TPH-Extractable analysis results for Dimock Residential Groundwater SDGs 12041B and 12044A

Jack Berges to: Robin Costas, caporale.cynthia, Stevie Wilding 02/21/2012 05:05 PM
Cc: Richard Bauer

From: Jack Berges/R9/USEPA/US
To: Robin Costas/ESC/R3/USEPA/US@EPA, caporale.cynthia@epa.gov, Stevie Wilding/ESC/R3/USEPA/US
Cc: Richard Bauer/R9/USEPA/US@EPA

TPH-Extractable analysis results for Dimock Residential Groundwater SDGs 12041B and 12044A, project R33911, are attached.

12041b_tph_extractable.pdf 12041b_tph_extractable.xls 12041b_tph_extractable.XML

12044a_tph_extractable.pdf 12044a_tph_extractable.xls 12044a_tph_extractable.XML

Jack Berges
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United States Environmental Protection Agency
Region 9 Laboratory

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

Date: 2/21/2012

Subject: **Analytical Testing Results - Project R33911**
SDG: 12041B

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

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:** 12041B
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/21/12 16:53
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
HW48	1202031-01	Water	02/08/12 16:06	02/10/12 09:40
HW48z	1202031-02	Water	02/08/12 16:06	02/10/12 09:40
HW23	1202031-04	Water	02/08/12 15:42	02/10/12 09:40
HW23-P	1202031-05	Water	02/08/12 15:39	02/10/12 09:40
HW21	1202031-07	Water	02/09/12 10:53	02/10/12 09:40
HW21z	1202031-08	Water	02/09/12 10:53	02/10/12 09:40
HW22	1202031-10	Water	02/09/12 10:42	02/10/12 09:40
HW22-P	1202031-11	Water	02/09/12 10:50	02/10/12 09:40

SDG ID 12041B

Insufficient sample volume was provided to perform matrix spike / matrix spike duplicate (MS/MSD) analysis on any samples for this sample delivery group.

Work Order(s)

1202031

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:** 12041B
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/21/12 16:53
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1202031-01									**Water - Sampled: 02/08/12 16:06**
Sample ID: HW48									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			94 %	*60-127%*		"	"	"	
Lab ID: 1202031-02									**Water - Sampled: 02/08/12 16:06**
Sample ID: HW48z									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			90 %	*60-127%*		"	"	"	
Lab ID: 1202031-04									**Water - Sampled: 02/08/12 15:42**
Sample ID: HW23									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			86 %	*60-127%*		"	"	"	
Lab ID: 1202031-05									**Water - Sampled: 02/08/12 15:39**
Sample ID: HW23-P									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			101 %	*60-127%*		"	"	"	
Lab ID: 1202031-07									**Water - Sampled: 02/09/12 10:53**
Sample ID: HW21									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			96 %	*60-127%*		"	"	"	
Lab ID: 1202031-08									**Water - Sampled: 02/09/12 10:53**
Sample ID: HW21z									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			90 %	*60-127%*		"	"	"	
Lab ID: 1202031-10									**Water - Sampled: 02/09/12 10:42**
Sample ID: HW22									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			91 %	*60-127%*		"	"	"	
Lab ID: 1202031-11									**Water - Sampled: 02/09/12 10:50**

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:** 12041B
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/21/12 16:53
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1202031-11									**Water - Sampled: 02/09/12 10:50**
Sample ID: HW22-P									**Extractable Petroleum Hydrocarbons by EPA Method 8015B**
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			89 %	*60-127%*		"	"	"	

Quality Control

Analyte	Result	Qualifiers / Comments	Quantitation Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit
Batch B2B0057 - 3520C CLLE - TPH - Extractable									**Prepared: 02/13/12 Analyzed: 02/14/12**	
									Extractable Petroleum Hydrocarbons by EPA Method 8015B - Quality Control	
Blank (B2B0057-BLK1)										
TPH - Diesel Range Organics	ND	U	250	ug/L						
TPH - Oil Range Organics	ND	U	1,000	"						
Surrogate: Hexacosane	*136*			"	*150*		90	*60-127*		
LCS (B2B0057-BS1)										
TPH - Diesel Range Organics	1,340		250	ug/L	1500		90	54-115		
Surrogate: Hexacosane	*145*			"	*150*		96	*60-127*		

United States Environmental Protection Agency
Region 9 Laboratory

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Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12041B
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/21/12 16:53
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.

United States Environmental Protection Agency
Region 9 Laboratory

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

Date: **2/21/2012**

Subject: **Analytical Testing Results - Project R33911**
SDG: 12044A

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

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:** 12044A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/21/12 16:59
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

ANALYTICAL REPORT FOR SAMPLES

Sample ID	Laboratory ID	Matrix	Date Collected	Date Received
HW49	1202034-01	Water	02/09/12 14:11	02/11/12 11:15
HW49-P	1202034-02	Water	02/09/12 14:26	02/11/12 11:15
FB14	1202034-04	Water	02/09/12 13:36	02/11/12 11:15
HW44	1202034-05	Water	02/09/12 14:49	02/11/12 11:15
FB15	1202034-07	Water	02/10/12 11:21	02/11/12 11:15
HW36n	1202034-08	Water	02/10/12 10:53	02/11/12 11:15
HW36n-P	1202034-09	Water	02/10/12 11:02	02/11/12 11:15
HW16	1202034-11	Water	02/10/12 11:21	02/11/12 11:15
HW16-P	1202034-12	Water	02/10/12 11:37	02/11/12 11:15
HW16z	1202034-13	Water	02/10/12 11:22	02/11/12 11:15
HW54	1202034-15	Water	02/10/12 14:08	02/11/12 11:15
HW54-P	1202034-16	Water	02/10/12 14:30	02/11/12 11:15

SDG ID 12044A

Work Order(s)

1202034

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
Project Number: R33911
Project: Dimock Residential Groundwater

US EPA Region 3, Eastern Response Branch
100 Gypsum Road
Stroudsburg PA, 18360

SDG: 12044A
Reported: 02/21/12 16:59

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1202034-01									**Water - Sampled: 02/09/12 14:11**
Sample ID: HW49									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	240	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	950	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			86 %	*60-127%*		"	"	"	
Lab ID: 1202034-02									**Water - Sampled: 02/09/12 14:26**
Sample ID: HW49-P									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	240	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	950	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			92 %	*60-127%*		"	"	"	
Lab ID: 1202034-04									**Water - Sampled: 02/09/12 13:36**
Sample ID: FB14									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			100 %	*60-127%*		"	"	"	
Lab ID: 1202034-05									**Water - Sampled: 02/09/12 14:49**
Sample ID: HW44									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			87 %	*60-127%*		"	"	"	
Lab ID: 1202034-07									**Water - Sampled: 02/10/12 11:21**
Sample ID: FB15									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			89 %	*60-127%*		"	"	"	
Lab ID: 1202034-08									**Water - Sampled: 02/10/12 10:53**
Sample ID: HW36n									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			88 %	*60-127%*		"	"	"	
Lab ID: 1202034-09									**Water - Sampled: 02/10/12 11:02**
Sample ID: HW36n-P									
						Extractable Petroleum Hydrocarbons by EPA Method 8015B			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			85 %	*60-127%*		"	"	"	
Lab ID: 1202034-11									**Water - Sampled: 02/10/12 11:21**

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:** 12044A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/21/12 16:59
Project: Dimock Residential Groundwater	**Stroudsburg PA, 18360**	

Sample Results

Analyte	Reanalysis / Extract	Result	Qualifiers / Comments	Quantitation Limit	Units	Batch	Prepared	Analyzed	Method
Lab ID: 1202034-11									**Water - Sampled: 02/10/12 11:21**
Sample ID: HW16						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			88 %	*60-127%*		"	"	"	
Lab ID: 1202034-12									**Water - Sampled: 02/10/12 11:37**
Sample ID: HW16-P						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			85 %	*60-127%*		"	"	"	
Lab ID: 1202034-13									**Water - Sampled: 02/10/12 11:22**
Sample ID: HW16z						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			92 %	*60-127%*		"	"	"	
Lab ID: 1202034-15									**Water - Sampled: 02/10/12 14:08**
Sample ID: HW54						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			84 %	*60-127%*		"	"	"	
Lab ID: 1202034-16									**Water - Sampled: 02/10/12 14:30**
Sample ID: HW54-P						**Extractable Petroleum Hydrocarbons by EPA Method 8015B**			
TPH - Diesel Range Organics		ND	U	250	ug/L	B2B0057	02/13/12	02/14/12	8015C/SOP385
TPH - Oil Range Organics		ND	U	1,000	"	"	"	"	8015C/SOP385
Surrogate: Hexacosane			83 %	*60-127%*		"	"	"	

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:** 12044A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/21/12 16:59
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 B2B0057 - 3520C CLLE - TPH - Extractable									**Prepared: 02/13/12 Analyzed: 02/14/12**	
								Extractable Petroleum Hydrocarbons by EPA Method 8015B - Quality Control		
Blank (B2B0057-BLK1)										
TPH - Diesel Range Organics	ND	U	250	ug/L						
TPH - Oil Range Organics	ND	U	1,000	"						
Surrogate: Hexacosane	*136*			"	*150*		90	*60-127*		
LCS (B2B0057-BS1)										
TPH - Diesel Range Organics	1,340		250	ug/L	1500		90	54-115		
Surrogate: Hexacosane	*145*			"	*150*		96	*60-127*		
Matrix Spike (B2B0057-MS1)		**Source: 1202034-05**								
TPH - Diesel Range Organics	1,280		250	ug/L	1520	ND	84	67-110		20
Surrogate: Hexacosane	*134*			"	*152*		88	*60-127*		
Matrix Spike Dup (B2B0057-MSD1)		**Source: 1202034-05**								
TPH - Diesel Range Organics	1,310		250	ug/L	1550	ND	85	67-110	3	20
Surrogate: Hexacosane	*139*			"	*155*		90	*60-127*		

United States Environmental Protection Agency
Region 9 Laboratory
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Project Manager: Richard Fetzer	**US EPA Region 3, Eastern Response Branch**	**SDG:** 12044A
Project Number: R33911	**100 Gypsum Road**	**Reported:** 02/21/12 16:59
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.

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 ~~20~~ 21, 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 twenty water samples for the Dimock Residential Groundwater Site project, Case R33911, SDG 12041B, 12044A, Work Order 1202031, 1202034 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\12041B-12044A-TPH-d-14517.docx

EPA Region 9 Laboratory

DATA PACKAGE

Analysis:	**TPH-d**
Project Number:	**R33911**
SDG Number:	**12041B, 12044A**
Work Order:	**1202031, 1202034**
ESAT DCN:	**14517**

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

General Project Management and ESAT Contractor Oversight Review

Project Number: R33911

SDG: 12041B, 12044A

Analysis: extractable TPH

Number of Pages: 341

Reviewer: JACK BERGES

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

Comments: OK

Reviewer Signature [signature] Date 2/21/12

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ESAT Region 9 | **ICF International**
Case: R33911 | **Analysis:** TPH-d | **TDF:** 01001084 | **Matrix:** water
DCN: 14517 | **Site:** Dimock Residential Groundwater Site | **SDG:** 12041B, 12044A

SL, 2/16/12

ESAT REGION 9 DATA PACKAGE TECHNICAL REVIEW GUIDE

Reviewer:	Package Prep (P): YD	Technical (T): SL	Final (F): [illegible]
	Date: 02-16-12	Date: 2/16/12	Date: 2-21-12

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: 14517 **Site:** Dimock Residential Groundwater Site **SDG:** 12041B, 12044A

SL 2/16/12

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)

G:\USER\ESAT\# LAB DATA Deliverables\R33911\12041B-TPH-d-14517.docx

Organics Daily Folder Preparation/Technical Review Guide

Analysis Method	TPH DRO	Analyst Initial	TD	Reviewer Initial	TR	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**		**Batch/ Sequence**	~~B2B0026;~~ B2B0037 2020035
Instrument ID	**AG7890-2**	**Date Analyzed**	02-14-12	**Date**	2/15/12	**Chemstation Last Update**	01/31/12 09:45:52
Cases	**R33911**			**SDGs**	**12041B; 12044A**		

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

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

00007

USEPA Region 9 Laboratory
Organic Analysis Summary

Case: R33911
SDG: 12041B-12044A
Analysis: TPH DRO

TD
SL

Sample ID	Sample Runs			
[redacted]	AG7890-2	INSTRUMENT	INSTRUMENT	INSTRUMENT
[redacted]	2/14/2012			
[redacted]	2020035			
1202031-01	RPT			
1202031-02	RPT			
1202031-04	RPT			
1202031-05	RPT			
1202031-07	RPT			
1202031-08	RPT			
1202031-10	RPT			
1202031-11	RPT			
1202034-01	RPT			
1202034-02	RPT			
1202034-04	RPT			
1202034-05	RPT			
B2B0057-MS1	RPT			
B2B0057-MSD1	RPT			
1202034-07	RPT			
1202034-08	RPT			
1202034-09	RPT			
1202034-11	RPT			
1202034-12	RPT			
1202034-13	RPT			
1202034-15	RPT			
1202034-16	RPT			
B2B0057-BLK1	RPT			
B2B0057-BS1	RPT			

Definitions

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

SAMPLE TRACKING FORMS

WORK ORDER

Printed: 2/10/2012 11:03:33AM

1202031

EPA Region 9 Laboratory

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

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

Project Contact
US EPA Region 3, Eastern Response Branch
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	Default Cooler	3	Yes	Yes	Yes	No	Yes	
2Cooler	Default Cooler	2	Yes	Yes	Yes	No	Yes	
3Cooler	Default Cooler	2	Yes	Yes	Yes	No	Yes	
4Cooler	Default Cooler	2	Yes	Yes	Yes	No	Yes	

Date Due:	03/03/12 15:00 (21 day TAT)	SDG:	12041B
Received By:	Richard Bauer	Date Received:	02/10/12 09:40
Logged In By:	Garrett Peterson	Date Logged In:	02/10/12 10:34

Analysis	Hold Time Expires	Comments
1202031-01 HW48 [Water] Sampled 02/08/12 16:06 Pacific		
TPH - Extractable	02/15/12	
TPH - Purgeable	02/22/12	
Dissolved HC Gases	02/22/12	5 day prelim results
1202031-02 HW48z [Water] Sampled 02/08/12 16:06 Pacific		
TPH - Purgeable	02/22/12	
TPH - Extractable	02/15/12	
Dissolved HC Gases	02/22/12	5 day prelim results
1202031-03 TB31 [Water] Sampled 02/08/12 07:45 Pacific		
TPH - Purgeable	02/22/12	
Dissolved HC Gases	02/22/12	5 day prelim results
1202031-04 HW23 [Water] Sampled 02/08/12 15:42 Pacific		
TPH - Extractable	02/15/12	
TPH - Purgeable	02/22/12	
Dissolved HC Gases	02/22/12	5 day prelim results

1202031

EPA Region 9 Laboratory

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

Analysis	Hold Time Expires	Comments

Analysis	Expires	Comments
1202031-05 HW23-P [Water] Sampled 02/08/12 15:39 Pacific		
TPH - Purgeable	02/22/12	
TPH - Extractable	02/15/12	
Dissolved HC Gases	02/22/12	5 day prelim results
1202031-06 TB32 [Water] Sampled 02/08/12 07:55 Pacific		
TPH - Purgeable	02/22/12	
Dissolved HC Gases	02/22/12	5 day prelim results
1202031-07 HW21 [Water] Sampled 02/09/12 10:53 Pacific		
Dissolved HC Gases	02/23/12	5 day prelim results
TPH - Purgeable	02/23/12	
TPH - Extractable	02/16/12	
1202031-08 HW21z [Water] Sampled 02/09/12 10:53 Pacific		
Dissolved HC Gases	02/23/12	5 day prelim results
TPH - Extractable	02/16/12	
TPH - Purgeable	02/23/12	
1202031-09 TB33 [Water] Sampled 02/09/12 07:30 Pacific		
Dissolved HC Gases	02/23/12	5 day prelim results
TPH - Purgeable	02/23/12	
1202031-10 HW22 [Water] Sampled 02/09/12 10:42 Pacific		
TPH - Purgeable	02/23/12	
TPH - Extractable	02/16/12	
Dissolved HC Gases	02/23/12	5 day prelim results
1202031-11 HW22-P [Water] Sampled 02/09/12 10:50 Pacific		
TPH - Extractable	02/16/12	
Dissolved HC Gases	02/23/12	5 day prelim results
TPH - Purgeable	02/23/12	
1202031-12 TB34 [Water] Sampled 02/09/12 07:35 Pacific		
TPH - Purgeable	02/23/12	
Dissolved HC Gases	02/23/12	5 day prelim results

Reviewed By _____ Date _____

cooler #1

3°C

USEPA CLP Generic COC (LAB COPY)

DateShipped: 2/9/2012

CarrierName: FedEx

AirbillNo: 7932 0966 0261

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-020912-100548-0164

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
HW48	Drinking Water/ David Johnson	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	4490 (HCl / 40mlGlassVial), 4491 (HCl / 40mlGlassVial), 4508 (-NA- / 1000mlAmber), 4509 (-NA- / 1000mlAmber), 4512 (HCl / 40mlGlassVial), 4513 (HCl / 40mlGlassVial) (6)	HW48	02/08/2012 16:06	
HW48z	Drinking Water/ David Johnson	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	4524 (HCl / 40mlGlassVial), 4525 (HCl / 40mlGlassVial), 4542 (-NA- / 1000mlAmber), 4543 (-NA- / 1000mlAmber), 4546 (HCl / 40mlGlassVial), 4547 (HCl / 40mlGlassVial) (6)	HW48	02/08/2012 16:06	
TB31	Aqueous/ Christina Rice	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	4216 (HCl / 40mlGlassVial), 4217 (HCl / 40mlGlassVial), 4218 (HCl / 40mlGlassVial), 4219 (HCl / 40mlGlassVial) (4)	TB31	02/08/2012 07:45	

Special Instructions: Custody seal intact & temp blank 3°C upon receipt at lab. RMM 2/10/12

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, 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
16	[illegible]	02/09/12	—	Fed Ex		—			RMM EPA R9 Lab	2/10/12	0940

000612

Cooler #2

USEPA CLP Generic COC (LAB COPY)
DateShipped: 2/9/2012
CarrierName: FedEx
AirbillNo: 7932 0961 5340

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-020912-102018-0167
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
HW23	Drinking Water/ Tom Sedlacek	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	4430 (HCl / 40mlGlassVial), 4431 (HCl / 40mlGlassVial), 4448 (-NA- / 1000mlAmber), 4449 (-NA- / 1000mlAmber), 4452 (HCl / 40mlGlassVial), 4453 (HCl / 40mlGlassVial) (6)	HW23	02/08/2012 15:42	
HW23-P	Drinking Water/ Dan Jacobsen	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	4464 (HCl / 40mlGlassVial), 4465 (HCl / 40mlGlassVial), 4474 (-NA- / 1000mlAmber), 4475 (-NA- / 1000mlAmber), 4478 (HCl / 40mlGlassVial), 4479 (HCl / 40mlGlassVial) (6)	HW23-P	02/08/2012 15:39	
TB32	Aqueous/ Christina Rice	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	4223 (HCl / 40mlGlassVial), 4224 (HCl / 40mlGlassVial), 4225 (HCl / 40mlGlassVial), 4226 (HCl / 40mlGlassVial) (4)	TB32	02/08/2012 07:55	

Special Instructions: Custody seals intact and temp blank 2°C upon receipt at lab. RM 2/10/12

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

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Ethe,Ethe, 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
16	[illegible]	02/09/12	—		Fed	Ex	→		RM EPA R9 Lab	2/10/12	0940

000013

Cooler #3

USEPA CLP Generic COC (LAB COPY)

DateShipped: 2/9/2012

CarrierName: FedEx

AirbillNo: 7932 1192 1642

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-020912-150739-0172

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
HW21	Drinking Water/ David Johnson	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	4586 (HCl / 40mlGlassVial), 4587 (HCl / 40mlGlassVial), 4604 (-NA- / 1000mlAmber), 4605 (-NA- / 1000mlAmber), 4608 (HCl / 40mlGlassVial), 4609 (HCl / 40mlGlassVial) (6)	HW21	02/09/2012 10:53	
HW21z	Drinking Water/ David Johnson	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	4620 (HCl / 40mlGlassVial), 4621 (HCl / 40mlGlassVial), 4638 (-NA- / 1000mlAmber), 4639 (-NA- / 1000mlAmber), 4642 (HCl / 40mlGlassVial), 4643 (HCl / 40mlGlassVial) (6)	HW21	02/09/2012 10:53	
TB33	Aqueous/ Christina Rice	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	4555 (HCl / 40mlGlassVial), 4556 (HCl / 40mlGlassVial), 4557 (HCl / 40mlGlassVial), 4558 (HCl / 40mlGlassVial) (4)	TB33	02/09/2012 07:30	

Special Instructions: Custody seals intact and temp blank 2°C upon receipt at lab RM 2/10/12

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, 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
16	[illegible]	02/09/12	—	Fed Ex		—	—	—	RM EPA R9 Lab	2/10/12	0940

00014

cooler #4

USEPA CLP Generic COC (LAB COPY)
DateShipped: 2/9/2012
CarrierName: FedEx
AirbillNo: 7932 1191 2865

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-020912-152617-0175
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
HW22	Drinking Water/ Tom Sedlacek	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	4680 (HCl / 40mlGlassVial), 4681 (HCl / 40mlGlassVial), 4698 (-NA- / 1000mlAmber), 4699 (-NA- / 1000mlAmber), 4702 (HCl / 40mlGlassVial), 4703 (HCl / 40mlGlassVial) (6)	HW22	02/09/2012 10:42	
HW22-P	Drinking Water/ Dan Jacobsen	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	4654 (HCl / 40mlGlassVial), 4655 (HCl / 40mlGlassVial), 4664 (-NA- / 1000mlAmber), 4665 (-NA- / 1000mlAmber), 4668 (HCl / 40mlGlassVial), 4669 (HCl / 40mlGlassVial) (6)	HW22-P	02/09/2012 10:50	
TB34	Aqueous/ Christina Rice	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	4562 (HCl / 40mlGlassVial), 4563 (HCl / 40mlGlassVial), 4564 (HCl / 40mlGlassVial), 4565 (HCl / 40mlGlassVial) (4)	TB34	02/09/2012 07:35	

Special Instructions: custody seals intact and temp blank 2°C upon receipt at lab. 2/10/12

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

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, 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
16	[illegible]	02/09/12	—	FedEx		—	—	—	RMZ EPA R9 Lab	2/10/12	0940

00015

WORK ORDER

Printed: 2/13/2012 9:44:40AM

1202034

EPA Region 9 Laboratory

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

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

Project Contact
US EPA Region 3, Eastern Response Branch
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	798045440421
2Cooler	Cooler	3	Yes	Yes	Yes	No	Yes	793214705216
3Cooler	Cooler	2	Yes	Yes	Yes	No	Yes	793217421577
4Cooler	Cooler	5	Yes	Yes	Yes	No	Yes	793217112254
5Cooler	Cooler	3	Yes	Yes	Yes	No	Yes	798048735923

Date Due:	03/04/12 15:00 (21 day TAT)	SDG:	12044A
Received By:	Jack Berges	Date Received:	02/11/12 11:15
Logged In By:	Richard Bauer	Date Logged In:	02/13/12 08:25

Analysis	Hold Time Expires	Comments
1202034-01 HW49 [Water] Sampled 02/09/12 14:11 Pacific		
TPH - Purgeable	02/23/12	
TPH - Extractable	02/16/12	
Dissolved HC Gases	02/23/12	5 day prelim results
1202034-02 HW49-P [Water] Sampled 02/09/12 14:26 Pacific		
TPH - Purgeable	02/23/12	
TPH - Extractable	02/16/12	
Dissolved HC Gases	02/23/12	5 day prelim results
1202034-03 TB35 [Water] Sampled 02/09/12 10:00 Pacific		
TPH - Purgeable	02/23/12	
Dissolved HC Gases	02/23/12	5 day prelim results
1202034-04 FB14 [Water] Sampled 02/09/12 13:36 Pacific		
TPH - Purgeable	02/23/12	
TPH - Extractable	02/16/12	
Dissolved HC Gases	02/23/12	5 day prelim results

1202034

EPA Region 9 Laboratory

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

Analysis	Hold Time Expires	Comments

Analysis	Expires	Comments
1202034-05 HW44 [Water] Sampled 02/09/12 14:49 Pacific		**Lab QC Sample**
Dissolved HC Gases	02/23/12	5 day prelim results
TPH - Purgeable	02/23/12	
TPH - Extractable	02/16/12	
1202034-06 TB36 [Water] Sampled 02/09/12 10:10 Pacific		
Dissolved HC Gases	02/23/12	5 day prelim results
TPH - Purgeable	02/23/12	
1202034-07 FB15 [Water] Sampled 02/10/12 11:21 Pacific		
TPH - Extractable	02/17/12	
TPH - Purgeable	02/24/12	
Dissolved HC Gases	02/24/12	5 day prelim results
1202034-08 HW36n [Water] Sampled 02/10/12 10:53 Pacific		
TPH - Extractable	02/17/12	
TPH - Purgeable	02/24/12	
Dissolved HC Gases	02/24/12	5 day prelim results
1202034-09 HW36n-P [Water] Sampled 02/10/12 11:02 Pacific		**Lab QC sample for RSK and TPH-gas**
Dissolved HC Gases	02/24/12	5 day prelim results
TPH - Purgeable	02/24/12	
TPH - Extractable	02/17/12	
1202034-10 TB37 [Water] Sampled 02/10/12 07:15 Pacific		
TPH - Purgeable	02/24/12	
Dissolved HC Gases	02/24/12	5 day prelim results
1202034-11 HW16 [Water] Sampled 02/10/12 11:21 Pacific		
TPH - Purgeable	02/24/12	
Dissolved HC Gases	02/24/12	5 day prelim results
TPH - Extractable	02/17/12	
1202034-12 HW16-P [Water] Sampled 02/10/12 11:37 Pacific		
TPH - Purgeable	02/24/12	
TPH - Extractable	02/17/12	
Dissolved HC Gases	02/24/12	5 day prelim results

1202034

EPA Region 9 Laboratory

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

Analysis	Hold Time Expires	Comments

Analysis	Expires	Comments
1202034-13 HW16z [Water] Sampled 02/10/12 11:22 Pacific		
Dissolved HC Gases	02/24/12	5 day prelim results
TPH - Purgeable	02/24/12	
TPH - Extractable	02/17/12	
1202034-14 TB38 [Water] Sampled 02/10/12 07:20 Pacific		
Dissolved HC Gases	02/24/12	5 day prelim results
TPH - Purgeable	02/24/12	
1202034-15 HW54 [Water] Sampled 02/10/12 14:08 Pacific		**Both RSK vials rcvd brokn, use one of TPH-G vials**
TPH - Purgeable	02/24/12	
TPH - Extractable	02/17/12	
Dissolved HC Gases	02/24/12	5 day prelim results
1202034-16 HW54-P [Water] Sampled 02/10/12 14:30 Pacific		
TPH - Purgeable	02/24/12	
TPH - Extractable	02/17/12	
Dissolved HC Gases	02/24/12	5 day prelim results
1202034-17 TB39 [Water] Sampled 02/10/12 10:00 Pacific		
TPH - Purgeable	02/24/12	
Dissolved HC Gases	02/24/12	5 day prelim results

Reviewed By _____ Date _____

USEPA CLP Generic COC (LAB COPY)
DateShipped: 2/10/2012
CarrierName: FedEx
AirbillNo: 7980 4544 0421

CHAIN OF CUSTODY RECORD

Case #: CT5665

No: 3-021012-100902-0185
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
HW49	Drinking Water/ David Johnson	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	4714 (HCl / 40mlGlassVial), 4715 (HCl / 40mlGlassVial), 4732 (-NA- / 1000mlAmber), 4733 (-NA- / 1000mlAmber), 4736 (HCl / 40mlGlassVial), 4737 (HCl / 40mlGlassVial) (6)	HW49	02/09/2012 14:11	
HW49-P	Drinking Water/ Francisco Laposiol	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	4748 (HCl / 40mlGlassVial), 4749 (HCl / 40mlGlassVial), 4758 (-NA- / 1000mlAmber), 4759 (-NA- / 1000mlAmber), 4762 (HCl / 40mlGlassVial), 4763 (HCl / 40mlGlassVial) (6)	HW49-P	02/09/2012 14:28	
TB35	Aqueous/ Christina Rice	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	4569 (HCl / 40mlGlassVial), 4570 (HCl / 40mlGlassVial), 4571 (HCl / 40mlGlassVial), 4572 (HCl / 40mlGlassVial) (4)	TB35	02/09/2012 10:00	

Special Instructions: COOLER @ 3°C, SEALS INTACT, ON ICE RAB 2/11/12

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

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, 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
116	[signature]	02/10/12	[signature] RALBA	2/11/12	11:15						

COOLER #1

00019

USEPA CLP Generic COC (LAB COPY)
DateShipped: 2/10/2012
CarrierName: FedEx
AirbillNo: 7932 1470 5216

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-021012-094326-0182
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
FB14	Aqueous/ Dan Jacobsen	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	4774 (HCl / 40mlGlassVial), 4775 (HCl / 40mlGlassVial), 4792 (-NA- / 1000mlAmber), 4793 (-NA- / 1000mlAmber), 4796 (HCl / 40mlGlassVial), 4797 (HCl / 40mlGlassVial) (6)	FB14	02/09/2012 13:36	

Sample(s) to be used for Lab QC: HW44

COOLER @ 3°C, SEALS INTACT, ON ICE EGB 2/11/12

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

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, 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
6	[illegible]	02/10/12	[illegible] R9 LAB	2/11/12	11:15						

COOLER #2

00020

USEPA CLP Generic COC (LAB COPY)
DateShipped: 2/10/2012
CarrierName: FedEx
AirbillNo:.7932 1470 5216

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-021012-094326-0182
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
HW44	Drinking Water/ Bryan Berna	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7), RSK-175(7), RSK-175(7), RSK-175(7), RSK-175(7), GRO(7), GRO(7), GRO(7), GRO(7), DRO(7), DRO(7), DRO(7), DRO(7)	4808 (HCl / 40mlGlassVial), 4809 (HCl / 40mlGlassVial), 4826 (-NA- / 1000mlAmber), 4827 (-NA- / 1000mlAmber), 4830 (HCl / 40mlGlassVial), 4831 (HCl / 40mlGlassVial), 4835 (HCl / 40mlGlassVial), 4836 (HCl / 40mlGlassVial), 4837 (HCl / 40mlGlassVial), 4838 (HCl / 40mlGlassVial), 4839 (HCl / 40mlGlassVial), 4840 (HCl / 40mlGlassVial), 4841 (HCl / 40mlGlassVial), 4842 (HCl / 40mlGlassVial), 4847 (-NA- / 1000mlAmber), 4848 (-NA- / 1000mlAmber), 4849 (-NA- / 1000mlAmber), 4850 (-NA- / 1000mlAmber) (18)	HW44	02/09/2012 14:49	
TB36	Aqueous/ Christina Rice	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	4576 (HCl / 40mlGlassVial), 4577 (HCl / 40mlGlassVial), 4578 (HCl / 40mlGlassVial), 4579 (HCl / 40mlGlassVial) (4)	TB36	02/09/2012 10:10	

Sample(s) to be used for Lab QC: HW44 COOLER @ 3°C, SEALS INTACT, ON ICE [illegible] 2/11/12

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

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Etha,Etha, 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
22	[illegible]	02/10/12	[illegible]	2/11/12	11:15						

COOLER # 2

USEPA CLP Generic COC (LAB COPY)
DateShipped: 2/10/2012
CarrierName: FedEx
AirbillNo: 7932 1742 1577

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-021012-162137-0191
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
FB15	Aqueous/ Jason Lord	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	5053 (HCl / 40mlGlassVial), 5054 (HCl / 40mlGlassVial), 5071 (-NA- / 1000mlAmber), 5072 (-NA- / 1000mlAmber), 5075 (HCl / 40mlGlassVial), 5076 (HCl / 40mlGlassVial) (6)	FB15	02/10/2012 11:21	
HW36n	Drinking Water/ David Johnson	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	4885 (HCl / 40mlGlassVial), 4886 (HCl / 40mlGlassVial), 4903 (-NA- / 1000mlAmber), 4904 (-NA- / 1000mlAmber), 4907 (HCl / 40mlGlassVial), 4908 (HCl / 40mlGlassVial) (6)	HW36n	02/10/2012 10:53	

Sample(s) to be used for Lab QC: HW36n-P

COOLER @ 2°C, SEALS INTACT, ON ICE RAB 2/11/12

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

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, 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	[illegible]	02/10/12	R9 LAB [illegible]	2/11/12	11:15						

COOLER #3

000022

USEPA CLP Generic COC (LAB COPY)
DateShipped: 2/10/2012
CarrierName: FedEx
AirbillNo.:7932 1742 1577

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-021012-162137-0191
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
HW36n-P	Drinking Water/ Francisco Lapostol	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7), RSK-175(7), RSK-175(7), RSK-175(7), RSK-175(7), GRO(7), GRO(7), GRO(7), GRO(7)	4919 (HCl / 40mlGlassVial), 4920 (HCl / 40mlGlassVial), 4929 (-NA- / 1000mlAmber), 4930 (-NA- / 1000mlAmber), 4933 (HCl / 40mlGlassVial), 4934 (HCl / 40mlGlassVial), 4945 (HCl / 40mlGlassVial), 4946 (HCl / 40mlGlassVial), 4947 (HCl / 40mlGlassVial), 4948 (HCl / 40mlGlassVial), 4949 (HCl / 40mlGlassVial), 4950 (HCl / 40mlGlassVial), 4951 (HCl / 40mlGlassVial), 4952 (HCl / 40mlGlassVial) (14)	HW36n-P	02/10/2012 11:02	
TB37	Aqueous/ Kim Whitlock	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	4861 (HCl / 40mlGlassVial), 4862 (HCl / 40mlGlassVial), 4863 (HCl / 40mlGlassVial), 4864 (HCl / 40mlGlassVial) (4)	TB37	02/10/2012 07:15	

COOLER @ 2°C, SEALS INTACT, ON ICE 2/11

Sample(s) to be used for Lab QC: HW36n-P

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

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, 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
18	[signature]	02/10/12	[signature]	2/11/12	11:15						

COOLER #3

00023

USEPA CLP Generic COC (LAB COPY)
DateShipped: 2/10/2012
CarrierName: FedEx
AirbillNo: 7932 1711 2254

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-021012-162735-0192
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
HW16	Drinking Water/ Bryan Berna	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	4959 (HCl / 40mlGlassVial), 4960 (HCl / 40mlGlassVial), 4977 (-NA- / 1000mlAmber), 4978 (-NA- / 1000mlAmber), 4981 (HCl / 40mlGlassVial), 4982 (HCl / 40mlGlassVial) (6)	HW16	02/10/2012 11:21	
HW16-P	Drinking Water/ Dan Jacobsen	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	5027 (HCl / 40mlGlassVial), 5028 (HCl / 40mlGlassVial), 5037 (-NA- / 1000mlAmber), 5038 (-NA- / 1000mlAmber), 5041 (HCl / 40mlGlassVial), 5042 (HCl / 40mlGlassVial) (6)	HW16-P	02/10/2012 11:37	
HW16z	Drinking Water/ Bryan Berna	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	4993 (HCl / 40mlGlassVial), 4994 (HCl / 40mlGlassVial), 5011 (-NA- / 1000mlAmber), 5012 (-NA- / 1000mlAmber), 5015 (HCl / 40mlGlassVial), 5016 (HCl / 40mlGlassVial) (6)	HW16	02/10/2012 11:22	

Special Instructions: COOLER @ 5°C, SEALS INTACT, ON ICE LAB 2/11/12

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

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, 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
18	[signature]	02/10/12	[signature]	2/11/12	11:15						

COOLER #4

00024

USEPA CLP Generic COC (LAB COPY)

DateShipped: 2/10/2012
CarrierName: FedEx
AirbillNo: 7932 1711 2254

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-021012-162735-0192

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
TB38	Aqueous/ Kim Whitlock	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	4868 (HCl / 40mlGlassVial), 4869 (HCl / 40mlGlassVial), 4870 (HCl / 40mlGlassVial), 4871 (HCl / 40mlGlassVial) (4)	TB38	02/10/2012 07:20	

Special Instructions: COOLER @ 5°C, SEALS INTACT, ON ICE LAB 2/11/12

Shipment for Case Complete? N

Samples Transferred From Chain of Custody #

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Ethe,Etha, 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
4	[signature]	02/10/12 ~~02/12~~ 02/10/12	[signature] RFLOS	2/10/12	1115						

COOLER #4

USEPA CLP Generic COC (LAB COPY)
DateShipped: 2/10/2012
CarrierName: FedEx
AirbillNo: 7980 4873 5923

CHAIN OF CUSTODY RECORD

Case #: CT5865

No: 3-021012-165431-0198
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
HW54	Drinking Water/ Tom Sedlacek	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	5087 (HCl / 40mlGlassVial), 5088 (HCl / 40mlGlassVial), 5105 (-NA- / 1000mlAmber), 5106 (-NA- / 1000mlAmber), 5109 (HCl / 40mlGlassVial), 5110 (HCl / 40mlGlassVial) (6)	HW54 Both vials received broken	02/10/2012 14:08	2/13/12
HW54-P	Drinking Water/ Dan Jacobsen	Grab	RSK-175(7), RSK-175(7), DRO(7), DRO(7), GRO(7), GRO(7)	5121 (HCl / 40mlGlassVial), 5122 (HCl / 40mlGlassVial), 5131 (-NA- / 1000mlAmber), 5132 (-NA- / 1000mlAmber), 5135 (HCl / 40mlGlassVial), 5136 (HCl / 40mlGlassVial) (6)	HW54-P	02/10/2012 14:30	
TB39	Aqueous/ Christina Rice	Grab	RSK-175(7), RSK-175(7), GRO(7), GRO(7)	4875 (HCl / 40mlGlassVial), 4876 (HCl / 40mlGlassVial), 4877 (HCl / 40mlGlassVial), 4878 (HCl / 40mlGlassVial) (4)	TB39	02/10/2012 10:00	

Special Instructions: COOLER @ 3 °C, SEALS INTACT,

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

Analysis Key: RSK-175=11-Dissolved Gases_Meth,Etha,Etha, 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
16	J. McCullin	02/10/12	[signature]	2/11/12	11:15						

COOLER # 5

00026

Sample Preparation

PREPARATION BENCH SHEET

B2B0057

EPA Region 9 Laboratory **Printed: 2/13/2012 3:27:06PM**

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
1202031-01 A	HW48	02/13/12 09:41	1011.69	3				500	SUL	7	1514	502.31	
1202031-02 A	HW48z	02/13/12 09:41	987.12	3				500	SUL	7	1491.78	504.66	
1202031-04 A	HW23	02/13/12 09:41	1049.89	3				500	SUL	7	1552.23	502.34	
1202031-05 A	HW23-P	02/13/12 09:41	1043.38	3				500	SUL	7	1548.44	505.06	
1202031-07 A	HW21	02/13/12 09:41	977.34	3				500	SUL	7	1478.23	500.89	
1202031-08 A	HW21z	02/13/12 09:41	973.21	3				500	SUL	7	1475	501.79	
1202031-10 A	HW22	02/13/12 09:41	1013.35	3				500	SUL	7	1514.9	501.55	Cloudy & pale tan in color.
1202031-11 A	HW22-P	02/13/12 09:41	1012.21	3				500	SUL	7	1514.59	502.38	Cloudy, pinkish tan in color.
1202034-01 B	HW49	02/13/12 09:41	1057.35	3				500	SUL	7	1558.52	501.17	
1202034-02 B	HW49-P	02/13/12 09:41	1054.35	3				500	SUL	7	1556.34	501.99	
1202034-04 A	FB14	02/13/12 09:41	1036.16	3				500	SUL	5	1537.72	501.56	
1202034-05 D	HW44	02/13/12 09:41	1047.83	3				500	LA 2-14-12 SUL	7	1546.26	498.43	
1202034-07 B	FB15	02/13/12 09:41	1048.98	3				500	SUL	5	1553.27	504.29	
1202034-08 B	HW36n	02/13/12 09:41	1039.48	3				500	SUL	7	1544.05	504.57	

TD 02-14-12

Preparation Reviewed By Date

PREPARATION BENCH SHEET

B2B0057

EPA Region 9 Laboratory **Printed: 2/13/2012 3:27:06PM**

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
1202034-09 B	HW36n-P	02/13/12 09:41	1048.63	3				500	LA SUL	7	1550.97	502.34	
1202034-11 B	HW16	02/13/12 09:41	1015.41	3				500	SUL SUL 2/13/12	7	1517.76	502.35	
1202034-12 B	HW16-P	02/13/12 09:41	1030.86	3				500	SUL	7	1533.9	503.04	
1202034-13 B	HW16z	02/13/12 09:41	1044.11	3				500	SUL	7	1547.96	503.85	
1202034-15 B	HW54	02/13/12 09:41	1007.36	3				500	SUL	7	1509.17	501.81	
1202034-16 B	HW54-P	02/13/12 09:41	1018.57	3				500	SUL	7	1519.17	500.6	
B2B0057-BLK1	Blank	02/13/12 09:41	1000	3			0	500	SUL		1624	624	pH 5
B2B0057-BS1	LCS	02/13/12 09:41	1000	3	2B03002		500	500	SUL		1624	624	pH 5
B2B0057-MS1	Matrix Spike	02/13/12 09:41	987.92	3	2B03002	1202034-05	500	500	SUL		1487.82	499.9	pH 7
B2B0057-MSD1	Matrix Spike Dup	02/13/12 09:41	969.81	3	2B03002	1202034-05	500	500	SUL		1469.14	499.33	pH 7

(SL 2/13/12 Spike witnessed OK for Samples 31-11 and 34-04 and QC samples)

Dimock TPH, SDGs 12041B & 12044A. All samples adjusted to pH <2. Glasswool rinsed 10/14/11.

spike for samples 34-05 thru 34-16 witnessed by SUL 2/13/12

Reagents

Reagent #	Description
1D15018	Sulfuric Acid 1:1
1K30041	Sodium Sulfate/K28619
2A13011	Dichloromethane/LN:DE934

Start time Samples BLK thru 34-04 @14:00 stop 2/13/12 0900

Start time Samples 34-05 thru 34-16, on @ 15.20 stop 2/13/12 0920

TD 02-14-12

Preparation Reviewed By Date

bch_9L_OrgWaterPrep.rpt 2/13/2012

DIM0035399

DIM0035443

INITIAL CALIBRATION

DIM0035444

DIM0035399

Injection Log

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

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

1201006

Response Factor Report AG7890_2

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

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

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

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

Compound List Report AG7890_2

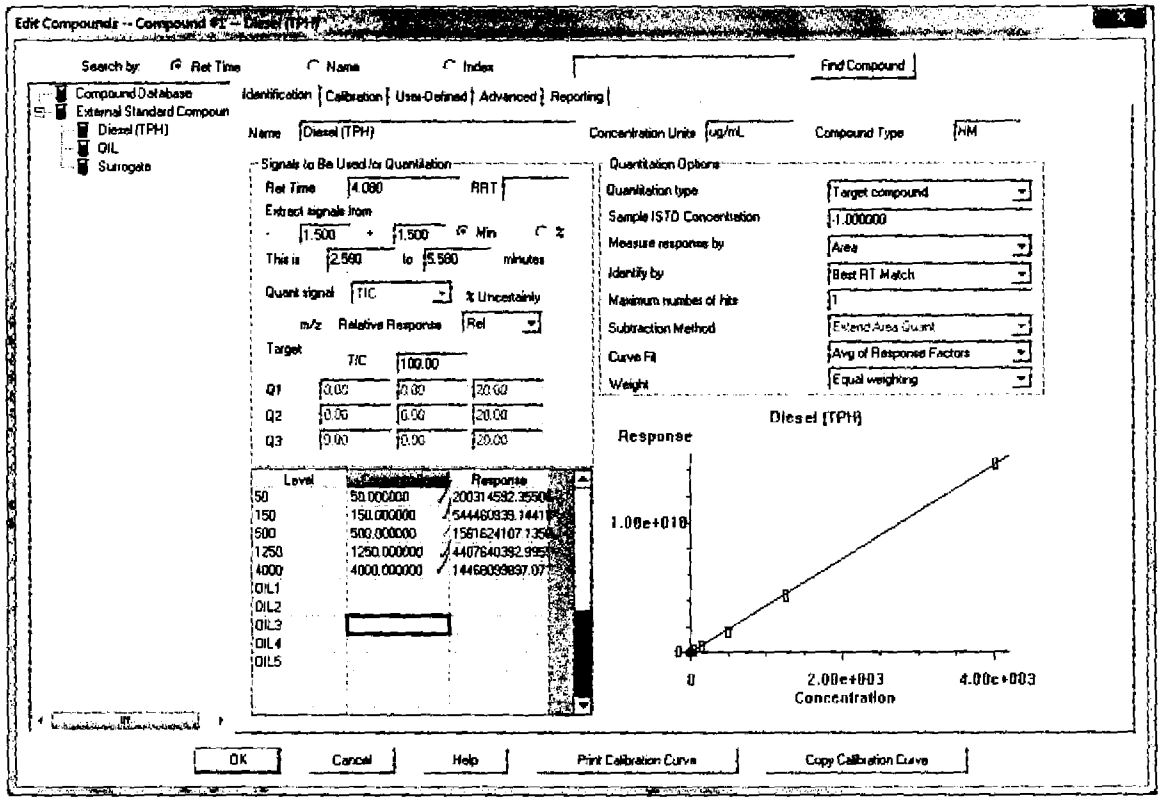
Method Path : C:\msdchem\1\2012\METHOD\
Method File : 013012DROA.M
Title : GC TPH Method
Last Update : Tue Jan 31 09:45:52 2012
Response Via : Initial Calibration

Total Cpnds : 3

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

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

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


Edit Compounds -- Compound #1 -- Diesel (TPH)
Search by: Ret Time Name Index
Find Compound
Compound Database
External Standard Compoun
Diesel (TPH)
OIL
Surrogate
Identification Calibration User-Defined Advanced Reporting
Name Diesel (TPH)
Concentration Units ug/mL
Compound Type NM
Signals to Be Used for Quantitation
Ret Time 4.080
RRT
Extract signals from
1.500 1.500 Min %
This is 2.580 to 6.580 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
Response
50 50.000000 200314582.35500
150 150.000000 544460939.14417
500 500.000000 1561624107.1354
1250 1250.000000 4407640392.995
4000 4000.000000 14468099897.07
OIL1
OIL2
OIL3
OIL4
OIL5
Quantitation Options
Quantitation type Target compound
Sample ISTD Concentration 1.000000
Measure response by Area
Identify by Best RT Match
Maximum number of hits 1
Subtraction Method Extend Area Quant
Curve Fit Avg of Response Factors
Weight Equal weighting
Diesel (TPH)
Response
1.00e+010
0
0
2.00e+003
4.00e+003
Concentration
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

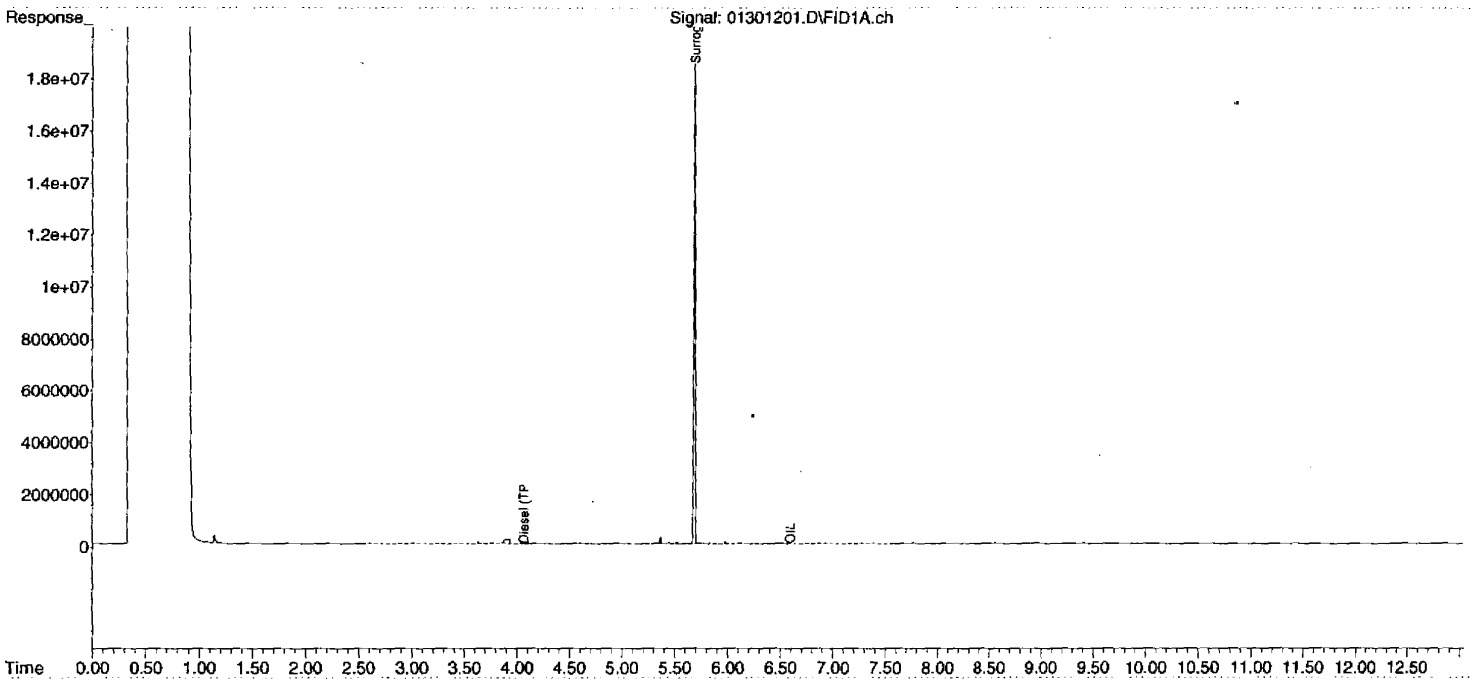
(f)=RT Delta > 1/2 Window (m)=manual int.

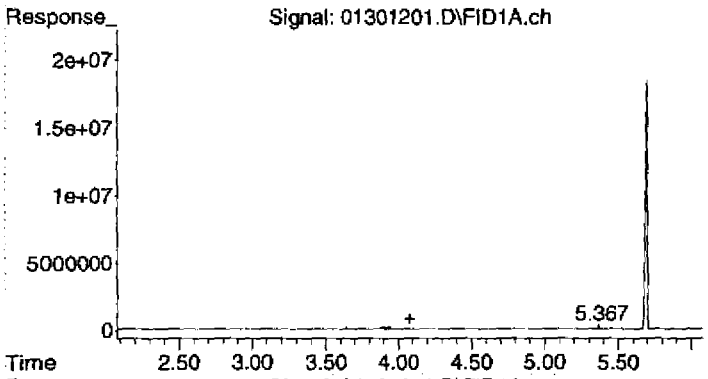
Quantitation Report (Not Reviewed)

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

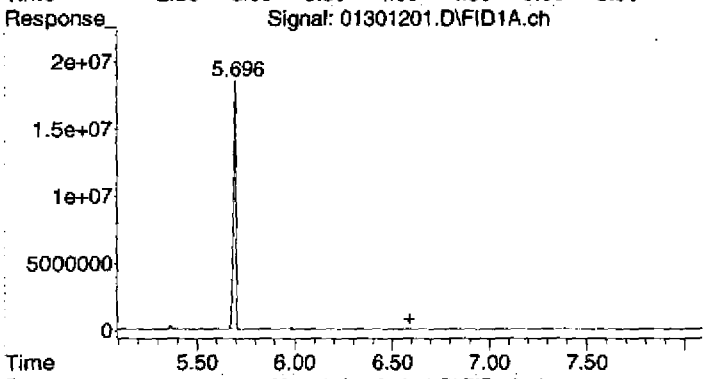
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





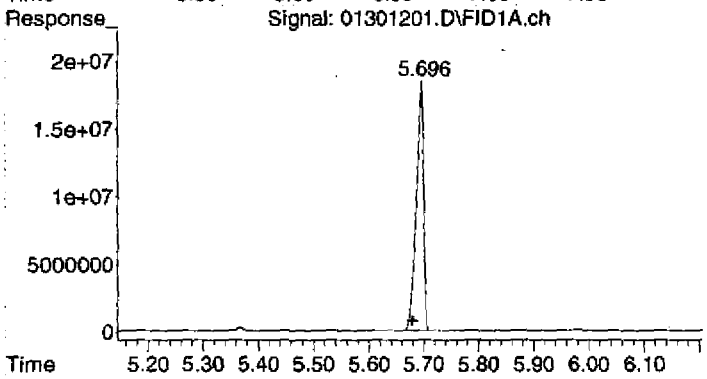
#1 Diesel (TPH)

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

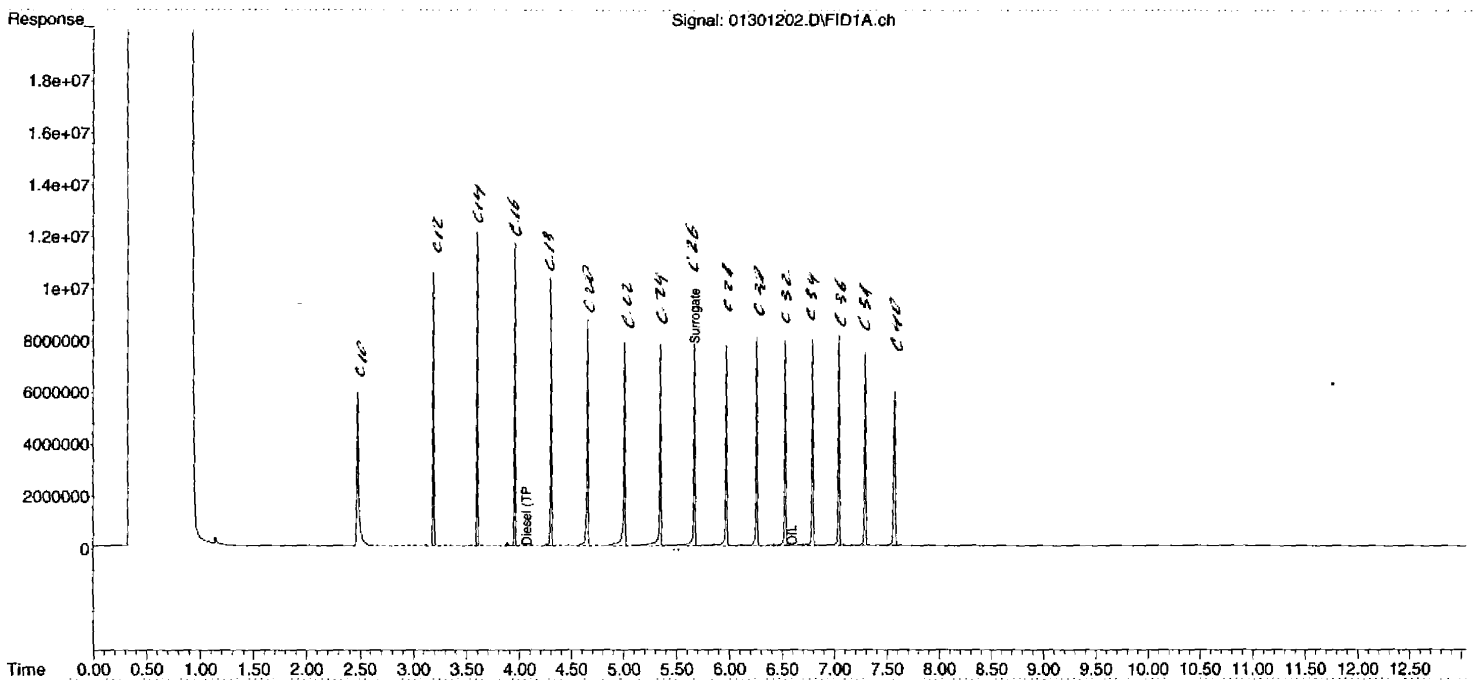
(f)=RT Delta > 1/2 Window (m)=manual int.

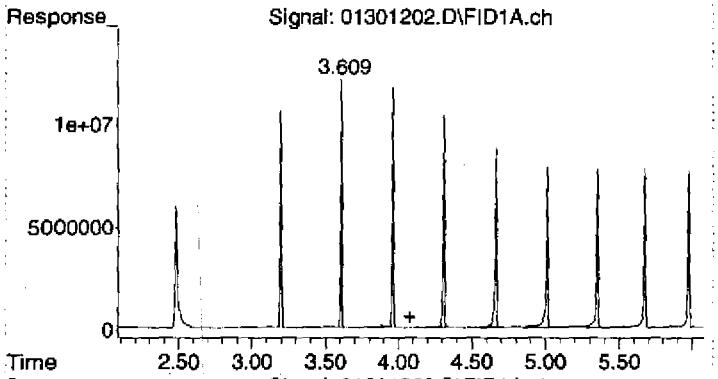
Quantitation Report (Not Reviewed)

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

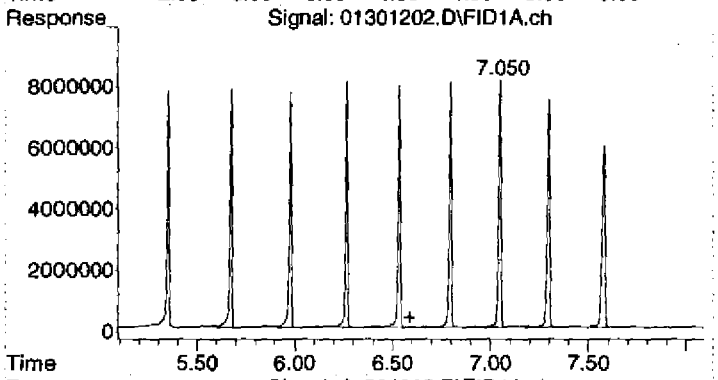
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





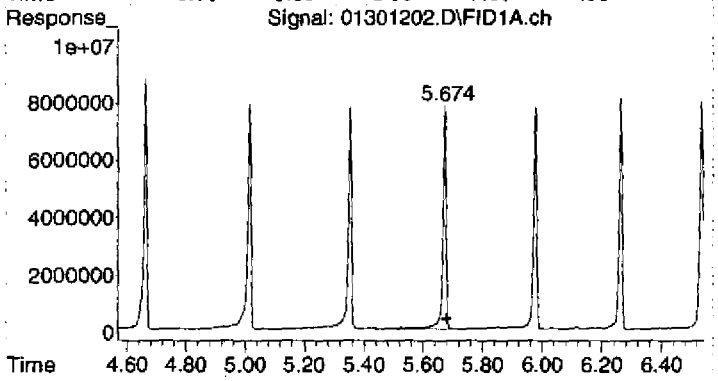
#1 Diesel (TPH)

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

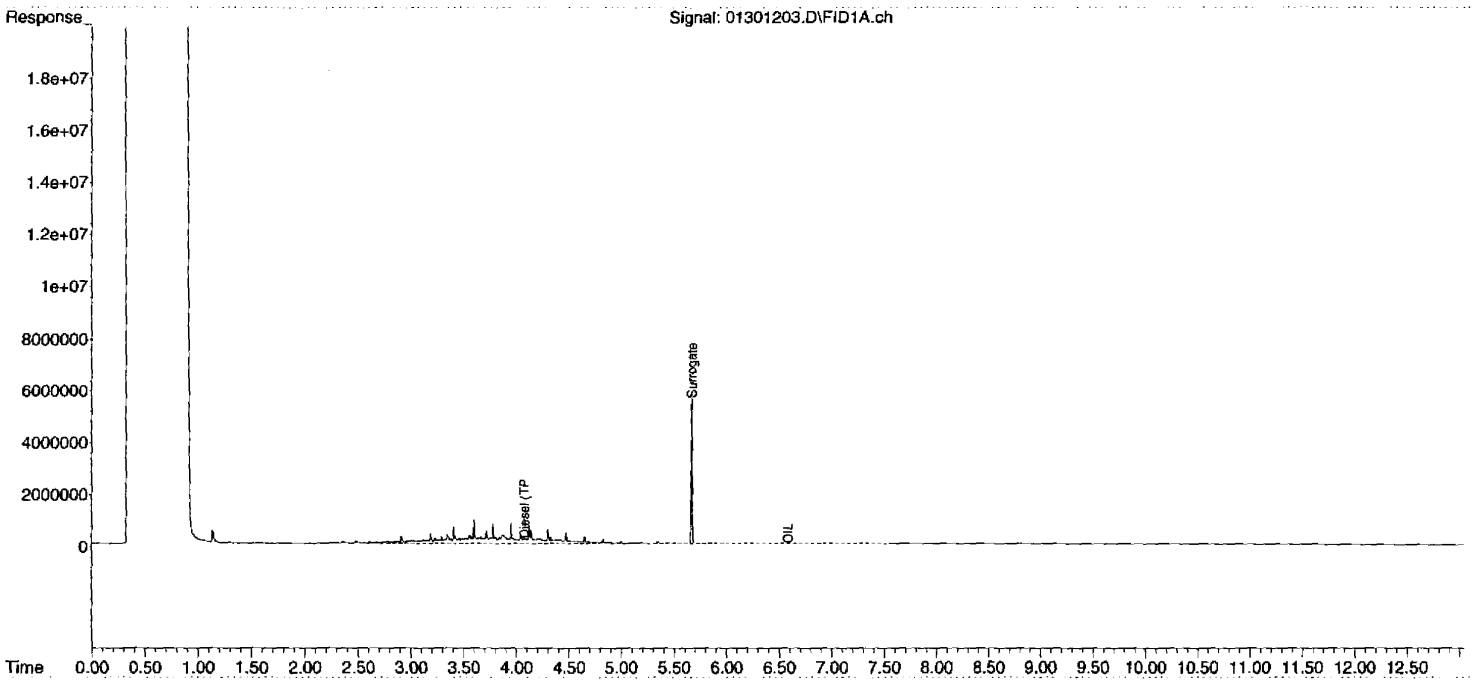
(f)=RT Delta > 1/2 Window (m)=manual int.

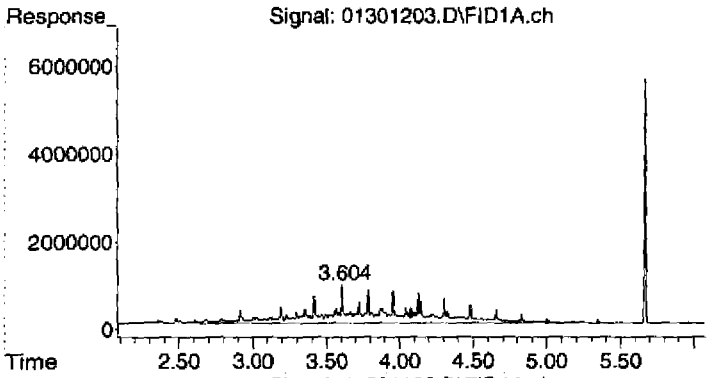
Quantitation Report (Not Reviewed)

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

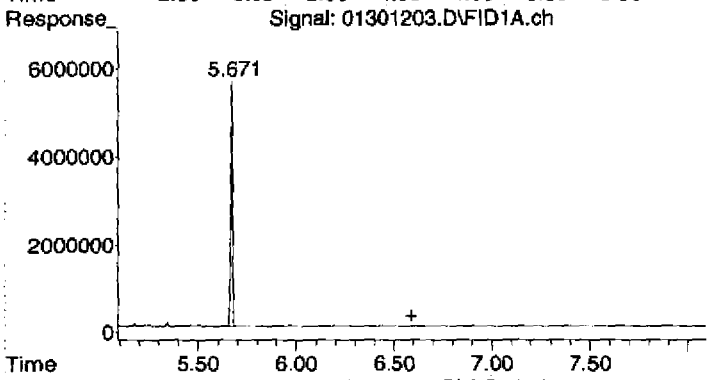
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





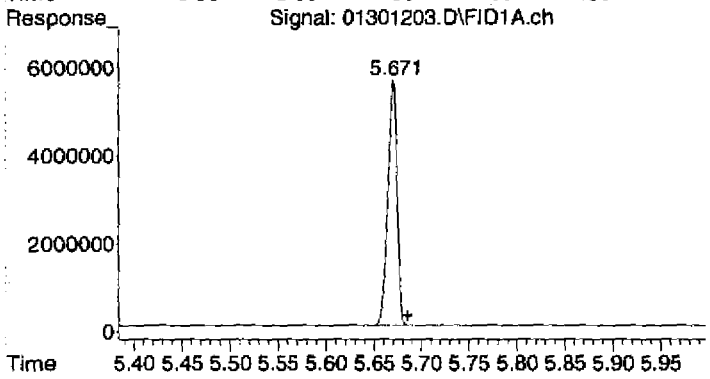
#1 Diesel (TPH)

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

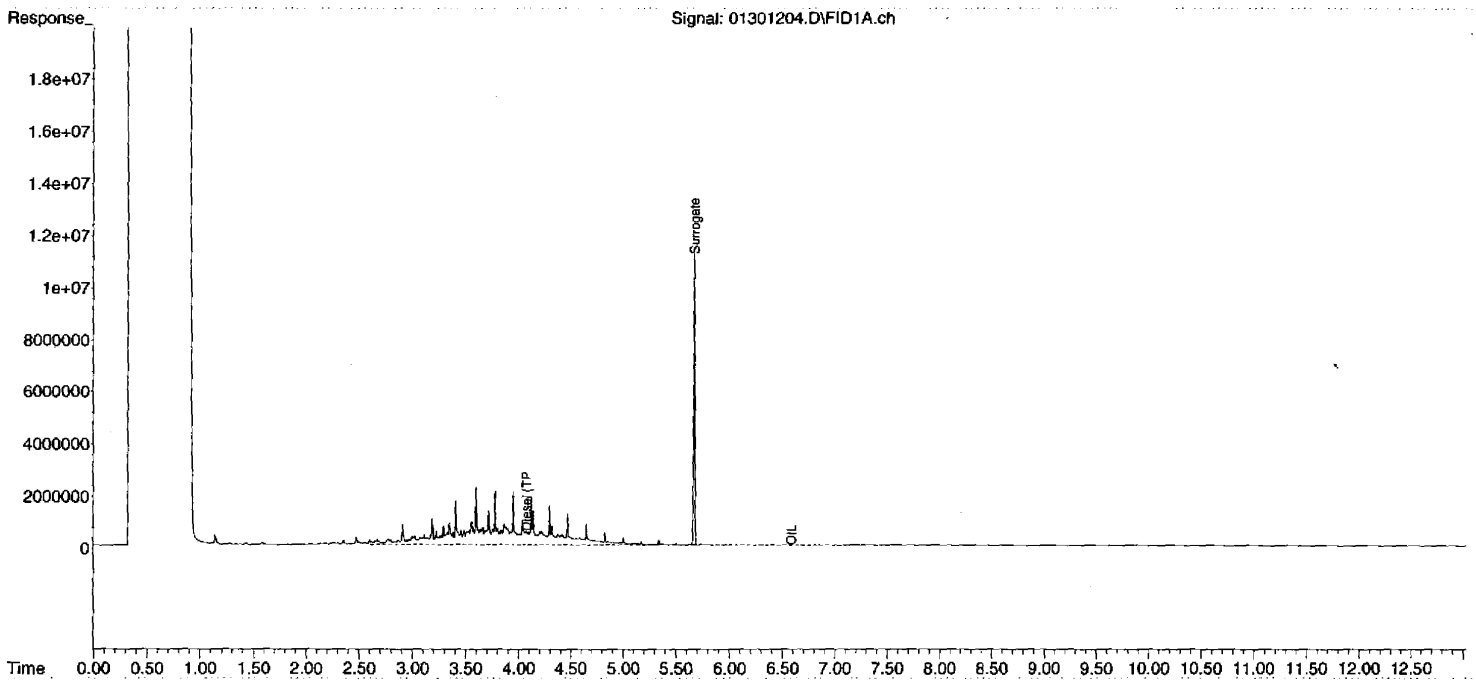
(f)=RT Delta > 1/2 Window (m)=manual int.

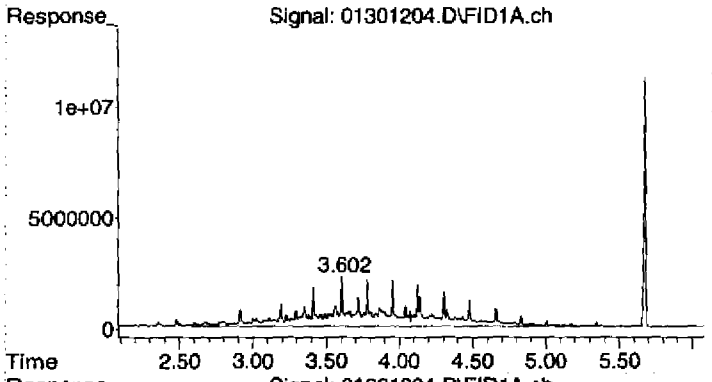
Quantitation Report (Not Reviewed)

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

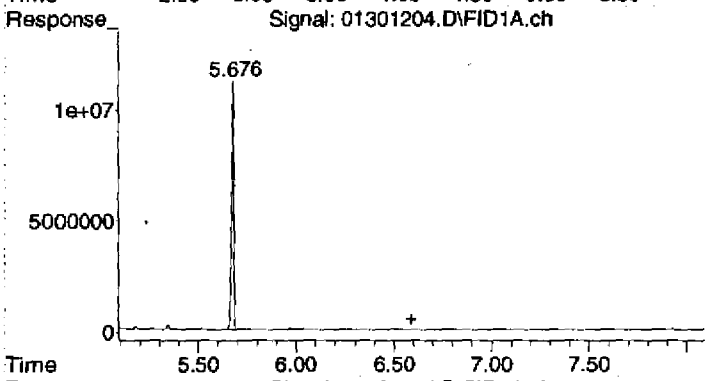
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





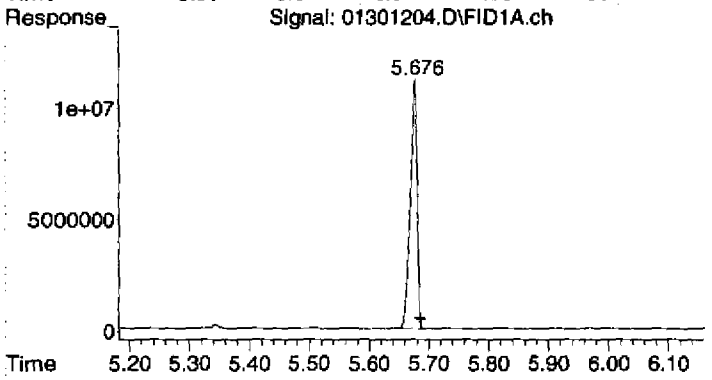
#1 Diesel (TPH)

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

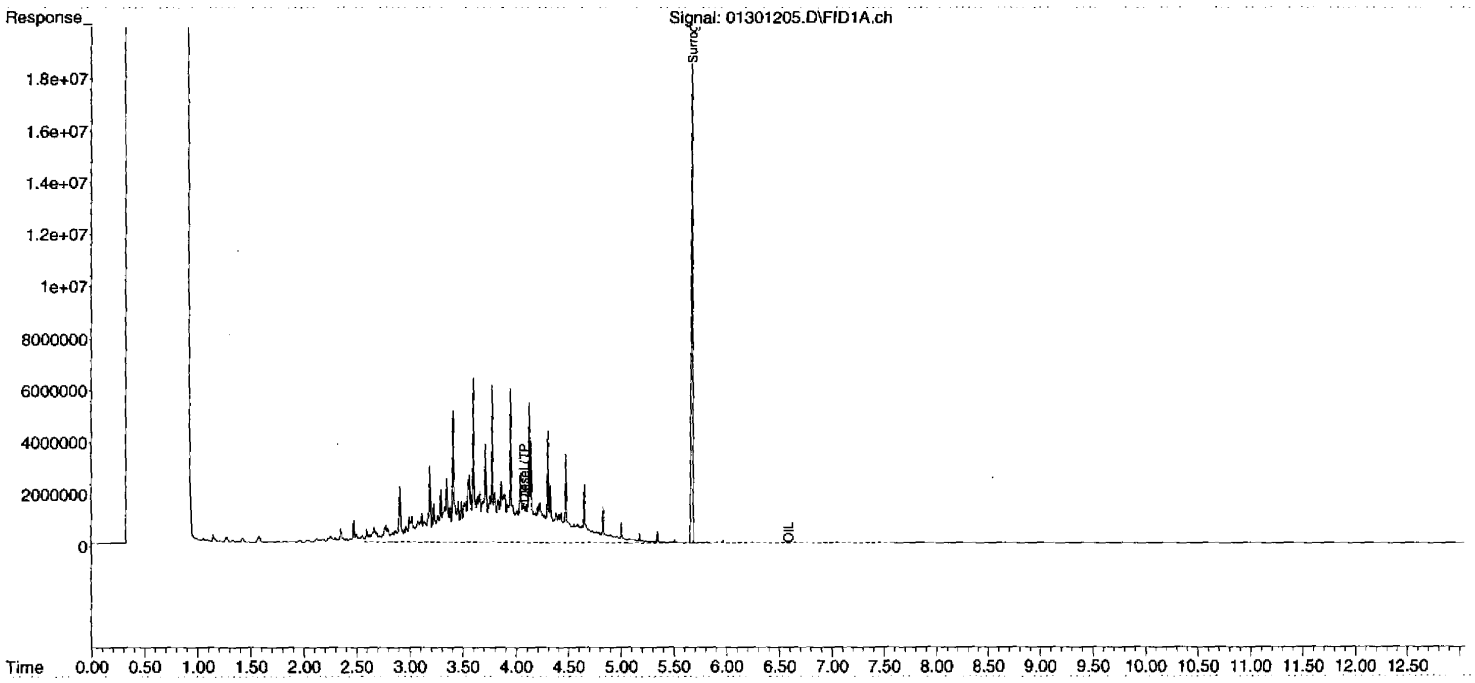
(f)=RT Delta > 1/2 Window (m)=manual int.

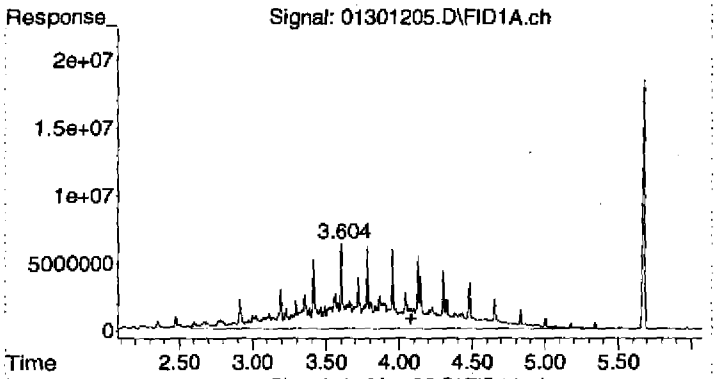
Quantitation Report (Not Reviewed)

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

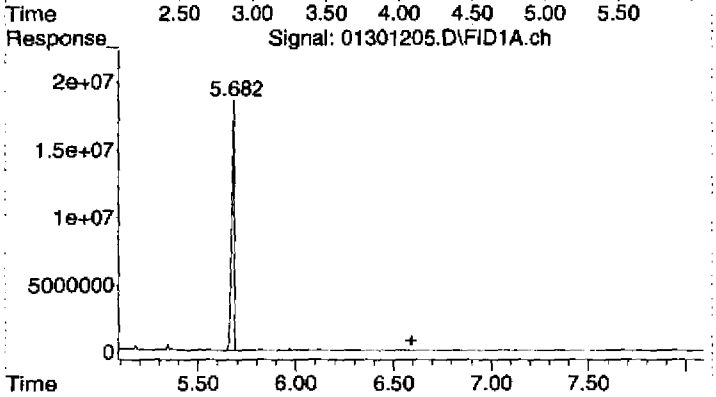
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





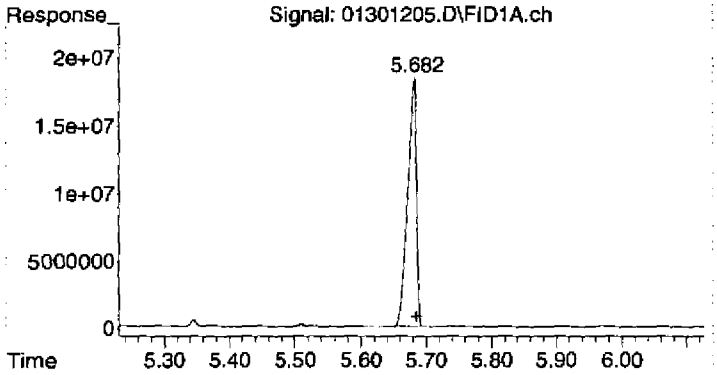
#1 Diesel (TPH)

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

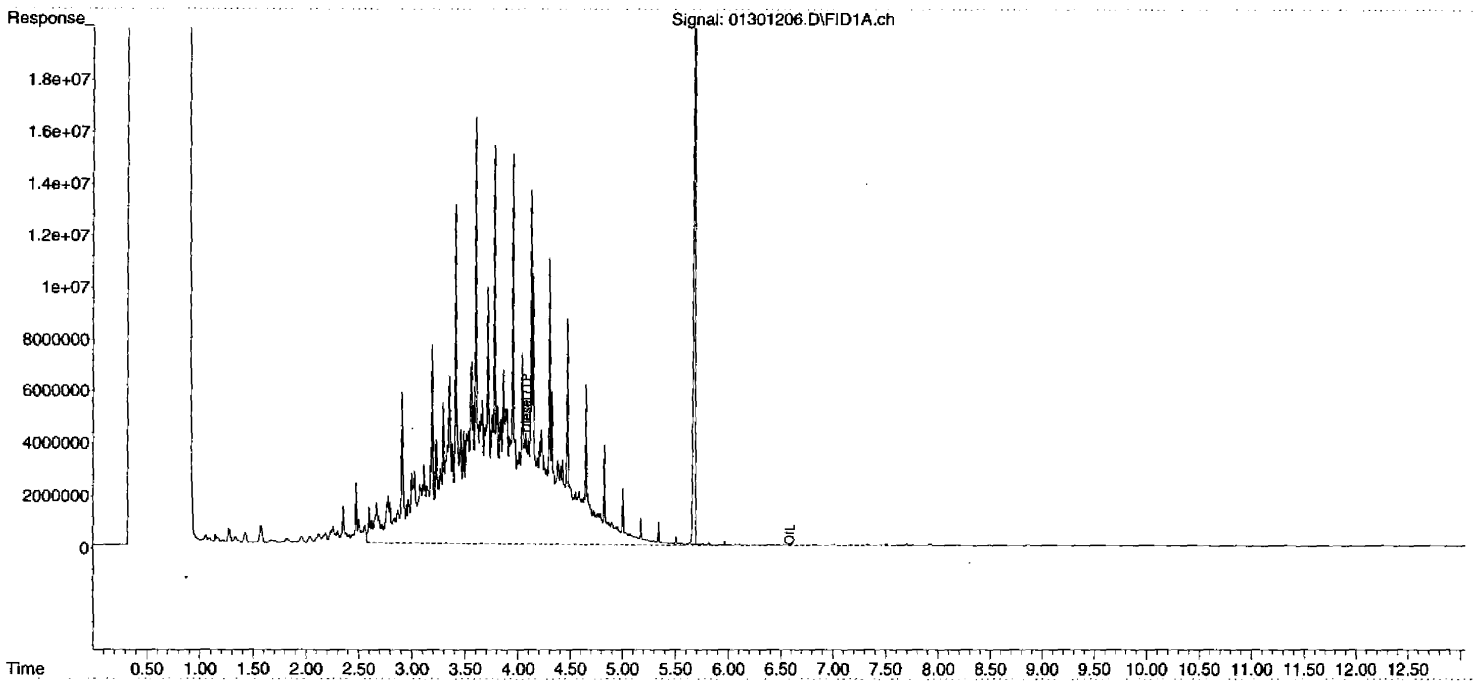
(f)=RT Delta > 1/2 Window (m)=manual int.

