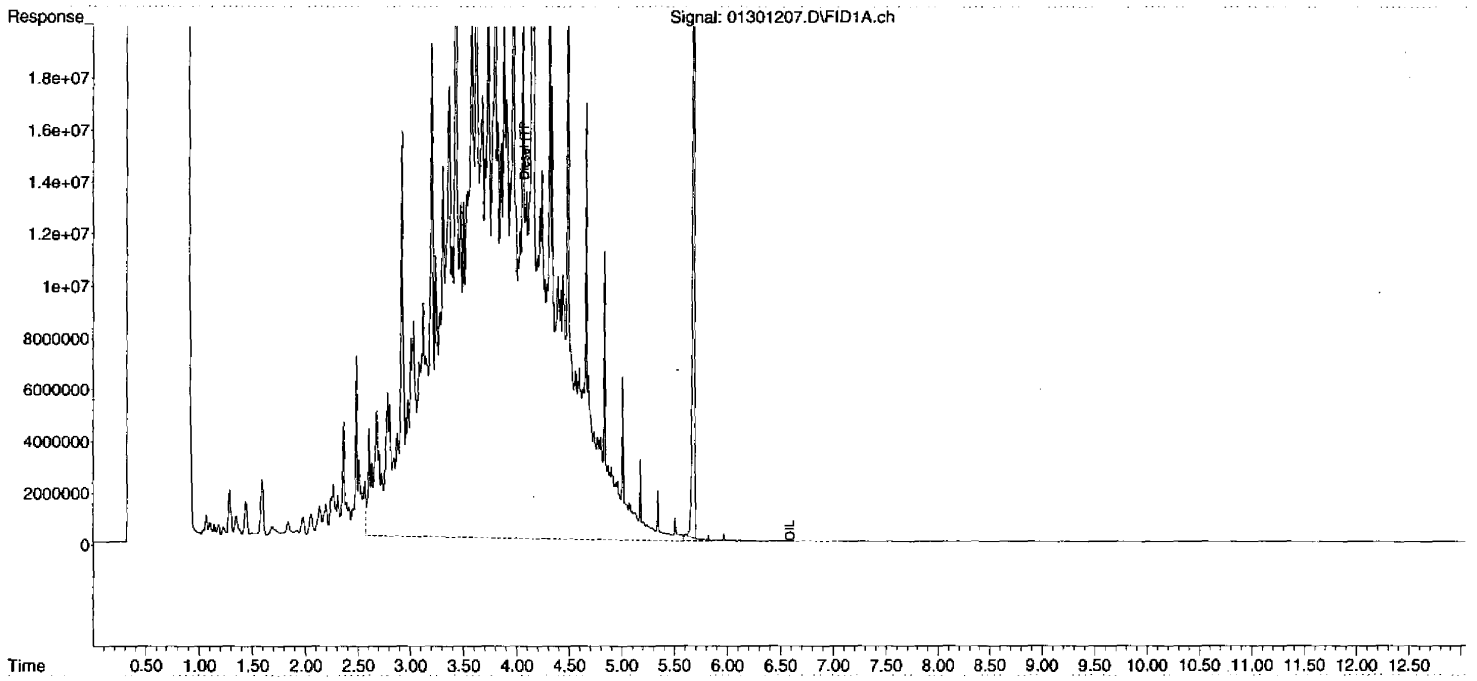
(f)=RT Delta > 1/2 Window (m)=manual int.

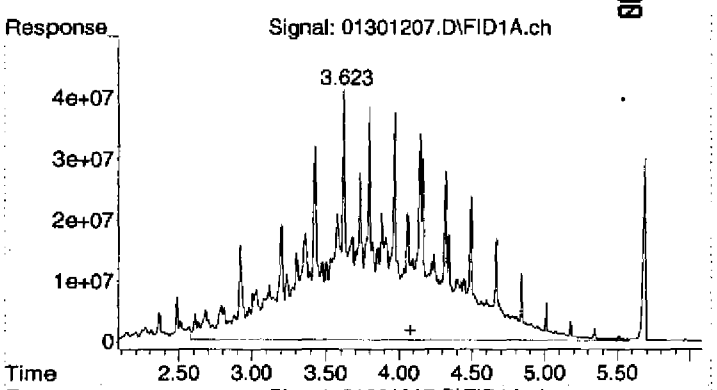
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301207.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 1:48 pm
Operator : TD
Sample : 2010046-CAL5
Misc : 2A11008 DRO-E
ALS Vial : 7 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:48 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

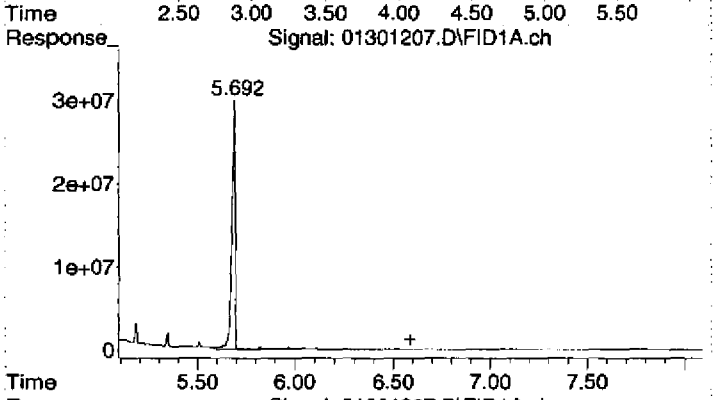
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





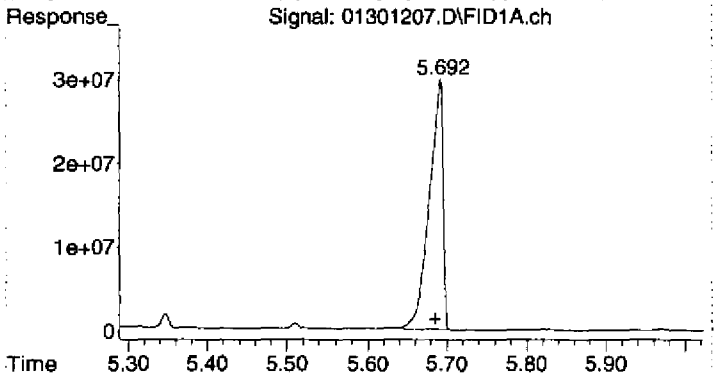
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 14468099897
Conc: 4204.37 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 31531096
Conc: 19.03 ug/mL



#3 Surrogate

R.T.: 5.689 min
Delta R.T.: 0.004 min
Response: 357793068
Conc: 88.97 ug/mL

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301208.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:06 pm
Operator : TD
Sample : 2010046-CAL6
Misc : 2A11004 OIL-A
ALS Vial : 8 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:40:50 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.680	157568506	39.183 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	78.37%
Target Compounds			
1) HM Diesel (TPH)	4.080	215783563	62.706 ug/mL
2) H OIL	6.590	376682402	227.394 ug/mLm

(f)=RT Delta > 1/2 Window (m)=manual int.

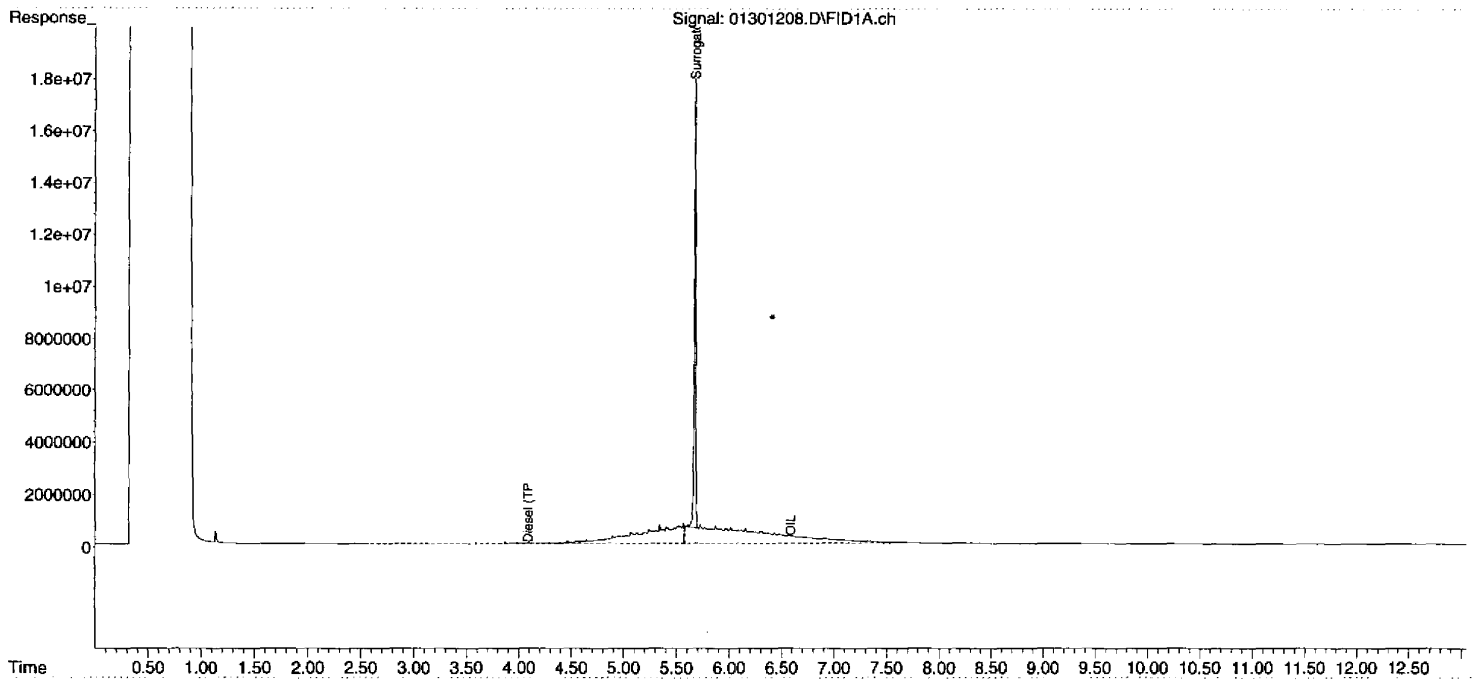
MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 01-31-12
Manual integration(s) reviewed by:
Reviewer: TL Date: 01/31/12

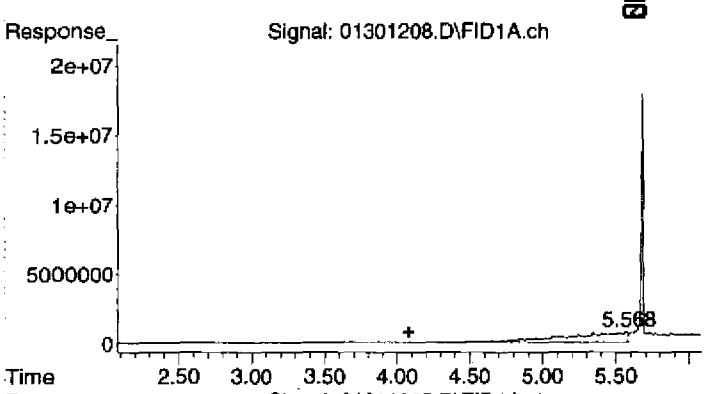
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301208.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:06 pm
Operator : TD
Sample : 2010046-CAL6
Misc : 2A11004 OIL-A
ALS Vial : 8 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:40:50 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

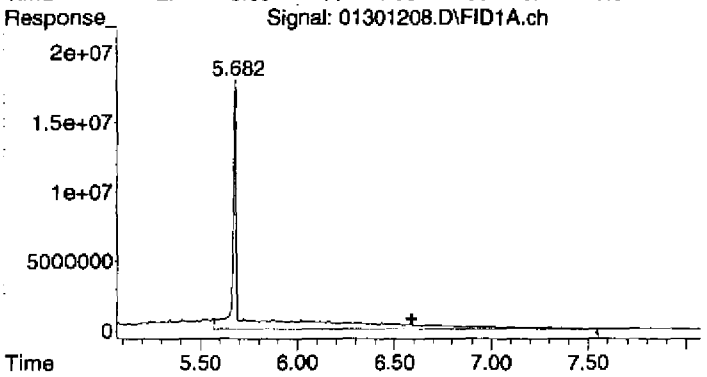
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





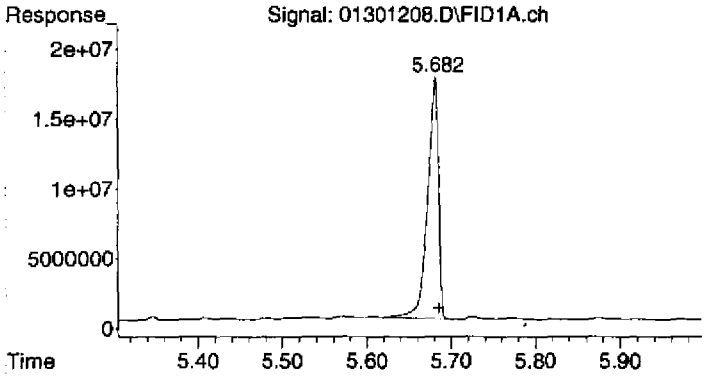
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 215783563
Conc: 62.71 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 376682402
Conc: 227.39 ug/mL m



#3 Surrogate

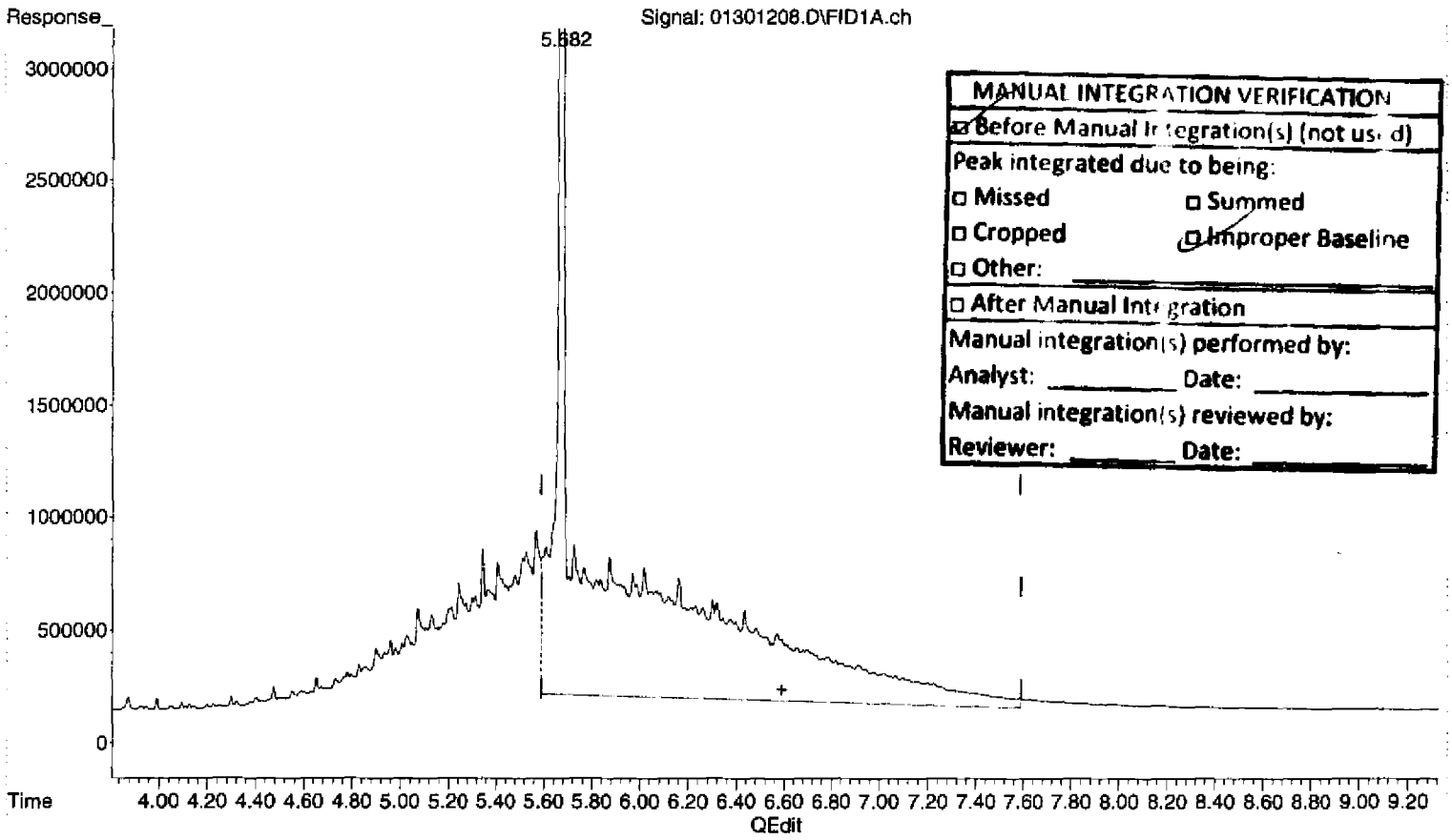
R.T.: 5.680 min
Delta R.T.: -0.005 min
Response: 157568506
Conc: 39.18 ug/mL

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301208.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:06 pm
Operator : TD
Sample : 2010046-CAL6
Misc : 2A11004 OIL-A
ALS Vial : 8 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:52 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☑ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

(2) OIL (H)

6.590min 201.886 ug/mL

response 334427629

(+) = Expected Retention Time

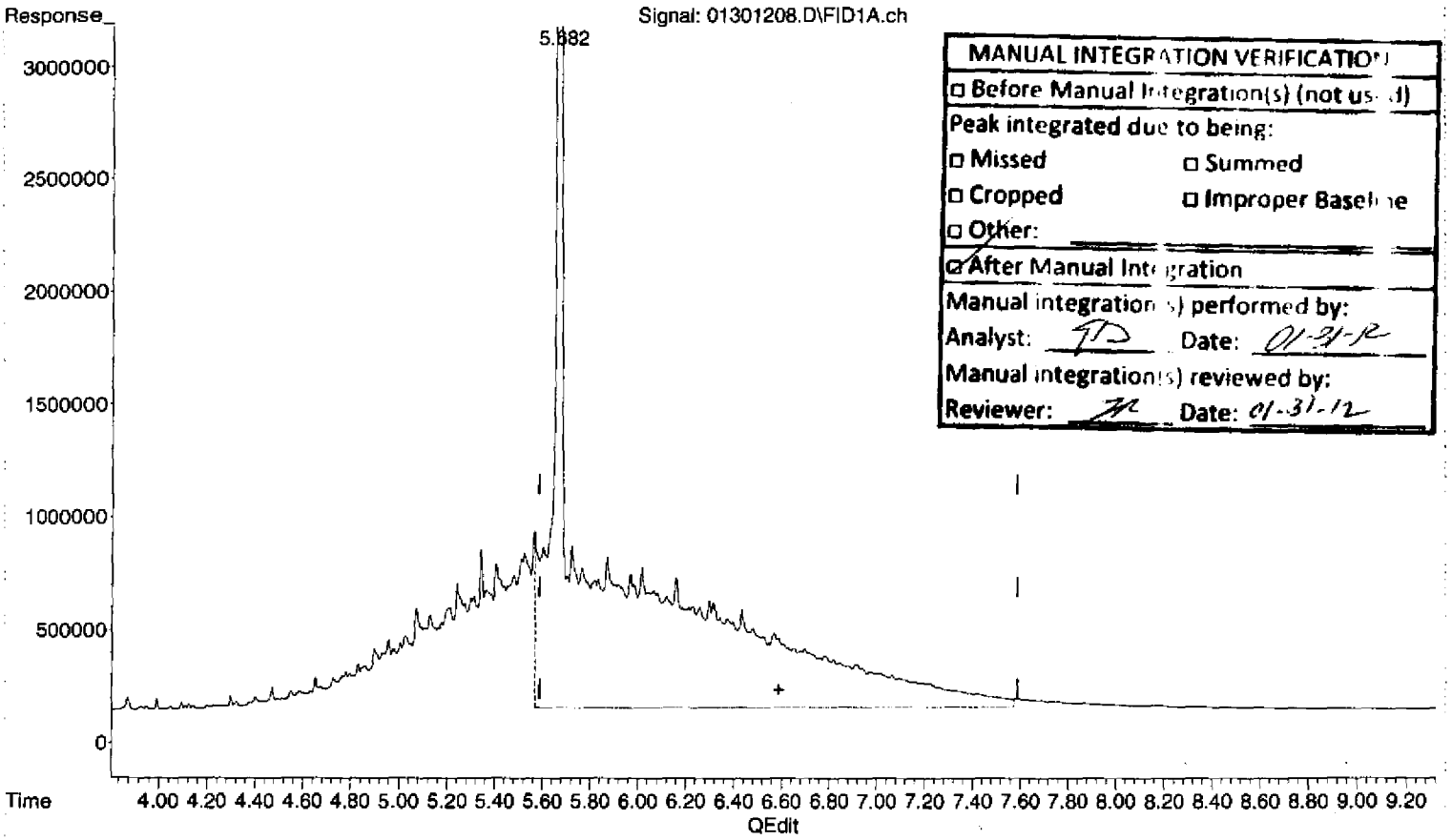
013012DROA.M Tue Jan 31 09:40:42 2012

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301208.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:06 pm
Operator : TD
Sample : 2010046-CAL6
Misc : 2A11004 OIL-A
ALS Vial : 8 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:52 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



(2) OIL (H)

6.590min 227.394 ug/mL m

response 376682402

(+) = Expected Retention Time

013012DROA.M Tue Jan 31 09:40:53 2012

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301208.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:06 pm
Operator : TD
Sample : 2010046-CAL6
Misc : 2A11004 OIL-A
ALS Vial : 8 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:52 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.680	157568506	39.183 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	78.37%
Target Compounds			
1) HM Diesel (TPH)	4.080	215783563	62.706 ug/mL
2) H OIL	6.590	334427629	201.886 ug/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

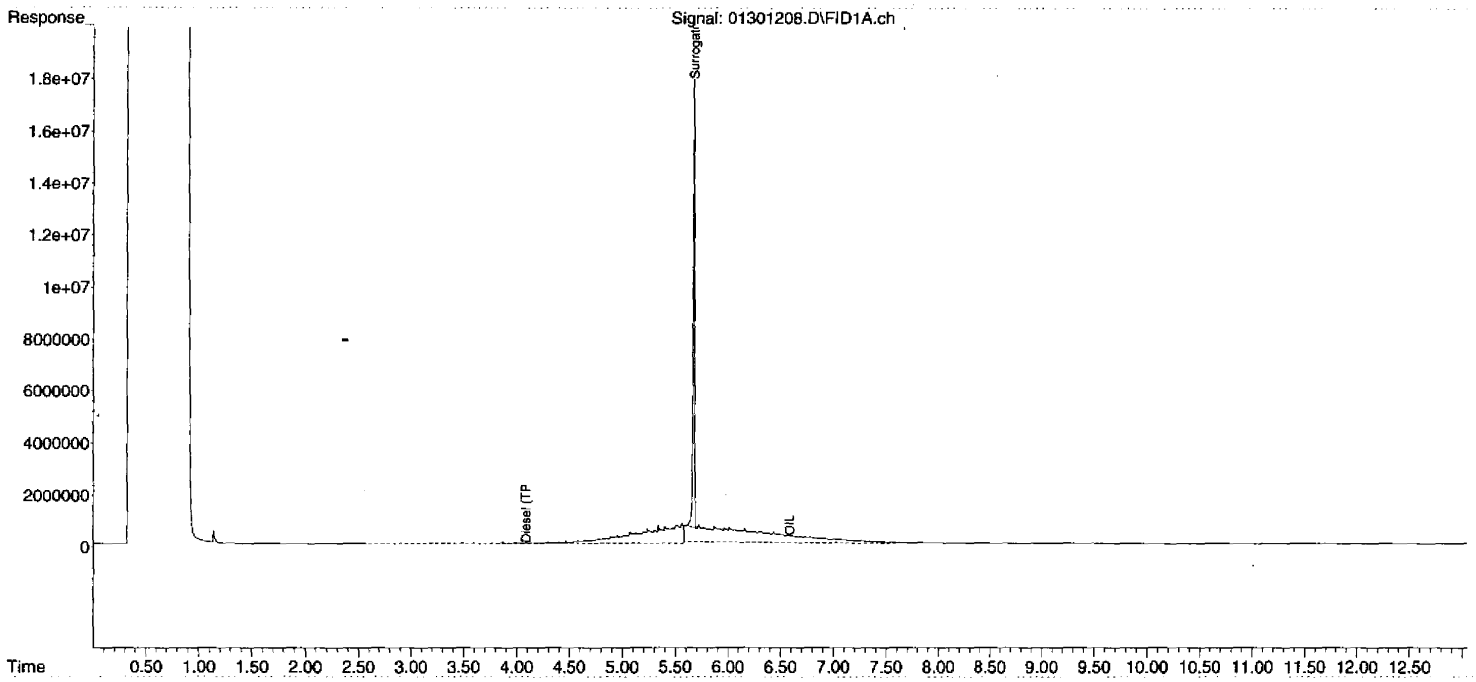
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

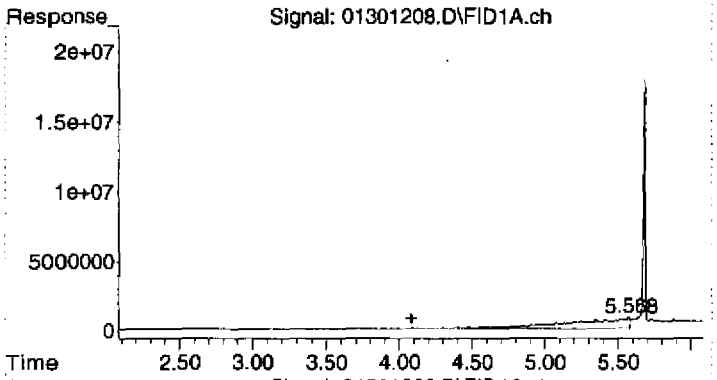
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301208.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:06 pm
Operator : TD
Sample : 2010046-CAL6
Misc : 2A11004 OIL-A
ALS Vial : 8 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:52 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

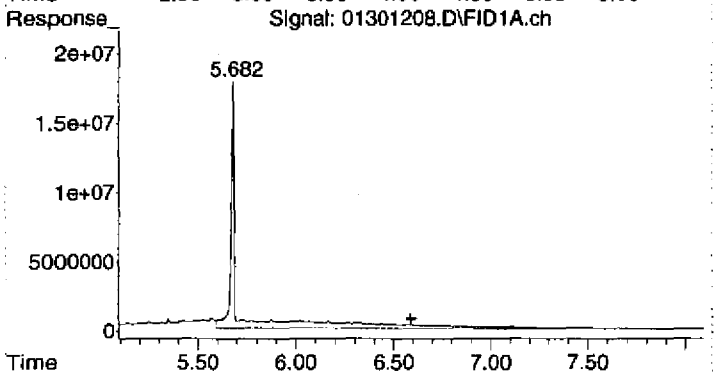
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





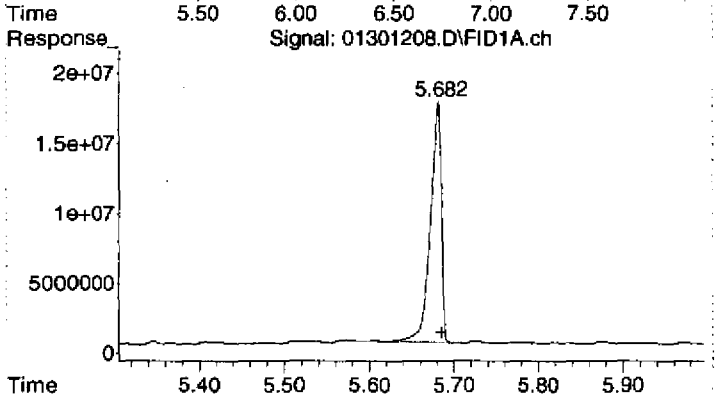
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 215783563
Conc: 62.71 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 334427629
Conc: 201.89 ug/mL



#3 Surrogate

R.T.: 5.680 min
Delta R.T.: -0.005 min
Response: 157568506
Conc: 39.18 ug/mL

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301209.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:25 pm
Operator : TD
Sample : 2010046-CAL7
Misc : 2A11013 OIL-B
ALS Vial : 9 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:41:24 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.684	172490443	42.893 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	85.79%
Target Compounds			
1) HM Diesel (TPH)	4.080	445604588	129.491 ug/mL
2) H OIL	6.590	778108292	469.726 ug/mLm

(f)=RT Delta > 1/2 Window (m)=manual int.

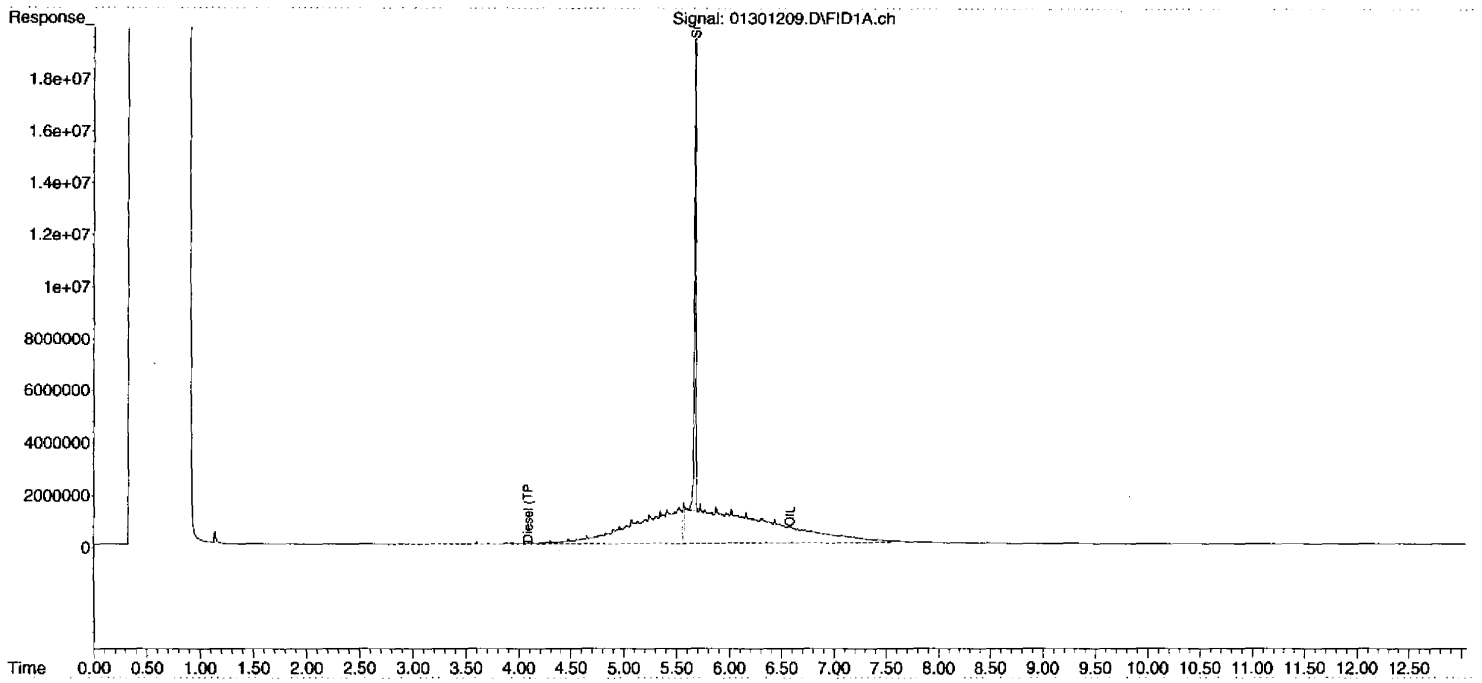
MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 01-31-12
Manual integration(s) reviewed by
Reviewer: [illegible] Date: 01-31-12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301209.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:25 pm
Operator : TD
Sample : 2010046-CAL7
Misc : 2A11013 OIL-B
ALS Vial : 9 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:41:24 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

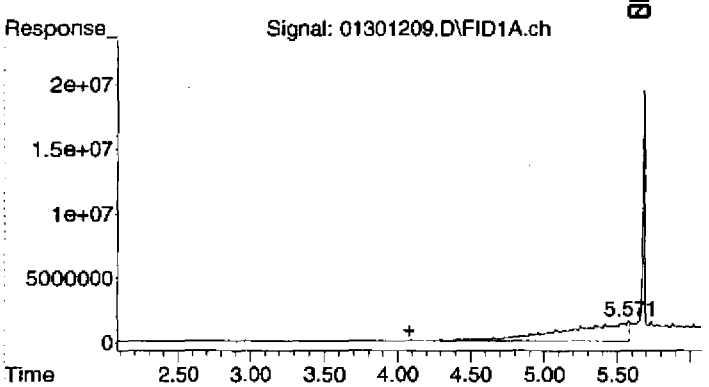


00061

00058

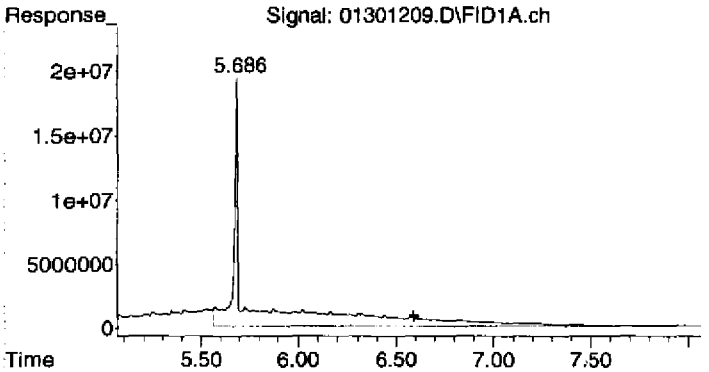
DIM0276664

DIM0276600



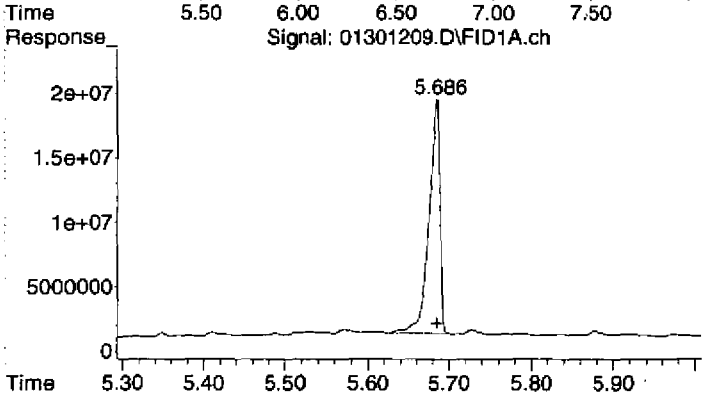
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 445604588
Conc: 129.49 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 778108292
Conc: 469.73 ug/mL m



#3 Surrogate

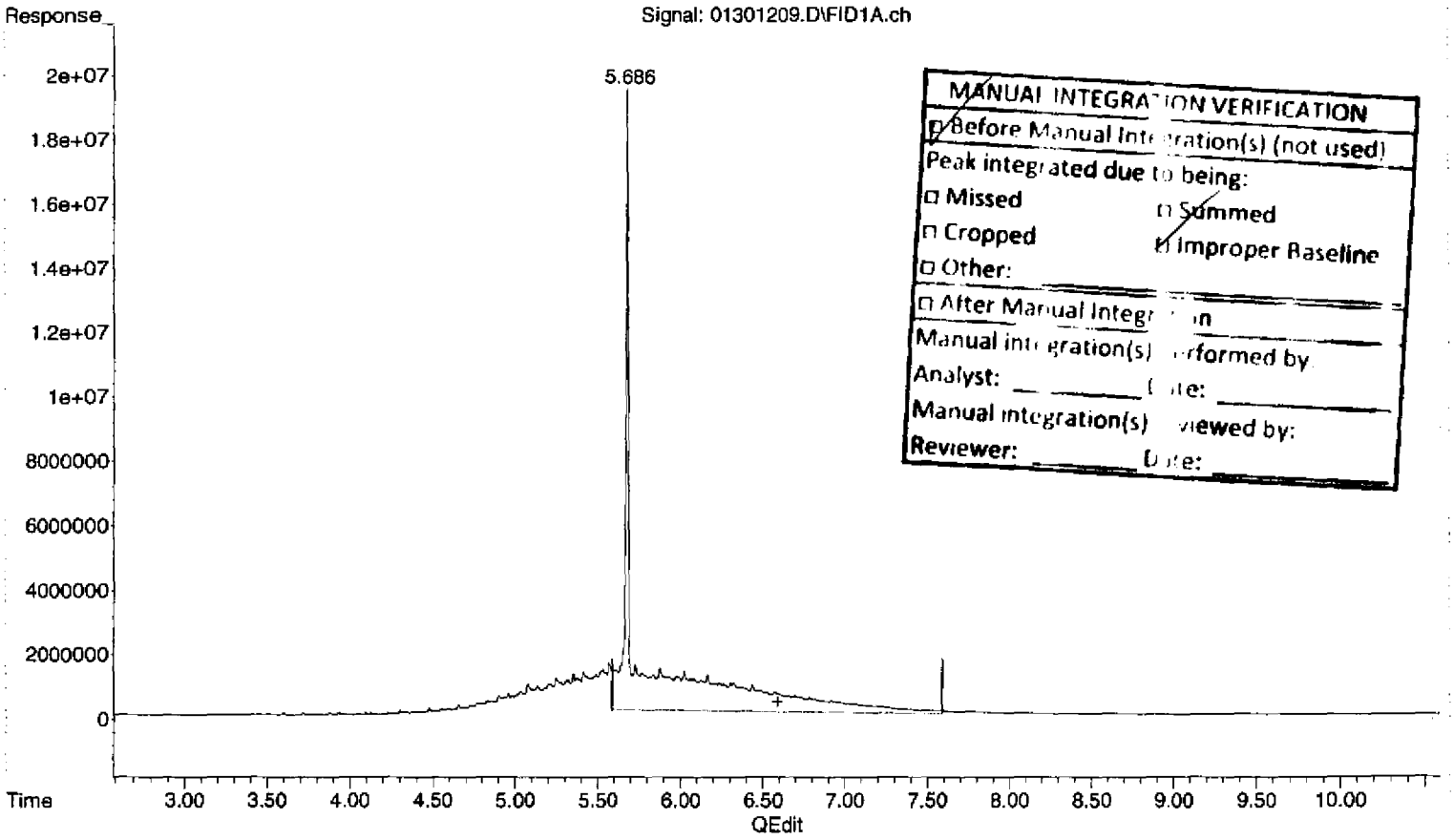
R.T.: 5.684 min
Delta R.T.: -0.002 min
Response: 172490443
Conc: 42.89 ug/mL

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301209.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:25 pm
Operator : TD
Sample : 2010046-CAL7
Misc : 2A11013 OIL-B
ALS Vial : 9 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:56 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☑ Improper Baseline
☐ Other:
☐ After Manual Integration
Manual integration(s) performed by
Analyst: Date:
Manual integration(s) reviewed by:
Reviewer: Date:

(2) OIL (H)

6.590min 419.688 ug/mL

response 695219451

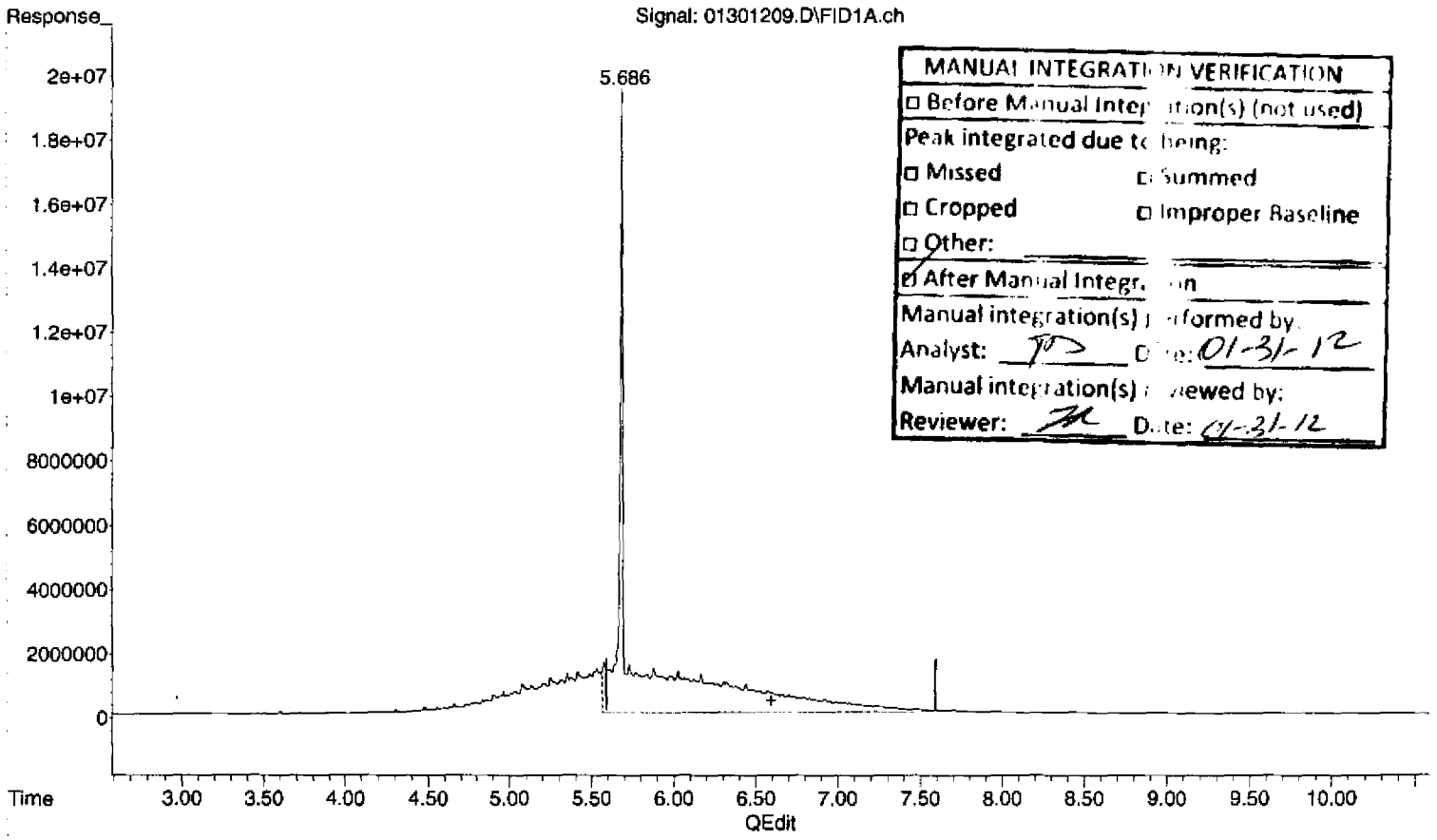
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:41:15 2012

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301209.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:25 pm
Operator : TD
Sample : 2010046-CAL7
Misc : 2A11013 OIL-B
ALS Vial : 9 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:56 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 01-31-12
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 01-31-12

(2) OIL (H)
6.590min 469.726 ug/mL m
response 778108292

(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:41:27 2012

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301209.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:25 pm
Operator : TD
Sample : 2010046-CAL7
Misc : 2A11013 OIL-B
ALS Vial : 9 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:56 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.684	172490443	42.893 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	85.79%
Target Compounds			
1) HM Diesel (TPH)	4.080	445604588	129.491 ug/mL
2) H OIL	6.590	695219451	419.688 ug/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

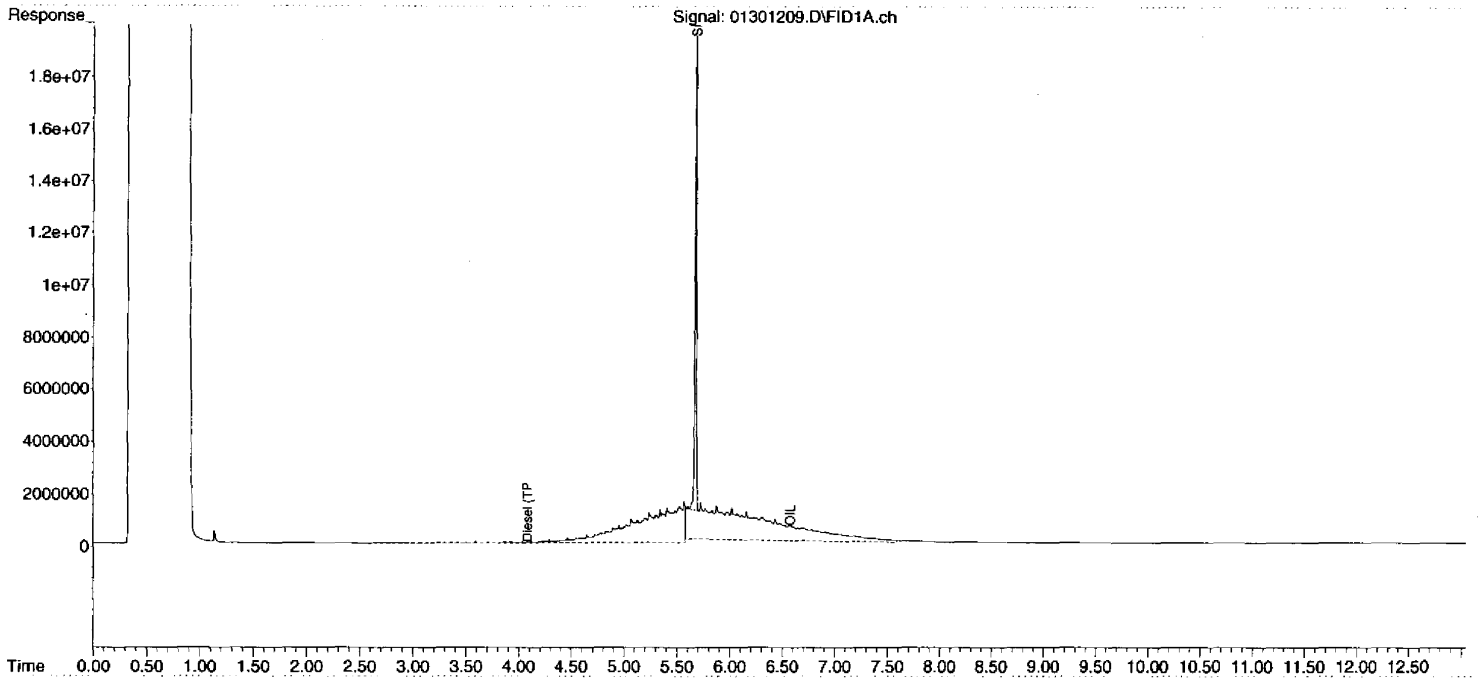
MANUAL INTEGRATION VERIFICATION	
☑ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other: _____	
☐ After Manual Integration	
Manual integration(s) performed by:	
Analyst: _____	Date: _____
Manual integration(s) reviewed by.	
Reviewer: _____	Date: _____

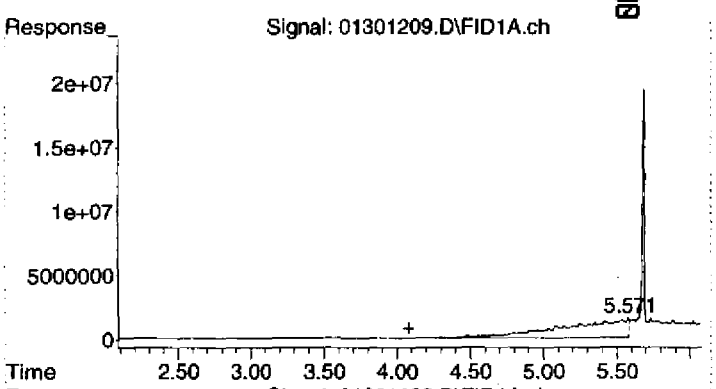
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301209.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:25 pm
Operator : TD
Sample : 2010046-CAL7
Misc : 2A11013 OIL-B
ALS Vial : 9 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:38:56 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

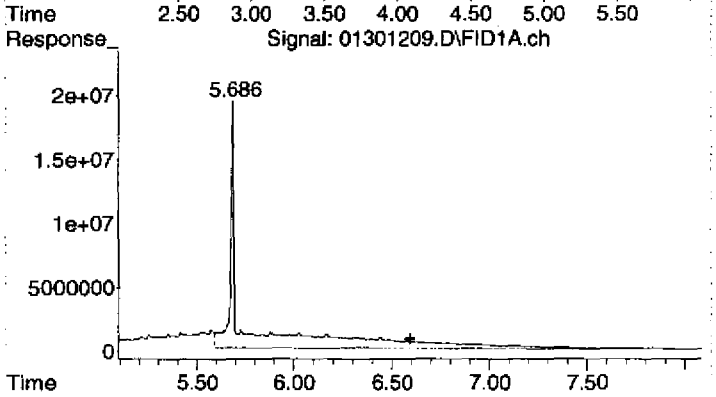
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





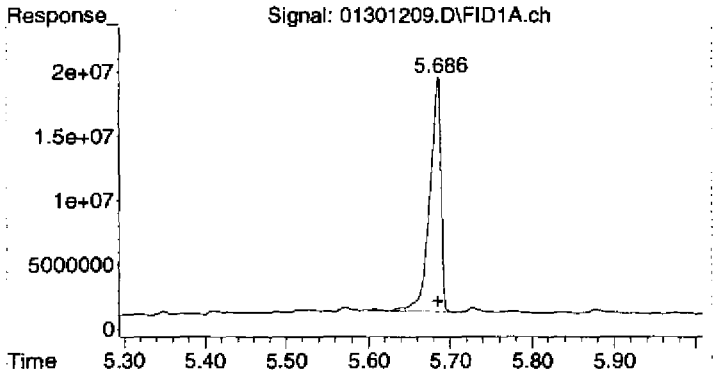
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 445604588
Conc: 129.49 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 695219451
Conc: 419.69 ug/mL



#3 Surrogate

R.T.: 5.684 min
Delta R.T.: -0.002 min
Response: 172490443
Conc: 42.89 ug/mL

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301210.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:43 pm
Operator : TD
Sample : 2010046-CAL8
Misc : 2A11012 OIL-CV
ALS Vial : 10 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:42:17 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.689	160244547	39.848 ug/mLm
Spiked Amount 50.000	Range 60 - 127	Recovery =	79.70%
Target Compounds			
1) HM Diesel (TPH)	4.080	1077798138	313.203 ug/mL
2) H OIL	6.590	2008952902	1212.758 ug/mLm

(f)=RT Delta > 1/2 Window (m)=manual int.

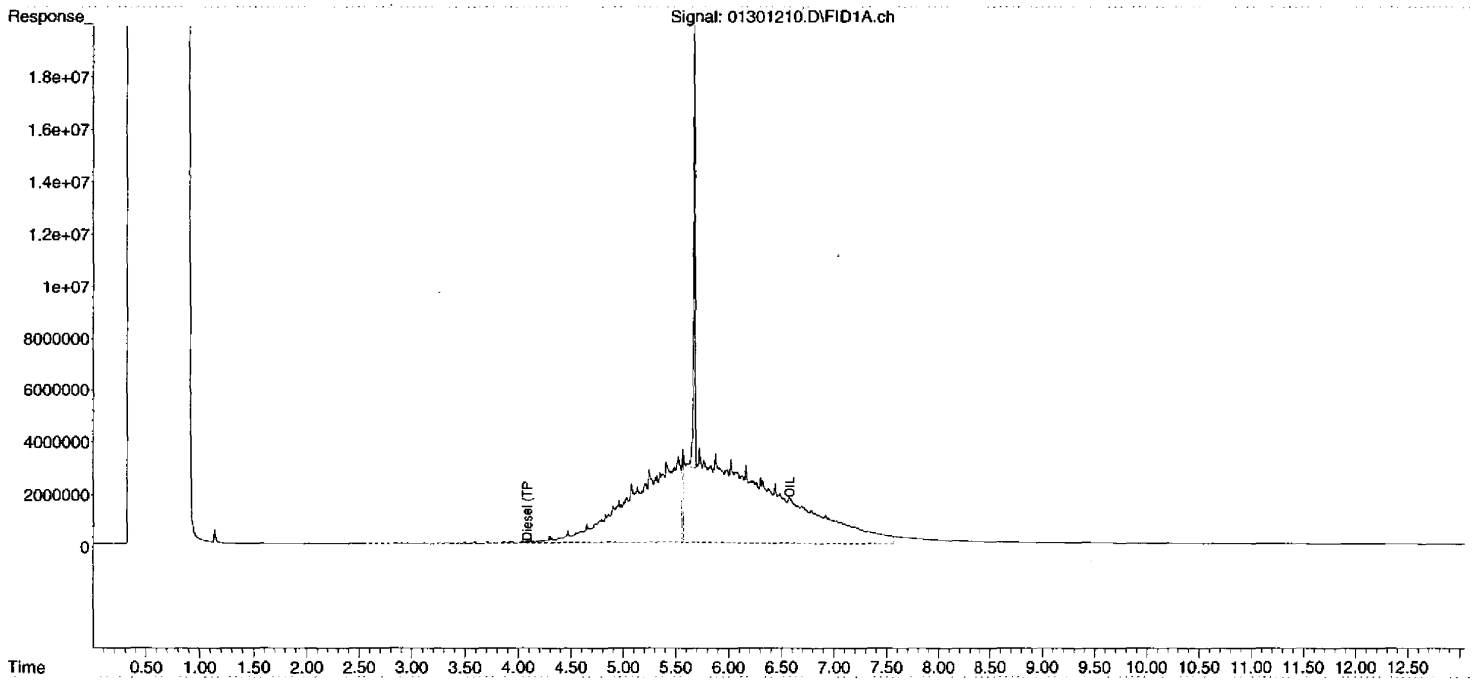
MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: TD	Date: 01-31-12
Manual integration(s) reviewed by:	
Reviewer: ZA	Date: 01-31-12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301210.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:43 pm
Operator : TD
Sample : 2010046-CAL8
Misc : 2A11012 OIL-CV
ALS Vial : 10 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:42:17 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

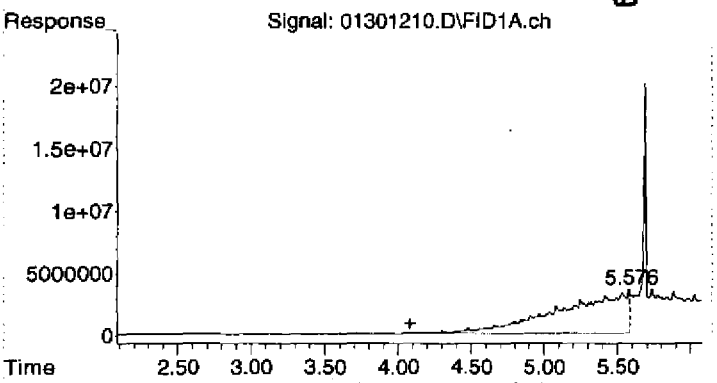


00069

00066

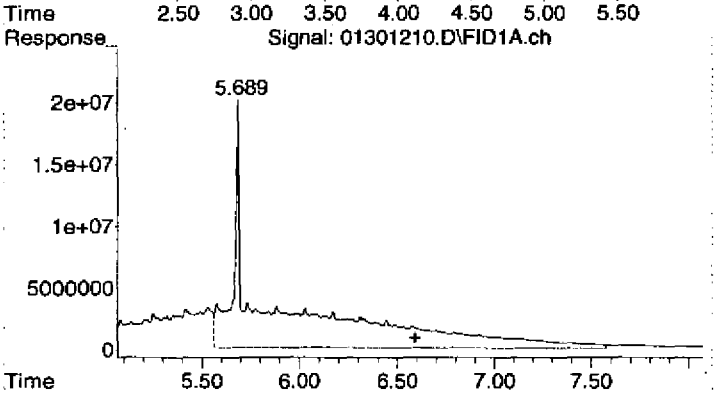
DIM0276600

DIM0276672



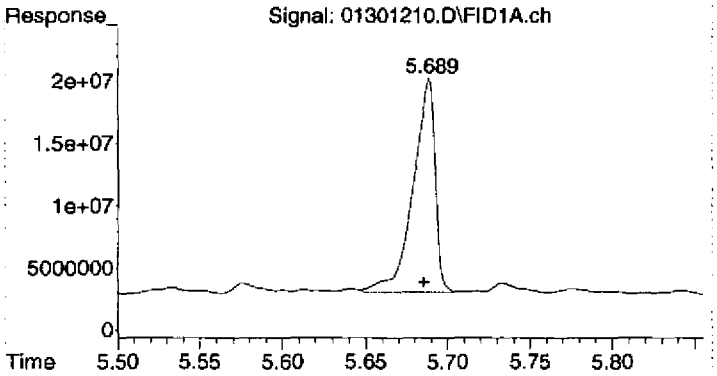
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1077798138
Conc: 313.20 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 2008952902
Conc: 1212.76 ug/mL m



#3 Surrogate

R.T.: 5.689 min
Delta R.T.: 0.003 min
Response: 160244547
Conc: 39.85 ug/mL m

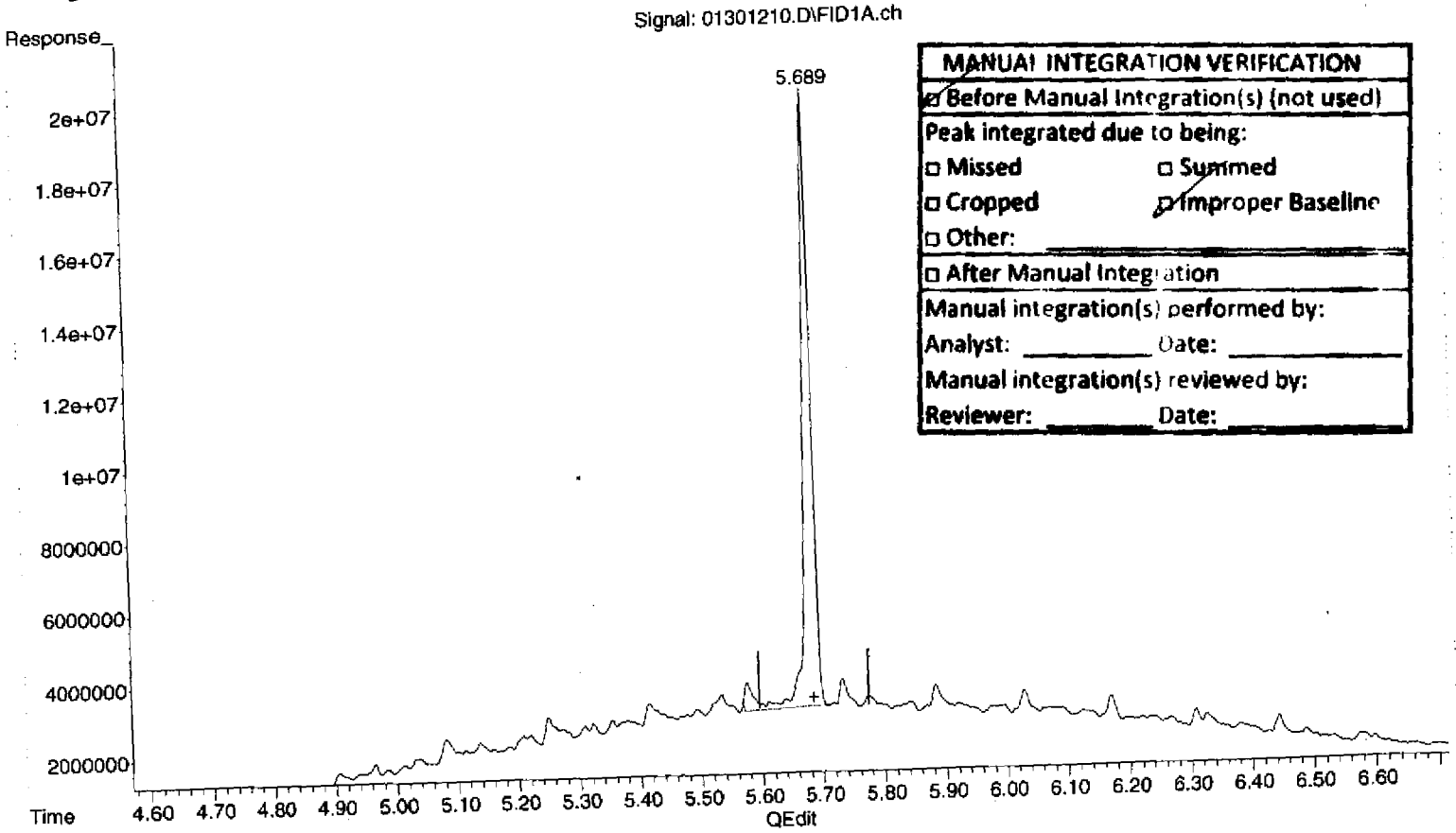
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301210.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:43 pm
Operator : TD
Sample : 2010046-CAL8
Misc : 2A11012 OIL-CV
ALS Vial : 10 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:00 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Signal: 01301210.D\FID1A.ch



MANUAL INTEGRATION VERIFICATION

☑ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☑ Improper Baseline

☐ Other: _____

☐ After Manual Integration

Manual integration(s) performed by:

Analyst: _____ Date: _____

Manual integration(s) reviewed by:

Reviewer: _____ Date: _____

(3) Surrogate (S)

5.687min 42.423 ug/mL

response 170597358

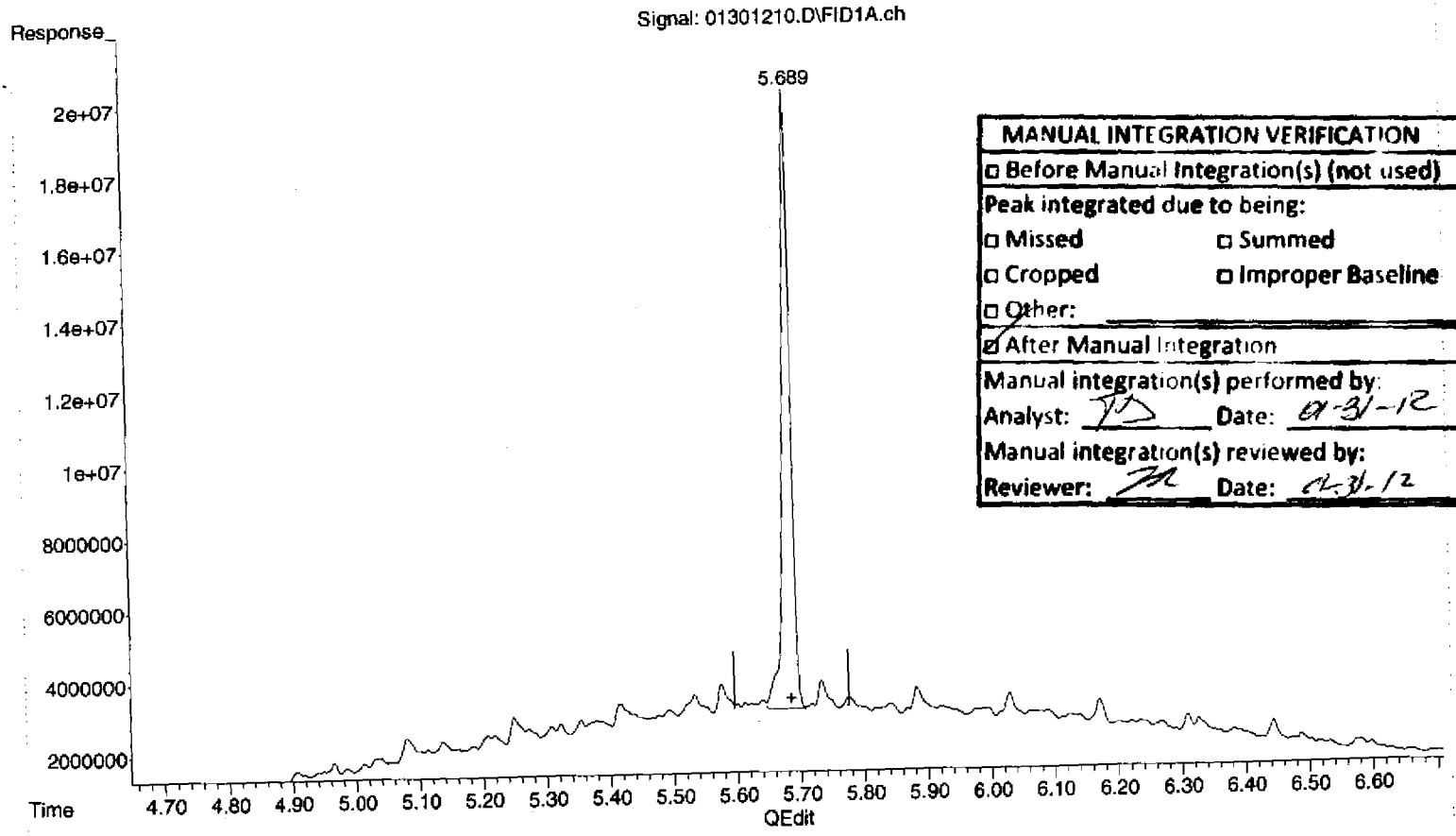
(+) = Expected Retention Time

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301210.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:43 pm
Operator : TD
Sample : 2010046-CAL8
Misc : 2A11012 OIL-CV
ALS Vial : 10 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:00 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: TD	Date: 01-31-12
Manual integration(s) reviewed by:	
Reviewer: [illegible]	Date: 01-31-12

(3) Surrogate (S)

