CON 12-15
DOC # 32145

rdg geoscience & engineering

RDG Geoscience & Engineering, Inc.
10360 Sapp Bros Dr. Omaha, NE 68138
T (402)894-2678 F (402)894-9043
www.rdgge.com

March 23, 2016

Transpec Leasing Companies
Mr. Tom Hastings
2501 N 11th St
Omaha, NE 68110

RE: TSL Companies
108 Avenue H, Carter Lake, Iowa
HIS # 102315-JDJ-1535

Dear Mr. Hastings,

RDG Geoscience and Engineering, Inc. (RDG) has completed the soil and groundwater Site Assessment for the TSL facility located at 108 Avenue H in Carter Lake, Iowa.

On December 1, 2015, RDG completed an Environmental Site Assessment report for submittal to Mr. Jerry Jordison, IDNR Atlantic Field Office. In the report, RDG reported approximately 205.50 tons of soil was removed from the trenches at the north, west, and south sides of the concrete pad holding three above ground storage tanks (ASTs) following a diesel fuel spill. Following the over excavation (OE) of the soil from the west and the south trenches, soil samples were collected along the side walls and at the bottom of the excavation to 7-feet (above groundwater) for field headspace analysis. At the north side of the ASTs, soil was removed to groundwater, and a groundwater sample was collected from the excavation. RDG acknowledged that all soil contamination could not be removed from the area, as the soil beneath groundwater, and under the concrete pad had also been impacted by the release. No soil was removed from the area beneath the concrete surrounding the fourth AST, which is located perpendicular and on the east side of the other three ASTs. Historical aerial photographs were reviewed of the site, and it appears the subject property and surrounding area was a dump site. The soil encountered during excavation activities was silty clay with a large amount of broken glass, rocks, and construction debris, indicative of the dump site. Upon review of the initial Environmental Site Investigation, Mr. Jordison required additional investigation of the soil and groundwater.

RDG was onsite with O'Malley Drilling on February 18, 2016 to drill a soil boring on each side of the ASTs. Soil boring MW-1 was located north of the ASTs, and also north of the location where the groundwater was sampled during the OE activities. Soil boring MW-2 was located east of the ASTs in the concrete parking lot, between the source area and the onsite building. Soil borings MW-3 and MW-4 were located on the west and south sides of the ASTs, respectively. Soil samples were collected at a continuous interval to the total explored depth of 15-feet at each of the four soil borings. Each soil sample was split for field head space analysis using a photoionization detector (PID) and for potential submittal to the laboratory. The soil sample exhibiting the highest PID reading at MW-2 was from the 6- to 7-foot interval. The soil samples at MW-1, MW-3, and MW-4 showed PID readings of 0 relative response units (rru), and the sample collected from above groundwater, also the 6- to 7-foot interval was submitted for laboratory analysis. The soil samples were submitted to TestAmerica Laboratories for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX) by Iowa method OA-1 and for total extractable hydrocarbons (TEH) for diesel and waste oil by Iowa method OA-2.

The soil borings were completed as permanent monitoring wells, MW-1 through MW-4. Groundwater was encountered between 7.00-feet and 7.50-feet while drilling. Each monitoring well was constructed of a 10-foot screened section of 2-inch PVC, threaded to a 5-foot casing, and installed to 15-feet below grade. Sand backfill was poured into the boring, around the PVC to 1-foot above the top of screen; hydrated bentonite chips were then poured around the casing to 0.50-foot from top of the well. A water tight j-plug was placed in the top of the casing, and each well was completed with a locking cover flush with the

ground, so as not to impede with the truck traffic in the area. The ground surface and top of casing elevation at each well was surveyed in to the top of casing at monitoring MW-3, which was assigned an arbitrary elevation of 100.00. The Site Map depicting the monitoring well locations is included in Appendix 1, and the soil boring logs are included in Appendix 2 of this report.

Upon completion of each monitoring well, the monitoring wells were developed of 6- to 7-gallons of groundwater until the water ran clear. The following day, RDG was again onsite to collect water levels and groundwater samples from the monitoring wells. The average depth to water was 6.66-feet from top of casing. The direction of groundwater flow was to the north/northeast toward Carter Lake. The groundwater samples were collected and immediately placed on ice in a cooler for shipment to TestAmerica Laboratories for analysis of BTEX and TEH for diesel and waste oil.

The analytical results for the soil and groundwater samples showed BTEX and TEH-diesel concentrations below the Risk Based Corrective Action (RBCA) action levels; however, TEH-waste oil concentrations were reported in the soil samples. The laboratory results for the soil samples are outlined in Table One – Soil Analytical Results and the laboratory results for the groundwater samples are outlined in Table Two – Groundwater Analytical Results, included in this report. The entire laboratory results are included in Appendix 3.

A receptor survey was completed in November 2015. No drinking water wells are reported within 1,000 feet of the subject property; no private residences are identified within 300-feet of the ASTs; no buildings with basements were identified within 200-feet of the ASTs; the sewer and water service lines provided to the building located 100-feet east of the ASTs, enter the building on the east side of the structure. The closest surface water body is Carter Lake, located more than 2,000 feet north of the ASTs.

The subject property was previously a dump site; likely the source of the TEH-waste oil concentrations found in the soil. With no receptors at risk, RDG would recommend a No Action Required classification for this site.

If you have questions regarding this report, please contact me at (402) 894-2678.

Sincerely,

Kris LeVier
RDG Geoscience and Eng., Inc.

Attachments

Copy: Mr. Jerry Jordison, IDNR Atlantic Field Office
Mr. Ritch Reckling, TSL Companies

Table One
Soil Analytical Results
TSL Companies
HSI # 102315-JDJ-1535

Sample Designation	MW-1	MW-2	MW-3	MW-4
Sample Date	2/18/2016	2/18/2016	2/18/2016	2/18/2016
Sample depth	6-7'	6-7'	6-7'	6-7'
Elevation - ground surface	99.28	99.90	100.28	100.09
BTEX method OA-1				
Benzene	< 0.0942	< 0.0957	< 0.919	< 0.0994
Toluene	< 0.0942	< 0.0957	< 0.919	< 0.0994
Ethylbenzene	< 0.0942	< 0.0957	< 0.919	< 0.0994
Xylenes (total)	< 0.283	< 0.287	< 0.276	< 0.298
Total Extractable Hydrocarbons (TEH) method OA-2				
Gasoline	< 9.96	< 9.88	< 9.61	< 9.96
Diesel	< 9.96	< 9.88	< 9.61	< 9.96
Waste Oil	414.00	314.00	403.00	124.00

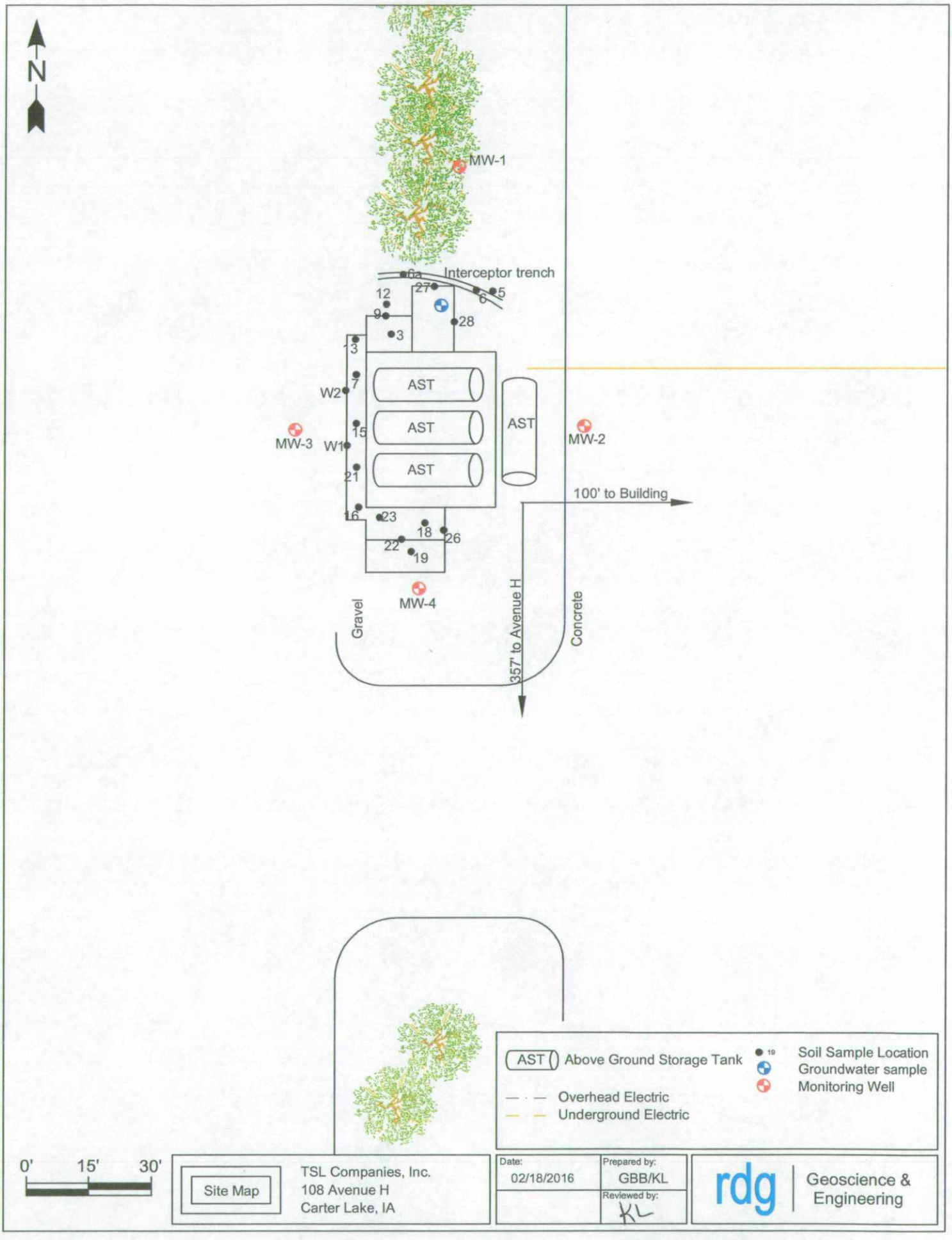
Notes: Results reported in mg/kg (parts per million)