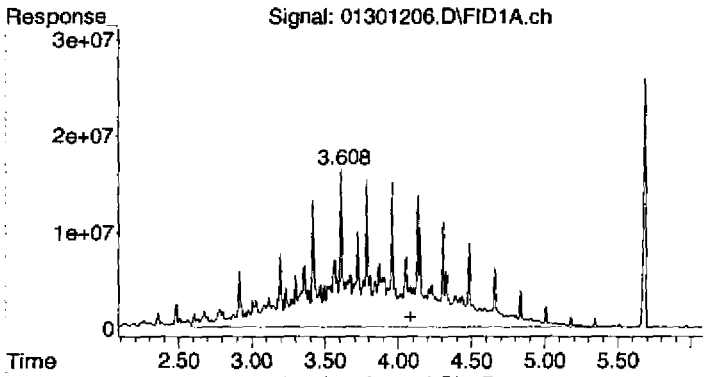
Quantitation Report (Not Reviewed)

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

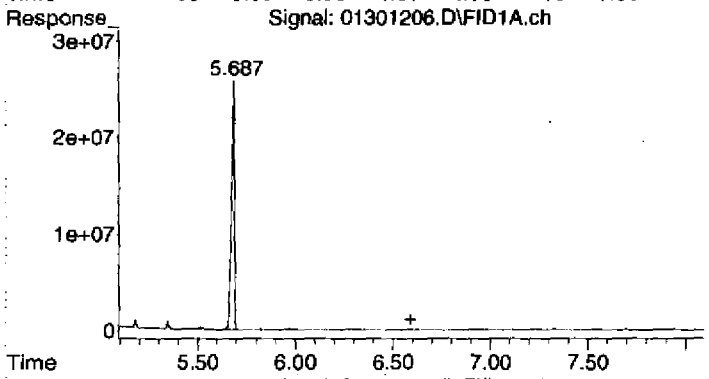
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





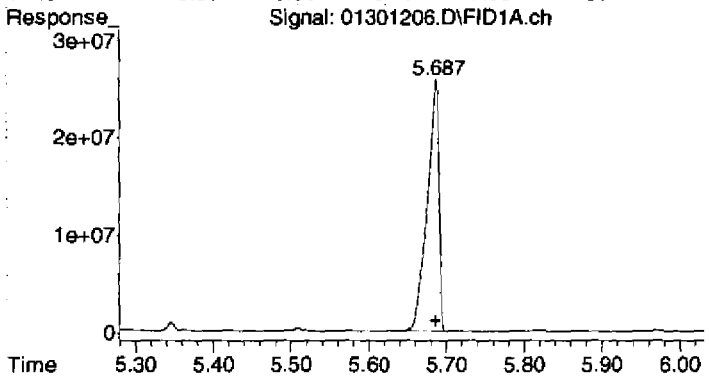
#1 Diesel (TPH)

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

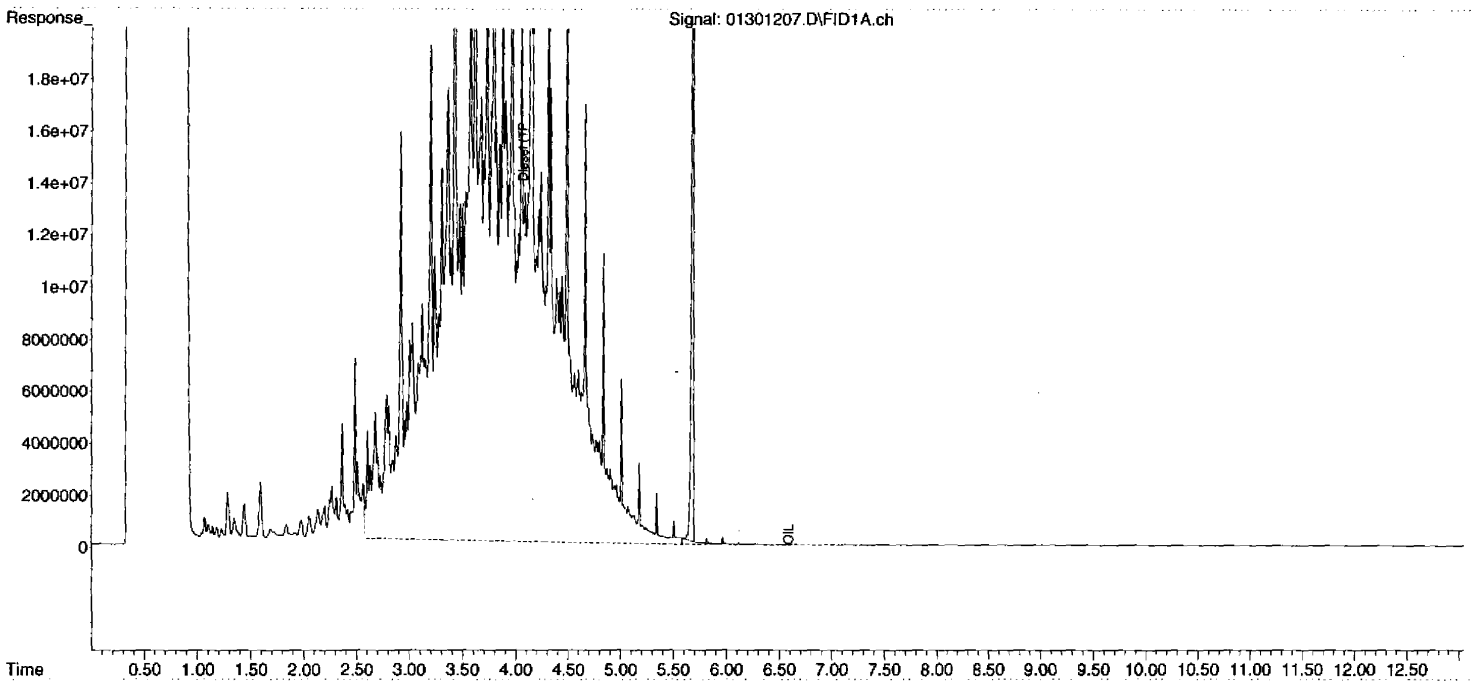
(f)=RT Delta > 1/2 Window (m)=manual int.

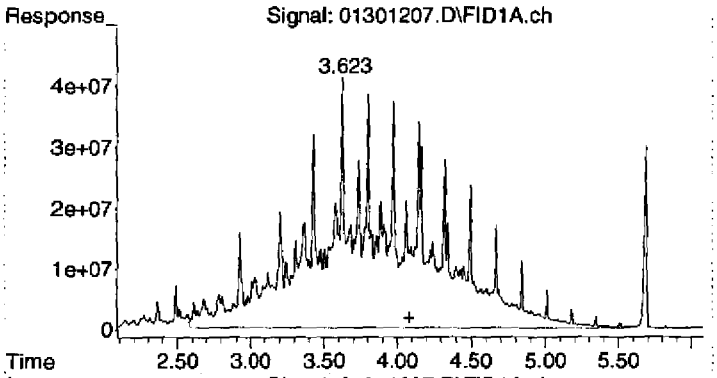
Quantitation Report (Not Reviewed)

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

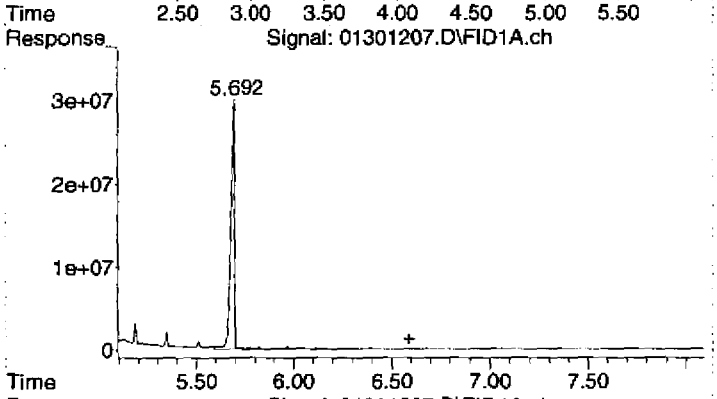
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





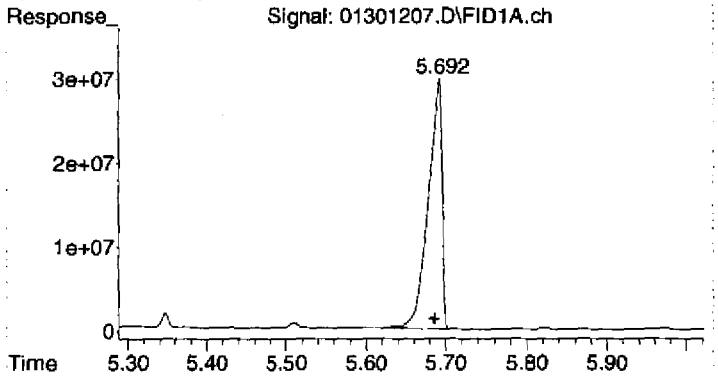
#1 Diesel (TPH)

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.

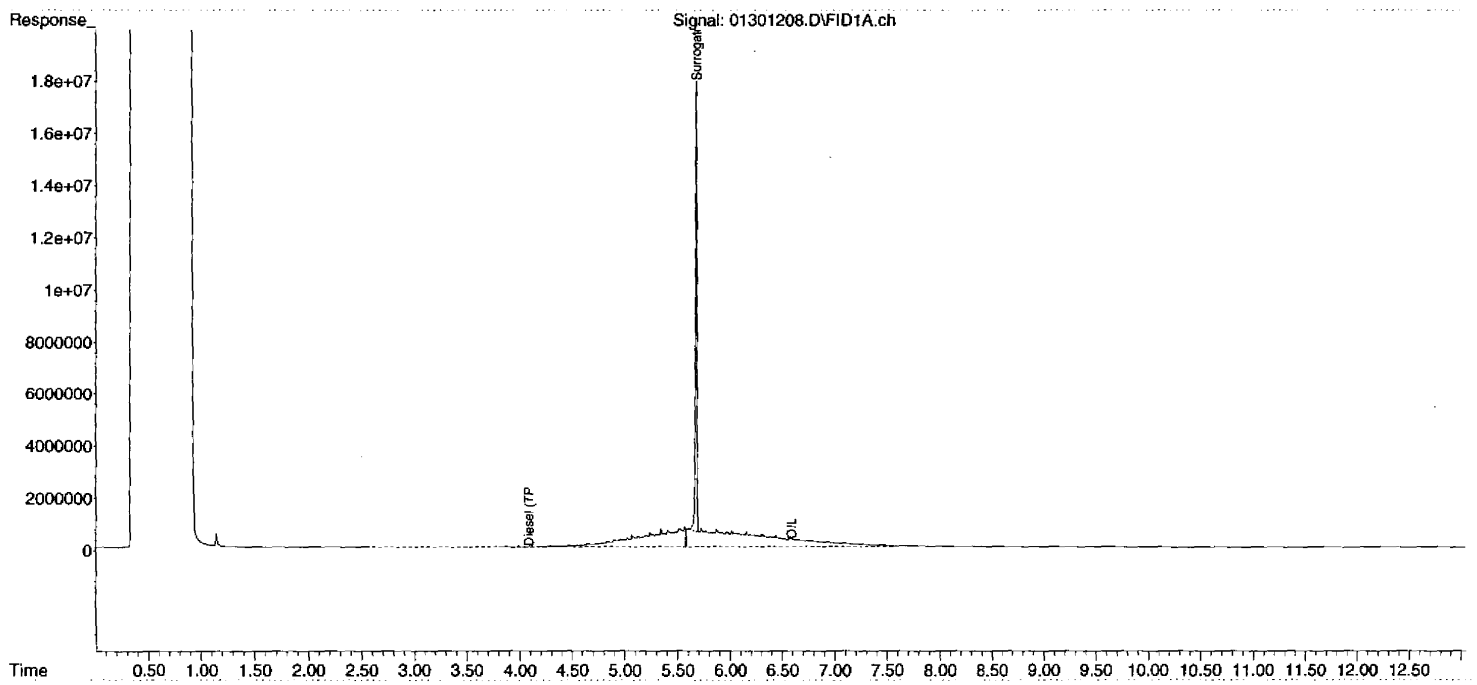
MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: TD	Date: 01-31-12
Manual integration(s) reviewed by:	
Reviewer: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

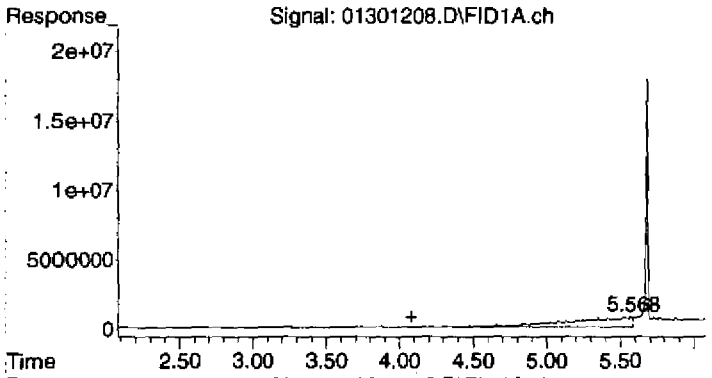
Quantitation Report (QT Reviewed)

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

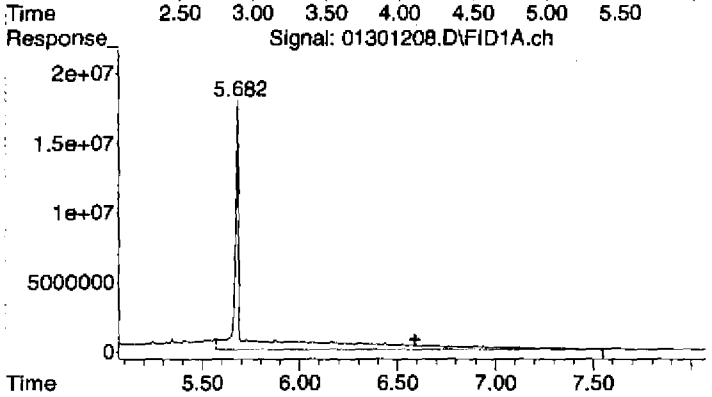
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





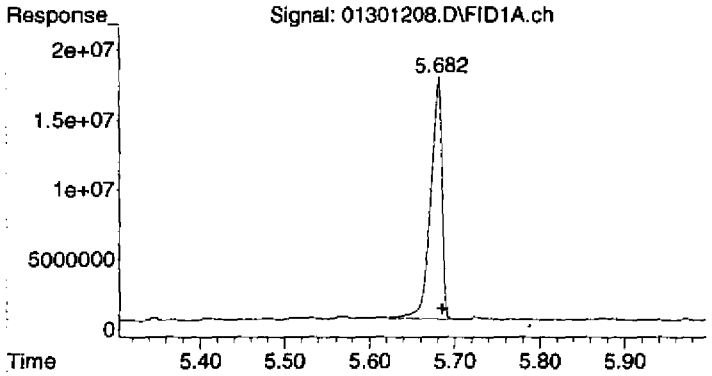
#1 Diesel (TPH)

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



#2 OIL

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



#3 Surrogate

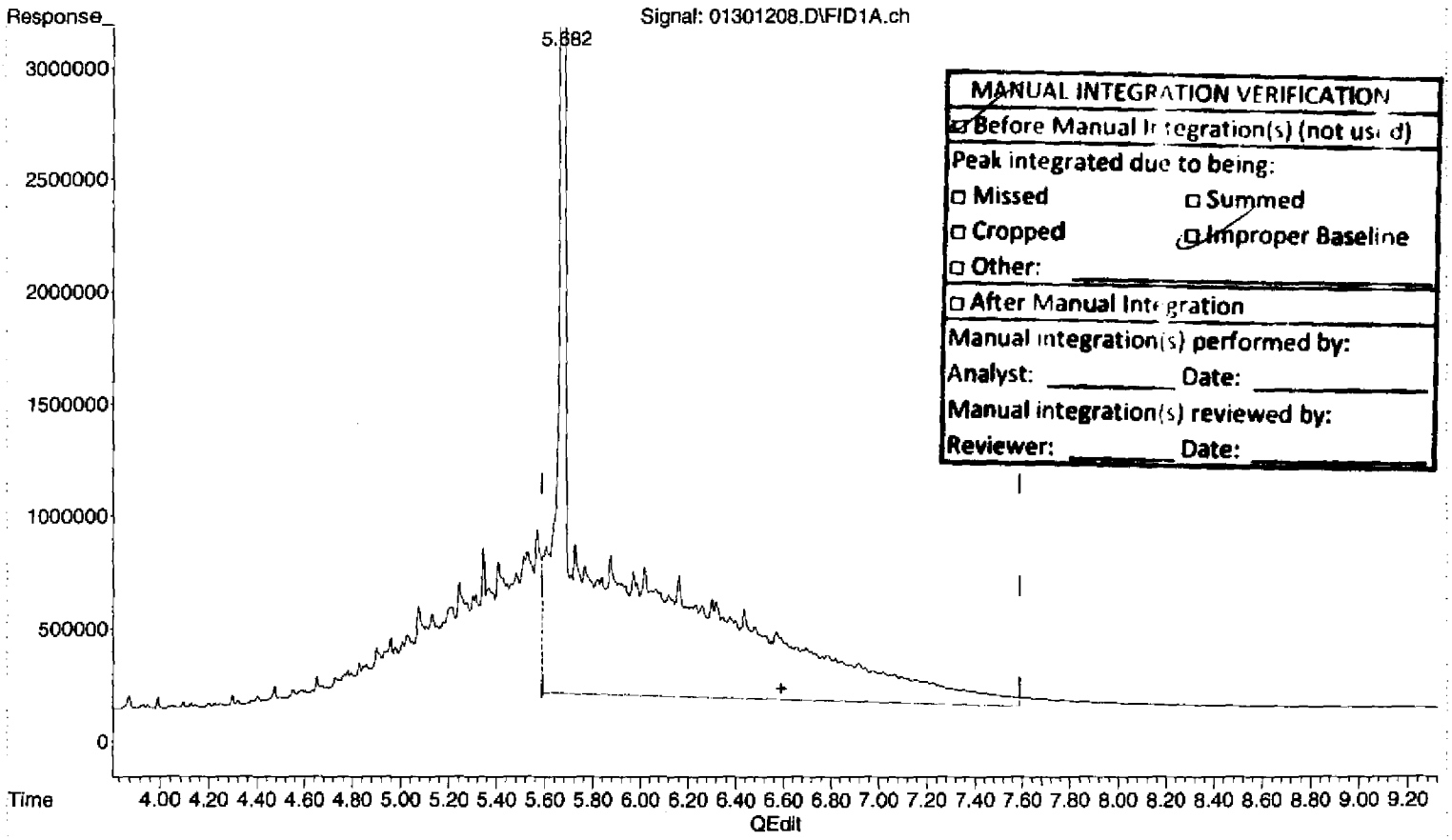
R.T.: 5.680 min
Delta R.T.: -0.005 min
Response: 157568506
Conc: 39.18 ug/mL

Quantitation Report (Qedit)

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

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

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



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

(2) OIL (H)

6.590min 201.886 ug/mL

response 334427629

(+) = Expected Retention Time

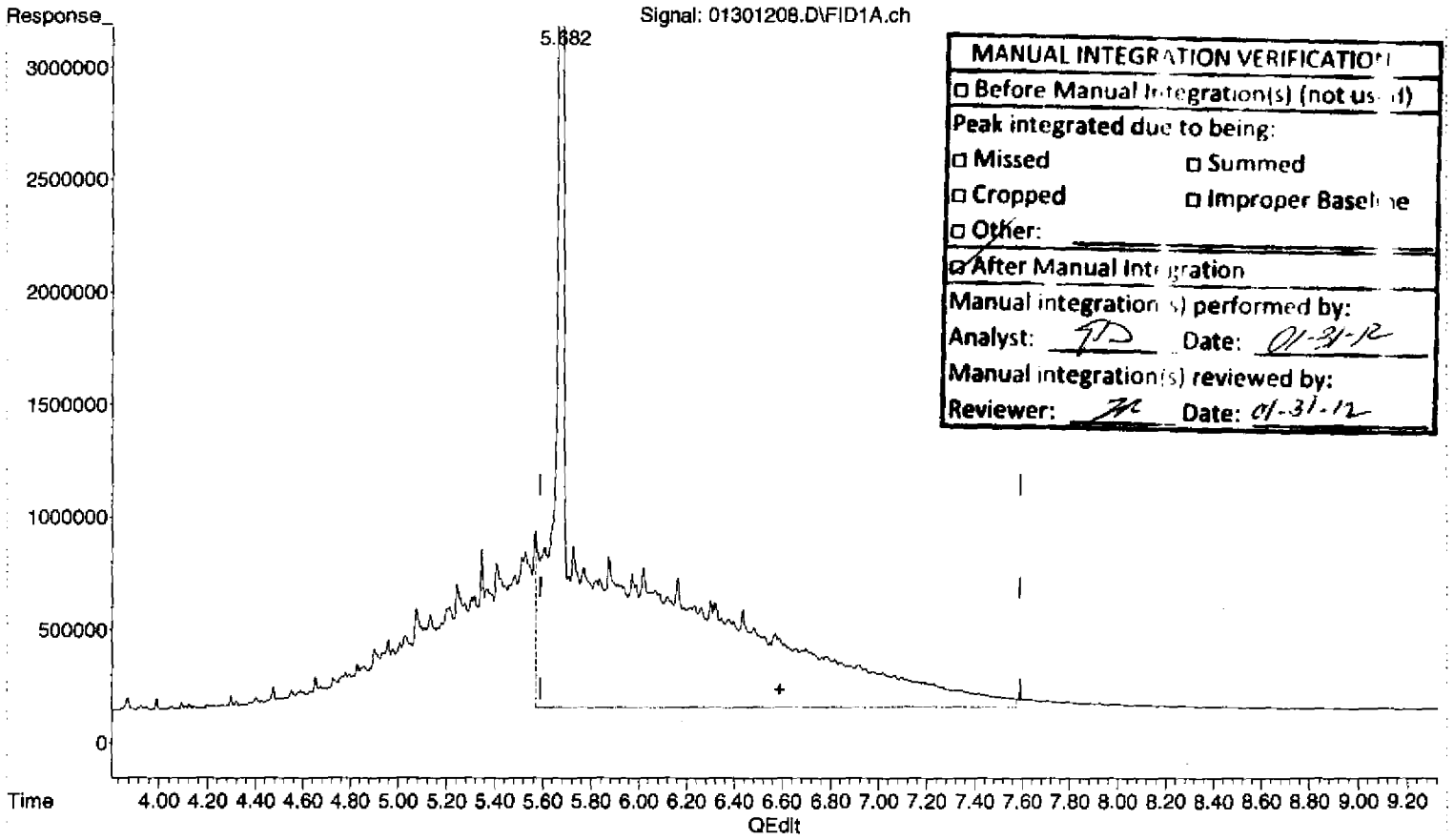
013012DROA.M Tue Jan 31 09:40:42 2012

Quantitation Report (Qedit)

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

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

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



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 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.

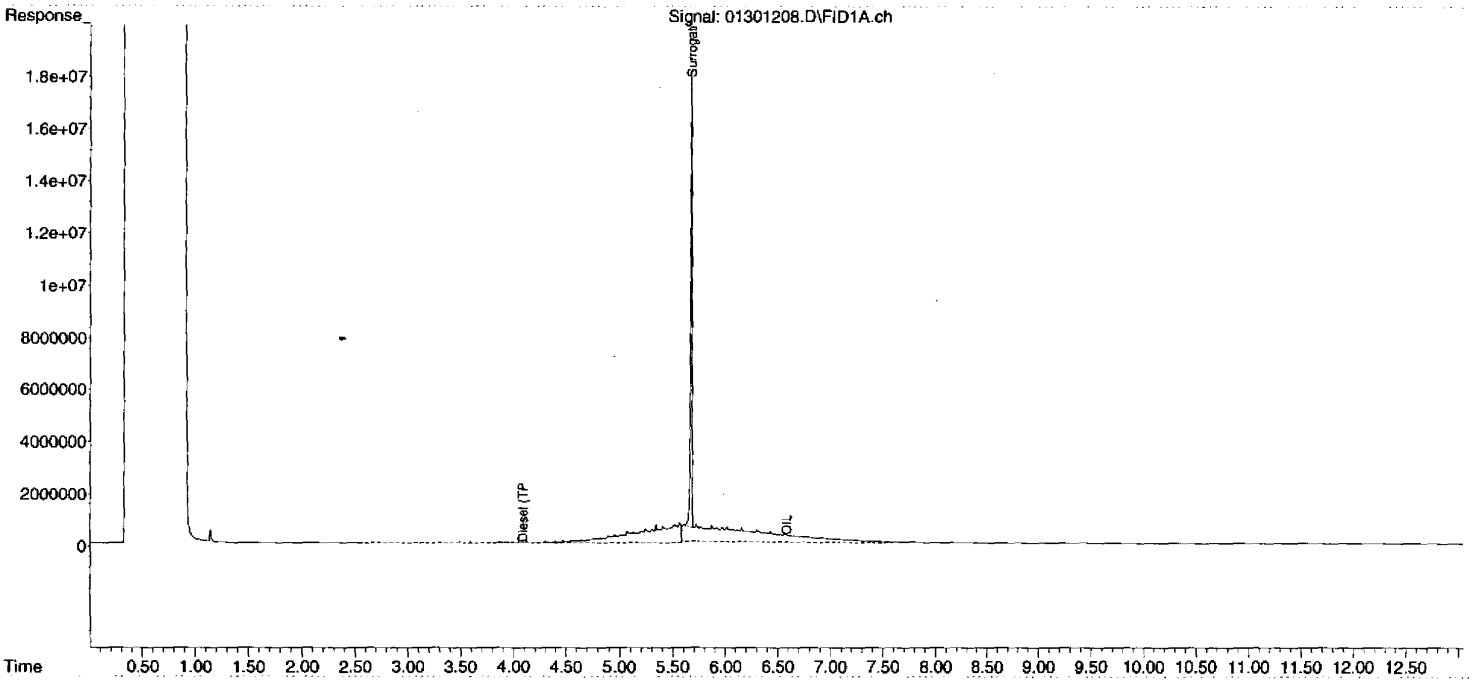
MANUAL INTEGRATION VERIFICATION	
☑ Before Manual Integration((not used)	
Peak integrated due to being	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other: _____	
☐ After Manual Integration	
Manual integration(s) performed by:	
Analyst: _____	Date: _____
Manual integration(s) reviewed by:	
Reviewer: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

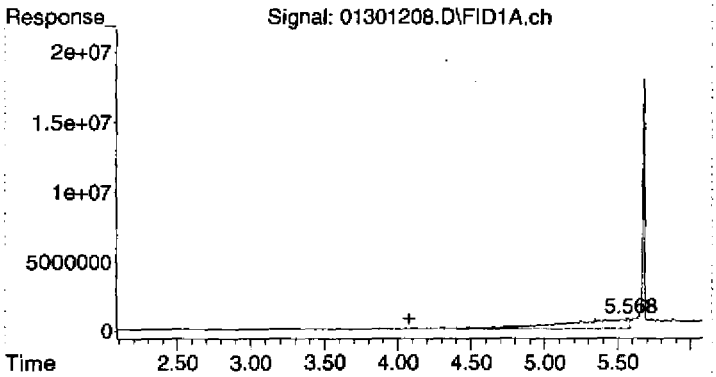
Quantitation Report - (Not Reviewed)

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

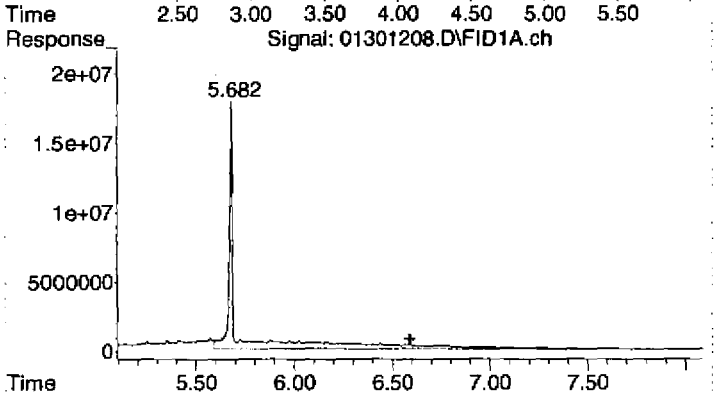
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





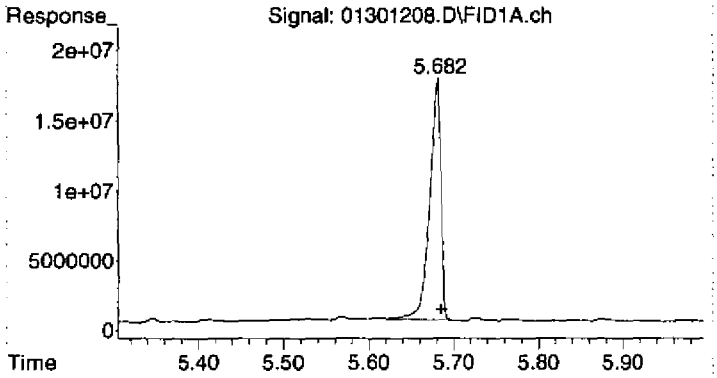
#1 Diesel (TPH)

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

(m)=manual int.

(f)=RT Delta > 1/2 Window

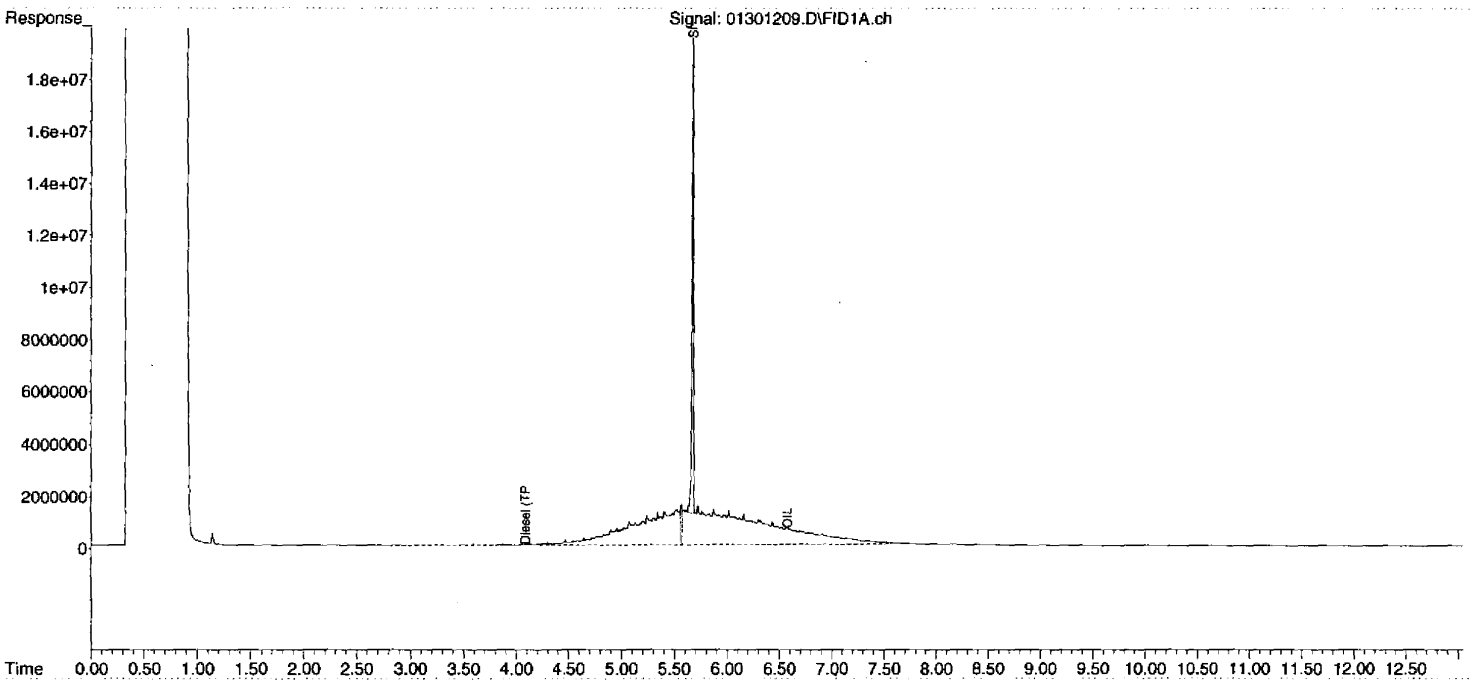
MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 01-31-12
Manual integration(s) reviewed by
Reviewer: [signature] Date: 1-31-12

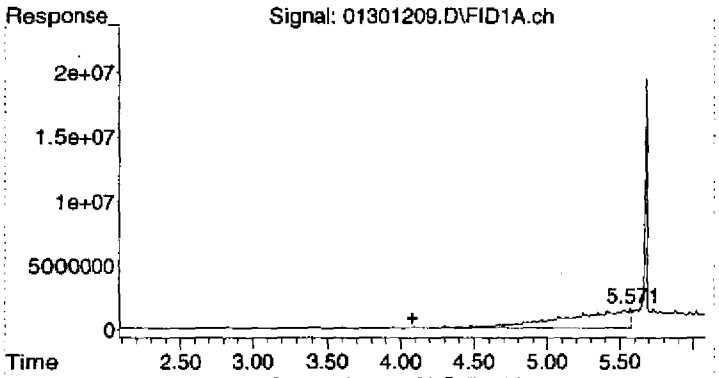
Quantitation Report (QT Reviewed)

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

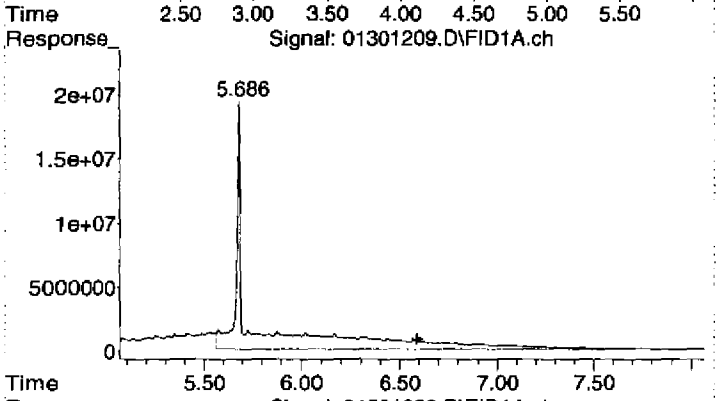
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





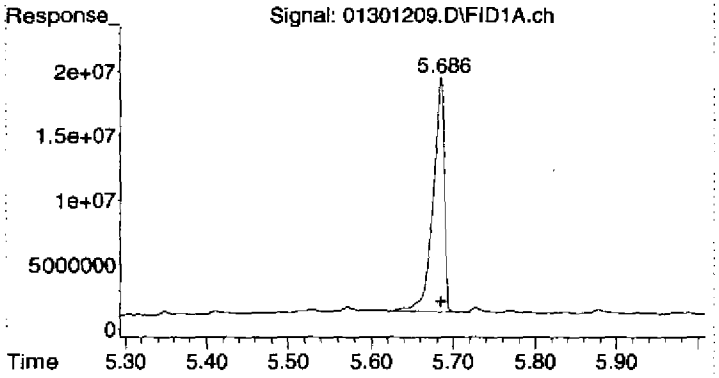
#1 Diesel (TPH)

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



#2 OIL

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



#3 Surrogate

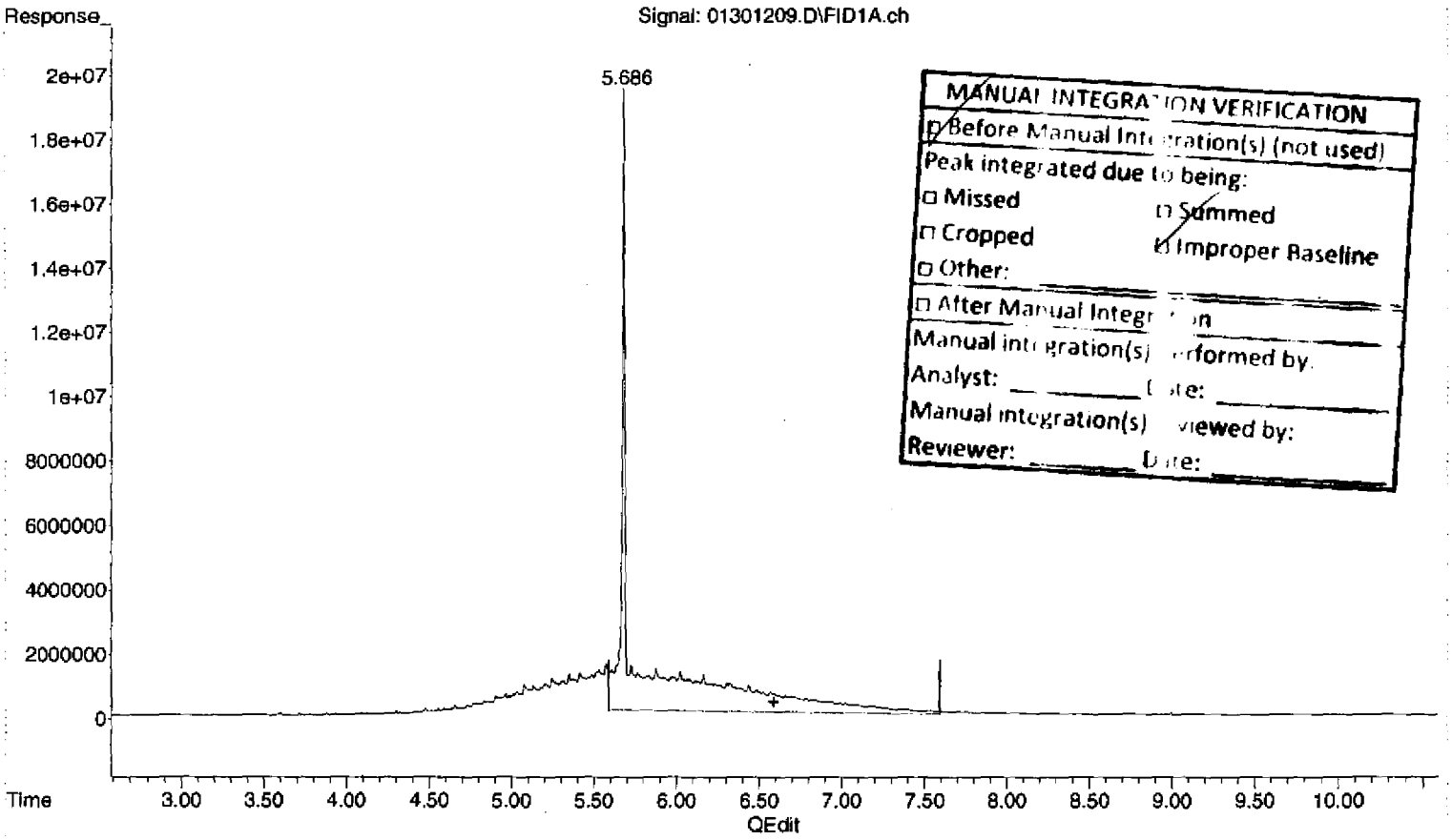
R.T.: 5.684 min
Delta R.T.: -0.002 min
Response: 172490443
Conc: 42.89 ug/mL

Quantitation Report (Qedit)

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

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

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



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

(2) OIL (H)

6.590min 419.688 ug/mL

response 695219451

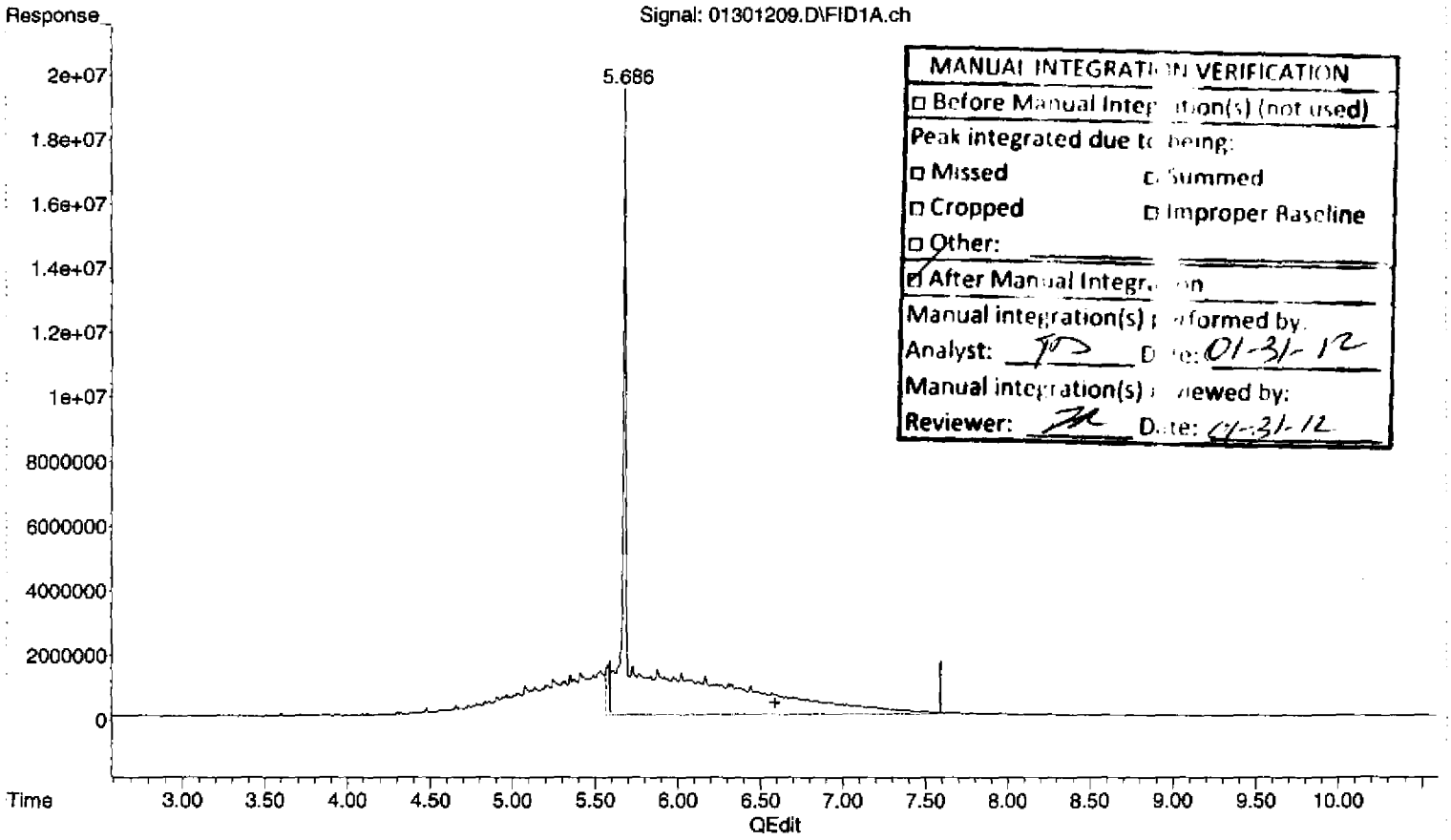
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:41:15 2012

Quantitation Report (Qedit)

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

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

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



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

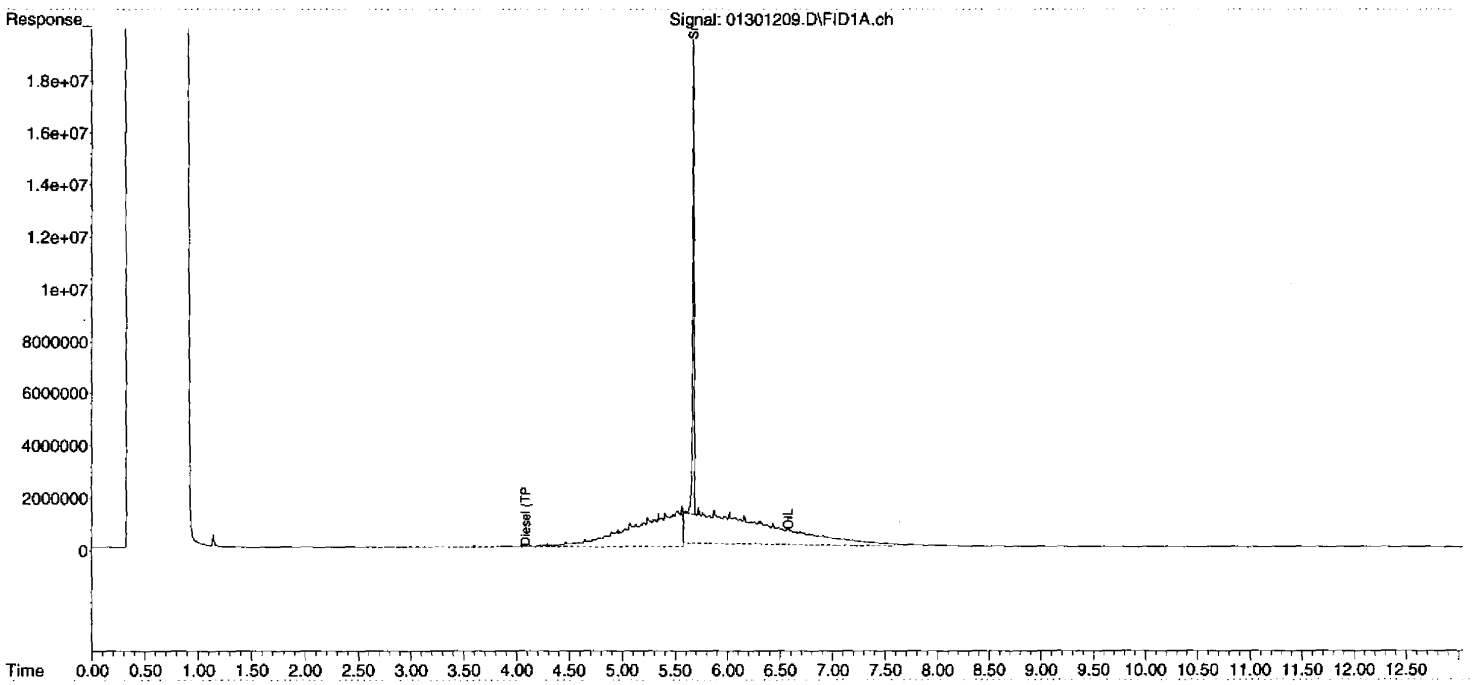
MANUAL INTEGRATION VERIFICATION	
☑ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other: _____	
☐ After Manual Integration	
Manual integration(s) performed by:	
Analyst: _____	Date: _____
Manual integration(s) reviewed by:	
Reviewer: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

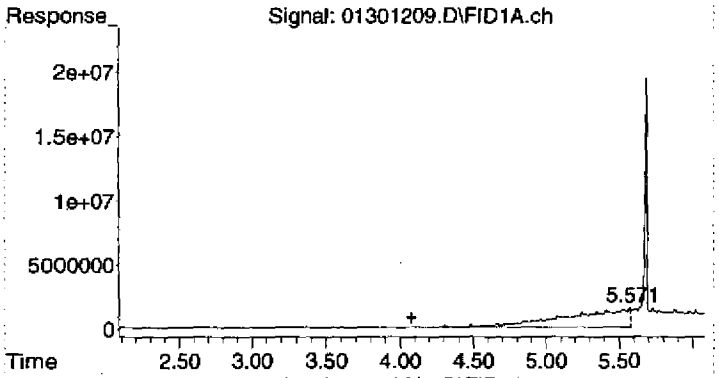
Quantitation Report (Not Reviewed)

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

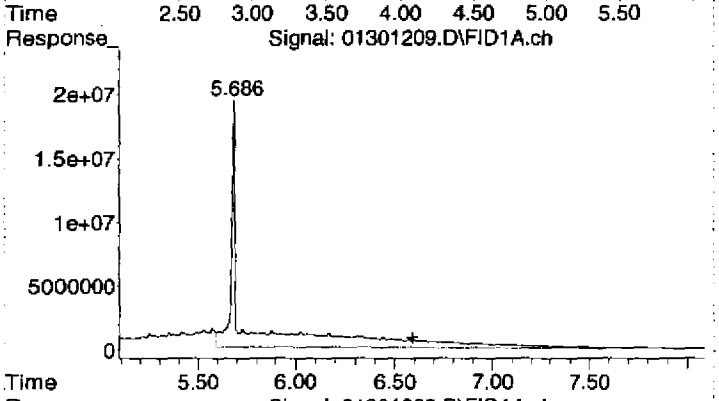
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





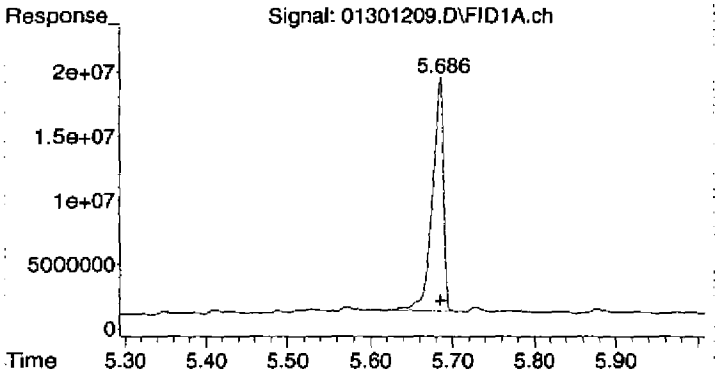
#1 Diesel (TPH)

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.

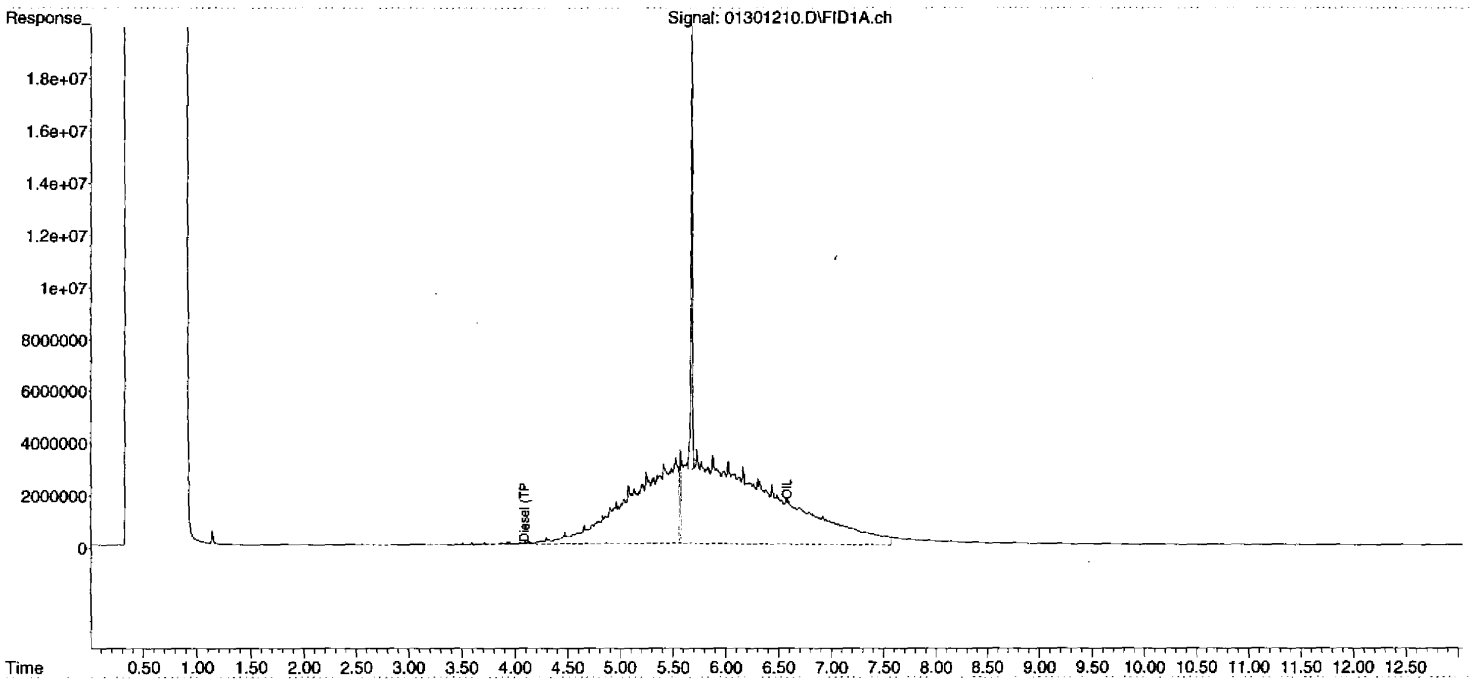
MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: TD	Date: 01-31-12
Manual integration(s) reviewed by:	
Reviewer: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

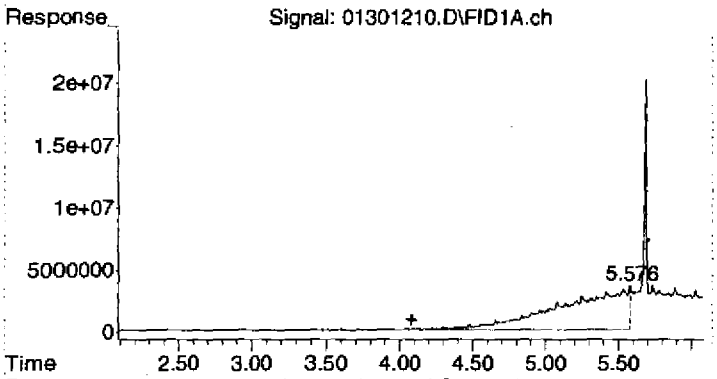
Quantitation Report (QT Reviewed)

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

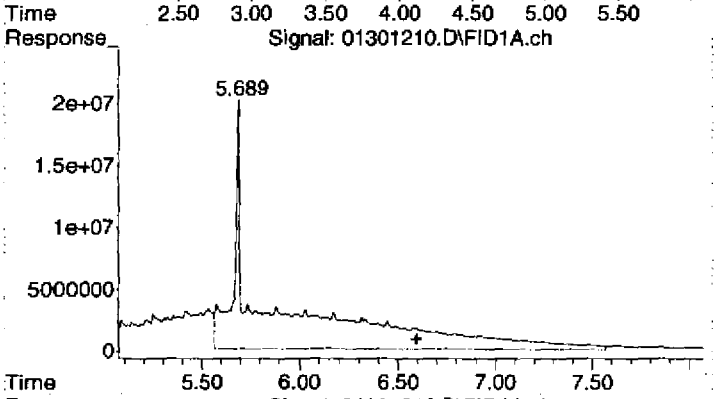
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





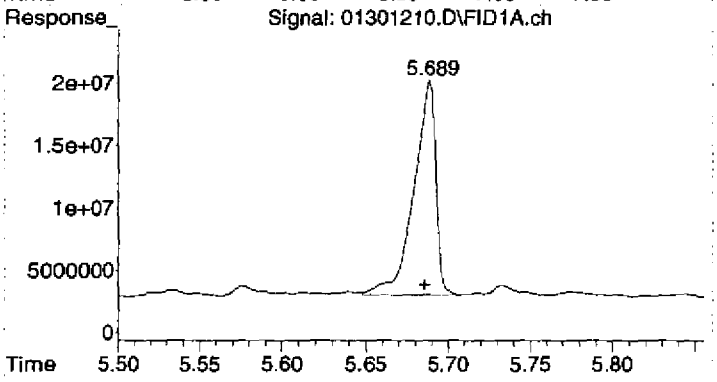
#1 Diesel (TPH)

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

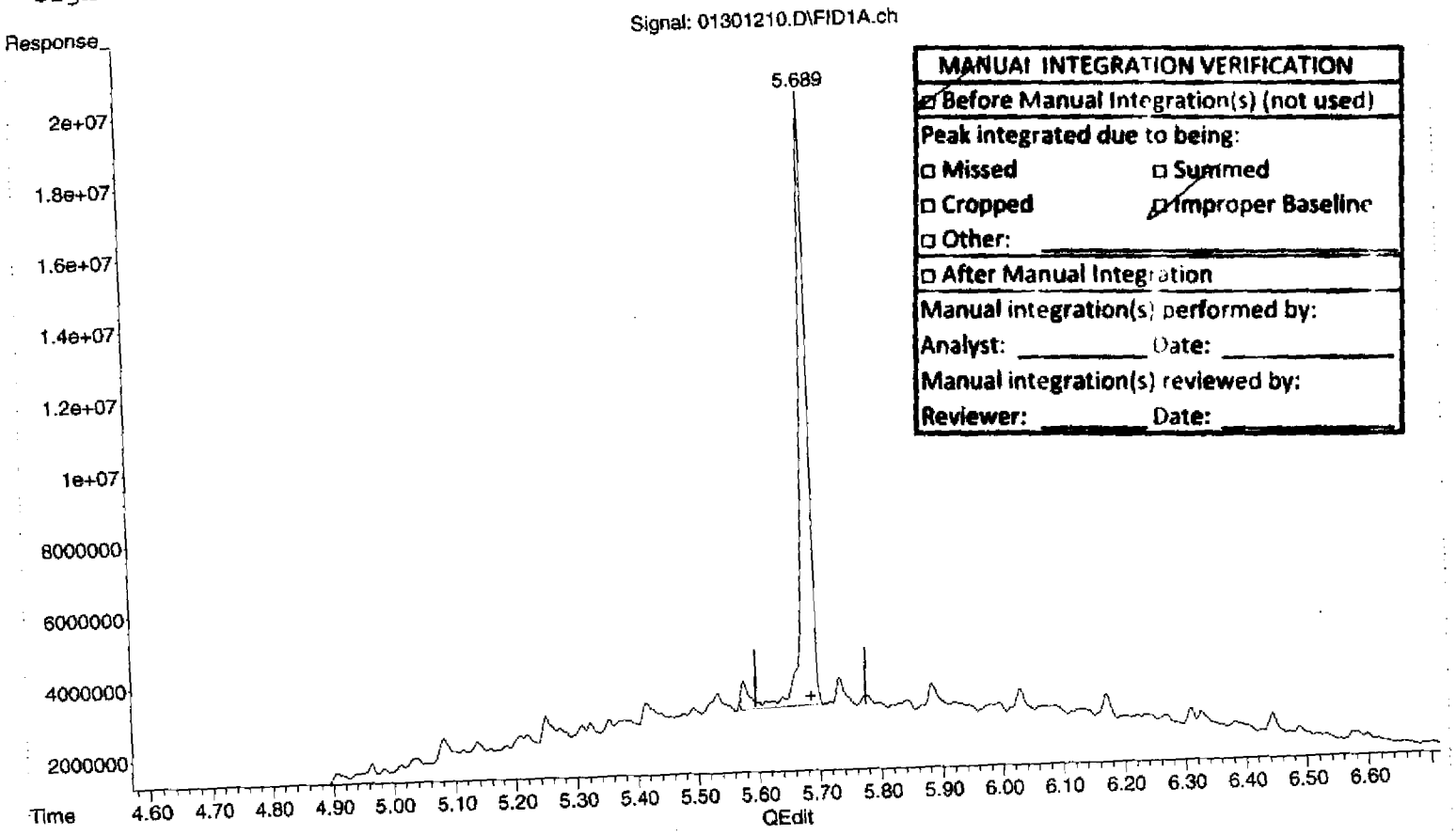
R.T.: 5.689 min
Delta R.T.: 0.003 min
Response: 160244547
Conc: 39.85 ug/mL m

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



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

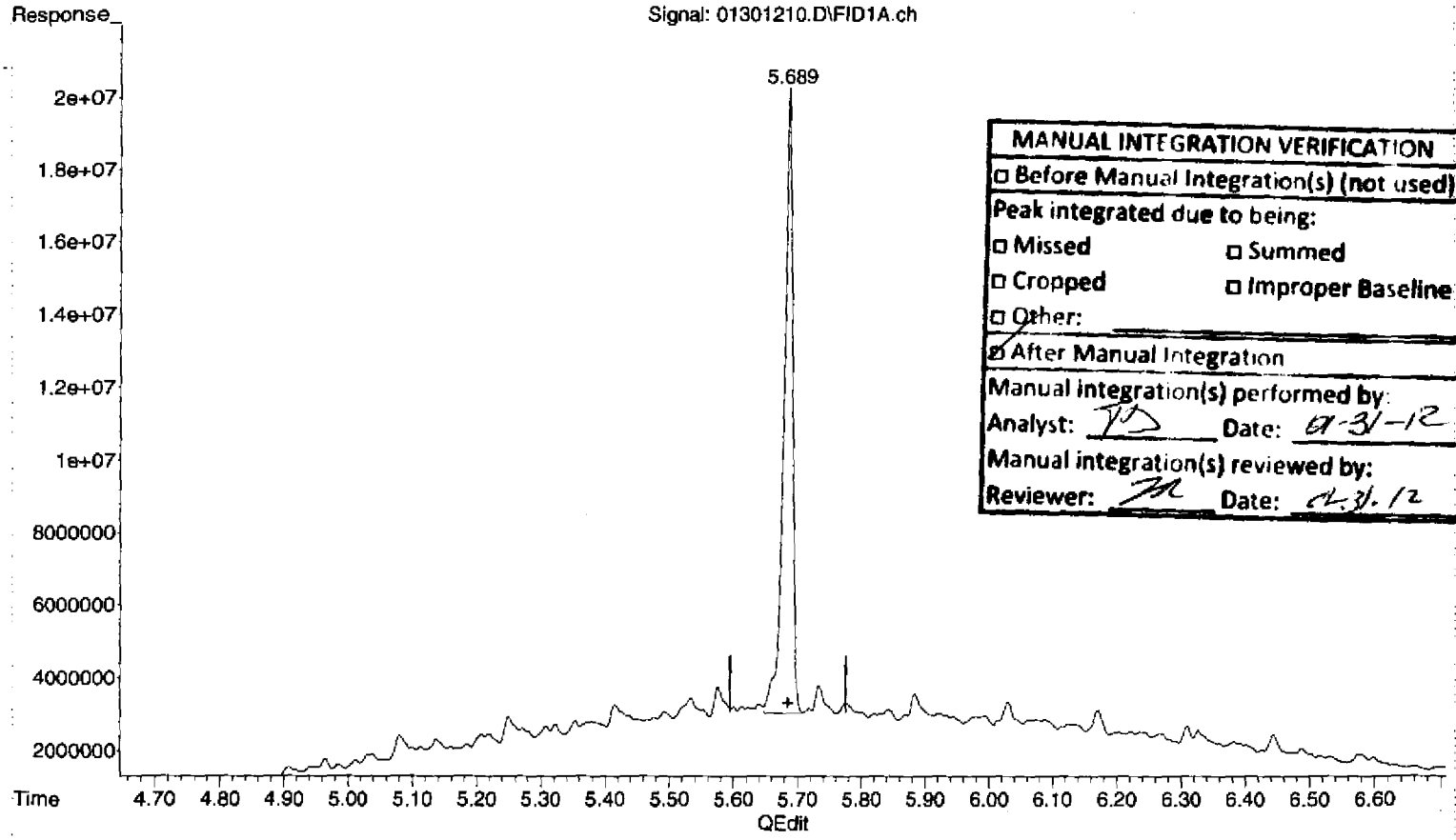
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:41:43 2012

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

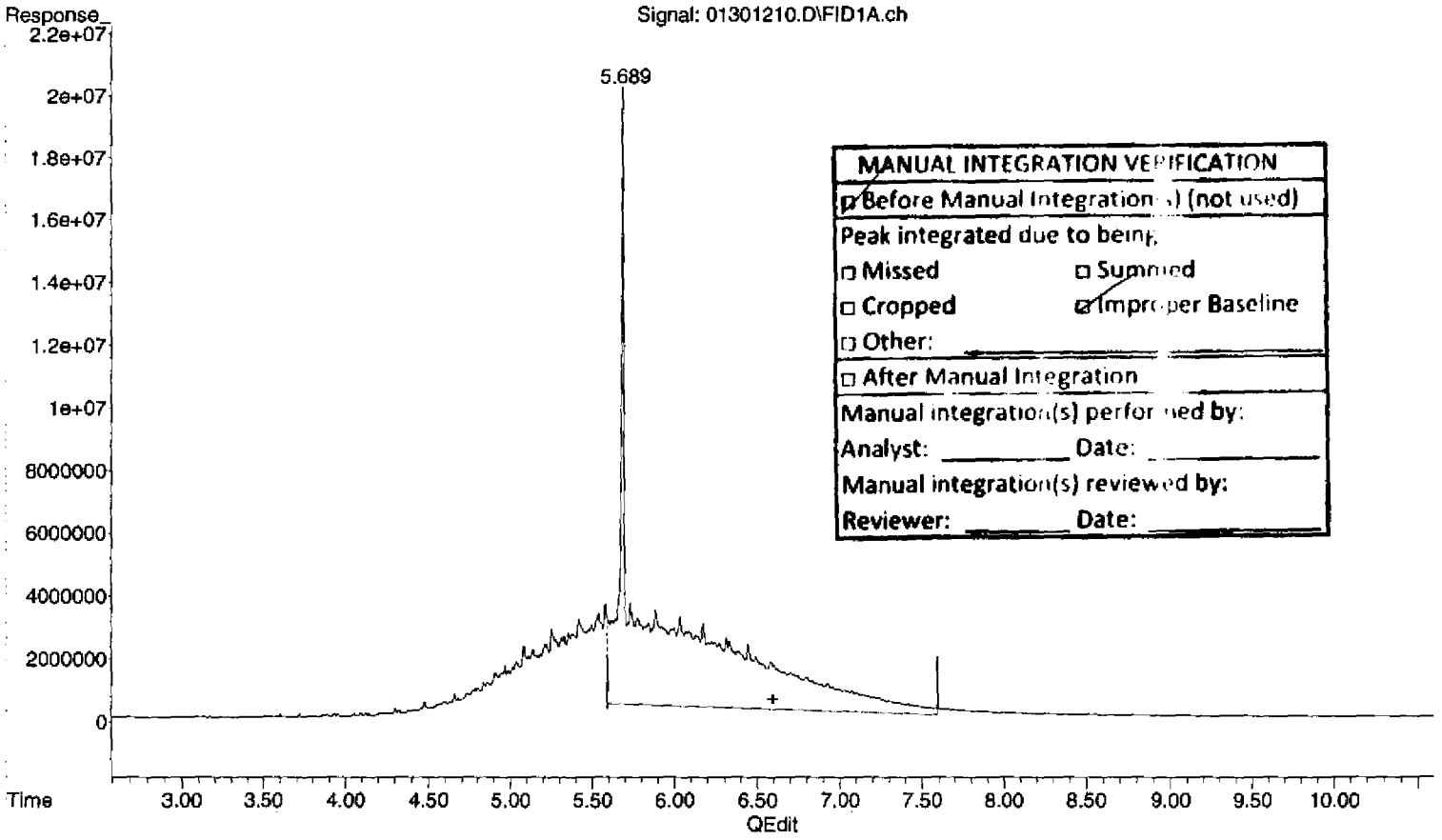
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:41:57 2012

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



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

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

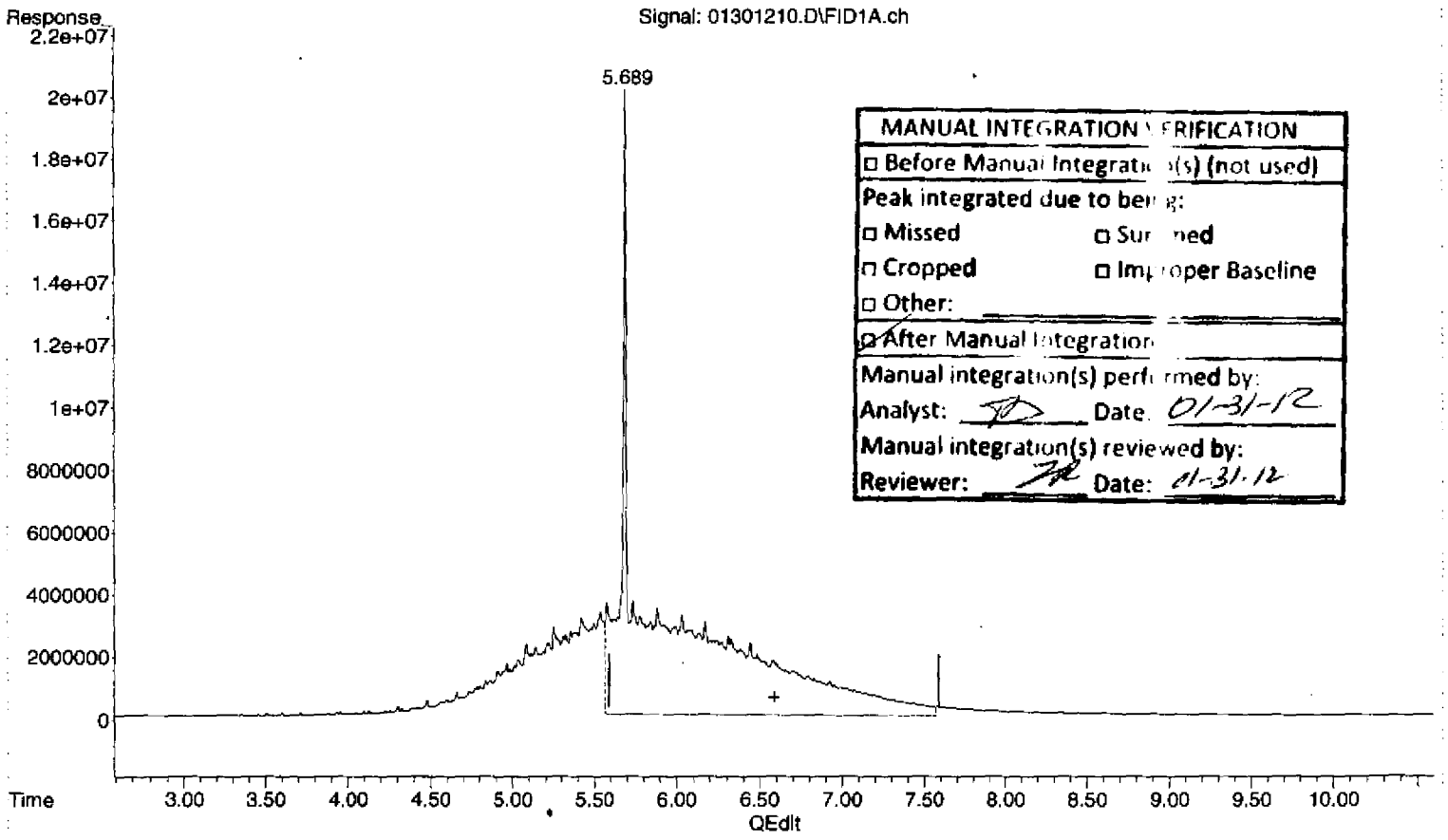
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:42:05 2012

Quantitation Report (Qedit)

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

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

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



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

(2) OIL (H)

6.590min 1212.758 ug/mL m

response 2008952902

(+) = Expected Retention Time

013012DROA.M Tue Jan 31 09:42:20 2012

Quantitation Report (Not Reviewed)

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

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

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

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

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

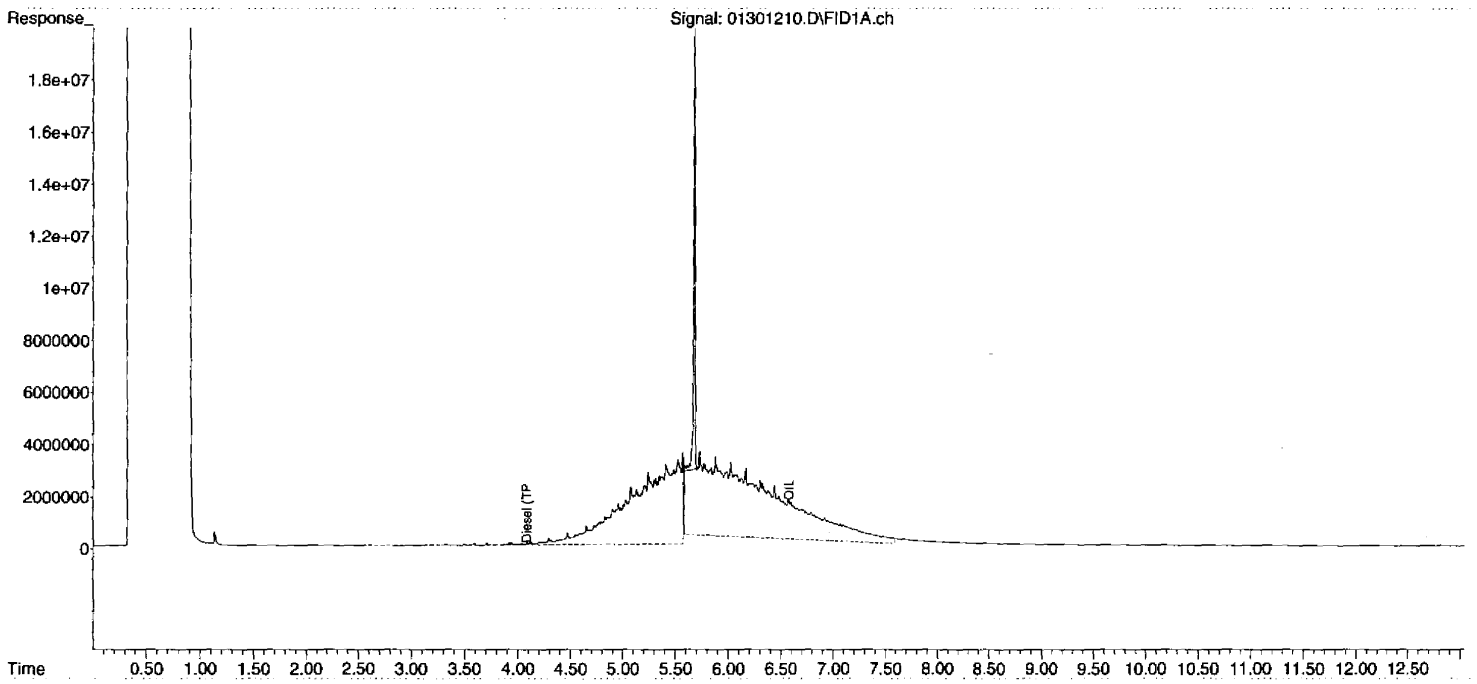
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: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

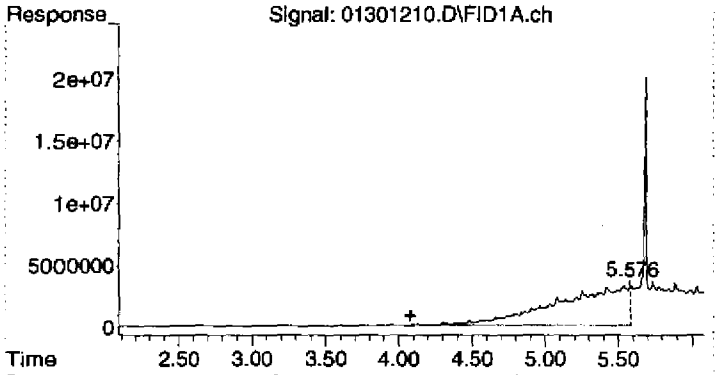
Quantitation Report (Not Reviewed)

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

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

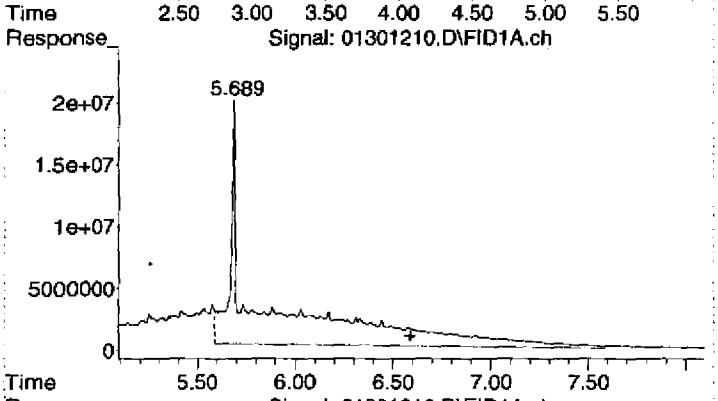
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





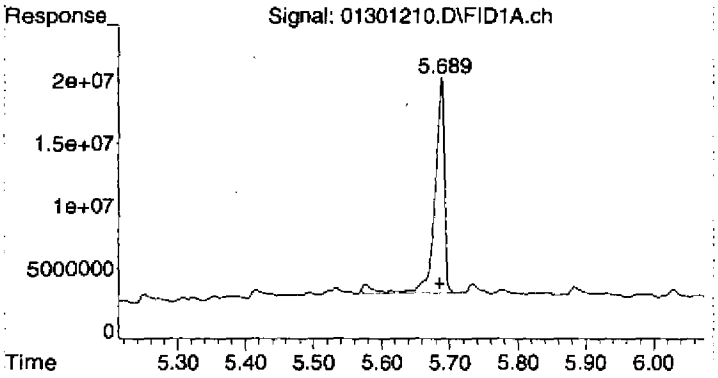
#1 Diesel (TPH)

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



#2 OIL

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



#3 Surrogate

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

Quantitation Report (QT Reviewed)

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

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

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

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

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

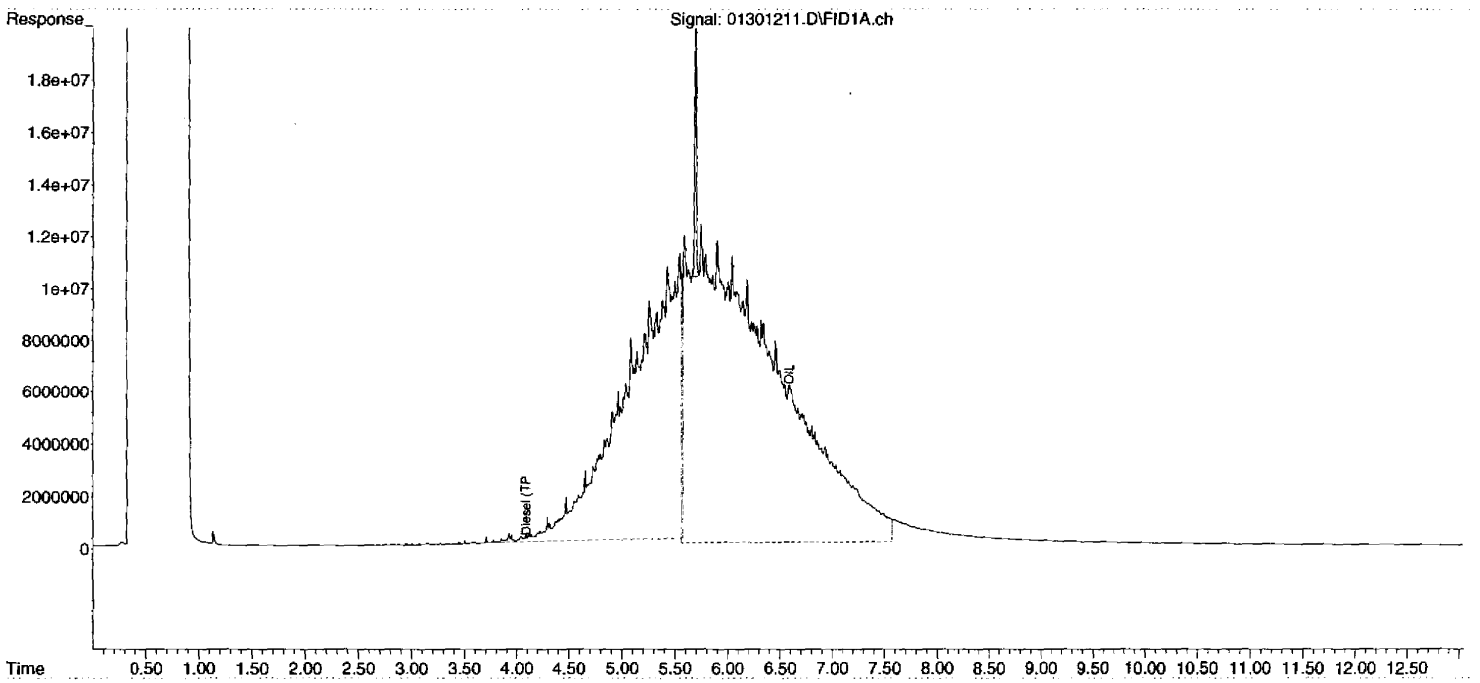
MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: TD	Date: 01-31-12
Manual integration(s) reviewed by:	
Reviewer: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

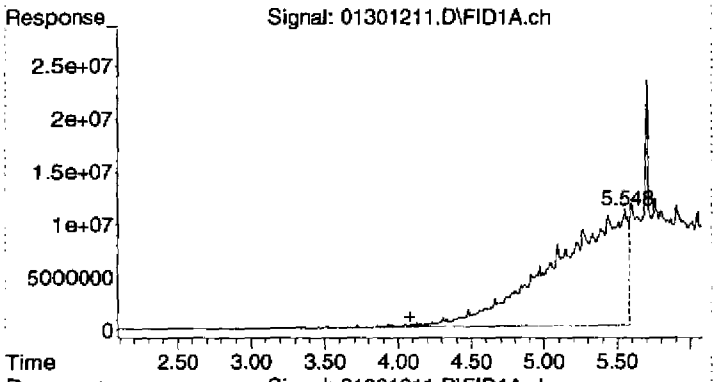
Quantitation Report (QT Reviewed)

