United States Environmental Protection Agency
Region 9 Laboratory

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

Date: 2/7/2012

Subject: Analytical Testing Results - Project R33911
SDG: 12032A

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

DIM0277243

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:** 12032A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/07/12 08:00
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
HW26	1202001-01	Water	01/31/12 10:26	02/01/12 08:00
HW26-P	1202001-02	Water	01/31/12 11:37	02/01/12 08:00
HW35	1202001-03	Water	01/31/12 11:49	02/01/12 08:00
HW13	1202001-04	Water	01/30/12 11:23	02/01/12 08:00
HW18-P	1202001-05	Water	01/30/12 11:52	02/01/12 08:00
HW20	1202001-06	Water	01/30/12 16:12	02/01/12 08:00
HW20-P	1202001-07	Water	01/30/12 16:29	02/01/12 08:00
HW25-P	1202001-08	Water	01/30/12 15:32	02/01/12 08:00
EB01	1202001-09	Water	01/28/12 11:26	02/01/12 08:00
FB06	1202001-10	Water	01/30/12 09:30	02/01/12 08:00
HW18	1202001-11	Water	01/30/12 11:27	02/01/12 08:00

SDG ID 12032A

Work Order(s)

1202001

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:** 12032A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/07/12 08:00
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1202001-01									**Water - Sampled: 01/31/12 10:26**
Sample ID: HW26						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0005	02/01/12	02/02/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			90 %	*60-127%*		"	"	"	
Lab ID: 1202001-02									**Water - Sampled: 01/31/12 11:37**
Sample ID: HW26-P						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0005	02/01/12	02/02/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			96 %	*60-127%*		"	"	"	
Lab ID: 1202001-03									**Water - Sampled: 01/31/12 11:49**
Sample ID: HW35						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0005	02/01/12	02/02/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			93 %	*60-127%*		"	"	"	
Lab ID: 1202001-04									**Water - Sampled: 01/30/12 11:23**
Sample ID: HW13						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0005	02/01/12	02/02/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			97 %	*60-127%*		"	"	"	
Lab ID: 1202001-05									**Water - Sampled: 01/30/12 11:52**
Sample ID: HW18-P						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0005	02/01/12	02/02/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			96 %	*60-127%*		"	"	"	
Lab ID: 1202001-06									**Water - Sampled: 01/30/12 16:12**
Sample ID: HW20						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0005	02/01/12	02/02/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			96 %	*60-127%*		"	"	"	
Lab ID: 1202001-07									**Water - Sampled: 01/30/12 16:29**
Sample ID: HW20-P						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0005	02/01/12	02/02/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			101 %	*60-127%*		"	"	"	
Lab ID: 1202001-08									**Water - Sampled: 01/30/12 15:32**

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Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12032A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/07/12 08:00
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1202001-08									**Water - Sampled: 01/30/12 15:32**
Sample ID: HW25-P						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0005	02/01/12	02/02/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			94 %	*60-127%*		"	"	"	
Lab ID: 1202001-09									**Water - Sampled: 01/28/12 11:26**
Sample ID: EB01						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0005	02/01/12	02/02/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			89 %	*60-127%*		"	"	"	
Lab ID: 1202001-10									**Water - Sampled: 01/30/12 09:30**
Sample ID: FB06						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0005	02/01/12	02/02/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			92 %	*60-127%*		"	"	"	
Lab ID: 1202001-11									**Water - Sampled: 01/30/12 11:27**
Sample ID: HW18						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	240	ug/L	B2B0005	02/01/12	02/02/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	950	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			87 %	*60-127%*		"	"	"	

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Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/07/12 08:00
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B2B0005 - 3520C CLLE - TPH - Extractable										**Prepared: 02/01/12 Analyzed: 02/02/12**
								Extractable Petroleum Hydrocarbons by EPA Method 8015B - Quality Control		
Blank (B2B0005-BLK1)										
TPH - Diesel Range Organics	ND	U	250	ug/L						
TPH - Oil Range Organics	ND	U	1,000	"						
Surrogate: Hexacosane	*135*			"	*150*		90	*60-127*		
LCS (B2B0005-BS1)										
TPH - Diesel Range Organics	1,310		250	ug/L	1500		87	54-115		200
Surrogate: Hexacosane	*139*			"	*150*		92	*60-127*		
Matrix Spike (B2B0005-MS1)		**Source: 1202001-03**								
TPH - Diesel Range Organics	1,260		250	ug/L	1430	ND	88	67-110		20
Surrogate: Hexacosane	*129*			"	*143*		90	*60-127*		
Matrix Spike Dup (B2B0005-MSD1)		**Source: 1202001-03**								
TPH - Diesel Range Organics	1,260		250	ug/L	1440	ND	88	67-110	0.3	20
Surrogate: Hexacosane	*131*			"	*144*		91	*60-127*		

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Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/07/12 08:00
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Qualifiers and Comments

U Not Detected

NR Not Reported

RE1, RE2, etc: Result is from a sample re-analysis.

00006

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 ~~8~~ 6, 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 12032A, Work Order 1202001 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\12032A-TPH-d-14478.docx

EPA Region 9 Laboratory

DATA PACKAGE

Analysis:	**TPH-d**
Project Number:	**R33911**
SDG Number:	**12032A**
Work Order:	**1202001**
ESAT DCN:	**14478**

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: 12032A

Analysis: extractable TPH Number of Pages: 309

Reviewer: Bauer

- ☑ 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: OK

Reviewer Signature RMB Date 2/7/12

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ESAT Region 9 | **ICF International**
Case: R33911 | **Analysis:** TPH-d | **TDF:** 01001084 | **Matrix:** water
DCN: 14478 | **Site:** Dimock Residential Groundwater Site | **SDG:** 12032A

ESAT REGION 9 DATA PACKAGE TECHNICAL REVIEW GUIDE

Reviewer:	Package Prep (P): TD	Technical (T): [illegible]	Final (F): [illegible]
	Date: 02-06-12	Date: 02-06-12	Date: 2-6-12

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: 14478 **Site:** Dimock Residential Groundwater Site **SDG:** 12032A

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)

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

C:\Users\tdadiomo\Desktop\TPH daily review.doc

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	TPH DRO	Analyst Initial	TD	Reviewer Initial	TR	Batch/ Sequence	B2B005 2020009
Instrument ID	AG7890-2	Date Analyzed	02-02-12	Date	2/3/12	Chemstation Last Update	01/31/12 09:45:52
Cases	R33911			SDGs	12032A		

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

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USEPA Region 9 Laboratory
Organic Analysis Summary

Case: R33911
SDG: 12032A
Analysis: TPH DRO

TD

Sample ID	Sample Runs			
Instrument:	AG7890-2	INSTRUMENT	INSTRUMENT	INSTRUMENT
Analysis Date:	2/2/2012			
Sequence:	2020009			
1202001-01	RPT			
1202001-02	RPT			
1202001-03	RPT			
B2B0005-MS1	RPT			
B2B0005-MSD1	RPT			
1202001-04	RPT			
1202001-05	RPT			
1202001-06	RPT			
1202001-07	RPT			
1202001-08	RPT			
1202001-09	RPT			
1202001-10	RPT			
1202001-11	RPT			
B2B0005-BLK1	RPT			
B2B0005-BS1	RPT			

Definitions

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

00015

SAMPLE TRACKING FORMS

: 00009

DIM0277243

DIM0277259

WORK ORDER

Printed: 2/1/2012 10:10:20AM

1202001

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	798007374220
2 Cooler	Cooler	5	Yes	Yes	Yes	No	Yes	793174203598
3 cooler	Cooler	6	Yes	Yes	Yes	No	Yes	7980018178260
4Cooler	Cooler	3	Yes	Yes	Yes	No	Yes	793174361788

Date Due:	02/23/12 15:00 (21 day TAT)	SDG:	12032A
Received By:	Richard Bauer	Date Received:	02/01/12 08:00
Logged In By:	Jack Berges	Date Logged In:	02/01/12 08:29

Analysis	Hold Time Expires	Comments
1202001-01 HW26 [Water] Sampled 01/31/12 10:26 Pacific		
TPH - Extractable	02/07/12	
1202001-02 HW26-P [Water] Sampled 01/31/12 11:37 Pacific		
TPH - Extractable	02/07/12	
1202001-03 HW35 [Water] Sampled 01/31/12 11:49 Pacific		
TPH - Extractable	02/07/12	
1202001-04 HW13 [Water] Sampled 01/30/12 11:23 Pacific		
Dissolved HC Gases	02/13/12	5 day prelim results
TPH - Extractable	02/06/12	
TPH - Purgeable	02/13/12	
1202001-05 HW18-P [Water] Sampled 01/30/12 11:52 Pacific		
TPH - Purgeable	02/13/12	
Dissolved HC Gases	02/13/12	5 day prelim results
TPH - Extractable	02/06/12	

WORK ORDER

Printed: 2/1/2012 10:10:20AM

1202001

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
1202001-06 HW20 [Water] Sampled 01/30/12 16:12 Pacific		
TPH - Extractable	02/06/12	
TPH - Purgeable	02/13/12	
Dissolved HC Gases	02/13/12	5 day prelim results
1202001-07 HW20-P [Water] Sampled 01/30/12 16:29 Pacific		
TPH - Purgeable	02/13/12	
TPH - Extractable	02/06/12	
Dissolved HC Gases	02/13/12	5 day prelim results
1202001-08 HW25-P [Water] Sampled 01/30/12 15:32 Pacific		
Dissolved HC Gases	02/13/12	5 day prelim results
TPH - Purgeable	02/13/12	
TPH - Extractable	02/06/12	
1202001-09 EB01 [Water] Sampled 01/28/12 11:26 Pacific		
TPH - Extractable	02/04/12	
Dissolved HC Gases	02/11/12	5 day prelim results
TPH - Purgeable	02/11/12	
1202001-10 FB06 [Water] Sampled 01/30/12 09:30 Pacific		
TPH - Extractable	02/06/12	
TPH - Purgeable	02/13/12	
Dissolved HC Gases	02/13/12	5 day prelim results
1202001-11 HW18 [Water] Sampled 01/30/12 11:27 Pacific		
TPH - Extractable	02/06/12	
TPH - Purgeable	02/13/12	
Dissolved HC Gases	02/13/12	5 day prelim results
1202001-12 TB08 [Water] Sampled 01/28/12 14:22 Pacific		
Dissolved HC Gases	02/11/12	5 day prelim results
1202001-13 TB09 [Water] Sampled 01/30/12 07:15 Pacific		
Dissolved HC Gases	02/13/12	5 day prelim results

Reviewed By

Date

Cooler # 1

USEPA CLP Generic COC (LAB COPY)

DateShipped: 1/31/2012
CarrierName: FedEx
AirbillNo: 7980 0737 4220

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-013112-155156-0049

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
HW26	Drinking Water/ Bryan Berna	Grab	DRO(7), DRO(7)	2123 (-NA- / 1000mlAmber), 2124 (-NA- / 1000mlAmber) (2)	HW26	01/31/2012 10:26	
HW26-P	Drinking Water/ Dan Jacobsen	Grab	DRO(7), DRO(7)	2158 (-NA- / 1000mlAmber), 2159 (-NA- / 1000mlAmber) (2)	HW26	01/31/2012 11:37	
HW35	Drinking Water/ Mike Ferrier	Grab	DRO(7), DRO(7), DRO(7), DRO(7), DRO(7), DRO(7)	2195 (-NA- / 1000mlAmber), 2196 (-NA- / 1000mlAmber), 2213 (-NA- / 1000mlAmber), 2214 (-NA- / 1000mlAmber), 2215 (-NA- / 1000mlAmber), 2216 (-NA- / 1000mlAmber) (6)	HW35	01/31/2012 11:49	
			Custody seals intact	and temperature blank	received @ 3°C	RJB 2/1/12	

Sample(s) to be used for Lab QC: HW35

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	Dal Rly	1/31/12	Fed Ex				Fed Ex		EPA R9 Lab	2/1/12	0800

00018

00012

Cooler #2

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/31/2012
CarrierName: FedEx
AirbillNo: 7931 7420 3598

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

No: 3-013112-100605-0035
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
HW13	Drinking Water/ Bryan Berna	Grab	DRO(7), DRO(7)	1162 (-NA- / 1000mlAmber), 1163 (-NA- / 1000mlAmber) (2)	HW13	01/30/2012 11:23	
HW18-P	Drinking Water/ David Johnson	Grab	DRO(7), DRO(7)	1234 (-NA- / 1000mlAmber), 1235 (-NA- / 1000mlAmber) (2)	HW18	01/30/2012 11:52	
HW20	Drinking Water/ Mike Ferrier	Grab	DRO(7), DRO(7)	1346 (-NA- / 1000mlAmber), 1347 (-NA- / 1000mlAmber) (2)	HW20	01/30/2012 16:12	
HW20-P	Drinking Water/ David Johnson	Grab	DRO(7), DRO(7)	1311 (-NA- / 1000mlAmber), 1312 (-NA- / 1000mlAmber) (2)	HW20	01/30/2012 16:29	
HW25-P	Drinking Water/ Bryan Berna	Grab	DRO(7), DRO(7) bottle 1252 Received broken	1252 (-NA- / 1000mlAmber), 1282 (-NA- / 1000mlAmber) (2)	HW25	01/30/2012 15:32	
			Custody Seal intact and temperature @ 5°C upon receipt @ lab			RJB 2/1/12	

Special Instructions:	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	[signature]	1/31/12	FedEx				FedEx		RJB EPA R9 LAB	2/1/12	0800

00019

00013

Cooler #3

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/31/2012
CarrierName: FedEx
AirbillNo: 7980 0181 7826

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

No: 3-013112-081431-0032
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
EB01	Aqueous/ Tom Sedlacek	Grab	DRO(7), DRO(7), GRO(7), GRO(7)	879 (-NA- / 1000mlAmber), 880 (-NA- / 1000mlAmber), 883 (HCl / 40mlGlassVial), 884 (HCl / 40mlGlassVial) (4)	EB01	01/28/2012 11:26	
FB06	Aqueous/ Dan Jacobsen	Grab	DRO(7), DRO(7), GRO(7), GRO(7)	1125 (-NA- / 1000mlAmber), 1126 (-NA- / 1000mlAmber), 1129 (HCl / 40mlGlassVial), 1130 (HCl / 40mlGlassVial) (4)	FB06	01/30/2012 09:30	
HW18	Drinking Water/ Mike Ferrier	Grab	DRO(7), DRO(7), GRO(7), GRO(7) 1198 Received Broken	1198 (-NA- / 1000mlAmber), 1199 (-NA- / 1000mlAmber), 1202 (HCl / 40mlGlassVial), 1203 (HCl / 40mlGlassVial) (4)	HW18	01/30/2012 11:27	
			Custody Seals Intact	and temperature blank	6°C upon receipt @ lab.		

Special Instructions:

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

Analysis Key: DRO=11-Diesel Range Organics, GRO=11-Gasoline Range Organics

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
12	[signature]	1/31/12	Fed Ex				Fed Ex		[signature] EPA R9 Lab	2/1/12	0800

00028

00014

cooler #4

USEPA CLP Generic COC (LAB COPY)

DateShipped: 1/31/2012
CarrierName: FedEx
AirbillNo: 7931 7436 1788

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-013112-123650-0045

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
EB01	Aqueous/ Tom Sedlacek	Grab	RSK-175(7), RSK-175(7)	860 (HCl / 40mlGlassVial), 861 (HCl / 40mlGlassVial) (2)	EB01	01/28/2012 11:26	
FB06	Aqueous/ Dan Jacobsen	Grab	RSK-175(7), RSK-175(7)	1106 (HCl / 40mlGlassVial), 1107 (HCl / 40mlGlassVial) (2)	FB06	01/30/2012 09:30	
HW13	Drinking Water/ Bryan Berna	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	1143 (HCl / 40mlGlassVial), 1144 (HCl / 40mlGlassVial), 1166 (HCl / 40mlGlassVial), 1167 (HCl / 40mlGlassVial) (4)	HW13	01/30/2012 11:23	
HW18	Drinking Water/ Mike Ferrier	Grab	RSK-175(7), RSK-175(7)	1179 (HCl / 40mlGlassVial), 1180 (HCl / 40mlGlassVial) (2)	HW18	01/30/2012 11:27	
HW18-P	Drinking Water/ David Johnson	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	1215 (HCl / 40mlGlassVial), 1216 (HCl / 40mlGlassVial), 1238 (HCl / 40mlGlassVial), 1239 (HCl / 40mlGlassVial) (4)	HW18	01/30/2012 11:52	
HW20	Drinking Water/ Mike Ferrier	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	1327 (HCl / 40mlGlassVial), 1328 (HCl / 40mlGlassVial), 1350 (HCl / 40mlGlassVial), 1351 (HCl / 40mlGlassVial) (4)	HW20	01/30/2012 16:12	

00021

Custody Seals intact and temp blank 3°C upon receipt @ lab. RJP 2/1/12

Special Instructions:

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

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

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
DB 1/31/12 16 18	[illegible]	1/31/12	— FedEx		—		FedEx		[illegible] EPA R9 Lab	2/1/12	0800

00015

Cooler #4

USEPA CLP Generic COC (LAB COPY)
DateShipped: 1/31/2012
CarrierName: FedEx
AirbillNo: 7931 7436 1788

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-013112-123650-0045
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
HW20-P	Drinking Water/ David Johnson	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	1292 (HCl / 40mlGlassVial), 1293 (HCl / 40mlGlassVial), 1315 (HCl / 40mlGlassVial), 1316 (HCl / 40mlGlassVial) (4)	HW20	01/30/2012 16:29	
HW25-P	Drinking Water/ Bryan Bama	Grab	GRO(7), GRO(7), RSK-175(7), RSK-175(7)	1253 (HCl / 40mlGlassVial), 1254 (HCl / 40mlGlassVial), 1256 (HCl / 40mlGlassVial), 1257 (HCl / 40mlGlassVial) (4)	HW25	01/30/2012 15:32	
TB08	Aqueous/ Tom Sedlacek	Grab	RSK-175(7), RSK-175(7)	2087 (HCl / 40mlGlassVial), 2088 (HCl / 40mlGlassVial) (2)	TB08	01/28/2012 14:22	
TB09	Aqueous/ Kim Whitlock	Grab	RSK-175(7), RSK-175(7)	2093 (HCl / 40mlGlassVial), 2094 (HCl / 40mlGlassVial) (2)	TB09	01/30/2012 07:15	
			Custody seals intact	and temp blank 3°C	upon receipt	@ lab.	
							RM 2/1/12

00022

Special Instructions:	Shipment for Case Complete? N Samples Transferred From Chain of Custody #
Analysis Key: RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, GRO=11-Gasoline Range Organics	

Items/Reason	Relinquished by	Date	Received by	Date	Time	Items/Reason	Relinquished By	Date	Received by	Date	Time
12	[illegible]	1/31/12	Fed Ex				FedEx		[illegible] EPA Rg Lab	2/1/12	0800

00015

00023

Sample Preparation

:00017

DIM0277243 DIM0277268

PREPARATION BENCH SHEET

B2B0005

EPA Region 9 Laboratory **Printed: 2/1/2012 11:31:53AM**

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
1202001-01 A	HW26	02/01/12 10:20	1020.72	3				500	SUL	7	1524.9	504.18	
1202001-02 A	HW26-P	02/01/12 10:20	1001.48	3				500	SUL	7	1505.59	504.11	
1202001-03 A	HW35	02/01/12 10:20	1044.72	3				500	SUL	6	1547.84	503.12	Pale tan color, slightly cloudy
1202001-04 B	HW13	02/01/12 10:20	1043.9	3				500	SUL	7	1547.02	503.12	Pale tan color, slightly cloudy
1202001-05 A	HW18-P	02/01/12 10:20	1023.38	3				500	SUL	7	1525.79	502.41	
1202001-06 B	HW20	02/01/12 10:20	1043.4	3				500	SUL	7	1546.68	503.28	
1202001-07 A	HW20-P	02/01/12 10:20	1046.44	3				500	SUL	7	1550.2	503.76	
1202001-08 B	HW25-P	02/01/12 10:20	1046.23	3				500	SUL	7	1548.56	502.33	
1202001-09 A	EB01	02/01/12 10:20	1048.02	3				500	SUL	5	1552.91	504.89	
1202001-10 B	FB06	02/01/12 10:20	1001.42	3				500	SUL	5	1503.42	502	
1202001-11 B	HW18	02/01/12 10:20	1051.38	3				500	SUL	6	1554.34	502.96	
B2B0005-BLK1	Blank	02/01/12 10:20	1000	3			0	500	SUL		1624	624	pH 5
B2B0005-BS1	LCS	02/01/12 10:20	1000	3	1H09011		500	500	SUL		1624	624	pH 5
B2B0005-MS1	Matrix Spike	02/01/12 10:20	1048.29	3	1H09011	1202001-03	500	500	SUL		1552.61	504.32	pH 6. Pale tan color, slightly cloudy

00024

00018

TD 02-02-12

Preparation Reviewed By Date

PREPARATION BENCH SHEET

B2B0005

EPA Region 9 Laboratory

Printed: 2/1/2012 11:31:53AM

Project: -

Matrix: Water **Analysis:QC** **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
B2B0005-MSD1	Matrix Spike Dup	02/01/12 10:20	1041.52	3	1H09011	1202001-03	500	500	SUL		1545.97	504.45	pH 6. Pale tan color, slightly cloudy

Spike witnessed by LL 2/01/12

Dimock TPH, SDG 12032A. All samples adjusted to pH <2. Glasswool rinsed 10/14/11.

Reagents

Reagent #	Description
1D15018	Sulfuric Acid 1:1
1J04003	Sodium Sulfate/K19623
2A13011	Dichloromethane/LN:DE934

00025

Start 1305 2/1/12
Stop 0705 2/2/12

00019

TD 02-02-12
Preparation Reviewed By Date

00026

INITIAL CALIBRATION

: 00020

DIM0277272

DIM0277243

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: Rel Time | Name | Index | Find Compound

Compound Database
External Standard Compoun
Diesel (TPH)
DIL
Surrogate

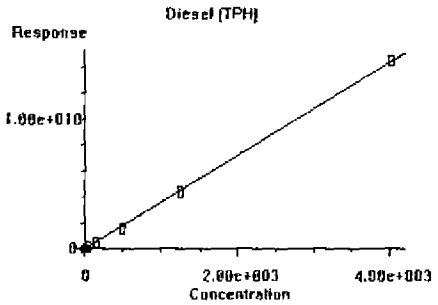
Identification | Calibration | User-Defined | Advanced | Reporting

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

Signals to Be Used for Quantitation
Rel 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	200314592.35506
150	150.000000	544460939.14416
500	500.000000	1581624107.1356
1250	1250.000000	4407640392.9969
4000	4000.000000	14468099897.07
DIL1		
DIL2		
DIL3		
DIL4		
DIL5		

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 Guard
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

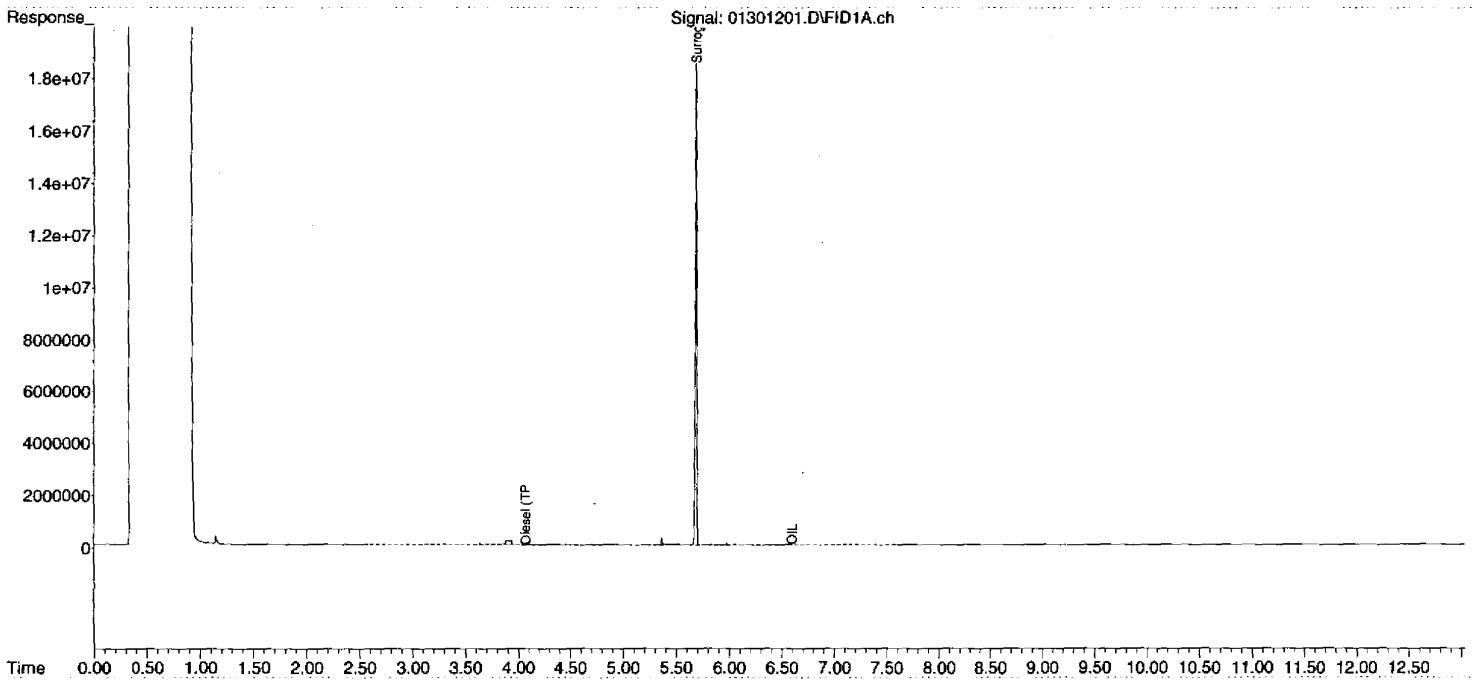
(f)=RT Delta > 1/2 Window (m)=manual int.

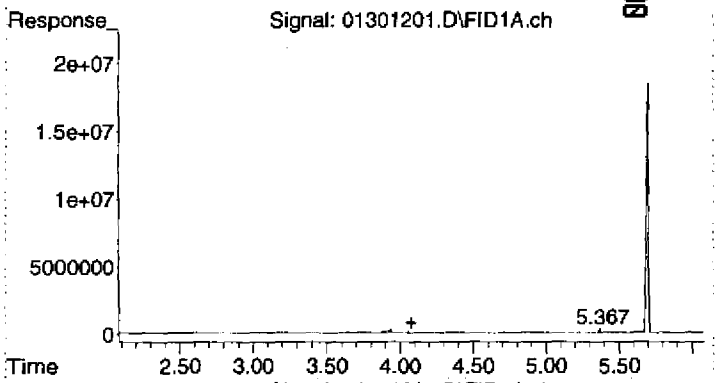
Quantitation Report (Not Reviewed)

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

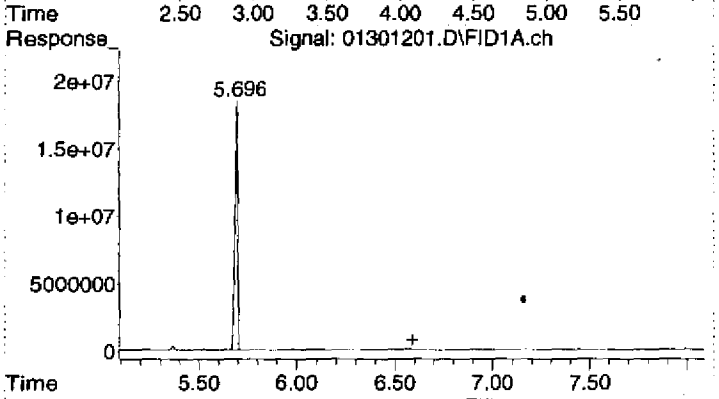
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





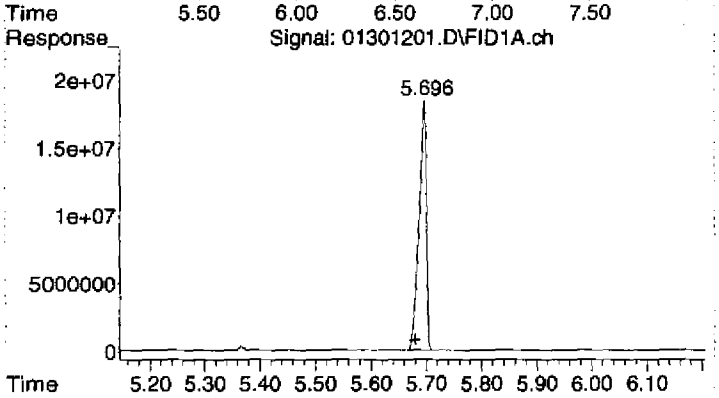
#1 Diesel (TPH)

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

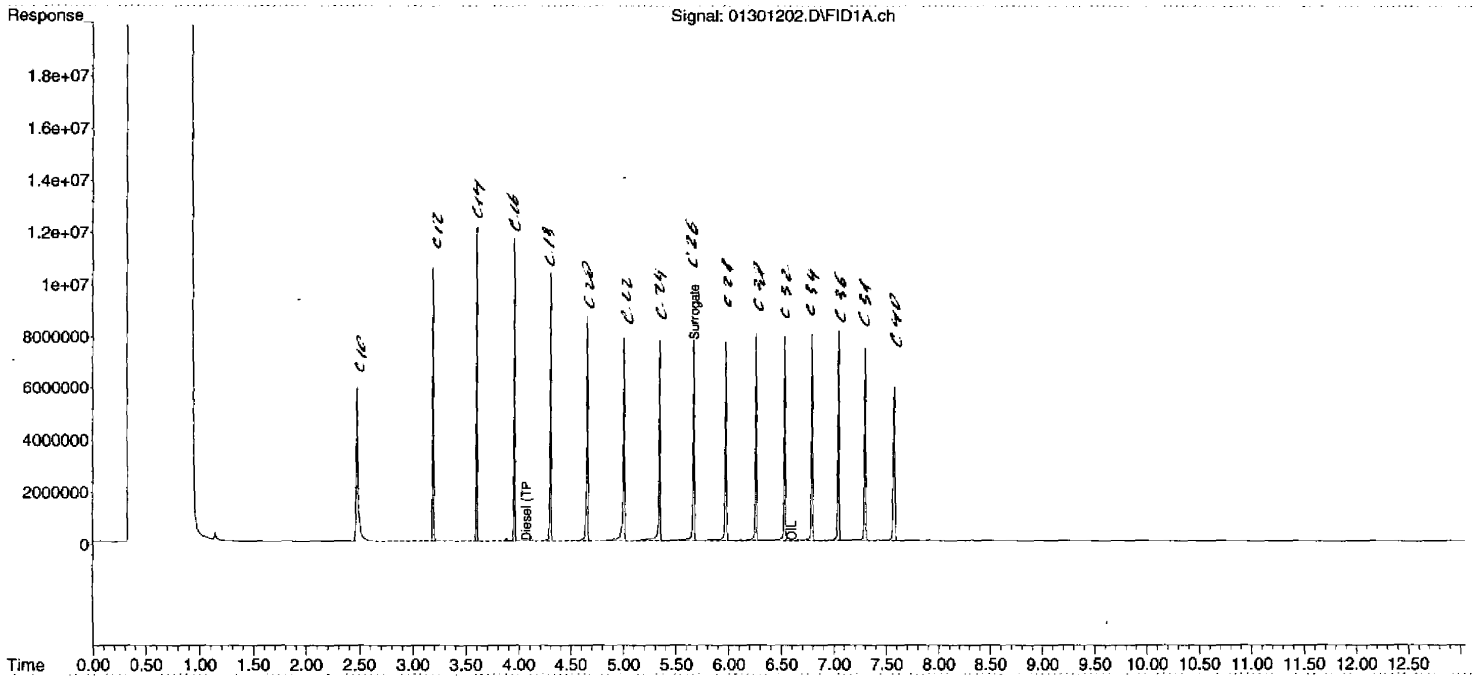
(f)=RT Delta > 1/2 Window (m)=manual int.

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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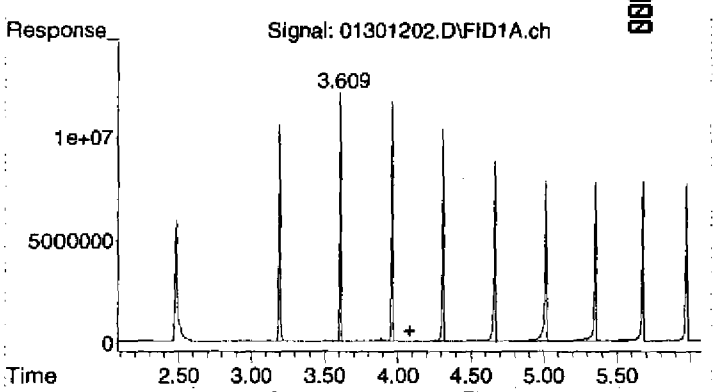
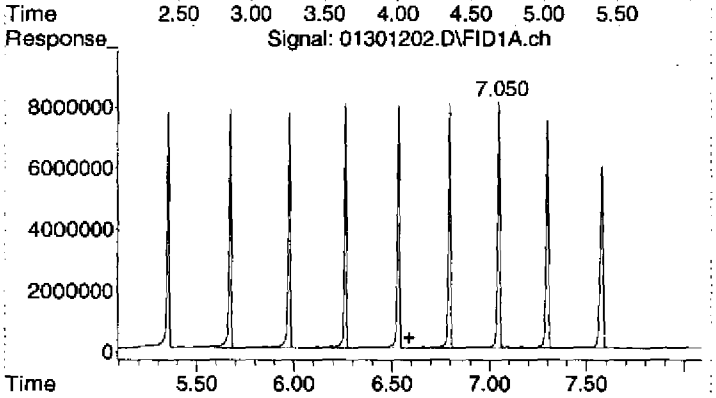
DIM0277281

DIM0277243



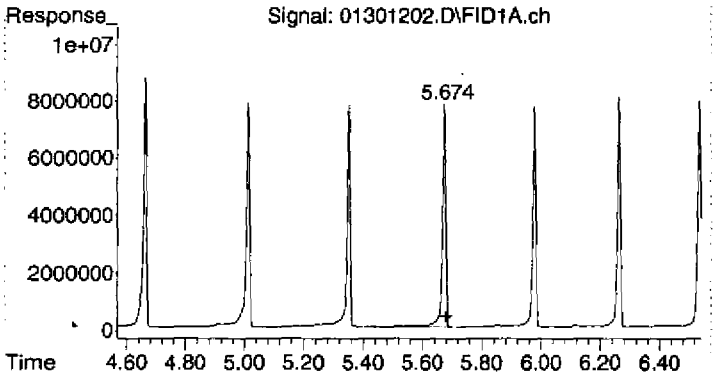
#1 Diesel (TPH)

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

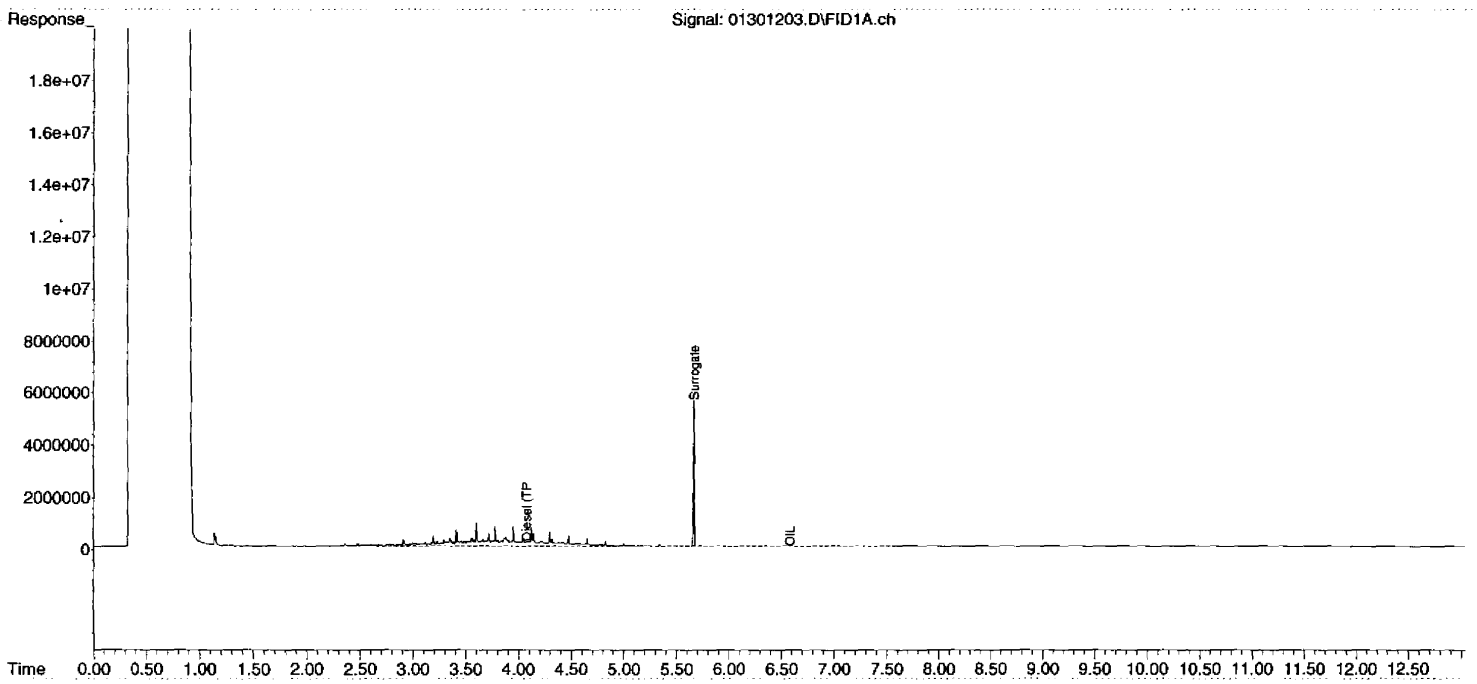
(f)=RT Delta > 1/2 Window (m)=manual int.

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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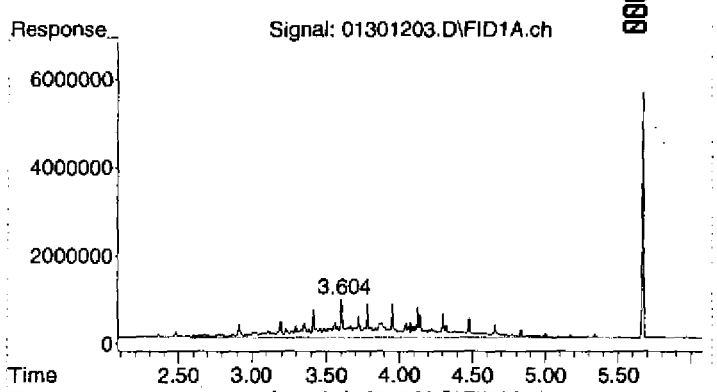
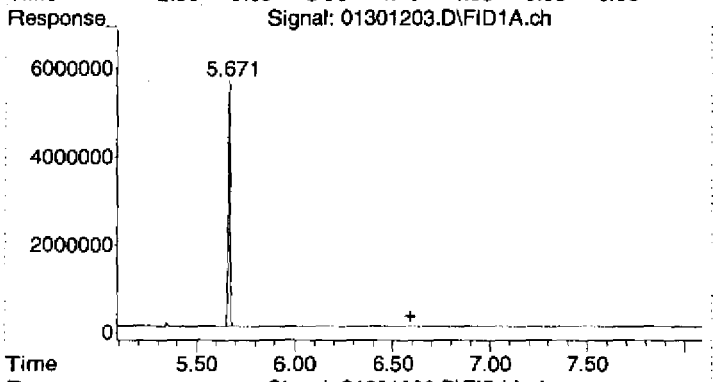
DIM0277284

DIM0277243



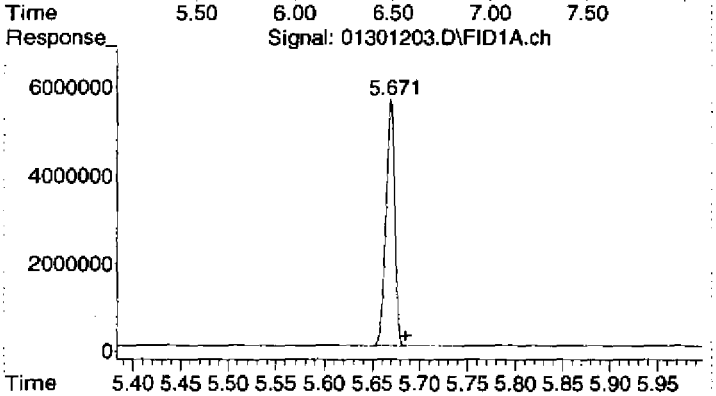
#1 Diesel (TPH)

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

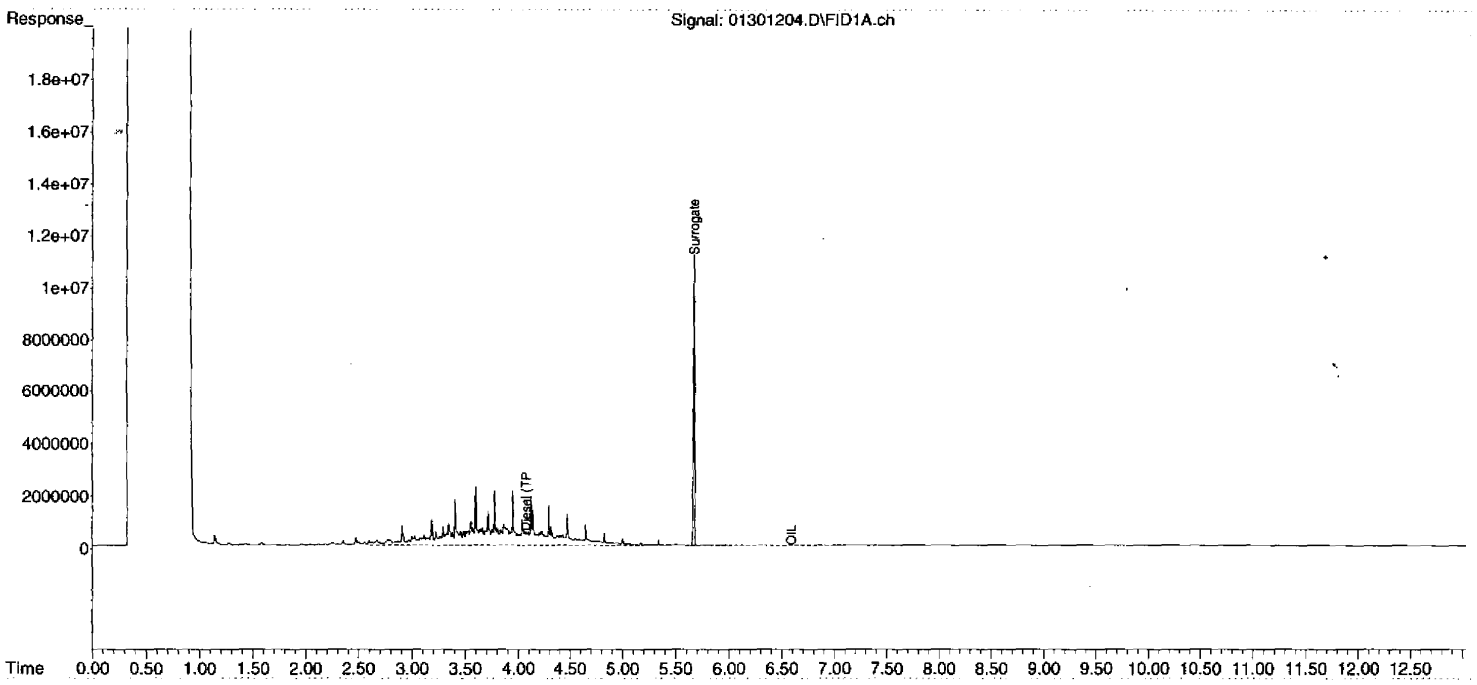
(f)=RT Delta > 1/2 Window (m)=manual int.

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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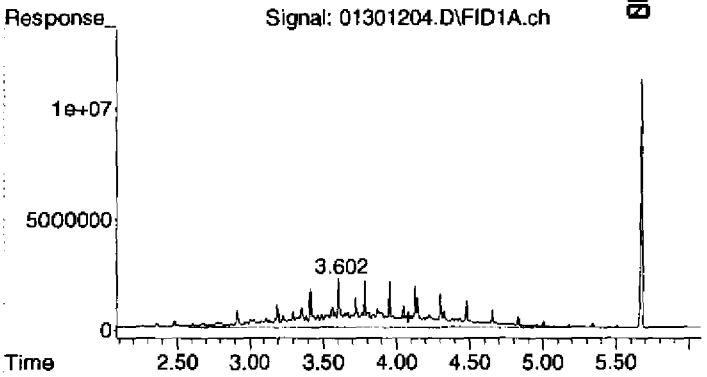
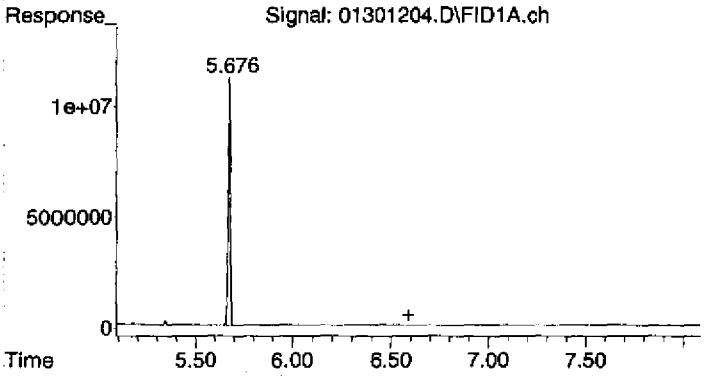
DIM0277287

DIM0277243



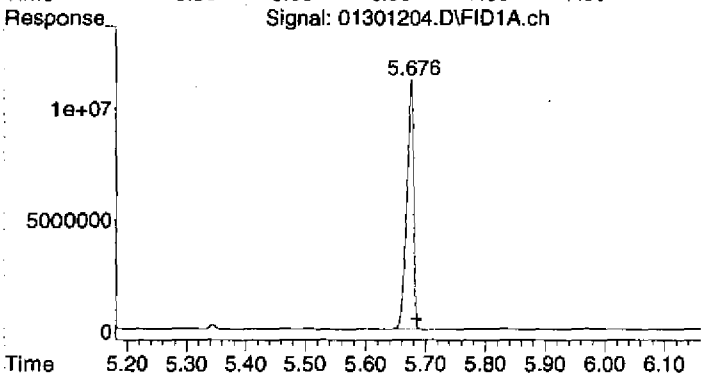
#1 Diesel (TPH)

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

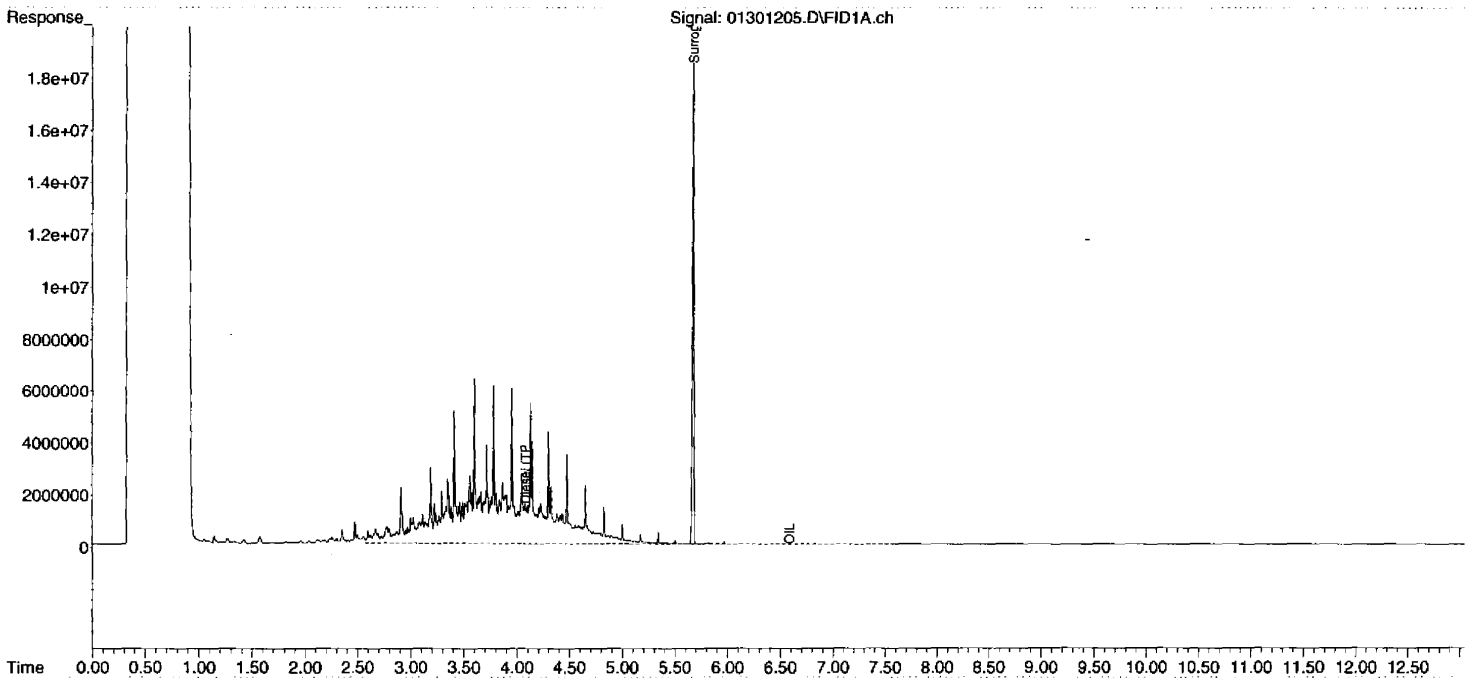
(f)=RT Delta > 1/2 Window (m)=manual int.

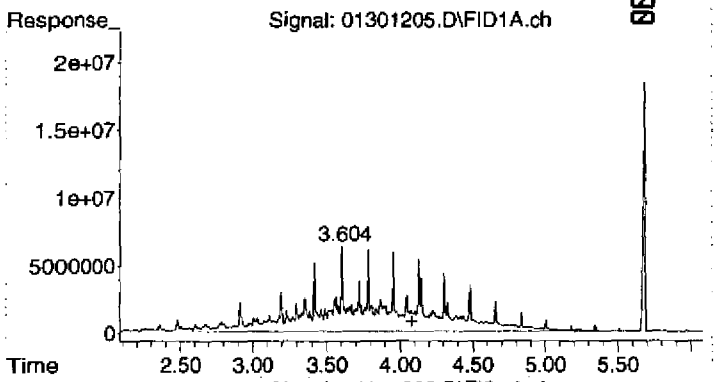
Quantitation Report (Not Reviewed)

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

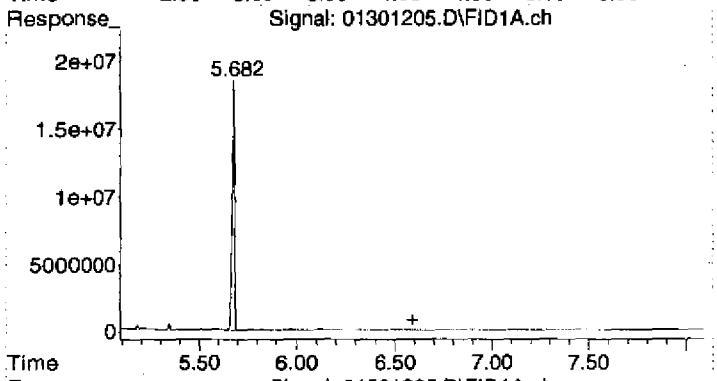
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





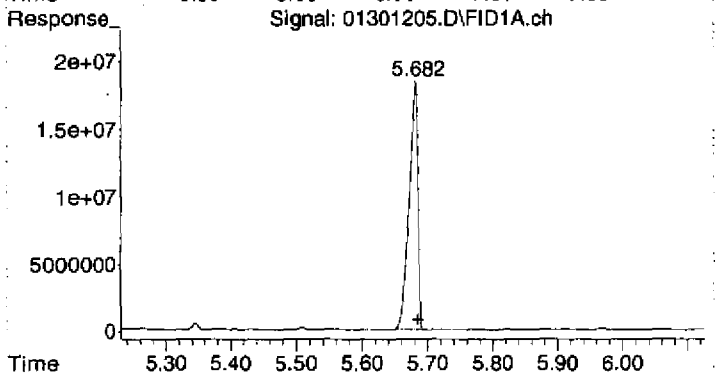
#1 Diesel (TPH)

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

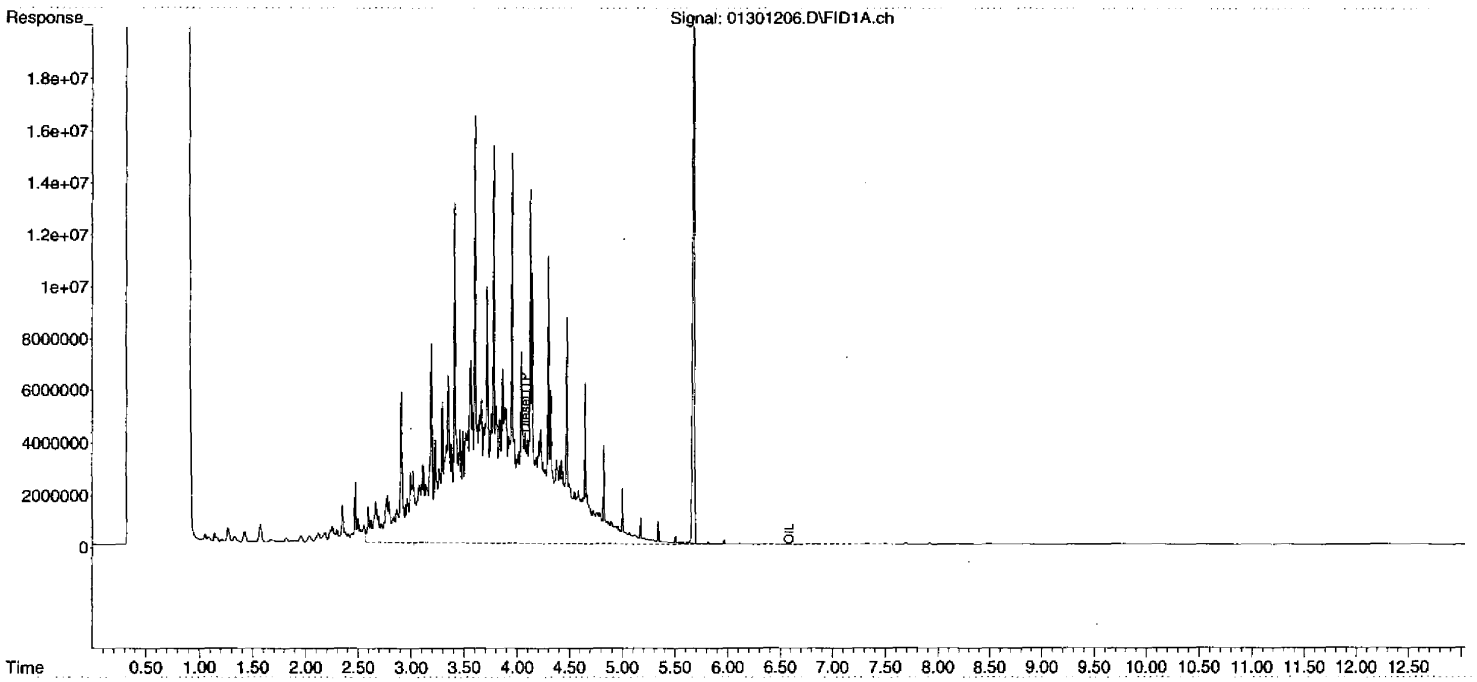
(f)=RT Delta > 1/2 Window (m)=manual int.

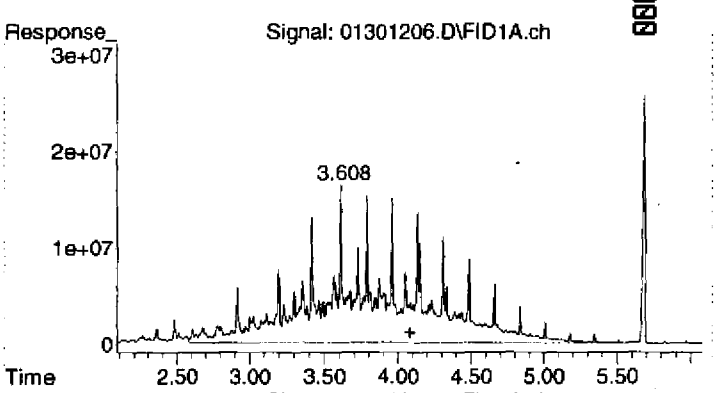
Quantitation Report (Not Reviewed)

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

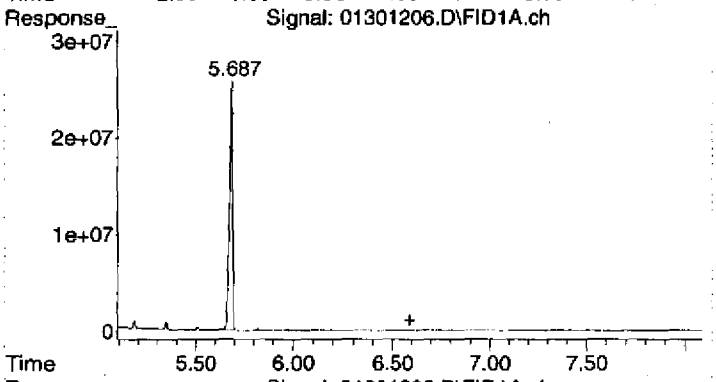
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





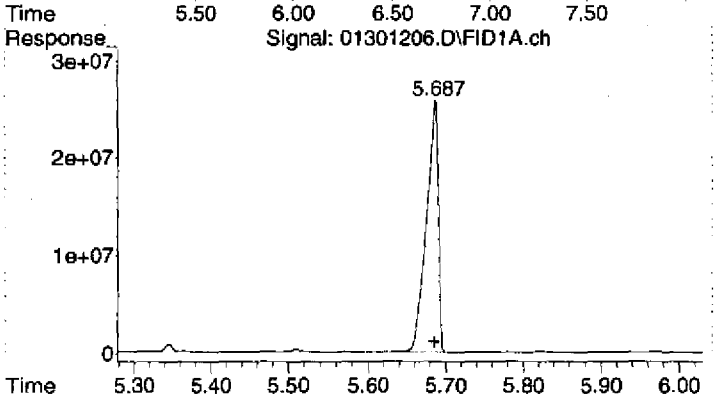
#1 Diesel (TPH)

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

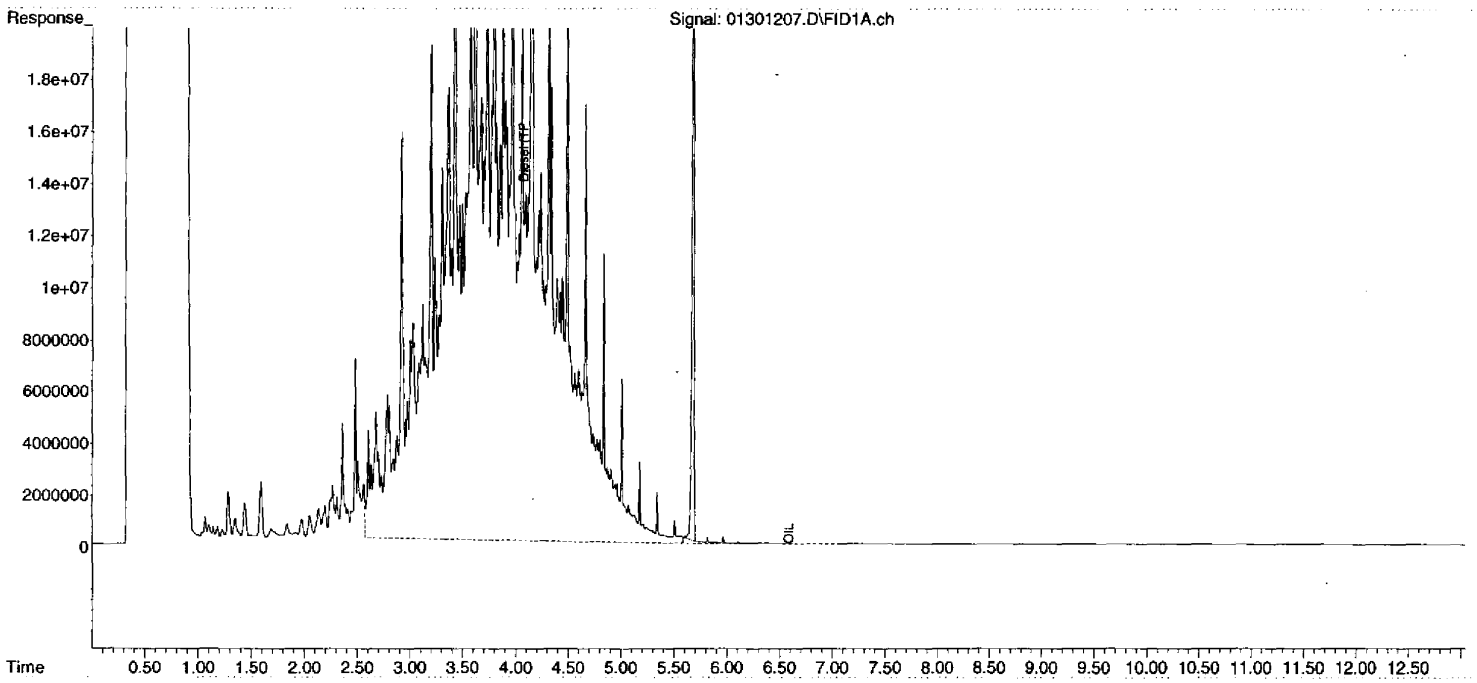
(f)=RT Delta > 1/2 Window (m)=manual int.

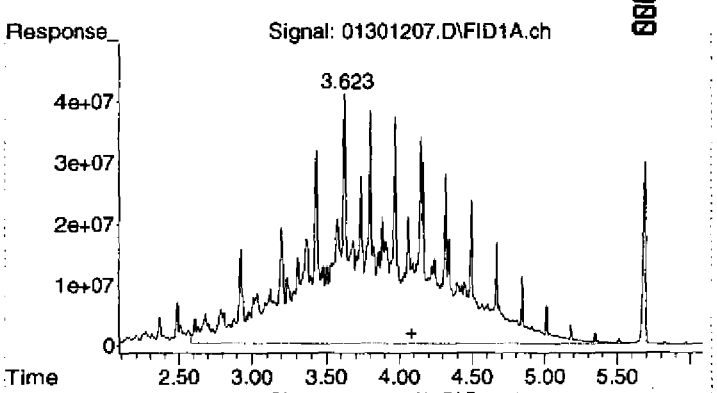
Quantitation Report (Not Reviewed)

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

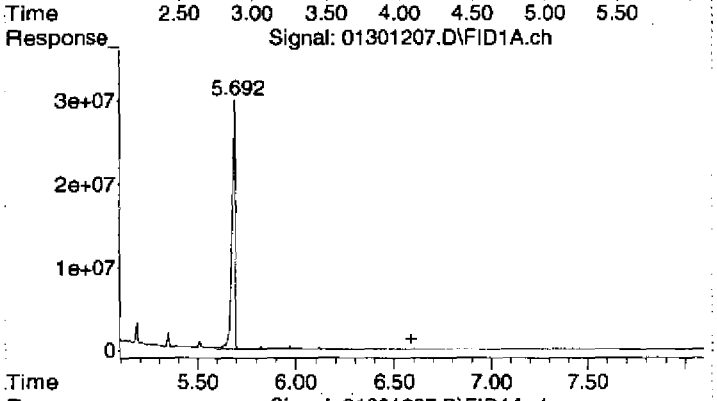
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





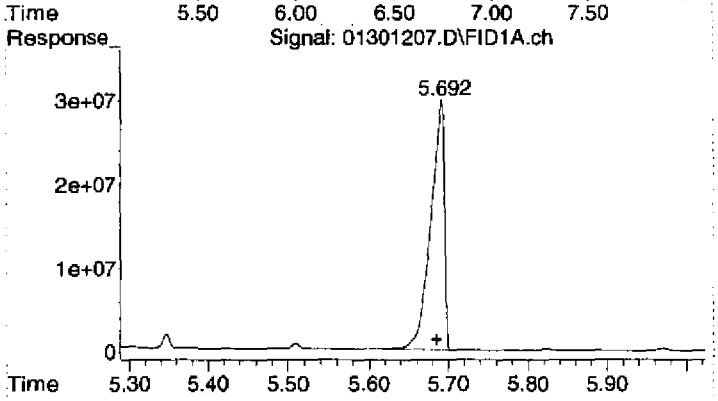
#1 Diesel (TPH)

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.