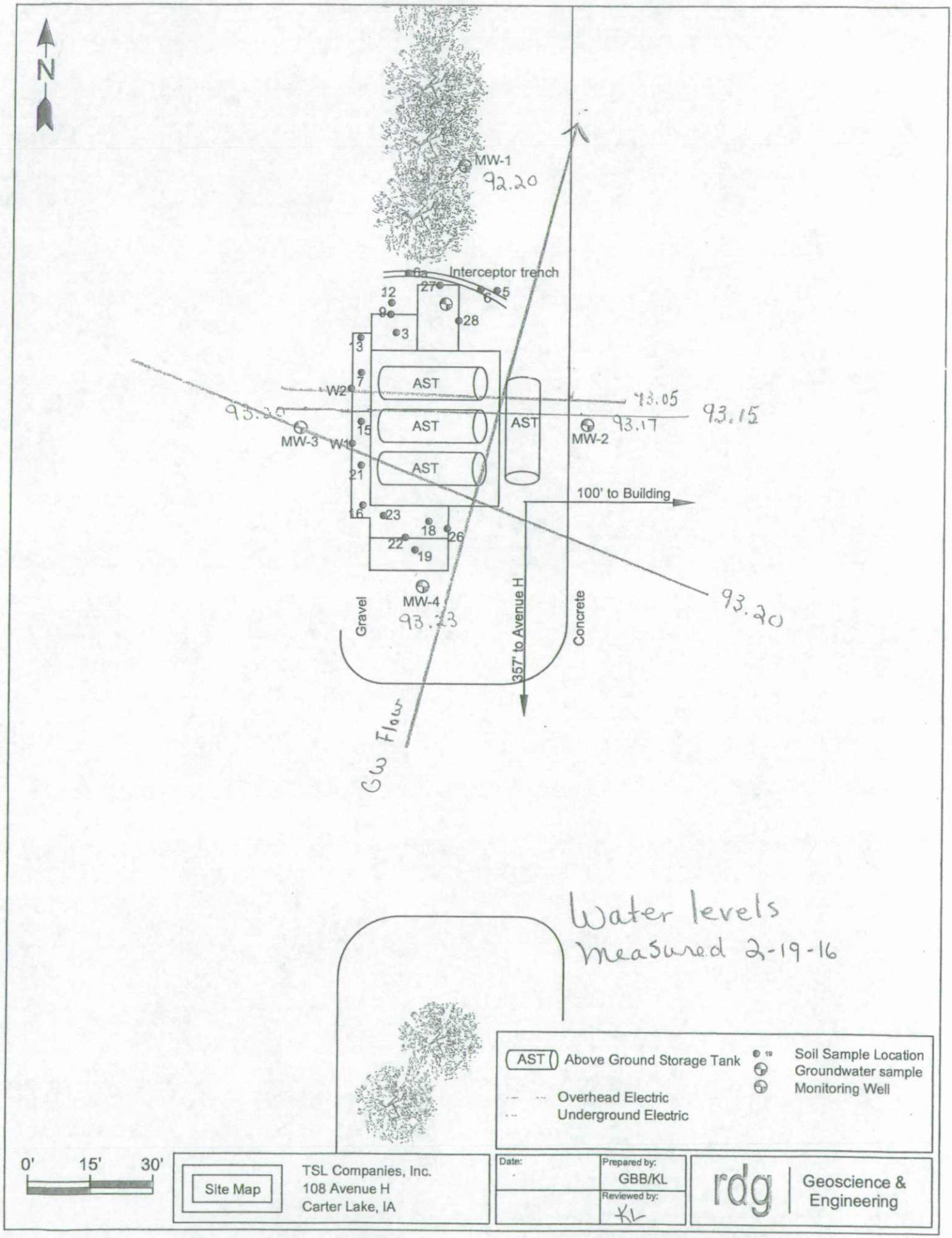
Table Two
Groundwater Analytical Results
TSL Companies
HSI # 102315-JDJ-1535

Sample Designation	MW-1	MW-2	MW-3	MW-4
Sample Date	2/19/2016	2/19/2016	2/19/2016	2/19/2016
Depth to Water	6.77'	6.50'	6.80'	6.55'
Elevation - ground surface	99.28	99.90	100.28	100.09
Elevation - top of casing	98.97	99.67	100.00	99.78
Elevation - water level	92.20	93.17	93.20	93.23
BTEX method OA-1				
Benzene	< 2.00	< 2.00	< 2.00	< 2.00
Toluene	< 2.00	< 2.00	< 2.00	< 2.00
Ethylbenzene	< 2.00	< 2.00	< 2.00	< 2.00
Xylenes (total)	< 3.00	< 3.00	< 3.00	< 3.00
Total Extractable Hydrocarbons (TEH) method OA-2				
Gasoline	< 278	< 278	< 278	< 278
Diesel	< 278	< 278	< 278	< 278
Waste Oil	< 278	< 278	< 278	< 278

Notes: Results reported in µg/L (parts per billion)

Appendix 1
Site Map


N
MW-1
Interceptor trench
6a
27
12
5
6
9
28
3
13
7
W2
AST
AST
AST
AST
MW-3
W1
15
21
MW-2
100' to Building
16
23
18
26
22
19
MW-4
Gravel
357' to Avenue H
Concrete
AST Above Ground Storage Tank
Overhead Electric
Underground Electric
19 Soil Sample Location
Groundwater sample
Monitoring Well
0'
15'
30'
Site Map
TSL Companies, Inc.
108 Avenue H
Carter Lake, IA
Date:
02/18/2016
Prepared by:
GBB/KL
Reviewed by:
KL
rdg
Geoscience &
Engineering


N
MW-1
92.20
Interceptor trench
6a
27
5
12
9
28
3
13
7
AST
W2
93.05
93.15
93.17
15
AST
AST
MW-2
MW-3
W1
21
AST
100' to Building
16
23
18
26
22
19
MW-4
93.23
93.20
Gravel
357' to Avenue H
Concrete
GW Flow
Water levels
measured 2-19-16
AST Above Ground Storage Tank
Soil Sample Location
Groundwater sample
Monitoring Well
Overhead Electric
Underground Electric
0'
15'
30'
Site Map
TSL Companies, Inc.
108 Avenue H
Carter Lake, IA
Date:
Prepared by:
GBB/KL
Reviewed by:
KL
rdg
Geoscience &
Engineering

Appendix 2
Soil boring logs/Monitoring Well Schematics

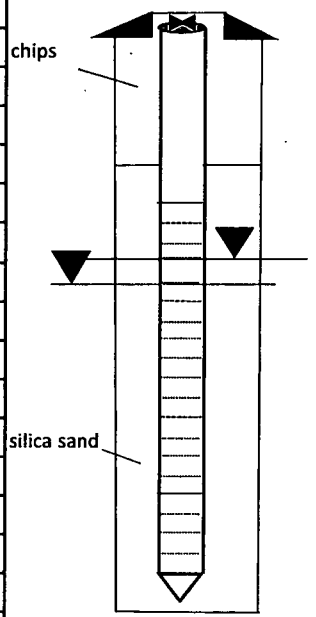
Soil Boring Log And Monitoring Well Constrution Diagram for: MW-1		
Facility Name: TSL Trucking	No.: 102315-JDJ-1535	LUST No: Not applicable
Well Contractor Name: RDG Geoscience & Env.	Drilling Method**: Hollow Stem Auger/split spoon	
Well Contractor Registration Number: 4355	Boring Depth (ft) x Diameter (in): 15' x 8"	
Logged by: Kris LeVier	Ground Surface Elevation (ASL): 99.28	
Start Date: 2/18/16 Finish Date: 2/18/16	Top of Casing Elevation (ASL): 98.97	

Depth	Well Construction Details	Sample No.	Sample Type*	PID / FID PPM	USCS	Sampe Descriptions: Soil, color, classifications, observation Example: Silty clay, dark gray, hard, moist, strong odor
0						
1	chips	1	ss	0	ML	clayey silt, brown, soft, wet mud
2		2	ss	0		cinders, brick, glass, rock
3		3	ss	0		
4		4	ss	0		
5		5	ss	0		
6		6	ss	**0		wet
7		7	ss	0	CL	silty clay, black, glass, brick, wood pieces
8		8	ss	0		
9		9	ss	0		
10	silica sand	10	ss	0		black/gray, softer
11		11	ss	0		
12		12	ss	0		
13		13	ss	0		
14		14	ss	0	SM	clayey sand, brown, soft, wet
15		15	ss	0		
16	BOW @ 15'					
17						
18						
19						
20						
21						
22						
23						** denotes lab analysis
24						
25						
26						
27						
28						
29						
30						