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

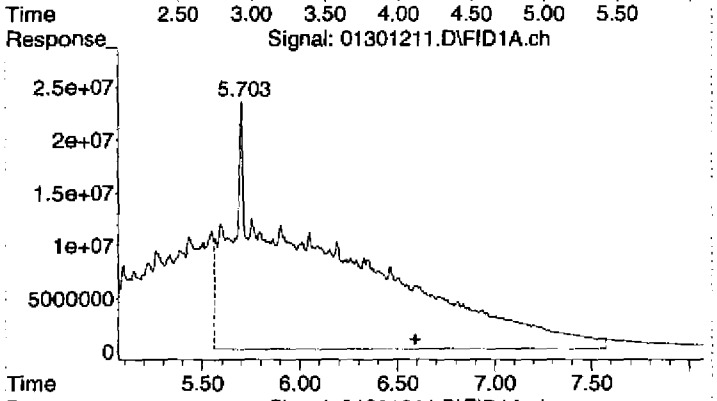
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





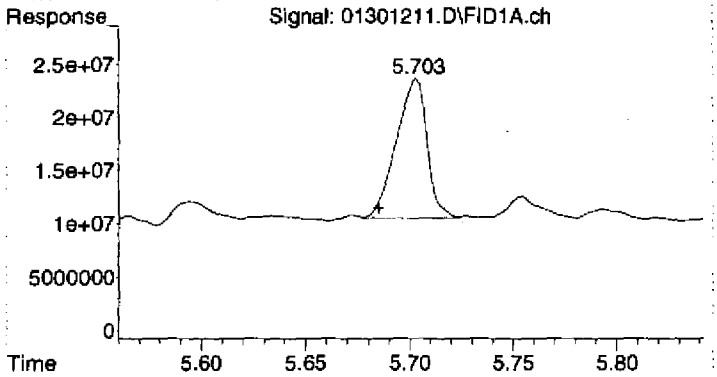
#1 Diesel (TPH)

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

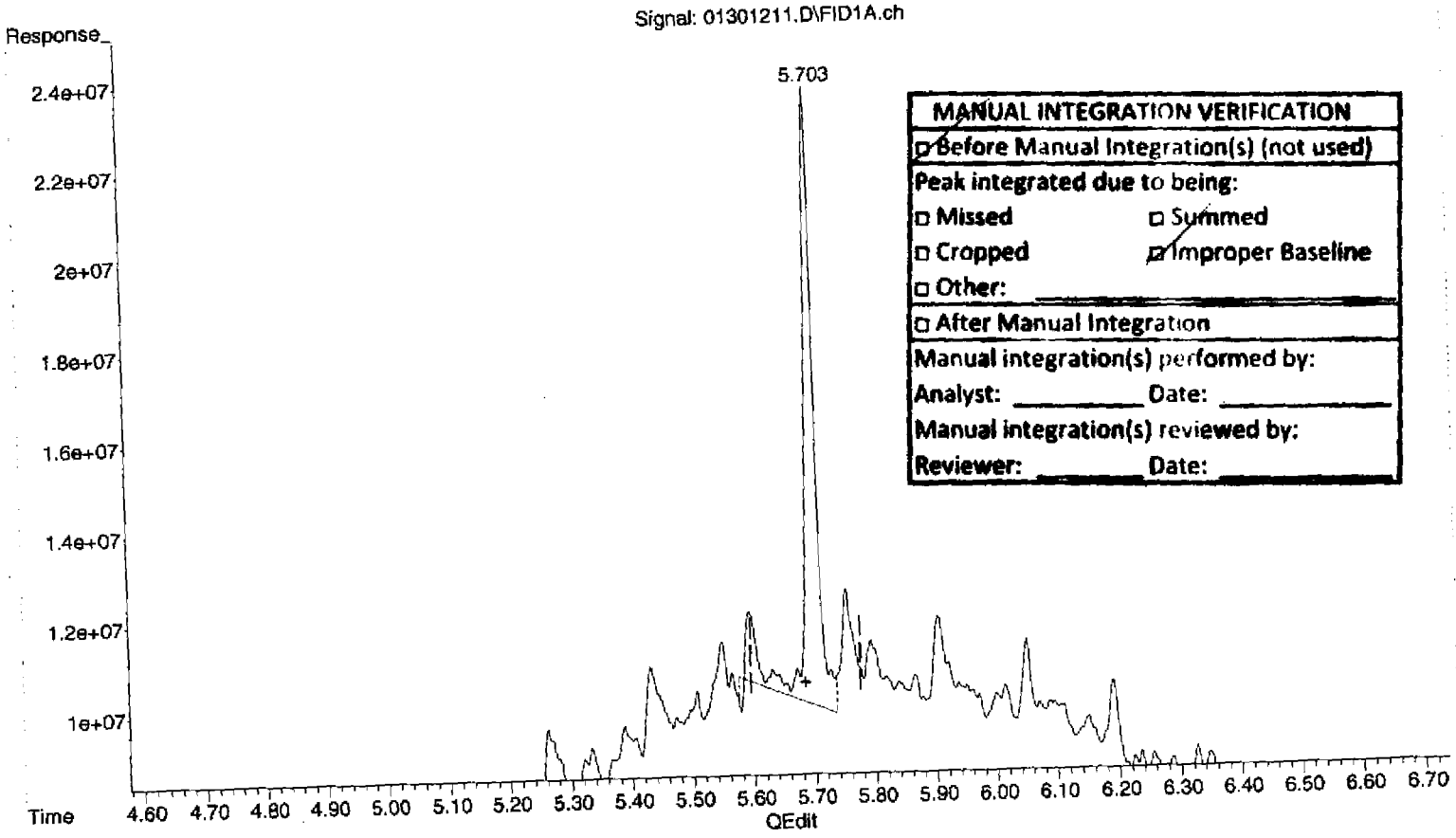
R.T.: 5.703 min
Delta R.T.: 0.018 min
Response: 135092693
Conc: 33.59 ug/mL m

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

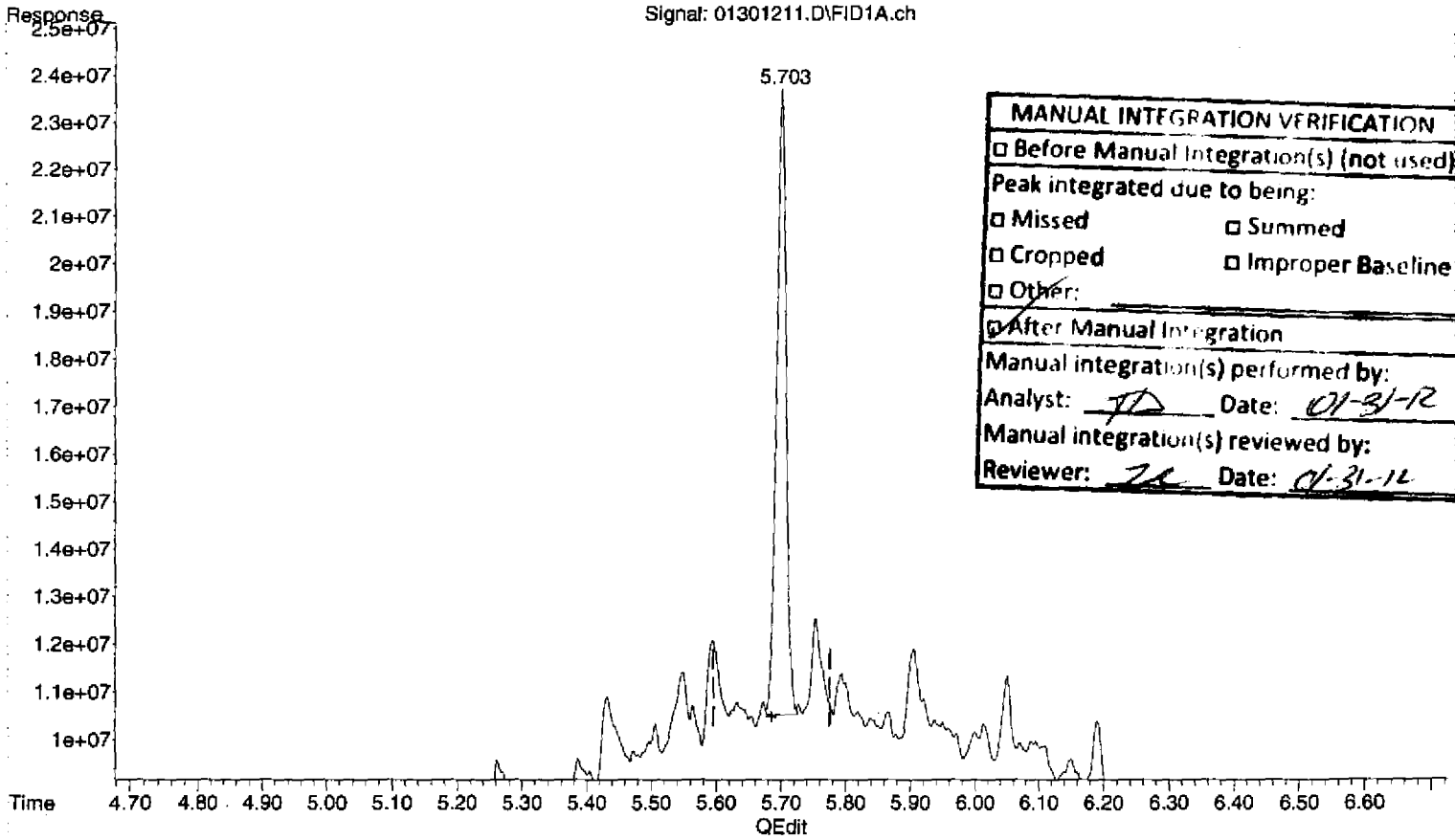
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:42:34 2012

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: [illegible] 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

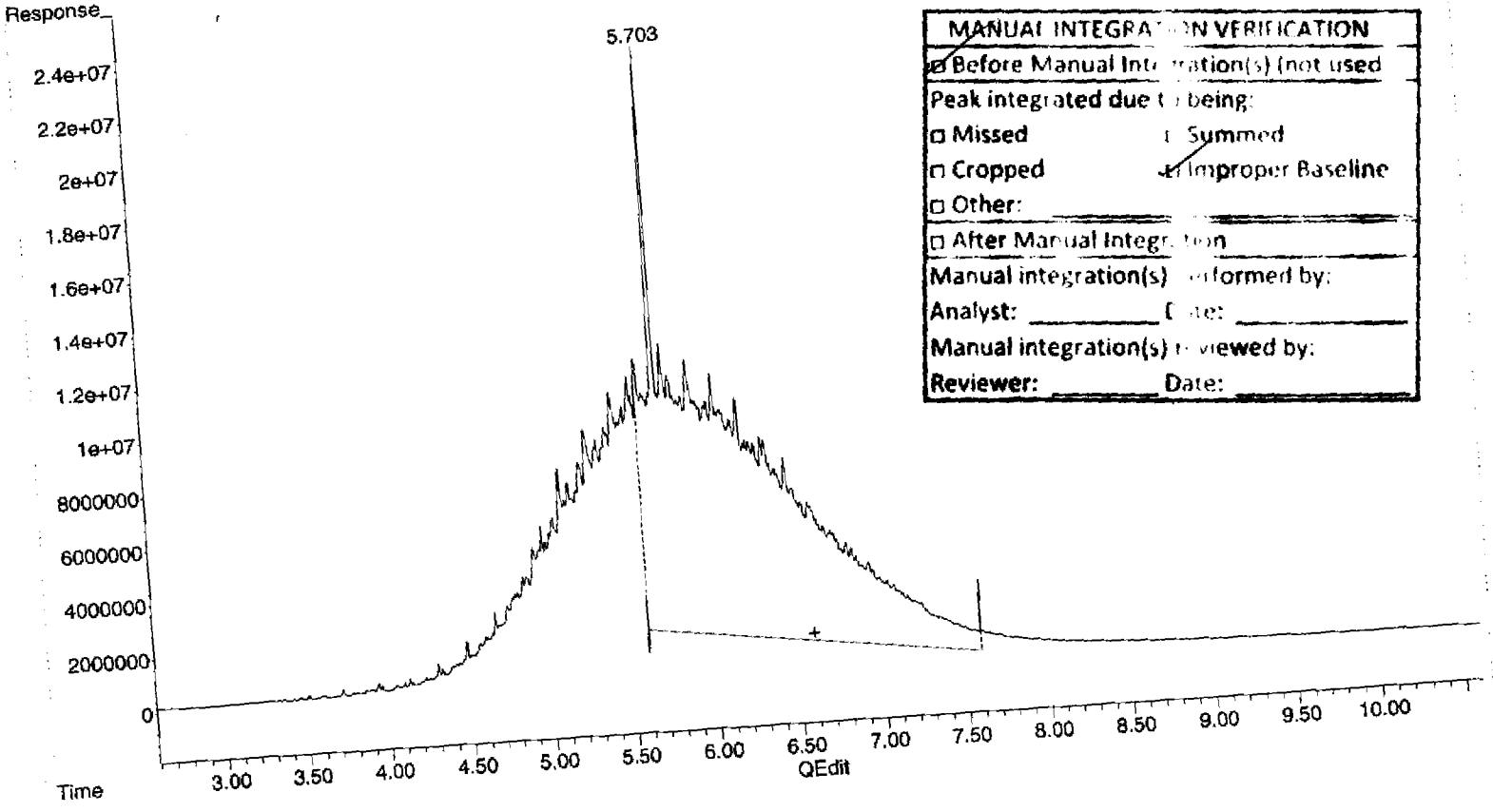
Quantitation Report (Qedit)

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

Signal: 01301211.D\FID1A.ch



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

(2) OIL (H)
6.590min 3598.484 ug/mL
response 5960946592

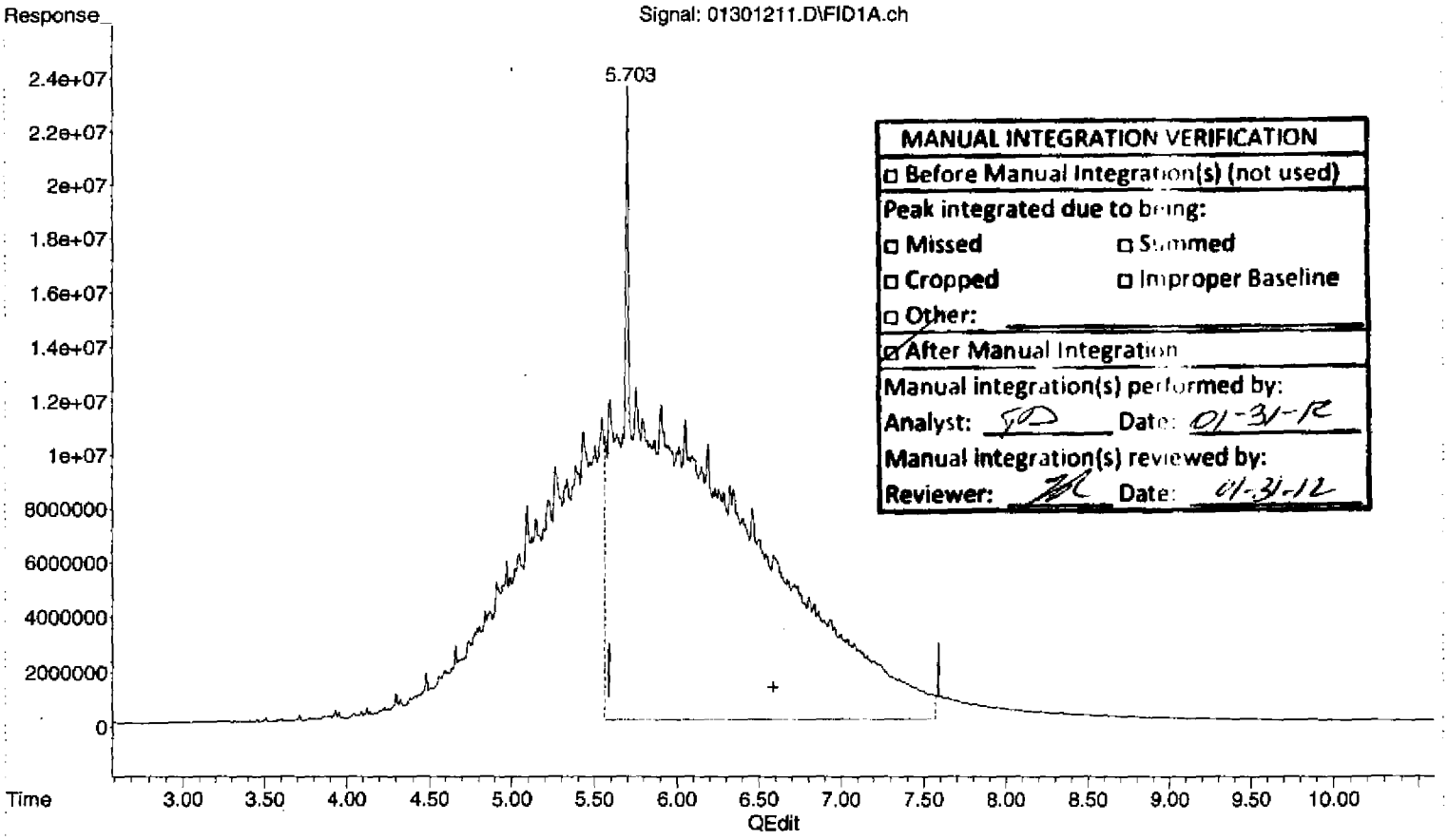
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:42:53 2012

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



(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.

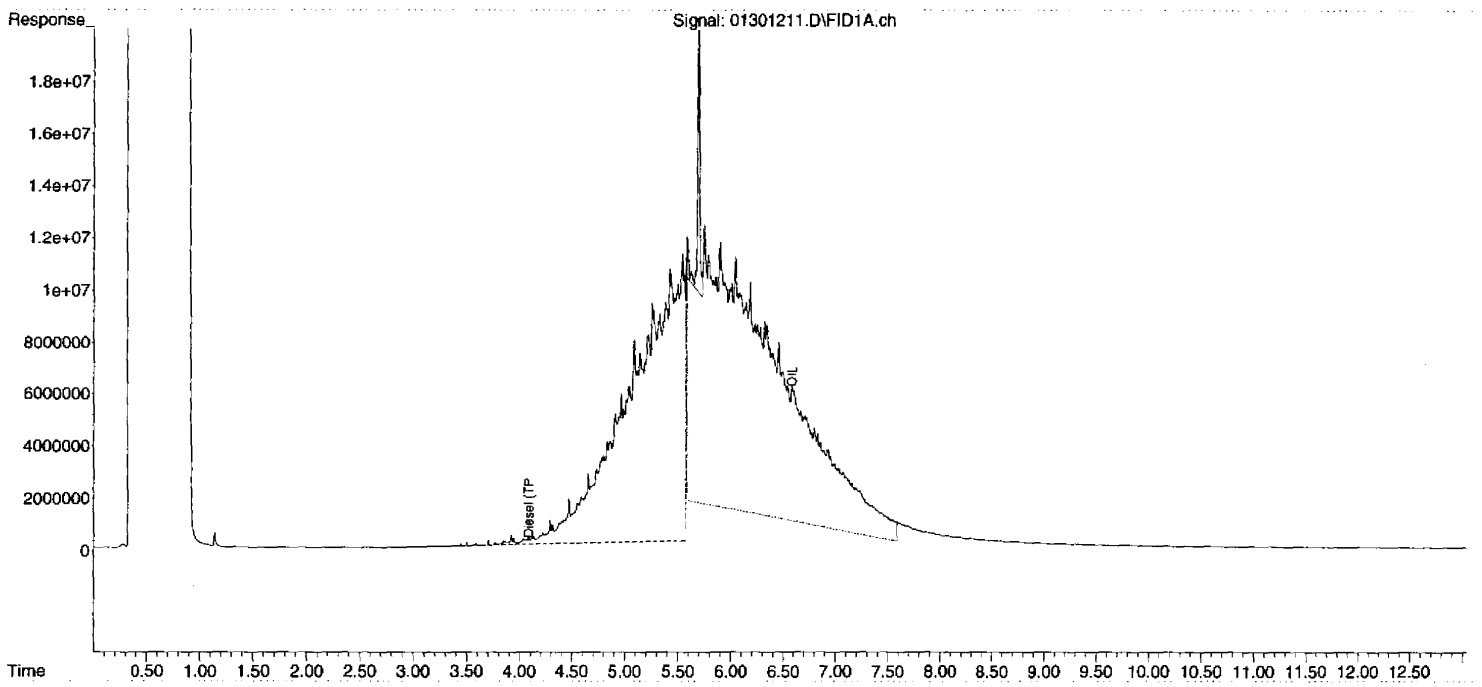
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: _____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

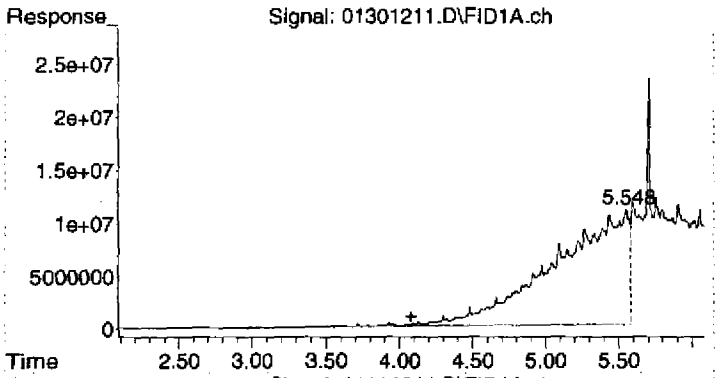
Quantitation Report (Not Reviewed)

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

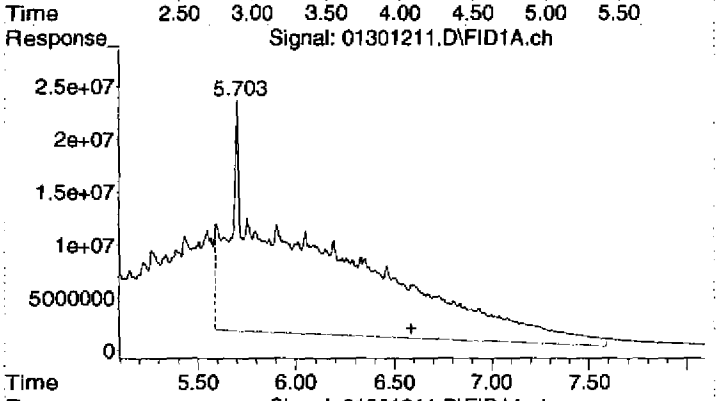
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





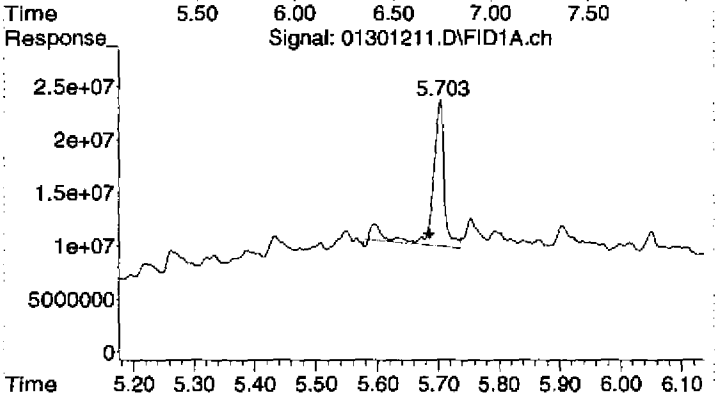
#1 Diesel (TPH)

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:

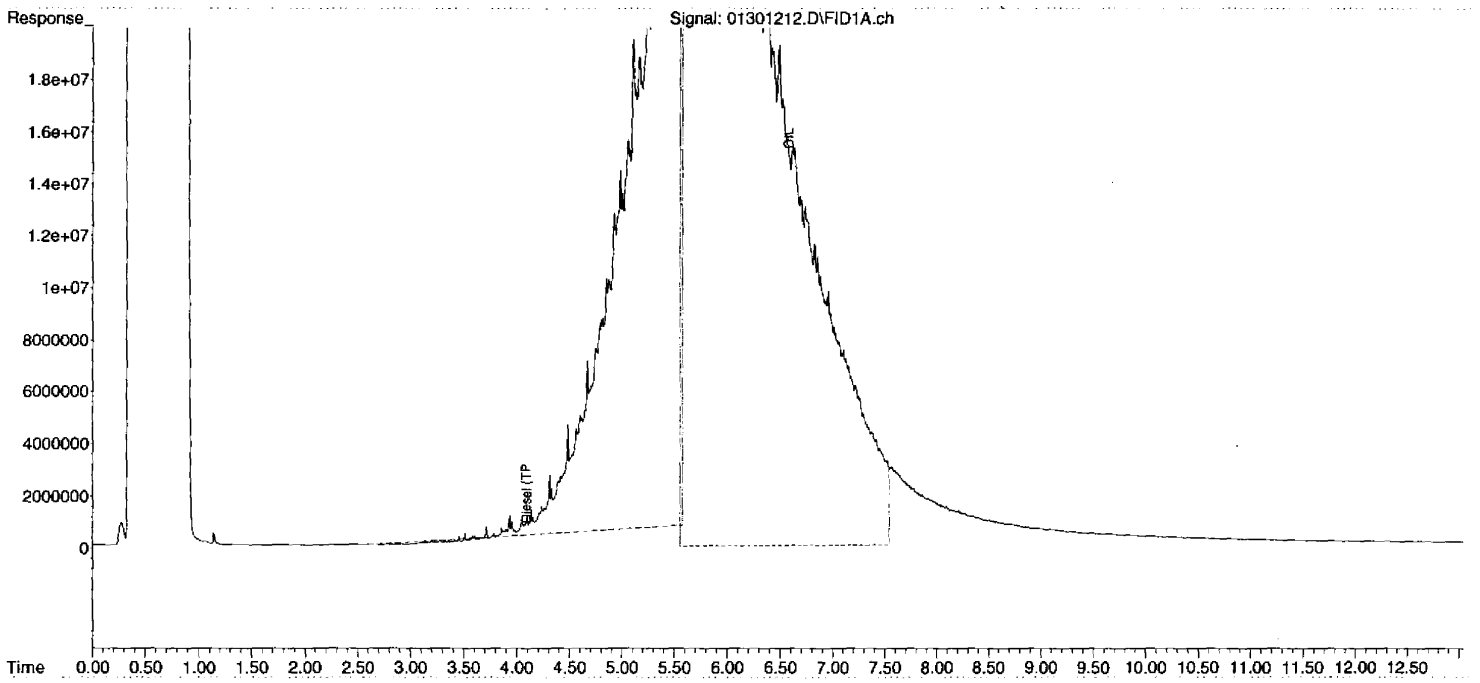
Reviewer: TL Date: 01-31-12

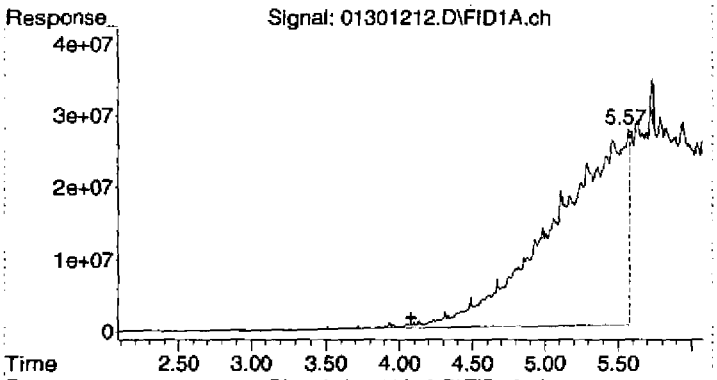
Quantitation Report (QT Reviewed)

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

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

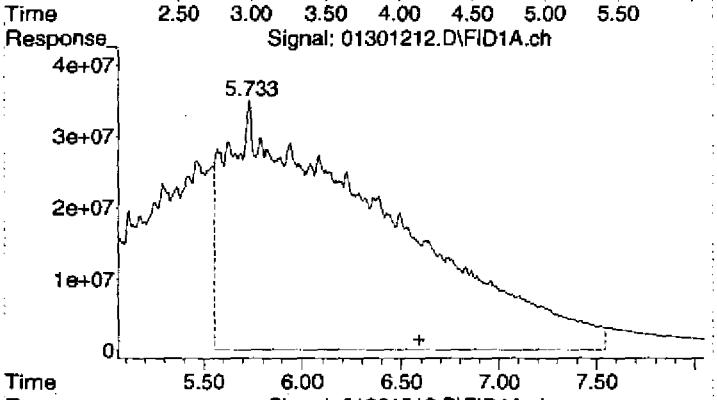
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





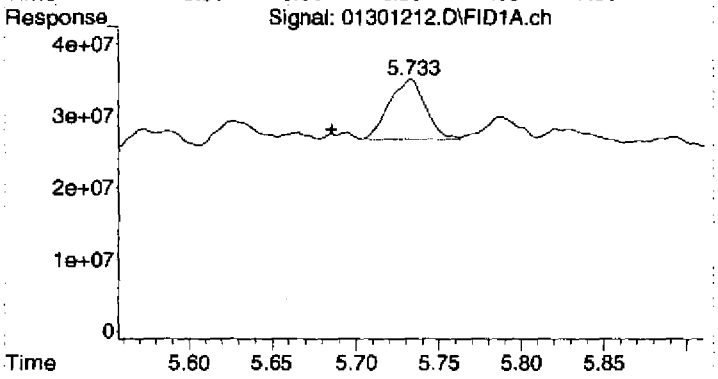
#1 Diesel (TPH)

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



#2 OIL

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



#3 Surrogate

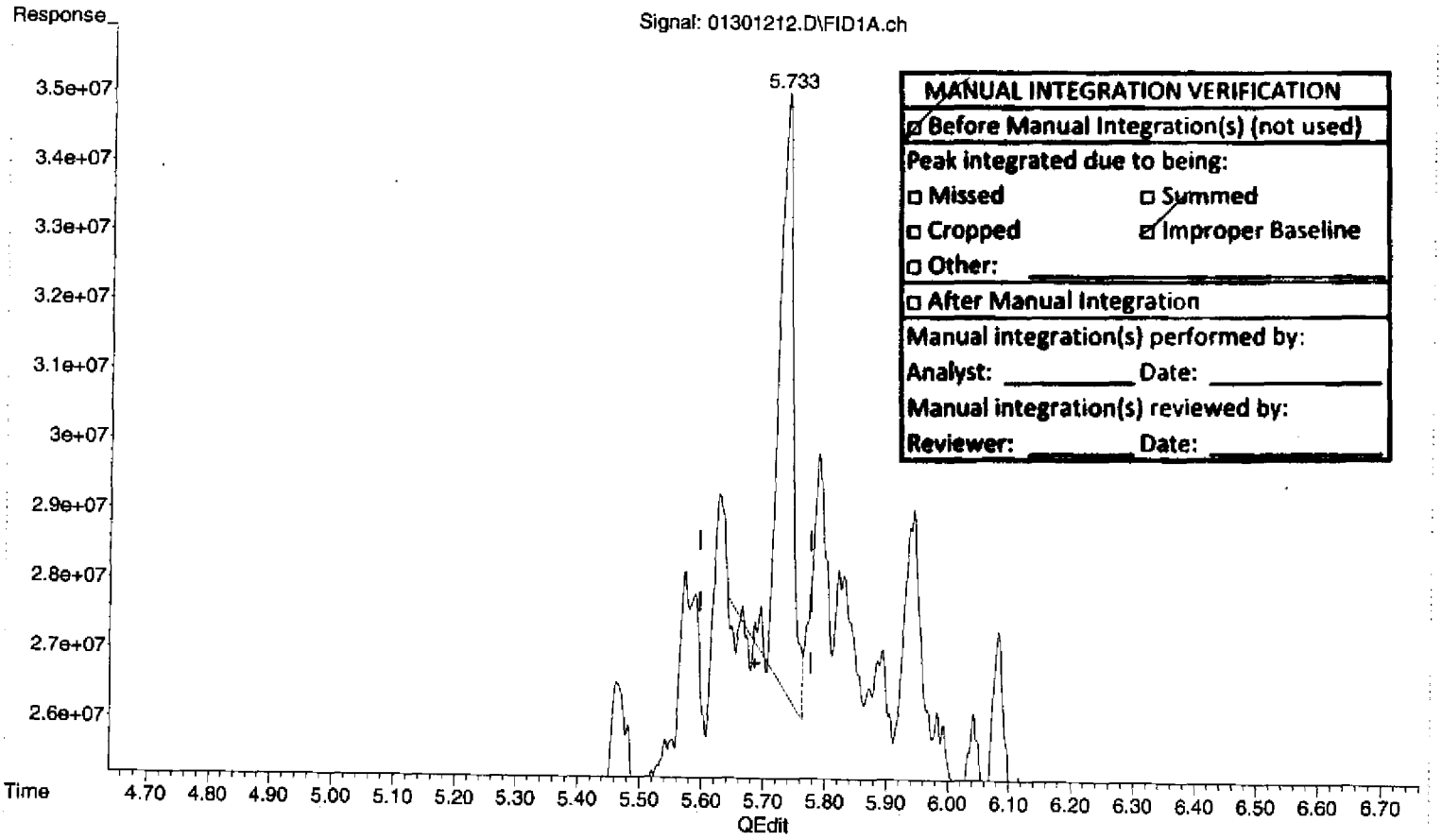
R.T.: 5.733 min
Delta R.T.: 0.048 min
Response: 126718804
Conc: 31.51 ug/mL m

Quantitation Report (Qedit)

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

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

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



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

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

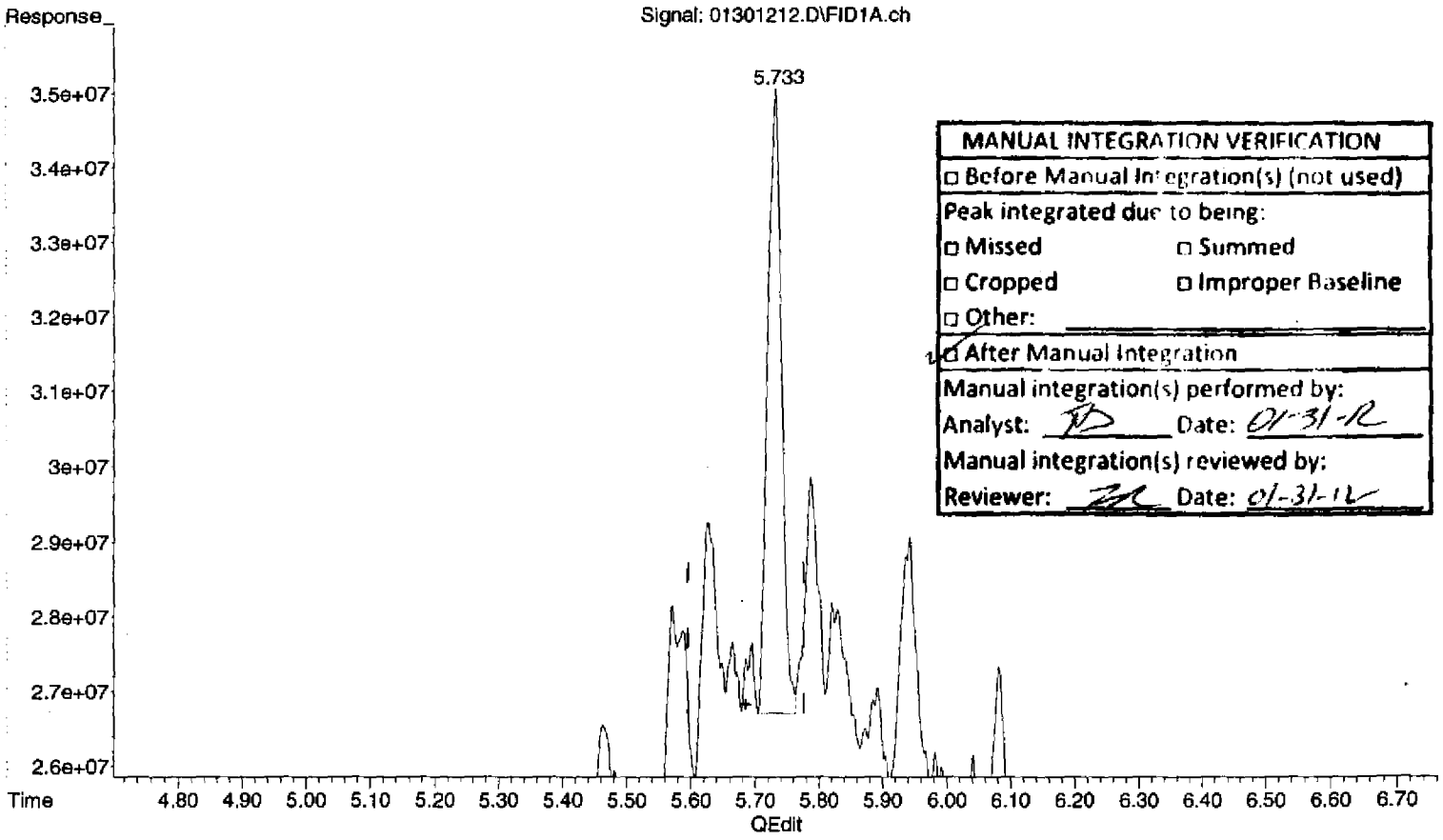
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:43:19 2012

Quantitation Report (Qedit)

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

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

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



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

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

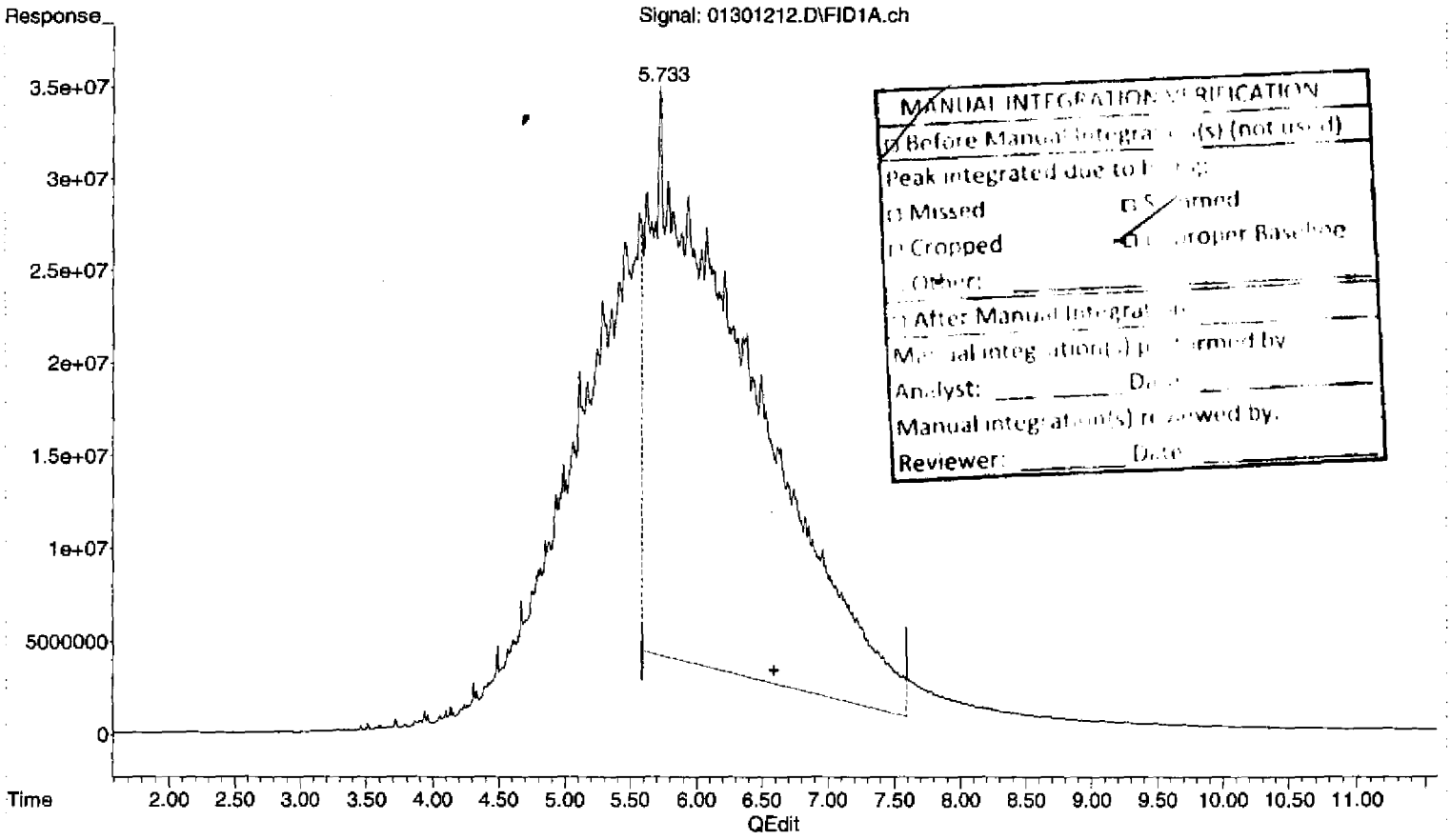
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:43:31 2012

Quantitation Report (Qedit)

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

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

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



(2) OIL (H)

6.590min 9510.942 ug/mL

response 15755026275

(+) = Expected Retention Time

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

00097

DIM0035511

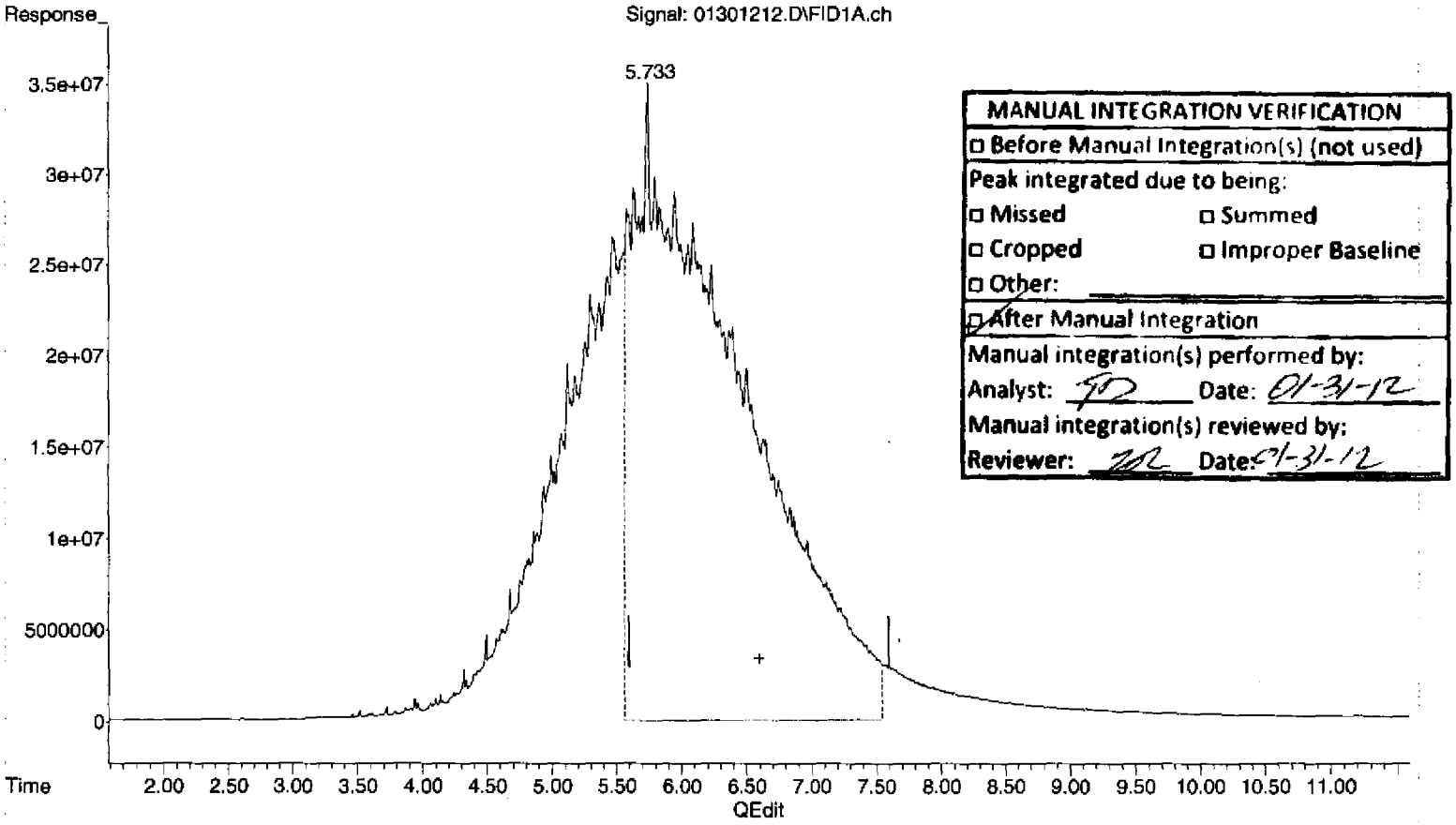
DIM0035399

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.

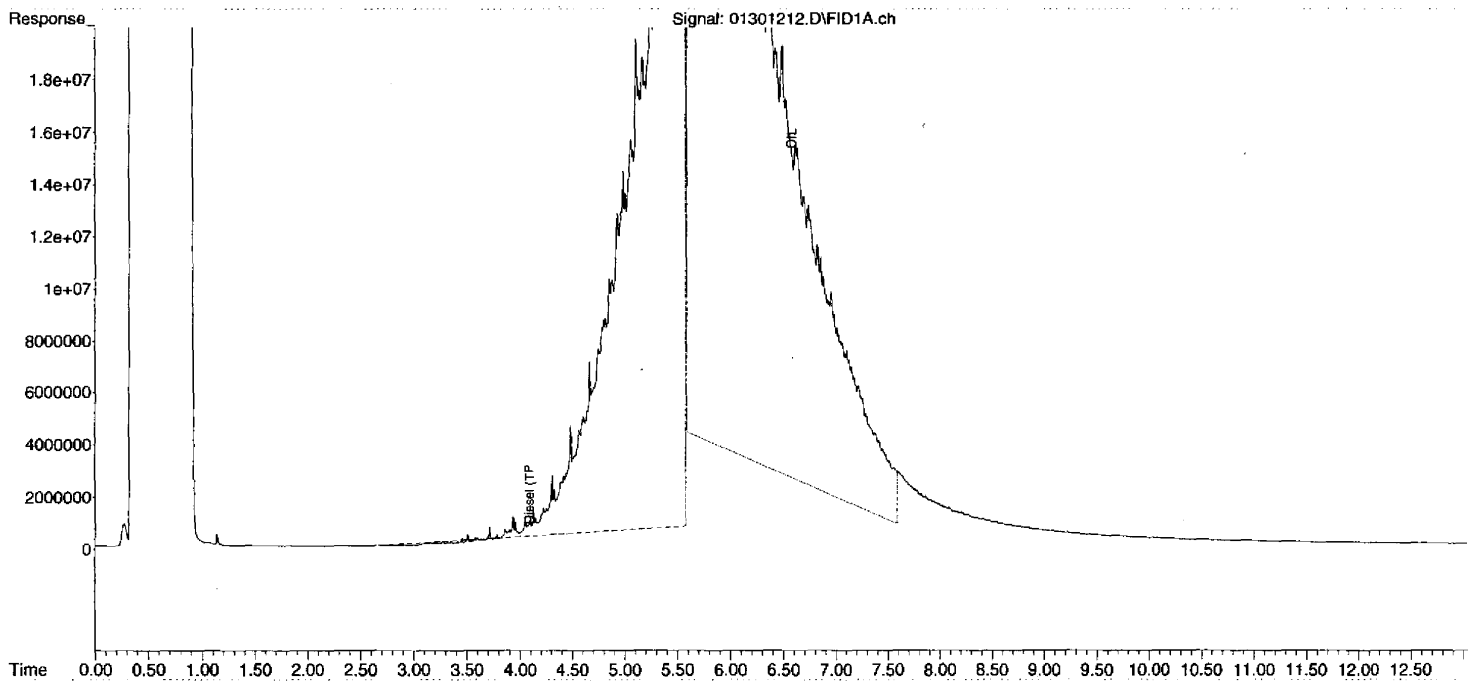
MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: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

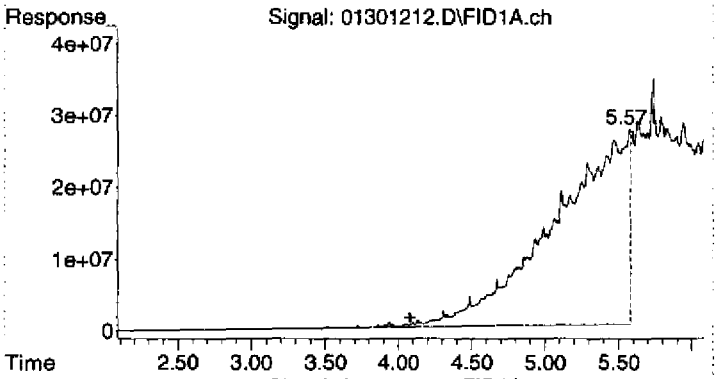
Quantitation Report (Not Reviewed)

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

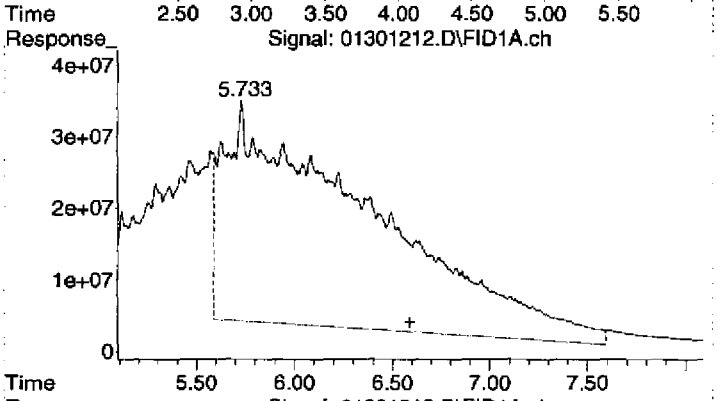
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





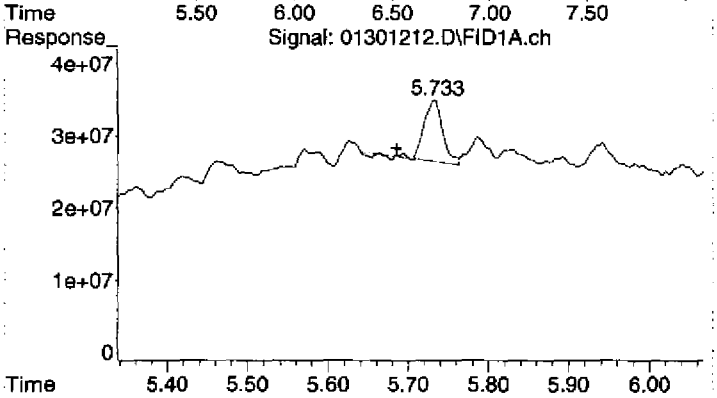
#1 Diesel (TPH)

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

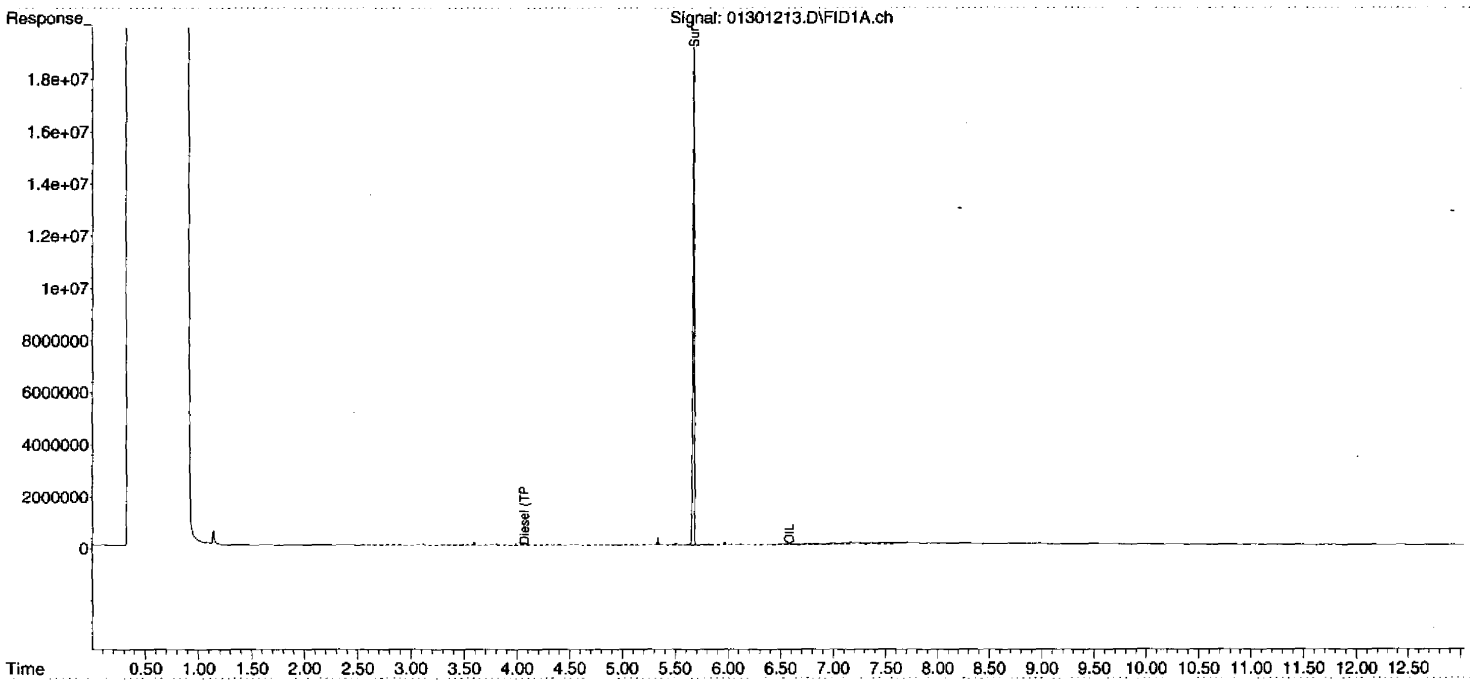
(f)=RT Delta > 1/2 Window (m)=manual int.

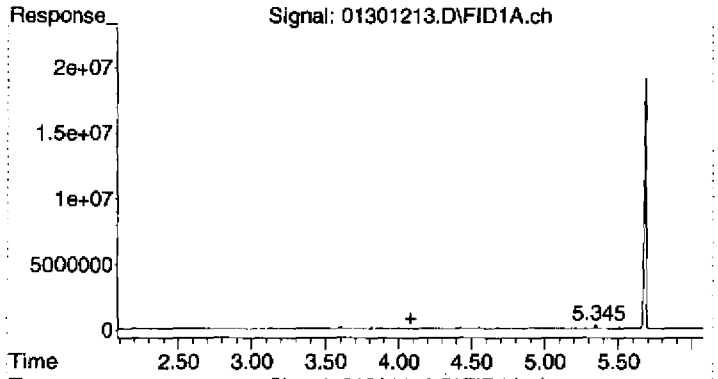
Quantitation Report (Not Reviewed)

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

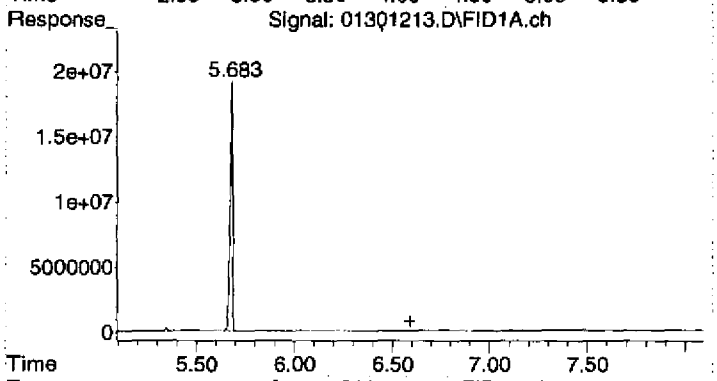
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





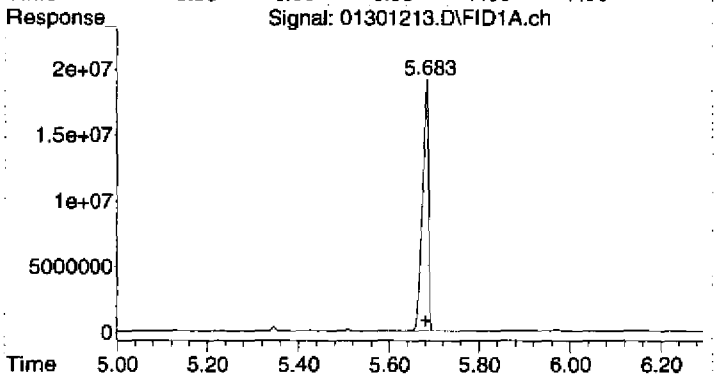
#1 Diesel (TPH)

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

DIESEL SCV REPORT

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

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

Quantitation Report (Not Reviewed)

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

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

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

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

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

$\frac{1804770347}{3.588E6} = 503.002$

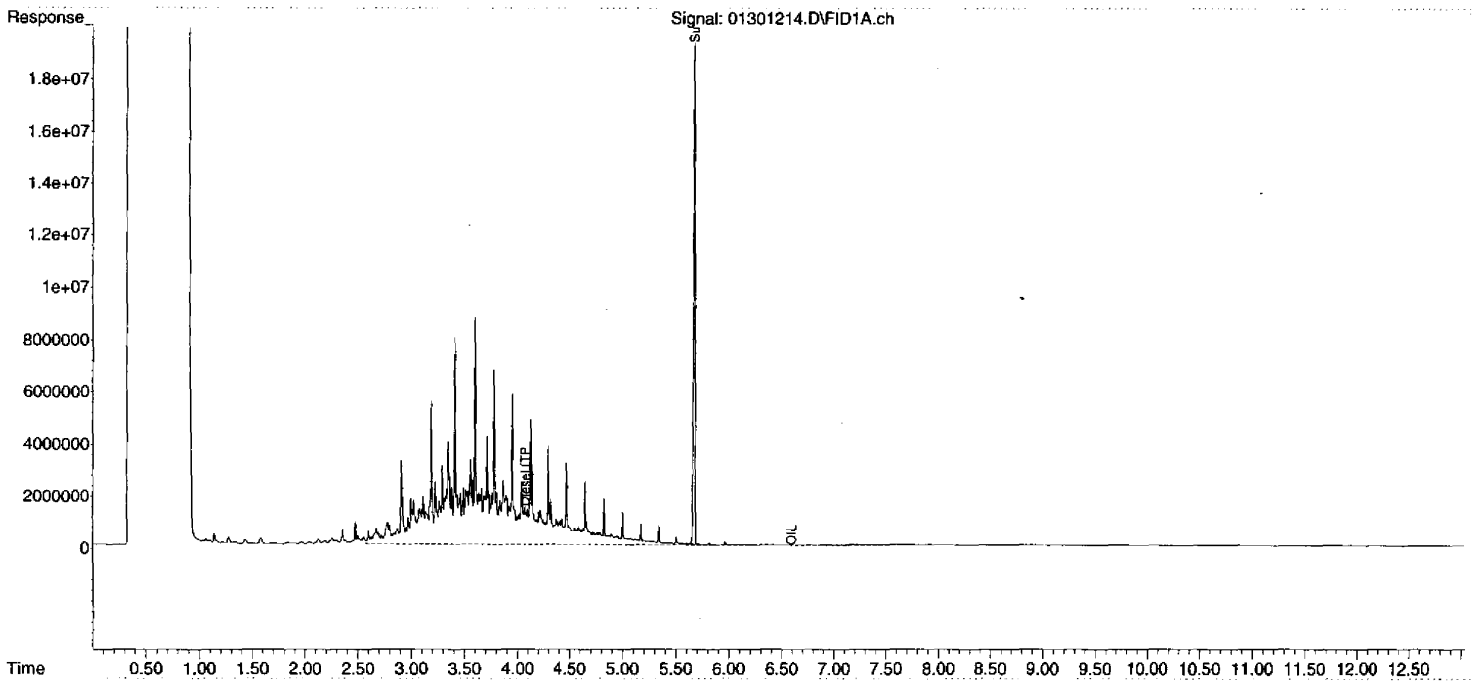
TD 01-31-12

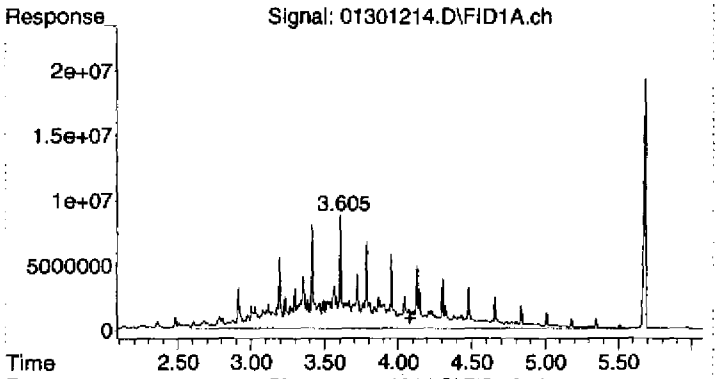
Quantitation Report (Not Reviewed)

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

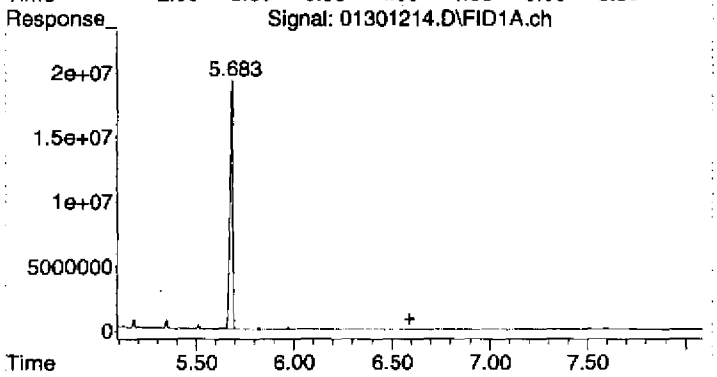
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





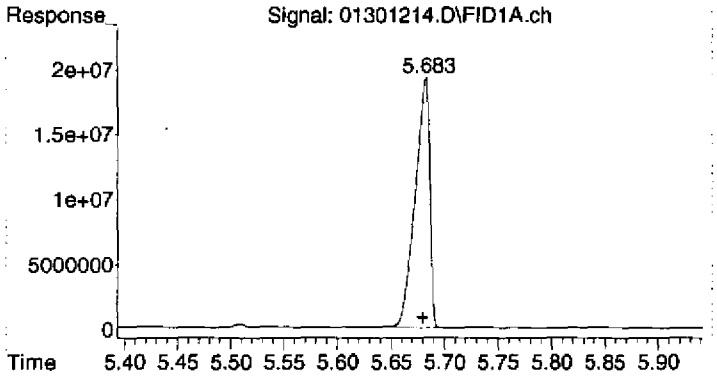
#1 Diesel (TPH)

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

OIL SCV REPORT

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

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

Quantitation Report (QT Reviewed)

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

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

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

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

(f)=RT Delta > 1/2 Window

(m)=manual int.

TD 01-31-12

2218869255 / 1.915E6 = 1158.6[illegible]

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

013012DROA.M Tue Jan 31 09:58:08 2012

DIM0035399

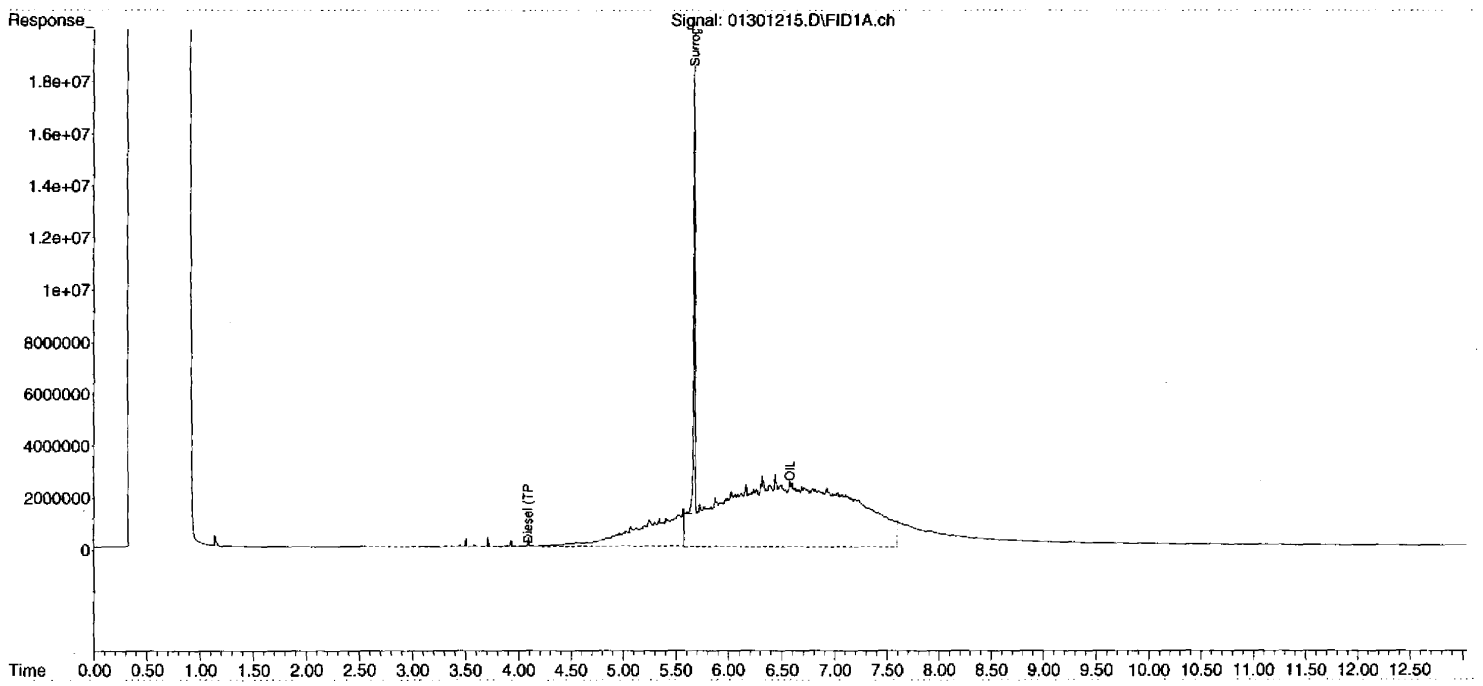
DIM0035524

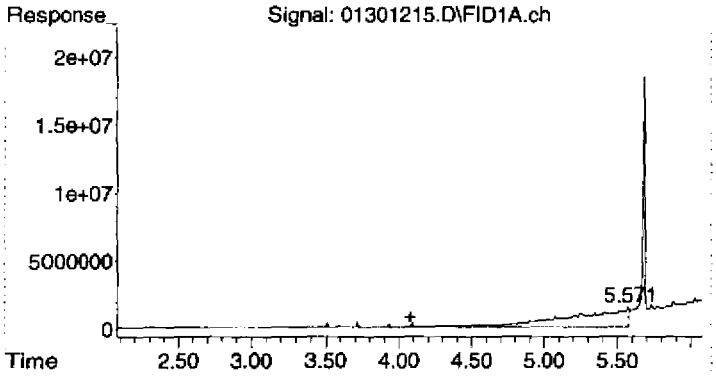
Quantitation Report (QT Reviewed)

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

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

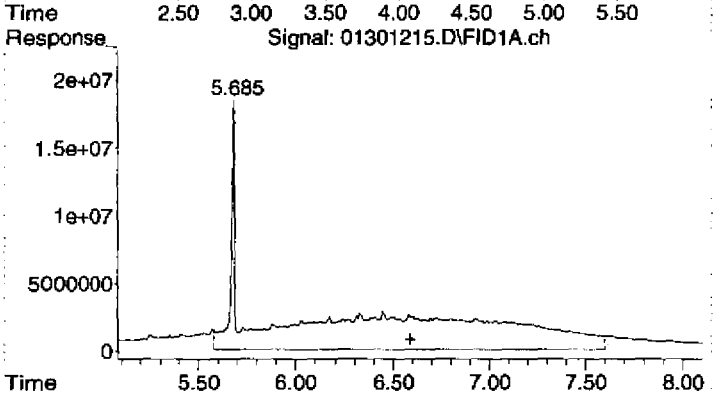
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





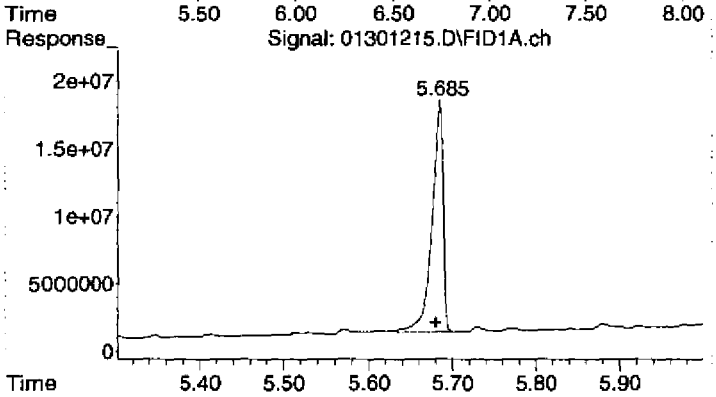
#1 Diesel (TPH)

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



#2 OIL

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



#3 Surrogate

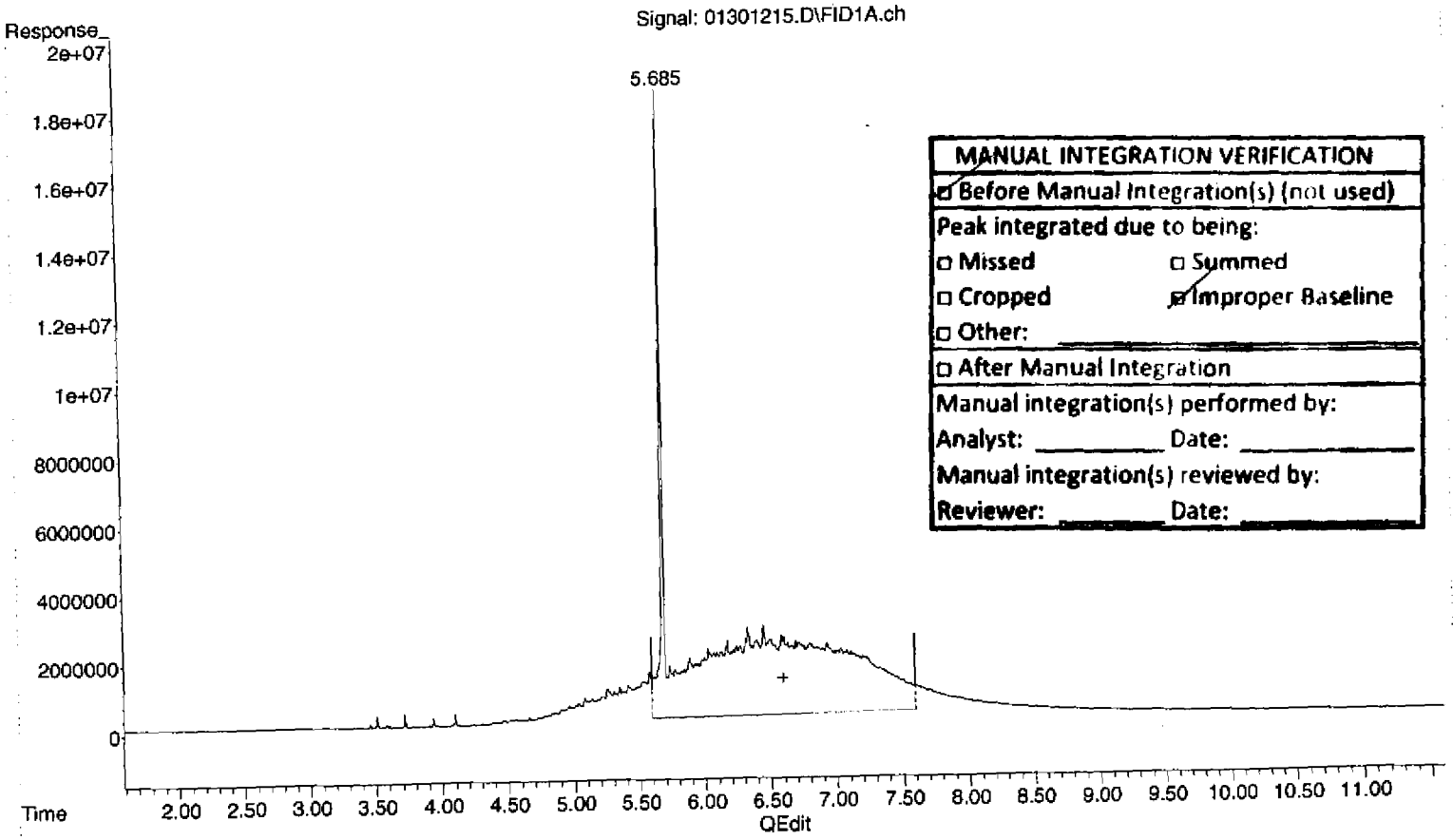
R.T.: 5.683 min
Delta R.T.: 0.004 min
Response: 155490720
Conc: 43.77 ug/mL

Quantitation Report (Qedit)

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

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

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



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

(2) OIL (H)

6.590min 1021.637 ug/mL

response 1956308099

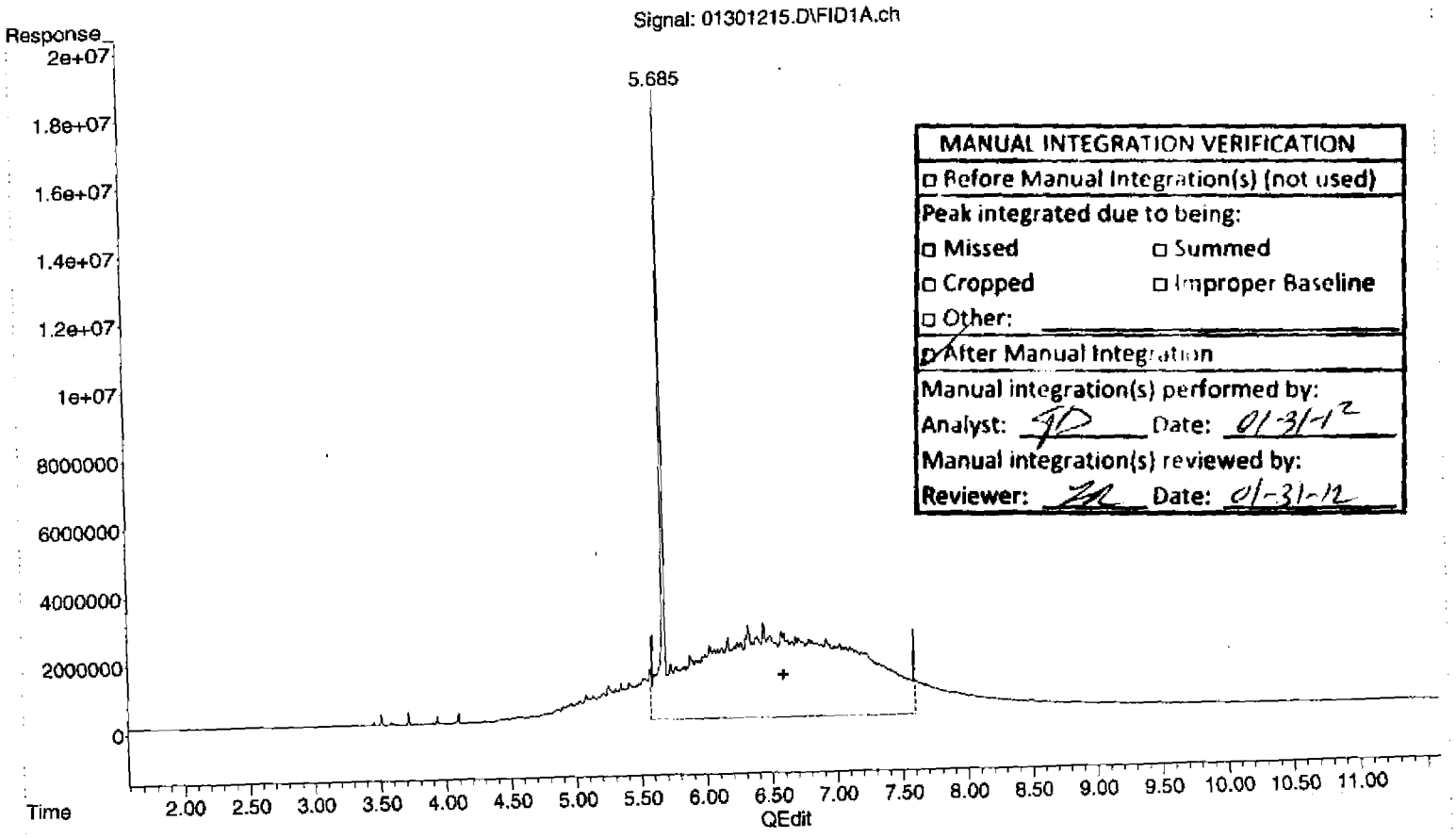
(+) = Expected Retention Time
013012DROA.M Tue Jan 31 09:57:37 2012

Quantitation Report (Qedit)

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

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

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



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

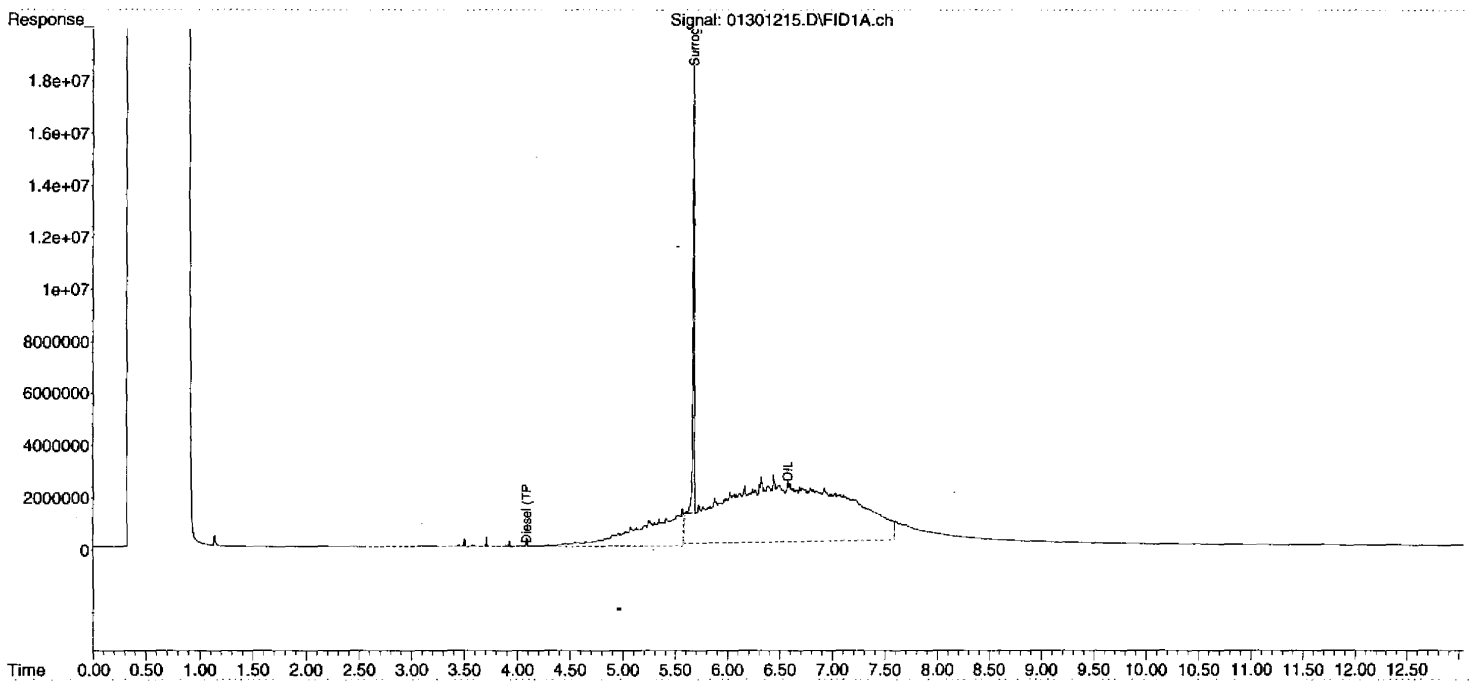
MANUAL INTEGRATION VERIFICATION	
☑ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other: _____	
☐ After Manual Integration	
Manual integration(s) performed by:	
Analyst: _____	Date: _____
Manual integration(s) reviewed by:	
Reviewer: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

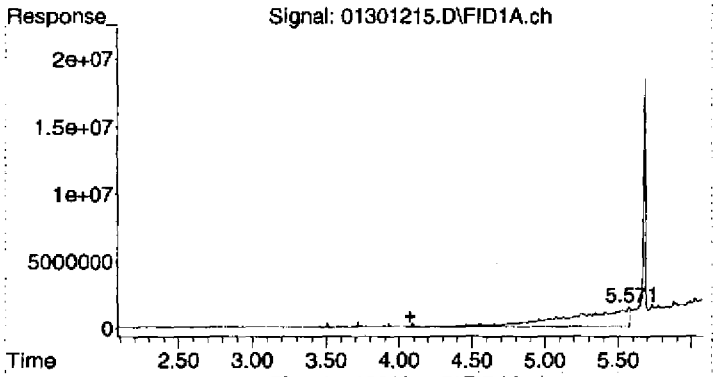
Quantitation Report (Not Reviewed)

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

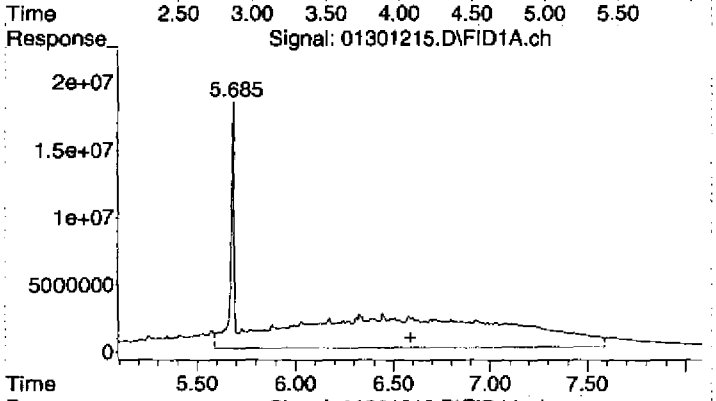
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





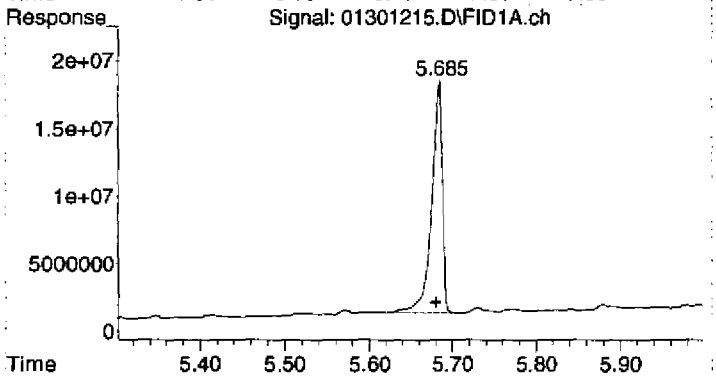
#1 Diesel (TPH)

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

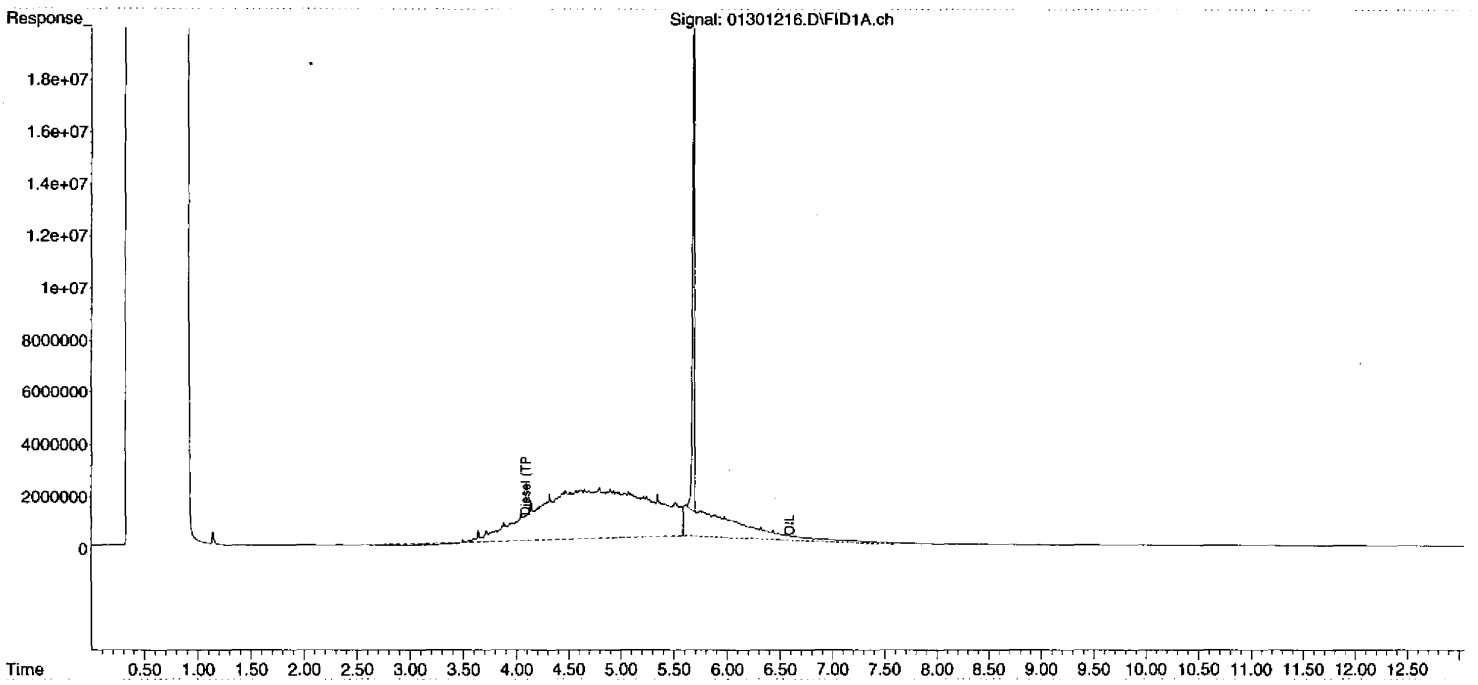
(f)=RT Delta > 1/2 Window (m)=manual int.