5.689min 39.848 ug/mL m

response 160244547

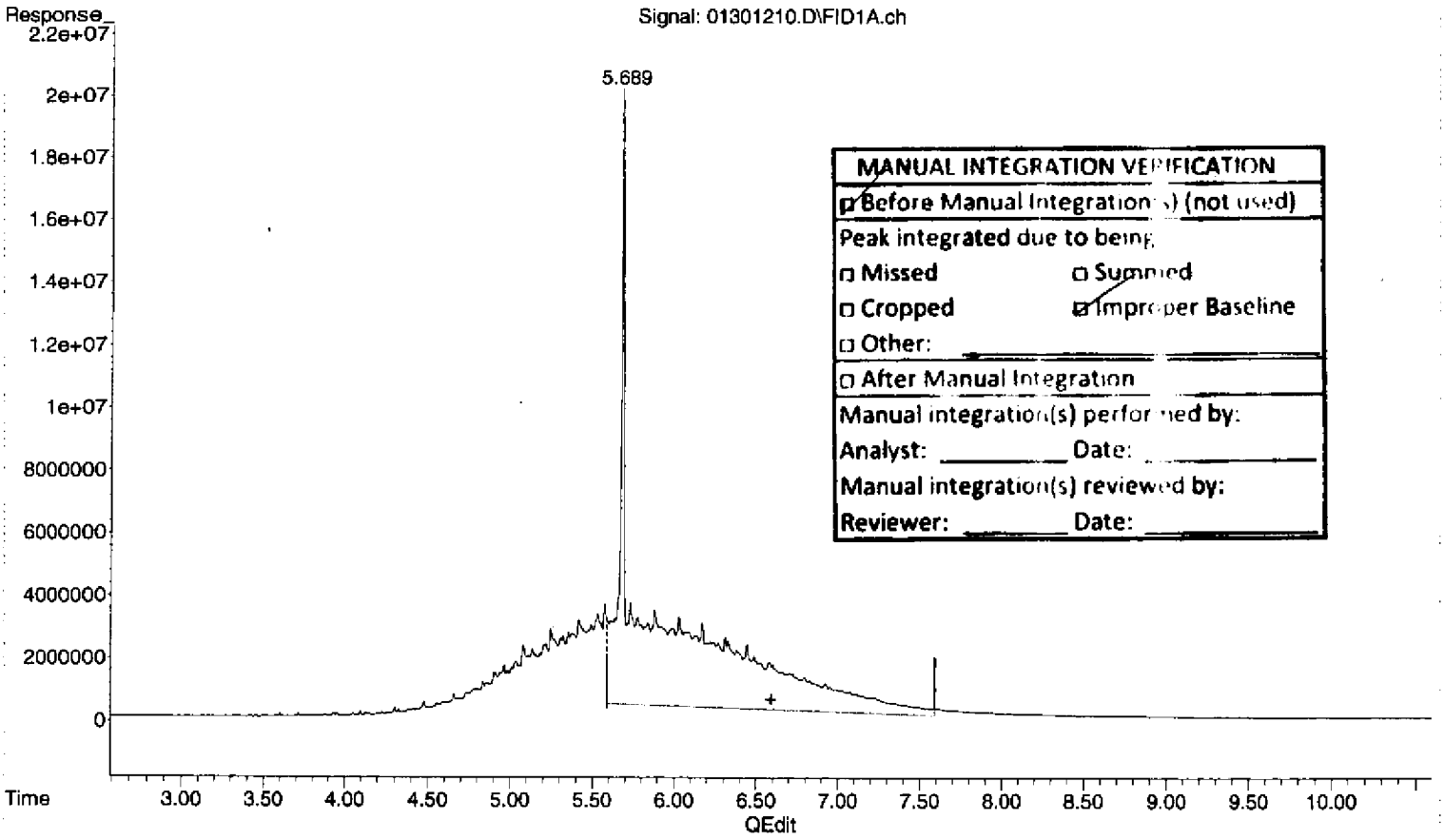
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:41:57 2012

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301210.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:43 pm
Operator : TD
Sample : 2010046-CAL8
Misc : 2A11012 OIL-CV
ALS Vial : 10 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:00 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☑ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

(2) OIL (H)
6.590min 1020.179 ug/mL
response 1689943532

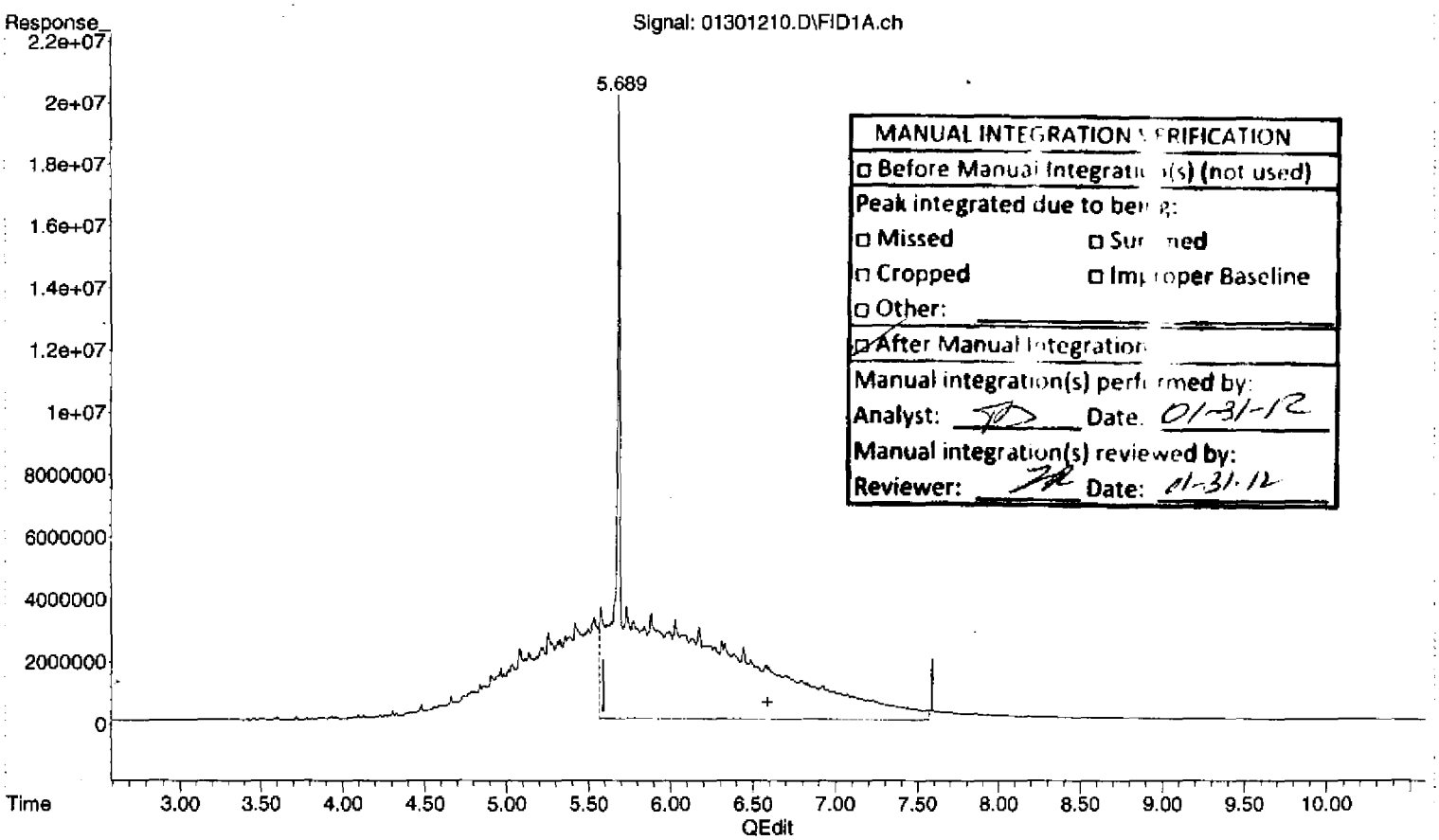
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:42:05 2012

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301210.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:43 pm
Operator : TD
Sample : 2010046-CAL8
Misc : 2A11012 OIL-CV
ALS Vial : 10 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:00 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Surrounded
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 01-31-12
Manual integration(s) reviewed by:
Reviewer: TR Date: 01-31-12

(2) OIL (H)

6.590min 1212.758 ug/mL m

response 2008952902

(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:42:20 2012

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301210.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:43 pm
Operator : TD
Sample : 2010046-CAL8
Misc : 2A11012 OIL-CV
ALS Vial : 10 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:00 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.687	170597358	42.423 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	84.85%
Target Compounds			
1) HM Diesel (TPH)	4.080	1077798138	313.203 ug/mL
2) H OIL	6.590	1679590721	1013.930 ug/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

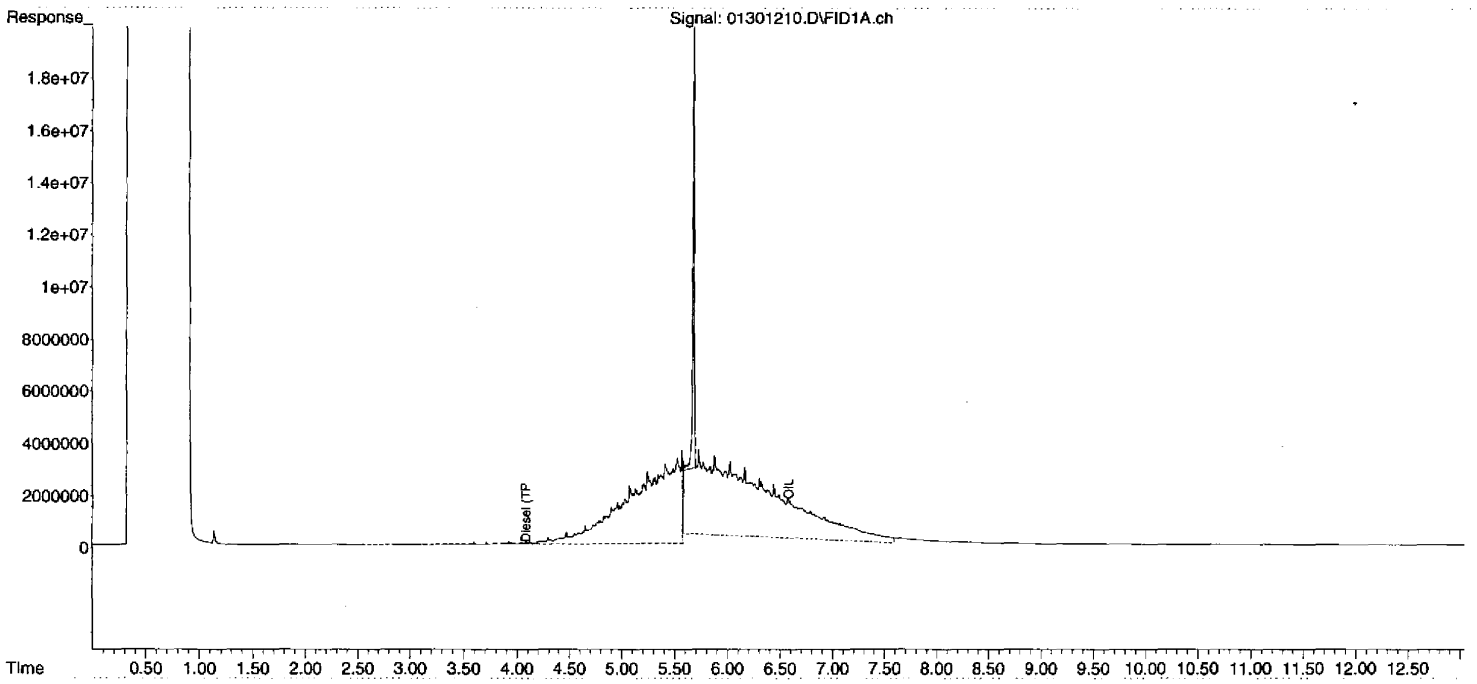
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

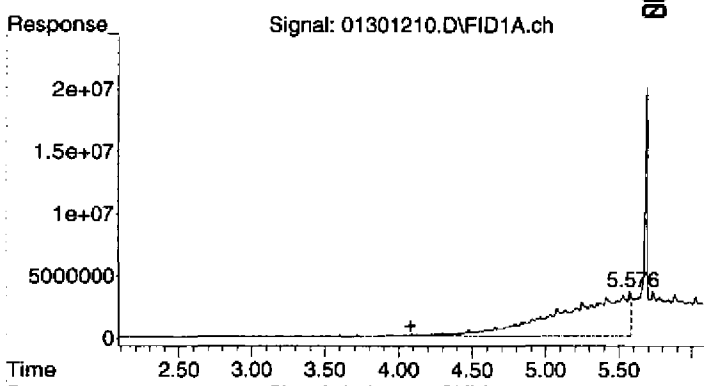
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301210.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:43 pm
Operator : TD
Sample : 2010046-CAL8
Misc : 2A11012 OIL-CV
ALS Vial : 10 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:00 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

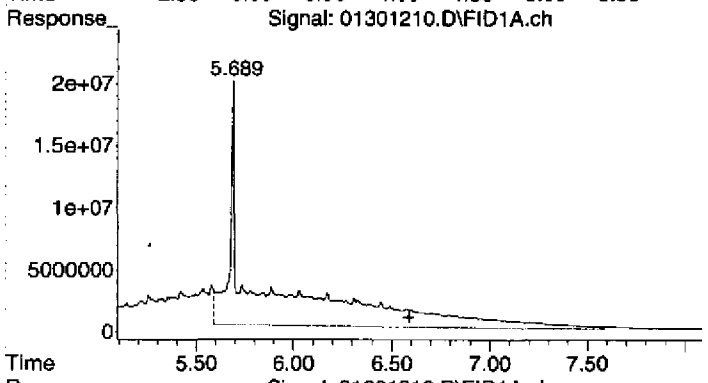
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





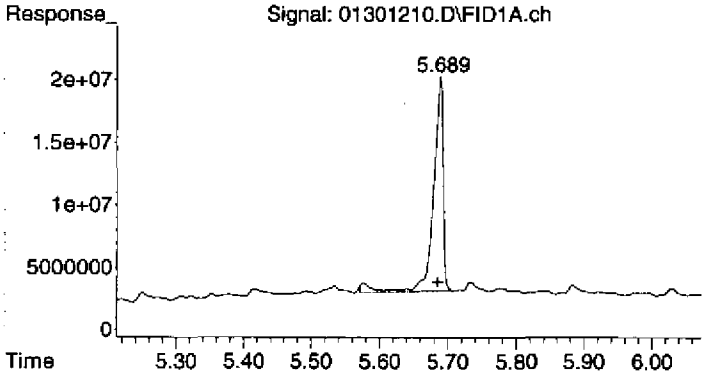
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1077798138
Conc: 313.20 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1679590721
Conc: 1013.93 ug/mL



#3 Surrogate

R.T.: 5.687 min
Delta R.T.: 0.001 min
Response: 170597358
Conc: 42.42 ug/mL

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301211.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:01 pm
Operator : TD
Sample : 2010046-CAL9
Misc : 2A11014 OIL-D
ALS Vial : 11 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:42:59 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.703	135092693	33.594 ug/mLm
Spiked Amount 50.000	Range 60 - 127	Recovery =	67.19%
Target Compounds			
1) HM Diesel (TPH)	4.080	3769249657	1095.327 ug/mL
2) H OIL	6.590	7194960306	4343.430 ug/mLm

(f)=RT Delta > 1/2 Window (m)=manual int.

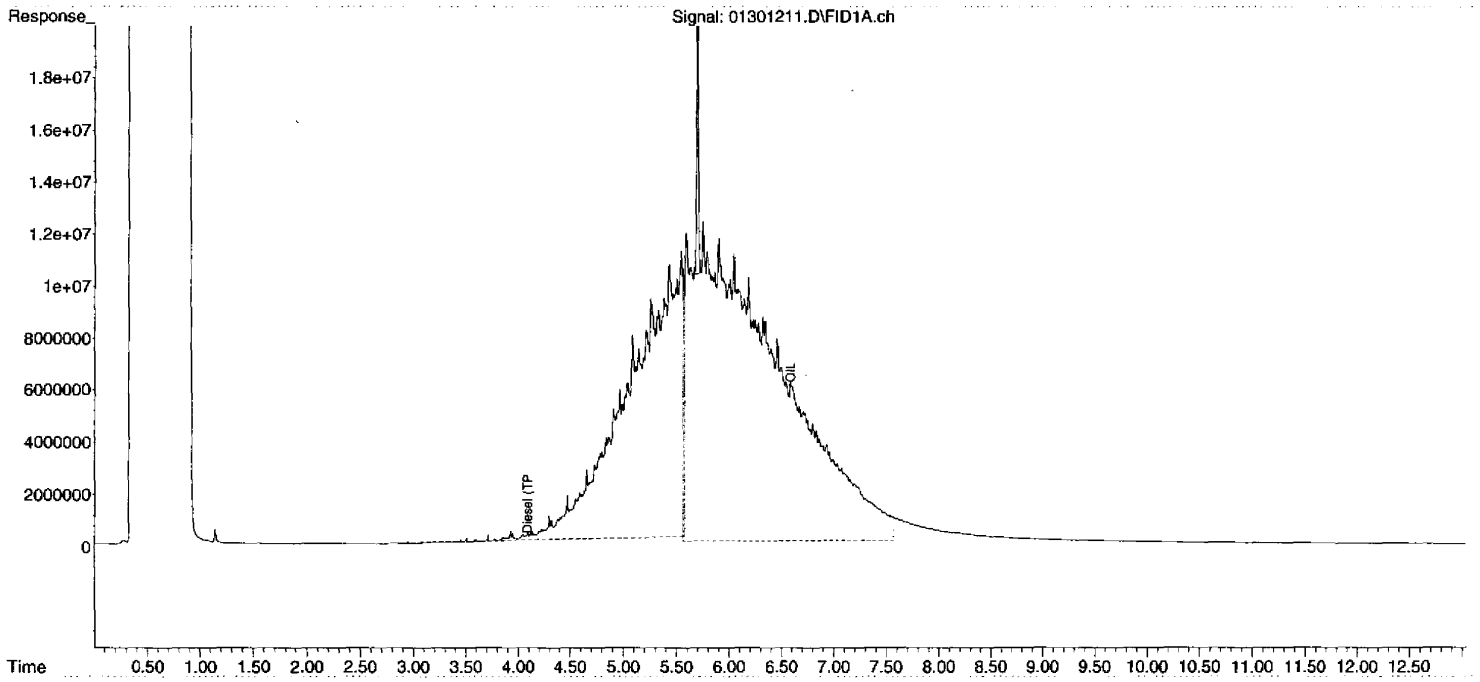
MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: TD	Date: 01-31-12
Manual integration(s) reviewed by:	
Reviewer: [illegible]	Date: 01-31-12

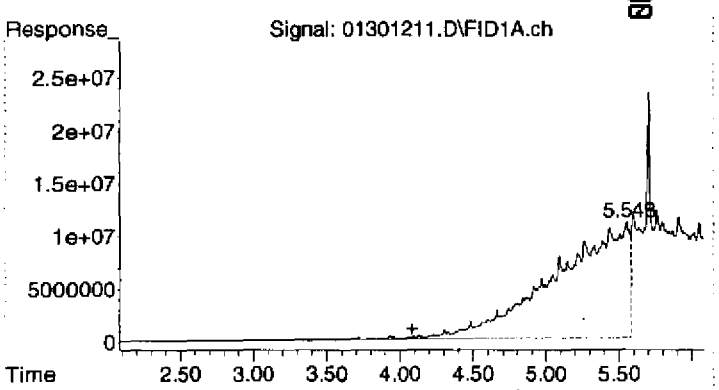
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301211.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:01 pm
Operator : TD
Sample : 2010046-CAL9
Misc : 2A11014 OIL-D
ALS Vial : 11 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:42:59 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

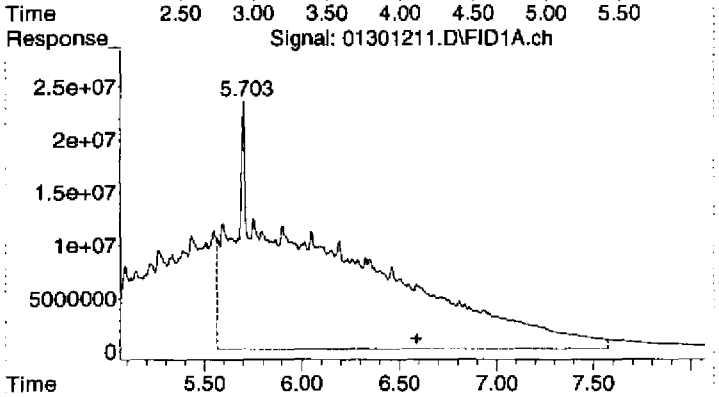
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





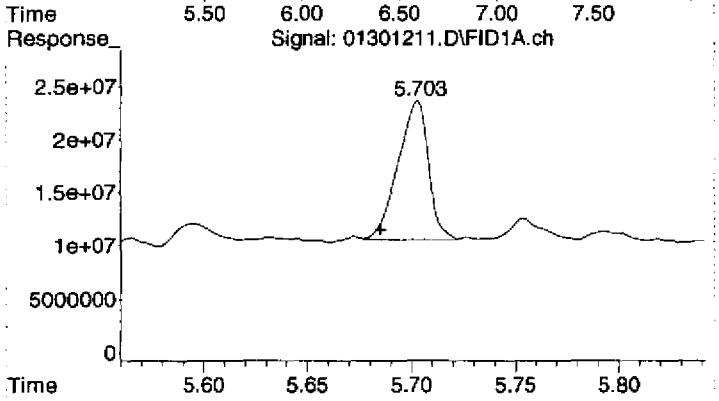
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 3769249657
Conc: 1095.33 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 7194960306
Conc: 4343.43 ug/mL m



#3 Surrogate

R.T.: 5.703 min
Delta R.T.: 0.018 min
Response: 135092693
Conc: 33.59 ug/mL m

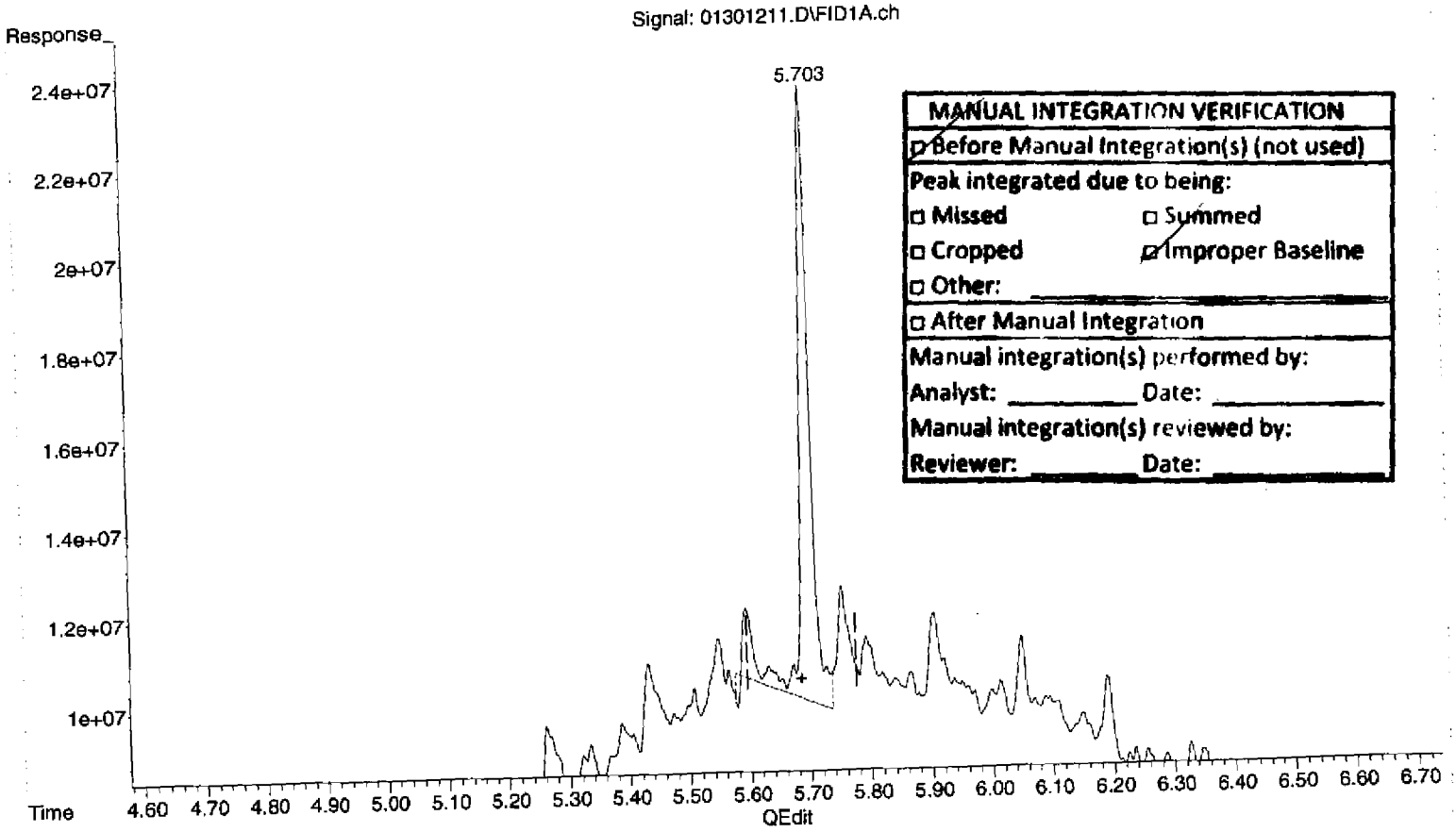
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301211.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:01 pm
Operator : TD
Sample : 2010046-CAL9
Misc : 2A11014 OIL-D
ALS Vial : 11 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:04 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Signal: 01301211.D\FID1A.ch



MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☑ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

(3) Surrogate (S)
5.702min 42.299 ug/mL
response 170098931

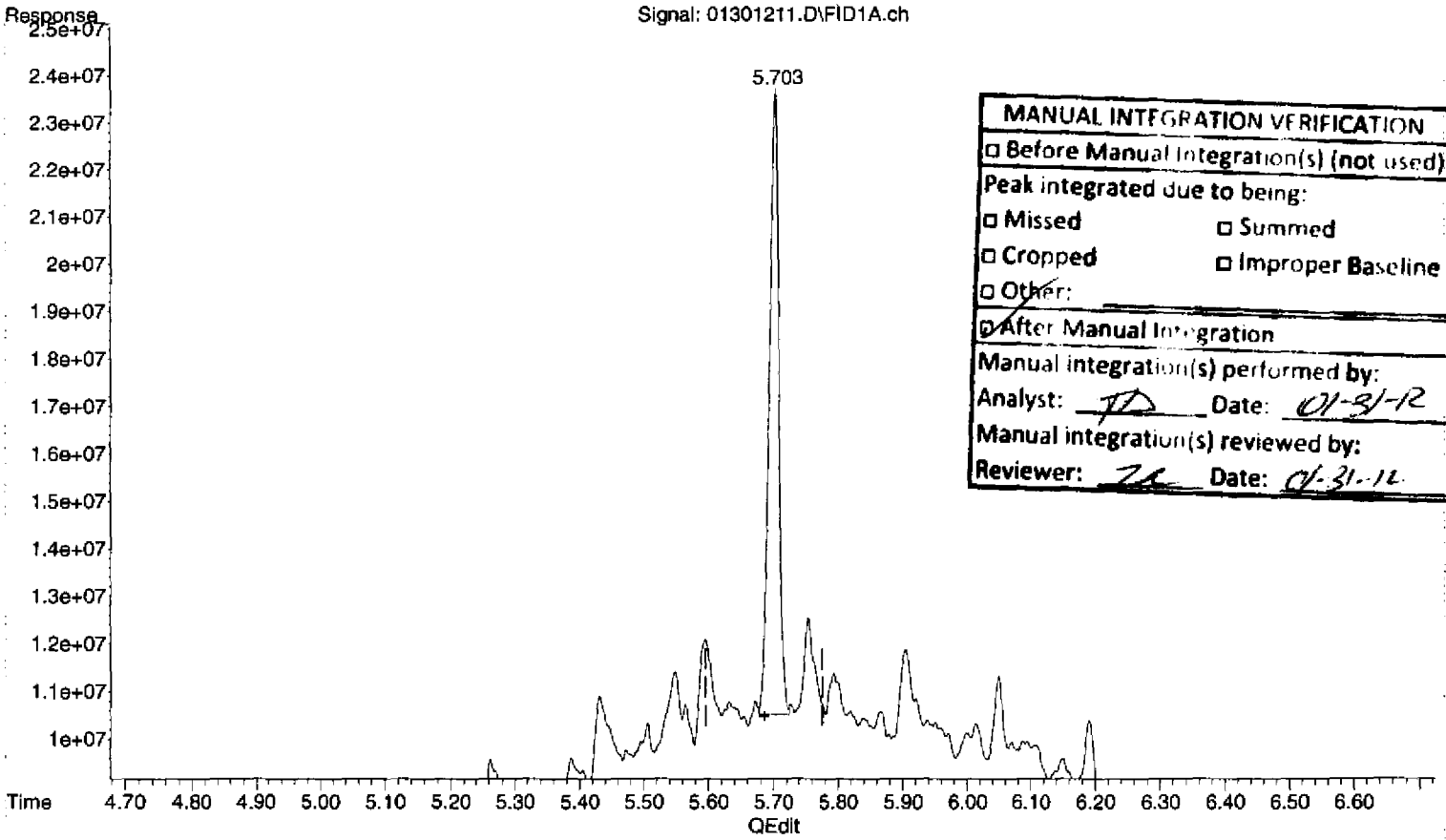
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:42:34 2012

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301211.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:01 pm
Operator : TD
Sample : 2010046-CAL9
Misc : 2A11014 OIL-D
ALS Vial : 11 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:04 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 01-31-12
Manual integration(s) reviewed by:
Reviewer: ZL Date: 01-31-12

(3) Surrogate (S)

5.703min 33.594 ug/mL m

response 135092693

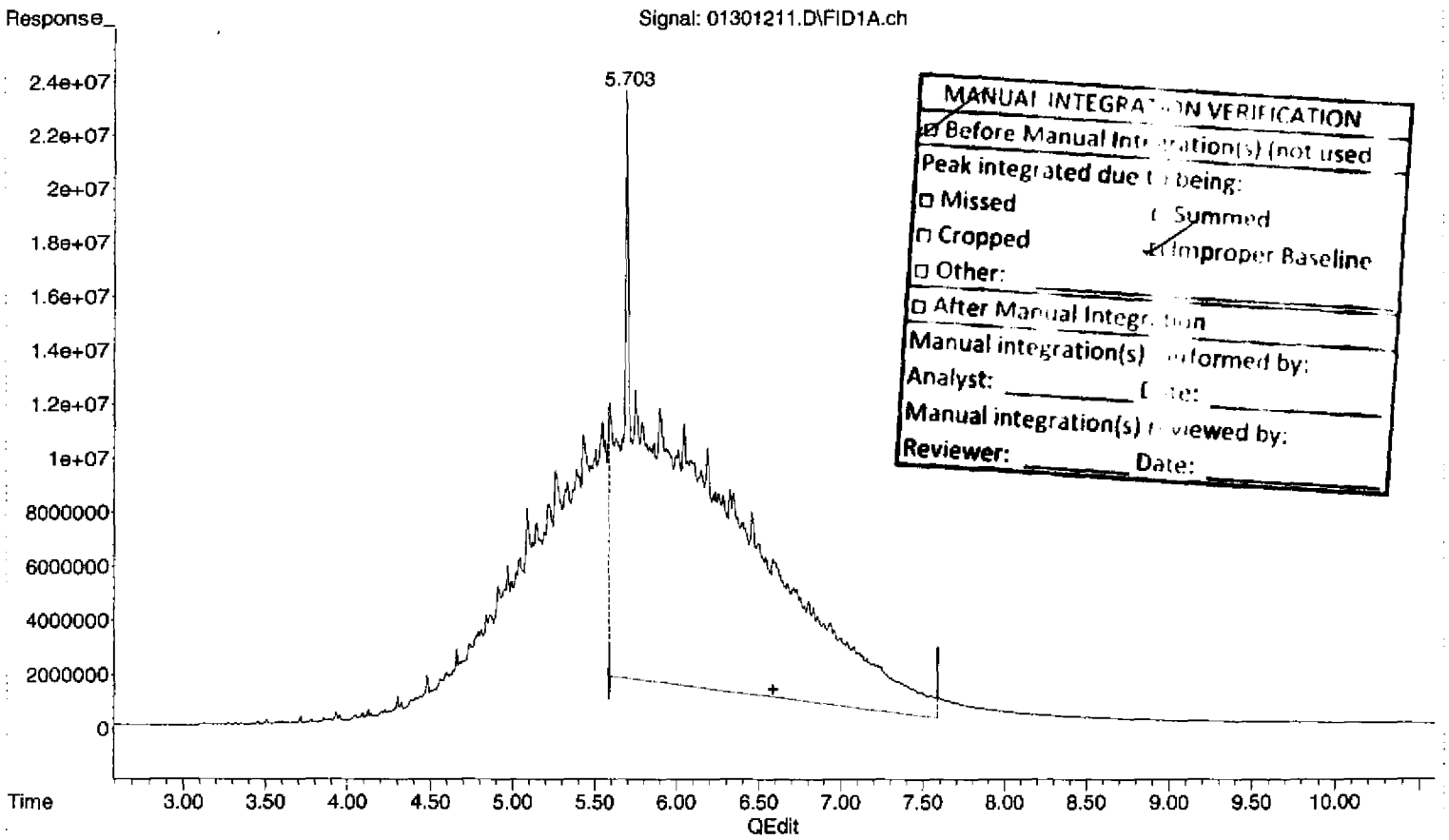
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:42:46 2012

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301211.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:01 pm
Operator : TD
Sample : 2010046-CAL9
Misc : 2A11014 OIL-D
ALS Vial : 11 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:04 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☑ Improper Baseline
☐ Other:
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

(2) OIL (H)

6.590min 3598.484 ug/mL

response 5960946592

(+) = Expected Retention Time

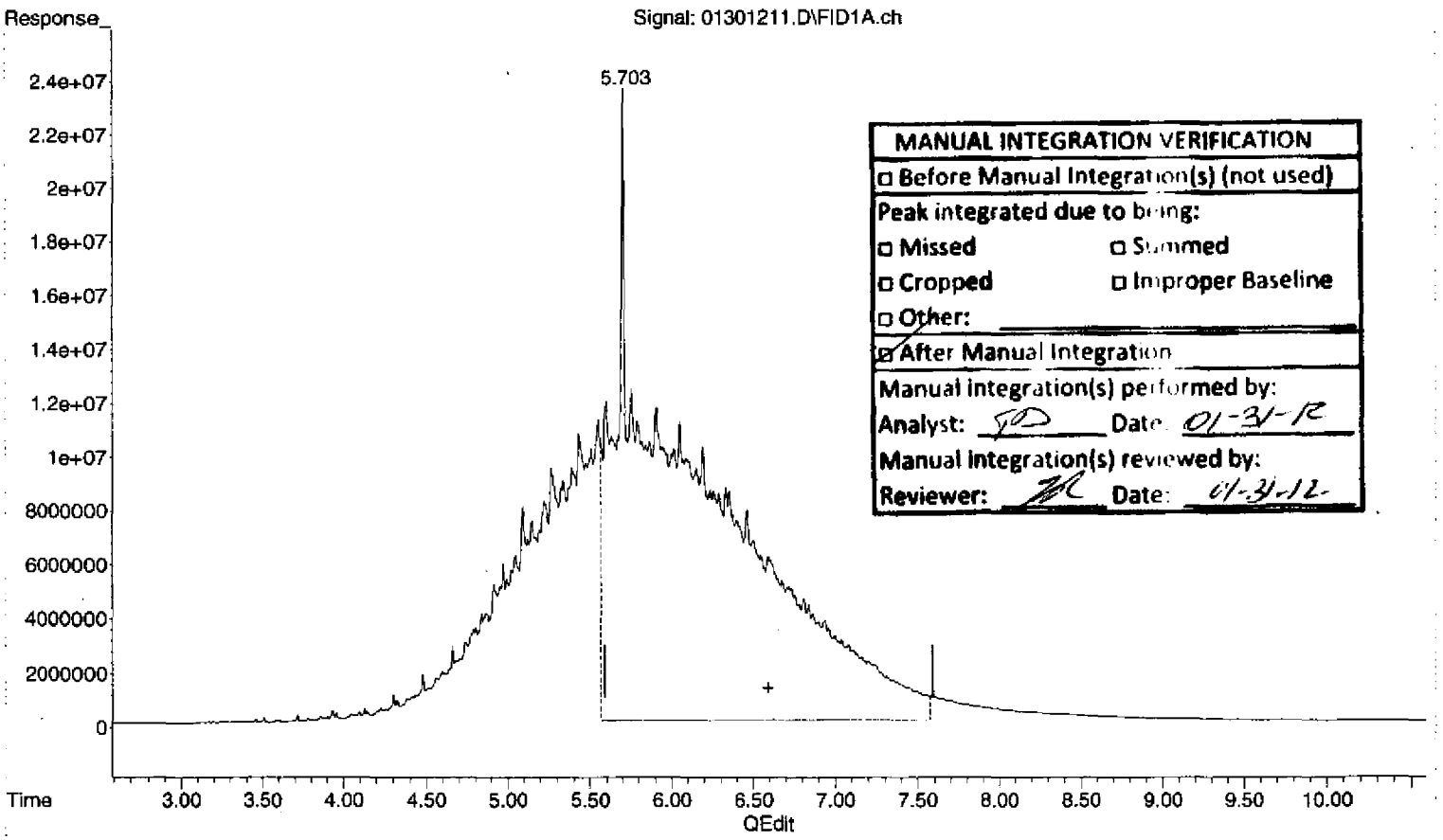
013012DROA.M Tue Jan 31 09:42:53 2012

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301211.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:01 pm
Operator : TD
Sample : 2010046-CAL9
Misc : 2A11014 OIL-D
ALS Vial : 11 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:04 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 01-31-12
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 01-31-12

(2) OIL (H)
6.590min 4343.430 ug/mL m
response 7194960306

(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:43:02 2012

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301211.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:01 pm
Operator : TD
Sample : 2010046-CAL9
Misc : 2A11014 OIL-D
ALS Vial : 11 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:04 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.702	170098931	42.299 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	84.60%
Target Compounds			
1) HM Diesel (TPH)	4.080	3769249657	1095.327 ug/mL
2) H OIL	6.590	5925940354	3577.352 ug/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

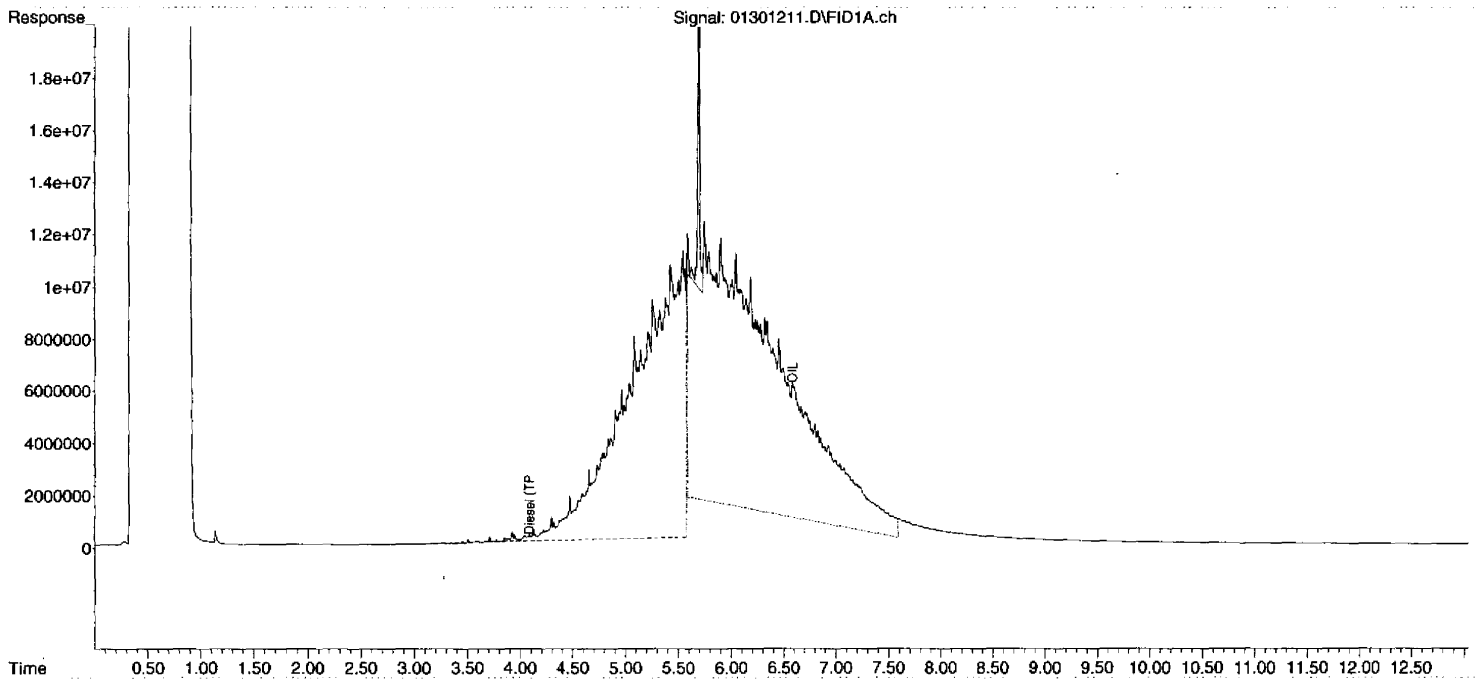
MANUAL INTEGRATION VERIFICATION	
☑ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☐ After Manual Integration	
Manual integration(s) performed by:	
Analyst: _____	Date: _____
Manual integration(s) reviewed by:	
Reviewer: _____	Date: _____

Quantitation Report (Not Reviewed)

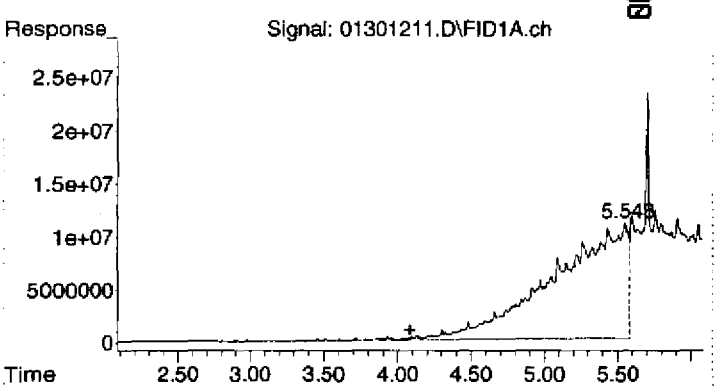
Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301211.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:01 pm
Operator : TD
Sample : 2010046-CAL9
Misc : 2A11014 OIL-D
ALS Vial : 11 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:04 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

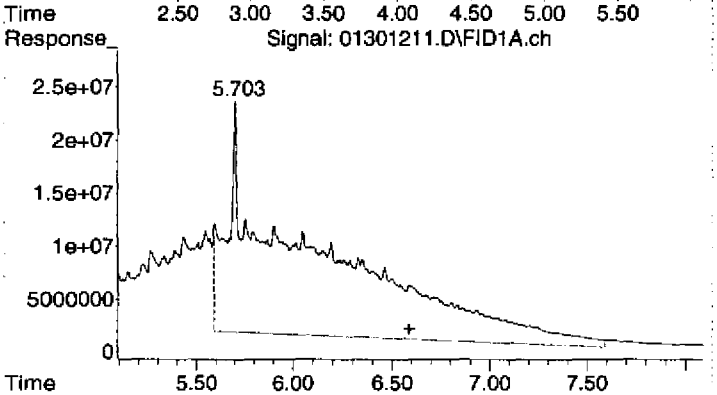


00086
00083
DIM0276600
DIM0276689



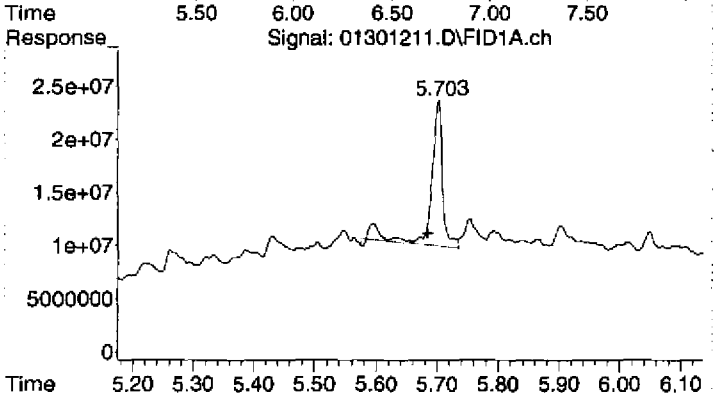
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 3769249657
Conc: 1095.33 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 5925940354
Conc: 3577.35 ug/mL



#3 Surrogate

R.T.: 5.702 min
Delta R.T.: 0.017 min
Response: 170098931
Conc: 42.30 ug/mL

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301212.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:19 pm
Operator : TD
Sample : 2010046-CALA
Misc : 2A11015 OIL-E
ALS Vial : 12 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:43:52 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.733f	126718804	31.511 ug/mLm
Spiked Amount 50.000	Range 60 - 127	Recovery =	63.02%
Target Compounds			
1) HM Diesel (TPH)	4.080	9392764819	2729.496 ug/mL
2) H OIL	6.590	19380021303	11699.267 ug/mLm

(f)=RT Delta > 1/2 Window (m)=manual int.

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other: _____

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: TD Date: 01-31-12

Manual integration(s) reviewed by:

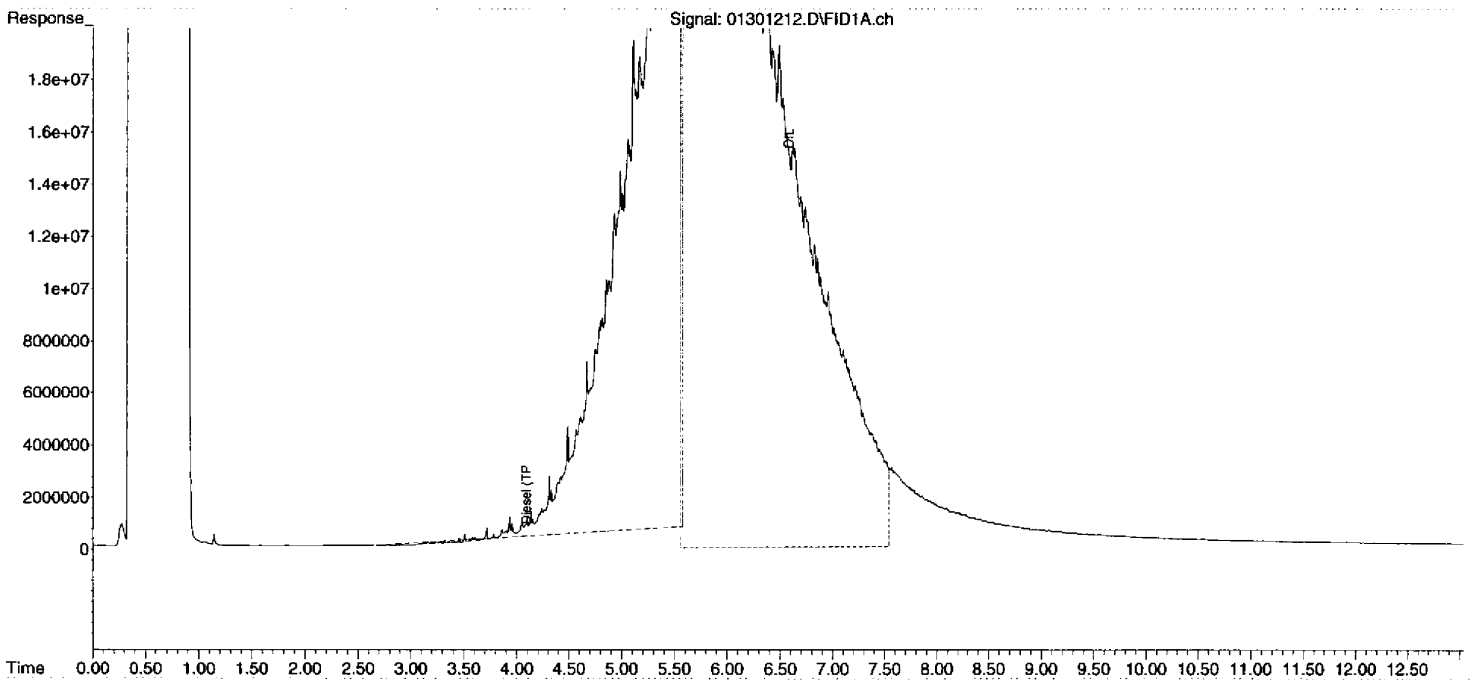
Reviewer: TL Date: 01-31-12

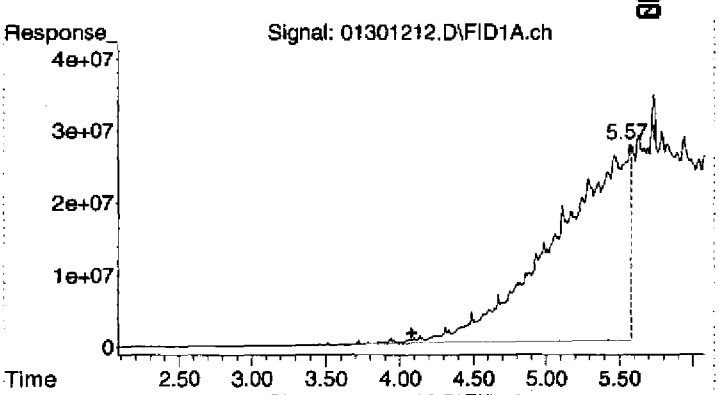
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301212.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:19 pm
Operator : TD
Sample : 2010046-CALA
Misc : 2A11015 OIL-E
ALS Vial : 12 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:43:52 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

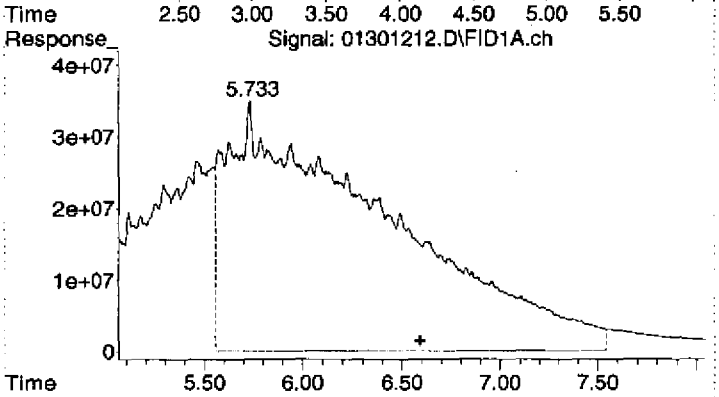
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





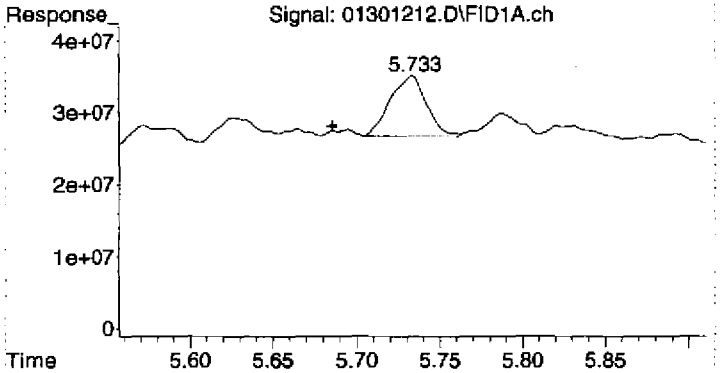
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 9392764819
Conc: 2729.50 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 19380021303
Conc: 11699.27 ug/mL m



#3 Surrogate

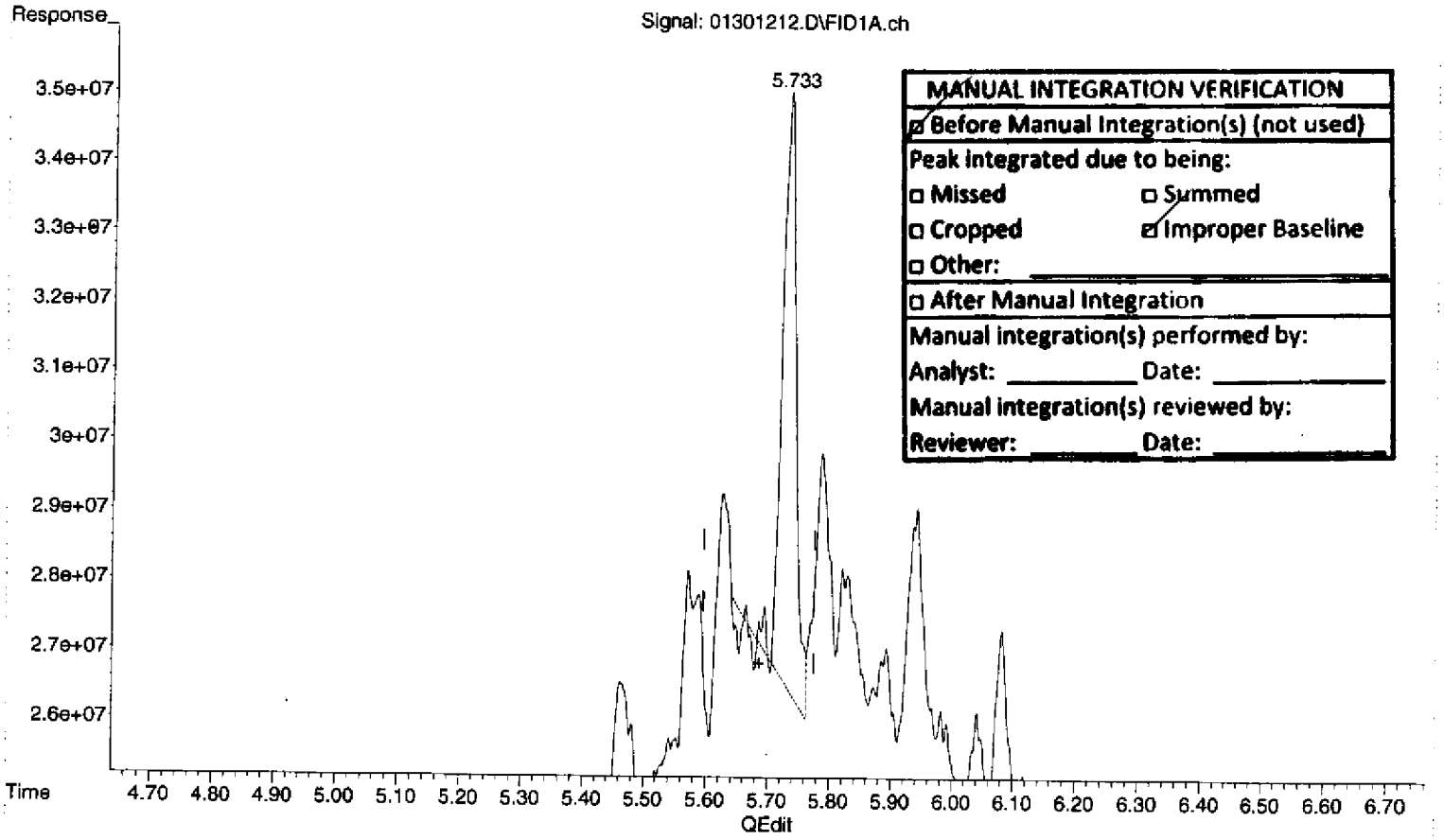
R.T.: 5.733 min
Delta R.T.: 0.048 min
Response: 126718804
Conc: 31.51 ug/mL m

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301212.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:19 pm
Operator : TD
Sample : 2010046-CALA
Misc : 2A11015 OIL-E
ALS Vial : 12 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:08 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☑ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

(3) Surrogate (S)
5.732min 35.476 ug/mL
response 142663830

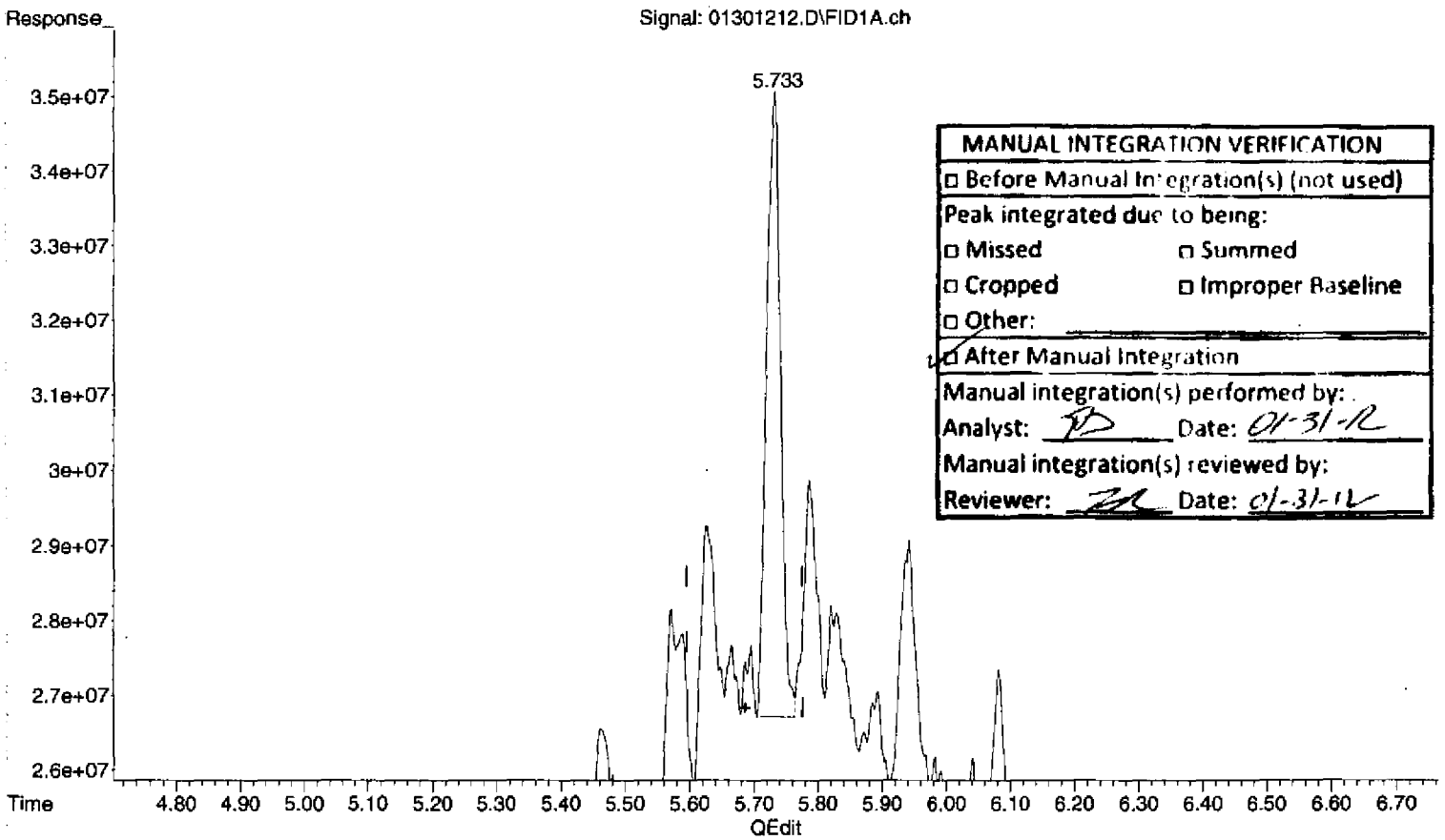
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:43:19 2012

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301212.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:19 pm
Operator : TD
Sample : 2010046-CALA
Misc : 2A11015 OIL-E
ALS Vial : 12 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:08 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 01-31-12
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 01-31-12

(3) Surrogate (S)
5.733min 31.511 ug/mL m
response 126718804

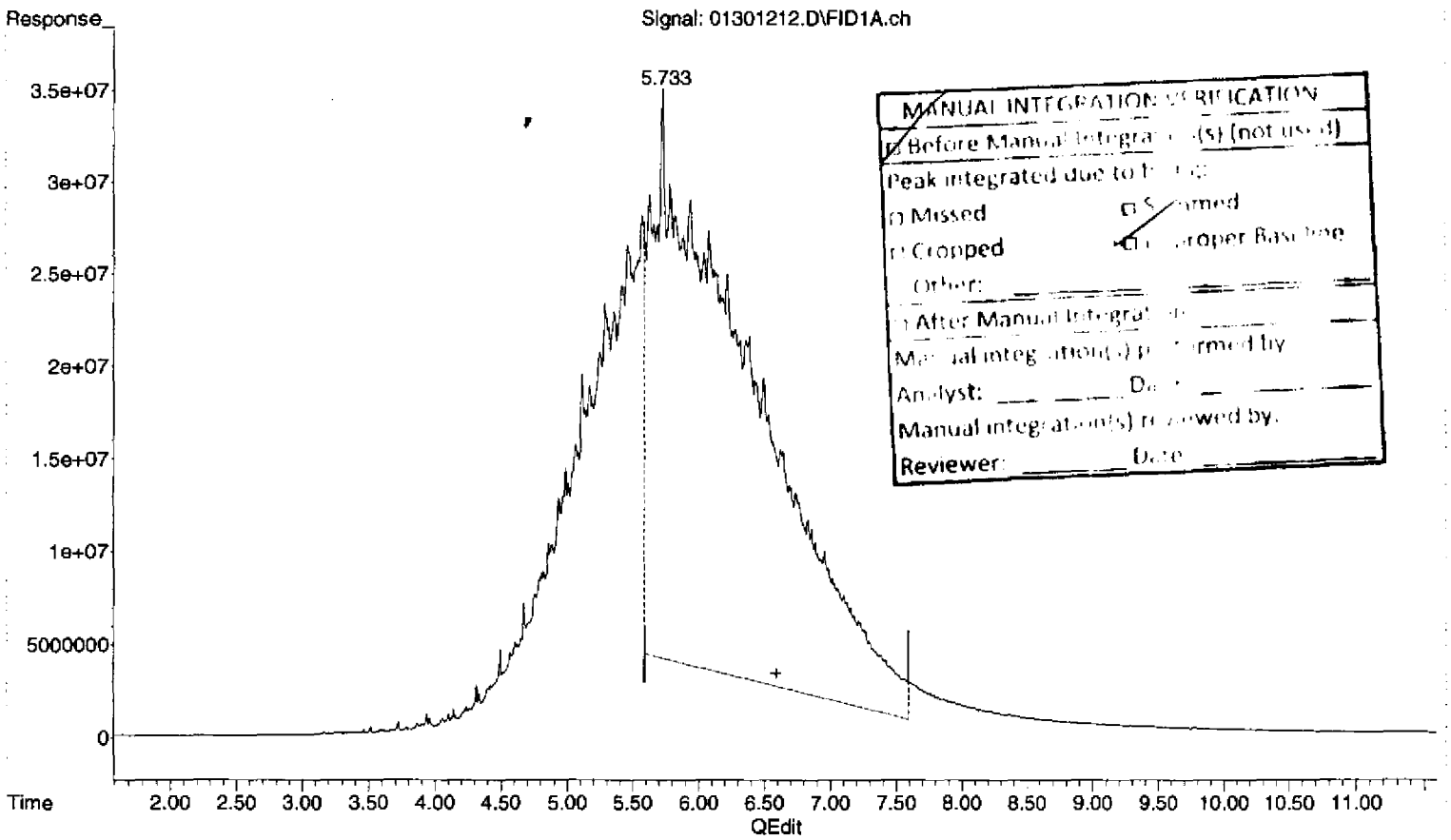
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:43:31 2012

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301212.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:19 pm
Operator : TD
Sample : 2010046-CALA
Misc : 2A11015 OIL-E
ALS Vial : 12 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:08 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



(2) OIL (H)

6.590min 9510.942 ug/mL

response 15755026275

(+) = Expected Retention Time

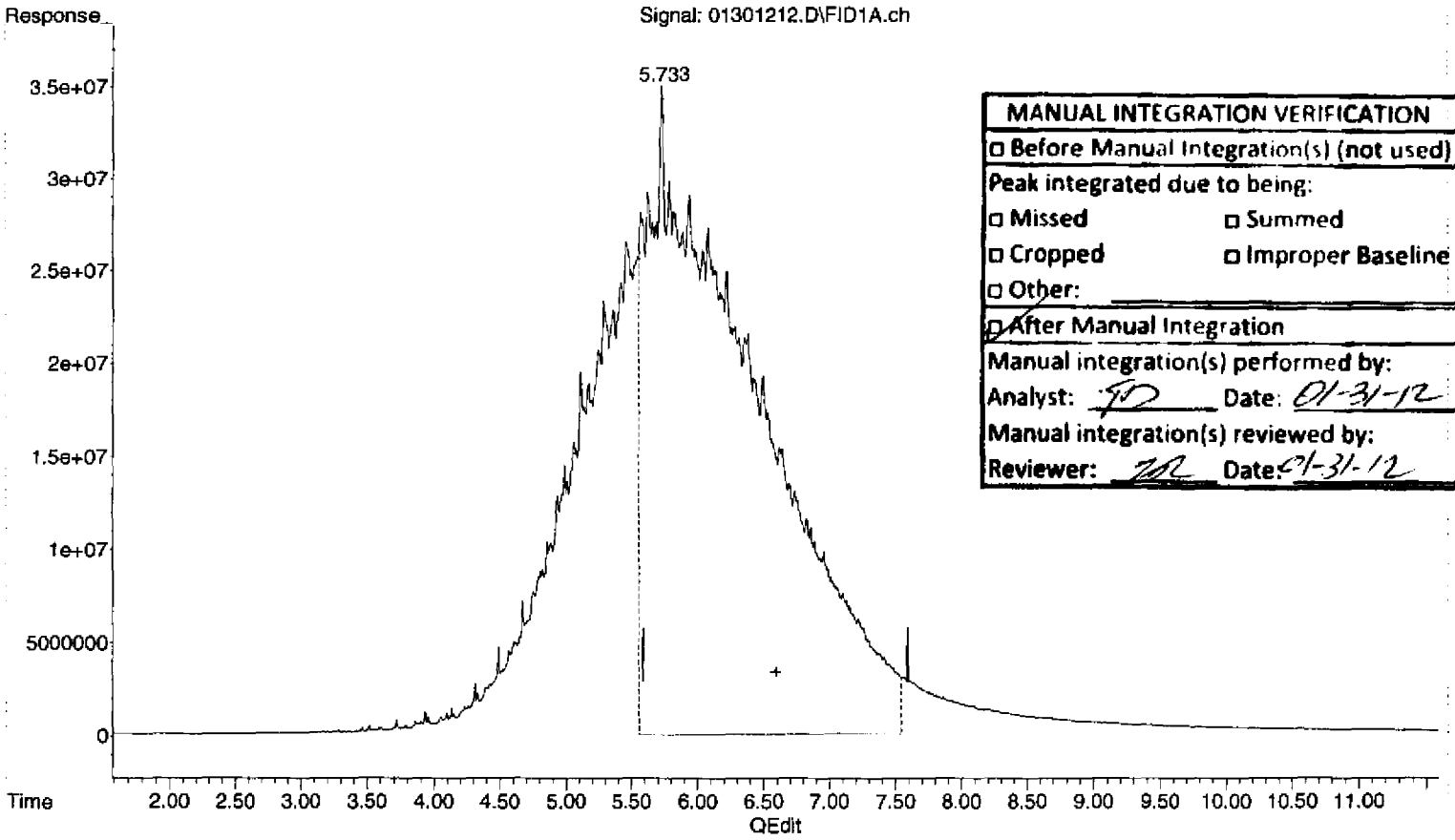
013012DROA.M Tue Jan 31 09:43:39 2012

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301212.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:19 pm
Operator : TD
Sample : 2010046-CALA
Misc : 2A11015 OIL-E
ALS Vial : 12 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:08 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 01-31-12
Manual integration(s) reviewed by:
Reviewer: TR Date: 01-31-12

(2) OIL (H)
6.590min 11699.267 ug/mL m
response 19380021303

(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:43:55 2012

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301212.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:19 pm
Operator : TD
Sample : 2010046-CALA
Misc : 2A11015 OIL-E
ALS Vial : 12 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:08 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate			
Spiked Amount 50.000	Range 60 - 127	5.732f	142663830 35.476 ug/mL
		Recovery =	70.95%
Target Compounds			
1) HM Diesel (TPH)			
2) H OIL	4.080	9392764819	2729.496 ug/mL
	6.590	15739081249	9501.316 ug/mL

(f)=RT Delta > 1/2 Window

(m)=manual int.