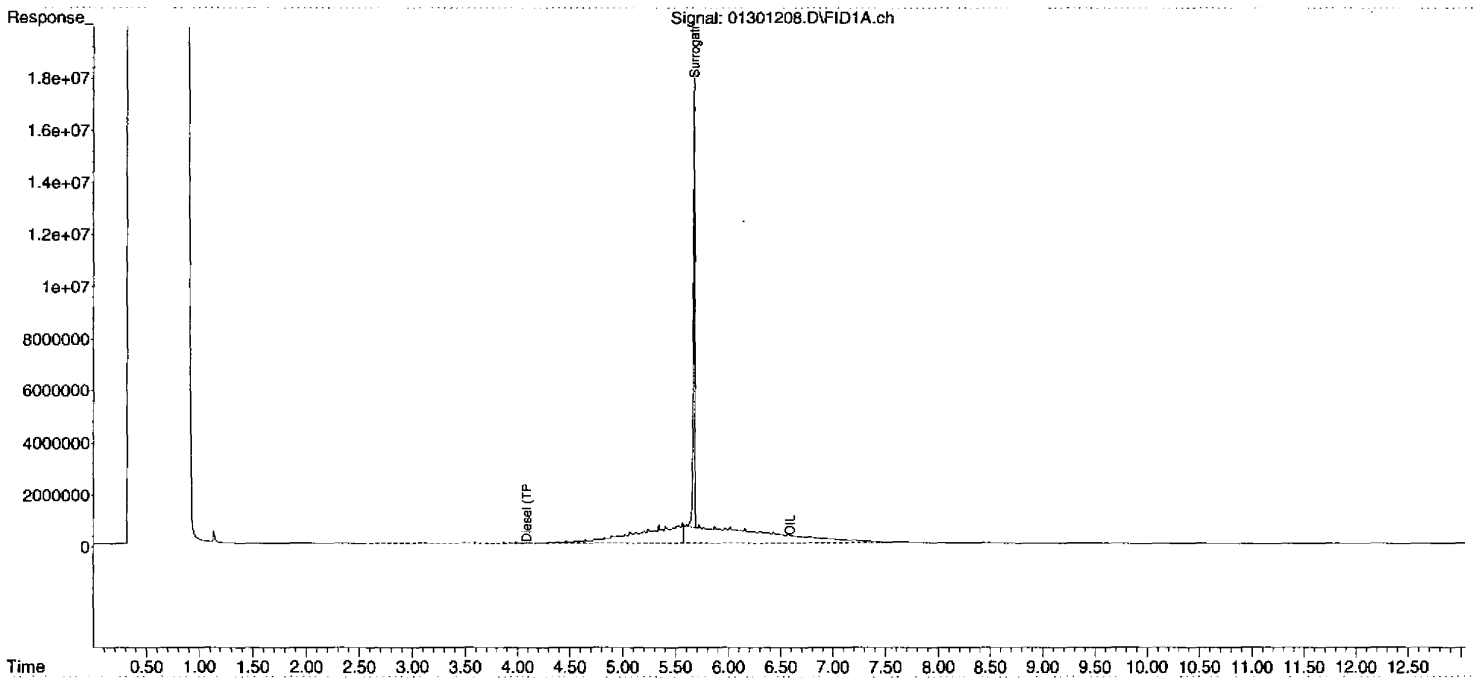
MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: TD	Date: 01-31-12
Manual integration(s) reviewed by:	
Reviewer: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

Quantitation Report (QT Reviewed)

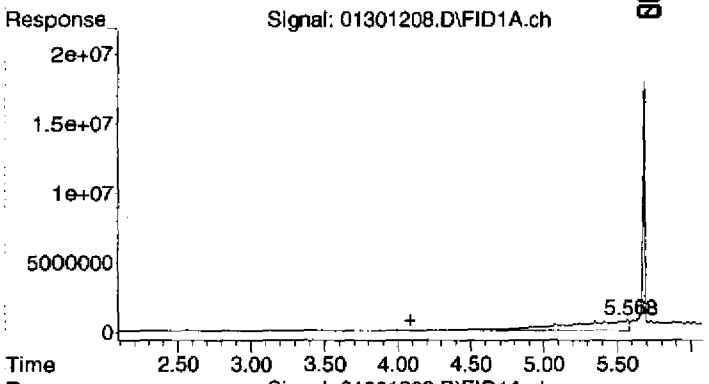
Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301208.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 2:06 pm
Operator : TD
Sample : 2010046-CAL6
Misc : 2A11004 OIL-A
ALS Vial : 8 Sample Multiplier: 1

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

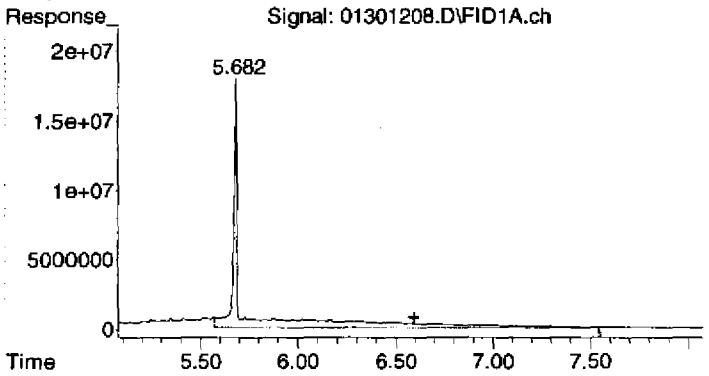


00053
000047
DIM0277243
DIM0277299



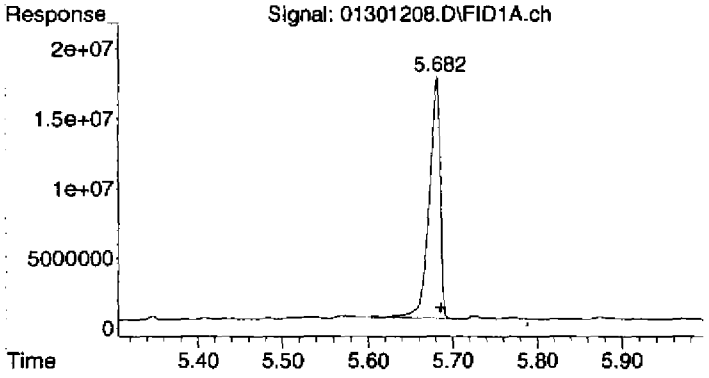
#1 Diesel (TPH)

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

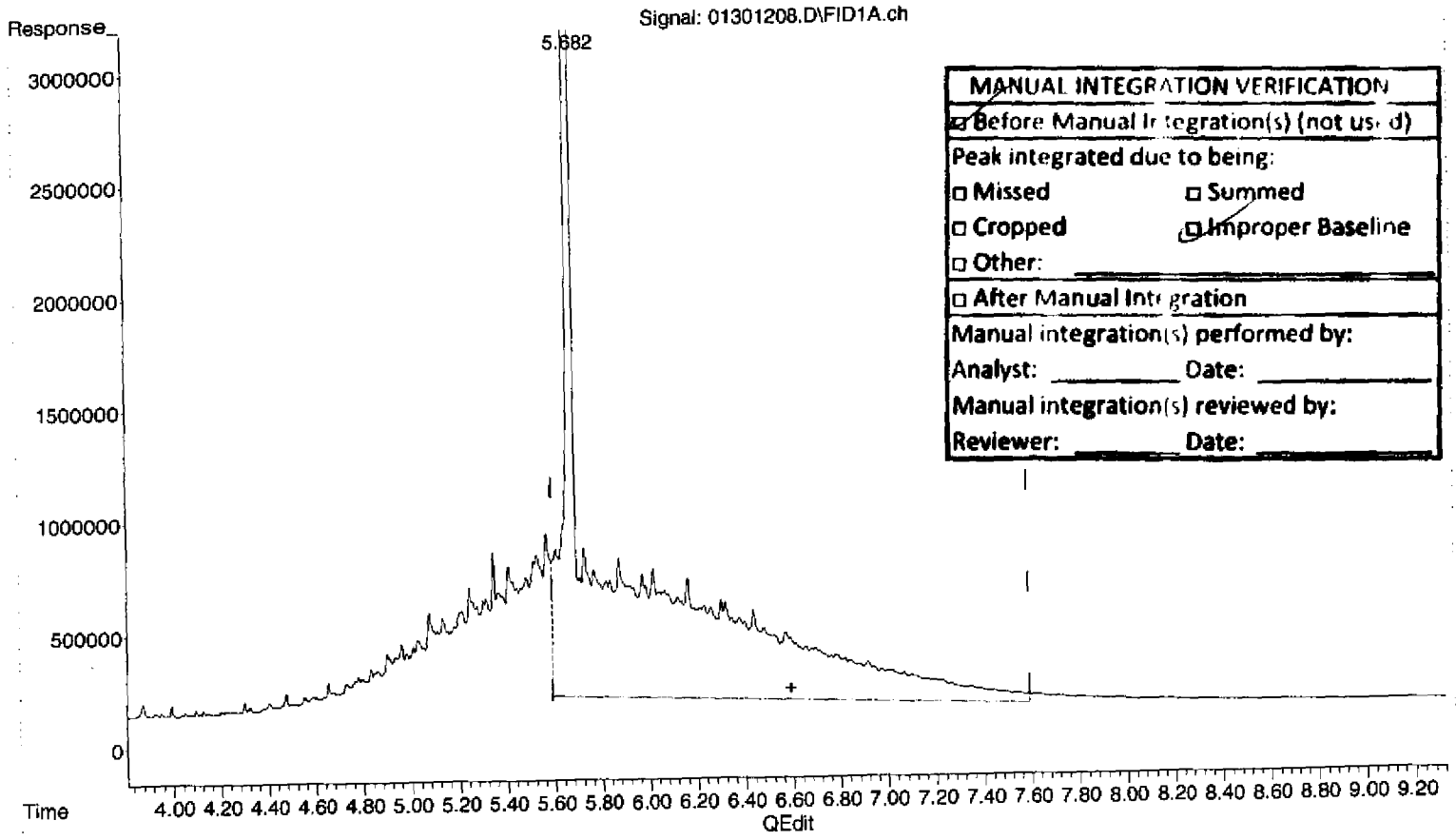
R.T.: 5.680 min
Delta R.T.: -0.005 min
Response: 157568506
Conc: 39.18 ug/mL

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 : 2AI1004 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 201.886 ug/mL

response 334427629

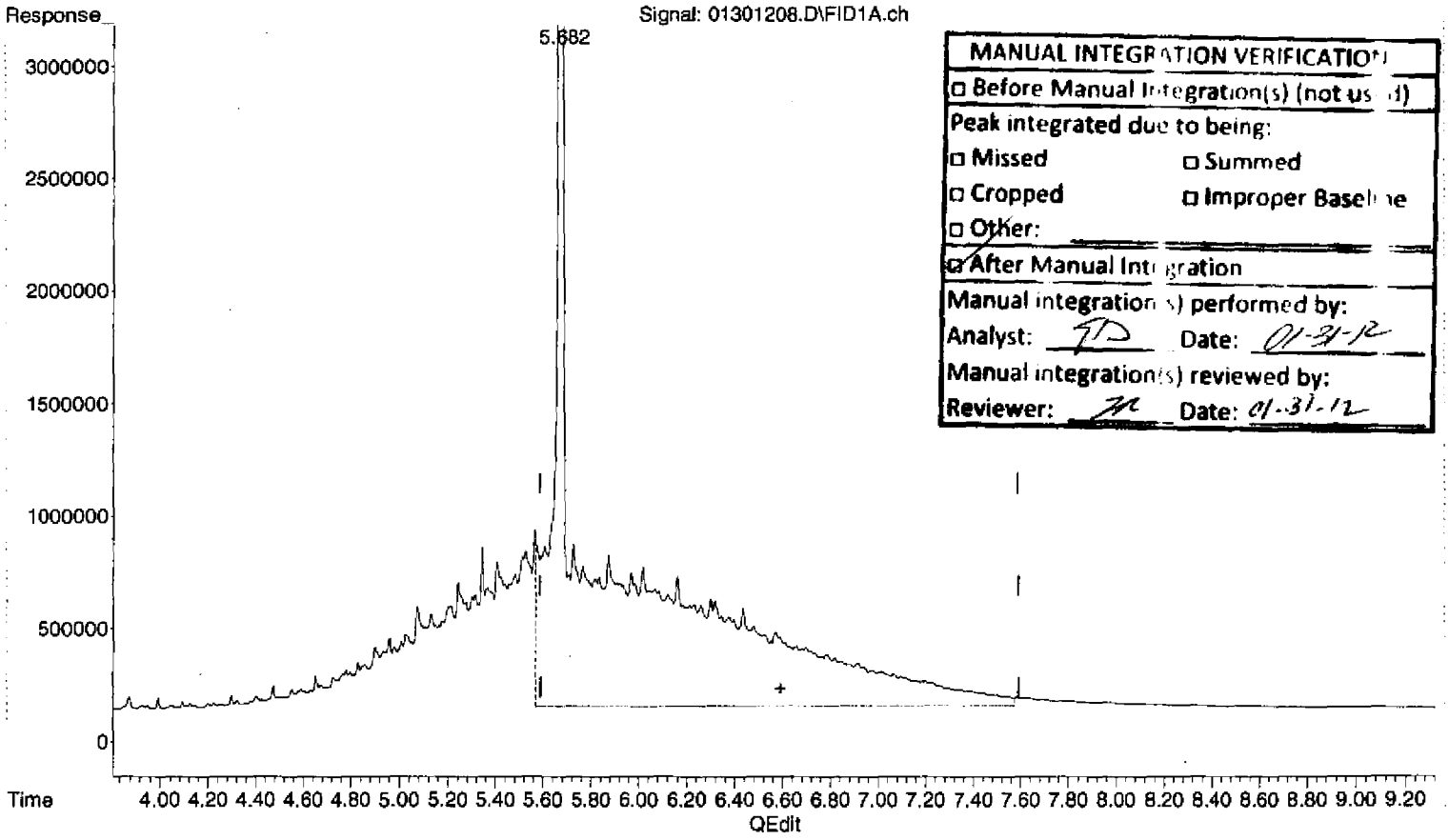
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:40:42 2012

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.

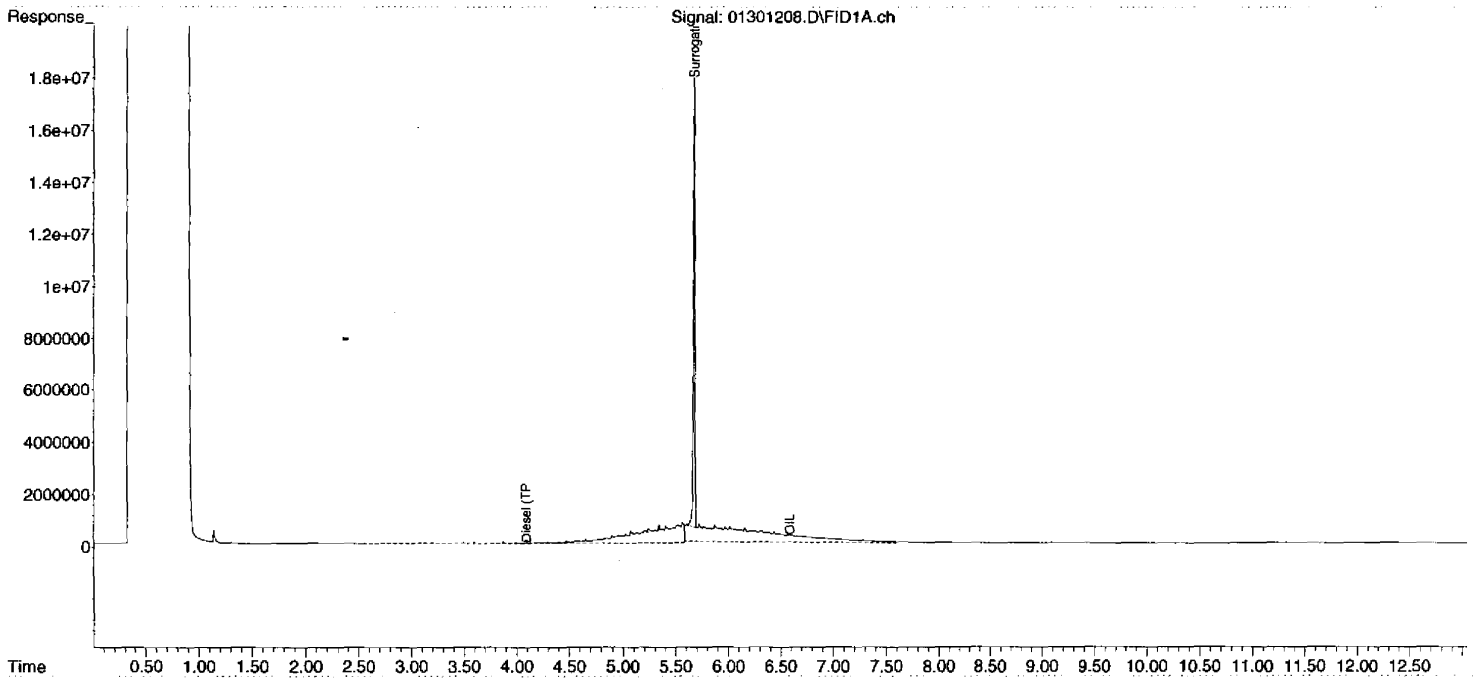
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration (not used)
Peak integrated due to being
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____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

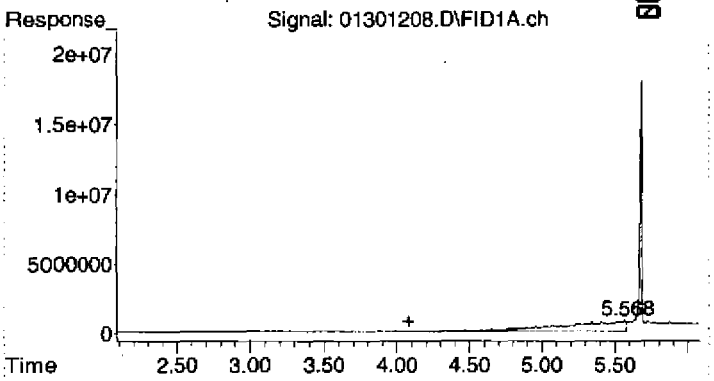
Quantitation Report (Not Reviewed)

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

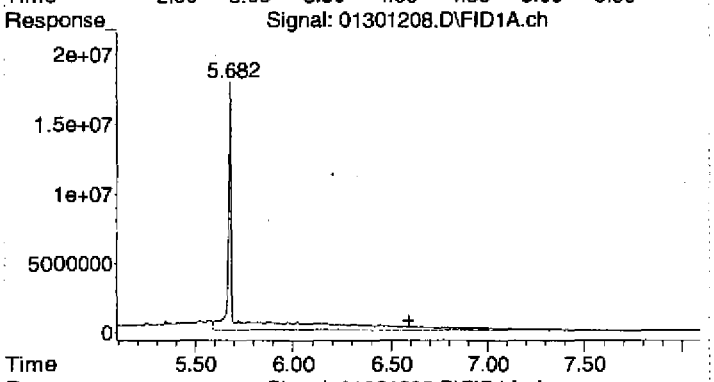
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





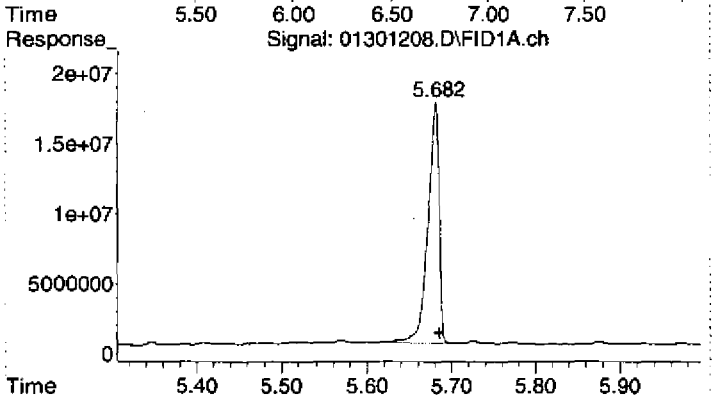
#1 Diesel (TPH)

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.

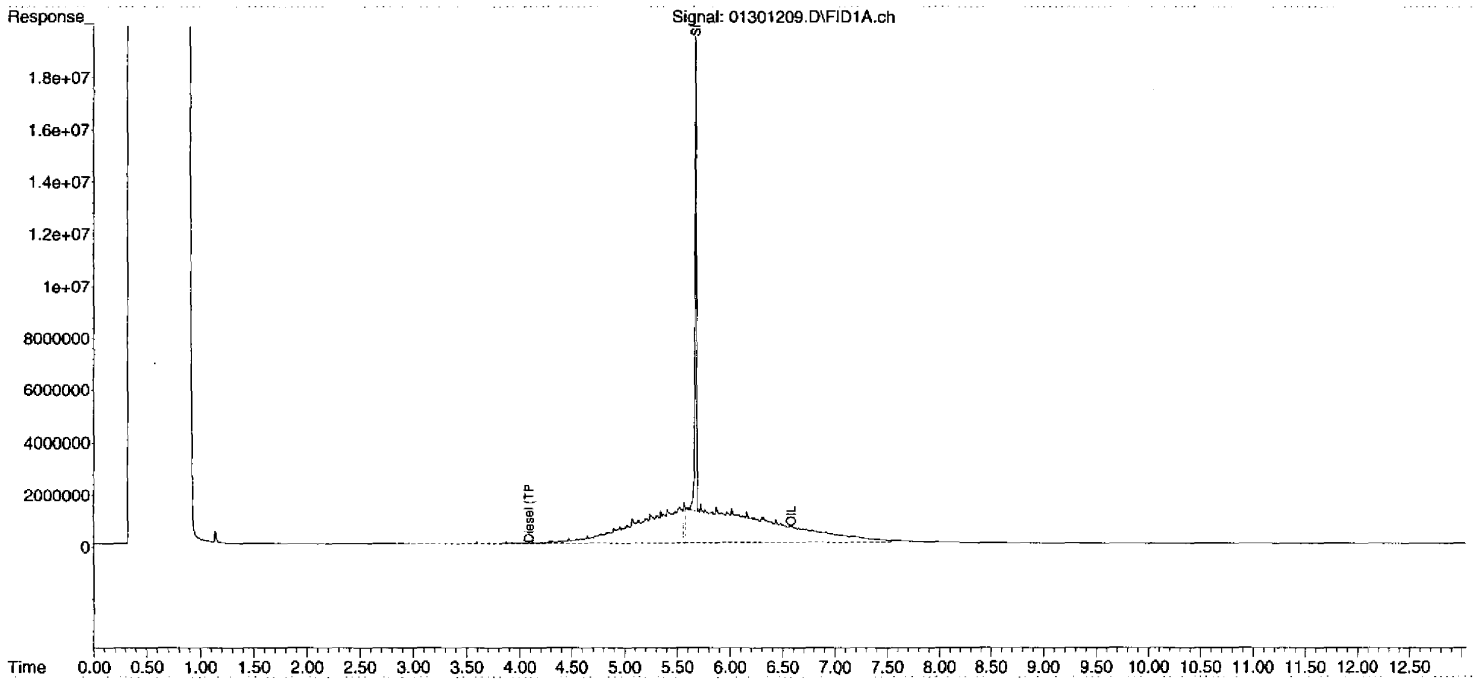
MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 01-31-12
Manual integration(s) reviewed by
Reviewer: [signature]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

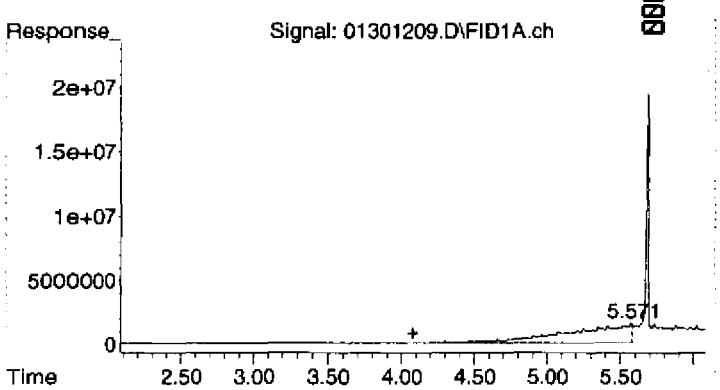
Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:41:24 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

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



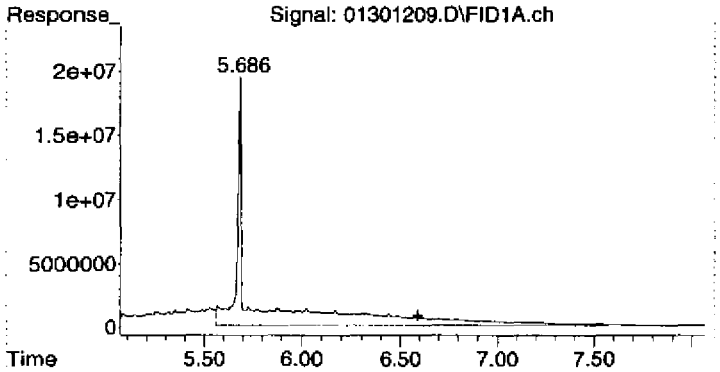
00061

00055



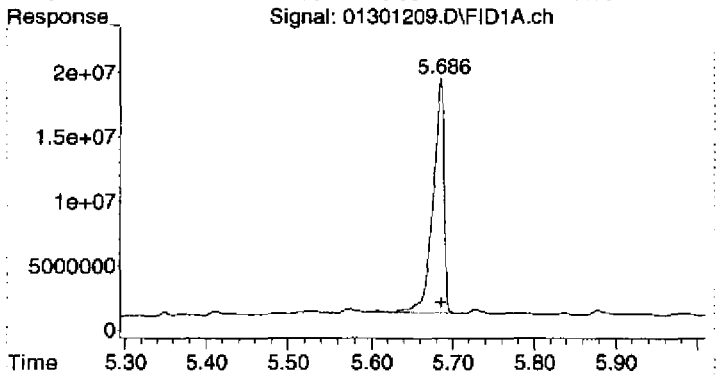
#1 Diesel (TPH)

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

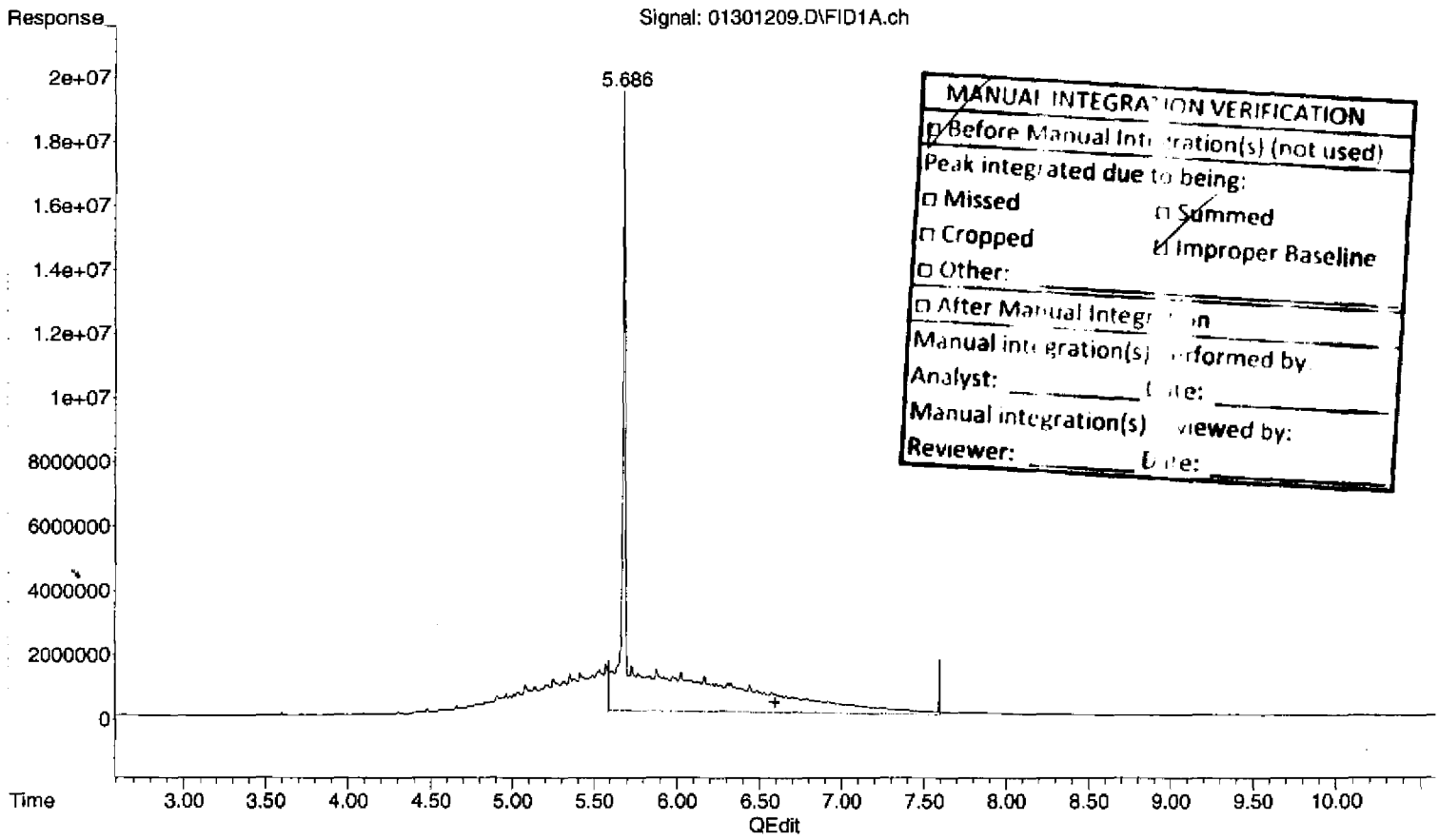
R.T.: 5.684 min
Delta R.T.: -0.002 min
Response: 172490443
Conc: 42.89 ug/mL

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

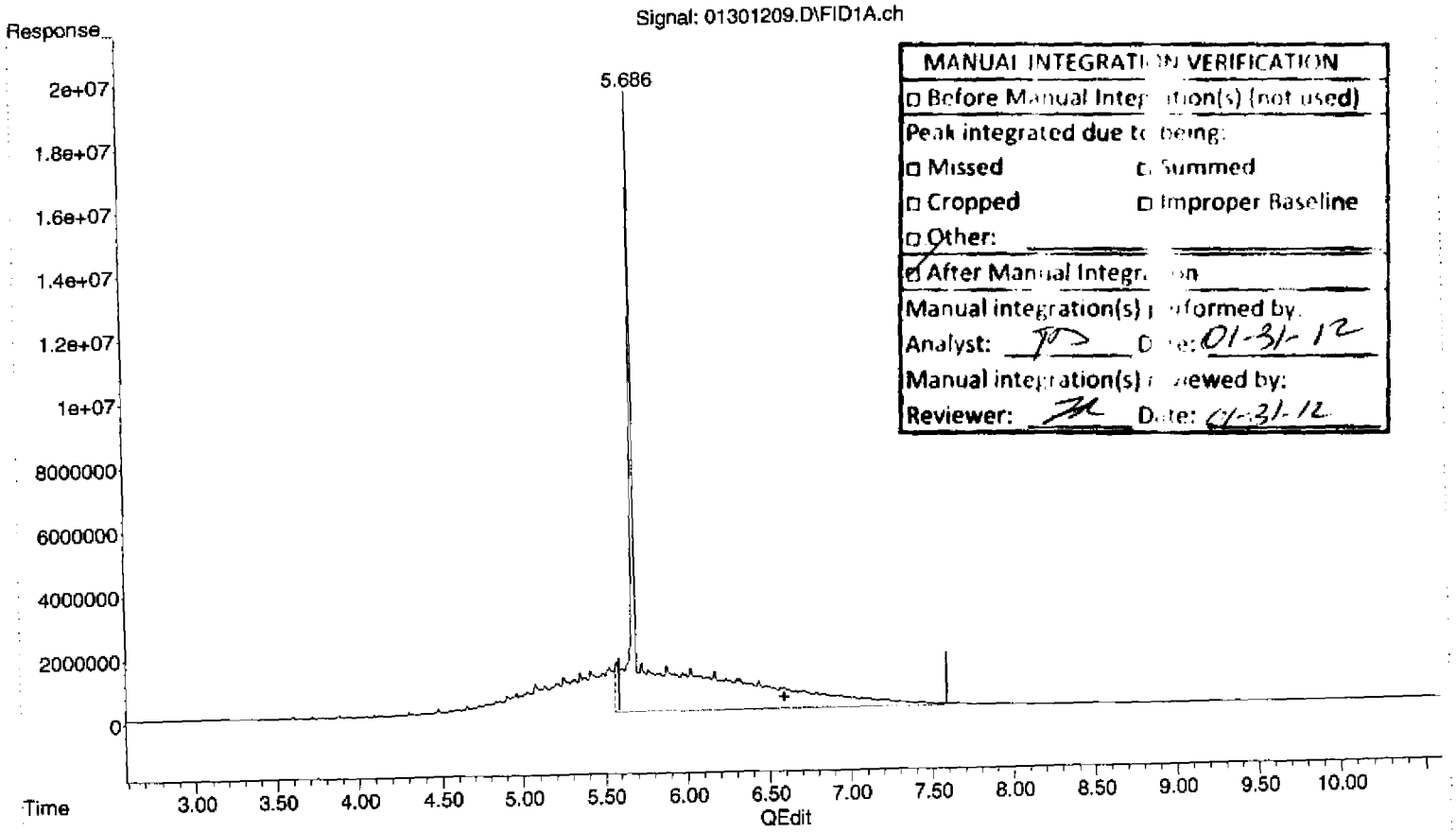
Quantitation Report (Qedit)

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

Signal: 01301209.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: TD Date: 01-31-12
Manual integration(s) reviewed by:
Reviewer: TK 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.

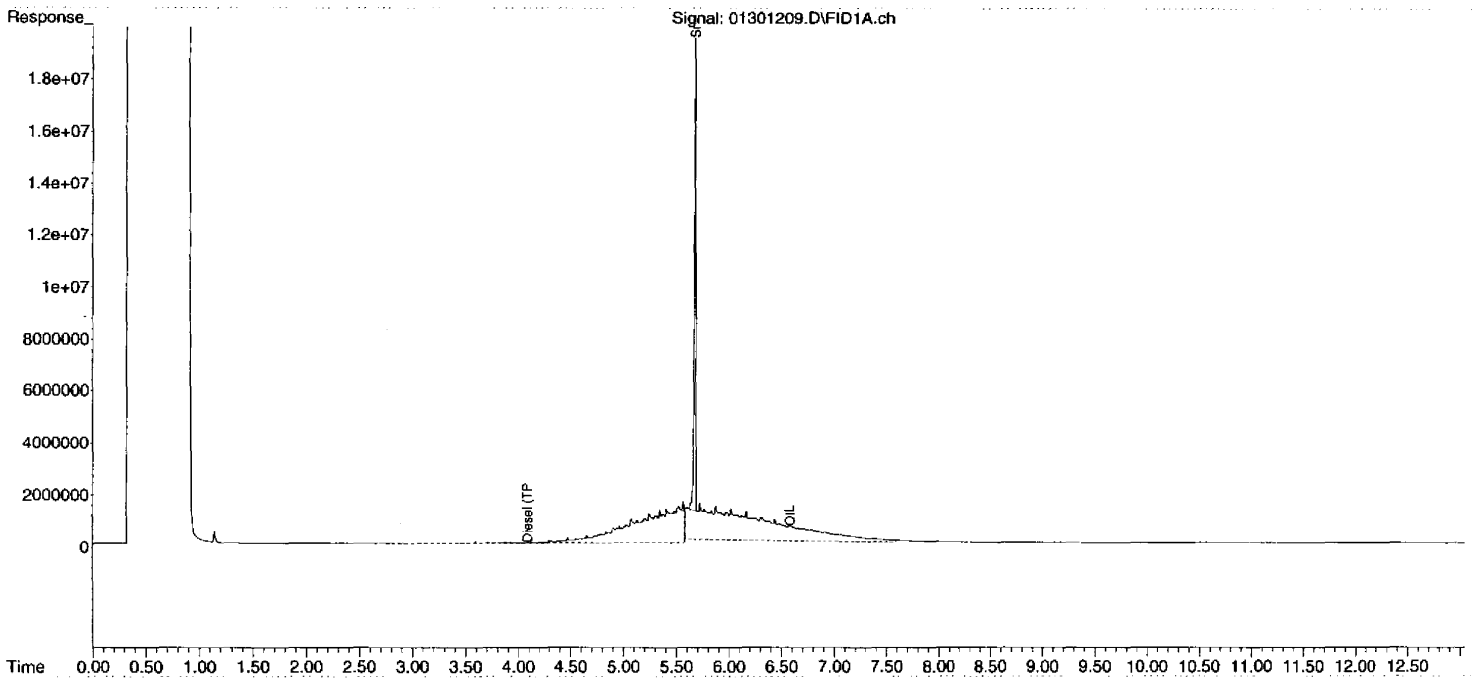
MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☐ After Manual Integration	
Manual integration(s) performed by:	
Analyst: _____	Date: _____
Manual integration(s) reviewed by:	
Reviewer: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

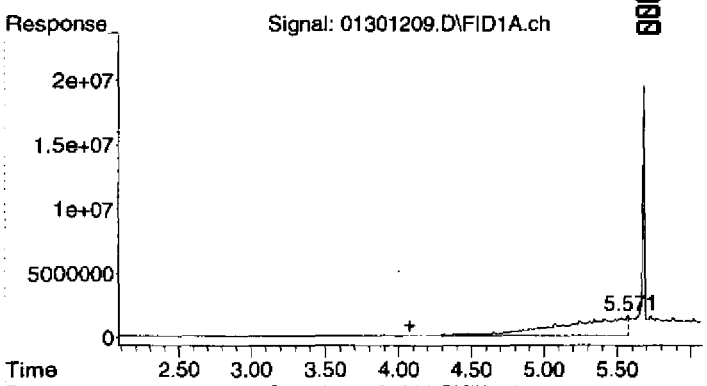
Quantitation Report (Not Reviewed)

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

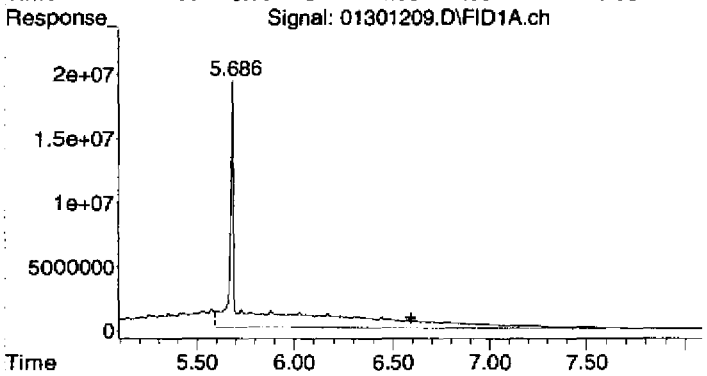
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





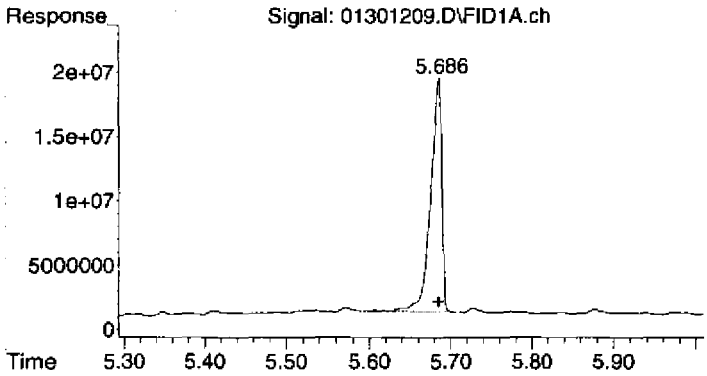
#1 Diesel (TPH)

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.

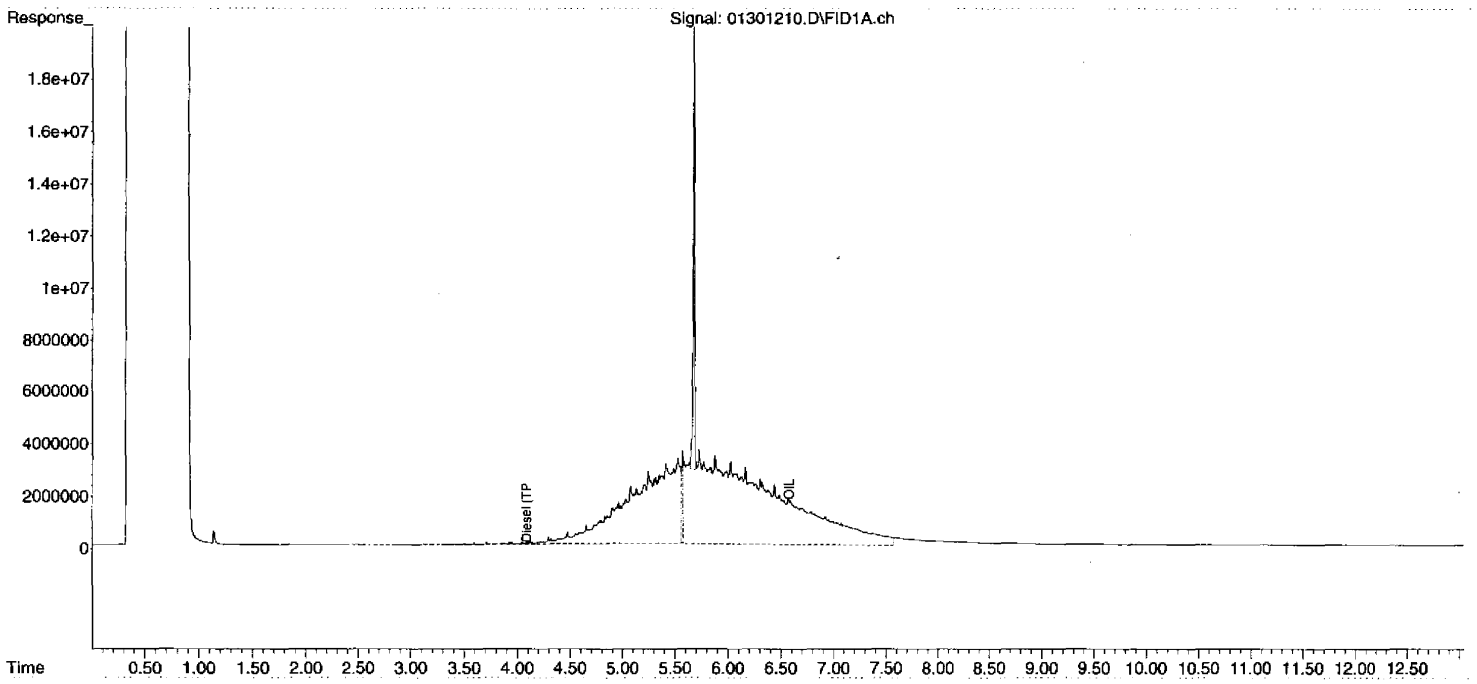
MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: TD	Date: 01-31-12
Manual integration(s) reviewed by:	
Reviewer: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

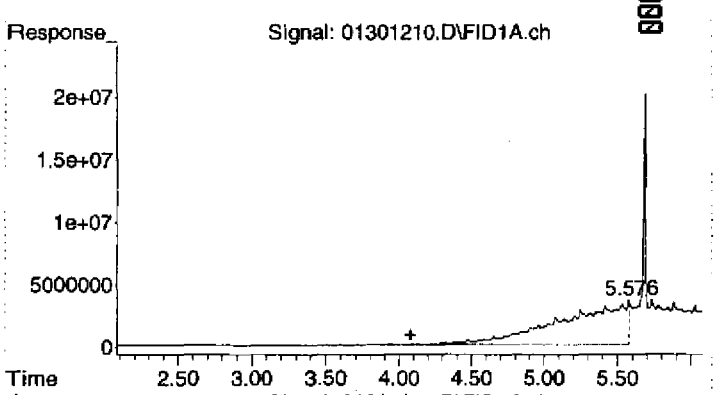
Quantitation Report (QT Reviewed)

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

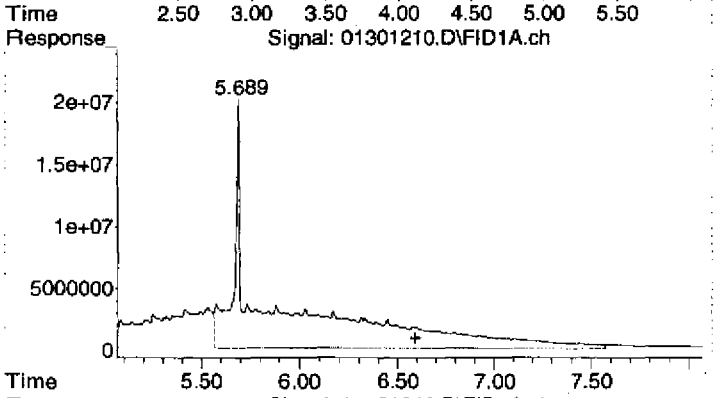
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





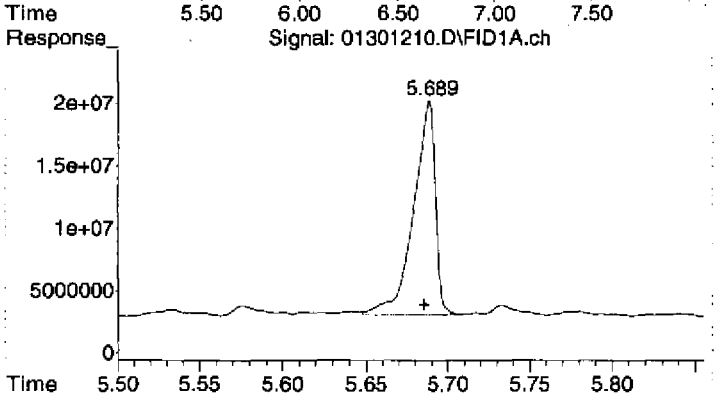
#1 Diesel (TPH)

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

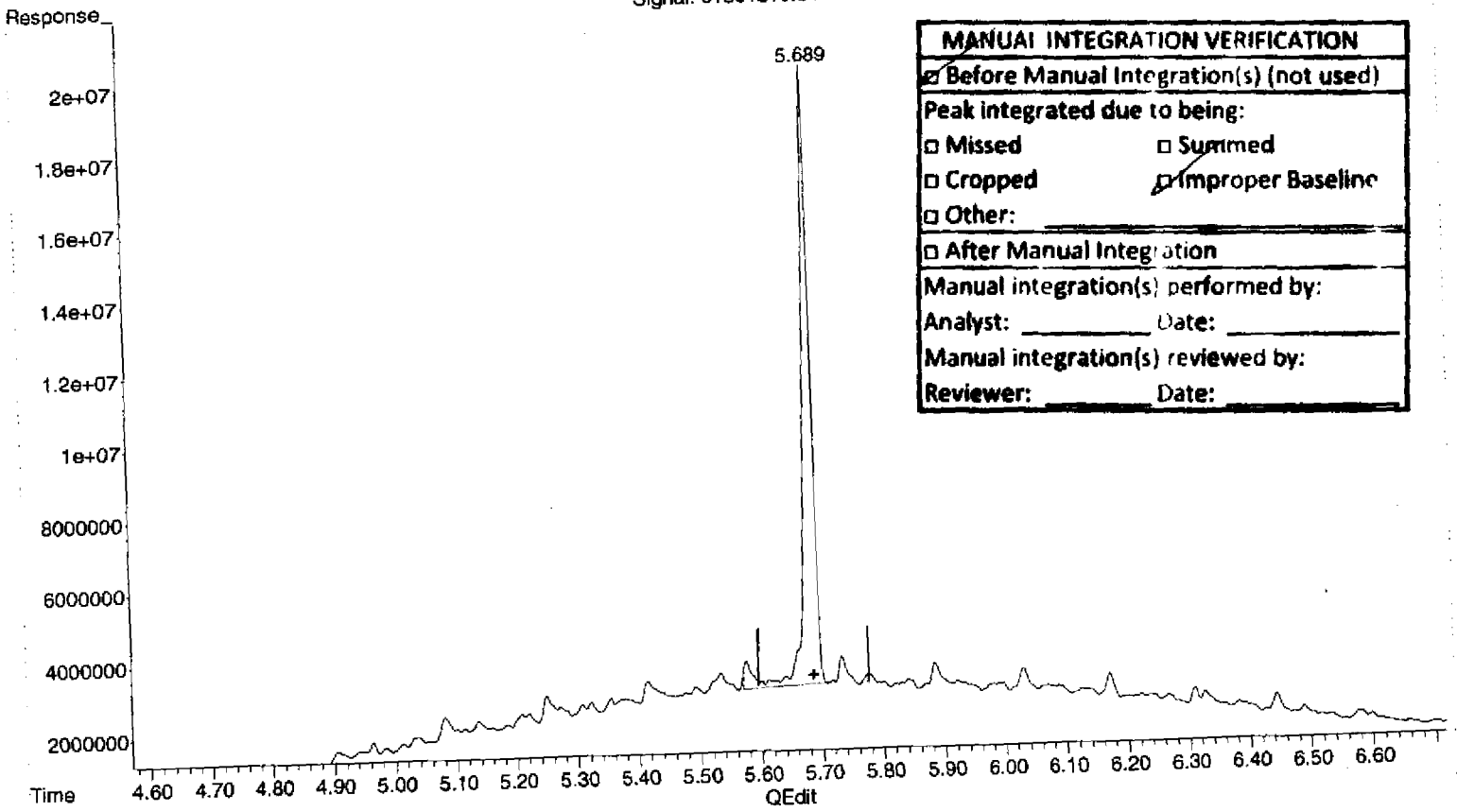
Quantitation Report (Qedit)

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

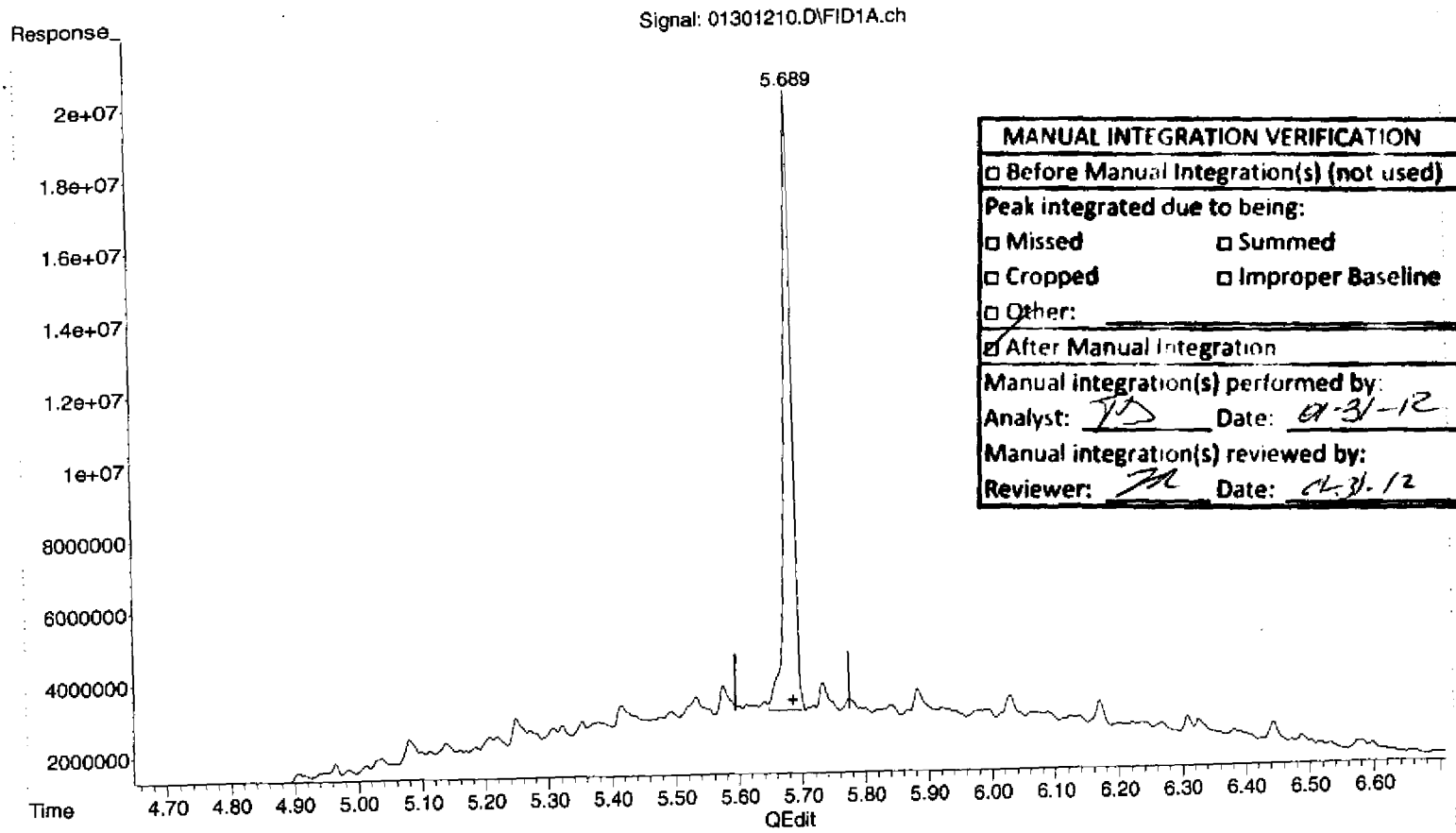
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:41:43 2012

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: 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

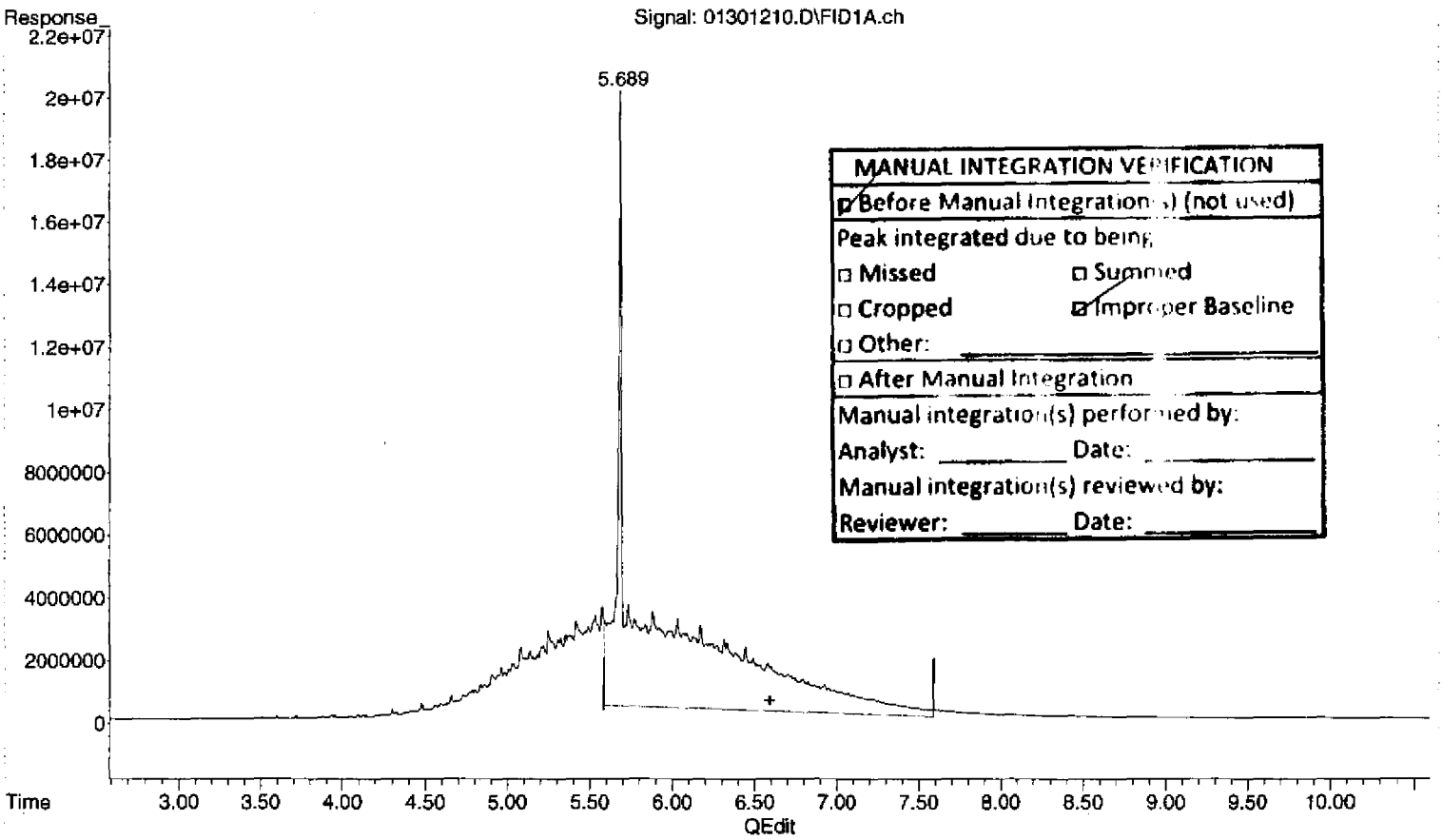
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:41:57 2012

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



(2) OIL (H)

6.590min 1020.179 ug/mL

response 1689943532

(+) = Expected Retention Time

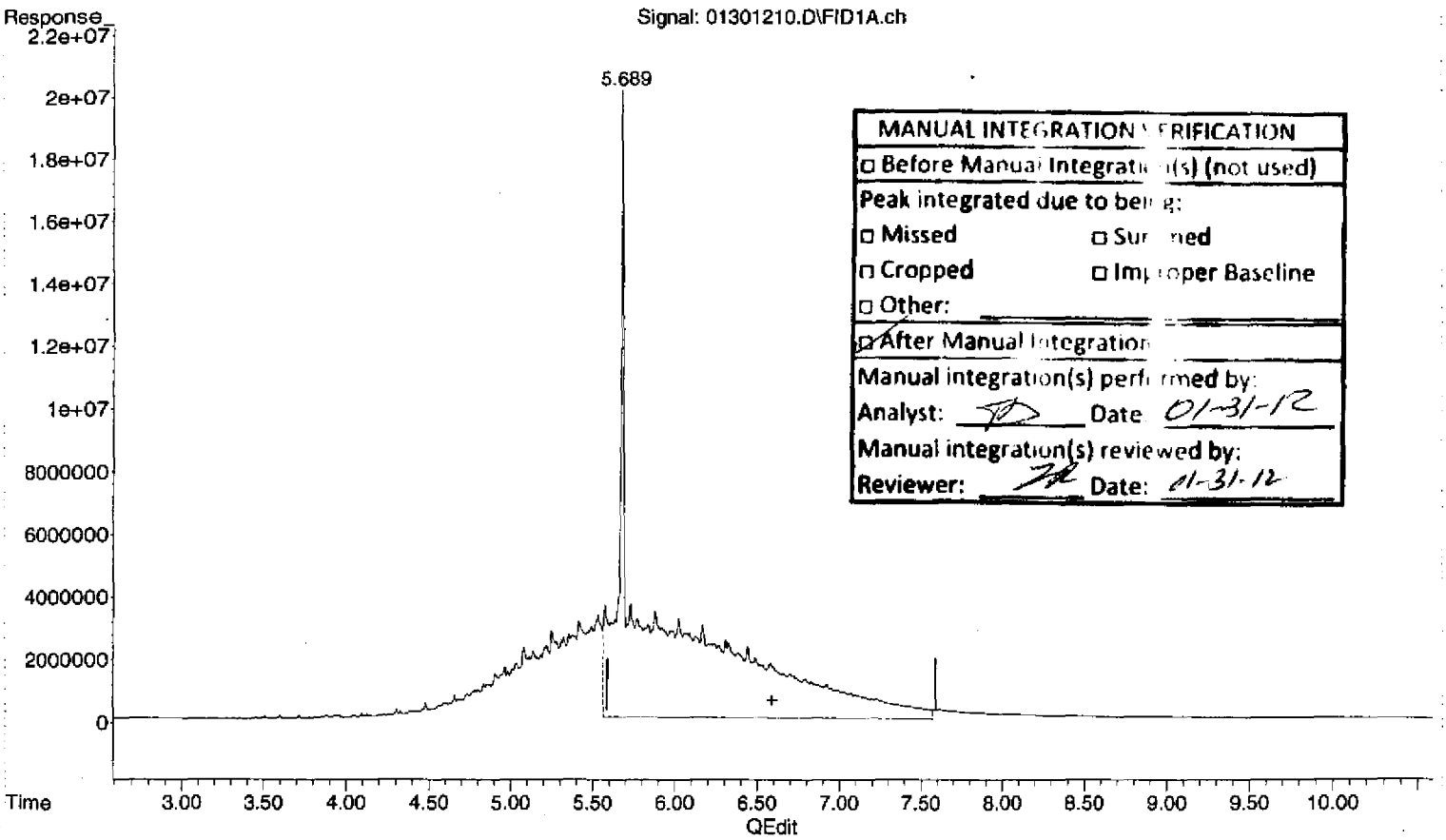
013012DROA.M Tue Jan 31 09:42:05 2012

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



(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.

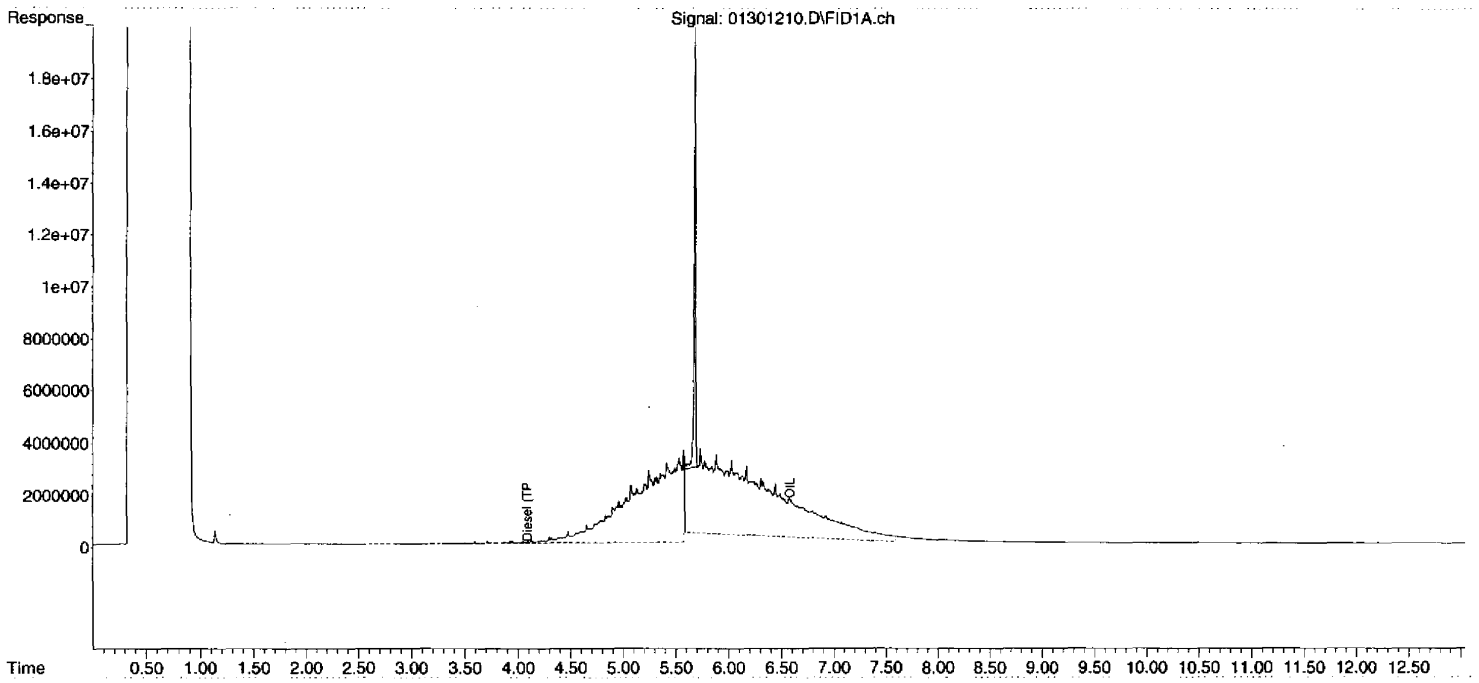
MANUAL INTEGRATION VERIFICATION	
☑ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☐ After Manual Integration	
Manual integration(s) performed by:	
Analyst: _____	Date: _____
Manual integration(s) reviewed by:	
Reviewer: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

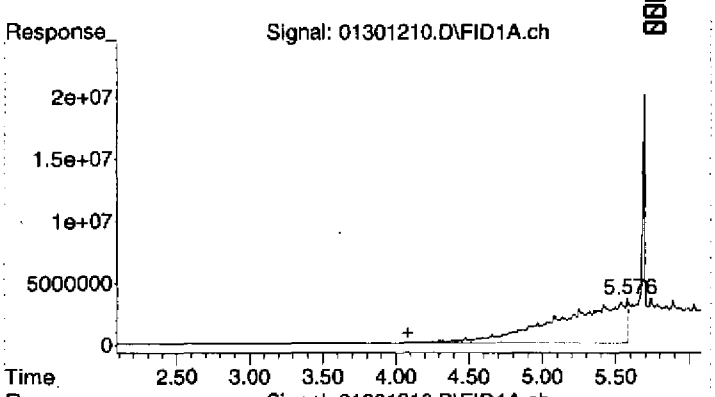
Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:39:00 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Mon Jan 30 08:25:03 2012
Response via : Initial Calibration
Integrator: ChemStation

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



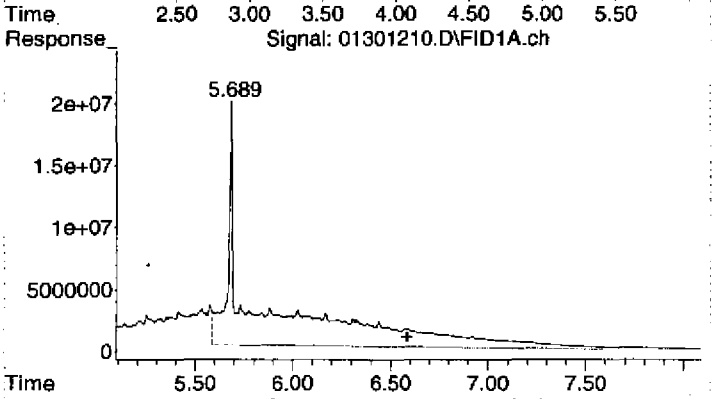
00076

000170



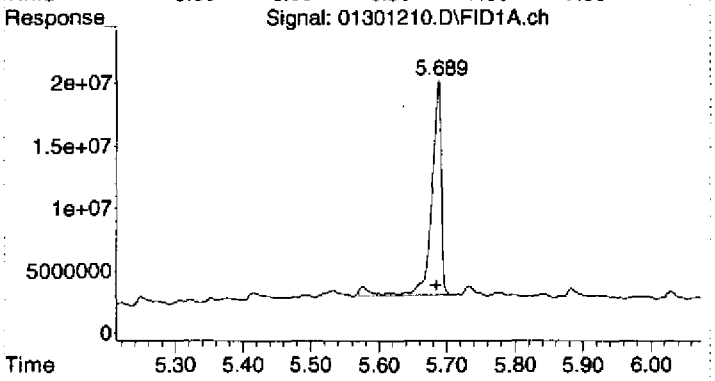
#1 Diesel (TPH)

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.