*Sample Types:	** Drilling Method Options:	Symbols to Use:
Split Spoon (SS) Continuous Core (CC)	Rotary Auger, Push Probe, Hand Auger, Air Drilling Hollow Stem Auger, Other (Describe)	v - Static Water Level s - Sample Collected

Observation Date:	2/18/2016	2/19/2016			
Time:	10:30	10:00			
Static Water Level (ASL):	7.0'	6.77'			

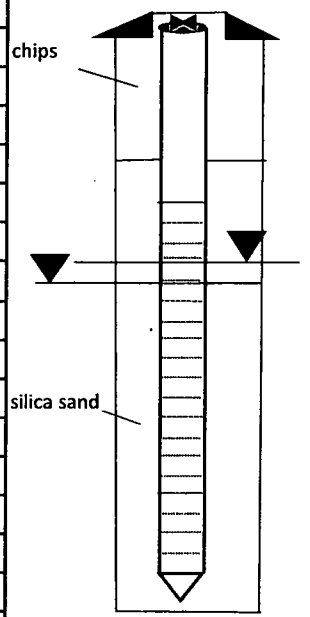
Soil Boring Log And Monitoring Well Constrution Diagram for: MW-2		
Facility Name: TSL Trucking	No.: 102315-JDJ-1535	LUST No: Not applicable
Well Contractor Name: RDG Geoscience & Env.	Drilling Method**: Hollow Stem Auger/split spoon	
Well Contractor Registration Number: 4355	Boring Depth (ft) x Diameter (in): 15' x 8"	
Logged by: Kris LeVier	Ground Surface Elevation (ASL): 99.90	
Start Date: 2/18/16 Finish Date: 2/18/16	Top of Casing Elevation (ASL): 99.67	

Depth	Well Construction Details	Sample No.	Sample Type*	PID / FID PPM	USCS	Sampe Descriptions: Soil, color, classifications, observation Example: Silty clay, dark gray, hard, moist, strong odor
0						6" concrete
1	chips	1	ss	0	ML	clayey silt, brown, soft, moist
2		2	ss	0		
3		3	ss	0		
4		4	ss	0		black cinders, glass pieces, clay, gravel
5		5	ss	0		
6		6	ss	**10.5		
7		7	ss	0	CL	silty clay, gray, soft, wet
8		8	ss	0		
9		9	ss	0		
10		10	ss	0		
11	silica sand	11	ss	0		
12		12	ss	0		
13		13	ss	0		
14		14	ss	0		more silt
15		15	ss	0		
16	BOW @ 15'					
17						
18						
19						
20						
21						
22						
23						** denotes lab analysis
24						
25						
26						
27						
28						
29						
30						

*Sample Types:	** Drilling Method Options:	Symbols to Use:
Split Spoon (SS) Continuous Core (CC)	Rotary Auger, Push Probe, Hand Auger, Air Drilling Hollow Stem Auger, Other (Describe)	v - Static Water Level s - Sample Collected

Observation Date:	2/18/2016	2/19/2016			
Time:	9:09	10:00			
Static Water Level (ASL):	7.0'	6.50'			

Soil Boring Log And Monitoring Well Constrution Diagram for: MW-3								
Facility Name: TSL Trucking			No.: 102315-JDJ-1535				LUST No: Not applicable	
Well Contractor Name: RDG Geoscience & Env.			Drilling Method**: Hollow Stem Auger/split spoon					
Well Contractor Registration Number: 4355			Boring Depth (ft) x Diameter (in): 15' x 8"					
Logged by: Kris LeVier			Ground Surface Elevation (ASL): 100.28					
Start Date: 2/18/16	Finish Date: 2/18/16		Top of Casing Elevation (ASL): 100.00					

Depth	Well Construction Details	Sample No.	Sample Type*	PID / FID PPM	USCS	Sampe Descriptions: Soil, color, classifications, observation Example: Silty clay, dark gray, hard, moist, strong odor
0						
1	chips	1	ss	0	ML	clayey silt, black, soft, wet mud
2		2	ss	0		cinders, brick, glass, rock
3		3	ss	0		
4		4	ss	0		
5		5	ss	0		
6		6	ss	**0		wet
7		7	ss	0		
8		8	ss	0	CL	silty clay, gray, soft, wet
9		9	ss	0		
10	silica sand	10	ss	0		
11		11	ss	0		
12		12	ss	0		brown, gray mottling
13		13	ss	0		
14		14	ss	0		
15		15	ss	0		
16	BOW @ 15'					
17						
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22						
23						** denotes lab analysis
24						
25						
26						
27						
28						
29						
30						

*Sample Types:	** Drilling Method Options:	Symbols to Use:
Split Spoon (SS) Continuous Core (CC)	Rotary Auger, Push Probe, Hand Auger, Air Drilling Hollow Stem Auger, Other (Describe)	v - Static Water Level s - Sample Collected

Observation Date:	2/18/2016	2/19/2016			
Time:	12:45	10:00			
Static Water Level (ASL):	7.0'	6.80'			

Soil Boring Log And Monitoring Well Constrution Diagram for: MW-4		
Facility Name: TSL Trucking	No.: 102315-JDJ-1535	LUST No: Not applicable
Well Contractor Name: RDG Geoscience & Env.	Drilling Method**: Hollow Stem Auger/split spoon	
Well Contractor Registration Number: 4355	Boring Depth (ft) x Diameter (in): 15' x 8"	
Logged by: Kris LeVier	Ground Surface Elevation (ASL): 100.09	
Start Date: 2/18/16 Finish Date: 2/18/16	Top of Casing Elevation (ASL): 99.78	

Depth	Well Construction Details	Sample No.	Sample Type*	PID / FID PPM	USCS	Sampe Descriptions: Soil, color, classifications, observation Example: Silty clay, dark gray, hard, moist, strong odor
0						
1	chips	1	ss	0	CL	silty clay, gray, soft, wet
2		2	ss	0		
3		3	ss	0		
4		4	ss	0		glass, rocks, cinders, wood, brick pieces
5		5	ss	0		
6		6	ss	**0		black
7		7	ss	0		
8		8	ss	0		
9		9	ss	0		
10	silica sand	10	ss	0		gray, soft, root hairs
11		11	ss	0		
12		12	ss	0		
13		13	ss	0		
14		14	ss	0		more silt
15		15	ss	0		
16	BOW @ 15'					
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21						
22						
23						** denotes lab analysis
24						
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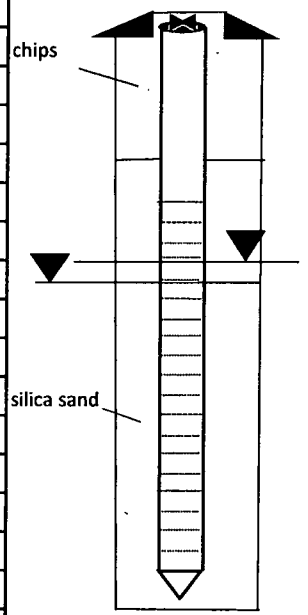
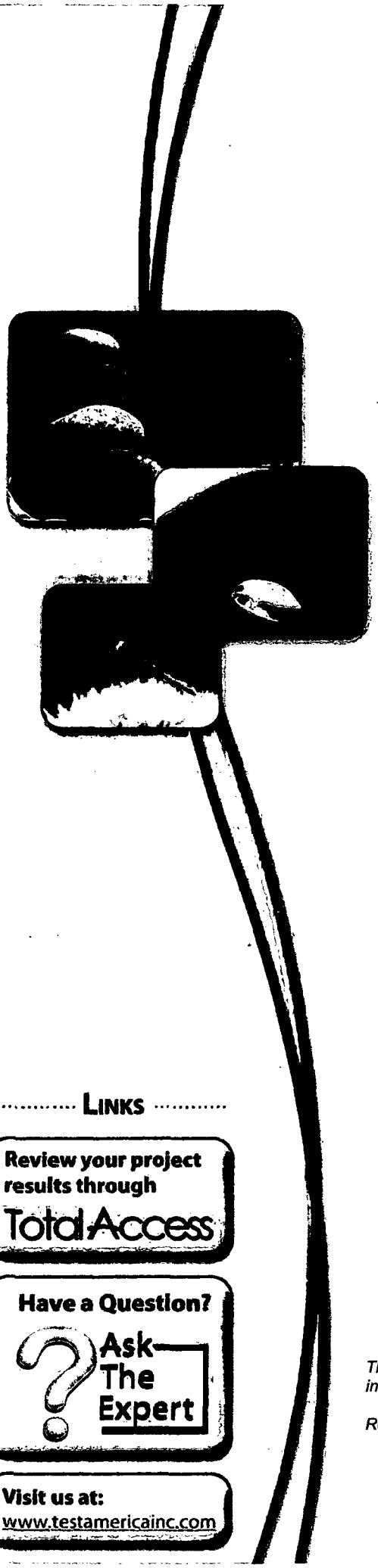
26						
27						
28						
29						
30						



*Sample Types:	** Drilling Method Options:	Symbols to Use:
Split Spoon (SS) Continuous Core (CC)	Rotary Auger, Push Probe, Hand Auger, Air Drilling Hollow Stem Auger, Other (Describe)	v - Static Water Level s - Sample Collected

Observation Date:	2/18/2016	2/19/2016			
Time:	1:45	10:05			
Static Water Level (ASL):	7.0'	6.55'			

Appendix 3
Laboratory Analytical Data Sheets



TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-74724-1
TestAmerica Sample Delivery Group: Carter Lake, Iowa
Client Project/Site: TSL Companies

For:
RDG Geoscience & Engineering
10360 Sapp Bros. Dr.
Omaha, Nebraska 68138

Attn: Kris LeVier

Angela Muehling

Authorized for release by:
2/25/2016 9:11:09 AM

Angela Muehling, Project Manager I
(319)277-2401
angela.muehling@testamericainc.com

This report has been electronically signed and authorized by the signatory. Electronic signature is intended to be the legally binding equivalent of a traditionally handwritten signature.