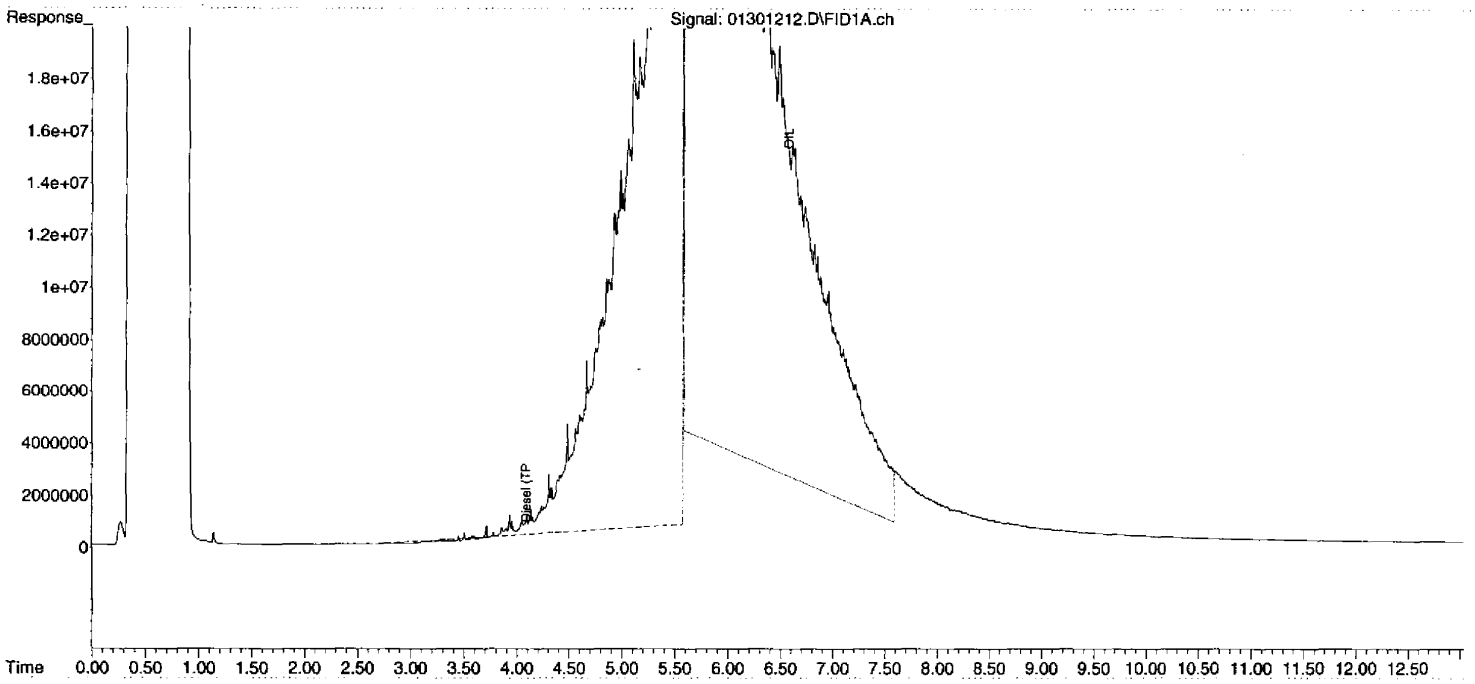
MANUAL INTEGRATION VERIFICATION	
☑ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other: _____	
☐ After Manual Integration	
Manual integration(s) performed by:	
Analyst: _____	Date: _____
Manual integration(s) reviewed by:	
Reviewer: _____	Date: _____

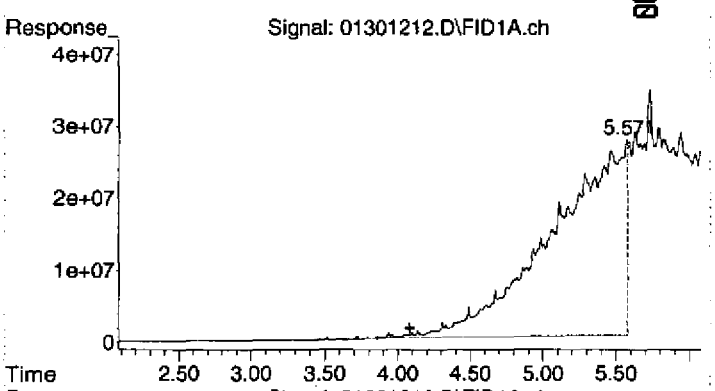
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301212.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:19 pm
Operator : TD
Sample : 2010046-CALA
Misc : 2A11015 OIL-E
ALS Vial : 12 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:08 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

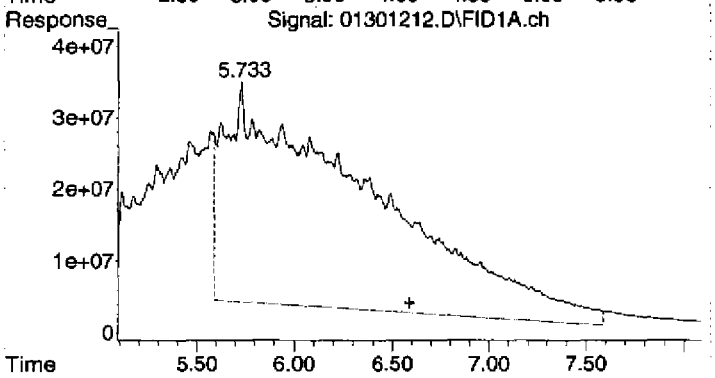
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





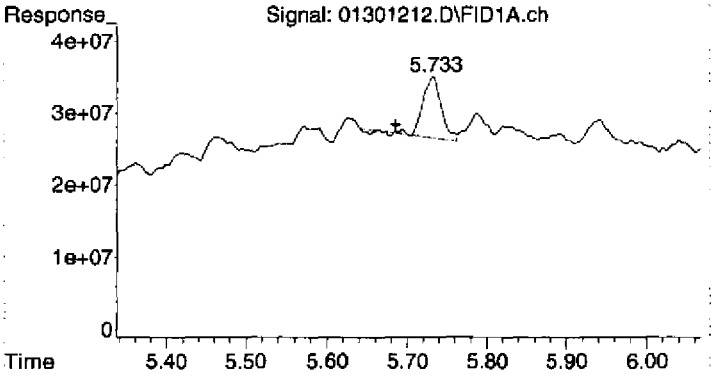
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 9392764819
Conc: 2729.50 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 15739081249
Conc: 9501.32 ug/mL



#3 Surrogate

R.T.: 5.732 min
Delta R.T.: 0.047 min
Response: 142663830
Conc: 35.48 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301213.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:37 pm
Operator : TD
Sample : 2010046-IBL2
Misc : 2A11003 IB
ALS Vial : 13 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 10:08:31 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.681	177903023	50.080 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	100.16%
Target Compounds			
1) HM Diesel (TPH)	4.080	8587385	2.393 ug/mL
2) H OIL	6.590	30068396	15.703 ug/mL

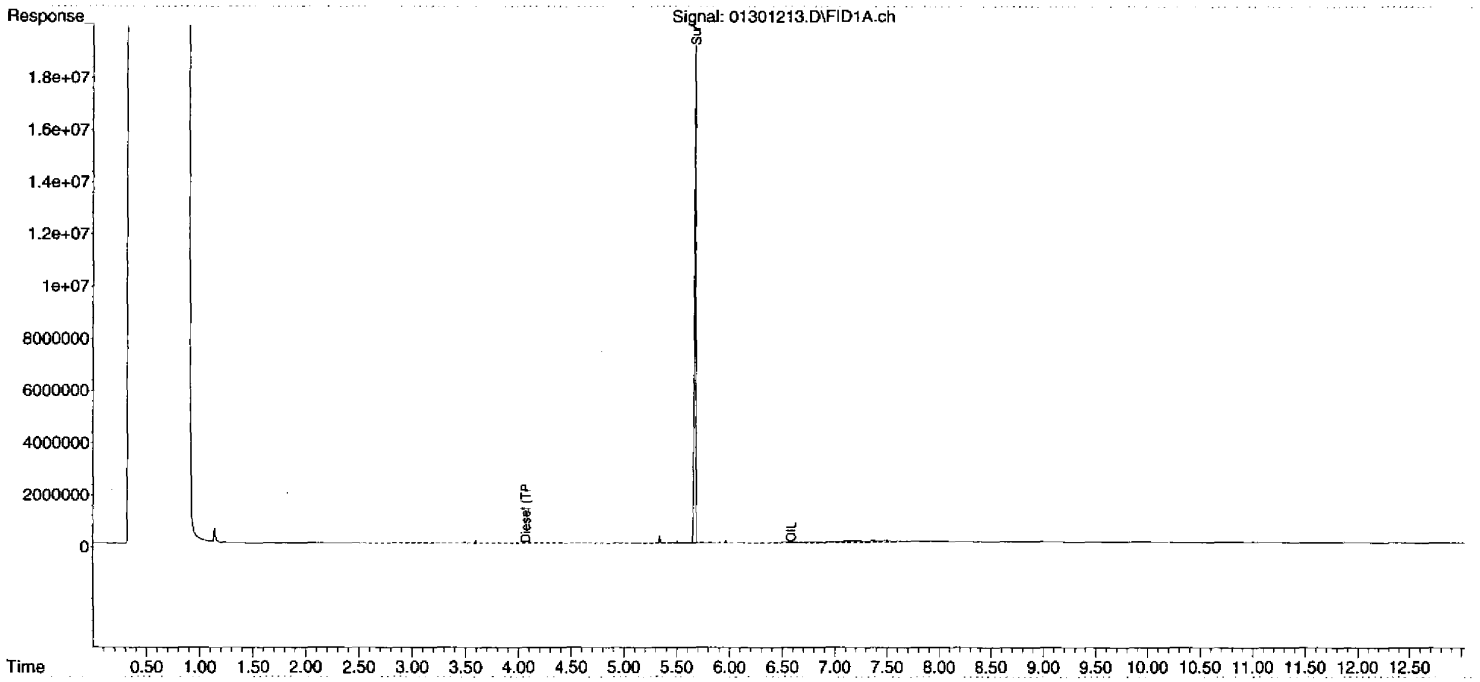
(f)=RT Delta > 1/2 Window (m)=manual int.

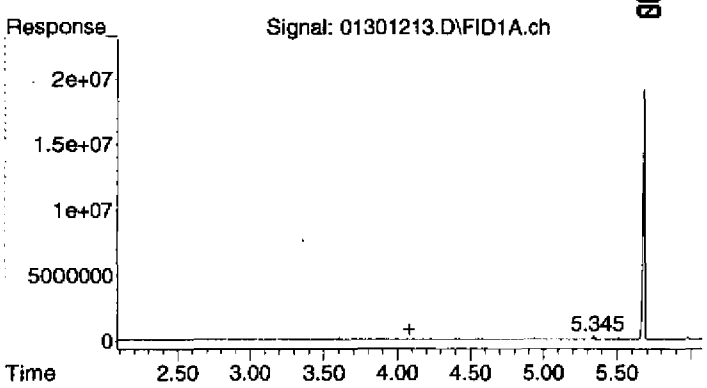
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301213.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:37 pm
Operator : TD
Sample : 2010046-IBL2
Misc : 2A11003 IB
ALS Vial : 13 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 10:08:31 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

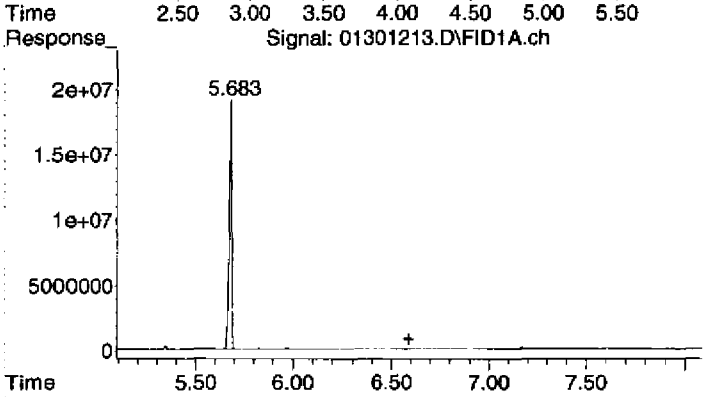
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





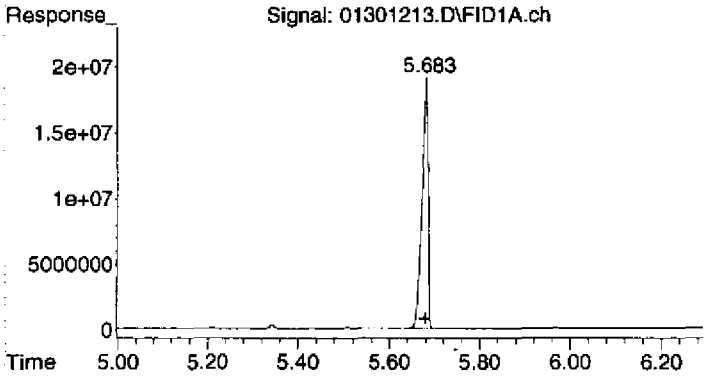
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 8587385
Conc: 2.39 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 30068396
Conc: 15.70 ug/mL



#3 Surrogate

R.T.: 5.681 min
Delta R.T.: 0.001 min
Response: 177903023
Conc: 50.08 ug/mL

C:\msdchem\1\2012\DATA\013012DA\01301214.D

DIESEL SCV REPORT

Instrument Name: AG7890_2
Date Acquired: 1/30/2012 15:55
Acq. Method File: 012712DROA.M
Sample Name: 2010046-SCV1
Misc Info: 2A11009 DRO SCV
Operator: TD

Name	Concentration ng/mL	Calculated	% Recovery	QC Limits	STATUS
Diesel (TPH)	500	502.93	100.59%	70 - 130	pass

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301214.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:55 pm
Operator : TD
Sample : 2010046-SCV1
Misc : 2A11009 DRO SCV
ALS Vial : 14 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:36 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.681	183403369	51.628 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery = 103.26%	
Target Compounds			
1) HM Diesel (TPH)	4.080	1804770347	502.934 ug/mL
2) H OIL	6.590	16050841	8.382 ug/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

1804770347 / 3.588E6 = 503.002

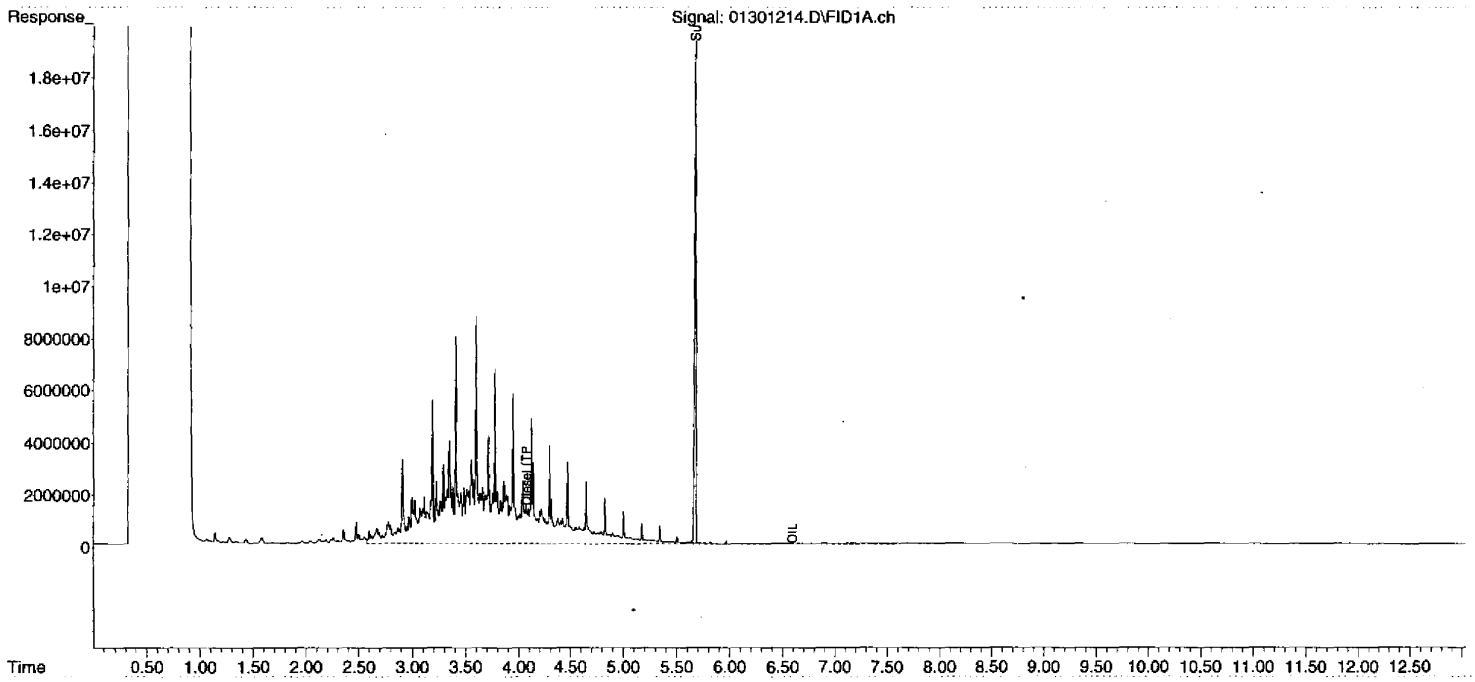
TD 01-31-12

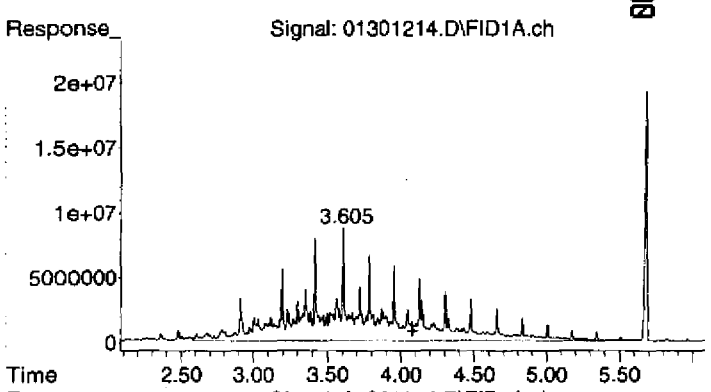
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301214.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 3:55 pm
Operator : TD
Sample : 2010046-SCV1
Misc : 2A11009 DRO SCV
ALS Vial : 14 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:36 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

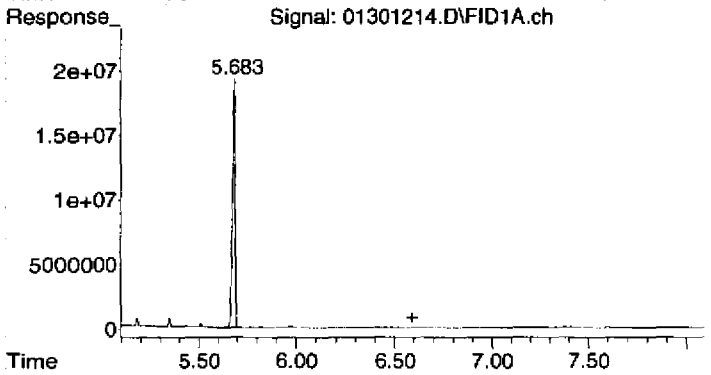
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





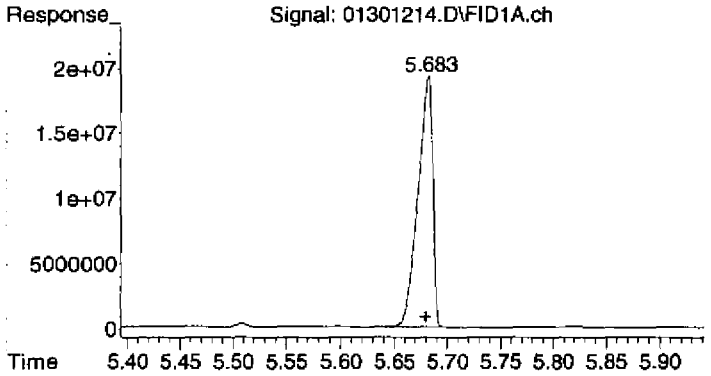
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1804770347
Conc: 502.93 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 16050841
Conc: 8.38 ug/mL



#3 Surrogate

R.T.: 5.681 min
Delta R.T.: 0.001 min
Response: 183403369
Conc: 51.63 ug/mL

C:\msdchem\1\2012\DATA\013012DA\01301215.D

OIL SCV REPORT

Instrument Name: AG7890_2
Date Acquired: 1/30/2012 16:13
Acq. Method File: 012712DROA.M
Sample Name: 2010046-SCV2
Misc Info: 2A11019 OIL SCV
Operator: TD

Name	Concentration ng/mL		% Recovery	QC Limits	STATUS
		Calculated			
OIL	1000	1158.75	115.88%	70 - 130	pass

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301215.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 4:13 pm
Operator : TD
Sample : 2010046-SCV2
Misc : 2A11019 OIL SCV
ALS Vial : 15 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:57:59 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.683	155490720	43.771 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	87.54%
Target Compounds			
1) HM Diesel (TPH)	4.080	383711158	106.929 ug/mL
2) H OIL	6.590	2218869255	1158.754 ug/mLm

(f)=RT Delta > 1/2 Window

(m)=manual int.

TD 01-31-12

2218869255 / 1.915E6 = 1158.678

TD 01-31-12

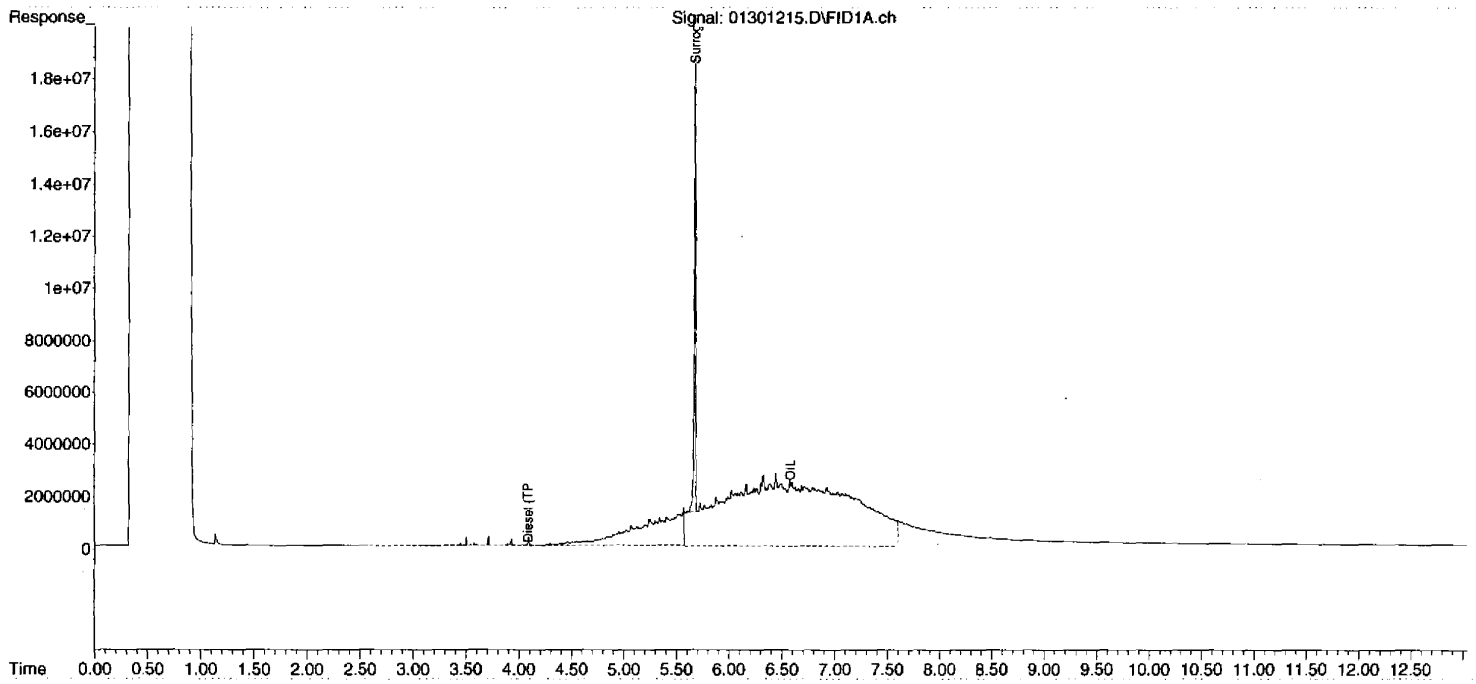
MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: TD	Date: 01-31-12
Manual integration(s) reviewed by:	
Reviewer: TD	Date: 01-31-12

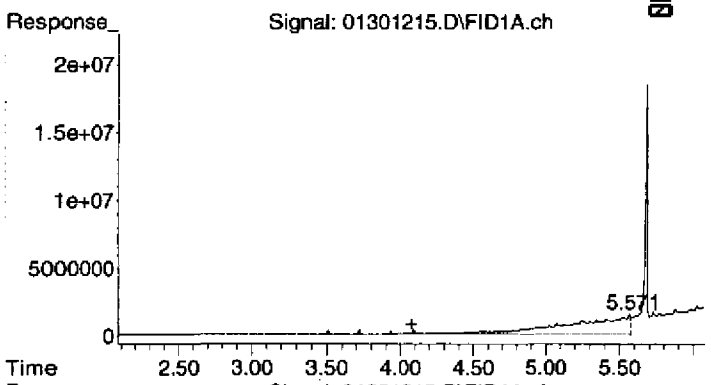
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301215.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 4:13 pm
Operator : TD
Sample : 2010046-SCV2
Misc : 2A11019 OIL SCV
ALS Vial : 15 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:57:59 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

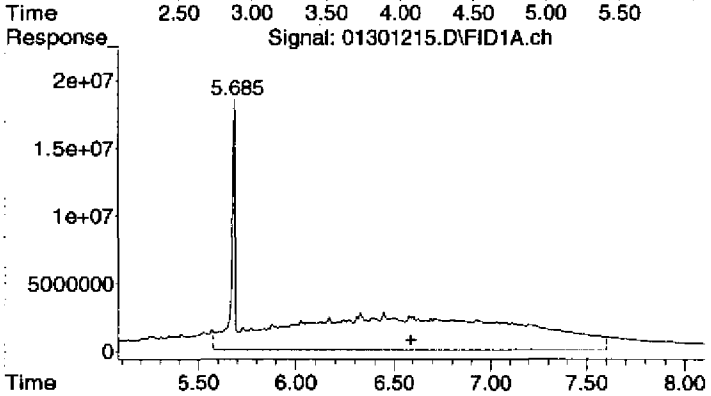
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





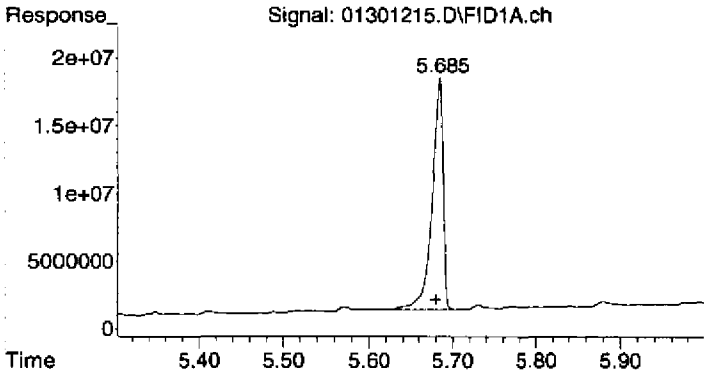
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 383711158
Conc: 106.93 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 2218869255
Conc: 1158.75 ug/mL m



#3 Surrogate

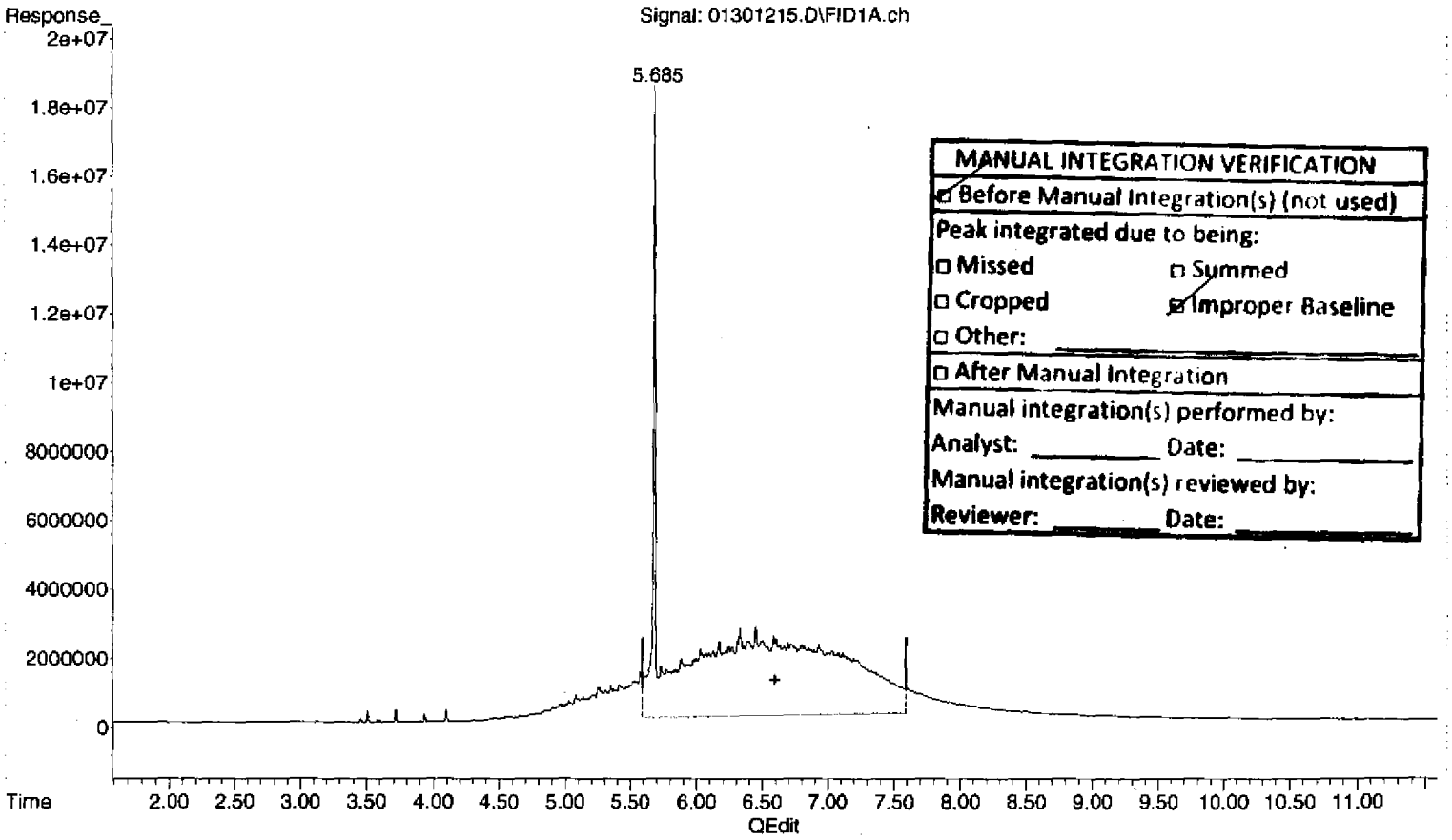
R.T.: 5.683 min
Delta R.T.: 0.004 min
Response: 155490720
Conc: 43.77 ug/mL

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301215.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 4:13 pm
Operator : TD
Sample : 2010046-SCV2
Misc : 2A11019 OIL SCV
ALS Vial : 15 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:40 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☑ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

(2) OIL (H)
6.590min 1021.637 ug/mL
response 1956308099

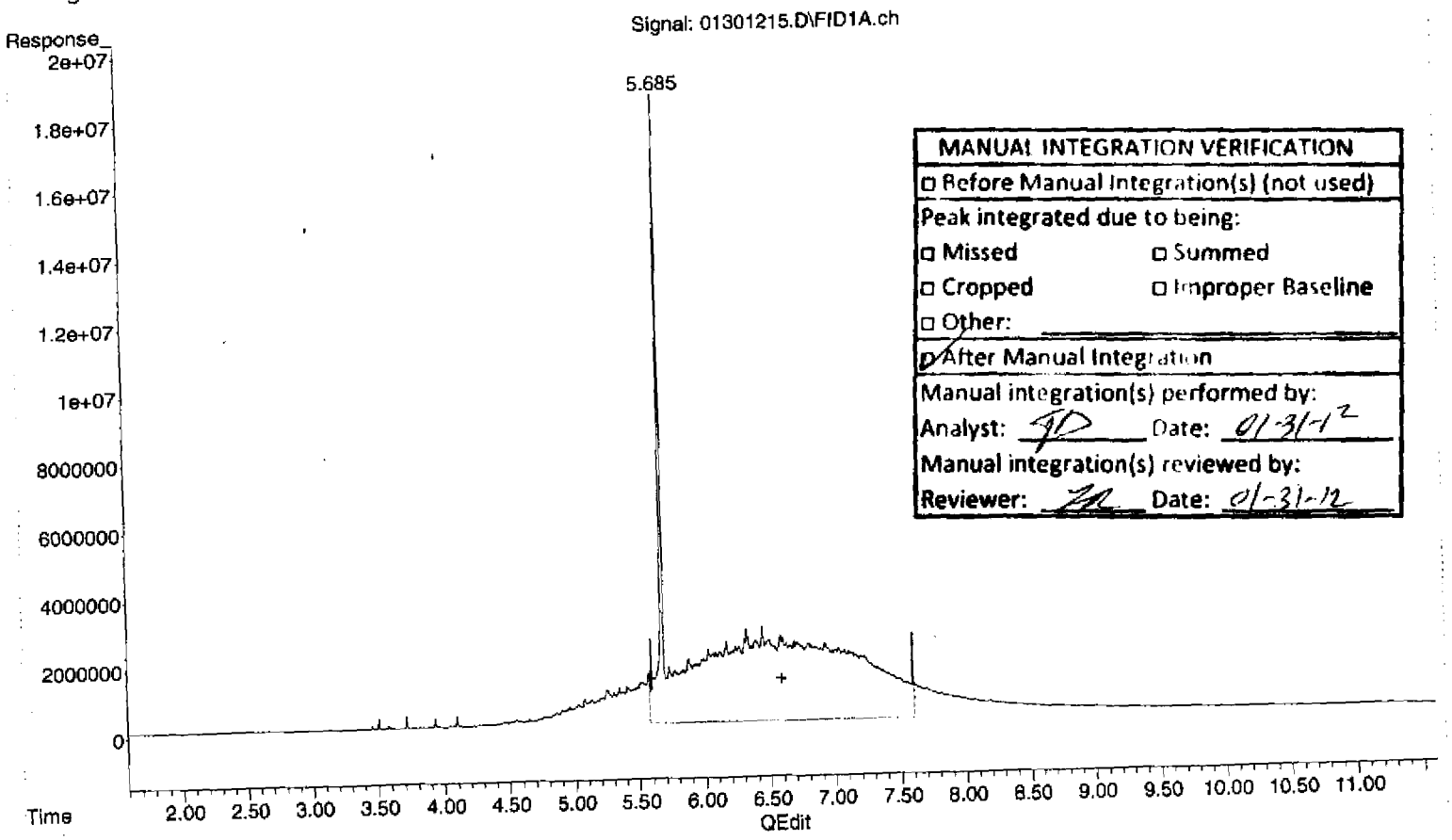
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:57:37 2012

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301215.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 4:13 pm
Operator : TD
Sample : 2010046-SCV2
Misc : 2A11019 OIL SCV
ALS Vial : 15 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:40 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 01-31-12
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 01-31-12

(2) OIL (H)

6.590min 1158.754 ug/mL m

response 2218869255

(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:58:02 2012

DIM0276713

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301215.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 4:13 pm
Operator : TD
Sample : 2010046-SCV2
Misc : 2A11019 OIL SCV
ALS Vial : 15 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:40 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.683	155490720	43.771 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	87.54%
Target Compounds			
1) HM Diesel (TPH)	4.080	383711158	106.929 ug/mL
2) H OIL	6.590	1956308099	1021.637 ug/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

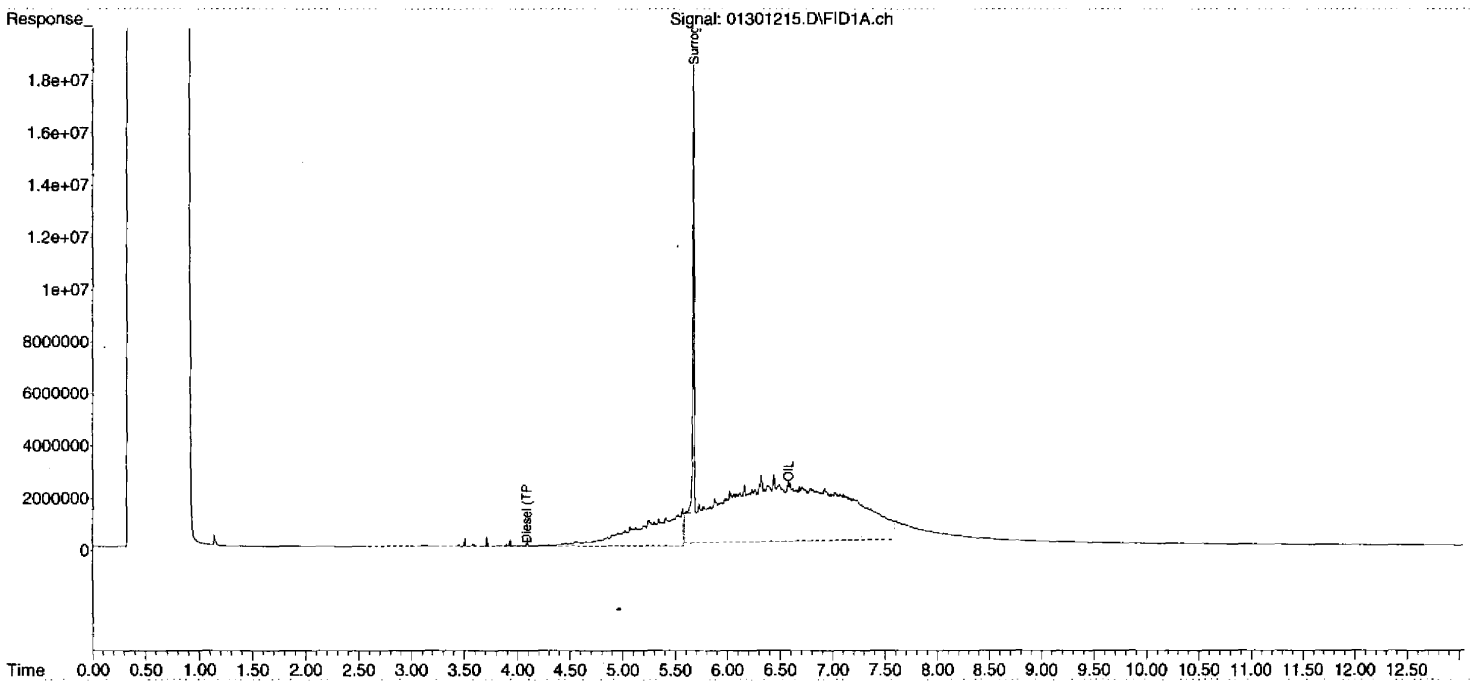
MANUAL INTEGRATION VERIFICATION	
☒ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other: _____	
☐ After Manual Integration	
Manual integration(s) performed by:	
Analyst: _____	Date: _____
Manual integration(s) reviewed by:	
Reviewer: _____	Date: _____

Quantitation Report (Not Reviewed)

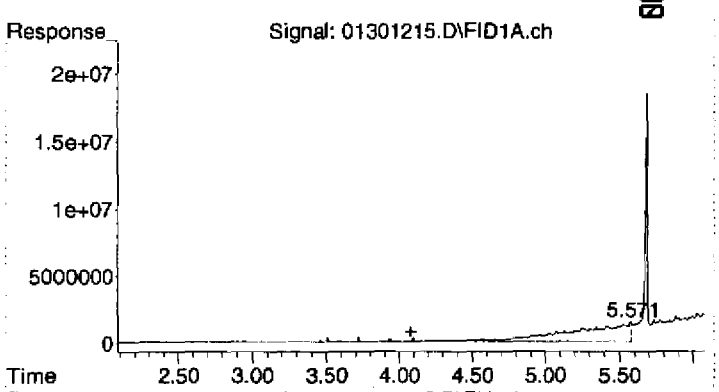
Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301215.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 4:13 pm
Operator : TD
Sample : 2010046-SCV2
Misc : 2A11019 OIL SCV
ALS Vial : 15 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:40 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

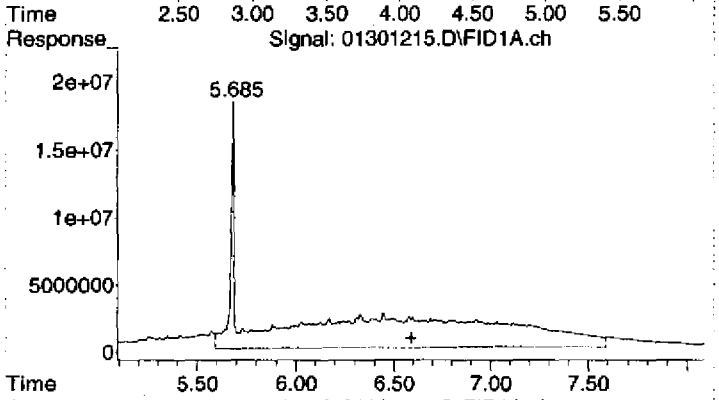


00112
00109
DIM0276600
DIM0276715



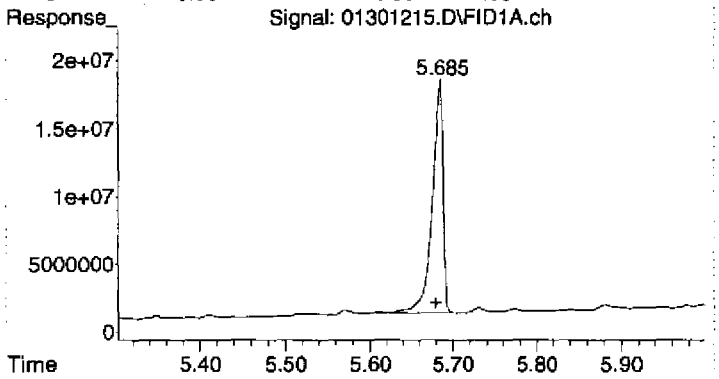
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 383711158
Conc: 106.93 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1956308099
Conc: 1021.64 ug/mL



#3 Surrogate

R.T.: 5.683 min
Delta R.T.: 0.004 min
Response: 155490720
Conc: 43.77 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301216.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 4:31 pm
Operator : TD
Sample : 2010046-ICB2
Misc : 2A11022 Hydraulic Fluid
ALS Vial : 16 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:44 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.688	249870344	70.338 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	140.68%#
Target Compounds			
1) HM Diesel (TPH)	4.080	1509377973	420.617 ug/mL
2) H OIL	6.590	406747007	212.414 ug/mL

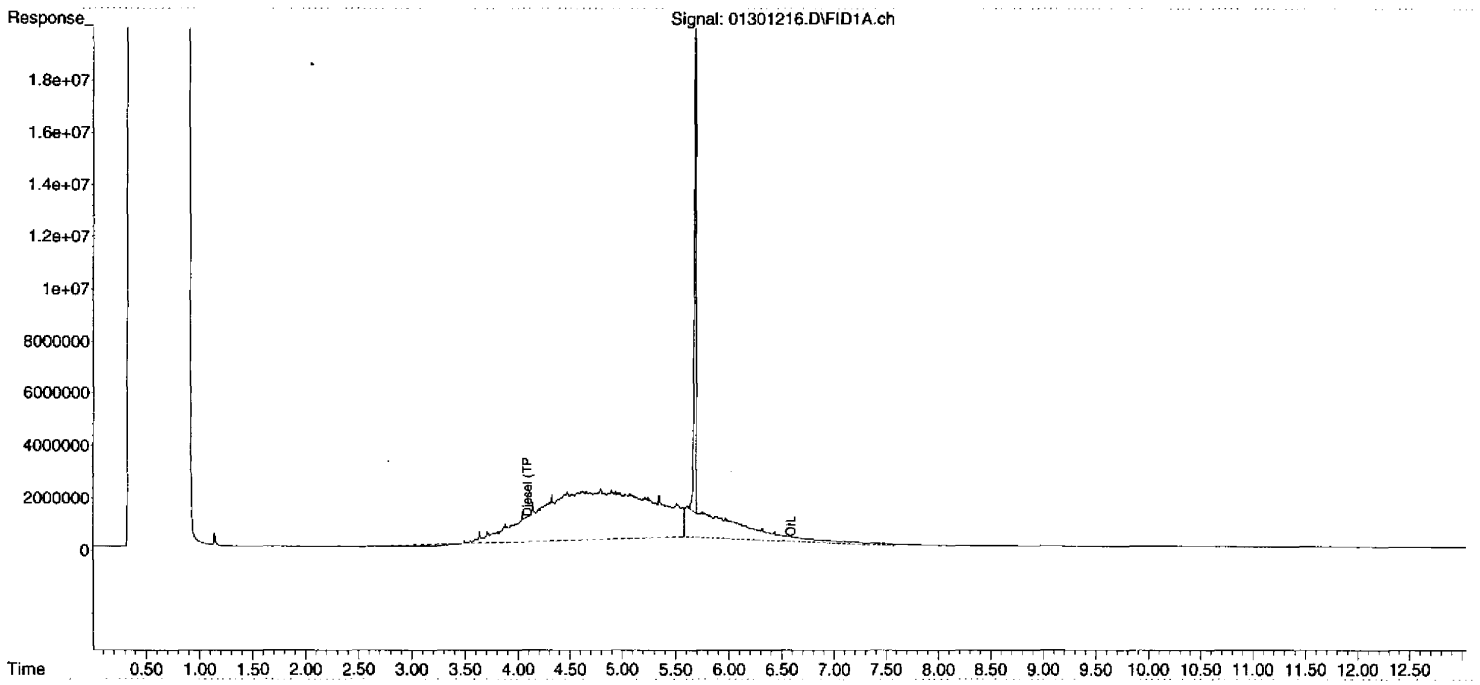
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

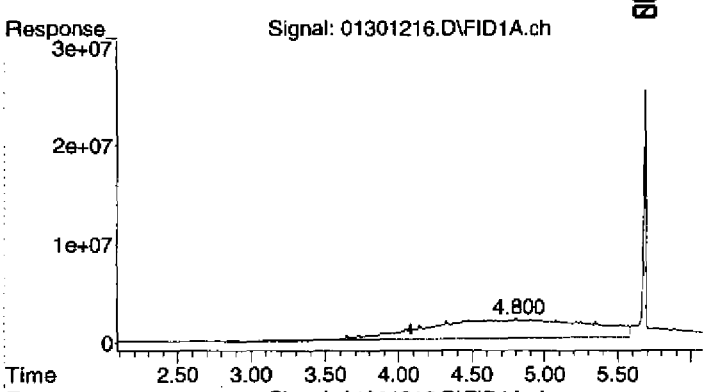
Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301216.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 4:31 pm
Operator : TD
Sample : 2010046-ICB2
Misc : 2A11022 Hydraulic Fluid
ALS Vial : 16 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:44 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

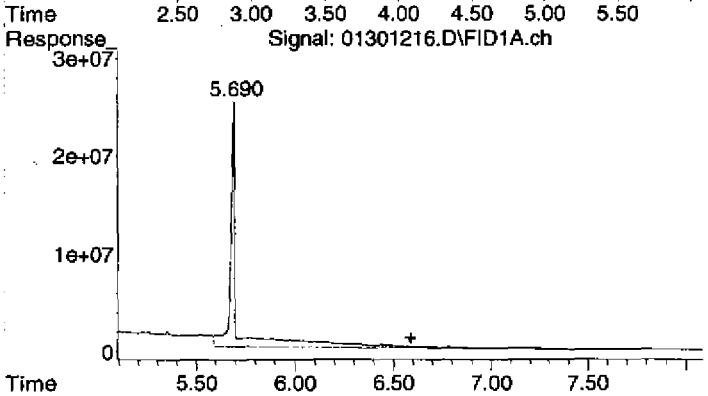


00115
00112
DIM0276600
DIM0276718



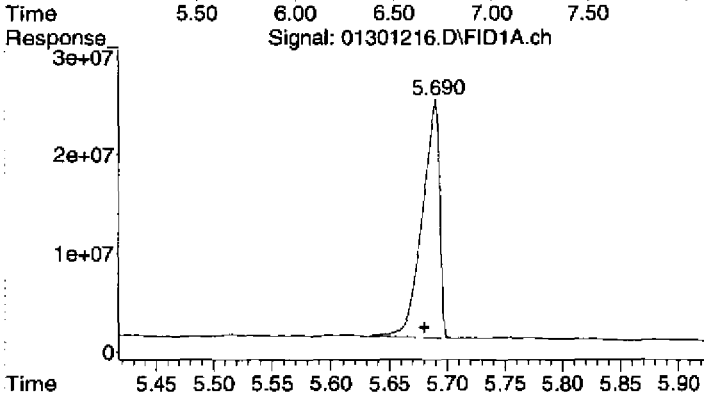
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1509377973
Conc: 420.62 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 406747007
Conc: 212.41 ug/mL



#3 Surrogate

R.T.: 5.688 min
Delta R.T.: 0.008 min
Response: 249870344
Conc: 70.34 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301217.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 4:49 pm
Operator : TD
Sample : 2010046-ICB3
Misc : 2A11026 Mineral Spirit
ALS Vial : 17 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:48 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.686	266828736	75.112 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	150.22%#
Target Compounds			
1) HM Diesel (TPH)	4.080	1567461266	436.803 ug/mL
2) H OIL	6.590	9687685	5.059 ug/mL

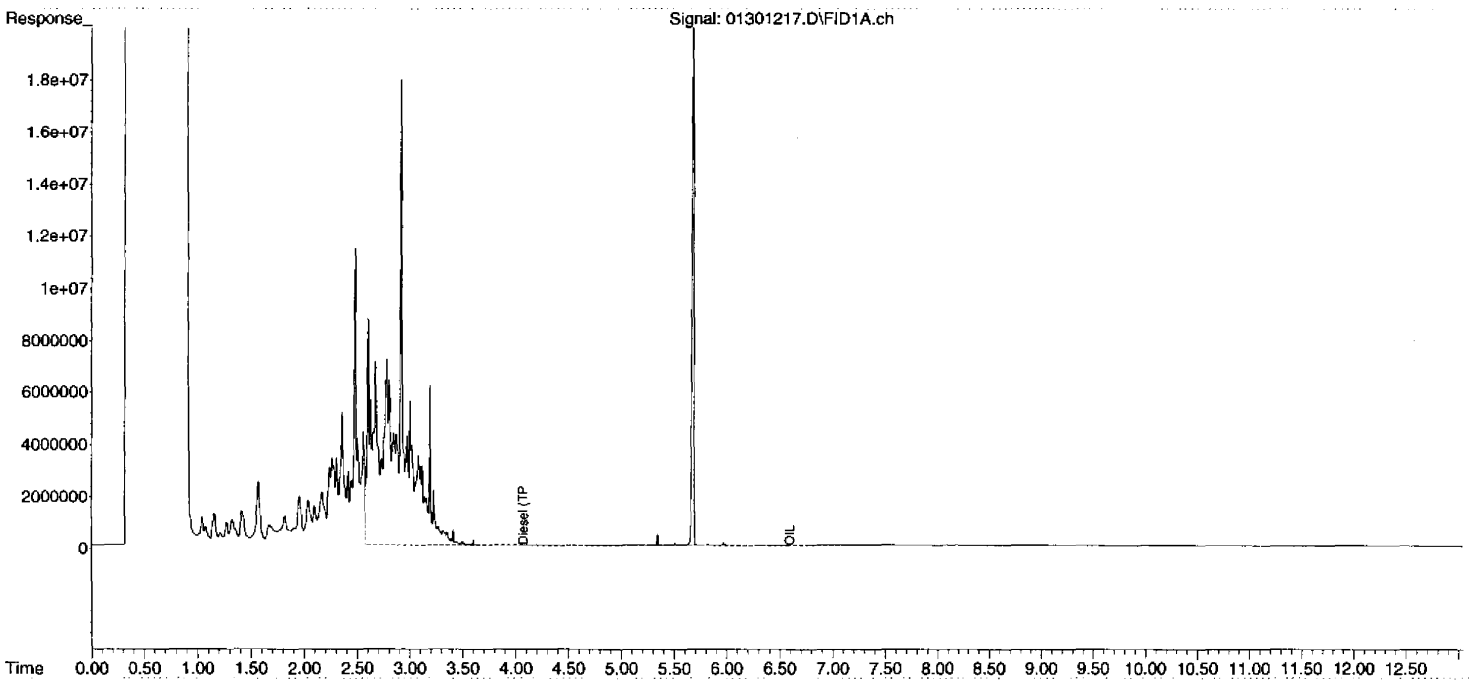
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

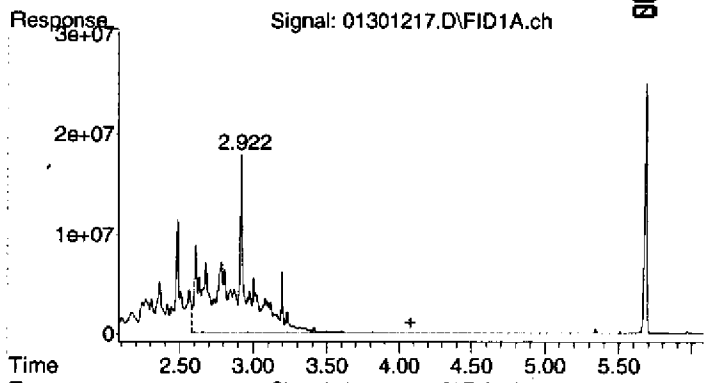
Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301217.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 4:49 pm
Operator : TD
Sample : 2010046-ICB3
Misc : 2A11026 Mineral Spirit
ALS Vial : 17 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:48 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

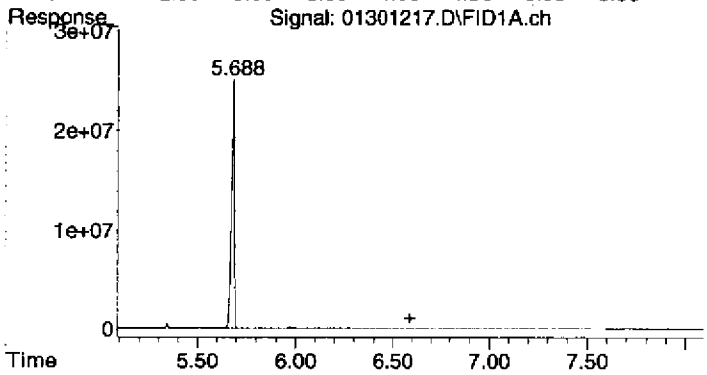


00118
00115
DIM0276600
DIM0276721



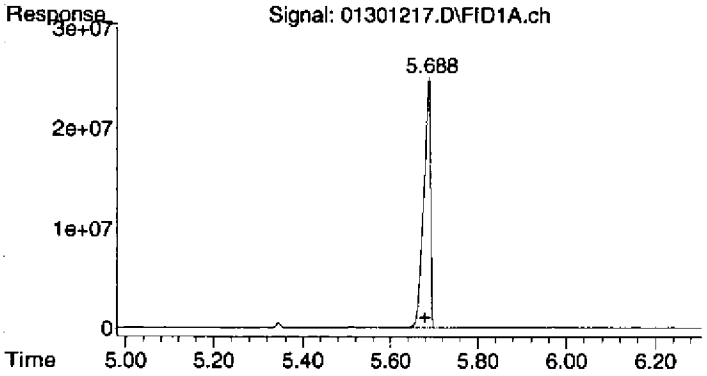
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1567461266
Conc: 436.80 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 9687685
Conc: 5.06 ug/mL



#3 Surrogate

R.T.: 5.686 min
Delta R.T.: 0.006 min
Response: 266828736
Conc: 75.11 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301218.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 5:07 pm
Operator : TD
Sample : 2010046-ICB4
Misc : 2A11027 Naphtha
ALS Vial : 18 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:52 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.683	242678788	68.314 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	136.63%#
Target Compounds			
1) HM Diesel (TPH)	4.080	11281427	3.144 ug/mL
2) H OIL	6.590	7226736	3.774 ug/mL

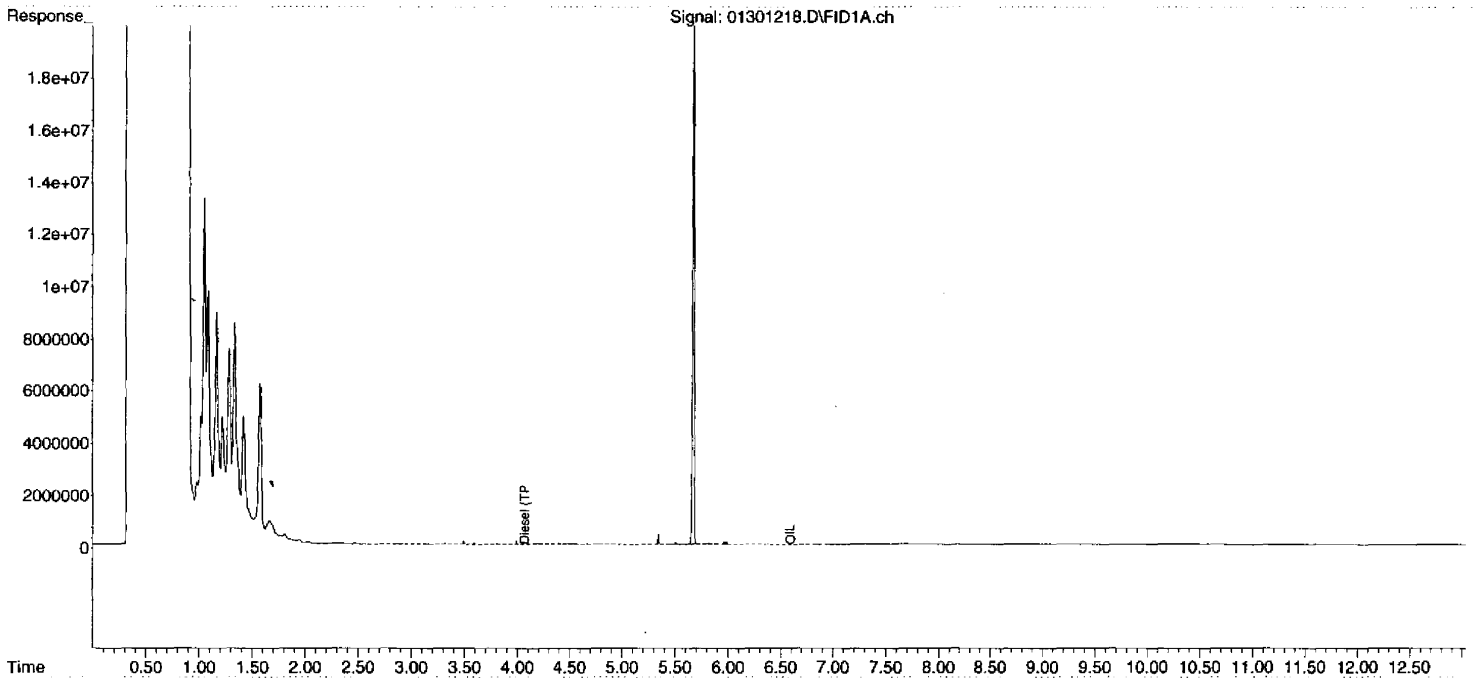
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301218.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 5:07 pm
Operator : TD
Sample : 2010046-ICB4
Misc : 2A11027 Naphtha
ALS Vial : 18 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:52 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



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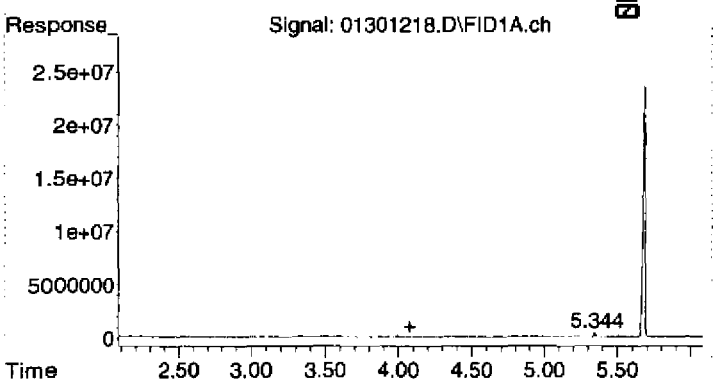
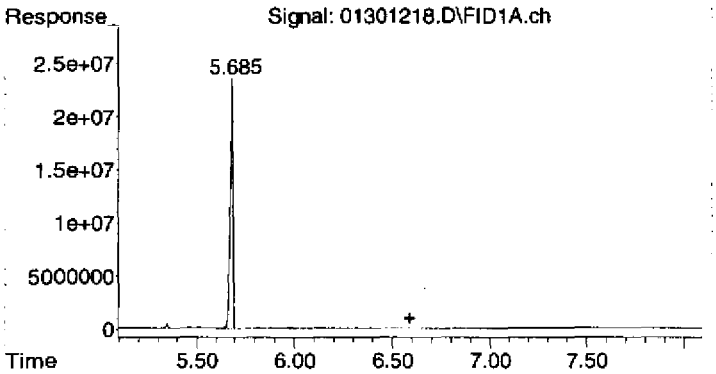


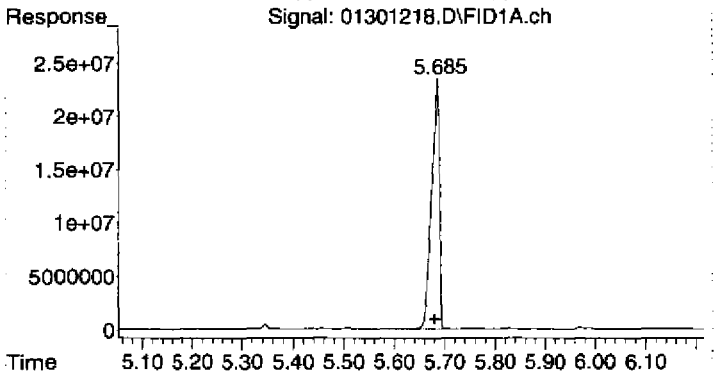
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 11281427
Conc: 3.14 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 7226736
Conc: 3.77 ug/mL



#3 Surrogate

R.T.: 5.683 min
Delta R.T.: 0.003 min
Response: 242678788
Conc: 68.31 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301219.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 5:25 pm
Operator : TD
Sample : 2010046-ICB5
Misc : 2A11021 GAS
ALS Vial : 19 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:56 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.684	251694403	70.852 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	141.70%#
Target Compounds			
1) HM Diesel (TPH)	4.080	182560315	50.874 ug/mL
2) H OIL	6.590	6625782	3.460 ug/mL