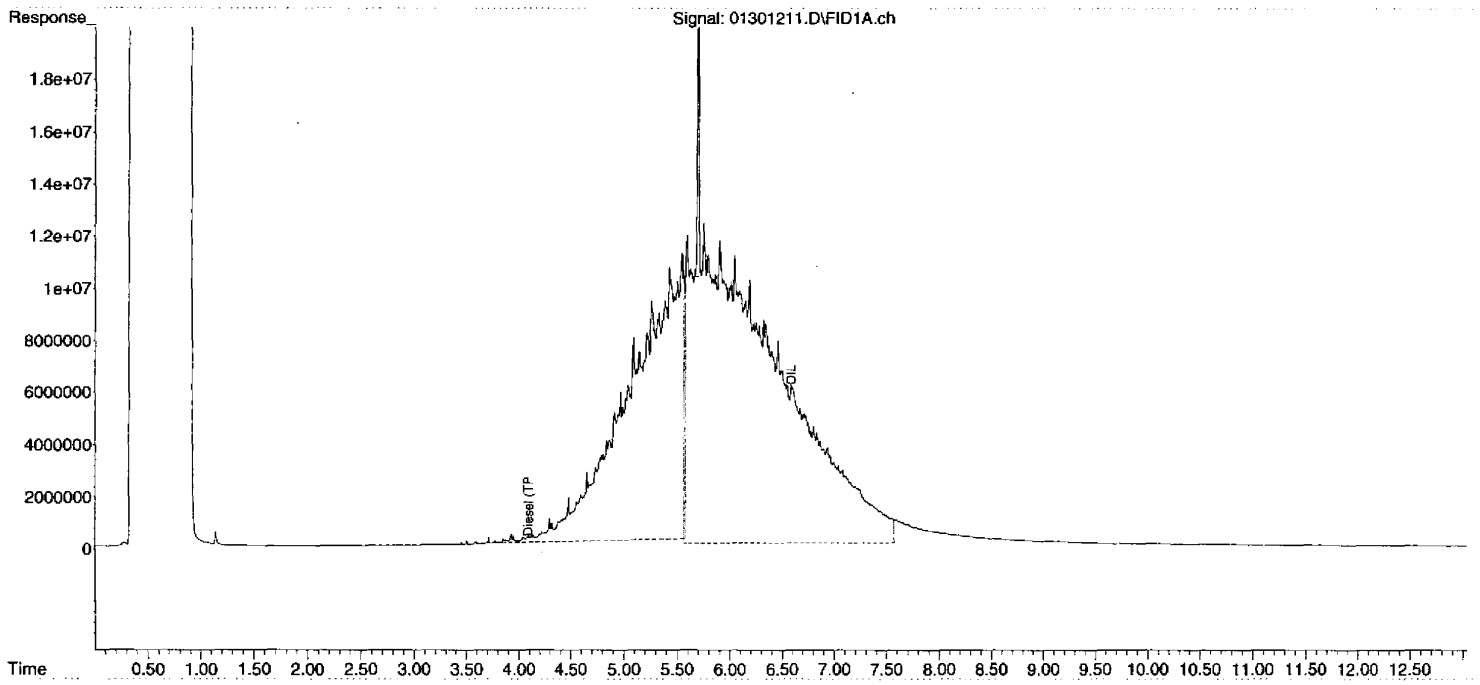
MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 01-31-12
Manual integration(s) reviewed by:
Reviewer: TR Date: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

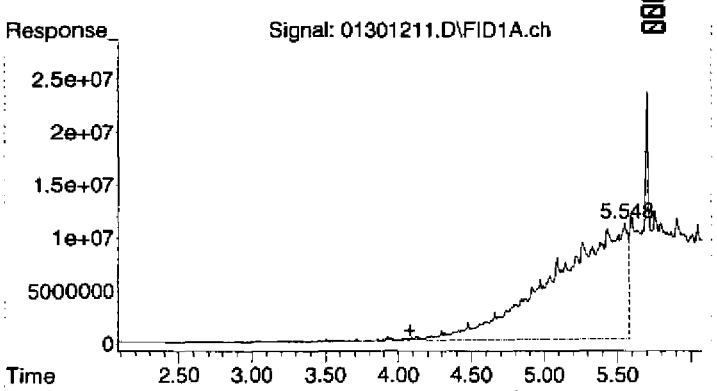
Quantitation Report (QT Reviewed)

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

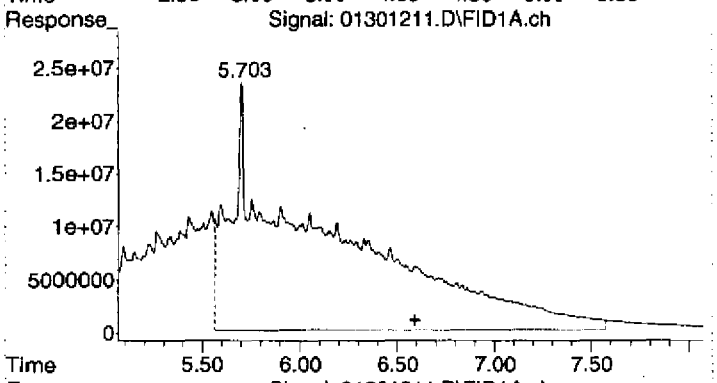
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





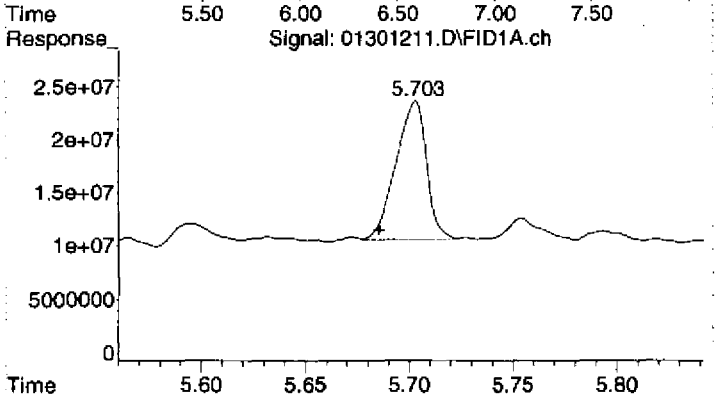
#1 Diesel (TPH)

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

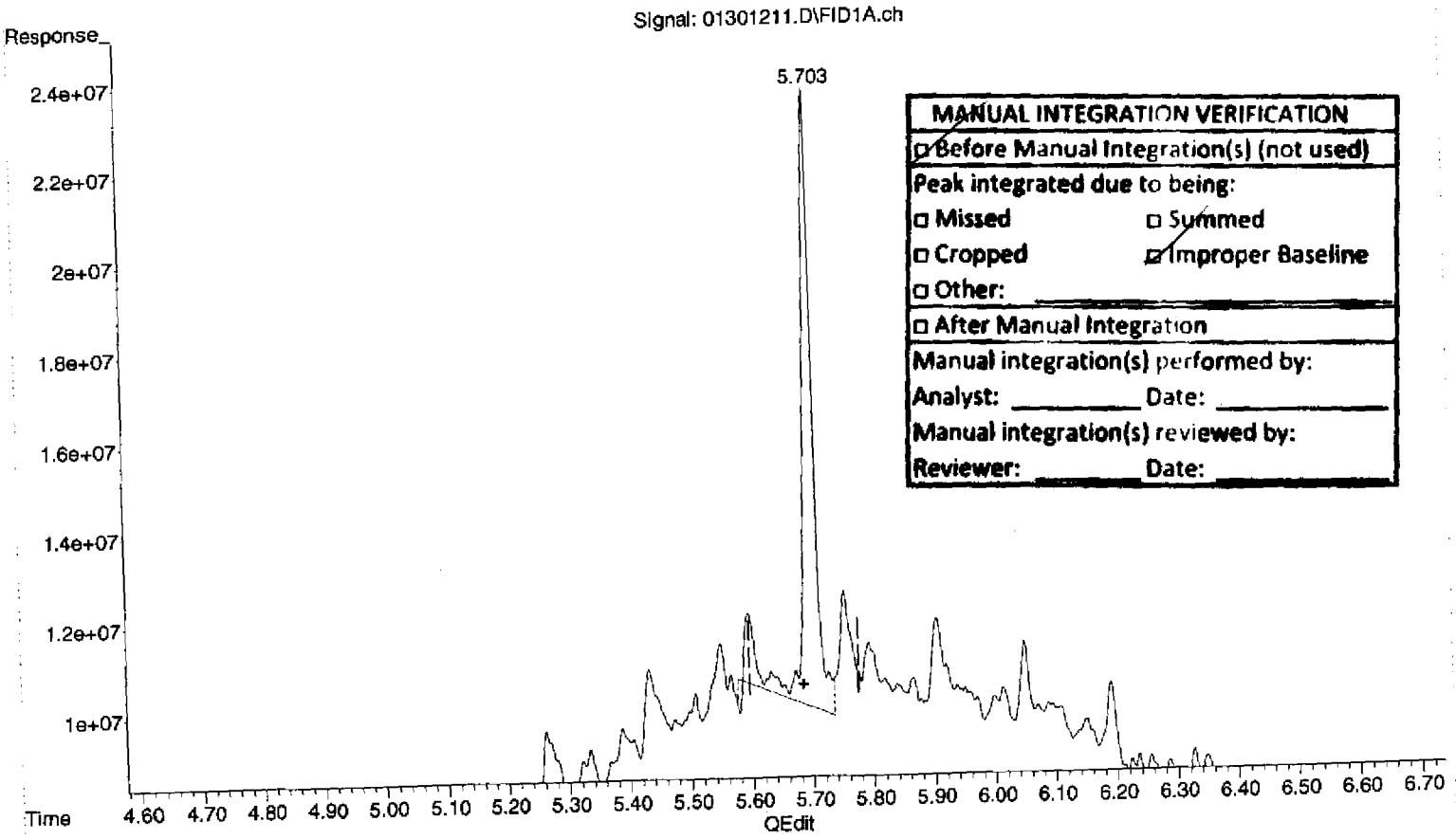
R.T.: 5.703 min
Delta R.T.: 0.018 min
Response: 135092693
Conc: 33.59 ug/mL m

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



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

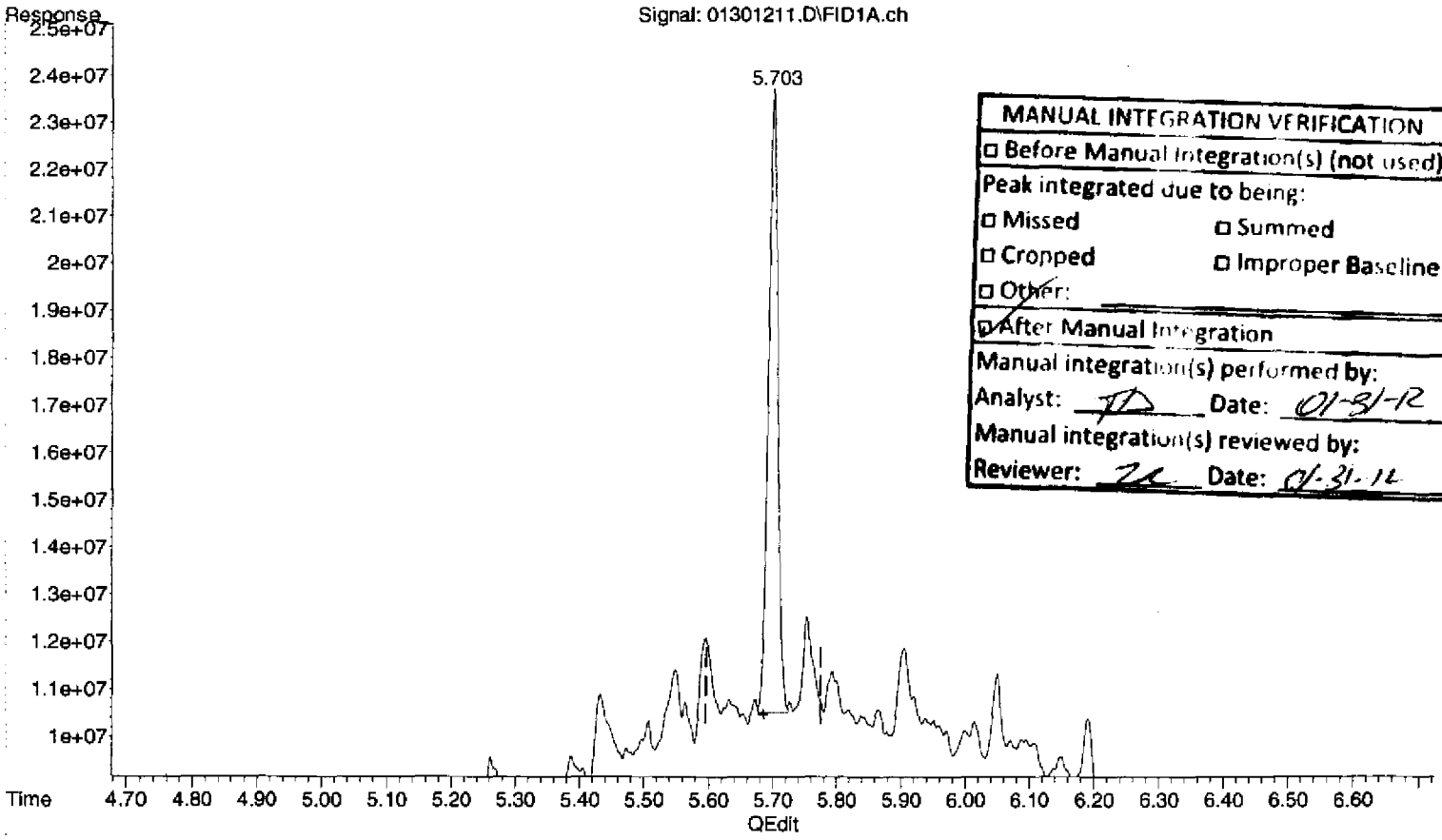
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:42:34 2012

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

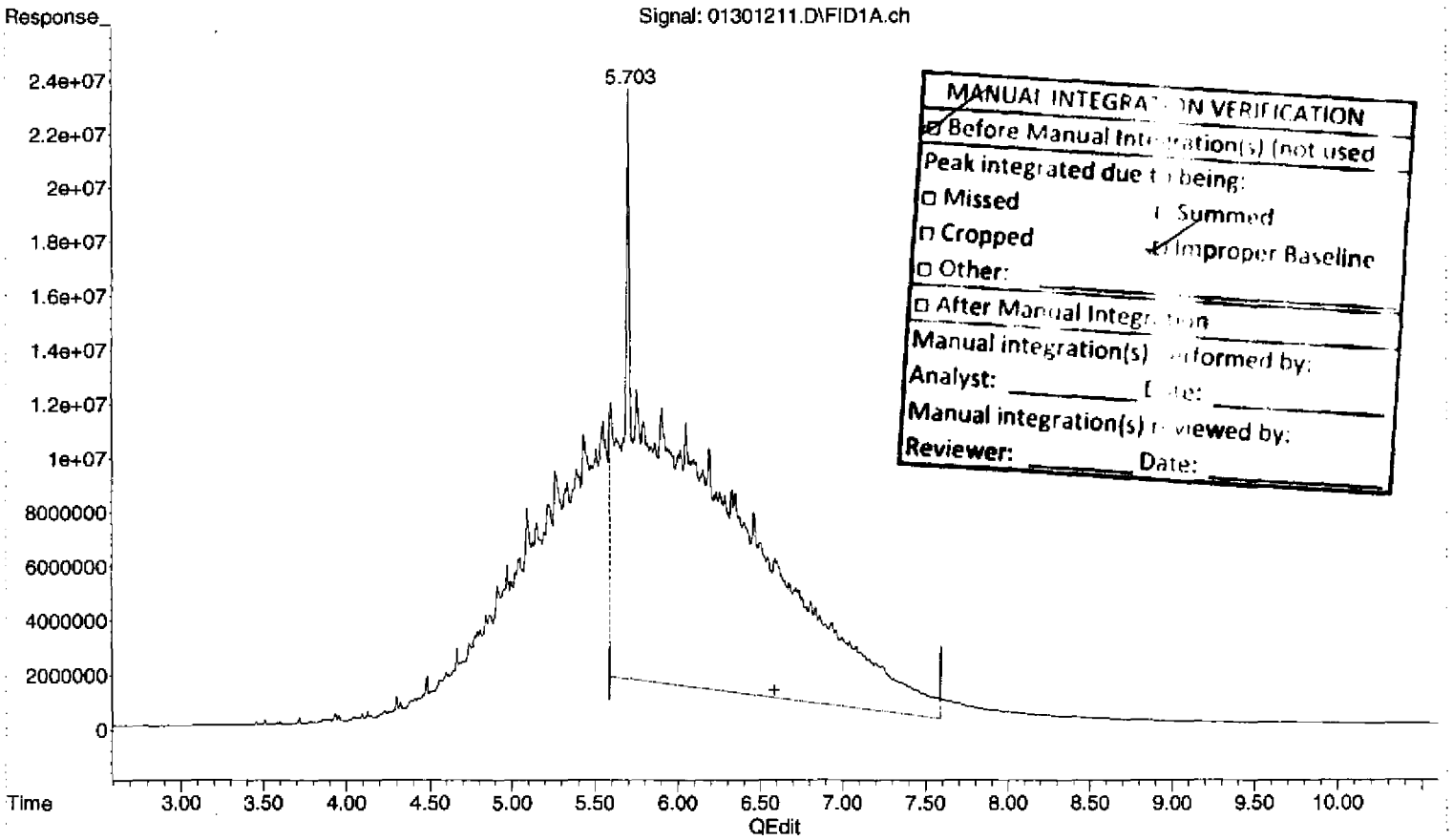
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:42:46 2012

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



(2) OIL (H)

6.590min 3598.484 ug/mL

response 5960946592

(+) = Expected Retention Time

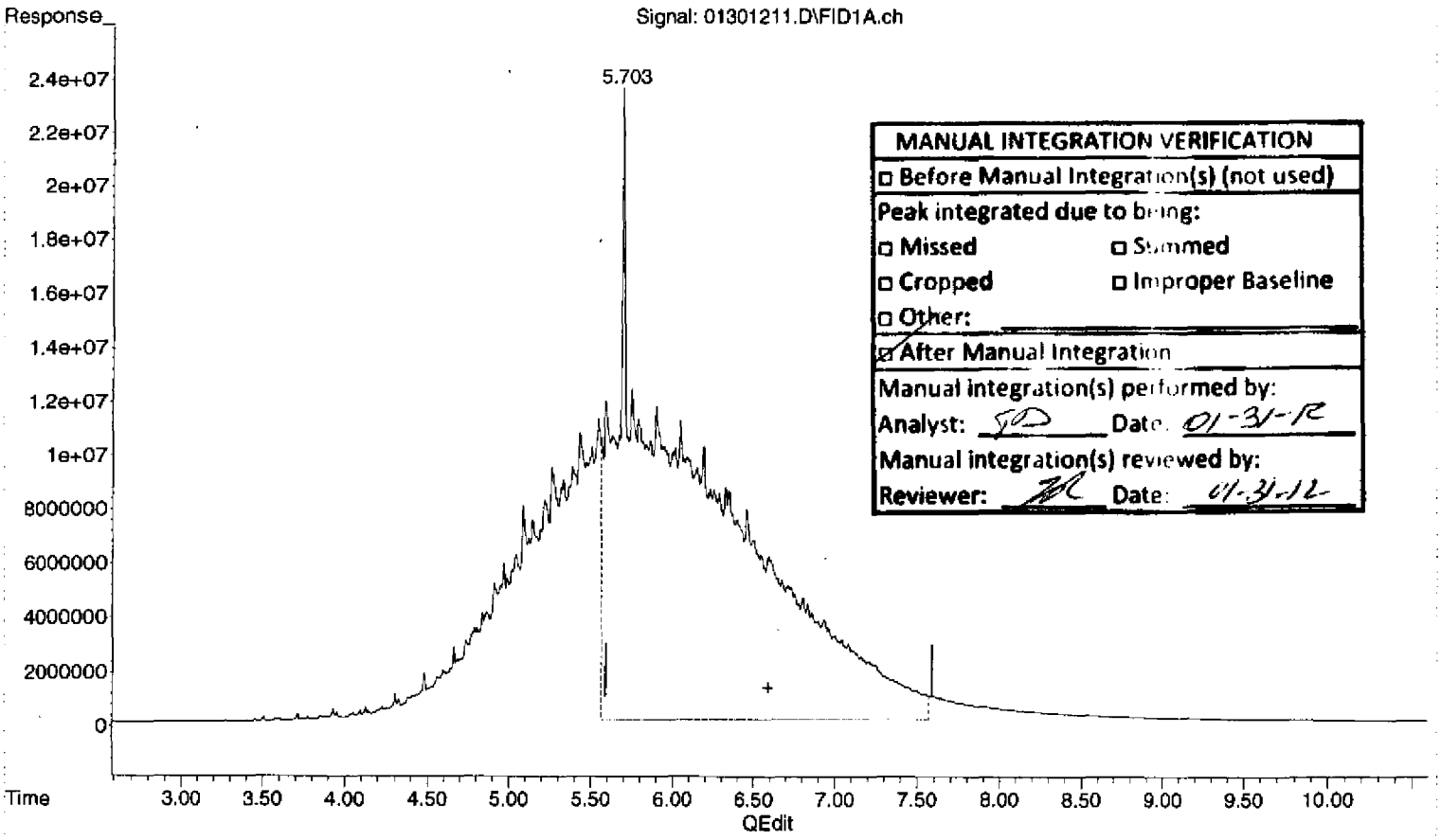
013012DROA.M Tue Jan 31 09:42:53 2012

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: SD 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.

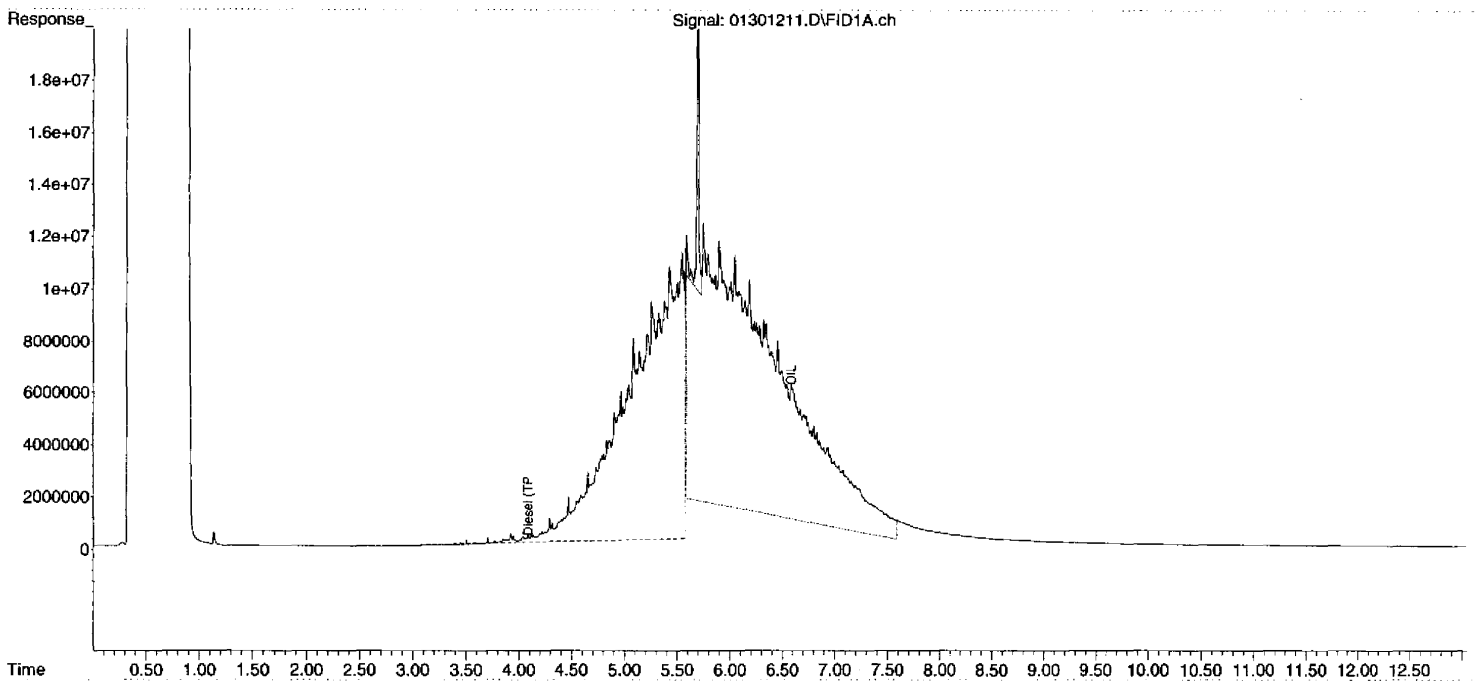
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: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

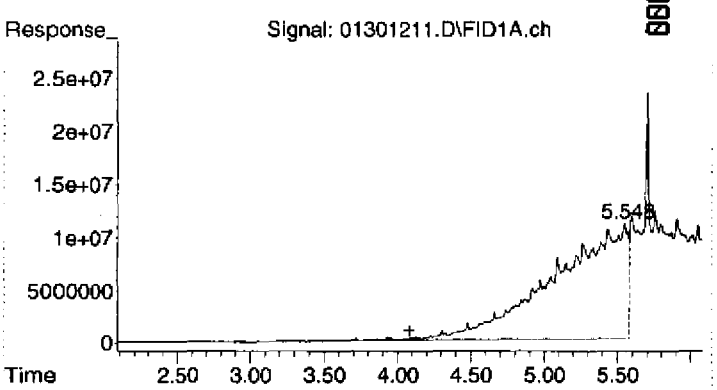
Quantitation Report (Not Reviewed)

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

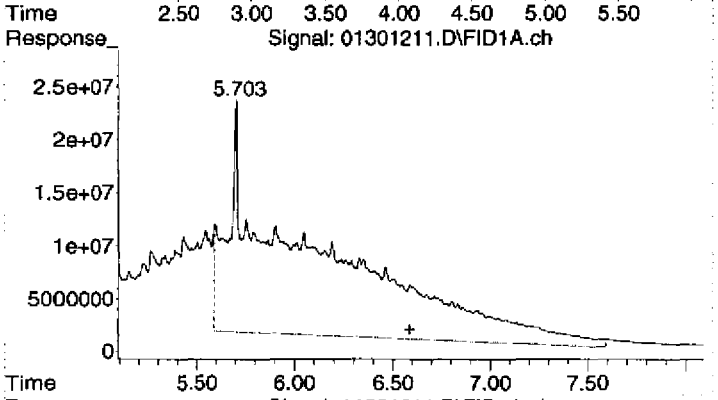
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





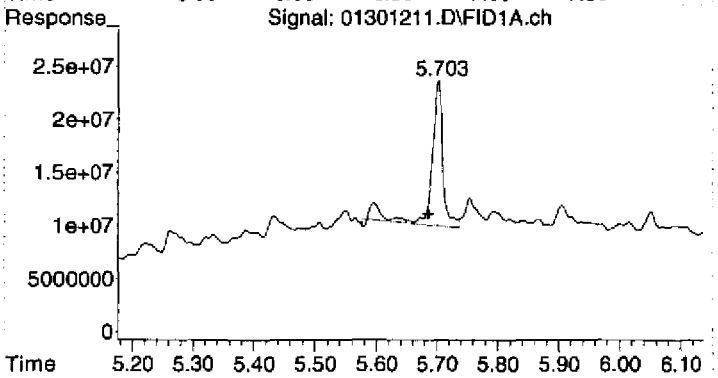
#1 Diesel (TPH)

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:

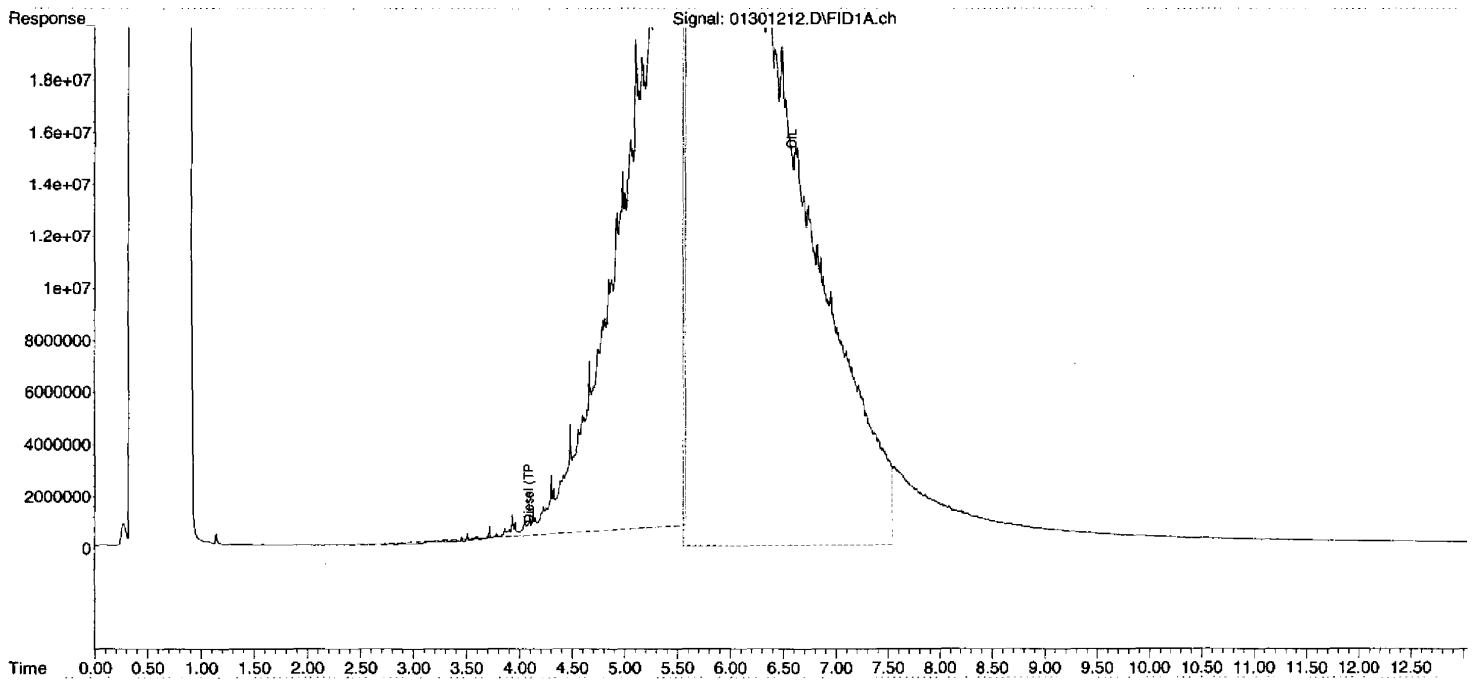
Reviewer: [illegible] Date: 01-31-12

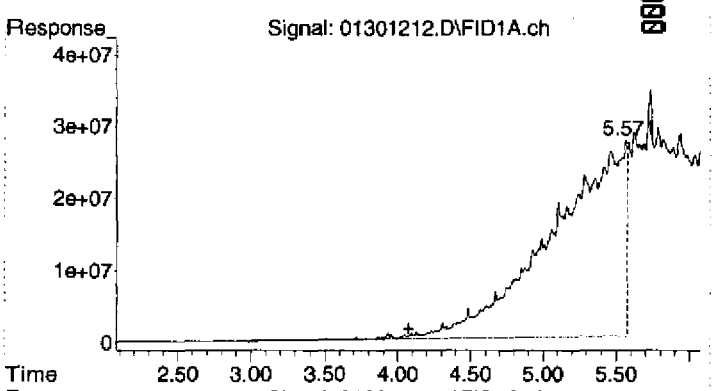
Quantitation Report (QT Reviewed)

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

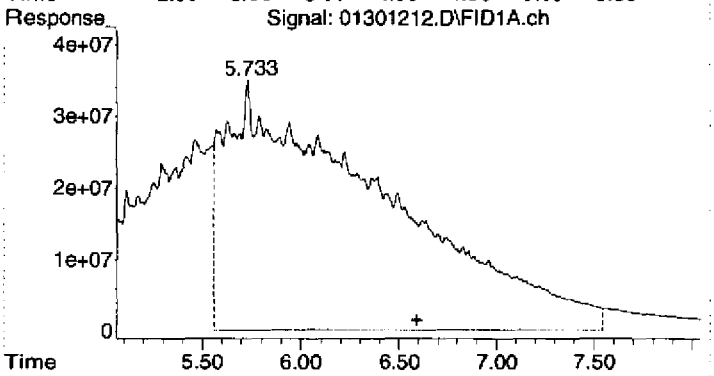
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





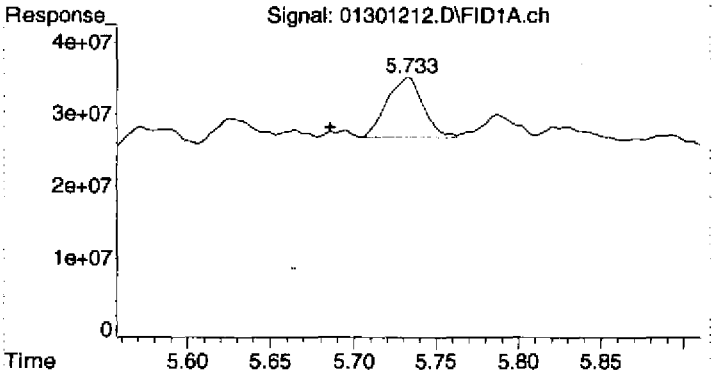
#1 Diesel (TPH)

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

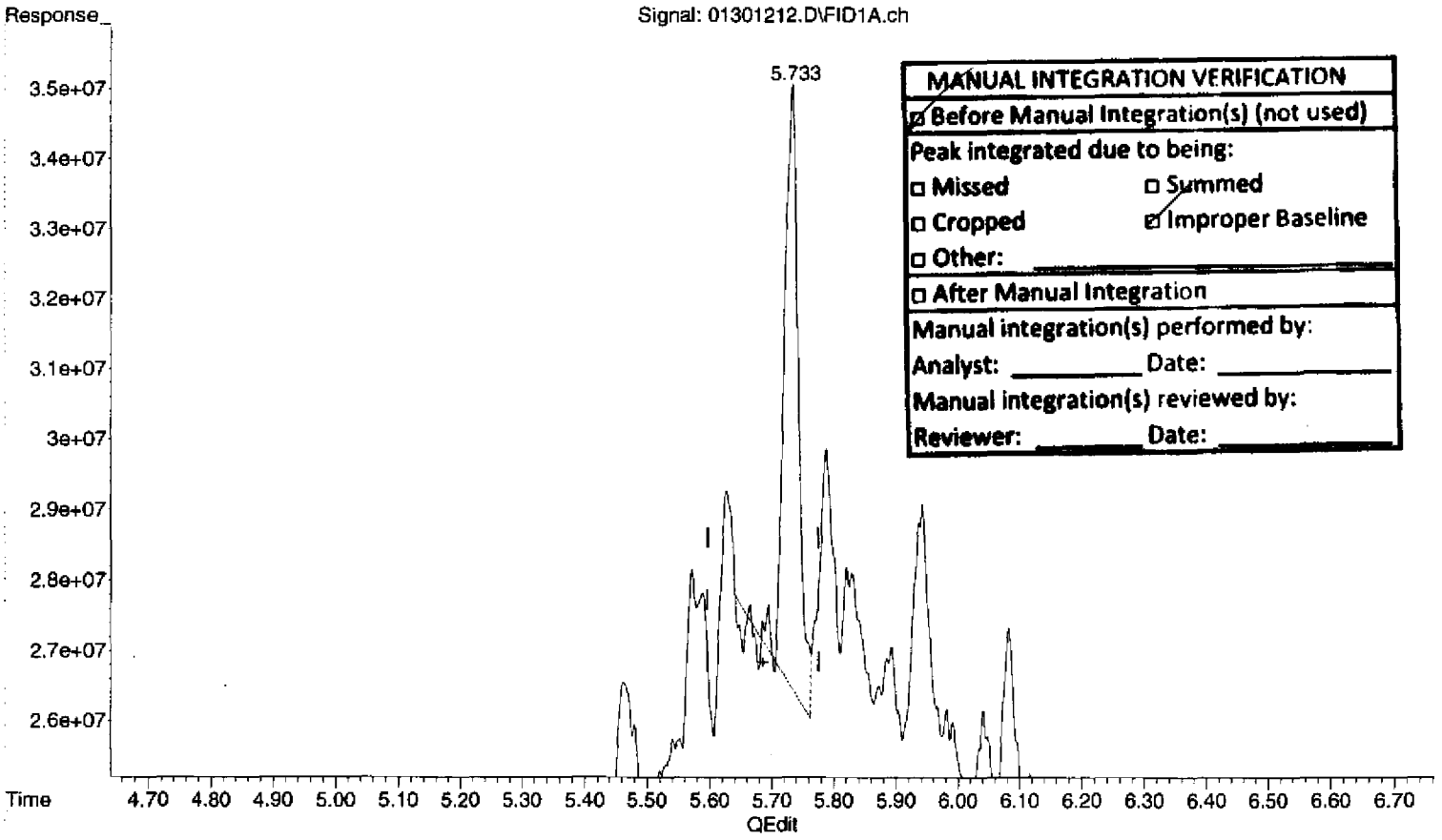
R.T.: 5.733 min
Delta R.T.: 0.048 min
Response: 126718804
Conc: 31.51 ug/mL m

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

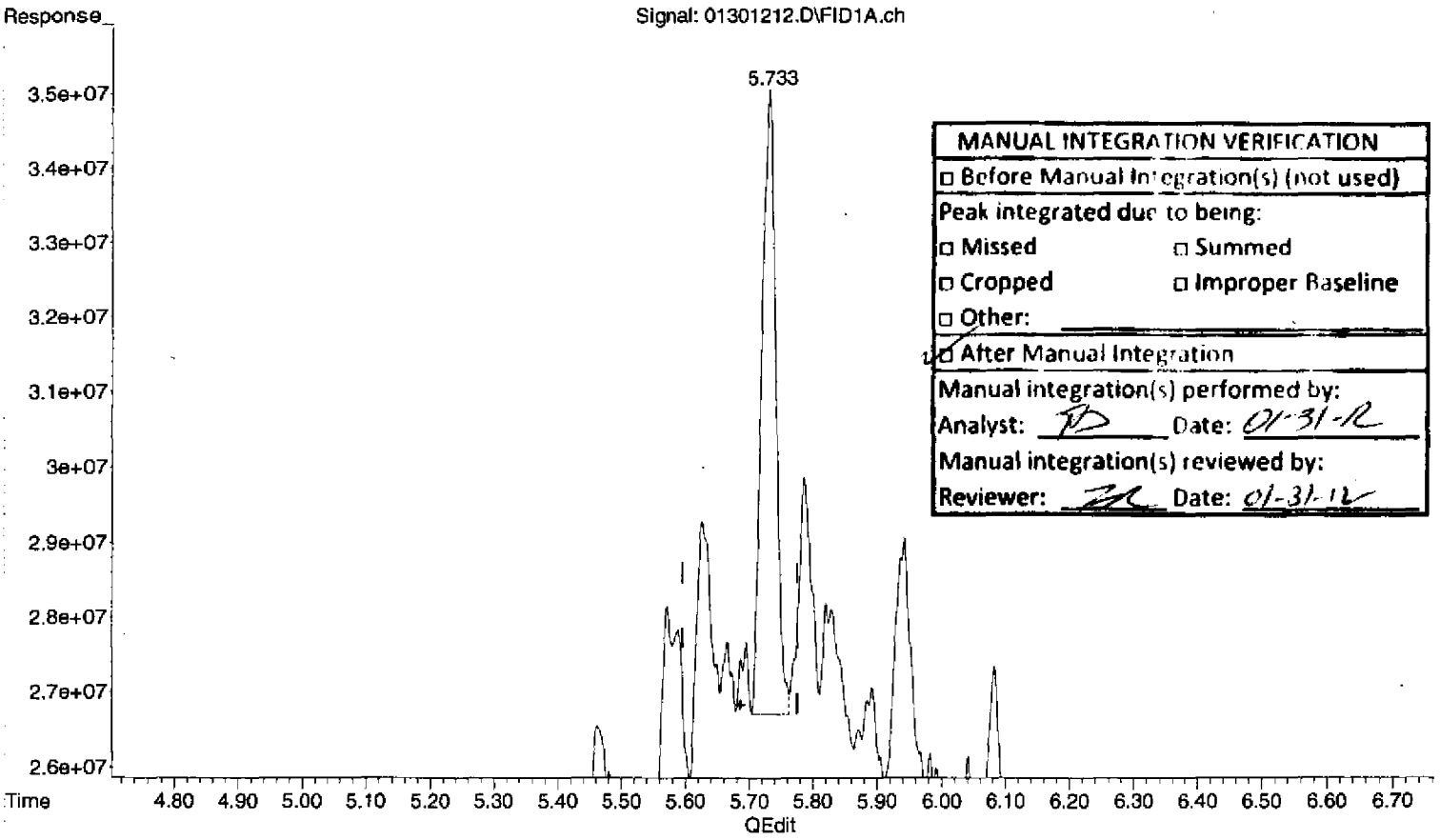
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:43:19 2012

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



(3) Surrogate (S)

5.733min 31.511 ug/mL m

response 126718804

(+) = Expected Retention Time

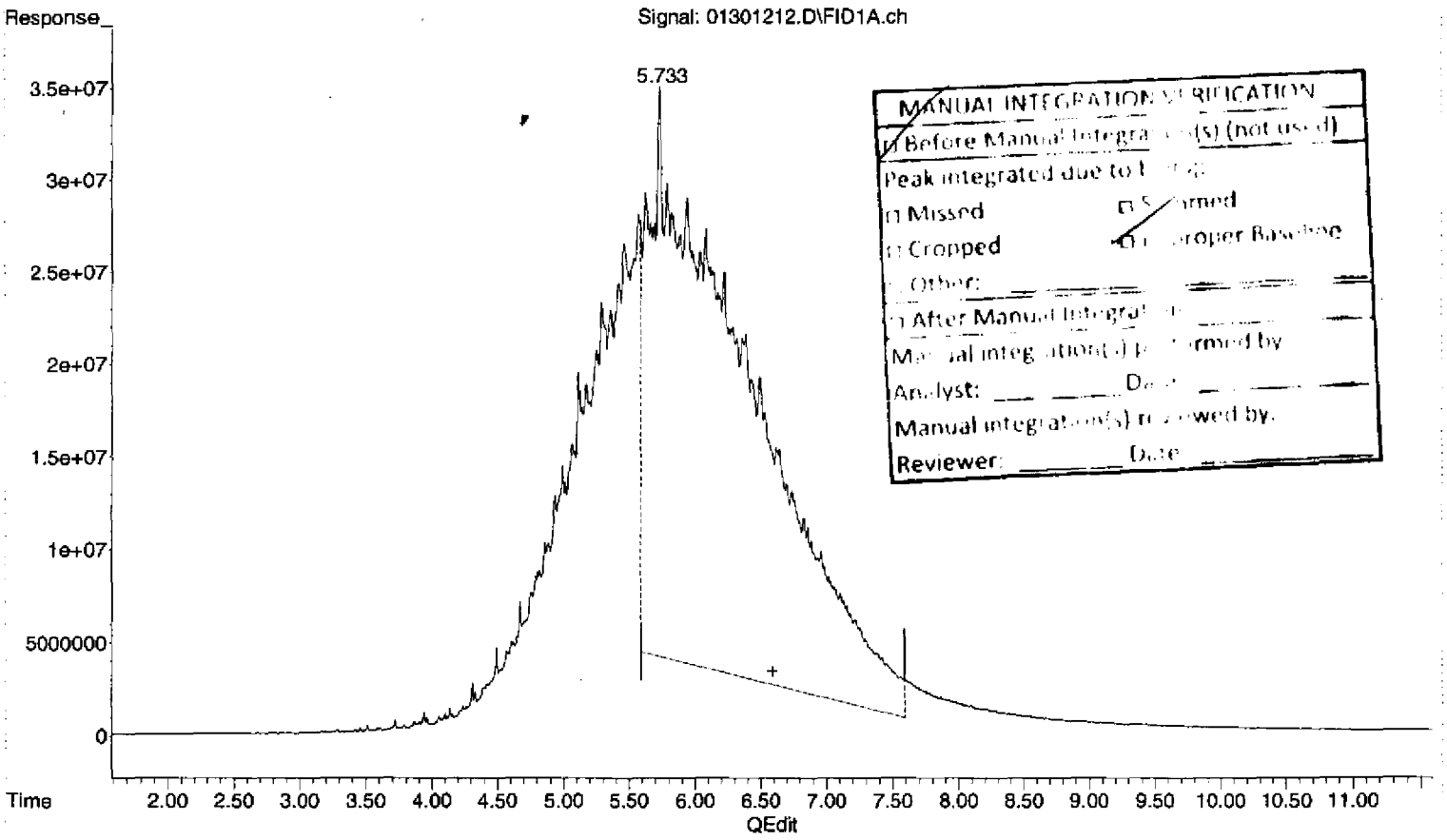
013012DROA.M Tue Jan 31 09:43:31 2012

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

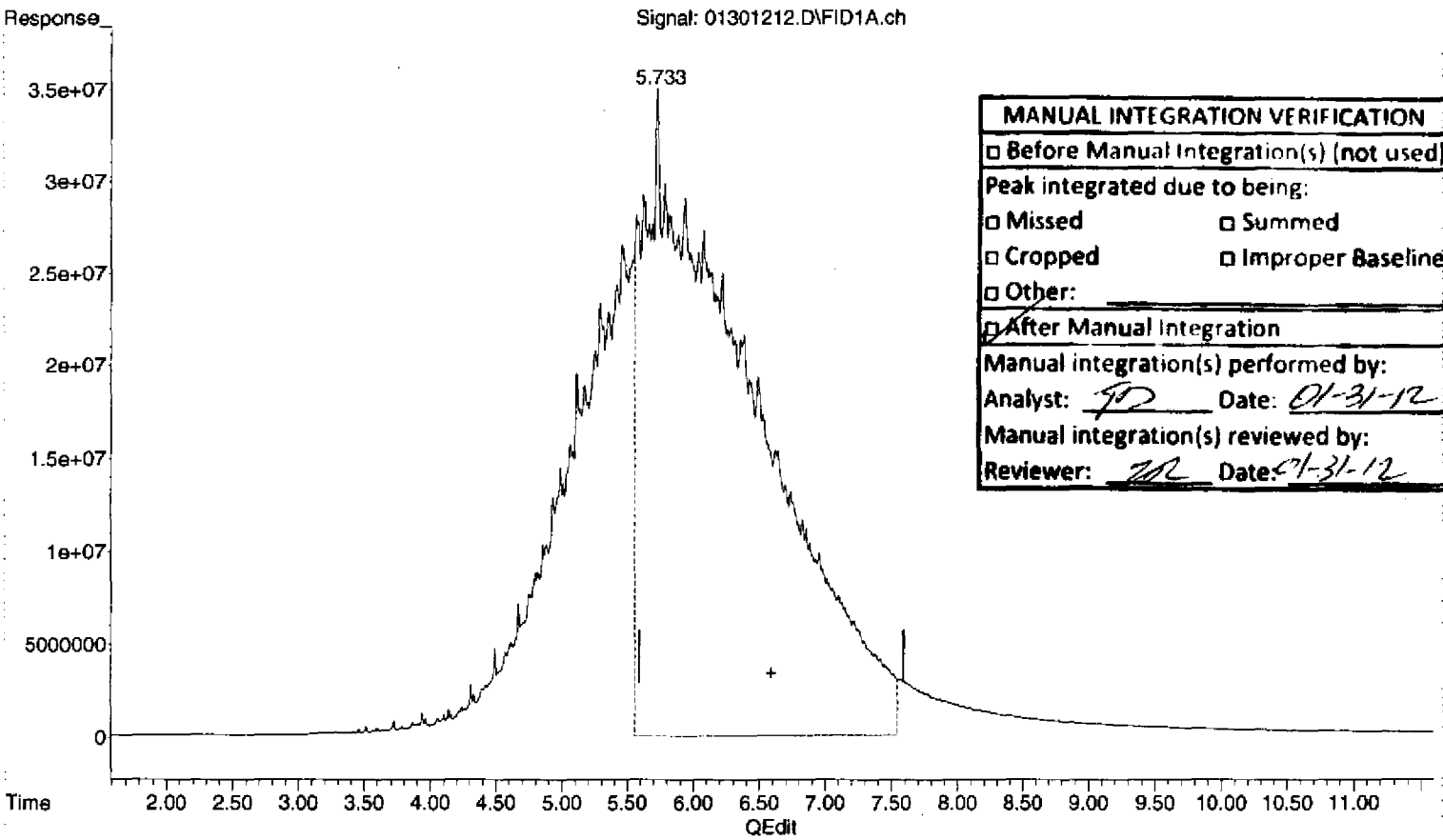
013012DROA.M Tue Jan 31 09:43:39 2012

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: ZR 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	5.732f	142663830	35.476 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	70.95%
Target Compounds			
1) HM Diesel (TPH)	4.080	9392764819	2729.496 ug/mL
2) H OIL	6.590	15739081249	9501.316 ug/mL

(f)=RT Delta > 1/2 Window

(m)=manual int.

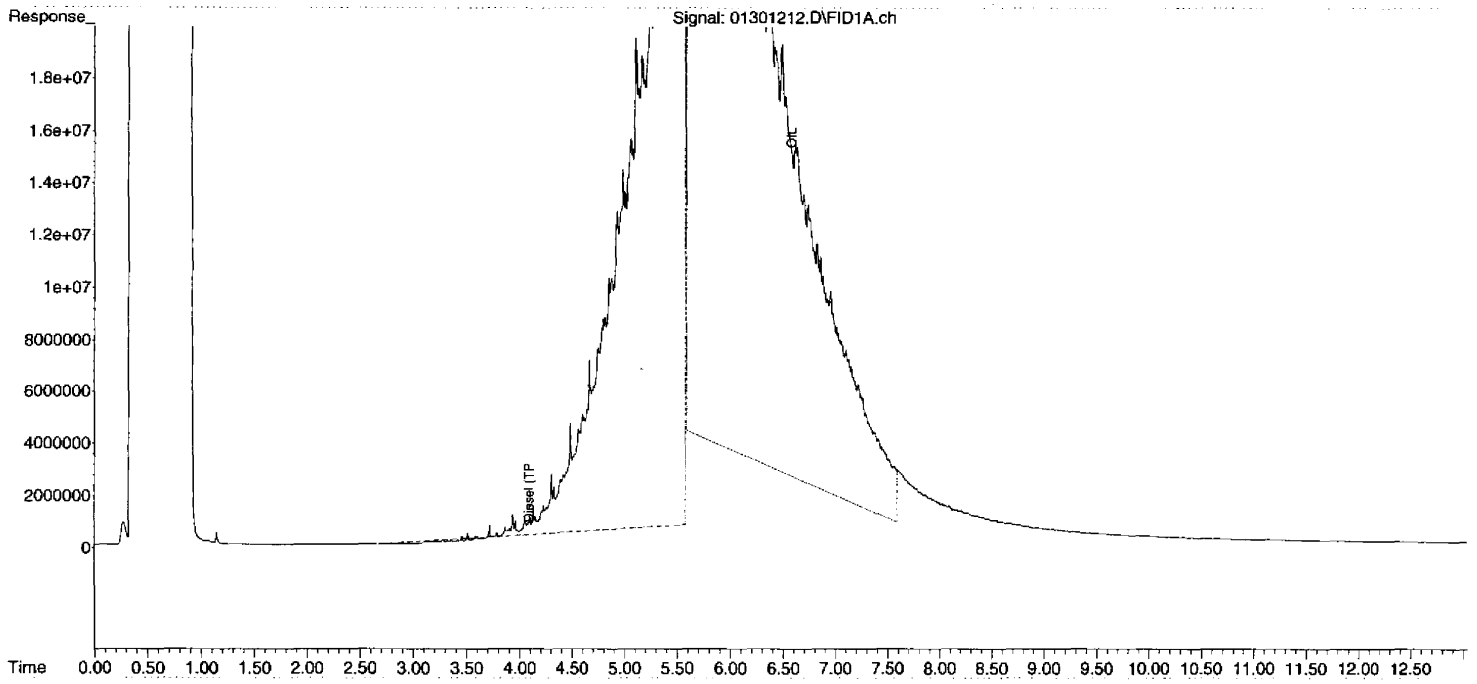
MANUAL INTEGRATION VERIFICATION	
☑ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☐ After Manual Integration	
Manual integration(s) performed by:	
Analyst: _____	Date: _____
Manual integration(s) reviewed by:	
Reviewer: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

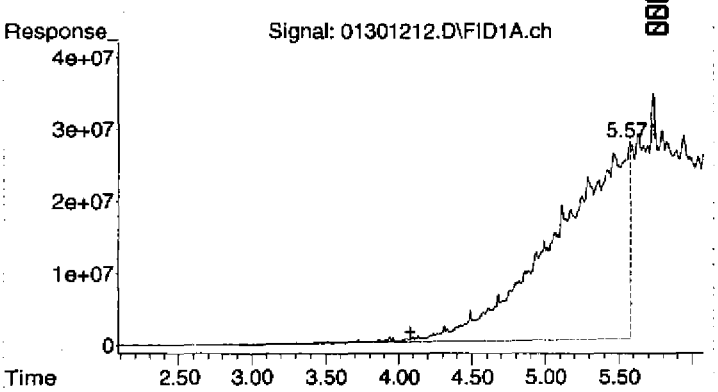
Quantitation Report (Not Reviewed)

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

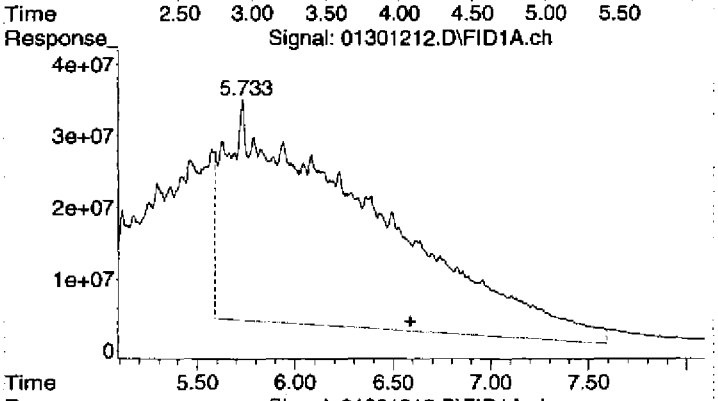
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





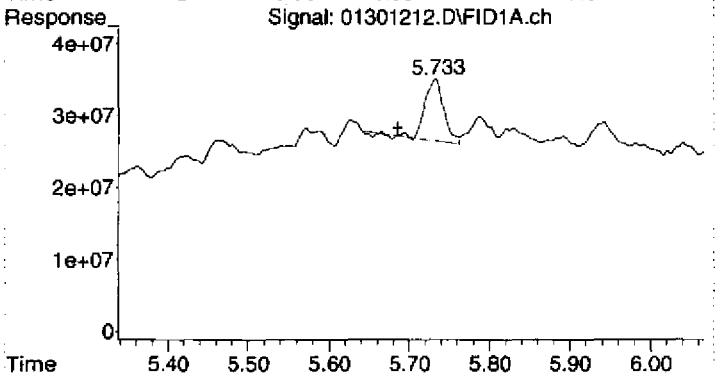
#1 Diesel (TPH)

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

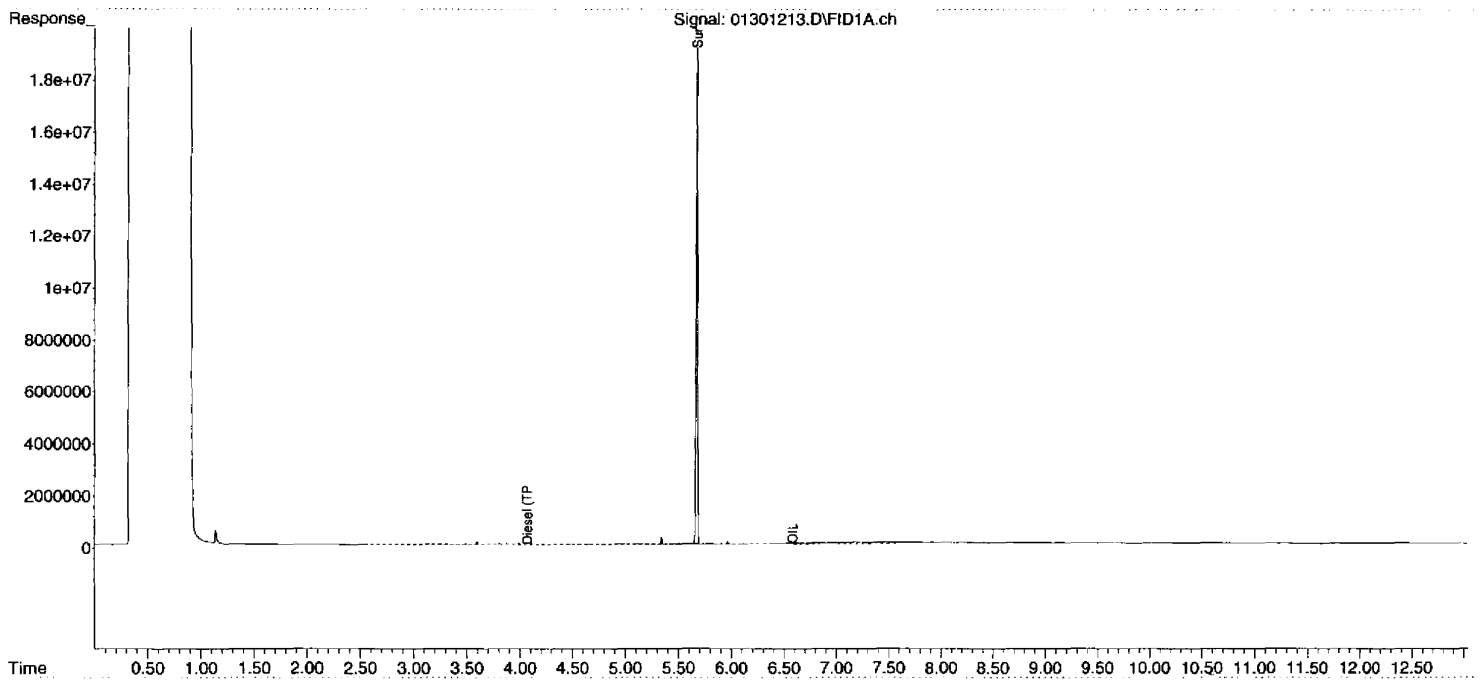
(f)=RT Delta > 1/2 Window (m)=manual int.