Results relate only to the items tested and the sample(s) as received by the laboratory.

Table of Contents

Job ID: 310-74724-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-74724-1

Comments
No additional comments.

Receipt
The samples were received on 2/19/2016 9:55 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.1° C.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74724-1
SDG: Carter Lake, Iowa

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-74724-1	MW-1 6-7'	Soil	02/18/16 09:15	02/19/16 09:55
310-74724-2	MW-2 6-7'	Soil	02/18/16 10:40	02/19/16 09:55
310-74724-3	MW-3 6-7'	Soil	02/18/16 12:45	02/19/16 09:55
310-74724-4	MW-4 6-7'	Soil	02/18/16 13:45	02/19/16 09:55

Detection Summary

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74724-1
SDG: Carter Lake, Iowa

Client Sample ID: MW-1 6-7' — Lab Sample ID: 310-74724-1

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Waste Oil	414		9.96		mg/Kg	1		OA-2	Total/NA
Total Extractable Hydrocarbons	526		14.9		mg/Kg	1		OA-2	Total/NA

Client Sample ID: MW-2 6-7' — Lab Sample ID: 310-74724-2

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Waste Oil	314		9.88		mg/Kg	1		OA-2	Total/NA
Total Extractable Hydrocarbons	376		14.8		mg/Kg	1		OA-2	Total/NA

Client Sample ID: MW-3 6-7' — Lab Sample ID: 310-74724-3

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Waste Oil	403		9.61		mg/Kg	1		OA-2	Total/NA
Total Extractable Hydrocarbons	479		14.4		mg/Kg	1		OA-2	Total/NA

Client Sample ID: MW-4 6-7' — Lab Sample ID: 310-74724-4

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Waste Oil	124		9.96		mg/Kg	1		OA-2	Total/NA
Total Extractable Hydrocarbons	159		14.9		mg/Kg	1		OA-2	Total/NA

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-1 6-7'
Date Collected: 02/18/16 09:15
Date Received: 02/19/16 09:55
Sampler Name: Kris LeVier

Lab Sample ID: 310-74724-1
Matrix: Soil
Sampler Phone Number: 402-894-2678

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0942		0.0942		mg/Kg		02/22/16 10:40	02/22/16 16:15	1
Toluene	<0.0942		0.0942		mg/Kg		02/22/16 10:40	02/22/16 16:15	1
Ethylbenzene	<0.0942		0.0942		mg/Kg		02/22/16 10:40	02/22/16 16:15	1
Xylenes, Total	<0.283		0.283		mg/Kg		02/22/16 10:40	02/22/16 16:15	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*104*		*50 - 140*	*02/22/16 10:40*	*02/22/16 16:15*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<9.96		9.96		mg/Kg		02/19/16 13:54	02/24/16 04:13	1
Diesel	<9.96		9.96		mg/Kg		02/19/16 13:54	02/24/16 04:13	1
Waste Oil	**414**		9.96		mg/Kg		02/19/16 13:54	02/24/16 04:13	1
Total Extractable Hydrocarbons	**526**		14.9		mg/Kg		02/19/16 13:54	02/24/16 04:13	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*77*		*40 - 135*	*02/19/16 13:54*	*02/24/16 04:13*	*1*

Client Sample Results

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74724-1
SDG: Carter Lake, Iowa

Client Sample ID: MW-2 6-7'
Date Collected: 02/18/16 10:40
Date Received: 02/19/16 09:55
Sampler Name: Kris LeVier

Lab Sample ID: 310-74724-2
Matrix: Soil
Sampler Phone Number: 402-894-2678

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0957		0.0957		mg/Kg		02/22/16 10:40	02/22/16 16:43	1
Toluene	<0.0957		0.0957		mg/Kg		02/22/16 10:40	02/22/16 16:43	1
Ethylbenzene	<0.0957		0.0957		mg/Kg		02/22/16 10:40	02/22/16 16:43	1
Xylenes, Total	<0.287		0.287		mg/Kg		02/22/16 10:40	02/22/16 16:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*50 - 140*	*02/22/16 10:40*	*02/22/16 16:43*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<9.88		9.88		mg/Kg		02/19/16 13:54	02/24/16 04:28	1
Diesel	<9.88		9.88		mg/Kg		02/19/16 13:54	02/24/16 04:28	1
Waste Oil	**314**		9.88		mg/Kg		02/19/16 13:54	02/24/16 04:28	1
Total Extractable Hydrocarbons	**376**		14.8		mg/Kg		02/19/16 13:54	02/24/16 04:28	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*70*		*40 - 135*	*02/19/16 13:54*	*02/24/16 04:28*	*1*

Client Sample ID: MW-3 6-7'
Date Collected: 02/18/16 12:45
Date Received: 02/19/16 09:55
Sampler Name: Kris LeVier

Lab Sample ID: 310-74724-3
Matrix: Soil
Sampler Phone Number: 402-894-2678

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0919		0.0919		mg/Kg		02/22/16 10:40	02/22/16 17:11	1
Toluene	<0.0919		0.0919		mg/Kg		02/22/16 10:40	02/22/16 17:11	1
Ethylbenzene	<0.0919		0.0919		mg/Kg		02/22/16 10:40	02/22/16 17:11	1
Xylenes, Total	<0.276		0.276		mg/Kg		02/22/16 10:40	02/22/16 17:11	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*50 - 140*	*02/22/16 10:40*	*02/22/16 17:11*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<9.61		9.61		mg/Kg		02/19/16 13:54	02/24/16 04:43	1
Diesel	<9.61		9.61		mg/Kg		02/19/16 13:54	02/24/16 04:43	1
Waste Oil	**403**		9.61		mg/Kg		02/19/16 13:54	02/24/16 04:43	1
Total Extractable Hydrocarbons	**479**		14.4		mg/Kg		02/19/16 13:54	02/24/16 04:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*94*		*40 - 135*	*02/19/16 13:54*	*02/24/16 04:43*	*1*

Client Sample Results

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74724-1
SDG: Carter Lake, Iowa

Client Sample ID: MW-4 6-7'
Date Collected: 02/18/16 13:45
Date Received: 02/19/16 09:55
Sampler Name: Kris LeVier

Lab Sample ID: 310-74724-4
Matrix: Soil
Sampler Phone Number: 402-894-2678

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0994		0.0994		mg/Kg		02/22/16 10:40	02/22/16 17:40	1
Toluene	<0.0994		0.0994		mg/Kg		02/22/16 10:40	02/22/16 17:40	1
Ethylbenzene	<0.0994		0.0994		mg/Kg		02/22/16 10:40	02/22/16 17:40	1
Xylenes, Total	<0.298		0.298		mg/Kg		02/22/16 10:40	02/22/16 17:40	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*88*		*50 - 140*	*02/22/16 10:40*	*02/22/16 17:40*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<9.96		9.96		mg/Kg		02/19/16 13:54	02/24/16 04:58	1
Diesel	<9.96		9.96		mg/Kg		02/19/16 13:54	02/24/16 04:58	1
Waste Oil	**124**		9.96		mg/Kg		02/19/16 13:54	02/24/16 04:58	1
Total Extractable Hydrocarbons	**159**		14.9		mg/Kg		02/19/16 13:54	02/24/16 04:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*79*		*40 - 135*	*02/19/16 13:54*	*02/24/16 04:58*	*1*

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74724-1
SDG: Carter Lake, Iowa

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Matrix: Soil — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB
Lab Sample ID	Client Sample ID	(50-140)
310-74724-1	MW-1 6-7'	104
310-74724-1 MS	MW-1 6-7'	113
310-74724-1 MSD	MW-1 6-7'	106
310-74724-2	MW-2 6-7'	97
310-74724-3	MW-3 6-7'	97
310-74724-4	MW-4 6-7'	88

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		BFB
Lab Sample ID	Client Sample ID	(50-140)
LCS 310-118298/2-A	Lab Control Sample	106
MB 310-118298/1-A	Method Blank	98

Surrogate Legend

BFB = 4-Bromofluorobenzene (Surr)

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Matrix: Soil — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		OTC
Lab Sample ID	Client Sample ID	(40-135)
310-74724-1	MW-1 6-7'	77
310-74724-2	MW-2 6-7'	70
310-74724-3	MW-3 6-7'	94
310-74724-4	MW-4 6-7'	79