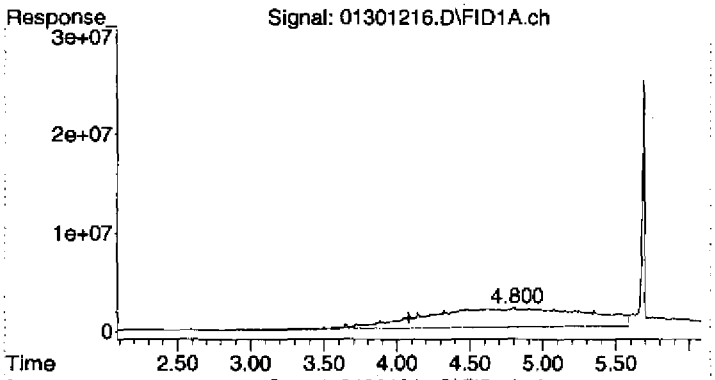
Quantitation Report (Not Reviewed)

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

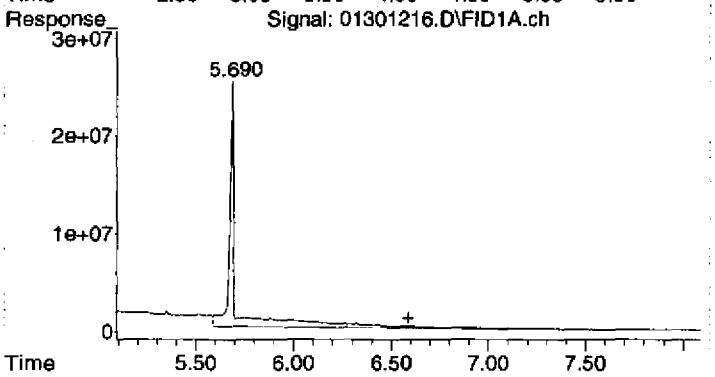
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





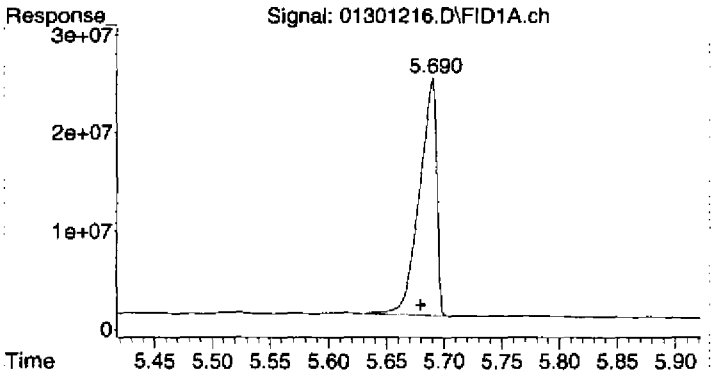
#1 Diesel (TPH)

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)

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

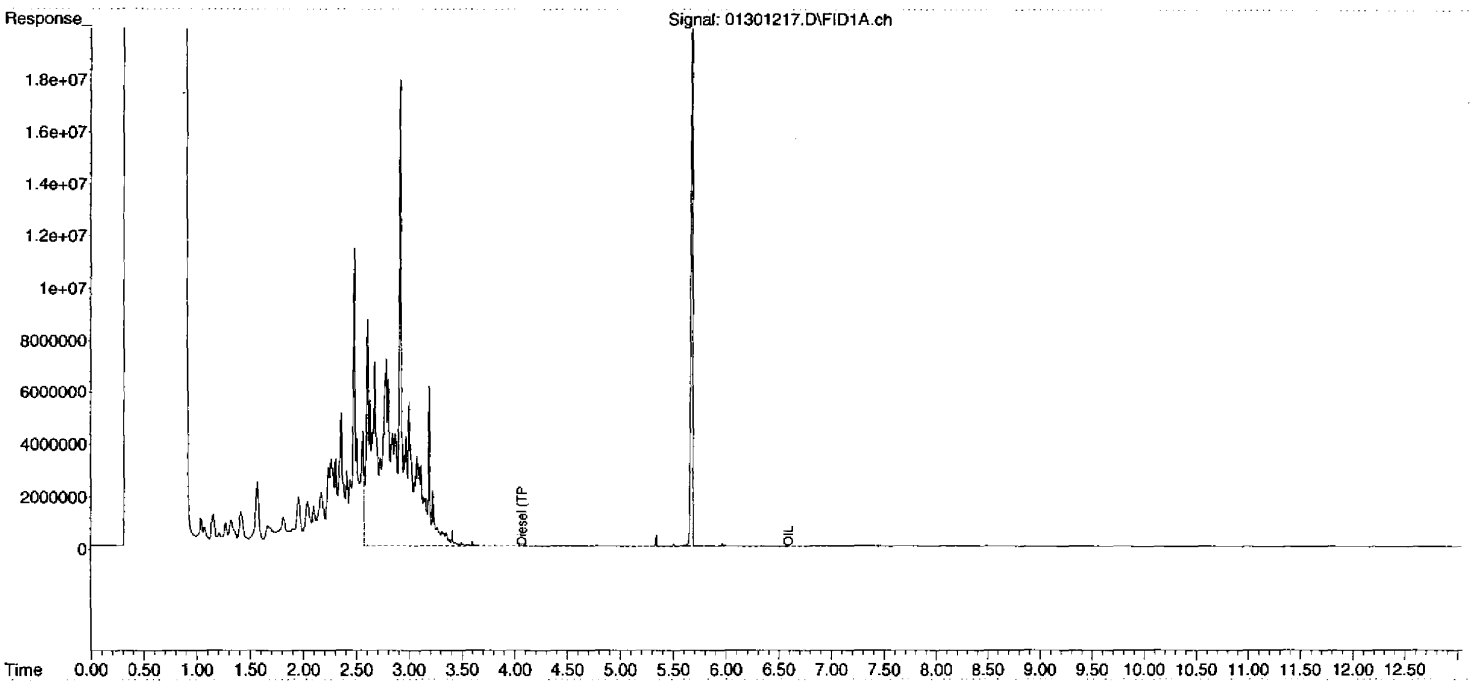
(f)=RT Delta > 1/2 Window (m)=manual int.

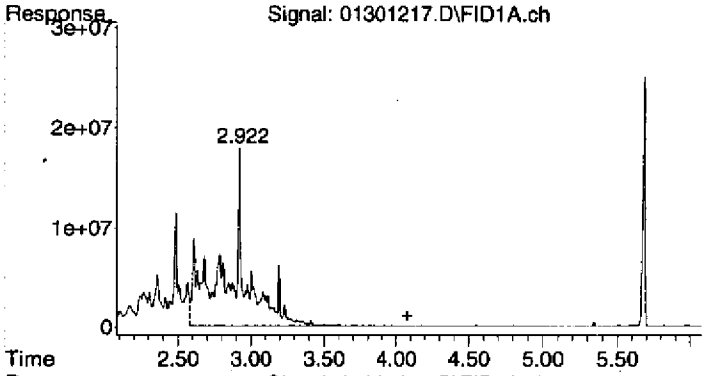
Quantitation Report (Not Reviewed)

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

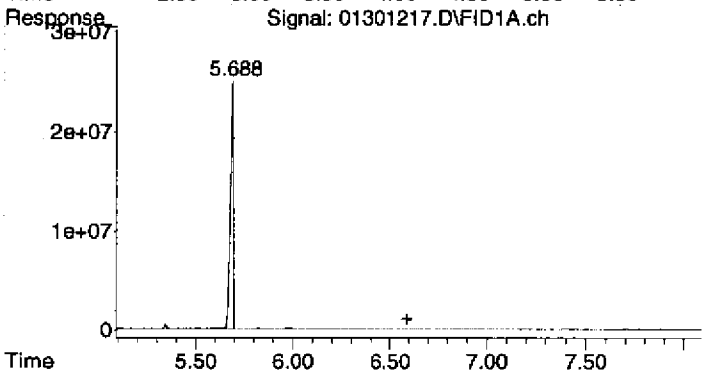
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





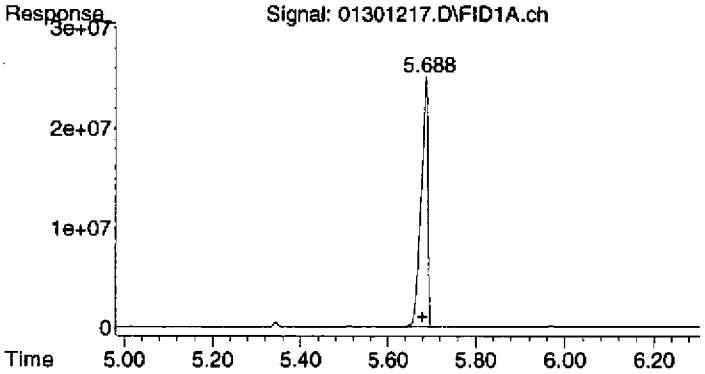
#1 Diesel (TPH)

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

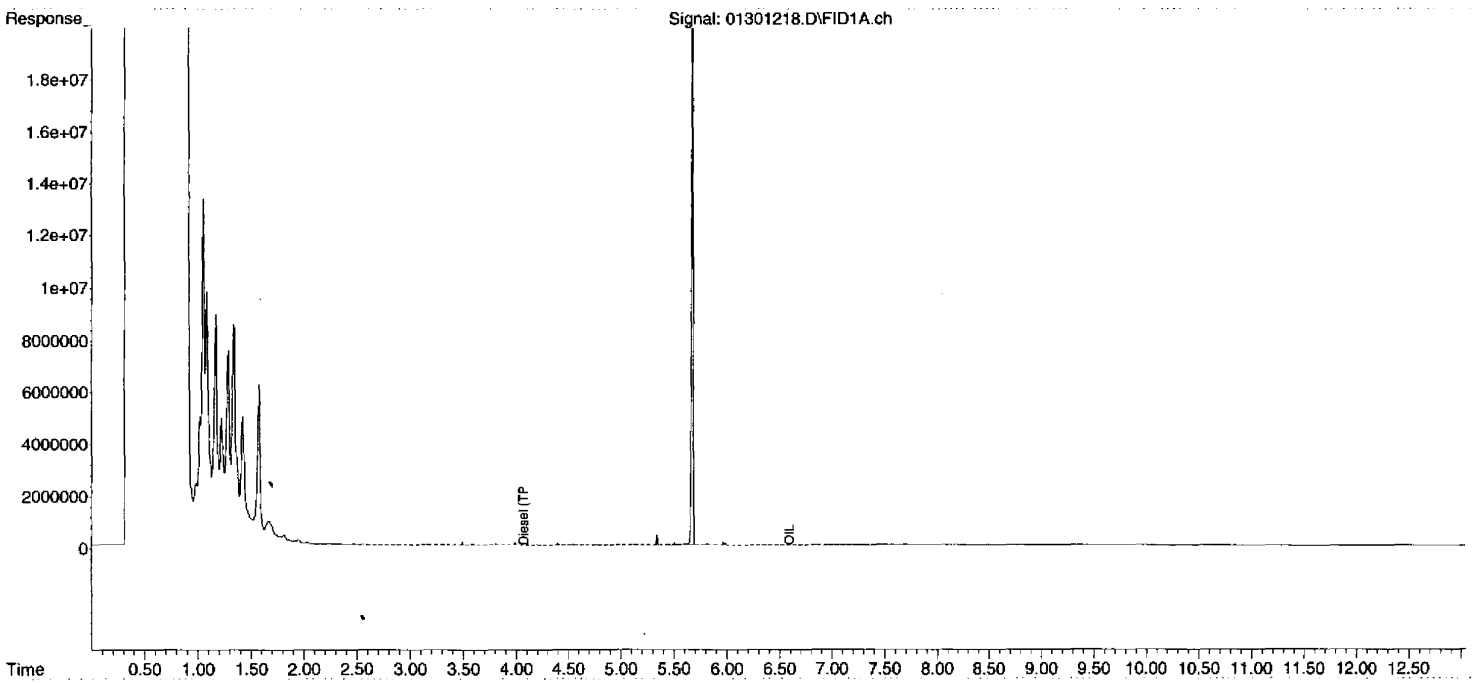
(f)=RT Delta > 1/2 Window (m)=manual int.

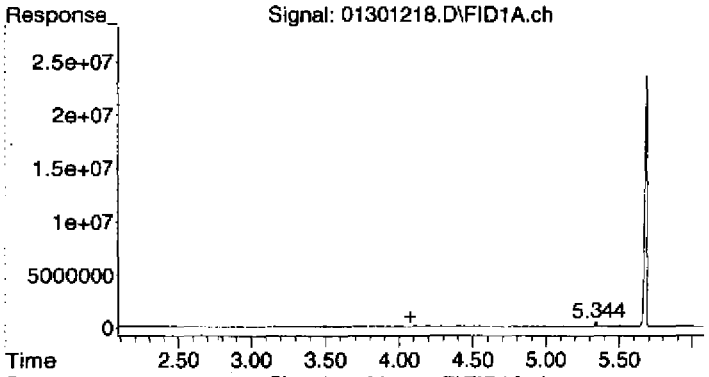
Quantitation Report (Not Reviewed)

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

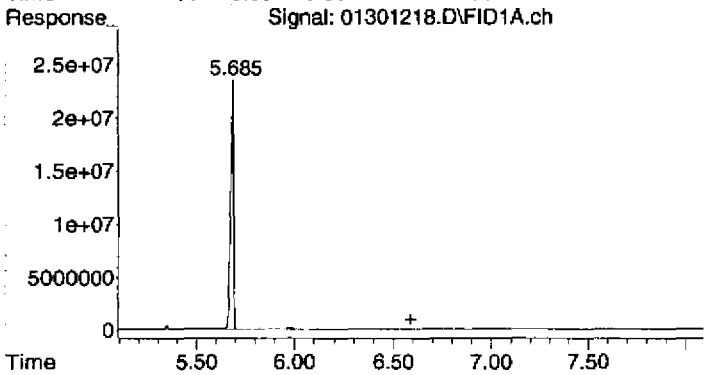
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





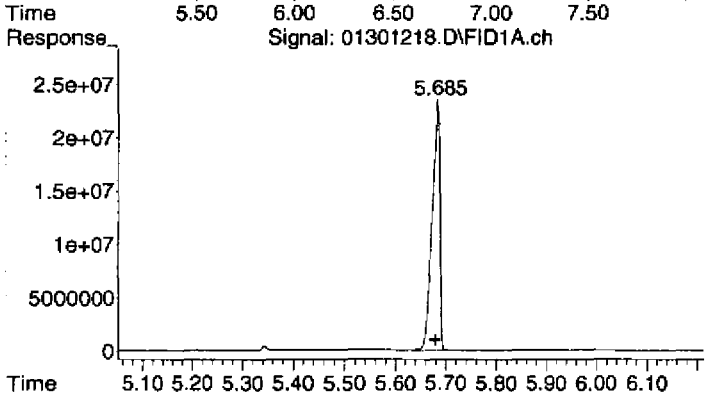
#1 Diesel (TPH)

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

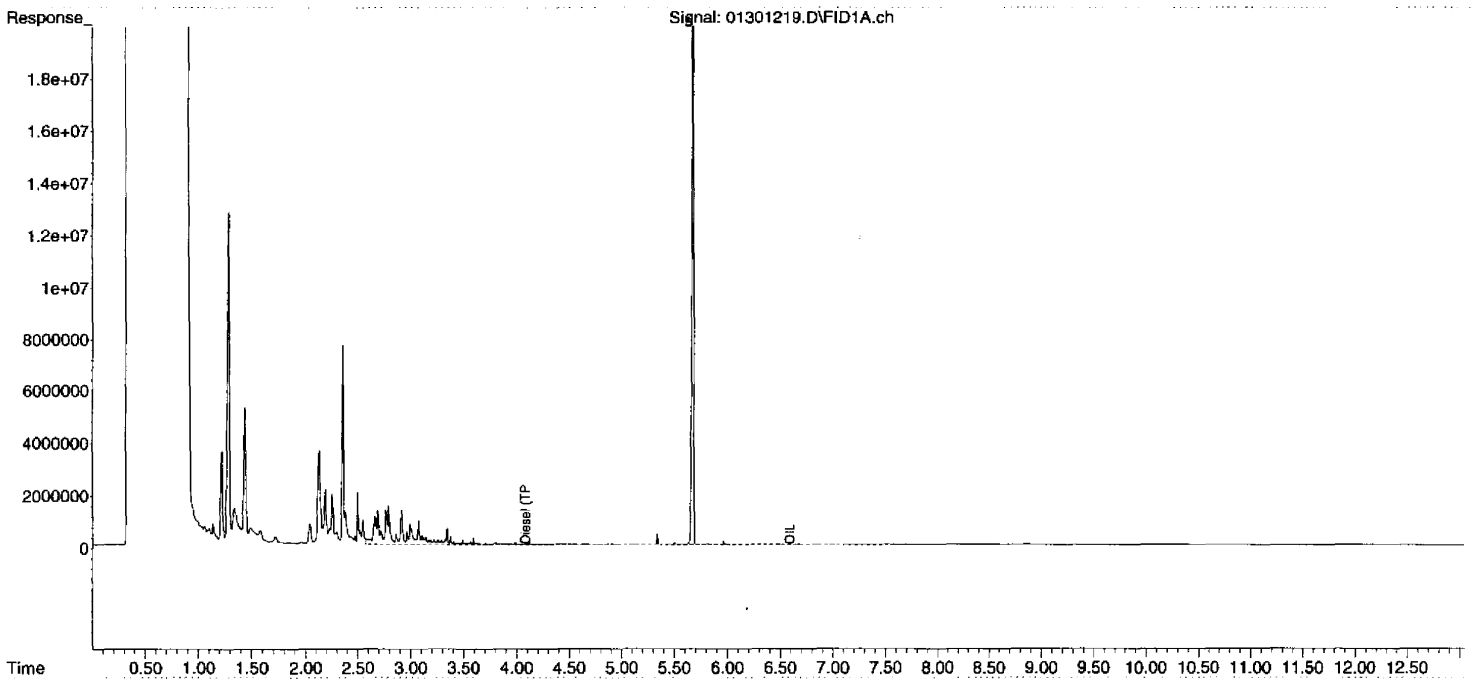
(f)=RT Delta > 1/2 Window (m)=manual int.

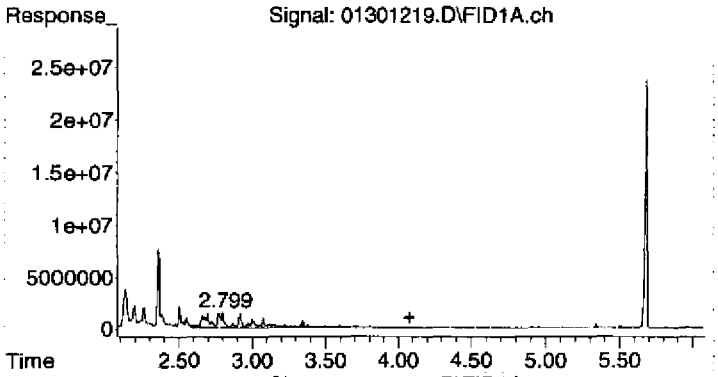
Quantitation Report (Not Reviewed)

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

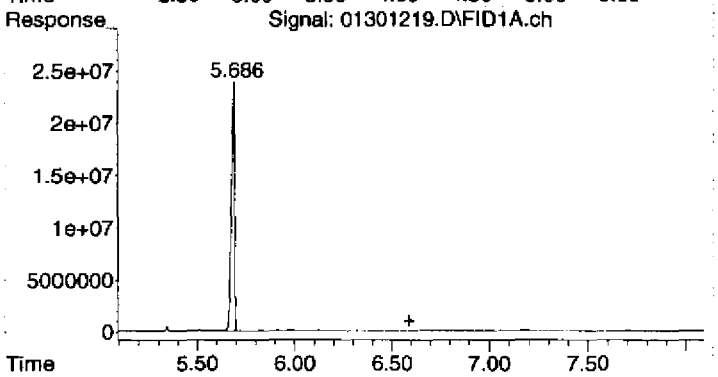
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





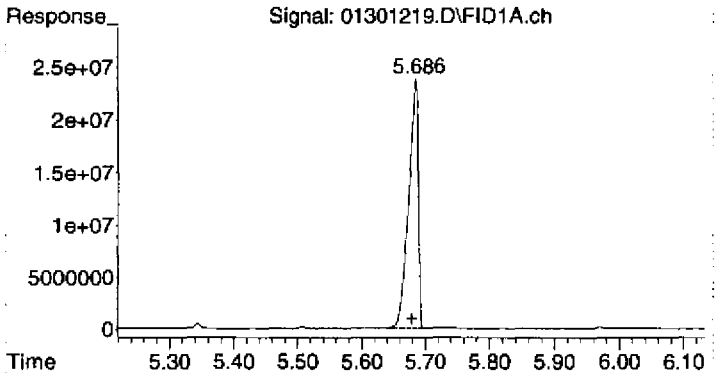
#1 Diesel (TPH)

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

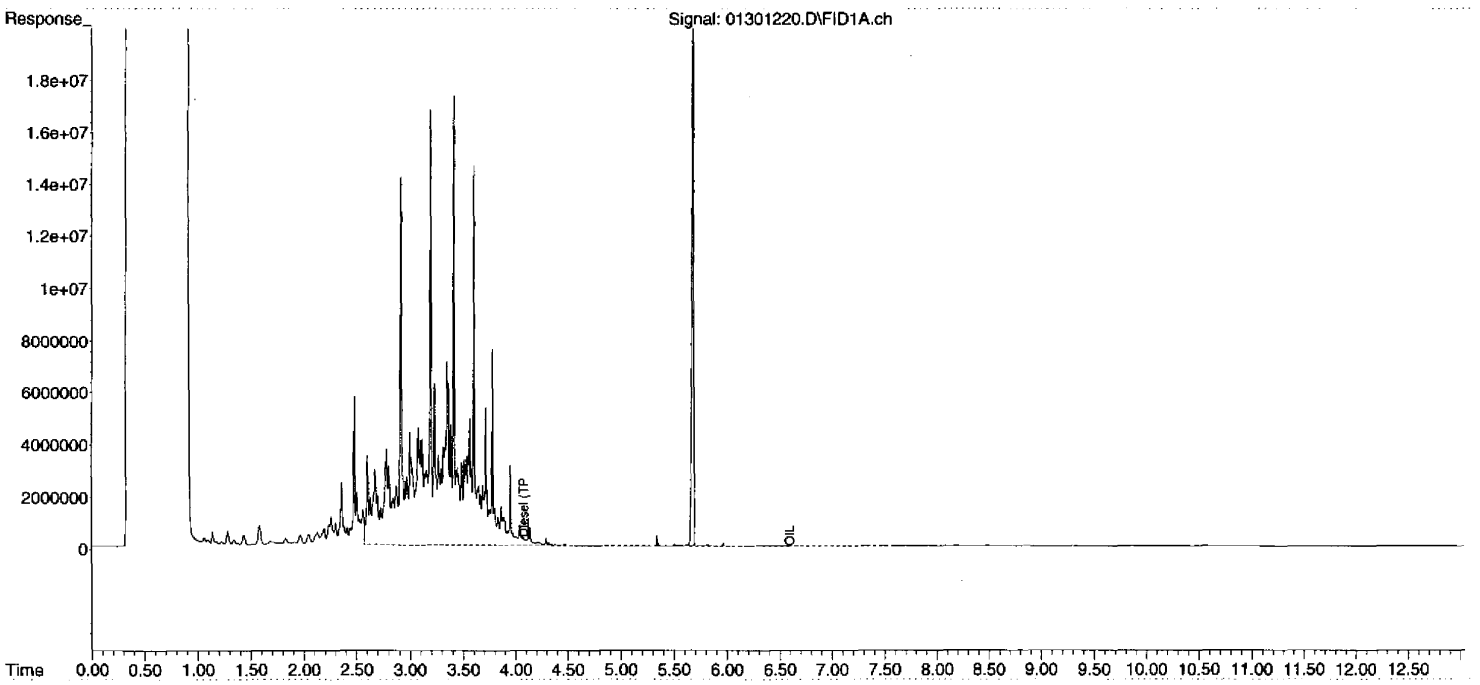
(f)=RT Delta > 1/2 Window (m)=manual int.

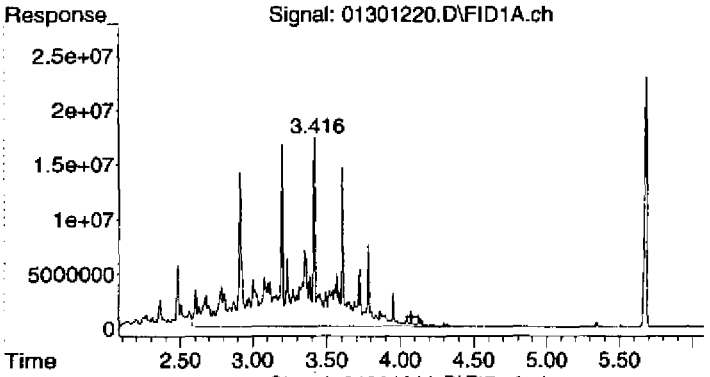
Quantitation Report (Not Reviewed)

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

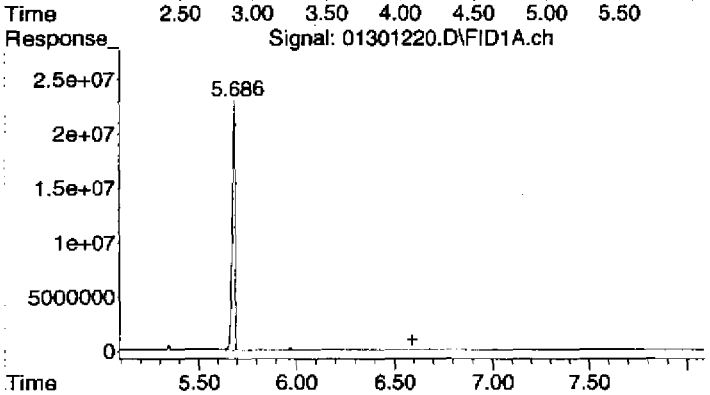
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





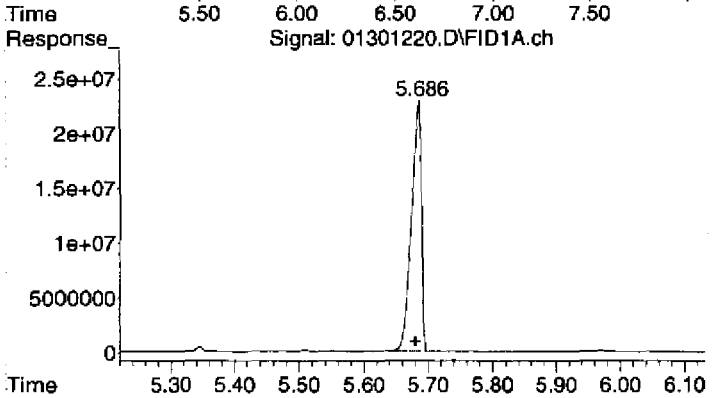
#1 Diesel (TPH)

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

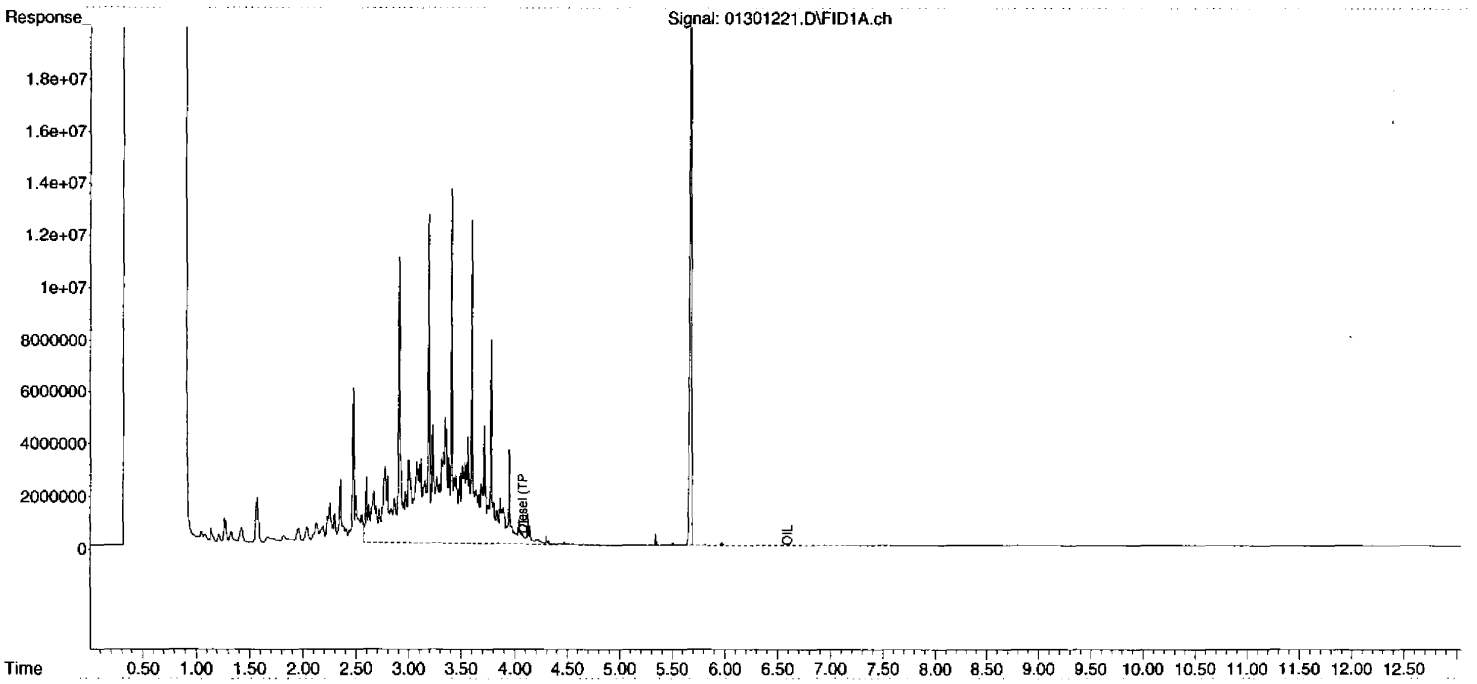
(f)=RT Delta > 1/2 Window (m)=manual int.

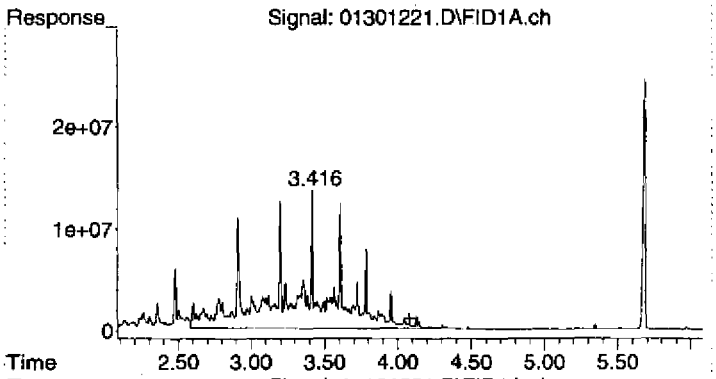
Quantitation Report (Not Reviewed)

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

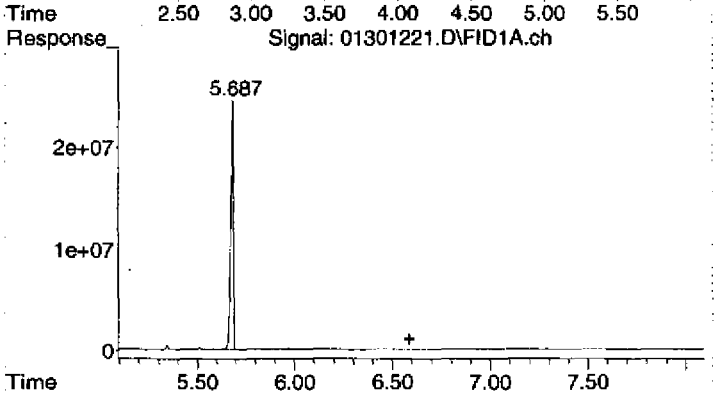
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





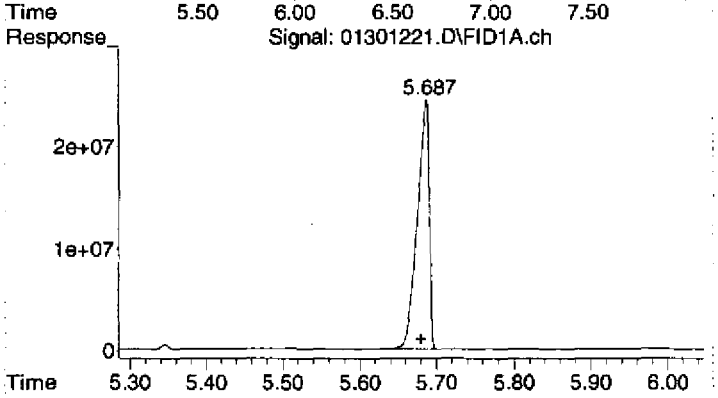
#1 Diesel (TPH)

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

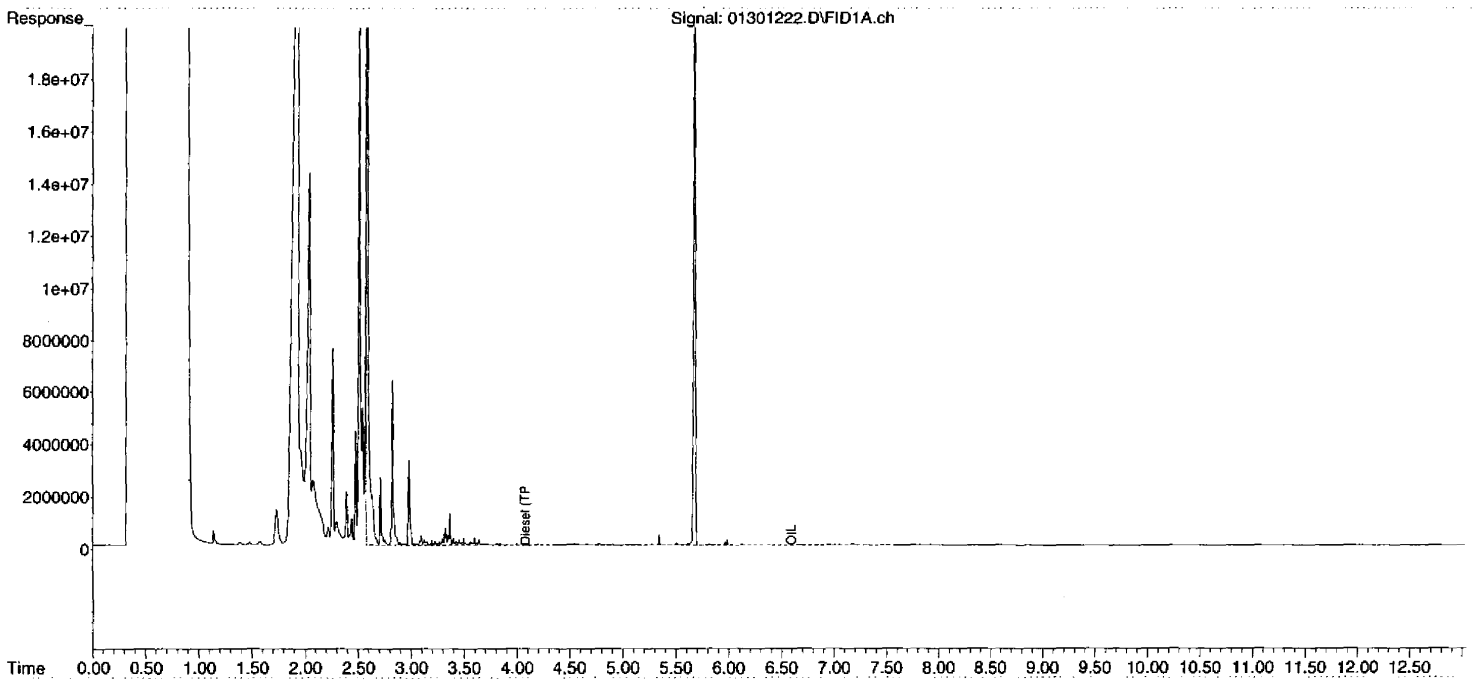
(f)=RT Delta > 1/2 Window (m)=manual int.

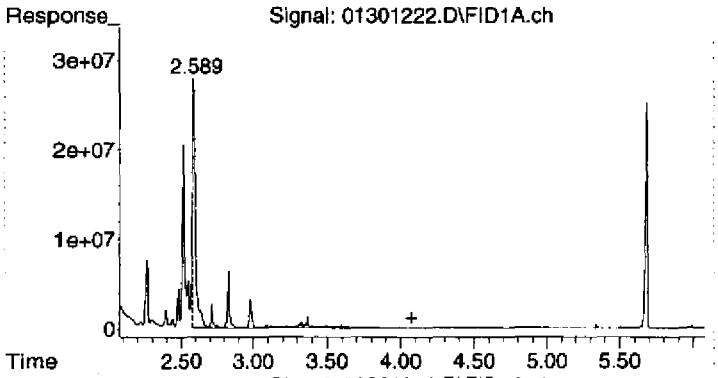
Quantitation Report (Not Reviewed)

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

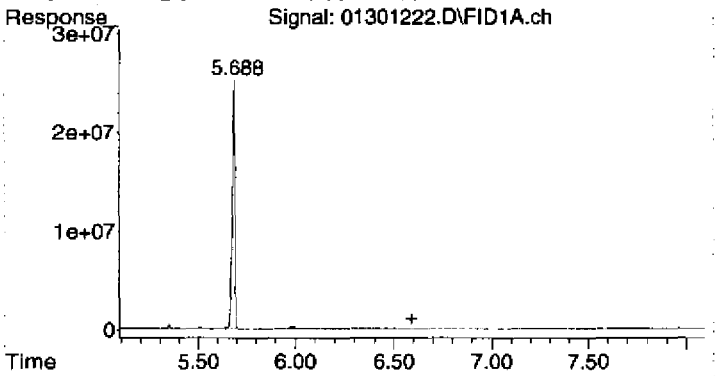
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





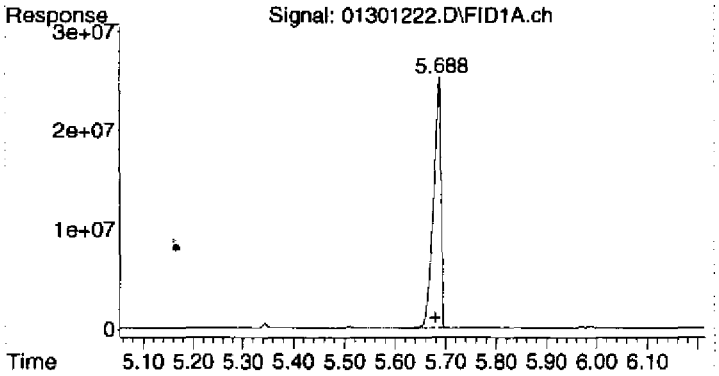
#1 Diesel (TPH)

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



#2 OIL

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



#3 Surrogate

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

Quantitation Report (Not Reviewed)

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

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

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

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

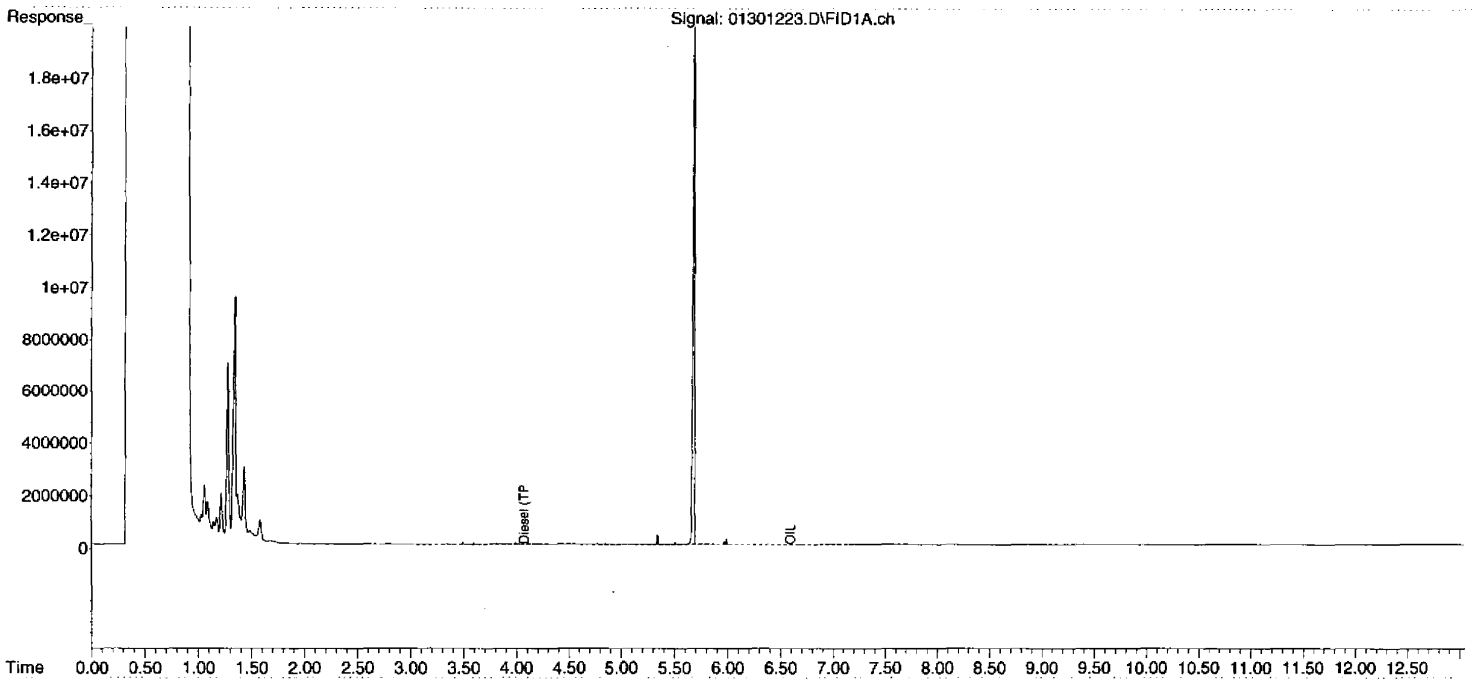
(f)=RT Delta > 1/2 Window (m)=manual int.

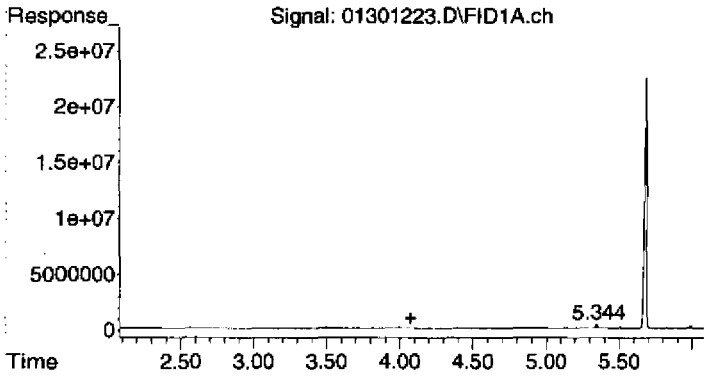
Quantitation Report (Not Reviewed)

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

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

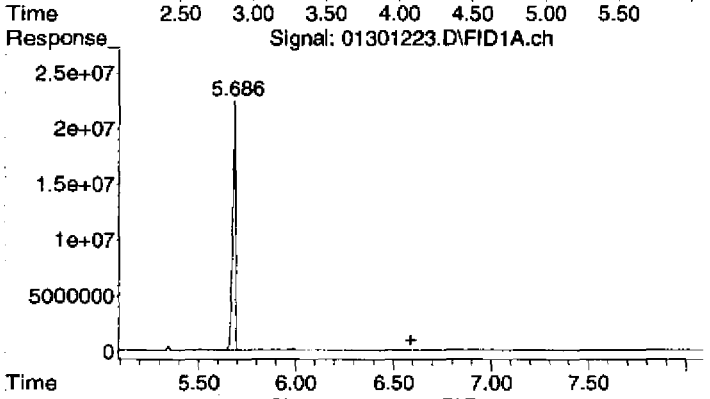
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





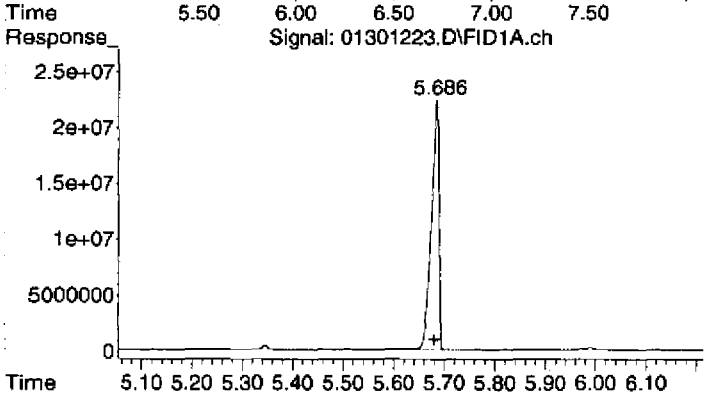
#1 Diesel (TPH)

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



#2 OIL

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



#3 Surrogate

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

Quantitation Report (Not Reviewed)

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

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

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

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

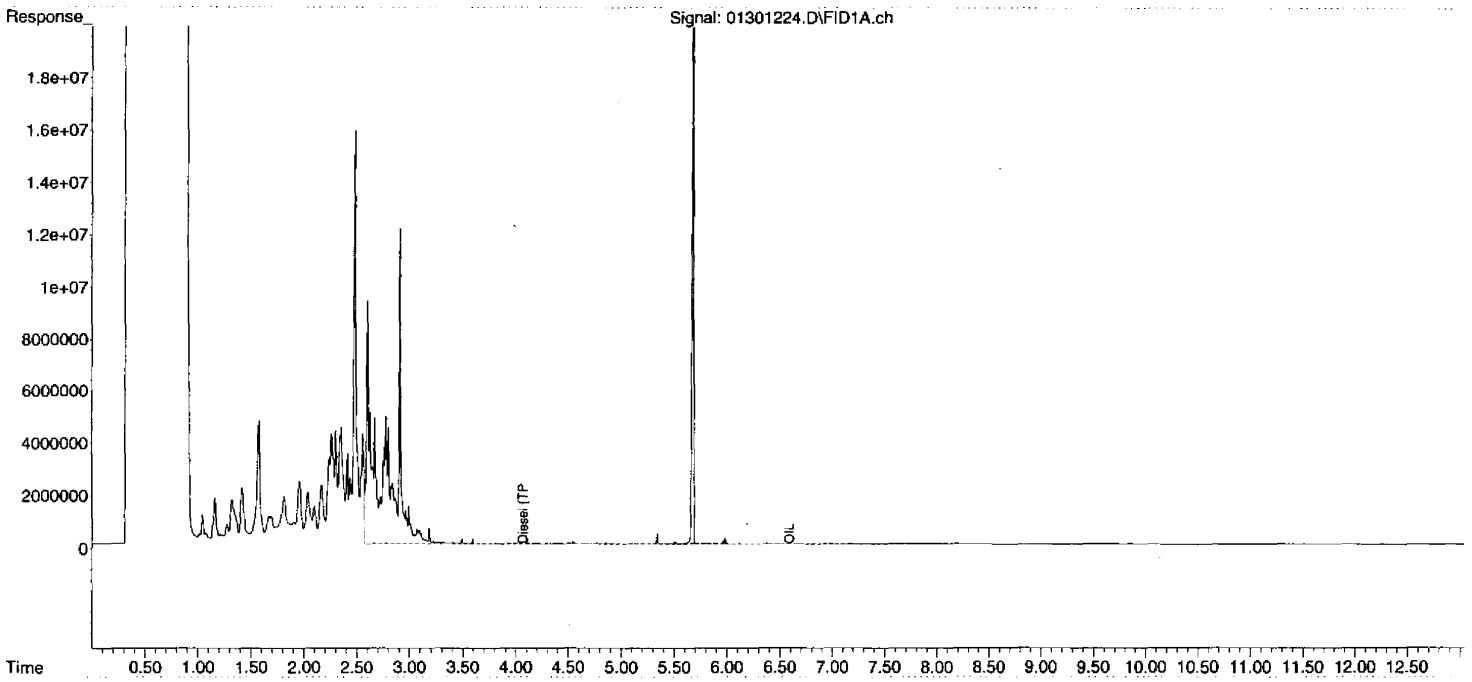
(f)=RT Delta > 1/2 Window (m)=manual int.

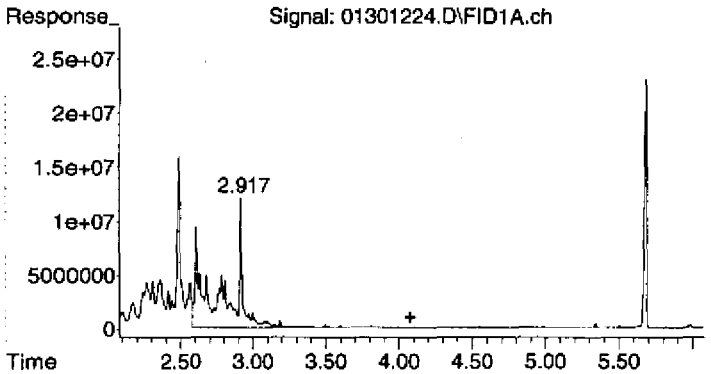
Quantitation Report (Not Reviewed)

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

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

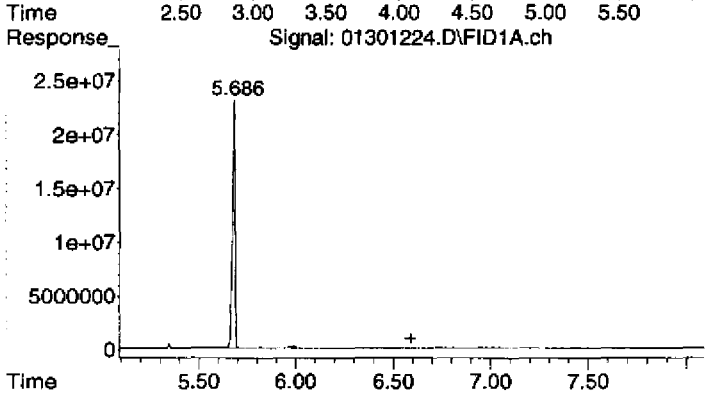
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





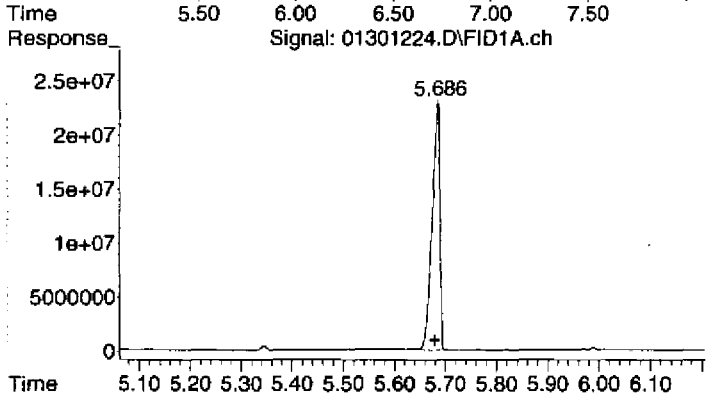
#1 Diesel (TPH)

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: 120411B- 120411A
Instrument: AG 7890-2
Analysis Date: 02-14-12

SAMPLE DATA

DIM0035559

DIM0035399

Injection Log

Operator: TD
Directory: C:\msdchem\1\2012\DATA\021412A\

Vial	File Name	Mult	Sample Info	Misc Info	Date Acquired
1	02141201.D	1	2020053-IBL1	2A11003 IB	14 Feb 2012 11:49 am
2	02141202.D	1	2020053-LCV1	2A11004 DRO-QLS	14 Feb 2012 12:07 pm
3	02141203.D	1	2020053-LCV2	2A11011 OIL-A	14 Feb 2012 12:25 pm
4	02141204.D	1	2020053-CCV1	2A11005 DRO-CV	14 Feb 2012 12:42 pm
5	02141205.D	1	2020053-CCV2	2A11012 OIL-CV	14 Feb 2012 1:00 pm
6	02141206.D	1	B2B0057-BLK1	RB	14 Feb 2012 1:18 pm
7	02141207.D	1	B2B0057-BS1	BS	14 Feb 2012 1:36 pm
8	02141208.D	1	1202031-01	HW48	14 Feb 2012 1:54 pm
9	02141209.D	1	1202031-02	HW48z	14 Feb 2012 2:12 pm
10	02141210.D	1	1202031-04	HW23	14 Feb 2012 2:30 pm
11	02141211.D	1	1202031-05	HW23-P	14 Feb 2012 2:48 pm
12	02141212.D	1	1202031-07	HW21	14 Feb 2012 3:06 pm
13	02141213.D	1	1202031-08	HW21z	14 Feb 2012 3:24 pm
14	02141214.D	1	1202031-10	HW22	14 Feb 2012 3:41 pm
15	02141215.D	1	1202031-11	HW22-P	14 Feb 2012 3:59 pm
16	02141216.D	1	1202034-01	HW49	14 Feb 2012 4:17 pm
17	02141217.D	1	1202034-02	HW49-P	14 Feb 2012 4:35 pm
18	02141218.D	1	1202034-04	FB14	14 Feb 2012 4:53 pm
19	02141219.D	1	1202034-05	HW44	14 Feb 2012 5:11 pm
20	02141220.D	1	B2B0057-MS1	HW44	14 Feb 2012 5:29 pm
21	02141221.D	1	B2B0057-MSD1	HW44	14 Feb 2012 5:47 pm
22	02141222.D	1	1202034-07	FB15	14 Feb 2012 6:05 pm
23	02141223.D	1	1202034-08	HW36n	14 Feb 2012 6:23 pm
24	02141224.D	1	1202034-09	HW36n-P	14 Feb 2012 6:41 pm
25	02141225.D	1	1202034-11	HW16	14 Feb 2012 6:59 pm
26	02141226.D	1	1202034-12	HW16-P	14 Feb 2012 7:16 pm
27	02141227.D	1	1202034-13	HW16z	14 Feb 2012 7:34 pm
28	02141228.D	1	1202034-15	HW54	14 Feb 2012 7:52 pm
29	02141229.D	1	1202034-16	HW54-P	14 Feb 2012 8:10 pm
30	02141230.D	1	2020053-IBL2	2A11003 IB	14 Feb 2012 8:28 pm
31	02141231.D	1	2020053-CCV3	2A11005 DRO CV	14 Feb 2012 8:45 pm
32	02141232.D	1	2020053-CCV4	2A11012 OIL CV	14 Feb 2012 9:03 pm
33	02141233.D	1	2020053-CCV5	2A11005 DRO CV	14 Feb 2012 9:21 pm
34	02141234.D	1	2020053-CCV6	2A11012 OIL CV	14 Feb 2012 9:39 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

Daily Calibration File : C:\msdchem\1\2012\DATA\021412A\02141204.D
Time Acquired : 14 Feb 2012 12:42 pm

File	Sample	Surrogate Recovery %	Internal Standard Responses
02141206.D	B2B0057-BL	90	
02141207.D	B2B0057-BS	96	
02141208.D	1202031-01	94	
02141209.D	1202031-02	90	
02141210.D	1202031-04	86	
02141211.D	1202031-05	101	
02141212.D	1202031-07	96	
02141213.D	1202031-08	90	
02141214.D	1202031-10	91	
02141215.D	1202031-11	89	
02141216.D	1202034-01	86	
02141217.D	1202034-02	92	
02141218.D	1202034-04	100	
02141219.D	1202034-05	87	
02141220.D	B2B0057-MS	88	
02141221.D	B2B0057-MSD	90	
02141222.D	1202034-07	89	
02141223.D	1202034-08	88	
02141224.D	1202034-09	85	
02141225.D			

```
        1202034-11   88
-------------------------------------------------------------------------
02141226.D
        1202034-12   85
-------------------------------------------------------------------------
02141227.D
        1202034-13   92
-------------------------------------------------------------------------
02141228.D
        1202034-15   84
-------------------------------------------------------------------------
02141229.D
        1202034-16   83
-------------------------------------------------------------------------
(fails) - fails 12hr time check   * - fails criteria

    Created: Wed Feb 15 10:03:10 2012  AG7890_2
```

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141201.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 11:49 am Operator: TD
Sample : 2020053-IBL1 Inst : AG7890_2
Misc : 2A11003 IB
ALS Vial : 1 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:33:41 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	5.702	161908808	45.577 ug/mL
Spiked Amount 50.000 Range 60 - 127 Recovery = 91.15%			
Target Compounds			
1) HM Diesel (TPH)	4.080	8640470	2.408 ug/mL
2) H OIL	6.590	4796392	2.505 ug/mL

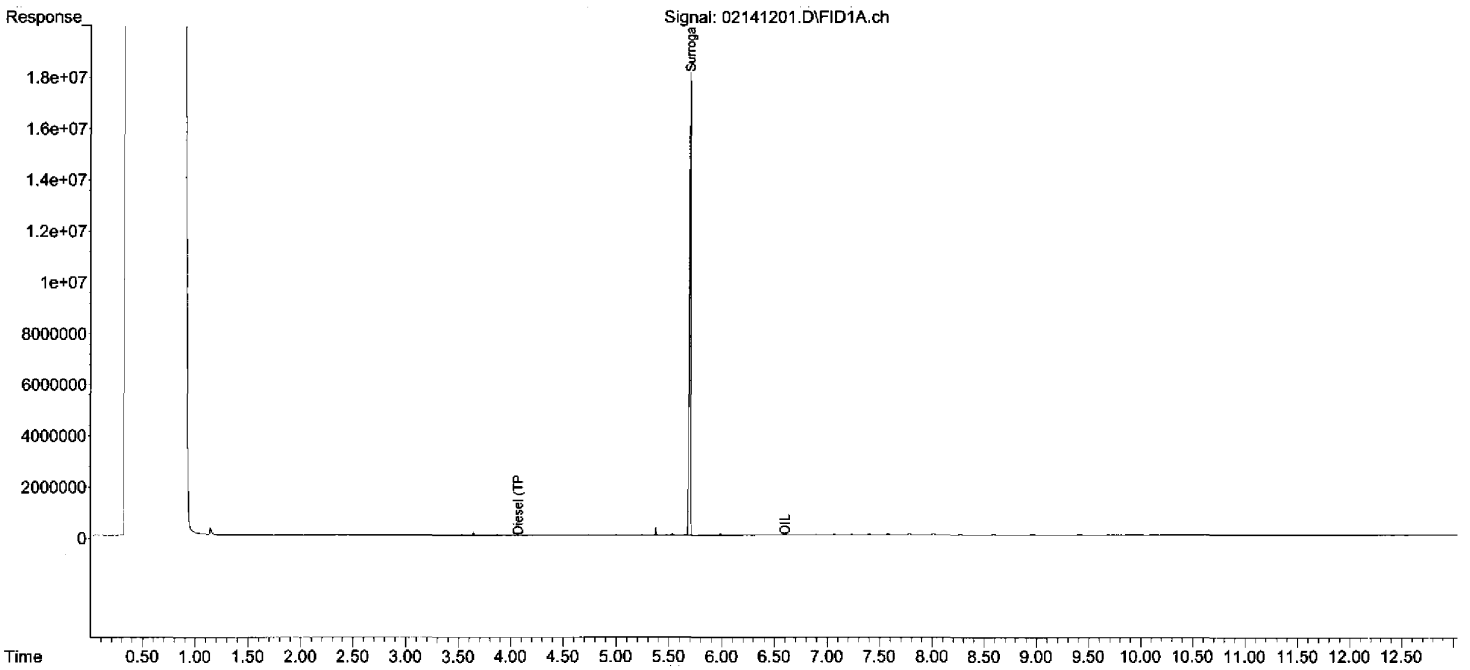
(f)=RT Delta > 1/2 Window (m)=manual int.

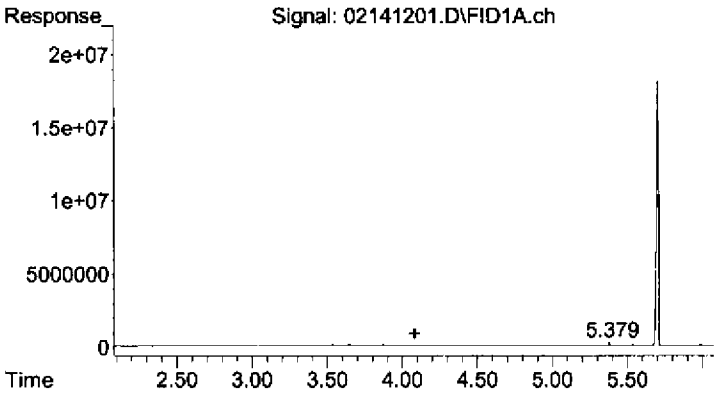
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141201.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 11:49 am
Operator: TD
Sample : 2020053-IBL1
Inst : AG7890_2
Misc : 2A11003 IB
ALS Vial : 1 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:33:41 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

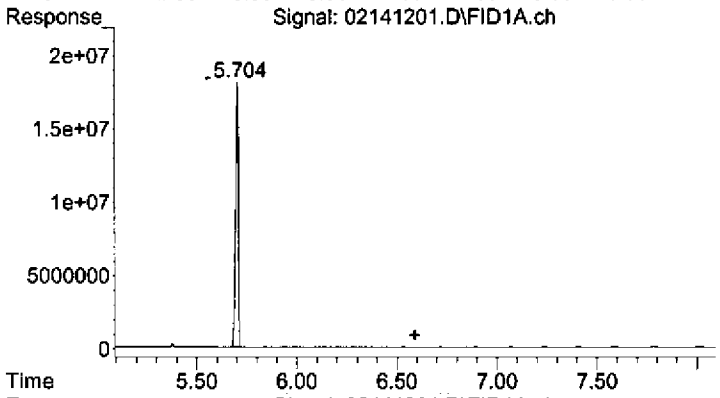
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





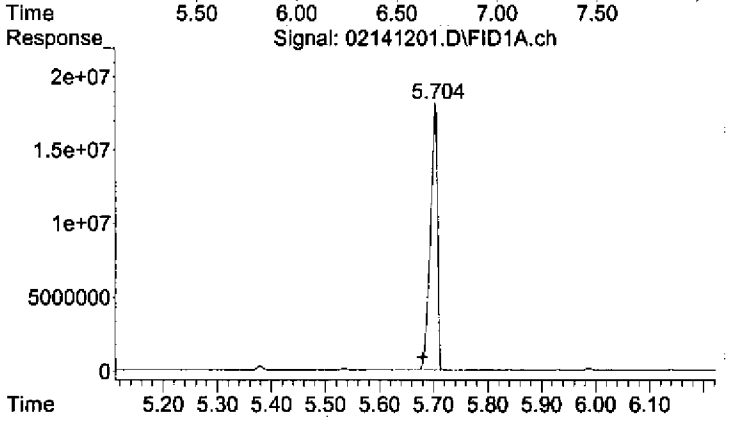
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 8640470
Conc: 2.41 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 4796392
Conc: 2.50 ug/mL



#3 Surrogate

R.T.: 5.702 min
Delta R.T.: 0.022 min
Response: 161908808
Conc: 45.58 ug/mL

C:\msdchem\1\2012\DATA\021412A\02141202.D

Instrument Name: AG7890_2
Date Acquired: 2/14/2012 12:07
Acq. Method File: 012712DROA.M
Sample Name: 2020053-LCV1
Misc Info: 2A11004 DRO-QLS
Operator: TD

Name	Concentration ng/mL	Calculated	% Recovery	QC Limits	STATUS
Diesel (TPH)	50	48.19	96.39%	60 - 140	pass

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141202.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 12:07 pm Operator: TD
Sample : 2020053-LCV1 Inst : AG7890_2
Misc : 2A11004 DRO-QLS
ALS Vial : 2 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:33:46 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.670	30524388	8.593 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	17.19%#
Target Compounds			
1) HM Diesel (TPH)	4.080	172945574	48.195 ug/mL
2) H OIL	6.590	2578965	1.347 ug/mL

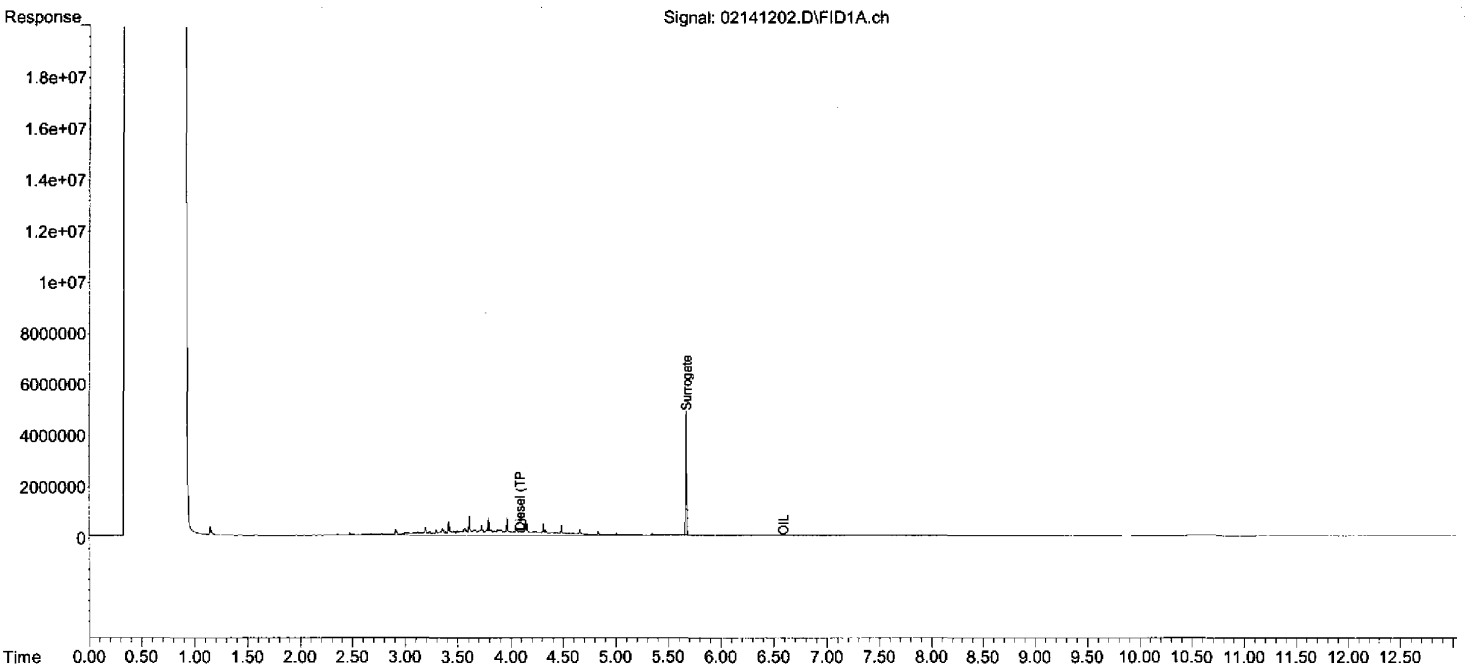
(f)=RT Delta > 1/2 Window (m)=manual int.