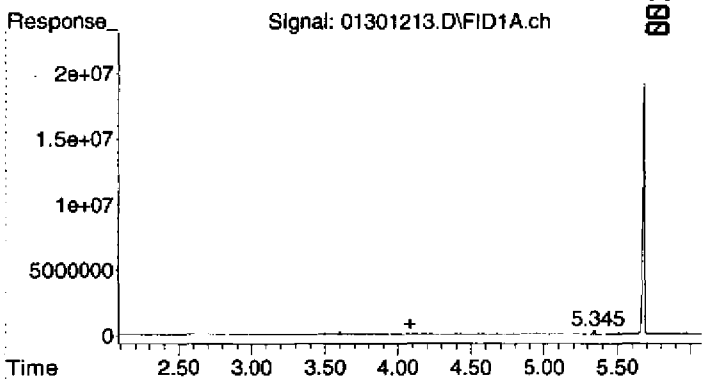
Quantitation Report (Not Reviewed)

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

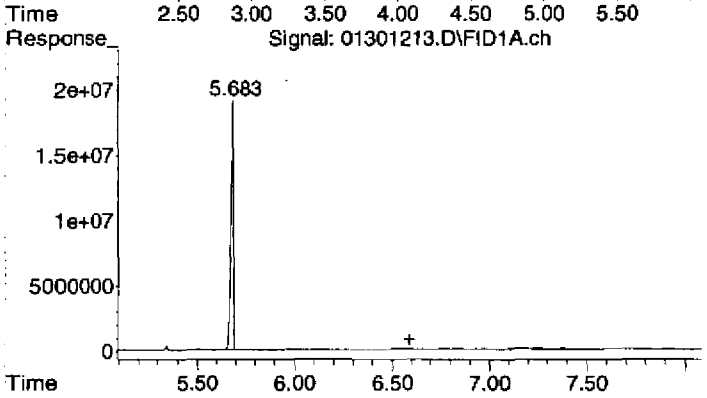
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





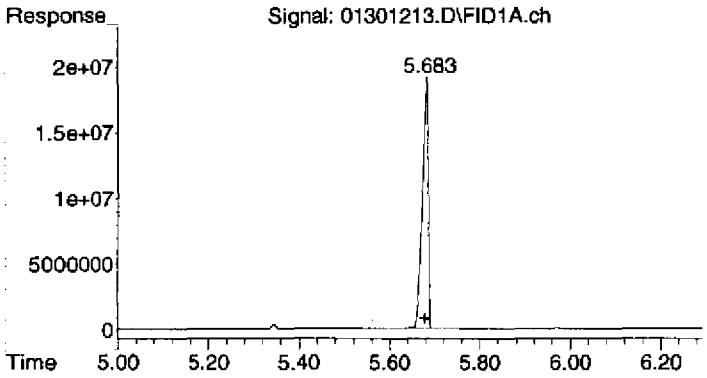
#1 Diesel (TPH)

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		% Recovery	QC Limits	STATUS
		Calculated			
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

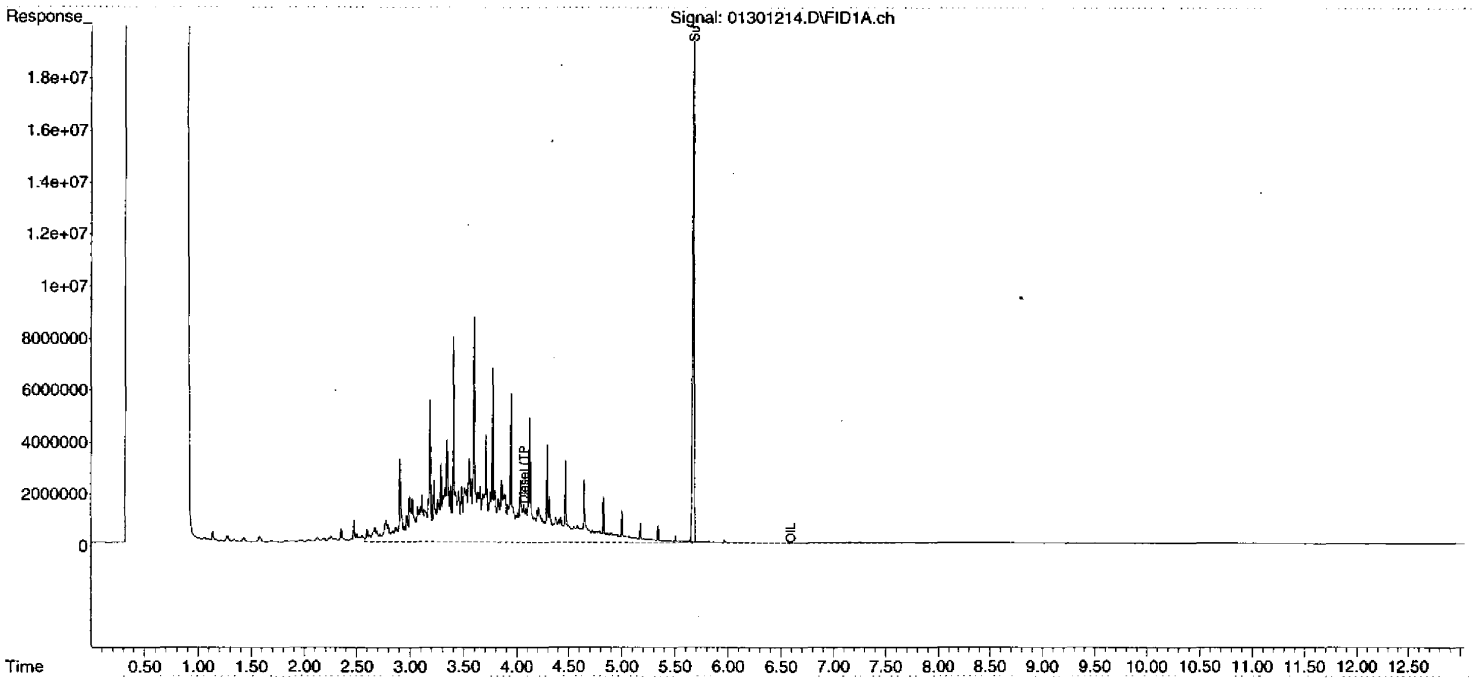
TD 01-31-12

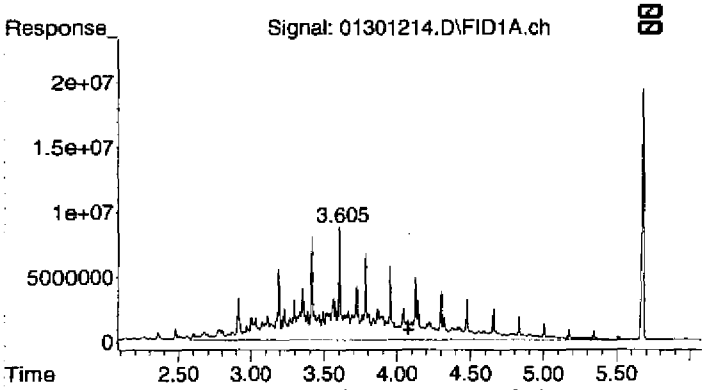
Quantitation Report (Not Reviewed)

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

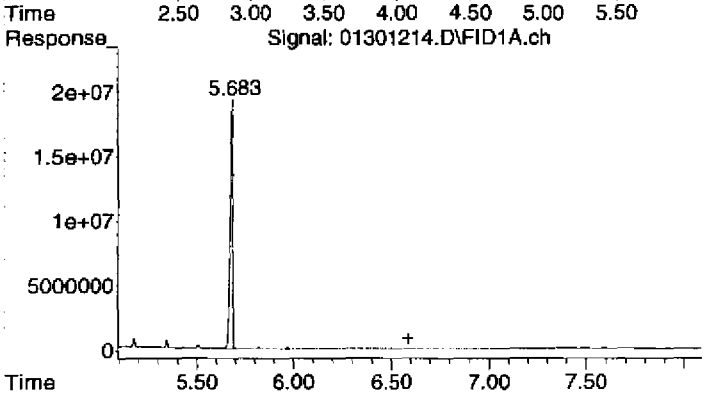
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





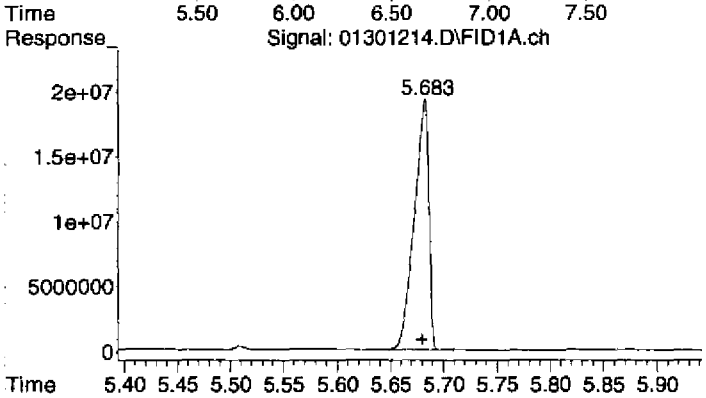
#1 Diesel (TPH)

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	Calculated	% Recovery	QC Limits	STATUS
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 = 1158.6M

TD 01-31-12

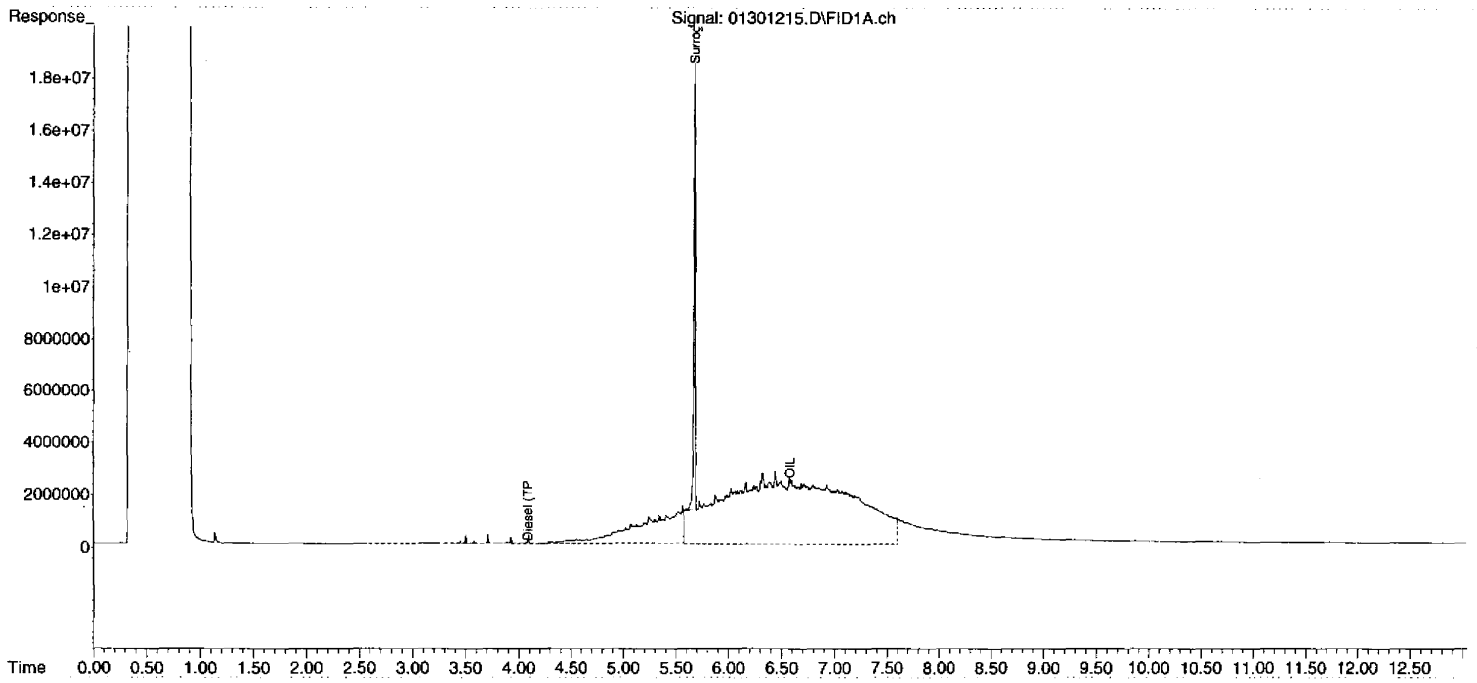
MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: TD	Date: 01-31-12
Manual integration(s) reviewed by:	
Reviewer: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

Quantitation Report (QT Reviewed)

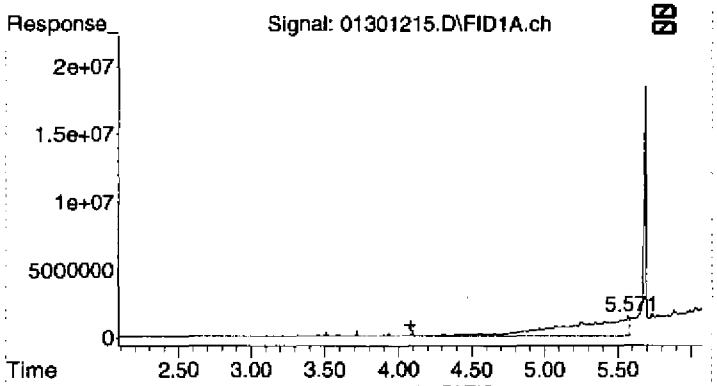
Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301215.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 4:13 pm
Operator : TD
Sample : 2010046-SCV2
Misc : 2A11019 OIL SCV
ALS Vial : 15 Sample Multiplier: 1

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

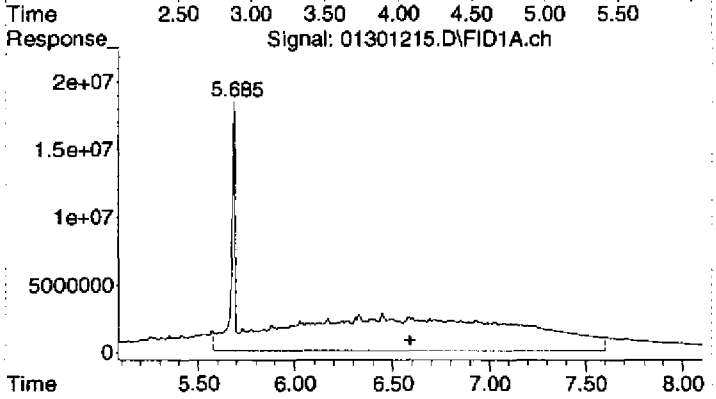


00187
00101
DIM0277243
DIM0277353



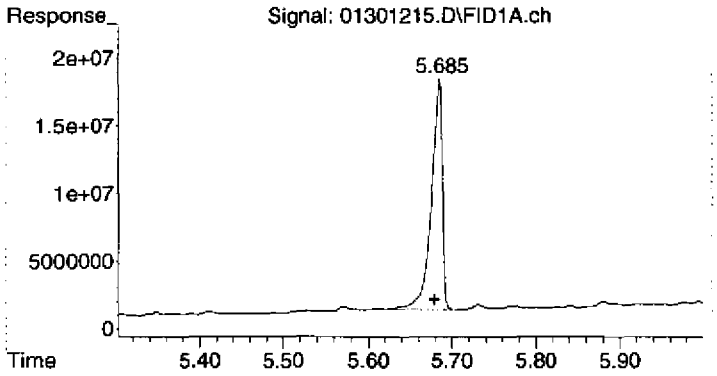
#1 Diesel (TPH)

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

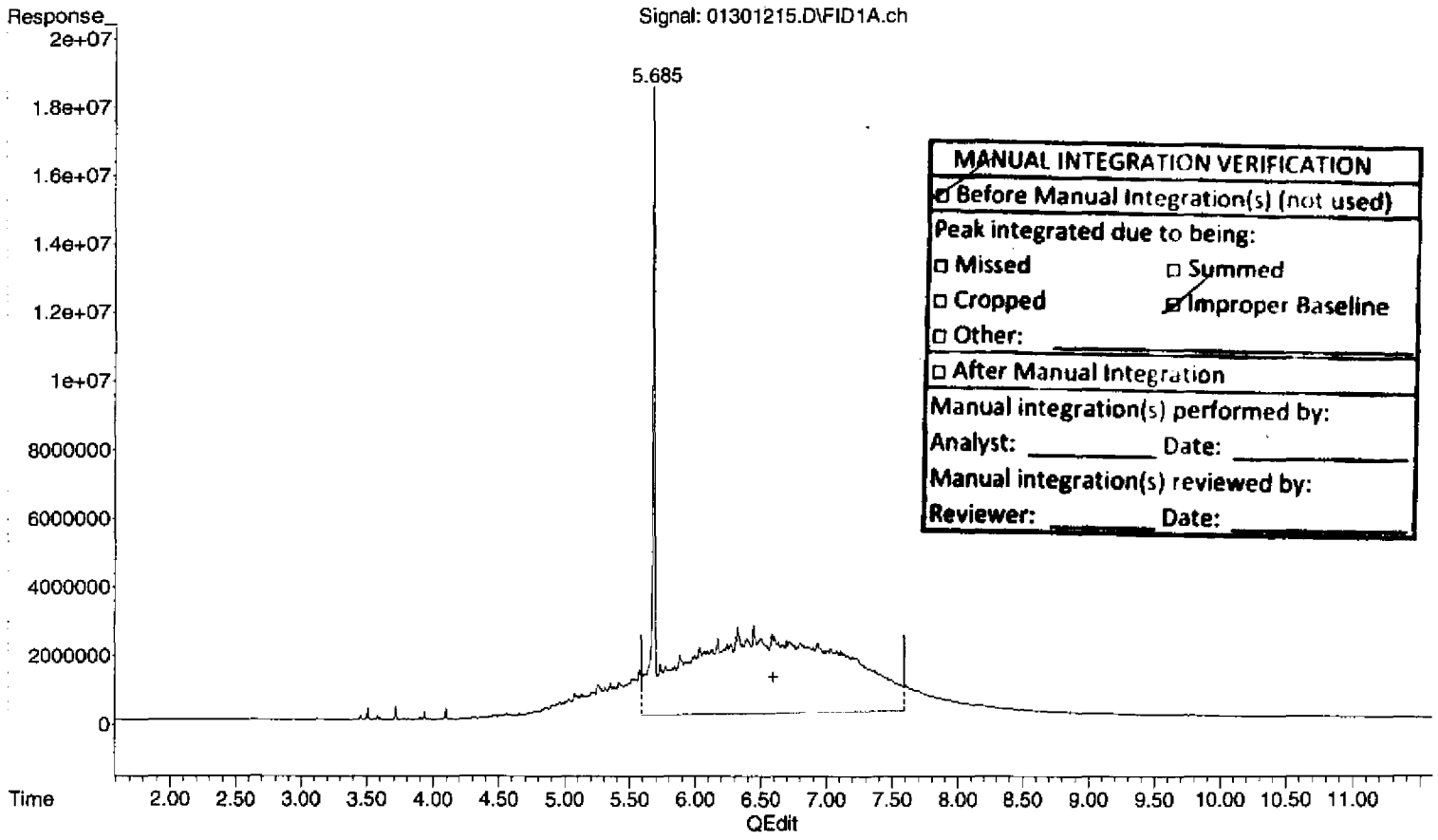
R.T.: 5.683 min
Delta R.T.: 0.004 min
Response: 155490720
Conc: 43.77 ug/mL

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

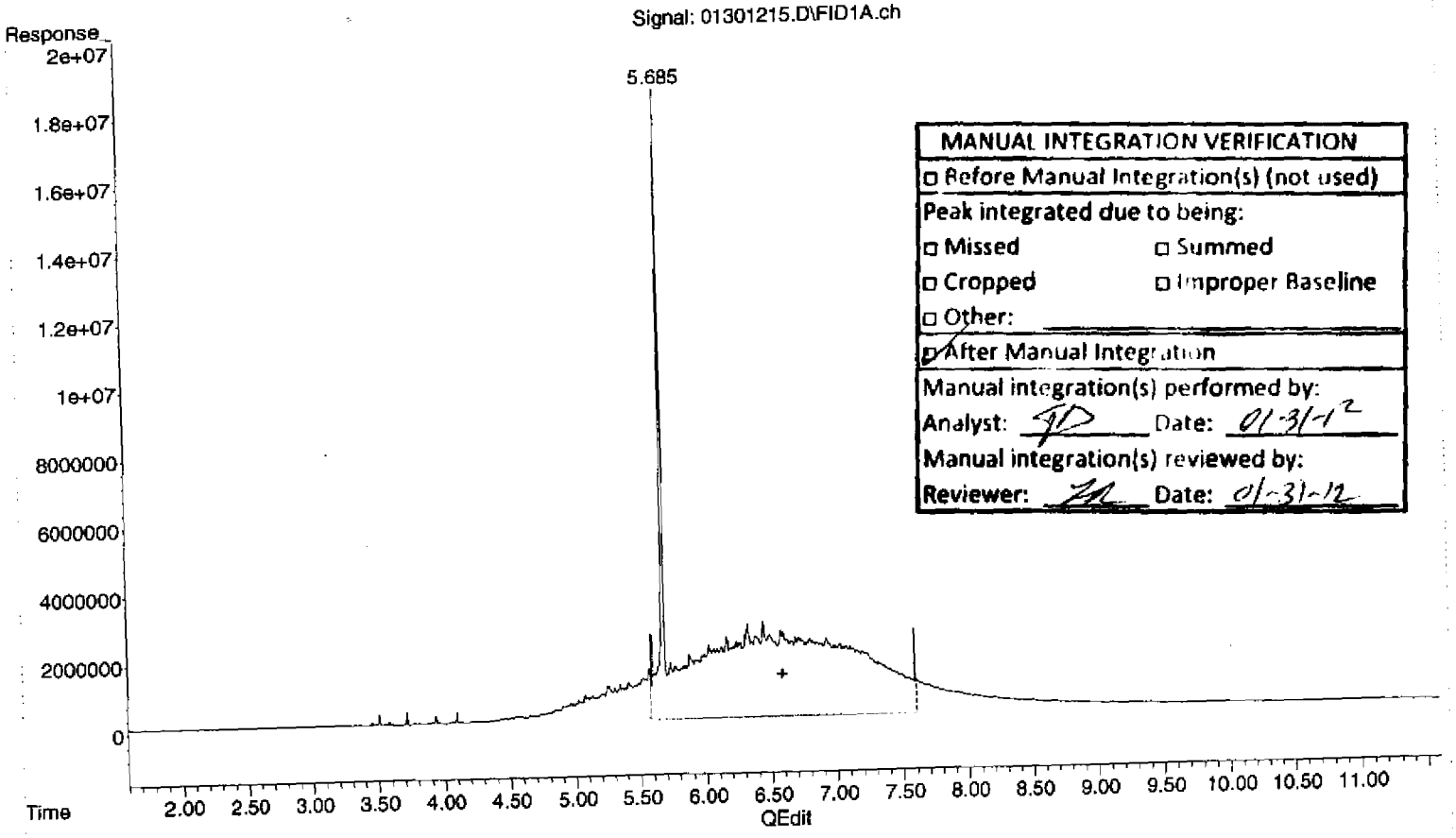
Quantitation Report (Qedit)

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

Signal: 01301215.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: 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

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.

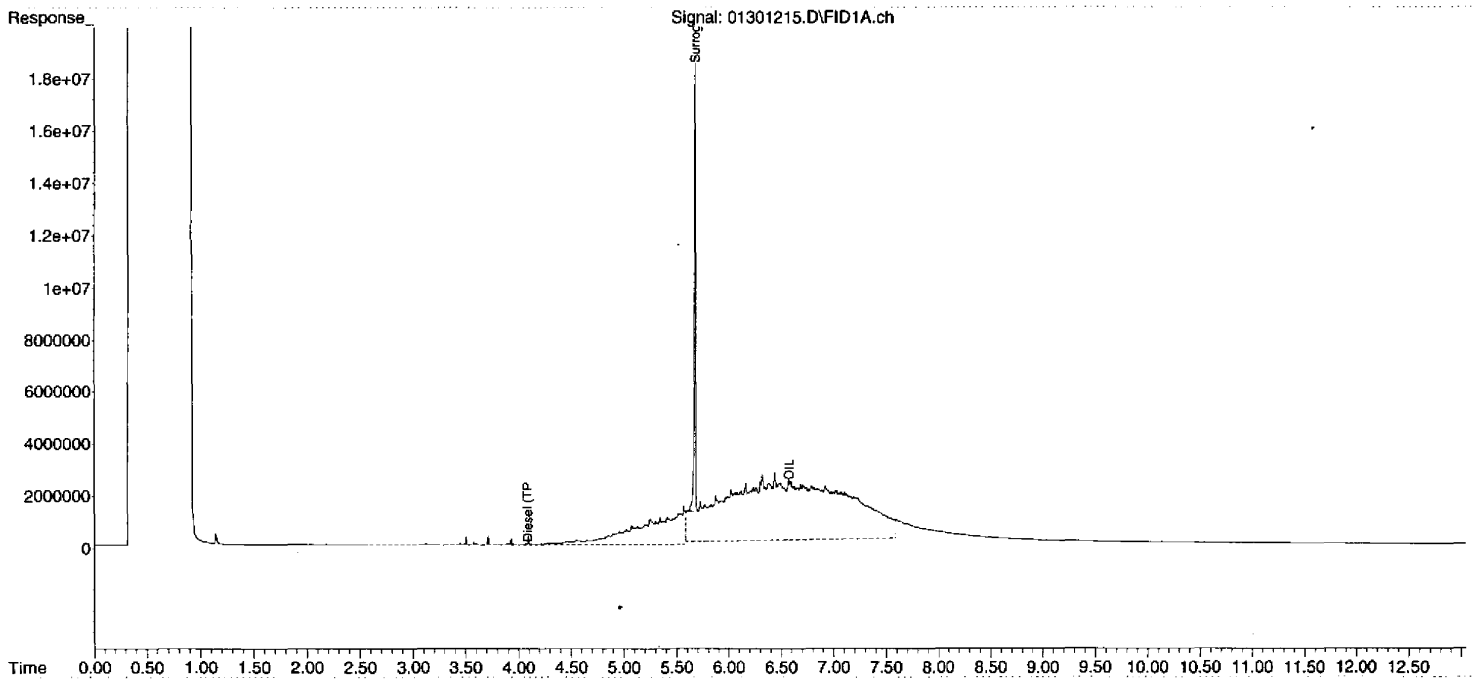
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: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

Quantitation Report (Not Reviewed)

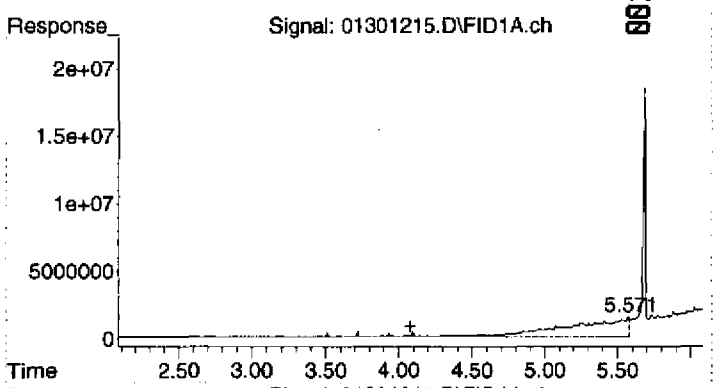
Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301215.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 4:13 pm
Operator : TD
Sample : 2010046-SCV2
Misc : 2A11019 OIL SCV
ALS Vial : 15 Sample Multiplier: 1

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

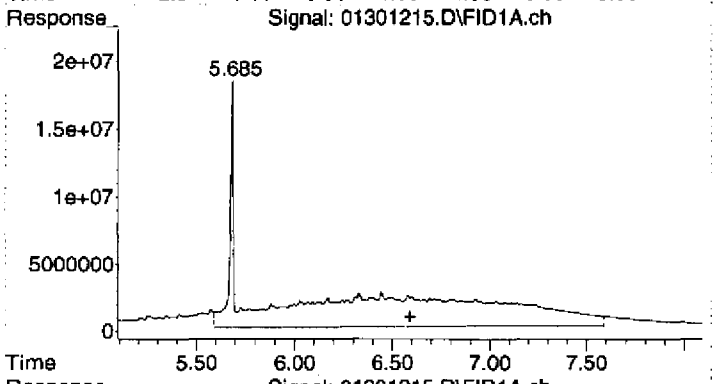


DIM0277243 DIM0277358



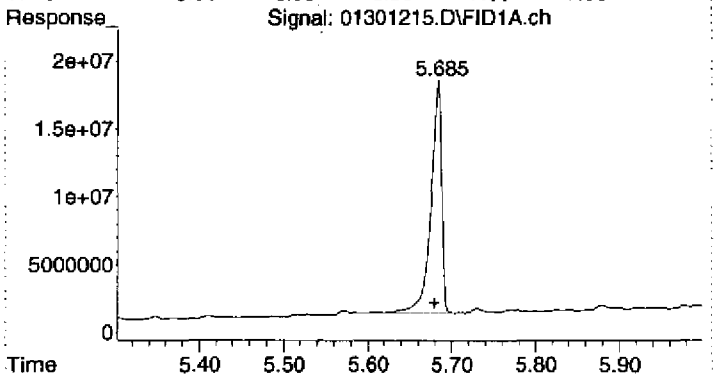
#1 Diesel (TPH)

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

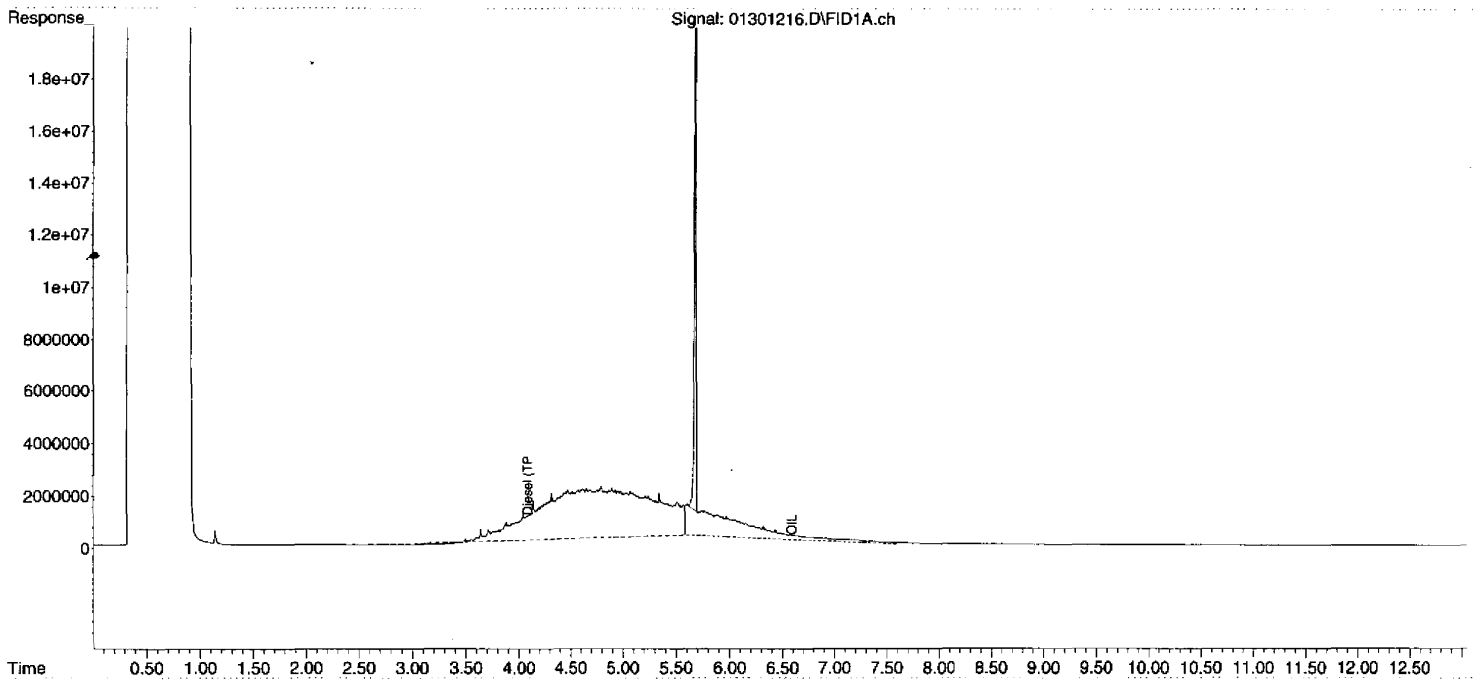
(f)=RT Delta > 1/2 Window (m)=manual int.

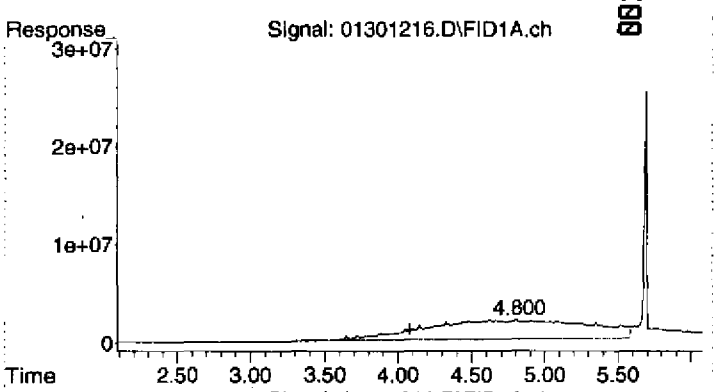
Quantitation Report (Not Reviewed)

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

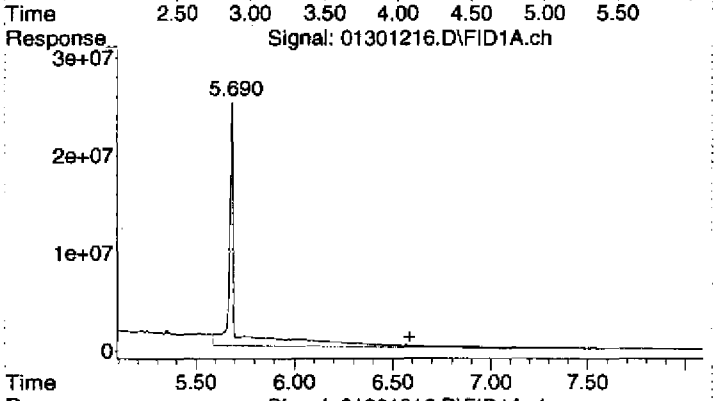
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





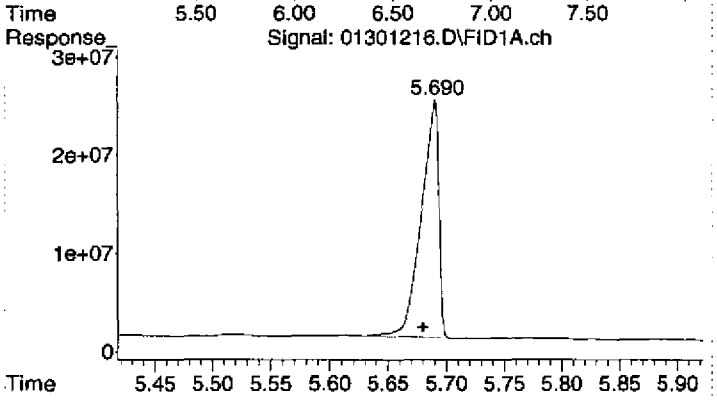
#1 Diesel (TPH)

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)

00117

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

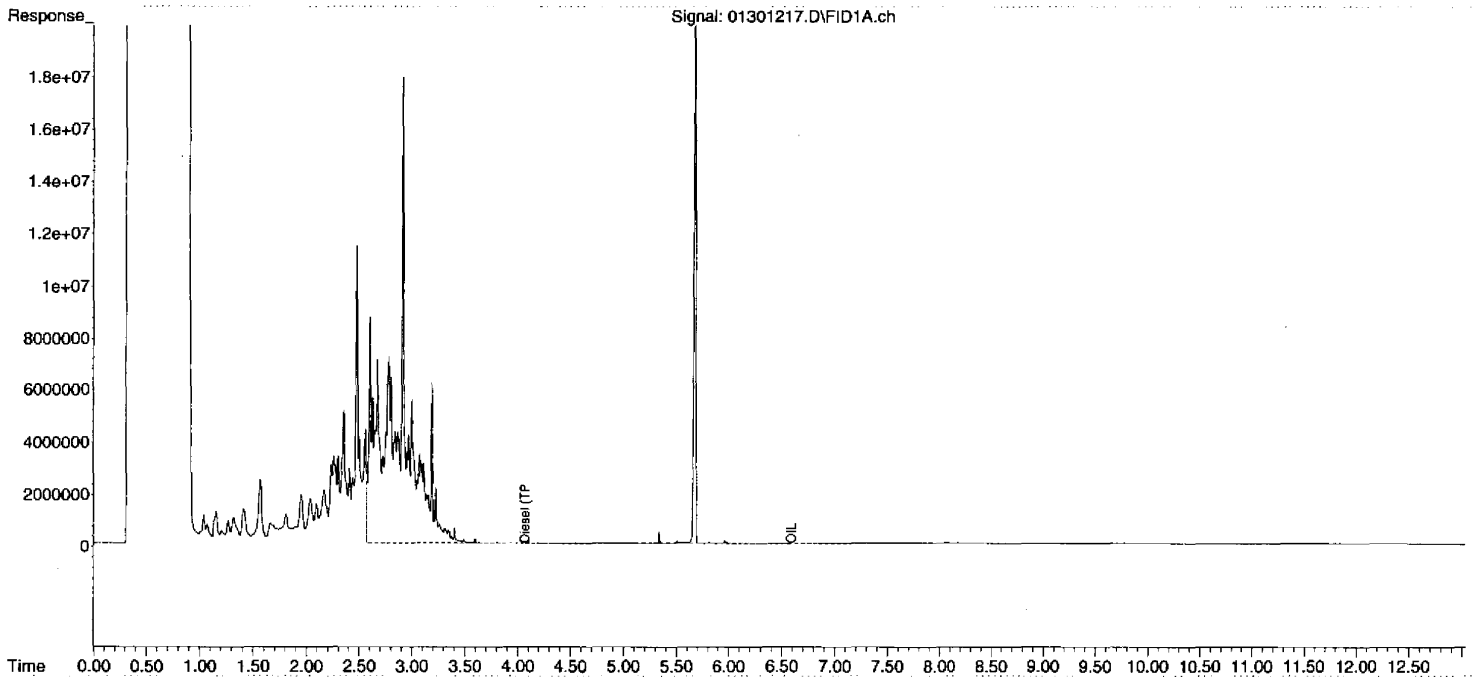
(f)=RT Delta > 1/2 Window (m)=manual int.

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

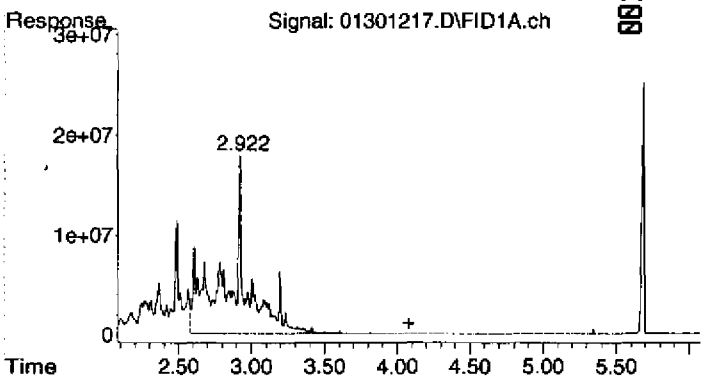
Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:48 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

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



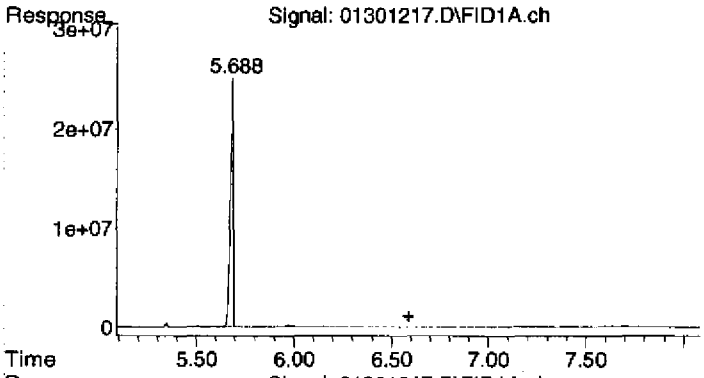
00118

00112



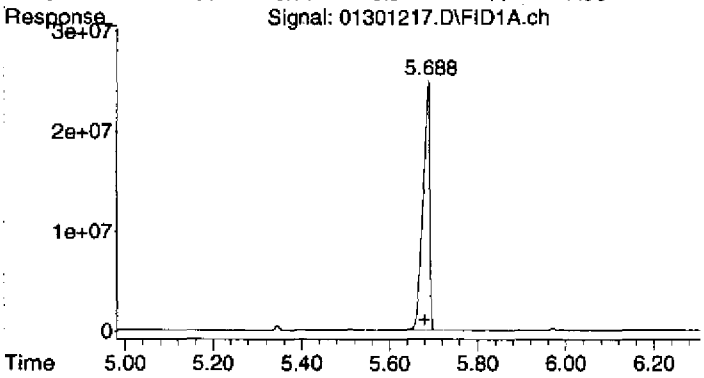
#1 Diesel (TPH)

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

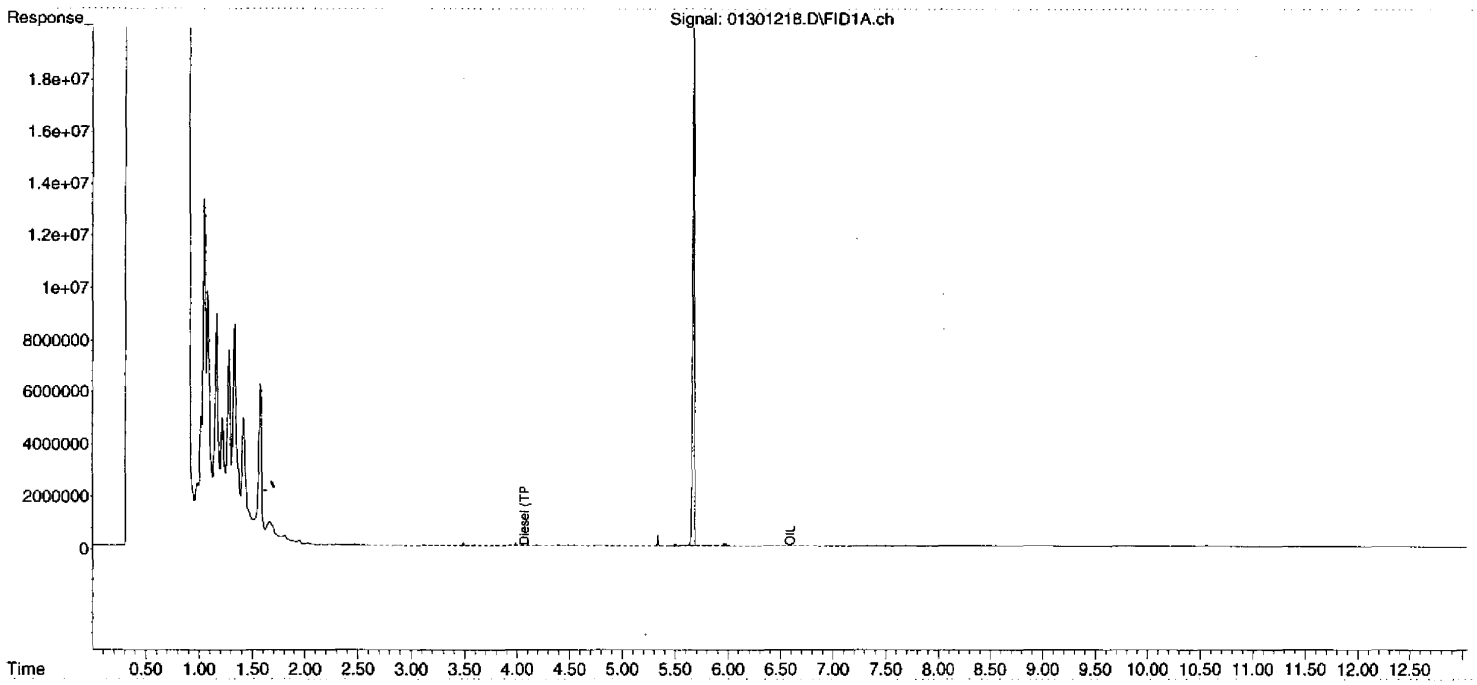
(f)=RT Delta > 1/2 Window (m)=manual int.

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

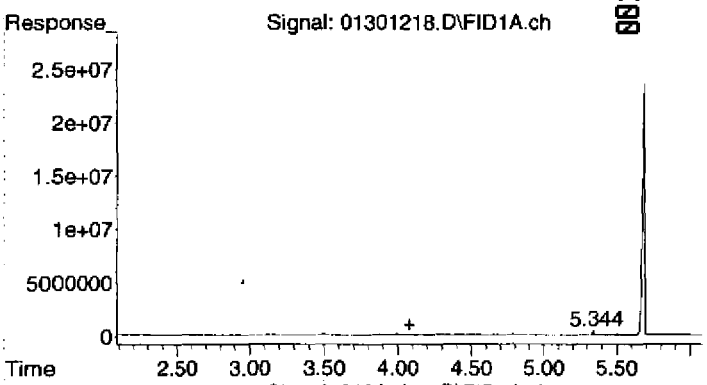
Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:52 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

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



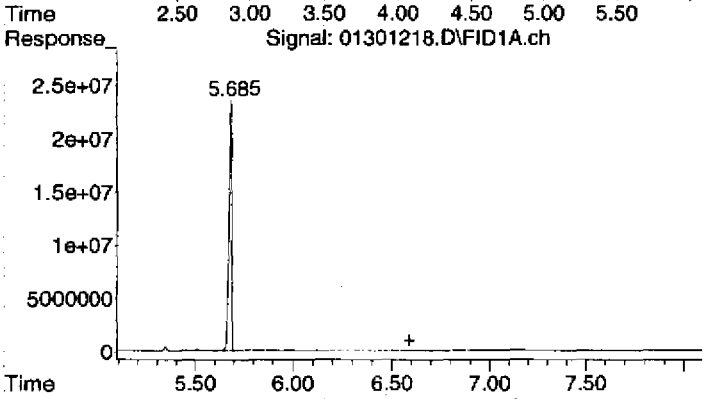
00121

00115



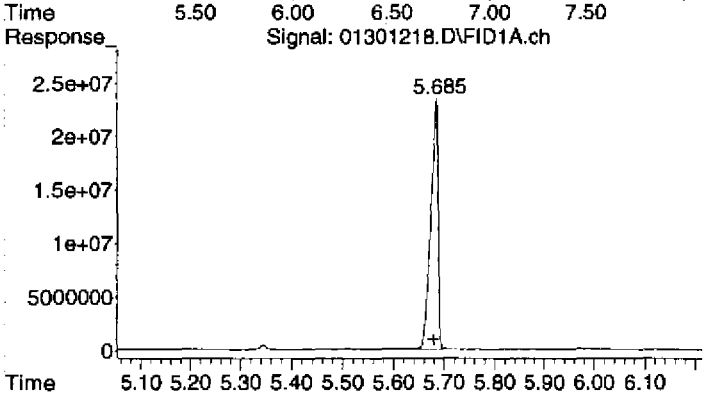
#1 Diesel (TPH)

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

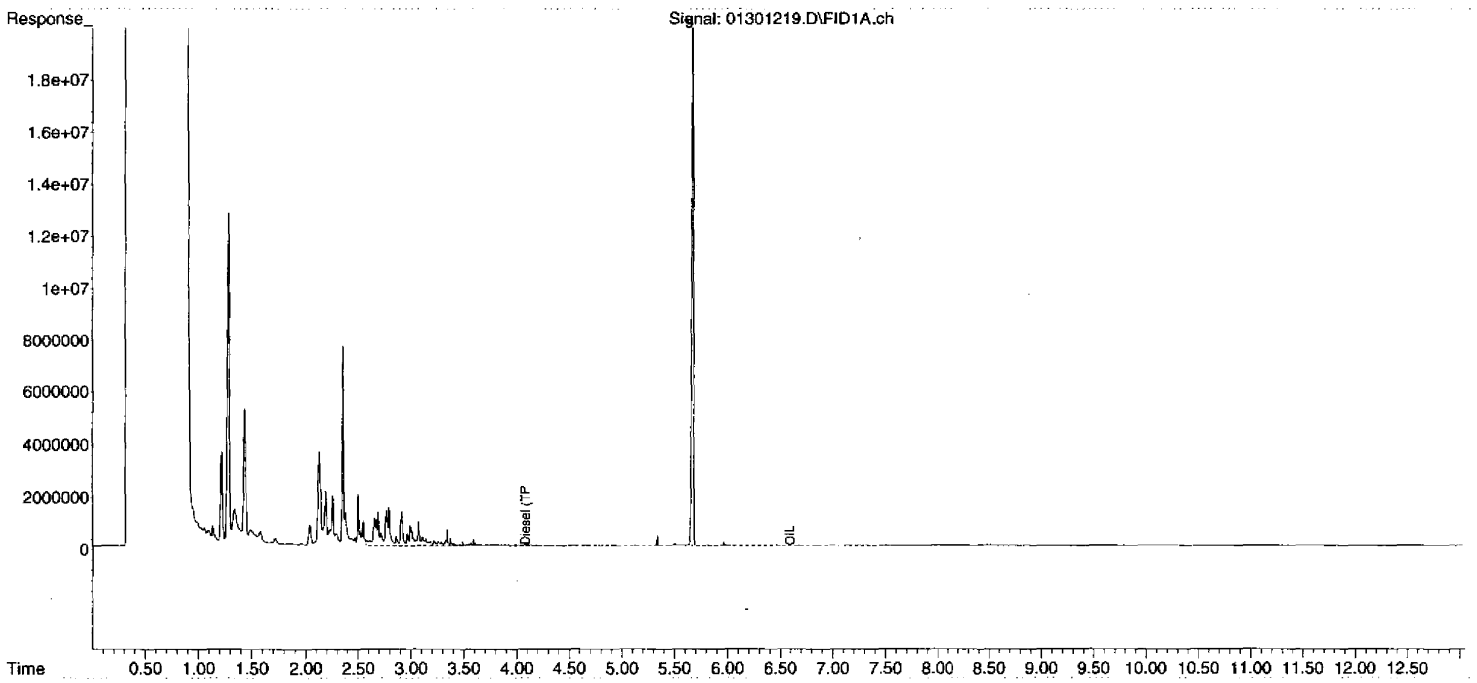
(f)=RT Delta > 1/2 Window (m)=manual int.

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

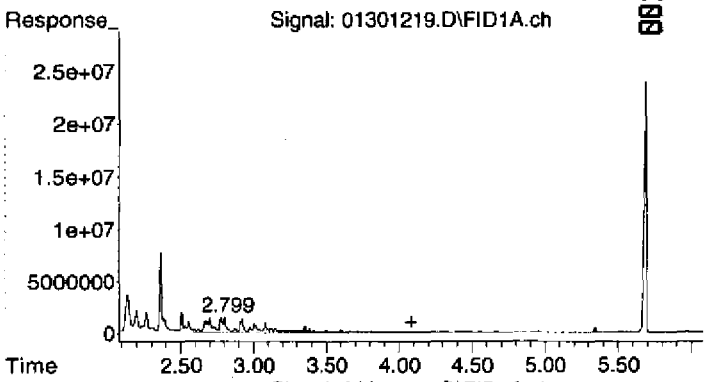
Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:46:56 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

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



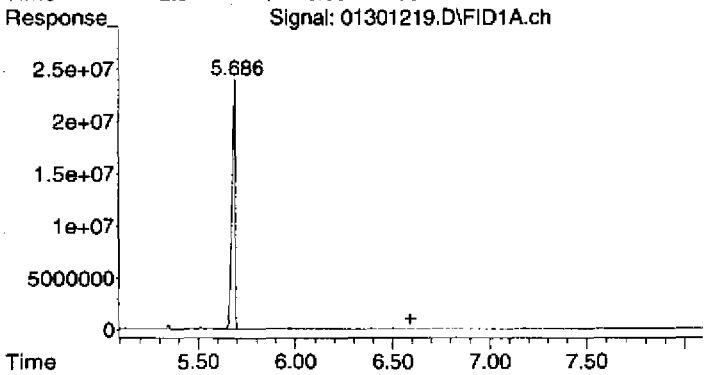
00124

00118



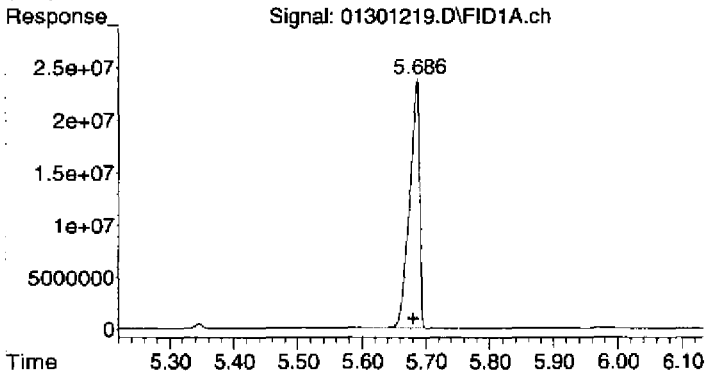
#1 Diesel (TPH)

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

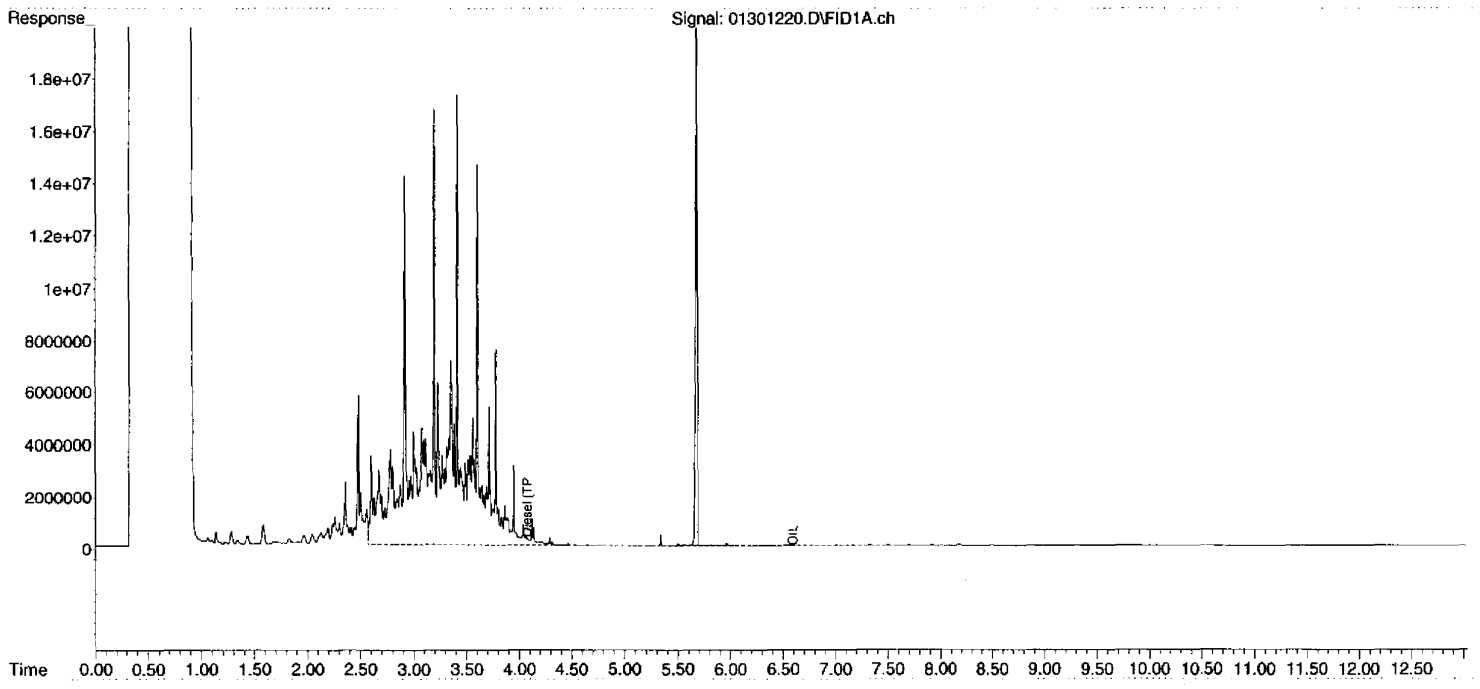
(f)=RT Delta > 1/2 Window (m)=manual int.

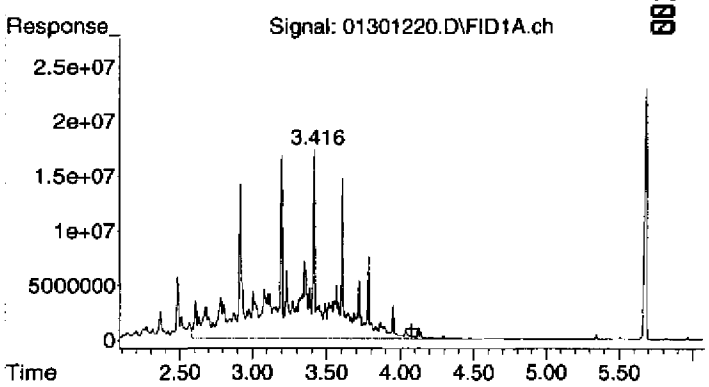
Quantitation Report (Not Reviewed)

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

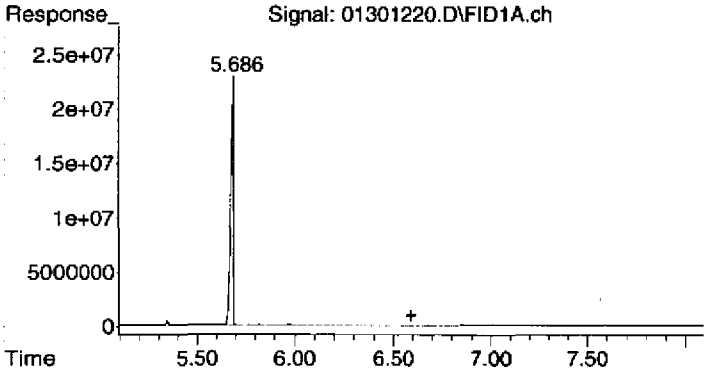
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





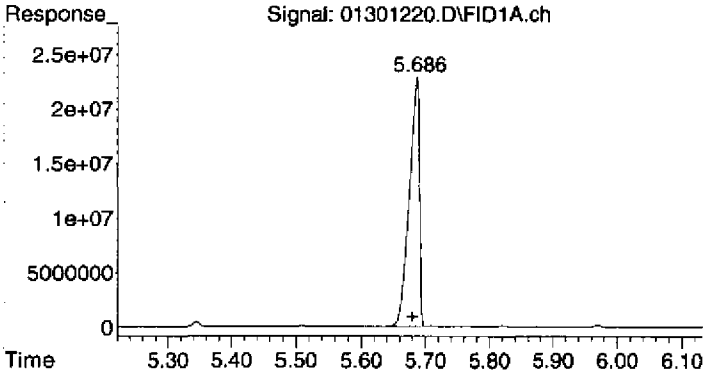
#1 Diesel (TPH)

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

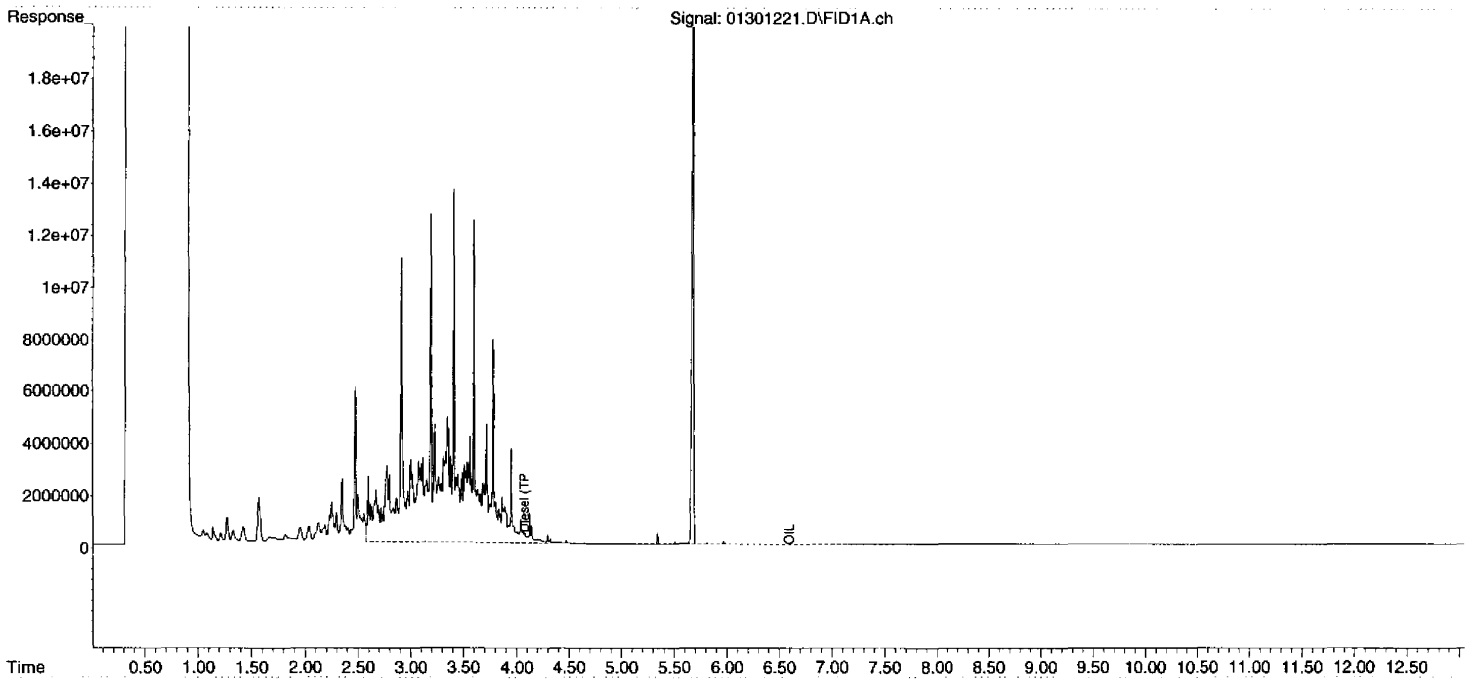
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

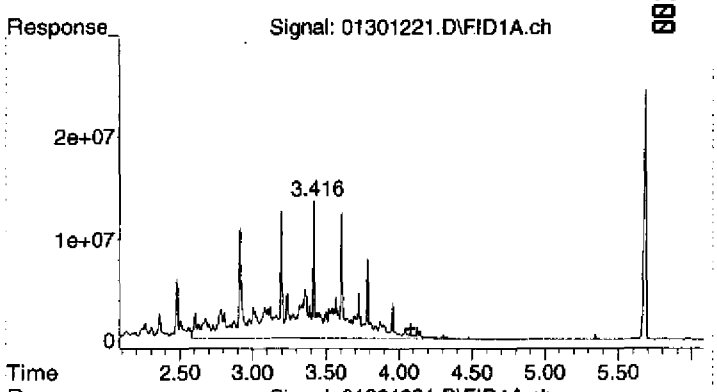
Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301221.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 6:02 pm
Operator : TD
Sample : 2010046-ICB7
Misc : 2A11023 Jet Fuel
ALS Vial : 21 Sample Multiplier: 1

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

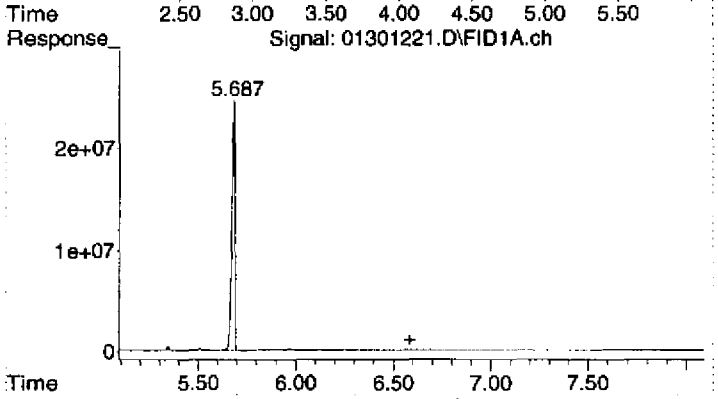


00136
00124
DIM0277243
DIM0277376



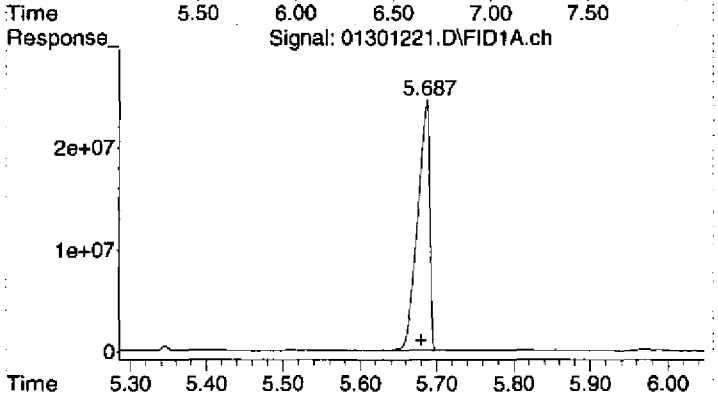
#1 Diesel (TPH)

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

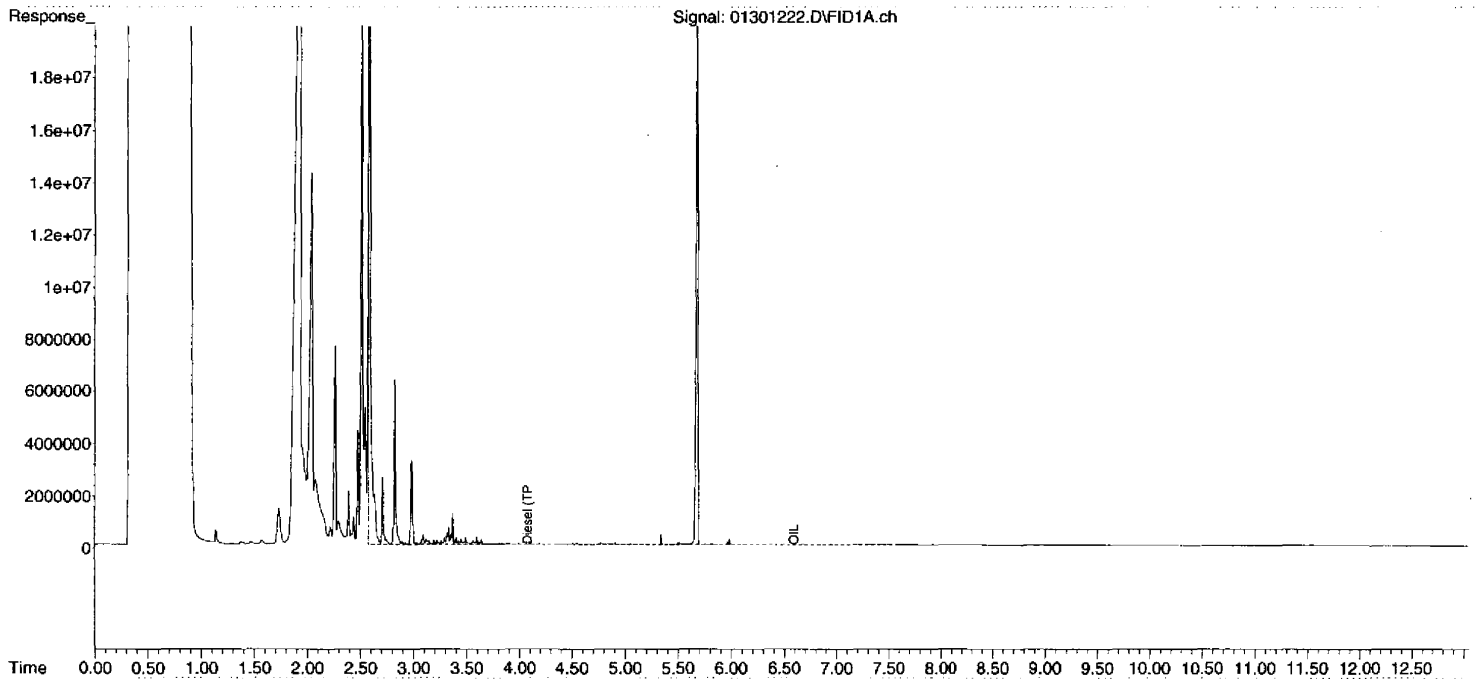
(f)=RT Delta > 1/2 Window (m)=manual int.