Surrogate Legend

OTC = n-Octacosane

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Matrix: Solid — **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
		OTC
Lab Sample ID	Client Sample ID	(40-135)
LCS 310-118144/2-A	Lab Control Sample	91
MB 310-118144/1-A	Method Blank	80

Surrogate Legend

OTC = n-Octacosane

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 310-118298/1-A
Matrix: Solid
Analysis Batch: 118291

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 118298

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<0.0942		0.0942		mg/Kg		02/22/16 10:40	02/22/16 12:04	1
Toluene	<0.0942		0.0942		mg/Kg		02/22/16 10:40	02/22/16 12:04	1
Ethylbenzene	<0.0942		0.0942		mg/Kg		02/22/16 10:40	02/22/16 12:04	1
Xylenes, Total	<0.283		0.283		mg/Kg		02/22/16 10:40	02/22/16 12:04	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*98*		*50 - 140*	*02/22/16 10:40*	*02/22/16 12:04*	*1*

Lab Sample ID: LCS 310-118298/2-A
Matrix: Solid
Analysis Batch: 118291

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 118298

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	3.89	3.840		mg/Kg		99	85 - 130
Toluene	3.89	3.964		mg/Kg		102	80 - 120
Ethylbenzene	3.89	4.038		mg/Kg		104	80 - 125
Xylenes, Total	11.7	11.91		mg/Kg		102	80 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*50 - 140*

Lab Sample ID: 310-74724-1 MS
Matrix: Soil
Analysis Batch: 118291

Client Sample ID: MW-1 6-7'
Prep Type: Total/NA
Prep Batch: 118298

Analyte	Sample Result	Sample Qualifier	Spike Added	MS Result	MS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	<0.0942		3.82	3.551		mg/Kg		93	70 - 140
Toluene	<0.0942		3.82	3.701		mg/Kg		97	60 - 135
Ethylbenzene	<0.0942		3.82	3.781		mg/Kg		99	55 - 145
Xylenes, Total	<0.283		11.5	11.00		mg/Kg		96	50 - 145

Surrogate	*MS %Recovery*	*MS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*113*		*50 - 140*

Lab Sample ID: 310-74724-1 MSD
Matrix: Soil
Analysis Batch: 118291

Client Sample ID: MW-1 6-7'
Prep Type: Total/NA
Prep Batch: 118298

Analyte	Sample Result	Sample Qualifier	Spike Added	MSD Result	MSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene	<0.0942		3.79	3.465		mg/Kg		91	70 - 140	2	20
Toluene	<0.0942		3.79	3.642		mg/Kg		96	60 - 135	2	20
Ethylbenzene	<0.0942		3.79	3.720		mg/Kg		98	55 - 145	2	25
Xylenes, Total	<0.283		11.4	10.89		mg/Kg		95	50 - 145	1	20

Surrogate	*MSD %Recovery*	*MSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*106*		*50 - 140*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 310-118144/1-A
Matrix: Solid
Analysis Batch: 118482

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 118144

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<10.0		10.0		mg/Kg		02/19/16 13:54	02/24/16 00:29	1
Diesel	<10.0		10.0		mg/Kg		02/19/16 13:54	02/24/16 00:29	1
Waste Oil	<10.0		10.0		mg/Kg		02/19/16 13:54	02/24/16 00:29	1
Total Extractable Hydrocarbons	<15.0		15.0		mg/Kg		02/19/16 13:54	02/24/16 00:29	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*80*		*40 - 135*	*02/19/16 13:54*	*02/24/16 00:29*	*1*

Lab Sample ID: LCS 310-118144/2-A
Matrix: Solid
Analysis Batch: 118482

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 118144

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel	133	105.3		mg/Kg		79	30 - 120

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*91*		*40 - 135*

QC Association Summary

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74724-1
SDG: Carter Lake, Iowa

GC VOA

Analysis Batch: 118291

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-74724-1	MW-1 6-7'	Total/NA	Soil	OA-1 (GC)	118298
310-74724-1 MS	MW-1 6-7'	Total/NA	Soil	OA-1 (GC)	118298
310-74724-1 MSD	MW-1 6-7'	Total/NA	Soil	OA-1 (GC)	118298
310-74724-2	MW-2 6-7'	Total/NA	Soil	OA-1 (GC)	118298
310-74724-3	MW-3 6-7'	Total/NA	Soil	OA-1 (GC)	118298
310-74724-4	MW-4 6-7'	Total/NA	Soil	OA-1 (GC)	118298
LCS 310-118298/2-A	Lab Control Sample	Total/NA	Solid	OA-1 (GC)	118298
MB 310-118298/1-A	Method Blank	Total/NA	Solid	OA-1 (GC)	118298

Prep Batch: 118298

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-74724-1	MW-1 6-7'	Total/NA	Soil	5030B	
310-74724-1 MS	MW-1 6-7'	Total/NA	Soil	5030B	
310-74724-1 MSD	MW-1 6-7'	Total/NA	Soil	5030B	
310-74724-2	MW-2 6-7'	Total/NA	Soil	5030B	
310-74724-3	MW-3 6-7'	Total/NA	Soil	5030B	
310-74724-4	MW-4 6-7'	Total/NA	Soil	5030B	
LCS 310-118298/2-A	Lab Control Sample	Total/NA	Solid	5030B	
MB 310-118298/1-A	Method Blank	Total/NA	Solid	5030B	

GC Semi VOA

Prep Batch: 118144

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-74724-1	MW-1 6-7'	Total/NA	Soil	3546	
310-74724-2	MW-2 6-7'	Total/NA	Soil	3546	
310-74724-3	MW-3 6-7'	Total/NA	Soil	3546	
310-74724-4	MW-4 6-7'	Total/NA	Soil	3546	
LCS 310-118144/2-A	Lab Control Sample	Total/NA	Solid	3546	
MB 310-118144/1-A	Method Blank	Total/NA	Solid	3546	

Analysis Batch: 118482

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-74724-1	MW-1 6-7'	Total/NA	Soil	OA-2	118144
310-74724-2	MW-2 6-7'	Total/NA	Soil	OA-2	118144
310-74724-3	MW-3 6-7'	Total/NA	Soil	OA-2	118144
310-74724-4	MW-4 6-7'	Total/NA	Soil	OA-2	118144
LCS 310-118144/2-A	Lab Control Sample	Total/NA	Solid	OA-2	118144
MB 310-118144/1-A	Method Blank	Total/NA	Solid	OA-2	118144

Lab Chronicle

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74724-1
SDG: Carter Lake, Iowa

Client Sample ID: MW-1 6-7'

Lab Sample ID: 310-74724-1
Matrix: Soil
Date Collected: 02/18/16 09:15
Date Received: 02/19/16 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			118298	02/22/16 10:40	CMM	TAL CF
Total/NA	Analysis	OA-1 (GC)		1	118291	02/22/16 16:15	CMM	TAL CF
Total/NA	Prep	3546			118144	02/19/16 13:54	QRA	TAL CF
Total/NA	Analysis	OA-2		1	118482	02/24/16 04:13	LLS	TAL CF

Client Sample ID: MW-2 6-7'

Lab Sample ID: 310-74724-2
Matrix: Soil
Date Collected: 02/18/16 10:40
Date Received: 02/19/16 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			118298	02/22/16 10:40	CMM	TAL CF
Total/NA	Analysis	OA-1 (GC)		1	118291	02/22/16 16:43	CMM	TAL CF
Total/NA	Prep	3546			118144	02/19/16 13:54	QRA	TAL CF
Total/NA	Analysis	OA-2		1	118482	02/24/16 04:28	LLS	TAL CF

Client Sample ID: MW-3 6-7'

Lab Sample ID: 310-74724-3
Matrix: Soil
Date Collected: 02/18/16 12:45
Date Received: 02/19/16 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			118298	02/22/16 10:40	CMM	TAL CF
Total/NA	Analysis	OA-1 (GC)		1	118291	02/22/16 17:11	CMM	TAL CF
Total/NA	Prep	3546			118144	02/19/16 13:54	QRA	TAL CF
Total/NA	Analysis	OA-2		1	118482	02/24/16 04:43	LLS	TAL CF

Client Sample ID: MW-4 6-7'

Lab Sample ID: 310-74724-4
Matrix: Soil
Date Collected: 02/18/16 13:45
Date Received: 02/19/16 09:55

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Prep	5030B			118298	02/22/16 10:40	CMM	TAL CF
Total/NA	Analysis	OA-1 (GC)		1	118291	02/22/16 17:40	CMM	TAL CF
Total/NA	Prep	3546			118144	02/19/16 13:54	QRA	TAL CF
Total/NA	Analysis	OA-2		1	118482	02/24/16 04:58	LLS	TAL CF

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74724-1
SDG: Carter Lake, Iowa

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-16
Georgia	State Program	4	N/A	09-29-16
Illinois	NELAP	5	200024	11-29-16
Iowa	State Program	7	007	12-01-15 *
Kansas	NELAP	7	E-10341	01-31-15 *
Minnesota	NELAP	5	019-999-319	12-31-16
Minnesota (Petrofund)	State Program	1	3349	08-22-16
North Dakota	State Program	8	R-186	09-29-16
Oregon	NELAP	10	IA100001	09-29-16

* Certification renewal pending - certification considered valid.