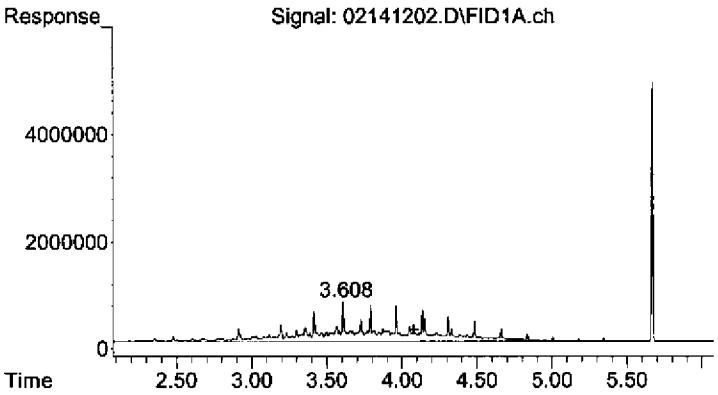
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141202.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 12:07 pm
Operator: TD
Sample : 2020053-LCV1
Inst : AG7890_2
Misc : 2A11004 DRO-QLS
ALS Vial : 2 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:33:46 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

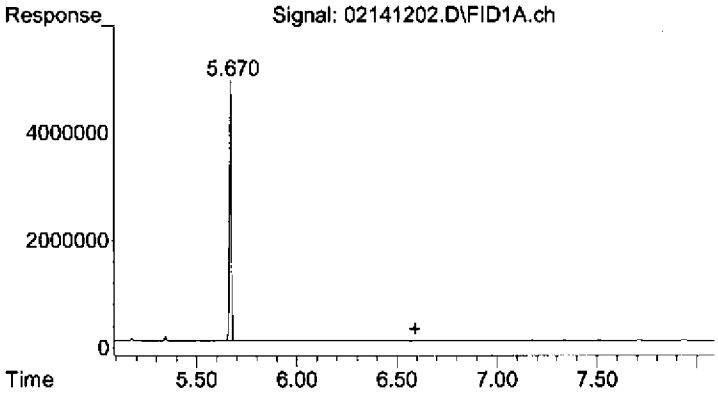
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





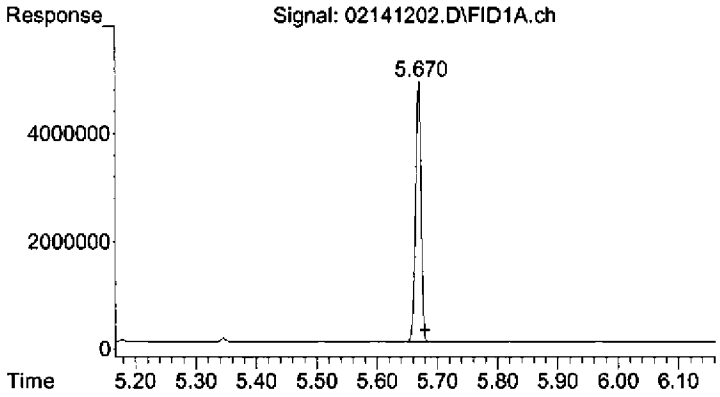
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 172945574
Conc: 48.19 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 2578965
Conc: 1.35 ug/mL



#3 Surrogate

R.T.: 5.670 min
Delta R.T.: -0.010 min
Response: 30524388
Conc: 8.59 ug/mL

C:\msdchem\1\2012\DATA\021412A\02141203.D

Instrument Name: AG7890_2
Date Acquired: 2/14/2012 12:25
Acq. Method File: 012712DROA.M
Sample Name: 2020053-LCV2
Misc Info: 2A11011 OIL-A
Operator: TD

Name	Concentration ng/mL	Calculated	% Recovery	QC Limits	STATUS
OIL	200	197.22	98.61%	60 - 140	pass

Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141203.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 12:25 pm
Operator: TD
Sample : 2020053-LCV2
Inst : AG7890_2
Misc : 2A11011 OIL-A
ALS Vial : 3 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:46:15 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	161029074	45.330 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	90.66%
Target Compounds			
1) HM Diesel (TPH)	4.080	210081032	58.543 ug/mL
2) H OIL	6.590	377647372	197.218 ug/mLm

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

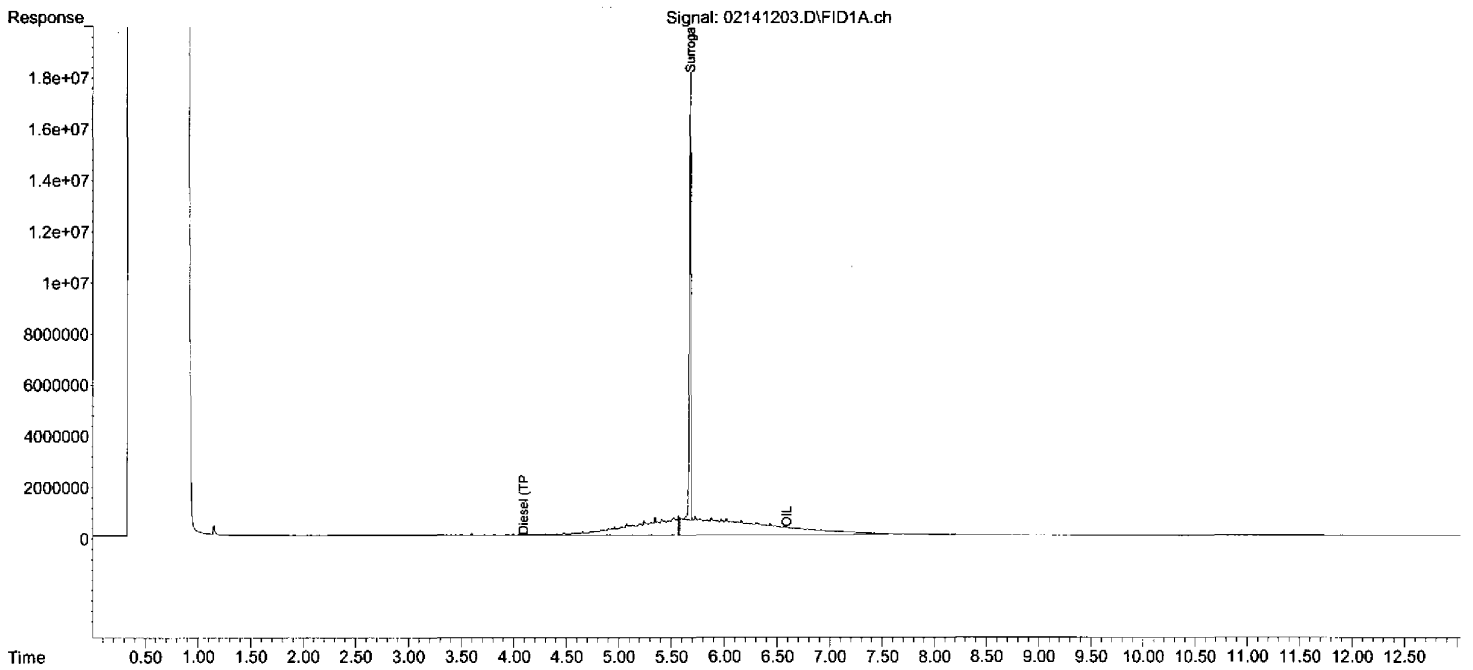
MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☑ After Manual Integration	
Manual integration(s) performed by:	
Analyst: TD	Date 02-15-12
Manual integration(s) reviewed by:	
Reviewer: [illegible]	Date: 2/15/12

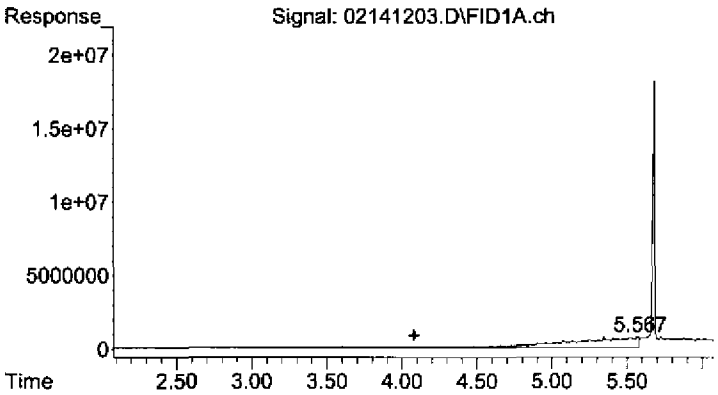
Quantitation Report (QT Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141203.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 12:25 pm
Operator: TD
Sample : 2020053-LCV2
Inst : AG7890_2
Misc : 2A11011 OIL-A
ALS Vial : 3 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:46:15 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

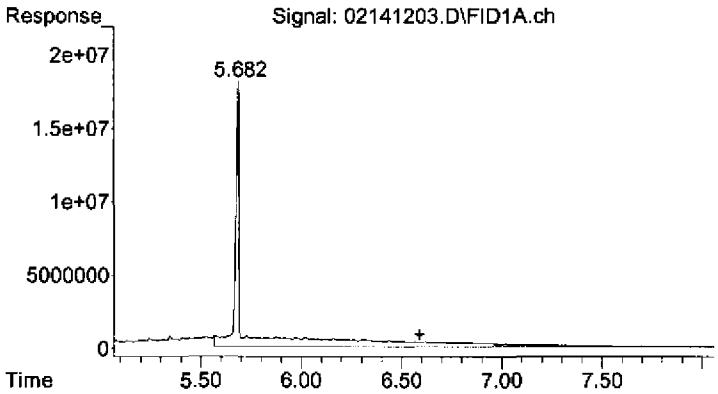
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





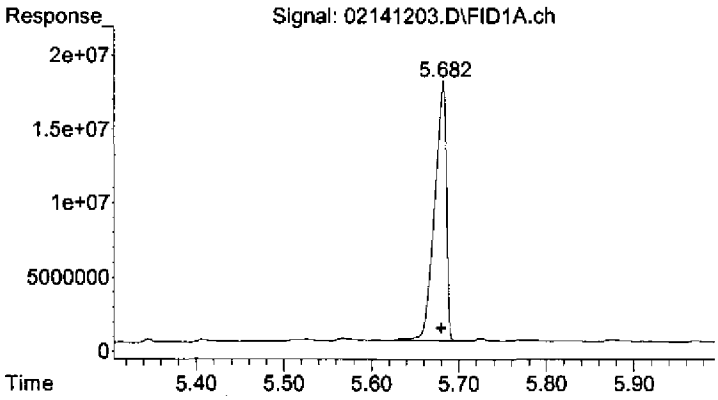
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 210081032
Conc: 58.54 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 377647372
Conc: 197.22 ug/mL m



#3 Surrogate

R.T.: 5.680 min
Delta R.T.: 0.000 min
Response: 161029074
Conc: 45.33 ug/mL

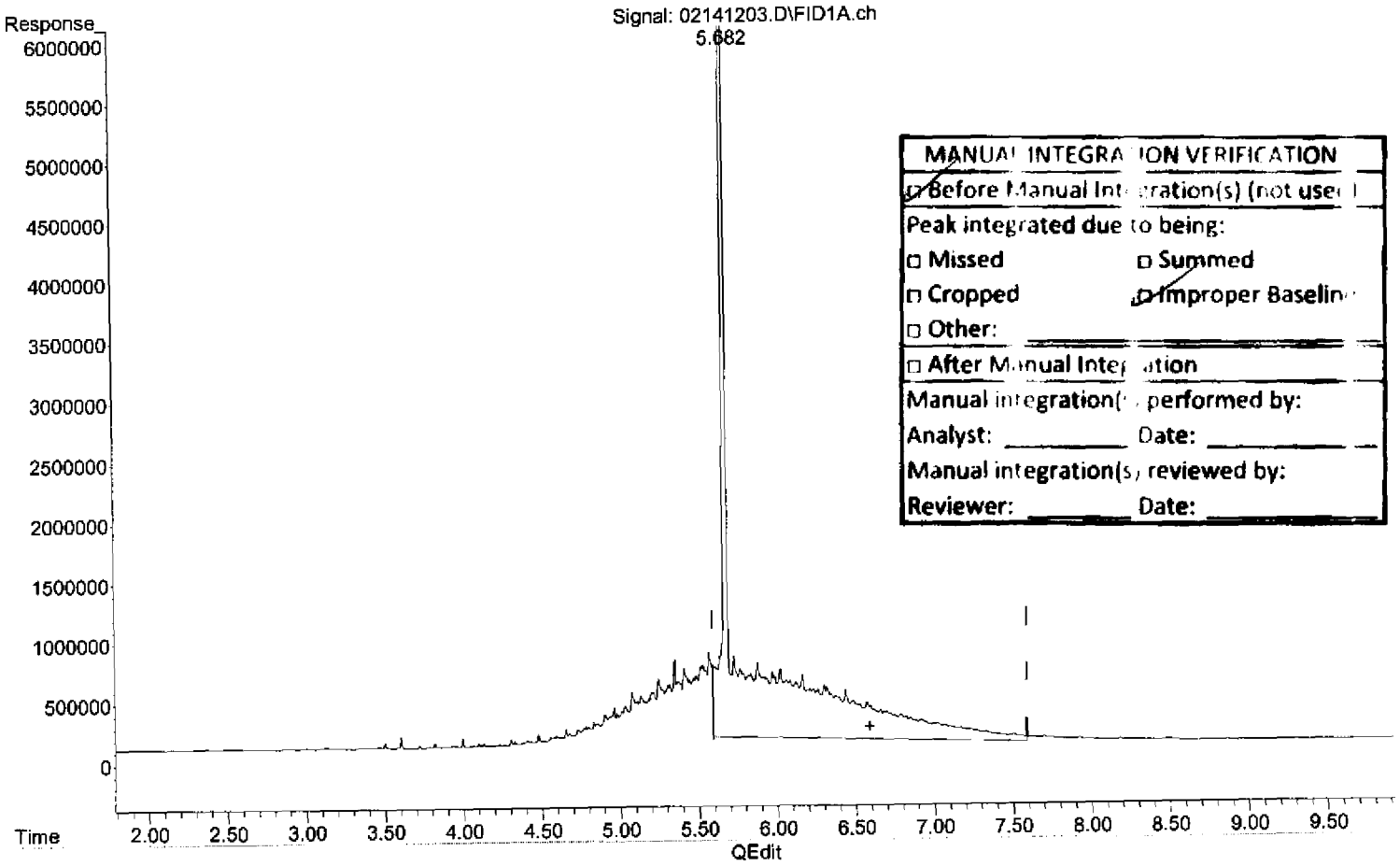
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141203.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 12:25 pm
Sample : 2020053-LCV2
Misc : 2A11011 OIL-A
ALS Vial : 3 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:33:50 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

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



(2) OIL (H)

6.590min 173.875 ug/mL

response 332948461

(+) = Expected Retention Time
013012DROA.M Wed Feb 15 09:46:03 2012

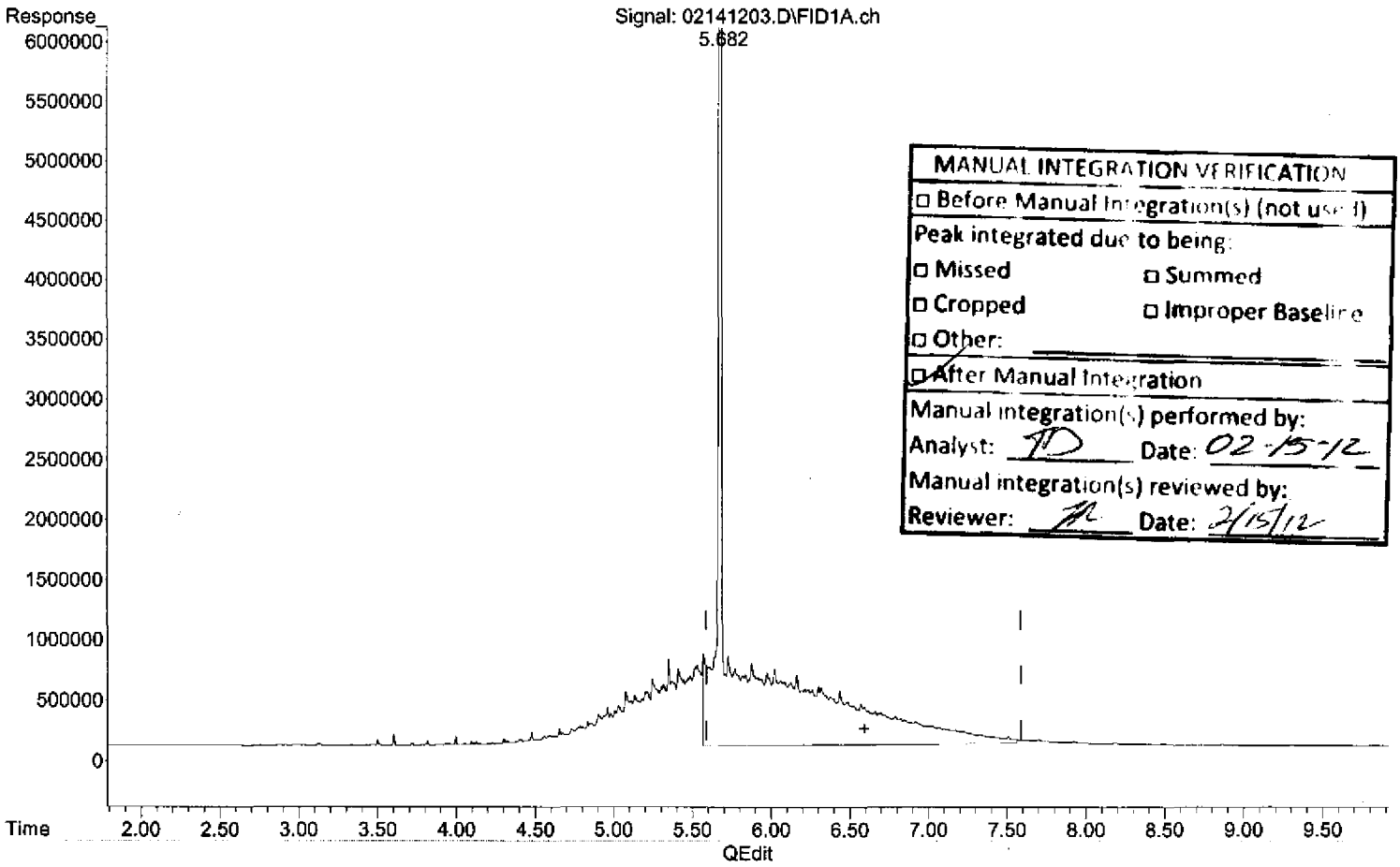
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141203.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 12:25 pm
Sample : 2020053-LCV2
Misc : 2A11011 OIL-A
ALS Vial : 3 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:33:50 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

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



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: 02-15-12
Manual integration(s) reviewed by:
Reviewer: TL Date: 2/15/12

(2) OIL (H)

6.590min 197.218 ug/mL m

response 377647372

(+) = Expected Retention Time
013012DROA.M Wed Feb 15 09:46:18 2012

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141203.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 12:25 pm
Operator: TD
Sample : 2020053-LCV2
Inst : AG7890_2
Misc : 2A11011 OIL-A
ALS Vial : 3 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:33:50 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.680	161029074	45.330 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	90.66%
Target Compounds			
1) HM Diesel (TPH)	4.080	210081032	58.543 ug/mL
2) H OIL	6.590	332948461	173.875 ug/mL

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

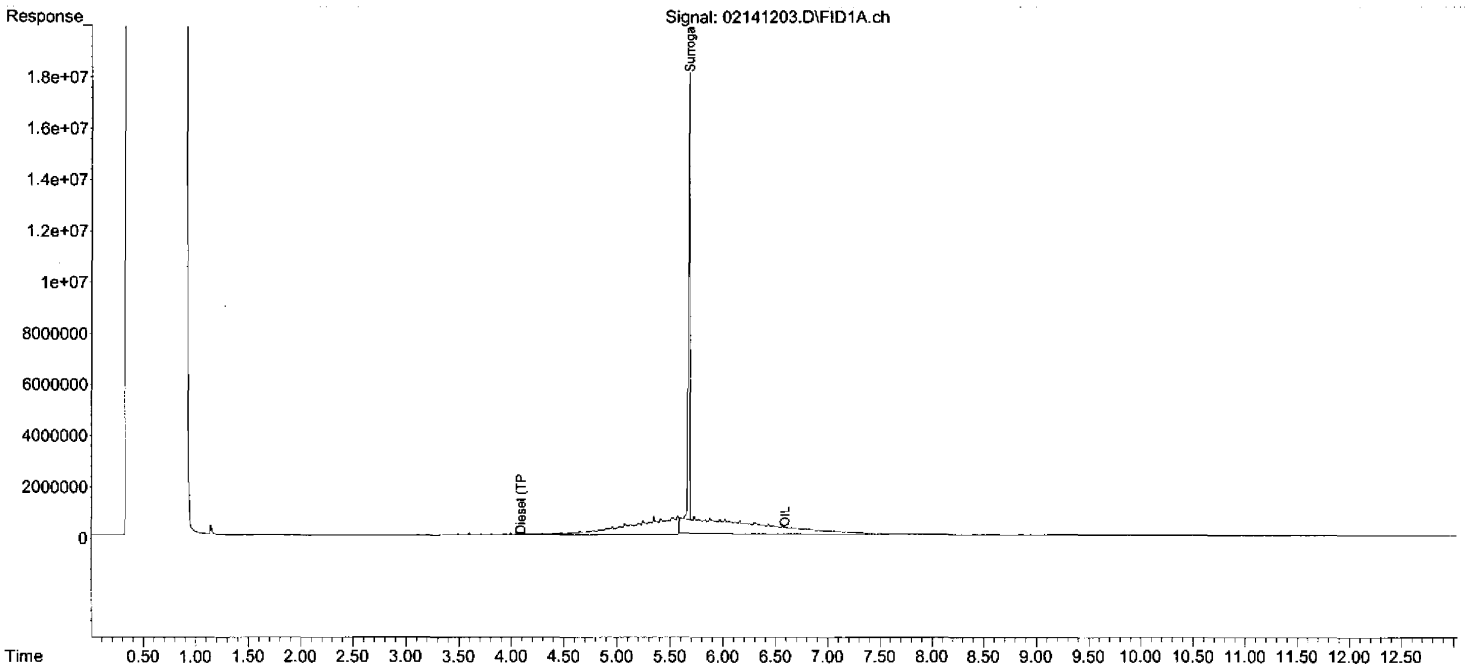
MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: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

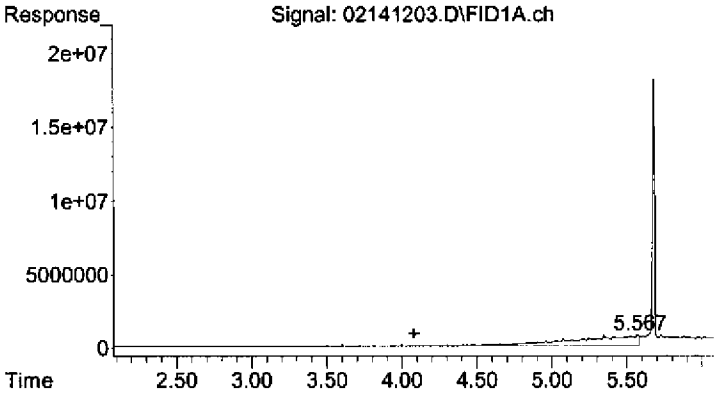
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141203.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 12:25 pm
Operator: TD
Sample : 2020053-LCV2
Inst : AG7890_2
Misc : 2A11011 OIL-A
ALS Vial : 3 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:33:50 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

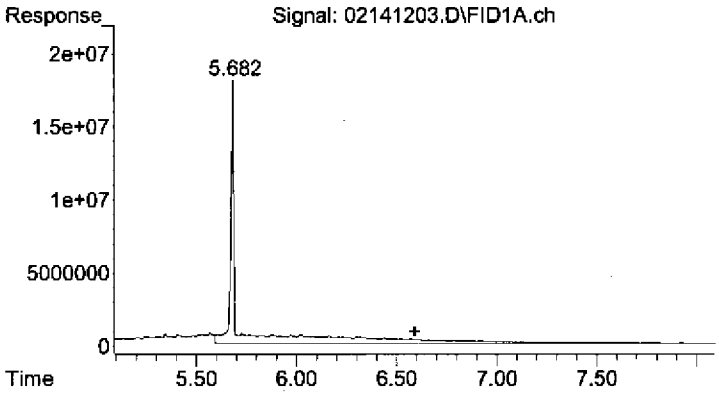
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





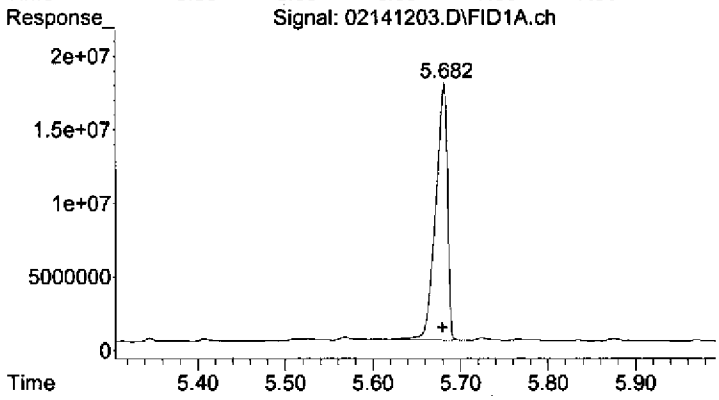
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 210081032
Conc: 58.54 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 332948461
Conc: 173.87 ug/mL



#3 Surrogate

R.T.: 5.680 min
Delta R.T.: 0.000 min
Response: 161029074
Conc: 45.33 ug/mL

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141204.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 12:42 pm Operator: TD
Sample : 2020053-CCV1 Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 4 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:33:55 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	3.312 E6	7.7	105	0.00
2 H	OIL	1.915	0.000 E6	100.0#	124	0.00
3 S	Surrogate	3.552	3.487 E6	1.8	104	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\021412A\
Data File : 02141204.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 12:42 pm
Operator: TD
Sample : 2020053-CCV1
Inst : AG7890_2
Misc : 2A11005 DRO-CV
ALS Vial : 4 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:33:55 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	174364799	49.084 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	98.17%
Target Compounds			
1) HM Diesel (TPH)	4.080	1656034603	461.486 ug/mL
2) H OIL	6.590	4817223	2.516 ug/mL

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

$\frac{174364799}{3.552E6}$ — 49.08 ✓

TD 02-15-12

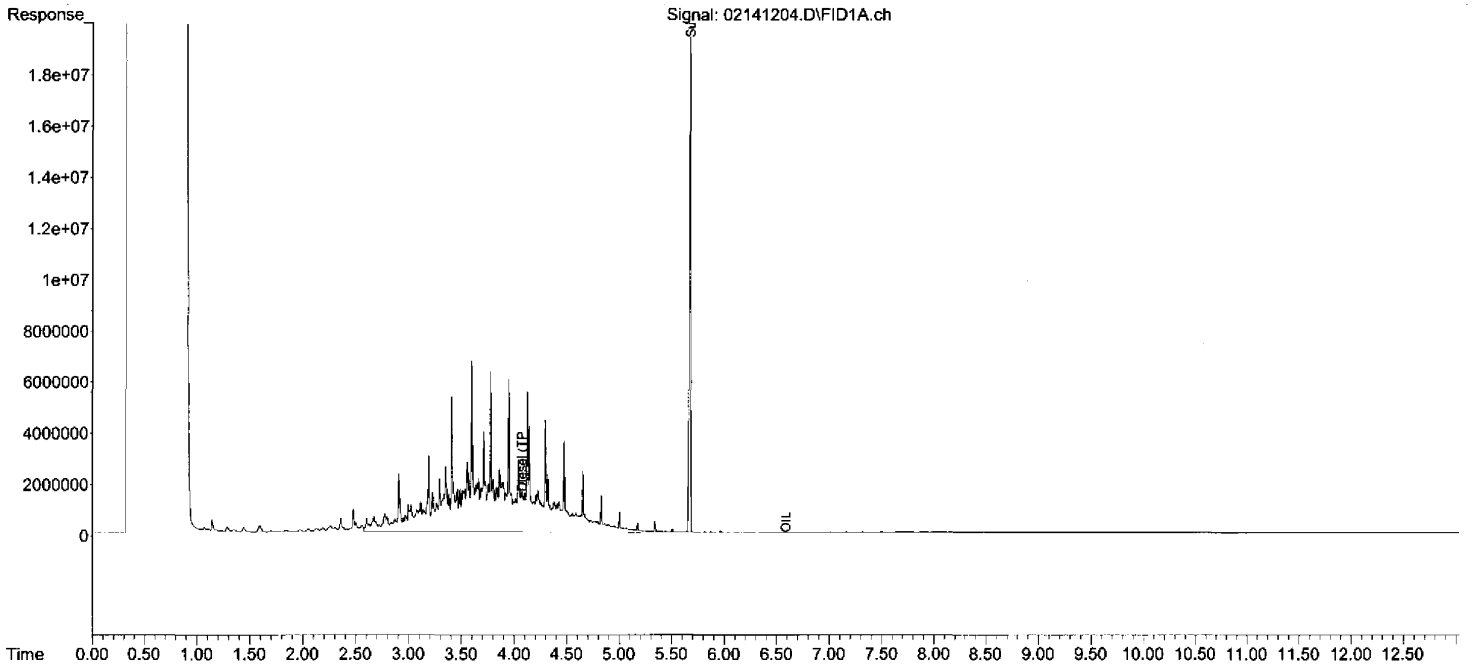
Quantitation Report (Not Reviewed)

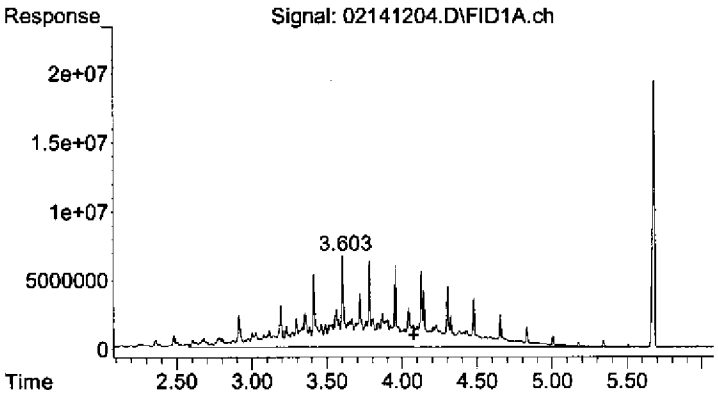
Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141204.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 12:42 pm
Sample : 2020053-CCV1
Misc : 2A11005 DRO-CV
ALS Vial : 4 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:33:55 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

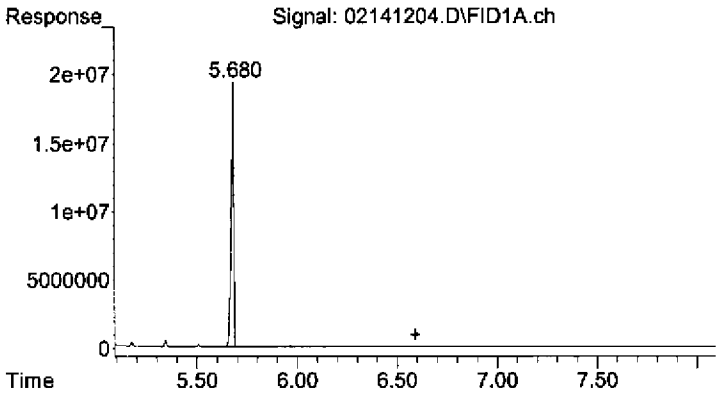
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





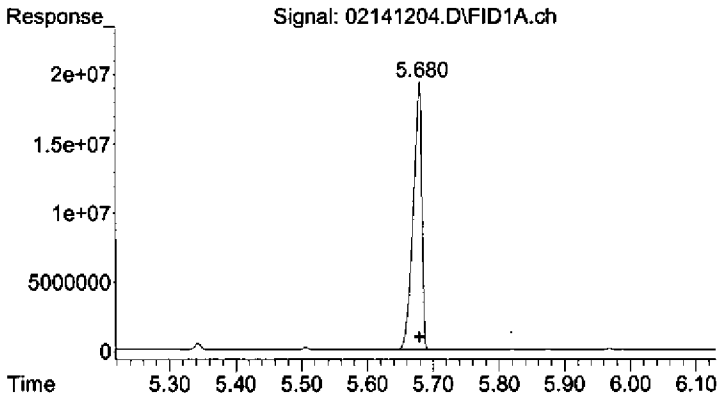
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1656034603
Conc: 461.49 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 4817223
Conc: 2.52 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.001 min
Response: 174364799
Conc: 49.08 ug/mL

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141205.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 1:00 pm Operator: TD
Sample : 2020053-CCV2 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:47:41 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

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	1.914 E6	0.1	95	0.00
3 S	Surrogate	3.552	0.000 E6	100.0#	95	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\021412A\
Data File : 02141205.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 1:00 pm Operator: TD
Sample : 2020053-CCV2 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:47:41 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	5.686	151570085	42.667 ug/mLm
Spiked Amount 50.000 Range 60 - 127		Recovery =	85.33%
Target Compounds			
1) HM Diesel (TPH)	4.080	1003615544	279.677 ug/mL
2) H OIL	6.590	1913717490	999.395 ug/mLm

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

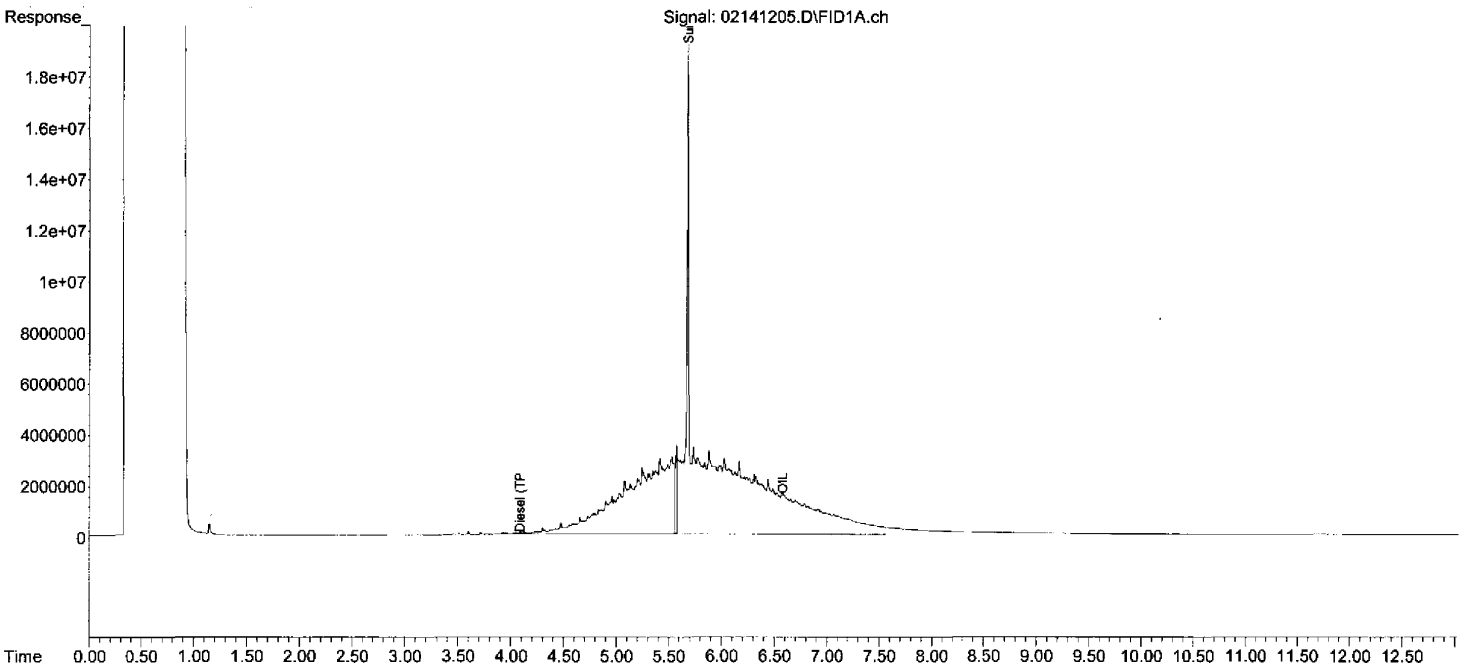
MANUAL INTEGRATION VERIFICATION
☐ Before Manual Integration(s) (not used)
Peak integrated due to being
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other:
☑ After Manual Integration
Manual integration(s) performed by:
Analyst: TD Date: 02-15-12
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 2/15/12

Quantitation Report (QT Reviewed)

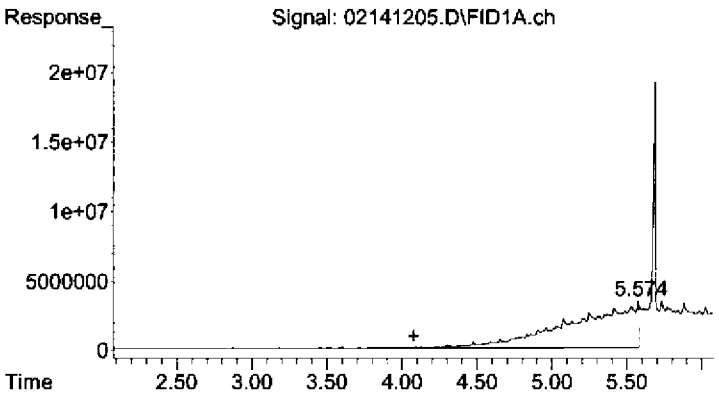
Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141205.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 1:00 pm
Operator: TD
Sample : 2020053-CCV2
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:47:41 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

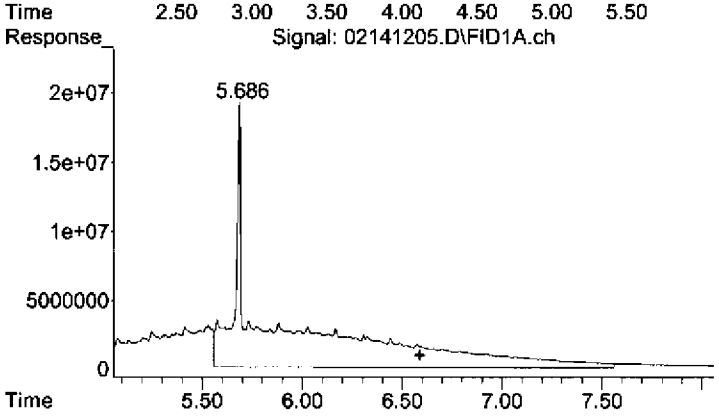


013012DROA.M Wed Feb 15 09:47:50 2012
Page: 2



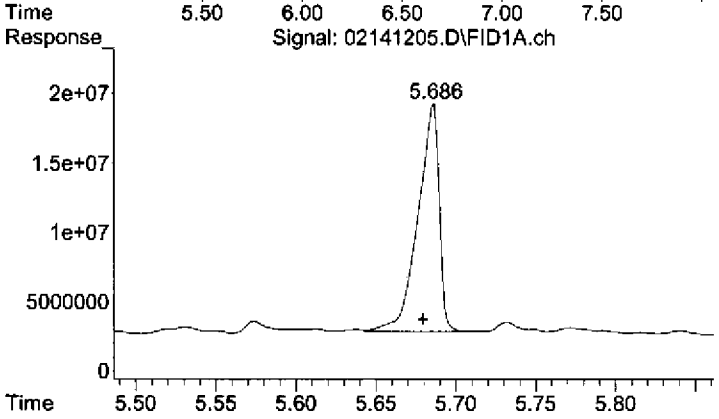
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1003615544
Conc: 279.68 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1913717490
Conc: 999.40 ug/mL m



#3 Surrogate

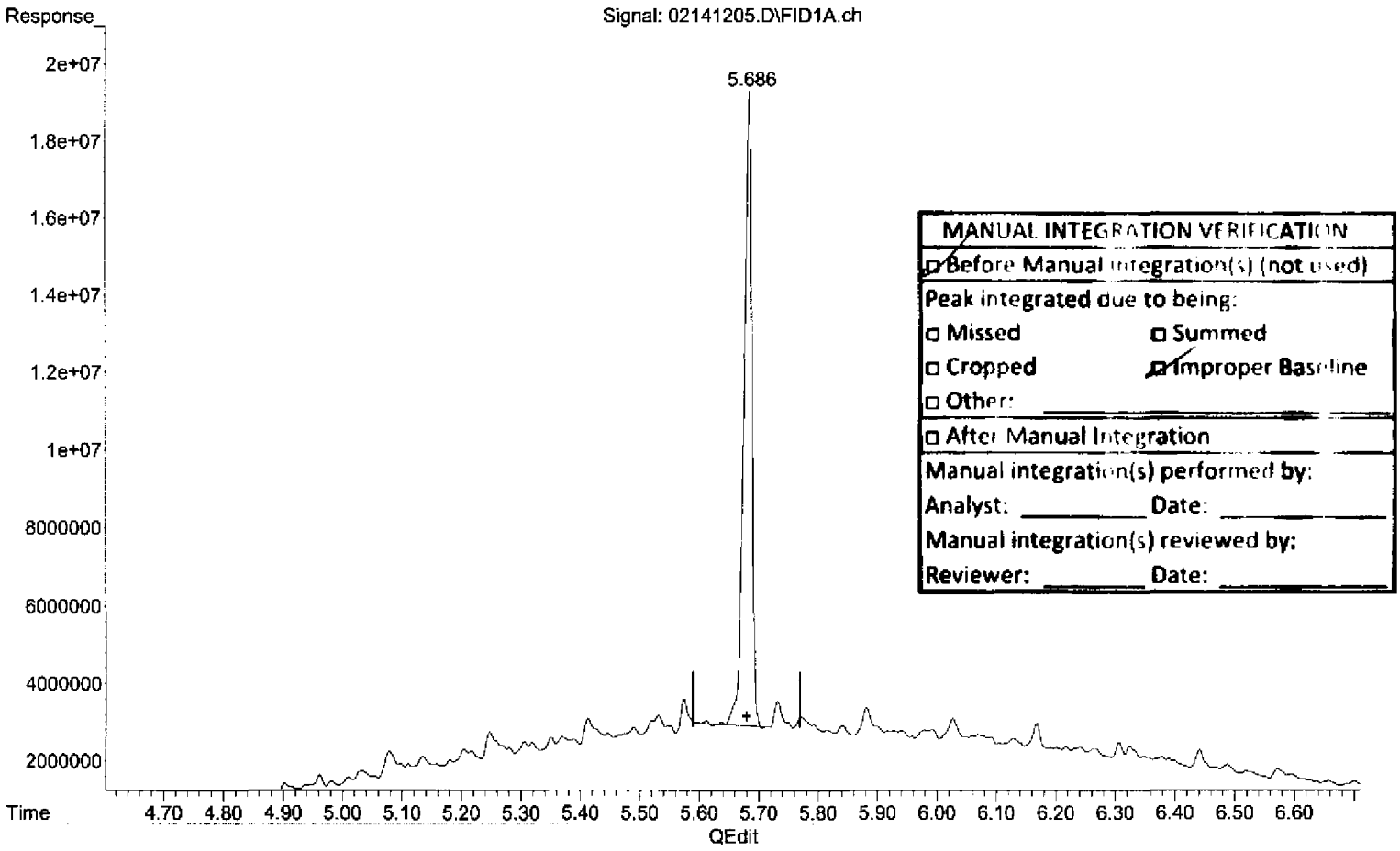
R.T.: 5.686 min
Delta R.T.: 0.006 min
Response: 151570085
Conc: 42.67 ug/mL m

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141205.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 1:00 pm
Operator: TD
Sample : 2020053-CCV2
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:00 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



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)

5.684min 42.191 ug/mL

response 149877848

(+) = Expected Retention Time
013012DROA.M Wed Feb 15 09:47:05 2012

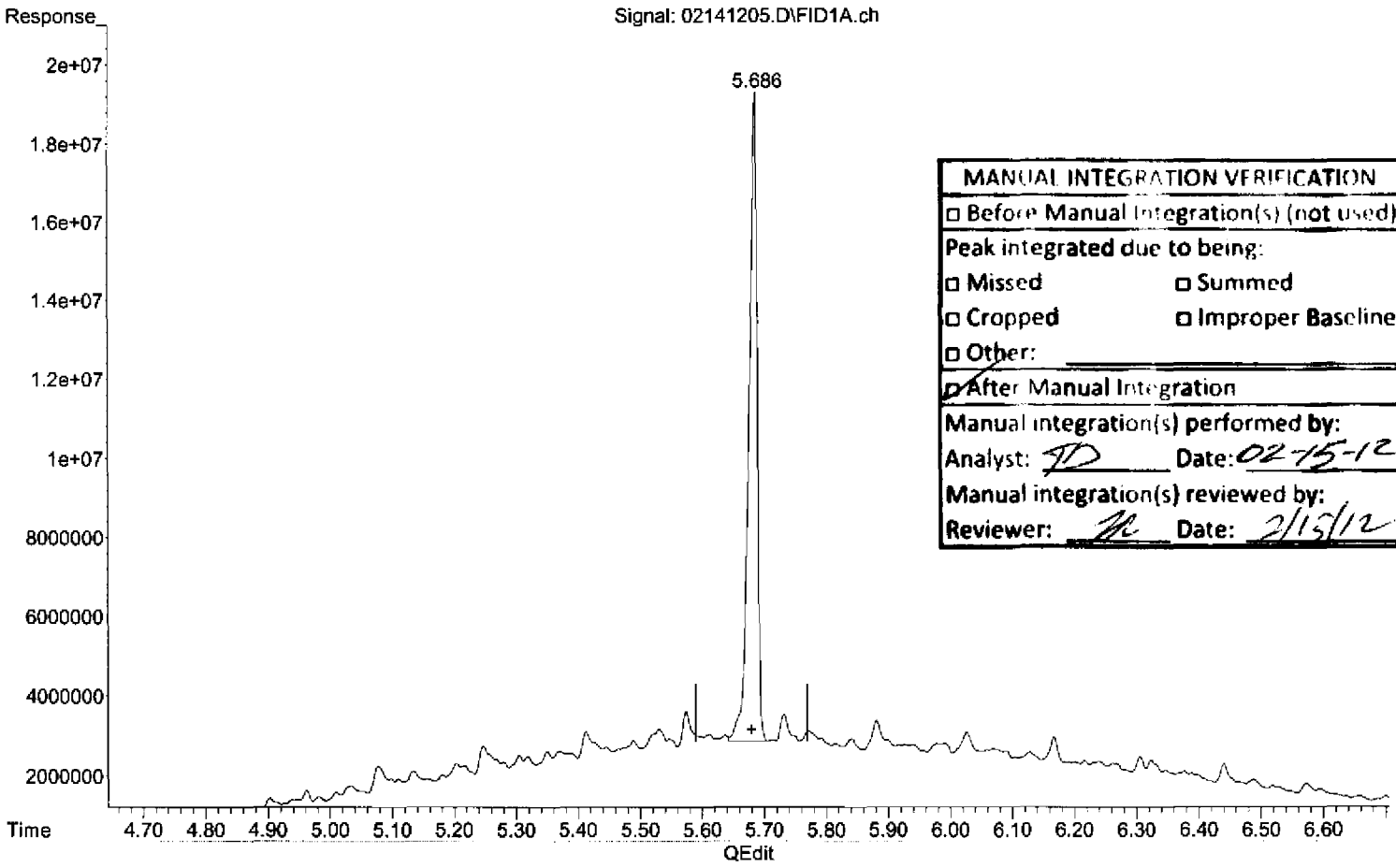
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141205.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 1:00 pm
Sample : 2020053-CCV2
Misc : 2A11012 OIL-CV
ALS Vial : 5 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:00 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



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: 02-15-12
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 2/15/12

(3) Surrogate (S)

5.686min 42.667 ug/mL m

response 151570085

(+) = Expected Retention Time
013012DROA.M Wed Feb 15 09:47:22 2012

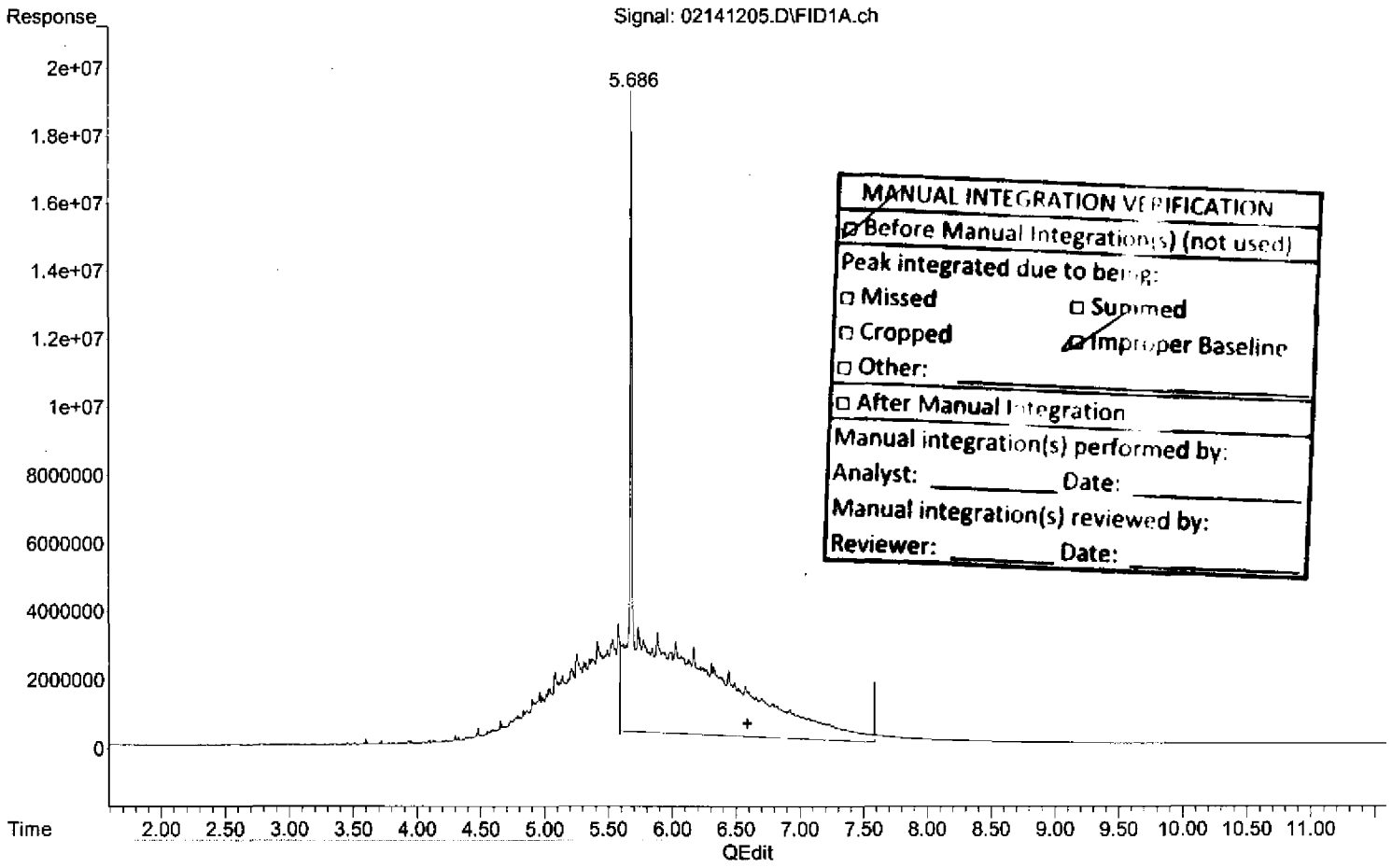
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141205.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 1:00 pm
Sample : 2020053-CCV2
Misc : 2A11012 OIL-CV
ALS Vial : 5 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:00 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



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 831.182 ug/mL

response 1591609611

(+) = Expected Retention Time

013012DROA.M Wed Feb 15 09:47:30 2012

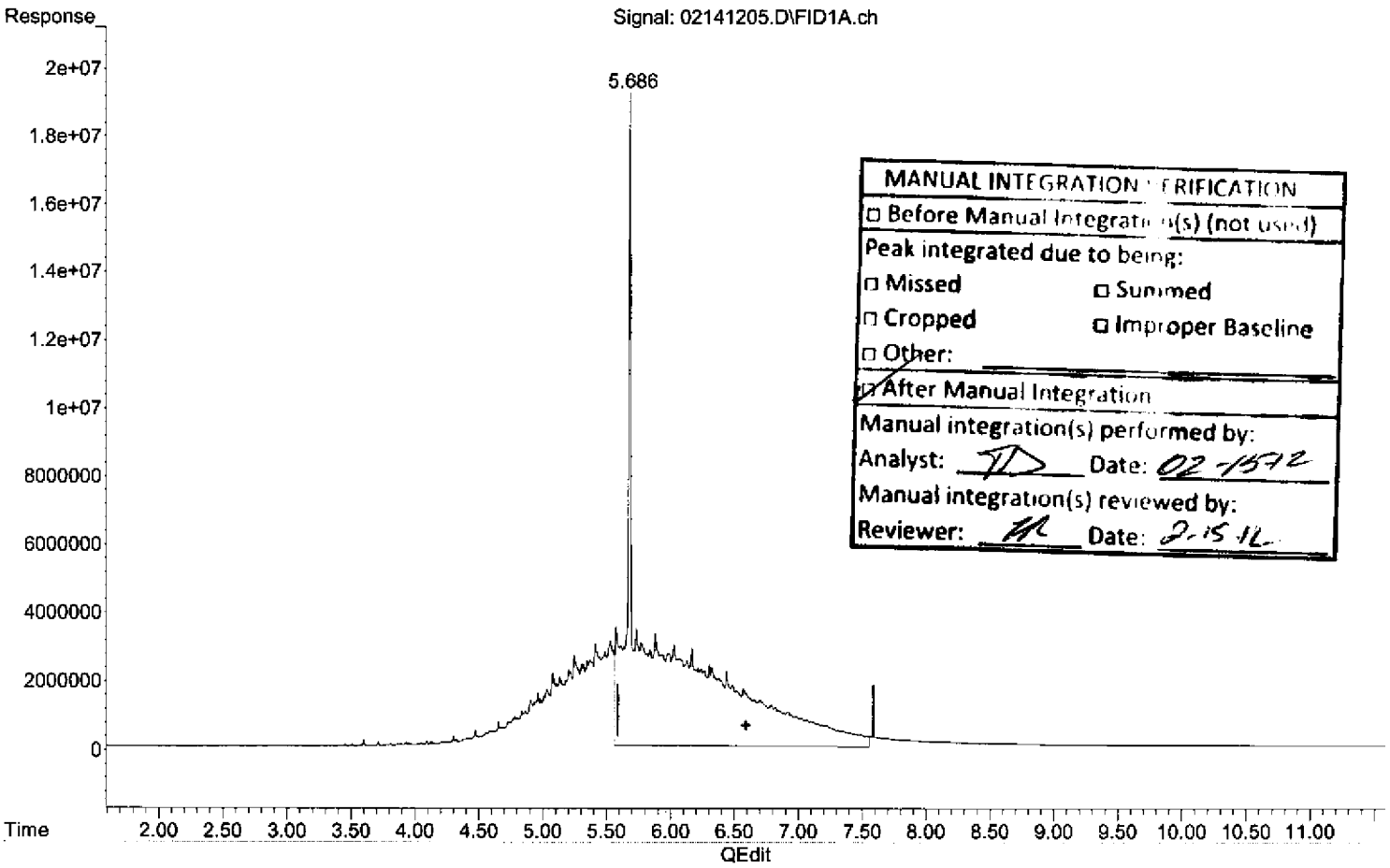
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141205.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 1:00 pm
Sample : 2020053-CCV2
Misc : 2A11012 OIL-CV
ALS Vial : 5 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:00 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



(2) OIL (H)

6.590min 999.395 ug/mL m

response 1913717490

(+) = Expected Retention Time

013012DROA.M Wed Feb 15 09:47:44 2012

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141205.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 1:00 pm Operator: TD
Sample : 2020053-CCV2 Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:00 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	149877848	42.191 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	84.38%
Target Compounds			
1) HM Diesel (TPH)	4.080	1003615544	279.677 ug/mL
2) H OIL	6.590	1593301848	832.065 ug/mL

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

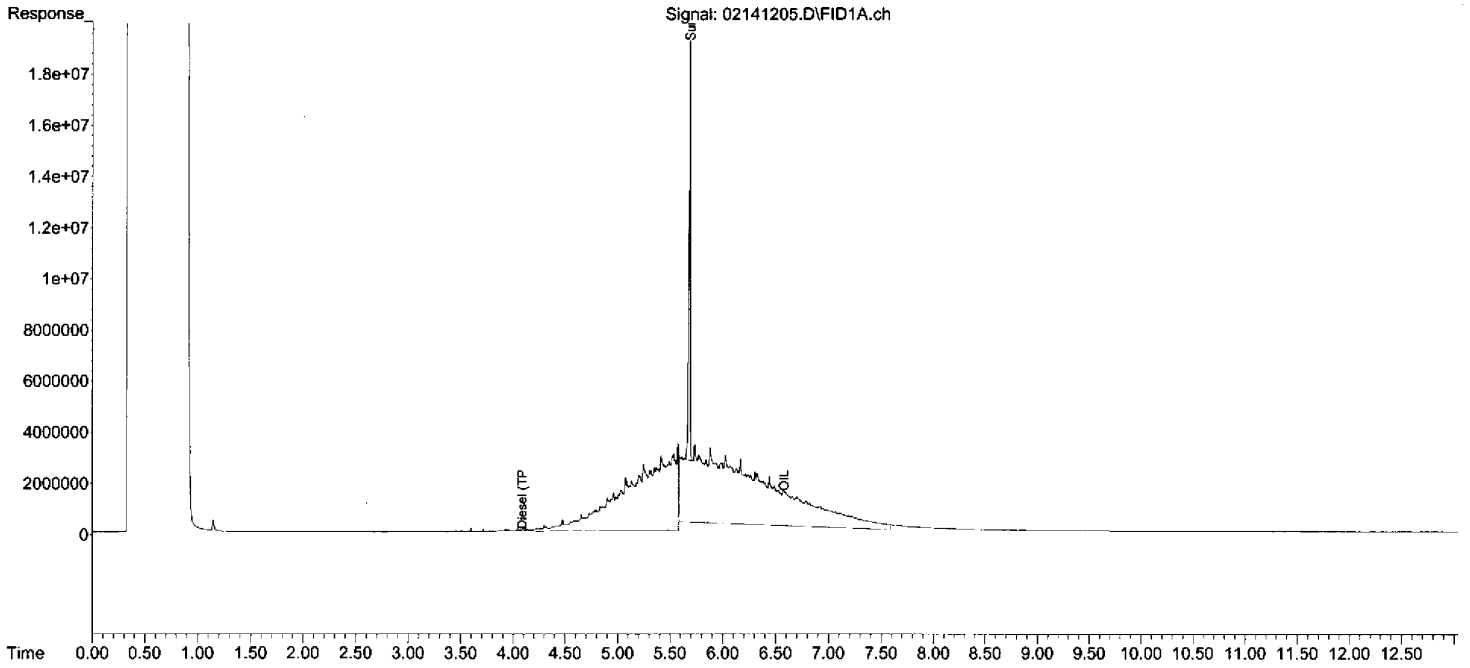
MANUAL INTEGRATION VERIFICATION
☒ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☐ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: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

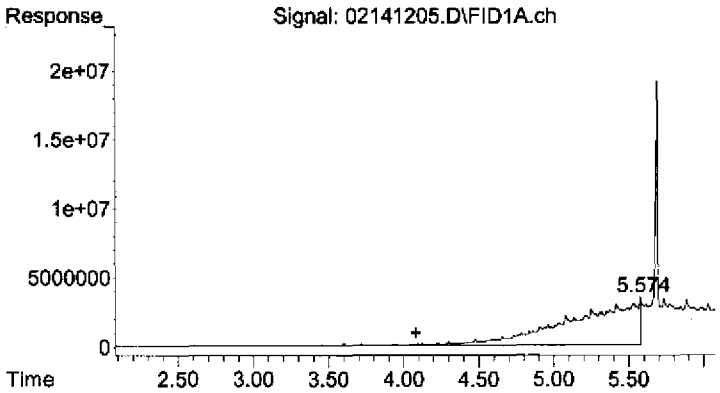
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141205.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 1:00 pm
Operator: TD
Sample : 2020053-CCV2
Inst : AG7890_2
Misc : 2A11012 OIL-CV
ALS Vial : 5 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:00 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

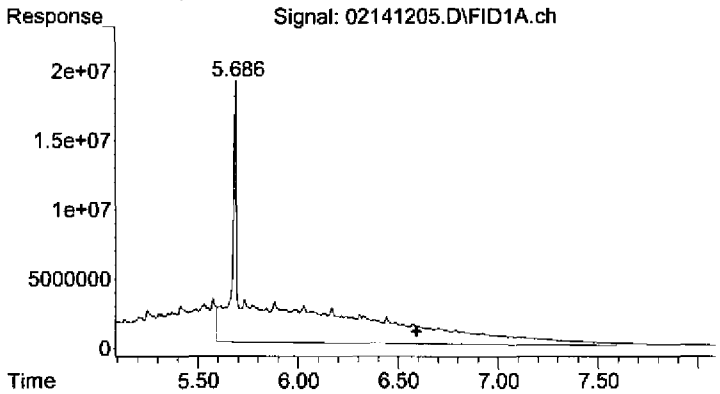
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





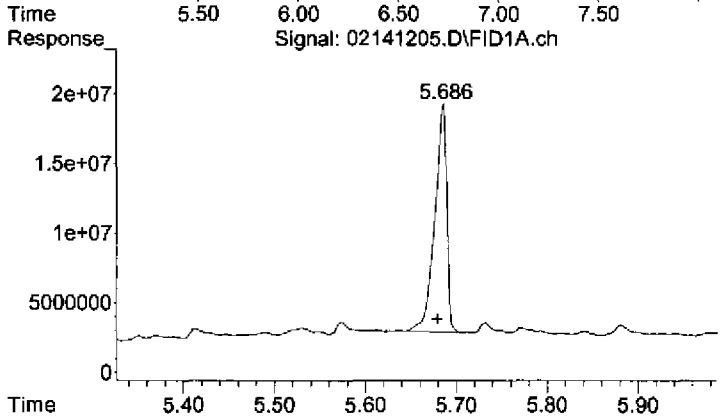
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1003615544
Conc: 279.68 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1593301848
Conc: 832.07 ug/mL



#3 Surrogate

R.T.: 5.684 min
Delta R.T.: 0.005 min
Response: 149877848
Conc: 42.19 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141206.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 1:18 pm Operator: TD
Sample : B2B0057-BLK1 Inst : AG7890_2
Misc : RB
ALS Vial : 6 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:06 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	160604871	45.210 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	90.42%
Target Compounds			
1) HM Diesel (TPH)	4.080	14615170	4.073 ug/mL
2) H OIL	6.590	4543958	2.373 ug/mL

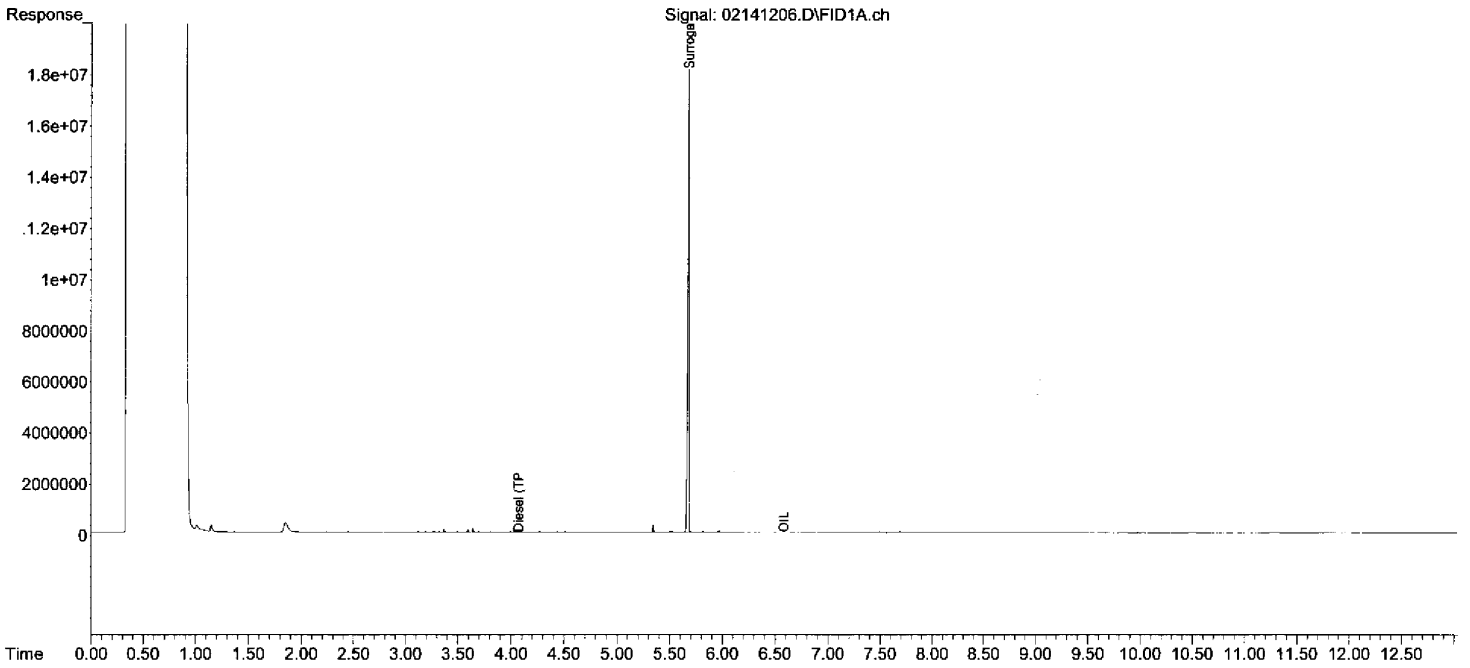
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

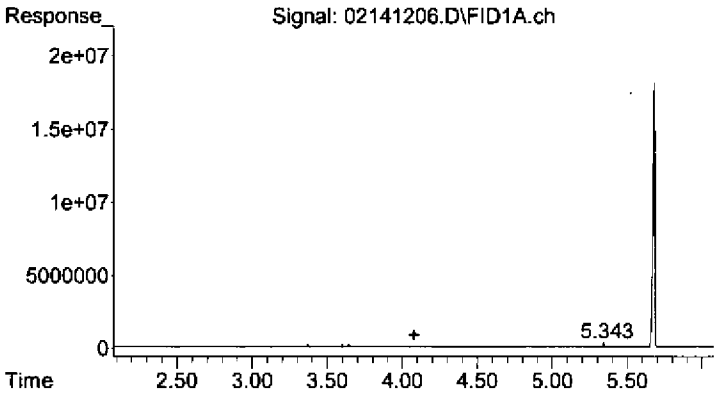
Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141206.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 1:18 pm
Operator: TD
Sample : B2B0057-BLK1
Inst : AG7890_2
Misc : RB
ALS Vial : 6 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:06 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

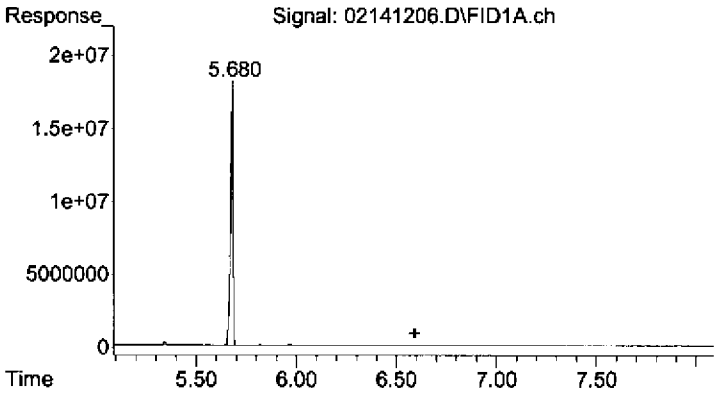


013012DROA.M Wed Feb 15 09:34:08 2012
Page: 2



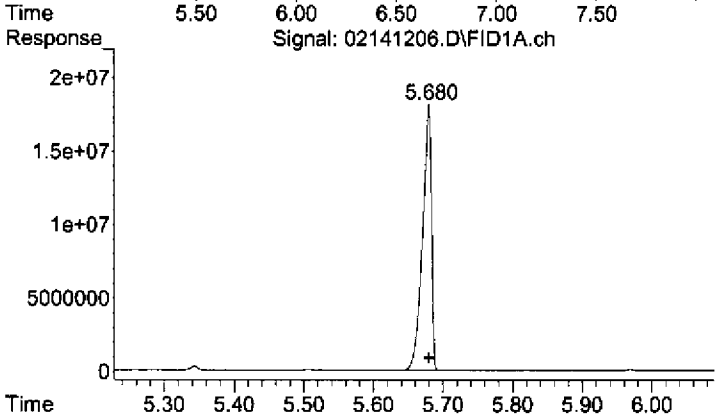
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 14615170
Conc: 4.07 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 4543958
Conc: 2.37 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.001 min
Response: 160604871
Conc: 45.21 ug/mL

DIESEL LCS WATER REPORT

Instrument Name: AG7890_2
Date Acquired: 2/14/2012 13:36
Acq. Method File: 012712DROA.M
Sample Name: B2B0057-BS1
Misc Info: BS
Operator: TD

Name	Concentration ng/mL	Calculated	% Recovery	QC Limits	STATUS
Diesel (TPH)	500	448.07	89.61%	54 - 115	pass

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141207.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 1:36 pm Operator: TD
Sample : B2B0057-BS1 Inst : AG7890_2
Misc : BS
ALS Vial : 7 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:11 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	171232387	48.202 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	96.40%
Target Compounds			
1) HM Diesel (TPH)	4.080	1607903059	448.073 ug/mL
2) H OIL	6.590	7358313	3.843 ug/mL

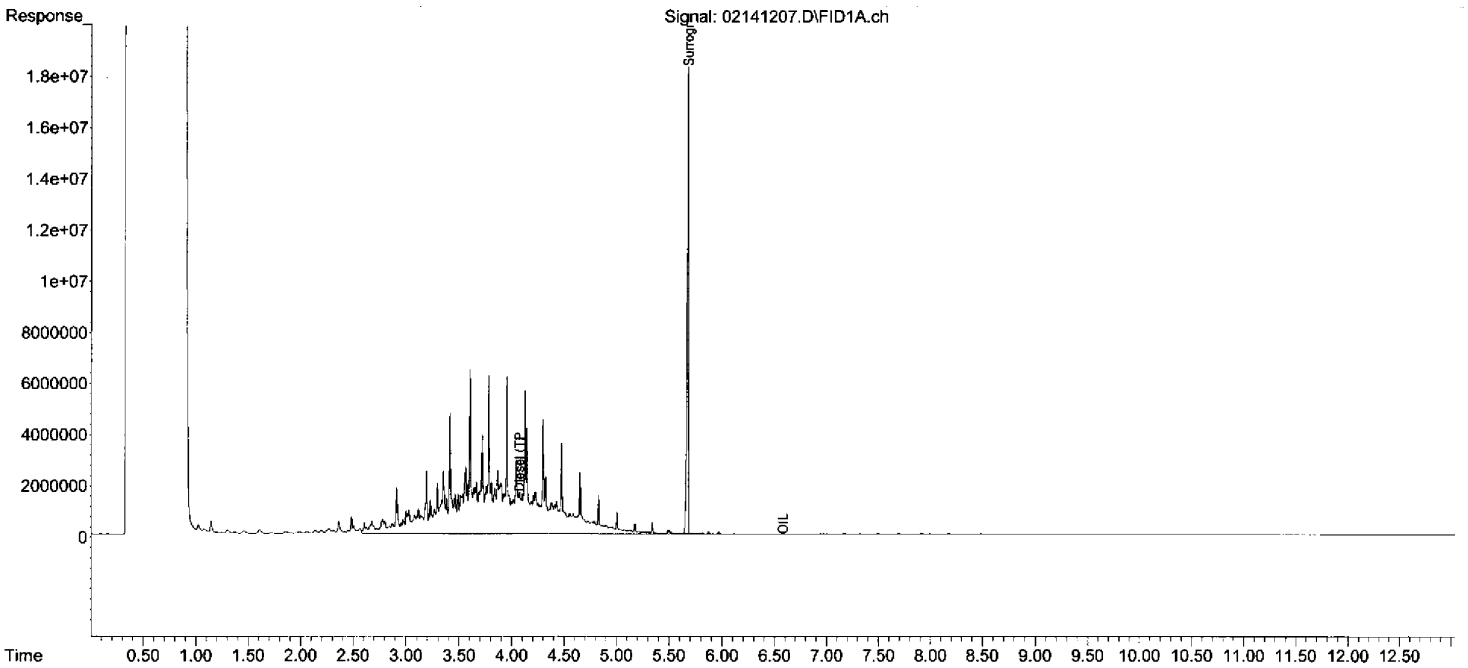
(f)=RT Delta > 1/2 Window (m)=manual int.

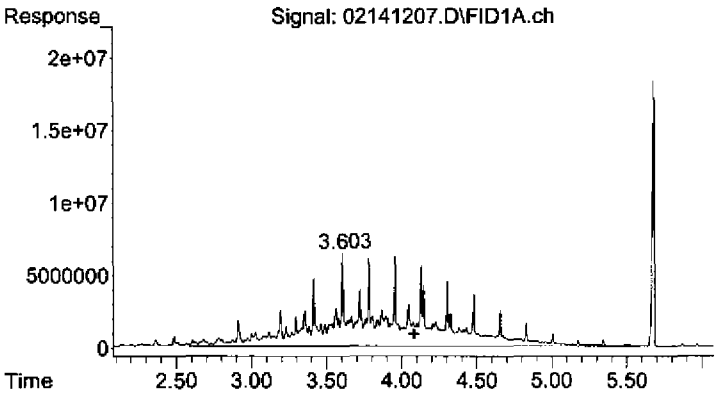
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141207.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 1:36 pm
Operator: TD
Sample : B2B0057-BS1
Inst : AG7890_2
Misc : BS
ALS Vial : 7 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:11 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

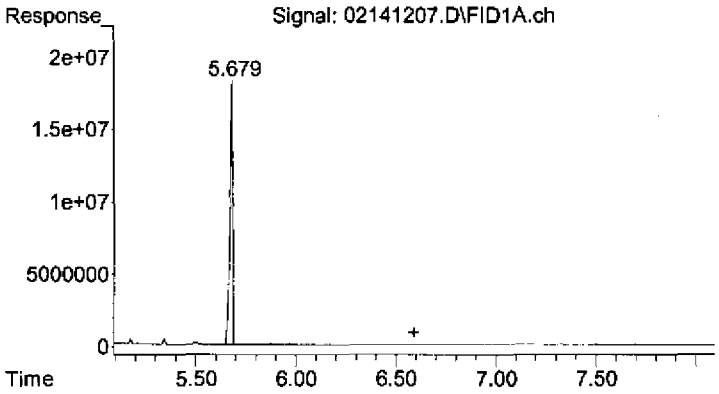
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





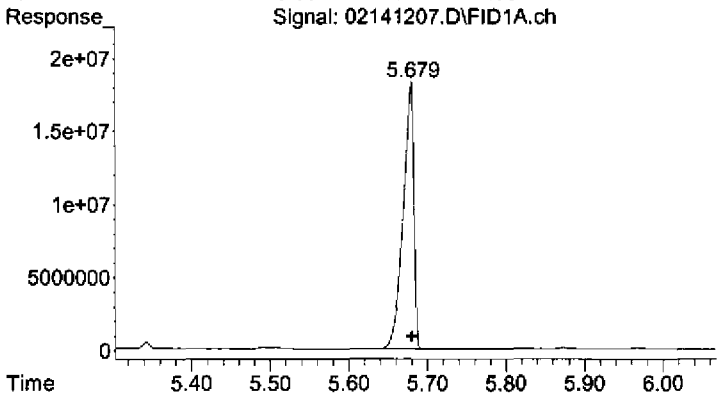
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1607903059
Conc: 448.07 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 7358313
Conc: 3.84 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.002 min
Response: 171232387
Conc: 48.20 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141208.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 1:54 pm Operator: TD
Sample : 1202031-01 Inst : AG7890_2
Misc : HW48
ALS Vial : 8 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:15 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	5.678	167368136	47.114 ug/mL
Spiked Amount 50.000 Range 60 - 127 Recovery = 94.23%			
Target Compounds			
1) HM Diesel (TPH)	4.080	14476457	4.034 ug/mL
2) H OIL	6.590	3877153	2.025 ug/mL

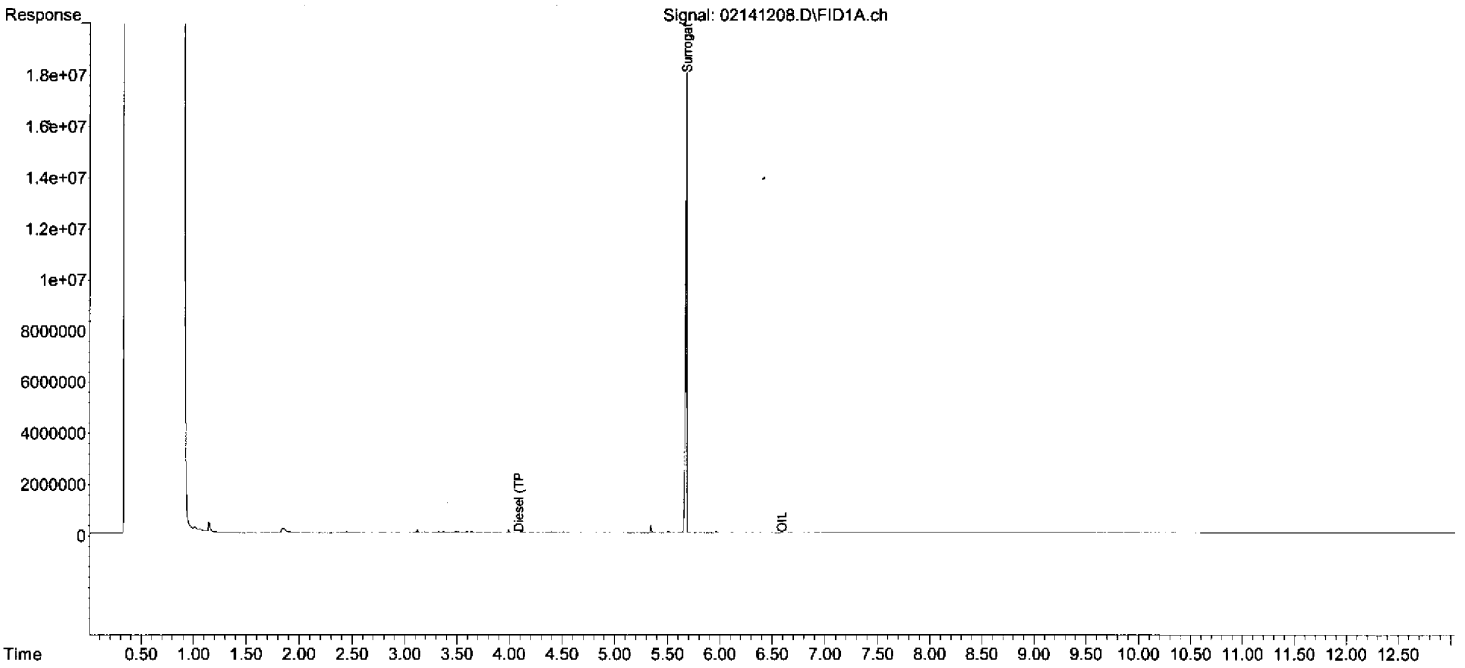
(f)=RT Delta > 1/2 Window (m)=manual int.

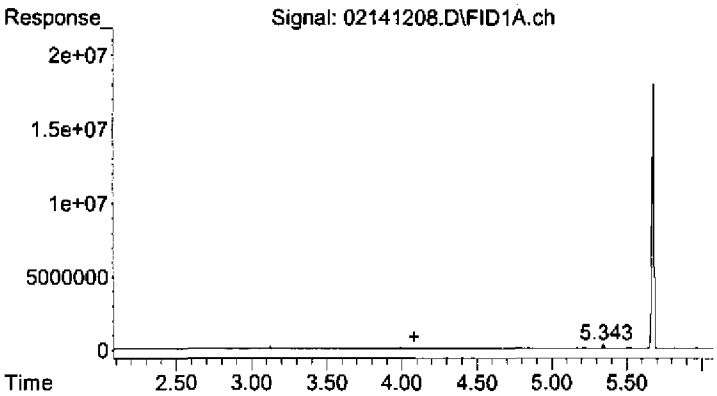
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141208.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 1:54 pm
Operator: TD
Sample : 1202031-01
Inst : AG7890_2
Misc : HW48
ALS Vial : 8 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:15 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

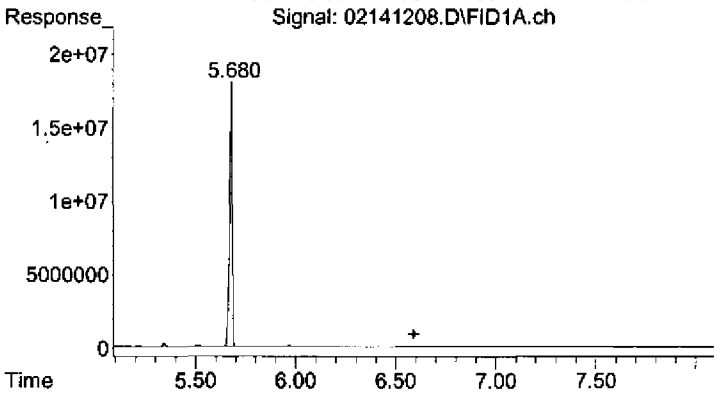
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





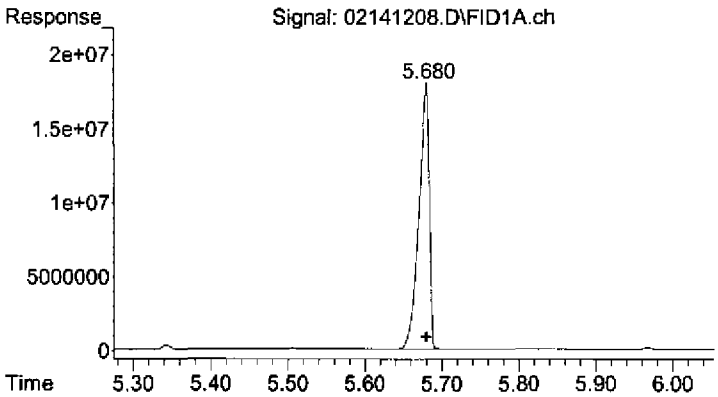
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 14476457
Conc: 4.03 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3877153
Conc: 2.02 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.001 min
Response: 167368136
Conc: 47.11 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141209.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 2:12 pm Operator: TD
Sample : 1202031-02 Inst : AG7890_2
Misc : HW48z
ALS Vial : 9 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:19 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	5.678	160696483	45.236 ug/mL
Spiked Amount 50.000 Range 60 - 127 Recovery = 90.47%			
Target Compounds			
1) HM Diesel (TPH)	4.080	22618608	6.303 ug/mL
2) H OIL	6.590	3873818	2.023 ug/mL

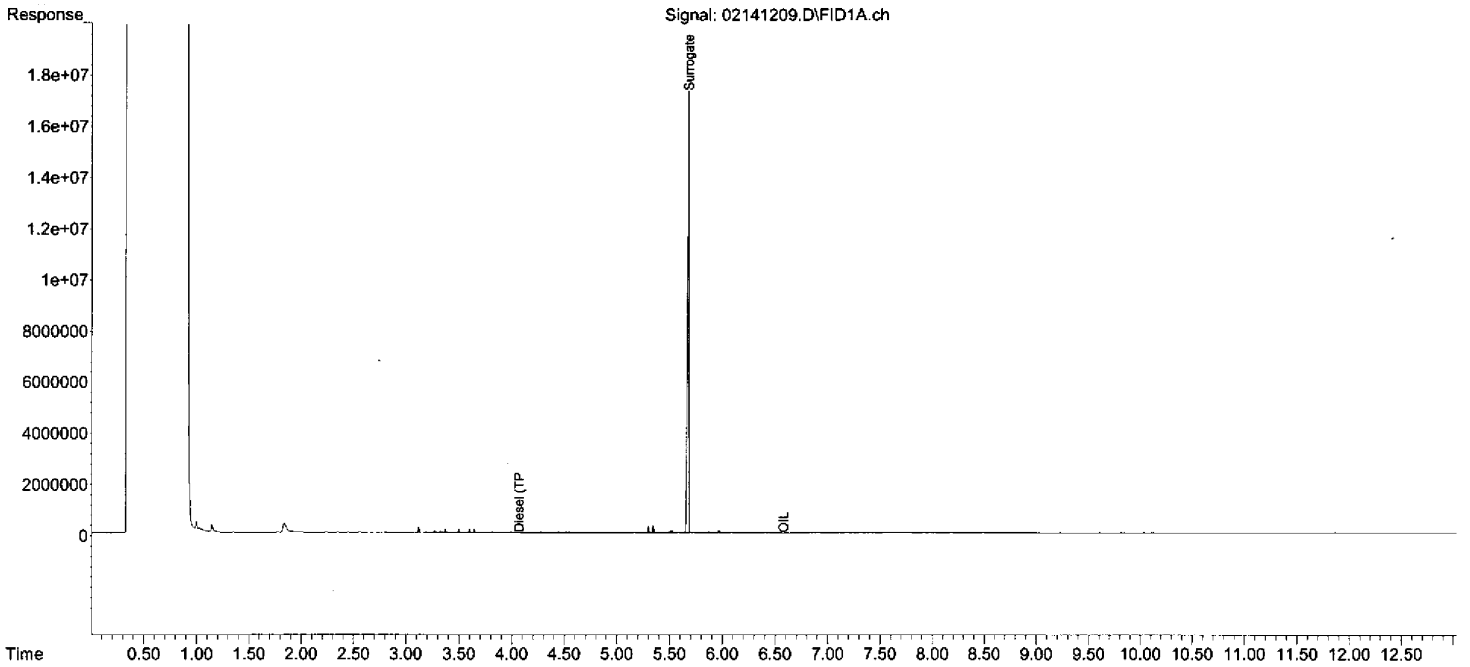
(f)=RT Delta > 1/2 Window (m)=manual int.