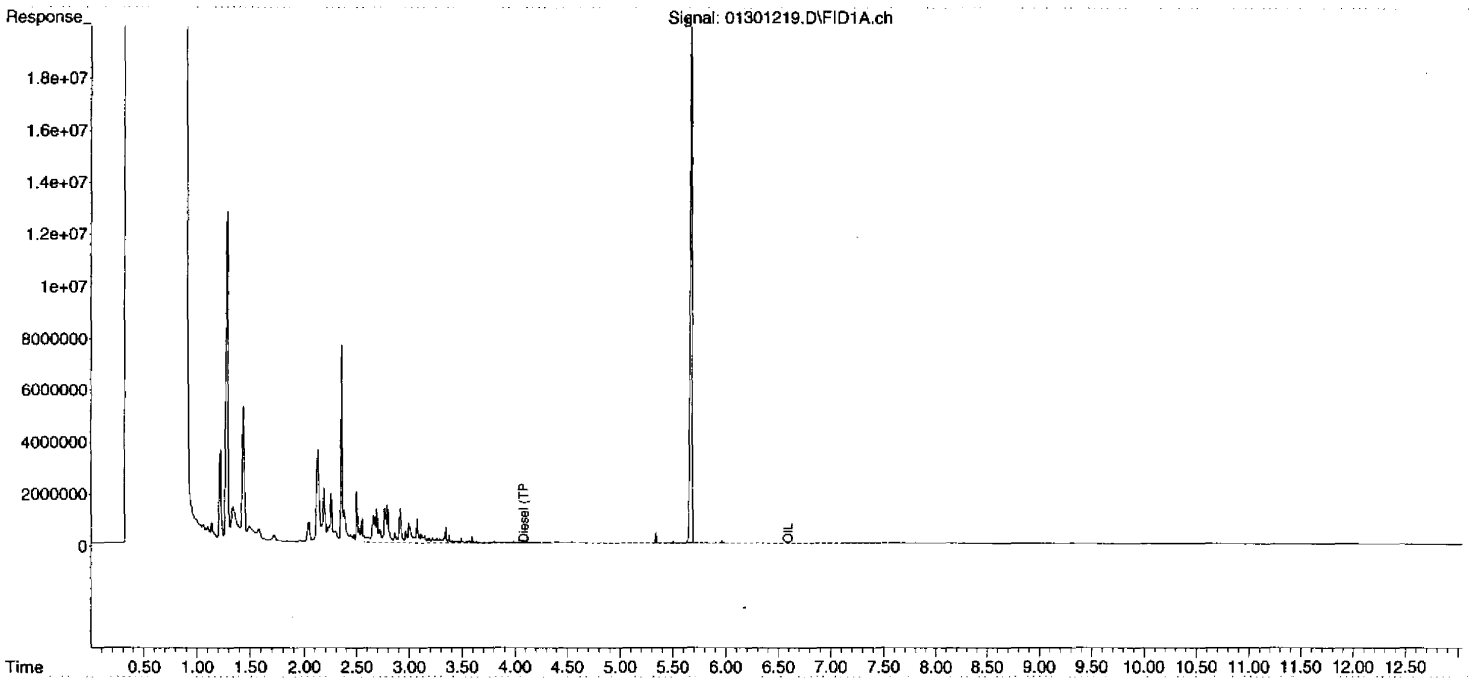
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301219.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 5:25 pm
Operator : TD
Sample : 2010046-ICB5
Misc : 2A11021 GAS
ALS Vial : 19 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:56 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



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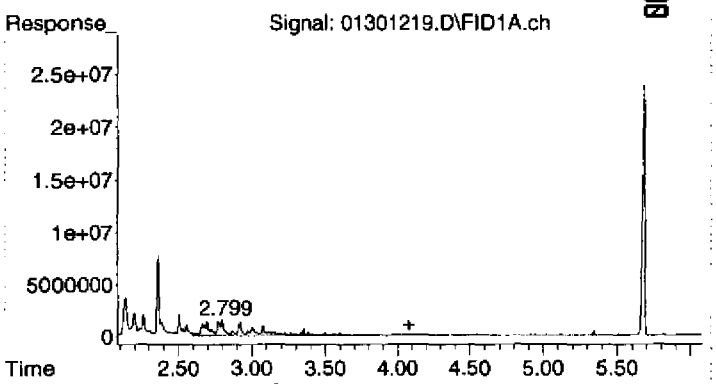
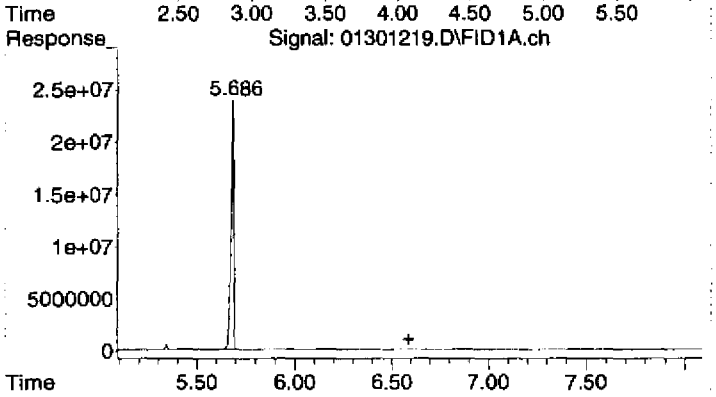


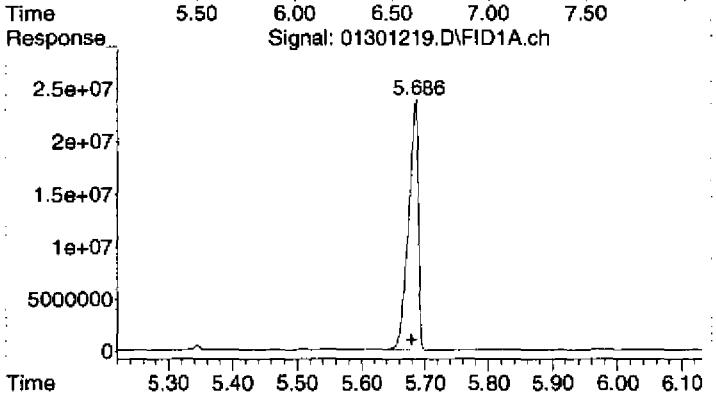
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 182560315
Conc: 50.87 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 6625782
Conc: 3.46 ug/mL



#3 Surrogate

R.T.: 5.684 min
Delta R.T.: 0.004 min
Response: 251694403
Conc: 70.85 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301220.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 5:43 pm
Operator : TD
Sample : 2010046-ICB6
Misc : 1G15010 Kerosene
ALS Vial : 20 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:47:00 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.684	247044705	69.543 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	139.09%#
Target Compounds			
1) HM Diesel (TPH)	4.080	2293312814	639.076 ug/mL
2) H OIL	6.590	6057939	3.164 ug/mL

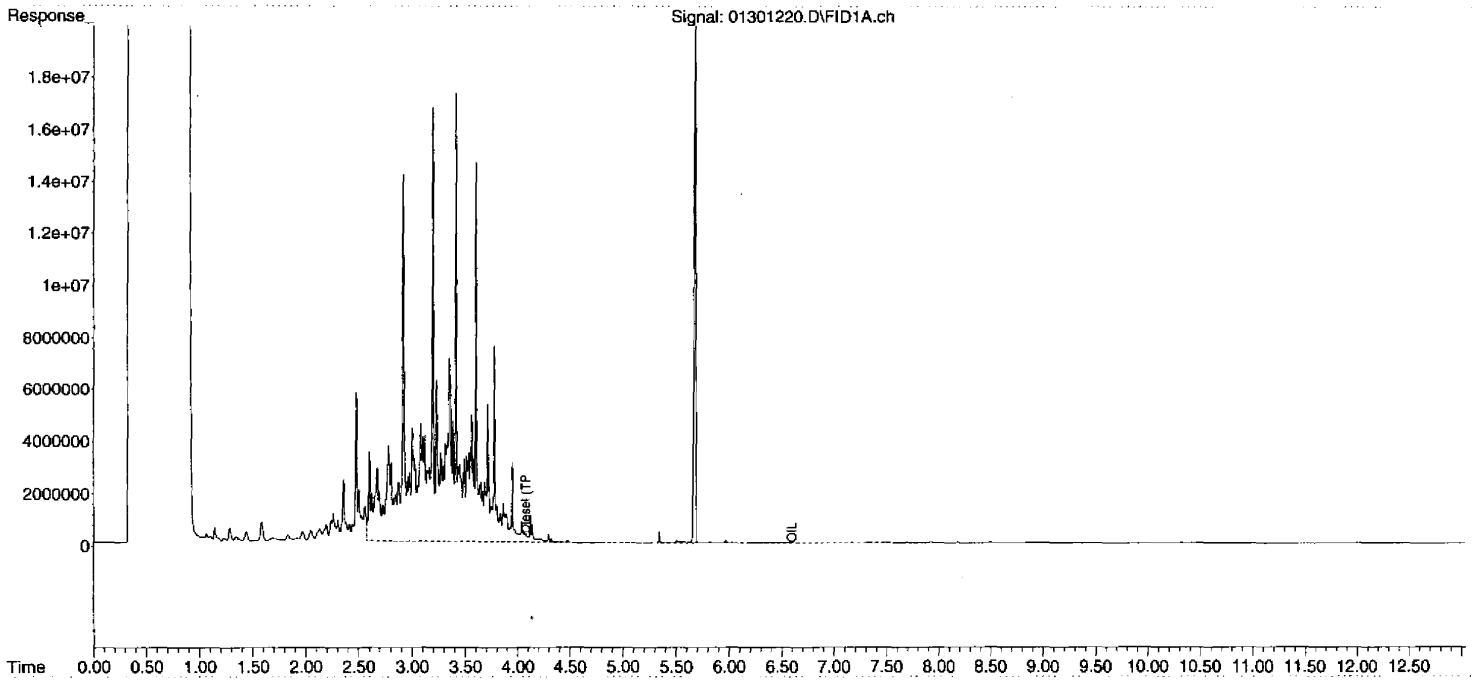
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301220.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 5:43 pm
Operator : TD
Sample : 2010046-ICB6
Misc : 1G15010 Kerosene
ALS Vial : 20 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:47:00 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



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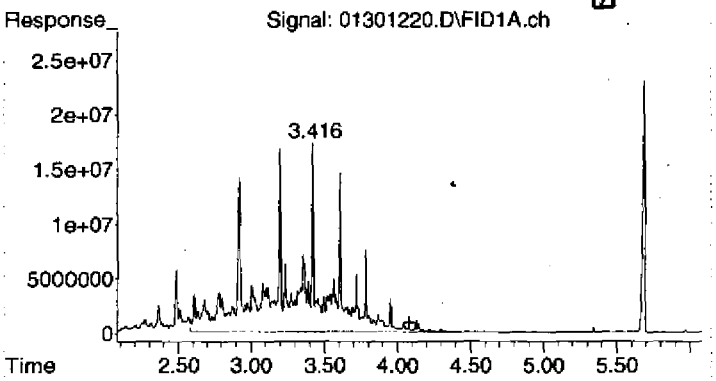
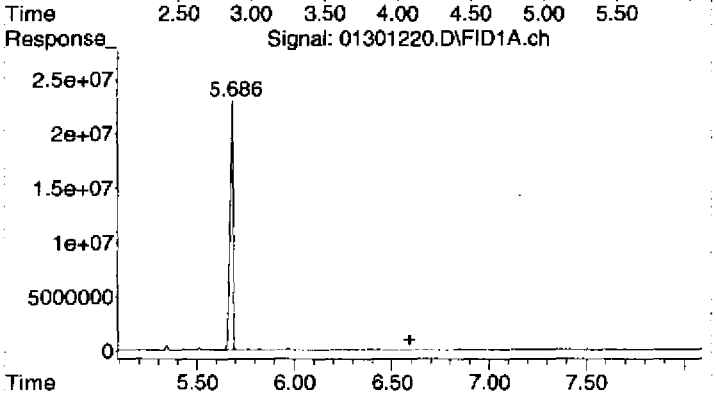
DIM0276730



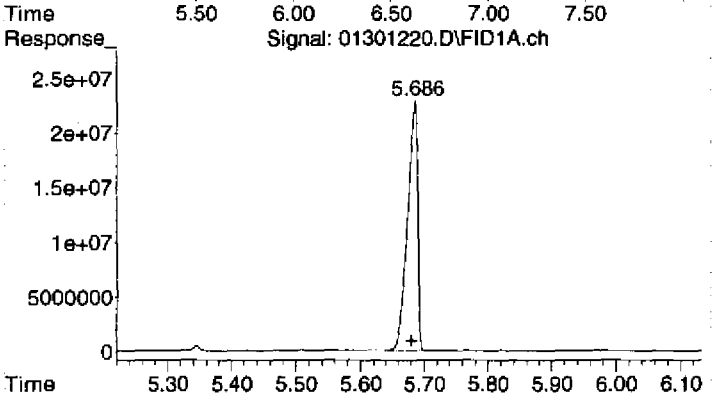
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 2293312814
Conc: 639.08 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 6057939
Conc: 3.16 ug/mL



#3 Surrogate

R.T.: 5.684 min
Delta R.T.: 0.004 min
Response: 247044705
Conc: 69.54 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301221.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 6:02 pm
Operator : TD
Sample : 2010046-ICB7
Misc : 2A11023 Jet Fuel
ALS Vial : 21 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:47:04 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.685	261592238	73.638 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	147.28%#
Target Compounds			
1) HM Diesel (TPH)	4.080	1936982088	539.777 ug/mL
2) H OIL	6.590	7147624	3.733 ug/mL

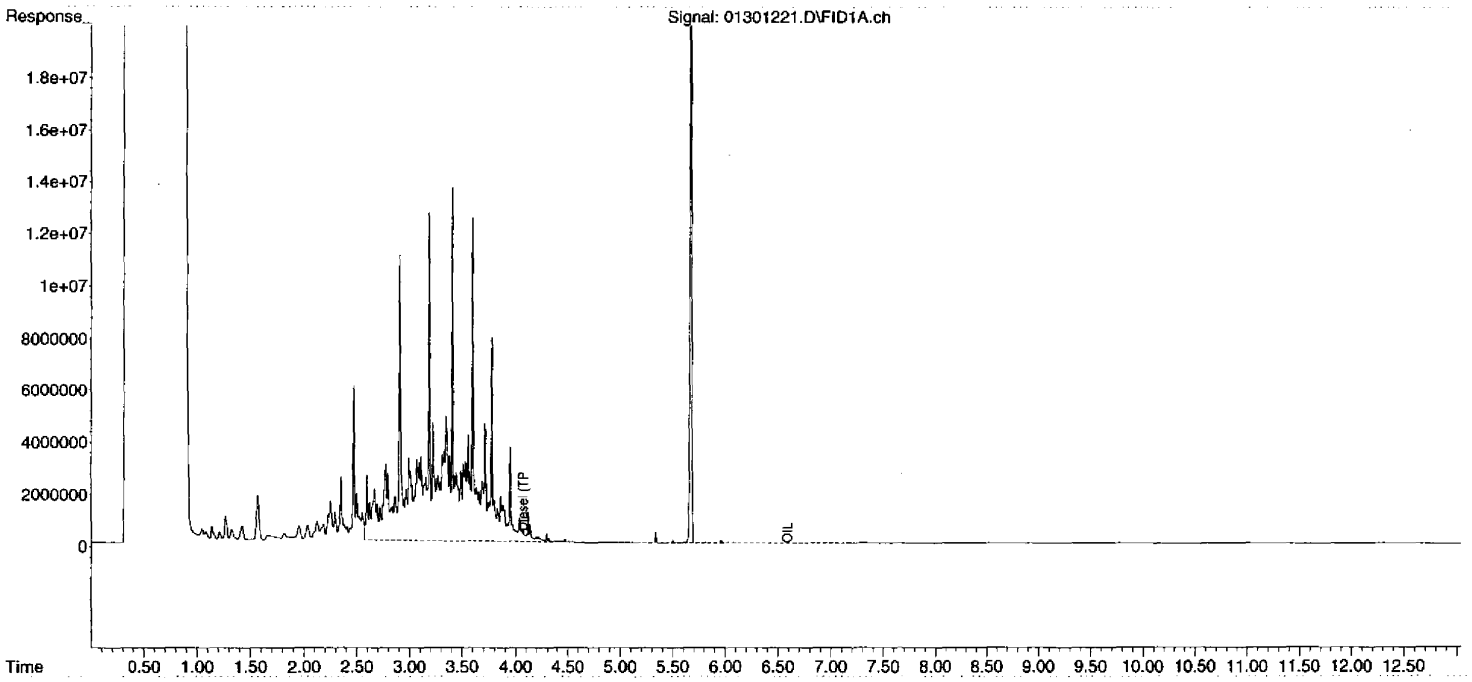
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301221.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 6:02 pm
Operator : TD
Sample : 2010046-ICB7
Misc : 2A11023 Jet Fuel
ALS Vial : 21 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:47:04 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



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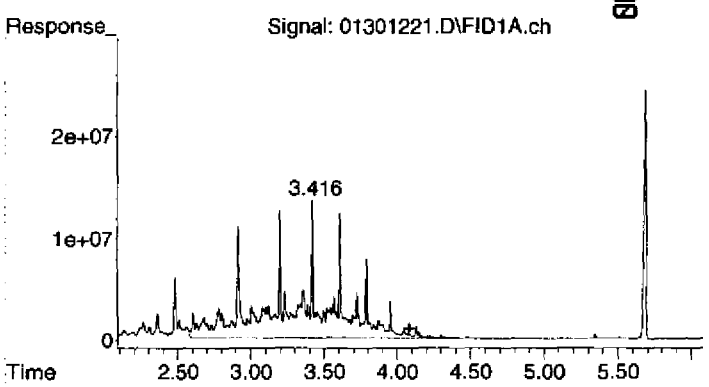
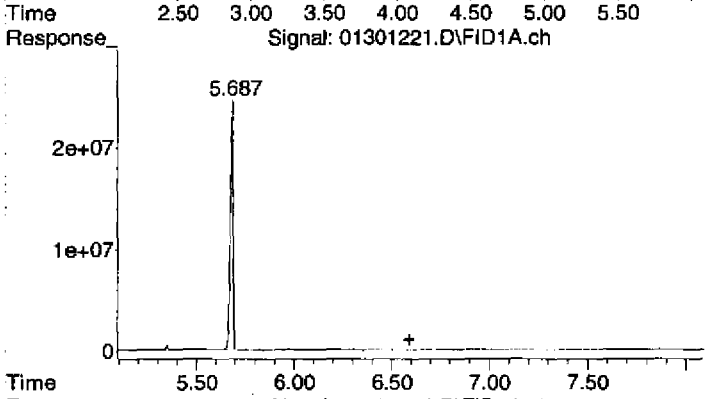


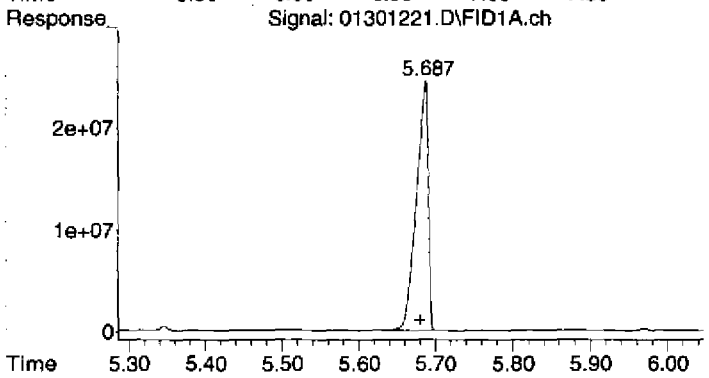
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1936982088
Conc: 539.78 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 7147624
Conc: 3.73 ug/mL



#3 Surrogate

R.T.: 5.685 min
Delta R.T.: 0.005 min
Response: 261592238
Conc: 73.64 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301222.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 6:20 pm
Operator : TD
Sample : 2010046-ICB8
Misc : 2A11028 Turpentine
ALS Vial : 22 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:47:08 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.685	261523791	73.619 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	147.24%#
Target Compounds			
1) HM Diesel (TPH)	4.080	543847919	151.554 ug/mL
2) H OIL	6.590	8098057	4.229 ug/mL

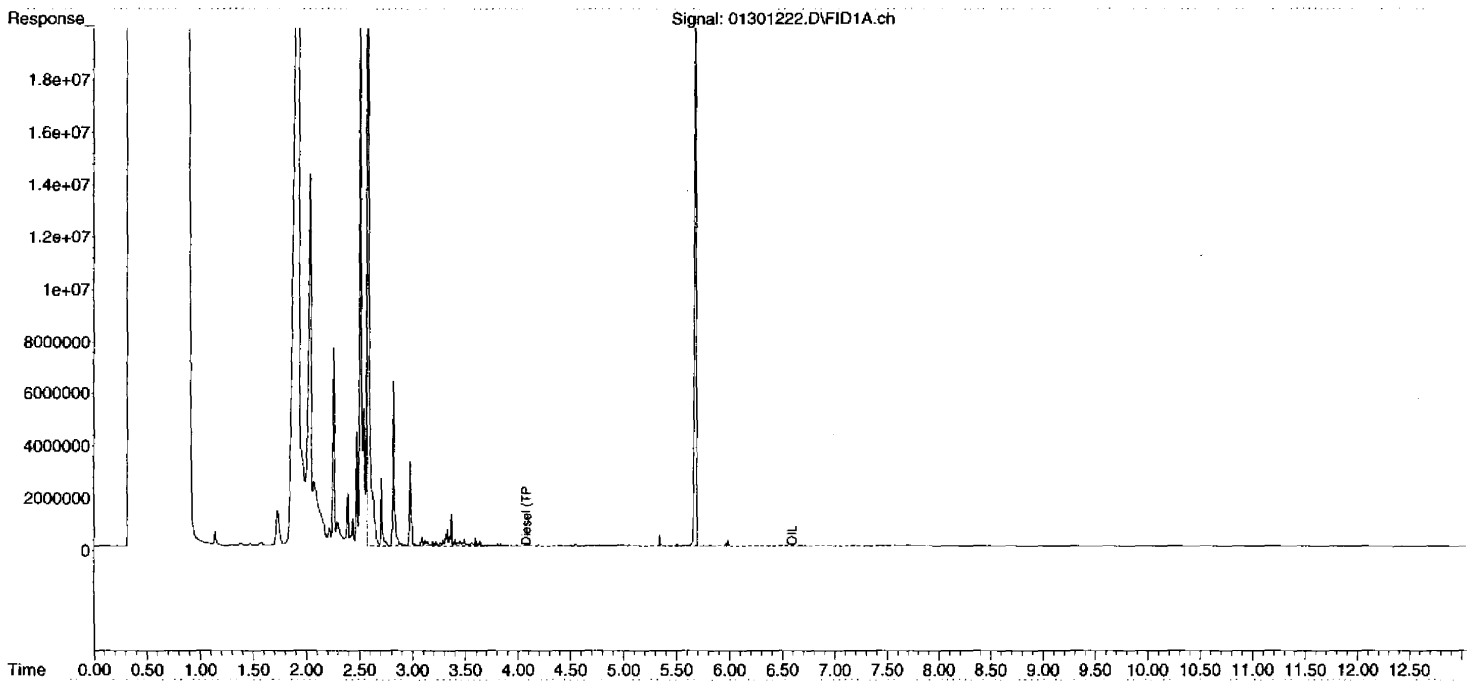
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

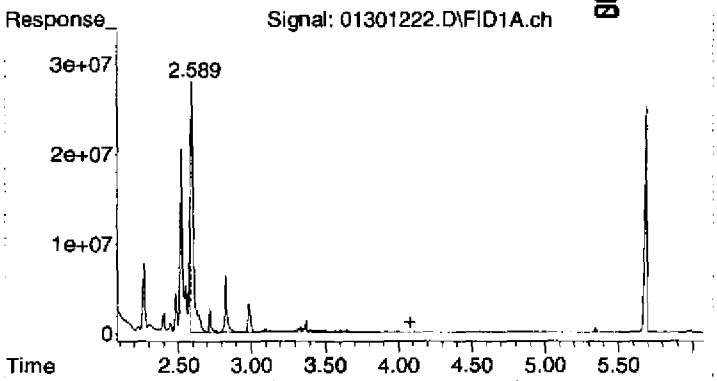
Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301222.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 6:20 pm
Operator : TD
Sample : 2010046-ICB8
Misc : 2A11028 Turpentine
ALS Vial : 22 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:47:08 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

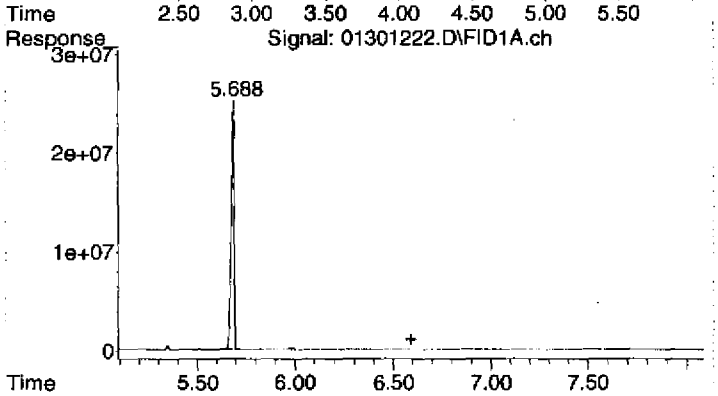


00133
00130
DIM0276600
DIM0276736



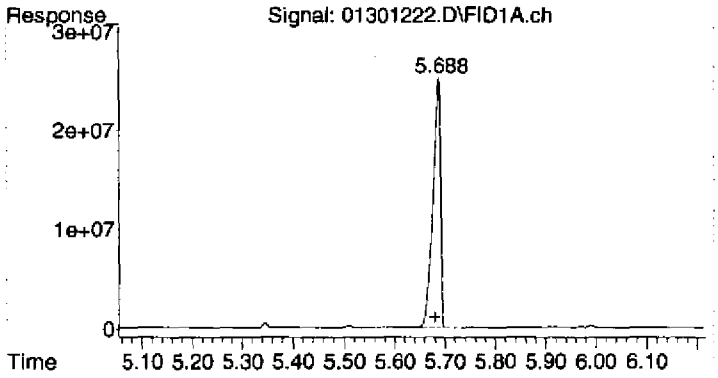
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 543847919
Conc: 151.55 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 8098057
Conc: 4.23 ug/mL



#3 Surrogate

R.T.: 5.685 min
Delta R.T.: 0.006 min
Response: 261523791
Conc: 73.62 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301223.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 6:38 pm
Operator : TD
Sample : 2010046-ICB9
Misc : 2A11029 Lacqure Thinner
ALS Vial : 23 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:47:12 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.684	231921813	65.286 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	130.57%#
Target Compounds			
1) HM Diesel (TPH)	4.080	10435482	2.908 ug/mL
2) H OIL	6.590	7970634	4.162 ug/mL

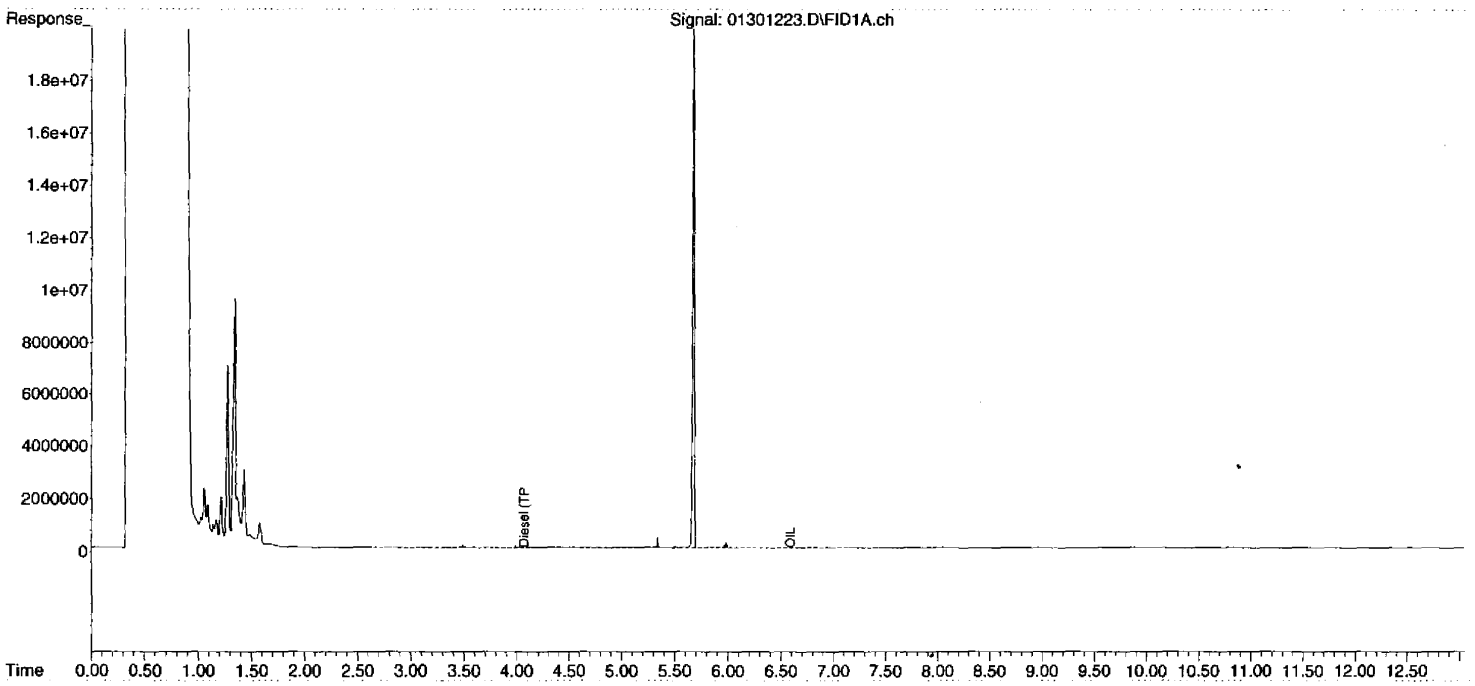
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301223.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 6:38 pm
Operator : TD
Sample : 2010046-ICB9
Misc : 2A11029 Lacqure Thinner
ALS Vial : 23 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:47:12 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



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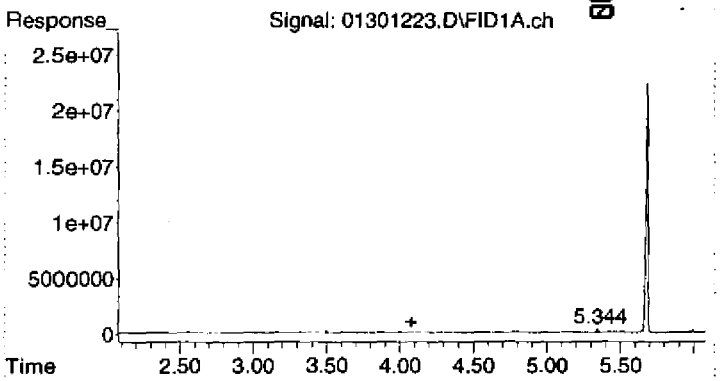
00133

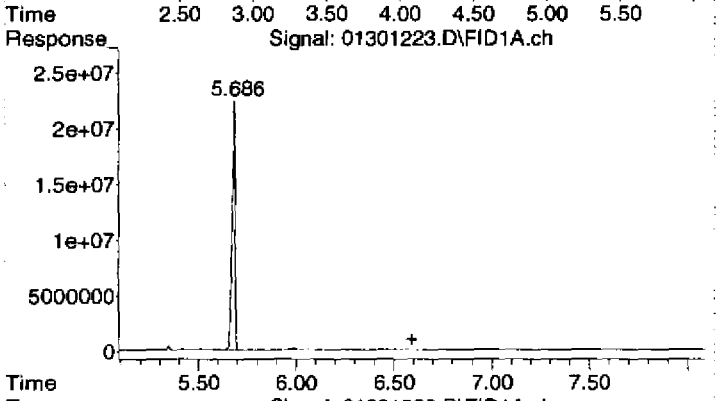
DIM0276739

DIM0276600



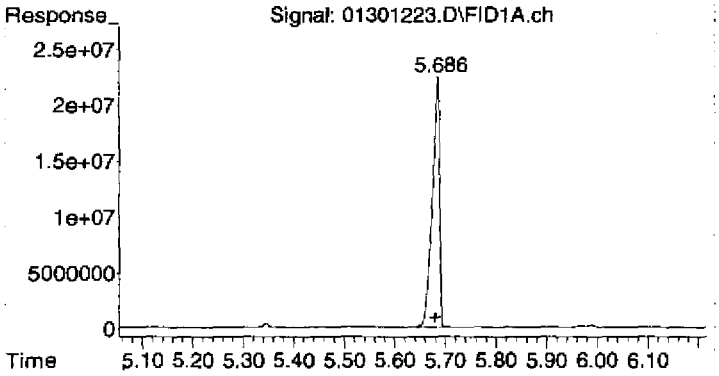
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 10435482
Conc: 2.91 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 7970634
Conc: 4.16 ug/mL



#3 Surrogate

R.T.: 5.684 min
Delta R.T.: 0.004 min
Response: 231921813
Conc: 65.29 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301224.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 6:56 pm
Operator : TD
Sample : 2010046-ICBA
Misc : 2A11025 Stodard Solvent
ALS Vial : 24 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:47:16 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.684	236480516	66.569 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	133.14%#
Target Compounds			
1) HM Diesel (TPH)	4.080	747257494	208.238 ug/mL
2) H OIL	6.590	7986945	4.171 ug/mL

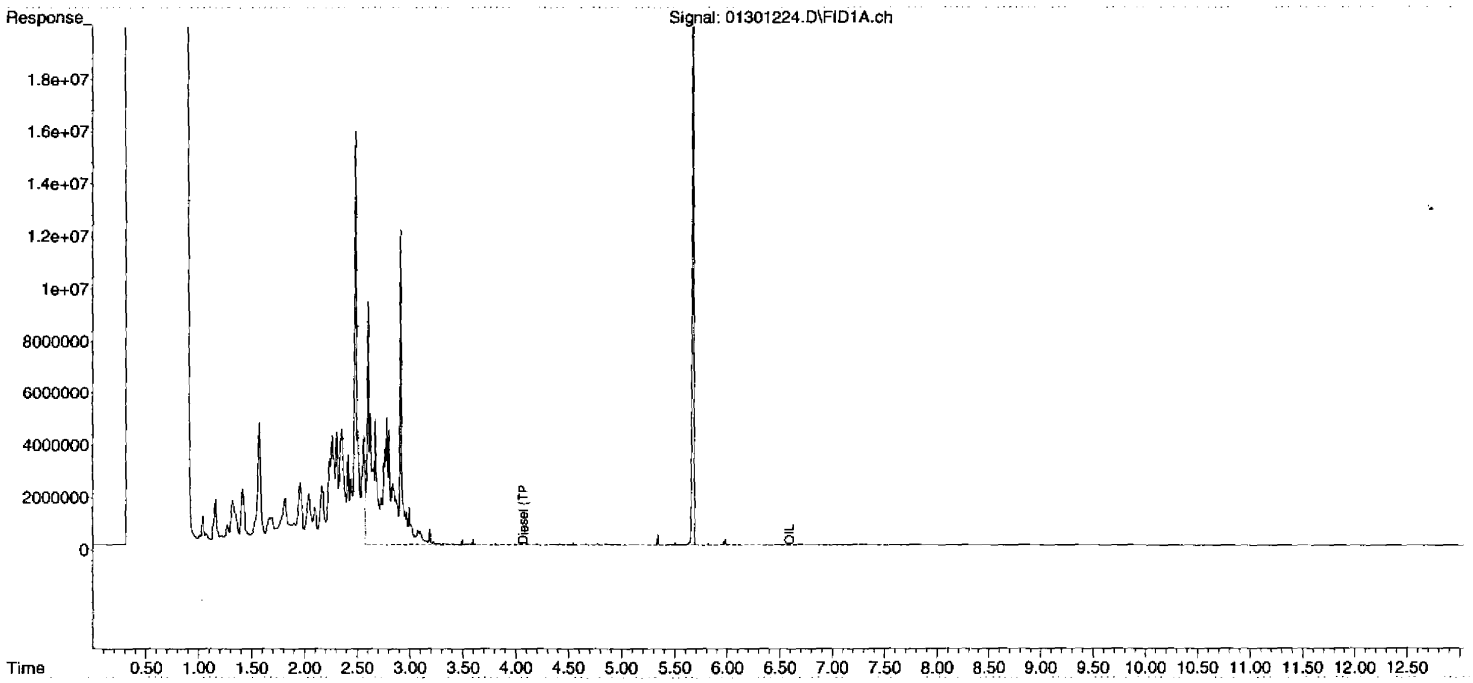
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301224.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 6:56 pm
Operator : TD
Sample : 2010046-ICBA
Misc : 2A11025 Stodard Solvent
ALS Vial : 24 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:47:16 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

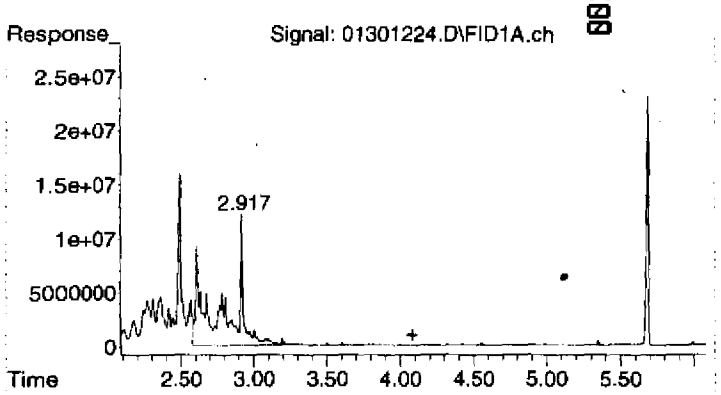


00139

00136

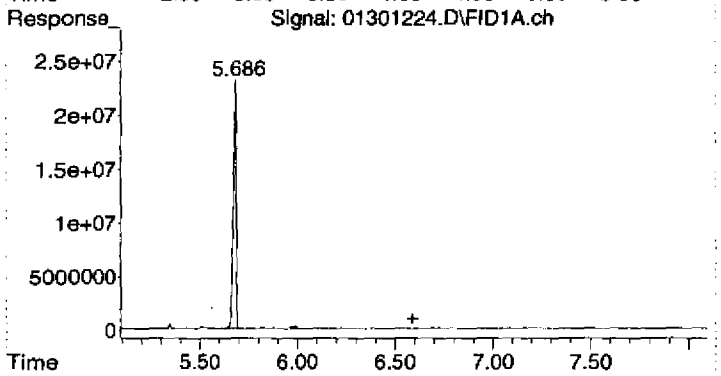
DIM0276742

DIM0276600



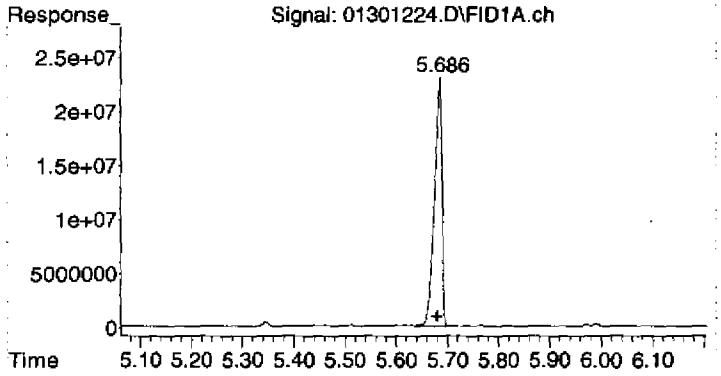
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 747257494
Conc: 208.24 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 7986945
Conc: 4.17 ug/mL



#3 Surrogate

R.T.: 5.684 min
Delta R.T.: 0.004 min
Response: 236480516
Conc: 66.57 ug/mL

00141

SDG: 120301A
Instrument: AG7890-2
Analysis Date: 01-31-12

SAMPLE DATA

DIM0276744

DIM0276600

Injection Log

Operator: TD
Directory: C:\msdchem\1\2012\DATA\013112DA\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	01311201.D	1	2010053-IBL1	2A11003 IB	31 Jan 2012 12:05 pm
2	01311202.D	1	2010053-CCV1	2A11005 DRO-CV	31 Jan 2012 12:23 pm
3	01311203.D	1	2010053-LCV1	2A11004 DRO-QLS	31 Jan 2012 12:41 pm
4	01311204.D	1	2010053-CCV2	2A11012 OIL-CV	31 Jan 2012 12:59 pm
5	01311205.D	1	2010053-LCV2	2A11011 OIL-A	31 Jan 2012 1:17 pm
6	01311206.D	1	B2A0071-BLK1	RB	31 Jan 2012 1:35 pm
7	01311207.D	1	B2A0071-BS1	BS	31 Jan 2012 1:53 pm
8	01311208.D	1	1201033-01	FB03	31 Jan 2012 2:11 pm
9	01311209.D	1	1201033-02	HW02	31 Jan 2012 2:29 pm
10	01311210.D	1	1201033-03	HW02z	31 Jan 2012 2:47 pm
11	01311211.D	1	1201033-04	HW08a	31 Jan 2012 3:05 pm
12	01311212.D	1	1201034-01	FB04	31 Jan 2012 3:23 pm
13	01311213.D	1	1201034-02	HW5	31 Jan 2012 3:41 pm
14	01311214.D	1	1201034-03	HW6	31 Jan 2012 3:59 pm
15	01311215.D	1	1201034-04	HW12	31 Jan 2012 4:17 pm
16	01311216.D	1	1201034-05	HW14-P	31 Jan 2012 4:35 pm
17	01311217.D	1	1201034-06	HW14	31 Jan 2012 4:53 pm
18	01311218.D	1	1201034-09	FB05	31 Jan 2012 5:11 pm
19	01311219.D	1	1201034-10	HW01	31 Jan 2012 5:29 pm
20	01311220.D	1	1201034-11	HW24-P	31 Jan 2012 5:47 pm
21	01311221.D	1	1201034-15	HW17	31 Jan 2012 6:05 pm
22	01311222.D	1	1201034-16	HW24	31 Jan 2012 6:23 pm
23	01311223.D	1	2010053-IBL2	2A11003 IB	31 Jan 2012 6:41 pm
24	01311224.D	1	2010053-CCV3	2A11005 DRO-CV	31 Jan 2012 6:59 pm
25	01311225.D	1	2010053-CCV4	2A11012 OIL-CV	31 Jan 2012 7:17 pm
26	01311226.D	1	2010053-CCV5	2A11005 DRO-CV	31 Jan 2012 7:35 pm
27	01311227.D	1	2010053-CCV6	2A11012 OIL-CV	31 Jan 2012 7:53 pm

00143

Method Path : C:\msdchem\1\2012\METHOD\
Method File : 013012DROA.M
Title : GC TPH Method
Last Update : Tue Jan 31 09:45:52 2012
Response Via : Initial Calibration

Calibration Files

50	=01301203.D	150	=01301204.D	500	=01301205.D
1250	=01301206.D	4000	=01301207.D	OIL1	=01301208.D

	Compound	50	150	500	1250	4000	OIL1	Avg	%RSD
1) HM	Diesel (TPH)	4.006	3.630	3.163	3.526	3.617		3.588 E6	8.38
2) H	OIL						1.883	1.915 E6	4.11
3) S	Surrogate	3.698	3.473	3.358	3.655	3.578		3.552 E6	3.89

(#) = Out of Range ### Number of calibration levels exceeded format ###

GC QA-QC Check Report

Daily Calibration File : C:\msdchem\1\2012\DATA\013112DA\01311202.D
Time Acquired : 31 Jan 2012 12:23 pm

File	Sample	Surrogate Recovery %	Internal Standard Responses
01311206.D	B2A0071-BL	96	
01311207.D	B2A0071-BS	87	
01311208.D	1201033-01	96	
01311209.D	1201033-02	97	
01311210.D	1201033-03	91	
01311211.D	1201033-04	86	
01311212.D	1201034-01	94	
01311213.D	1201034-02	94	
01311214.D	1201034-03	86	
01311215.D	1201034-04	97	
01311216.D	1201034-05	98	
01311217.D	1201034-06	93	
01311218.D	1201034-09	95	
01311219.D	1201034-10	94	
01311220.D	1201034-11	87	
01311221.D	1201034-15	88	
01311222.D	1201034-16	90	

(fails) - fails 12hr time check * - fails criteria

Created: Wed Feb 01 08:16:30 2012 AG7890_2

Quantitation Report (Not Reviewed)

00145

Data Path : C:\msdchem\1\2012\DATA\013112D\
Data File : 01311201.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:05 pm Operator: TD
Sample : 2010053-IBL1 Inst : AG7890_2
Misc : 2A11003 IB
ALS Vial : 1 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:26 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.719	174480015	49.116 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	98.23%
Target Compounds			
1) HM Diesel (TPH)	4.080	15857224	4.419 ug/mL
2) H OIL	6.590	6399812	3.342 ug/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

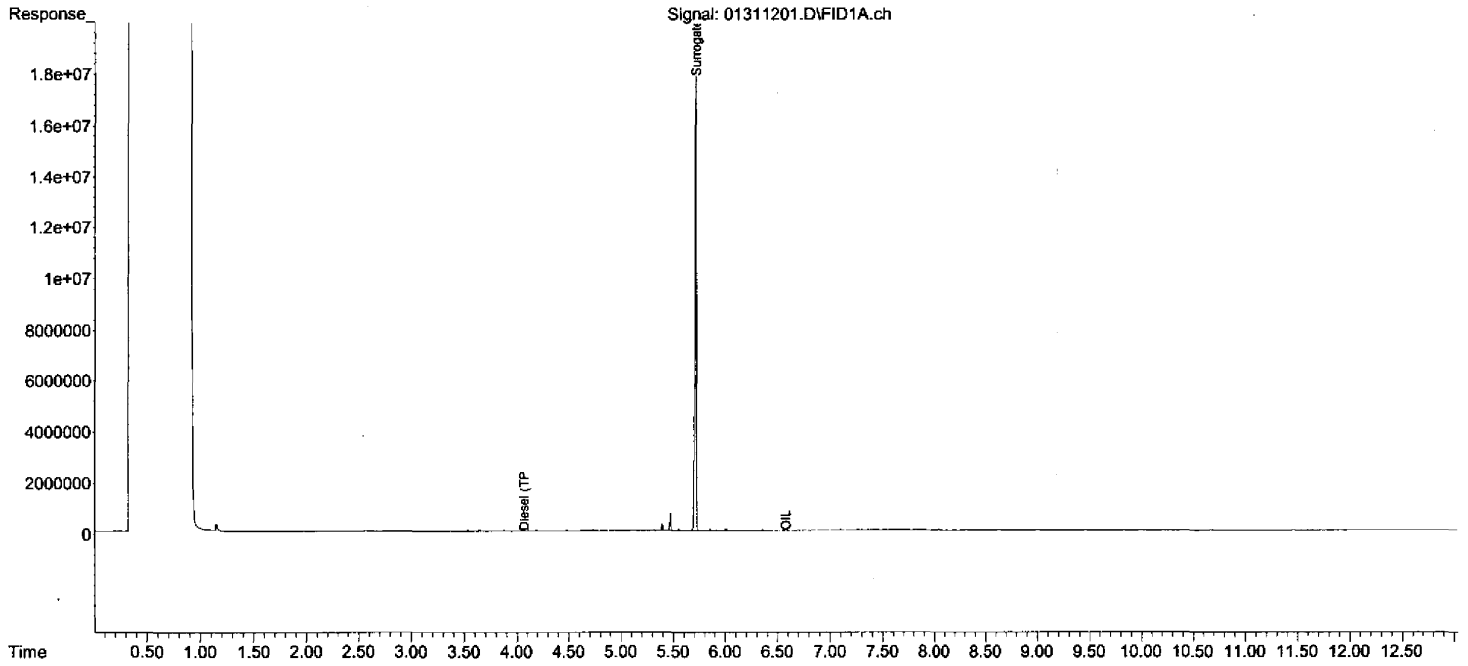
Quantitation Report (Not Reviewed)

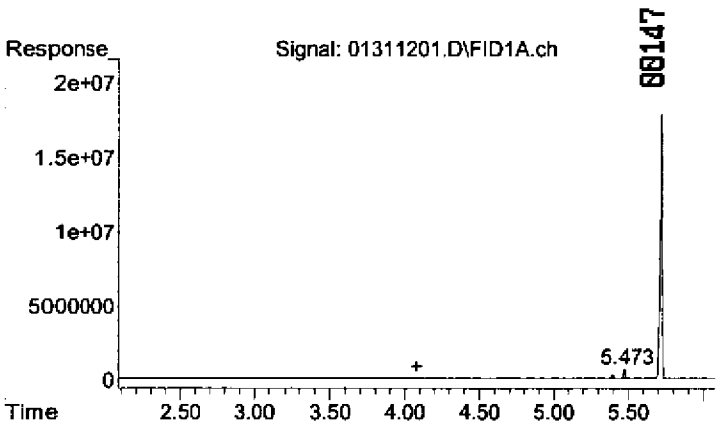
Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311201.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:05 pm
Sample : 2010053-IBL1
Misc : 2A11003 IB
ALS Vial : 1 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:26 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

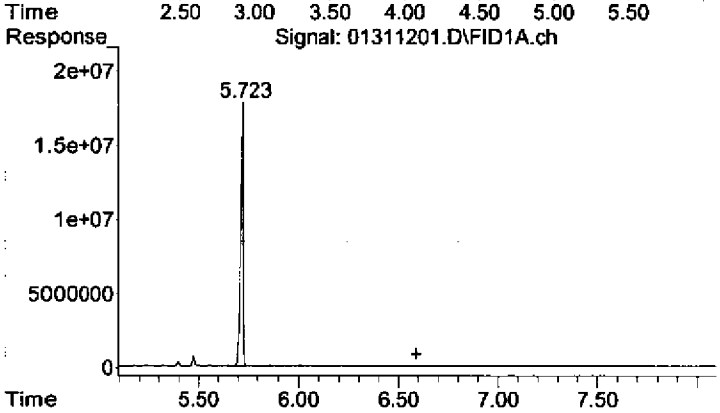
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





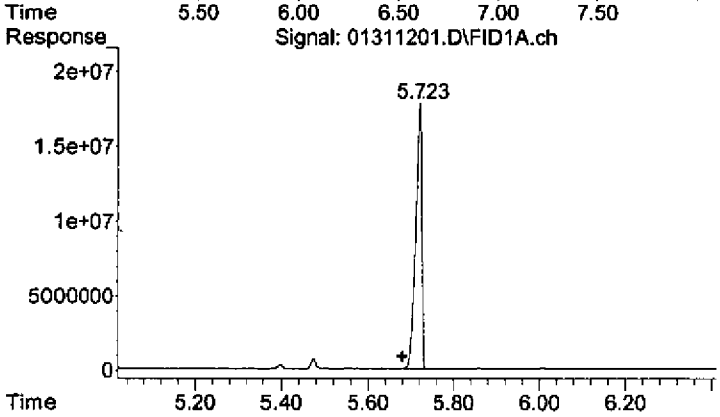
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 15857224
Conc: 4.42 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 6399812
Conc: 3.34 ug/mL



#3 Surrogate

R.T.: 5.719 min
Delta R.T.: 0.040 min
Response: 174480015
Conc: 49.12 ug/mL

Evaluate Continuing Calibration Report

00148

Data Path : C:\msdchem\1\2012\DATA\013112DA
Data File : 01311202.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:23 pm
Operator: TD
Sample : 2010053-CCV1
Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 2 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:30 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Min. RRF : 0.000 Min. Rel. Area : 10% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 350%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 HM	Diesel (TPH)	3.588	3.454 E6	3.7	109	0.00
2 H	OIL	1.915	0.000 E6	100.0#	215	0.00
3 S	Surrogate	3.552	3.597 E6	-1.3	107	0.00

Evaluate Continuing Calibration Report - Not Founds

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

00145

Data Path : C:\msdchem\1\2012\DATA\013112DA
Data File : 01311202.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:23 pm Operator: TD
Sample : 2010053-CCV1 Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 2 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:30 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.683	179839252	50.625 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery = 101.25%	
Target Compounds			
1) HM Diesel (TPH)	4.080	1727196284	481.317 ug/mL ✓
2) H OIL	6.590	8329687	4.350 ug/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

$$\frac{1727196284}{3.588E6} = 481.301$$

TD 02-01-12

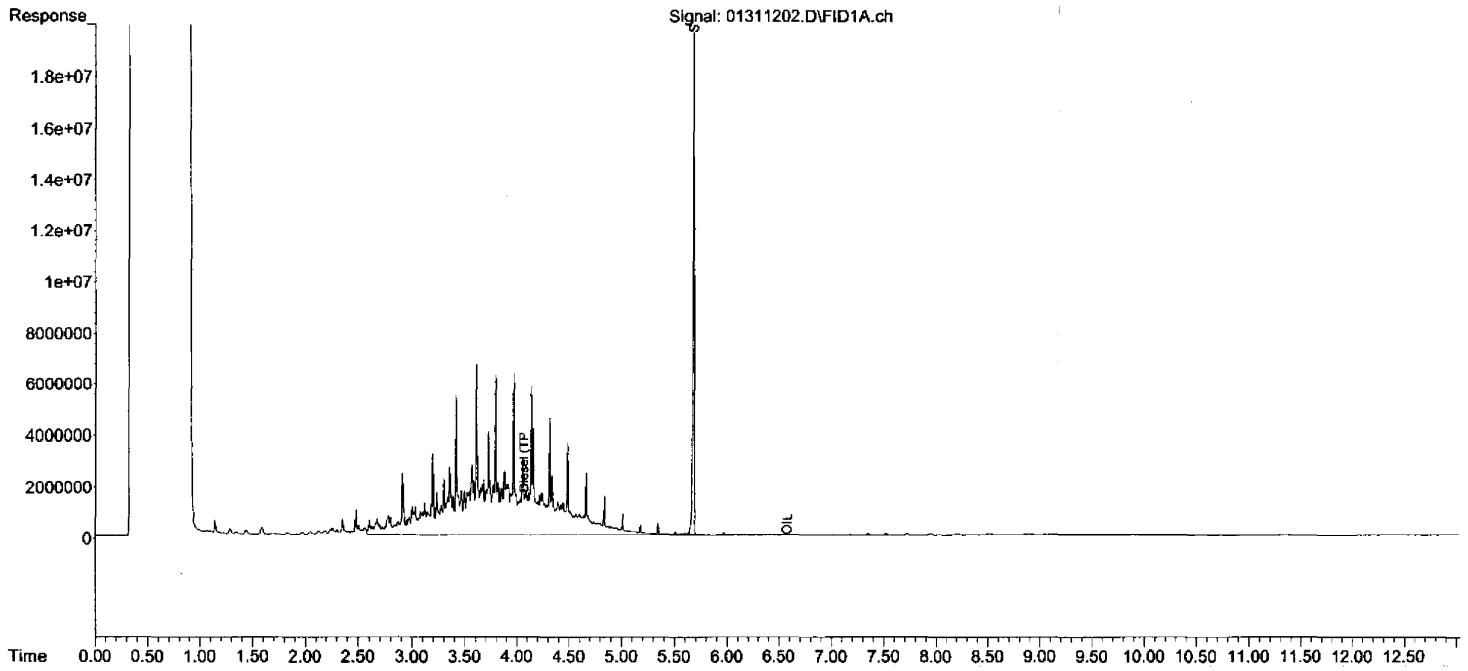
Quantitation Report (Not Reviewed)

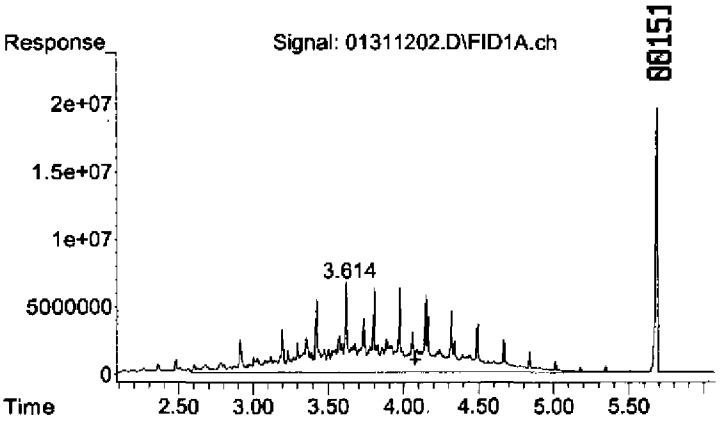
Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311202.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:23 pm
Sample : 2010053-CCV1
Misc : 2A11005 DRO-CV
ALS Vial : 2 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:30 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

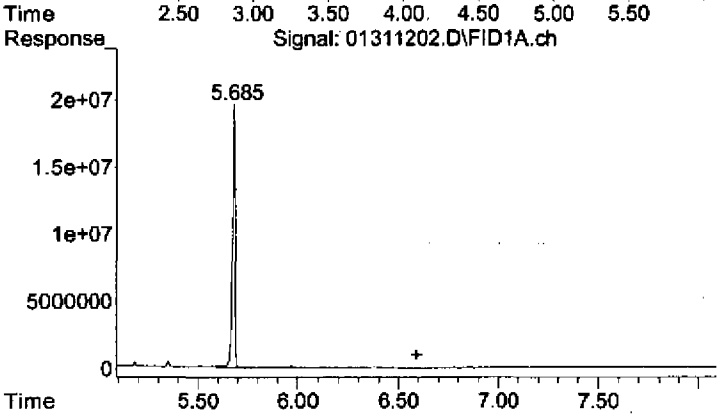
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





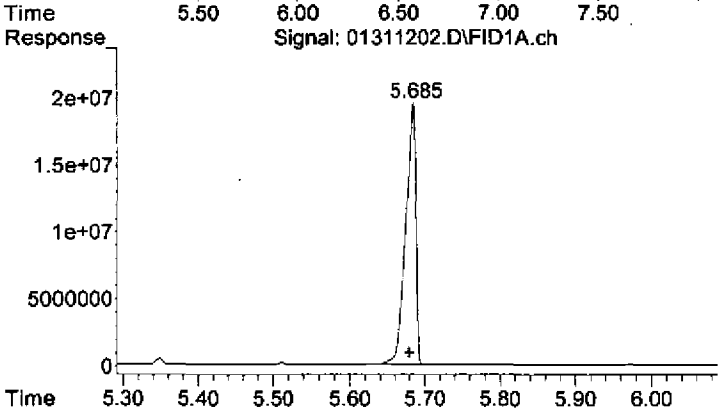
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1727196284
Conc: 481.32 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 8329687
Conc: 4.35 ug/mL



#3 Surrogate

R.T.: 5.683 min
Delta R.T.: 0.003 min
Response: 179839252
Conc: 50.62 ug/mL

Instrument Name: AG7890_2
Date Acquired: 1/31/2012 12:41
Acq. Method File: 012712DROA.M
Sample Name: 2010053-LCV1
Misc Info: 2A11004 DRO-QLS
Operator: TD

Name	Concentration ng/mL	Calculated	% Recovery	QC Limits	STATUS
Diesel (TPH)	50	55.50	111.01%	60 - 140	pass

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA
Data File : 01311203.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:41 pm Operator: TD
Sample : 2010053-LCV1 Inst : AG7890_2
Misc : 2A11004 DRO-QLS
ALS Vial : 3 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:34 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.671	37412415	10.532 ug/mL
Spiked Amount 50.000 Range 60 - 127 Recovery = 21.06%#			
Target Compounds			
1) HM Diesel (TPH)	4.080	199172499	55.503 ug/mL
2) H OIL	6.590	3007720	1.571 ug/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

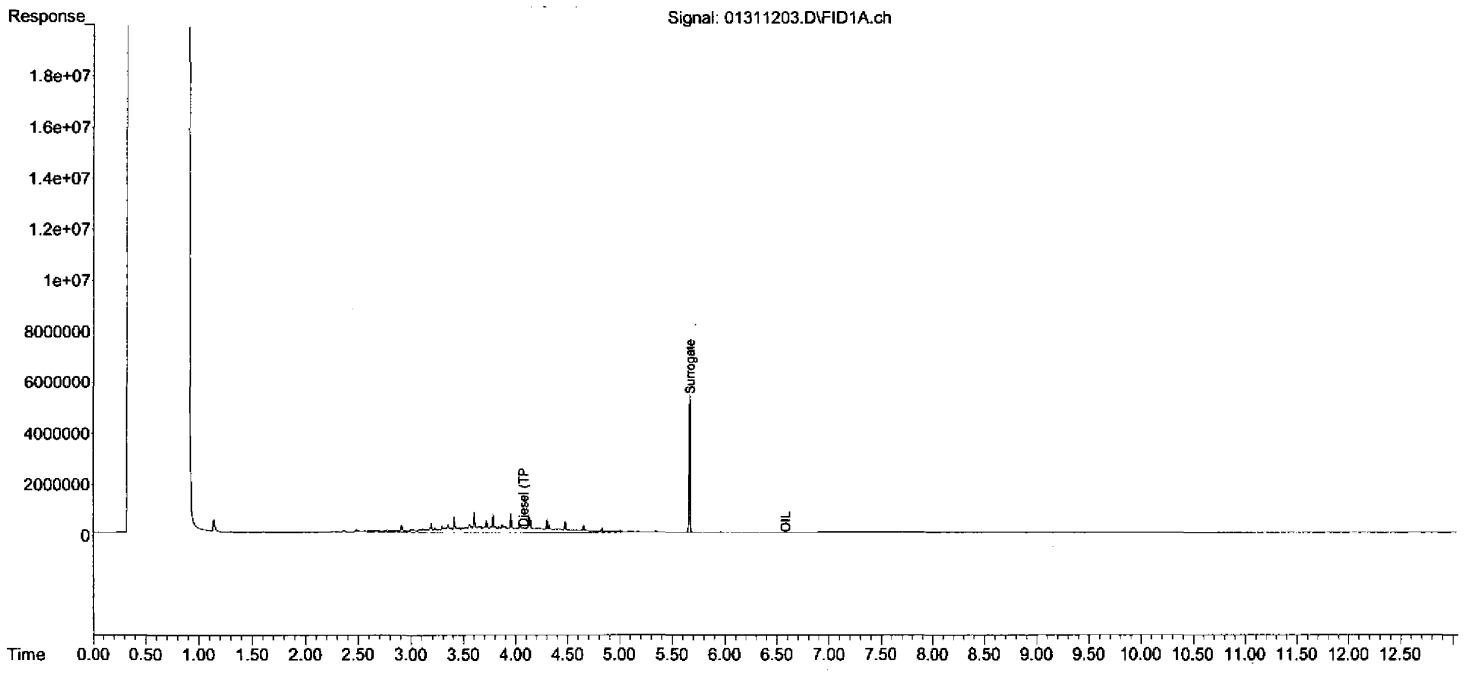
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311203.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:41 pm
Sample : 2010053-LCV1
Misc : 2A11004 DRO-QLS
ALS Vial : 3 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

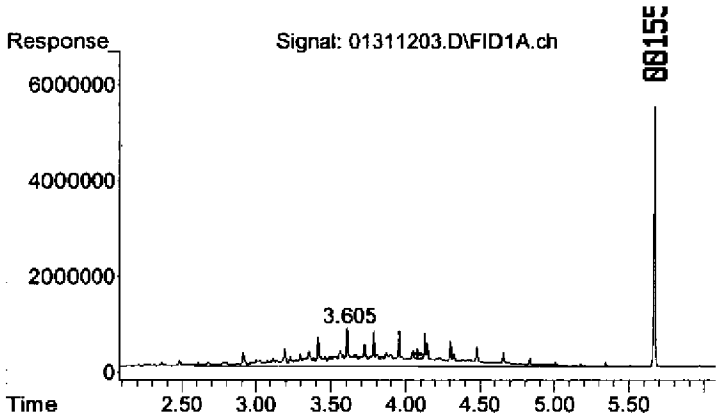
Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:34 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



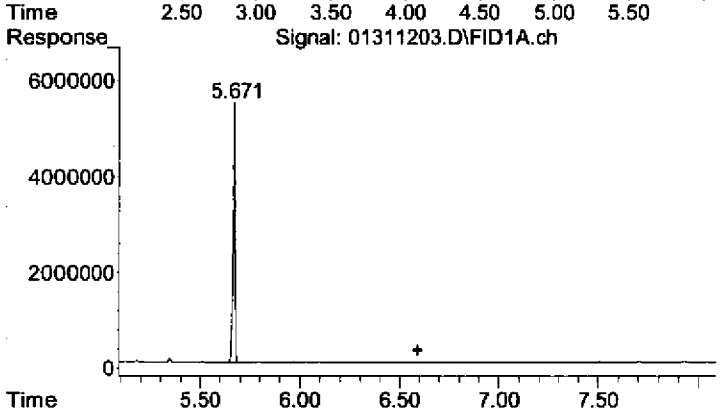
00154

00151



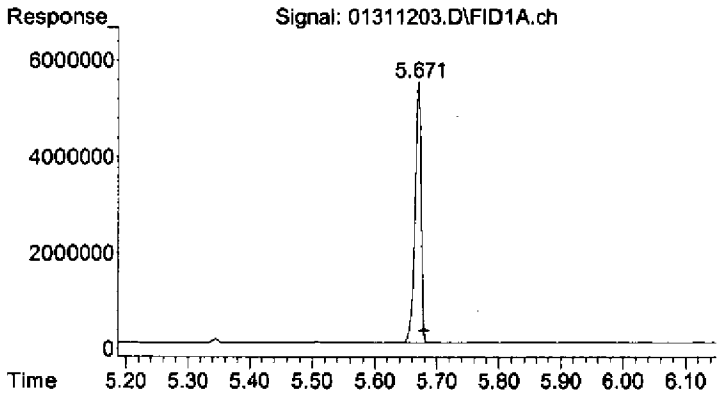
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 199172499
Conc: 55.50 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3007720
Conc: 1.57 ug/mL



#3 Surrogate

R.T.: 5.671 min
Delta R.T.: -0.009 min
Response: 37412415
Conc: 10.53 ug/mL

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\2012\DATA\013112DA
Data File : 01311204.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:59 pm
Operator: TD
Sample : 2010053-CCV2
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:44:10 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Min. RRF : 0.000 Min. Rel. Area : 10% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 350%

		Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1	HM	Diesel (TPH)	3.588	0.000 E6	100.0#	0#	0.00
2	H	OIL	1.915	1.790 E6	6.5	89	0.00
3	S	Surrogate	3.552	0.000 E6	100.0#	90	0.00

Evaluate Continuing Calibration Report - Not Founds

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112D\
Data File : 01311204.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:59 pm Operator: TD
Sample : 2010053-CCV2 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:44:10 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.688	144006989	40.538 ug/mLm
Spiked Amount 50.000	Range 60 - 127	Recovery =	81.08%
Target Compounds			
1) HM Diesel (TPH)	4.080	961961727	268.069 ug/mL
2) H OIL	6.590	1790196076	934.889 ug/mLm

(f)=RT Delta > 1/2 Window (m)=manual int.