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

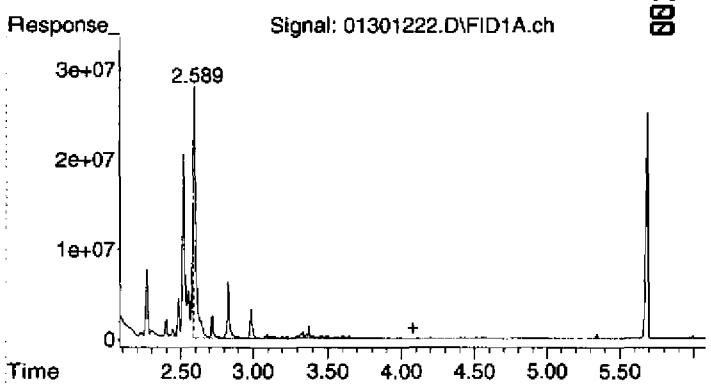
Integration File: HEXACOSANE.E
Quant Time: Jan 31 09:47:08 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

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



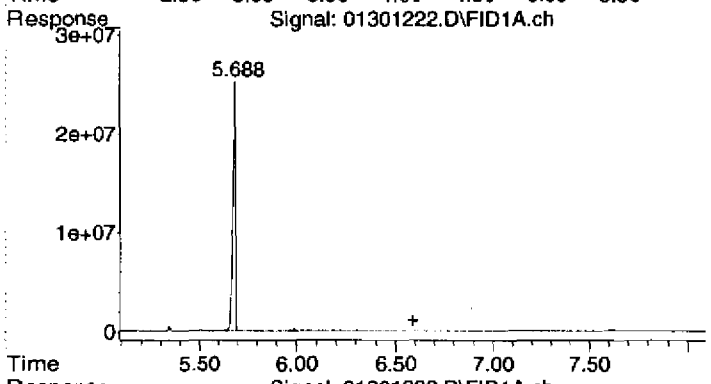
00133

00127



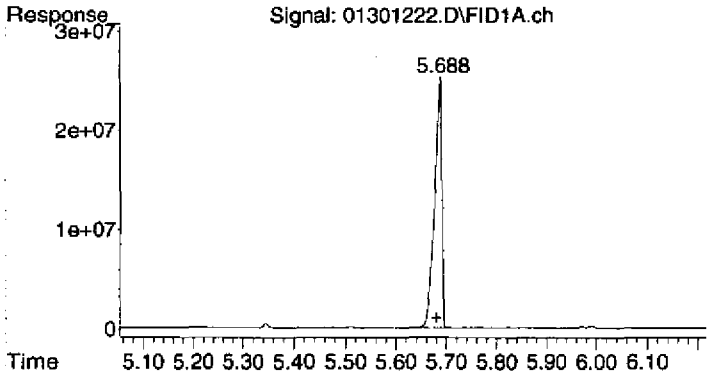
#1 Diesel (TPH)

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)

00135

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

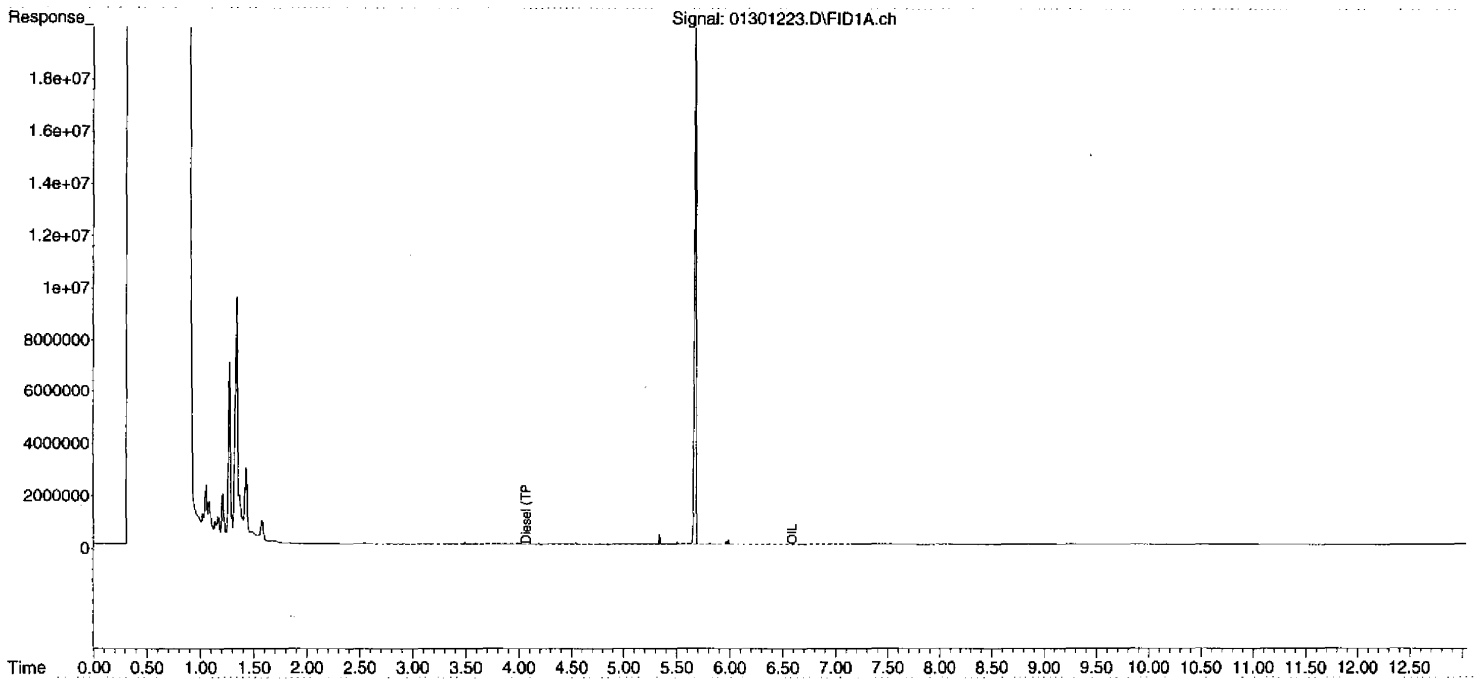
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

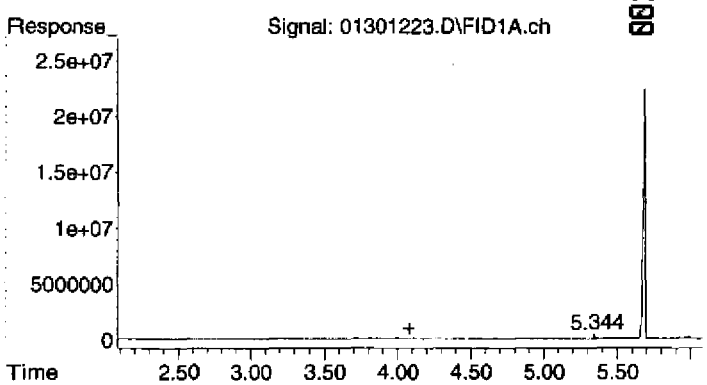
Data Path : C:\msdchem\1\2012\DATA\013012DA\
Data File : 01301223.D
Signal(s) : FID1A.ch
Acq On : 30 Jan 2012 6:38 pm
Operator : TD
Sample : 2010046-ICB9
Misc : 2A11029 Lacqure Thinner
ALS Vial : 23 Sample Multiplier: 1

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

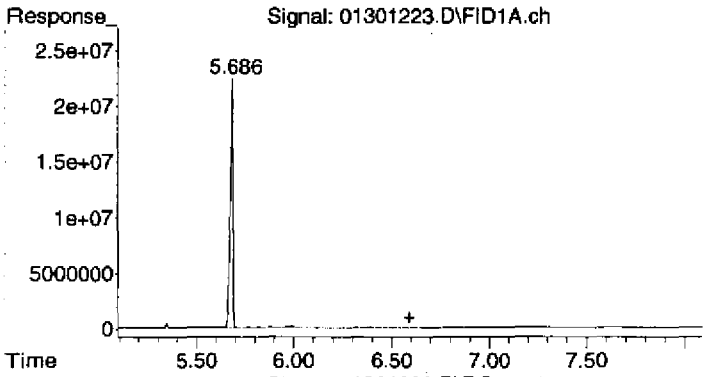


DIM0277243
DIM0277382
00130
00138



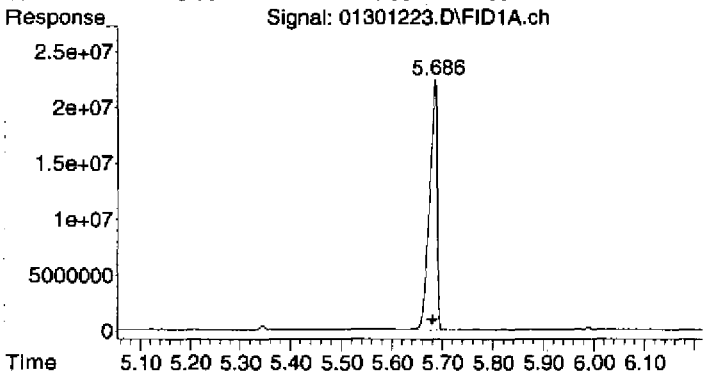
#1 Diesel (TPH)

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 Repo 00138 (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

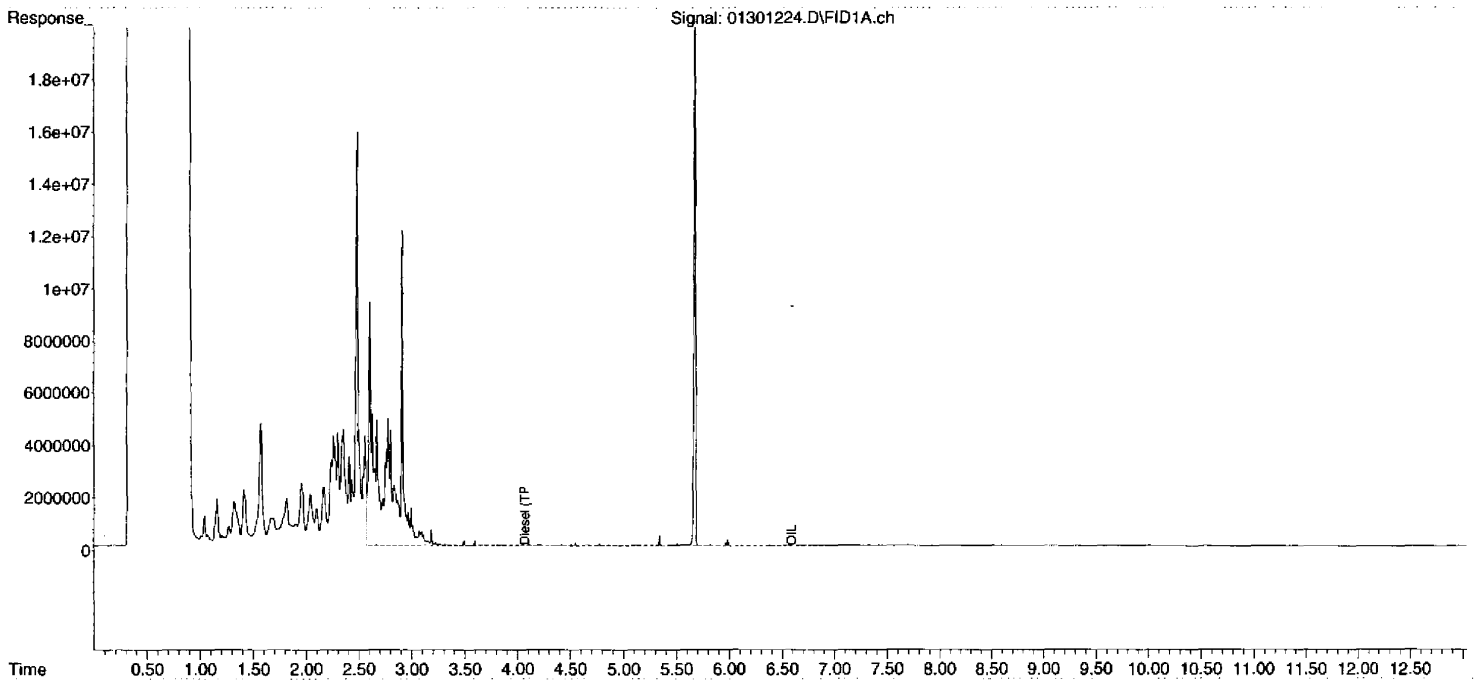
(f)=RT Delta > 1/2 Window (m)=manual int.

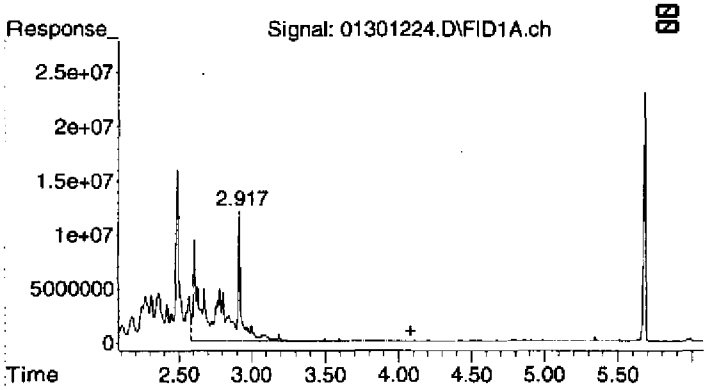
Quantitation Report (Not Reviewed)

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

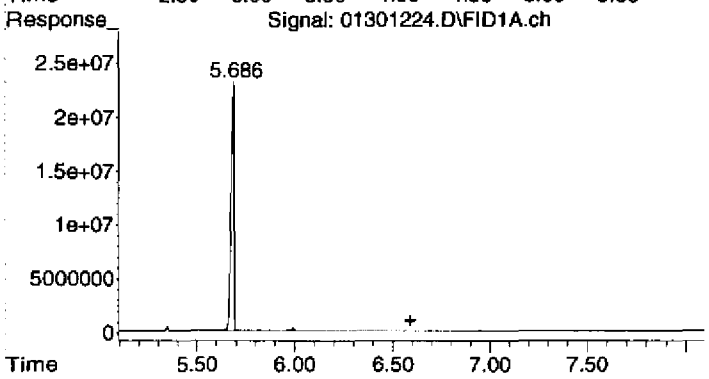
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





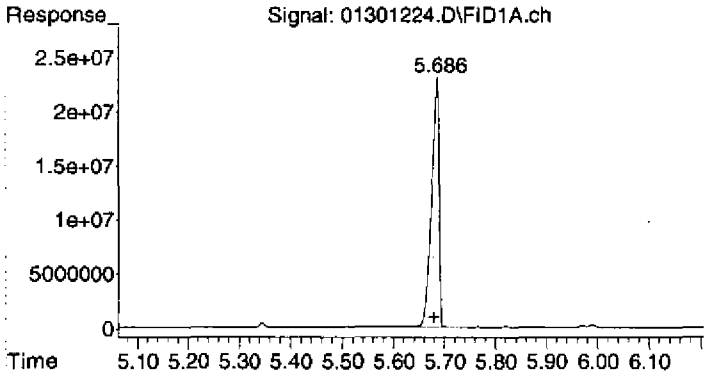
#1 Diesel (TPH)

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

SDG: 12032A
Instrument: AG 7890-2
Analysis Date: 2-02-12

SAMPLE DATA

Injection Log

Operator: TD
Directory: C:\msdchem\1\2012\DATA\020212DROA\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	02021201.D	1	2020009-IBL1	2A11003 IB	2 Feb 2012 2:00 pm
2	02021202.D	1	2020009-CCV1	2A11005 DRO-CV	2 Feb 2012 2:18 pm
3	02021203.D	1	2020009-LCV1	2A11004 DRO-QLS	2 Feb 2012 2:36 pm
4	02021204.D	1	2020009-CCV2	2A11012 OIL-CV	2 Feb 2012 2:54 pm
5	02021205.D	1	2020009-LCV2	2A11011 OIL-A	2 Feb 2012 3:12 pm
6	02021206.D	1	B2B0005-BLK1	RB	2 Feb 2012 3:30 pm
7	02021207.D	1	B2B0005-BS1	BS	2 Feb 2012 3:48 pm
8	02021208.D	1	B2B0005-MS1	HW26	2 Feb 2012 4:06 pm
9	02021209.D	1	B2B0005-MSD1	HW26	2 Feb 2012 4:24 pm
10	02021210.D	1	1202001-01	HW26	2 Feb 2012 4:42 pm
11	02021211.D	1	1202001-02	HW26	2 Feb 2012 5:00 pm
12	02021212.D	1	1202001-03	HW26	2 Feb 2012 5:18 pm
13	02021213.D	1	1202001-04	HW26	2 Feb 2012 5:36 pm
14	02021214.D	1	1202001-05	HW26	2 Feb 2012 5:54 pm
15	02021215.D	1	1202001-06	HW26	2 Feb 2012 6:12 pm
16	02021216.D	1	1202001-07	HW26	2 Feb 2012 6:31 pm
17	02021217.D	1	1202001-08	HW26	2 Feb 2012 6:49 pm
18	02021218.D	1	1202001-09	HW26	2 Feb 2012 7:07 pm
19	02021219.D	1	1202001-10	HW26	2 Feb 2012 7:24 pm
20	02021220.D	1	1202001-11	HW26	2 Feb 2012 7:43 pm
21	02021221.D	1	2020009-IBL2	2A11003 IB	2 Feb 2012 8:00 pm
22	02021222.D	1	2020009-CCV3	2A11005 DRO-CV	2 Feb 2012 8:18 pm
23	02021223.D	1	2020009-CCV4	2A11012 OIL-CV	2 Feb 2012 8:36 pm
24	02021224.D	1	2020009-CCV5	2A11005 DRO-CV	2 Feb 2012 8:54 pm
25	02021225.D	1	2020009-CCV6	2A11012 OIL-CV	2 Feb 2012 9:12 pm
41	99991201.D	1	2020009-PREP	PREP	2 Feb 2012 1:42 pm

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 ###

GC QA-QC Check Report

00144

Daily Calibration File : C:\msdchem\1\2012\DATA\020212DROA\02021202.D
Time Acquired : 2 Feb 2012 2:18 pm

File	Sample	Surrogate Recovery %	Internal Standard Responses
02021206.D (fails)	B2B0005-BL	90	
02021207.D (fails)	B2B0005-BS	92	
02021208.D (fails)	B2B0005-MS	90	
02021209.D (fails)	B2B0005-MSD	91	
02021210.D (fails)	1202001-01	90	
02021211.D (fails)	1202001-02	96	
02021212.D (fails)	1202001-03	93	
02021213.D (fails)	1202001-04	97	
02021214.D (fails)	1202001-05	96	
02021215.D (fails)	1202001-06	96	
02021216.D (fails)	1202001-07	101	
02021217.D (fails)	1202001-08	94	
02021218.D (fails)	1202001-09	89	
02021219.D (fails)	1202001-10	92	
02021220.D (fails)	1202001-11	87	

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

Created: Fri Feb 03 08:30:23 2012 AG7890_2

00138

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021201.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:00 pm Operator: TD
Sample : 2020009-IBL1 Inst : AG7890_2
Misc : 2A11003 IB
ALS Vial : 1 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 02 14:17:51 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	170569802	48.015 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	96.03%
Target Compounds			
1) HM Diesel (TPH)	4.080	7298360	2.034 ug/mL
2) H OIL	6.590	7683855	4.013 ug/mL

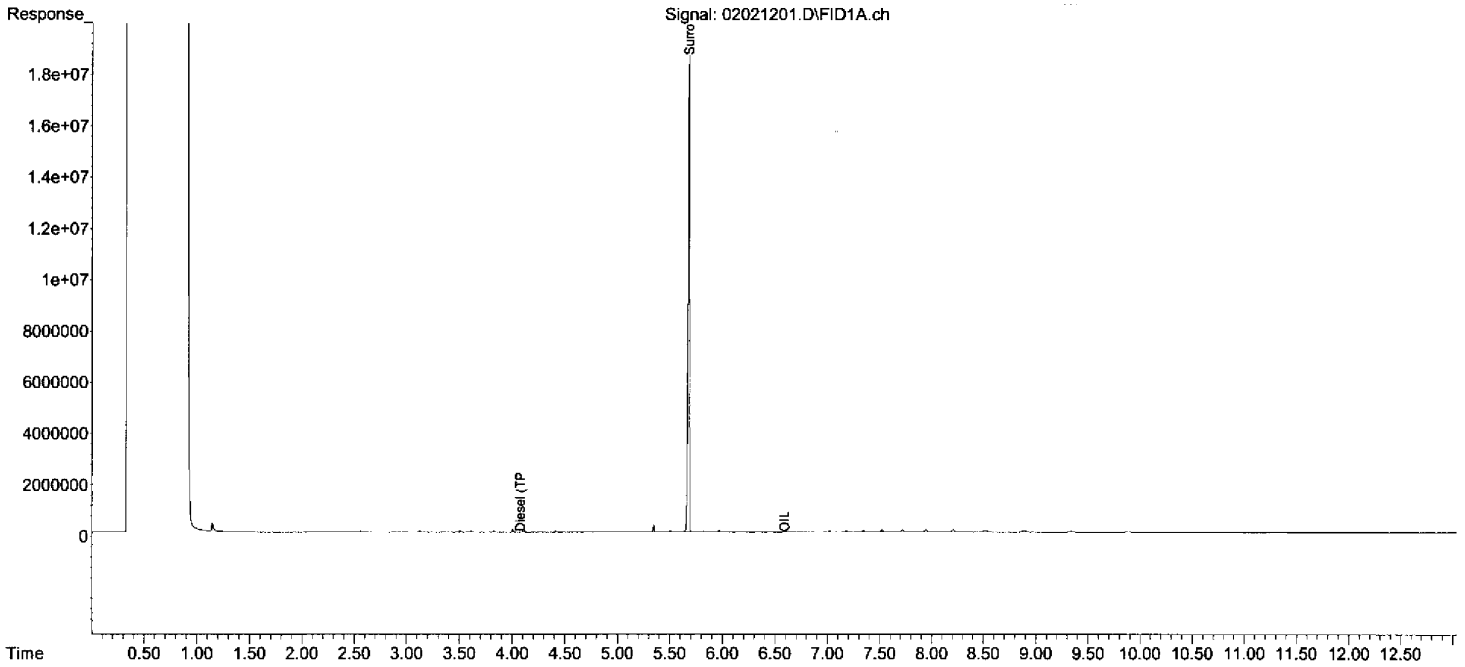
(f)=RT Delta > 1/2 Window (m)=manual int.

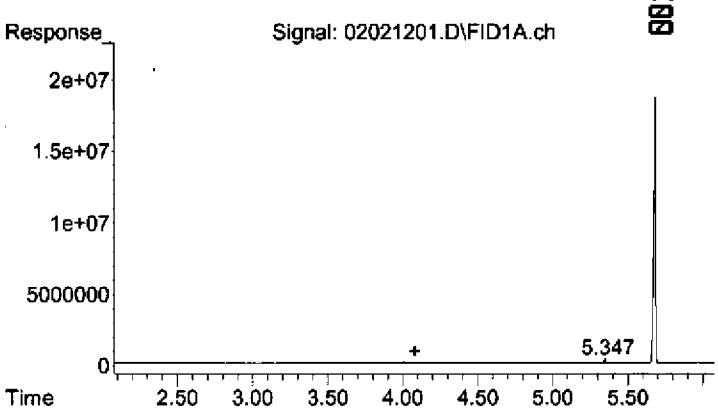
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021201.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:00 pm Operator: TD
Sample : 2020009-IBL1 Inst : AG7890_2
Misc : 2A11003 IB
ALS Vial : 1 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 02 14:17:51 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

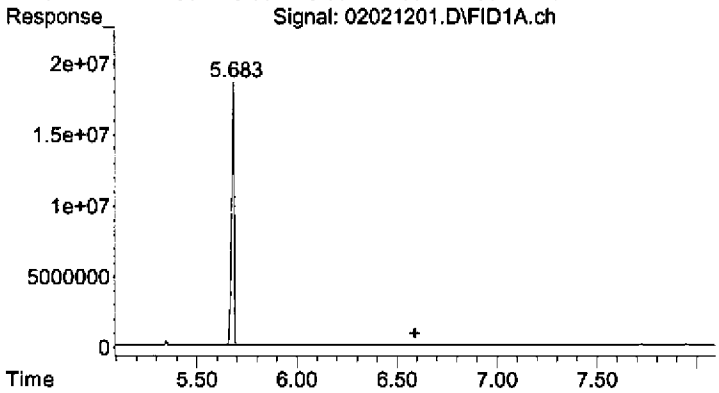
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





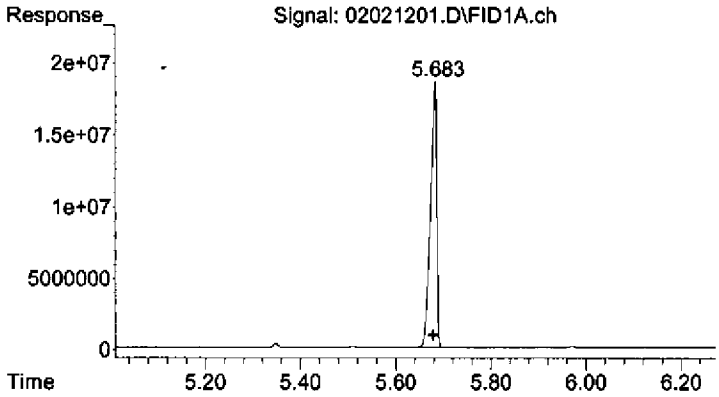
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 7298360
Conc: 2.03 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 7683855
Conc: 4.01 ug/mL



#3 Surrogate

R.T.: 5.681 min
Delta R.T.: 0.001 min
Response: 170569802
Conc: 48.02 ug/mL

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021202.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:18 pm Operator: TD
Sample : 2020009-CCV1 Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 2 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 02 14:39:15 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	3.138 E6	12.5	99	0.00
2 H	OIL	1.915	0.000 E6	100.0#	187	0.00
3 S	Surrogate	3.552	3.234 E6	9.0	96	0.00

Evaluate Continuing Calibration Report - Not Founds

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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021202.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:18 pm
Operator: TD
Sample : 2020009-CCV1
Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 2 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 02 14:39:15 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	161709278	45.521 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	91.04%
Target Compounds			
1) HM Diesel (TPH)	4.080	1569052855	437.247 ug/mL
2) H OIL	6.590	7273448	3.798 ug/mL

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

$$\frac{1569052855}{3588E6} = 437.306$$

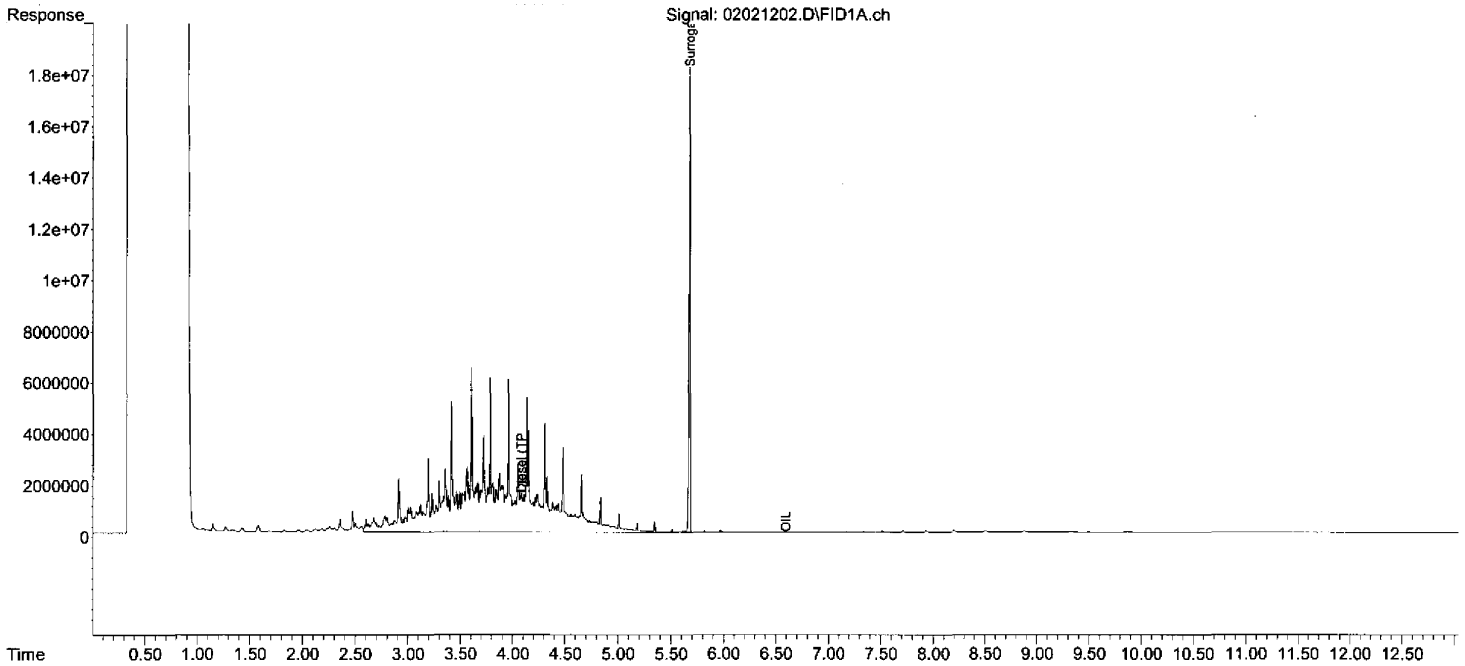
BD 02-03-12

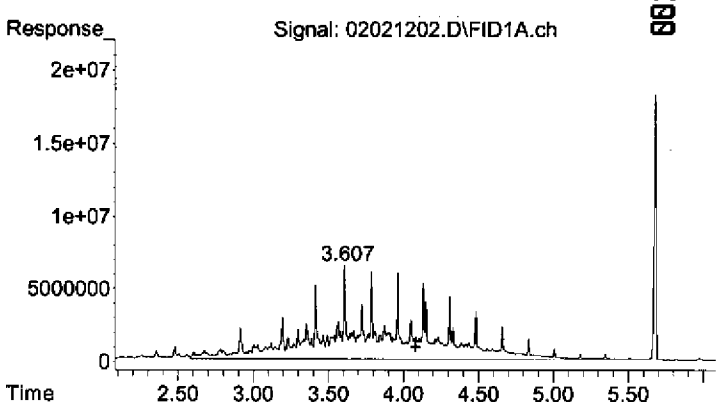
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021202.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:18 pm
Operator: TD
Sample : 2020009-CCV1
Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 2 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 02 14:39:15 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

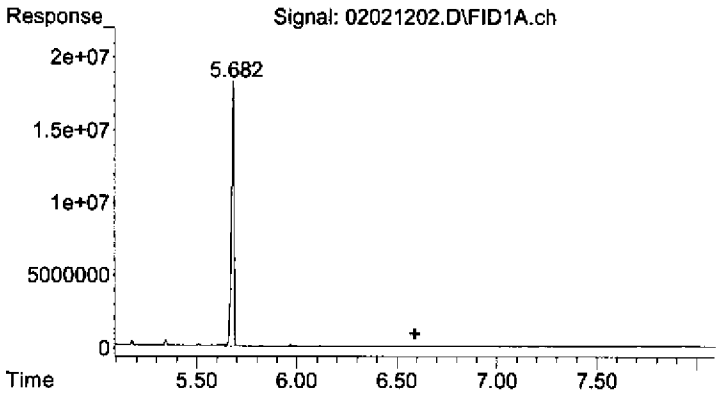
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





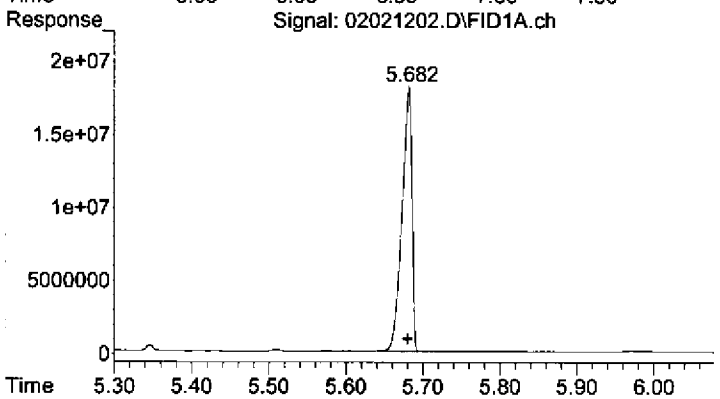
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1569052855
Conc: 437.25 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 7273448
Conc: 3.80 ug/mL



#3 Surrogate

R.T.: 5.680 min
Delta R.T.: 0.000 min
Response: 161709278
Conc: 45.52 ug/mL

C:\msdchem\1\2012\DATA\020212DROA\02021203.D

Instrument Name: AG7890_2
Date Acquired: 2/2/2012 14:36
Acq. Method File: 012712DROA.M
Sample Name: 2020009-LCV1
Misc Info: 2A11004 DRO-QLS
Operator: TD

Name	Concentration ng/mL	Calculated	% Recovery	QC Limits	STATUS
Diesel (TPH)	50	55.66	111.31%	60 - 140	pass

Quantitation Report (Not Reviewed)

00153

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021203.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:36 pm Operator: TD
Sample : 2020009-LCV1 Inst : AG7890_2
Misc : 2A11004 DRO-QLS
ALS Vial : 3 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 02 14:49:51 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	5.670	36802809	10.360 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	20.72%#
Target Compounds			
1) HM Diesel (TPH)	4.080	199718341	55.655 ug/mL
2) H OIL	6.590	3686411	1.925 ug/mL

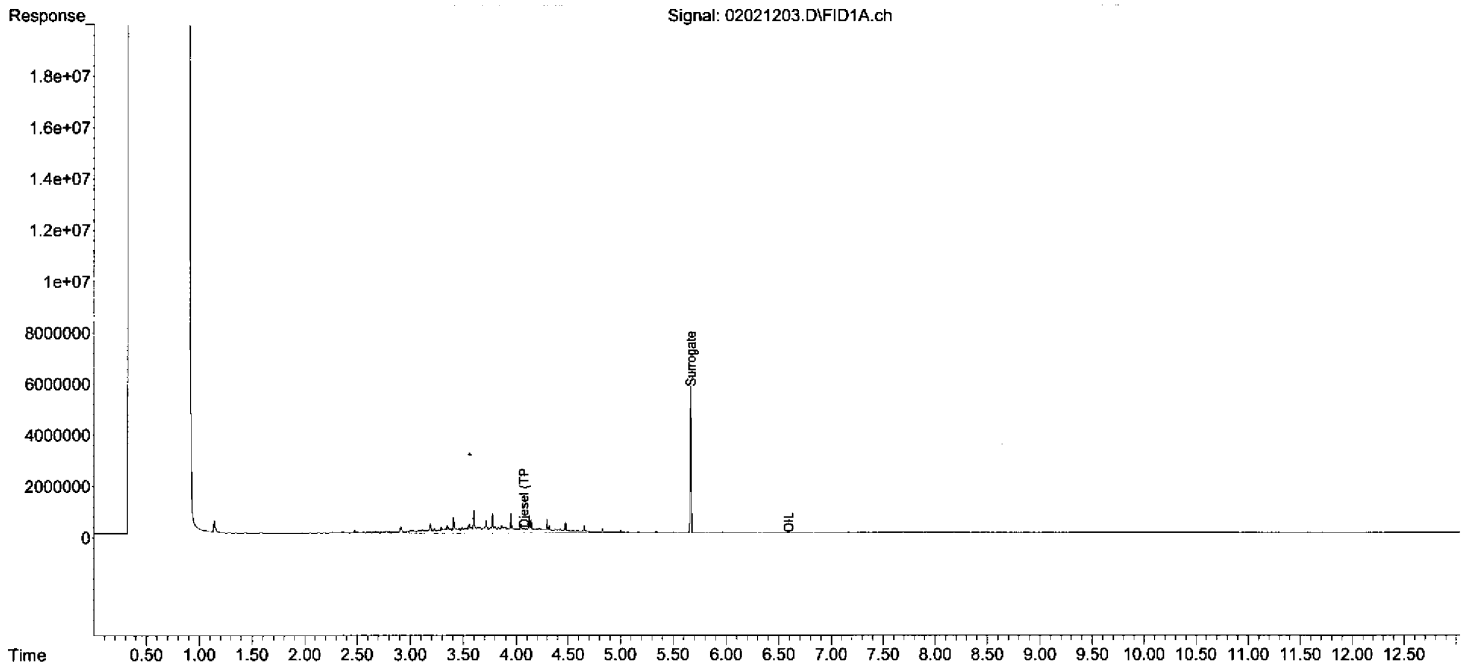
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021203.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:36 pm
Operator: TD
Sample : 2020009-LCV1
Inst : AG7890_2
Misc : 2A11004 DRO-QLS
ALS Vial : 3 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 02 14:49:51 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

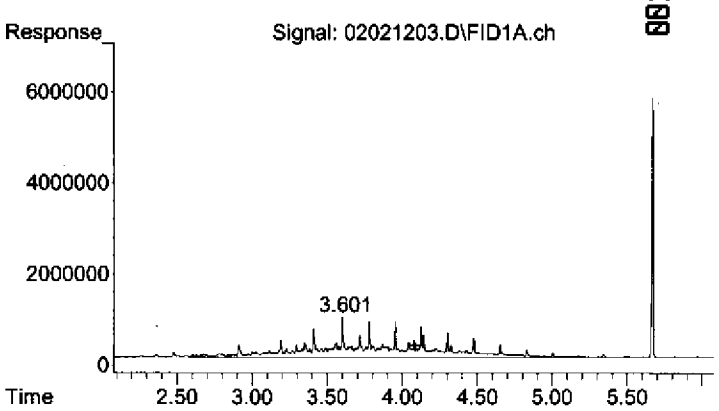
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



00154

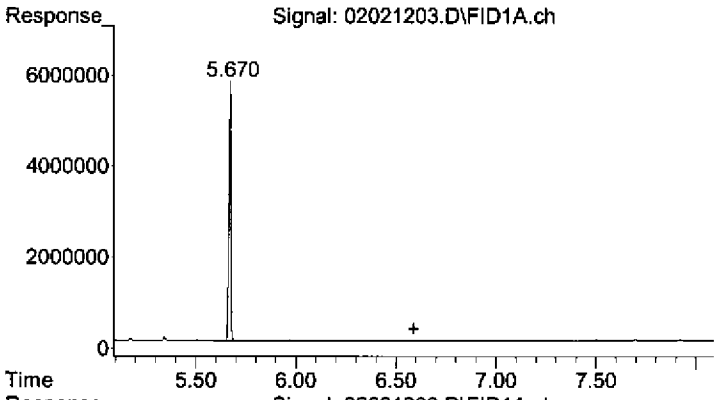
00148

013012DROA.M Thu Feb 02 14:49:53 2012



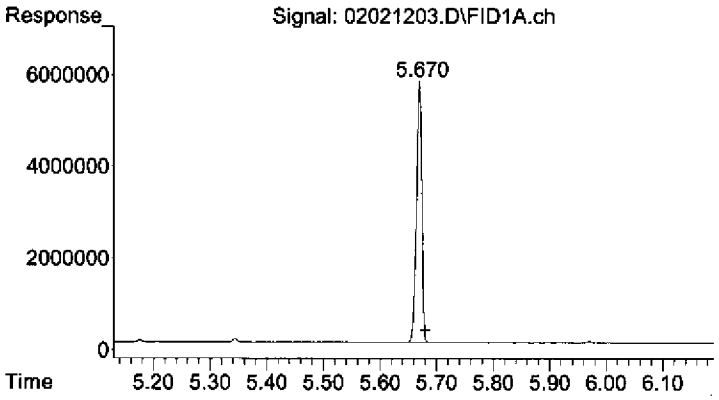
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 199718341
Conc: 55.66 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3686411
Conc: 1.93 ug/mL



#3 Surrogate

R.T.: 5.670 min
Delta R.T.: -0.010 min
Response: 36802809
Conc: 10.36 ug/mL

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021204.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:54 pm Operator: TD
Sample : 2020009-CCV2 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 02 15:08:18 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	1.805 E6	5.7	90	0.00
3 S	Surrogate	3.552	0.000 E6	100.0#	91	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\020212DROA\
Data File : 02021204.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:54 pm Operator: TD
Sample : 2020009-CCV2 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 02 15:08:18 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	5.687	145786231	41.039 ug/mLm
Spiked Amount 50.000 Range 60 - 127		Recovery = 82.08%	
Target Compounds			
1) HM Diesel (TPH)	4.080	978402716	272.651 ug/mL
2) H OIL	6.590	1804944058	942.591 ug/mLm

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

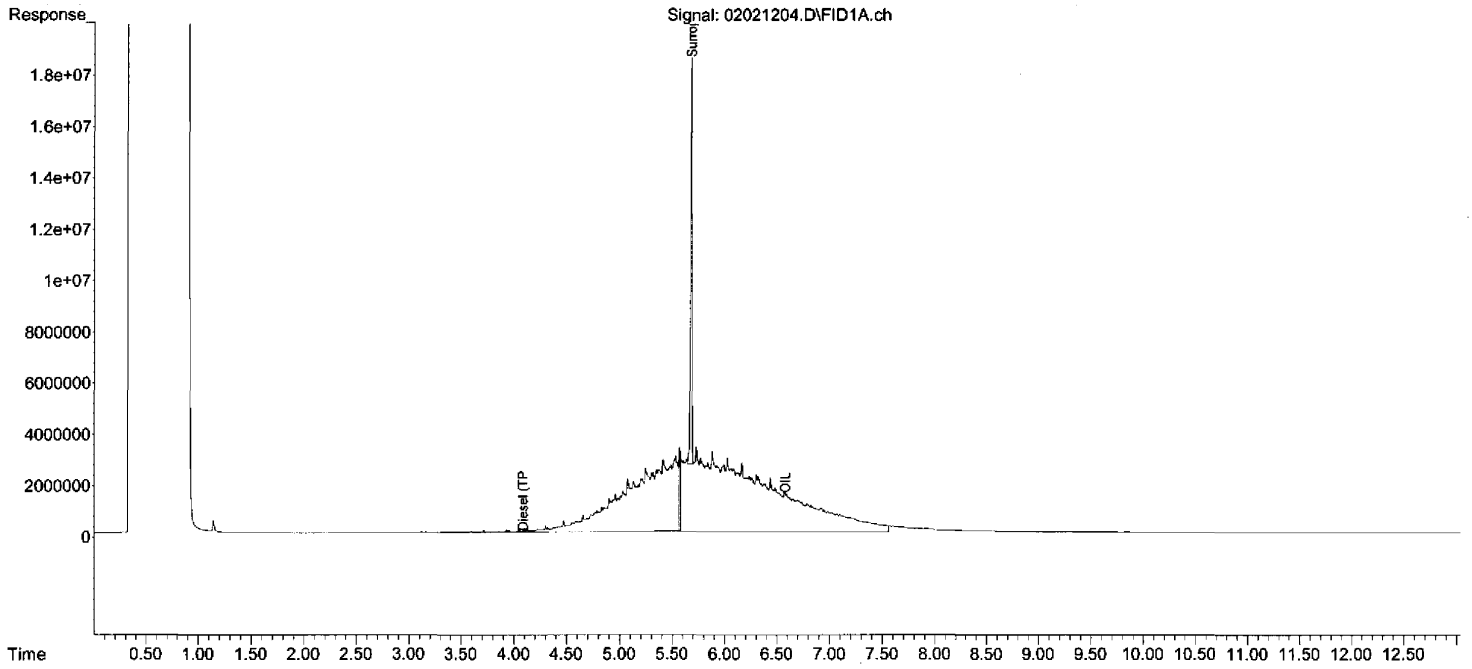
MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: TD	Date: 02-03-12
Manual integration(s) reviewed by:	
Reviewer: M	Date: 02/3/12

Quantitation Report (QT Reviewed)

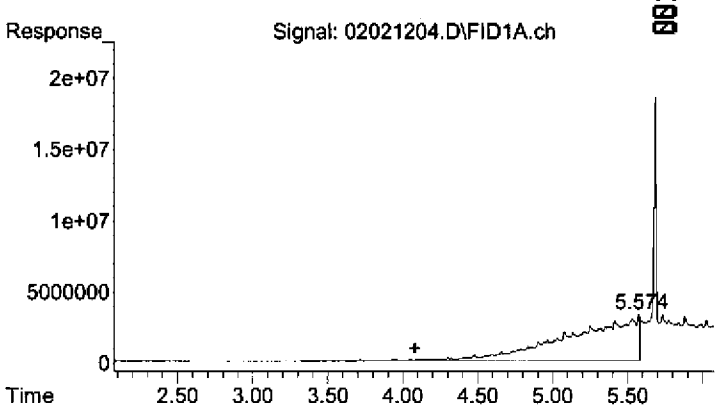
Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021204.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:54 pm
Operator: TD
Sample : 2020009-CCV2
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 02 15:08:18 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

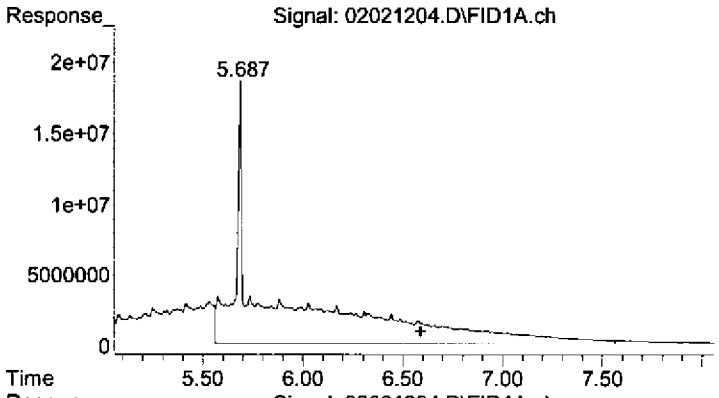


00158
00152
DIM0277243
DIM0277405



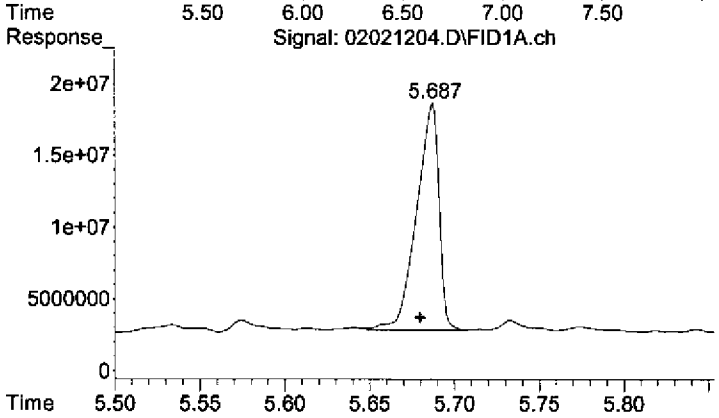
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 978402716
Conc: 272.65 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1804944058
Conc: 942.59 ug/mL m



#3 Surrogate

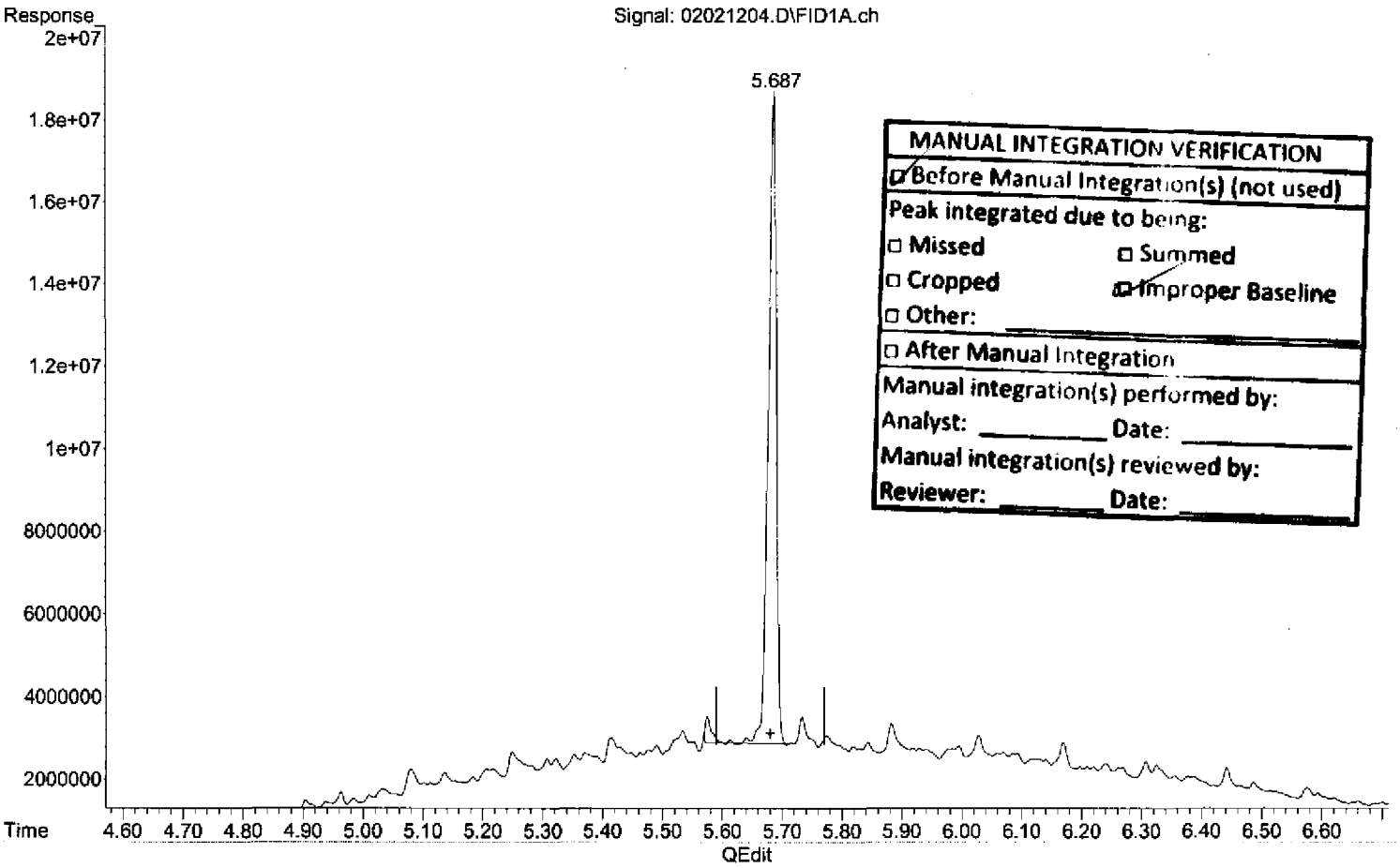
R.T.: 5.687 min
Delta R.T.: 0.007 min
Response: 145786231
Conc: 41.04 ug/mL m

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021204.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:54 pm
Operator: TD
Sample : 2020009-CCV2
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 02 15:07:40 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



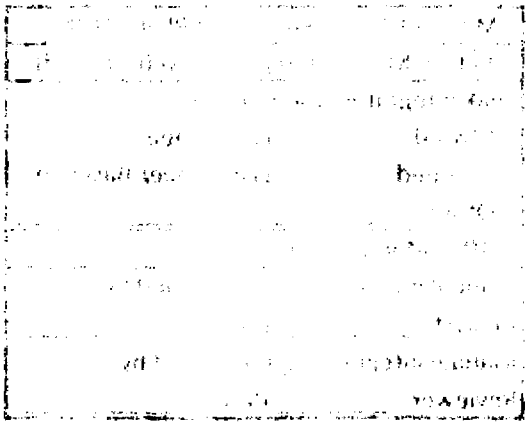
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☑ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: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

(3) Surrogate (S)

5.685min 40.665 ug/mL

response 144458916

(+) = Expected Retention Time
013012DROA.M Thu Feb 02 15:07:50 2012



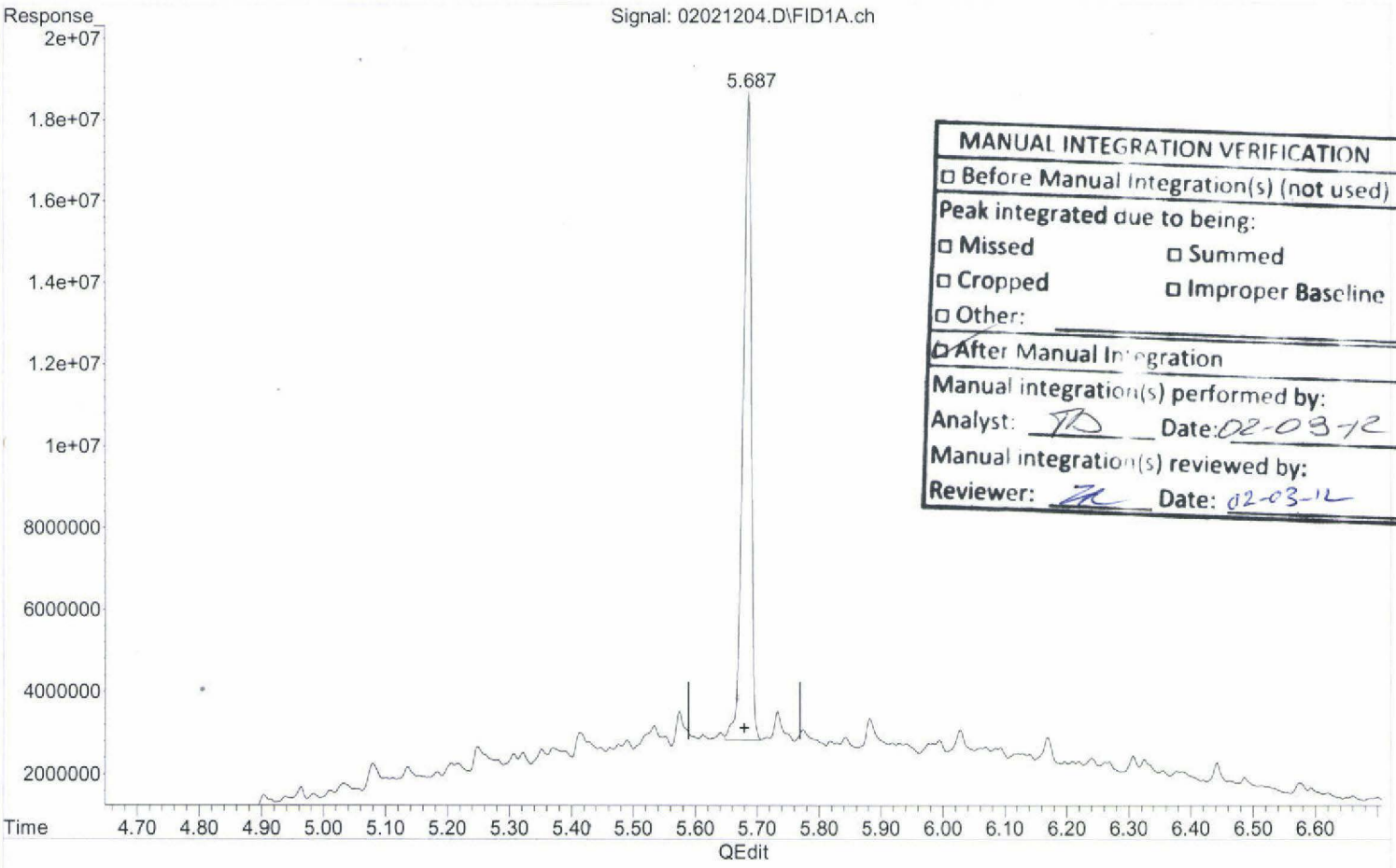
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021204.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:54 pm
Sample : 2020009-CCV2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 02 15:07:40 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: 02-03-12
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 02-03-12

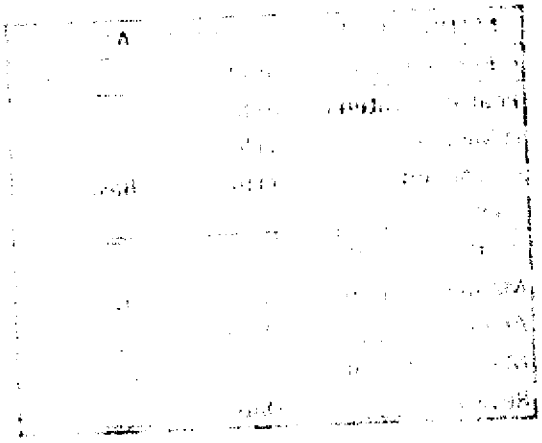
(3) Surrogate (S)

5.687min 41.039 ug/mL m

response 145786231

(+) = Expected Retention Time

013012DROA.M Thu Feb 02 15:08:02 2012

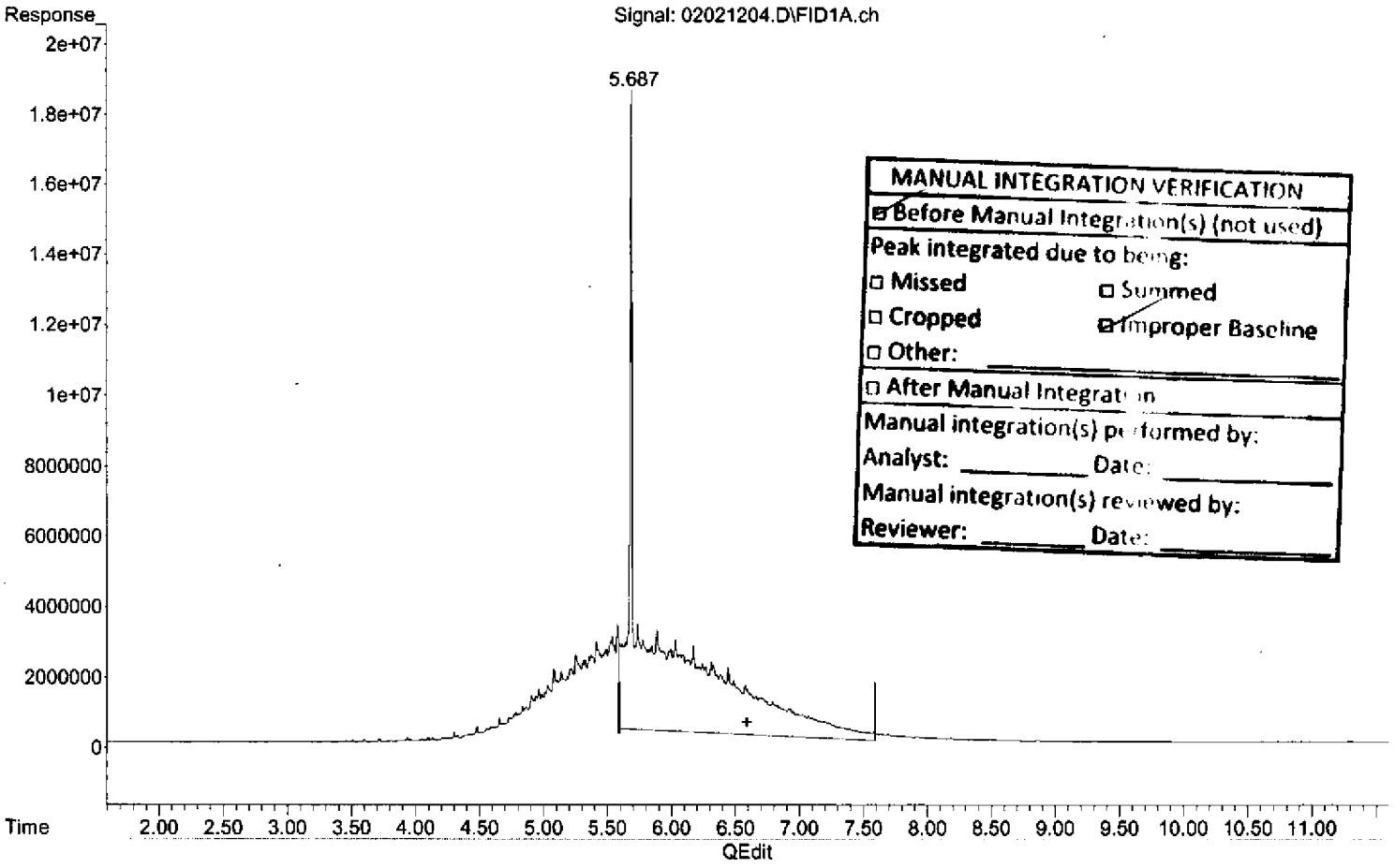


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021204.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:54 pm
Operator: TD
Sample : 2020009-CCV2
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 02 15:07:40 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 799.385 ug/mL

response 1530722845

(+) = Expected Retention Time
013012DROA.M Thu Feb 02 15:08:11 2012

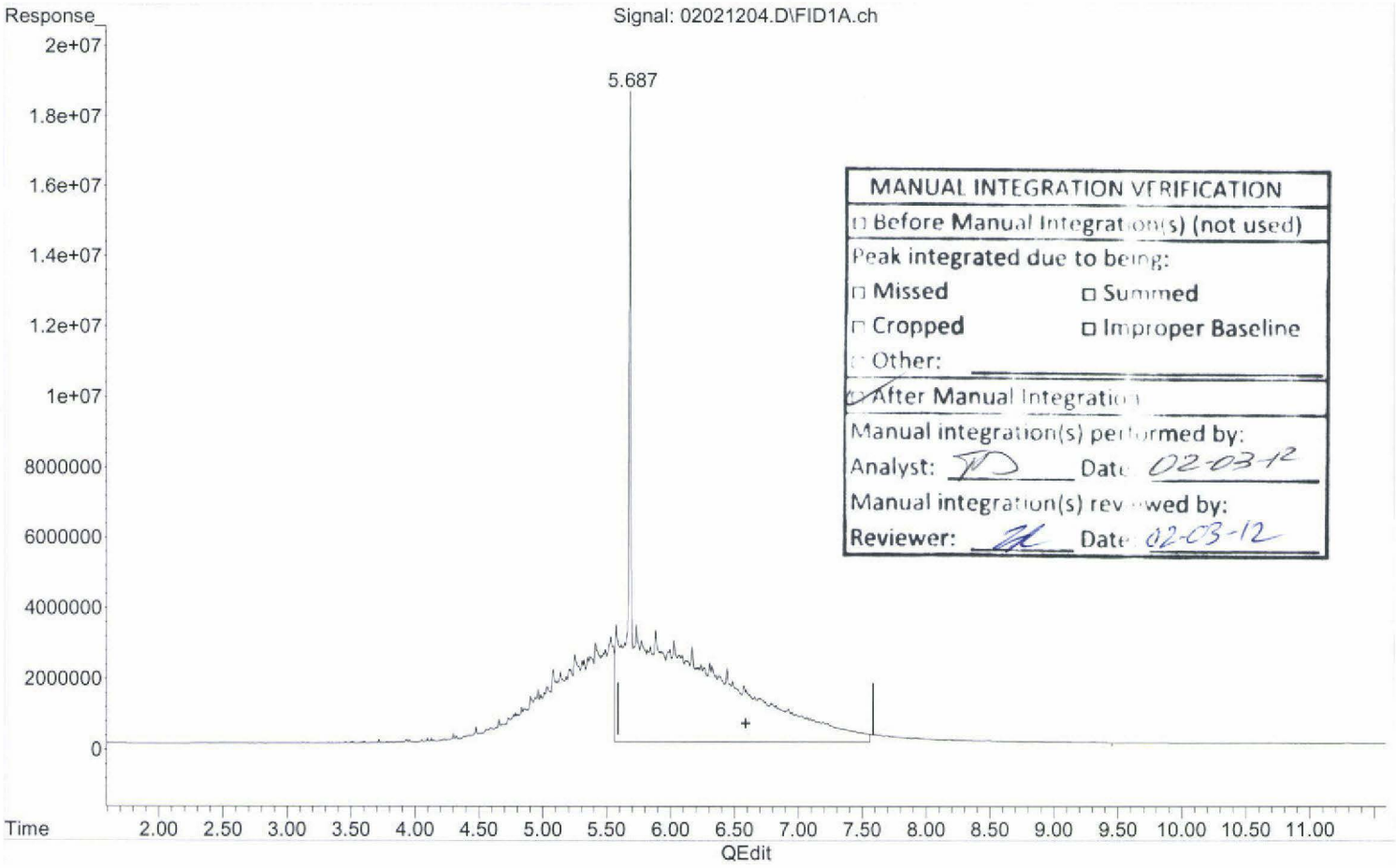
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021204.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:54 pm
Sample : 2020009-CCV2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 02 15:07:40 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: 02-03-12
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 02-03-12

(2) OIL (H)

6.590min 942.591 ug/mL m

response 1804944058

(+) = Expected Retention Time

013012DROA.M Thu Feb 02 15:08:21 2012

Quantitation Report (Not Reviewed)

00164

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021204.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:54 pm Operator: TD
Sample : 2020009-CCV2 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 02 15:07:40 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	5.685	144458916	40.665 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	81.33%
Target Compounds			
1) HM Diesel (TPH)	4.080	978402716	272.651 ug/mL
2) H OIL	6.590	1532050160	800.078 ug/mL

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

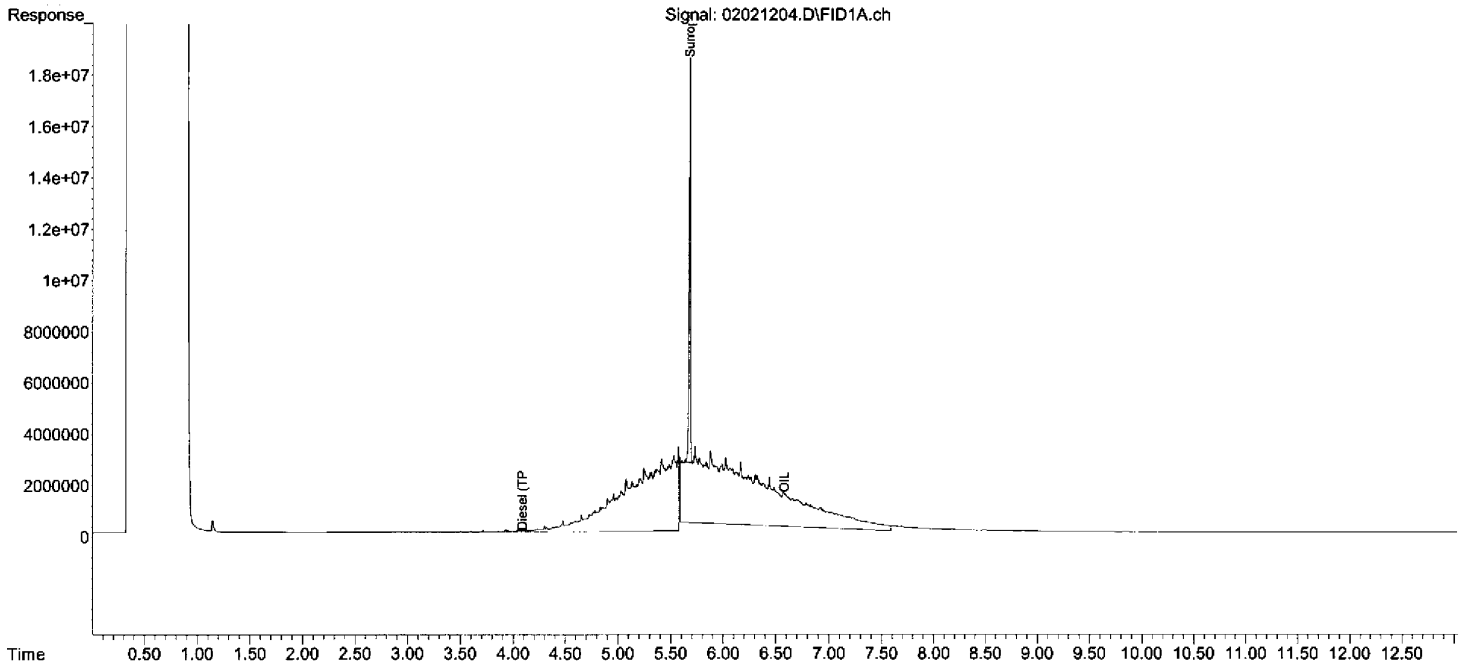
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: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

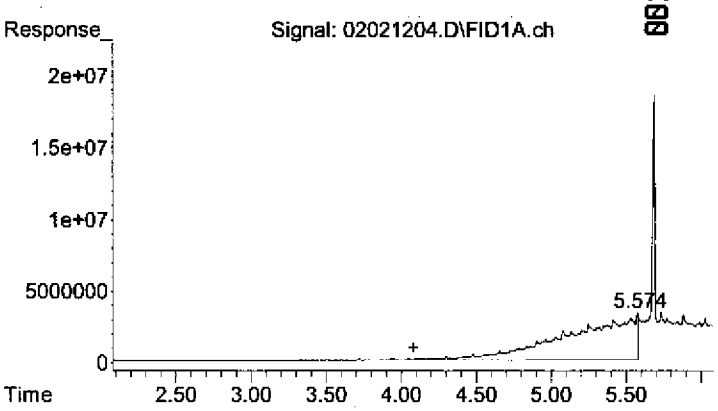
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021204.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 2:54 pm
Operator: TD
Sample : 2020009-CCV2
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 4 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 02 15:07:40 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

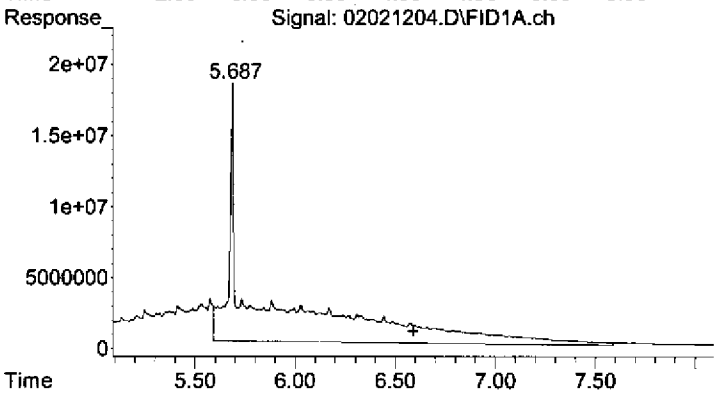
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