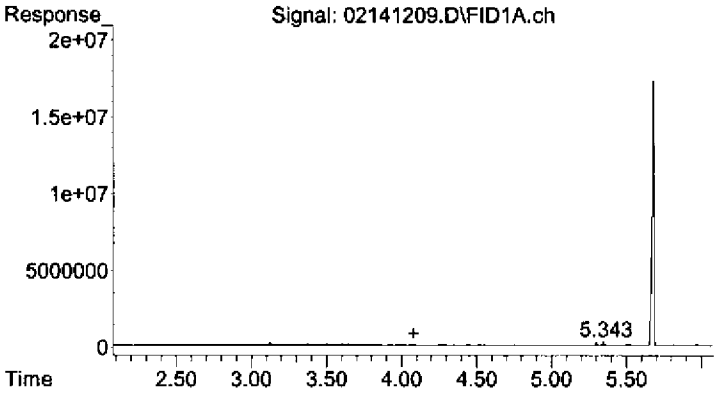
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141209.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 2:12 pm
Operator: TD
Sample : 1202031-02
Inst : AG7890_2
Misc : HW48z
ALS Vial : 9 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:19 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

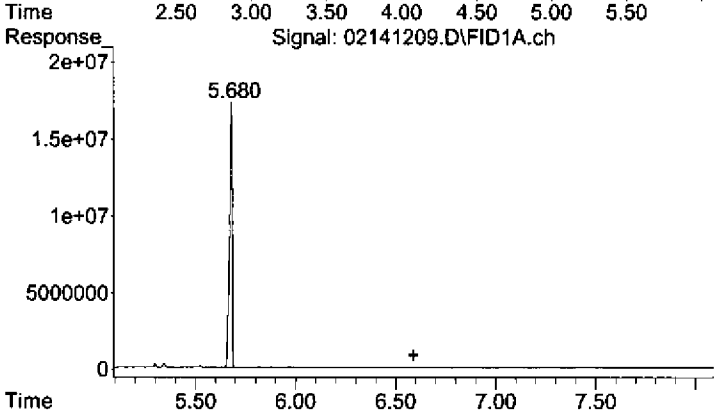
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





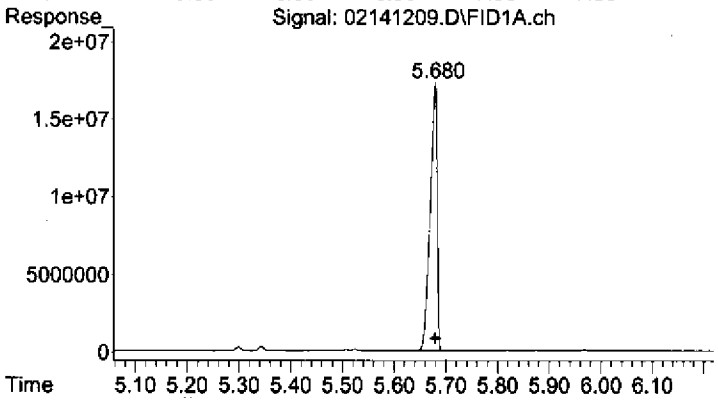
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 22618608
Conc: 6.30 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3873818
Conc: 2.02 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.002 min
Response: 160696483
Conc: 45.24 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141210.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 2:30 pm Operator: TD
Sample : 1202031-04 Inst : AG7890_2
Misc : HW23
ALS Vial : 10 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:24 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	5.677	152470790	42.920 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	85.84%
Target Compounds			
1) HM Diesel (TPH)	4.080	11629250	3.241 ug/mL
2) H OIL	6.590	9381816	4.899 ug/mL

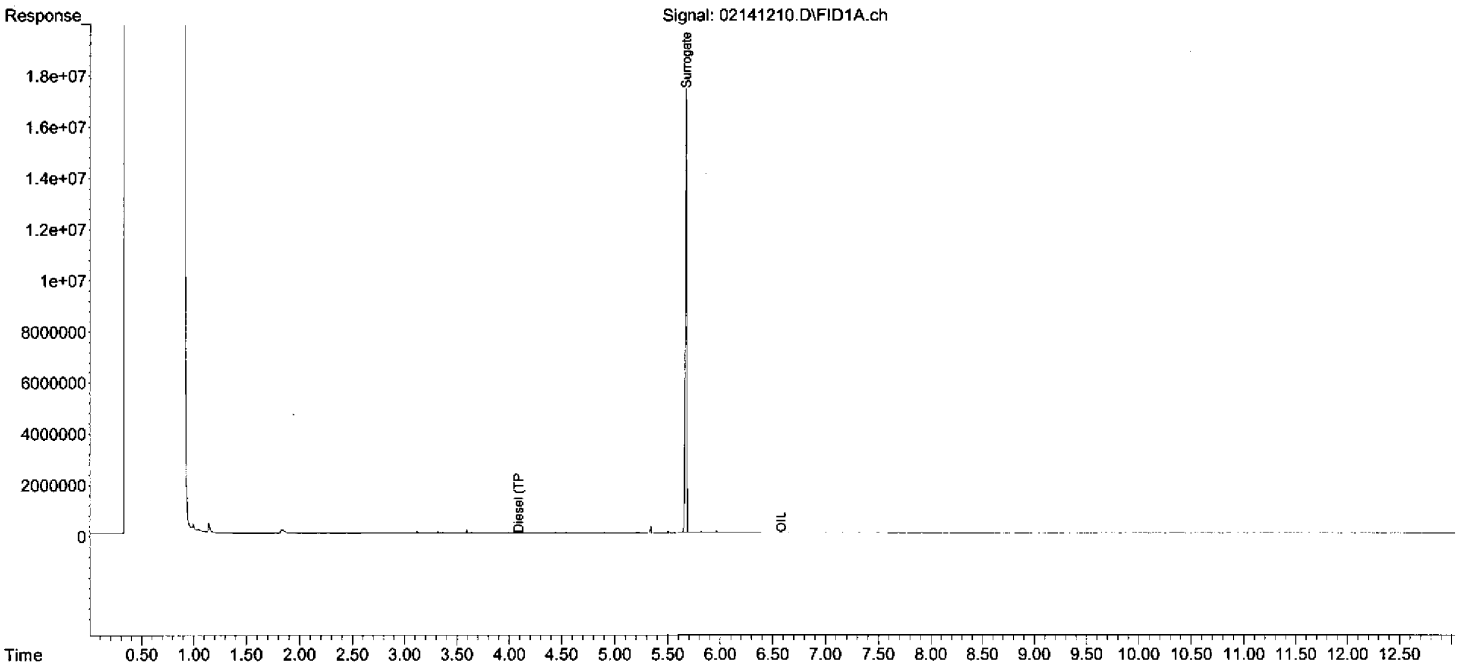
(f)=RT Delta > 1/2 Window (m)=manual int.

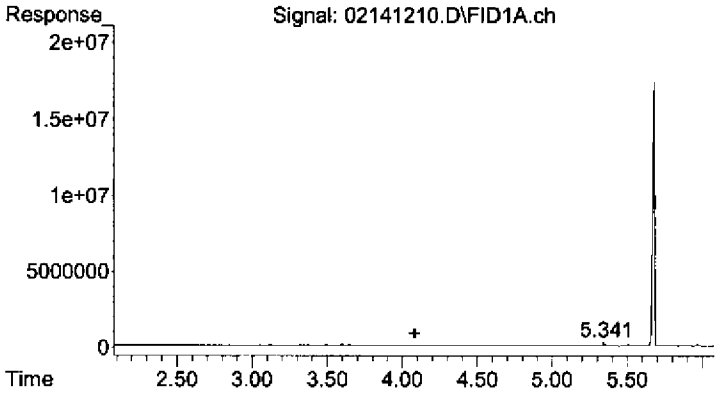
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141210.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 2:30 pm
Operator: TD
Sample : 1202031-04
Inst : AG7890_2
Misc : HW23
ALS Vial : 10 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:24 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

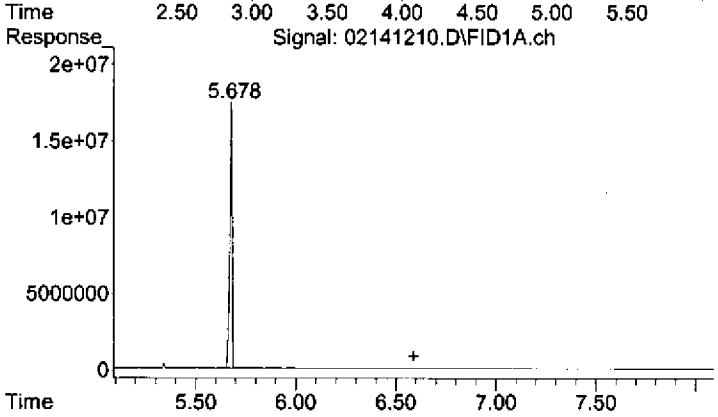
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





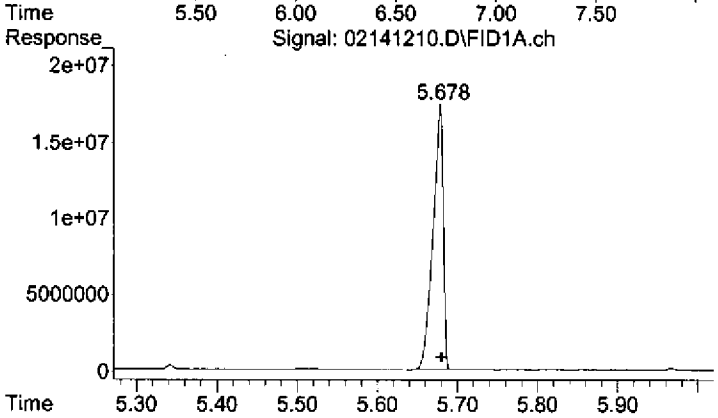
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 11629250
Conc: 3.24 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 9381816
Conc: 4.90 ug/mL



#3 Surrogate

R.T.: 5.677 min
Delta R.T.: -0.003 min
Response: 152470790
Conc: 42.92 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141211.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 2:48 pm Operator: TD
Sample : 1202031-05 Inst : AG7890_2
Misc : HW23-P
ALS Vial : 11 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:29 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	178901751	50.361 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	100.72%
Target Compounds			
1) HM Diesel (TPH)	4.080	19617111	5.467 ug/mL
2) H OIL	6.590	4785403	2.499 ug/mL

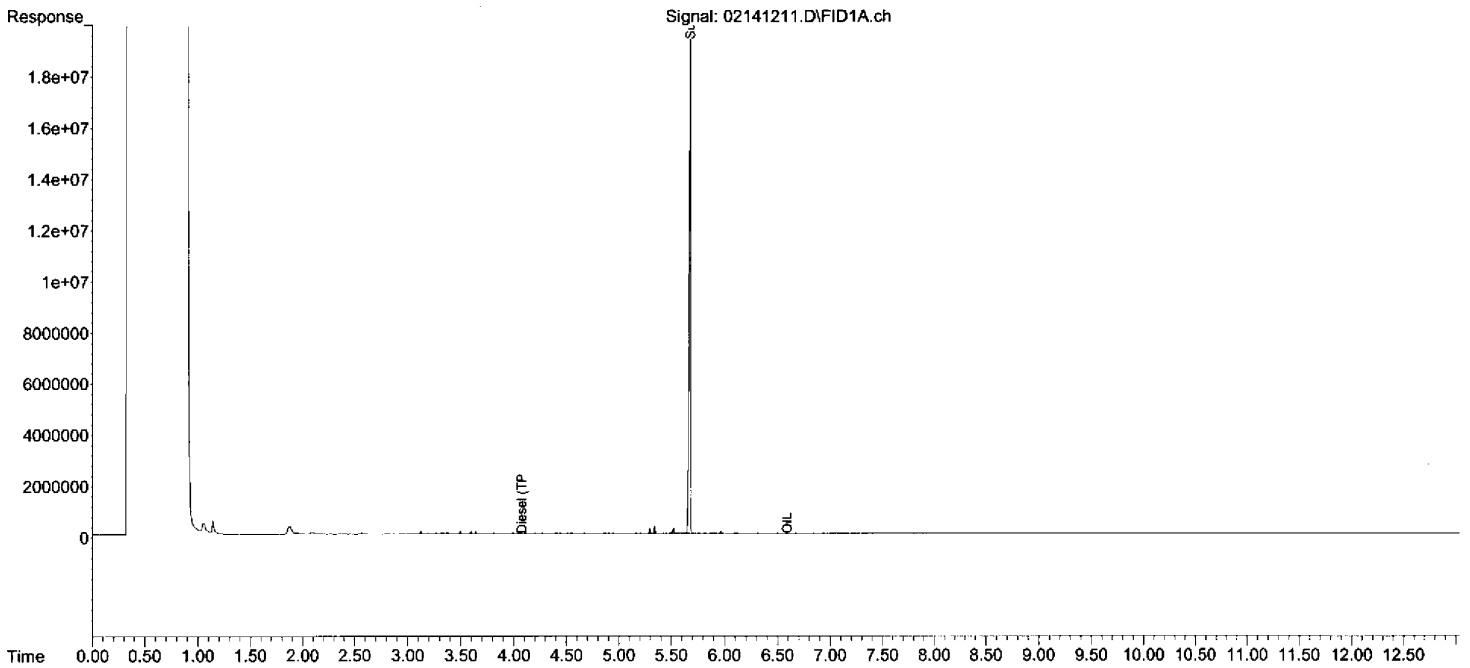
(f)=RT Delta > 1/2 Window (m)=manual int.

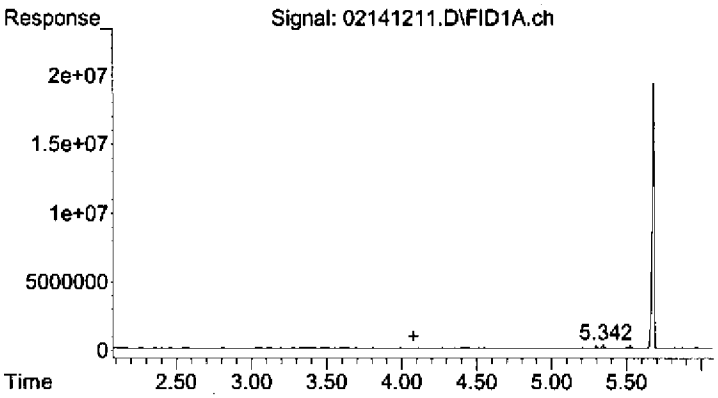
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141211.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 2:48 pm
Operator: TD
Sample : 1202031-05
Inst : AG7890_2
Misc : HW23-P
ALS Vial : 11 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:29 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

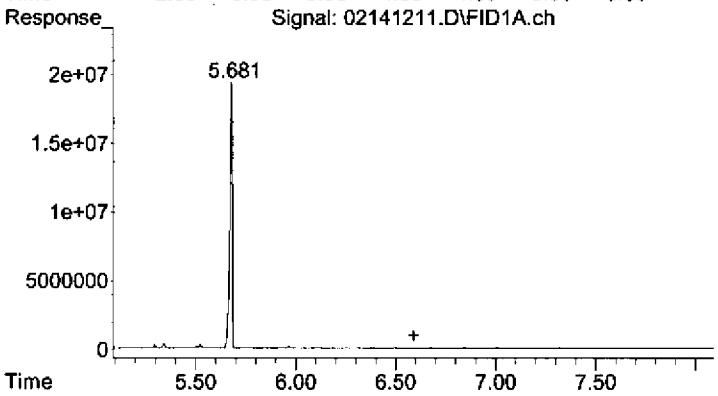
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





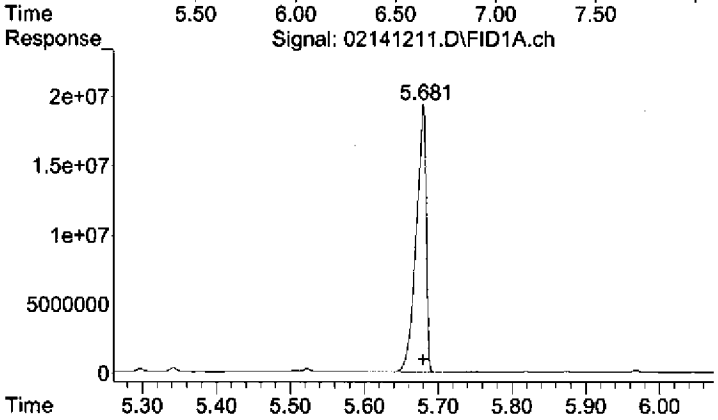
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 19617111
Conc: 5.47 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 4785403
Conc: 2.50 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 178901751
Conc: 50.36 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141212.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 3:06 pm Operator: TD
Sample : 1202031-07 Inst : AG7890_2
Misc : HW21
ALS Vial : 12 Sample Multiplier: 1

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

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.678	170074258	47.876 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	95.75%
Target Compounds			
1) HM Diesel (TPH)	4.080	19128950	5.331 ug/mL
2) H OIL	6.590	4712668	2.461 ug/mL

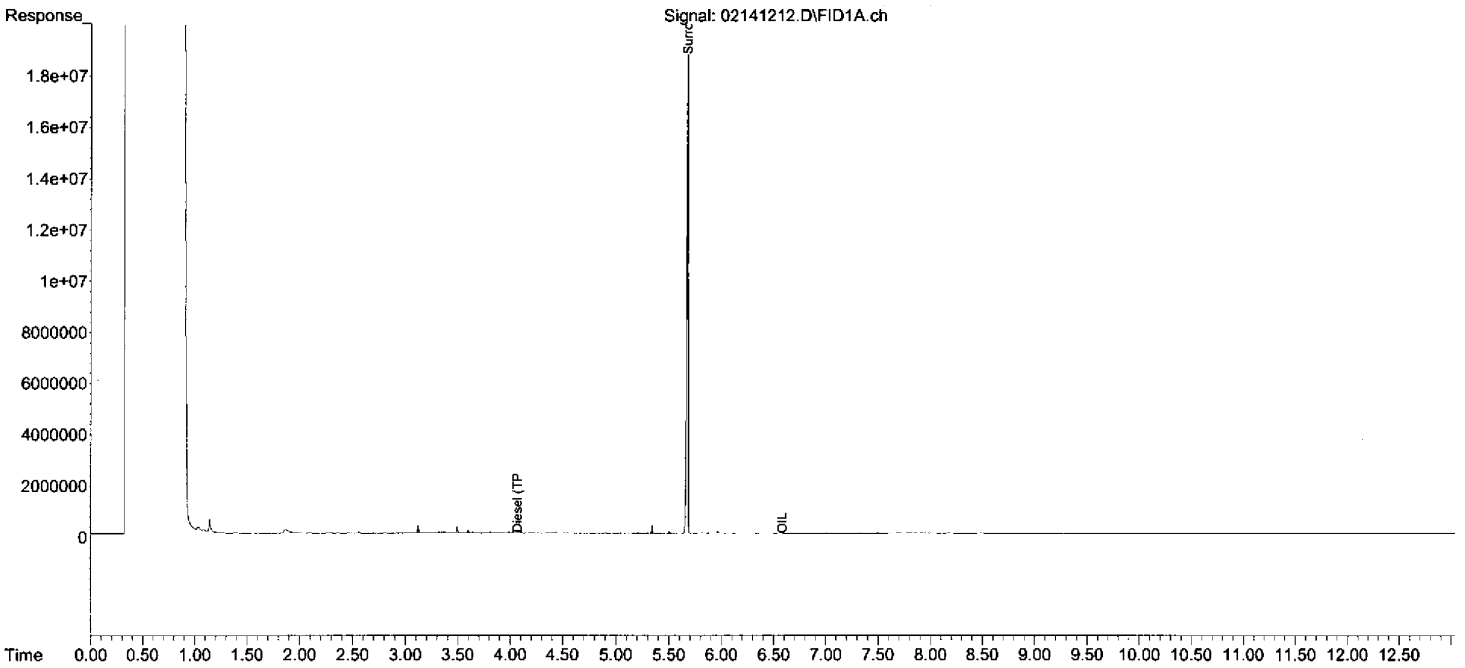
(f)=RT Delta > 1/2 Window (m)=manual int.

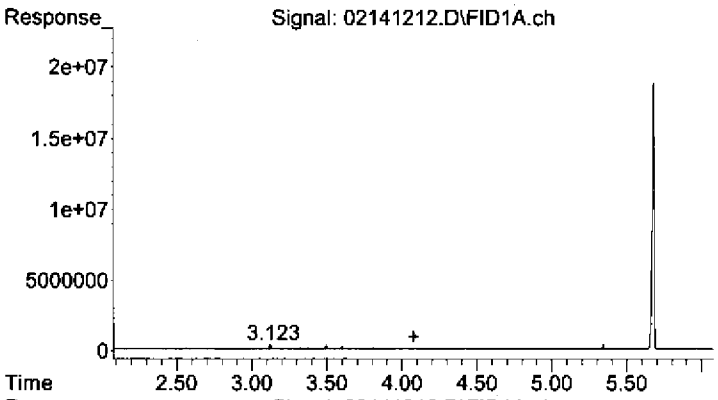
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141212.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 3:06 pm Operator: TD
Sample : 1202031-07 Inst : AG7890_2
Misc : HW21
ALS Vial : 12 Sample Multiplier: 1

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

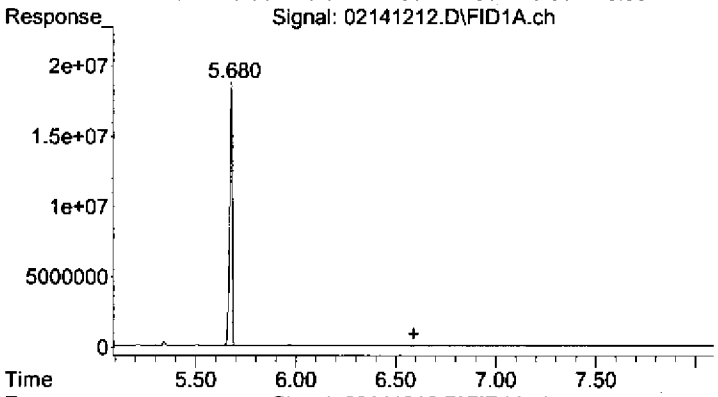
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





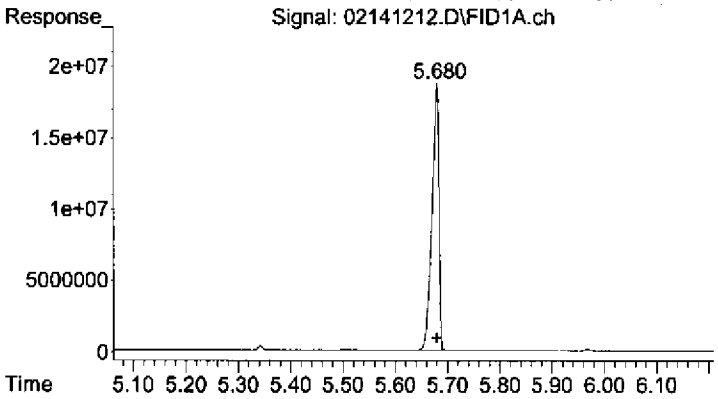
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 19128950
Conc: 5.33 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 4712668
Conc: 2.46 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.001 min
Response: 170074258
Conc: 47.88 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141213.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 3:24 pm Operator: TD
Sample : 1202031-08 Inst : AG7890_2
Misc : HW21z
ALS Vial : 13 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:39 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	160141089	45.080 ug/mL
Spiked Amount 50.000 Range 60 - 127 Recovery = 90.16%			
Target Compounds			
1) HM Diesel (TPH)	4.080	10677527	2.975 ug/mL
2) H OIL	6.590	4100903	2.142 ug/mL

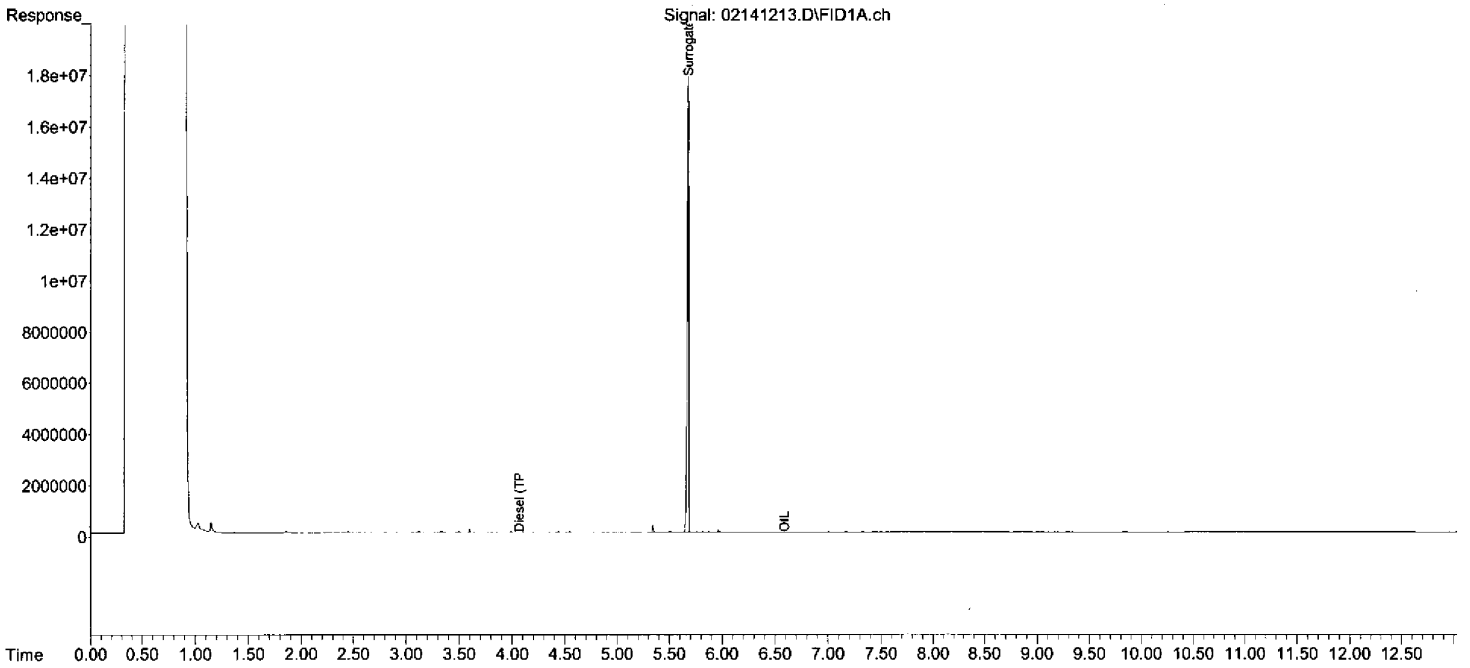
(f)=RT Delta > 1/2 Window (m)=manual int.

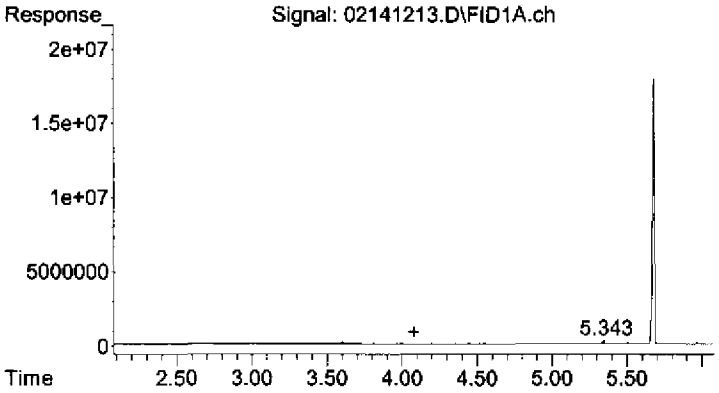
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141213.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 3:24 pm
Operator: TD
Sample : 1202031-08
Inst : AG7890_2
Misc : HW21z
ALS Vial : 13 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:39 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

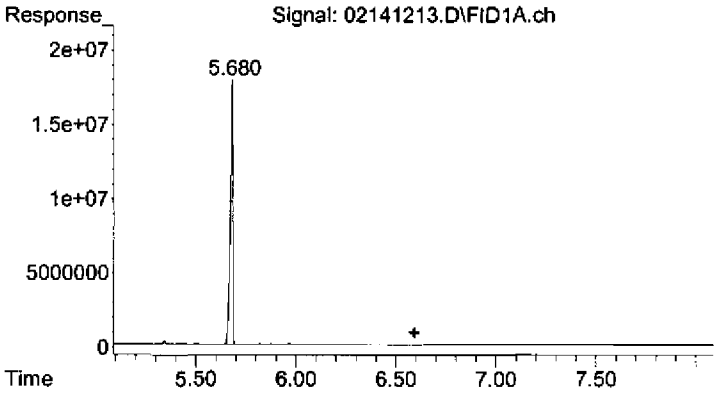
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





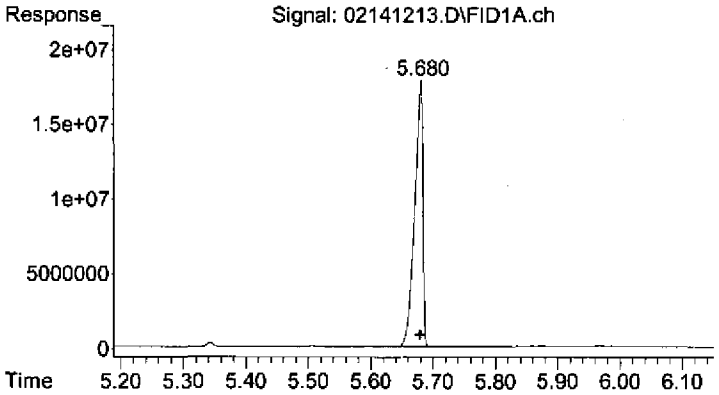
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 10677527
Conc: 2.98 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 4100903
Conc: 2.14 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.002 min
Response: 160141089
Conc: 45.08 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141214.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 3:41 pm Operator: TD
Sample : 1202031-10 Inst : AG7890_2
Misc : HW22
ALS Vial : 14 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:44 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	5.678	161437540	45.445 ug/mL
Spiked Amount 50.000 Range 60 - 127		Recovery =	90.89%
Target Compounds			
1) HM Diesel (TPH)	4.080	16975315	4.730 ug/mL
2) H OIL	6.590	4275112	2.233 ug/mL

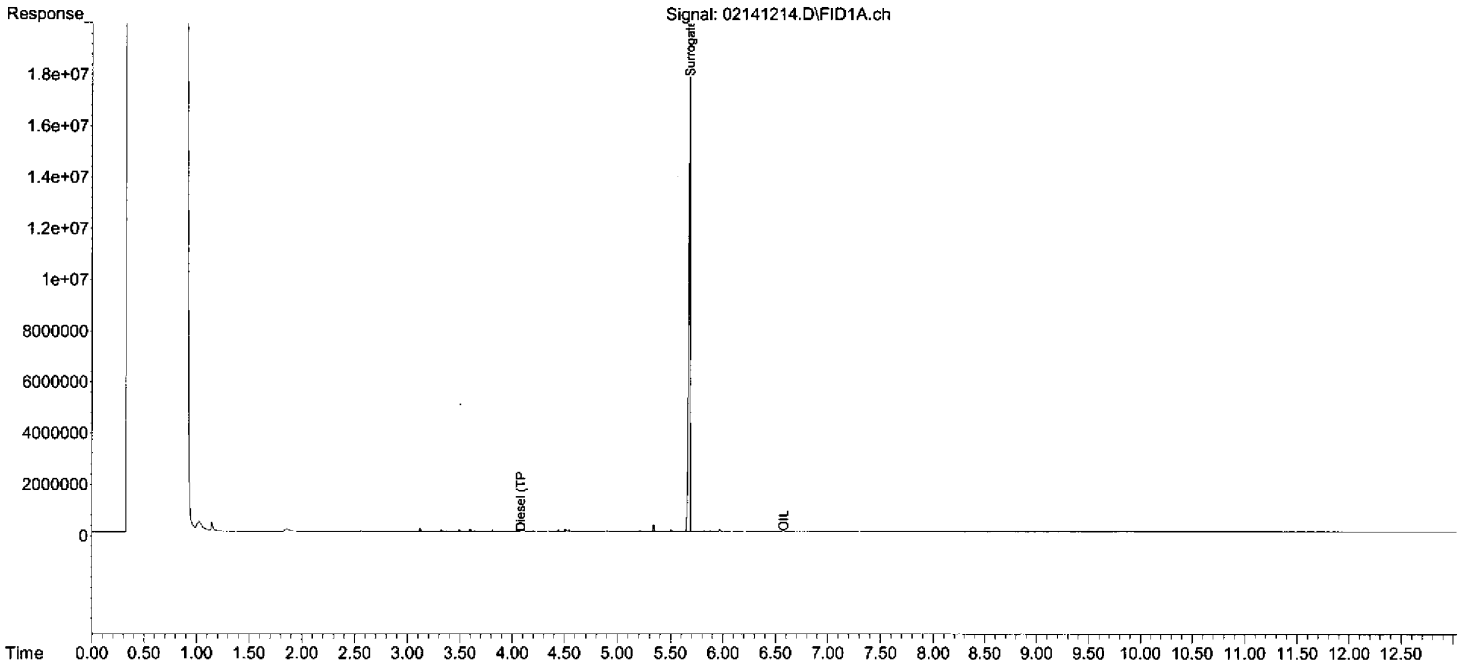
(f)=RT Delta > 1/2 Window (m)=manual int.

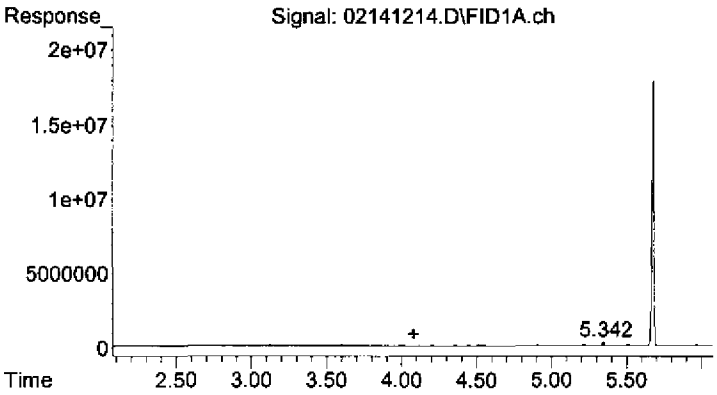
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141214.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 3:41 pm
Operator: TD
Sample : 1202031-10
Inst : AG7890_2
Misc : HW22
ALS Vial : 14 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:44 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

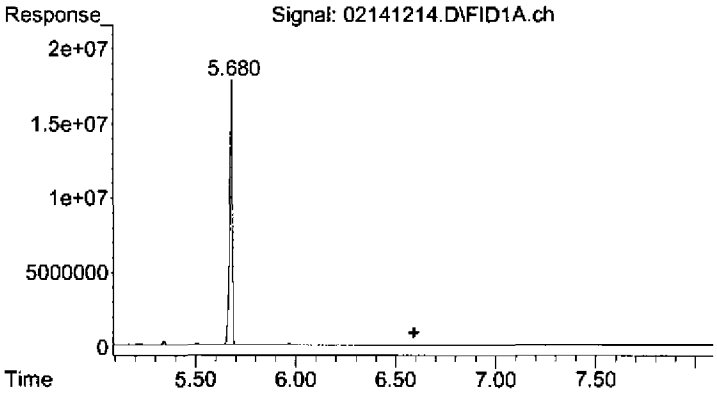
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





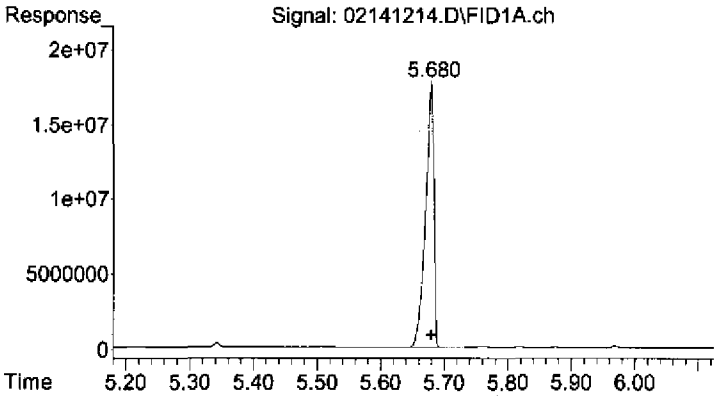
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 16975315
Conc: 4.73 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 4275112
Conc: 2.23 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.001 min
Response: 161437540
Conc: 45.44 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141215.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 3:59 pm Operator: TD
Sample : 1202031-11 Inst : AG7890_2
Misc : HW22-P
ALS Vial : 15 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:48 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	5.677	157786469	44.417 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	88.83%
Target Compounds			
1) HM Diesel (TPH)	4.080	19611474	5.465 ug/mL
2) H OIL	6.590	3558855	1.859 ug/mL

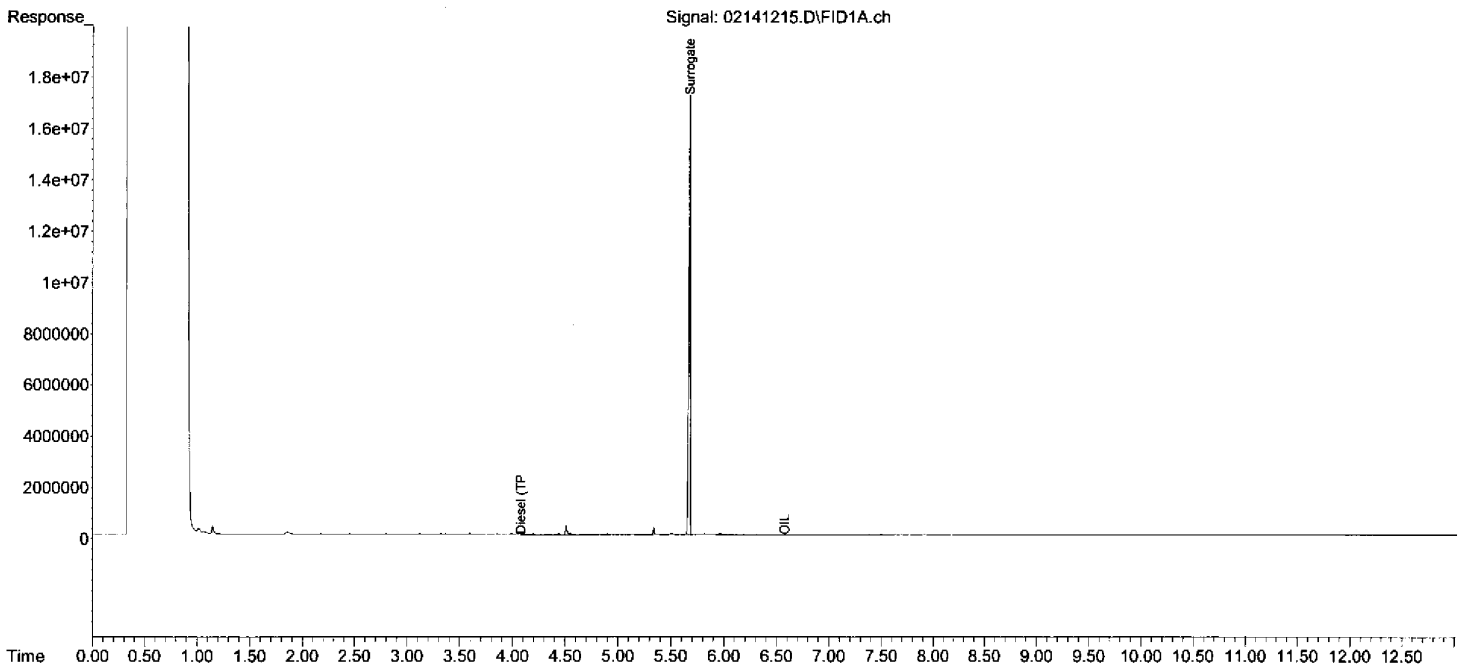
(f)=RT Delta > 1/2 Window (m)=manual int.

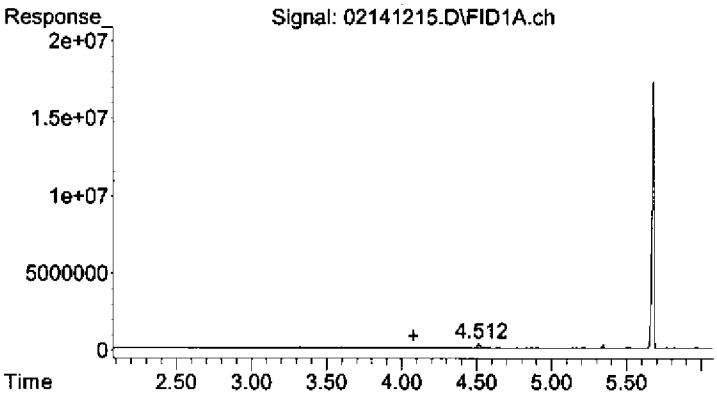
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141215.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 3:59 pm
Operator: TD
Sample : 1202031-11
Inst : AG7890_2
Misc : HW22-P
ALS Vial : 15 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:48 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

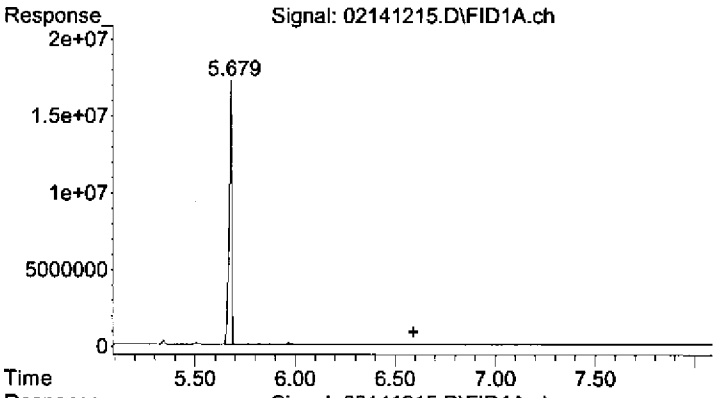
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





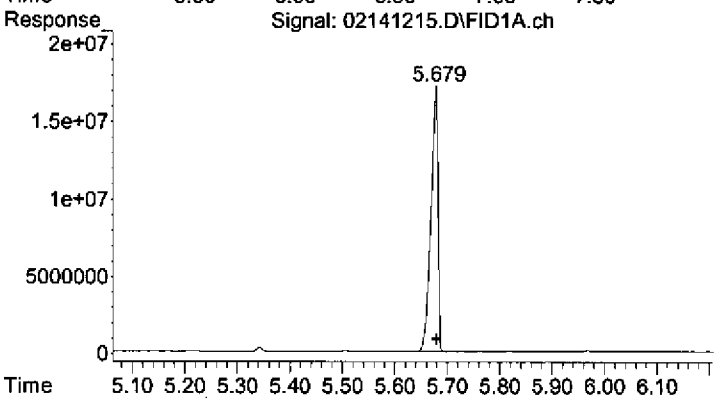
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 19611474
Conc: 5.47 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3558855
Conc: 1.86 ug/mL



#3 Surrogate

R.T.: 5.677 min
Delta R.T.: -0.003 min
Response: 157786469
Conc: 44.42 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141216.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 4:17 pm Operator: TD
Sample : 1202034-01 Inst : AG7890_2
Misc : HW49
ALS Vial : 16 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:52 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	5.678	152267470	42.863 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	85.73%
Target Compounds			
1) HM Diesel (TPH)	4.080	13702148	3.818 ug/mL
2) H OIL	6.590	3286809	1.716 ug/mL

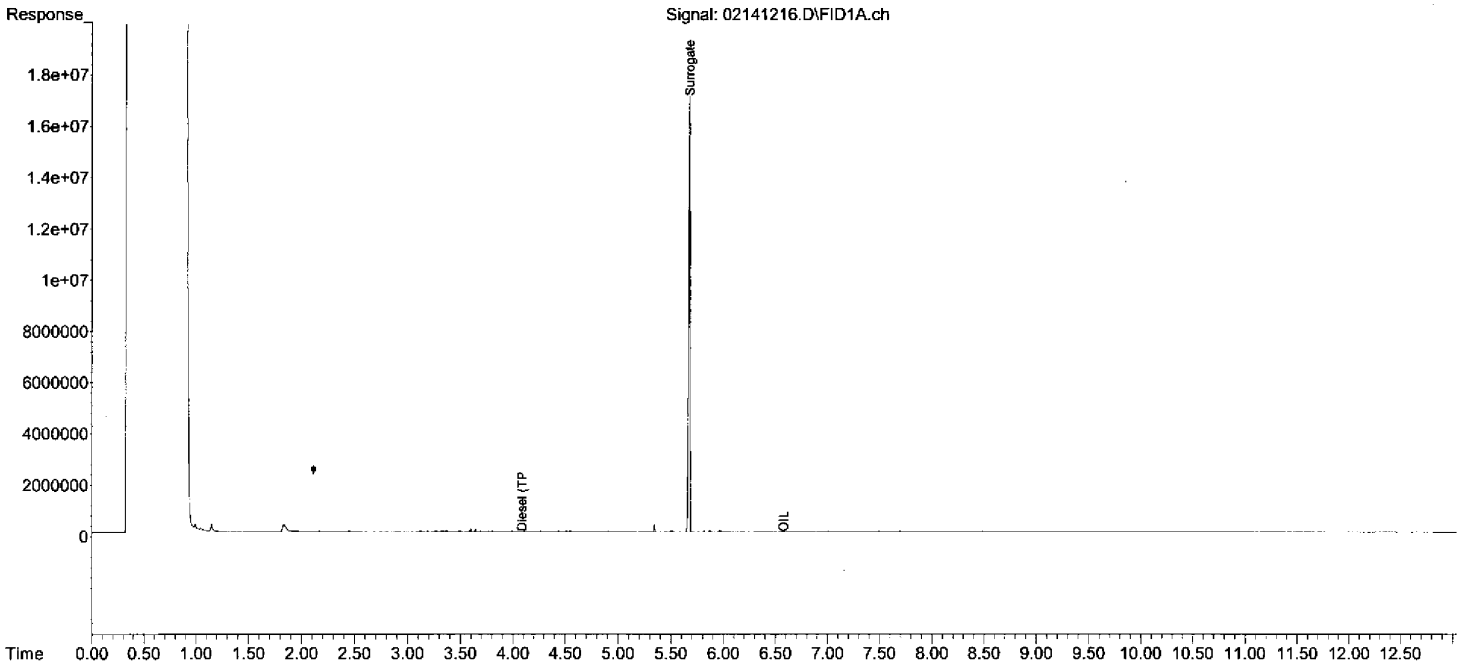
(f)=RT Delta > 1/2 Window (m)=manual int.

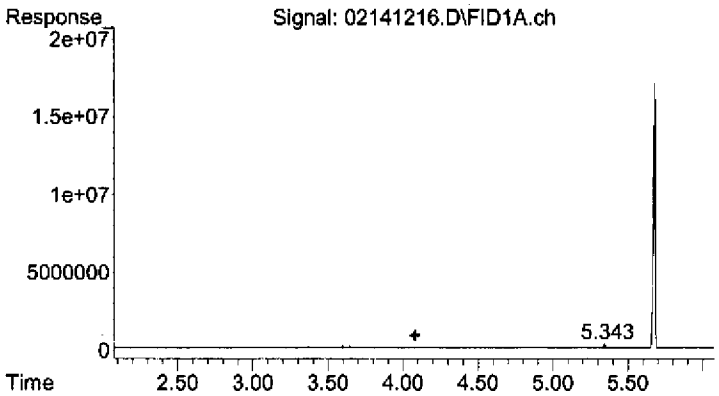
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141216.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 4:17 pm
Operator: TD
Sample : 1202034-01
Inst : AG7890_2
Misc : HW49
ALS Vial : 16 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:52 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

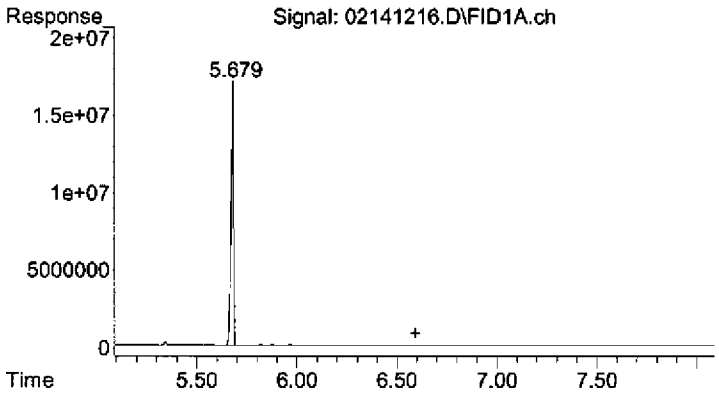
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





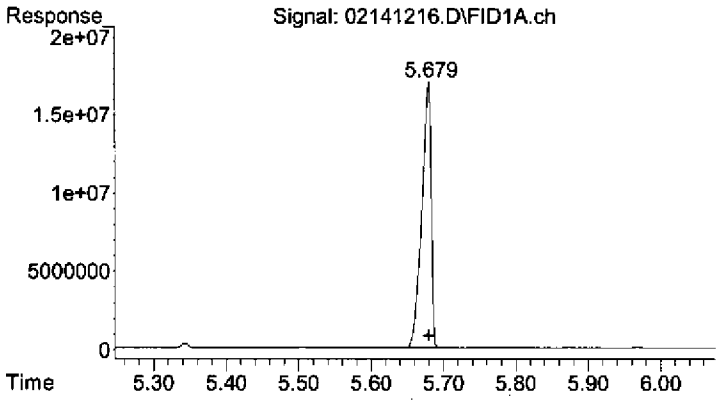
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 13702148
Conc: 3.82 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3286809
Conc: 1.72 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.002 min
Response: 152267470
Conc: 42.86 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141217.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 4:35 pm Operator: TD
Sample : 1202034-02 Inst : AG7890_2
Misc : HW49-P
ALS Vial : 17 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:57 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	164042417	46.178 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	92.36%
Target Compounds			
1) HM Diesel (TPH)	4.080	15831085	4.412 ug/mL
2) H OIL	6.590	3624507	1.893 ug/mL

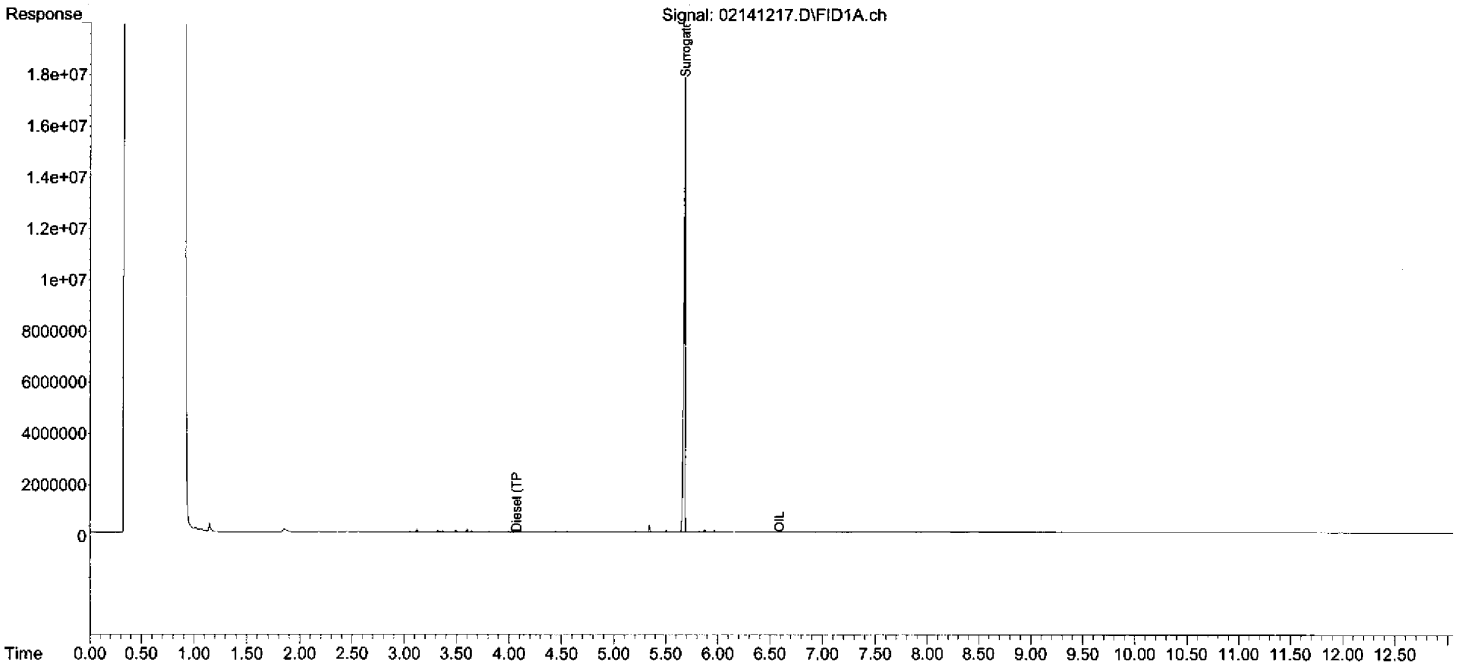
(f)=RT Delta > 1/2 Window (m)=manual int.

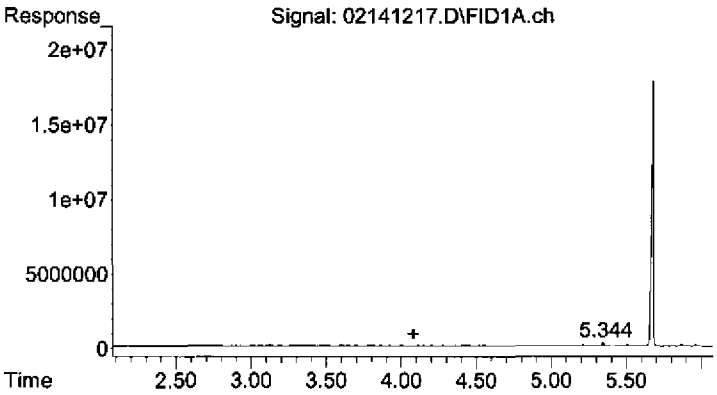
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141217.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 4:35 pm
Operator: TD
Sample : 1202034-02
Inst : AG7890_2
Misc : HW49-P
ALS Vial : 17 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:34:57 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

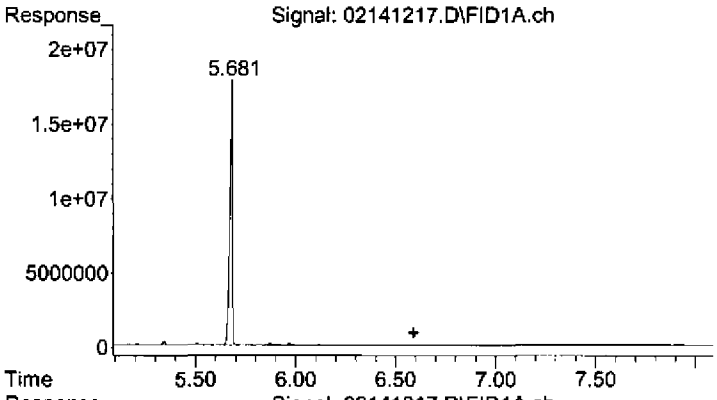
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





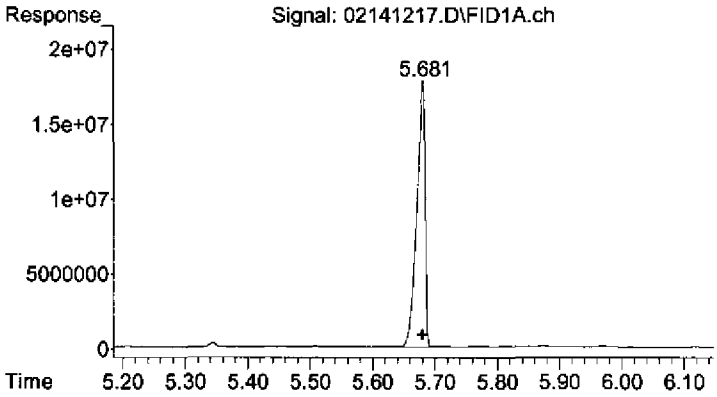
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 15831085
Conc: 4.41 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3624507
Conc: 1.89 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 164042417
Conc: 46.18 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141218.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 4:53 pm Operator: TD
Sample : 1202034-04 Inst : AG7890_2
Misc : FB14
ALS Vial : 18 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:02 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	177411111	49.941 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	99.88%
Target Compounds			
1) HM Diesel (TPH)	4.080	21654273	6.034 ug/mL
2) H OIL	6.590	3465177	1.810 ug/mL

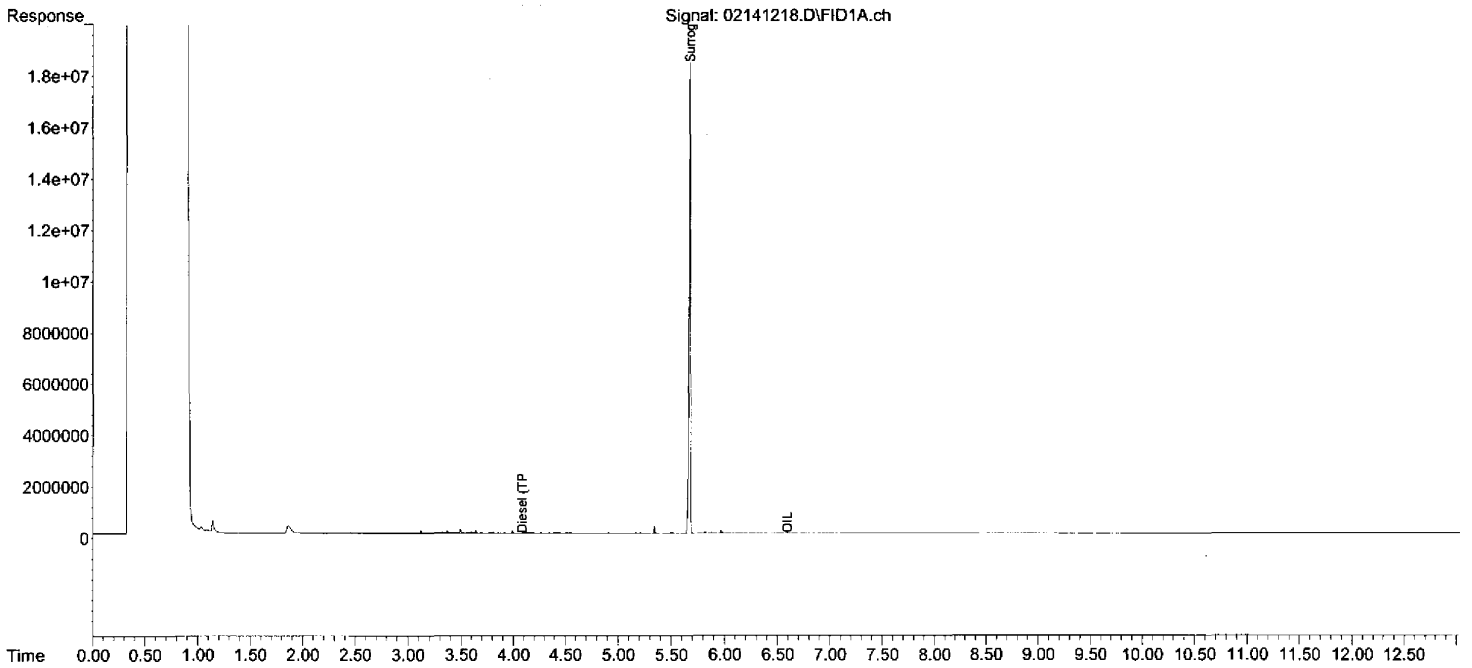
(f)=RT Delta > 1/2 Window (m)=manual int.

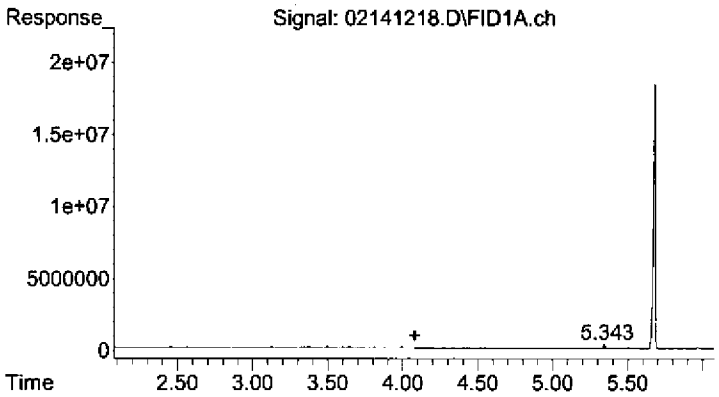
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141218.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 4:53 pm Operator: TD
Sample : 1202034-04 Inst : AG7890_2
Misc : FB14
ALS Vial : 18 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:02 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

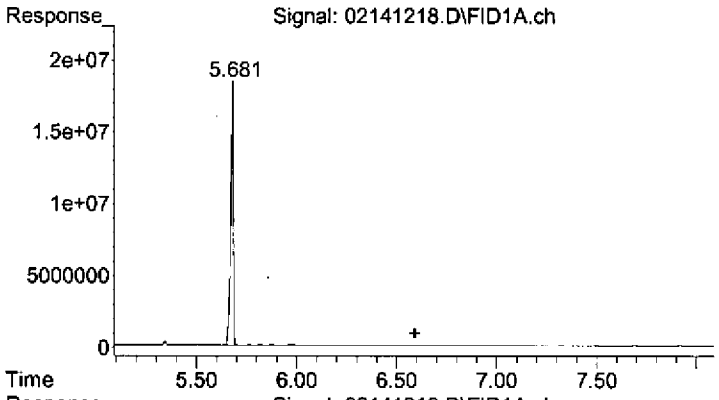
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





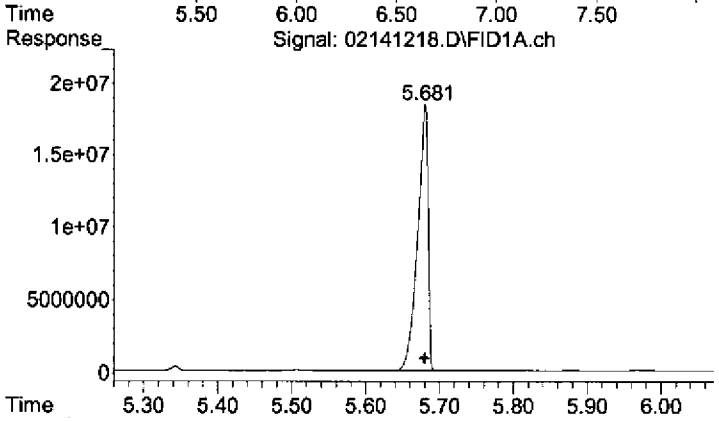
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 21654273
Conc: 6.03 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3465177
Conc: 1.81 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 177411111
Conc: 49.94 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141219.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 5:11 pm Operator: TD
Sample : 1202034-05 Inst : AG7890_2
Misc : HW44
ALS Vial : 19 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:07 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	155376213	43.738 ug/mL
Spiked Amount 50.000 Range 60 - 127		Recovery =	87.48%
Target Compounds			
1) HM Diesel (TPH)	4.080	16231774	4.523 ug/mL
2) H OIL	6.590	7004282	3.658 ug/mL

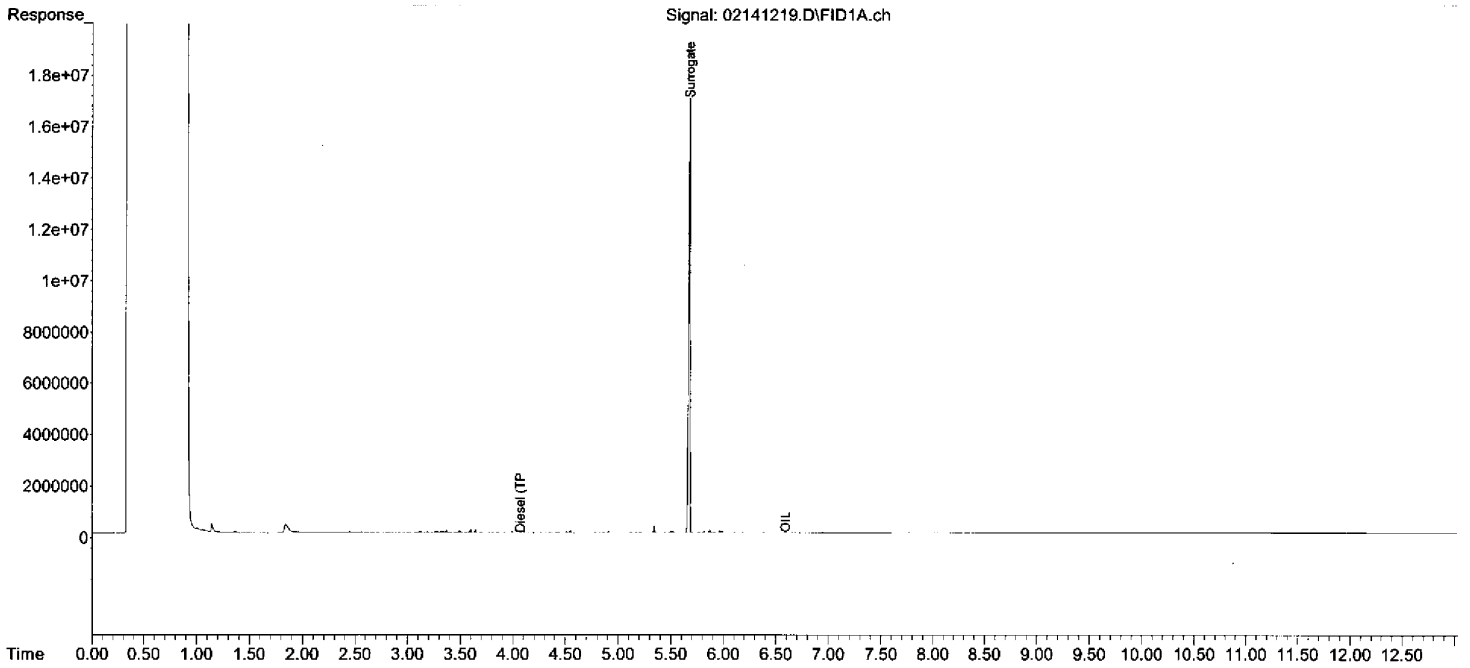
(f)=RT Delta > 1/2 Window (m)=manual int.

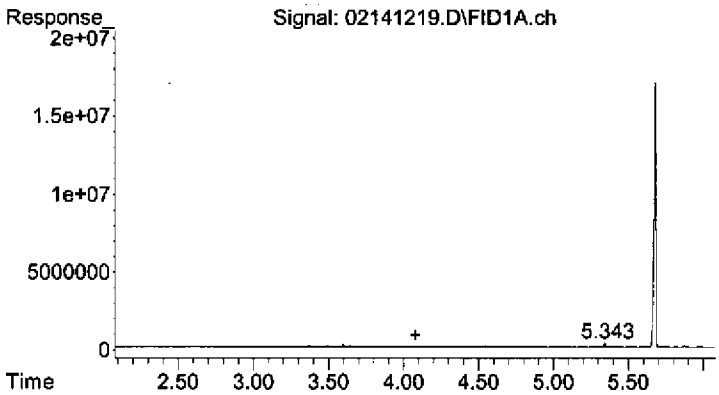
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141219.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 5:11 pm
Operator: TD
Sample : 1202034-05
Inst : AG7890_2
Misc : HW44
ALS Vial : 19 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:07 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

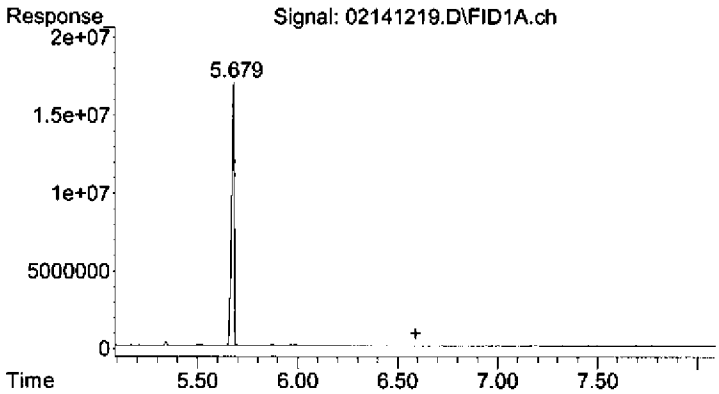
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





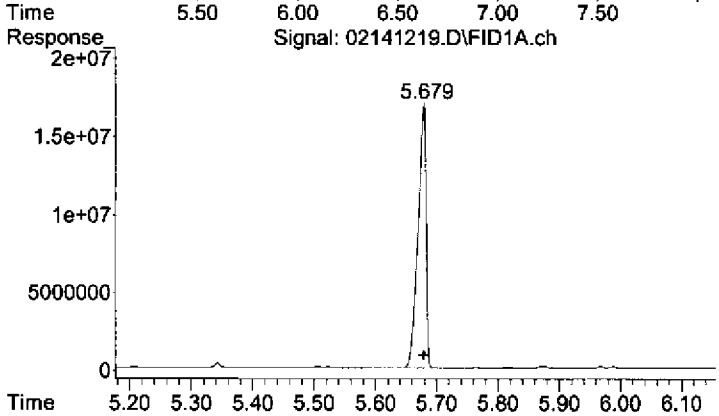
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 16231774
Conc: 4.52 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 7004282
Conc: 3.66 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.002 min
Response: 155376213
Conc: 43.74 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141220.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 5:29 pm Operator: TD
Sample : B2B0057-MS1 Inst : AG7890_2
Misc : HW44
ALS Vial : 20 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:12 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	5.678	156221571	43.976 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	87.95%
Target Compounds			
1) HM Diesel (TPH)	4.080	1511053317	421.084 ug/mL
2) H OIL	6.590	4192168	2.189 ug/mL

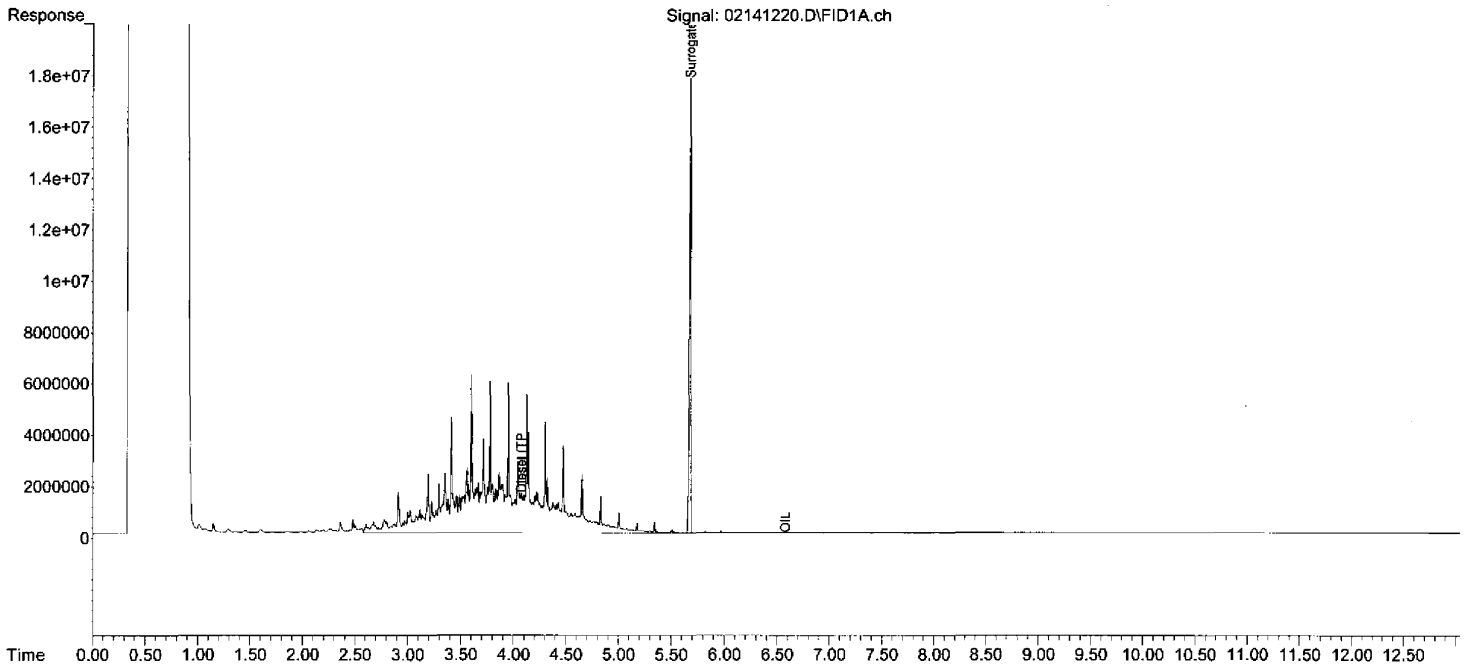
(f)=RT Delta > 1/2 Window (m)=manual int.

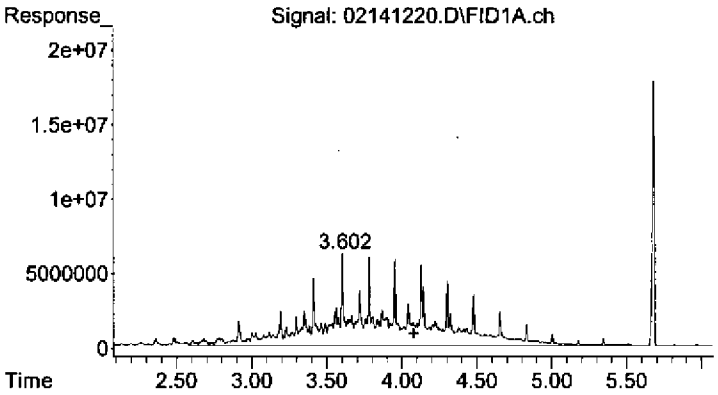
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141220.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 5:29 pm
Operator: TD
Sample : B2B0057-MS1
Inst : AG7890_2
Misc : HW44
ALS Vial : 20 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:12 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

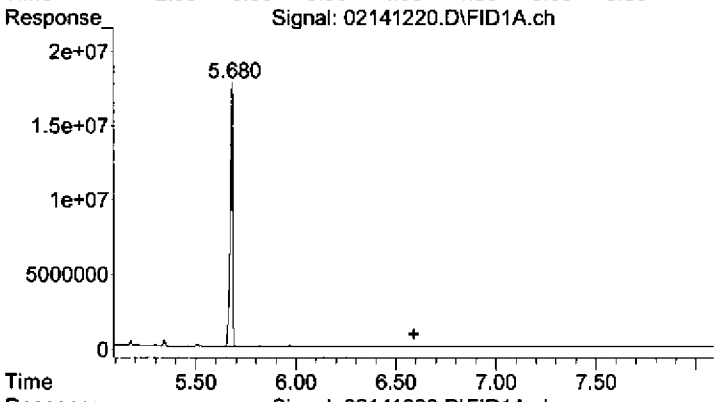
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





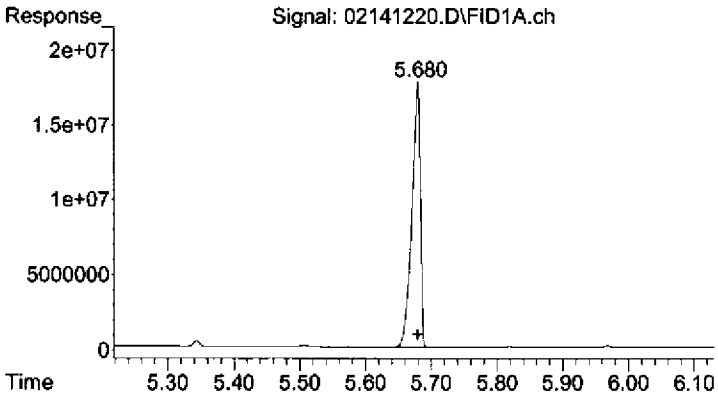
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1511053317
Conc: 421.08 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 4192168
Conc: 2.19 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.001 min
Response: 156221571
Conc: 43.98 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141221.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 5:47 pm Operator: TD
Sample : B2B0057-MSD1 Inst : AG7890_2
Misc : HW44
ALS Vial : 21 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:17 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	159361575	44.860 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	89.72%
Target Compounds			
1) HM Diesel (TPH)	4.080	1524889182	424.940 ug/mL
2) H OIL	6.590	5746364	3.001 ug/mL

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

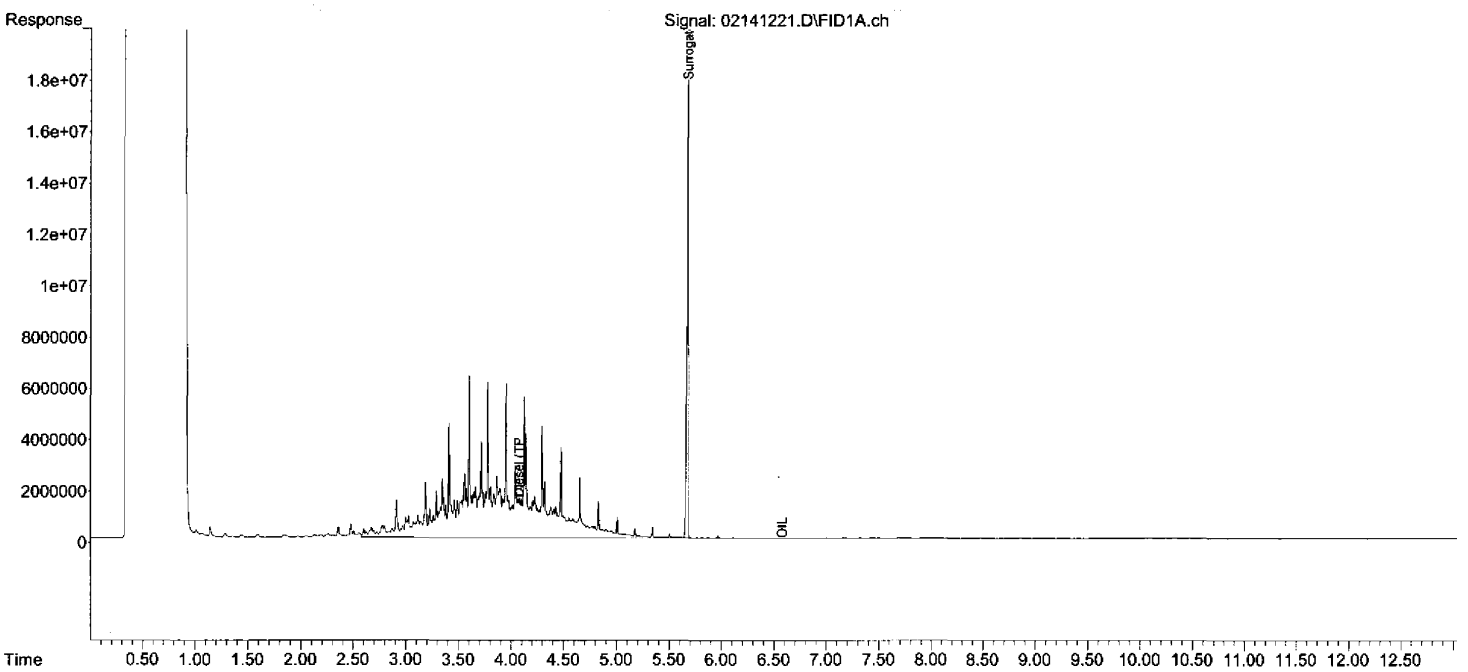
Quantitation Report (Not Reviewed)

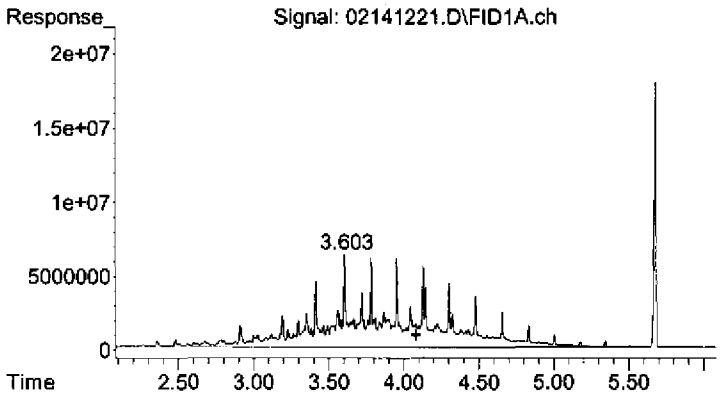
Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141221.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 5:47 pm
Sample : B2B0057-MSD1
Misc : HW44
ALS Vial : 21 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:17 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

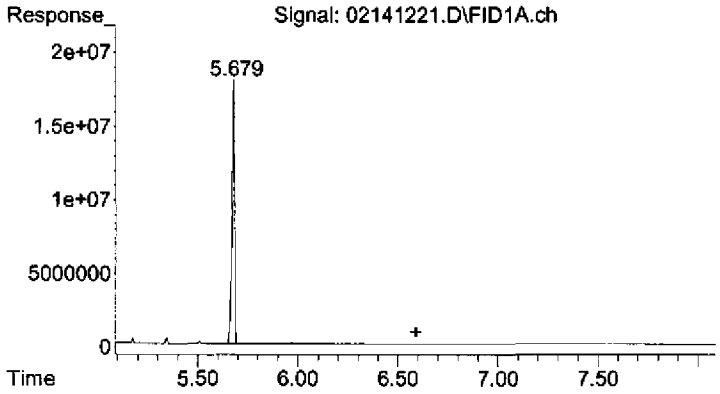
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





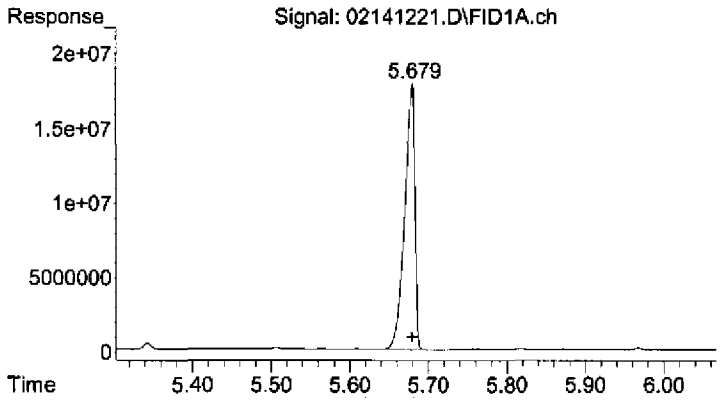
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1524889182
Conc: 424.94 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 5746364
Conc: 3.00 ug/mL



#3 Surrogate

R.T.: 5.679 min
Delta R.T.: 0.000 min
Response: 159361575
Conc: 44.86 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141222.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 6:05 pm Operator: TD
Sample : 1202034-07 Inst : AG7890_2
Misc : FB15
ALS Vial : 22 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:21 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	157554057	44.351 ug/mL
Spiked Amount 50.000 Range 60 - 127 Recovery = 88.70%			
Target Compounds			
1) HM Diesel (TPH)	4.080	24123065	6.722 ug/mL
2) H OIL	6.590	4376607	2.286 ug/mL

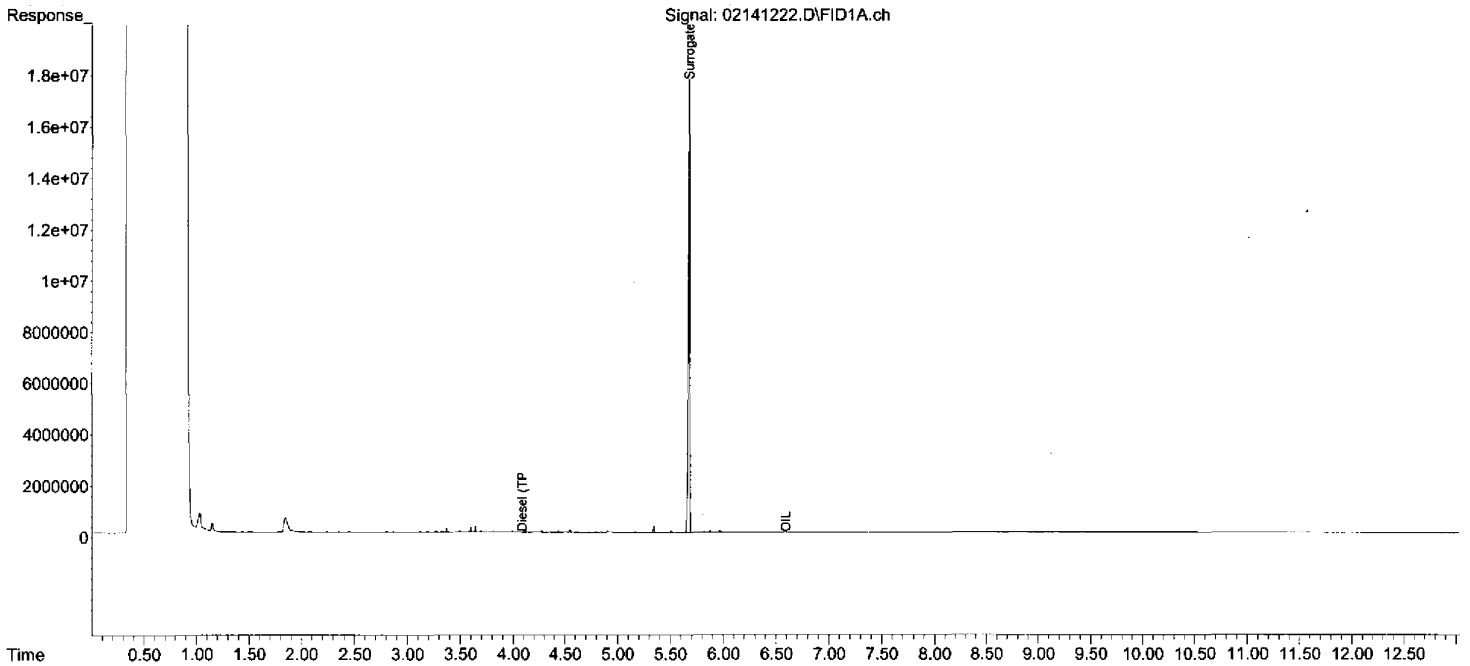
(f)=RT Delta > 1/2 Window (m)=manual int.