MANUAL INTEGRATION VERIFICATION

☐ Before Manual Integration(s) (not used)

Peak integrated due to being:

☐ Missed ☐ Summed

☐ Cropped ☐ Improper Baseline

☐ Other:

☑ After Manual Integration

Manual integration(s) performed by:

Analyst: TD Date: 02/01/12

Manual integration(s) reviewed by:

Reviewer: [illegible] Date: 02/01/12

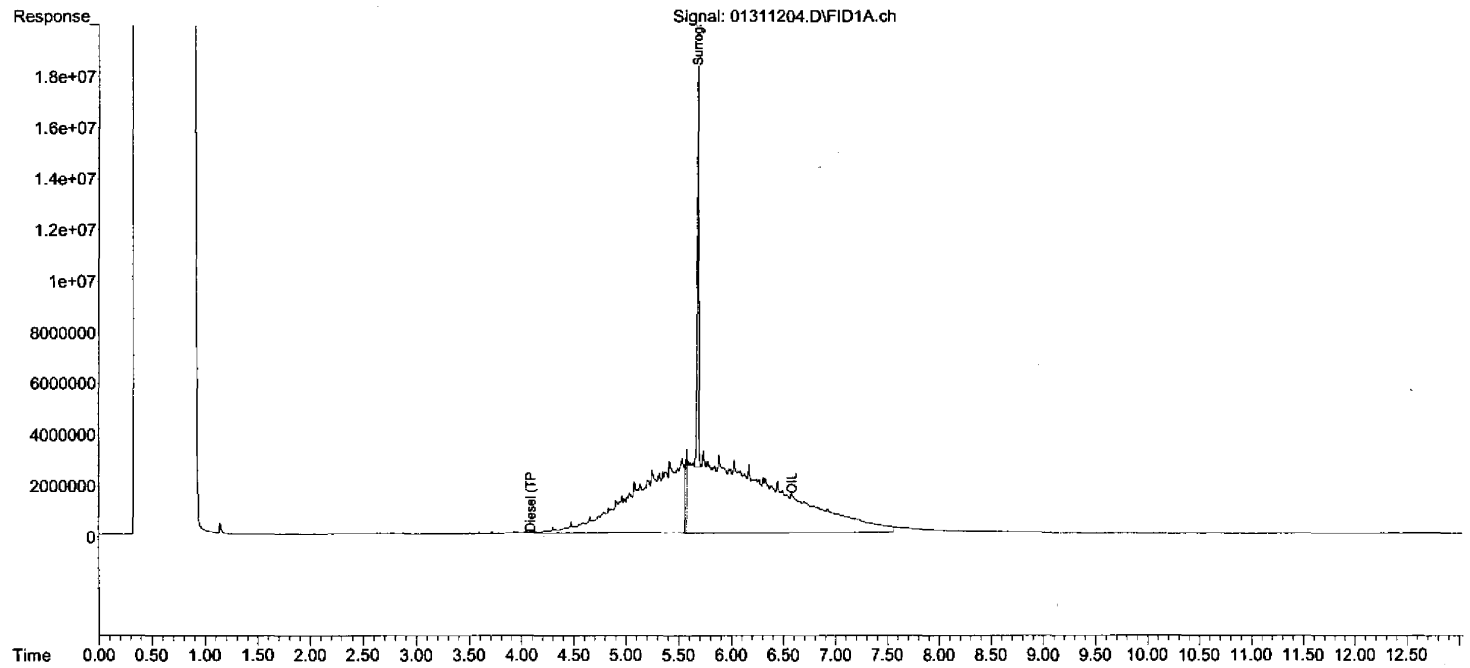
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311204.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:59 pm
Sample : 2010053-CCV2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

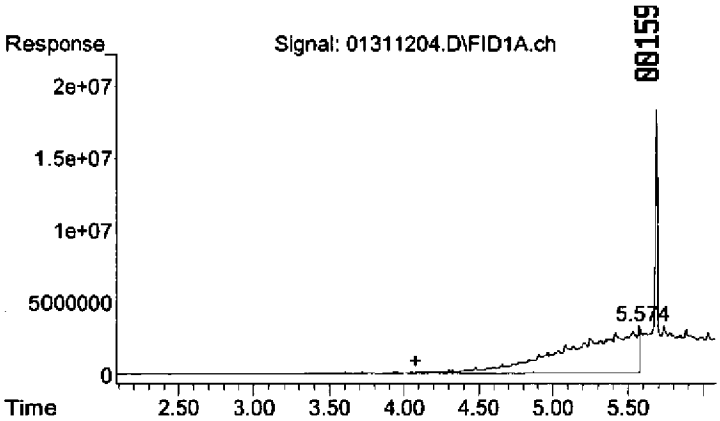
Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:44:10 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

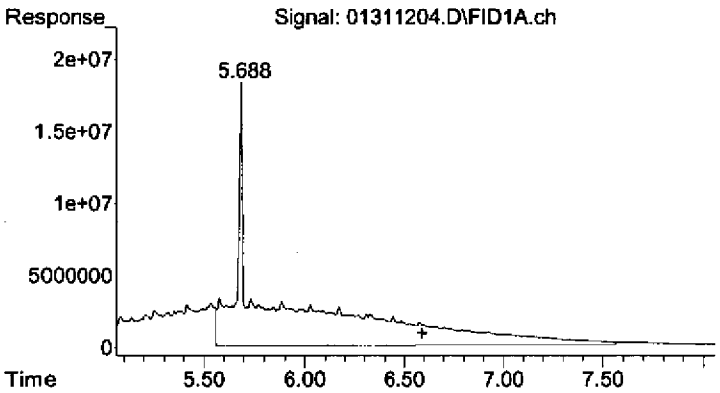


00158
00155
DIM0276600
DIM0276761



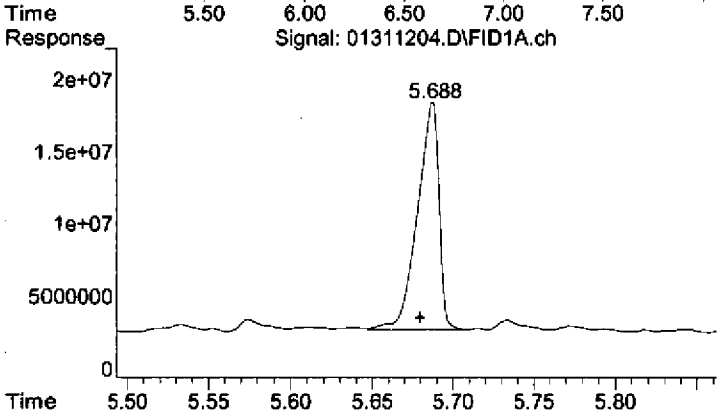
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 961961727
Conc: 268.07 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1790196076
Conc: 934.89 ug/mL m



#3 Surrogate

R.T.: 5.688 min
Delta R.T.: 0.008 min
Response: 144006989
Conc: 40.54 ug/mL m

Quantitation Report (QEdit)

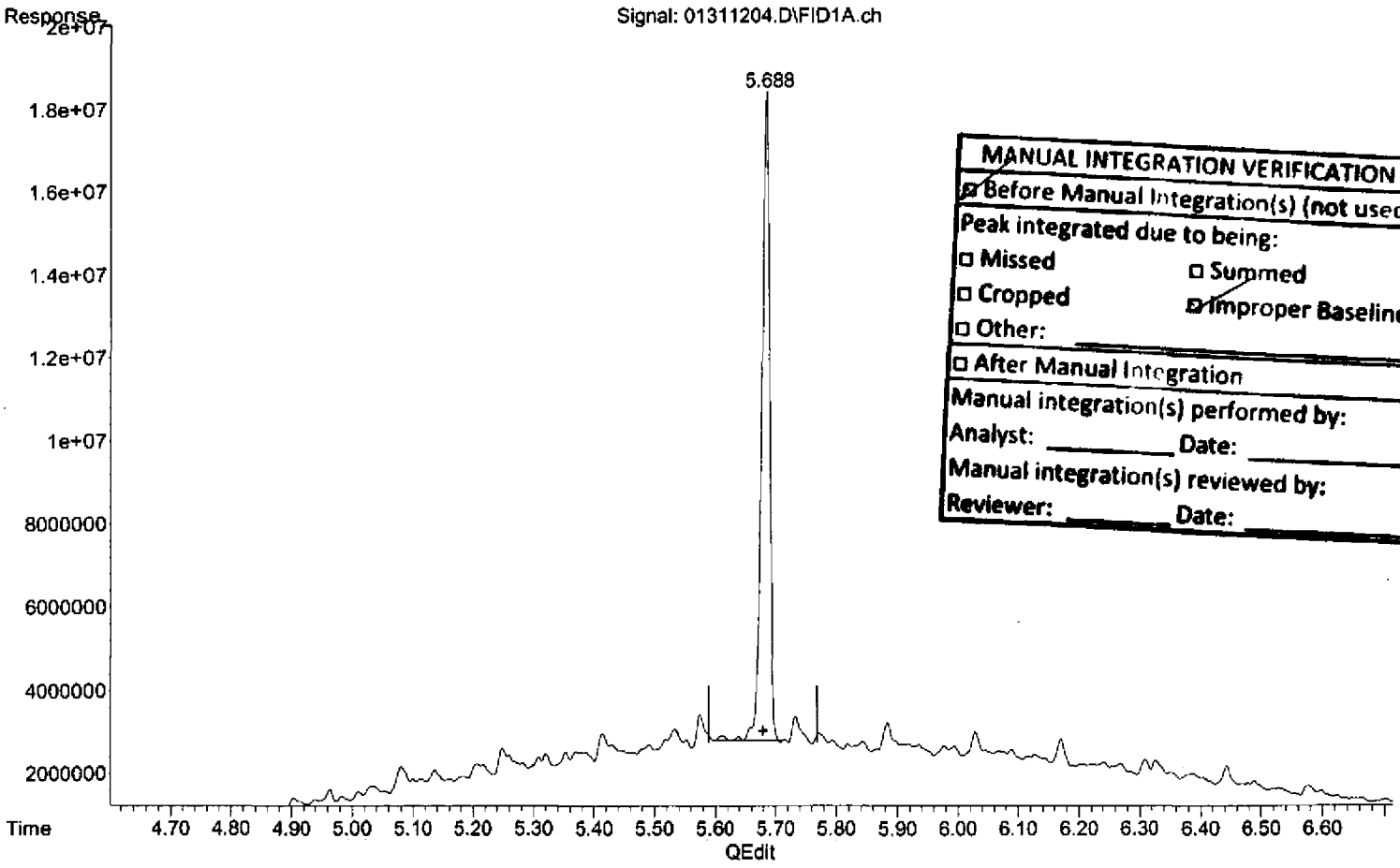
00156

Data Path : C:\msdchem\1\2012\DATA\013112D\
Data File : 01311204.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:59 pm
Sample : 2010053-CCV2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:38 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☑ Improper Baseline
☐ Other:
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

(3) Surrogate (S)

5.686min 40.227 ug/mL

response 142902979

(+) = Expected Retention Time

013012DROA.M Tue Jan 31 15:42:31 2012

Page: 1

00157

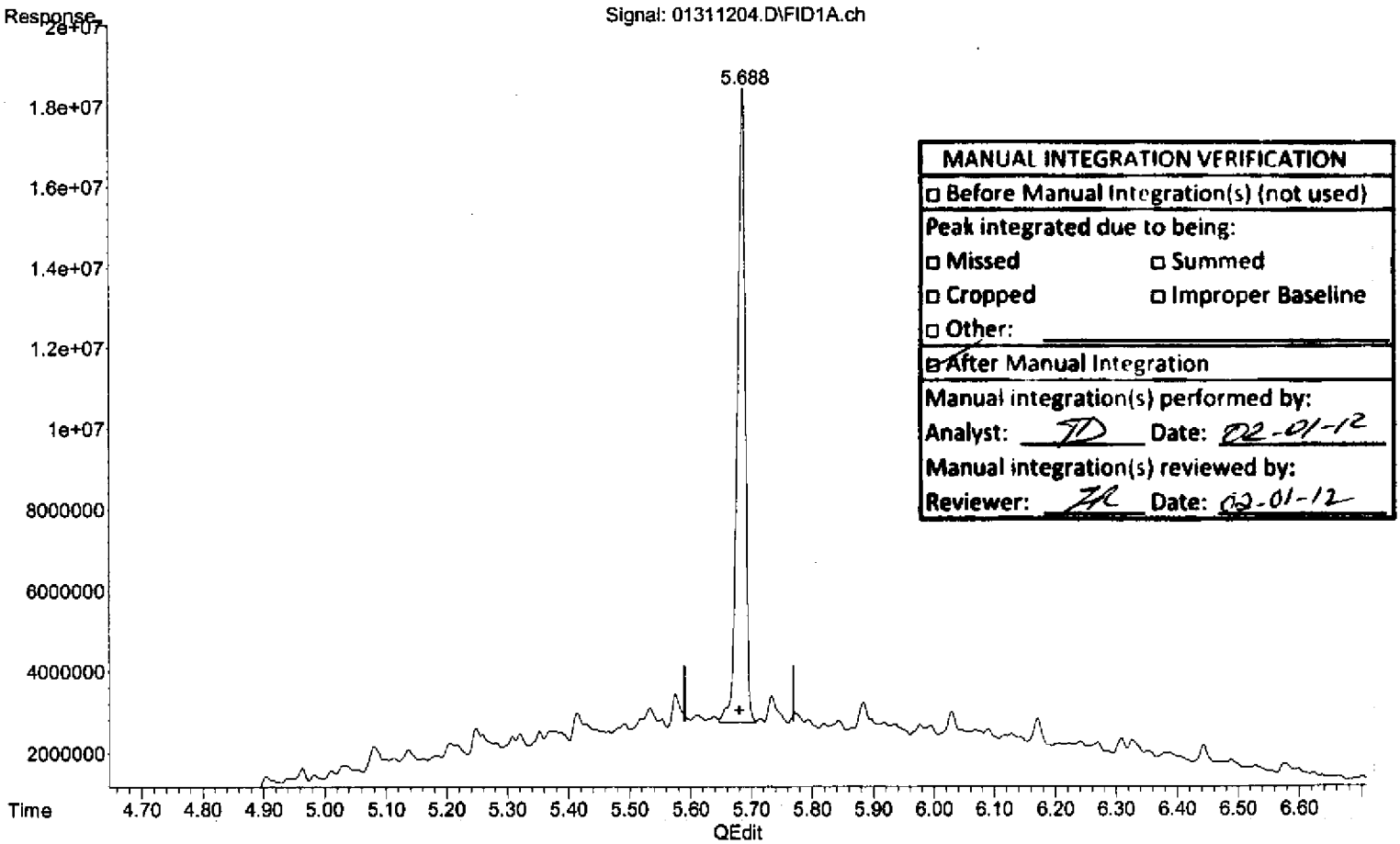
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013112[illegible]A\
Data File : 01311204.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:59 pm
Sample : 2010053-CCV2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:38 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 02-01-12
Manual integration(s) reviewed by:
Reviewer: ZK Date: 02-01-12

(3) Surrogate (S)

5.688min 40.538 ug/mL m

response 144006989

(+) = Expected Retention Time
013012DROA.M Tue Jan 31 15:43:51 2012

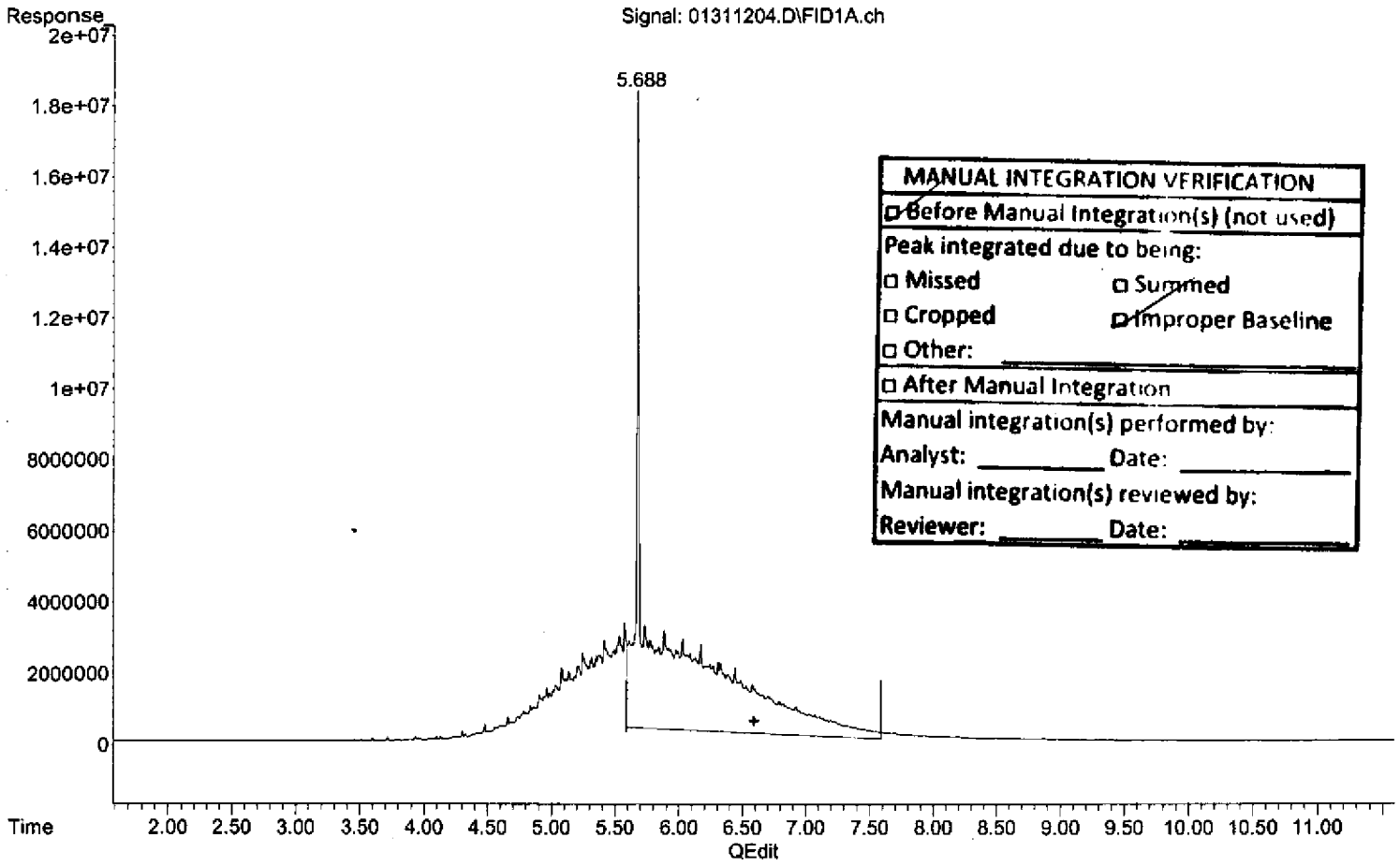
Quantitation Report (QEdit)

00162

Data Path : C:\msdchem\1\2012\DATA\013112\A\
Data File : 01311204.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:59 pm
Operator: TD
Sample : 2010053-CCV2
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:38 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

(2) OIL (H)

6.590min 785.884 ug/mL

response 1504869446

(+) = Expected Retention Time

013012DROA.M Tue Jan 31 15:44:01 2012

Page: 1

00159

Quantitation Report (QEdit)

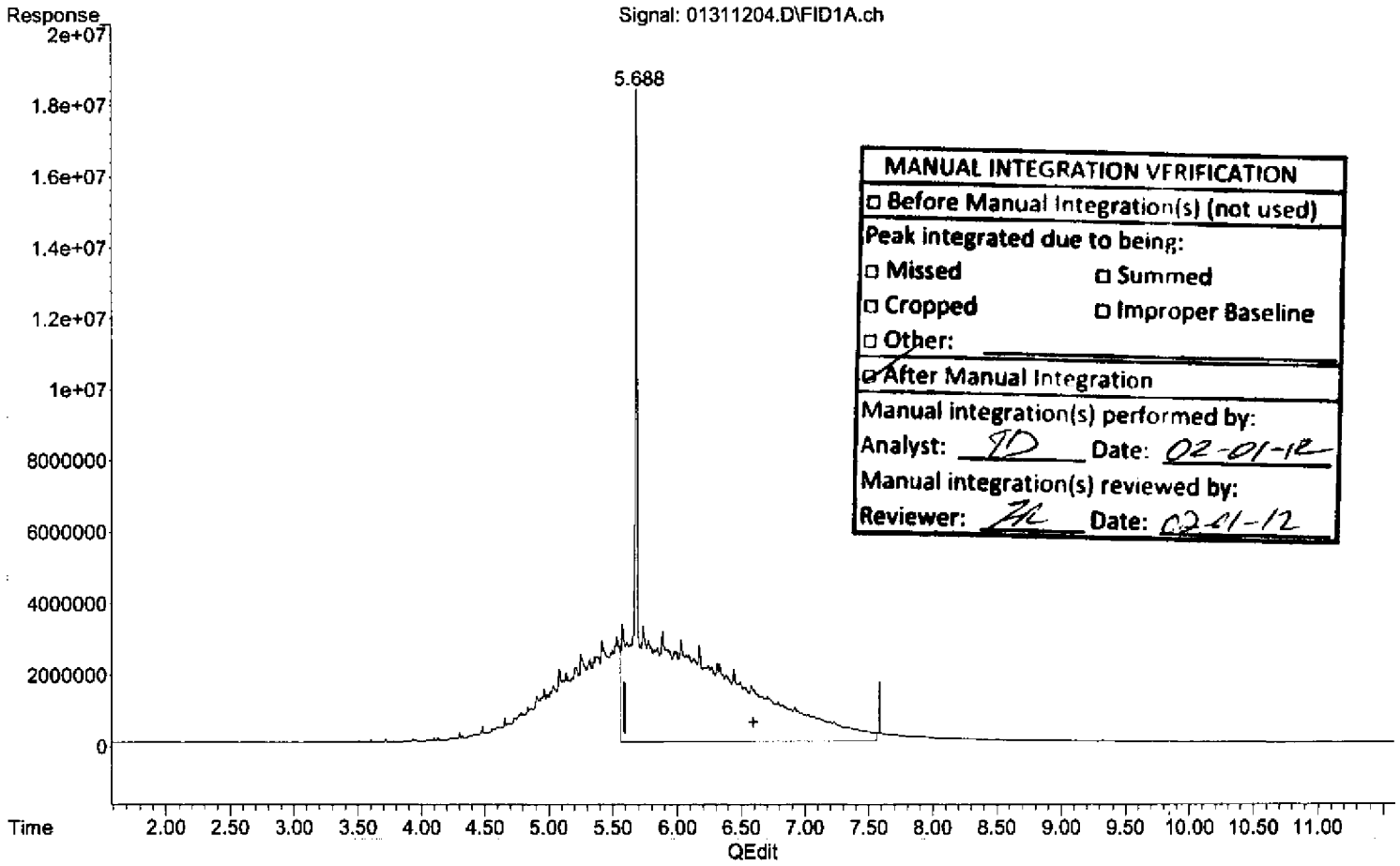
00159

Data Path : C:\msdchem\1\2012\DATA\013112\\
Data File : 01311204.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:59 pm
Sample : 2010053-CCV2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:38 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 02-01-12
Manual integration(s) reviewed by:
Reviewer: ZK Date: 02-01-12

(2) OIL (H)

6.590min 934.889 ug/mL m

response 1790196076

(+) = Expected Retention Time

013012DROA.M Tue Jan 31 15:44:14 2012

Page: 1

00159

Quantitation Report (Not Reviewed)

00164

Data Path : C:\msdchem\1\2012\DATA\013112D
Data File : 01311204.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:59 pm Operator: TD
Sample : 2010053-CCV2 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:38 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.686	142902979	40.227 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	80.45%
Target Compounds			
1) HM Diesel (TPH)	4.080	961961727	268.069 ug/mL
2) H OIL	6.590	1505973456	786.460 ug/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

MANUAL INTEGRATION VERIFICATION
☒ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

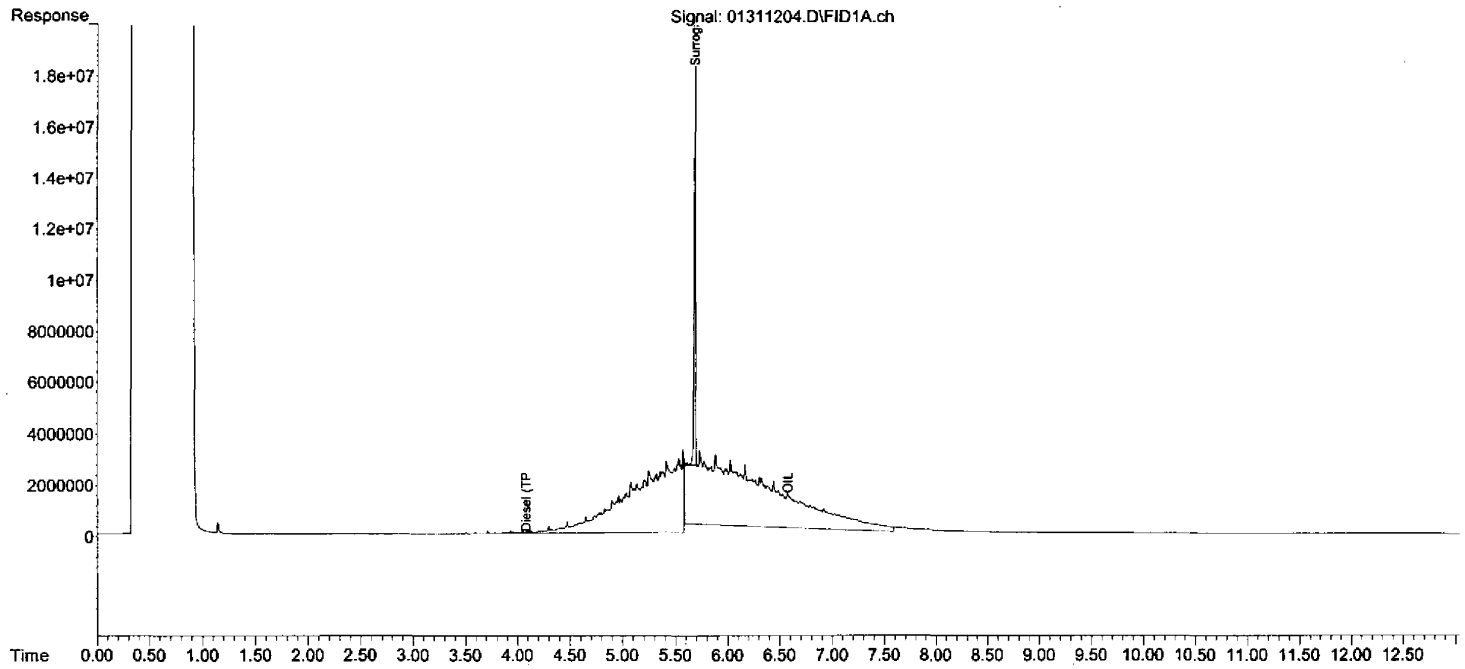
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311204.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 12:59 pm
Sample : 2010053-CCV2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

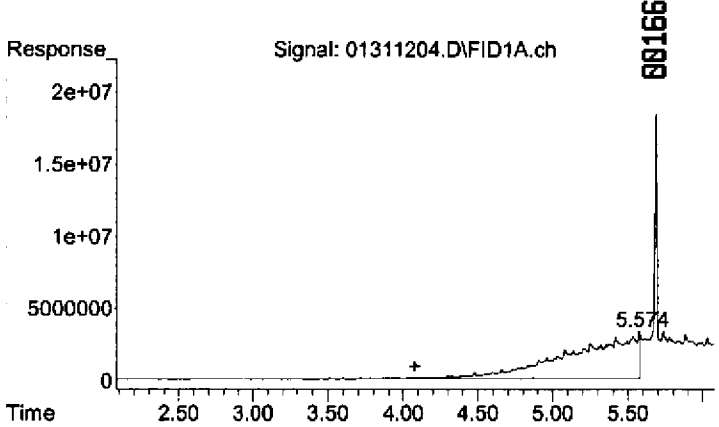
Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:38 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

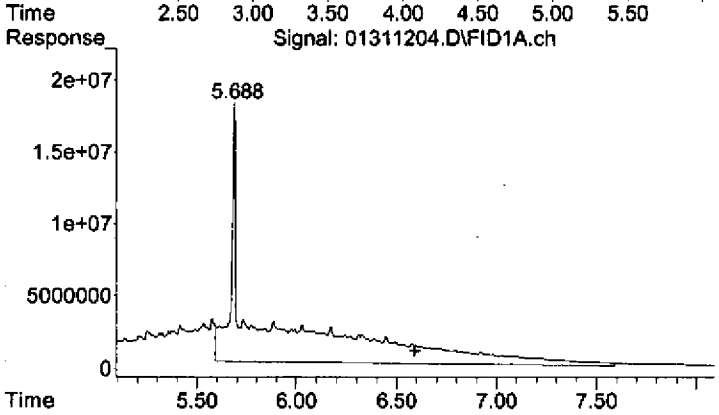


00165
00162
DIM0276600
DIM0276768



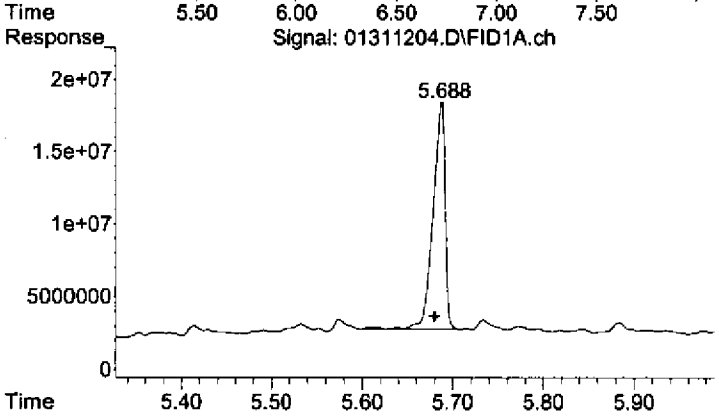
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 961961727
Conc: 268.07 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1505973456
Conc: 786.46 ug/mL



#3 Surrogate

R.T.: 5.686 min
Delta R.T.: 0.006 min
Response: 142902979
Conc: 40.23 ug/mL

C:\msdchem\1\2012\DATA\013112DA\01311205.D

Instrument Name: AG7890_2
Date Acquired: 1/31/2012 13:17
Acq. Method File: 012712DROA.M
Sample Name: 2010053-LCV2
Misc Info: 2A11011 OIL-A
Operator: TD

Name	Concentration ng/mL	Calculated	% Recovery	QC Limits	STATUS
OIL	200	203.40	101.70%	60 - 140	pass

Quantitation Report (QT Reviewed)

00168

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311205.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 1:17 pm Operator: TD
Sample : 2010053-LCV2 Inst : AG7890_2
Misc : 2A11011 OIL-A
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:45:50 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.681	162338082	45.698 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	91.40%
Target Compounds			
1) HM Diesel (TPH)	4.080	222580215	62.026 ug/mL
2) H OIL	6.590	389490910	203.403 ug/mLm

(f)=RT Delta > 1/2 Window (m)=manual int.

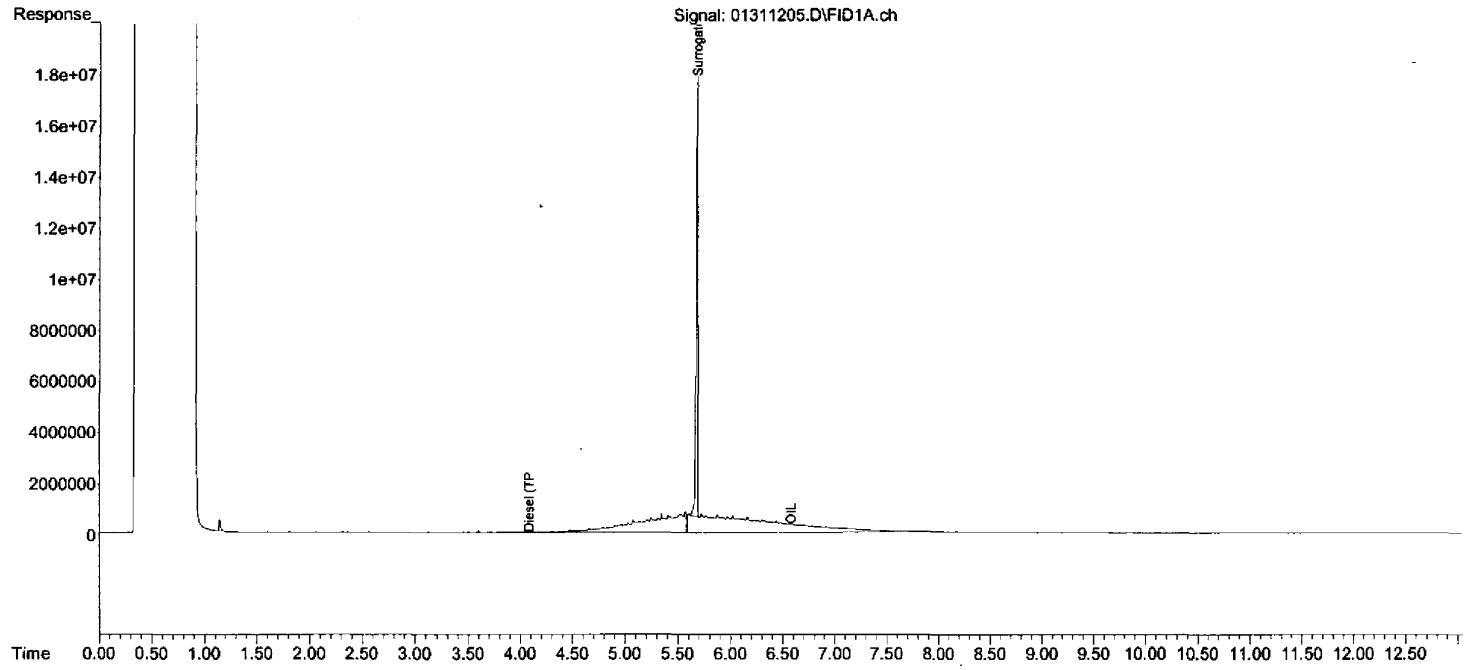
MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: TD	Date: 02/01/12
Manual integration(s) reviewed by:	
Reviewer: [illegible]	Date: 02-01-12

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311205.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 1:17 pm Operator: TD
Sample : 2010053-LCV2 Inst : AG7890_2
Misc : 2A11011 OIL-A
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:45:50 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

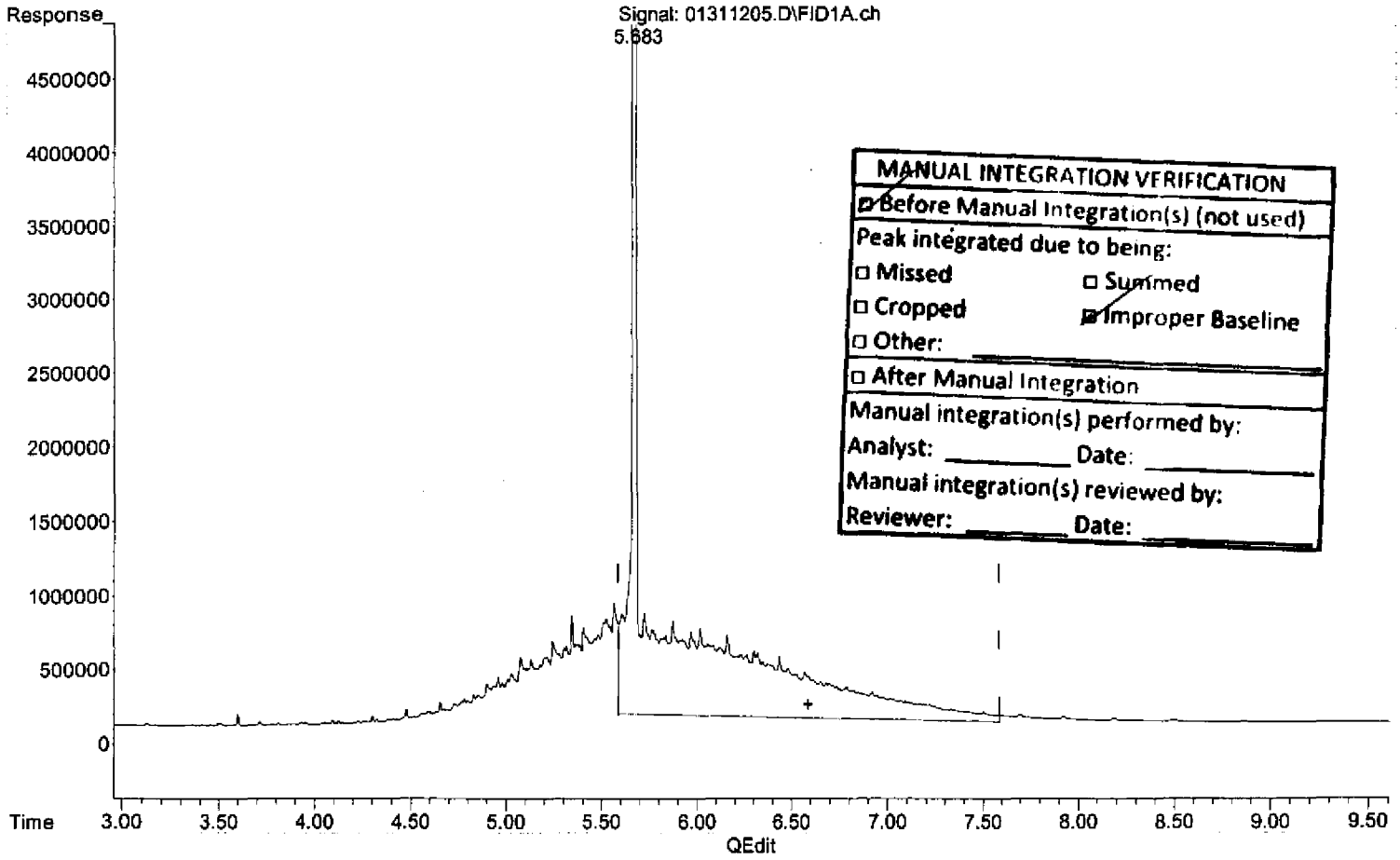


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013112[illegible]A\
Data File : 01311205.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 1:17 pm
Operator: TD
Sample : 2010053-LCV2
Inst : AG7890_2
Misc : 2A11011 OIL-A
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:42 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☑ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

(2) OIL (H)

6.590min 179.358 ug/mL

response 343447874

(+) = Expected Retention Time

013012DROA.M Tue Jan 31 15:45:41 2012

Page: 1

Quantitation Report (Qedit)

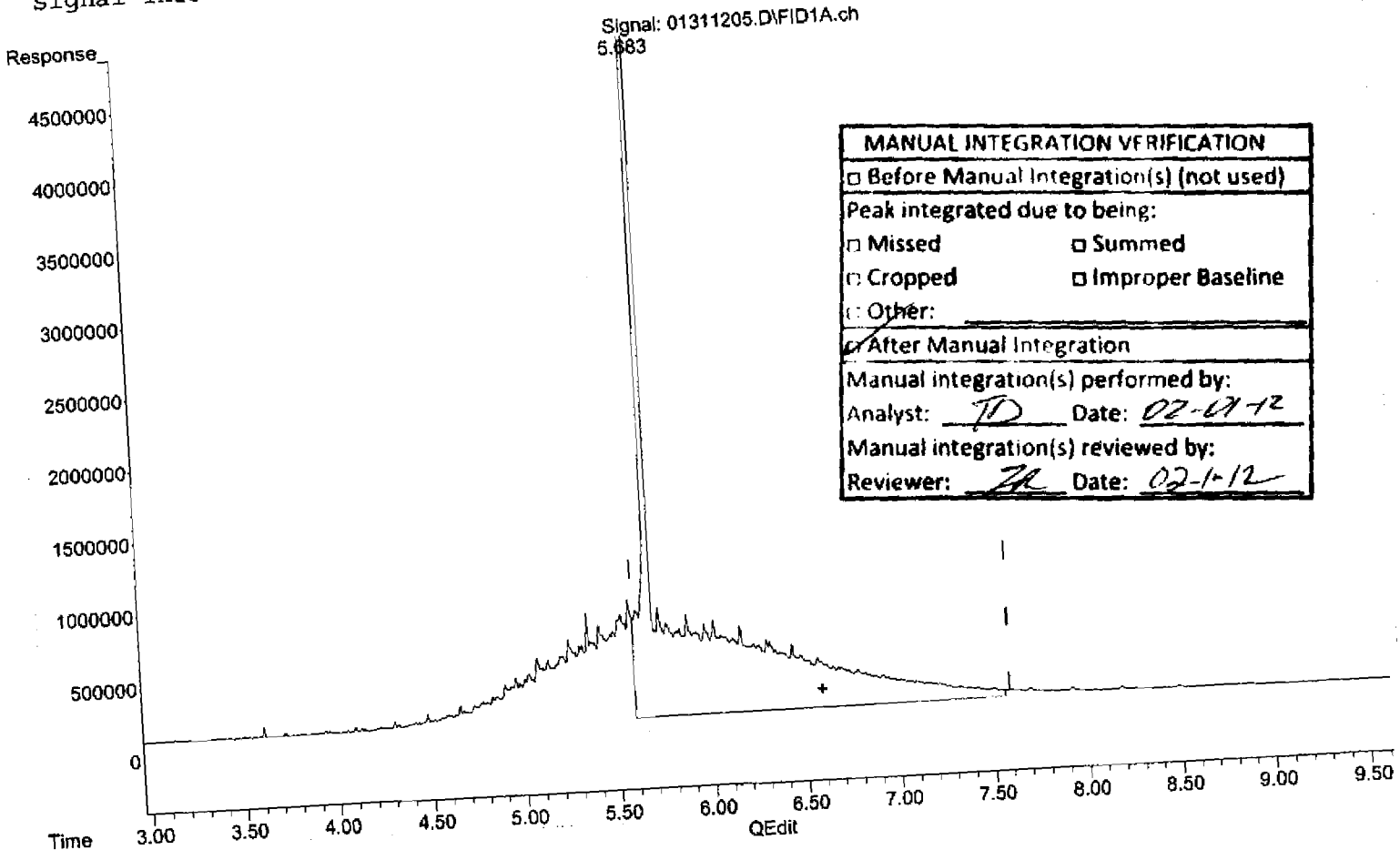
00171

Data Path : C:\msdchem\1\2012\DATA\013112\A\
Data File : 01311205.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 1:17 pm
Sample : 2010053-LCV2
Misc : 2A11011 OIL-A
ALS Vial : 5 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:42 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 02-01-12
Manual integration(s) reviewed by:
Reviewer: ZR Date: 02-1-12

(2) OIL (H)

6.590min 203.403 ug/mL m

response 389490910

(+) = Expected Retention Time
013012DROA.M Tue Jan 31 15:45:54 2012

00158

DIM0276774

Quantitation Report (Not Reviewed)

00172

Data Path : C:\msdchem\1\2012\DATA\013112D\
Data File : 01311205.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 1:17 pm Operator: TD
Sample : 2010053-LCV2 Inst : AG7890_2
Misc : 2A11011 OIL-A
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:42 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.681	162338082	45.698 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	91.40%
Target Compounds			
1) HM Diesel (TPH)	4.080	222580215	62.026 ug/mL
2) H OIL	6.590	343447874	179.358 ug/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other: _____	
☐ After Manual Integration	
Manual integration(s) performed by:	
Analyst: _____	Date: _____
Manual integration(s) reviewed by:	
Reviewer: _____	Date: _____

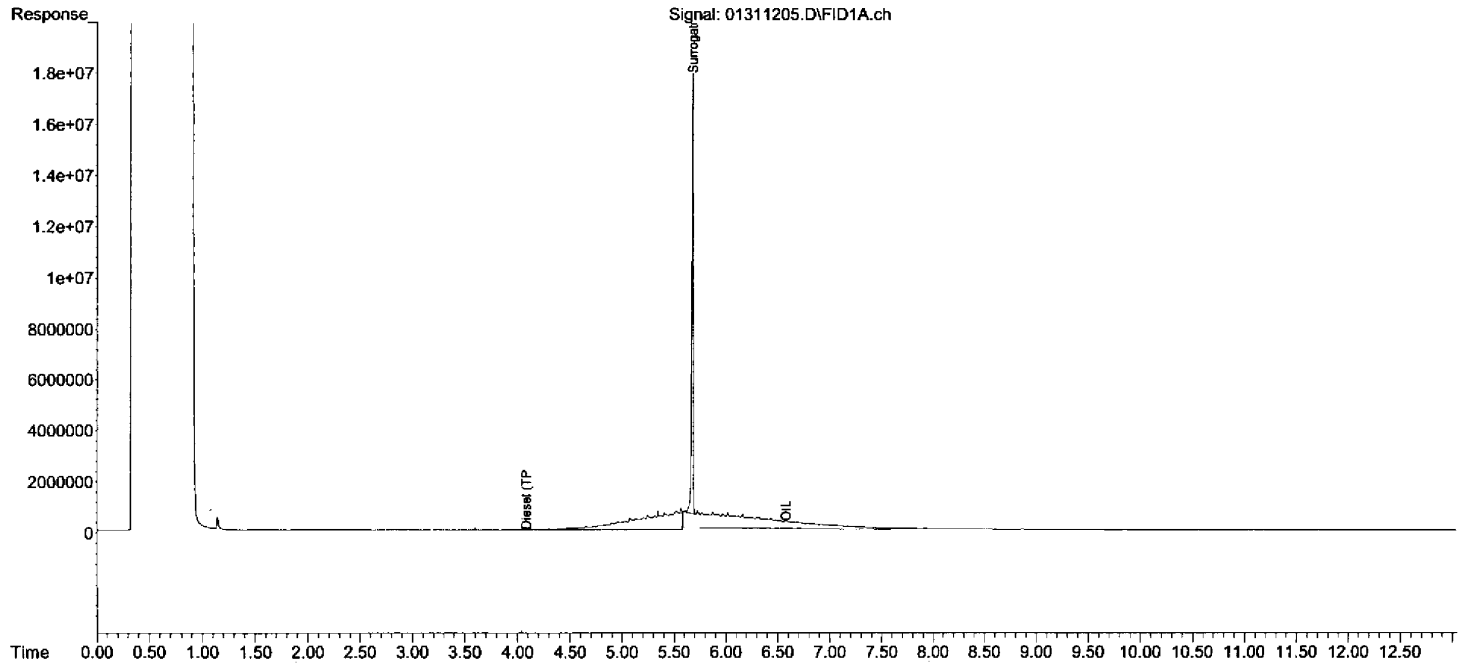
Quantitation Report (Not Reviewed)

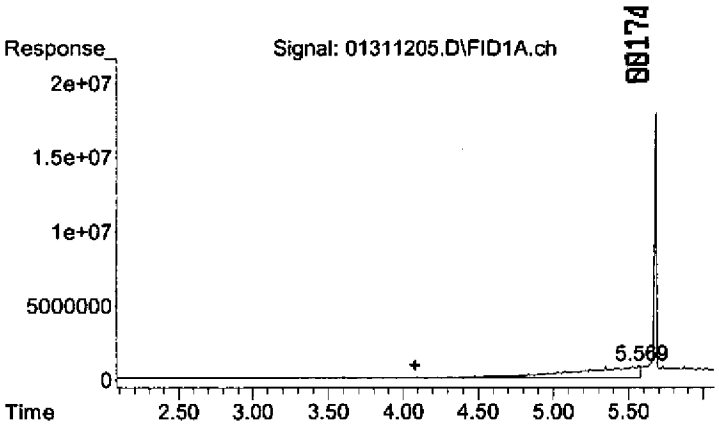
Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311205.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 1:17 pm
Sample : 2010053-LCV2
Misc : 2A11011 OIL-A
ALS Vial : 5 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:42 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

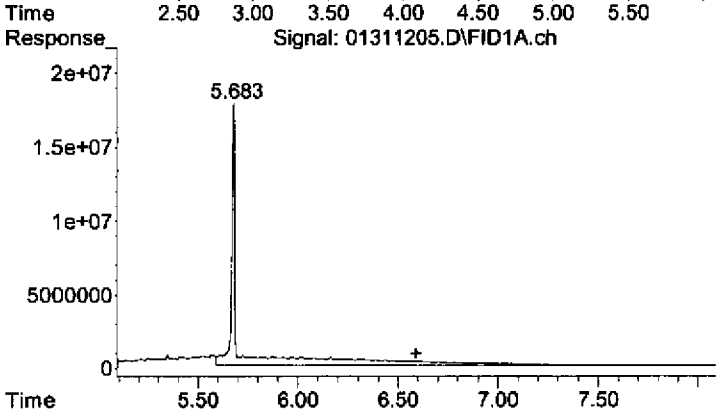
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





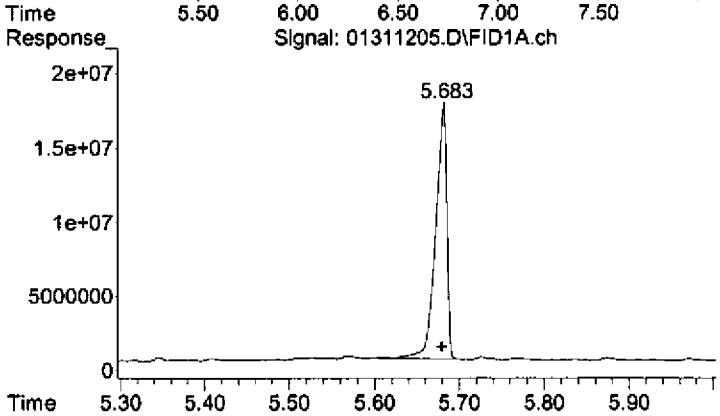
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 222580215
Conc: 62.03 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 343447874
Conc: 179.36 ug/mL



#3 Surrogate

R.T.: 5.681 min
Delta R.T.: 0.001 min
Response: 162338082
Conc: 45.70 ug/mL

Quantitation Report (Not Reviewed)

00171

Data Path : C:\msdchem\1\2012\DATA\013112DA
Data File : 01311206.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 1:35 pm Operator: TD
Sample : B2A0071-BLK1 Inst : AG7890_2
Misc : RB
ALS Vial : 6 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:46 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.679	171185825	48.189 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	96.38%
Target Compounds			
1) HM Diesel (TPH)	4.080	41911707	11.680 ug/mL
2) H OIL	6.590	4369305	2.282 ug/mL

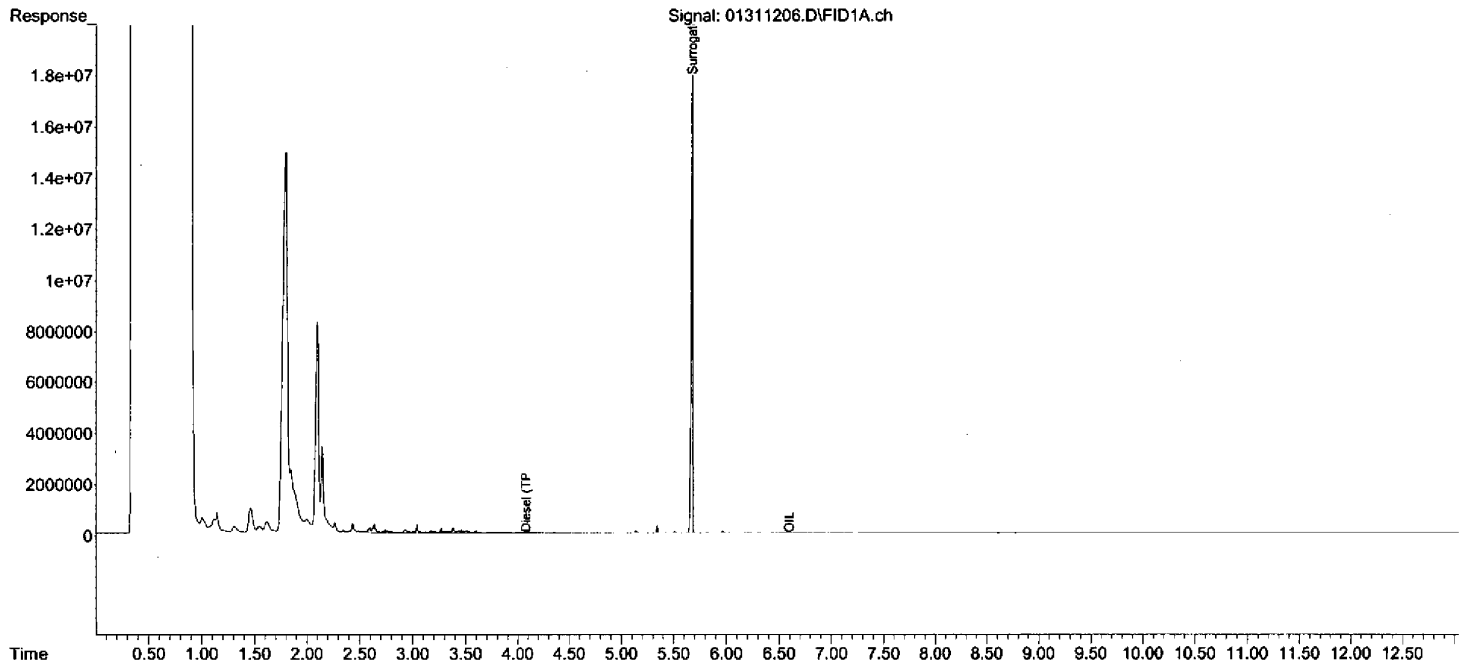
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

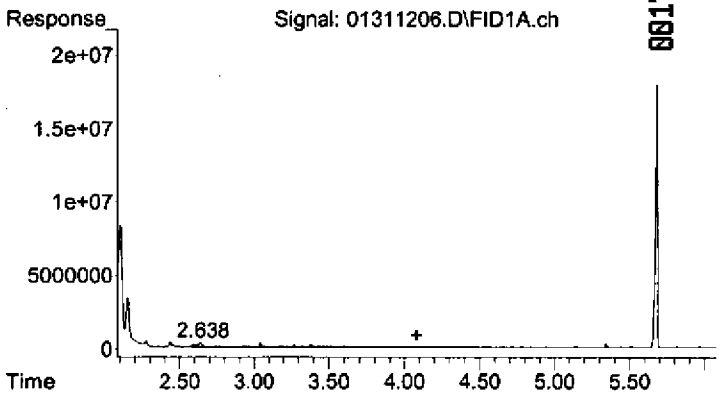
Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311206.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 1:35 pm
Operator: TD
Sample : B2A0071-BLK1
Inst : AG7890_2
Misc : RB
ALS Vial : 6 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:46 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

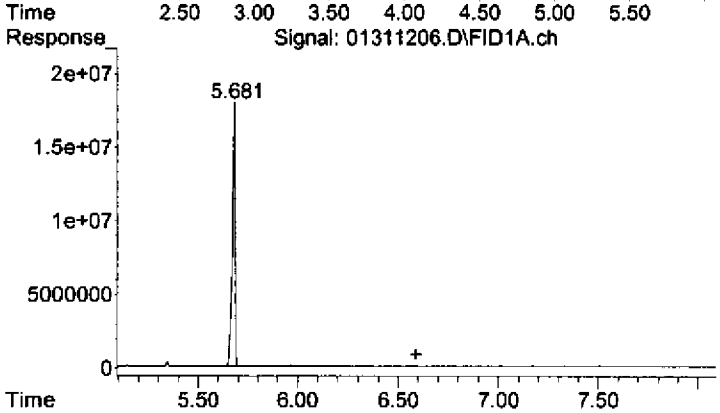


00176
00173
DIM0276600 DIM0276779



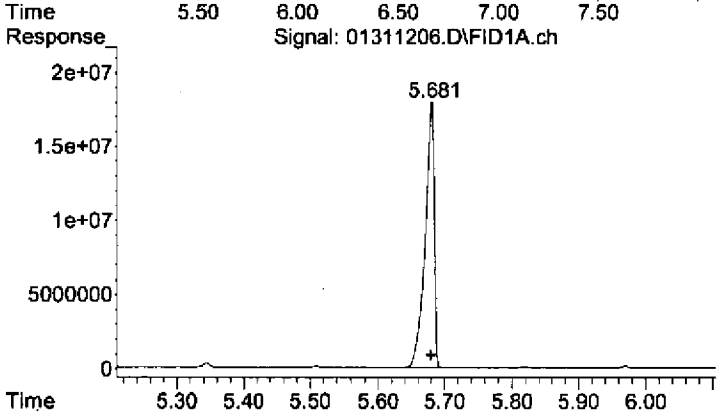
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 41911707
Conc: 11.68 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 4369305
Conc: 2.28 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 171185825
Conc: 48.19 ug/mL

Quantitation Report (Not Reviewed)

00170

Data Path : C:\msdchem\1\2012\DATA\013112D
Data File : 01311207.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 1:53 pm Operator: TD
Sample : B2A0071-BS1 Inst : AG7890_2
Misc : BS
ALS Vial : 7 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:50 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.678	153947853	43.336 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	86.67%
Target Compounds			
1) HM Diesel (TPH)	4.080	1464661525	408.156 ug/mL
2) H OIL	6.590	6104938	3.188 ug/mL

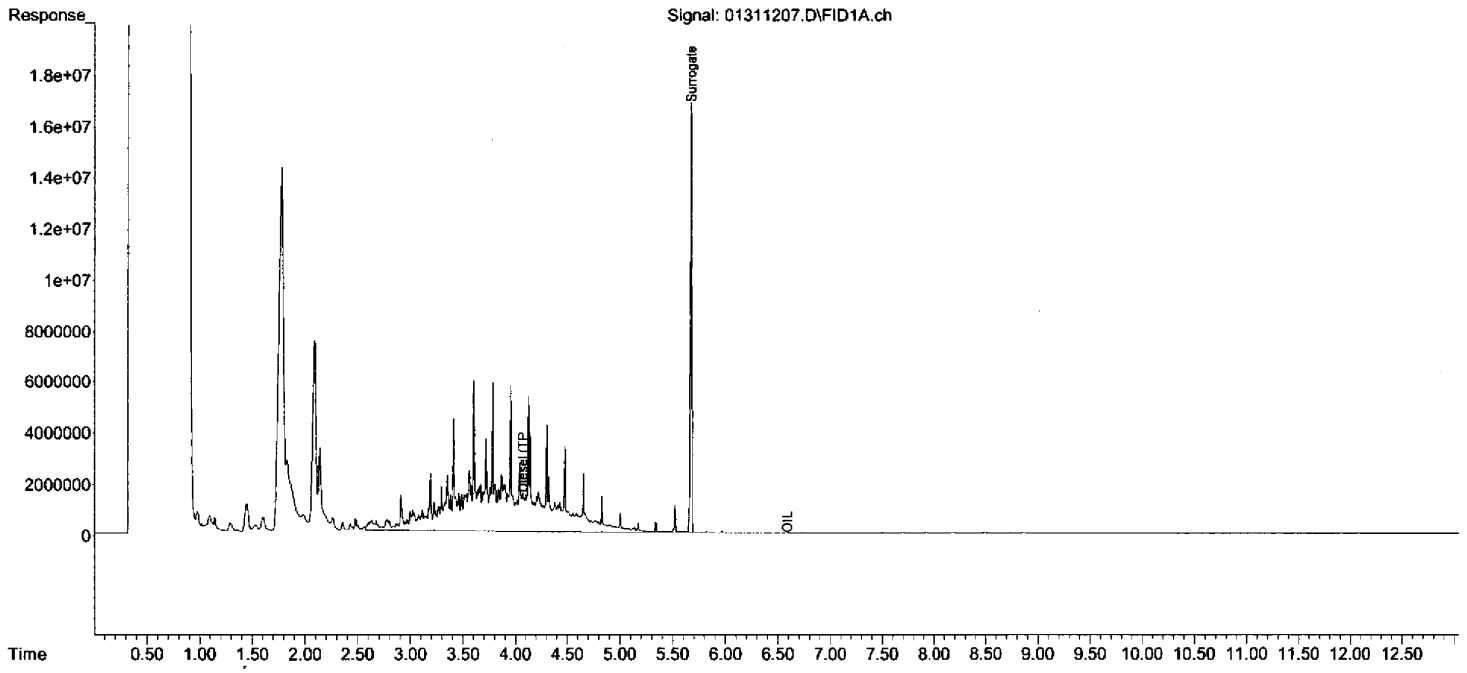
(f)=RT Delta > 1/2 Window (m)=manual int.