Method Summary

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74724-1
SDG: Carter Lake, Iowa

Method	Method Description	Protocol	Laboratory
OA-1 (GC)	Volatile Petroleum Hydrocarbons (GC)	Iowa DNR	TAL CF
OA-2	Iowa - Extractable Petroleum Hydrocarbons (GC)	Iowa DNR	TAL CF

Protocol References:

Iowa DNR = Iowa Department of Natural Resources

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

310-74724 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: RDG.

City/State: | Project: TSL Co.

Receipt Information

Date/Time Received: 2-19-16 9:55 | Received By: CH

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee
☐ TA Courier ☐ TA Field Services ☐ Client Drop-off ☐ Other: _____

Condition of Cooler/Containers

Sample(s) received in Cooler?	☒ Yes ☐ No	*If yes:* Cooler ID:	Client
Multiple Coolers?	☐ Yes ☒ No	*If yes:* Cooler # ____ of ____	
Cooler Custody Seals Present?	☒ Yes ☐ No	*If yes:* Cooler custody seals intact?	☒ Yes ☐ No
Sample Custody Seals Present?	☐ Yes ☒ No	*If yes:* Sample custody seals intact?	☐ Yes ☒ No
Trip Blank Present?	☐ Yes ☐ No	*If yes:* Which VOA samples are in cooler? ↓	

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other: _____ ☐ NONE

Temperature Blank? ☒ Yes ☐ No ID & Bottle Type:

NOTE: If yes, use temp blank for measurement. If no, specify sample ID(s) and bottle type used to take measurement.

Thermometer ID: H | Correction Factor (°C): +0.1°C

Uncorrected Temp (°C): 0.0°C | Corrected Temp (°C): 0.1°C

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles?) ☐ Yes ☐ No

NOTE: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

TestAmerica INCORPORATED

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: RDG Geoscience & Engineering
Send Report To: Kris LeVier
Address: 10360 Sapp Brothers Drive
City/State/Zip Code: Omaha, NE 68138
Telephone Number: 402-894-2678 Fax: (402) 894-9043
Sampled by: (Print Name) Kris LeVier
(Signature) [signature]

Your PO #: 849
Invoice To: RDG
Project Name: TSL Companies
Project Number: Carter Lake, Iowa
Email Address: klevier@rdgge.com

							Preservative								Matrix						Analyze For:				
Sample ID	Date Sampled - 2016	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Ice	HNO_3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H_2SO_4 Plastic (Yellow & White Label)	H_2SO_4 Glass (Yellow & White Label)	None (Black & White Label)	Other (Specify)	Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify:	BTEX OA-1	TEH OA-2	Standard TAT	Fax Results	Send QC with report
MW-1 6-7'	2/18	9:15	1	x			x						x						x		X	x	x		
MW-2 6-7'	2/18	10:40	1	x			x						x						x		x	x	x		
MW-3 6-7'	2/18	12:45	1	x			x						x						x		x	x	x		
MW-4 6-7'	2/18	1:45	1	x			x						x						x		x	x	x		

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:
Chromatograms required for highest contaminant and standard

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
[signature] Kris LeVier	2-18-16	17:00						

Shipped Via:
Comments:
Shipped Via:

Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:	Laboratory Comments:
[signature]	2/19/16	9:55		

Login Sample Receipt Checklist

Client: RDG Geoscience & Engineering

Job Number: 310-74724-1
SDG Number: Carter Lake, Iowa

Login Number: 74724
List Number: 1
Creator: Facciani, Melene K

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 310-74724-1

SDG Number: Carter Lake, Iowa

Job Description: TSL Companies

For:
RDG Geoscience & Engineering
10360 Sapp Bros. Dr.
Omaha, NE 68138

Attention: Kris LeVier

Angela Muehling

Approved for release.
Angela C Muehling
Project Manager I
2/25/2016 9:10 AM

Angela C Muehling, Project Manager I
704 Enterprise Drive, Cedar Falls, IA, 50613
angela.muehling@testamericainc.com
02/25/2016

Table of Contents

Method OA1

Volatile Petroleum Hydrocarbons (GC) by Method OA1

TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\ChromNA\CedarFalls\ChromData\Nutmeg\20160222-27597.b\022216_Nutmeg_002dat.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 22-Feb-2016 10:45:00 ALS Bottle#: 0 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 310-0027597-002
Misc. Info.: 310-0027597-002
Operator ID: System Instrument ID: Nutmeg
Sublist: chrom-OA1_PVOC Soils*sub2

Method: \\ChromNA\CedarFalls\ChromData\Nutmeg\20160222-27597.b\OA1_PVOC Soils.m
Limit Group: GCV OA1 ICAL
Last Update: 22-Feb-2016 13:47:39 Calib Date: 11-Feb-2016 01:27:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\CedarFalls\ChromData\Nutmeg\20160212-27440.b\021016_Nutmeg_032dat.d

Column 1 : Det: IC 082012_NUTMEG_013dat-Back Signal
Column 2 : Det: IC 082012_NUTMEG_013dat-Front Signa
Process Host: XAWRK004

First Level Reviewer: meyerch Date: 22-Feb-2016 13:43:47

Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
9 Methyl tert-butyl ether							M
1	4.933	4.933	0.000	272361	80.0	76.9	M
2	4.932	4.933	-0.001	2157484			
4 Benzene							M
1	6.132	6.132	0.000	719423	80.0	75.7	M
6 Toluene							M
1	7.440	7.440	0.000	617868	80.0	79.4	M
10 Ethylbenzene							
1	8.894	8.894	0.000	486773	80.0	80.5	
3 m-Xylene & p-Xylene							M
1	9.122	9.122	0.000	1058291	160.0	157.0	M
5 o-Xylene							M
1	9.637	9.637	0.000	451920	80.0	78.7	M
A 12 C6-C10 WI							
2	9.772	(4.833-14.688)		33765950	NC	NC	
$ 1 4-Bromofluorobenzene (Surr)							M
1	10.150	10.150	0.000	135208	20.0	18.4	M
2	10.152	10.150	0.002	554407			
15 1,3,5-Trimethylbenzene							
1	11.100	11.100	0.000	434956	NC	NC	
13 1,2,4-Trimethylbenzene							
1	11.582	11.582	0.000	315017	NC	NC	
14 Naphthalene							
1	14.588	14.588	0.000	72159	NC	NC	
2	14.588	14.588	0.000	448509			
S 2 Xylenes, Total							
1					240.0	235.8	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

GV_I_WI CCV35_00001	Amount Added: 100.00	Units: uL	
GV_I_BFBn46_00001	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 22-Feb-2016 13:47:40 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\ChromNA\CedarFalls\ChromData\Nutmeg\20160222-27597.b\022216_Nutmeg_002dat.d