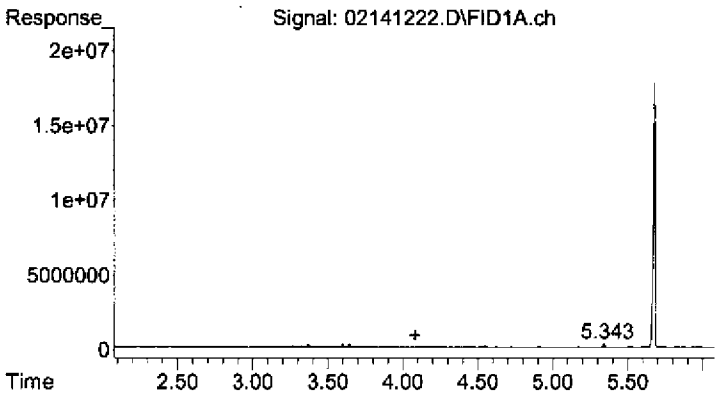
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141222.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 6:05 pm
Operator: TD
Sample : 1202034-07
Inst : AG7890_2
Misc : FB15
ALS Vial : 22 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:21 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

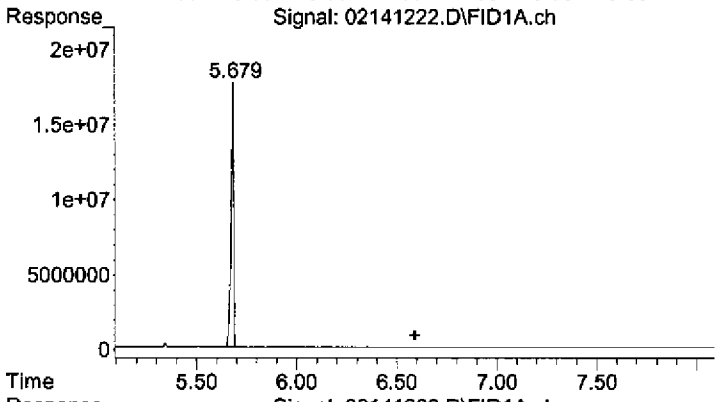
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





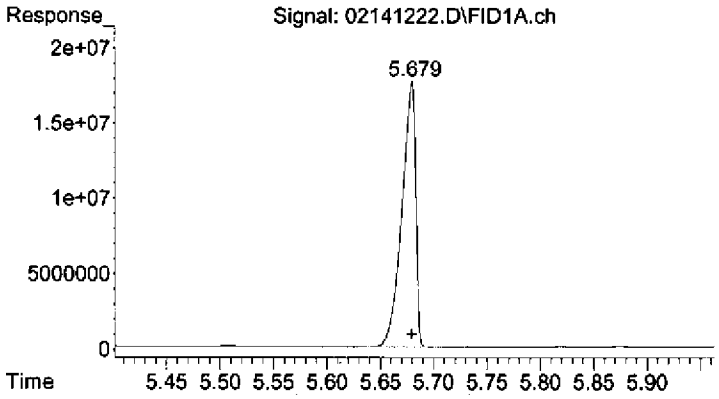
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 24123065
Conc: 6.72 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 4376607
Conc: 2.29 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.002 min
Response: 157554057
Conc: 44.35 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141223.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 6:23 pm Operator: TD
Sample : 1202034-08 Inst : AG7890_2
Misc : HW36n
ALS Vial : 23 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:26 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	5.678	157104746	44.225 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	88.45%
Target Compounds			
1) HM Diesel (TPH)	4.080	20214561	5.633 ug/mL
2) H OIL	6.590	2730557	1.426 ug/mL

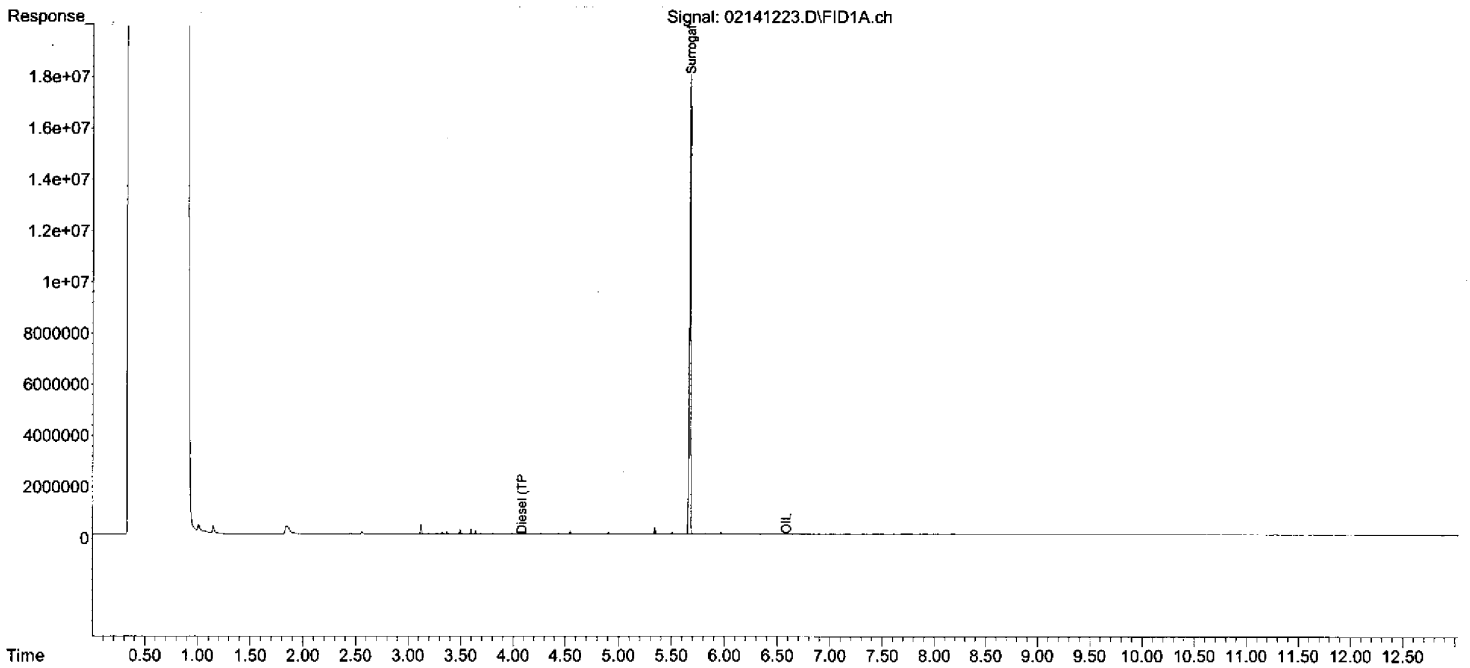
(f)=RT Delta > 1/2 Window (m)=manual int.

Quantitation Report (Not Reviewed)

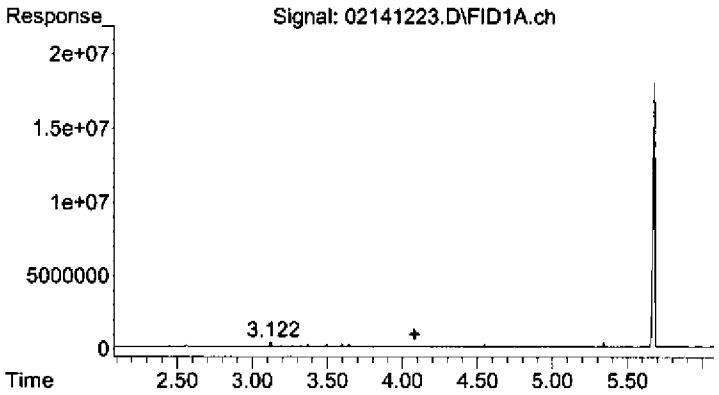
Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141223.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 6:23 pm
Operator: TD
Sample : 1202034-08
Inst : AG7890_2
Misc : HW36n
ALS Vial : 23 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:26 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

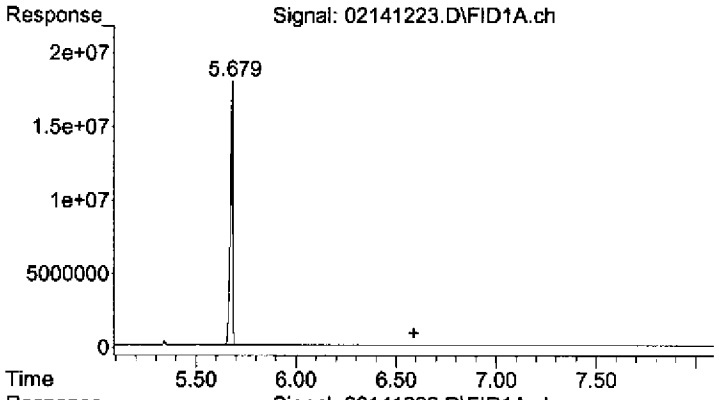


00230



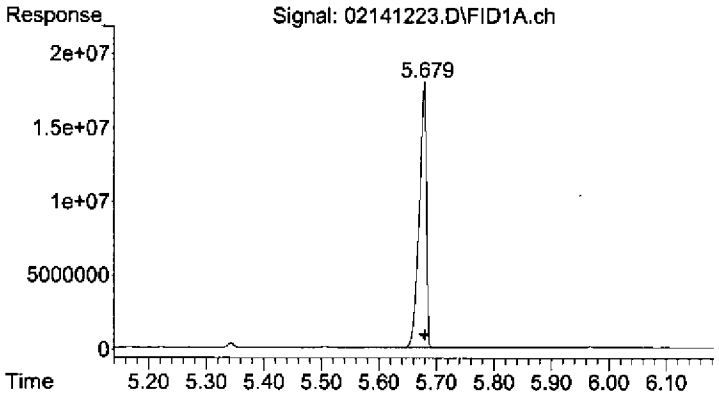
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 20214561
Conc: 5.63 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 2730557
Conc: 1.43 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.002 min
Response: 157104746
Conc: 44.22 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141224.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 6:41 pm Operator: TD
Sample : 1202034-09 Inst : AG7890_2
Misc : HW36n-P
ALS Vial : 24 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:31 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	5.677	150529965	42.374 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	84.75%
Target Compounds			
1) HM Diesel (TPH)	4.080	19749884	5.504 ug/mL
2) H OIL	6.590	2824389	1.475 ug/mL

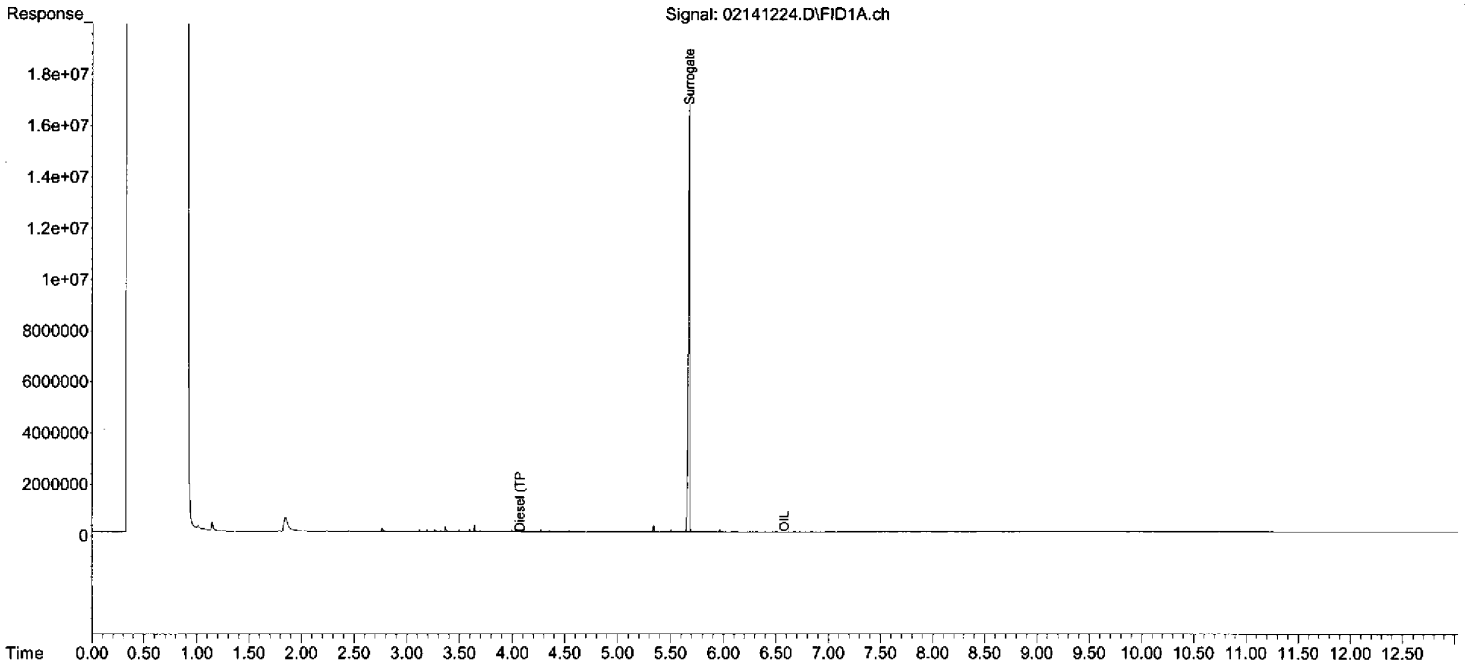
(f)=RT Delta > 1/2 Window (m)=manual int.

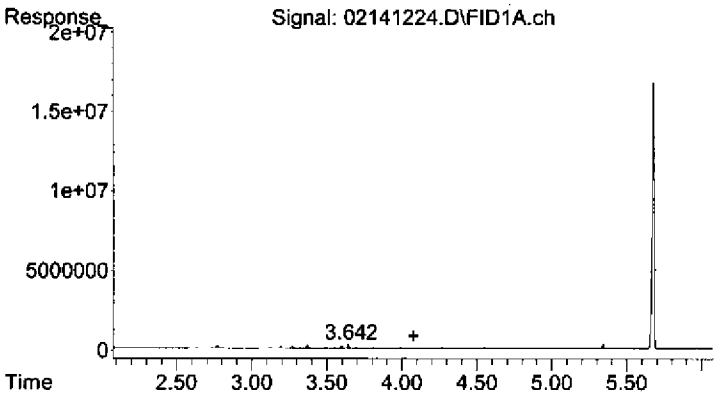
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141224.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 6:41 pm
Operator: TD
Sample : 1202034-09
Inst : AG7890_2
Misc : HW36n-P
ALS Vial : 24 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:31 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

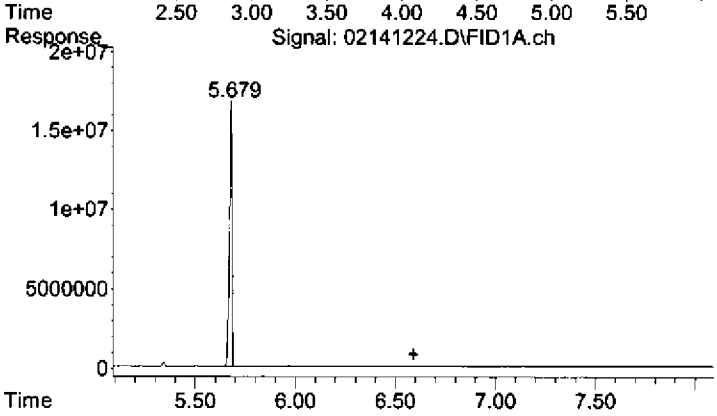
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





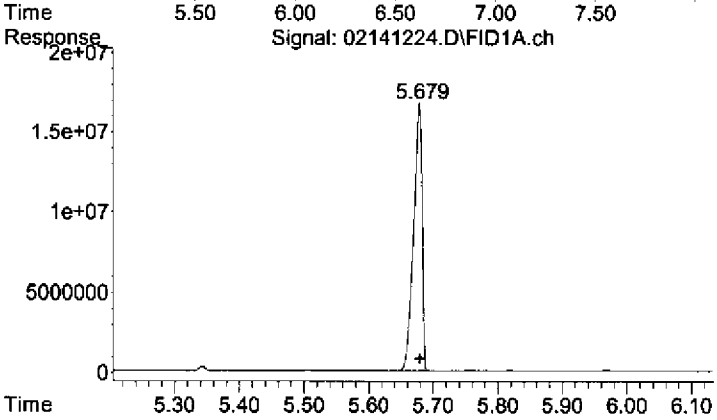
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 19749884
Conc: 5.50 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 2824389
Conc: 1.47 ug/mL



#3 Surrogate

R.T.: 5.677 min
Delta R.T.: -0.002 min
Response: 150529965
Conc: 42.37 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141225.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 6:59 pm Operator: TD
Sample : 1202034-11 Inst : AG7890_2
Misc : HW16
ALS Vial : 25 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:36 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	5.678	156691360	44.109 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	88.22%
Target Compounds			
1) HM Diesel (TPH)	4.080	17369037	4.840 ug/mL
2) H OIL	6.590	3153822	1.647 ug/mL

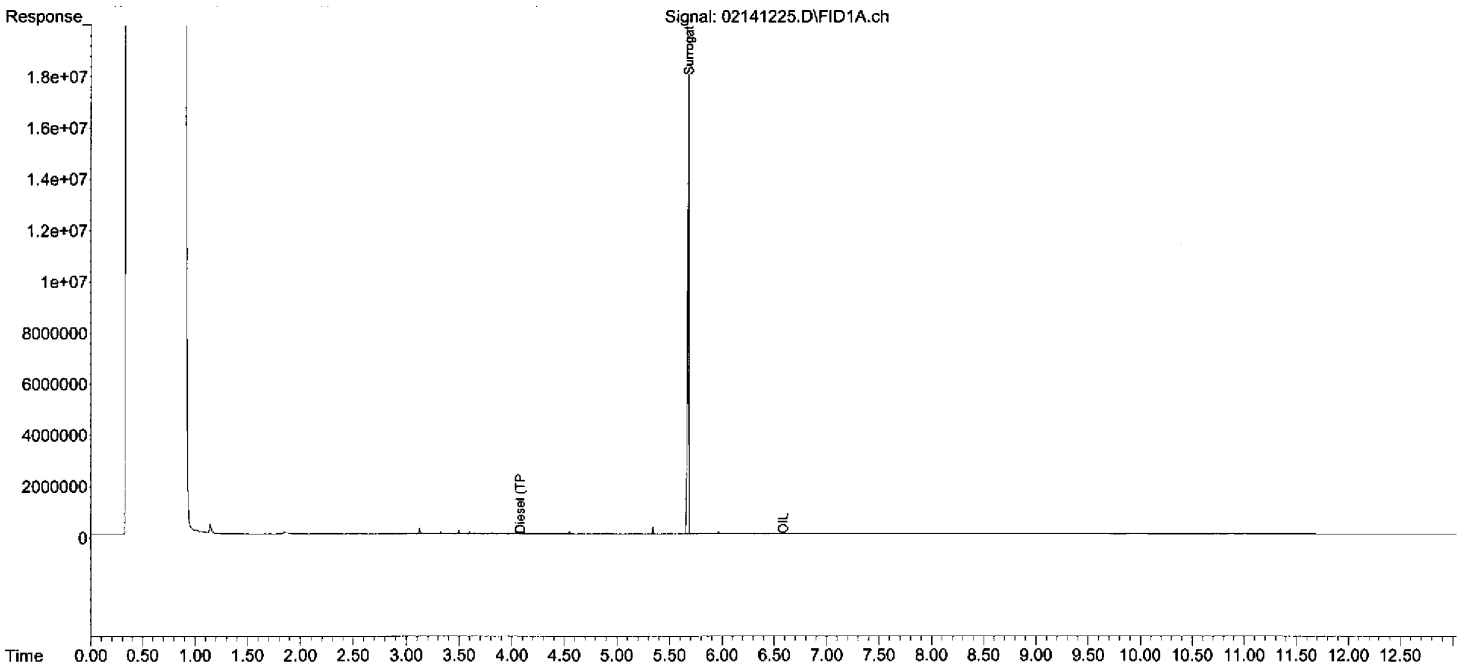
(f)=RT Delta > 1/2 Window (m)=manual int.

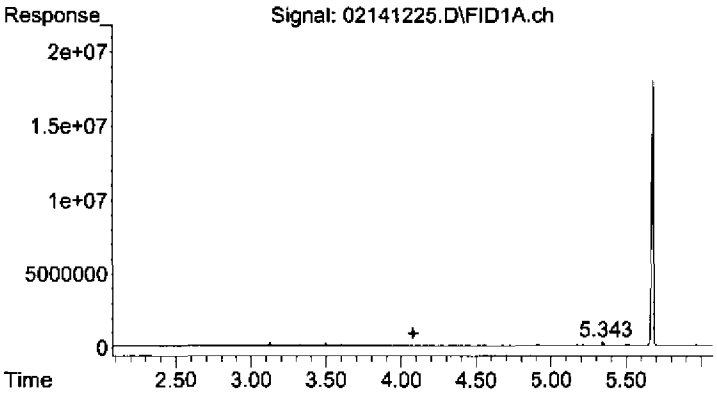
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141225.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 6:59 pm
Operator: TD
Sample : 1202034-11
Inst : AG7890_2
Misc : HW16
ALS Vial : 25 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:36 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

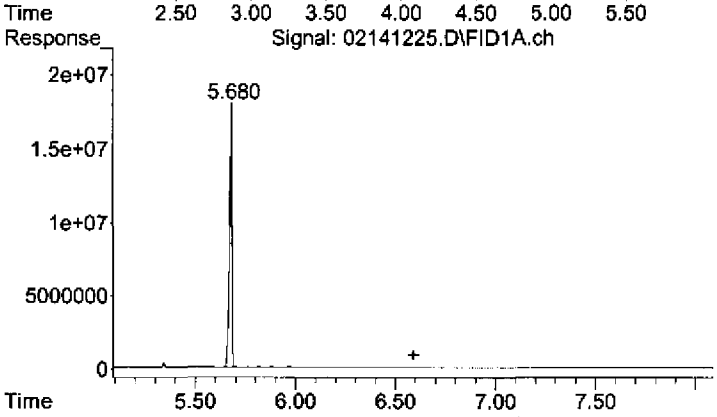
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





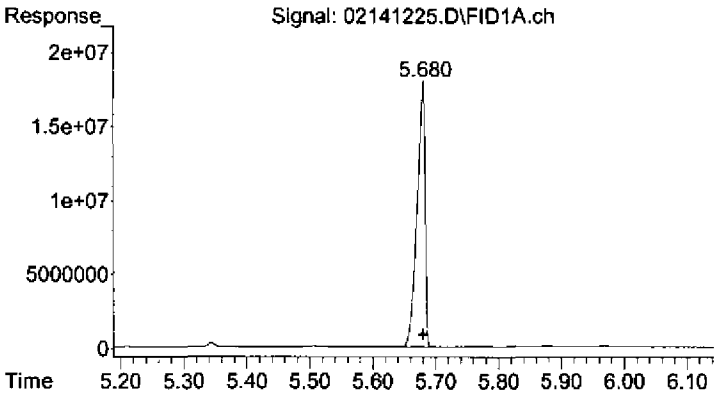
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 17369037
Conc: 4.84 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3153822
Conc: 1.65 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.002 min
Response: 156691360
Conc: 44.11 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141226.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 7:16 pm Operator: TD
Sample : 1202034-12 Inst : AG7890_2
Misc : HW16-P
ALS Vial : 26 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:41 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	5.677	150576591	42.387 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	84.77%
Target Compounds			
1) HM Diesel (TPH)	4.080	15488679	4.316 ug/mL
2) H OIL	6.590	3111030	1.625 ug/mL

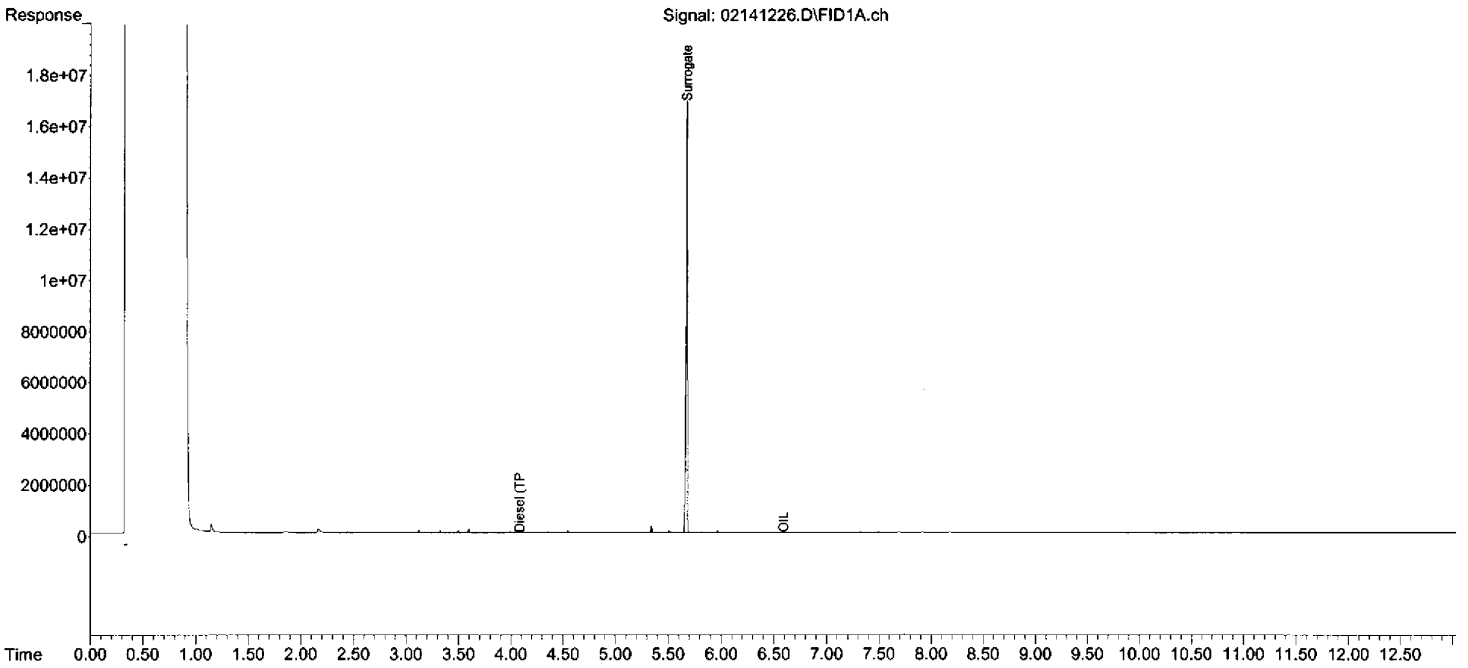
(f)=RT Delta > 1/2 Window (m)=manual int.

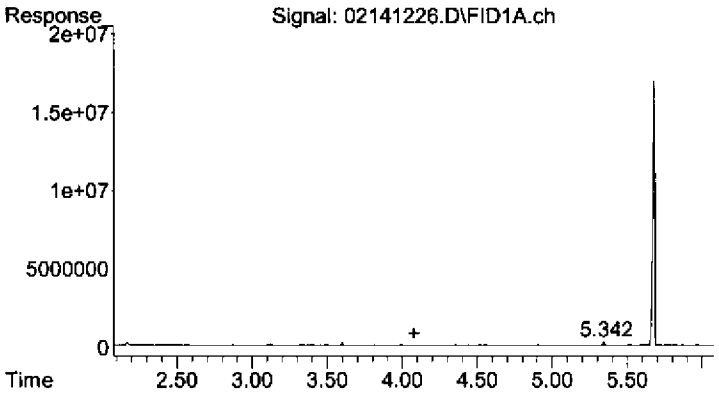
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141226.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 7:16 pm Operator: TD
Sample : 1202034-12 Inst : AG7890_2
Misc : HW16-P
ALS Vial : 26 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:41 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

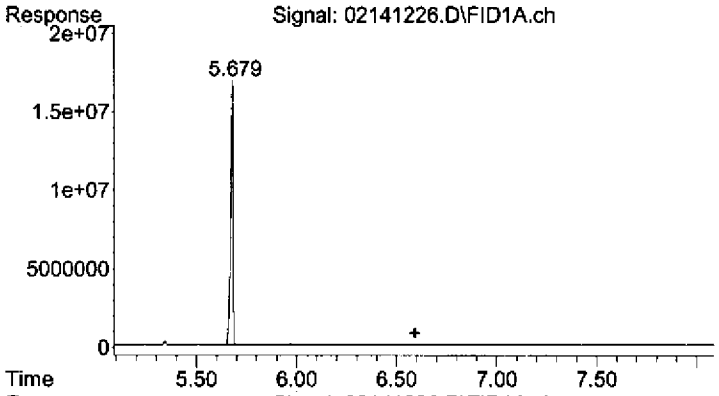
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





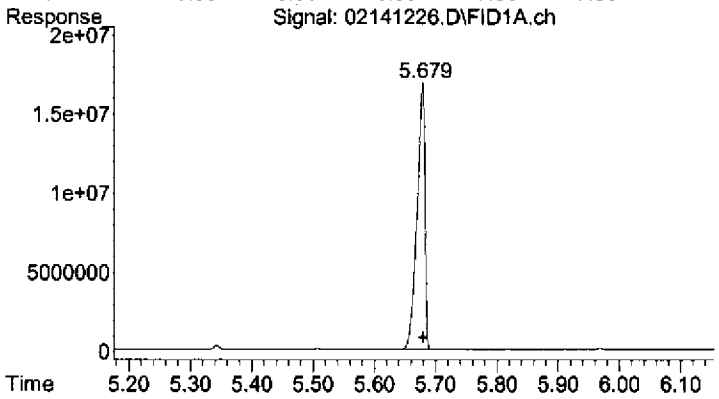
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 15488679
Conc: 4.32 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3111030
Conc: 1.62 ug/mL



#3 Surrogate

R.T.: 5.677 min
Delta R.T.: -0.002 min
Response: 150576591
Conc: 42.39 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141227.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 7:34 pm Operator: TD
Sample : 1202034-13 Inst : AG7890_2
Misc : HW16z
ALS Vial : 27 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:45 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	5.678	163658199	46.070 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	92.14%
Target Compounds			
1) HM Diesel (TPH)	4.080	11291884	3.147 ug/mL
2) H OIL	6.590	3181507	1.661 ug/mL

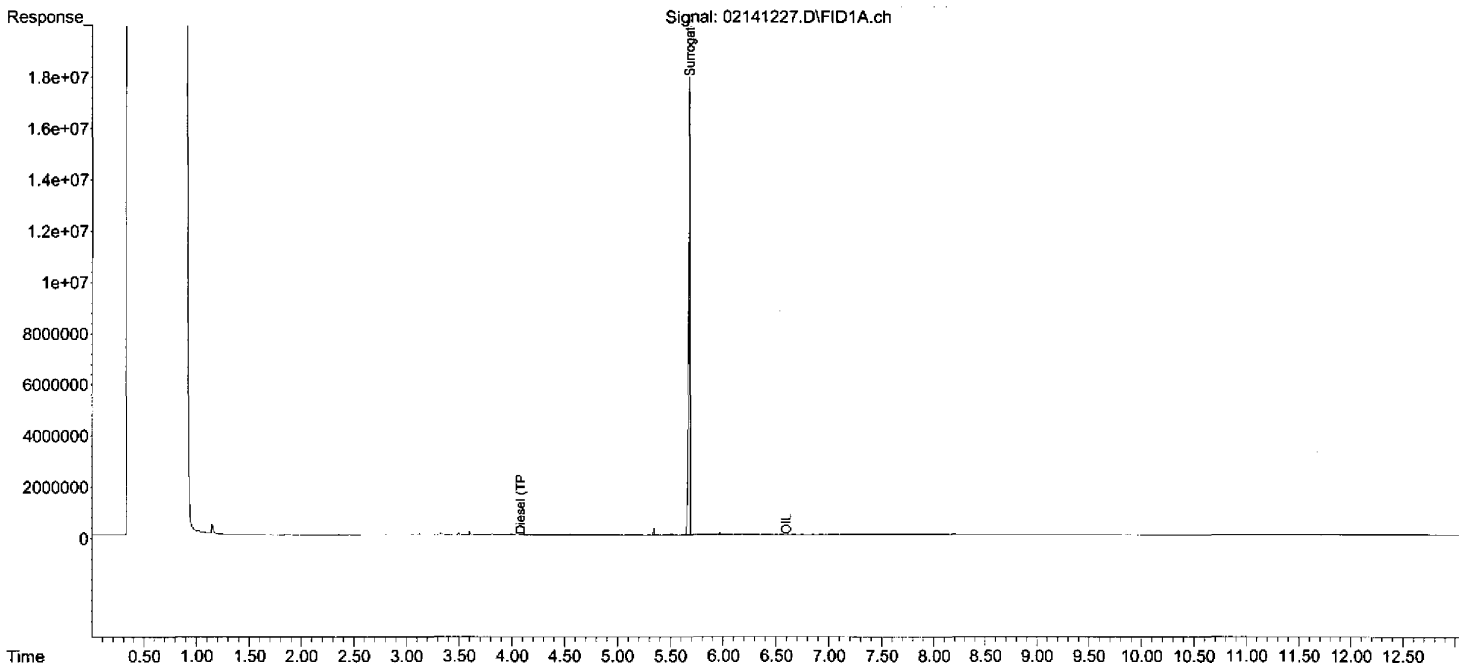
(f)=RT Delta > 1/2 Window (m)=manual int.

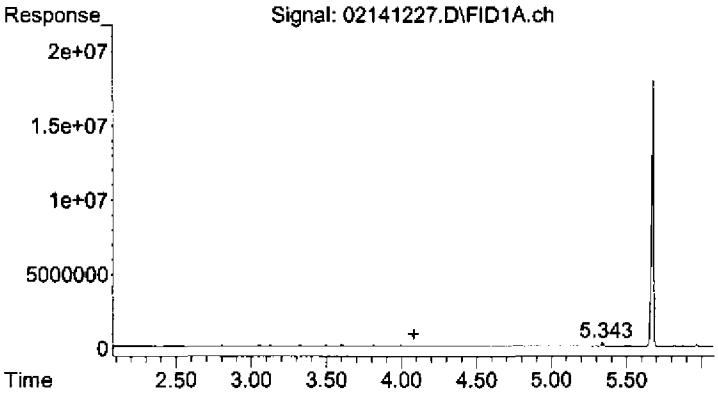
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141227.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 7:34 pm Operator: TD
Sample : 1202034-13 Inst : AG7890_2
Misc : HW16z
ALS Vial : 27 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:45 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

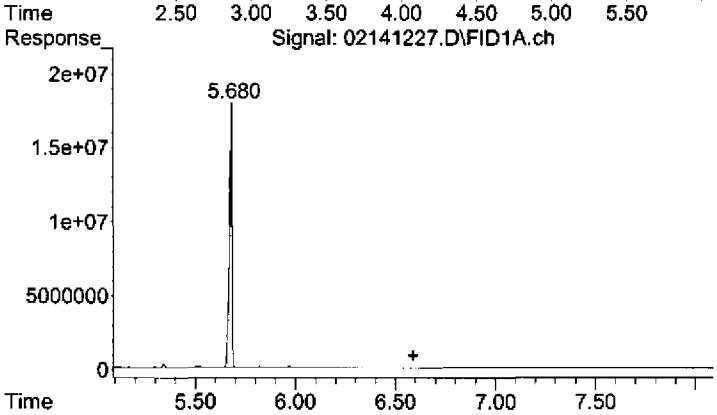
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





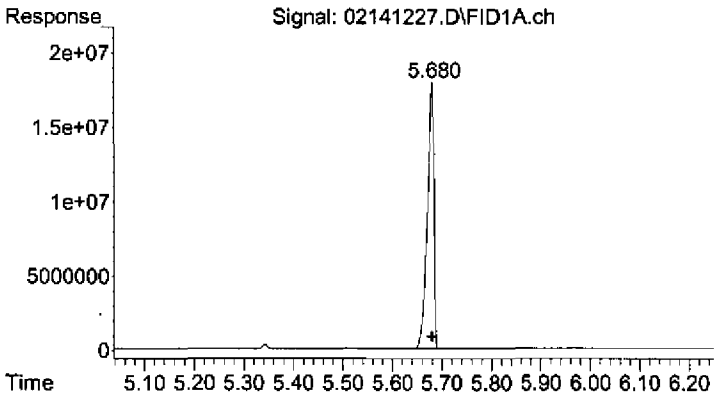
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 11291884
Conc: 3.15 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3181507
Conc: 1.66 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.001 min
Response: 163658199
Conc: 46.07 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141228.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 7:52 pm Operator: TD
Sample : 1202034-15 Inst : AG7890_2
Misc : HW54
ALS Vial : 28 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:50 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.677	148628410	41.839 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	83.68%
Target Compounds			
1) HM Diesel (TPH)	4.080	13308182	3.709 ug/mL
2) H OIL	6.590	3292869	1.720 ug/mL

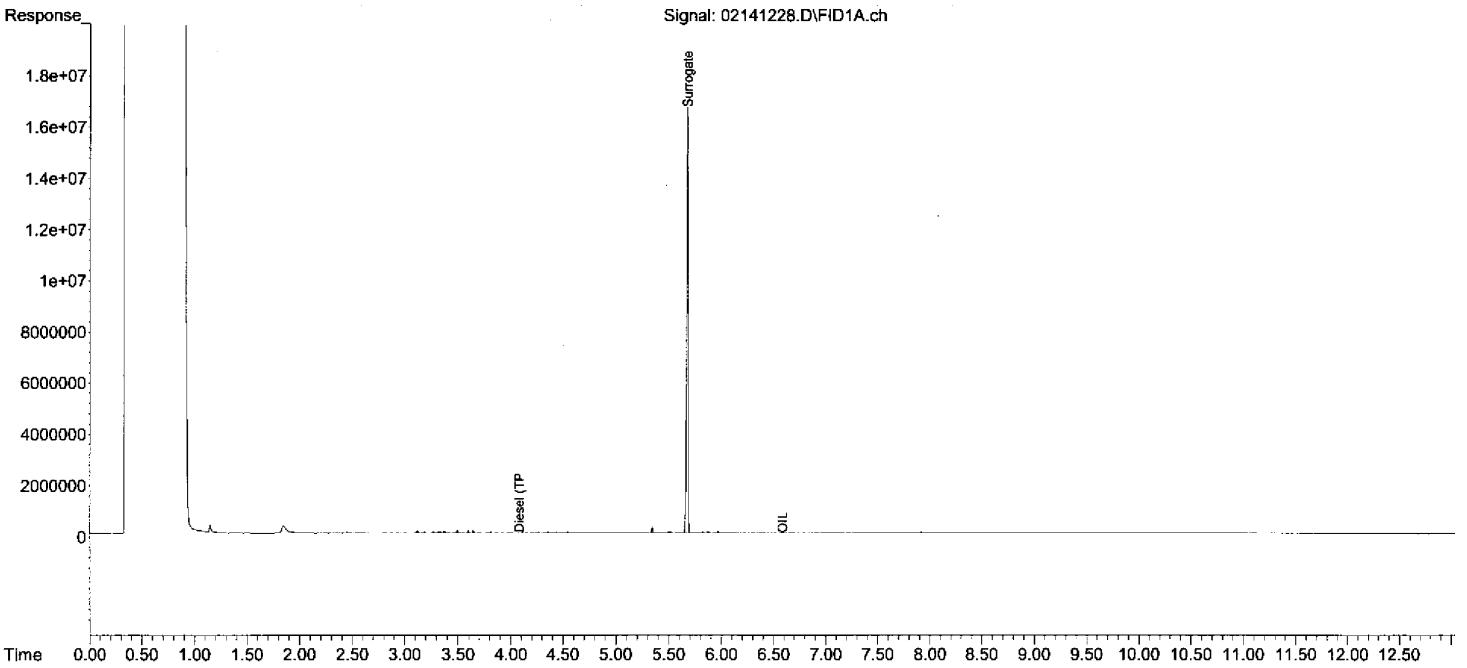
(f)=RT Delta > 1/2 Window (m)=manual int.

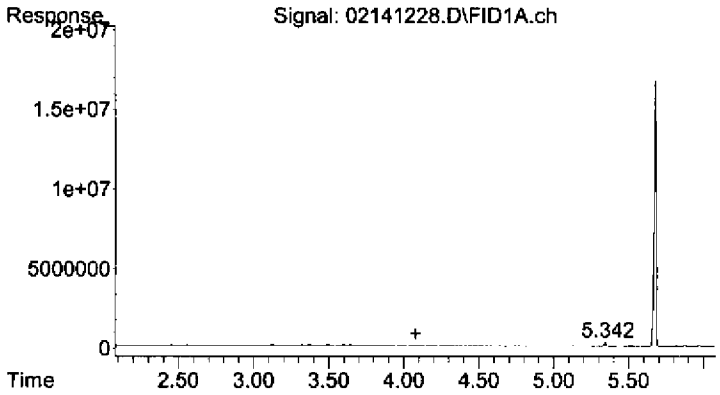
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141228.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 7:52 pm
Operator: TD
Sample : 1202034-15
Inst : AG7890_2
Misc : HW54
ALS Vial : 28 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:50 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

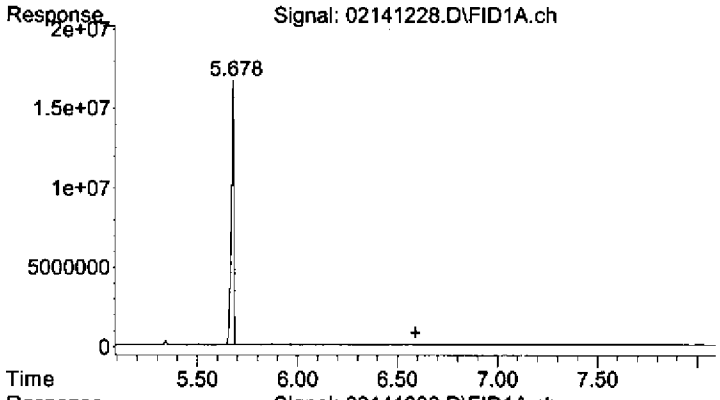
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





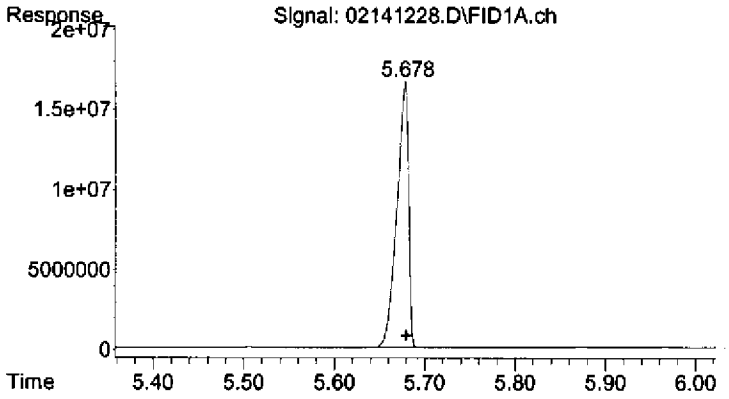
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 13308182
Conc: 3.71 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 3292869
Conc: 1.72 ug/mL



#3 Surrogate

R.T.: 5.677 min
Delta R.T.: -0.003 min
Response: 148628410
Conc: 41.84 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141229.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 8:10 pm Operator: TD
Sample : 1202034-16 Inst : AG7890_2
Misc : HW54-P
ALS Vial : 29 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:55 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	148276764	41.740 ug/mL
Spiked Amount 50.000 Range 60 - 127 Recovery = 83.48%			
Target Compounds			
1) HM Diesel (TPH)	4.080	14439570	4.024 ug/mL
2) H OIL	6.590	2502989	1.307 ug/mL

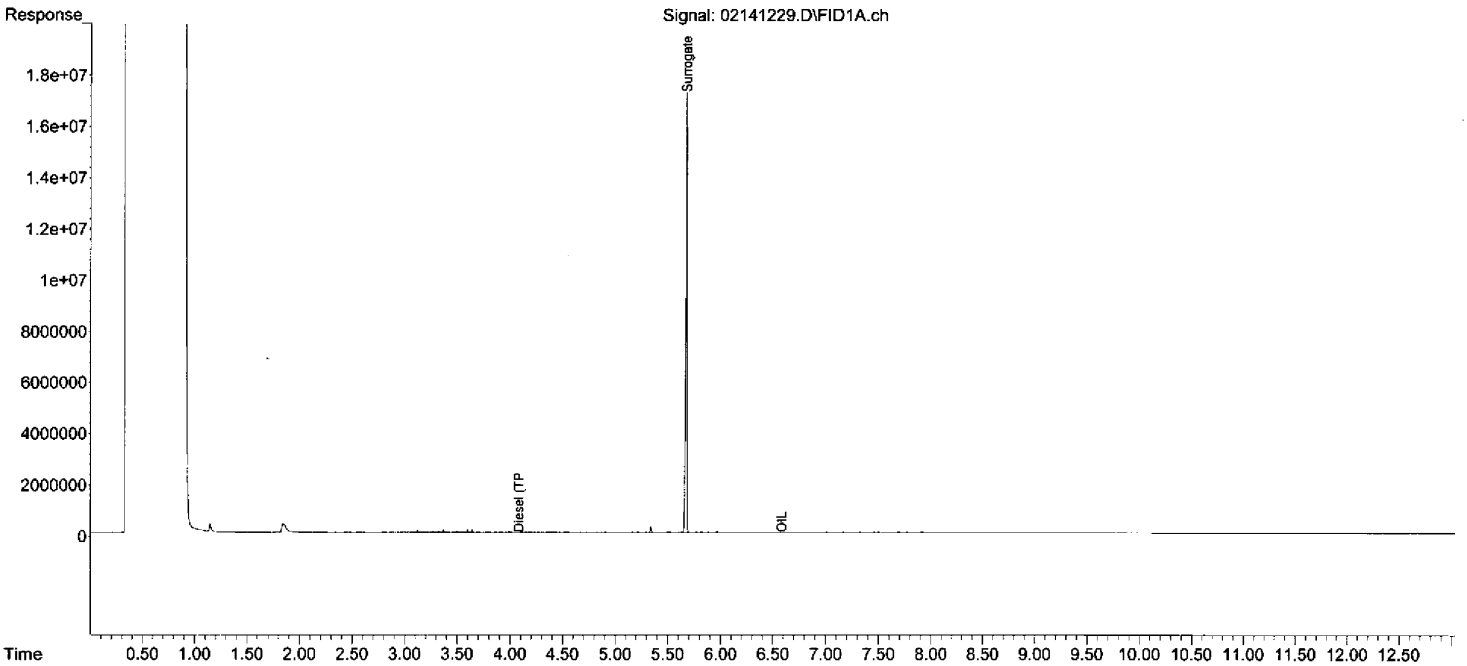
(f)=RT Delta > 1/2 Window (m)=manual int.

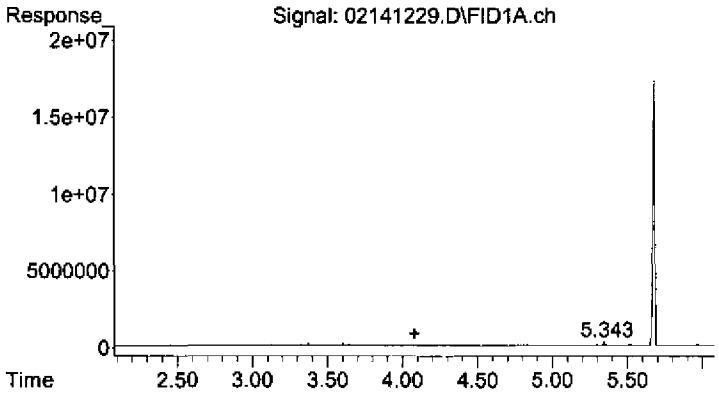
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141229.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 8:10 pm Operator: TD
Sample : 1202034-16 Inst : AG7890_2
Misc : HW54-P
ALS Vial : 29 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:55 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

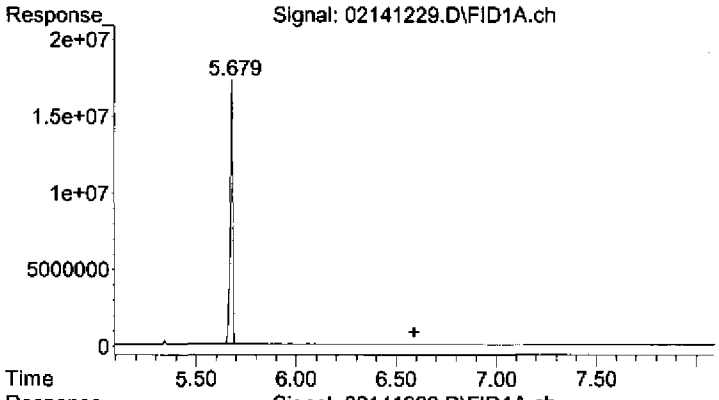
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





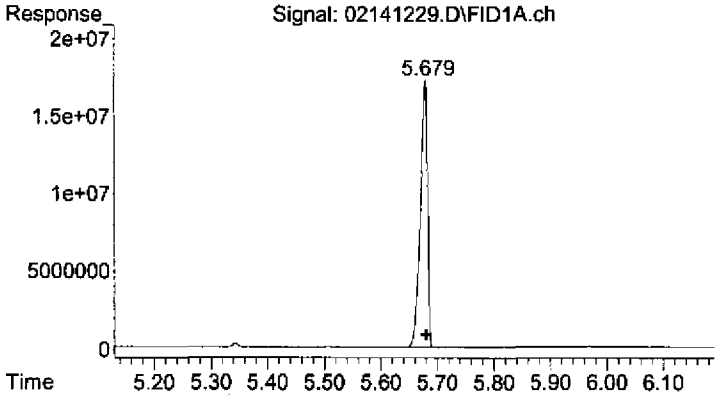
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 14439570
Conc: 4.02 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 2502989
Conc: 1.31 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.002 min
Response: 148276764
Conc: 41.74 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141230.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 8:28 pm Operator: TD
Sample : 2020053-IBL2 Inst : AG7890_2
Misc : 2A11003 IB
ALS Vial : 30 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:59 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	5.678	168422576	47.411 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	94.82%
Target Compounds			
1) HM Diesel (TPH)	4.080	5722234	1.595 ug/mL
2) H OIL	6.590	2842534	1.484 ug/mL

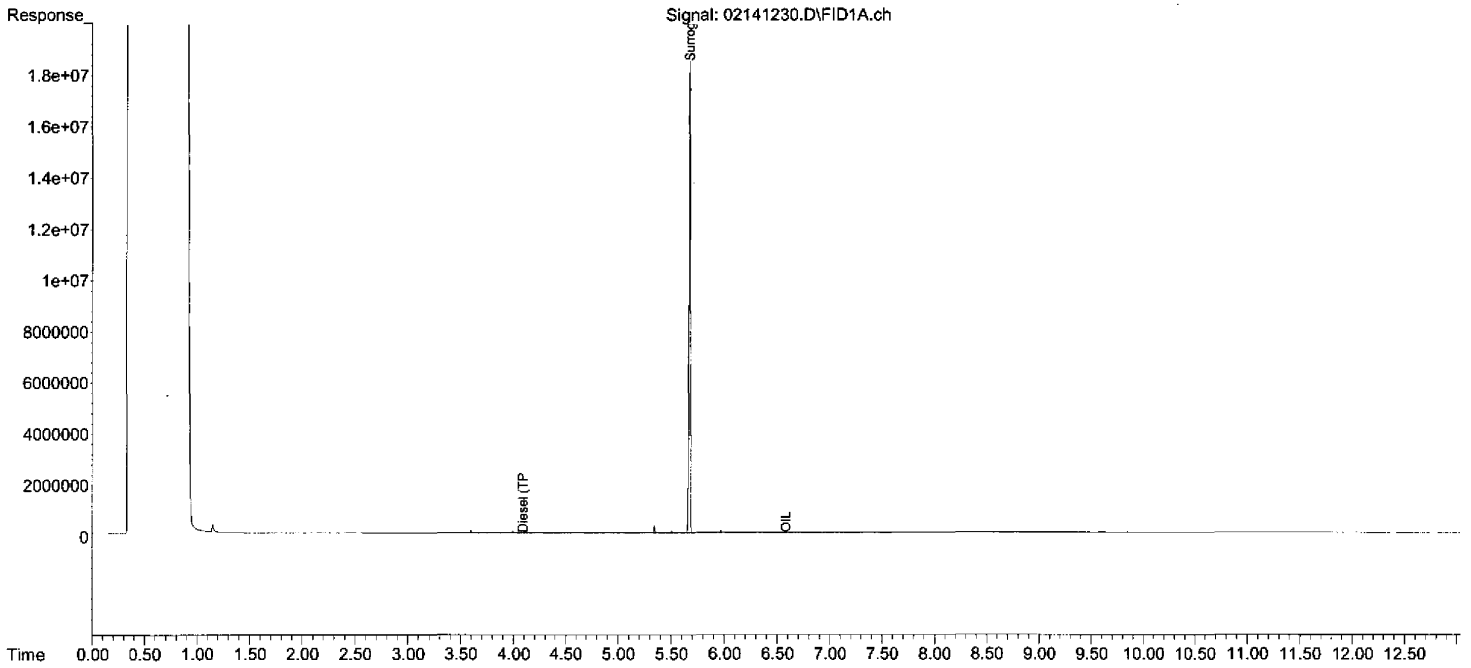
(f)=RT Delta > 1/2 Window (m)=manual int.

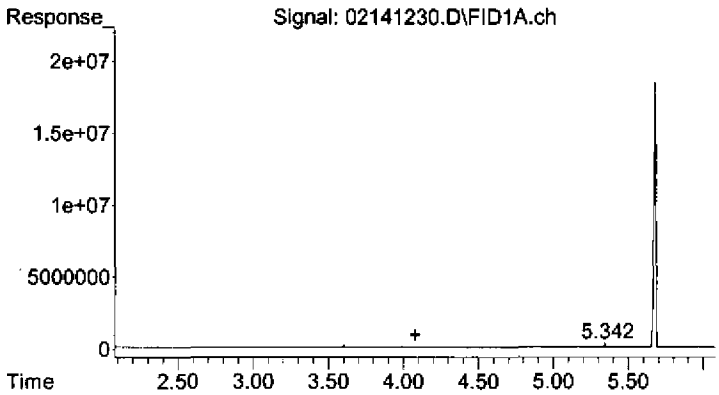
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141230.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 8:28 pm
Operator: TD
Sample : 2020053-IBL2
Inst : AG7890_2
Misc : 2A11003 IB
ALS Vial : 30 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:35:59 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

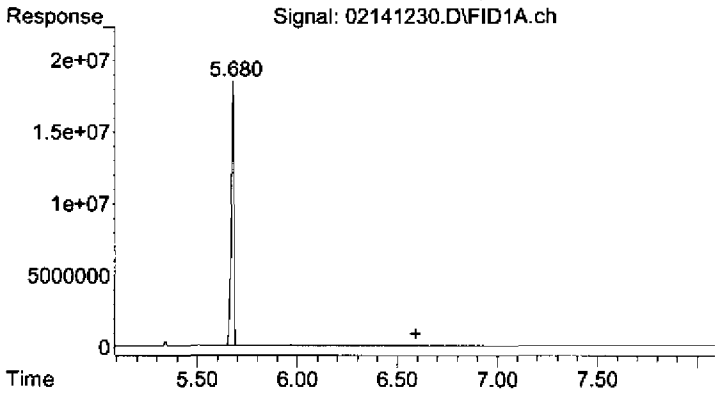
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





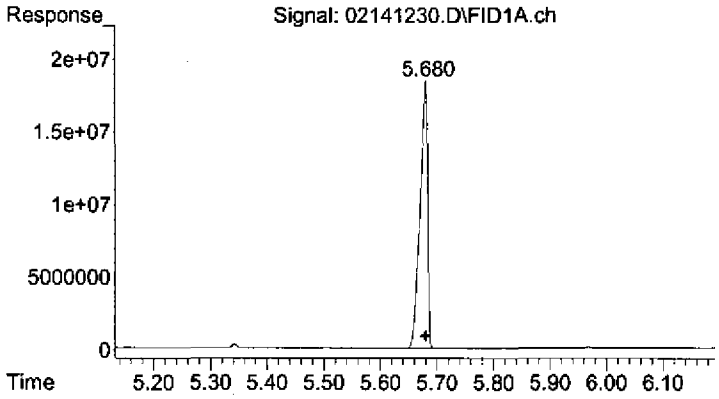
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 5722234
Conc: 1.59 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 2842534
Conc: 1.48 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.002 min
Response: 168422576
Conc: 47.41 ug/mL

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141231.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 8:45 pm Operator: TD
Sample : 2020053-CCV3 Inst : AG7890_2
Misc : 2A11005 DRO CV
ALS Vial : 31 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:36:03 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

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

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	3.239 E6	9.7	102	0.00
2 H	OIL	1.915	0.000 E6	100.0#	155	0.00
3 S	Surrogate	3.552	3.380 E6	4.8	101	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\021412A\
Data File : 02141231.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 8:45 pm Operator: TD
Sample : 2020053-CCV3 Inst : AG7890_2
Misc : 2A11005 DRO CV
ALS Vial : 31 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:36:03 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

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

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.678	168998263	47.573 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	95.15%
Target Compounds			
1) HM Diesel (TPH)	4.080	1619617013	451.337 ug/mL
2) H OIL	6.590	6027760	3.148 ug/mL

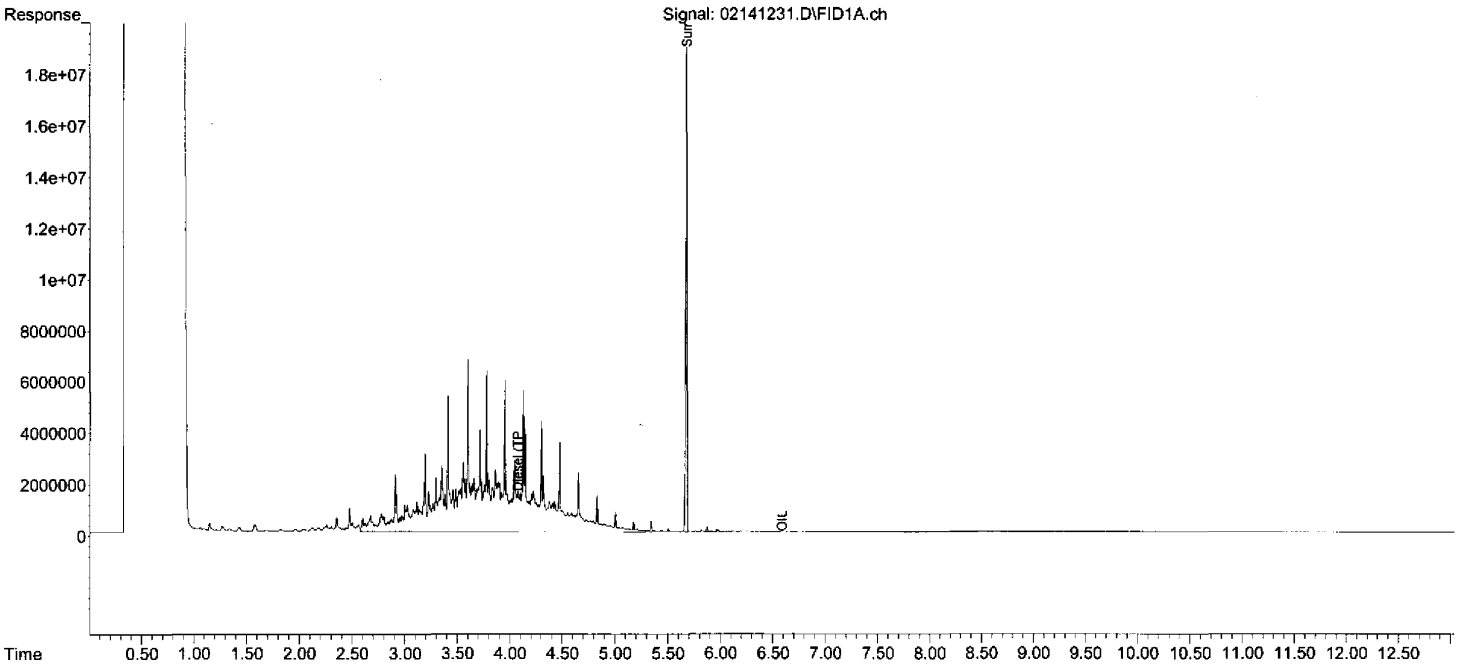
(f)=RT Delta > 1/2 Window (m)=manual int.

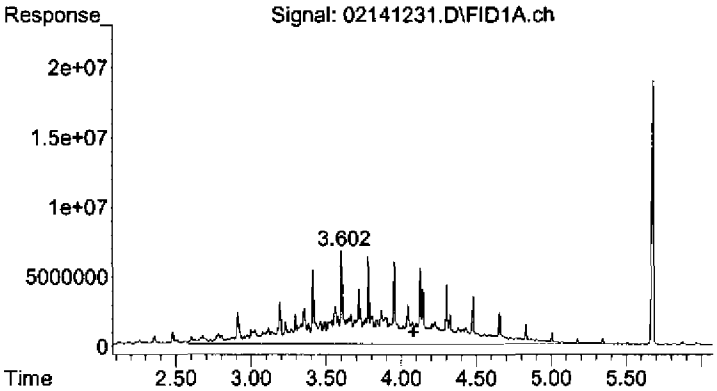
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141231.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 8:45 pm
Operator: TD
Sample : 2020053-CCV3
Inst : AG7890_2
Misc : 2A11005 DRO CV
ALS Vial : 31 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:36:03 2012
Quant Method : C:\msdchem\1\2012\METHOD\013012DROA.M
Quant Title : GC TPH Method
QLast Update : Tue Jan 31 09:45:52 2012
Response via : Initial Calibration
Integrator: ChemStation

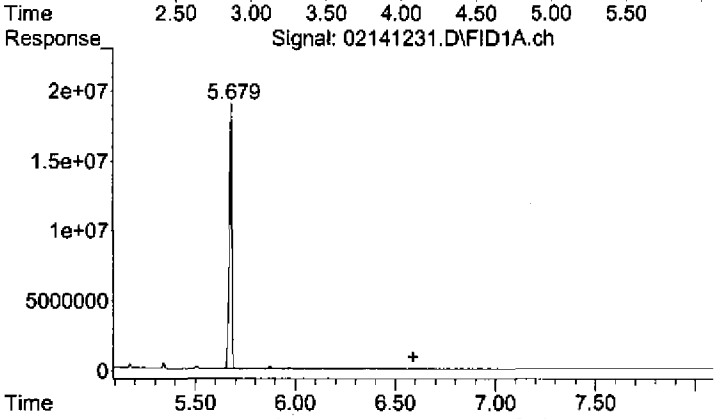
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





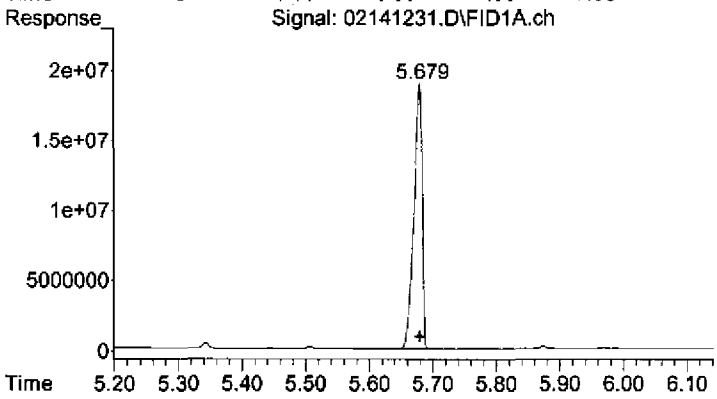
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1619617013
Conc: 451.34 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 6027760
Conc: 3.15 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.002 min
Response: 168998263
Conc: 47.57 ug/mL

Evaluate Continuing Calibration Report

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141232.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 9:03 pm Operator: TD
Sample : 2020053-CCV4 Inst : AG7890_2
Misc : 2A11012 OIL CV
ALS Vial : 32 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 10:01:38 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

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	1.799 E6	6.1	90	0.00
3 S	Surrogate	3.552	0.000 E6	100.0#	92	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\021412A\
Data File : 02141232.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 9:03 pm
Sample : 2020053-CCV4
Misc : 2A11012 OIL CV
ALS Vial : 32 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 15 10:01:38 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

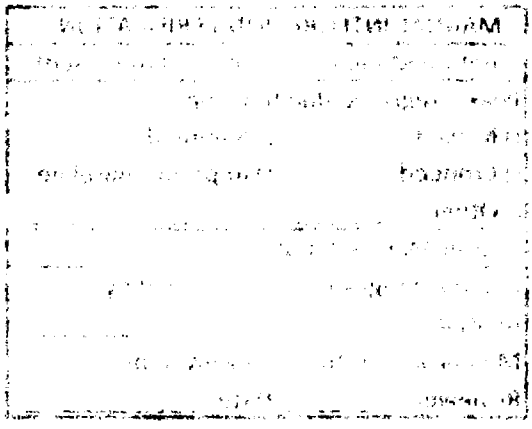
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um

Compound	R.T.	Response	Conc Units
System Monitoring Compounds			
3) S Surrogate	5.685	146832212	41.333 ug/mLm
Spiked Amount 50.000 Range 60 - 127		Recovery =	82.67%
Target Compounds			
1) HM Diesel (TPH)	4.080	963255768	268.430 ug/mL
2) H OIL	6.590	1799356506	939.673 ug/mLm

(m)=manual int.