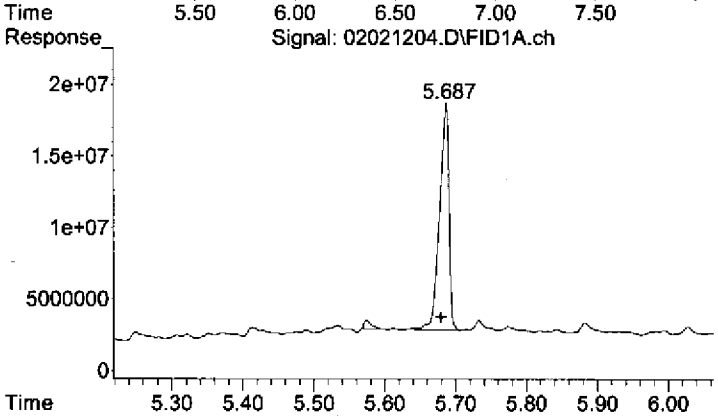
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 978402716
Conc: 272.65 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1532050160
Conc: 800.08 ug/mL



#3 Surrogate

R.T.: 5.685 min
Delta R.T.: 0.006 min
Response: 144458916
Conc: 40.67 ug/mL

C:\msdchem\1\2012\DATA\020212DROA\02021205.D

Instrument Name: AG7890_2
Date Acquired: 2/2/2012 15:12
Acq. Method File: 012712DROA.M
Sample Name: 2020009-LCV2
Misc Info: 2A11011 OIL-A
Operator: TD

Name	Concentration ng/mL	Calculated	% Recovery	QC Limits	STATUS
OIL	200	195.62	97.81%	60 - 140	pass

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021205.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 3:12 pm Operator: TD
Sample : 2020009-LCV2 Inst : AG7890_2
Misc : 2A11011 OIL-A
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 08:20:13 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	5.680	155329319	43.725 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	87.45%
Target Compounds			
1) HM Diesel (TPH)	4.080	212345756	59.174 ug/mL
2) H OIL	6.590	374579933	195.616 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: 02-03-12

Manual integration(s) reviewed by:

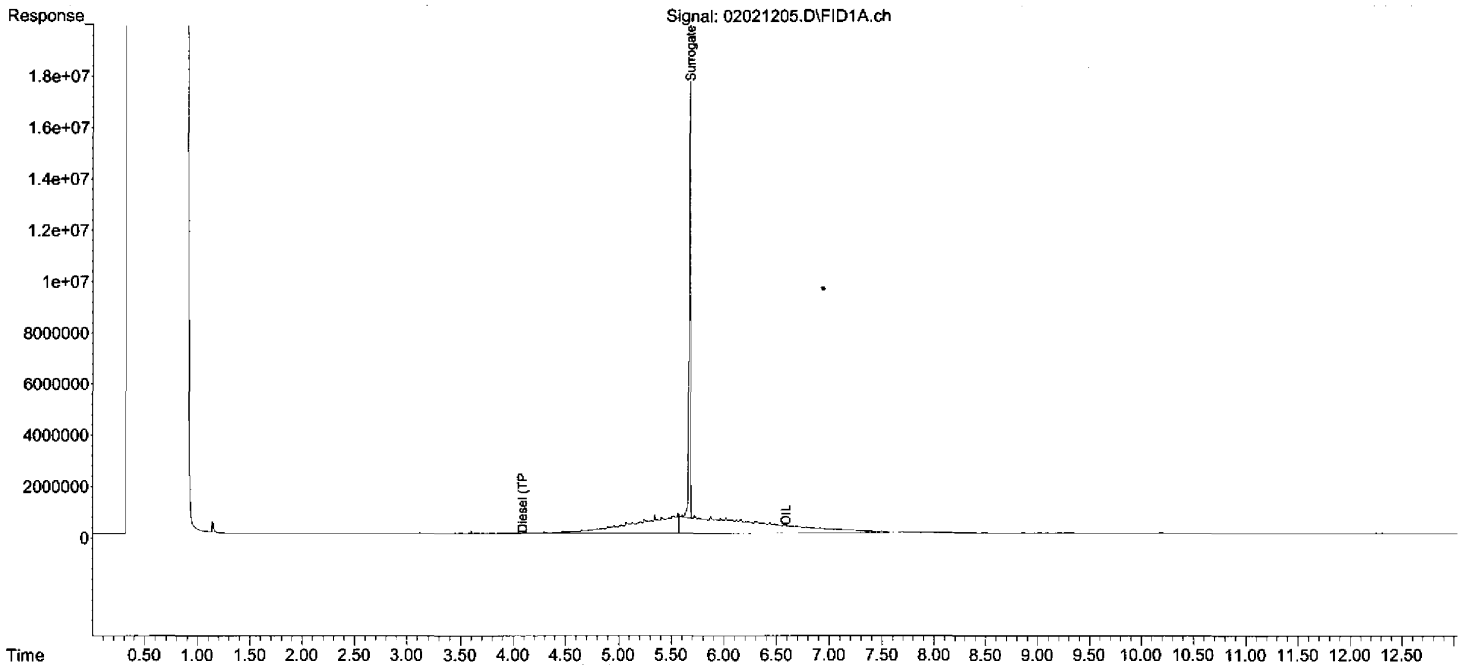
Reviewer: ZK Date: 02-03-12

Quantitation Report (QT Reviewed)

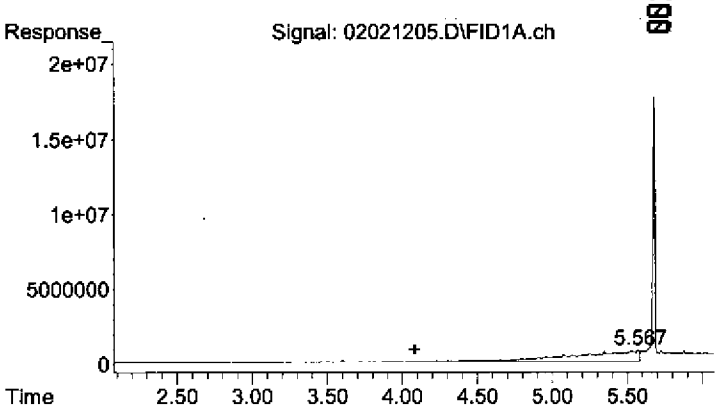
Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021205.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 3:12 pm
Operator: TD
Sample : 2020009-LCV2
Inst : AG7890_2
Misc : 2A11011 OIL-A
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 08:20:13 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

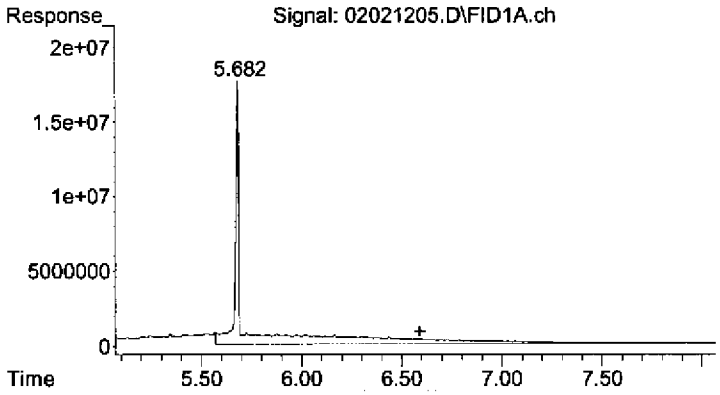


013012DROA.M Fri Feb 03 08:20:25 2012
Page: 2



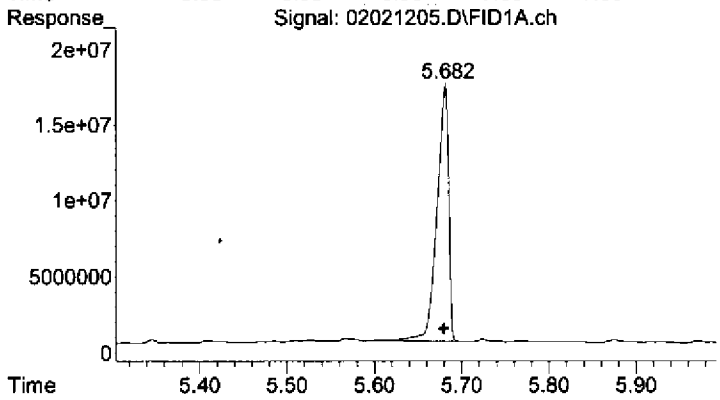
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 212345756
Conc: 59.17 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 374579933
Conc: 195.62 ug/mL m



#3 Surrogate

R.T.: 5.680 min
Delta R.T.: 0.000 min
Response: 155329319
Conc: 43.73 ug/mL

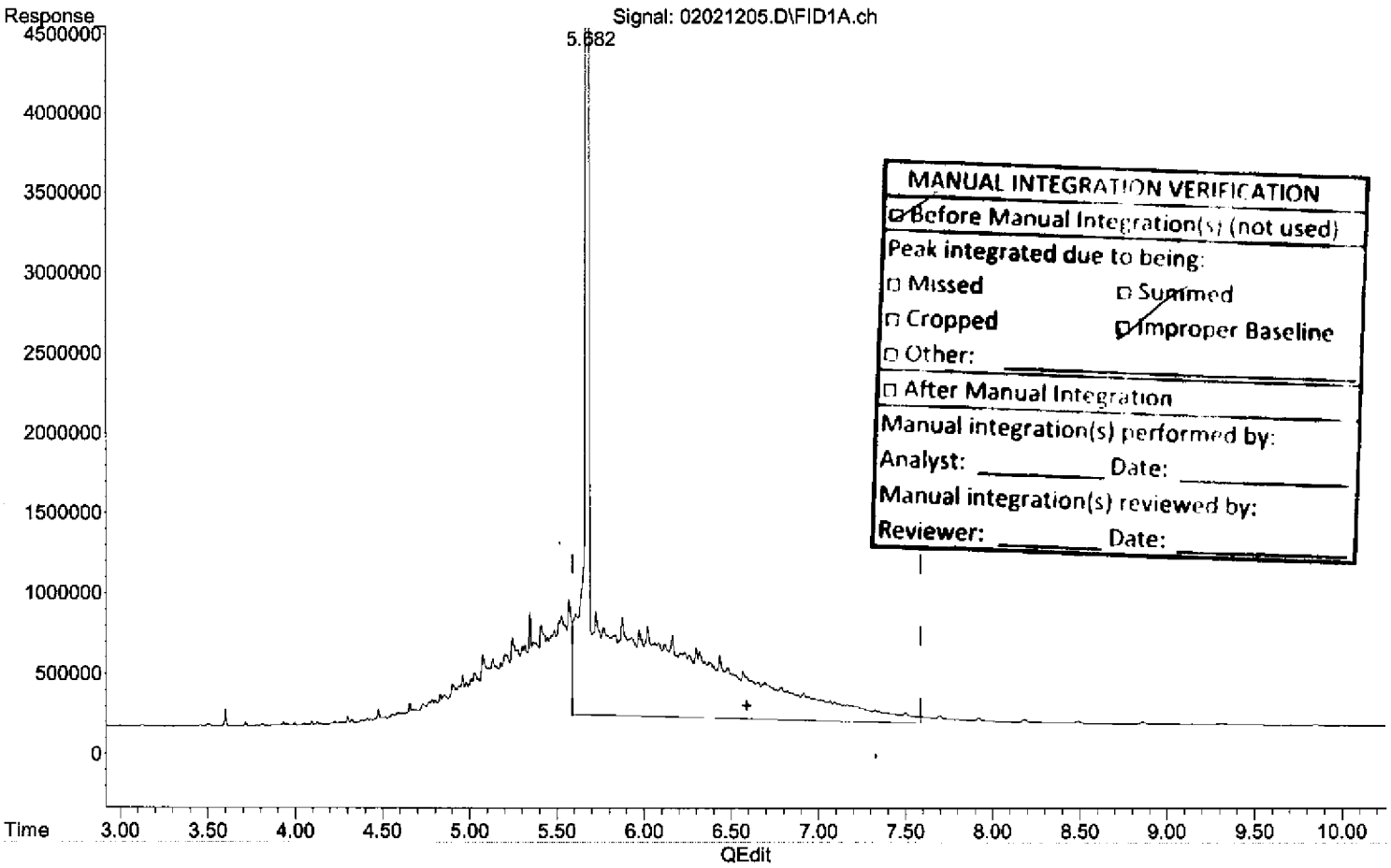
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021205.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 3:12 pm
Sample : 2020009-LCV2
Misc : 2A11011 OIL-A
ALS Vial : 5 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:10 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



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 170.264 ug/mL

response 326034121

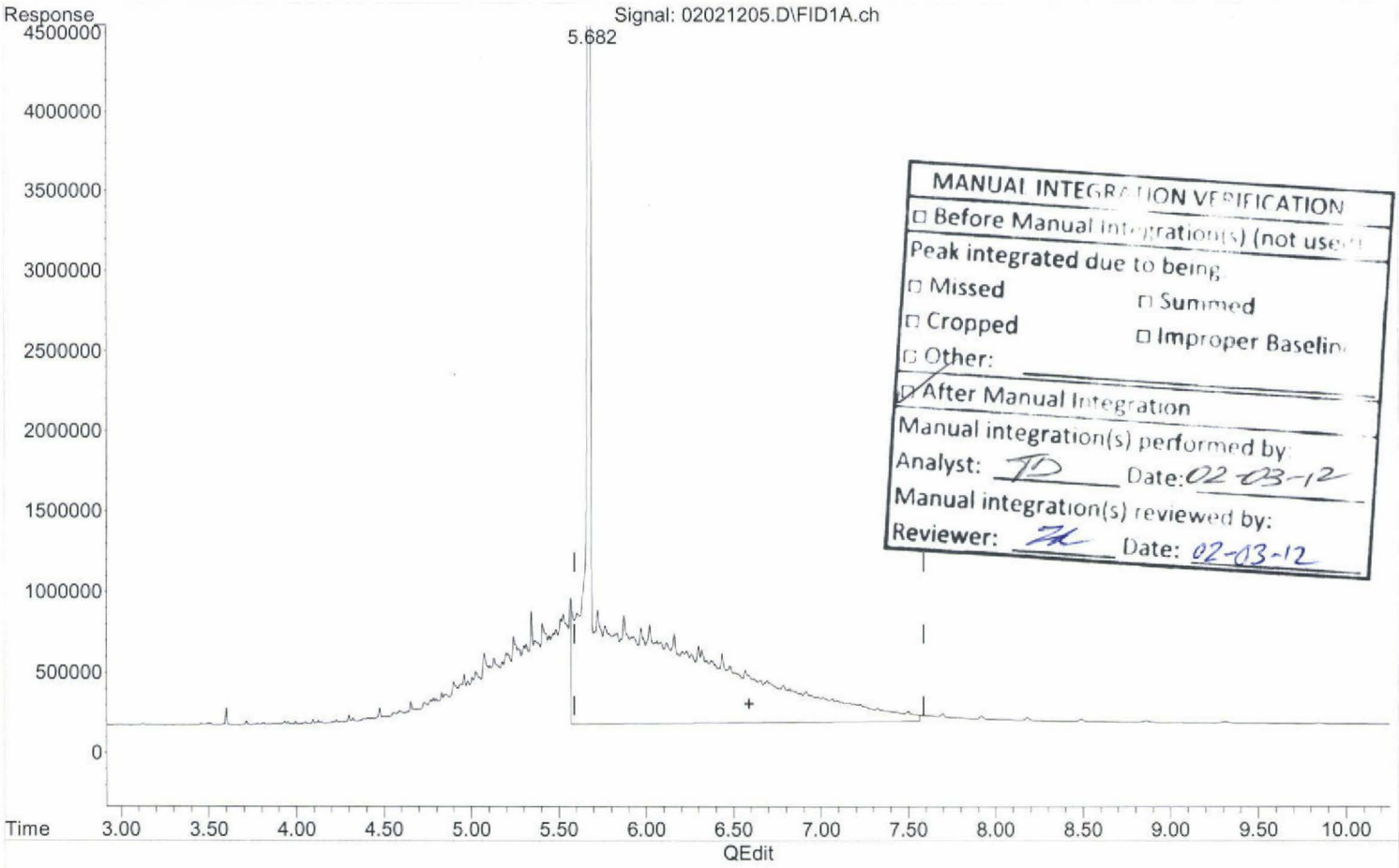
(+) = Expected Retention Time
013012DROA.M Fri Feb 03 08:20:03 2012

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021205.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 3:12 pm
Operator: TD
Sample : 2020009-LCV2
Inst : AG7890_2
Misc : 2A11011 OIL-A
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:10 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



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: 02-03-12
Manual integration(s) reviewed by:
Reviewer: ZL Date: 02-03-12

(2) OIL (H)

6.590min 195.616 ug/mL m

response 374579933

(+) = Expected Retention Time

013012DROA.M Fri Feb 03 08:20:17 2012

Quantitation Report (Not Reviewed)

00173

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021205.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 3:12 pm
Operator: TD
Sample : 2020009-LCV2
Inst : AG7890_2
Misc : 2A11011 OIL-A
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:10 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	5.680	155329319	43.725 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	87.45%
Target Compounds			
1) HM Diesel (TPH)	4.080	212345756	59.174 ug/mL
2) H OIL	6.590	326034121	170.264 ug/mL

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

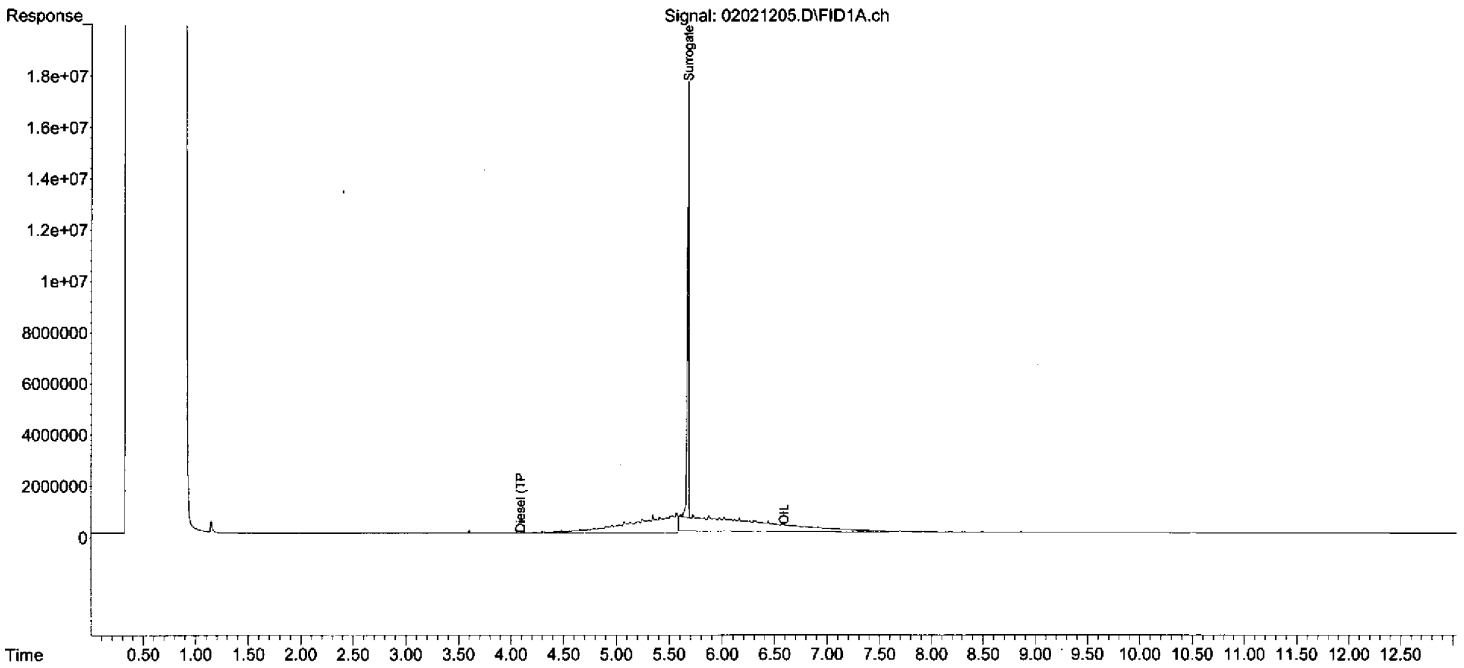
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: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

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021205.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 3:12 pm
Operator: TD
Sample : 2020009-LCV2
Inst : AG7890_2
Misc : 2A11011 OIL-A
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:10 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



00174
00168
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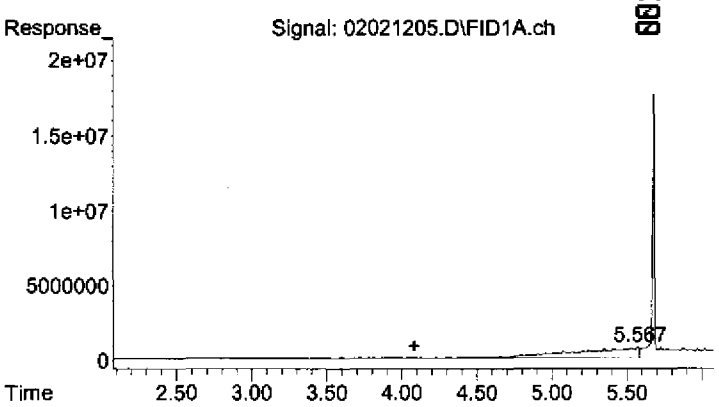
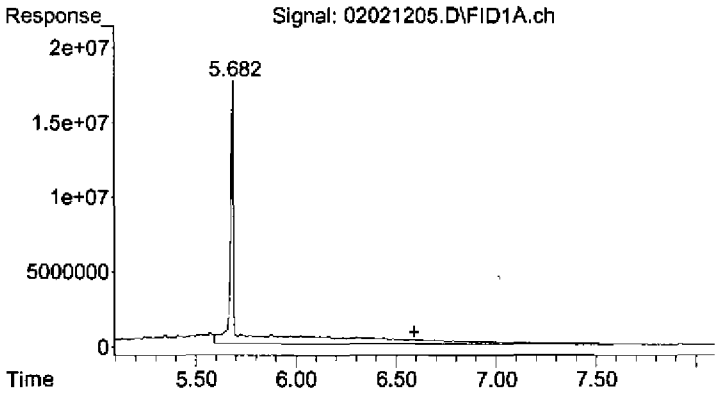


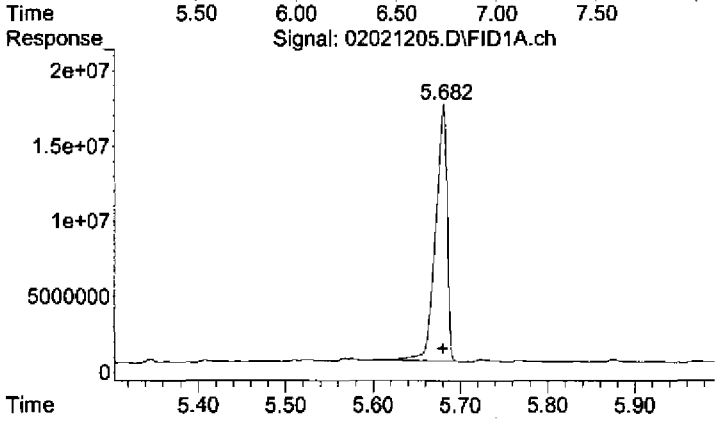
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 212345756
Conc: 59.17 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 326034121
Conc: 170.26 ug/mL



#3 Surrogate

R.T.: 5.680 min
Delta R.T.: 0.000 min
Response: 155329319
Conc: 43.73 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021206.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 3:30 pm Operator: TD
Sample : B2B0005-BLK1 Inst : AG7890_2
Misc : RB
ALS Vial : 6 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:14 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	160340412	45.136 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	90.27%
Target Compounds			
1) HM Diesel (TPH)	4.080	10056050	2.802 ug/mL
2) H OIL	6.590	5915891	3.089 ug/mL

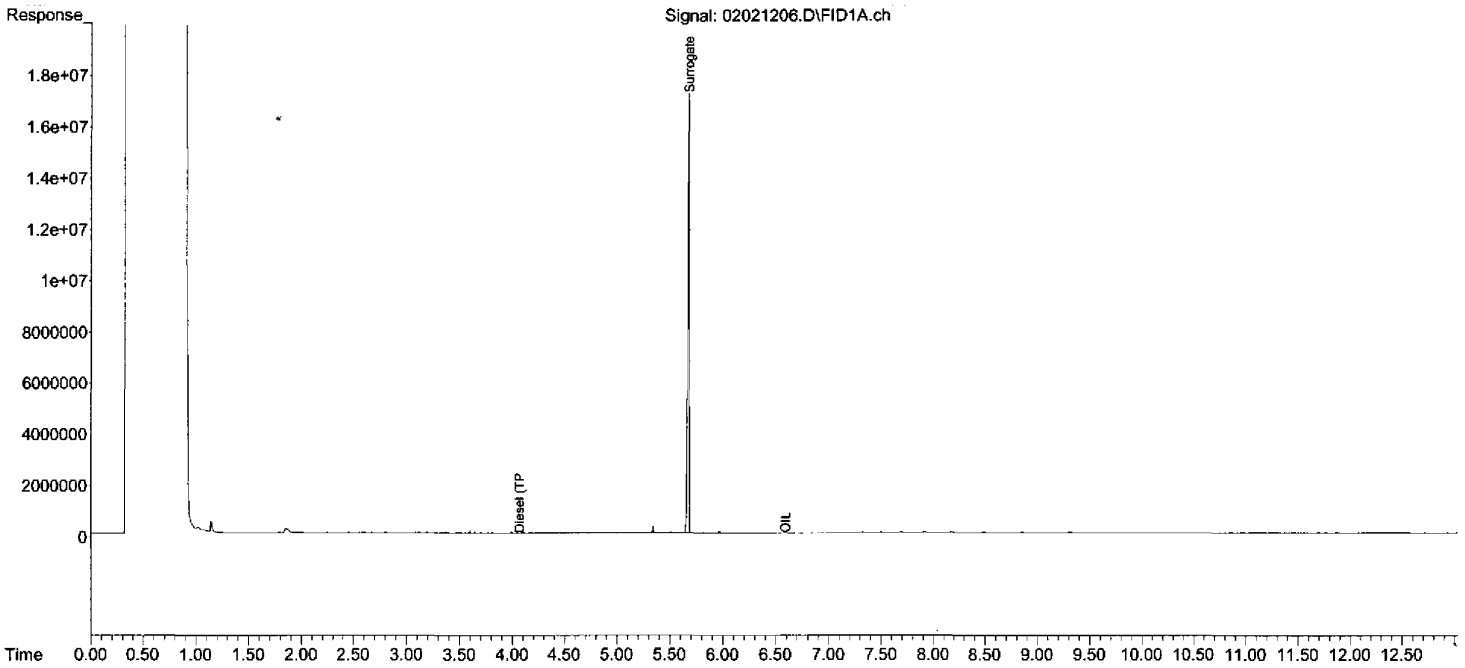
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

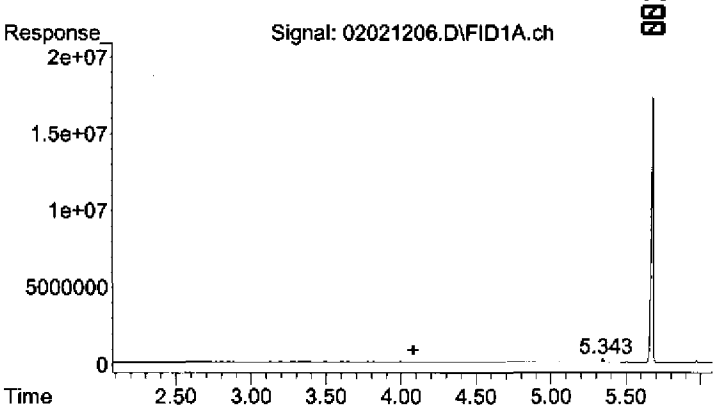
Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021206.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 3:30 pm
Operator: TD
Sample : B2B0005-BLK1
Inst : AG7890_2
Misc : RB
ALS Vial : 6 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:14 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

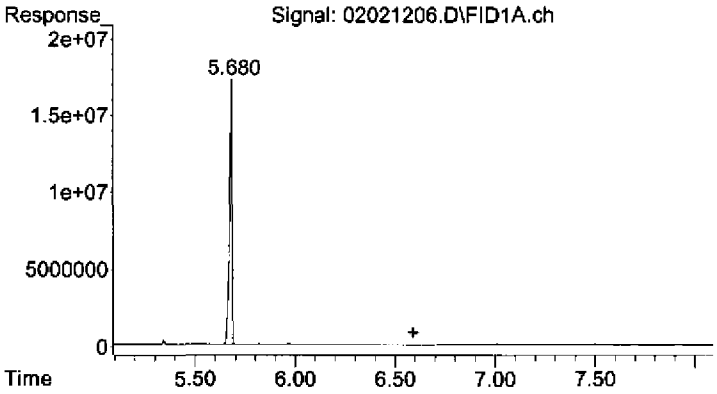


00171
00177
DIM0277243
DIM0277428



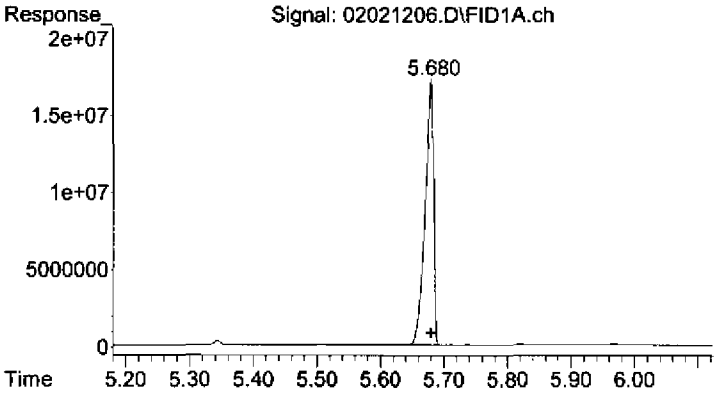
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 10056050
Conc: 2.80 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 5915891
Conc: 3.09 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.001 min
Response: 160340412
Conc: 45.14 ug/mL

C:\msdchem\1\2012\DATA\020212DROA\02021207.D

Instrument Name: AG7890_2
Date Acquired: 2/2/2012 15:48
Acq. Method File: 012712DROA.M
Sample Name: B2B0005-BS1
Misc Info: BS
Operator: TD

Name	Concentration ng/mL		% Recovery	QC Limits	STATUS
		Calculated			
Diesel (TPH)	500	437.33	87.47%	54 - 115	pass

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021207.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 3:48 pm Operator: TD
Sample : B2B0005-BS1 Inst : AG7890_2
Misc : BS
ALS Vial : 7 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:19 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	164277634	46.244 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	92.49%
Target Compounds			
1) HM Diesel (TPH)	4.080	1569342940	437.328 ug/mL
2) H OIL	6.590	5585497	2.917 ug/mL

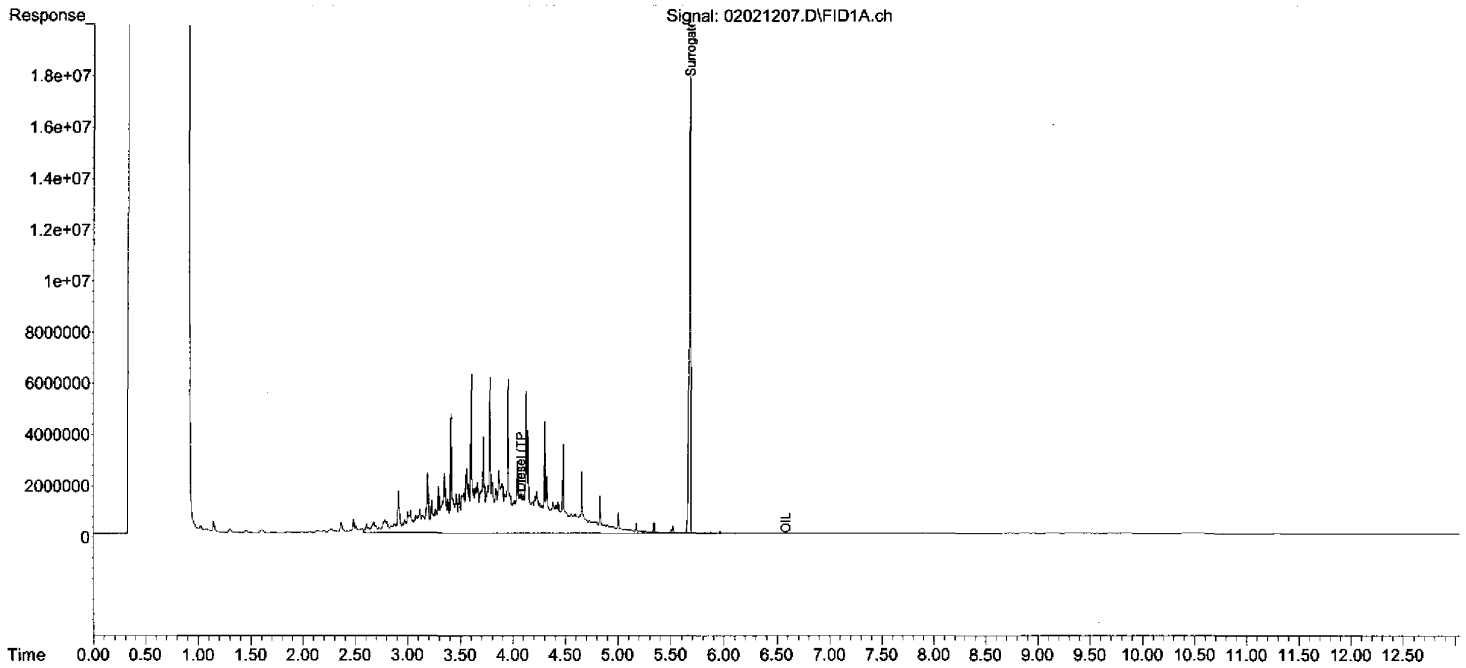
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021207.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 3:48 pm
Operator: TD
Sample : B2B0005-BS1
Inst : AG7890_2
Misc : BS
ALS Vial : 7 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:19 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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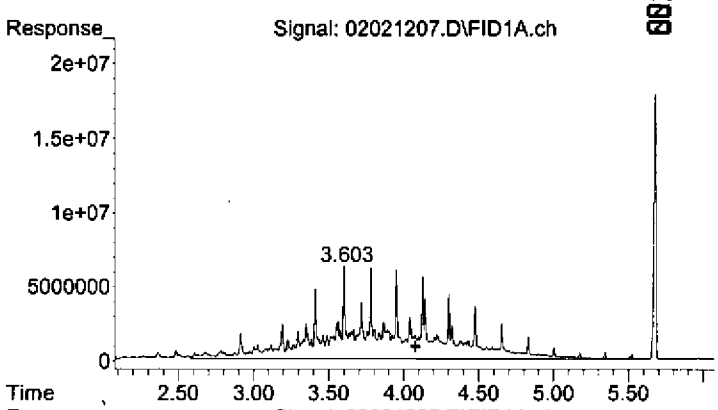
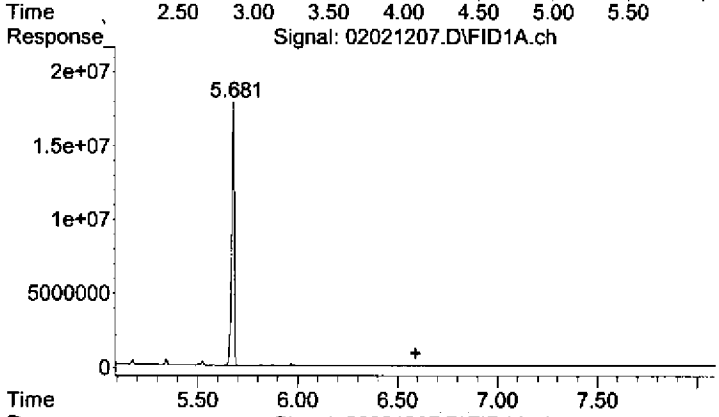
00175
DIM0277243
DIM0277432



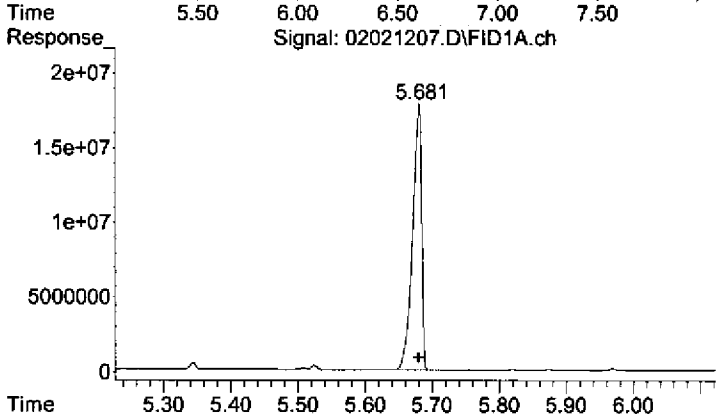
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1569342940
Conc: 437.33 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 5585497
Conc: 2.92 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 164277634
Conc: 46.24 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021208.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 4:06 pm Operator: TD
Sample : B2B0005-MS1 Inst : AG7890_2
Misc : HW26
ALS Vial : 8 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:23 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	5.679	159700309	44.956 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	89.91%
Target Compounds			
1) HM Diesel (TPH)	4.080	1580981333	440.571 ug/mL
2) H OIL	6.590	10247558	5.352 ug/mL

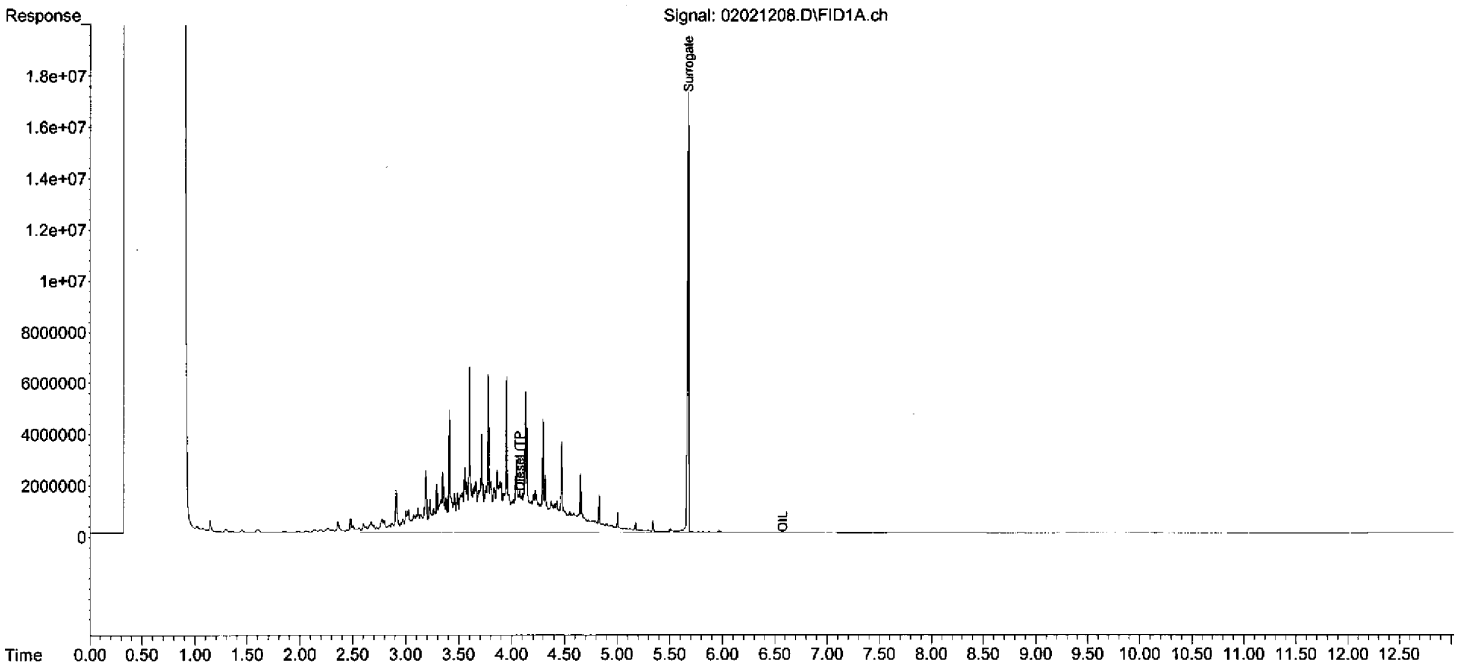
(f)=RT Delta > 1/2 Window (m)=manual int.

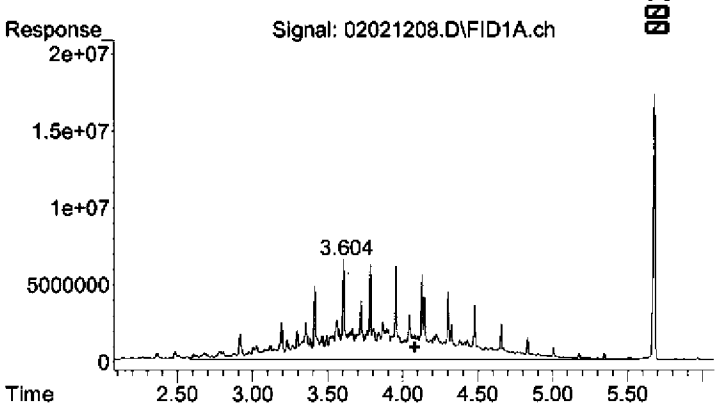
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021208.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 4:06 pm
Operator: TD
Sample : B2B0005-MS1
Inst : AG7890_2
Misc : HW26
ALS Vial : 8 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:23 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

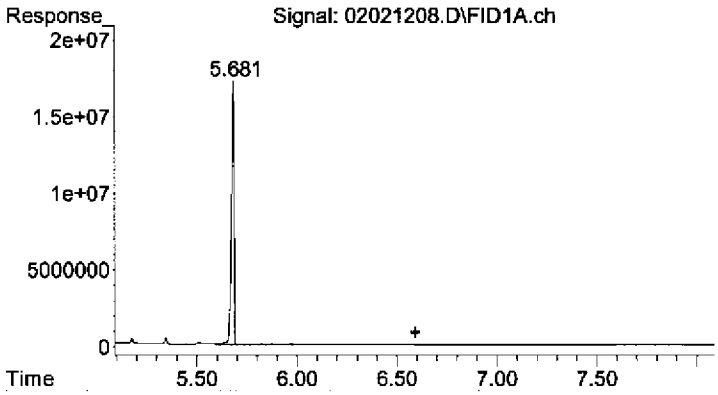
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





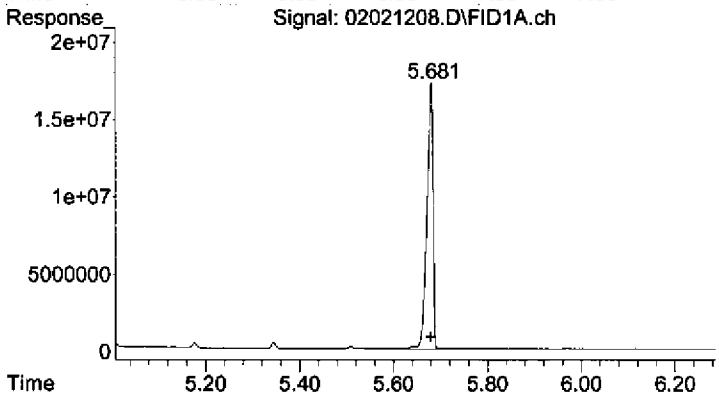
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1580981333
Conc: 440.57 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 10247558
Conc: 5.35 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 159700309
Conc: 44.96 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021209.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 4:24 pm Operator: TD
Sample : B2B0005-MSD1 Inst : AG7890_2
Misc : HW26
ALS Vial : 9 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:28 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	161600736	45.490 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	90.98%
Target Compounds			
1) HM Diesel (TPH)	4.080	1574821777	438.854 ug/mL
2) H OIL	6.590	8435904	4.405 ug/mL

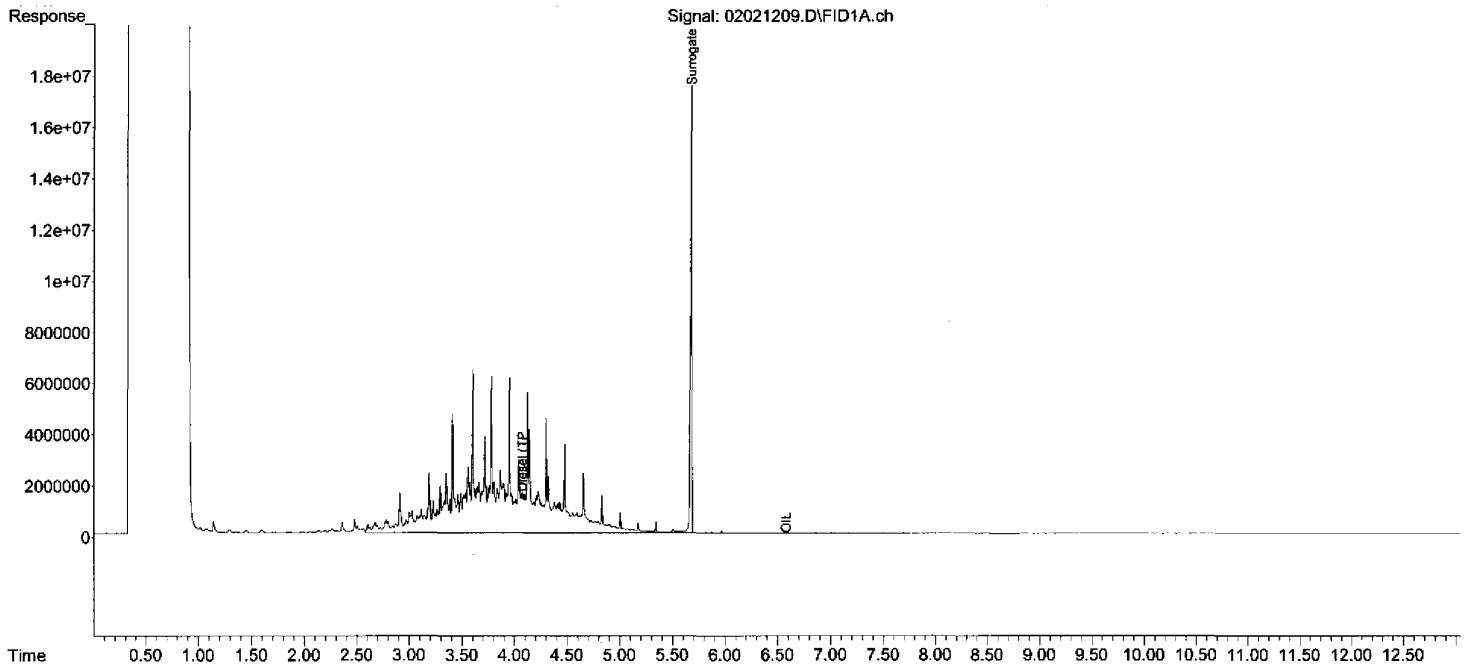
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021209.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 4:24 pm
Operator: TD
Sample : B2B0005-MSD1
Inst : AG7890_2
Misc : HW26
ALS Vial : 9 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:28 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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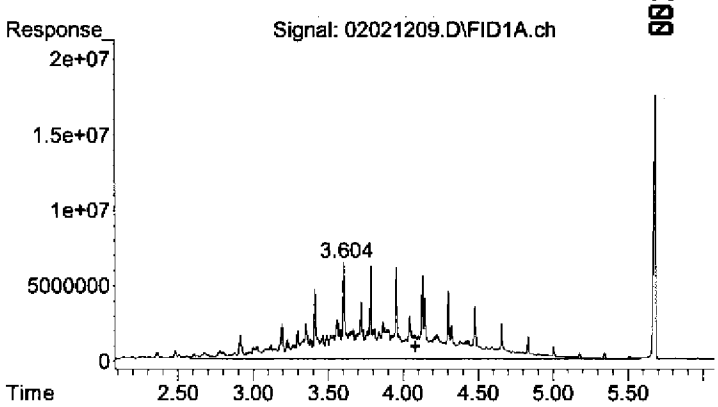
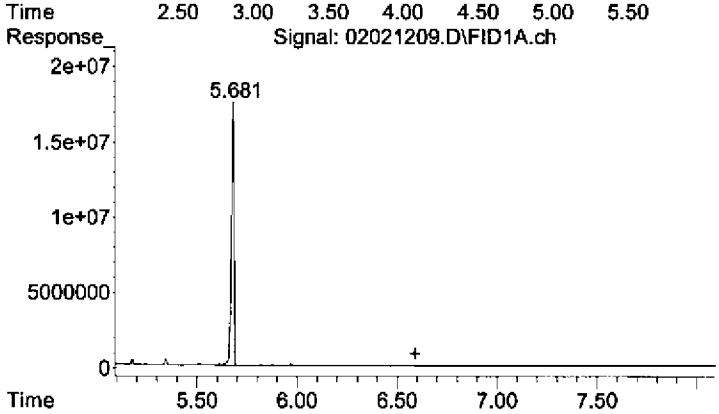
013012DROA.M Fri Feb 03 06:02:30 2012 Page: 2



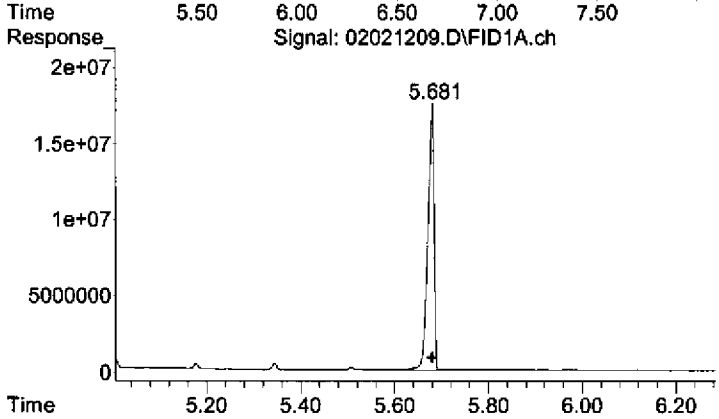
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1574821777
Conc: 438.85 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 8435904
Conc: 4.41 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 161600736
Conc: 45.49 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021210.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 4:42 pm Operator: TD
Sample : 1202001-01 Inst : AG7890_2
Misc : HW26
ALS Vial : 10 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:33 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	5.678	160575576	45.202 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	90.40%
Target Compounds			
1) HM Diesel (TPH)	4.080	11615966	3.237 ug/mL
2) H OIL	6.590	3040360	1.588 ug/mL

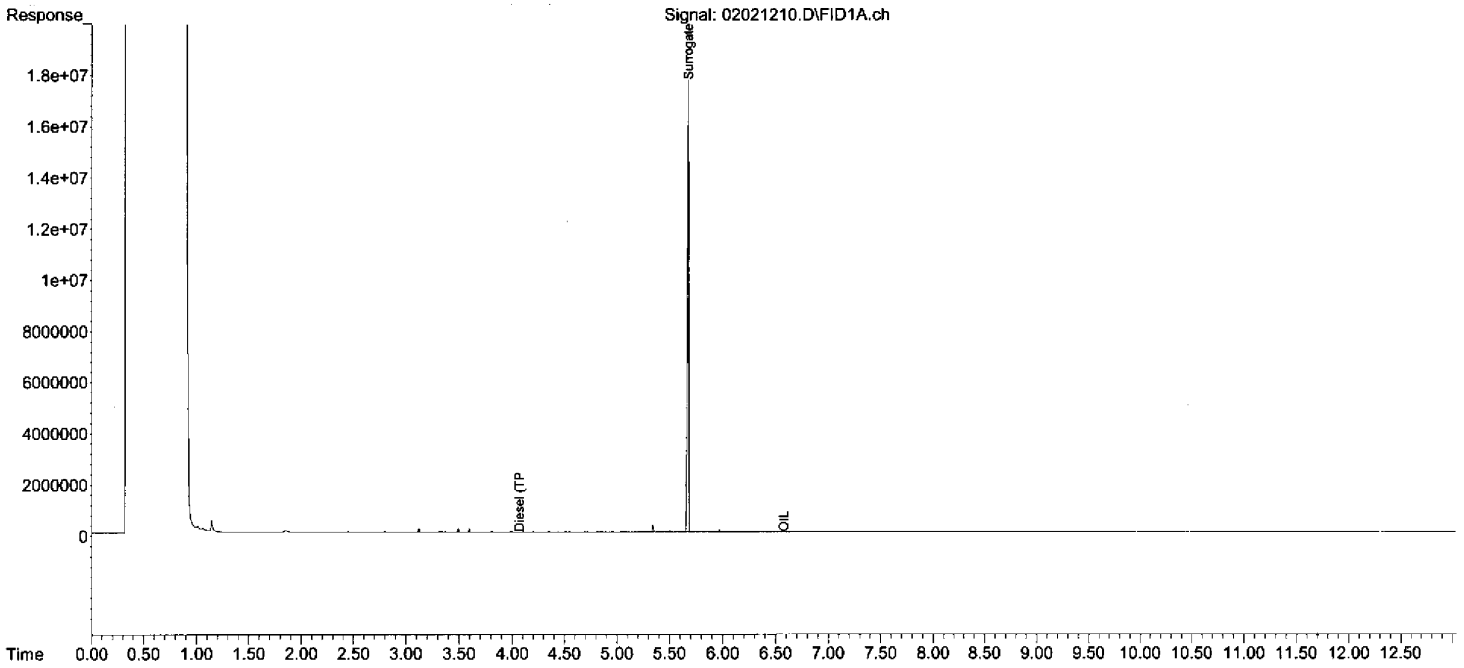
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

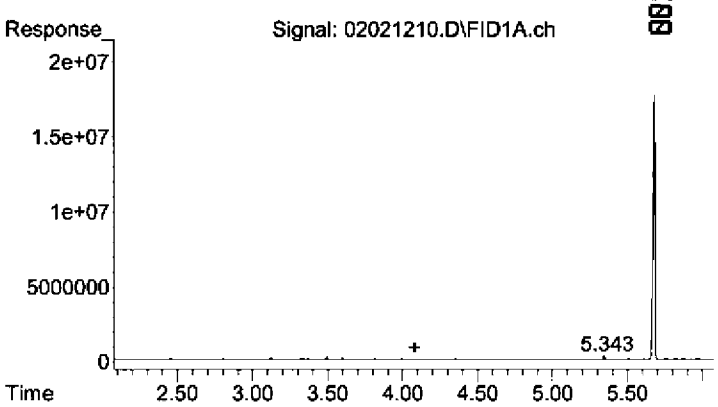
Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021210.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 4:42 pm Operator: TD
Sample : 1202001-01 Inst : AG7890_2
Misc : HW26
ALS Vial : 10 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:33 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

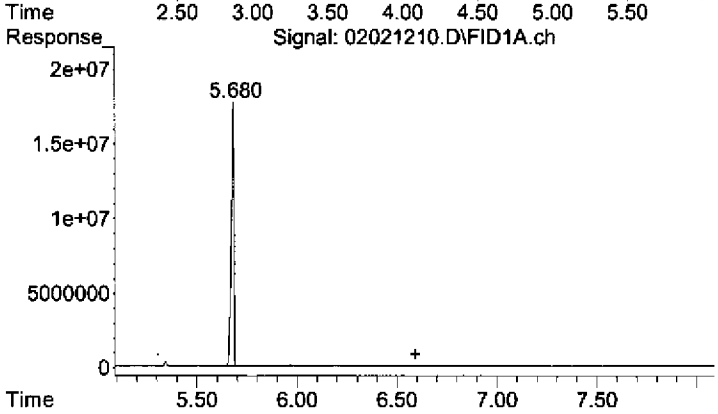


013012DROA.M Fri Feb 03 06:02:35 2012 Page: 2



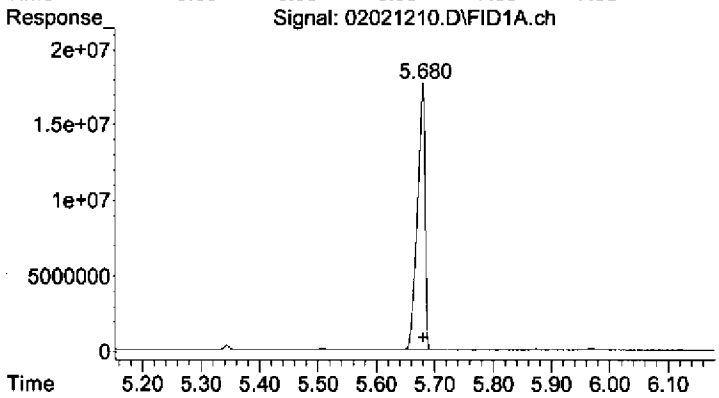
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 11615966
Conc: 3.24 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3040360
Conc: 1.59 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.001 min
Response: 160575576
Conc: 45.20 ug/mL

Quantitation Report (Not Reviewed)

00192

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021211.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 5:00 pm Operator: TD
Sample : 1202001-02 Inst : AG7890_2
Misc : HW26
ALS Vial : 11 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:38 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	169752900	47.785 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	95.57%
Target Compounds			
1) HM Diesel (TPH)	4.080	10871030	3.029 ug/mL
2) H OIL	6.590	5179307	2.705 ug/mL

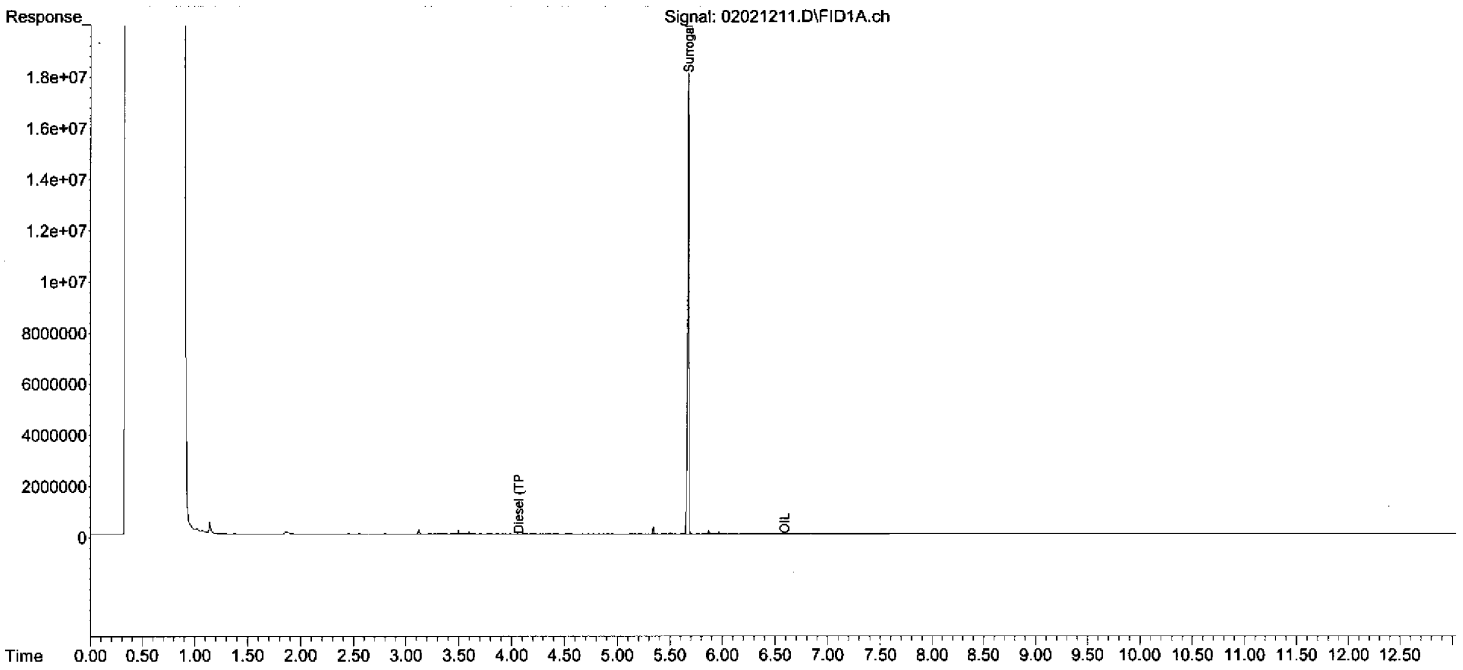
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021211.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 5:00 pm
Operator: TD
Sample : 1202001-02
Inst : AG7890_2
Misc : HW26
ALS Vial : 11 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:38 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



00193
00187
DIM0277243
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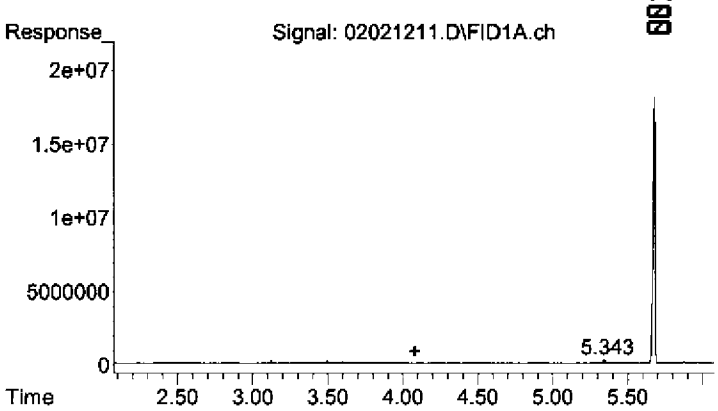
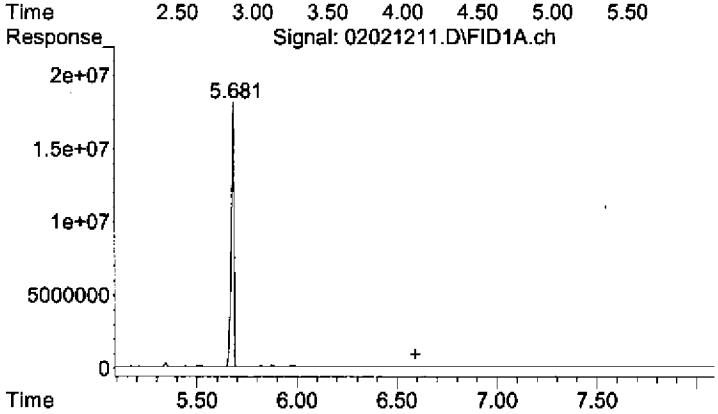


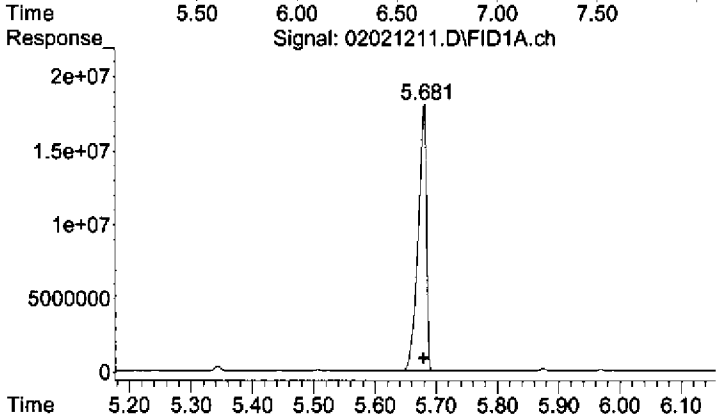
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 10871030
Conc: 3.03 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 5179307
Conc: 2.70 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 169752900
Conc: 47.79 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021212.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 5:18 pm Operator: TD
Sample : 1202001-03 Inst : AG7890_2
Misc : HW26
ALS Vial : 12 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:43 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	165512462	46.592 ug/mL
Spiked Amount 50.000 Range 60 - 127 Recovery = 93.18%			
Target Compounds			
1) HM Diesel (TPH)	4.080	14634637	4.078 ug/mL
2) H OIL	6.590	9200111	4.805 ug/mL

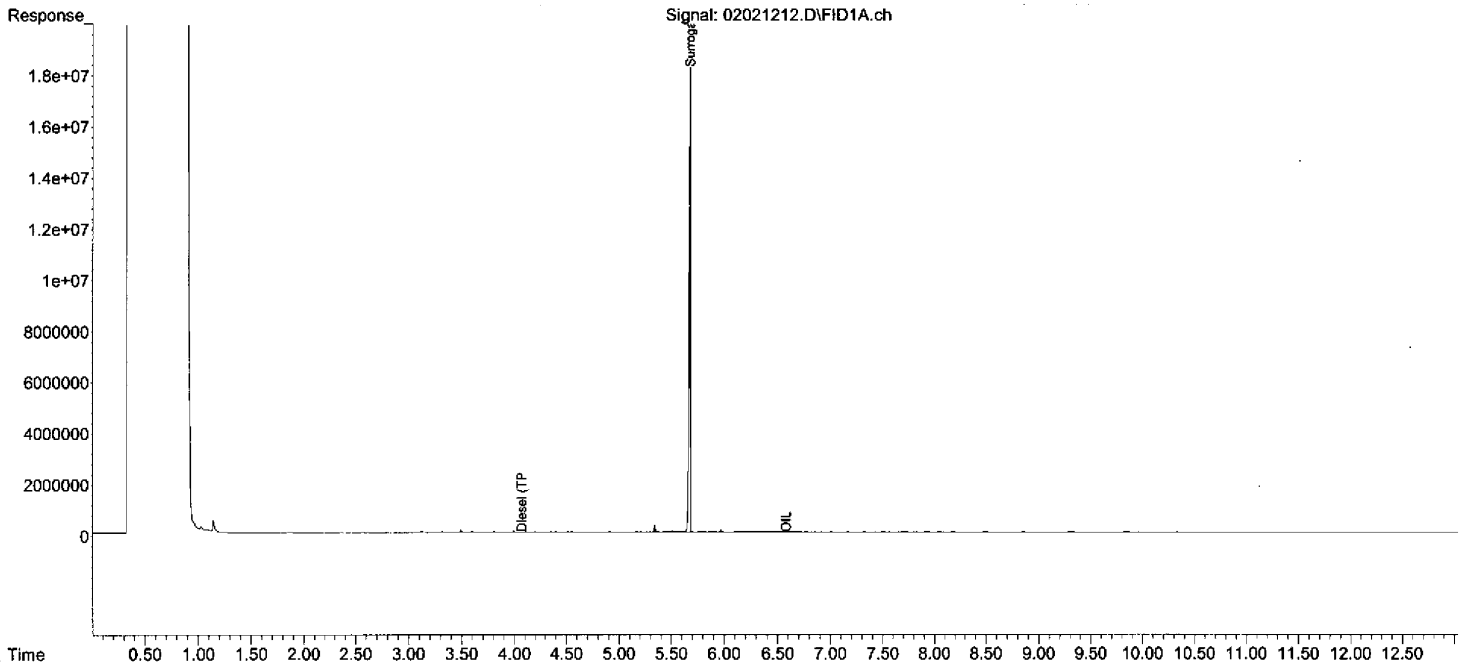
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