Injection Date: 22-Feb-2016 10:45:00 Instrument ID: Nutmeg

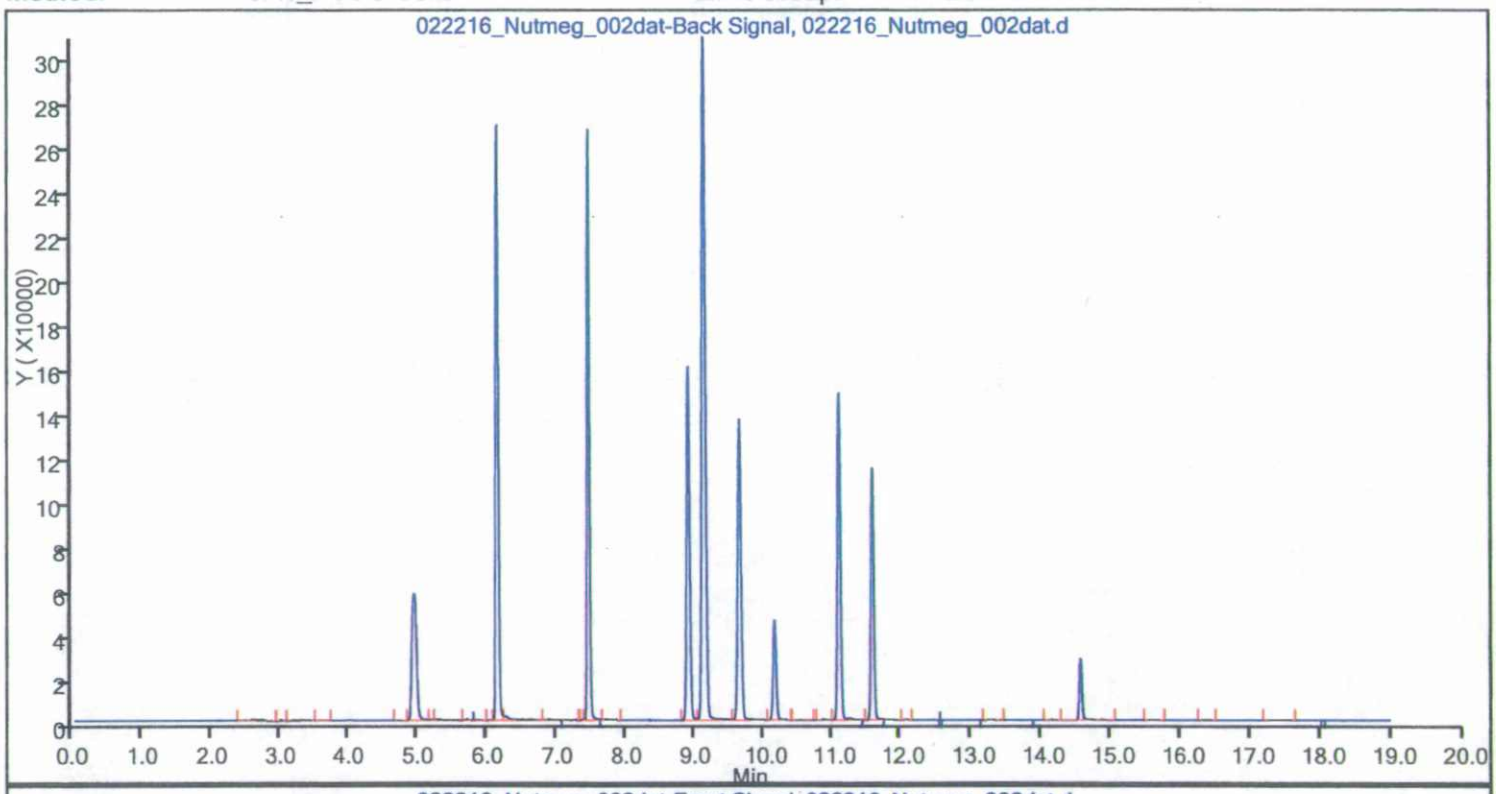
Lims ID: ccv

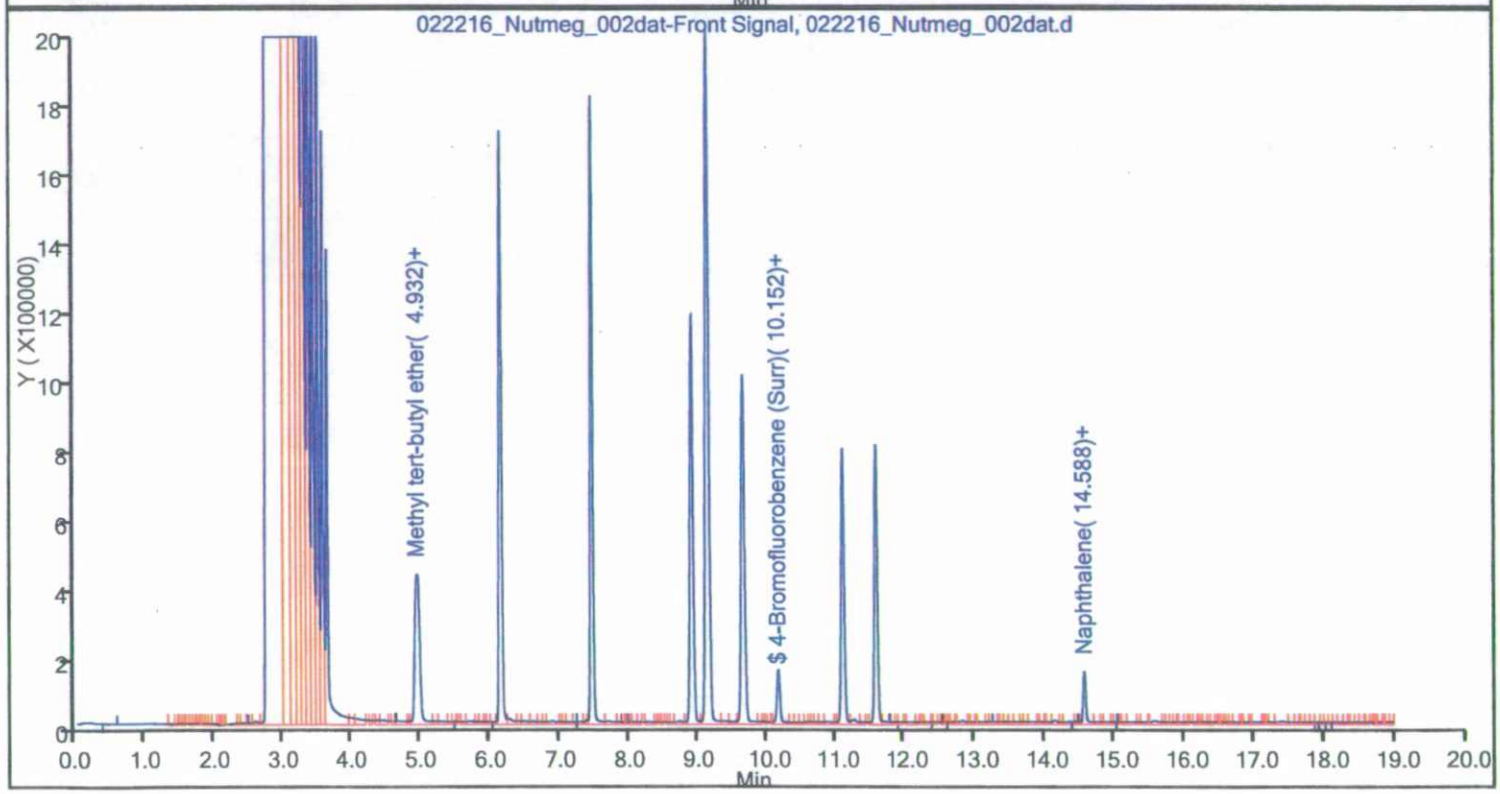
Client ID:

Operator ID: System ALS Bottle#: 0 Worklist Smp#: 2

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: OA1_PVOC Soils Limit Group: GCV OA1 ICAL





TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\ChromNA\CedarFalls\ChromData\Nutmeg\20160222-27597.b\022216_Nutmeg_033dat.d
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2016 02:12:00 ALS Bottle#: 0 Worklist Smp#: 33
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 310-0027597-033
Misc. Info.: 310-0027597-033
Operator ID: System Instrument ID: Nutmeg
Sublist: chrom-OA1_PVOC Soils*sub2

Method: \\ChromNA\CedarFalls\ChromData\Nutmeg\20160222-27597.b\OA1_PVOC Soils.m
Limit Group: GCV OA1 ICAL
Last Update: 23-Feb-2016 10:40:54 Calib Date: 11-Feb-2016 01:27:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\CedarFalls\ChromData\Nutmeg\20160212-27440.b\021016_Nutmeg_032dat.d

Column 1 : Det: IC 082012_NUTMEG_013dat-Back Signal
Column 2 : Det: IC 082012_NUTMEG_013dat-Front Signal
Process Host: XAWRK018

First Level Reviewer: meyerch Date: 23-Feb-2016 08:34:37

Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
9 Methyl tert-butyl ether							M
1	4.925	4.933	-0.008	269148	80.0	76.0	M
2	4.926	4.933	-0.007	2164856			
4 Benzene							M
1	6.128	6.132	-0.004	705039	80.0	74.2	M
6 Toluene							M
1	7.438	7.440	-0.002	593852	80.0	76.3	M
10 Ethylbenzene							M
1	8.892	8.894	-0.002	467431	80.0	77.3	M
3 m-Xylene & p-Xylene							M
1	9.122	9.122	0.000	1004436	160.0	149.1	M
5 o-Xylene							M
1	9.637	9.637	0.000	429425	80.0	74.8	M
A 12 C6-C10 WI							
2	9.760	(4.833-14.688)		32943788	NC	NC	
$ 1 4-Bromofluorobenzene (Surr)							M
1	10.151	10.150	0.001	141331	20.0	19.2	M
2	10.152	10.150	0.002	576550			
15 1,3,5-Trimethylbenzene							
1	11.100	11.100	0.000	412462	NC	NC	
13 1,2,4-Trimethylbenzene							
1	11.582	11.582	0.000	300184	NC	NC	
14 Naphthalene							
1	14.588	14.588	0.000	80130	NC	NC	
2	14.588	14.588	0.000	503117			
S 2 Xylenes, Total							
1					240.0	223.9	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

GV_I_WI CCV35_00001	Amount Added: 100.00	Units: uL	
GV_I_BFBn46_00001	Amount Added: 1.00	Units: uL	Run Reagent

Detection Summary

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74789-1
SDG: Carter Lake, Iowa

Client Sample ID: MW-1 — Lab Sample ID: 310-74789-1

No Detections.

Client Sample ID: MW-2 — Lab Sample ID: 310-74789-2

No Detections.

Client Sample ID: MW-3 — Lab Sample ID: 310-74789-3

No Detections.

Client Sample ID: MW-4 — Lab Sample ID: 310-74789-4

No Detections.

This Detection Summary does not include radiochemical test results.