(f)=RT Delta > 1/2 Window

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: 02-15-12
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 2-16-12



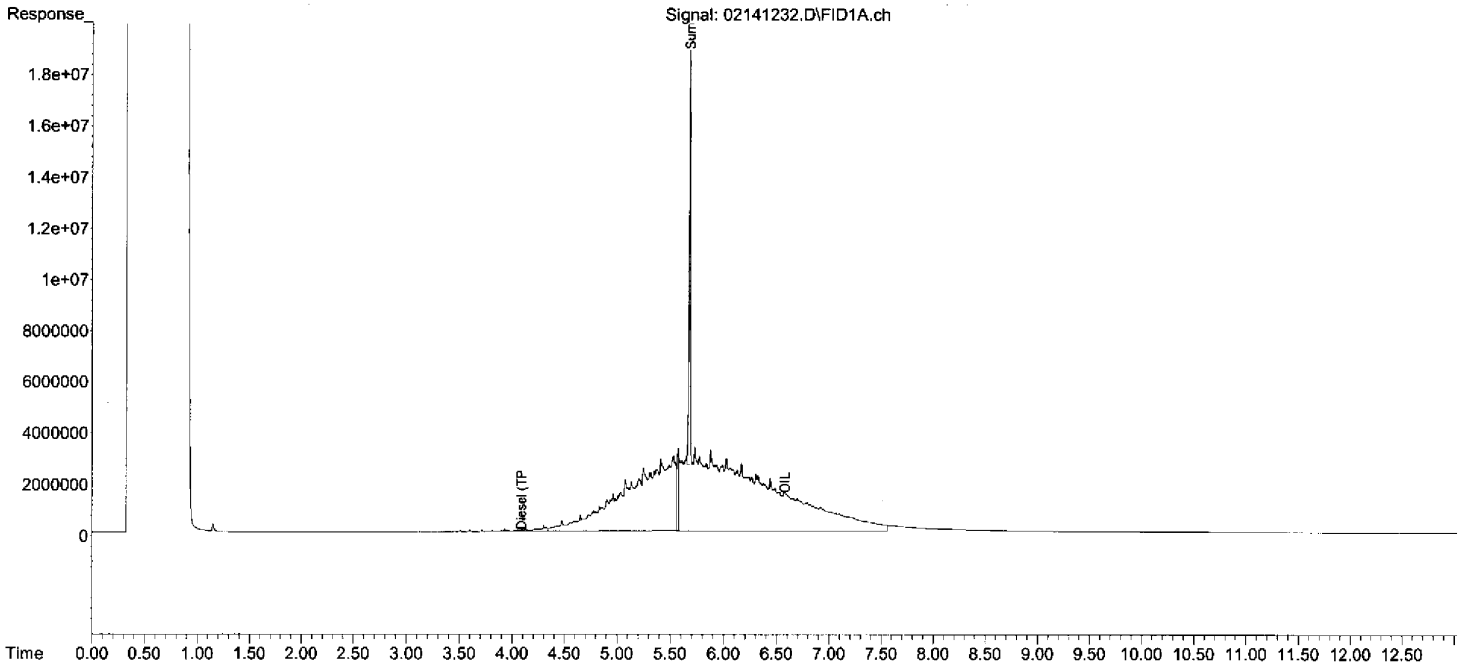
10035399

Quantitation Report (QT Reviewed)

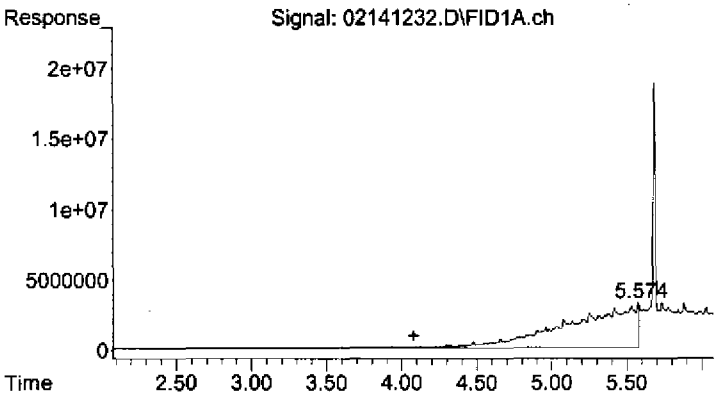
Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141232.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 9:03 pm
Operator: TD
Sample : 2020053-CCV4
Inst : AG7890_2
Misc : 2A11012 OIL CV
ALS Vial : 32 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 10:01:38 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

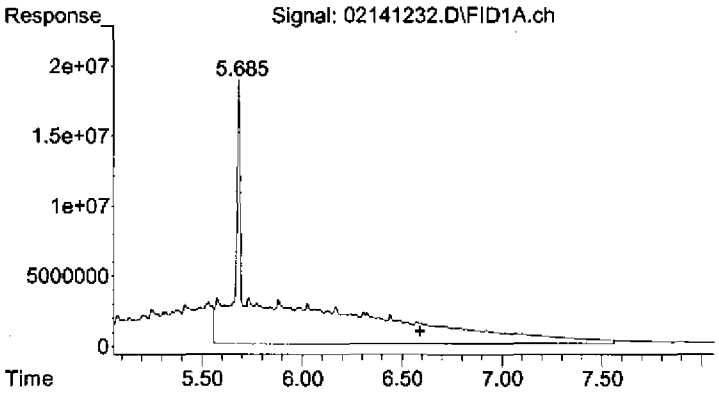


00258



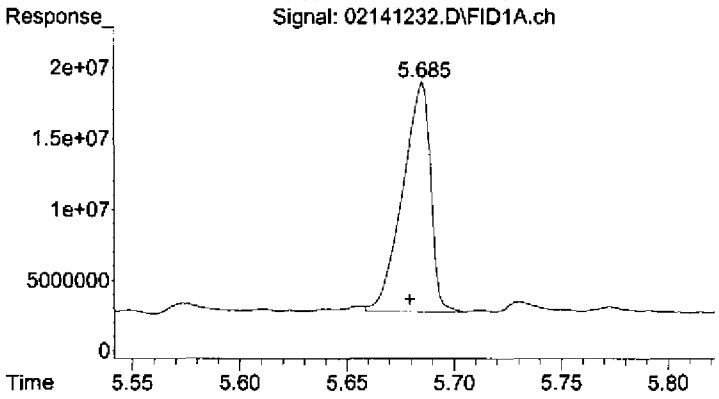
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 963255768
Conc: 268.43 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1799356506
Conc: 939.67 ug/mL m



#3 Surrogate

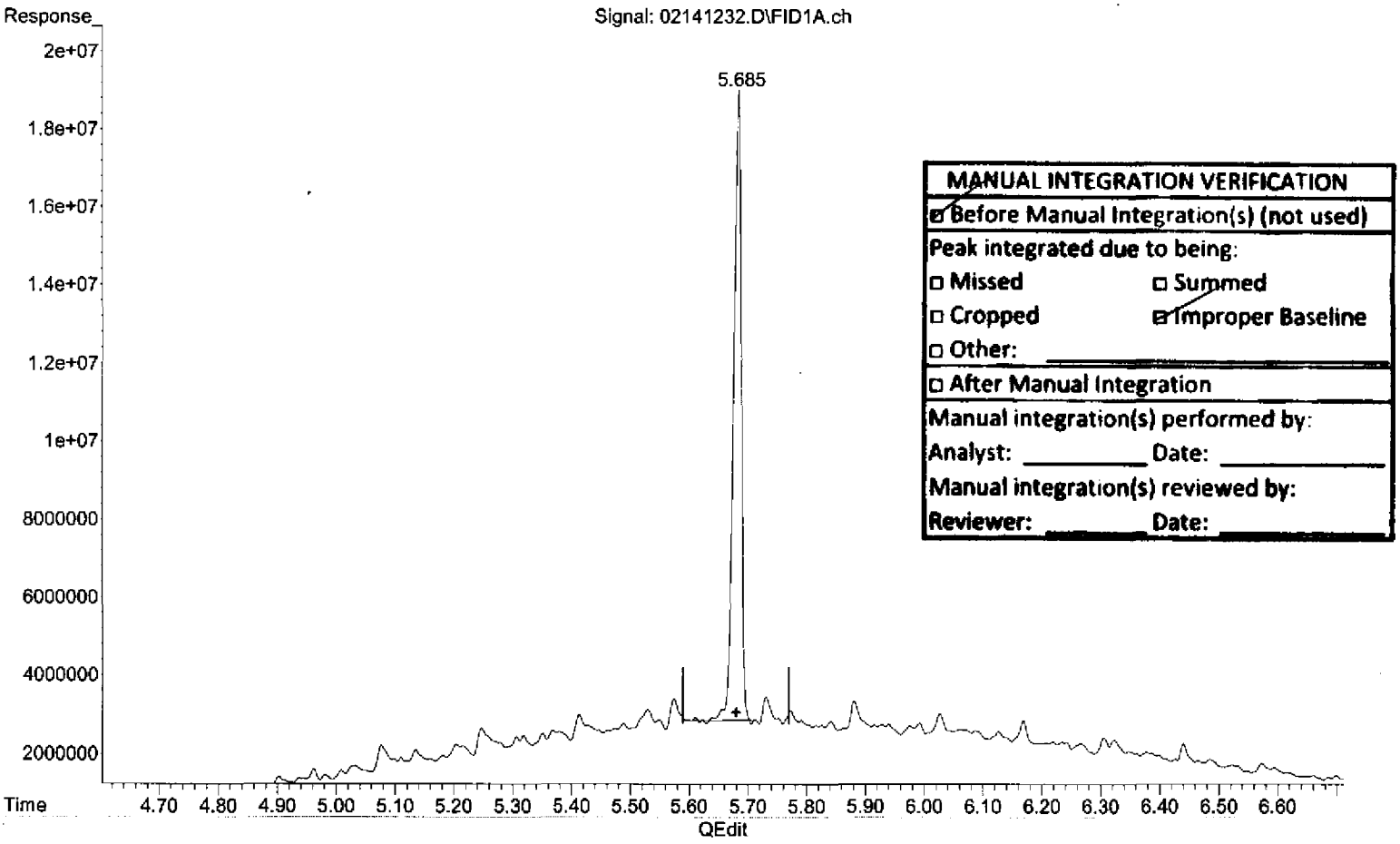
R.T.: 5.685 min
Delta R.T.: 0.005 min
Response: 146832212
Conc: 41.33 ug/mL m

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141232.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 9:03 pm
Operator: TD
Sample : 2020053-CCV4
Inst : AG7890_2
Misc : 2A11012 OIL CV
ALS Vial : 32 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:36:08 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



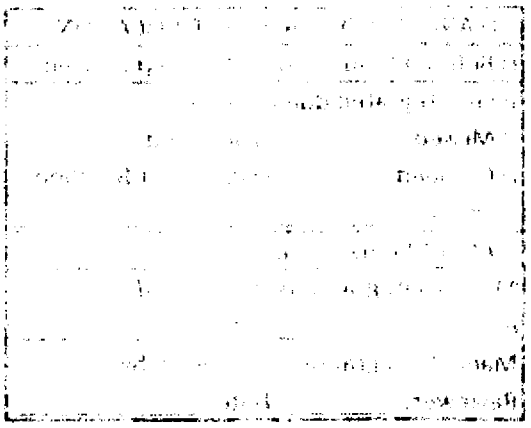
MANUAL INTEGRATION VERIFICATION
☑ Before Manual Integration(s) (not used)
Peak integrated due to being:
☐ Missed ☐ Summed
☐ Cropped ☑ Improper Baseline
☐ Other: _____
☐ After Manual Integration
Manual integration(s) performed by:
Analyst: _____ Date: _____
Manual integration(s) reviewed by:
Reviewer: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

(3) Surrogate (S)

5.684min 41.134 ug/mL

response 146125567

(+) = Expected Retention Time
013012DROA.M Wed Feb 15 10:01:01 2012

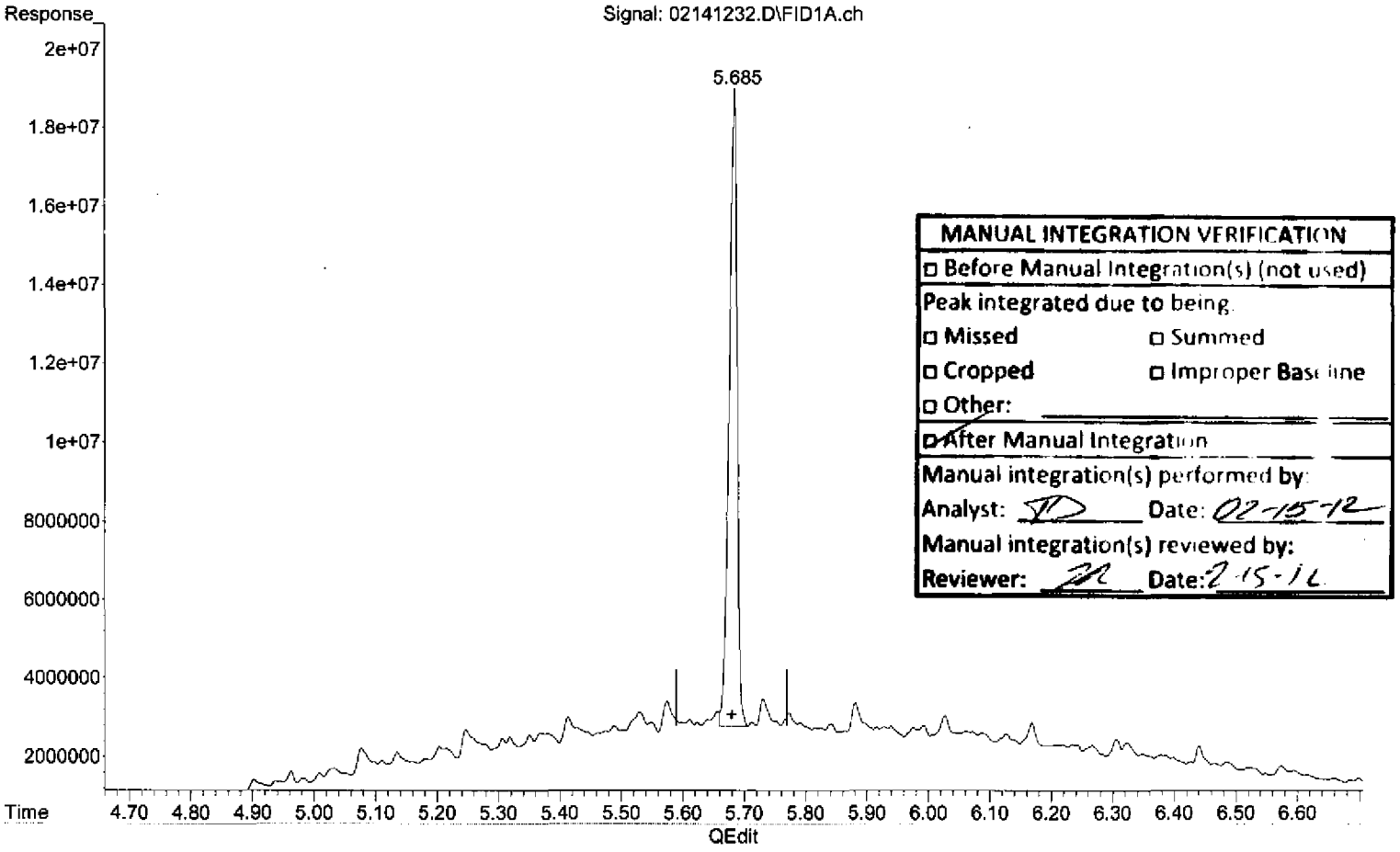


Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141232.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 9:03 pm
Operator: TD
Sample : 2020053-CCV4
Inst : AG7890_2
Misc : 2A11012 OIL CV
ALS Vial : 32 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:36:08 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



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: 02-15-12
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 2-15-12

(3) Surrogate (S)

5.685min 41.333 ug/mL m

response 146832212

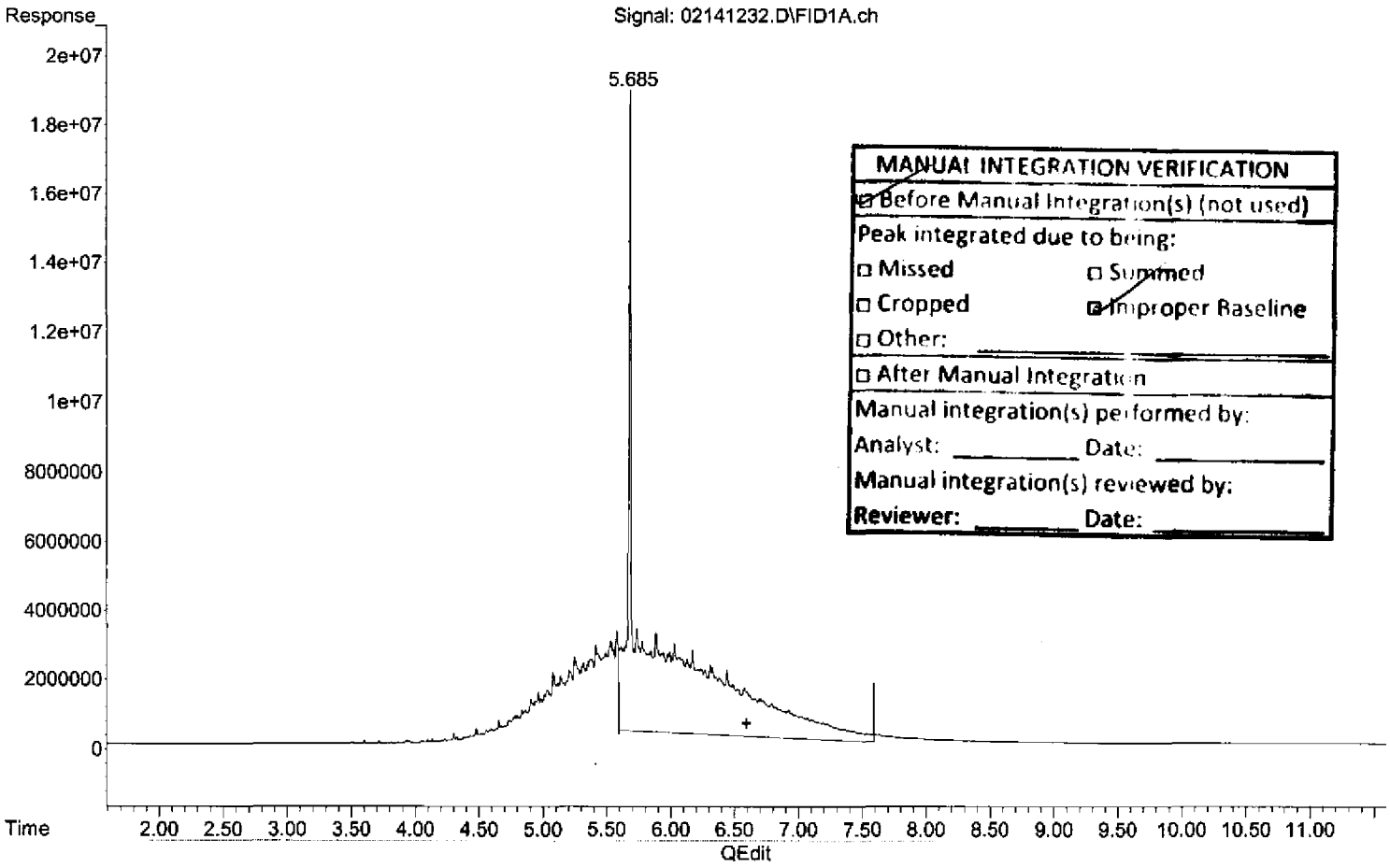
(+) = Expected Retention Time
013012DROA.M Wed Feb 15 10:01:13 2012

Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141232.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 9:03 pm
Operator: TD
Sample : 2020053-CCV4
Inst : AG7890_2
Misc : 2A11012 OIL CV
ALS Vial : 32 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:36:08 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



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 802.447 ug/mL

response 1536586617

(+) = Expected Retention Time

013012DROA.M Wed Feb 15 10:01:24 2012

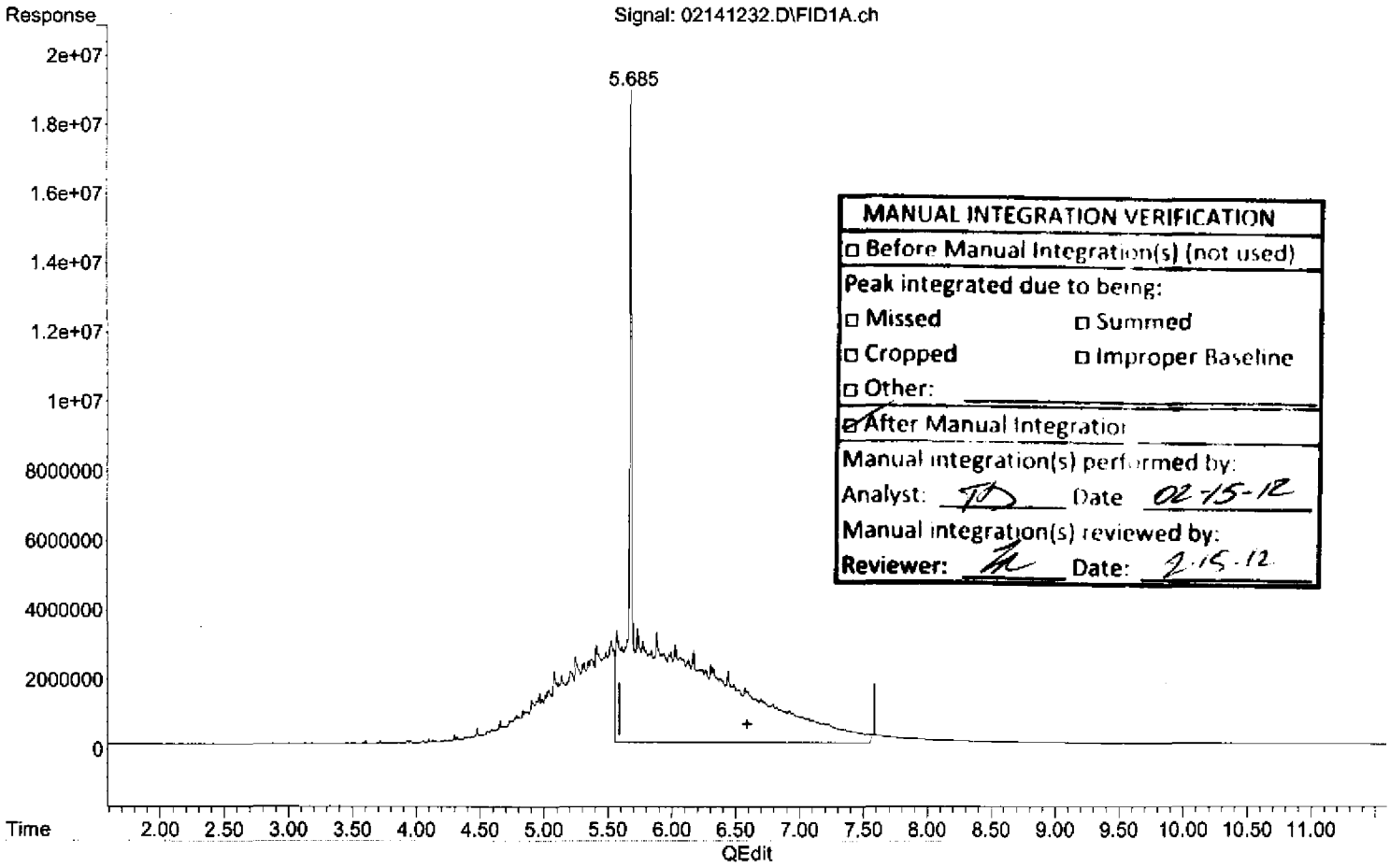
Quantitation Report (Qedit)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141232.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 9:03 pm
Sample : 2020053-CCV4
Misc : 2A11012 OIL CV
ALS Vial : 32 Sample Multiplier: 1

Operator: TD
Inst : AG7890_2

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:36:08 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



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 02-15-12
Manual integration(s) reviewed by:
Reviewer: [illegible] Date: 2-15-12

(2) OIL (H)

6.590min 939.673 ug/mL m

response 1799356506

(+) = Expected Retention Time

013012DROA.M Wed Feb 15 10:01:41 2012

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141232.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 9:03 pm Operator: TD
Sample : 2020053-CCV4 Inst : AG7890_2
Misc : 2A11012 OIL CV
ALS Vial : 32 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:36:08 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	5.684	146125567	41.134 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	82.27%
Target Compounds			
1) HM Diesel (TPH)	4.080	963255768	268.430 ug/mL
2) H OIL	6.590	1537293263	802.816 ug/mL

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

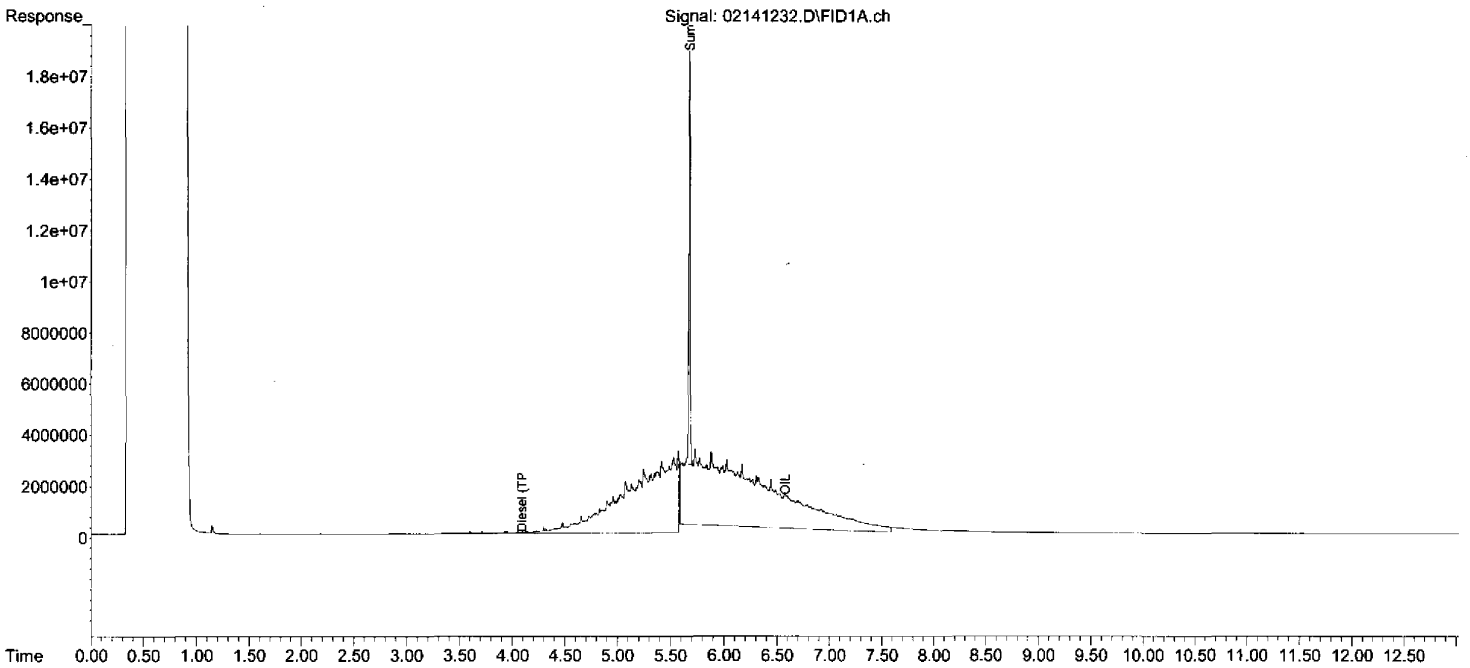
MANUAL INTEGRATION VERIFICATION	
☐ Before Manual Integration(s) (not used)	
Peak integrated due to being:	
☐ Missed	☐ Summed
☐ Cropped	☐ Improper Baseline
☐ Other:	
☐ After Manual Integration	
Manual integration(s) performed by:	
Analyst: _____	Date _____
Manual integration(s) reviewed by:	
Reviewer: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

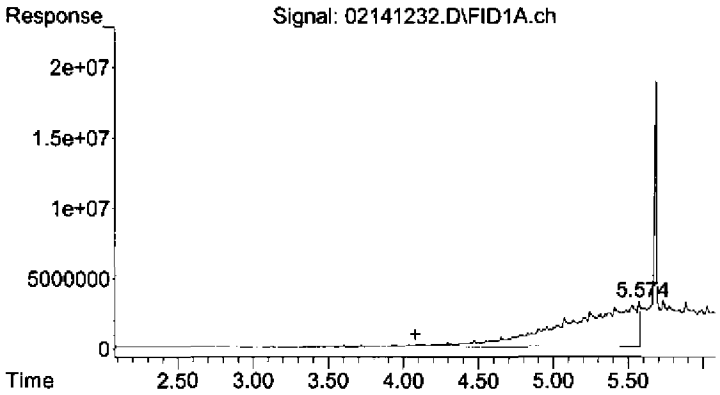
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141232.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 9:03 pm
Operator: TD
Sample : 2020053-CCV4
Inst : AG7890_2
Misc : 2A11012 OIL CV
ALS Vial : 32 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:36:08 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

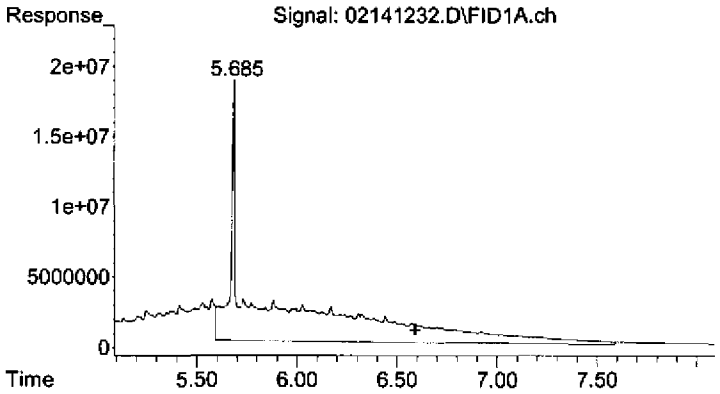
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





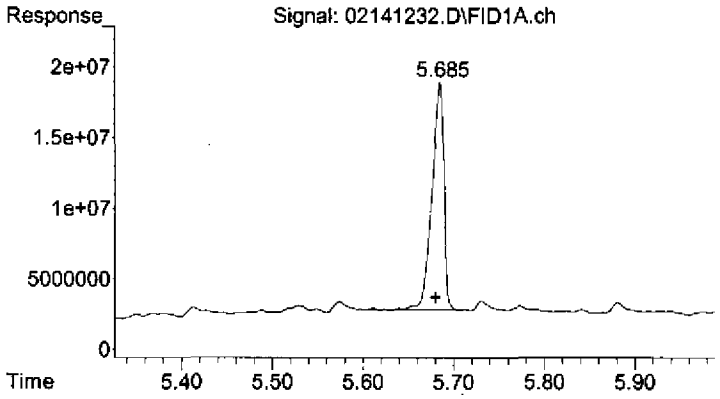
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 963255768
Conc: 268.43 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1537293263
Conc: 802.82 ug/mL



#3 Surrogate

R.T.: 5.684 min
Delta R.T.: 0.004 min
Response: 146125567
Conc: 41.13 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141233.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 9:21 pm Operator: TD
Sample : 2020053-CCV5 Inst : AG7890_2
Misc : 2A11005 DRO CV
ALS Vial : 33 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:36:13 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	170262763	47.929 ug/mL
Spiked Amount 50.000 Range 60 - 127 Recovery = 95.86%			
Target Compounds			
1) HM Diesel (TPH)	4.080	1610639606	448.836 ug/mL
2) H OIL	6.590	5436613	2.839 ug/mL

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

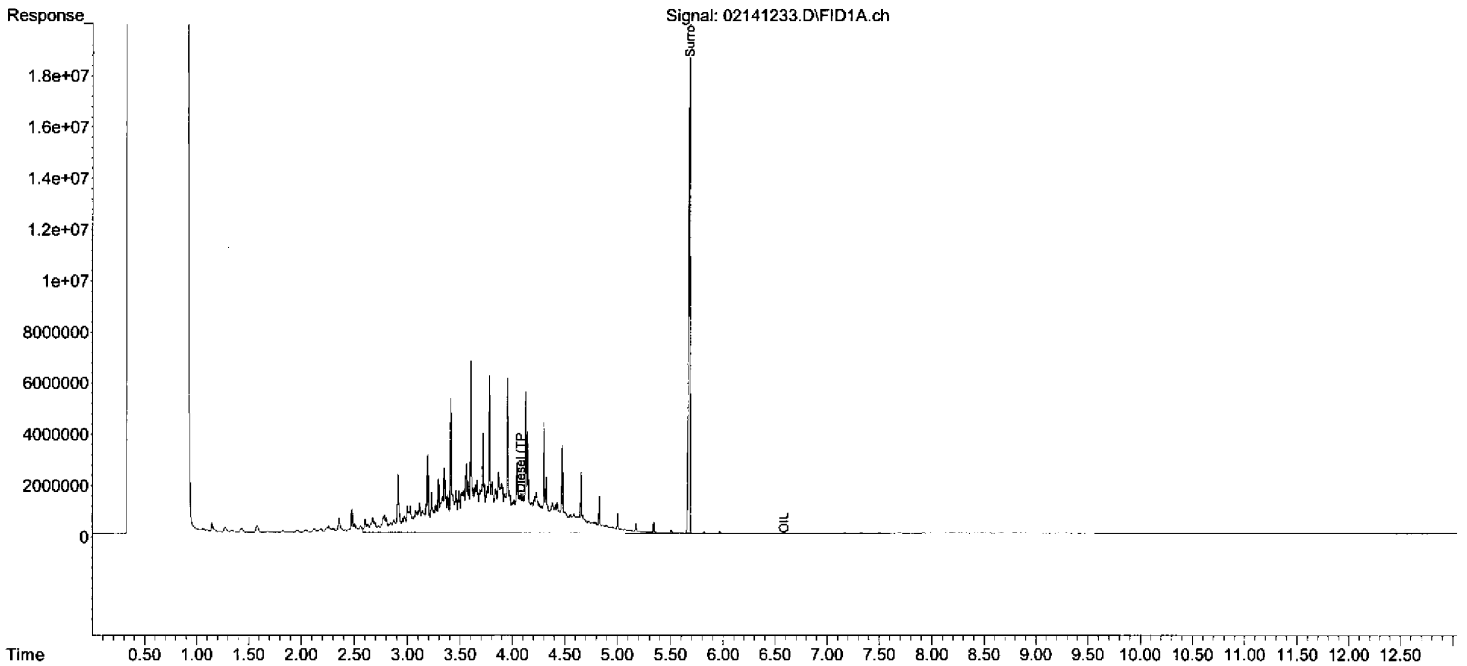
not evaluated

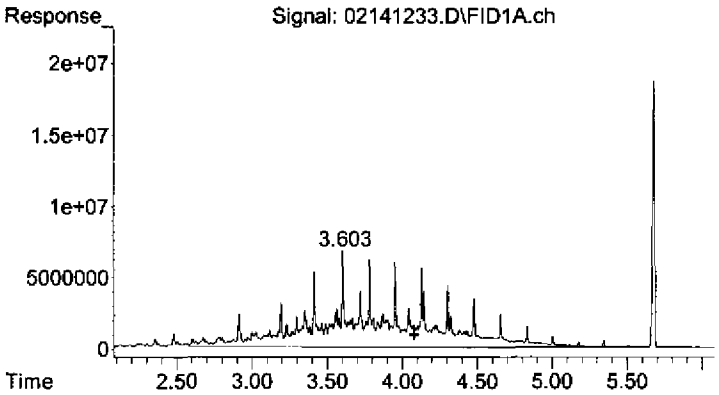
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141233.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 9:21 pm
Operator: TD
Sample : 2020053-CCV5
Inst : AG7890_2
Misc : 2A11005 DRO CV
ALS Vial : 33 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:36:13 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

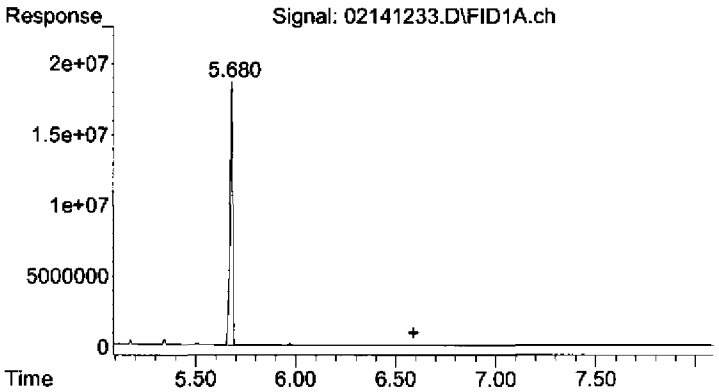
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





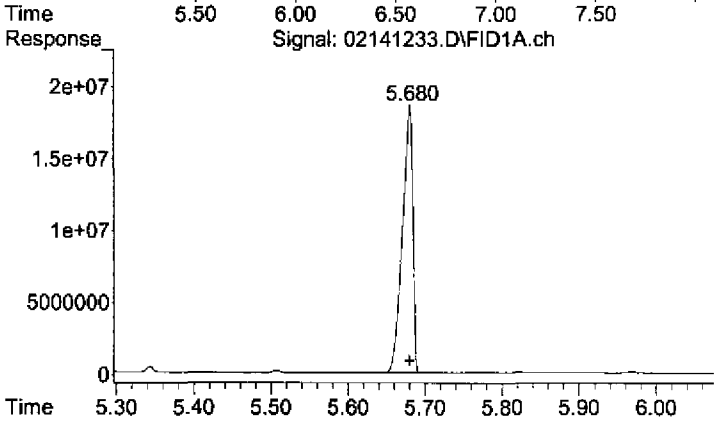
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 1610639606
Conc: 448.84 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 5436613
Conc: 2.84 ug/mL



#3 Surrogate

R.T.: 5.678 min
Delta R.T.: -0.001 min
Response: 170262763
Conc: 47.93 ug/mL

Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141234.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 9:39 pm Operator: TD
Sample : 2020053-CCV6 Inst : AG7890_2
Misc : 2A11012 OIL CV
ALS Vial : 34 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:36:17 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	145456678	40.946 ug/mL
Spiked Amount 50.000	Range 60 - 127	Recovery =	81.89%
Target Compounds			
1) HM Diesel (TPH)	4.080	945797525	263.565 ug/mL
2) H OIL	6.590	1507284819	787.145 ug/mL

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

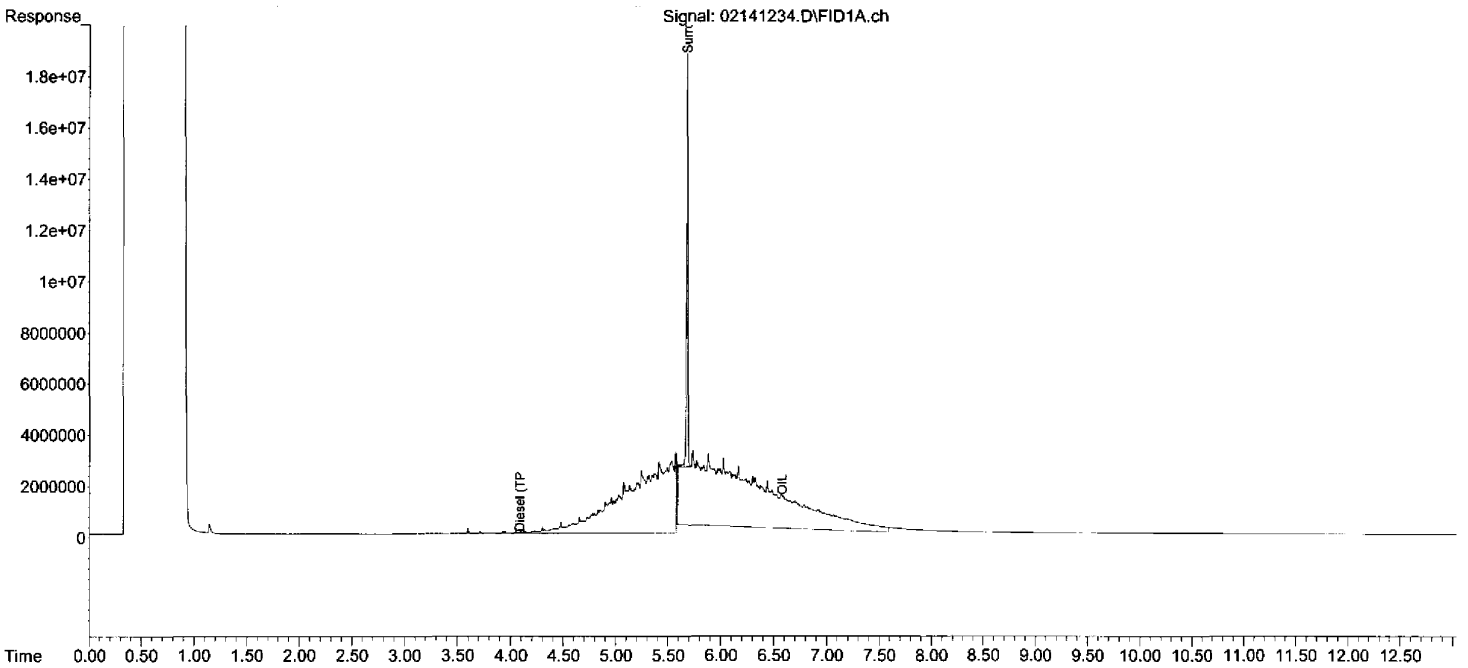
not validated

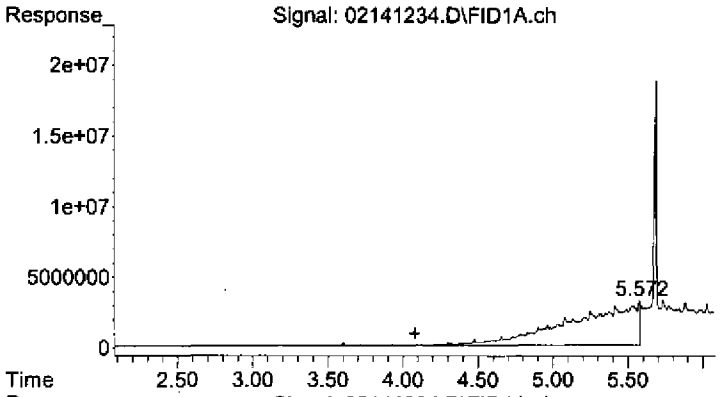
Quantitation Report (Not Reviewed)

Data Path : C:\msdchem\1\2012\DATA\021412A\
Data File : 02141234.D
Signal(s) : FID1A.ch
Acq On : 14 Feb 2012 9:39 pm
Operator: TD
Sample : 2020053-CCV6
Inst : AG7890_2
Misc : 2A11012 OIL CV
ALS Vial : 34 Sample Multiplier: 1

Integration File: HEXACOSANE.E
Quant Time: Feb 15 09:36:17 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

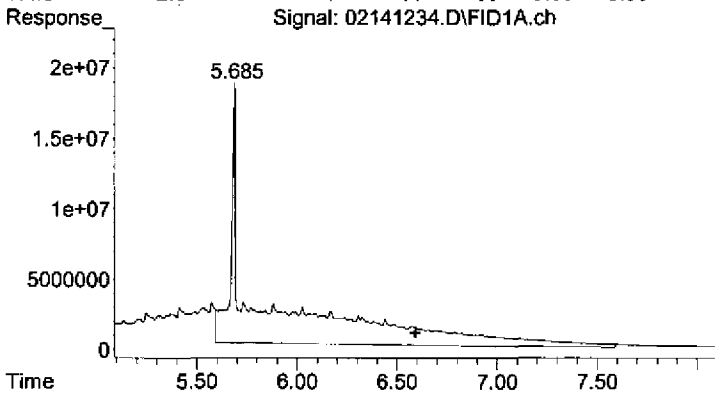
Volume Inj. : 2 uL
Signal Phase : Rtx-1 15m
Signal Info : 0.32 mm 0.1um





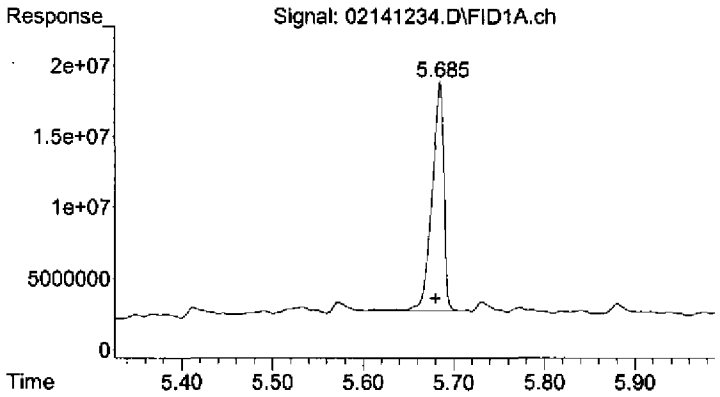
#1 Diesel (TPH)

R.T.: 4.080 min
Delta R.T.: 0.000 min
Response: 945797525
Conc: 263.56 ug/mL



#2 OIL

R.T.: 6.590 min
Delta R.T.: 0.000 min
Response: 1507284819
Conc: 787.15 ug/mL



#3 Surrogate

R.T.: 5.684 min
Delta R.T.: 0.004 min
Response: 145456678
Conc: 40.95 ug/mL

Standard Records

:00272

DIM0035399

DIM0035701

Analytical Standard Record

EPA Region 9 Laboratory

0C16026

Description:	GAS:Unleaded Gasoline Composite S	**Expires:**	04/30/16
Standard Type:	Analyte Spike	**Prepared:**	03/16/10
Solvent:	Solvent Lot # MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	03/16/10 13:06 by YNB
Vendor:	Restek	**Lot Numb**	A066488

Cat # 30205, Lot # A066488; bar code AU002205

Analyte	CAS Number	Concentration (ppm)
TPH as Gasoline	8006-61-9	50000

Certificate of Analysis

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

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 30205 **Lot No.:** A066488
Description : Unleaded Gasoline Composite Standard
Expiration Date[1]**:** April 2016 **Storage:** Freezer

Elution Order	Compound	CAS #	Percent Purity 2	Concentration 3 (weight/volume)	% Uncertainty 4 (95% C.L.; K=2)
1	Unleaded Gasoline Composite	8006-61-9	----%	50,000.000 ug/ml	+/-0.64 %
Solvent:	P&T Methanol	67-56-1	99%		

Column:
105m x .53mm x 3.0um
Rtx-502.2 (cat.#10910)

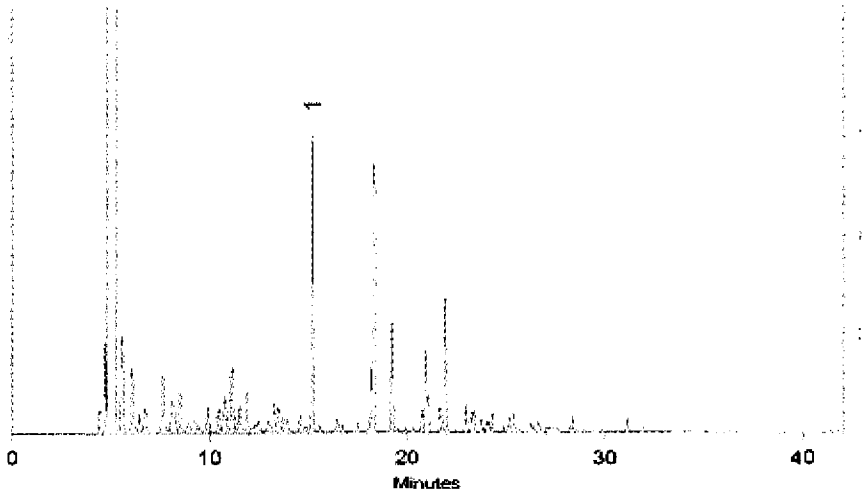
Carrier Gas:
hydrogen @ 40 cm/sec.

Temp. Program:
40°C (hold 2 min.) to 240°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
200°C

Det. Temp:
250°C

Det. Type:
FID



John Lidgett - 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)

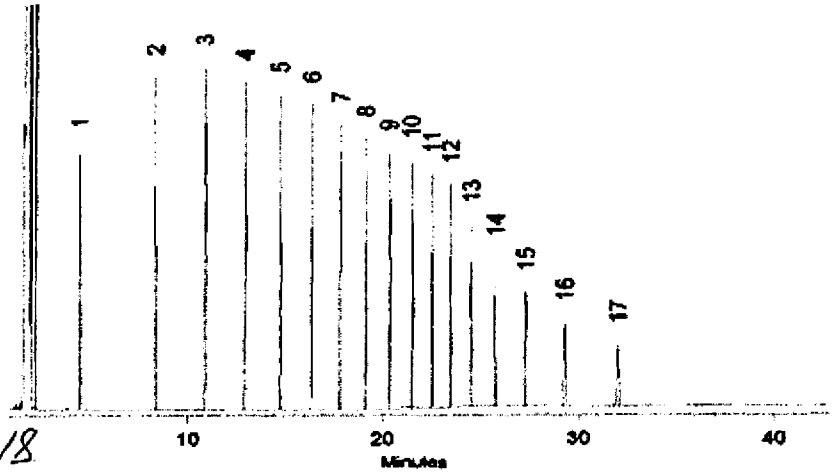
Carrier Gas:
hydrogen @ 40cm/sec.

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

00276

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 | IA18023
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

00278

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

: 00279

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.
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AccuStandard is accredited to ISO Guide 34, ISO/IEC 17025 and certified to ISO 9001

OR-ORG/NO-001
Rev. 7/10

00280

Analytical Standard Record

EPA Region 9 Laboratory

1B16005

Description:	DRO:Turpentine, Stock	**Expires:**	11/21/18
Standard Type:	Other Solution	**Prepared:**	02/16/11
Solvent:	Solvent Lot # MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	02/16/11 12:36 by YNB
Vendor:	AccuStandard	**Lot Numbe**	A9020099

Cat.# HS-004S-40X, Lot # A9020099, bar code AU003356 (2)

Analyte	CAS Number	Concentration (ppm)
Turpentine	8006-64-2	20000

125 Market Street
New Haven, CT 06513
USA

AccuStandard, Inc.

Tel (203)786-5290
Fax (203)786-5287
Website AccuStandard.com

CERTIFICATE OF ANALYSIS

CATALOG NO: HS-004S-40X
DESCRIPTION: Turpentine
LOT: A9020099
SOLVENT: Methanol

DATE CERTIFIED: Nov 21, 2008
EXPIRATION: Nov 21, 2018
SAMPLE SIZE: 1 mL
STORAGE CONDITION: Ambient
HAZARDS: POISON

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[1] (mg/mL)	Certified Analyte Concentration[2] (mg/mL)
Turpentine	8006-64-2	Tech	20.00	20.00

AU 003356 (1) | 1B16004
(2) | 5

Please note:
A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot number has had its expiration date extended and is identical to the same lot number without the suffix.

AccuStandard follows U.S. conventions in reporting numerical values on both certificates and labels:

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through NIST, Test No.822/254480
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty calculated for this product is ±2% which is the Combined Uncertainty uc(y). It represents an estimated standard deviation equal to the positive square root of the total variance of the uncertainty of components. The Expanded Uncertainty is U which is Uc(y) *K where K is the coverage factor at the 95% confidence level (K=2).

Certified by: R. Cooper
Russ Cooper, QC Manager

For use in routine laboratory analysis.
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AccuStandard is accredited to ISO Guide 34, ISO/IEC 17025 and certified to ISO 9001

OR-ORG/INO-001
Rev. 7/10

: 00282

Analytical Standard Record

EPA Region 9 Laboratory

1B18007

Description:	DRO:Composite #2 Diesil Fuel Solution, !	**Expires:**	10/30/13
Standard Type:	Other Solution	**Prepared:**	02/18/11
Solvent:	Solvent DCM	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	02/18/11 09:08 by YNB
Vendor:	Ultra Scientific	**Lot Numbe**	CD-2271A

Ultra Scientific RGO-616 Lot# CD-2271 for QCS

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	50000

00283

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)

A0002868
1B18004
open 02.18.11
JAB

1B18005
6
7
8

ULTRA uses balances calibrated with weights traceable to NIST in compliance with ANSI/NCSL Z-540-1 and ISO 9001, and calibrated Class A glassware in the manufacturing of these standards.

ACCREDITED

ISO 17025:2005 Accredited A2LA Cert. No. 0861-01

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

: 00284

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)

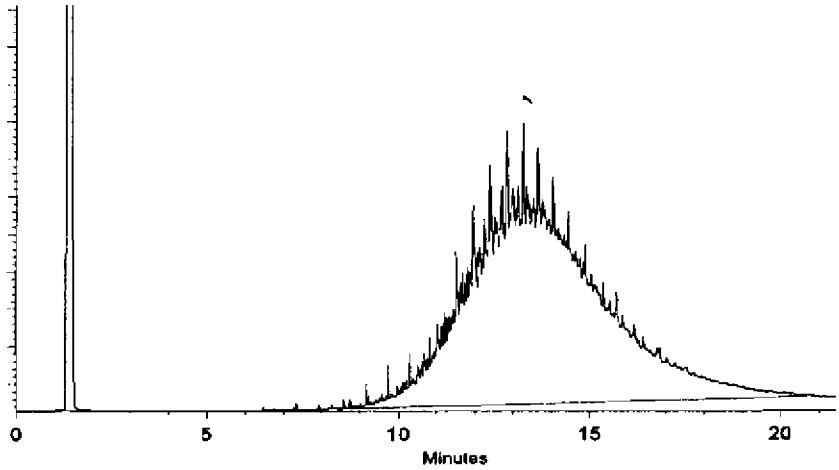
Carrier Gas:
hydrogen-constant pressure 10 psi.

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 | 1C72007
1 2 | 8
3 | 9
4 | 10
5 | 11

: 00286

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)

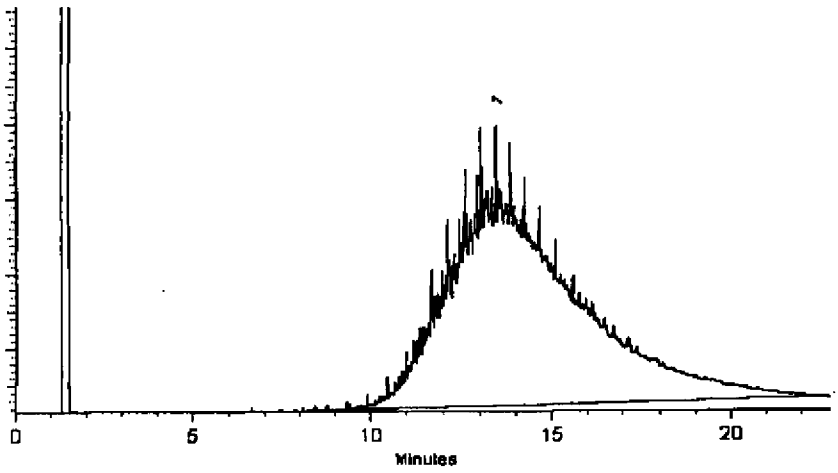
Carrier Gas:
hydrogen-constant pressure 10 psi.

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 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
48	14
49	15
43	16

: 00288

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)

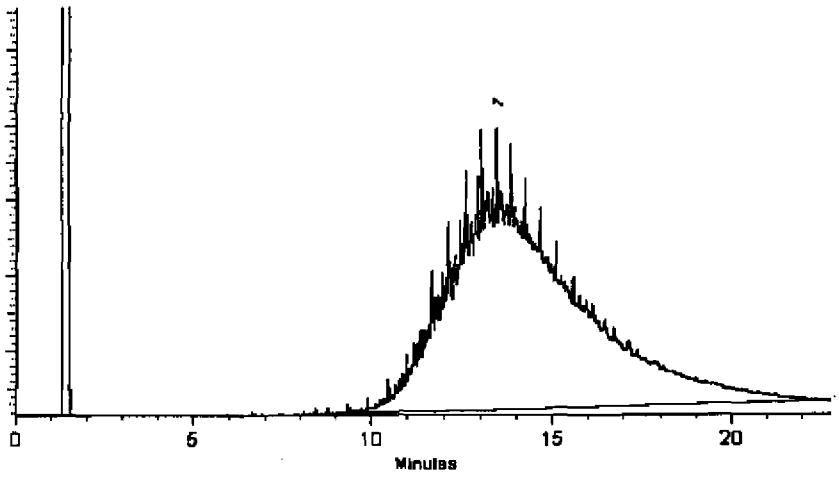
Carrier Gas:
hydrogen-constant pressure 10 psi.

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 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	1C02012
46	13
48	14
49	15
43	16

: 00289

Analytical Standard Record

EPA Region 9 Laboratory

1C22013

Description:	OIL:Motor Oil Composite Standard, Stock	**Expires:**	12/31/17
Standard Type:	Other Solution	**Prepared:**	03/22/11
Solvent:	Solvent Lot #	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	03/22/11 11:02 by YNB
Vendor:	Restek	**Lot Numbe**	A077845

Cat.# 31464, Lot # A077845 Bar code#AU003446

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	50000
TPH - Oil Range Organics	TPH-ORO	50000

Certificate of Analysis

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

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 31258 **Lot No.:** A069478
Description : Diesel Fuel #2 Composite Standard
Expiration Date[1]: September 2016 **Storage:** Room Temperature

Elution Order	Compound	CAS #	Percent Purity 2	Concentration 3 (weight/volume)	% Uncertainty 4 (95% C.L.: K=2)
1	Diesel Fuel #2 Composite	68334-30-5	----%	50,000.000 ug/ml	+/-0.58 %
Solvent:	Methylene Chloride	75-09-2	99%		

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10233)

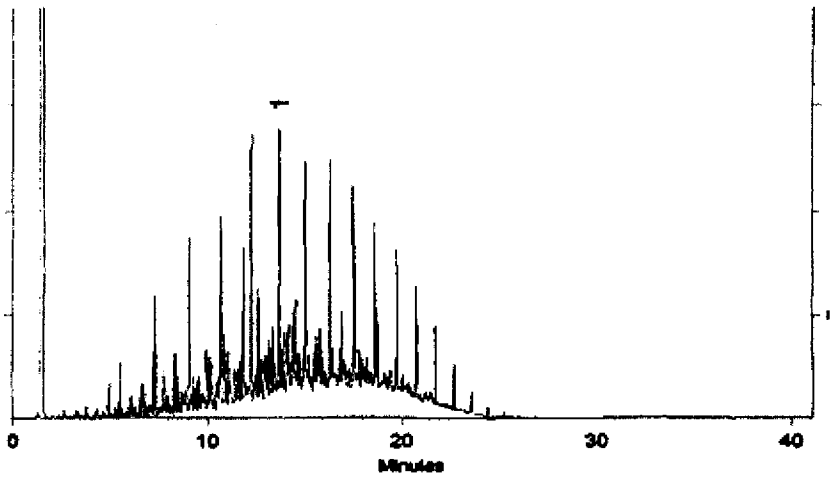
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Sara Eyster / QA Analyst **Date Passed:** 08/18/2009 **Balance:** 1128342313

Manufactured under Restek's ISO 9001-2000 Registered Quality System Certificate #FMB0397

1 Expiration date of the unopened ampule stored at recommended temperature.
2A Purity was determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value rounded to the nearest whole number. In addition to detectors listed above, chemical identity and purity are confirmed using one or more of the following: MS, DSC, solid probe MS, GC/FPD, GC/NPD, GC/TC, FTIR, melting point, refractive index, and Karl Fisher. See data pack or contact Restek for further details.
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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

00291

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)

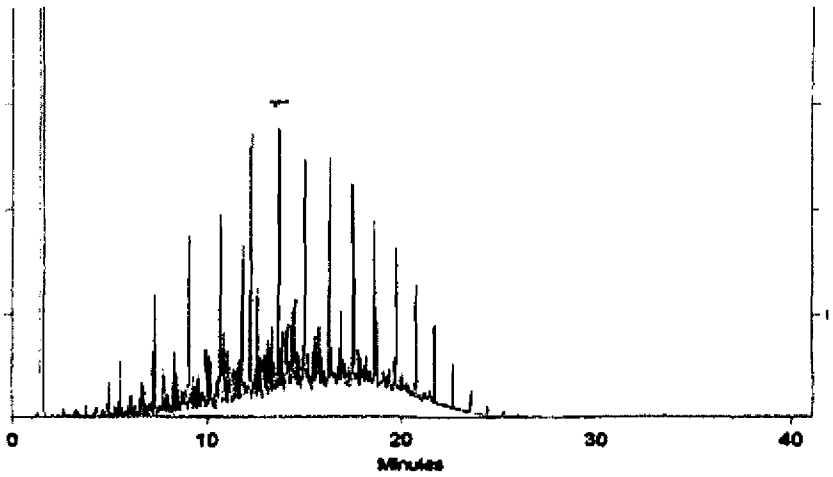
Carrier Gas:
hydrogen-constant pressure 10 psi

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
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.
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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

00293

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

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 31258 **Lot No.:** A069478
Description : Diesel Fuel #2 Composite Standard
Expiration Date[1]: September 2016 **Storage:** Room Temperature

Elution Order	Compound	CAS #	Percent Purity 2	Concentration 3 (weight/volume)	% Uncertainty 4 (95% C.L.: K=2)
1	Diesel Fuel #2 Composite	68334-30-5	----%	50,000.000 ug/ml	+/-0.58 %
Solvent:	Methylene Chloride	75-09-2	99%		

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10233)

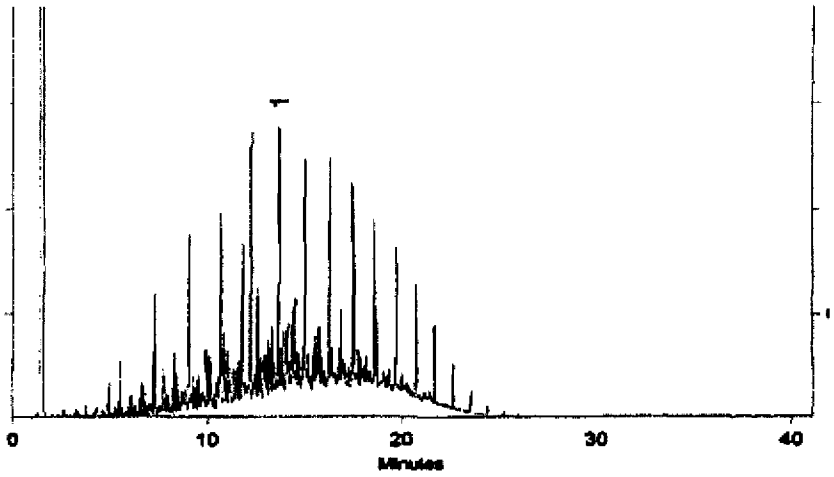
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Sara Eyster
Sara Eyster #QA Analyst

Date Passed: 08/18/2009 **Balance:** 1128342313

Manufactured under Restek's ISO 9001-2000 Registered Quality System Certificate #FMB0397

1 Expiration date of the unopened ampule stored at recommended temperature.
2A Purity was determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value rounded to the nearest whole number. In addition to detectors listed above, chemical identity and purity are confirmed using one or more of the following: MS, DSC, solid probe MS, GC/FPD, GC/NPD, GC/TC, FTIR, melting point, refractive index, and Karl Fisher. See data pack or contact Restek for further details.
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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

: 00295

Analytical Standard Record

EPA Region 9 Laboratory

1C22021

Description:	DRO:Diesel Fuel #2 Composite Standard	**Expires:**	09/30/16
Standard Type:	Analyte Spike	**Prepared:**	03/22/11
Solvent:	DCM	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	03/22/11 11:15 by YNB
Vendor:	Restek	**Lot Numbe**	A069478

Restek Cat. No. 31258 Lot#: A06947 Bar Code : AU003410

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	50000
TPH - Diesel Range Organics	TPH-DRO	50000

Certificate of Analysis

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

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 31258 **Lot No.:** A069478
Description : Diesel Fuel #2 Composite Standard
Expiration Date[1]: September 2016 **Storage:** Room Temperature

Elution Order	Compound	CAS #	Percent Purity 2	Concentration 3 (weight/volume)	% Uncertainty 4 (95% C.L.: K=2)
1	Diesel Fuel #2 Composite	68334-30-5	----%	50,000.000 ug/ml	+/-0.58 %
Solvent:	Methylene Chloride	75-09-2	99%		

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10233)

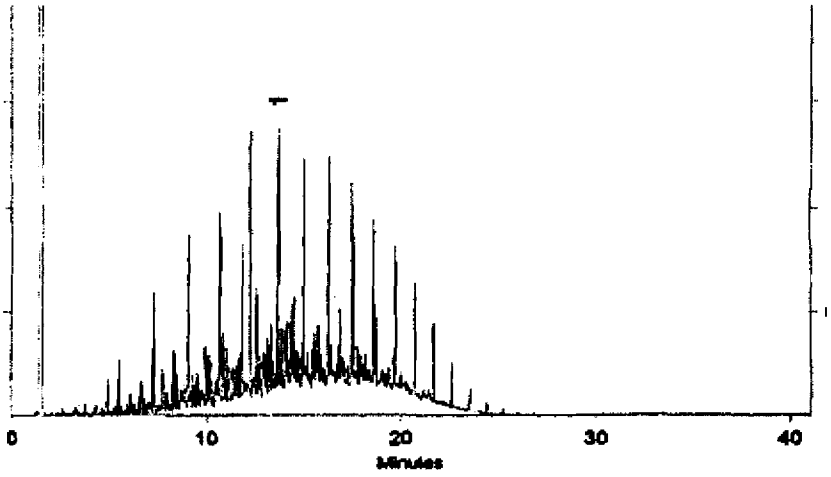
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Sara Eyster
Sara Eyster / QA Analyst **Date Passed:** 08/18/2009 **Balance:** 1128342313

Manufactured under Restek's ISO 9001-2000 Registered Quality System Certificate #FMB0397

1 Expiration date of the unopened ampule stored at recommended temperature.
2A Purity was determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value rounded to the nearest whole number. In addition to detectors listed above, chemical identity and purity are confirmed using one or more of the following: MS, DSC, solid probe MS, GC/FPD, GC/NPD, GC/TC, FTIR, melting point, refractive index, and Karl Fisher. See data pack or contact Restek for further details.
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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

: 00297

Analytical Standard Record

EPA Region 9 Laboratory

1C22023

Description:	DRO:Diesel Fuel #2 Composite Standard	**Expires:**	09/30/16
Standard Type:	Analyte Spike	**Prepared:**	03/22/11
Solvent:	DCM	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	03/22/11 11:19 by YNB
Vendor:	Restek	**Lot Numbe**	A069478

Restek Cat. No. 31258 Lot#: A06947 Bar Code : AU003441

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	50000
TPH - Diesel Range Organics	TPH-DRO	50000

Analytical Standard Record

EPA Region 9 Laboratory

1C22024

Description:	DRO:Diesel Fuel #2 Composite Standard	**Expires:**	09/30/16
Standard Type:	Analyte Spike	**Prepared:**	03/22/11
Solvent:	DCM	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	03/22/11 11:19 by YNB
Vendor:	Restek	**Lot Numbe**	A069478

Restek Cat. No. 31258 Lot#: A06947 Bar Code : AU003442

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	50000
TPH - Diesel Range Organics	TPH-DRO	50000

Certificate of Analysis

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

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No. : 31258 **Lot No.:** A069478
Description : Diesel Fuel #2 Composite Standard
Expiration Date[1]: September 2016 **Storage:** Room Temperature

Elution Order	Compound	CAS #	Percent Purity [2]	Concentration [3] (weight/volume)	% Uncertainty [4] (95% C.L.: K=2)
1	Diesel Fuel #2 Composite	68334-30-5	----%	50,000.000 ug/ml	+/-0.58 %
Solvent:	Methylene Chloride	75-09-2	99%		

Column:
30m x .25mm x .25um
Rtx-5 (cat.#10233)

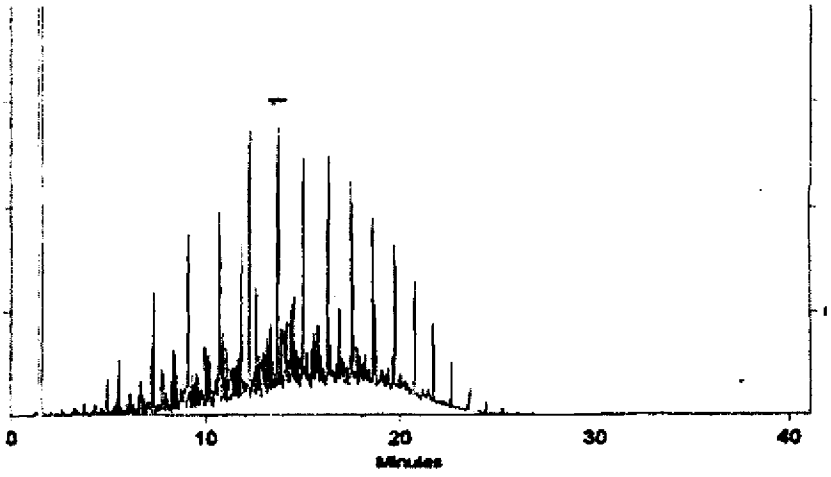
Carrier Gas:
hydrogen-constant pressure 10 psi

Temp. Program:
40°C (hold 2 min.) to 330°C
@ 10°C/min. (hold 10 min.)

Inj. Temp:
250°C

Det. Temp:
330°C

Det. Type:
FID



Sara Eyster
Sara Eyster / QA Analyst **Date Passed:** 08/18/2009 **Balance:** 1128342313

Manufactured under Restek's ISO 9001-2000 Registered Quality System Certificate #FMB0397

1 Expiration date of the unopened ampule stored at recommended temperature.
2A Purity was determined by one or more of the following techniques: GC/FID, HPLC, GC/ECD, GC/MS. Value rounded to the nearest whole number. In addition to detectors listed above, chemical identity and purity are confirmed using one or more of the following: MS, DSC, solid probe MS, GC/FPD, GC/NPD, GC/TC, FTIR, melting point, refractive index, and Karl Fisher. See data pack or contact Restek for further details.
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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

00300

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 Standa	Prepared:	07/15/11
Solvent:	DCM Lot # DE038	Prepared By:	Lorraine Avalos
Final Volume (mls):	25	Department:	Extractables
Vials:	1	Last Edit:	07/15/11 16:57 by LA

Analyte	CAS Number	Concentration	Units
TPH as Kerosene	8008-20-6	500	ppm
Hexacosane	630-01-3	50	ppm

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
9B04015	DRO: Kerosene Composite St.	02/04/09	** Vendor **	03/30/14	02/04/09 14:34 by LA	0.25
1G15006	DRO:hexacosane_stock 5000 mg/L	07/15/11	Lorraine Avalos	01/15/12	07/15/11 14:28 by LA	0.25

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1H09011

Description:	DRO:TPH_080911MS 3000ug/mL in DCI	**Expires:**	02/09/12
Standard Type:	Analyte Spike	**Prepared:**	08/09/11
Solvent:	DCM Lot #DE038	**Prepared By:**	Susan Lepe
Final Volume (mls):	50	**Department:**	Extractables
Vials:	1	**Last Edit:**	08/11/11 08:03 by SUL
Vendor:	Restek	**Lot Numbe**	A069478

Matrix spike for TPH-d. For check: brought 250ul spike to 1.5ml with DCM. OK to use 8/11/11.

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	3000
TPH - Diesel Range Organics	TPH-DRO	3000

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22019	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	02/09/12	08/09/11 11:26 by SUL	1
1C22020	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	02/09/12	08/09/11 11:26 by SUL	1
1C22021	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	02/09/12	08/09/11 11:27 by SUL	1

Analytical Standard Record

EPA Region 9 Laboratory

1I23004

Description:	GRO:Stoddard Solvent, Stock	**Expires:**	04/26/20
Standard Type:	Other Solution	**Prepared:**	09/23/11
Solvent:	Solvent Lot # MeOH	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	09/23/11 08:04 by TD
Vendor:	AccuStandard	**Lot Numbe**	HS-005S-40X

Cat.# HS-005S-40X,

Analyte	CAS Number	Concentration (ppm)
Stoddard solvent	8052-41-3	20000

125 Market Street
New Haven, CT 06513
USA

AccuStandard, Inc.

Tel (203)786-5290
Fax (203)786-5287
Website AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: HS-005S-40X
Description: Stoddard Solvent
Lot: B0100498
Solvent: Methanol

Date Certified: Apr 26, 2010
Expiration: Apr 26, 2020
Sample Size: 1 mL
Storage Condition: Ambient
Hazards: POISON

[X] Included on ISO/IEC 17025 Scope of Accreditation
[X] Included on ISO Guide 34 Scope of Accreditation

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[1] (mg/mL)	Certified Analyte Concentration[2] (mg/mL)
Stoddard Solvent	8052-41-3	Tech	20.02	20.02

I23004
I23002 (A-B)
A110035-5

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/INC-001
Rev 7/10

00307

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

00308

125 Market Street
New Haven, CT 06513
USA

AccuStandard, Inc.

Tel (203)786-5290
Fax (203)786-5287
Website AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: HS-002S-40X
Description: Mineral Spirits
Lot: B8050069
Solvent: Methanol

Date Certified: May 9, 2008
Expiration: May 9, 2018
Sample Size: 1 mL
Storage Condition: Ambient
Hazards: POISON

[X] Included on ISO/IEC 17025 Scope of Accreditation
[X] Included on ISO Guide 34 Scope of Accreditation

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[1] (mg/mL)	Certified Analyte Concentration[2] (mg/mL)
Mineral Spirits	8030-30-6	Tech	20.02	20.02

1I23009
1I23008
~~1I23008~~ D
4U003886 (A-B)

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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.

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00309

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New Haven, CT 06513
USA

AccuStandard®, Inc.

Tel (203)786-5290
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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-13)

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

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Rev. 7/10

Analytical Standard Record

EPA Region 9 Laboratory

1I23010

Description:	GASDRO:Naphtha, Stock	Expires:	09/01/21
Standard Type:	Other	Prepared:	09/23/11
Solvent:	Solvent Lot # MeOH	Prepared By:	** Vendor **
Final Volume (mls):	1	Department:	Extractables
Vials:	1	Last Edit:	09/23/11 10:21 by TD

Cat.# HS-003S-40X, Lot # 211091015 bar code #AU003883 A

Analyte	CAS Number	Concentration	Units
Naptha	8030-30-6	20002	ppm

Reviewed By Date

125 Market Street
New Haven, CT 06513
USA

AccuStandard, Inc.

Tel (203)786-5290
Fax (203)786-5287
Website AccuStandard.com

CERTIFICATE OF ANALYSIS

Catalog No: HS-001S-40X
Description: Lacquer Thinner
Lot: B9040308
Solvent: Methanol

Date Certified: Apr 30, 2009
Expiration: Apr 30, 2019
Sample Size: 1 mL
Storage Condition: Ambient
Hazards: POISON

[X] Included on ISO/IEC 17025 Scope of Accreditation
[X] Included on ISO Guide 34 Scope of Accreditation

Component	CAS #	Purity % (GC/FID)	Prepared Concentration[1] (mg/mL)	Certified Analyte Concentration[2] (mg/mL)
Lacquer Thinner	N/A	Tech	20.01	20.01

1I23012
1I23013
AU003884 (A-B)

AccuStandard follows U.S. conventions in reporting numerical values on both certificates and labels:

A comma (,) is used to separate units of one-thousand or greater.
A period (.) is used as a decimal place marker.

1. All weights are traceable through NIST, Test No822/272103-05
2. Certified Analyte Concentration = Purity x Prepared Concentration. The Uncertainty associated with the gravimetric values reported on this certificate is ±0.24%. The CRM Uncertainty calculated for this product is ±5%. These values are the expanded uncertainty and represent an estimated standard deviation equal to the positive square root of the total variation of the uncertainty of components. A normal distribution is assumed and a coverage factor of K=2 is chosen using approximately a 95% confidence level.
3. A product with a suffix (-1A, -2B, etc. or -01, -02, etc.) on its lot# has had its expiration date extended and is identical to the same lot# without the suffix.

For use in routine laboratory analysis.

See reverse side for additional information
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Certified by: R. Cooper
Russ Cooper, QC Manager

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Rev 7/10

Analytical Standard Record

EPA Region 9 Laboratory

1I23012

Description:	GASDRO:Lacquer Thinner, Stock	Expires:	04/30/19
Standard Type:	Other	Prepared:	09/23/11
Solvent:	Solvent Lot # MeOH	Prepared By:	** Vendor **
Final Volume (mls):	1	Department:	Extractables
Vials:	1	Last Edit:	09/23/11 10:23 by TD

Cat.# HS-001S-40X, Lot # B9040308; bar code #AU003884 A

Analyte	CAS Number	Concentration	Units
Lacquer thinner	64742-89-8	20000	ppm

Reviewed By Date

Analytical Standard Record

EPA Region 9 Laboratory

1L27008

Description:	DRO_122711_SURR 300ug/mL DCM/Ac	**Expires:**	06/27/12
Standard Type:	Surrogate Spike	**Prepared:**	12/27/11
Solvent:	DCM:ACE 2:1	**Prepared By:**	Susan Lepe
Final Volume (mls):	100	**Department:**	Extractables
Vials:	1	**Last Edit:**	12/27/11 13:23 by SUL
Vendor:	Burdick & Jackson	**Lot Numbe**	#DE391

Conc:300 ug/ml DCM (1E16003) and Acetone (9I29020) 2:1. Dissolved 30 mg of n-Hexacosane in 2:1 DCM/Acetone, raised volume to 100 ml. 250ul surr into1.5ml DCM for check. Check OK 12/27/11 (new instrument).

Analyte	CAS Number	Concentration (ppm)
Hexacosane	630-01-3	300

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
3D21001	DRO:N-Hexacosane, Neat	04/21/03	** Vendor **	12/31/30	11/08/11 16:15 by jad	0.03

Analytical Standard Record

EPA Region 9 Laboratory

2A11002

Description:	DRO:hexacosane_stock 5000 mg/L	**Expires:**	07/11/12
Standard Type:	Reference Material	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 10:27 by YNB
Vendor:	ICN Biomedical	**Lot Numbe**	4513A

n Hexacosane Lot# 4513A Biomedical (50 mg in to 10 mL of DCM)

Analyte	CAS Number	Concentration (ppm)	SRM Control Limits
Hexacosane	630-01-3	5000	0-200

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
3D21001	DRO:N-Hexacosane, Neat	04/21/03	** Vendor **	12/31/30	11/08/11 16:15 by jad	0.05

Analytical Standard Record

EPA Region 9 Laboratory

2A11003

Description:	DRO:DRO_011112-IB	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	50	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/12/12 10:44 by YNB
Vendor:	Restek	**Lot Numbe**	DE391

Analyte	CAS Number	Concentration (ppm)
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.5

Analytical Standard Record

EPA Region 9 Laboratory

2A11003

Description:	DRO:DRO_011112-IB	**Expires:**	01/15/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	50	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 10:47 by YNB
Vendor:	Restek	**Lot Numbe**	DE391

Analyte	CAS Number	Concentration (ppm)
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.5

Analytical Standard Record

EPA Region 9 Laboratory

2A11004

Description:	DRO:DRO_011112-QLS	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	25	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 10:51 by YNB
Vendor:	*Prepared*	**Lot Numbe**	A069478

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	50
TPH - Diesel Range Organics	TPH-DRO	50
Hexacosane	630-01-3	10

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22023	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	09/30/16	03/22/11 11:19 by YNB	0.025
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.05

Analytical Standard Record

EPA Region 9 Laboratory

2A11005

Description:	DRO:DRO_011112-CV	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	25	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 10:53 by YNB
Vendor:	*Prepared*	**Lot Numbe**	A069478

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	500
TPH - Diesel Range Organics	TPH-DRO	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22023	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	09/30/16	03/22/11 11:19 by YNB	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.25

Analytical Standard Record

EPA Region 9 Laboratory

2A11006

Description:	DRO:DRO_011112-B	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 11:11 by YNB
Vendor:	*Prepared*	**Lot Numbe**	A069478

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	150
TPH - Diesel Range Organics	TPH-DRO	150
Hexacosane	630-01-3	25

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22023	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	09/30/16	03/22/11 11:19 by YNB	0.03
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.05

Analytical Standard Record

EPA Region 9 Laboratory

2A11007

Description:	DRO:DRO_011112-D	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 11:13 by YNB
Vendor:	*Prepared*	**Lot Numbe**	A069478

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	1250
TPH - Diesel Range Organics	TPH-DRO	1250
Hexacosane	630-01-3	75

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22023	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	09/30/16	03/22/11 11:19 by YNB	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.15

Analytical Standard Record

EPA Region 9 Laboratory

2A11008

Description:	DRO:DRO_011112-E	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 11:18 by YNB
Vendor:	*Prepared*	**Lot Numbe**	A069478

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	4000
TPH - Diesel Range Organics	TPH-DRO	4000
Hexacosane	630-01-3	100

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22024	DRO:Diesel Fuel #2 Composite Standa	03/22/11	** Vendor **	09/30/16	03/22/11 11:19 by YNB	0.8
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.2

Analytical Standard Record

EPA Region 9 Laboratory

2A11009

Description:	DRO:DRO_SCV_ 500/50 mg/L	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM DE931	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 11:35 by YNB
Vendor:	Ultra Scientific	**Lot Numbe**	CD2271A

Analyte	CAS Number	Concentration (ppm)
TPH as Diesel	68334-30-5	500
TPH - Diesel Range Organics	TPH-DRO	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1B18007	DRO:Composite #2 Diesil Fuel Solutio	02/18/11	** Vendor **	10/30/13	02/21/11 10:57 by YNB	0.1
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11010

Description:	DRO:DRO_011112-RT	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 11:40 by YNB
Vendor:	Restek	**Lot Numbe**	A067369

400 mL of St. to 10 ml

Analyte	CAS Number	Concentration (ppm)
Tetradecane (C14)	629-59-4	20
Tetracosane	000646-31-1	20
Octane (C8)	111-65-9	20
Octadecane	000593-45-3	20
Octacosane	000630-02-4	20
Hexadecane (C16)	544-76-3	20
Hexacosane	630-01-3	20
Eicosane (C20)	112-95-8	20
Dodecane	000112-40-3	20
Docosane	000629-97-0	20
Decane	000124-18-5	20

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
0F23019	DRO:Florida TRPH Standard, Stock	06/23/10	** Vendor **	05/31/16	06/23/10 10:40 by YNB	0.4

Analytical Standard Record

EPA Region 9 Laboratory

2A11011

Description:	OIL:OIL_011112-QLS	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	25	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 11:56 by YNB
Vendor:	Restek	**Lot Numbe**	A077845

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	200
TPH - Oil Range Organics	TPH-ORO	200
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22013	OIL:Motor Oil Composite Standard, St	03/22/11	** Vendor **	12/31/17	03/22/11 11:02 by YNB	0.1
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.25

Analytical Standard Record

EPA Region 9 Laboratory

2A11012

Description:	OIL:OIL_011112-CV	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	25	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 11:58 by YNB
Vendor:	Restek	**Lot Numbe**	A077845

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	1000
TPH - Oil Range Organics	TPH-ORO	1000
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22013	OIL:Motor Oil Composite Standard, St	03/22/11	** Vendor **	12/31/17	03/22/11 11:02 by YNB	0.5
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.25

Analytical Standard Record

EPA Region 9 Laboratory

2A11013

Description:	OIL:OIL_011112-B	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 12:00 by YNB
Vendor:	Restek	**Lot Numbe**	A077845

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	400
TPH - Oil Range Organics	TPH-ORO	400
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22013	OIL:Motor Oil Composite Standard, St	03/22/11	** Vendor **	12/31/17	03/22/11 11:02 by YNB	0.08
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11014

Description:	OIL:OIL_011112-D	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 12:01 by YNB
Vendor:	Restek	**Lot Numbe**	A077845

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	4000
TPH - Oil Range Organics	TPH-ORO	4000
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22013	OIL:Motor Oil Composite Standard, St	03/22/11	** Vendor **	12/31/17	03/22/11 11:02 by YNB	0.8
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11015

Description:	OIL:OIL_011112-E	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE931	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 12:03 by YNB
Vendor:	Restek	**Lot Numbe**	A077845

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	10000
TPH - Oil Range Organics	TPH-ORO	10000
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22011	OIL:Motor Oil Composite Standard, St	03/22/11	** Vendor **	10/31/17	03/22/11 11:00 by YNB	1
1C22012	OIL:Motor Oil Composite Standard, St	03/22/11	** Vendor **	12/31/17	03/22/11 11:01 by YNB	1
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11019

Description:	OIL:OIL_SCV_ 1000/50 mg/L	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DF391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 12:53 by YNB
Vendor:	Local Source	**Lot Numbe**	R1040302006

Analyte	CAS Number	Concentration (ppm)
TPH as Motor Oil	TPHOIL	1000
TPH - Oil Range Organics	TPH-ORO	1000
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1C22031	OIL:Motor Oil SAE 50W	03/22/11	** Vendor **	03/02/14	03/22/11 11:56 by YNB	0.5
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11021

Description:	DRO:GAS_011112	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:06 by YNB
Vendor:	Restek	**Lot Numbe**	A066488

Analyte	CAS Number	Concentration (ppm)
TPH as Gasoline	8006-61-9	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
0C16026	GAS:Unleaded Gasoline Composite Sta	03/16/10	** Vendor **	04/30/16	11/07/11 16:03 by jad	0.1
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11022

Description:	DRO:Hydraulic Fluid_011112-500 ug/mL	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:09 by YNB
Vendor:	Restek	**Lot Numbe**	B4010223

AccuStandard FU-020-D-40

Analyte	CAS Number	Concentration (ppm)
Hydraulic Fluid	64742-54-7	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1A18025	DRO:Hydraulic Fluid, Stock	01/18/11	** Vendor **	01/22/14	01/18/11 12:45 by YNB	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11023

Description:	DRO:Jet Fuel_011112-500 ug/mL	**Expires:**	07/11/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:12 by YNB
Vendor:	Restek	**Lot Numbe**	B8060056

AccuStandard FU-006-40X

Analyte	CAS Number	Concentration (ppm)
Jet Fuel	94114-58-6	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1A18028	DRO:Turbine (Jet) Fuel, Stock	01/18/11	** Vendor **	06/04/18	01/18/11 12:50 by YNB	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11025

Description:	DRO:Stoddard Solvent_500 mg/L	**Expires:**	07/10/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:33 by YNB
Vendor:	*Prepared*	**Lot Numbe**	B0100498

AccuStandard HS-005S-40X

Analyte	CAS Number	Concentration (ppm)
Stoddard solvent	8052-41-3	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1I23004	GRO:Stoddard Solvent, Stock	09/23/11	** Vendor **	04/26/20	09/23/11 10:18 by TD	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11026

Description:	DRO: Mineral Spirit_500 mg/L	**Expires:**	07/10/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:18 by YNB
Vendor:	Restek	**Lot Numbe**	B8050069

AccuStandard HS-002S-40X

Analyte	CAS Number	Concentration (ppm)
Mineral spirits	64475-85-0	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1I23008	GASGRO:Mineral Spirits, Stock	09/23/11	** Vendor **	05/09/18	09/23/11 10:12 by TD	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11027

Description:	DRO:Naphtha_500 mg/L	**Expires:**	07/10/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:20 by YNB
Vendor:	*Prepared*	**Lot Numbe**	211091015

AccuStandard HS-003S-40X

Analyte	CAS Number	Concentration (ppm)
Naptha	8030-30-6	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1
1I23010	GASDRO:Naphtha, Stock	09/23/11	** Vendor **	09/01/21	09/23/11 10:21 by TD	0.25

Analytical Standard Record

EPA Region 9 Laboratory

2A11028

Description:	DRO:Turpentine_500 mg/L	**Expires:**	07/10/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:21 by YNB
Vendor:	*Prepared*	**Lot Numbe**	A9020099

AccuStandard HS-004S-40X

Analyte	CAS Number	Concentration (ppm)
Turpentine	8006-64-2	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1B16005	DRO:Turpentine, Stock	02/16/11	** Vendor **	11/21/18	02/16/11 12:36 by YNB	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

2A11029

Description:	DRO:Lacquer Thinner_500 mg/L	**Expires:**	07/10/12
Standard Type:	Other Solution	**Prepared:**	01/11/12
Solvent:	DCM Lot # DE391	**Prepared By:**	Yelena Borinshteyn
Final Volume (mls):	10	**Department:**	Extractables
Vials:	1	**Last Edit:**	01/11/12 13:22 by YNB
Vendor:	*Prepared*	**Lot Numbe**	B9040308

AccuStandard HS-001S-40X

Analyte	CAS Number	Concentration (ppm)
Lacquer thinner	64742-89-8	500
Hexacosane	630-01-3	50

Parent Standards used in this standard:

Standard	Description	Prepared	Prepared By	Expires	Last Edit	(mls)
1I23012	GASDRO:Lacquer Thinner, Stock	09/23/11	** Vendor **	04/30/19	09/23/11 10:23 by TD	0.25
2A11002	DRO:hexacosane_stock 5000 mg/L	01/11/12	Yelena Borinshteyn	07/11/12	01/11/12 10:27 by YNB	0.1

Analytical Standard Record

EPA Region 9 Laboratory

3D21001

Description:	DRO:N-Hexacosane, Neat	**Expires:**	12/31/30
Standard Type:	Other Solution	**Prepared:**	04/21/03
Solvent:	Solvent Lot #	**Prepared By:**	** Vendor **
Final Volume (mls):	1	**Department:**	Extractables
Vials:	1	**Last Edit:**	05/22/08 14:25 by TD
Vendor:	ICN Biomedical	**Lot Numb**	4513A

N-Hexacosane Neat, used for diesel surrogate, Lot No. 4513A

Analyte	CAS Number	Concentration (ppm)
Hexacosane	630-01-3	1000000

Certificate of Analysis

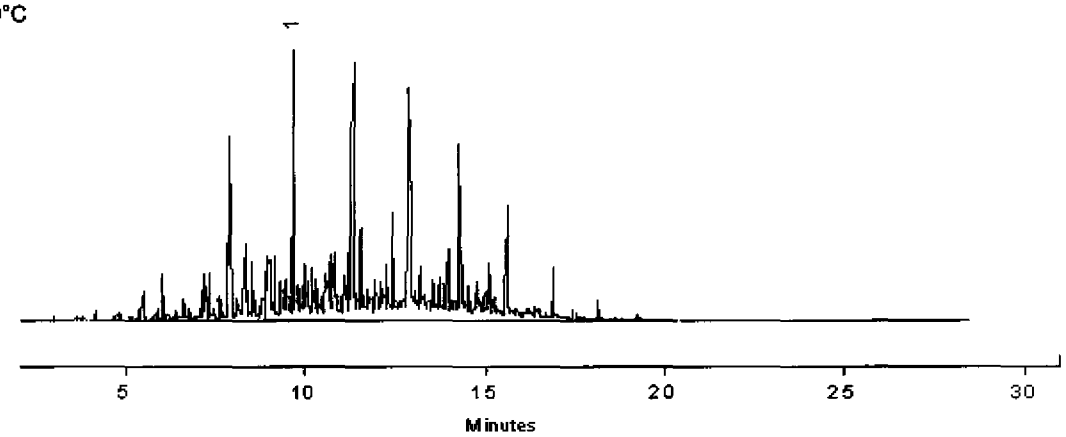
110 Benner Circle
Bellefonte, PA 16823-8812
Tel: (800)356-1688
Fax: (814)353-1309

FOR LABORATORY USE ONLY-READ MSDS PRIOR TO USE.

Catalog No.: 31256 **Lot No.:** A050037
Description: Kerosene Composite Standard
Expiration Date[1]**:** March 2014 **Storage:** Room Temperature

Elution Order	Compound	CAS #	Percent Purity [2]	Concentration (weight/volume) [3]	Percent Uncertainty [4]
1	Kerosene Composite	8008-20-6	99%	50,000.000 ug/ml	+/-0.10 %
Solvent:	Methylene Chloride	75-09-2	99%		

Column: 30m x .25mm x .5um
Rtx-5 (cat.# 10238)
Carrier Gas: hydrogen @ 40cm/sec.
Temp. Program: 40°C (hold 2 min.) to 330°C @ 10°C/min.
Inj. Temp: 250°C
Det. Temp: 300°C
Det. Type: FID



Sara Eyster
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 addtion 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

: 00340

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