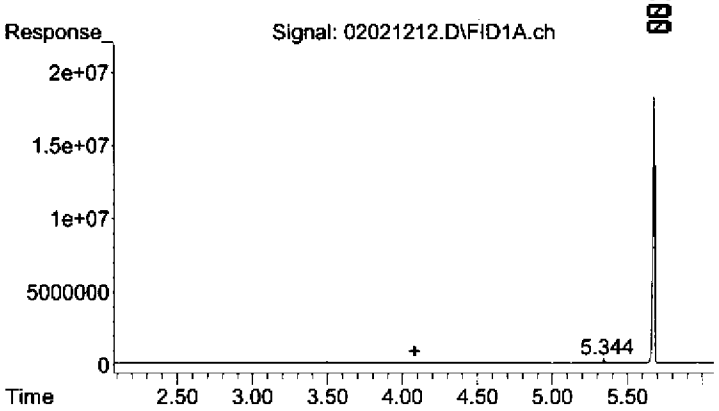
Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021212.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 5:18 pm
Operator: TD
Sample : 1202001-03
Inst : AG7890_2
Misc : HW26
ALS Vial : 12 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:43 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

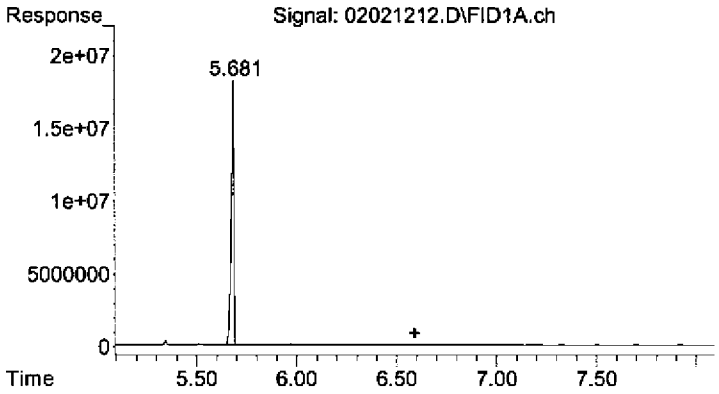


013012DROA.M Fri Feb 03 06:02:45 2012
Page: 2



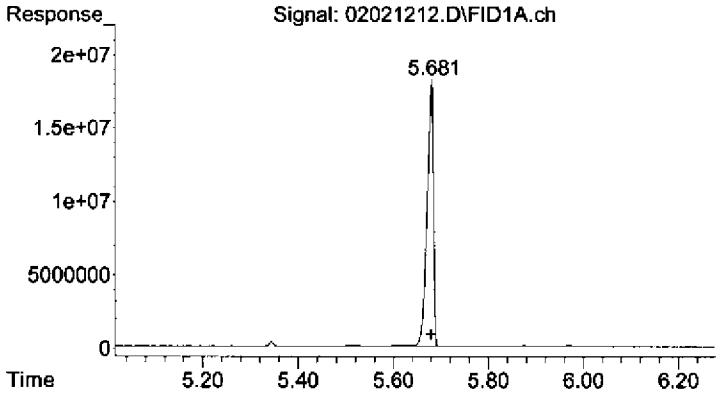
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 14634637
Conc: 4.08 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 9200111
Conc: 4.80 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 165512462
Conc: 46.59 ug/mL

Quantitation Report (Not Reviewed)

00198

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021213.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 5:36 pm Operator: TD
Sample : 1202001-04 Inst : AG7890_2
Misc : HW26
ALS Vial : 13 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:48 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	5.680	172219180	48.480 ug/mL
Spiked Amount 50.000 Range 60 - 127 Recovery = 96.96%			
Target Compounds			
1) HM Diesel (TPH)	4.080	24705438	6.885 ug/mL
2) H OIL	6.590	3559996	1.859 ug/mL

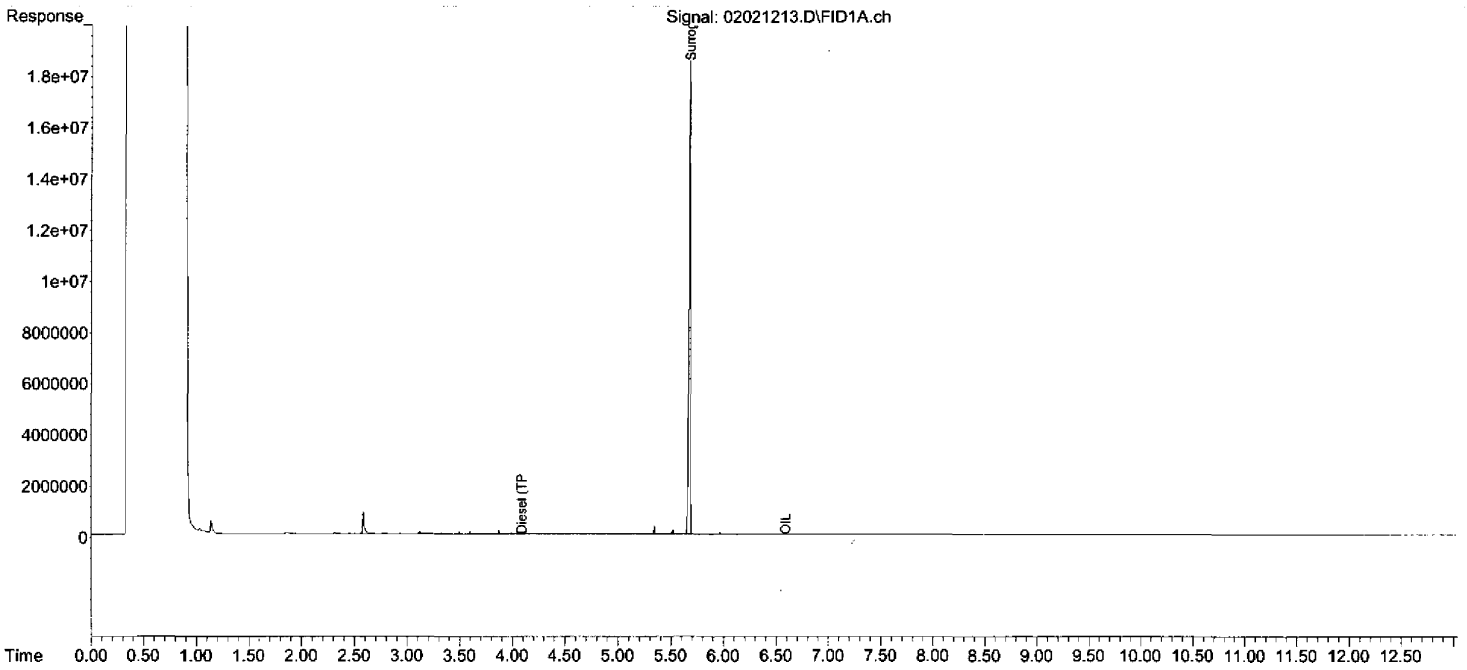
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021213.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 5:36 pm
Operator: TD
Sample : 1202001-04
Inst : AG7890_2
Misc : HW26
ALS Vial : 13 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:48 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



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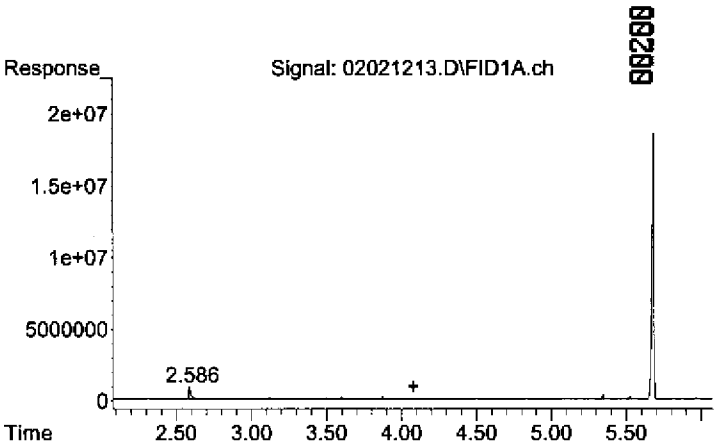
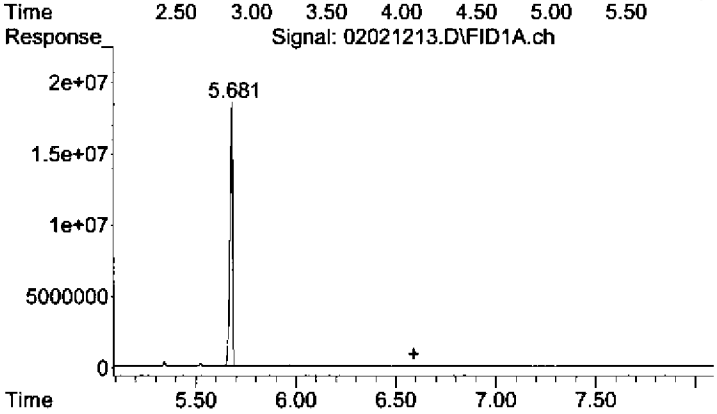


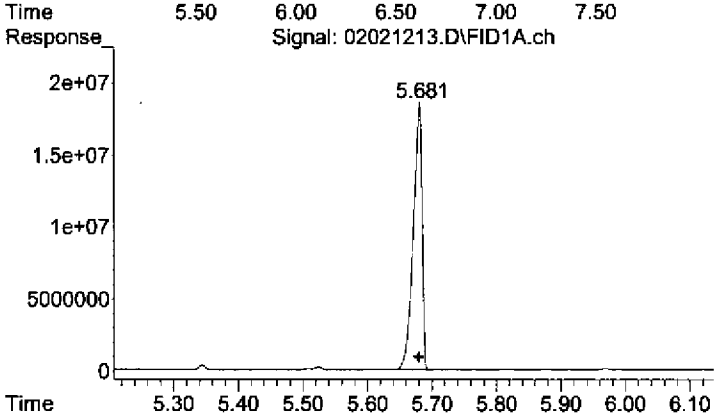
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 24705438
Conc: 6.88 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3559996
Conc: 1.86 ug/mL



#3 Surrogate

R.T.: 5.680 min
Delta R.T.: 0.000 min
Response: 172219180
Conc: 48.48 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021214.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 5:54 pm Operator: TD
Sample : 1202001-05 Inst : AG7890_2
Misc : HW26
ALS Vial : 14 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:53 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	170476938	47.989 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	95.98%
Target Compounds			
1) HM Diesel (TPH)	4.080	12065448	3.362 ug/mL
2) H OIL	6.590	3179534	1.660 ug/mL

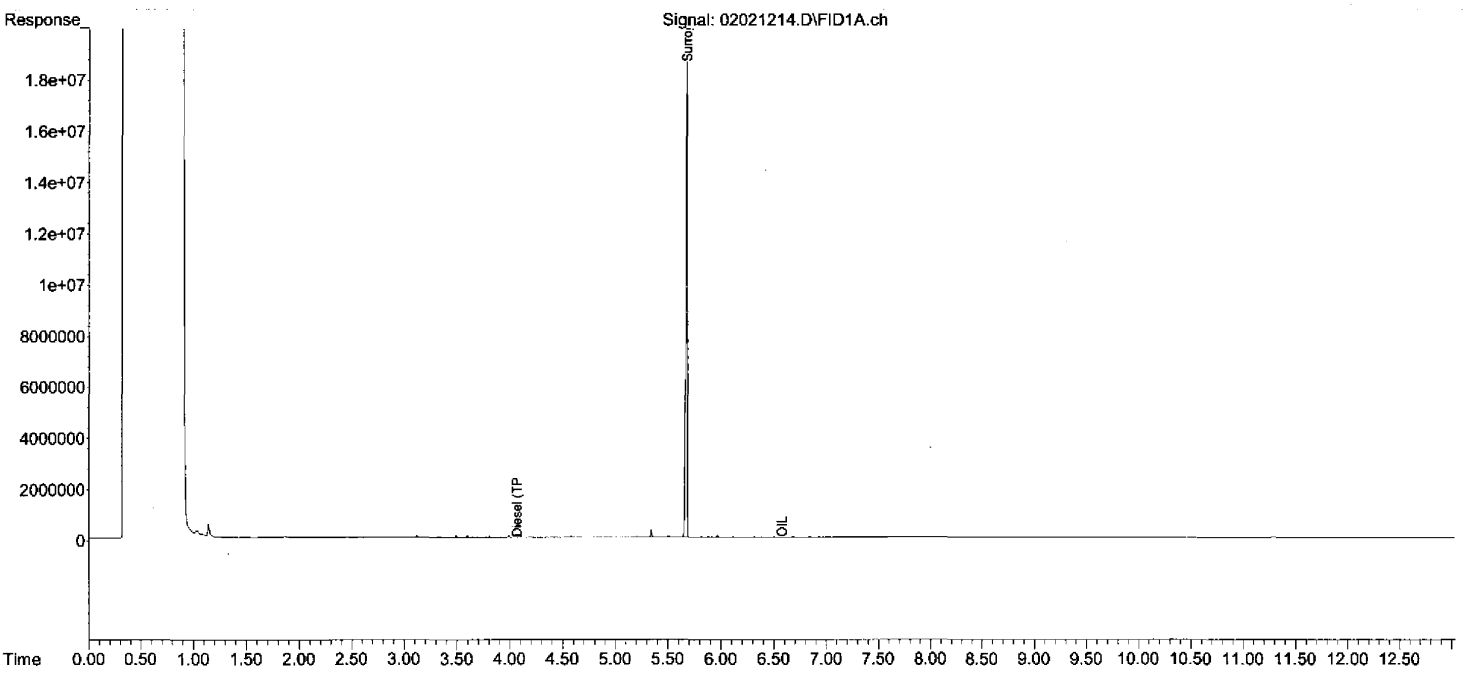
(f)=RT Delta > 1/2 Window (m)=manual int.

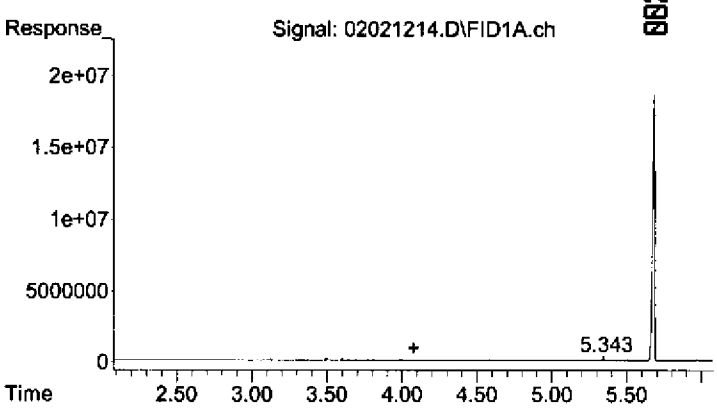
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021214.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 5:54 pm
Operator: TD
Sample : 1202001-05
Inst : AG7890_2
Misc : HW26
ALS Vial : 14 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:53 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

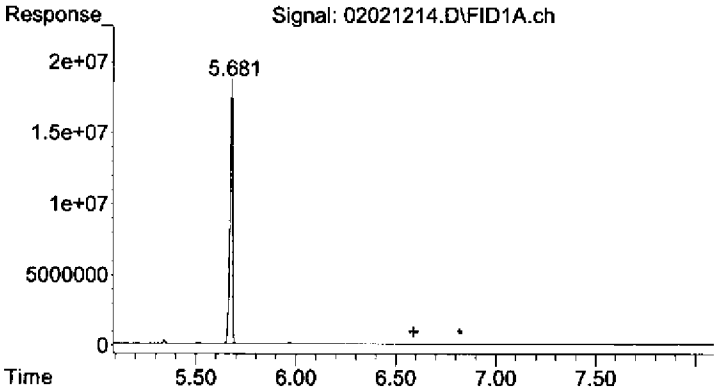
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





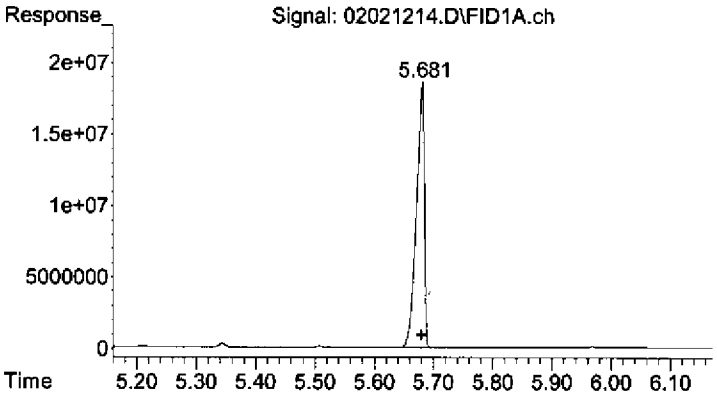
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 12065448
Conc: 3.36 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3179534
Conc: 1.66 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 170476938
Conc: 47.99 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021215.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 6:12 pm Operator: TD
Sample : 1202001-06 Inst : AG7890_2
Misc : HW26
ALS Vial : 15 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:59 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	5.680	170758423	48.068 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	96.14%
Target Compounds			
1) HM Diesel (TPH)	4.080	11176033	3.114 ug/mL
2) H OIL	6.590	3673844	1.919 ug/mL

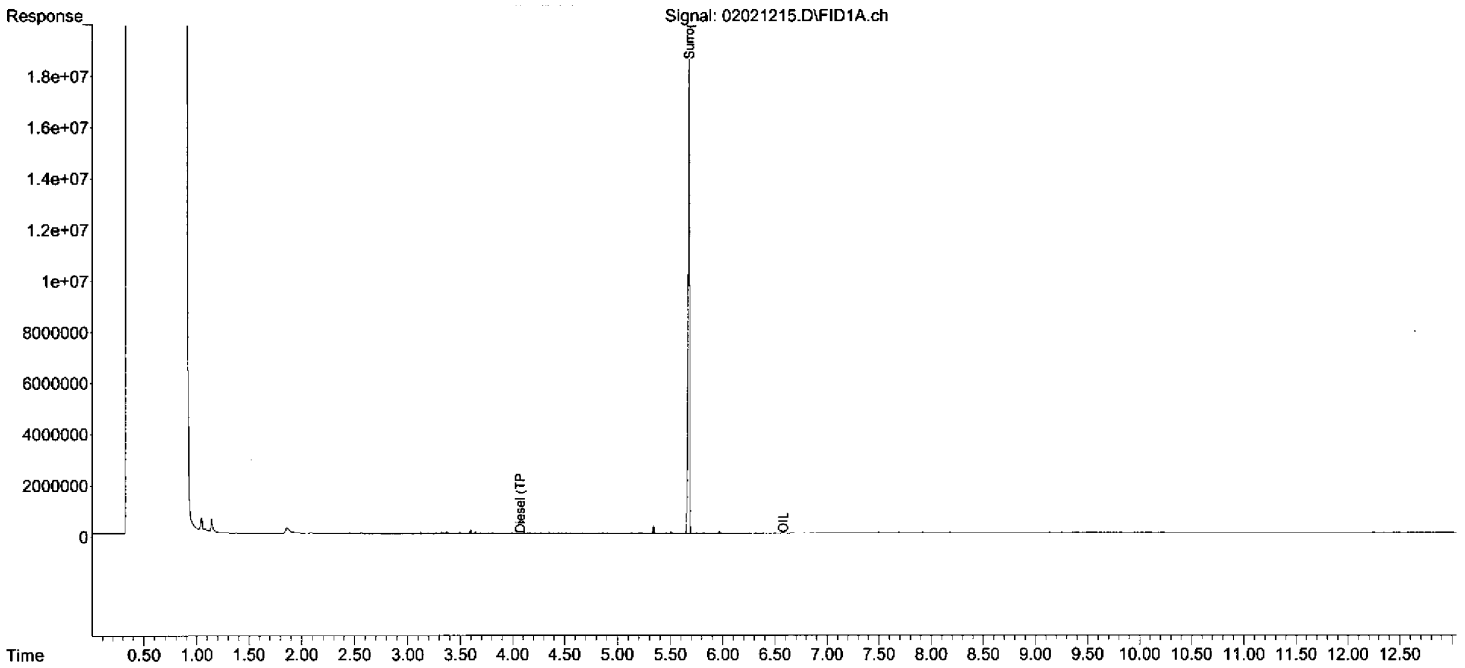
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021215.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 6:12 pm Operator: TD
Sample : 1202001-06 Inst : AG7890_2
Misc : HW26
ALS Vial : 15 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:02:59 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



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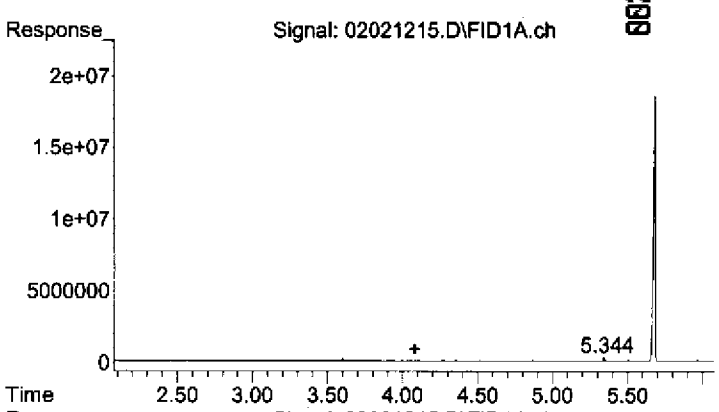
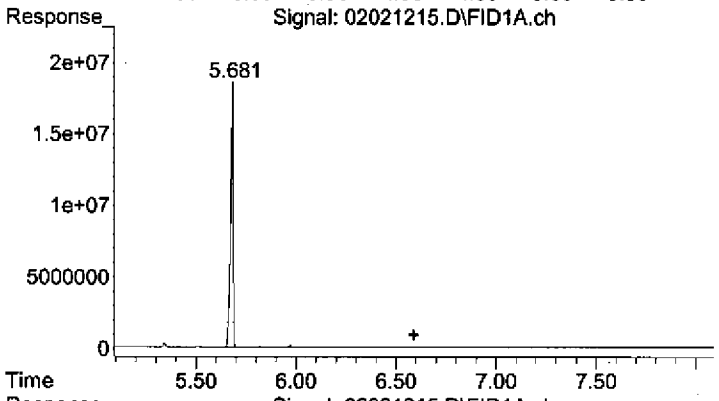
DIM0277243 DIM0277456



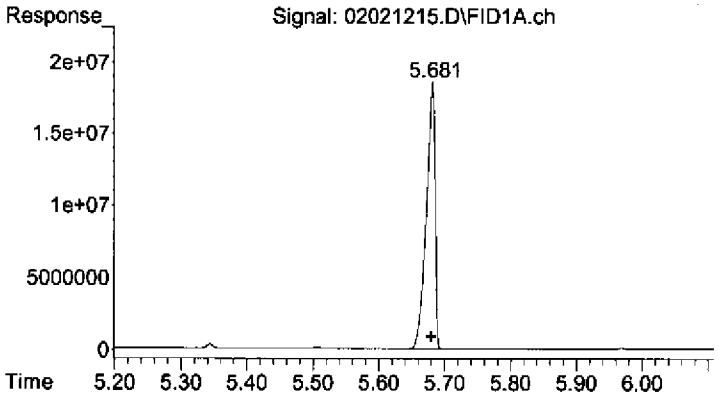
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 11176033
Conc: 3.11 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3673844
Conc: 1.92 ug/mL



#3 Surrogate

R.T.: 5.680 min
Delta R.T.: 0.000 min
Response: 170758423
Conc: 48.07 ug/mL

Quantitation Report (Not Reviewed)

00287

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021216.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 6:31 pm Operator: TD
Sample : 1202001-07 Inst : AG7890_2
Misc : HW26
ALS Vial : 16 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:04 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	5.680	180102686	50.699 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	101.40%
Target Compounds			
1) HM Diesel (TPH)	4.080	10661693	2.971 ug/mL
2) H OIL	6.590	6209914	3.243 ug/mL

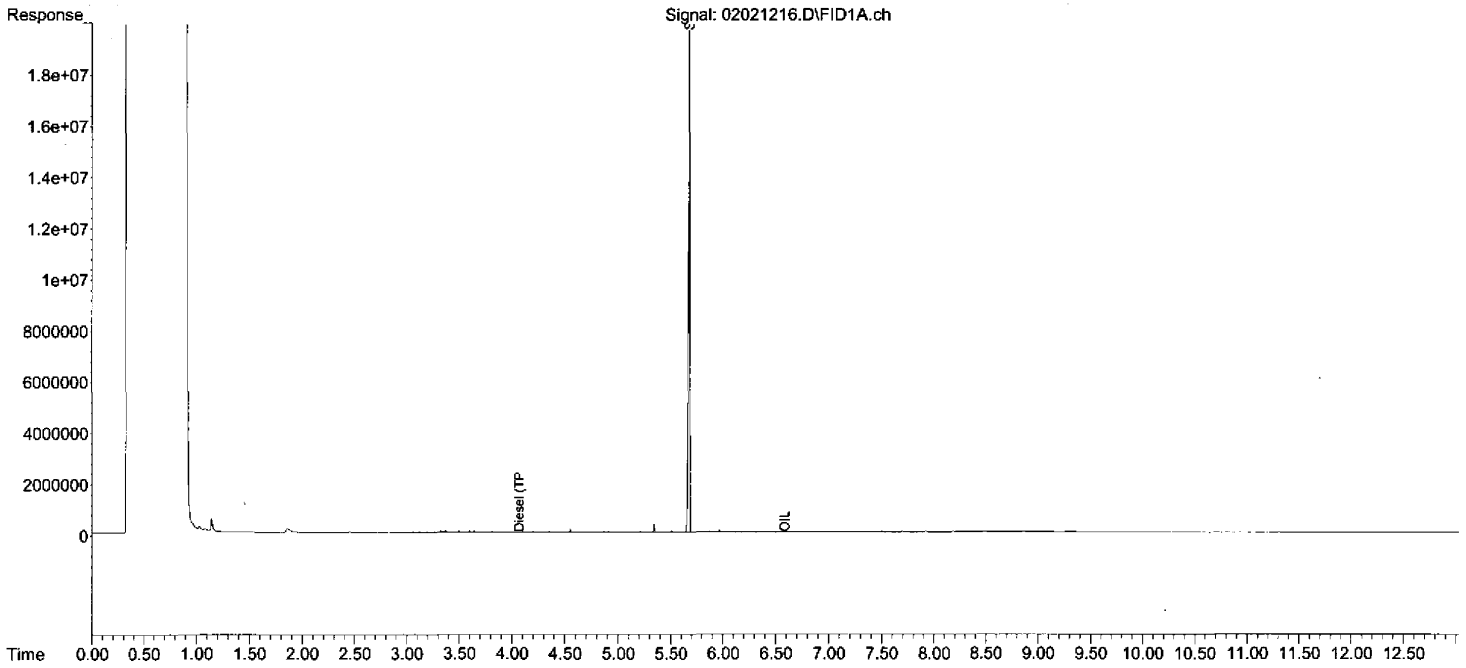
(f)=RT Delta > 1/2 Window (m)=manual int.

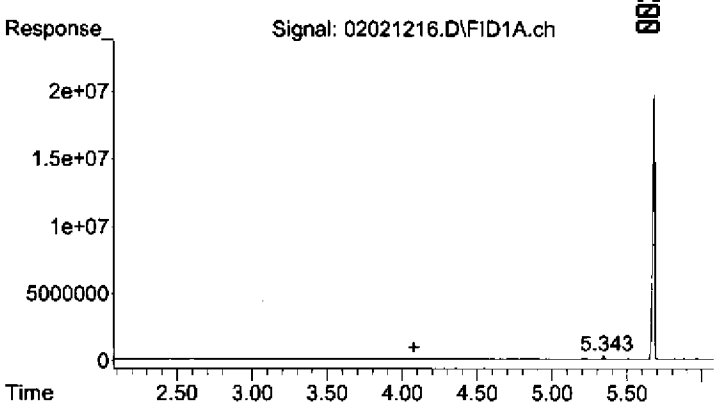
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021216.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 6:31 pm
Operator: TD
Sample : 1202001-07
Inst : AG7890_2
Misc : HW26
ALS Vial : 16 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:04 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

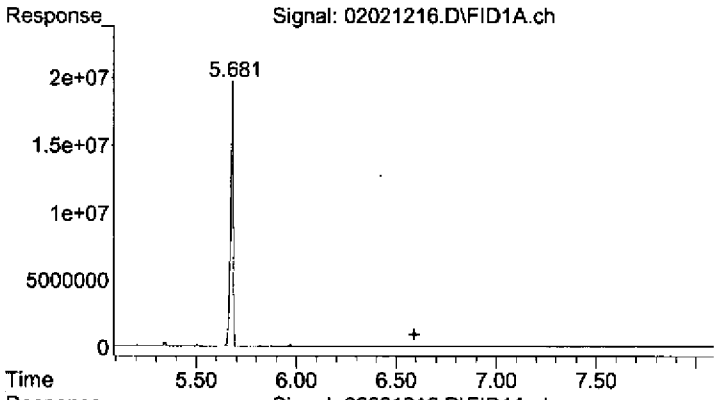
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





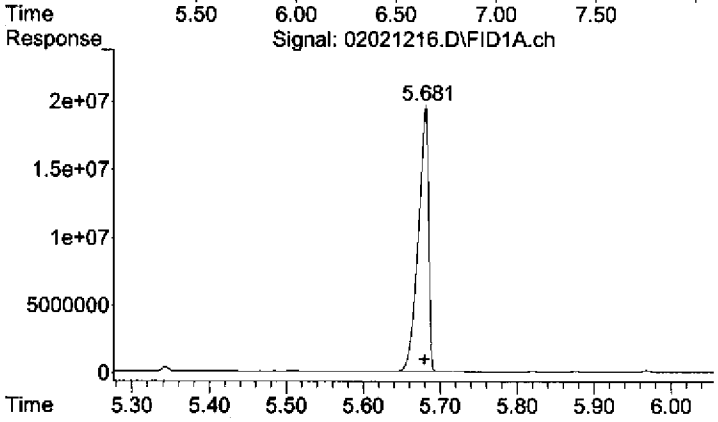
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 10661693
Conc: 2.97 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 6209914
Conc: 3.24 ug/mL



#3 Surrogate

R.T.: 5.680 min
Delta R.T.: 0.000 min
Response: 180102686
Conc: 50.70 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021217.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 6:49 pm Operator: TD
Sample : 1202001-08 Inst : AG7890_2
Misc : HW26
ALS Vial : 17 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:09 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	167646852	47.192 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	94.38%
Target Compounds			
1) HM Diesel (TPH)	4.080	10723554	2.988 ug/mL
2) H OIL	6.590	6541313	3.416 ug/mL

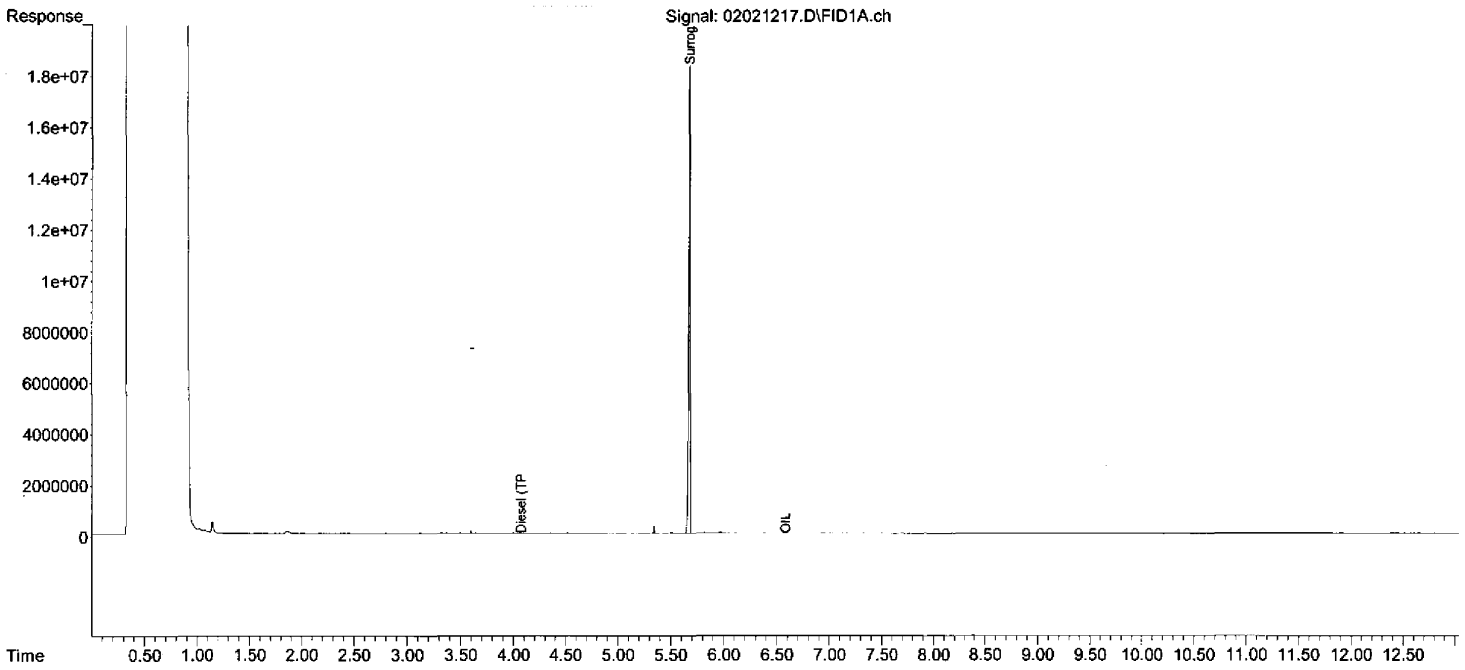
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021217.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 6:49 pm Operator: TD
Sample : 1202001-08 Inst : AG7890_2
Misc : HW26
ALS Vial : 17 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:09 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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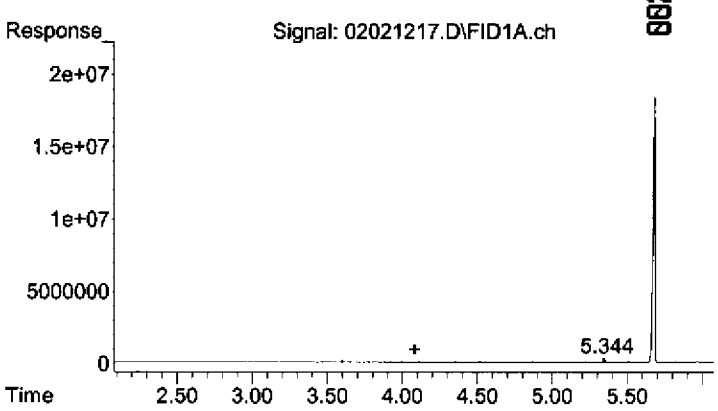
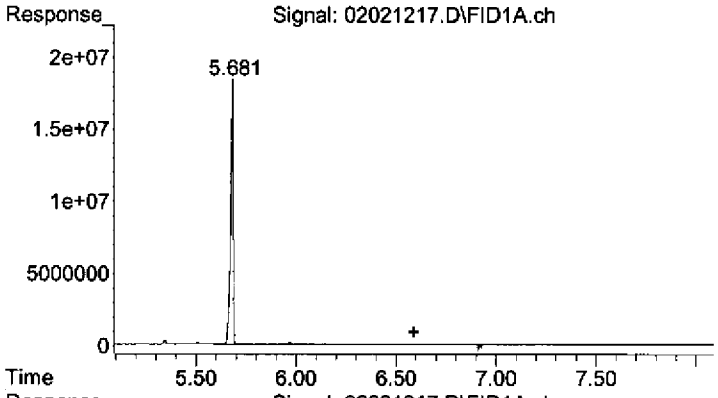
013012DROA.M Fri Feb 03 06:03:10 2012 Page: 2



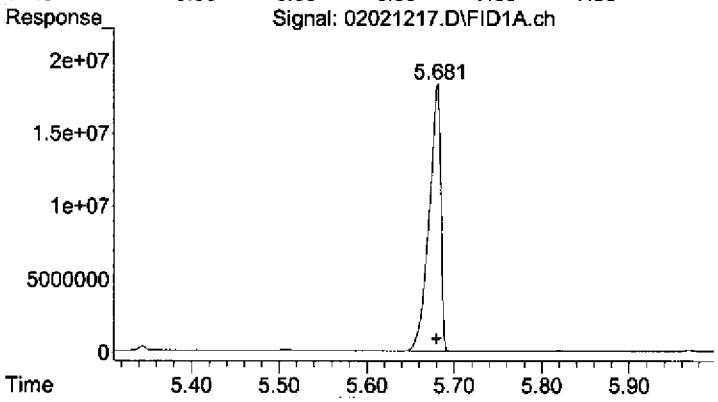
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 10723554
Conc: 2.99 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 6541313
Conc: 3.42 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 167646852
Conc: 47.19 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021218.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 7:07 pm Operator: TD
Sample : 1202001-09 Inst : AG7890_2
Misc : HW26
ALS Vial : 18 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:13 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	5.678	158455449	44.605 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	89.21%
Target Compounds			
1) HM Diesel (TPH)	4.080	119091140	33.187 ug/mL
2) H OIL	6.590	5168378	2.699 ug/mL

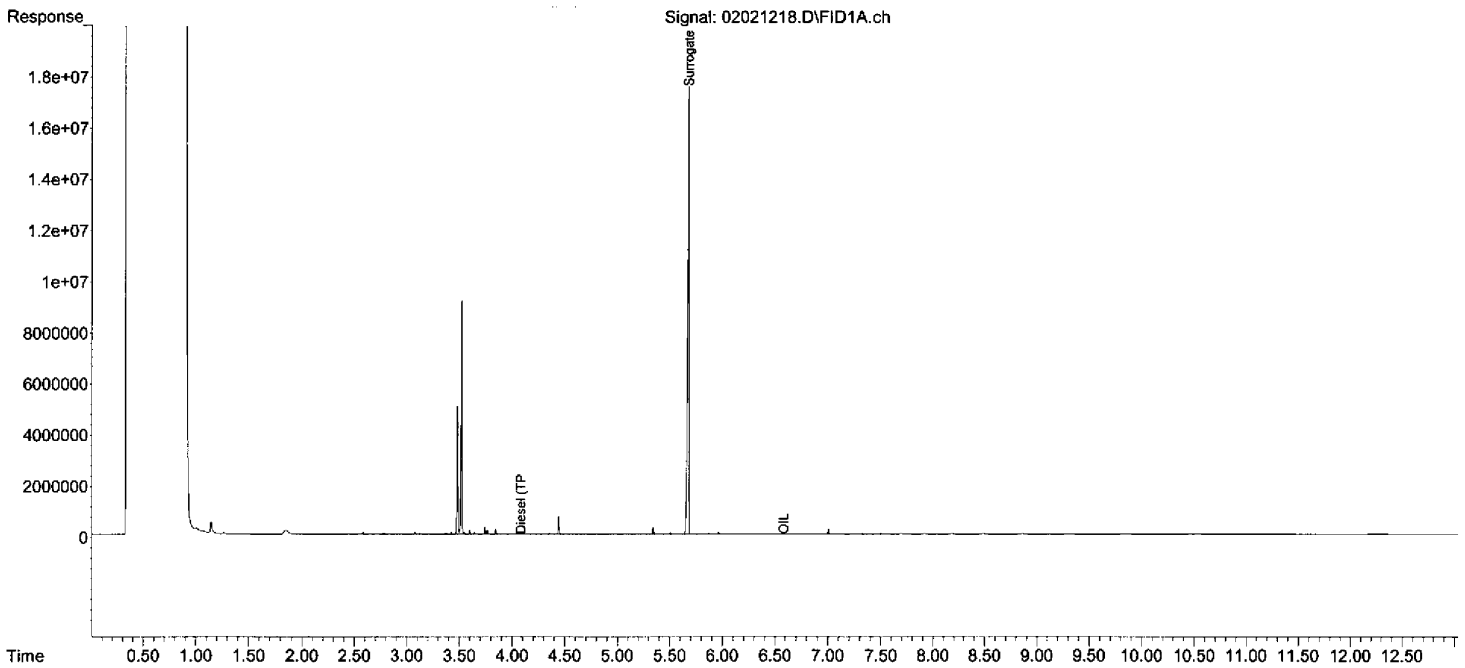
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021218.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 7:07 pm Operator: TD
Sample : 1202001-09 Inst : AG7890_2
Misc : HW26
ALS Vial : 18 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:13 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



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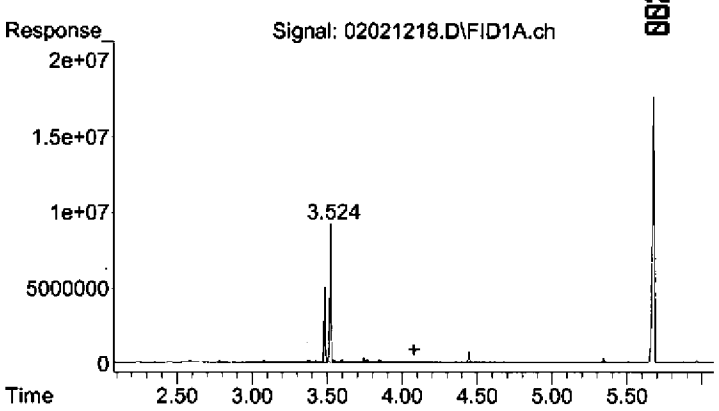
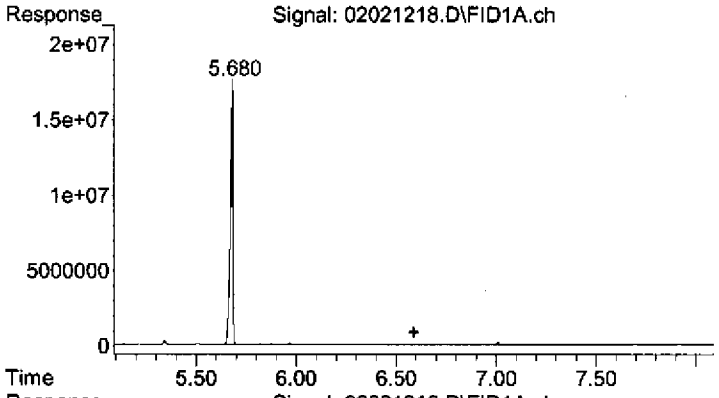
DIM0277243 DIM0277465



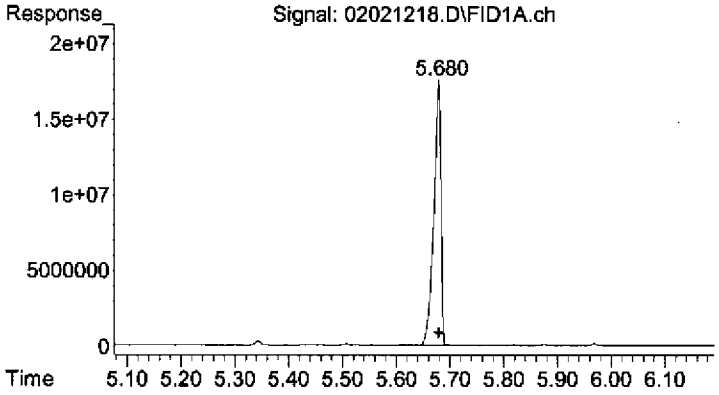
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 119091140
Conc: 33.19 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 5168378
Conc: 2.70 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.001 min
Response: 158455449
Conc: 44.61 ug/mL

Quantitation Report (Not Reviewed)

00210

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021219.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 7:24 pm Operator: TD
Sample : 1202001-10 Inst : AG7890_2
Misc : HW26
ALS Vial : 19 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:18 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	163774043	46.102 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	92.20%
Target Compounds			
1) HM Diesel (TPH)	4.080	122637030	34.175 ug/mL
2) H OIL	6.590	5402681	2.821 ug/mL

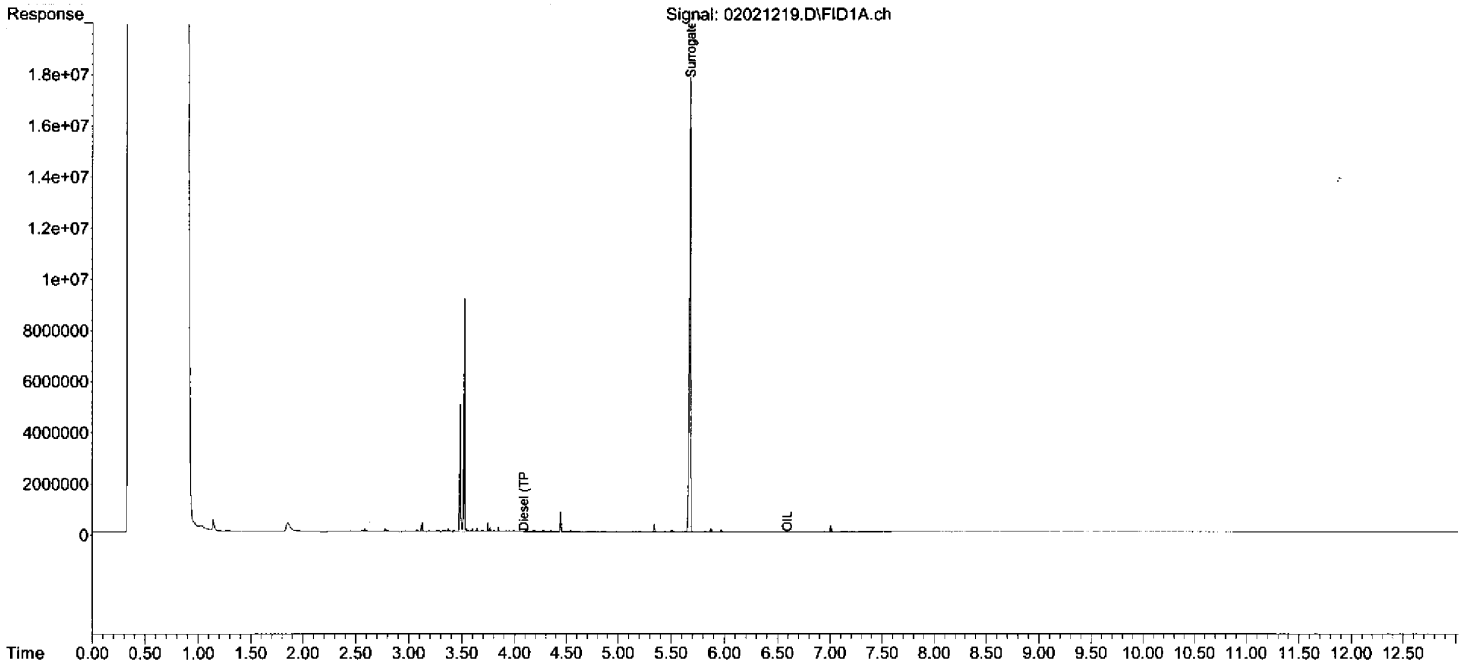
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021219.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 7:24 pm
Operator: TD
Sample : 1202001-10
Inst : AG7890_2
Misc : HW26
ALS Vial : 19 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:18 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



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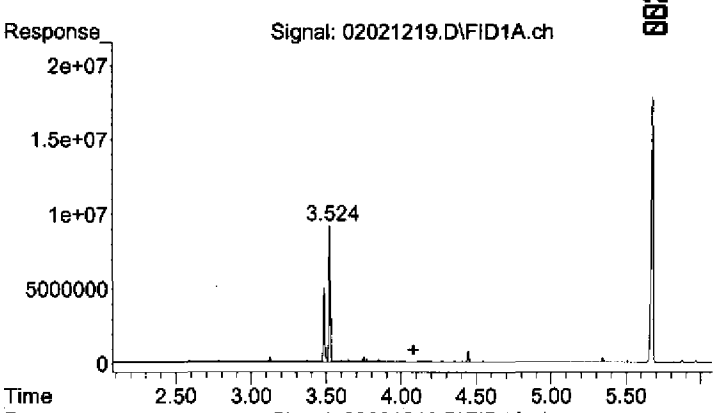
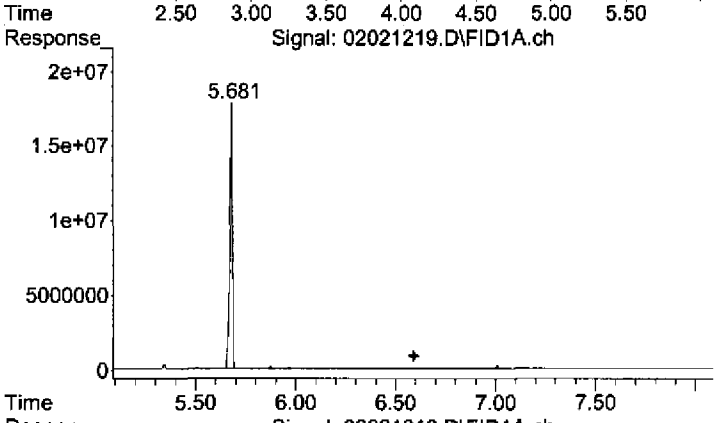


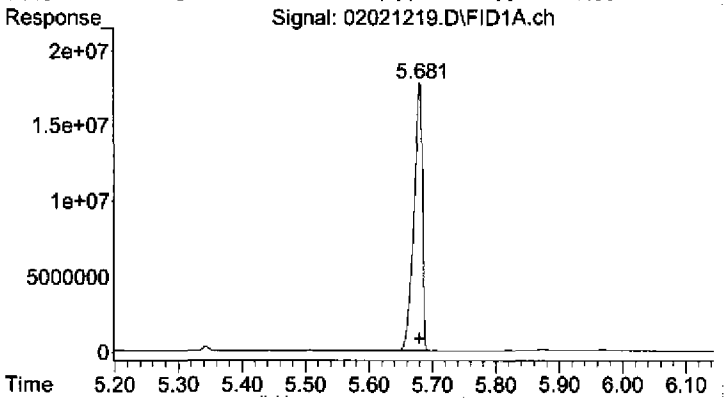
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 122637030
Conc: 34.18 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 5402681
Conc: 2.82 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 163774043
Conc: 46.10 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021220.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 7:43 pm Operator: TD
Sample : 1202001-11 Inst : AG7890_2
Misc : HW26
ALS Vial : 20 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:22 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	154015718	43.355 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	86.71%
Target Compounds			
1) HM Diesel (TPH)	4.080	8761247	2.441 ug/mL
2) H OIL	6.590	2918111	1.524 ug/mL

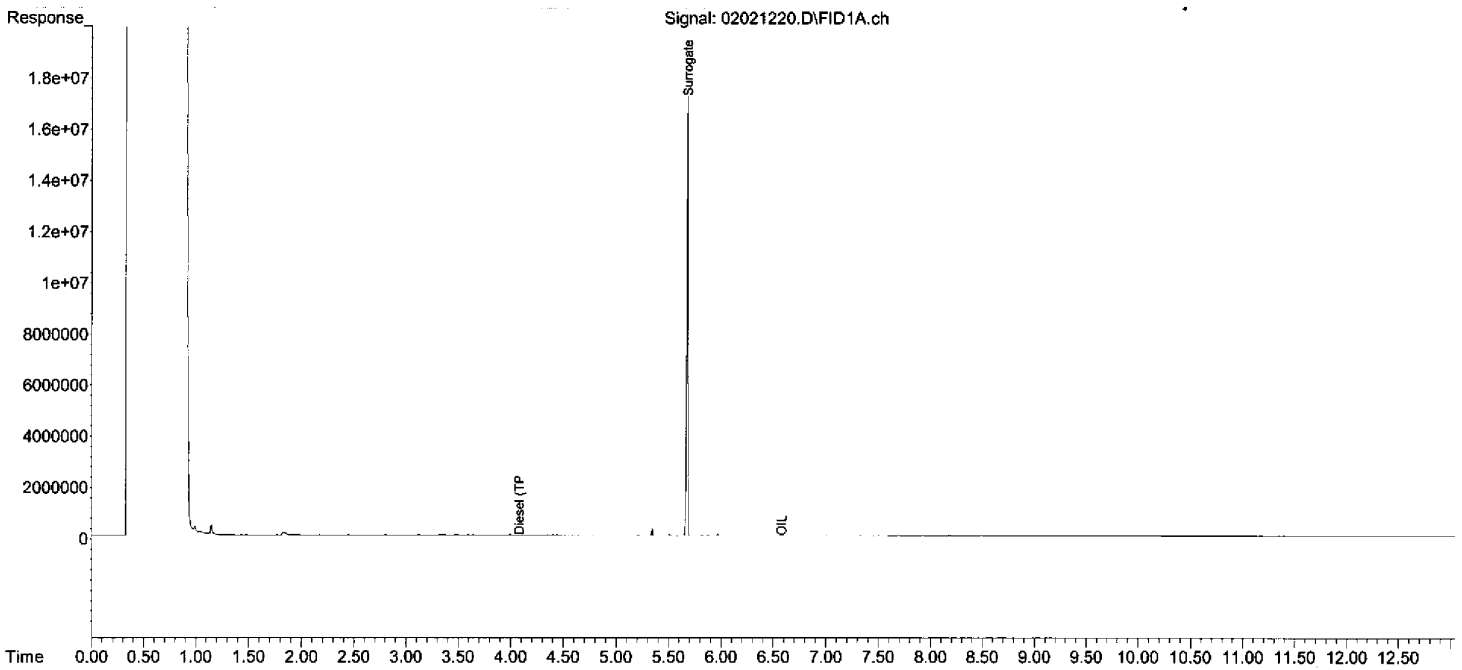
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021220.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 7:43 pm
Operator: TD
Sample : 1202001-11
Inst : AG7890_2
Misc : HW26
ALS Vial : 20 Sample Multiplier: 1

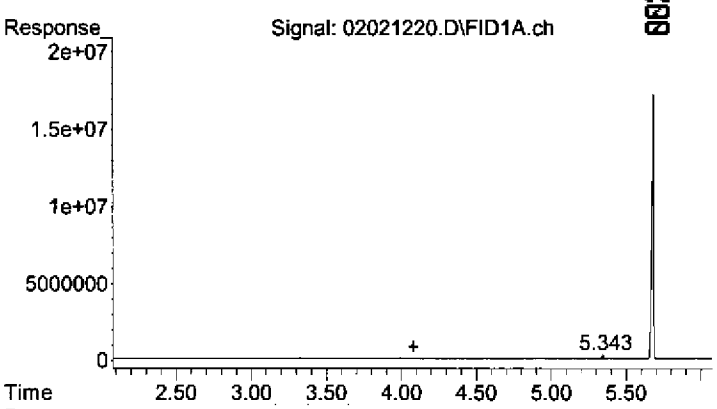
Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:22 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

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



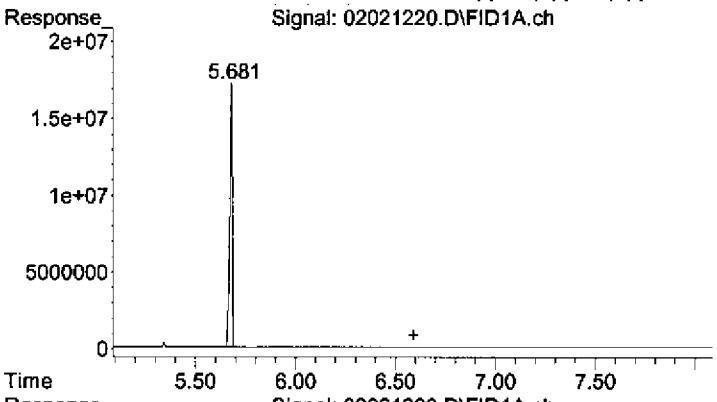
00220

00214



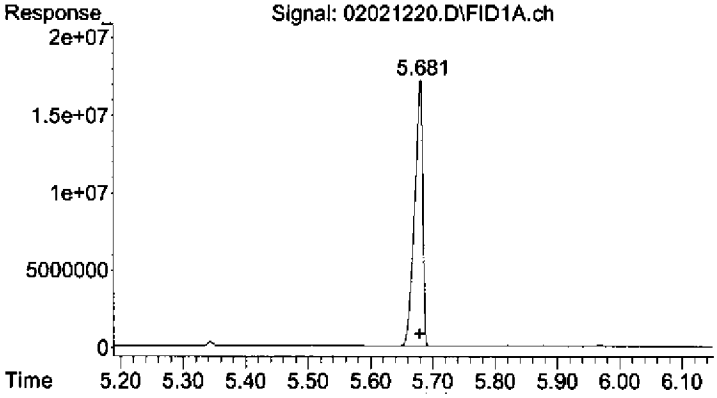
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 8761247
Conc: 2.44 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 2918111
Conc: 1.52 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 154015718
Conc: 43.36 ug/mL

Quantitation Report (Not Reviewed)

00222

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021221.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:00 pm Operator: TD
Sample : 2020009-IBL2 Inst : AG7890_2
Misc : 2A11003 IB
ALS Vial : 21 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:26 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	5.679	160951527	45.308 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	90.62%
Target Compounds			
1) HM Diesel (TPH)	4.080	4058398	1.131 ug/mL
2) H OIL	6.590	2481487	1.296 ug/mL

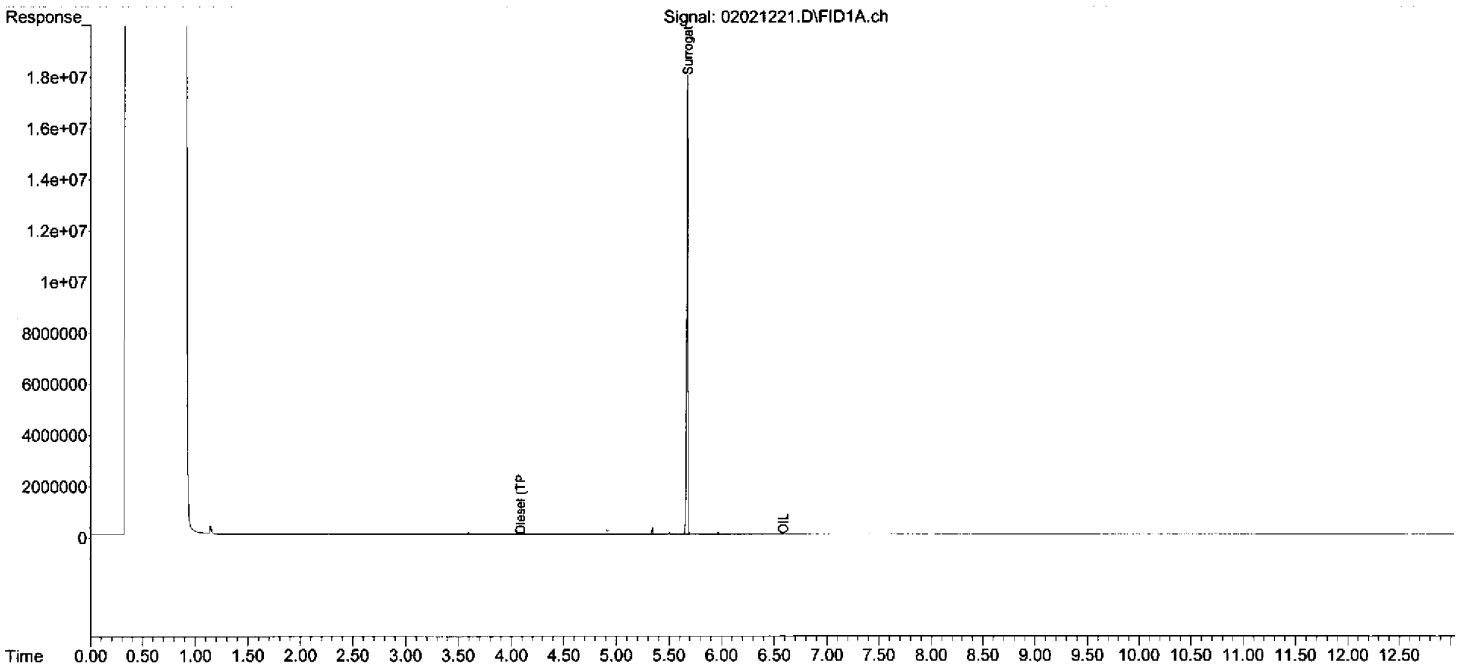
(f)=RT Delta > 1/2 Window (m)=manual int.