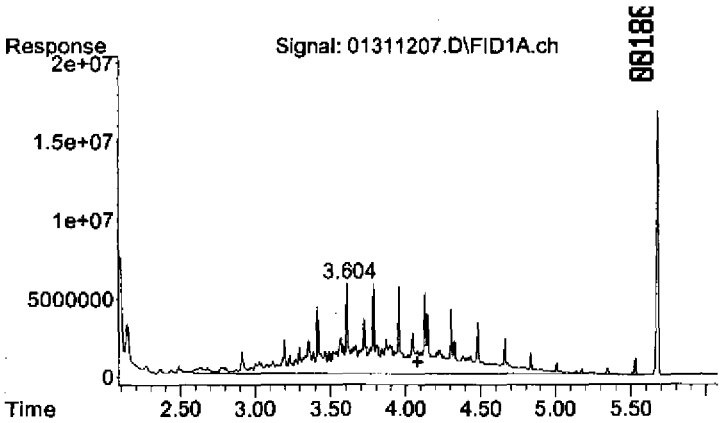
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311207.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 1:53 pm Operator: TD
Sample : B2A0071-BS1 Inst : AG7890_2
Misc : BS
ALS Vial : 7 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:39:50 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

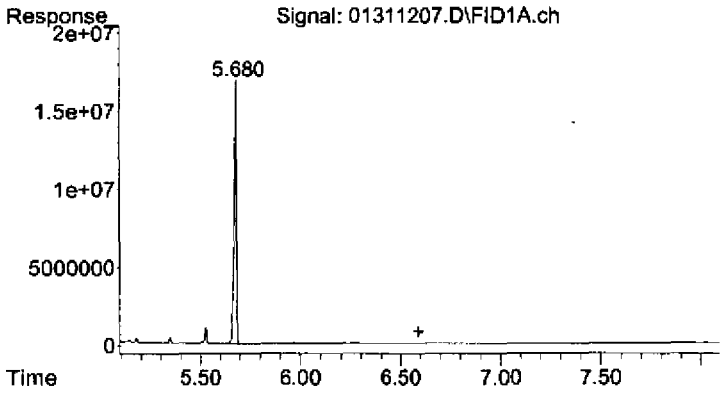
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





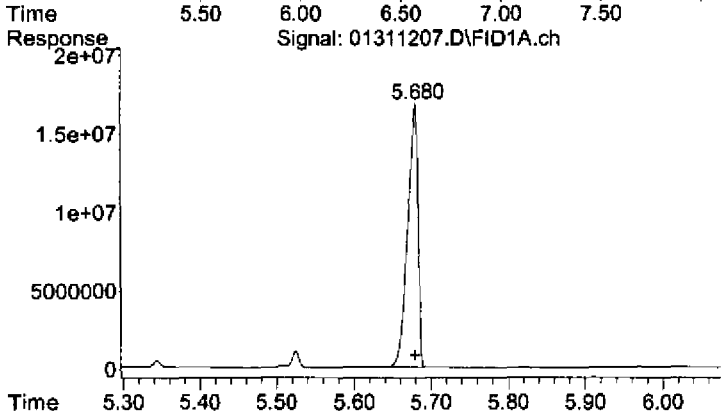
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1464661525
Conc: 408.16 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 6104938
Conc: 3.19 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.001 min
Response: 153947853
Conc: 43.34 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311212.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 3:23 pm Operator: TD
Sample : 1201034-01 Inst : AG7890_2
Misc : FB04
ALS Vial : 12 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:40:10 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.679	166542835	46.882 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	93.76%
Target Compounds			
1) HM Diesel (TPH)	4.080	100651045	28.048 ug/mL
2) H OIL	6.590	5857274	3.059 ug/mL

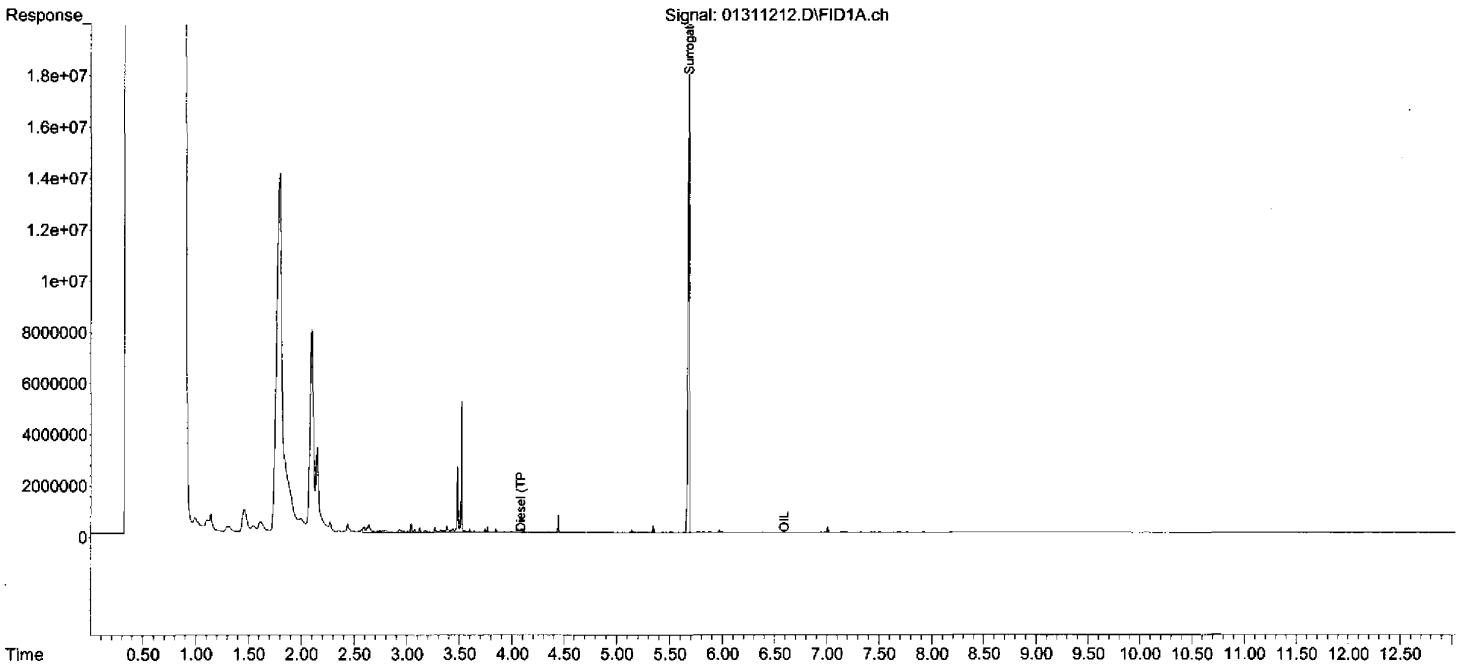
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311212.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 3:23 pm
Operator: TD
Sample : 1201034-01
Inst : AG7890_2
Misc : FB04
ALS Vial : 12 Sample Multiplier: 1

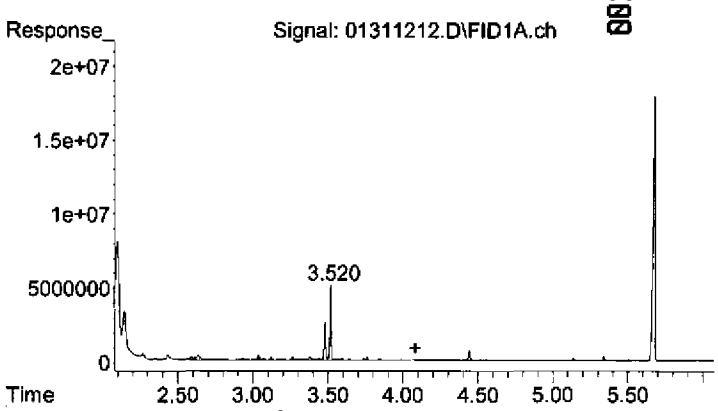
Integration File: HEXACOSANE.E
Quant Time: Jan 31 15:40:10 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



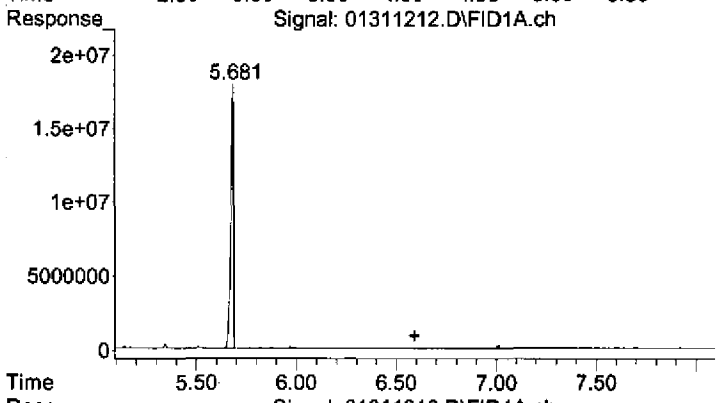
00182

00179



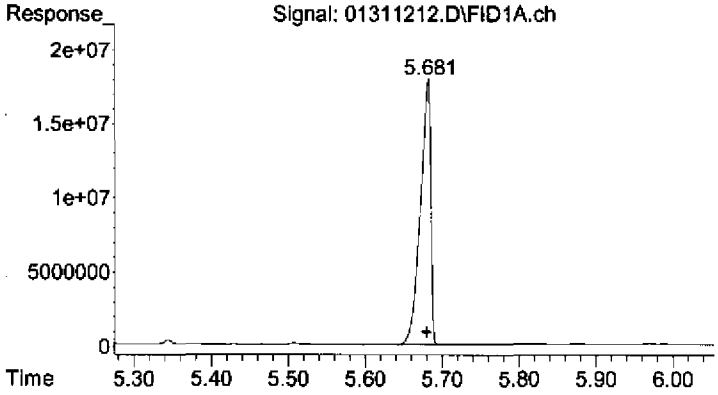
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 100651045
Conc: 28.05 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 5857274
Conc: 3.06 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 166542835
Conc: 46.88 ug/mL

Quantitation Report (Not Reviewed)

00184

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311213.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 3:41 pm Operator: TD
Sample : 1201034-02 Inst : AG7890_2
Misc : HW5
ALS Vial : 13 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:18 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.679	167147426	47.052 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	94.10%
Target Compounds			
1) HM Diesel (TPH)	4.080	51113706	14.244 ug/mL
2) H OIL	6.590	4612050	2.409 ug/mL

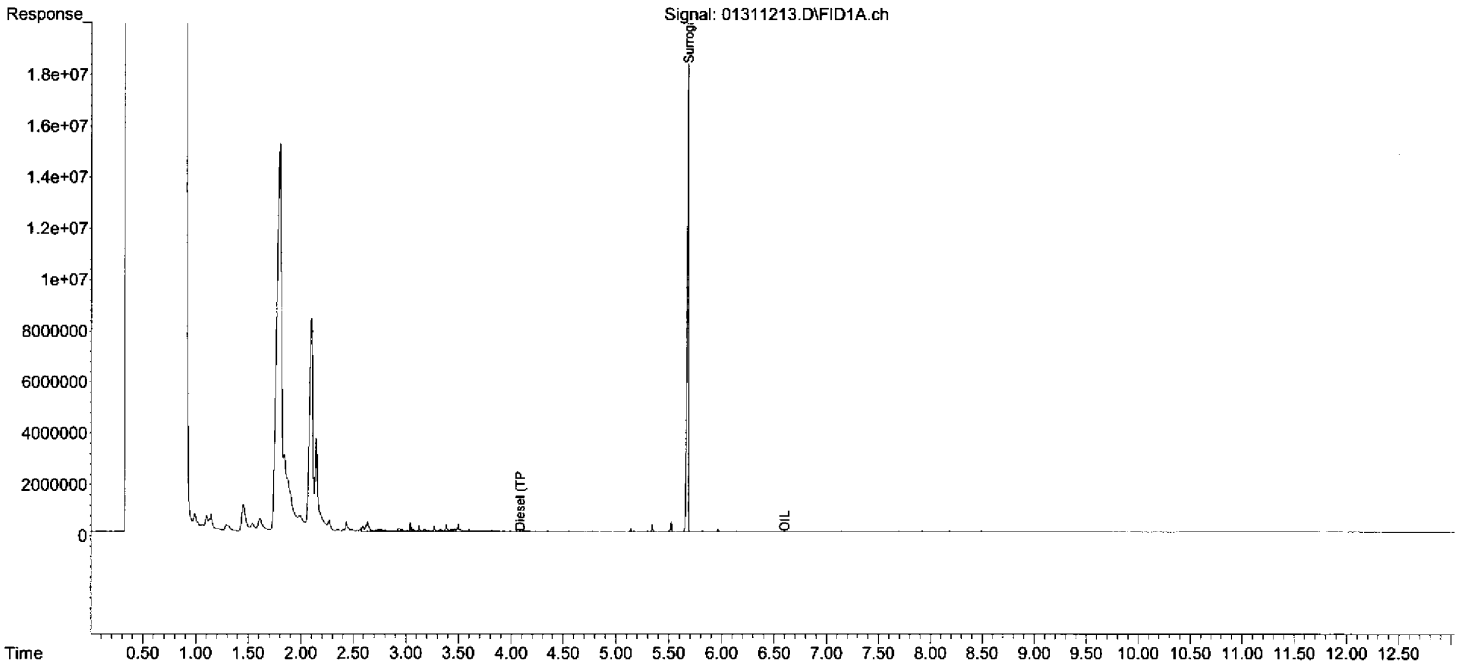
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

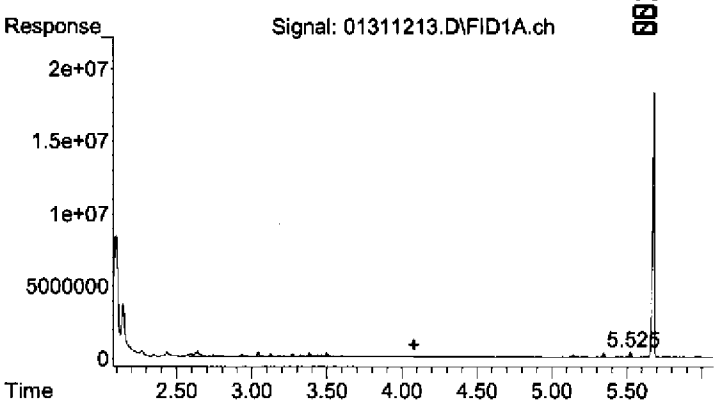
Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311213.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 3:41 pm
Operator: TD
Sample : 1201034-02
Inst : AG7890_2
Misc : HW5
ALS Vial : 13 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:18 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

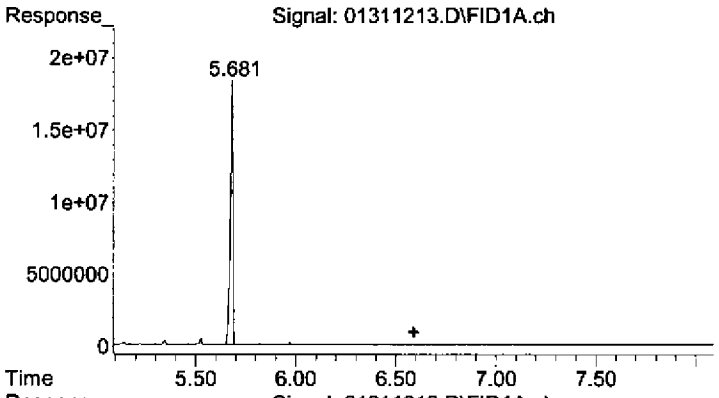


00185
00182
DIM0276600 DIM0276788



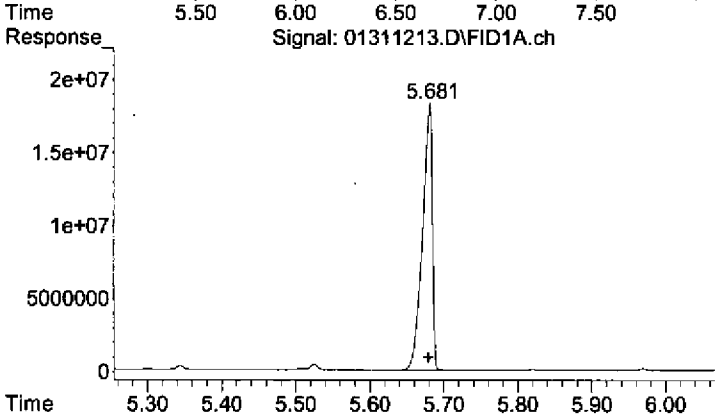
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 51113706
Conc: 14.24 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 4612050
Conc: 2.41 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 167147426
Conc: 47.05 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311214.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 3:59 pm Operator: TD
Sample : 1201034-03 Inst : AG7890_2
Misc : HW6
ALS Vial : 14 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:23 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.678	152035846	42.798 ug/mL
Spiked Amount 50.000 Range 60 - 127		Recovery =	85.60%
Target Compounds			
1) HM Diesel (TPH)	4.080	43102586	12.011 ug/mL
2) H OIL	6.590	4446910	2.322 ug/mL

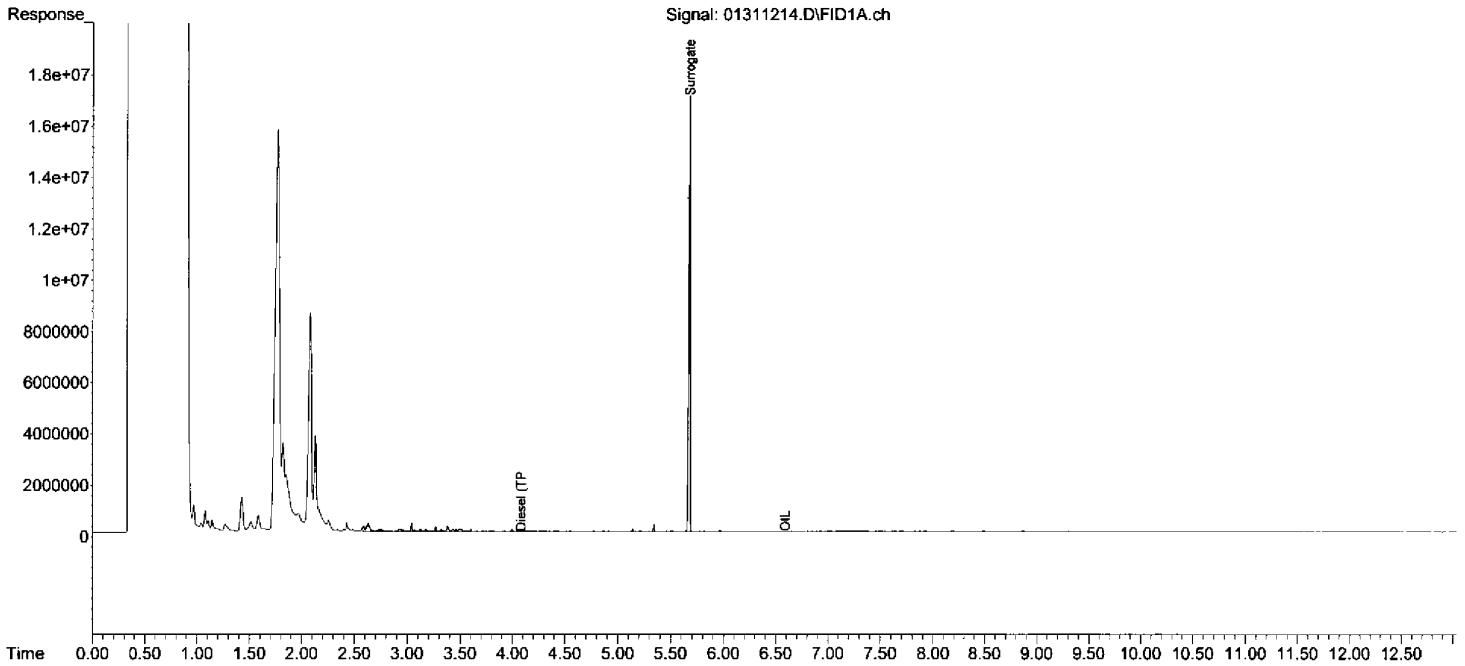
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311214.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 3:59 pm
Operator: TD
Sample : 1201034-03
Inst : AG7890_2
Misc : HW6
ALS Vial : 14 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:23 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

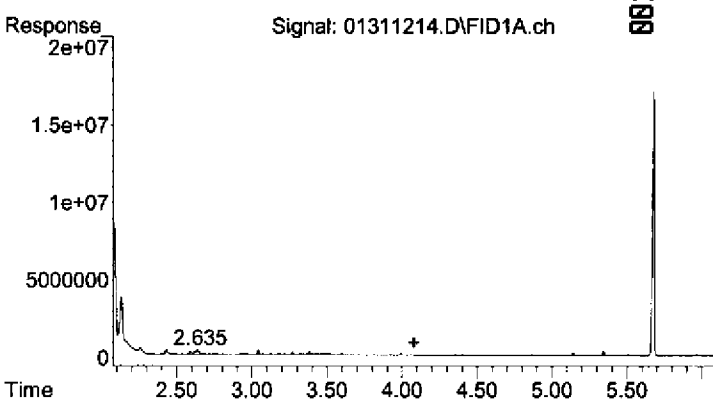
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



00188

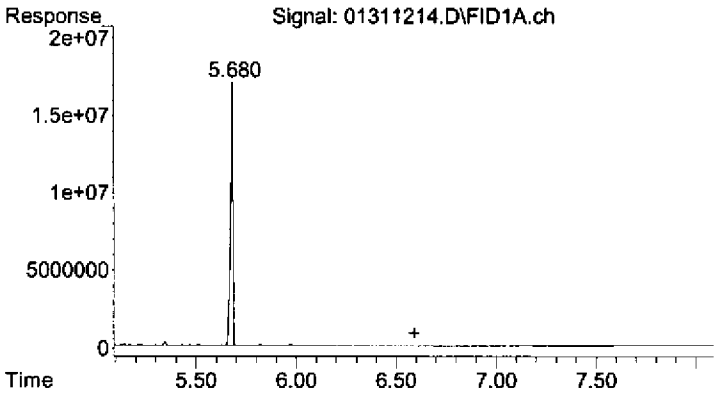
00185

013012DROA.M Wed Feb 01 07:38:25 2012 Page: 2



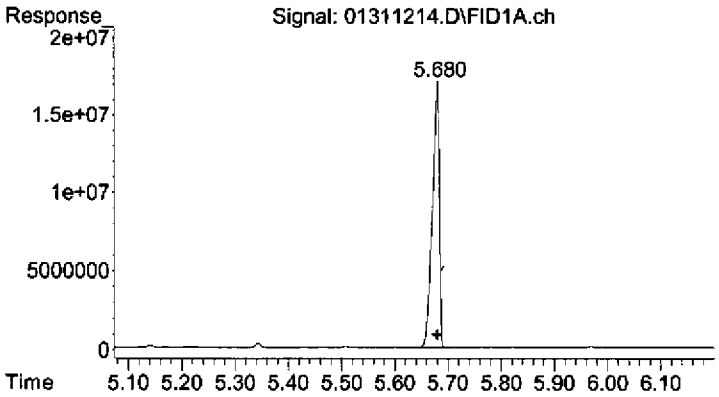
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 43102586
Conc: 12.01 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 4446910
Conc: 2.32 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.001 min
Response: 152035846
Conc: 42.80 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311215.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 4:17 pm Operator: TD
Sample : 1201034-04 Inst : AG7890_2
Misc : HW12
ALS Vial : 15 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:28 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.679	171953331	48.405 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	96.81%
Target Compounds			
1) HM Diesel (TPH)	4.080	23056763	6.425 ug/mL
2) H OIL	6.590	6001903	3.134 ug/mL

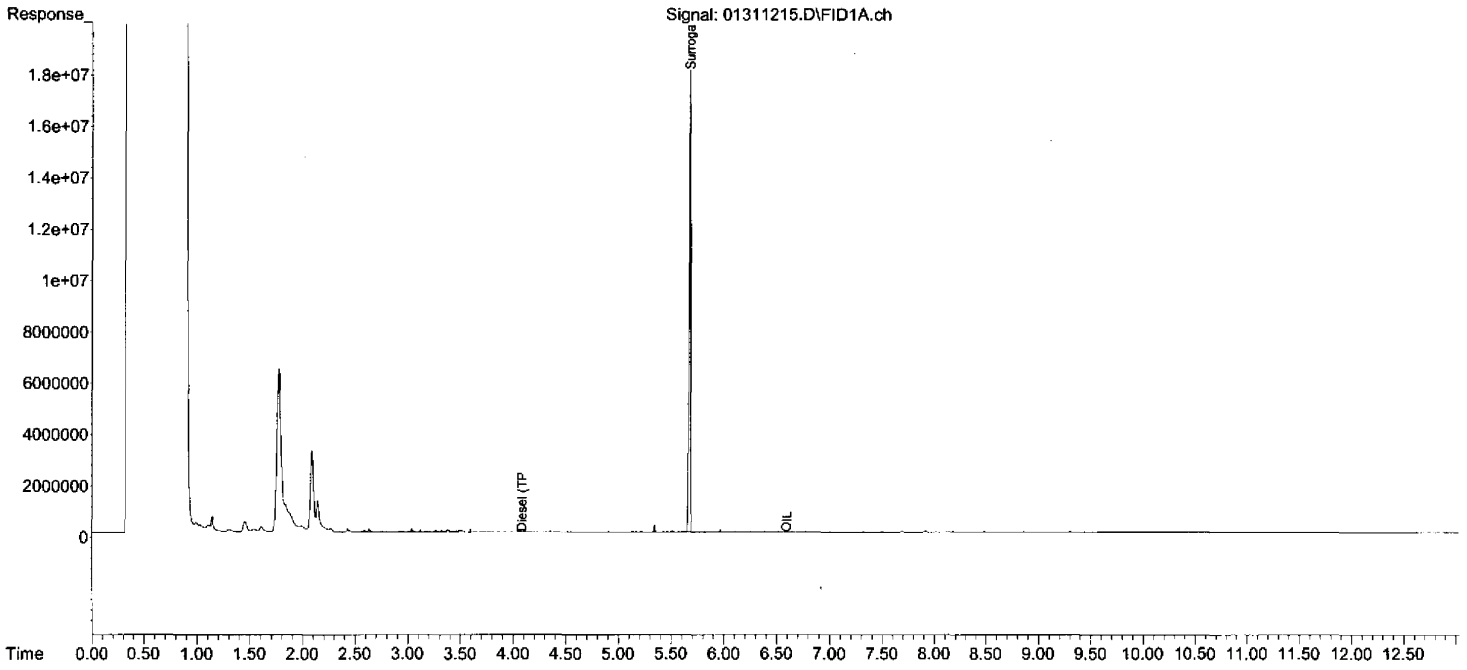
(f)=RT Delta > 1/2 Window (m)=manual int.

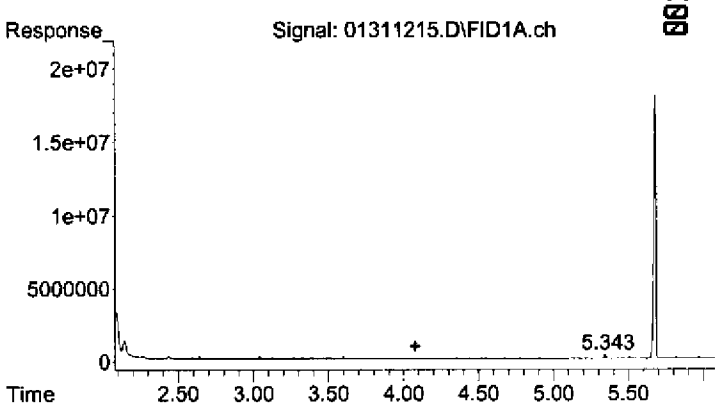
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311215.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 4:17 pm Operator: TD
Sample : 1201034-04 Inst : AG7890_2
Misc : HW12
ALS Vial : 15 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:28 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

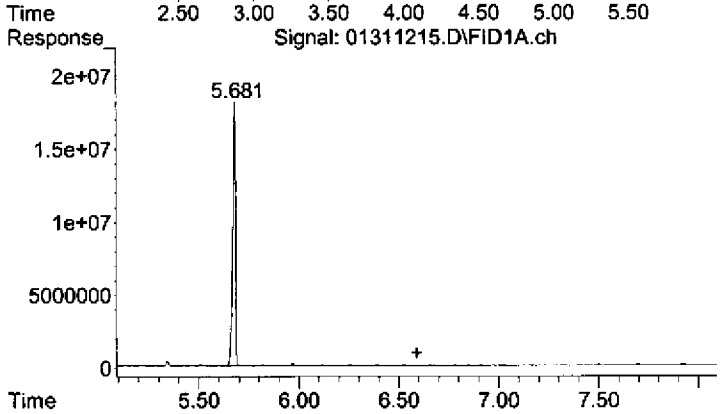
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





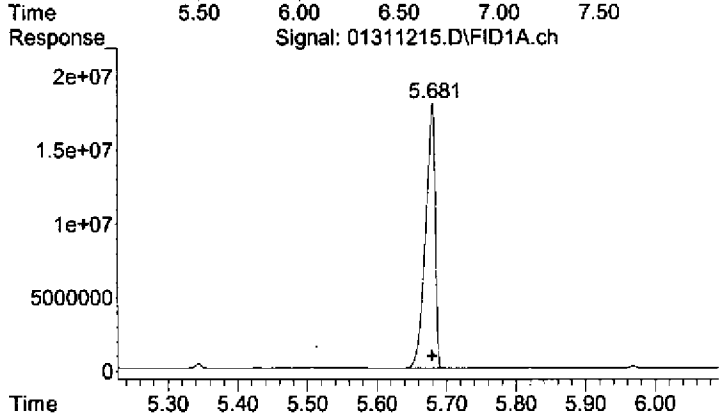
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 23056763
Conc: 6.43 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 6001903
Conc: 3.13 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 171953331
Conc: 48.40 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311216.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 4:35 pm Operator: TD
Sample : 1201034-05 Inst : AG7890_2
Misc : HW14-P
ALS Vial : 16 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:33 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.679	173407308	48.814 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	97.63%
Target Compounds			
1) HM Diesel (TPH)	4.080	61230469	17.063 ug/mL
2) H OIL	6.590	4169311	2.177 ug/mL

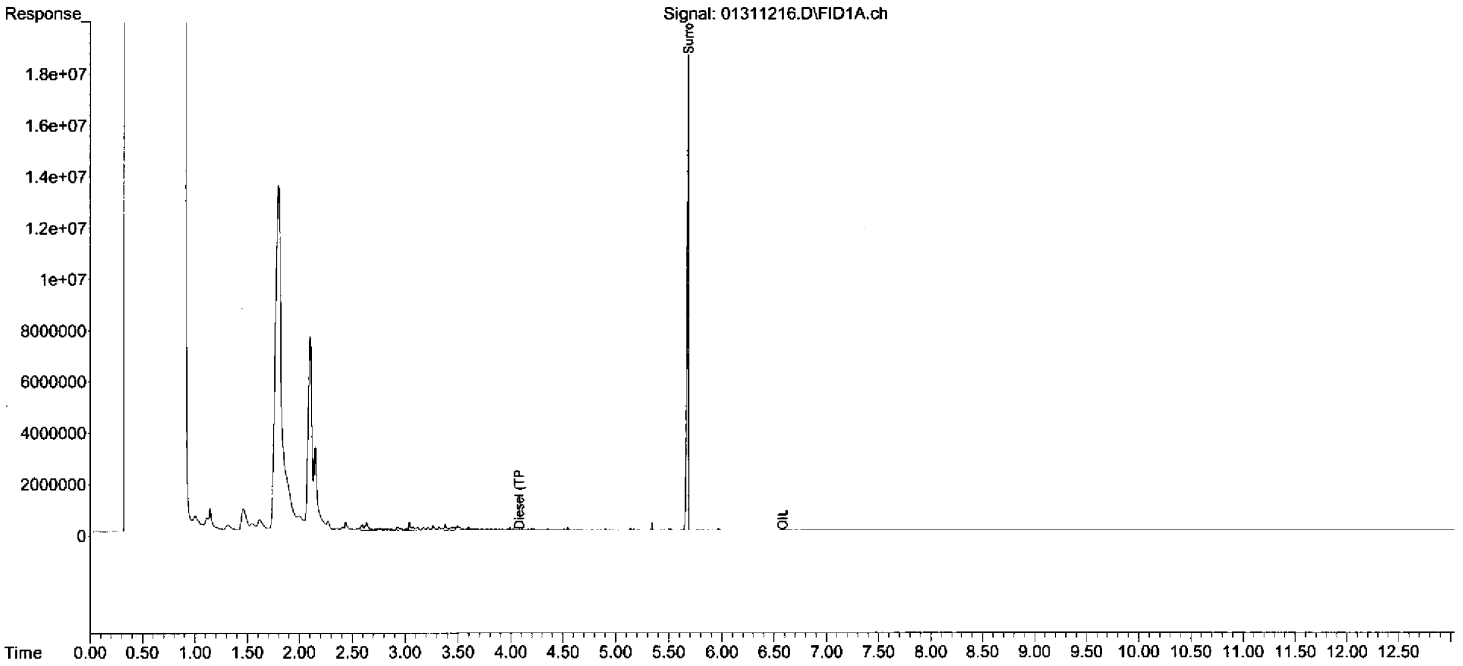
(f)=RT Delta > 1/2 Window (m)=manual int.

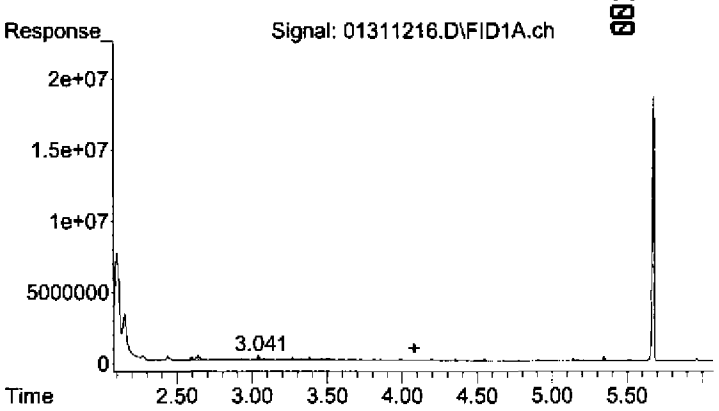
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311216.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 4:35 pm Operator: TD
Sample : 1201034-05 Inst : AG7890_2
Misc : HW14-P
ALS Vial : 16 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:33 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

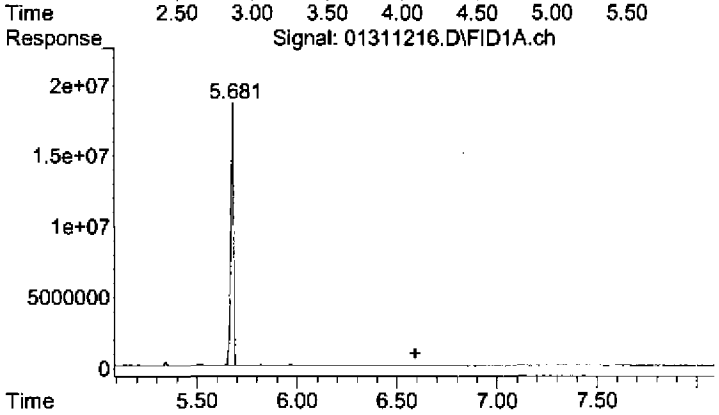
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





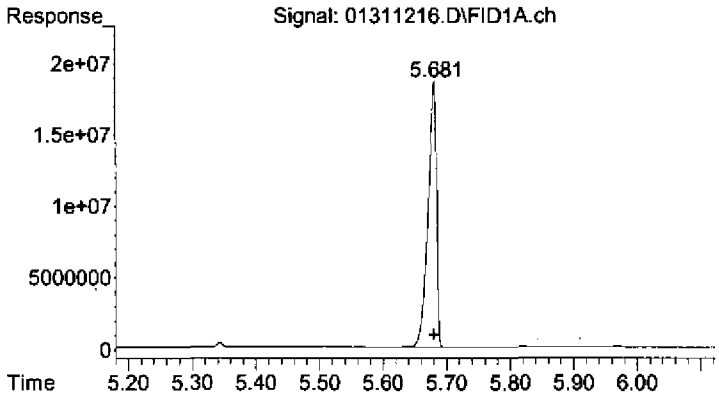
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 61230469
Conc: 17.06 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 4169311
Conc: 2.18 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 173407308
Conc: 48.81 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311217.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 4:53 pm Operator: TD
Sample : 1201034-06 Inst : AG7890_2
Misc : HW14
ALS Vial : 17 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:38 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.679	165848751	46.686 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	93.37%
Target Compounds			
1) HM Diesel (TPH)	4.080	53523599	14.915 ug/mL
2) H OIL	6.590	9584624	5.005 ug/mL

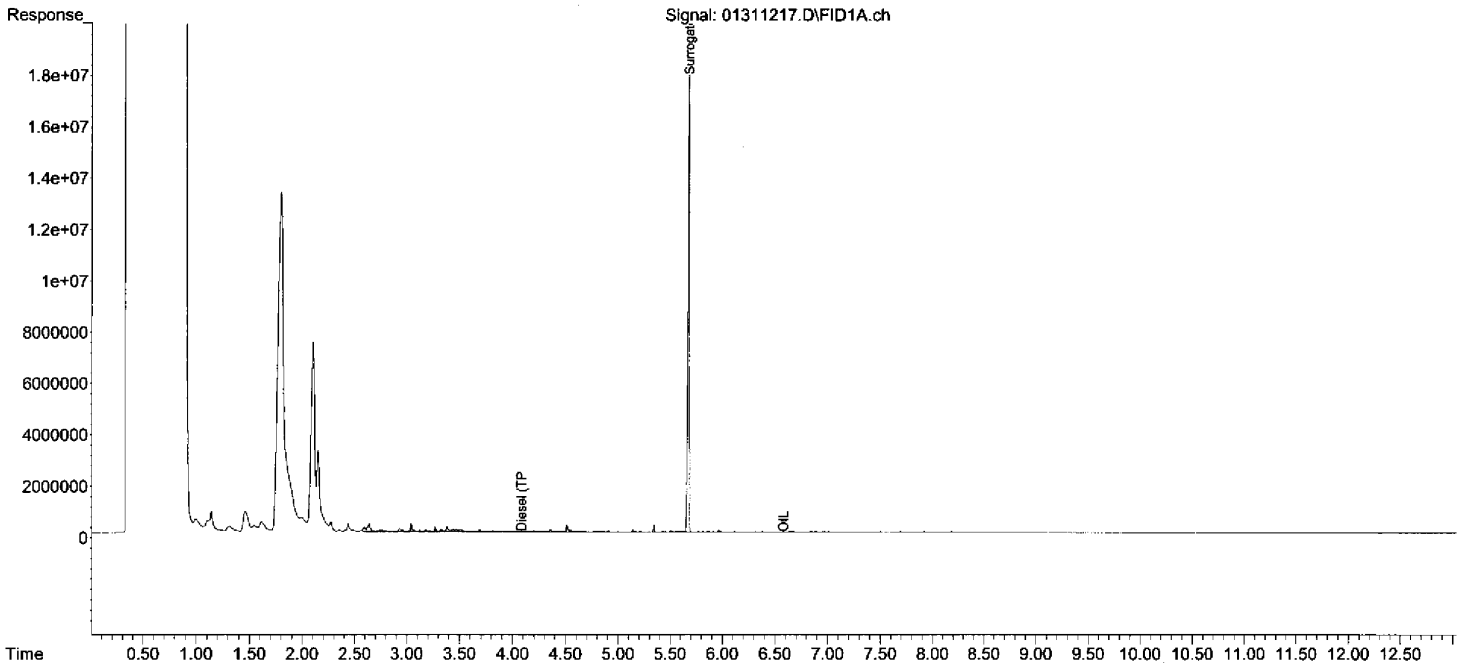
(f)=RT Delta > 1/2 Window (m)=manual int.

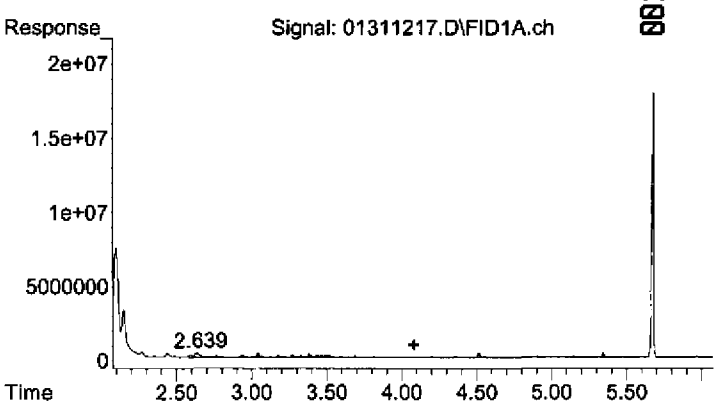
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311217.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 4:53 pm Operator: TD
Sample : 1201034-06 Inst : AG7890_2
Misc : HW14
ALS Vial : 17 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:38 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

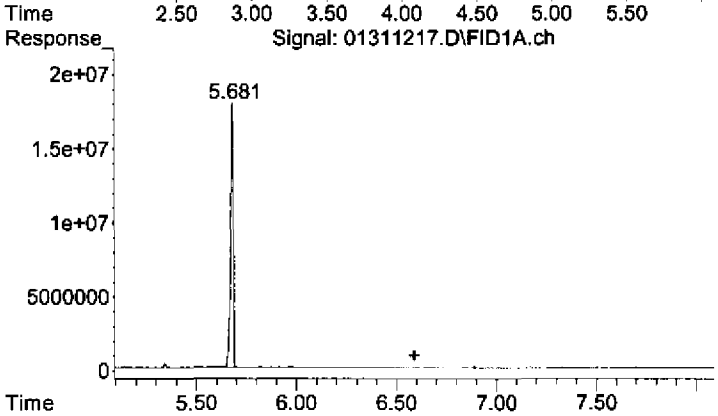
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





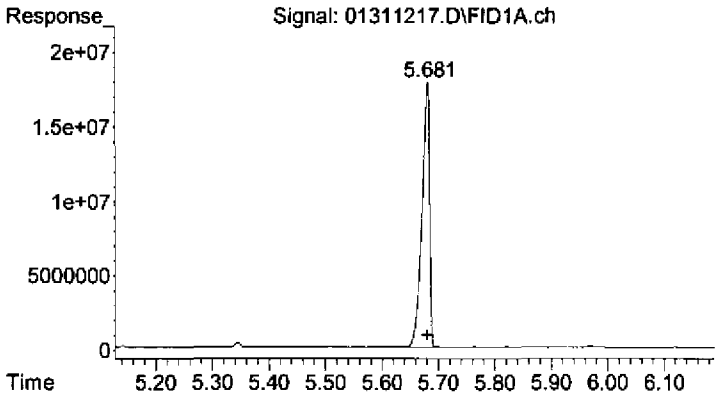
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 53523599
Conc: 14.92 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 9584624
Conc: 5.01 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 165848751
Conc: 46.69 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311218.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 5:11 pm Operator: TD
Sample : 1201034-09 Inst : AG7890_2
Misc : FB05
ALS Vial : 18 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:43 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.679	169609125	47.745 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	95.49%
Target Compounds			
1) HM Diesel (TPH)	4.080	125632013	35.010 ug/mL
2) H OIL	6.590	5060571	2.643 ug/mL

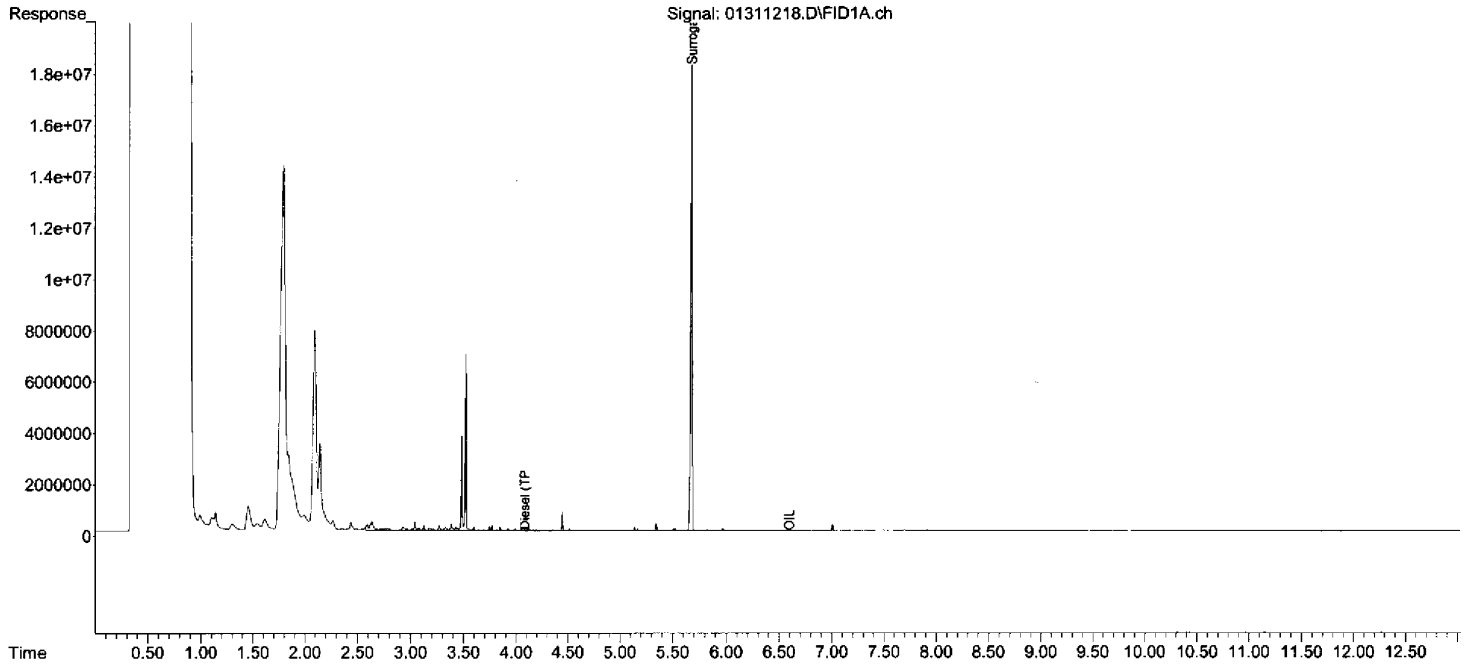
(f)=RT Delta > 1/2 Window (m)=manual int.

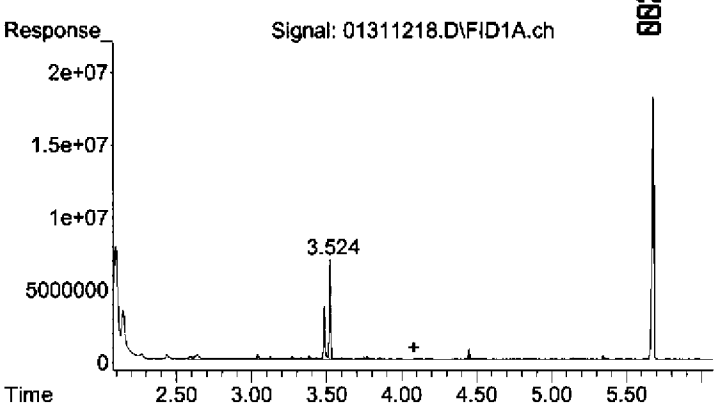
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311218.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 5:11 pm
Operator: TD
Sample : 1201034-09
Inst : AG7890_2
Misc : FB05
ALS Vial : 18 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:43 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

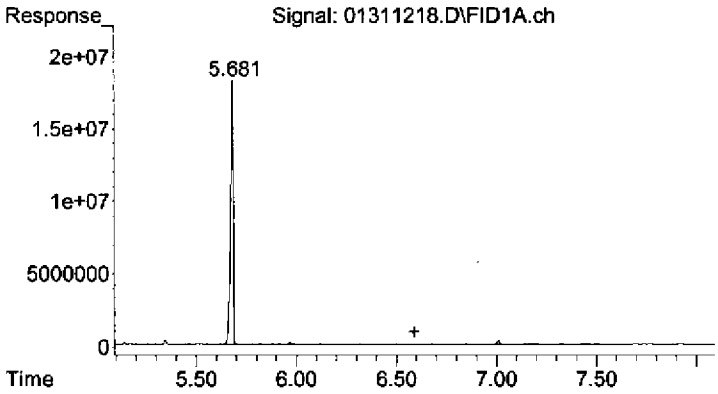
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





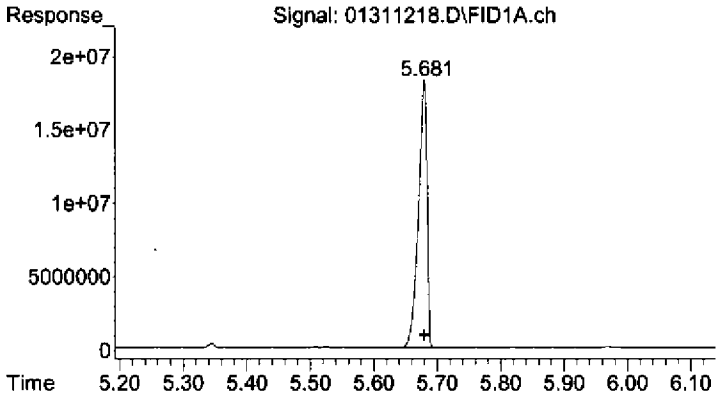
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 125632013
Conc: 35.01 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 5060571
Conc: 2.64 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 169609125
Conc: 47.74 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311219.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 5:29 pm Operator: TD
Sample : 1201034-10 Inst : AG7890_2
Misc : HW01
ALS Vial : 19 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:48 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.679	167818964	47.241 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	94.48%
Target Compounds			
1) HM Diesel (TPH)	4.080	53118887	14.803 ug/mL
2) H OIL	6.590	5584681	2.916 ug/mL

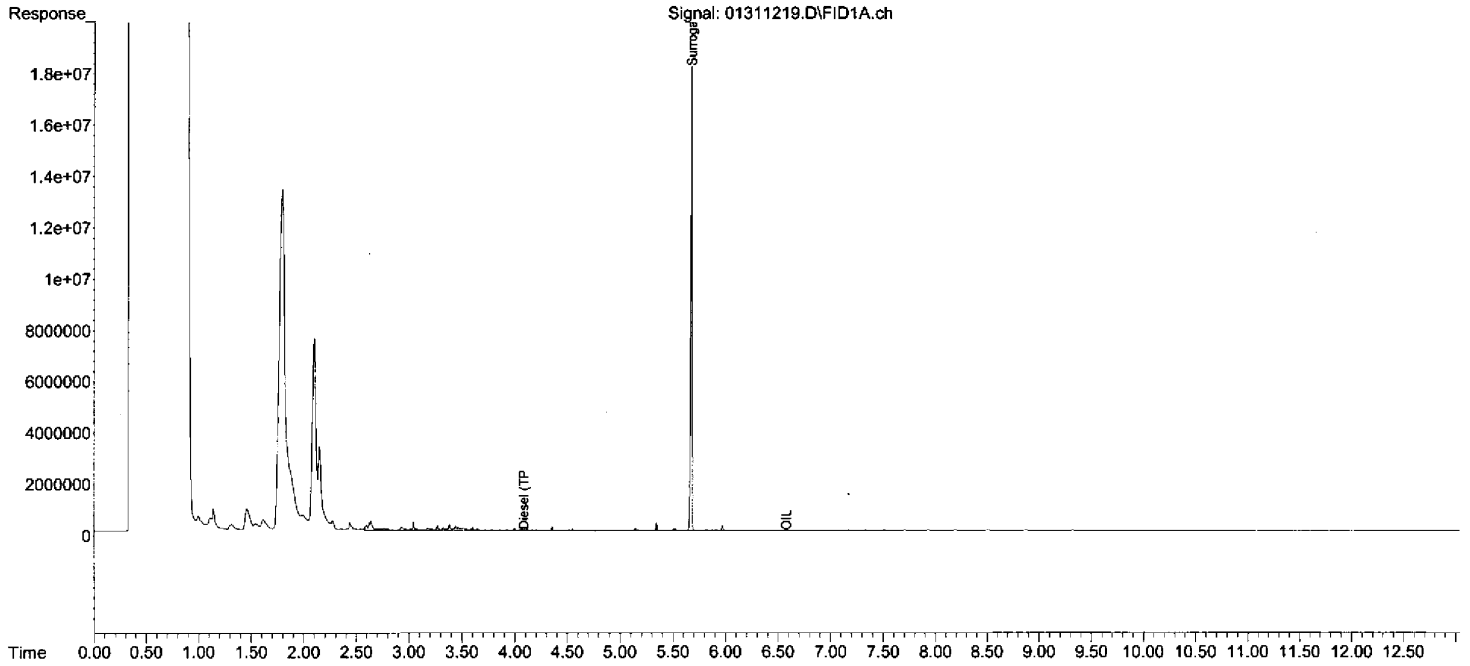
(f)=RT Delta > 1/2 Window (m)=manual int.

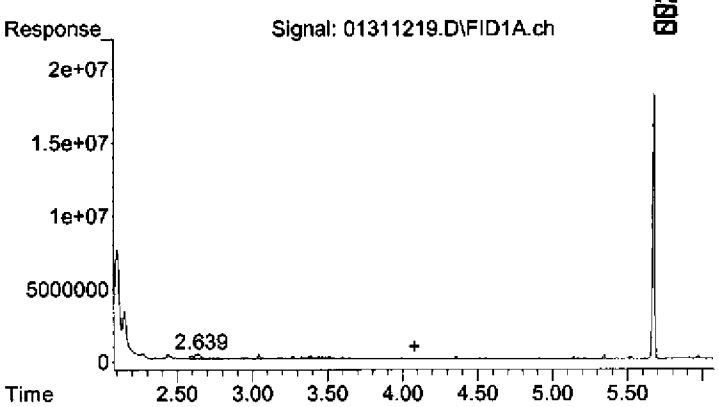
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311219.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 5:29 pm
Operator: TD
Sample : 1201034-10
Inst : AG7890_2
Misc : HW01
ALS Vial : 19 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:48 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

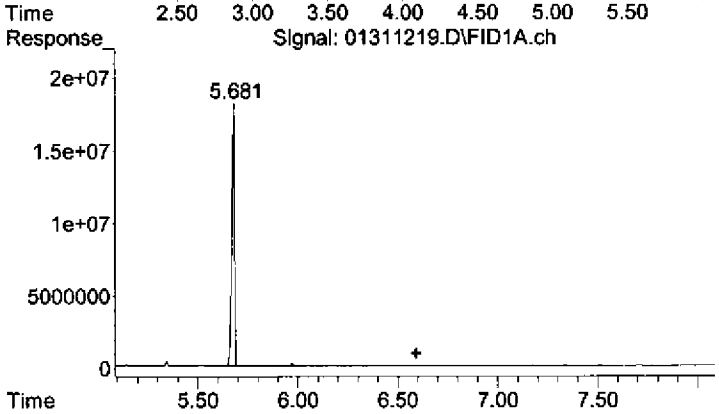
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





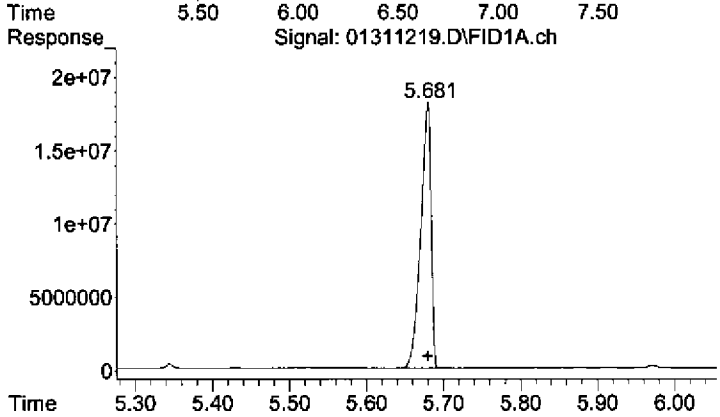
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 53118887
Conc: 14.80 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 5584681
Conc: 2.92 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 167818964
Conc: 47.24 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311220.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 5:47 pm Operator: TD
Sample : 1201034-11 Inst : AG7890_2
Misc : HW24-P
ALS Vial : 20 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:53 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.679	155342268	43.729 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	87.46%
Target Compounds			
1) HM Diesel (TPH)	4.080	46152493	12.861 ug/mL
2) H OIL	6.590	3731140	1.949 ug/mL

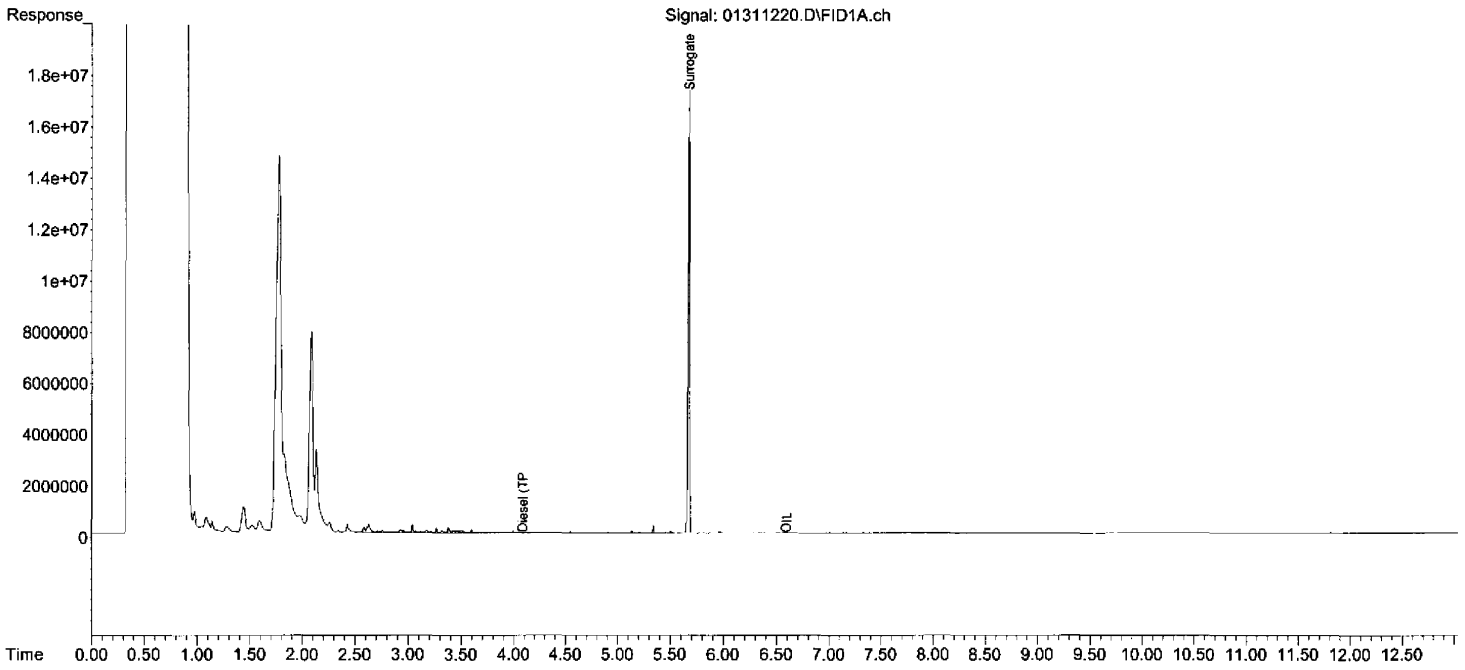
(f)=RT Delta > 1/2 Window (m)=manual int.

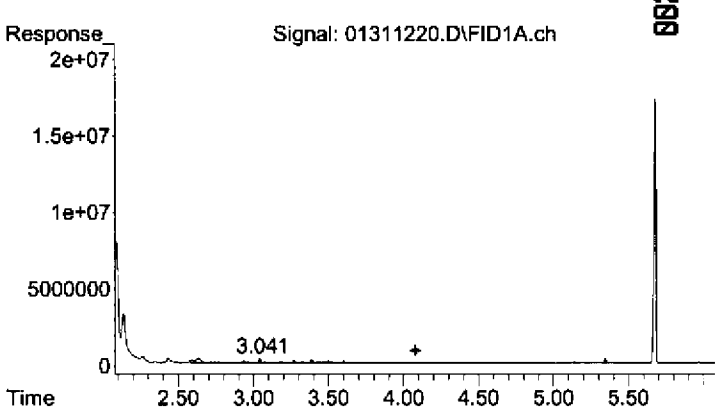
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311220.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 5:47 pm
Operator: TD
Sample : 1201034-11
Inst : AG7890_2
Misc : HW24-P
ALS Vial : 20 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:53 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

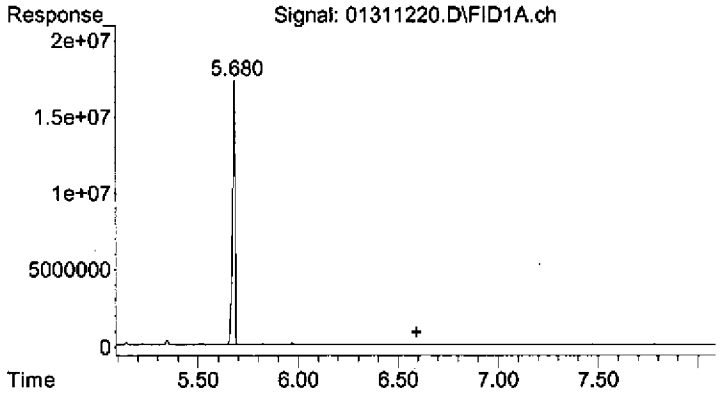
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





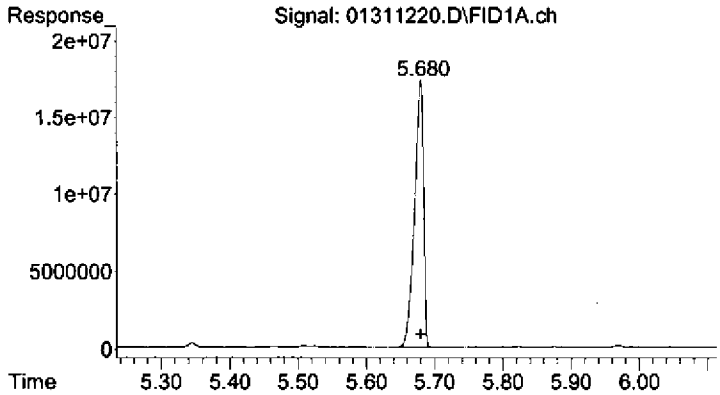
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 46152493
Conc: 12.86 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3731140
Conc: 1.95 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 155342268
Conc: 43.73 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311221.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 6:05 pm Operator: TD
Sample : 1201034-15 Inst : AG7890_2
Misc : HW17
ALS Vial : 21 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:58 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.679	155761636	43.847 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	87.69%
Target Compounds			
1) HM Diesel (TPH)	4.080	52158697	14.535 ug/mL
2) H OIL	6.590	3626295	1.894 ug/mL

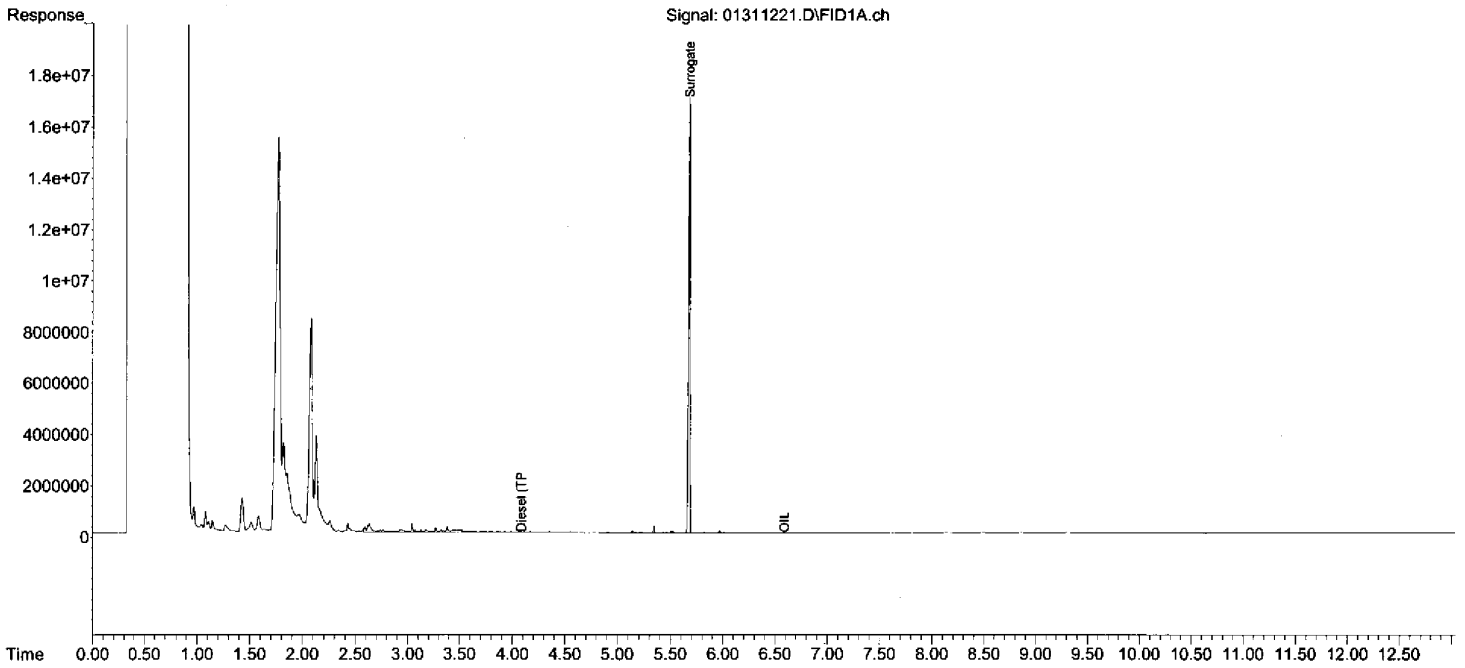
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311221.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 6:05 pm Operator: TD
Sample : 1201034-15 Inst : AG7890_2
Misc : HW17
ALS Vial : 21 Sample Multiplier: 1

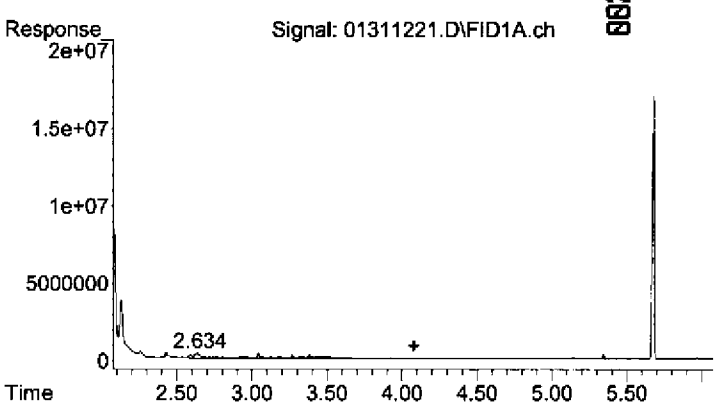
Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:38:58 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



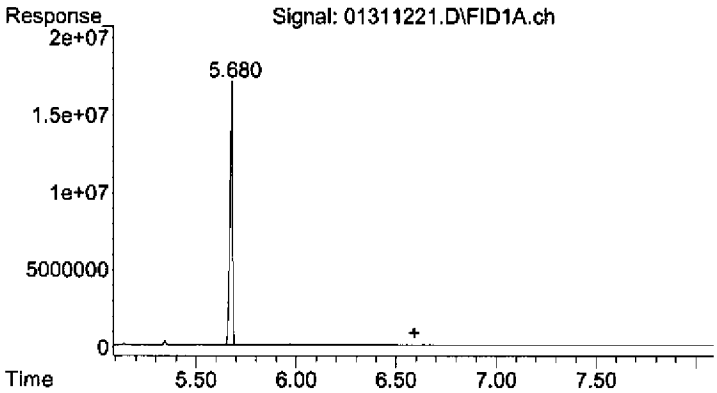
00209

00206



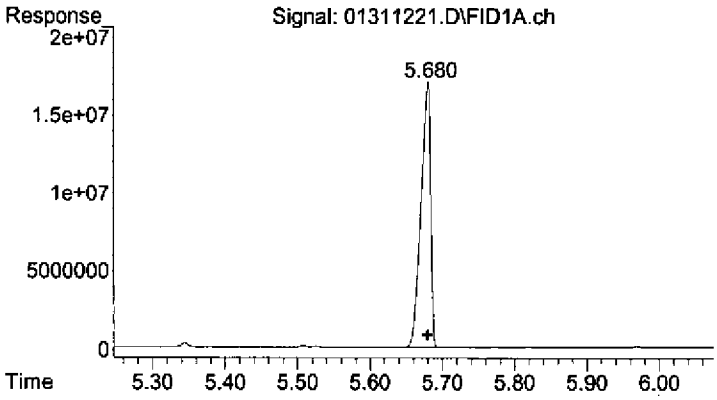
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 52158697
Conc: 14.54 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3626295
Conc: 1.89 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: -0.001 min
Response: 155761636
Conc: 43.85 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311222.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 6:23 pm Operator: TD
Sample : 1201034-16 Inst : AG7890_2
Misc : HW24
ALS Vial : 22 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:03 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.679	159593827	44.926 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	89.85%
Target Compounds			
1) HM Diesel (TPH)	4.080	41688880	11.617 ug/mL
2) H OIL	6.590	3467283	1.811 ug/mL

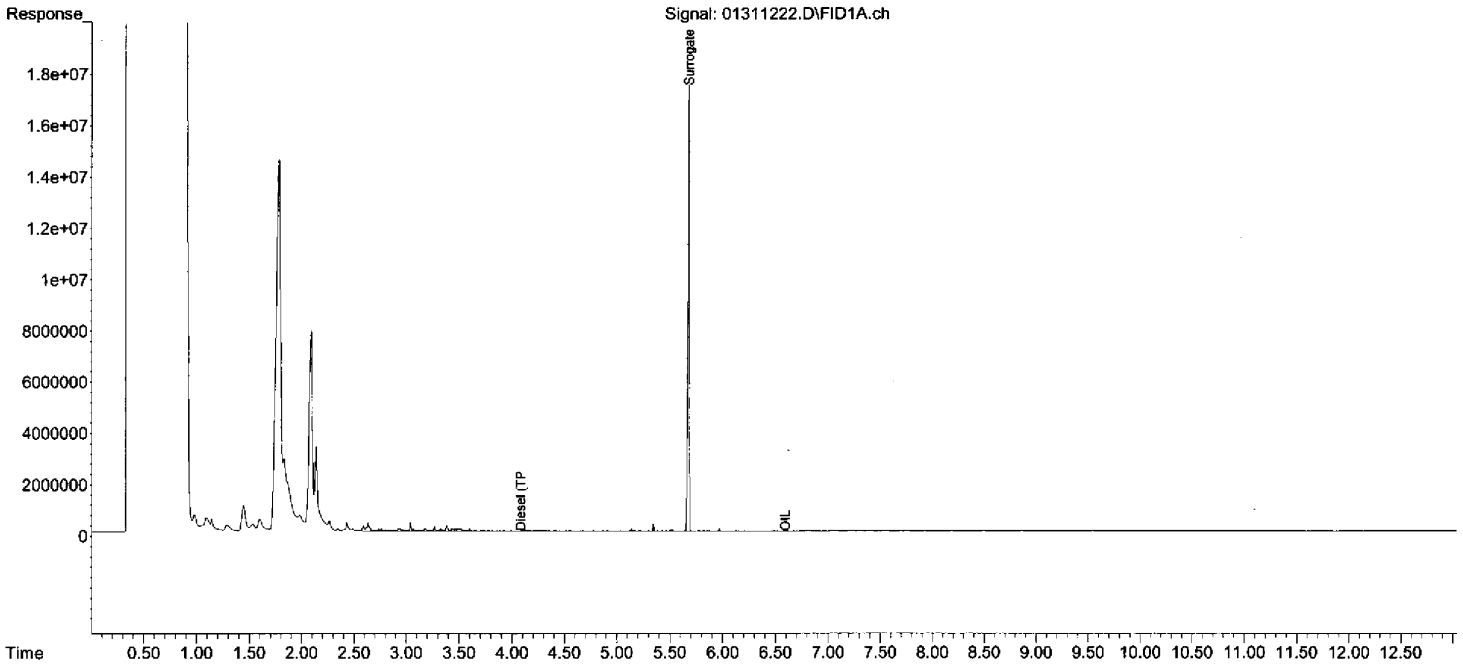
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311222.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 6:23 pm
Operator: TD
Sample : 1201034-16
Inst : AG7890_2
Misc : HW24
ALS Vial : 22 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:03 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

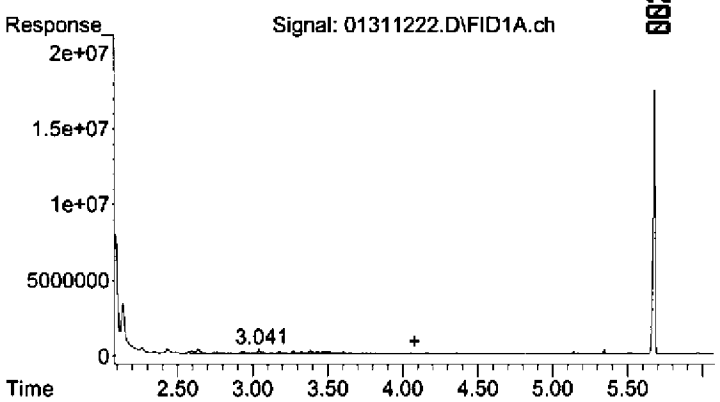
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



00212

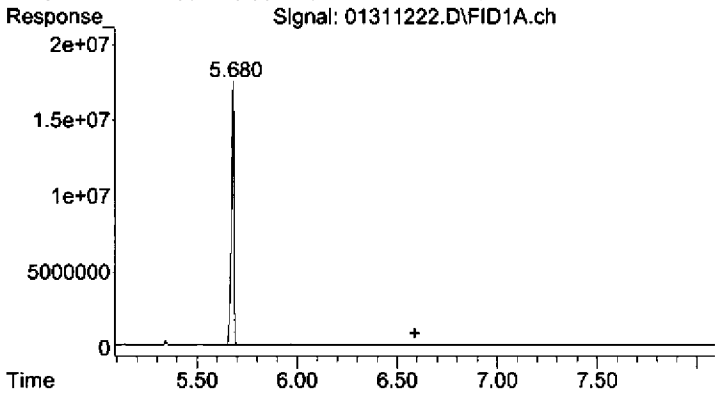
00209

013012DROA.M Wed Feb 01 07:39:04 2012 Page: 2



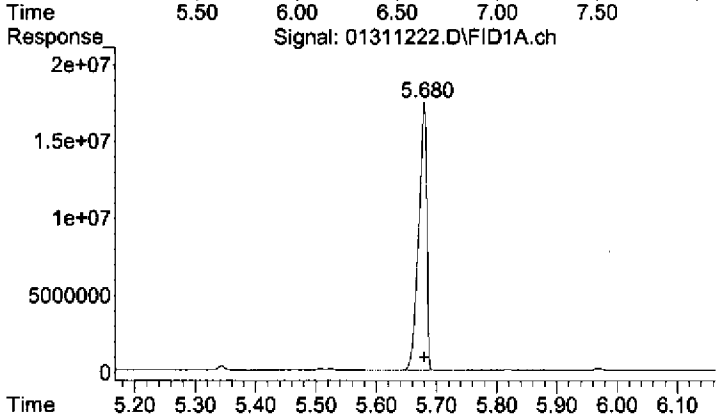
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 41688880
Conc: 11.62 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3467283
Conc: 1.81 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 159593827
Conc: 44.93 ug/mL

Quantitation Report (Not Reviewed)

00214

Data Path : C:\msdchem\1\2012\DATA\013112D\
Data File : 01311223.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 6:41 pm Operator: TD
Sample : 2010053-IBL2 Inst : AG7890_2
Misc : 2A11003 IB
ALS Vial : 23 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:08 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.679	178393919	50.218 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	100.44%
Target Compounds			
1) HM Diesel (TPH)	4.080	4941932	1.377 ug/mL
2) H OIL	6.590	2879471	1.504 ug/mL

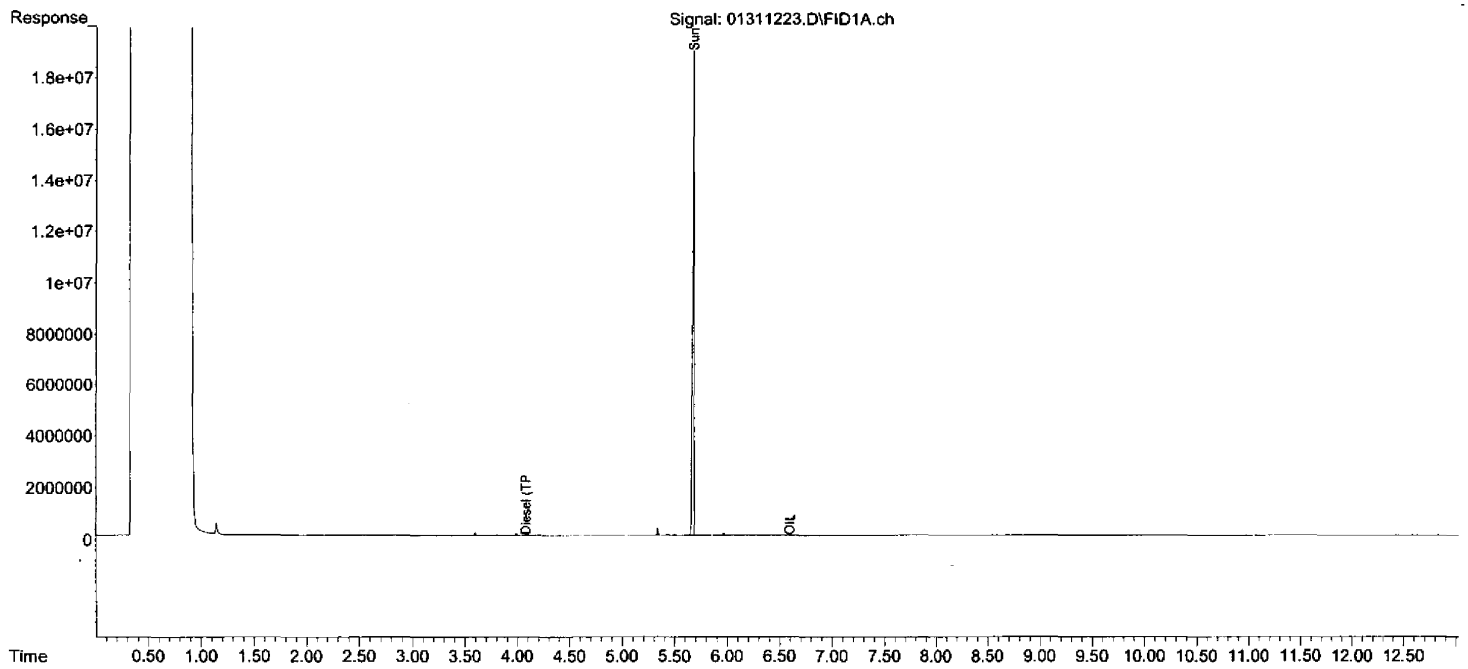
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

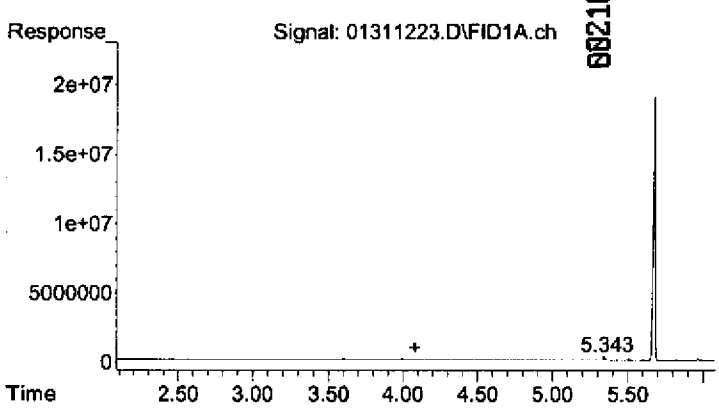
Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311223.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 6:41 pm
Operator: TD
Sample : 2010053-IBL2
Inst : AG7890_2
Misc : 2A11003 IB
ALS Vial : 23 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:08 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

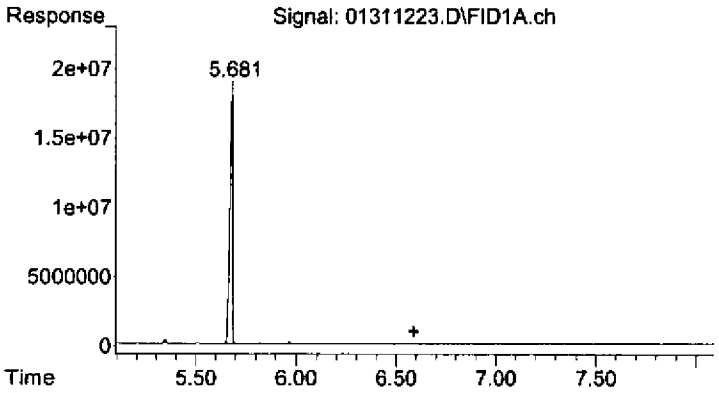


00215
00212
DIM0276600
DIM0276818



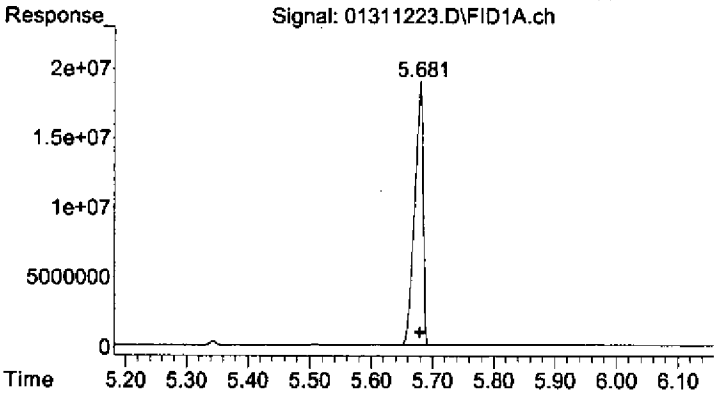
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 4941932
Conc: 1.38 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 2879471
Conc: 1.50 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 178393919
Conc: 50.22 ug/mL

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\2012\DATA\01311DA\
Data File : 01311224.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 6:59 pm Operator: TD
Sample : 2010053-CCV3 Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 24 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:13 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Min. RRF : 0.000 Min. Rel. Area : 10% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 350%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 HM	Diesel (TPH)	3.588	3.788 E6	-5.6	120	0.00
2 H	OIL	1.915	0.000 E6	100.0#	137	0.00
3 S	Surrogate	3.552	4.050 E6	-14.0	121	0.00

Evaluate Continuing Calibration Report - Not Founds

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (Not Reviewed)

00215

Data Path : C:\msdchem\1\2012\DATA\01311DA\
Data File : 01311224.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 6:59 pm Operator: TD
Sample : 2010053-CCV3 Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 24 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:13 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.681	202510995	57.007 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	114.01%
Target Compounds			
1) HM Diesel (TPH)	4.080	1894215302	527.860 ug/mL
2) H OIL	6.590	5299938	2.768 ug/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

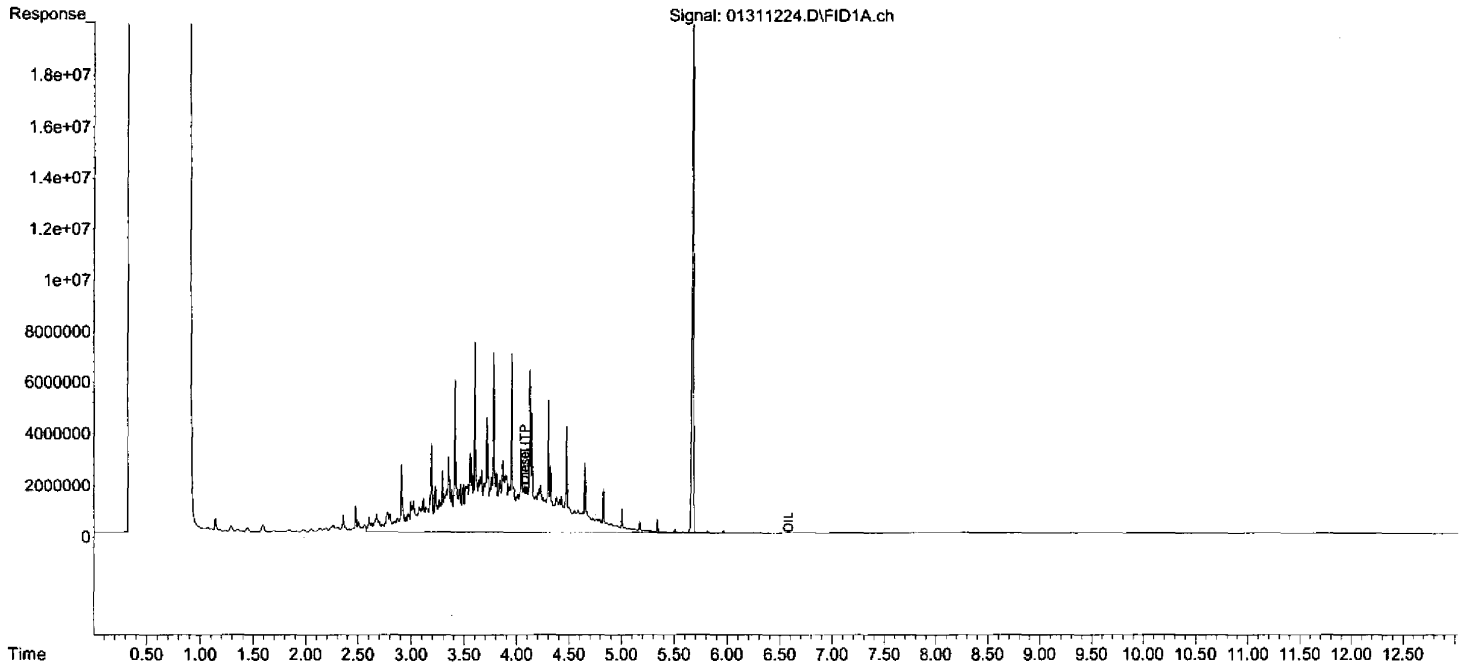
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311224.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 6:59 pm
Sample : 2010053-CCV3
Misc : 2A11005 DRO-CV
ALS Vial : 24 Sample Multiplier: 1

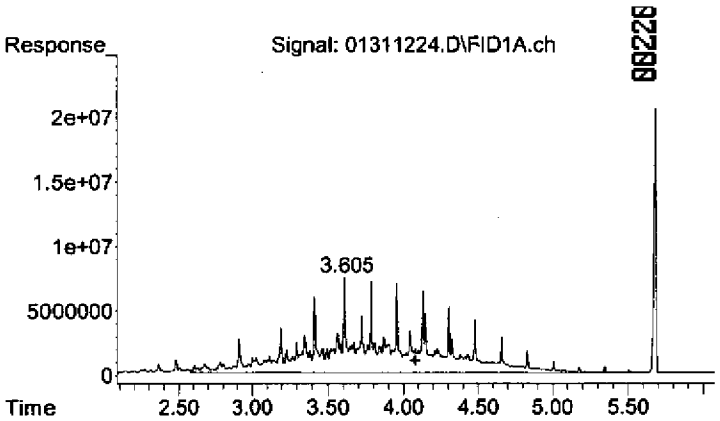
Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:13 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

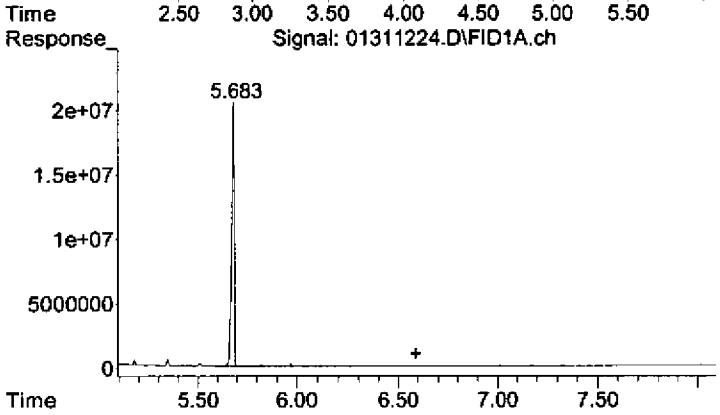


00215
00215
DIM0276600
DIM0276822



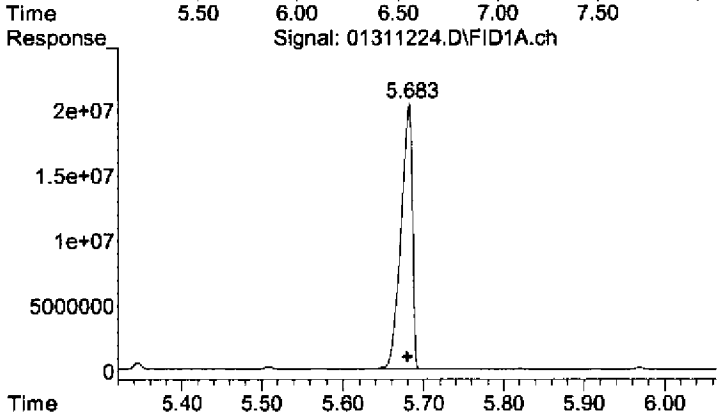
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1894215302
Conc: 527.86 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 5299938
Conc: 2.77 ug/mL



#3 Surrogate

R.T.: 5.681 min
Delta R.T.: 0.001 min
Response: 202510995
Conc: 57.01 ug/mL

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\2012\DATA\013112DA
Data File : 01311225.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 7:17 pm Operator: TD
Sample : 2010053-CCV4 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 25 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 08:13:18 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Min. RRF : 0.000 Min. Rel. Area : 10% Max. R.T. Dev 0.50min
Max. RRF Dev : 20% Max. Rel. Area : 350%

	Compound	AvgRF	CCRF	%Dev	Area%	Dev(Min)
1 HM	Diesel (TPH)	3.588	0.000 E6	100.0#	0#	0.00
2 H	OIL	1.915	2.017 E6	-5.3	100	0.00
3 S	Surrogate	3.552	0.000 E6	100.0#	99	0.00

Evaluate Continuing Calibration Report - Not Founds

(#) = Out of Range SPCC's out = 0 CCC's out = 0

Quantitation Report (QT Reviewed)

00222

Data Path : C:\msdchem\1\2012\DATA\013112DA
Data File : 01311225.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 7:17 pm Operator: TD
Sample : 2010053-CCV4 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 25 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 08:13:18 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.688	158791132	44.700 ug/mLm
Spiked Amount 50.000	Range 60 - 127	Recovery =	89.40%
Target Compounds			
1) HM Diesel (TPH)	4.080	1065650486	296.964 ug/mL
2) H OIL	6.590	2017135321	1053.403 ug/mLm

(f)=RT Delta > 1/2 Window (m)=manual int.

MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: TD	Date: 02-01-12
Manual integration(s) reviewed by:	
Reviewer:	Date:

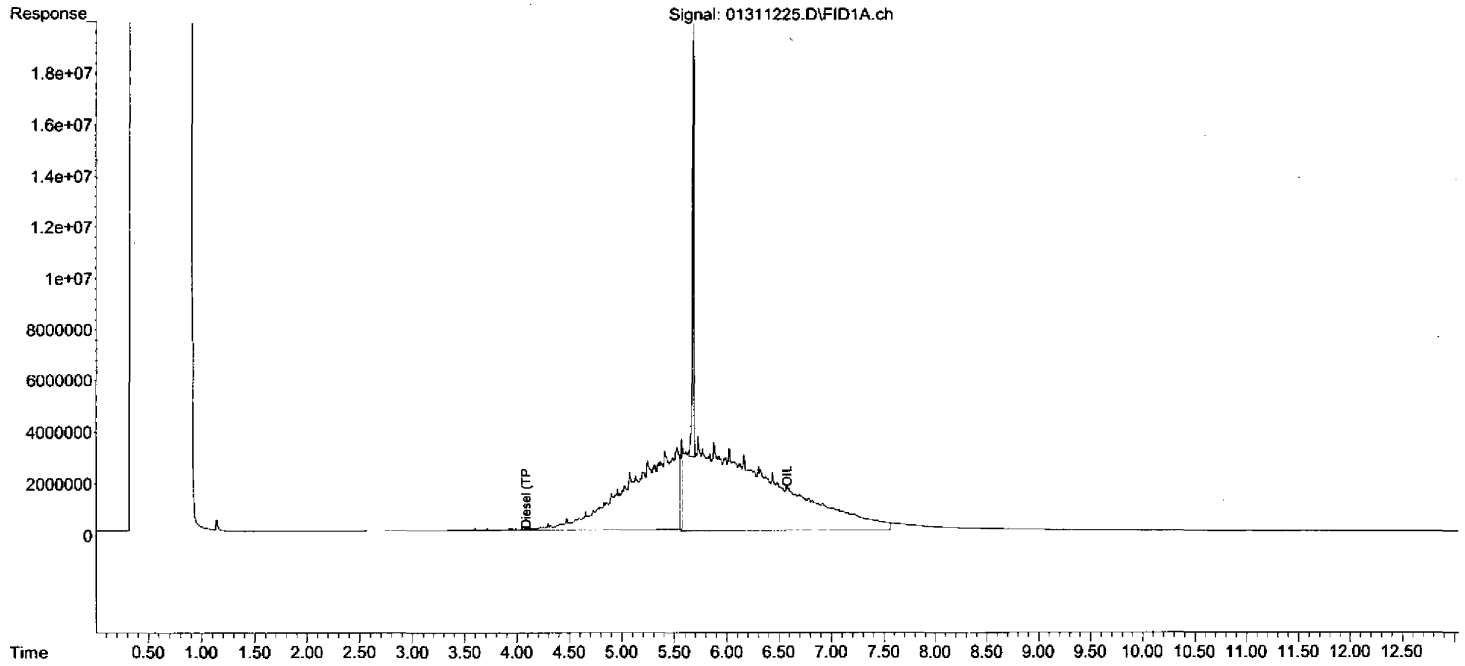
Quantitation Report (QT Reviewed)

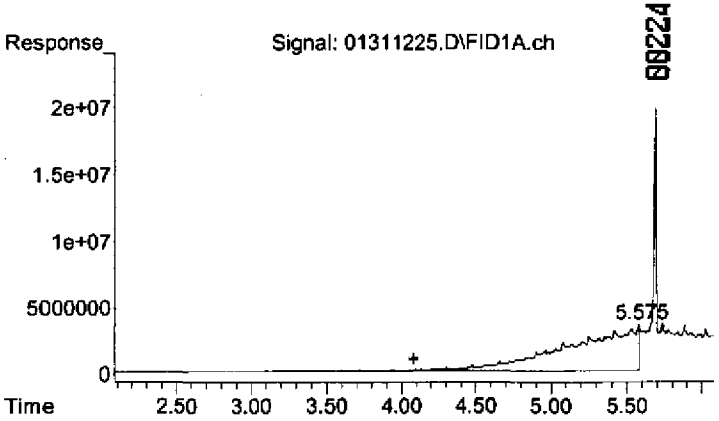
Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311225.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 7:17 pm
Sample : 2010053-CCV4
Misc : 2A11012 OIL-CV
ALS Vial : 25 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 01 08:13:18 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

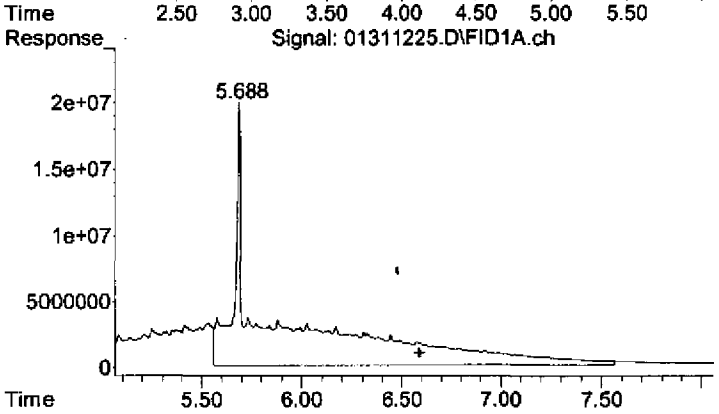
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





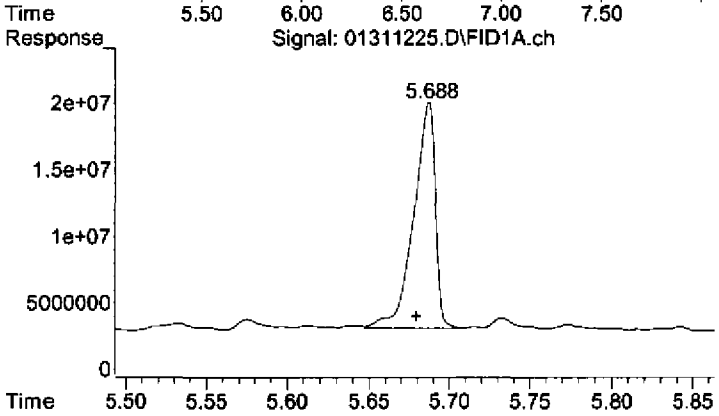
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1065650486
Conc: 296.96 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 2017135321
Conc: 1053.40 ug/mL m



#3 Surrogate

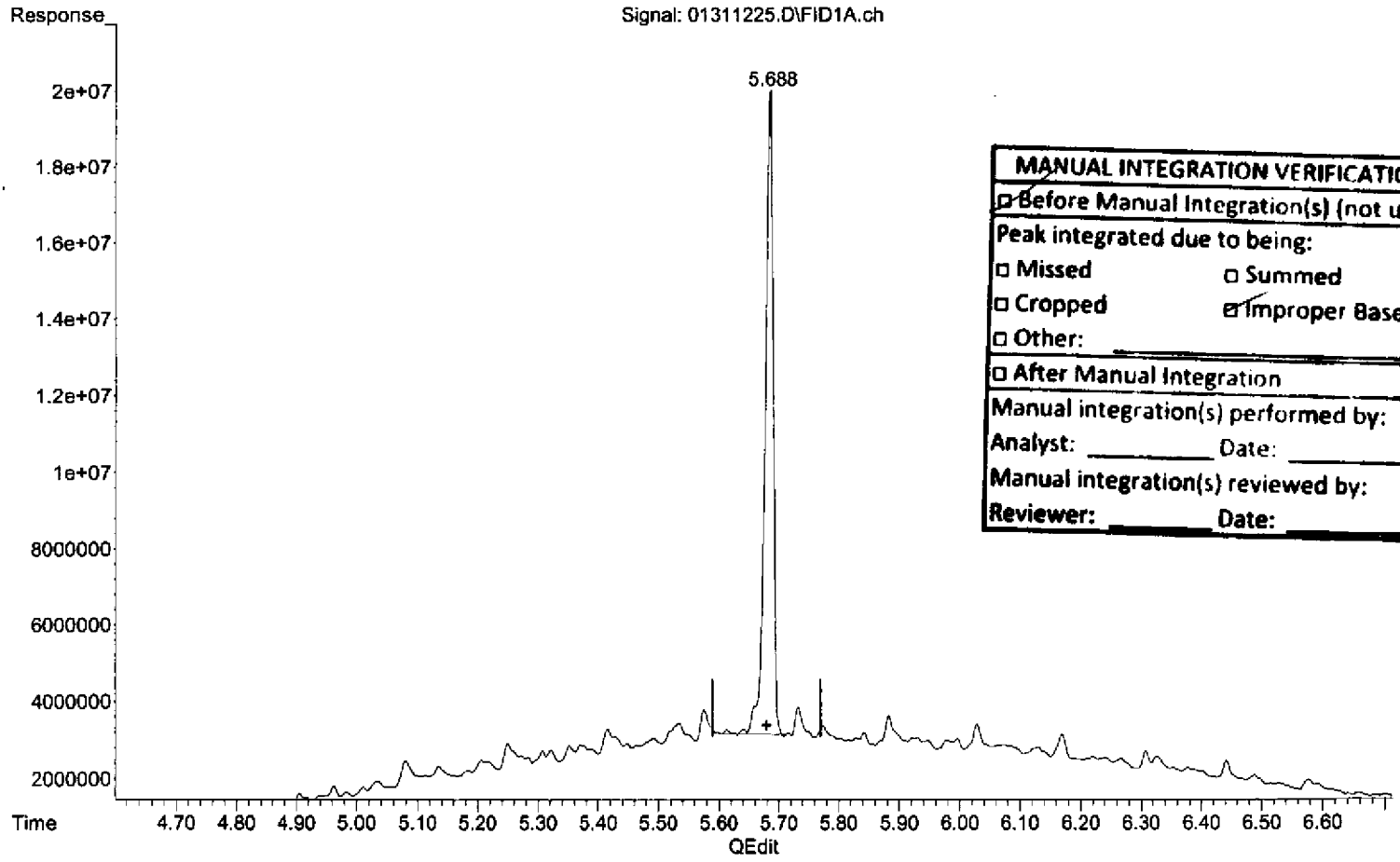
R.T.: 5.688 min
Delta R.T.: 0.008 min
Response: 158791132
Conc: 44.70 ug/mL m

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013112L\
Data File : 01311225.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 7:17 pm Operator: TD
Sample : 2010053-CCV4 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 25 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:18 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☑ Improper Baseline
☐ Other:
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

(3) Surrogate (S)

5.686min 44.185 ug/mL

response 156961664

(+) = Expected Retention Time

013012DROA.M Wed Feb 01 08:12:48 2012 Page: 1

Quantitation Report (QEdit)

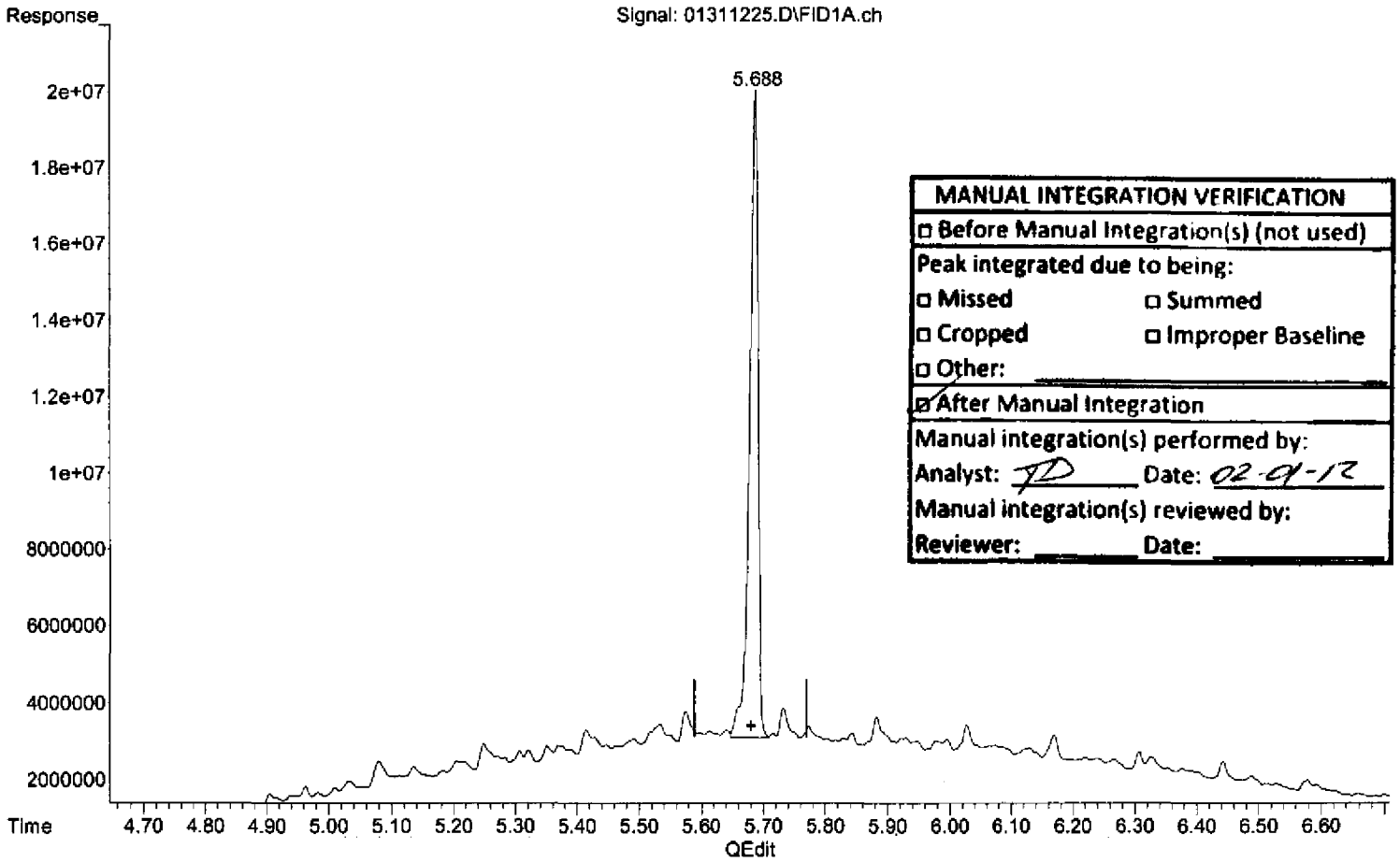
00225

Data Path : C:\msdchem\1\2012\DATA\01311\DA\
Data File : 01311225.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 7:17 pm
Sample : 2010053-CCV4
Misc : 2A11012 OIL-CV
ALS Vial : 25 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 01 08:13:18 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: TD	Date: 02-01-12
Manual integration(s) reviewed by:	
Reviewer:	Date:

(3) Surrogate (S)

5.688min 44.700 ug/mL m

response 158791132

(+) = Expected Retention Time

013012DROA.M Wed Feb 01 10:17:36 2012

Page: 1

00223

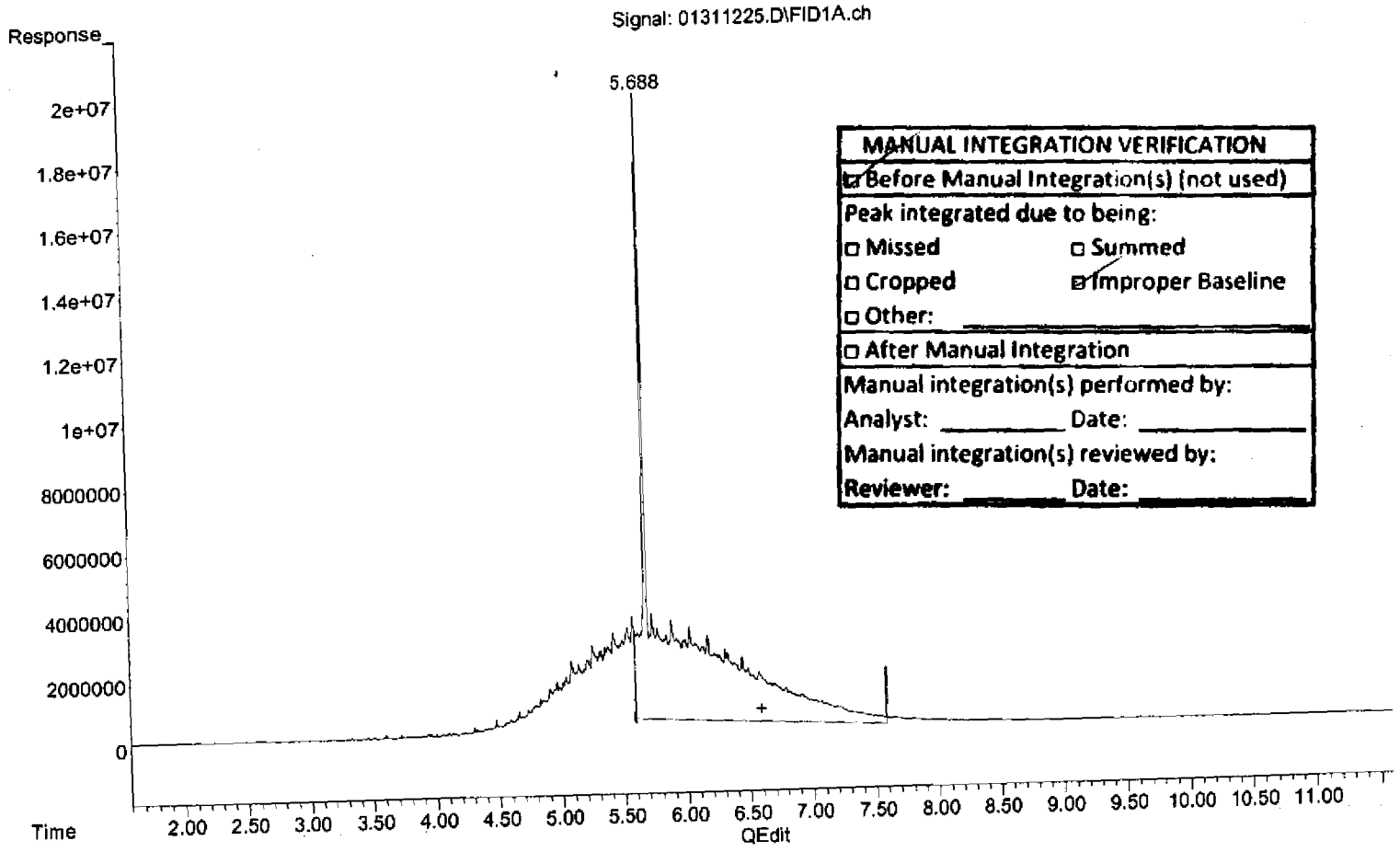
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\013112[illegible]A\
Data File : 01311225.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 7:17 pm
Sample : 2010053-CCV4
Misc : 2A11012 OIL-CV
ALS Vial : 25 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:18 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION	
☑ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☑ Improper Baseline
☐ Other:	
☐ After Manual Integration	
Manual integration(s) performed by:	
Analyst: _____	Date: _____
Manual integration(s) reviewed by:	
Reviewer: _____	Date: _____

(2) OIL (H)

6.590min 873.184 ug/mL

response 1672038065

(+) = Expected Retention Time
013012DROA.M Wed Feb 01 08:13:10 2012

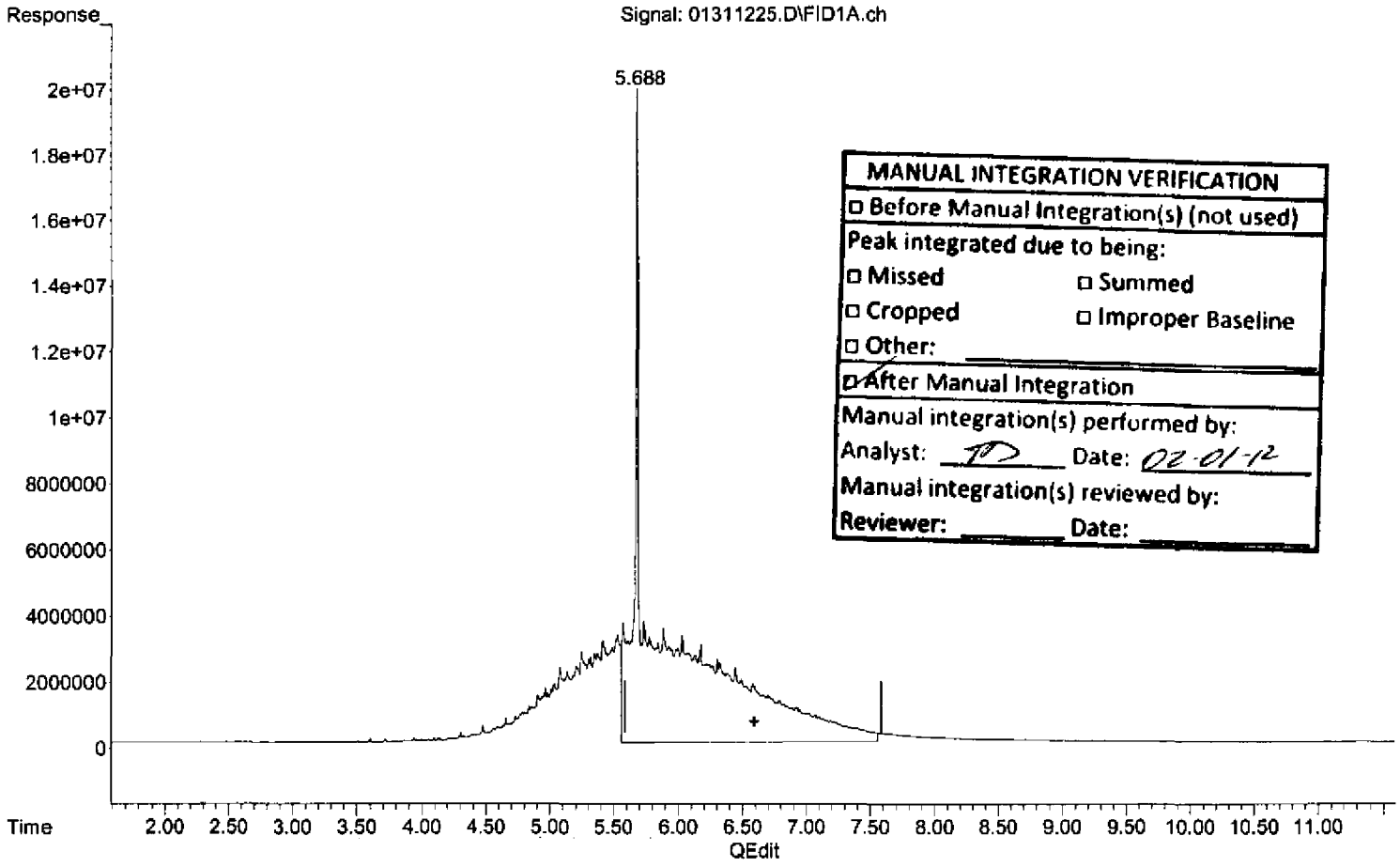
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\01311DA\
Data File : 01311225.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 7:17 pm
Sample : 2010053-CCV4
Misc : 2A11012 OIL-CV
ALS Vial : 25 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:18 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 02-01-12
Manual integration(s) reviewed by:
Reviewer: Date:

(2) OIL (H)

6.590min 1053.403 ug/mL m

response 2017135321

(+) = Expected Retention Time

013012DROA.M Wed Feb 01 08:13:21 2012

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA
Data File : 01311225.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 7:17 pm Operator: TD
Sample : 2010053-CCV4 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 25 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:18 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.686	156961664	44.185 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	88.37%
Target Compounds			
1) HM Diesel (TPH)	4.080	1065650486	296.964 ug/mL
2) H OIL	6.590	1673867534	874.139 ug/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

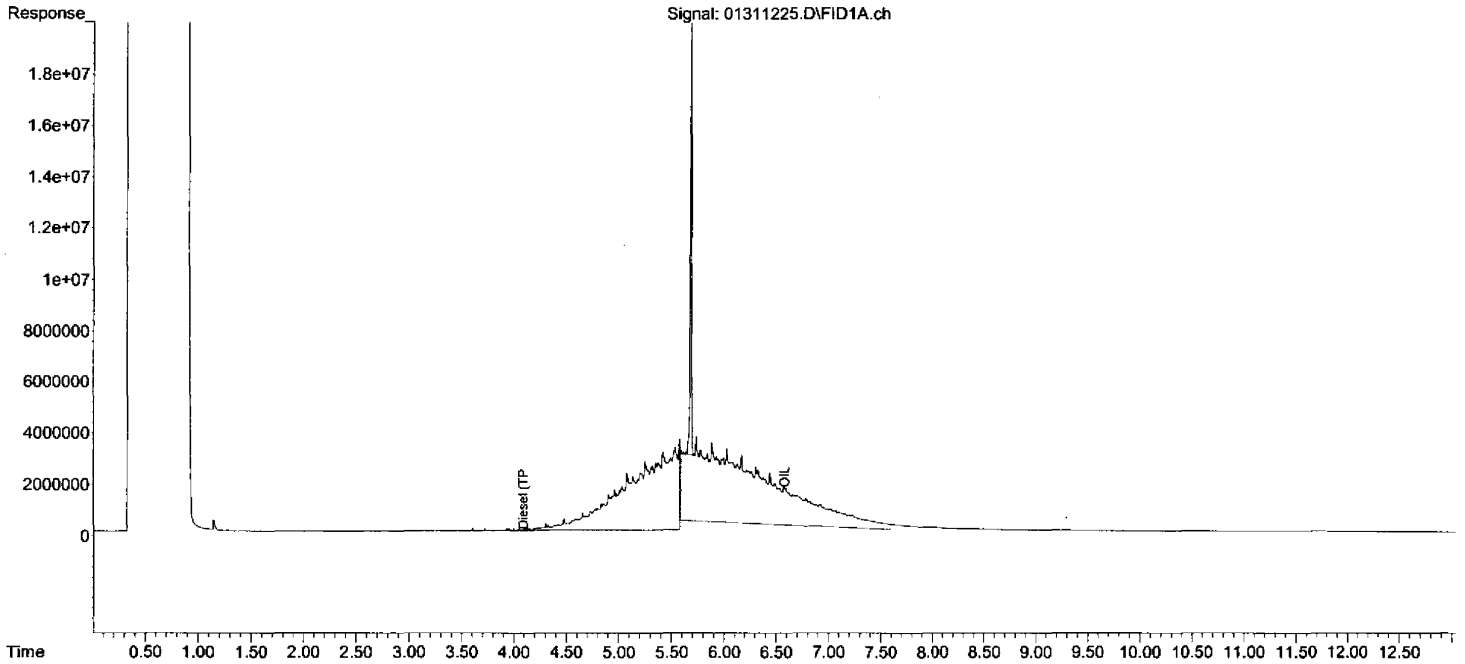
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____ Date: _____

Quantitation Report (Not Reviewed)

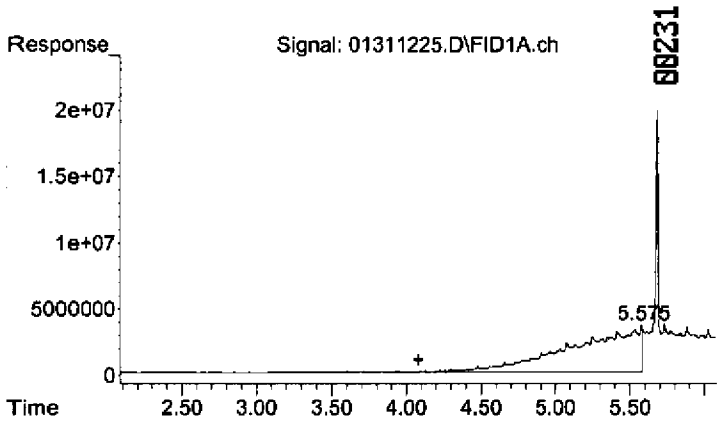
Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311225.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 7:17 pm
Operator: TD
Sample : 2010053-CCV4
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 25 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:18 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

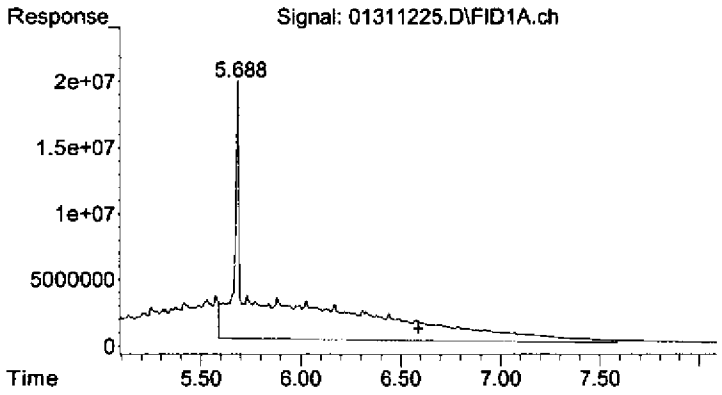


00236
00227
DIM0276600
DIM0276833



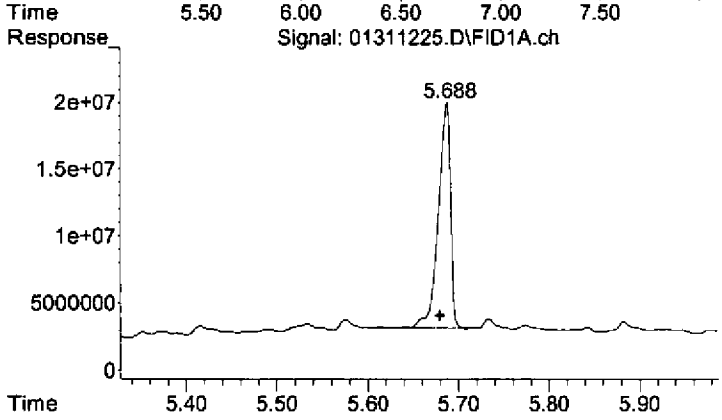
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1065650486
Conc: 296.96 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1673867534
Conc: 874.14 ug/mL



#3 Surrogate

R.T.: 5.686 min
Delta R.T.: 0.006 min
Response: 156961664
Conc: 44.18 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311226.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 7:35 pm Operator: TD
Sample : 2010053-CCV5 Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 26 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:23 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.680	186959982	52.629 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery = 105.26%	
Target Compounds			
1) HM Diesel (TPH)	4.080	1796410121	500.604 ug/mL
2) H OIL	6.590	5646131	2.949 ug/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

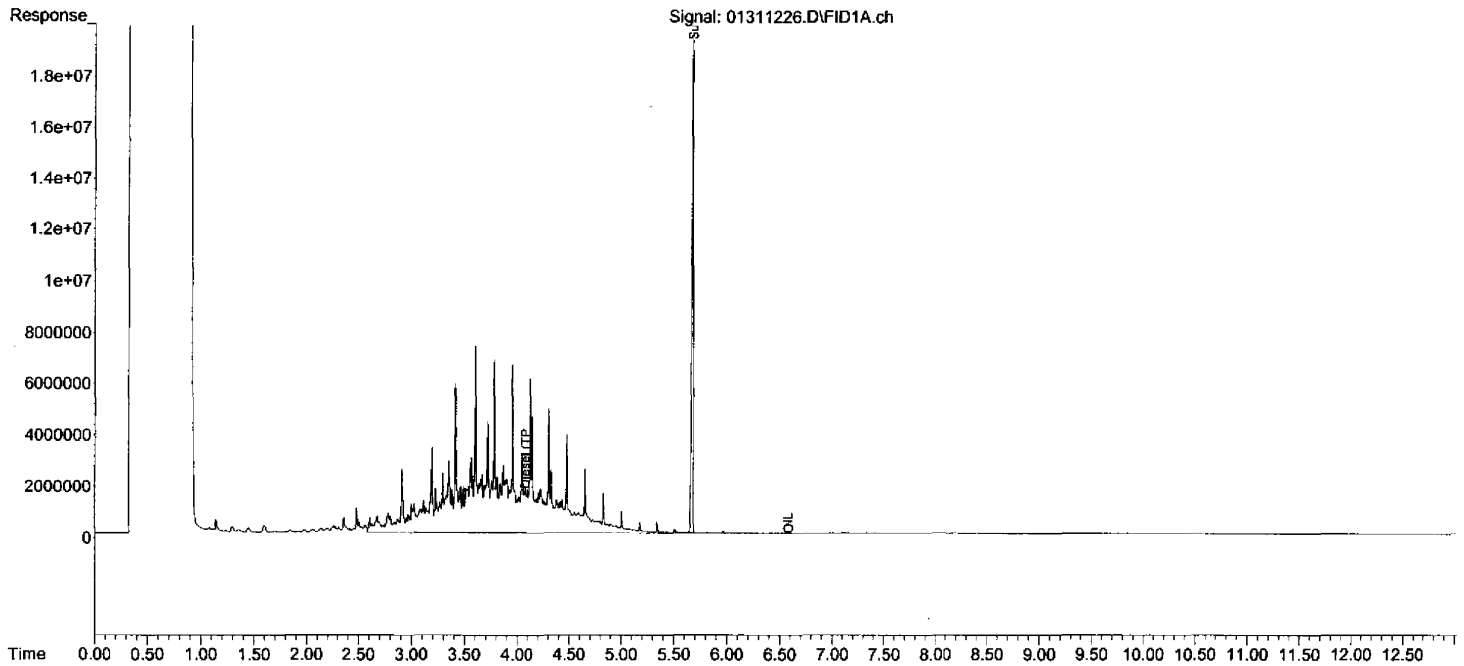
not validated

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311226.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 7:35 pm
Operator: TD
Sample : 2010053-CCV5
Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 26 Sample Multiplier: 1

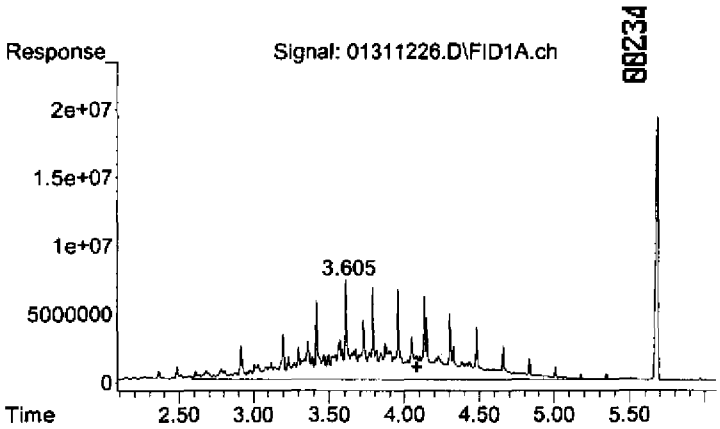
Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:23 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



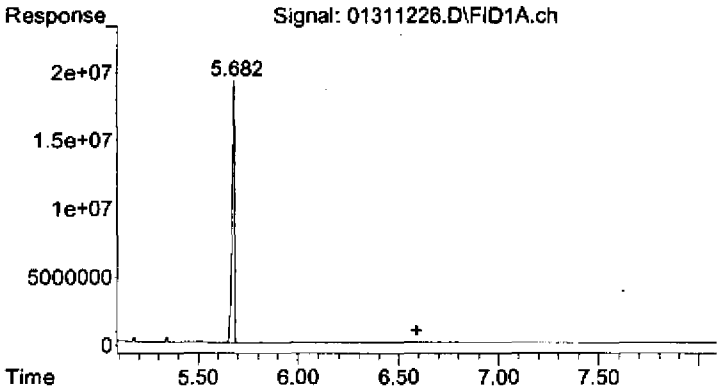
00233

00230



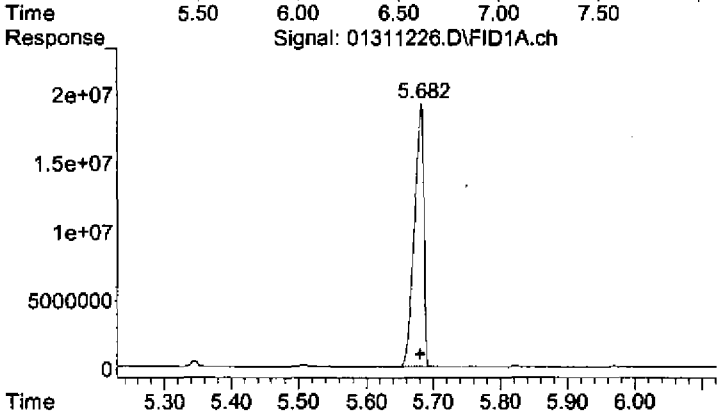
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1796410121
Conc: 500.60 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 5646131
Conc: 2.95 ug/mL



#3 Surrogate

R.T.: 5.680 min
Delta R.T.: 0.000 min
Response: 186959982
Conc: 52.63 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311227.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 7:53 pm Operator: TD
Sample : 2010053-CCV6 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 27 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:28 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.686	159899904	45.012 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	90.02%
Target Compounds			
1) HM Diesel (TPH)	4.080	1068965714	297.888 ug/mL
2) H OIL	6.590	1665816247	869.934 ug/mL

(f)=RT Delta > 1/2 Window (m)=manual int.

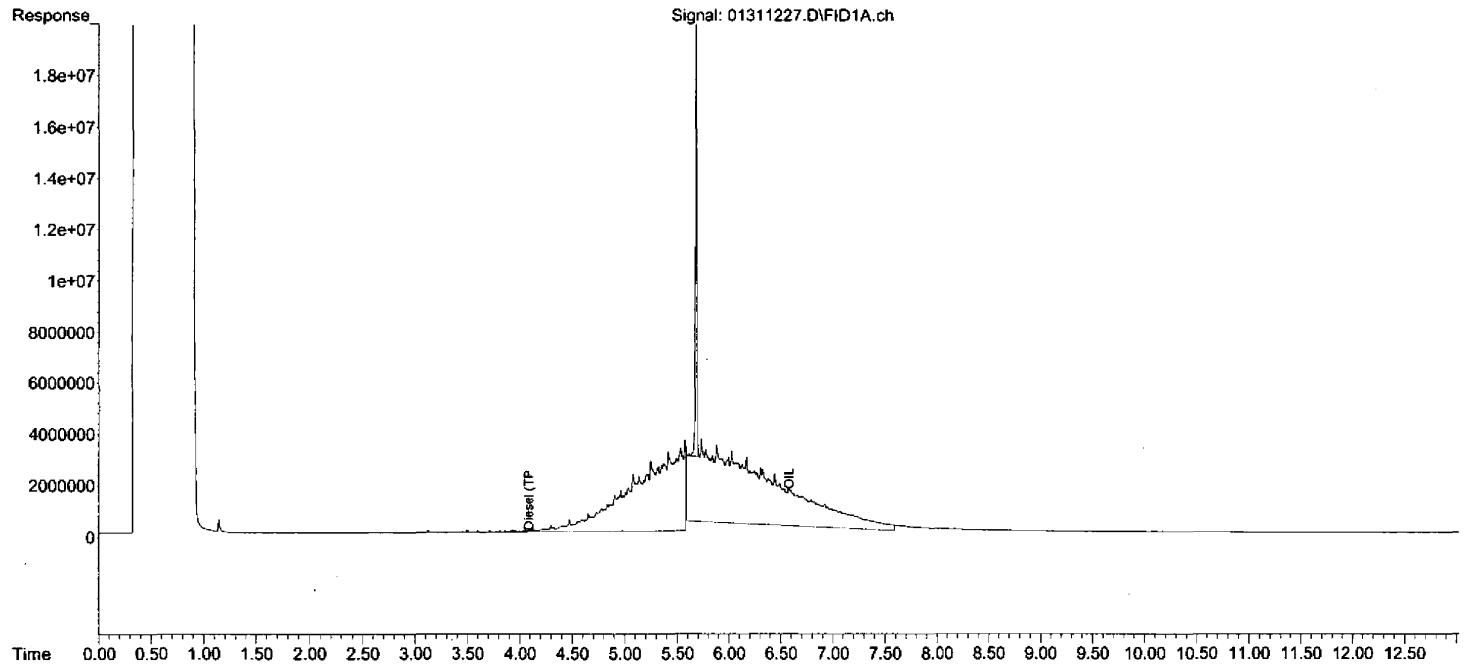
not reviewed

Quantitation Report (Not Reviewed)

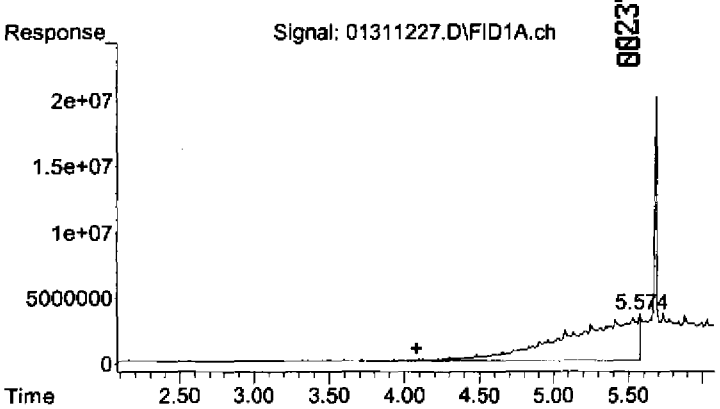
Data Path : C:\msdchem\1\2012\DATA\013112DA\
Data File : 01311227.D
Signal(s) : FID1A.ch
Acq On : 31 Jan 2012 7:53 pm
Operator: TD
Sample : 2010053-CCV6
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 27 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 01 07:39:28 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

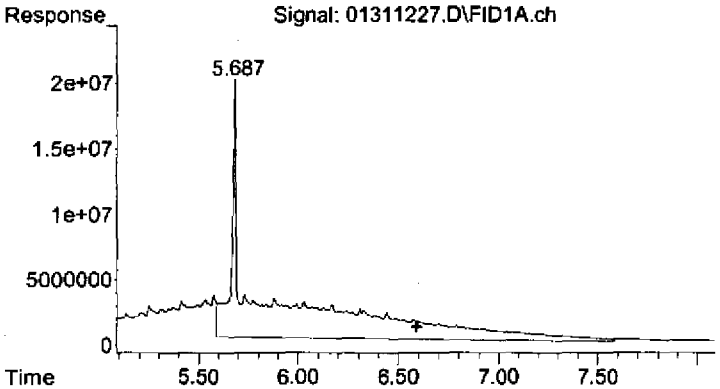


00236
00233
DIM0276600
DIM0276839



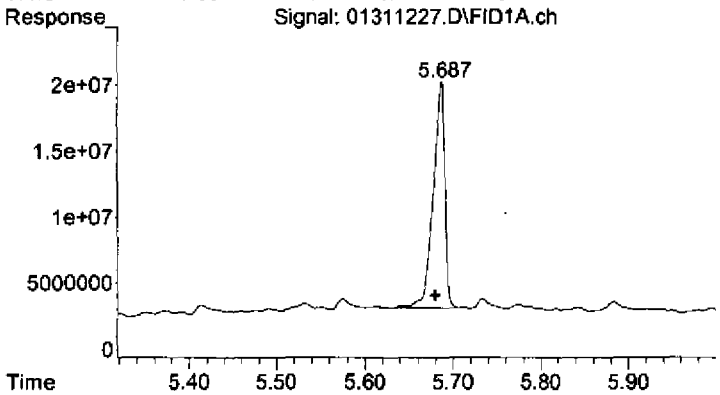
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1068965714
Conc: 297.89 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1665816247
Conc: 869.93 ug/mL



#3 Surrogate

R.T.: 5.686 min
Delta R.T.: 0.006 min
Response: 159899904
Conc: 45.01 ug/mL

00238

Standard Records

: 00235

DIM0276600 DIM0276841

Analytical Standard Record

EPA Region 9 Laboratory

0C16026

Description:	GAS:Unleaded Gasoline Composite S	**Expires:**	04/30/16
Standard Type:	Analyte Spike	**Prepared:**	03/16/10
Solvent:	Solvent Lot # MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	03/16/10 13:06 by YNB
Vendor:	Restek	**Lot Numb**	A066488

Cat # 30205, Lot # A066488; bar code AU002205

Analyte	CAS Number	Concentration (ppm)
TPH as Gasoline	8006-61-9	50000

Certificate of Analysis

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 30205 **Lot No.:** A066488
Description : Unleaded Gasoline Composite Standard
Expiration Date[1]**:** April 2016 **Storage:** Freezer

Elution Order	Compound	CAS #	Percent Purity 2	Concentration 3 (weight/volume)	% Uncertainty 4 (95% C.L.; K=2)
1	Unleaded Gasoline Composite	8006-61-9	----%	50,000.000 ug/ml	+/-0.64 %
Solvent:	P&T Methanol	67-56-1	99%		

Column:
105m x .53mm x 3.0um
Rtx-502.2 (cat.#10910)

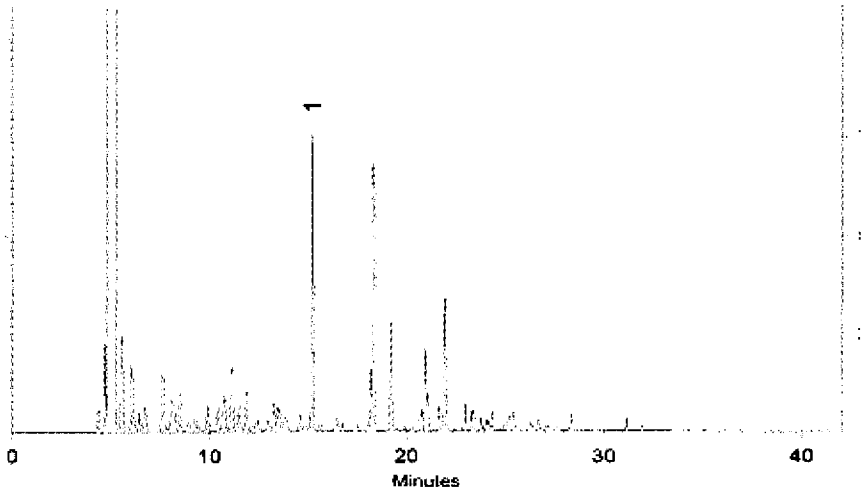
Carrier Gas:
hydrogen @ 40 cm/sec.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



John Lidgett
John Lidgett - QA Analyst **Date Passed:** 03/26/2009 **Balance:** 1121472889

Manufactured under Restek's ISO 9001-2000 Registered Quality System Certificate #FMB0397

1 Expiration date of the unopened ampule stored at recommended temperature.
2A Purity was determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value rounded to the nearest whole number. In addition to detectors listed above, chemical identity and purity are confirmed using one or more of the following: MS, DSC, solid probe MS, GC/FPD, GC/NPD, GC/TC, FTIR, melting point, refractive index, and Karl Fisher. See data pack or contact Restek for further details.
2B Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities.
2C Compounds with a listed purity of less than 99% may be salts, derivatives, or hydrates. The listed purity is actually a correction factor that was used to calculate the amount of compound necessary to acheive the desired concentration of the parent compound.
3 Based upon gravimetric preparation with balance calibration verified using NIST traceable weights (seven mass levels).
4 Uncertainties determined using repeatability and reproducibility data for balances and glassware from measurement systems analysis methodology, balance and glassware tolerances, raw material purity, and, where applicable, eccentricity and linearity values from an accredited calibration laboratory.