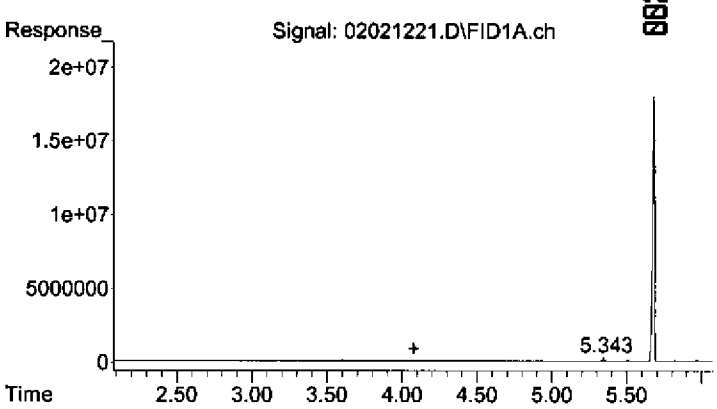
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021221.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:00 pm
Operator: TD
Sample : 2020009-IBL2
Inst : AG7890_2
Misc : 2A11003 IB
ALS Vial : 21 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:26 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

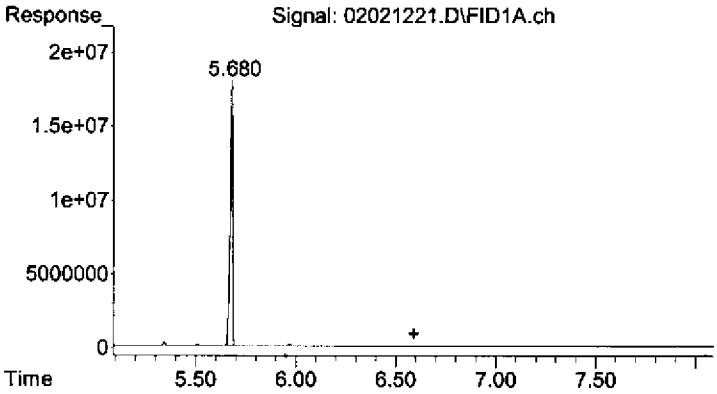
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





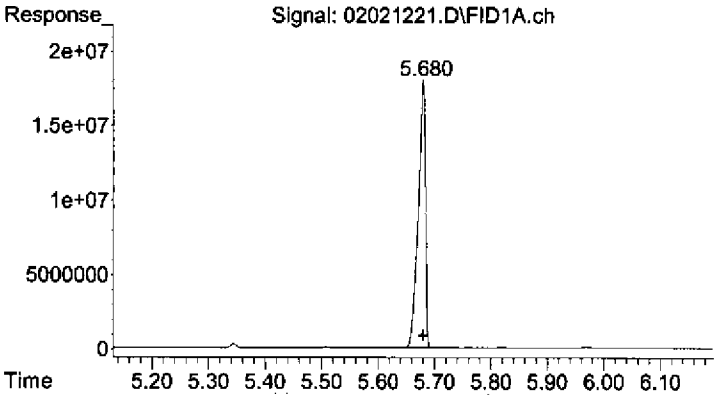
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 4058398
Conc: 1.13 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 2481487
Conc: 1.30 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: -0.001 min
Response: 160951527
Conc: 45.31 ug/mL

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021222.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:18 pm Operator: TD
Sample : 2020009-CCV3 Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 22 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:31 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

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	3.521 E6	1.9	111	0.00
2 H	OIL	1.915	0.000 E6	100.0#	110	0.00
3 S	Surrogate	3.552	3.708 E6	-4.4	110	0.00

Evaluate Continuing Calibration Report - Not Founds

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

Quantitation Report (Not Reviewed)

00226

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021222.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:18 pm Operator: TD
Sample : 2020009-CCV3 Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 22 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:31 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	5.680	185403431	52.191 ug/mL
Spiked Amount 50.000 Range 60 - 127		Recovery = 104.38%	
Target Compounds			
1) HM Diesel (TPH)	4.080	1760484763	490.593 ug/mL
2) H OIL	6.590	4284857	2.238 ug/mL

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

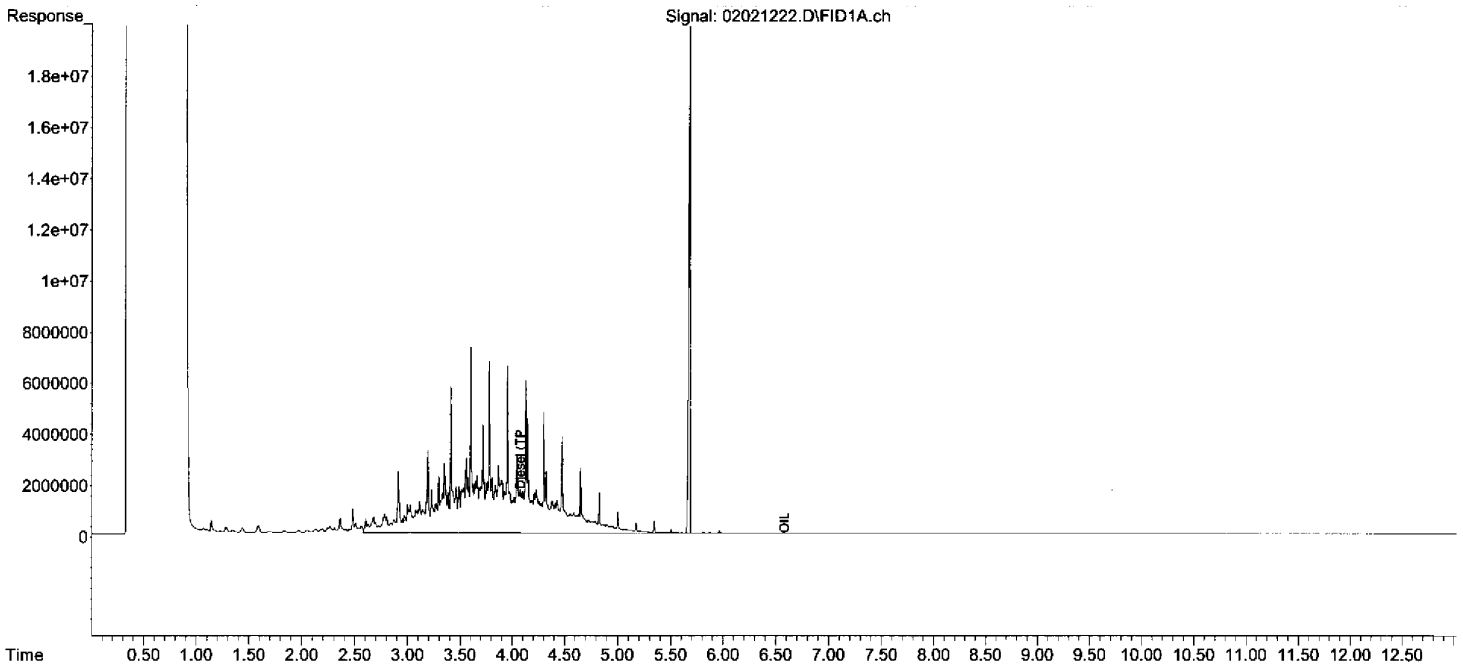
185403431 = 52.197
3.552E 6 TD 02-03-12

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021222.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:18 pm
Operator: TD
Sample : 2020009-CCV3
Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 22 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:31 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

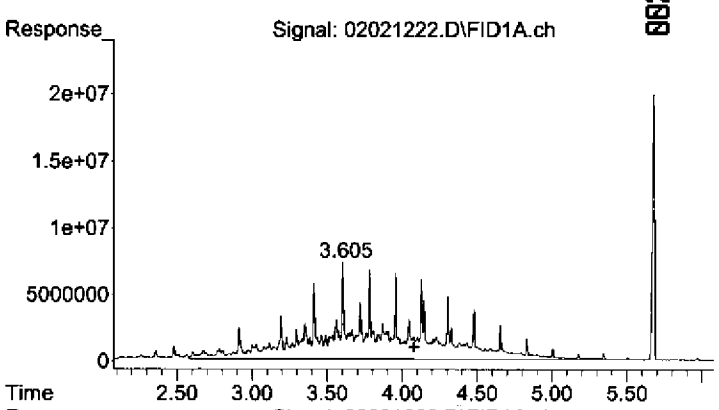
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um



00227

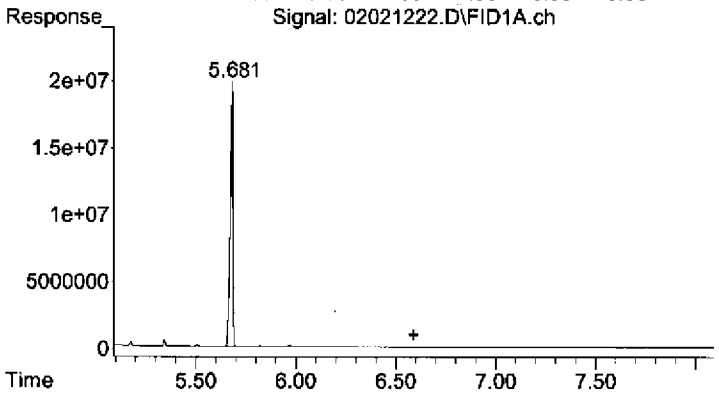
00221

013012DROA.M Fri Feb 03 06:03:33 2012
Page: 2



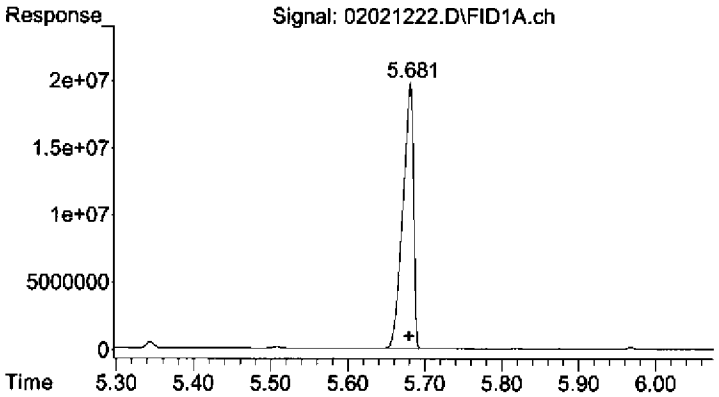
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1760484763
Conc: 490.59 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 4284857
Conc: 2.24 ug/mL



#3 Surrogate

R.T.: 5.680 min
Delta R.T.: 0.000 min
Response: 185403431
Conc: 52.19 ug/mL

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021223.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:36 pm
Operator: TD
Sample : 2020009-CCV4
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 23 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 08:27:52 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

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	1.900 E6	0.8	95	0.00
3 S	Surrogate	3.552	0.000 E6	100.0#	96	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\020212DROA\
Data File : 02021223.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:36 pm Operator: TD
Sample : 2020009-CCV4 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 23 Sample Multiplier: 1

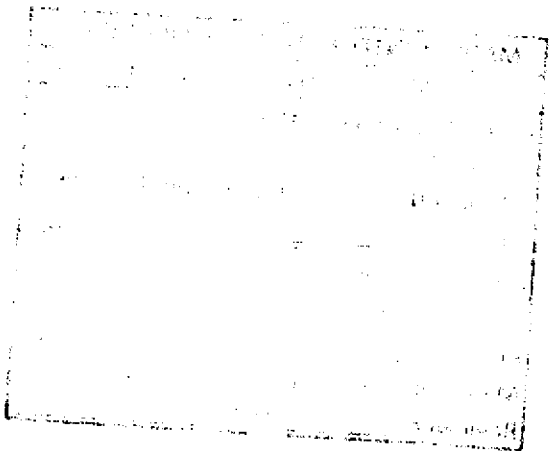
Integration File: HEXACOSANE.E
Quant Time: Feb 03 08:27:52 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

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	5.686	153193379	43.124 ug/mLm
Spiked Amount 50.000	Range 60 - 127	Recovery =	86.25%
Target Compounds			
1) HM Diesel (TPH)	4.080	1010165167	281.502 ug/mL
2) H OIL	6.590	1900055699	992.261 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: 02-03-12
Manual integration(s) reviewed by:
Reviewer: TL Date: 02-03-12

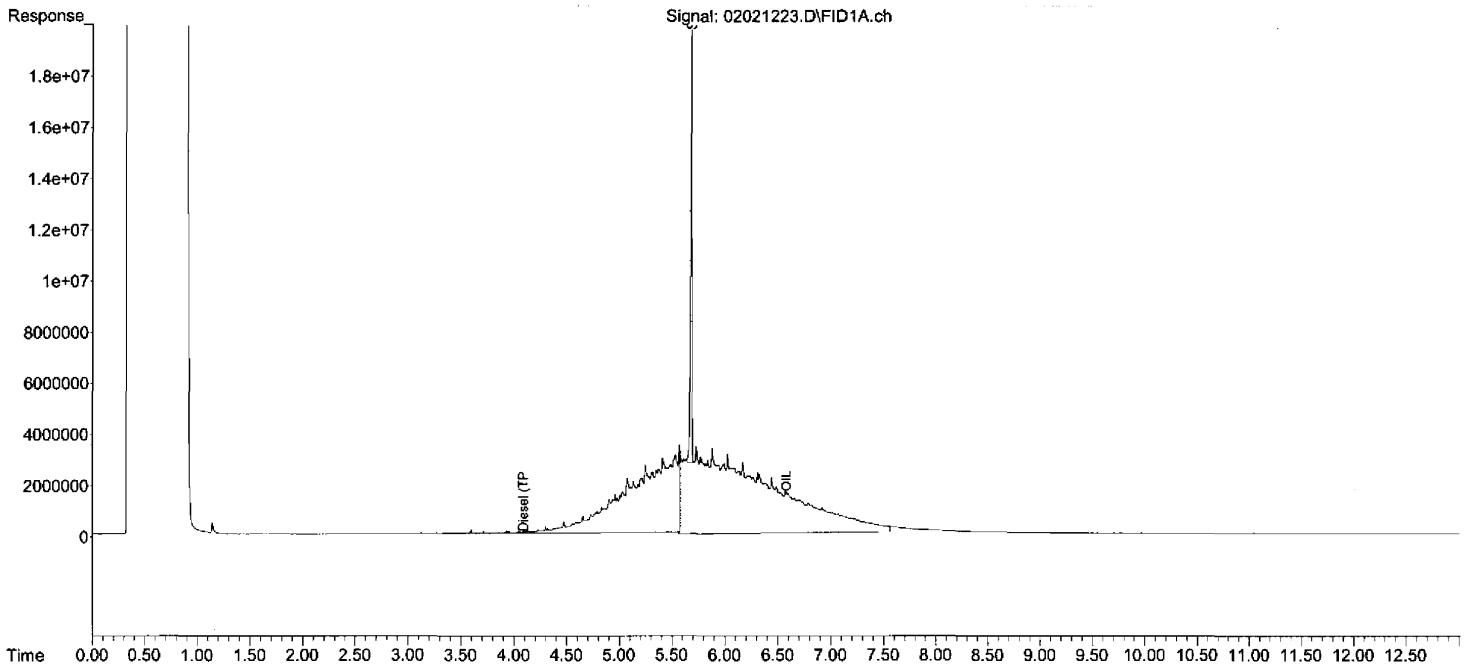


Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021223.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:36 pm
Operator: TD
Sample : 2020009-CCV4
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 23 Sample Multiplier: 1

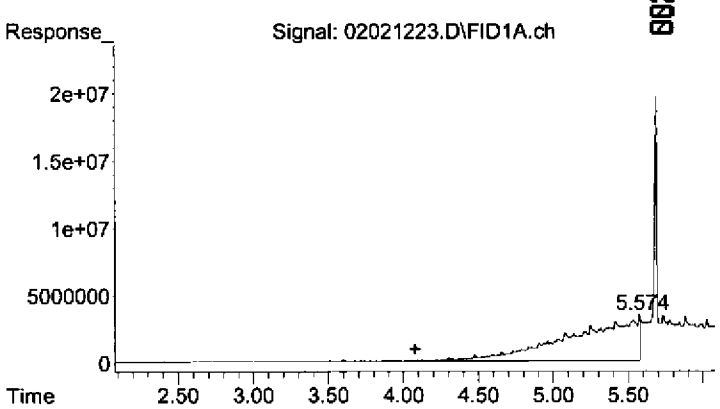
Integration File: HEXACOSANE.E
Quant Time: Feb 03 08:27:52 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

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



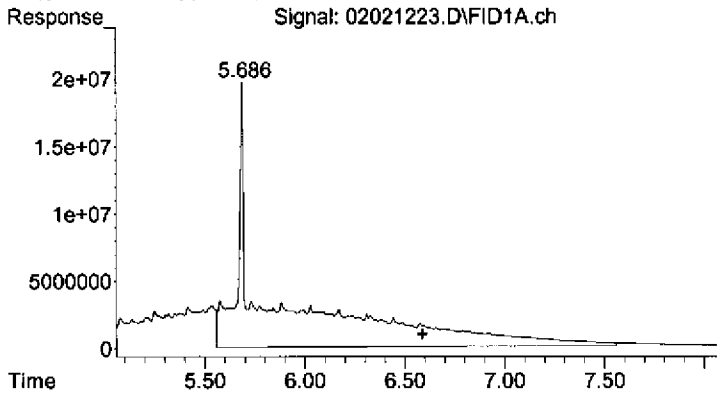
00231

00225



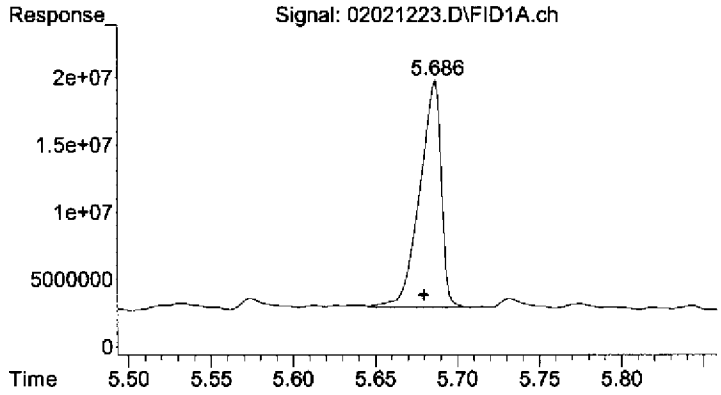
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1010165167
Conc: 281.50 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1900055699
Conc: 992.26 ug/mL m



#3 Surrogate

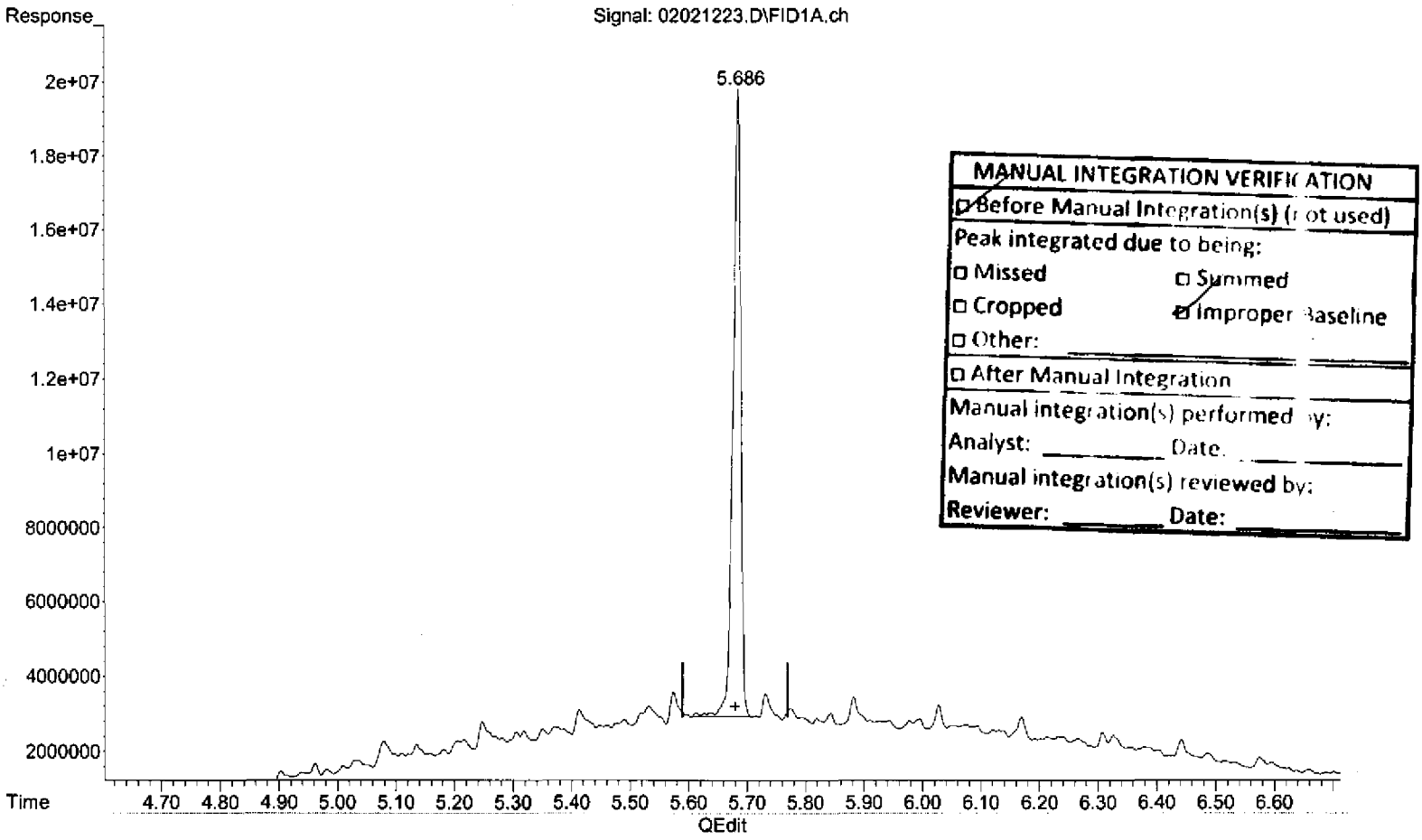
R.T.: 5.686 min
Delta R.T.: 0.007 min
Response: 153193379
Conc: 43.12 ug/mL m

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021223.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:36 pm
Operator: TD
Sample : 2020009-CCV4
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 23 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:36 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



(3) Surrogate (S)

5.685min 43.176 ug/mL

response 153378242

(+) = Expected Retention Time

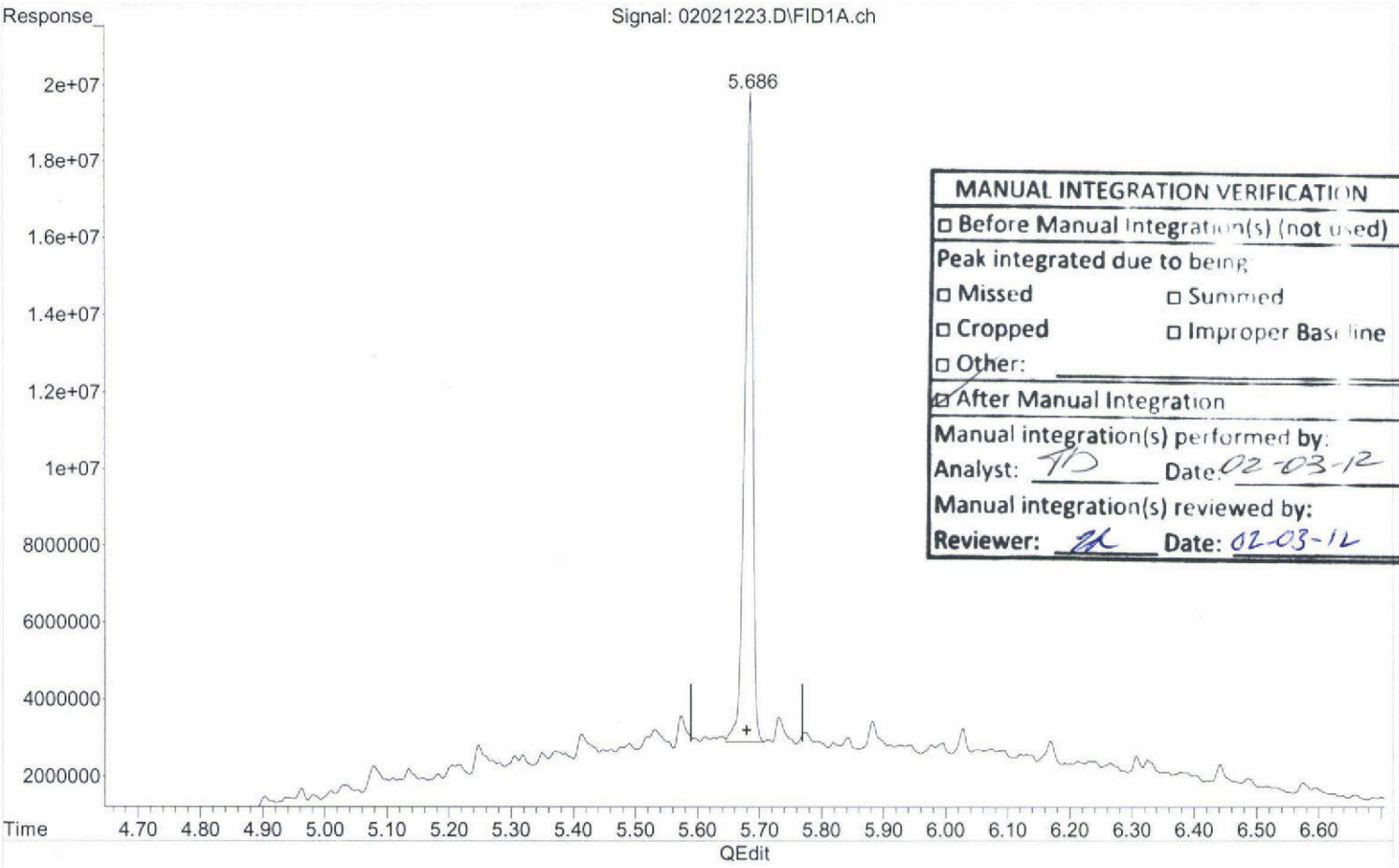
013012DROA.M Fri Feb 03 08:27:19 2012

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021223.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:36 pm
Operator: TD
Sample : 2020009-CCV4
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 23 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:36 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



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: 02-03-12
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 02-03-12

(3) Surrogate (S)

5.686min 43.124 ug/mL m

response 153193379

(+) = Expected Retention Time

Quantitation Report (Qedit)

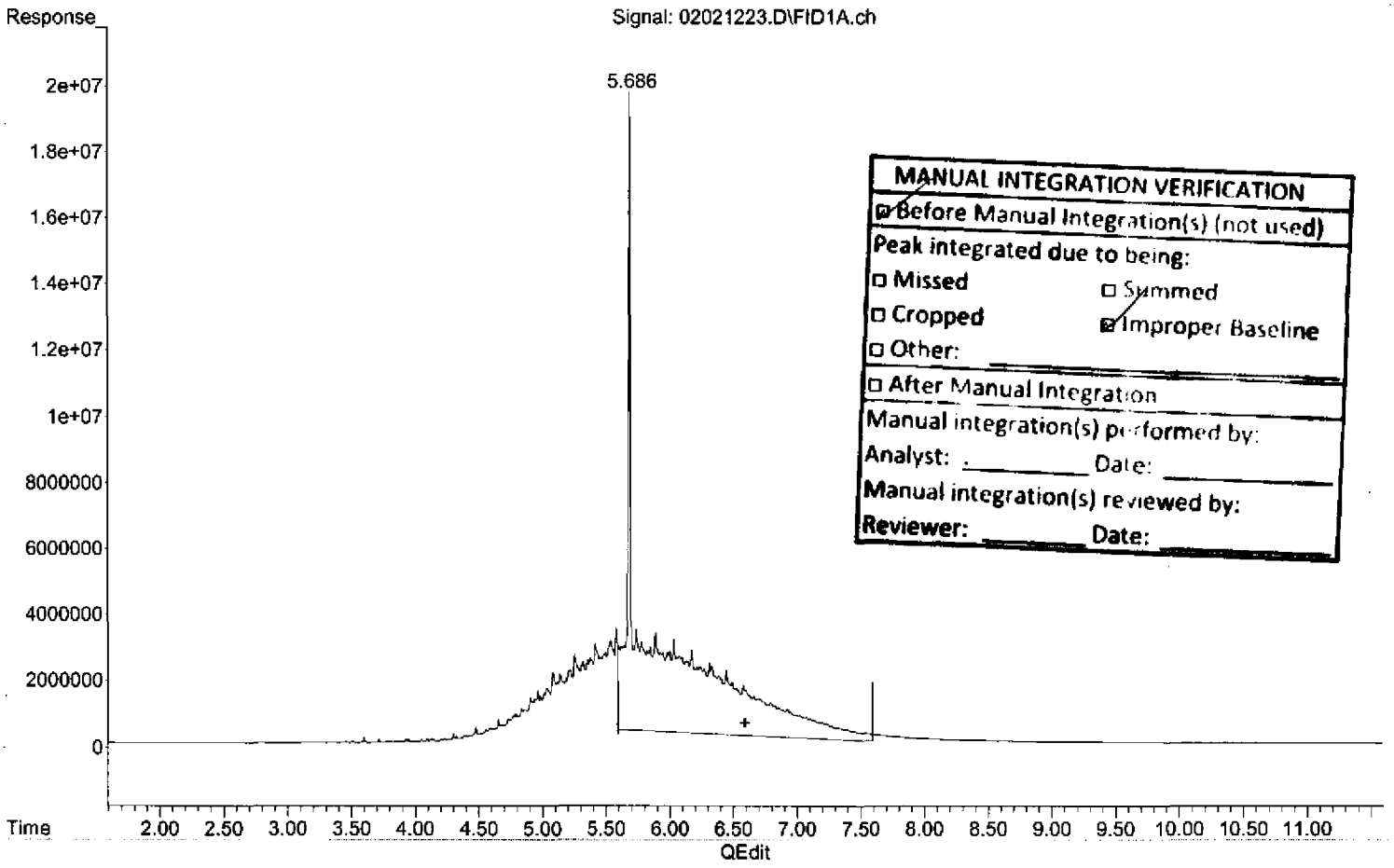
00235

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021223.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:36 pm
Sample : 2020009-CCV4
Misc : 2A11012 OIL-CV
ALS Vial : 23 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:36 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



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 835.839 ug/mL

response 1600528511

(+) = Expected Retention Time
013012DROA.M Fri Feb 03 08:27:41 2012

Page: 1

00229

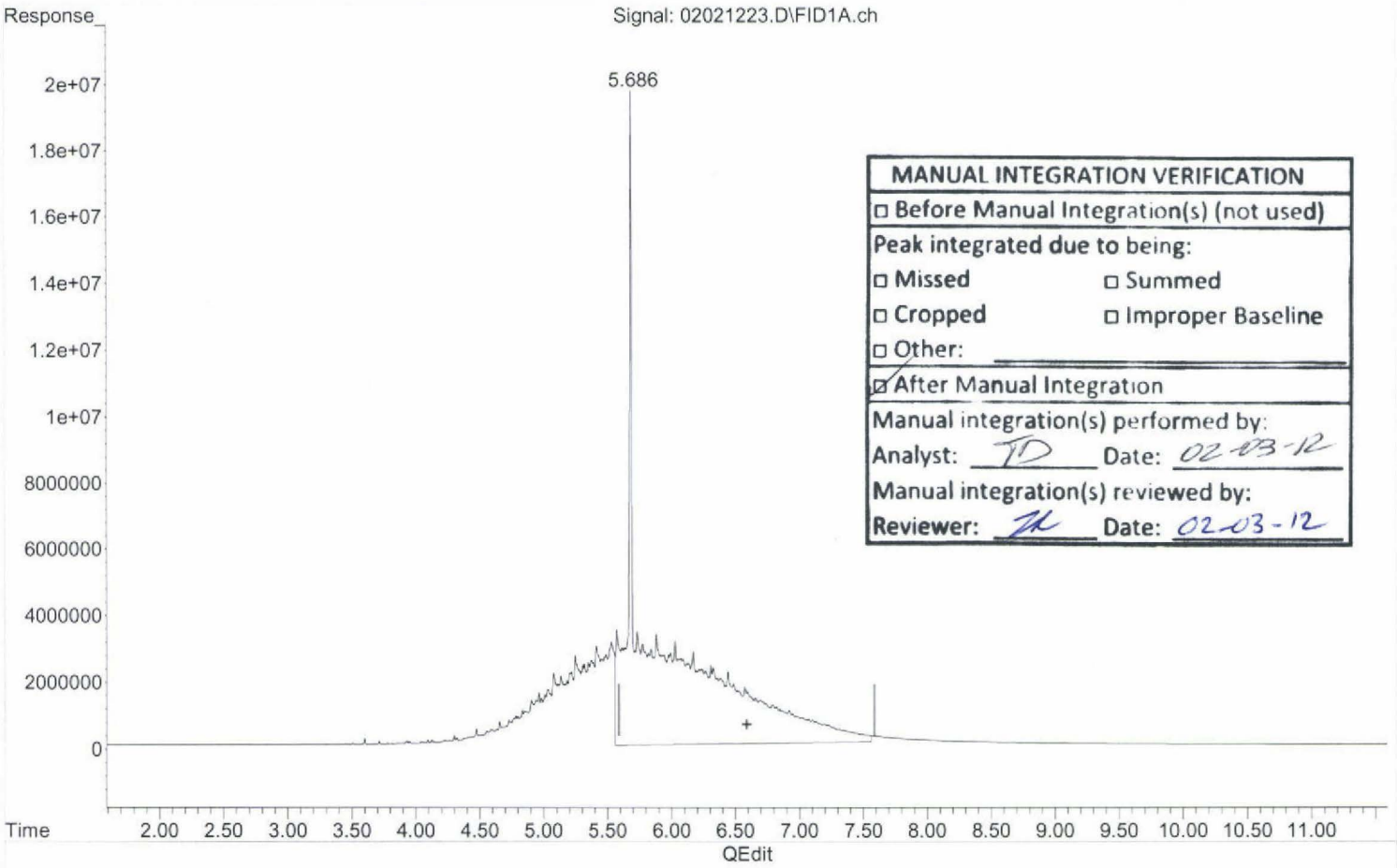
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021223.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:36 pm
Sample : 2020009-CCV4
Misc : 2A11012 OIL-CV
ALS Vial : 23 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:36 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



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: 02-03-12
Manual integration(s) reviewed by:
Reviewer: ZL Date: 02-03-12

(2) OIL (H)

6.590min 992.261 ug/mL m

response 1900055699

(+) = Expected Retention Time

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021223.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:36 pm Operator: TD
Sample : 2020009-CCV4 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 23 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:36 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	5.685	153378242	43.176 ug/mL
Spiked Amount 50.000 Range 60 - 127		Recovery =	86.35%
Target Compounds			
1) HM Diesel (TPH)	4.080	1010165167	281.502 ug/mL
2) H OIL	6.590	1600343648	835.743 ug/mL

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

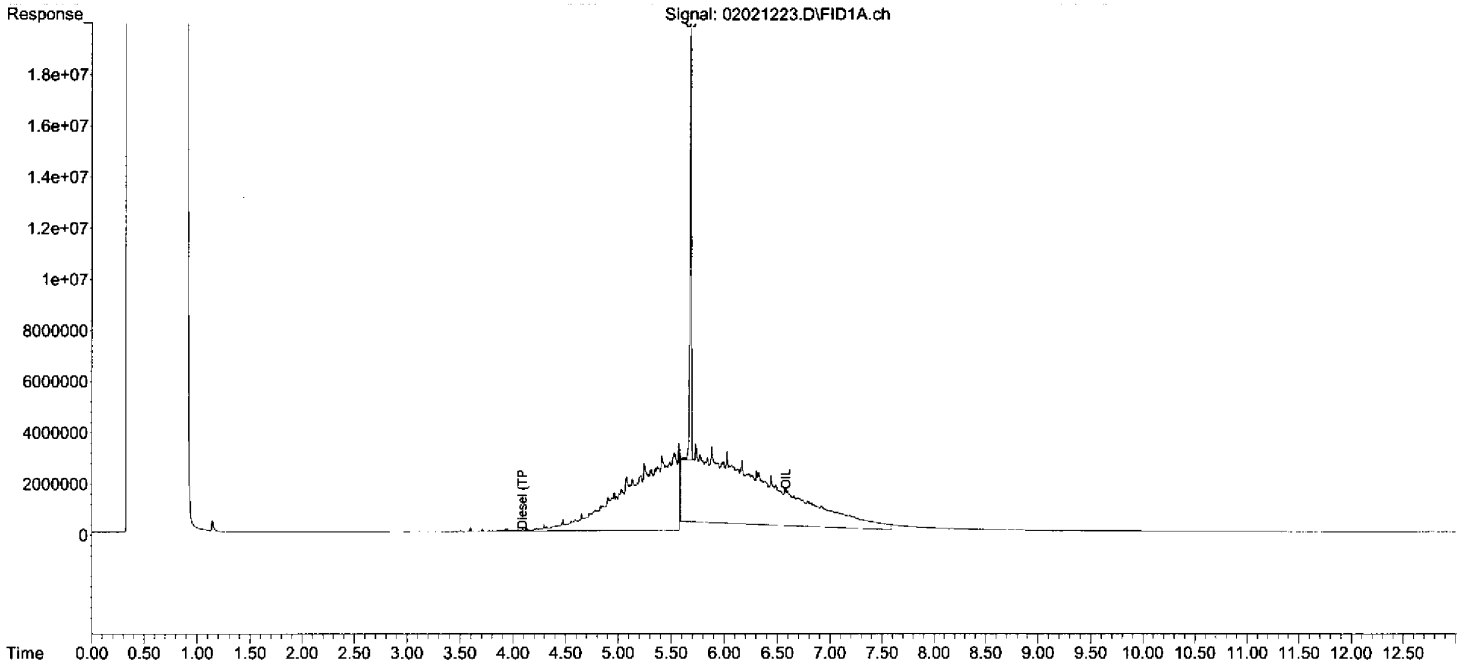
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: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

Quantitation Report (Not Reviewed)

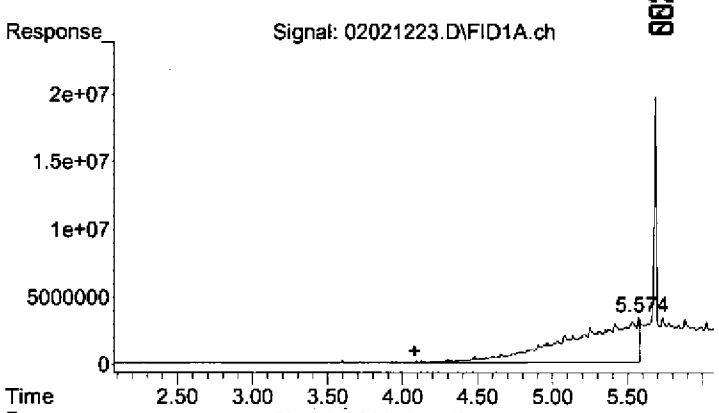
Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021223.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:36 pm
Operator: TD
Sample : 2020009-CCV4
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 23 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:36 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

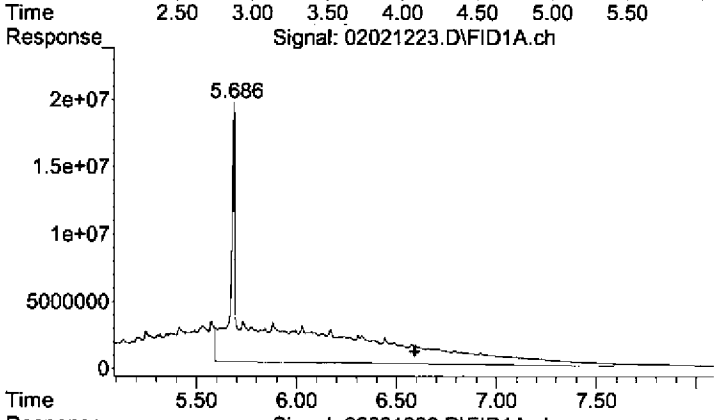


00238
00232
DIM0277243 DIM0277493



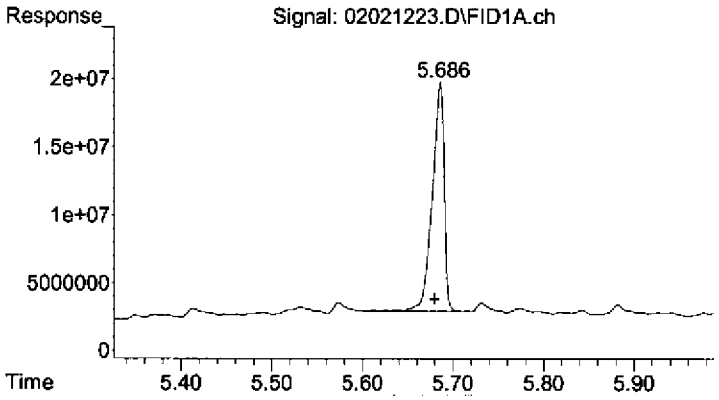
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1010165167
Conc: 281.50 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1600343648
Conc: 835.74 ug/mL



#3 Surrogate

R.T.: 5.685 min
Delta R.T.: 0.005 min
Response: 153378242
Conc: 43.18 ug/mL

Quantitation Report (Not Reviewed)

00240

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021224.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:54 pm Operator: TD
Sample : 2020009-CCV5 Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 24 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:41 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	166920195	46.988 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	93.98%
Target Compounds			
1) HM Diesel (TPH)	4.080	1594246211	444.267 ug/mL
2) H OIL	6.590	6409729	3.347 ug/mL

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

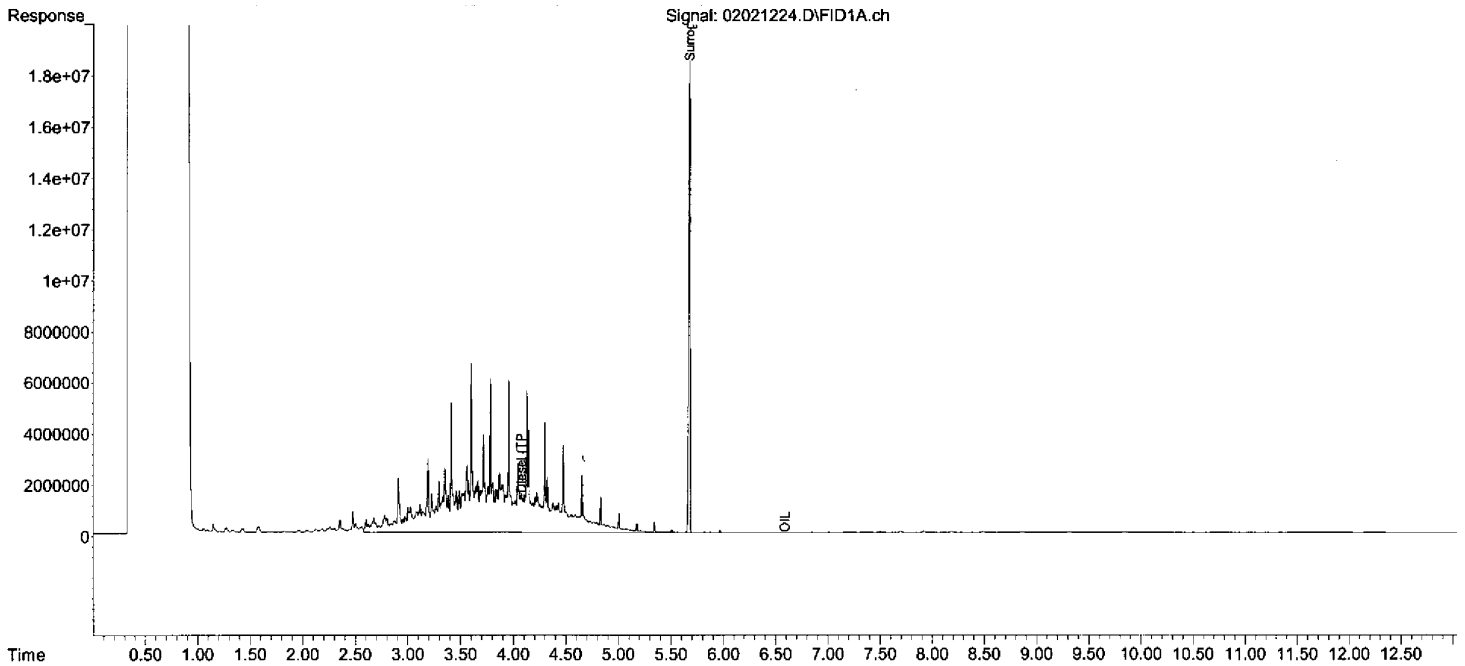
not validated

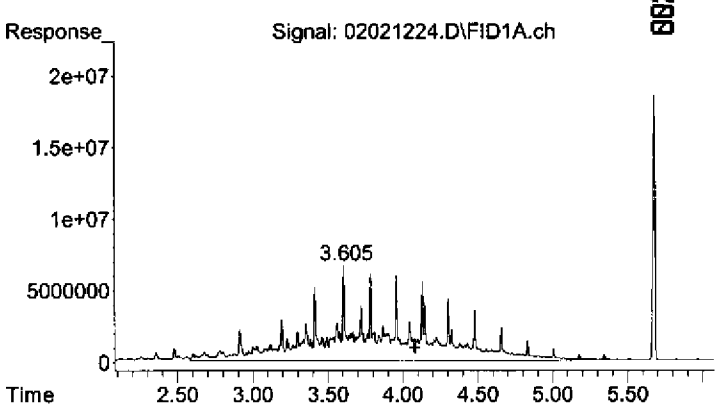
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021224.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 8:54 pm
Operator: TD
Sample : 2020009-CCV5
Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 24 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:41 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

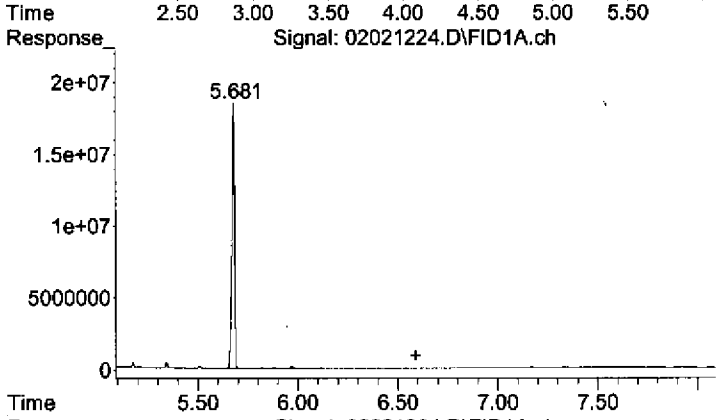
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





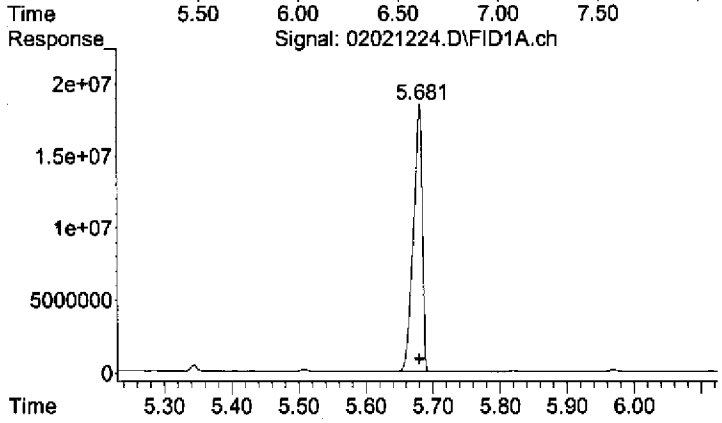
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1594246211
Conc: 444.27 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 6409729
Conc: 3.35 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 166920195
Conc: 46.99 ug/mL

Quantitation Report (Not Reviewed)

00243

Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021225.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 9:12 pm Operator: TD
Sample : 2020009-CCV6 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 25 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:45 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	146963846	41.370 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	82.74%
Target Compounds			
1) HM Diesel (TPH)	4.080	978272408	272.614 ug/mL
2) H OIL	6.590	1542491645	805.531 ug/mL

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

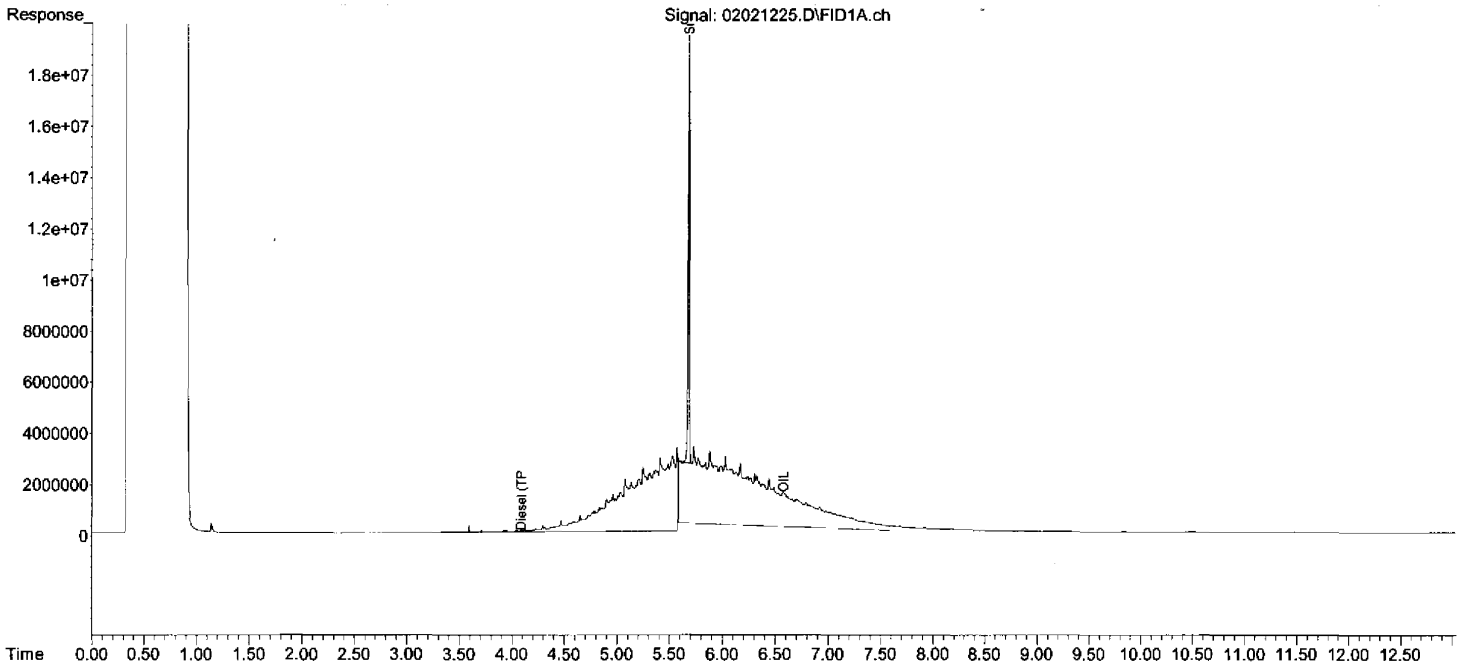
not valuated

Quantitation Report (Not Reviewed)

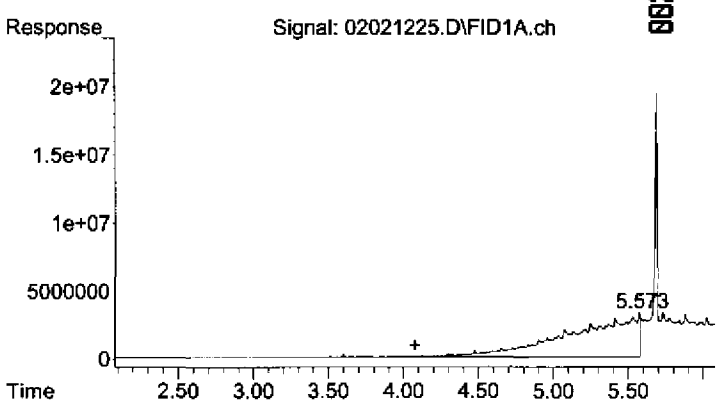
Data Path : C:\msdchem\1\2012\DATA\020212DROA\
Data File : 02021225.D
Signal(s) : FID1A.ch
Acq On : 2 Feb 2012 9:12 pm
Operator: TD
Sample : 2020009-CCV6
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 25 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 03 06:03:45 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

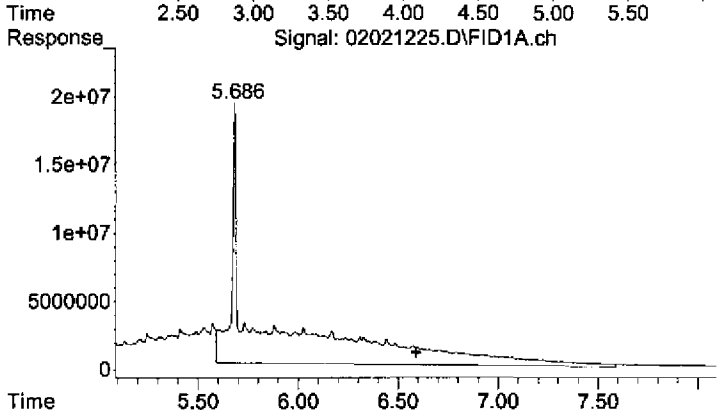


DIM0277243 DIM0277499



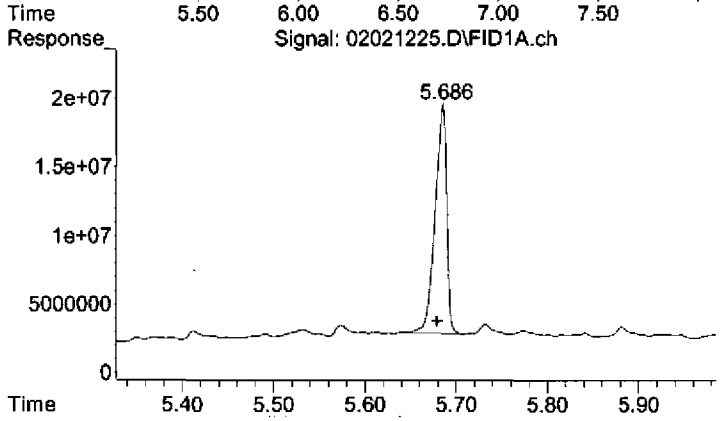
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 978272408
Conc: 272.61 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1542491645
Conc: 805.53 ug/mL



#3 Surrogate

R.T.: 5.685 min
Delta R.T.: 0.005 min
Response: 146963846
Conc: 41.37 ug/mL

00246

Standard Records

:00240

DIM0277243 DIM0277501

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)

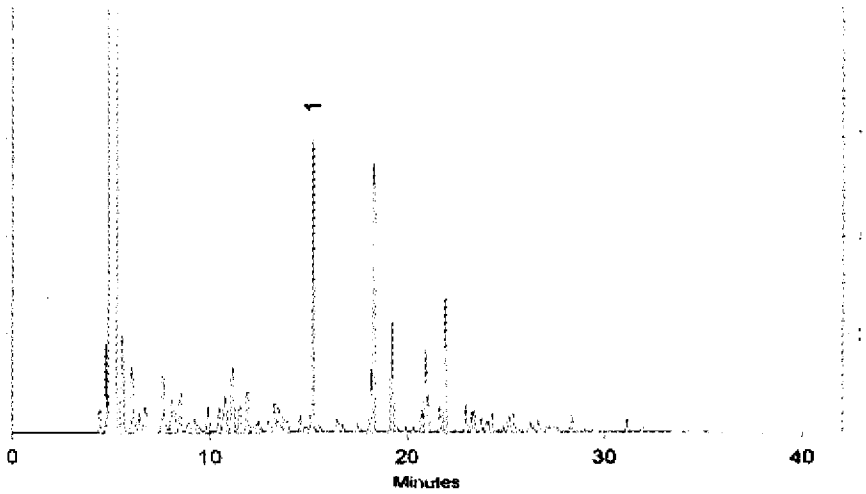
Carrier Gas:
hydrogen @ 40 cm/sec.

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 Lidget
John Lidget - 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)

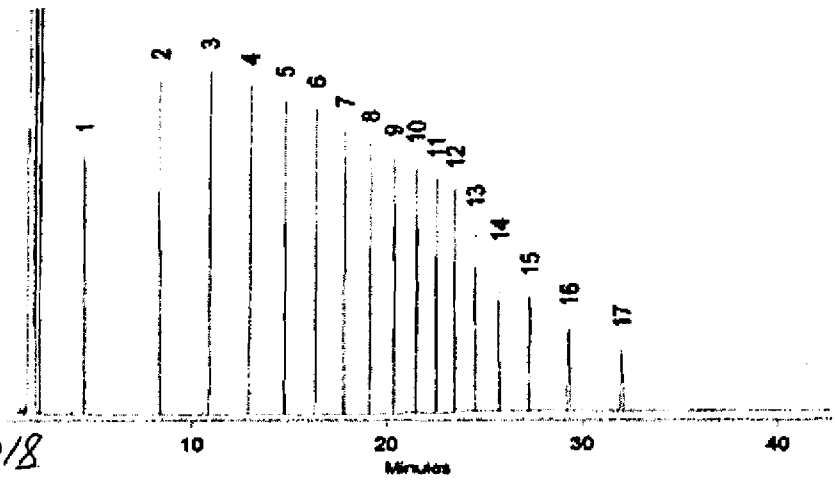
Carrier Gas:
hydrogen @ 40cm/sec.

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 | CF23018
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.
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

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

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

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
Rusa 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/INO-001
Rev. 7/10

Analytical Standard Record

EPA Region 9 Laboratory

1B18007

Description:	DRO:Composite #2 Diesil Fuel Solution, 5	**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)

A4002868
1R18004
open 02.18.11
WB

1R18005
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. Leary
Quality Assurance Manager

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)

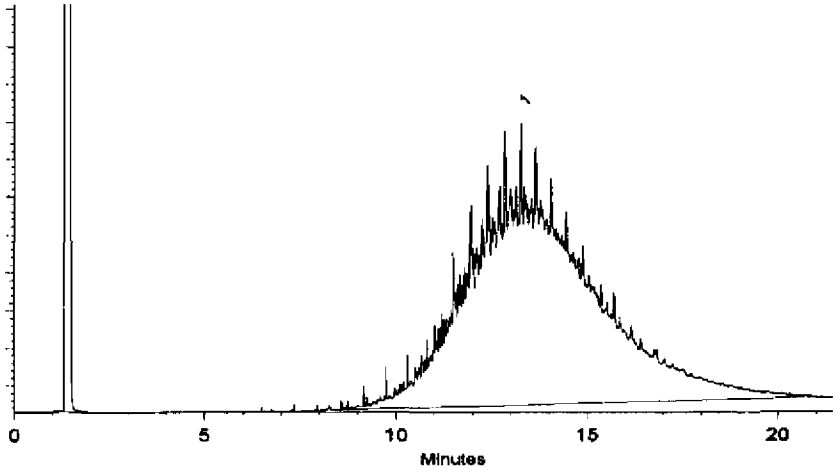
Carrier Gas:
hydrogen-constant pressure 10 psi.

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 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.

AU003401	IC22007
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 [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)

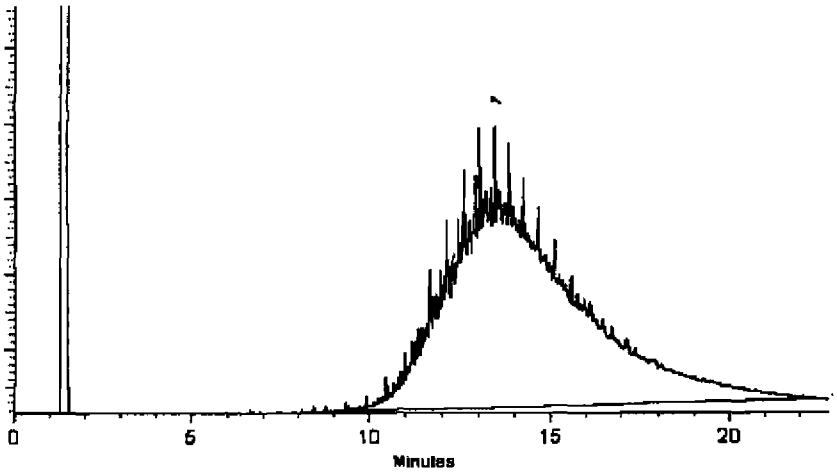
Carrier Gas:
hydrogen-constant pressure 10 psi.

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 50397

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 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)366-1688
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)

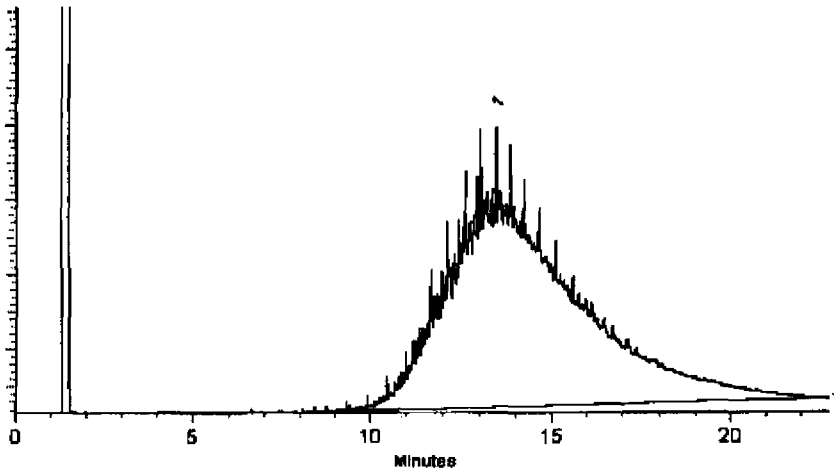
Carrier Gas:
hydrogen-constant pressure 10 psi.

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 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 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)

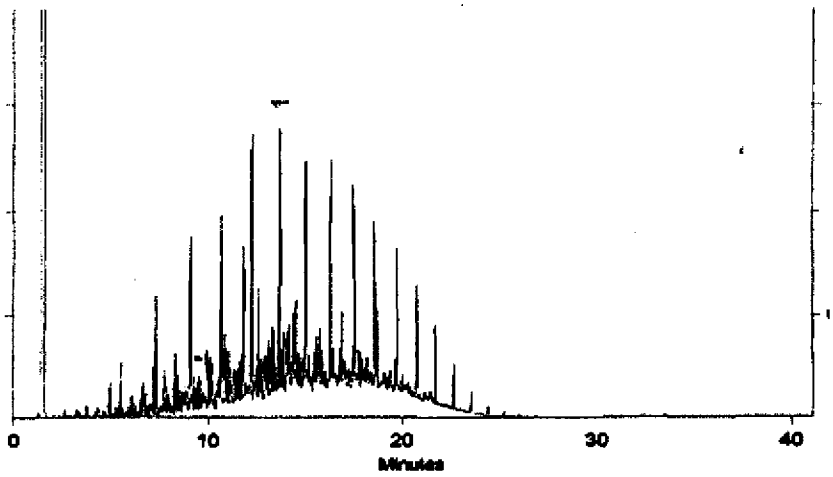
Carrier Gas:
hydrogen-constant pressure 10 psi

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	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)

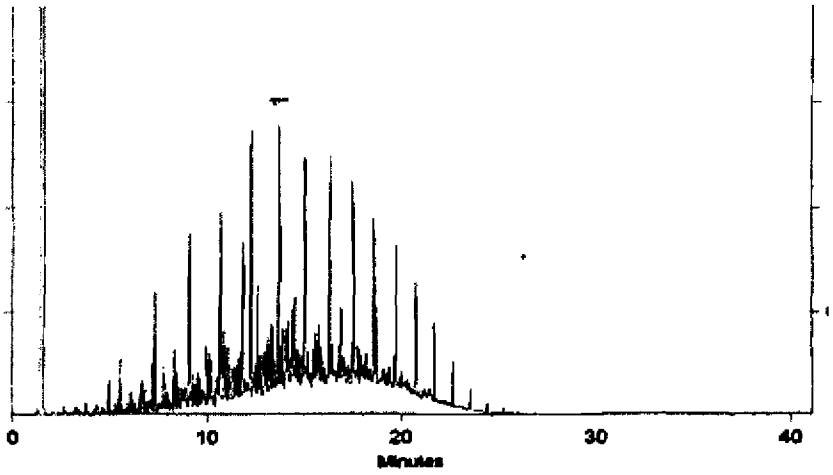
Carrier Gas:
hydrogen-constant pressure 10 psi

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 | 1C22017
7 | 1C22018
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

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)

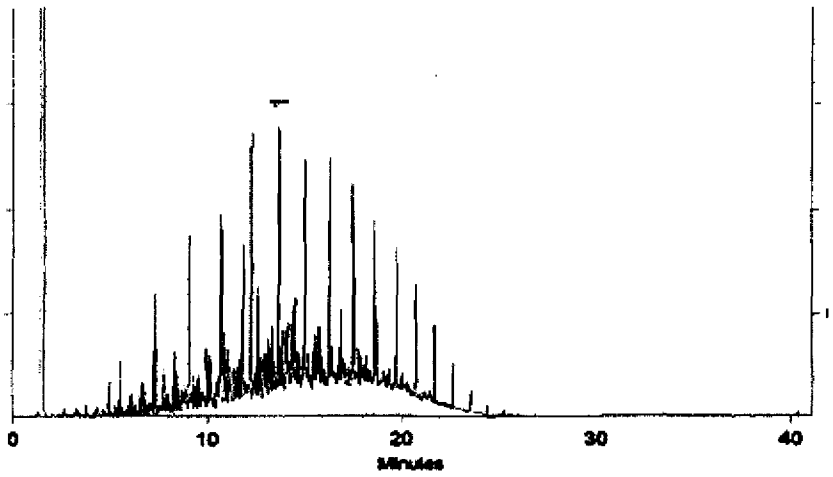
Carrier Gas:
hydrogen-constant pressure 10 psi

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

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)

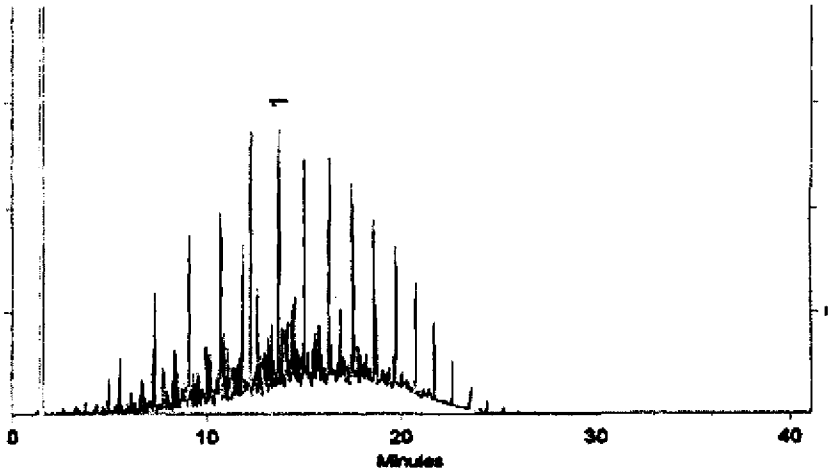
Carrier Gas:
hydrogen-constant pressure 10 psi

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 #FM80397

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

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

00274

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)

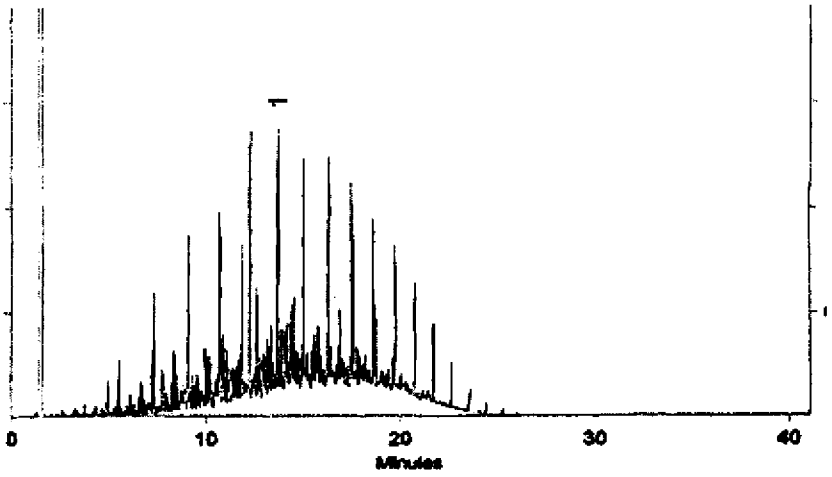
Carrier Gas:
hydrogen-constant pressure 10 psi

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.

A4003440	1C22022
41	23
42	24
48	25
49	26
50	27
57	28
52	29

00268

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 (AB)
A1103.5.5

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/INO-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
~~1I23009~~ 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

OR-ORG/NO-001
Rev 7/10

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-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

QR-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

IZ23012
IZ23013
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 Nd822/272103-05
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

QR-ORG/INC-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)
1123008	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

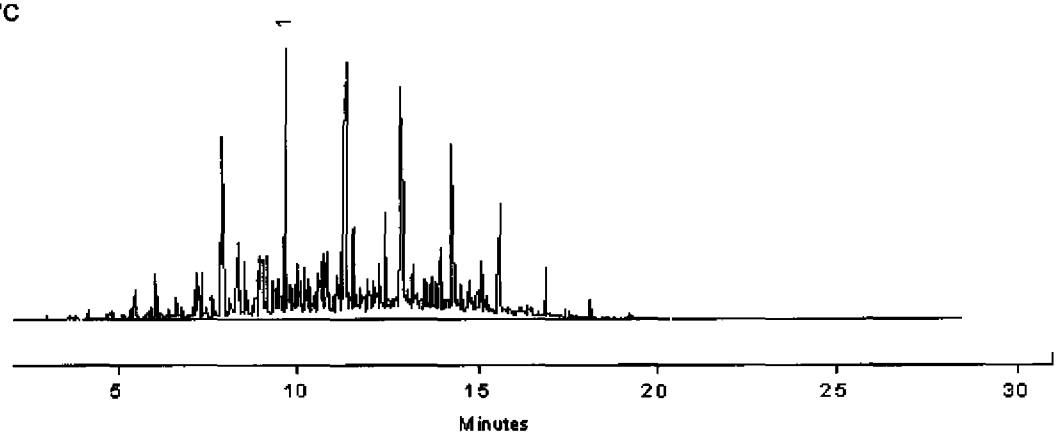
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

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
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