Analytical Standard Record

EPA Region 9 Laboratory

0F23019

Description:	DRO:Florida TRPH Standard, Stock	**Expires:**	05/31/16
Standard Type:	Other Solution	**Prepared:**	06/23/10
Solvent:	hexane	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	06/23/10 10:40 by YNB
Vendor:	Restek	**Lot Numbe**	A067369

Restek 31266, Lot# A067369 in hexane, bar code #AU002553

Analyte	CAS Number	Concentration (ppm)
Tetradecane (C14)	629-59-4	500
Tetracosane	000646-31-1	500
Octane (C8)	111-65-9	500
Octadecane	000593-45-3	500
Octacosane	000630-02-4	500
Hexadecane (C16)	544-76-3	500
Hexacosane	630-01-3	500
Eicosane (C20)	112-95-8	500
Dodecane	000112-40-3	500
Docosane	000629-97-0	500
Decane	000124-18-5	500

Certificate of Analysis

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 31266 **Lot No.:** A067369
Description : Florida TRPH Standard
Expiration Date[1]: May 2016 **Storage:** Room Temperature
Handling: Warm & Sonicate prior to use

Elution Order	Compound	CAS #	Percent Purity [2]	Concentration [3] (weight/volume)	% Uncertainty [4] (95% C.L.: K=2)
1	n-Octane (C8)	111-65-9	99%	500.000 ug/ml	+/-0.63 %
2	n-Decane (C10)	124-18-5	99%	500.300 ug/ml	+/-0.63 %
3	n-Dodecane (C12)	112-40-3	99%	500.200 ug/ml	+/-0.63 %
4	n-Tetradecane (C14)	629-59-4	99%	500.500 ug/ml	+/-0.63 %
5	n-Hexadecane (C16)	544-76-3	98%	500.780 ug/ml	+/-0.63 %
6	n-Octadecane (C18)	593-45-3	97%	500.035 ug/ml	+/-0.63 %
7	n-Eicosane (C20)	112-95-8	99%	500.000 ug/ml	+/-0.63 %
8	n-Docosane (C22)	629-97-0	99%	500.000 ug/ml	+/-0.63 %
9	n-Tetracosane (C24)	646-31-1	99%	500.000 ug/ml	+/-0.63 %
10	n-Hexacosane (C26)	630-01-3	99%	500.800 ug/ml	+/-0.63 %
11	n-Octacosane (C28)	630-02-4	99%	500.100 ug/ml	+/-0.63 %
12	n-Triacontane (C30)	638-68-6	99%	500.700 ug/ml	+/-0.63 %
13	n-Dotriacontane (C32)	544-85-4	99%	500.600 ug/ml	+/-0.63 %
14	n-Tetratriacontane (C34)	14167-59-0	99%	500.300 ug/ml	+/-0.63 %
15	n-Hexatriacontane (C36)	630-06-8	99%	500.000 ug/ml	+/-0.63 %
16	n-Octatriacontane (C38)	7194-85-6	99%	500.000 ug/ml	+/-0.63 %
17	n-Tetracontane (C40)	4181-95-7	99%	500.100 ug/ml	+/-0.63 %
Solvent:	Hexane	110-54-3	99%		

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10223)

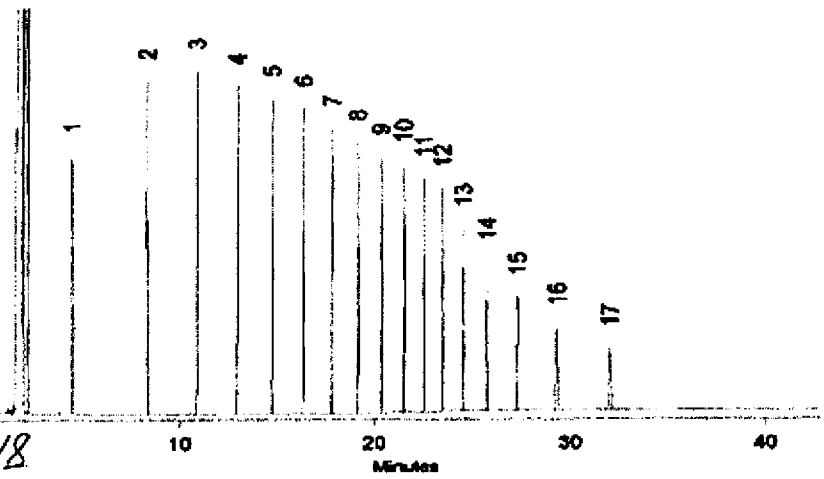
Carrier Gas:
hydrogen @ 40cm/sec.

Temp. Program:
40°C (hold 4 min.) to 330°C
@ 15°C/min (hold 20 min.)

Inj. Temp:
250°C

Det. Temp:
300°C

Det. Type:
FID



411 002552 | CF 23018
3 | 19
4 | 20
5 | 21
6 | 22

Analytical Standard Record

EPA Region 9 Laboratory

1A18025

Description:	DRO:Hydraulic Fluid, Stock	**Expires:**	01/22/14
Standard Type:	Other Solution	**Prepared:**	01/18/11
Solvent:	Solvent Lot # MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/18/11 12:45 by YNB
Vendor:	AccuStandard	**Lot Numbe**	B4010223

Cat.# FU-020D-40X, Lot # B4010223. bar code AU003118 C

Analyte	CAS Number	Concentration (ppm)
Hydraulic Fluid	64742-54-7	20000

125 Market Street
New Haven, CT 06513
USA

AccuStandard, Inc.

Tel (203)786-5290
Fax (203)786-5287
Website AccuStandard.com

CERTIFICATE OF ANALYSIS

CATALOG NO: FU-020-D-40X
DESCRIPTION: Hydraulic Fluid
LOT: B4010223
SOLVENT: Dichloromethane

DATE CERTIFIED: Jan 22, 2004
EXPIRATION: Jan 22, 2014
SAMPLE SIZE: 1 mL
STORAGE CONDITION: Ambient
HAZARDS: POISON

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[1] (mg/mL)	Certified Analyte Concentration[2] (mg/mL)
Hydraulic Fluid	64742-54-7	Tech	20.00	20.00

AU 003118 A | 1A18023
B | 24
C | 25

Please note:
A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

AccuStandard follows U.S. conventions in reporting numerical values on both certificates and labels:

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through NIST, Test No.822/254480
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty calculated for this product is ±2% which is the Combined Uncertainty uc(y). It represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The Expanded Uncertainty is U which is Uc(y) *K where K is the coverage factor at the 95% confidence level (K=2).

Certified by: R. Cooper
Russ Cooper, QC Manager

For use in routine laboratory analysis.
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AccuStandard is accredited to ISO Guide 34, ISO/IEC 17025 and certified to ISO 9001

DR-ORG/INO-001
Rev. 7/10

Analytical Standard Record

EPA Region 9 Laboratory

1A18028

Description:	DRO:Turbine (Jet) Fuel, Stock	**Expires:**	06/04/18
Standard Type:	Other Solution	**Prepared:**	01/18/11
Solvent:	Solvent Lot # MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/18/11 12:50 by YNB
Vendor:	AccuStandard	**Lot Numbe**	B8060056

Cat.# FU-006-40X, Lot # B8060059, bar code #AU003117C

Analyte	CAS Number	Concentration (ppm)
Jet Fuel	94114-58-6	20000

125 Market Street
New Haven, CT 06513
USA

AccuStandard®, Inc.

Tel (203)786-5290
Fax (203)786-5287
Website AccuStandard.com

CERTIFICATE OF ANALYSIS

CATALOG NO: FU-006-40X
DESCRIPTION: Turbine (Jet) fuel
LOT: B8060056
SOLVENT: Methanol

DATE CERTIFIED: Jun 4, 2008
EXPIRATION: Jun 4, 2018
SAMPLE SIZE: 1 mL
STORAGE CONDITION: Ambient
HAZARDS: POISON

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[1] (mg/mL)	Certified Analyte Concentration[2] (mg/mL)
Turbine (Jet) fuel	N/A	Tech	20.01	20.01

AU003117 A	1A18026
B	27
C	28

Please note:
A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

AccuStandard follows U.S. conventions in reporting numerical values on both certificates and labels:

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through NIST, Test No.822/272103-05
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty calculated for this product is ±2% which is the Combined Uncertainty uc(y). It represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The Expanded Uncertainty is U which is Uc(y) *K where K is the coverage factor at the 95% confidence level (K=2).

Certified by: R. Cooper
Russ Cooper, QC Manager

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OR-ORG/WO-001
Rev. 7/10

Analytical Standard Record

EPA Region 9 Laboratory

1B16005

Description:	DRO:Turpentine, Stock	**Expires:**	11/21/18
Standard Type:	Other Solution	**Prepared:**	02/16/11
Solvent:	Solvent Lot # MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	02/16/11 12:36 by YNB
Vendor:	AccuStandard	**Lot Numbe**	A9020099

Cat.# HS-004S-40X, Lot # A9020099, bar code AU003356 (2)

Analyte	CAS Number	Concentration (ppm)
Turpentine	8006-64-2	20000

125 Market Street
New Haven, CT 06513
USA

AccuStandard, Inc.

Tel (203)786-5290
Fax (203)786-5287
Website AccuStandard.com

CERTIFICATE OF ANALYSIS

CATALOG NO: HS-004S-40X
DESCRIPTION: Turpentine
LOT: A9020099
SOLVENT: Methanol

DATE CERTIFIED: Nov 21, 2008
EXPIRATION: Nov 21, 2018
SAMPLE SIZE: 1 mL
STORAGE CONDITION: Ambient
HAZARDS: POISON

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[1] (mg/mL)	Certified Analyte Concentration[2] (mg/mL)
Turpentine	8006-64-2	Tech	20.00	20.00

AU 003356 (1) | 1B16004
(2) | 5

Please note:
A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

AccuStandard follows U.S. conventions in reporting numerical values on both certificates and labels:

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through NIST, Test No.822/254480
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty calculated for this product is ±2% which is the Combined Uncertainty uc(y). It represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The Expanded Uncertainty is U which is Uc(y) *K where K is the coverage factor at the 95% confidence level (K=2).

Certified by: R. Cooper
Russ Cooper, QC Manager

For use in routine laboratory analysis.
Alteration of any information contained herein without written permission from AccuStandard strictly prohibited.
AccuStandard is accredited to ISO Guide 34, ISO/IEC 17025 and certified to ISO 9001

OR-ORG/NO-001
Rev. 7/10

Analytical Standard Record

EPA Region 9 Laboratory

1B18007

Description:	DRO:Composite #2 Diesil Fuel Solution, !	**Expires:**	10/30/13
Standard Type:	Other Solution	**Prepared:**	02/18/11
Solvent:	Solvent DCM	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	02/18/11 09:08 by YNB
Vendor:	Ultra Scientific	**Lot Numbe**	CD-2271A

Ultra Scientific RGO-616 Lot# CD-2271 for QCS

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	50000

ULTRA SCIENTIFIC
Analytical Solutions

Certificate of Analysis

Composite #2 Diesel Fuel Solution

Product Number: RGO-616 **Page:** 1 of 1

Lot Number: CD-2271A **Lot Issue Date:** Sep-2010 **Expiration Date:** Oct-2013

This Certified Reference Material (RM) was manufactured and verified in accordance with ULTRA's ISO 9001 registered quality system, and the analyte concentrations were verified by our ISO 17025 accredited laboratory. The true value and uncertainty value at the 95% confidence level for each analyte, determined gravimetrically, is listed below.

Analyte	CAS#	Analyte Lot	True Value
diesel fuel #2 (composite)	068334-30-5	N960035	50135 ± 251 µg/mL

Matrix: methylene chloride (dichloromethane)

Storage: Store at Room Temperature (18-25° C)

AW002868
1B18004
open 02.18.11
WAB

1B18005
6
7
8

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

ACCREDITED

ISO 17025:2005 Accredited A2LA Cert. No. 0851-01

ISO 9001:2008 Registered TUV USA, Inc. Cert. No. 09-1009

250 Smith Street, North Kingstown, RI 02852 USA
401-294-9400 Fax: 295-2330
www.ultrasci.com

William J. Leahy
Quality Assurance Manager

: 00247

Analytical Standard Record

EPA Region 9 Laboratory

1C22011

Description:	OIL:Motor Oil Composite Standard, Stock	**Expires:**	10/31/17
Standard Type:	Other Solution	**Prepared:**	03/22/11
Solvent:	Solvent Lot #	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	03/22/11 11:00 by YNB
Vendor:	Restek	**Lot Numbe**	A076871

Cat.# 31464, Lot # A076871 Bar code#AU003405

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	50000
TPH - Oil Range Organics	TPH-ORO	50000

RESTEK

Certificate of Analysis

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 31464 **Lot No.:** A076871
Description : Motor Oil Composite Standard
Container Size : 2 mL **Pkg Amt:** > 2 mL
Expiration Date : [1] October 2017 **Storage:** Room Temperature

Elution Order	Compound	CAS #	Percent Purity [2]	Grav. Conc. [3] (weight/volume)	% Grav.Uncert [4] (95% C.L.; K=2)
1	Motor Oil Composite	64742-65-0	----%	50,000.000 ug/ml	+/-0.59 %
Solvent:	Methylene Chloride	75-09-2	99%		

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10223)

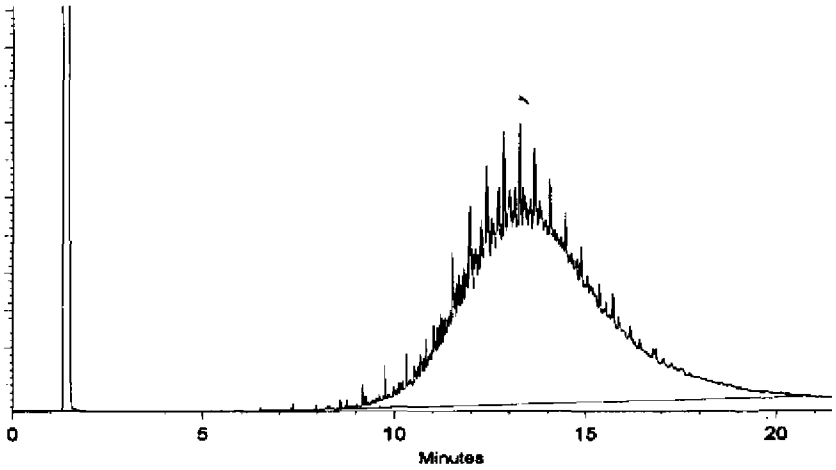
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 5 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Adam Clark - QA Analyst **Date Passed:** 16-Sep-2010 **Balance:** 1128342313

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80387

1 Expiration date of the unopened ampule stored at the recommended storage condition.
2A Purity is determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value is rounded to the nearest whole number. Chemical identity is confirmed using GC/MS. See data pack or contact provider for further details.
2B Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities.
2C The following types of compounds will have a listed purity of less than 99%: Aldehyde/Ketone-DNPH compounds, Bromides, Chlorides, HCL salts, HBR salts, sulfates, hydrates, and other compounds as necessary. The listed purity is a correction factor that is equivalent to the percentage of parent compound in the molecule. This correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution. The concentration listed on the certificate is the concentration of the parent compound in the solution.
2D Purity of isomeric compounds is reported as the sum of the isomers. Value is rounded to the nearest whole number after summation.
3 Based upon gravimetric preparation with balance calibration verified using NIST traceable weights (seven mass levels) and/or class A glassware used for dilutions.
4 Uncertainties determined using data for balances and glassware from measurement systems analysis methodology, raw material purity, and, when significant, equipment tolerances or calibration results.

AU003401		1C22007	
	2		8
	3		9
	4		10
	5		11

Analytical Standard Record

EPA Region 9 Laboratory

1C22012

Description:	OIL:Motor Oil Composite Standard, Stock	**Expires:**	12/31/17
Standard Type:	Other Solution	**Prepared:**	03/22/11
Solvent:	Solvent Lot #	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	03/22/11 11:01 by YNB
Vendor:	Restek	**Lot Numbe**	A077845

Cat.# 31464, Lot # A077845 Bar code#AU003447

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	50000
TPH - Oil Range Organics	TPH-ORO	50000

RESTEK

Certificate of Analysis

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 31464 **Lot No.:** A077845

Description : Motor Oil Composite Standard

SV Mix, UST method, Motor Oil Composite, 50,000ug/mL, methylene chloride, 1ml

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : [1] December 2017 **Storage:** 25°C nominal

Elution Order	Compound	CAS #	Percent Purity [2]	Grav. Conc. (weight/volume) [3]	% Grav Uncert. (95% C.L.; K=2) [4]
1	Motor Oil Composite	64742-65-0	----%	50,000.0 ug/ml	+/-0.59 %
Solvent:	Methylene Chloride	75-09-2	99%		

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10223)

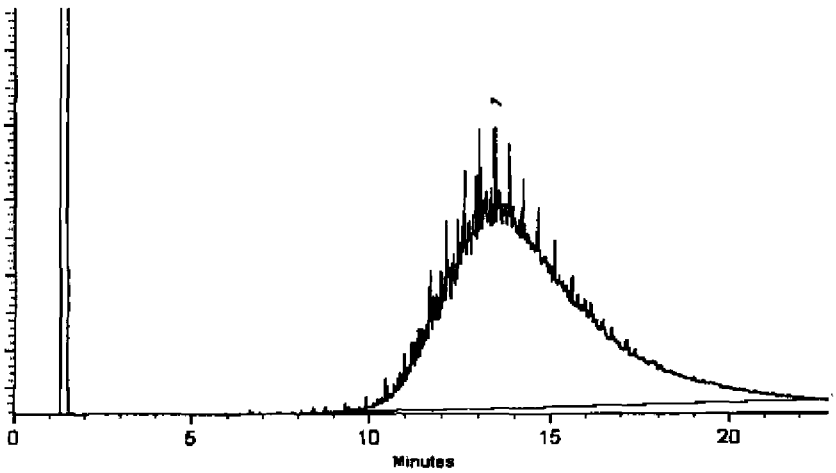
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 5 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Diane Shaffer
Diane Shaffer - QA Analyst

Date Passed: 10-Nov-2010 **Balance:** 1128360905

Manufactured under Restek's ISO 9001:2008
Registered Quality System
Certificate #FM 60387

1 Expiration date of the unopened ampule stored at the recommended storage condition.
2A Purity is determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value is rounded to the nearest whole number. Chemical identity is confirmed using GC/MS. See data pack or contact provider for further details.
2B Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities.
2C The following types of compounds will have a listed purity of less than 99%: Aldehyde/Ketone-DNPH compounds, Bromides, Chlorides, HCL salts, HBR salts, sulfates, hydrates, and other compounds as necessary. The listed purity is a correction factor that is equivalent to the percentage of parent compound in the molecule. This correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution. The concentration listed on the certificate is the concentration of the parent compound in the solution.
2D Purity of isomeric compounds is reported as the sum of the isomers. Value is rounded to the nearest whole number after summation.
3 Based upon gravimetric preparation with balance calibration verified using NIST traceable weights (seven mass levels) and/or class A glassware used for dilutions.
4 Uncertainties determined using data for balances and glassware from measurement systems analysis methodology, raw material purity, and, when significant, equipment tolerances or calibration results.

A4003447	1C22012
46	13
45	14
44	15
43	16

RESTEK

Certificate of Analysis

110 Banner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 31464 **Lot No.:** A077845

Description : Motor Oil Composite Standard

SV Mix, UST method, Motor Oil Composite, 50,000ug/mL, methylene chloride, 1ml

Container Size : 2 mL **Pkg Amt:** > 1 mL

Expiration Date : [1] December 2017 **Storage:** 25°C nominal

Elution Order	Compound	CAS #	Percent Purity [2]	Grav Conc [3] (weight/volume)	Grav Uncert [4] (95% C.L.; K=2)
1	Motor Oil Composite	64742-65-0	----%	50,000.0 ug/ml	+/-0.59 %
Solvent:	Methylene Chloride	75-09-2	99%		

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10223)

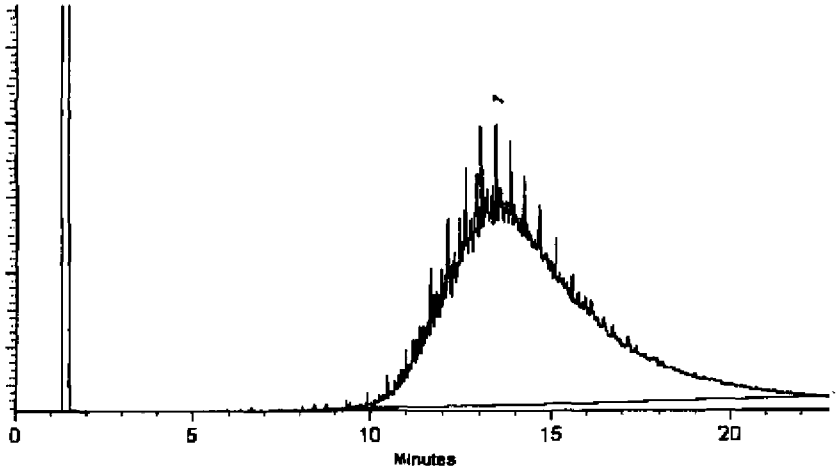
Carrier Gas:
hydrogen-constant pressure 10 psi.

Temp. Program:
75°C (hold 1 min.) to 330°C
@ 20°C/min. (hold 5 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Diane Shaffer
Diane Shaffer - QA Analyst

Date Passed: 10-Nov-2010 **Balance:** 1128360905

Manufactured under Restek's ISO 9001:2008 Registered Quality System Certificate #FM 80397

1 Expiration date of the unopened ampule stored at the recommended storage condition.
2A Purity is determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value is rounded to the nearest whole number. Chemical identity is confirmed using GC/MS. See data pack or contact provider for further details.
2B Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities.
2C The following types of compounds will have a listed purity of less than 99%: Aldehyde/Ketone-DNPH compounds, Bromides, Chlorides, HCL salts, HBR salts, sulfates, hydrates, and other compounds as necessary. The listed purity is a correction factor that is equivalent to the percentage of parent compound in the molecule. This correction factor is used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound in solution. The concentration listed on the certificate is the concentration of the parent compound in the solution.
2D Purity of isomeric compounds is reported as the sum of the isomers. Value is rounded to the nearest whole number after summation.
3 Based upon gravimetric preparation with balance calibration verified using NIST traceable weights (seven mass levels) and/or class A glassware used for dilutions.
4 Uncertainties determined using data for balances and glassware from measurement systems analysis methodology, raw material purity, and, when significant, equipment tolerances or calibration results.

A4003447	1C22012
46	13
45	14
44	15
43	16

Analytical Standard Record

EPA Region 9 Laboratory

1C22013

Description:	OIL:Motor Oil Composite Standard, Stock	**Expires:**	12/31/17
Standard Type:	Other Solution	**Prepared:**	03/22/11
Solvent:	Solvent Lot #	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	03/22/11 11:02 by YNB
Vendor:	Restek	**Lot Numbe**	A077845

Cat.# 31464, Lot # A077845 Bar code#AU003446

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	50000
TPH - Oil Range Organics	TPH-ORO	50000

Certificate of Analysis

110 Banner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 31258 **Lot No.:** A069478
Description : Diesel Fuel #2 Composite Standard
Expiration Date[1]: September 2016 **Storage:** Room Temperature

Elution Order	Compound	CAS #	Percent Purity 2	Concentration 3 (weight/volume)	% Uncertainty 4 (95% C.L.: K=2)
1	Diesel Fuel #2 Composite	68334-30-5	----%	50,000.000 ug/ml	+/-0.58 %
Solvent:	Methylene Chloride	75-09-2	99%		

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10233)

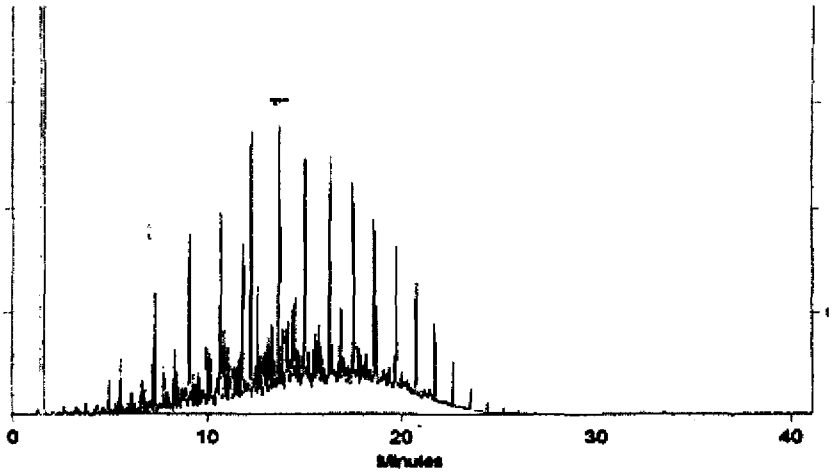
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Sara Eyster QA Analyst **Date Passed:** 08/18/2009 **Balance:** 1128342313

Manufactured under Restek's ISO 9001-2000 Registered Quality System Certificate #FMB0397

1 Expiration date of the unopened ampule stored at recommended temperature.
2A Purity was determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value rounded to the nearest whole number. In addition to detectors listed above, chemical identity and purity are confirmed using one or more of the following: MS, DSC, solid probe MS, GC/FPD, GC/NPD, GC/TC, FTIR, melting point, refractive index, and Karl Fisher. See data pack or contact Restek for further details.
2B Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities.
2C Compounds with a listed purity of less than 99% may be salts, derivatives, or hydrates. The listed purity is actually a correction factor that was used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound.
2D Purity of isomeric compounds is reported as the sum of the isomers. Value is rounded to the nearest whole number after summation.
3 Based upon gravimetric preparation with balance calibration verified using NIST traceable weights (seven mass levels).
4 Uncertainties determined using repeatability and reproducibility data for balances and glassware from measurement systems analysis methodology, balance and glassware tolerances, raw material purity, and, where applicable, eccentricity and linearity values from an accredited calibration laboratory.

AU003406 | 1C22017
7 | 1C22018
8 | 19
9 | 20
10 | 21

Analytical Standard Record

EPA Region 9 Laboratory

1C22019

Description:	DRO:Diesel Fuel #2 Composite Standard	**Expires:**	09/30/16
Standard Type:	Analyte Spike	**Prepared:**	03/22/11
Solvent:	DCM	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	03/22/11 11:15 by YNB
Vendor:	Restek	**Lot Numbe**	A069478

Restek Cat. No. 31258 Lot#: A06947 Bar Code : AU003408

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	50000
TPH - Diesel Range Organics	TPH-DRO	50000

Certificate of Analysis

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 31258 **Lot No.:** A069478
Description : Diesel Fuel #2 Composite Standard
Expiration Date[1]: September 2016 **Storage:** Room Temperature

Elution Order	Compound	CAS #	Percent Purity 2	Concentration 3 (weight/volume)	% Uncertainty 4 (95% C.L.: K=2)
1	Diesel Fuel #2 Composite	68334-30-5	---%	50,000.000 ug/ml	+/-0.58 %
Solvent:	Methylene Chloride	75-09-2	99%		

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10233)

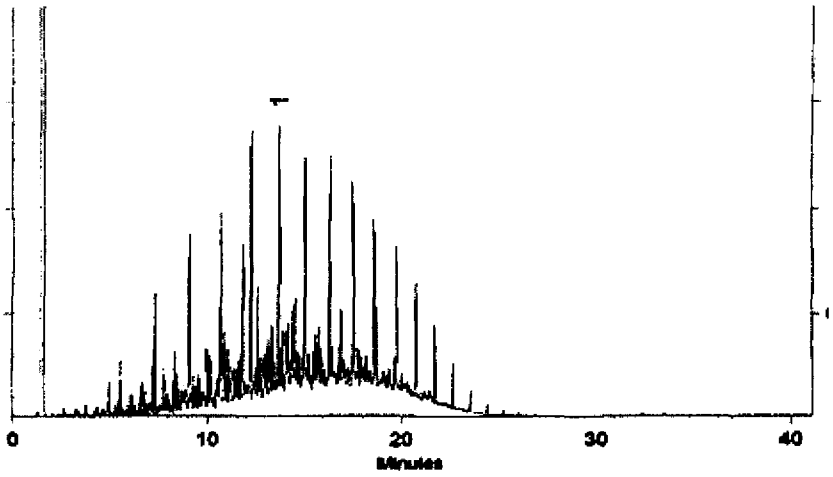
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Sara Eyster QA Analyst **Date Passed:** 08/18/2009 **Balance:** 1128342313

Manufactured under Restek's ISO 9001-2000 Registered Quality System Certificate #FMB0397

1 Expiration date of the unopened ampule stored at recommended temperature.
2A Purity was determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value rounded to the nearest whole number. In addition to detectors listed above, chemical identity and purity are confirmed using one or more of the following: MS, DSC, solid probe MS, GC/FPD, GC/NPD, GC/TC, FTIR, melting point, refractive index, and Karl Fisher. See data pack or contact Restek for further details.
2B Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities.
2C Compounds with a listed purity of less than 99% may be salts, derivatives, or hydrates. The listed purity is actually a correction factor that was used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound.
2D Purity of isomeric compounds is reported as the sum of the isomers. Value is rounded to the nearest whole number after summation.
3 Based upon gravimetric preparation with balance calibration verified using NIST traceable weights (seven mass levels).
4 Uncertainties determined using repeatability and reproducibility data for balances and glassware from measurement systems analysis methodology, balance and glassware tolerances, raw material purity, and, where applicable, eccentricity and linearity values from an accredited calibration laboratory.

AU003406	1020017
7	1020018
8	19
9	20
10	21

Analytical Standard Record

EPA Region 9 Laboratory

1C22020

Description:	DRO:Diesel Fuel #2 Composite Standard	**Expires:**	09/30/16
Standard Type:	Analyte Spike	**Prepared:**	03/22/11
Solvent:	DCM	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	03/22/11 11:15 by YNB
Vendor:	Restek	**Lot Numbe**	A069478

Restek Cat. No. 31258 Lot#: A06947 Bar Code : AU003409

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	50000
TPH - Diesel Range Organics	TPH-DRO	50000

00261

Certificate of Analysis

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 31258 **Lot No.:** A069478
Description : Diesel Fuel #2 Composite Standard
Expiration Date[1]: September 2016 **Storage:** Room Temperature

Elution Order	Compound	CAS #	Percent Purity 2	Concentration 3 (weight/volume)	% Uncertainty 4 (95% C.L.: K=2)
1	Diesel Fuel #2 Composite	68334-30-5	----%	50,000.000 ug/ml	+/-0.58 %
Solvent:	Methylene Chloride	75-09-2	99%		

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10233)

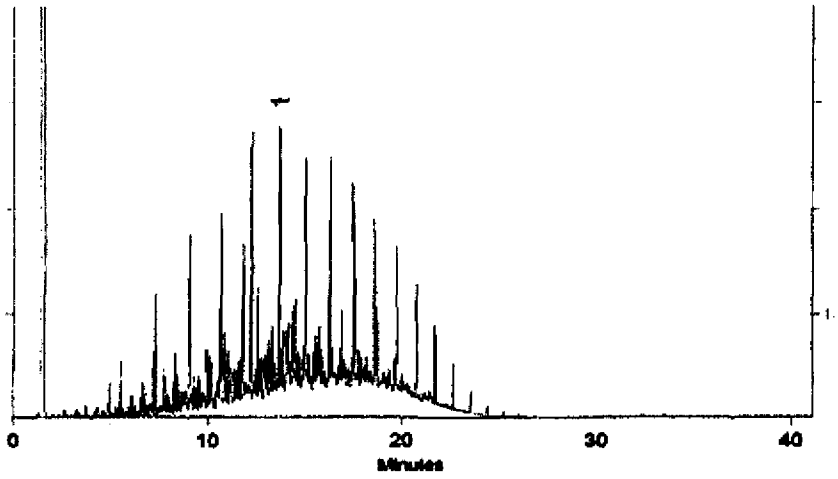
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Sara Eyster
Sara Eyster QA Analyst **Date Passed:** 08/18/2009 **Balance:** 1128342313

Manufactured under Restek's ISO 9001-2000 Registered Quality System Certificate #FMB0397

1 Expiration date of the unopened ampule stored at recommended temperature.
2A Purity was determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value rounded to the nearest whole number. In addition to detectors listed above, chemical identity and purity are confirmed using one or more of the following: MS, DSC, solid probe MS, GC/FPD, GC/NPD, GC/TC, FTIR, melting point, refractive index, and Karl Fisher. See data pack or contact Restek for further details.
2B Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities.
2C Compounds with a listed purity of less than 99% may be salts, derivatives, or hydrates. The listed purity is actually a correction factor that was used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound.
2D Purity of isomeric compounds is reported as the sum of the isomers. Value is rounded to the nearest whole number after summation.
3 Based upon gravimetric preparation with balance calibration verified using NIST traceable weights (seven mass levels).
4 Uncertainties determined using repeatability and reproducibility data for balances and glassware from measurement systems analysis methodology, balance and glassware tolerances, raw material purity, and, where applicable, eccentricity and linearity values from an accredited calibration laboratory.

AU003406	1C22017
7	1C22018
8	19
9	20
10	21

00258

Analytical Standard Record

EPA Region 9 Laboratory

1C22021

Description:	DRO:Diesel Fuel #2 Composite Standard	**Expires:**	09/30/16
Standard Type:	Analyte Spike	**Prepared:**	03/22/11
Solvent:	DCM	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	03/22/11 11:15 by YNB
Vendor:	Restek	**Lot Numbe**	A069478

Restek Cat. No. 31258 Lot#: A06947 Bar Code : AU003410

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	50000
TPH - Diesel Range Organics	TPH-DRO	50000

Certificate of Analysis

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 31258 **Lot No.:** A069478
Description : Diesel Fuel #2 Composite Standard
Expiration Date[1]: September 2016 **Storage:** Room Temperature

Elution Order	Compound	CAS #	Percent Purity 2	Concentration 3 (weight/volume)	% Uncertainty 4 (95% C.L.: K=2)
1	Diesel Fuel #2 Composite	68334-30-5	----%	50,000.000 ug/ml	+/-0.58 %
Solvent:	Methylene Chloride	75-09-2	99%		

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10233)

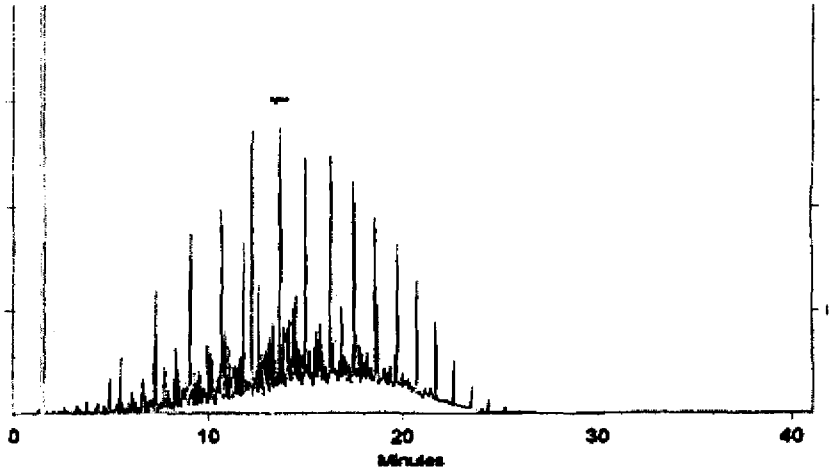
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Sara Eyster
Sara Eyster QA Analyst **Date Passed:** 08/18/2009 **Balance:** 1128342313

Manufactured under Restek's ISO 9001-2000 Registered Quality System Certificate #FMB0397

1 Expiration date of the unopened ampule stored at recommended temperature.
2A Purity was determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value rounded to the nearest whole number. In addition to detectors listed above, chemical identity and purity are confirmed using one or more of the following: MS, DSC, solid probe MS, GC/FPD, GC/NPD, GC/TC, FTIR, melting point, refractive index, and Karl Fisher. See data pack or contact Restek for further details.
2B Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities.
2C Compounds with a listed purity of less than 99% may be salts, derivatives, or hydrates. The listed purity is actually a correction factor that was used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound.
2D Purity of isomeric compounds is reported as the sum of the isomers. Value is rounded to the nearest whole number after summation.
3 Based upon gravimetric preparation with balance calibration verified using NIST traceable weights (seven mass levels).
4 Uncertainties determined using repeatability and reproducibility data for balances and glassware from measurement systems analysis methodology, balance and glassware tolerances, raw material purity, and, where applicable, eccentricity and linearity values from an accredited calibration laboratory.

AU003440	1C22022
41	23
42	24
48	25
49	26
50	27
57	28
52	29

Analytical Standard Record

EPA Region 9 Laboratory

1C22023

Description:	DRO:Diesel Fuel #2 Composite Standard	**Expires:**	09/30/16
Standard Type:	Analyte Spike	**Prepared:**	03/22/11
Solvent:	DCM	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	03/22/11 11:19 by YNB
Vendor:	Restek	**Lot Numbe**	A069478

Restek Cat. No. 31258 Lot#: A06947 Bar Code : AU003441

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	50000
TPH - Diesel Range Organics	TPH-DRO	50000

Analytical Standard Record

EPA Region 9 Laboratory

1C22024

Description:	DRO:Diesel Fuel #2 Composite Standard	**Expires:**	09/30/16
Standard Type:	Analyte Spike	**Prepared:**	03/22/11
Solvent:	DCM	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	03/22/11 11:19 by YNB
Vendor:	Restek	**Lot Numbe**	A069478

Restek Cat. No. 31258 Lot#: A06947 Bar Code : AU003442

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	50000
TPH - Diesel Range Organics	TPH-DRO	50000

Certificate of Analysis

110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No.: 31258 **Lot No.:** A069478
Description: Diesel Fuel #2 Composite Standard
Expiration Date[1]: September 2016 **Storage:** Room Temperature

Elution Order	Compound	CAS #	Percent Purity [2]	Concentration [3] (weight/volume)	% Uncertainty [4] (95% C.L.: K=2)
1	Diesel Fuel #2 Composite	68334-30-5	----%	50,000.000 ug/ml	+/-0.58 %
Solvent:	Methylene Chloride	75-09-2	99%		

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10233)

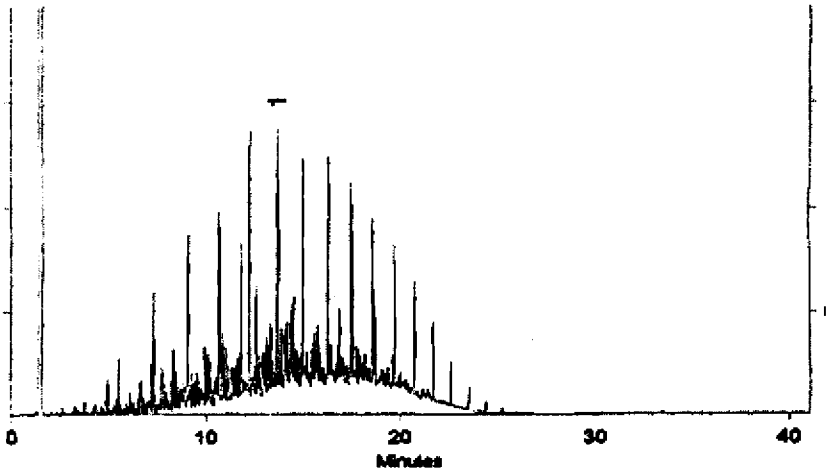
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Sara Eyster
Sara Eyster QA Analyst **Date Passed:** 08/18/2009 **Balance:** 1128342313

Manufactured under Restek's ISO 9001-2000 Registered Quality System Certificate #FMB0397

1 Expiration date of the unopened ampule stored at recommended temperature.
2A Purity was determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value rounded to the nearest whole number. In addition to detectors listed above, chemical identity and purity are confirmed using one or more of the following: MS, DSC, solid probe MS, GC/FPD, GC/NPD, GC/TC, FTIR, melting point, refractive index, and Karl Fisher. See data pack or contact Restek for further details.
2B Compounds with a listed purity of less than 99% have been weight corrected to compensate for impurities.
2C Compounds with a listed purity of less than 99% may be salts, derivatives, or hydrates. The listed purity is actually a correction factor that was used to calculate the amount of compound necessary to achieve the desired concentration of the parent compound.
2D Purity of isomeric compounds is reported as the sum of the isomers. Value is rounded to the nearest whole number after summation.
3 Based upon gravimetric preparation with balance calibration verified using NIST traceable weights (seven mass levels).
4 Uncertainties determined using repeatability and reproducibility data for balances and glassware from measurement systems analysis methodology, balance and glassware tolerances, raw material purity, and, where applicable, eccentricity and linearity values from an accredited calibration laboratory.

A4003440	1C22022
41	23
42	24
48	25
49	26
50	27
57	28
52	29

Analytical Standard Record

EPA Region 9 Laboratory

1C22031

Description:	OIL:Motor Oil SAE 50W	**Expires:**	03/02/14
Standard Type:	Other Solution	**Prepared:**	03/22/11
Solvent:	Methylene Chloride	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	03/22/11 11:56 by YNB
Vendor:	Spex	**Lot Numbe**	R1110303014

Motor Oil, SAE S-050W-20K, bar code #AU003438

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	20000
TPH - Oil Range Organics	TPH-ORO	20000

SPEXertificate®

Certificate of Reference Material

For Use With Analytical Methods

PART NUMBER S-050W-20K
LOT NUMBER R1110303014
SHIP DATE - 3/3/2011
EXPIRATION DATE - 3/2/2014
Standard Solution Matrix - Methylene Chloride

STARTING MATERIALS

Compound	CAS #	% Purity	Amount used per ml	Final Concentration
Motor Oil, SAE 50W	---	100	20000 µg	20000 µg/ml

AU003437	1C22030
38	31
39	32

This product was manufactured to the standards specified in our ISO-9001, ISO 17025 and Guide 34 quality system.

ACCREDITED

ISO Guide 34 -Reference Materials Manufacturer Certificate # 2495.01, ISO 17025 -Chemical Testing Certificate # 2495.02

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www.spexcertiprep.com

SPEX CertiPrep Organic Certificate of Analysis, Revision 2 9-2020

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Analytical Standard Record

EPA Region 9 Laboratory

1G15006

Description:	DRO:hexacosane_stock 5000 mg/L	Expires:	01/15/12
Standard Type:	Reference Materia	Prepared:	07/15/11
Solvent:	DCM Lot # DE038	Prepared By:	Lorraine Avalos
Final Volume (mls):	10	Department:	Extractables
Vials:	1	Last Edit:	07/15/11 14:28 by LA

n Hexacosane Lot# 4513A Biomedical (50 mg in to 10 mL of DCM)

Analyte	CAS Number	Concentration	Units	SRM Control Limits
Hexacosane	630-01-3	5000	ppm	0-200

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
3D21001	DRO:N-Hexacosane, Neat	04/21/03	** Vendor **	12/31/30	05/22/08 14:25 by TD	0.05

Reviewed By _____ Date _____

Analytical Standard Record

EPA Region 9 Laboratory

1G15010

Description:	DRO:KERO _071511-CV	Expires:	01/15/12
Standard Type:	Calibration Stand:	Prepared:	07/15/11
Solvent:	DCM Lot # DE038	Prepared By:	Lorraine Avalos
Final Volume (mls):	25	Department:	Extractables
Vials:	1	Last Edit:	07/15/11 16:57 by LA

Analyte	CAS Number	Concentration	Units
TPH as Kerosene	8008-20-6	500	ppm
Hexacosane	630-01-3	50	ppm

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
9B04015	DRO: Kerosene Composite St.	02/04/09	** Vendor **	03/30/14	02/04/09 14:34 by LA	0.25
1G15006	DRO:hexacosane_stock 5000 mg/L	07/15/11	Lorraine Avalos	01/15/12	07/15/11 14:28 by LA	0.25

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1H09011

Description:	DRO:TPH_080911MS 3000ug/mL in DCI	**Expires:**	02/09/12
Standard Type:	Analyte Spike	**Prepared:**	08/09/11
Solvent:	DCM Lot #DE038	**Prepared By:**	Susan Lepe
Final Volume (mls):	50	**Department:**	Extractables
Vials:	1	**Last Edit:**	08/11/11 08:03 by SUL
Vendor:	Restek	**Lot Numbe**	A069478

Matrix spike for TPH-d. For check: brought 250ul spike to 1.5ml with DCM. OK to use 8/11/11.

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	3000
TPH - Diesel Range Organics	TPH-DRO	3000

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22019	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	02/09/12	08/09/11 11:26 by SUL	1
1C22020	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	02/09/12	08/09/11 11:26 by SUL	1
1C22021	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	02/09/12	08/09/11 11:27 by SUL	1

Analytical Standard Record

EPA Region 9 Laboratory

1I23004

Description:	GRO:Stoddard Solvent, Stock	**Expires:**	04/26/20
Standard Type:	Other Solution	**Prepared:**	09/23/11
Solvent:	Solvent Lot # MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	09/23/11 08:04 by TD
Vendor:	AccuStandard	**Lot Numbe**	HS-005S-40X

Cat.# HS-005S-40X,

Analyte	CAS Number	Concentration (ppm)
Stoddard solvent	8052-41-3	20000

125 Market Street
New Haven, CT 06513
USA

AccuStandard, Inc.

Tel (203)786-5290
Fax (203)786-5287
Website AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: HS-005S-40X
Description: Stoddard Solvent
Lot: B0100498
Solvent: Methanol

Date Certified: Apr 26, 2010
Expiration: Apr 26, 2020
Sample Size: 1 mL
Storage Condition: Ambient
Hazards: POISON

[X] Included on ISO/IEC 17025 Scope of Accreditation
[X] Included on ISO Guide 34 Scope of Accreditation

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[1] (mg/mL)	Certified Analyte Concentration[2] (mg/mL)
Stoddard Solvent	8052-41-3	Tech	20.02	20.02

I23004
I23002 (A-B)
A11003.5 5

AccuStandard follows U.S. conventions in reporting numerical values on both certificates and labels:

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through NIST, Test No822/254480
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty associated with the gravimetric values reported on this certificate is ±0.24%. The CRM Uncertainty calculated for this product is ±5%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.
3. A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

For use in routine laboratory analysis.

See reverse side for additional information
Refer to the MSDS for additional safety information

Certified by: R. Cooper
Russ Cooper, QC Manager

AccuStandard is accredited to ISO Guide 34, ISO/IEC 17025 and certified to ISO 9001

OR-ORG/NO-001
Rev 7/10

Analytical Standard Record

EPA Region 9 Laboratory

1I23008

Description:	GASGRO:Mineral Spirits, Stock	Expires:	05/09/18
Standard Type:	Other	Prepared:	09/23/11
Solvent:	Solvent Lot # MeOH	Prepared By:	** Vendor **
Final Volume (mls):	1	Department:	Extractables
Vials:	1	Last Edit:	09/23/11 10:12 by TD

Cat.# HS-002S-40X, Lot # B8050069; bar code # AU003886 A

Analyte	CAS Number	Concentration	Units
Mineral spirits	64475-85-0	20000	ppm

Reviewed By Date

125 Market Street
New Haven, CT 06513
USA

AccuStandard, Inc.

Tel (203)786-5290
Fax (203)786-5287
Website AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: HS-002S-40X
Description: Mineral Spirits
Lot: B8050069
Solvent: Methanol

Date Certified: May 9, 2008
Expiration: May 9, 2018
Sample Size: 1 mL
Storage Condition: Ambient
Hazards: POISON

[X] Included on ISO/IEC 17025 Scope of Accreditation
[X] Included on ISO Guide 34 Scope of Accreditation

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[1] (mg/mL)	Certified Analyte Concentration[2] (mg/mL)
Mineral Spirits	8030-30-6	Tech	20.02	20.02

1I23009
1I23008
~~1I23008~~ D
4U003886 (A-B)

AccuStandard follows U.S. conventions in reporting numerical values on both certificates and labels:

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through NIST, Test No822/272103-05
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty associated with the gravimetric values reported on this certificate is ±0.24%. The CRM Uncertainty calculated for this product is ±5%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.
3. A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

For use in routine laboratory analysis.

See reverse side for additional information
Refer to the MSDS for additional safety information

Certified by: R. Cooper
Russ Cooper, QC Manager

AccuStandard is accredited to ISO Guide 34, ISO/IEC 17025 and certified to ISO 9001

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Rev 7/10

125 Market Street
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USA

AccuStandard®, Inc.

Tel (203)786-5290
Fax (203)786-5287
Website AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: HS-003S-40X
Description: Naphtha
Lot: 211091015
Solvent: Methanol

Date Certified: Sep 1, 2011
Expiration: Sep 1, 2021
Sample Size: 1 mL
Storage Condition: Ambient
Hazards: HIGHLY FLAMMABLE

[X] Included on ISO/IEC 17025 Scope of Accreditation
[X] Included on ISO Guide 34 Scope of Accreditation

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[1] (mg/mL)	Certified Analyte Concentration[2] (mg/mL)
Naphtha	64742-89-8	Tech	20.02	20.02

1I23010
1I23011
AU003883(A-B)

AccuStandard follows U.S. conventions in reporting numerical values on both certificates and labels:

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through NIST, Test No822/272103-05
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty associated with the gravimetric values reported on this certificate is ±0.24%. The CRM Uncertainty calculated for this product is ±5%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.
3. A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

For use in routine laboratory analysis.

See reverse side for additional information
Refer to the MSDS for additional safety information

Certified by: R. Cooper
Russ Cooper, QC Manager

AccuStandard is accredited to ISO Guide 34, ISO/IEC 17025 and certified to ISO 9001

OR-ORG/INO-001
Rev. 7/10

Analytical Standard Record

EPA Region 9 Laboratory

1I23010

Description:	GASDRO:Naphtha, Stock	Expires:	09/01/21
Standard Type:	Other	Prepared:	09/23/11
Solvent:	Solvent Lot # MeOH	Prepared By:	** Vendor **
Final Volume (mls):	1	Department:	Extractables
Vials:	1	Last Edit:	09/23/11 10:21 by TD

Cat.# HS-003S-40X, Lot # 211091015 bar code #AU003883 A

Analyte	CAS Number	Concentration	Units
Naptha	8030-30-6	20002	ppm

Reviewed By Date

125 Market Street
New Haven, CT 06513
USA

AccuStandard, Inc.

Tel (203)786-5290
Fax (203)786-5287
Website AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: HS-001S-40X
Description: Lacquer Thinner
Lot: B9040308
Solvent: Methanol

Date Certified: Apr 30, 2009
Expiration: Apr 30, 2019
Sample Size: 1 mL
Storage Condition: Ambient
Hazards: POISON

[X] Included on ISO/IEC 17025 Scope of Accreditation
[X] Included on ISO Guide 34 Scope of Accreditation

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[1] (mg/mL)	Certified Analyte Concentration[2] (mg/mL)
Lacquer Thinner	N/A	Tech	20.01	20.01

1I23012
1I23013
AU003884 (A-B)

AccuStandard follows U.S. conventions in reporting numerical values on both certificates and labels:

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through NIST, Test No822/272103-05
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty associated with the gravimetric values reported on this certificate is ±0.24%. The CRM Uncertainty calculated for this product is ±5%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.
3. A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

For use in routine laboratory analysis.

See reverse side for additional information
Refer to the MSDS for additional safety information

Certified by: R. Cooper
Russ Cooper, QC Manager

AccuStandard is accredited to ISO Guide 34, ISO/IEC 17025 and certified to ISO 9001

OR-ORG/HO-001
Rev. 7/10

Analytical Standard Record

EPA Region 9 Laboratory

1I23012

Description:	GASDRO:Lacquer Thinner, Stock	Expires:	04/30/19
Standard Type:	Other	Prepared:	09/23/11
Solvent:	Solvent Lot # MeOH	Prepared By:	** Vendor **
Final Volume (mls):	1	Department:	Extractables
Vials:	1	Last Edit:	09/23/11 10:23 by TD

Cat.# HS-001S-40X, Lot # B9040308; bar code #AU003884 A

Analyte	CAS Number	Concentration	Units
Lacquer thinner	64742-89-8	20000	ppm

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1L27008

Description:	DRO_122711_SURR 300ug/mL DCM/Ac	**Expires:**	06/27/12
Standard Type:	Surrogate Spike	**Prepared:**	12/27/11
Solvent:	DCM:ACE 2:1	**Prepared By:**	Susan Lepe
Final Volume (mls):	100	**Department:**	Extractables
Vials:	1	**Last Edit:**	12/27/11 13:23 by SUL
Vendor:	Burdick & Jackson	**Lot Numbe**	#DE391

Conc:300 ug/ml DCM (1E16003) and Acetone (9I29020) 2:1. Dissolved 30 mg of n-Hexacosane in 2:1 DCM/Acetone, raised volume to 100 ml. 250ul surr into1.5ml DCM for check. Check OK 12/27/11 (new instrument).

Analyte	CAS Number	Concentration (ppm)
Hexacosane	630-01-3	300

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
3D21001	DRO:N-Hexacosane, Neat	04/21/03	** Vendor **	12/31/30	11/08/11 16:15 by jad	0.03

Analytical Standard Record

EPA Region 9 Laboratory

2A11002

Description:	DRO:hexacosane_stock 5000 mg/L	**Expires:**	07/11/12
Standard Type:	Reference Material	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 10:27 by YNB
Vendor:	ICN Biomedical	**Lot Numbe**	4513A

n Hexacosane Lot# 4513A Biomedical (50 mg in to 10 mL of DCM)

Analyte	CAS Number	Concentration (ppm)	SRM Control Limits
Hexacosane	630-01-3	5000	0-200

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
3D21001	DRO:N-Hexacosane, Neat	04/21/03	** Vendor **	12/31/30	11/08/11 16:15 by jad	0.05

Analytical Standard Record

EPA Region 9 Laboratory

2A11003

Description:	DRO:DRO_011112-IB	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	50	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/12/12 10:44 by YNB
Vendor:	Restek	**Lot Numbe**	DE391

Analyte	CAS Number	Concentration (ppm)
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.5

Analytical Standard Record

EPA Region 9 Laboratory

2A11003

Description:	DRO:DRO_011112-IB	**Expires:**	01/15/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	50	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 10:47 by YNB
Vendor:	Restek	**Lot Numbe**	DE391

Analyte	CAS Number	Concentration (ppm)
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.5

Analytical Standard Record

EPA Region 9 Laboratory

2A11004

Description:	DRO:DRO_011112-QLS	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	25	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 10:51 by YNB
Vendor:	*Prepared*	**Lot Numbe**	A069478

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	50
TPH - Diesel Range Organics	TPH-DRO	50
Hexacosane	630-01-3	10

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22023	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	09/30/16	03/22/11 11:19 by YNB	0.025
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.05

Analytical Standard Record

EPA Region 9 Laboratory

2A11005

Description:	DRO:DRO_011112-CV	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	25	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 10:53 by YNB
Vendor:	*Prepared*	**Lot Numbe**	A069478

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	500
TPH - Diesel Range Organics	TPH-DRO	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22023	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	09/30/16	03/22/11 11:19 by YNB	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.25

Analytical Standard Record

EPA Region 9 Laboratory

2A11006

Description:	DRO:DRO_011112-B	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 11:11 by YNB
Vendor:	*Prepared*	**Lot Numbe**	A069478

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	150
TPH - Diesel Range Organics	TPH-DRO	150
Hexacosane	630-01-3	25

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22023	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	09/30/16	03/22/11 11:19 by YNB	0.03
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.05

Analytical Standard Record

EPA Region 9 Laboratory

2A11007

Description:	DRO:DRO_011112-D	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 11:13 by YNB
Vendor:	*Prepared*	**Lot Numbe**	A069478

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	1250
TPH - Diesel Range Organics	TPH-DRO	1250
Hexacosane	630-01-3	75

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22023	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	09/30/16	03/22/11 11:19 by YNB	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.15

Analytical Standard Record

EPA Region 9 Laboratory

2A11008

Description:	DRO:DRO_011112-E	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 11:18 by YNB
Vendor:	*Prepared*	**Lot Numbe**	A069478

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	4000
TPH - Diesel Range Organics	TPH-DRO	4000
Hexacosane	630-01-3	100

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22024	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	09/30/16	03/22/11 11:19 by YNB	0.8
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.2

Analytical Standard Record

EPA Region 9 Laboratory

2A11009

Description:	DRO:DRO_SCV_ 500/50 mg/L	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM DE931	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 11:35 by YNB
Vendor:	Ultra Scientific	**Lot Numbe**	CD2271A

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	500
TPH - Diesel Range Organics	TPH-DRO	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1B18007	DRO:Composite #2 Diesil Fuel Solutio	02/18/11	** Vendor **	10/30/13	02/21/11 10:57 by YNB	0.1
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11010

Description:	DRO:DRO_011112-RT	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 11:40 by YNB
Vendor:	Restek	**Lot Numbe**	A067369

400 mL of St. to 10 ml

Analyte	CAS Number	Concentration (ppm)
Tetradecane (C14)	629-59-4	20
Tetracosane	000646-31-1	20
Octane (C8)	111-65-9	20
Octadecane	000593-45-3	20
Octacosane	000630-02-4	20
Hexadecane (C16)	544-76-3	20
Hexacosane	630-01-3	20
Eicosane (C20)	112-95-8	20
Dodecane	000112-40-3	20
Docosane	000629-97-0	20
Decane	000124-18-5	20

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
0F23019	DRO:Florida TRPH Standard, Stock	06/23/10	** Vendor **	05/31/16	06/23/10 10:40 by YNB	0.4

Analytical Standard Record

EPA Region 9 Laboratory

2A11011

Description:	OIL:OIL_011112-QLS	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	25	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 11:56 by YNB
Vendor:	Restek	**Lot Numbe**	A077845

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	200
TPH - Oil Range Organics	TPH-ORO	200
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22013	OIL:Motor Oil Composite Standard, St	03/22/11	** Vendor **	12/31/17	03/22/11 11:02 by YNB	0.1
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.25

Analytical Standard Record

EPA Region 9 Laboratory

2A11012

Description:	OIL:OIL_011112-CV	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	25	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 11:58 by YNB
Vendor:	Restek	**Lot Numbe**	A077845

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	1000
TPH - Oil Range Organics	TPH-ORO	1000
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22013	OIL:Motor Oil Composite Standard, St	03/22/11	** Vendor **	12/31/17	03/22/11 11:02 by YNB	0.5
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.25

Analytical Standard Record

EPA Region 9 Laboratory

2A11013

Description:	OIL:OIL_011112-B	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 12:00 by YNB
Vendor:	Restek	**Lot Numbe**	A077845

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	400
TPH - Oil Range Organics	TPH-ORO	400
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22013	OIL:Motor Oil Composite Standard, St	03/22/11	** Vendor **	12/31/17	03/22/11 11:02 by YNB	0.08
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11014

Description:	OIL:OIL_011112-D	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 12:01 by YNB
Vendor:	Restek	**Lot Numbe**	A077845

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	4000
TPH - Oil Range Organics	TPH-ORO	4000
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22013	OIL:Motor Oil Composite Standard, St	03/22/11	** Vendor **	12/31/17	03/22/11 11:02 by YNB	0.8
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11015

Description:	OIL:OIL_011112-E	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE931	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 12:03 by YNB
Vendor:	Restek	**Lot Numbe**	A077845

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	10000
TPH - Oil Range Organics	TPH-ORO	10000
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22011	OIL:Motor Oil Composite Standard, St	03/22/11	** Vendor **	10/31/17	03/22/11 11:00 by YNB	1
1C22012	OIL:Motor Oil Composite Standard, St	03/22/11	** Vendor **	12/31/17	03/22/11 11:01 by YNB	1
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11019

Description:	OIL:OIL_SCV_ 1000/50 mg/L	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DF391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 12:53 by YNB
Vendor:	Local Source	**Lot Numbe**	R1040302006

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	1000
TPH - Oil Range Organics	TPH-ORO	1000
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22031	OIL:Motor Oil SAE 50W	03/22/11	** Vendor **	03/02/14	03/22/11 11:56 by YNB	0.5
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11021

Description:	DRO:GAS_011112	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:06 by YNB
Vendor:	Restek	**Lot Numbe**	A066488

Analyte	CAS Number	Concentration (ppm)
TPH as Gasoline	8006-61-9	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
0C16026	GAS:Unleaded Gasoline Composite Sta	03/16/10	** Vendor **	04/30/16	11/07/11 16:03 by jad	0.1
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11022

Description:	DRO:Hydraulic Fluid_011112-500 ug/mL	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:09 by YNB
Vendor:	Restek	**Lot Numbe**	B4010223

AccuStandard FU-020-D-40

Analyte	CAS Number	Concentration (ppm)
Hydraulic Fluid	64742-54-7	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1A18025	DRO:Hydraulic Fluid, Stock	01/18/11	** Vendor **	01/22/14	01/18/11 12:45 by YNB	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11023

Description:	DRO:Jet Fuel_011112-500 ug/mL	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:12 by YNB
Vendor:	Restek	**Lot Numbe**	B8060056

AccuStandard FU-006-40X

Analyte	CAS Number	Concentration (ppm)
Jet Fuel	94114-58-6	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1A18028	DRO:Turbine (Jet) Fuel, Stock	01/18/11	** Vendor **	06/04/18	01/18/11 12:50 by YNB	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11025

Description:	DRO:Stoddard Solvent_500 mg/L	**Expires:**	07/10/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:33 by YNB
Vendor:	*Prepared*	**Lot Numbe**	B0100498

AccuStandard HS-005S-40X

Analyte	CAS Number	Concentration (ppm)
Stoddard solvent	8052-41-3	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1I23004	GRO:Stoddard Solvent, Stock	09/23/11	** Vendor **	04/26/20	09/23/11 10:18 by TD	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11026

Description:	DRO: Mineral Spirit_500 mg/L	**Expires:**	07/10/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:18 by YNB
Vendor:	Restek	**Lot Numbe**	B8050069

AccuStandard HS-002S-40X

Analyte	CAS Number	Concentration (ppm)
Mineral spirits	64475-85-0	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1I23008	GASGRO:Mineral Spirits, Stock	09/23/11	** Vendor **	05/09/18	09/23/11 10:12 by TD	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11027

Description:	DRO:Naphtha_500 mg/L	**Expires:**	07/10/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:20 by YNB
Vendor:	*Prepared*	**Lot Numbe**	211091015

AccuStandard HS-003S-40X

Analyte	CAS Number	Concentration (ppm)
Naptha	8030-30-6	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1
1I23010	GASDRO:Naphtha, Stock	09/23/11	** Vendor **	09/01/21	09/23/11 10:21 by TD	0.25

Analytical Standard Record

EPA Region 9 Laboratory

2A11028

Description:	DRO:Turpentine_500 mg/L	**Expires:**	07/10/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:21 by YNB
Vendor:	*Prepared*	**Lot Numbe**	A9020099

AccuStandard HS-004S-40X

Analyte	CAS Number	Concentration (ppm)
Turpentine	8006-64-2	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1B16005	DRO:Turpentine, Stock	02/16/11	** Vendor **	11/21/18	02/16/11 12:36 by YNB	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11029

Description:	DRO:Lacquer Thinner_500 mg/L	**Expires:**	07/10/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:22 by YNB
Vendor:	*Prepared*	**Lot Numbe**	B9040308

AccuStandard HS-001S-40X

Analyte	CAS Number	Concentration (ppm)
Lacquer thinner	64742-89-8	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1I23012	GASDRO:Lacquer Thinner, Stock	09/23/11	** Vendor **	04/30/19	09/23/11 10:23 by TD	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

3D21001

Description:	DRO:N-Hexacosane, Neat	**Expires:**	12/31/30
Standard Type:	Other Solution	**Prepared:**	04/21/03
Solvent:	Solvent Lot #	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	05/22/08 14:25 by TD
Vendor:	ICN Biomedical	**Lot Numb**	4513A

N-Hexacosane Neat, used for diesel surrogate, Lot No. 4513A

Analyte	CAS Number	Concentration (ppm)
Hexacosane	630-01-3	1000000

Certificate of Analysis

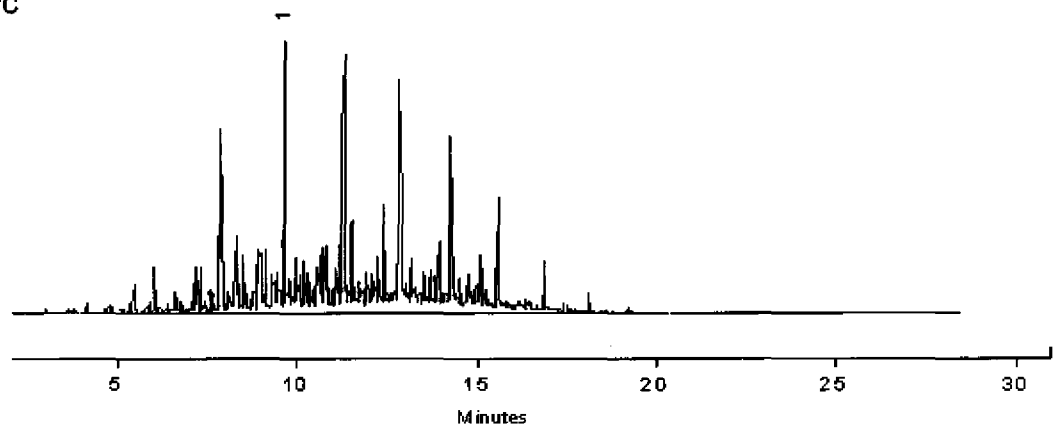
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No.: 31256 **Lot No.:** A050037
Description: Kerosene Composite Standard
Expiration Date [1]**:** March 2014 **Storage:** Room Temperature

Elution Order	Compound	CAS #	Percent Purity [2]	Concentration (weight/volume) [3]	Percent Uncertainty [4]
1	Kerosene Composite	8008-20-6	99%	50,000.000 ug/ml	+/-0.10 %
Solvent:	Methylene Chloride	75-09-2	99%		

Column: 30m x .25mm x .5um
Rtx-5 (cat.# 10238)
Carrier Gas: hydrogen @ 40cm/sec.
Temp. Program: 40°C (hold 2 min.) to 330°C @ 10°C/min.
Inj. Temp: 250°C
Det. Temp: 300°C
Det. Type: FID



Sara Eyster QA Analyst

Balance 1119141429

1 Expiration date of the unopened ampul stored at recommended temperature.
2 Purity was determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value rounded to the nearest LOWER whole percentage. In addition to detectors listed above, chemical identity and purity are confirmed using 1 or more of the following: MS, DSC, solid probe MS, GC/FPD, GC/NPD, GC/TC, FTIR, melting point, refractive index, and Karl Fisher. See data pack or contact Restek for further details.
3 Based upon gravimetric preperation with balance calibration verified using NIST traceable weights (seven mass levels).
4 Percent Uncertainty based upon balance AND ASTM Class A volumetric glassware accuracy.

ISO 9001 REGISTERED

Manufactured under Restek's ISO 9001 Registered Quality System Certificate #FM80397

Analytical Standard Record

EPA Region 9 Laboratory

9B04015

Description:	DRO: Kerosene Composite St.	**Expires:**	03/30/14
Standard Type:	Analyte Spike	**Prepared:**	02/04/09
Solvent:	DCM	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	02/04/09 14:34 by LA
Vendor:	Restek	**Lot Numb**	A050037

CAT 31256, LOT A050037

Analyte	CAS Number	Concentration (ppm)
TPH as Kerosene	8008-20-6	50000