Client Sample ID: MW-1
Date Collected: 02/19/16 10:56
Date Received: 02/20/16 09:10
Sampler Name: Adam Cassidy

Lab Sample ID: 310-74789-1
Matrix: Ground Water
Sampler Phone Number: 402-894-2678

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<2.00		2.00		ug/L			02/23/16 10:54	1
Toluene	<2.00		2.00		ug/L			02/23/16 10:54	1
Ethylbenzene	<2.00		2.00		ug/L			02/23/16 10:54	1
Xylenes, Total	<3.00		3.00		ug/L			02/23/16 10:54	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*97*		*50 - 145*		*02/23/16 10:54*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<278		278		ug/L		02/22/16 15:23	02/23/16 14:43	1
Diesel	<278		278		ug/L		02/22/16 15:23	02/23/16 14:43	1
Waste Oil	<278		278		ug/L		02/22/16 15:23	02/23/16 14:43	1
Total Extractable Hydrocarbons	<463		463		ug/L		02/22/16 15:23	02/23/16 14:43	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*104*		*45 - 140*	*02/22/16 15:23*	*02/23/16 14:43*	*1*

Report Date: 23-Feb-2016 10:40:55 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\ChromNA\CedarFalls\ChromData\Nutmeg\20160222-27597.b\022216_Nutmeg_033dat.d

Injection Date: 23-Feb-2016 02:12:00 Instrument ID: Nutmeg

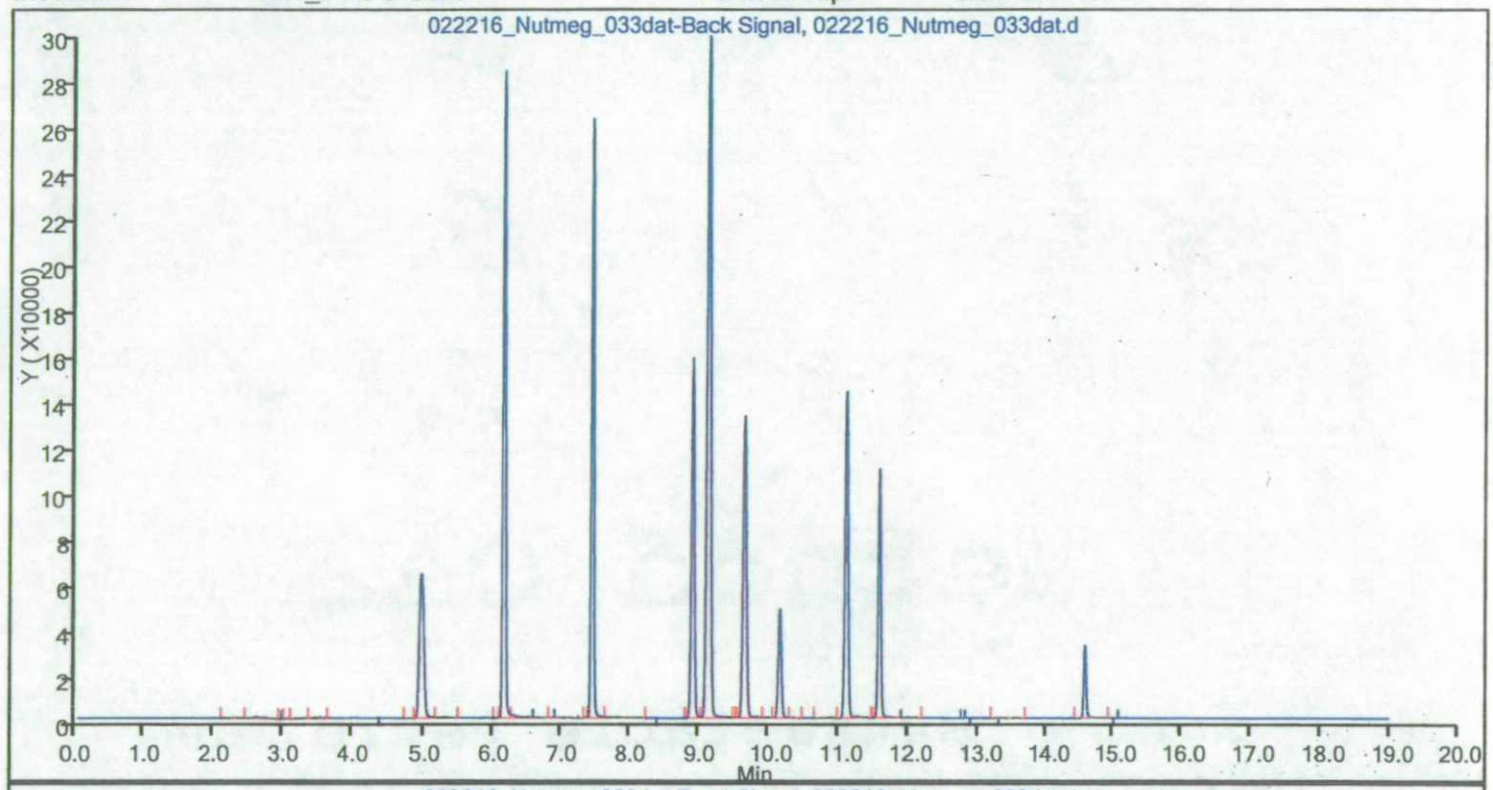
Lims ID: ccv

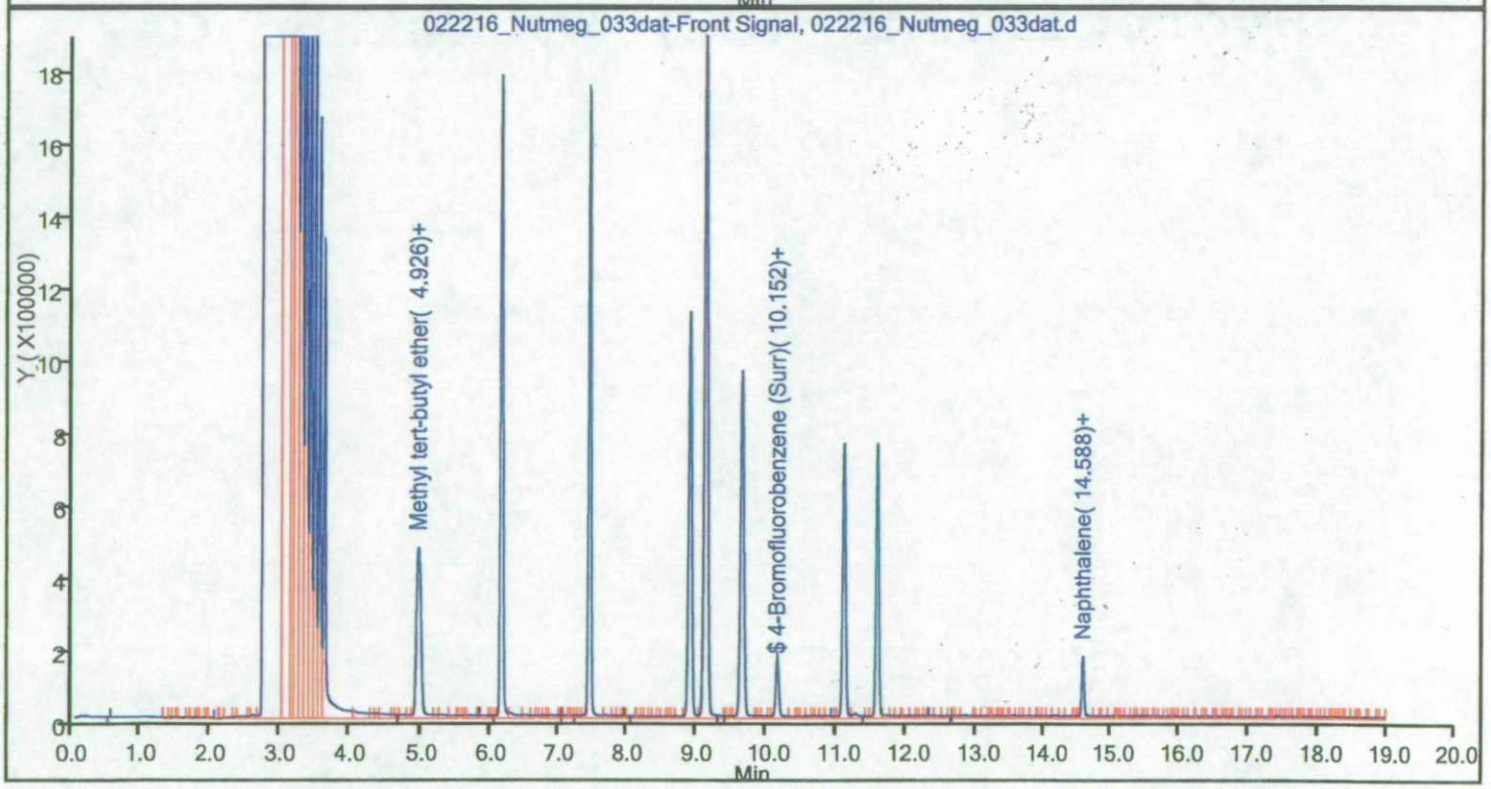
Client ID:

Operator ID: System ALS Bottle#: 0 Worklist Smp#: 33

Purge Vol: 5.000 mL Dil. Factor: 1.0000

Method: OA1_PVOC Soils Limit Group: GCV OA1 ICAL





Method OA2

Iowa - Extractable Petroleum Hydrocarbons (GC) by Method OA2

TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27646.b\022316_IVYBACK_062dat-Back Signal.d
Lims ID: 310-74724-A-1-A Lab Sample ID: 310-74724-1
Client ID: MW-1 6-7'
Sample Type: Client
Inject. Date: 24-Feb-2016 04:13:00 ALS Bottle#: 0 Worklist Smp#: 36
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 310-0027646-036
Misc. Info.: 310-0027646-036
Operator ID: System Instrument ID: Ivy-R

Method: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27646.b\IvyRear.m
Limit Group: GC OA2 ICAL
Last Update: 24-Feb-2016 12:01:06 Calib Date: 18-Jan-2016 22:58:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\cedarfalls\ChromData\Ivy-R\20160118-27082.b\011816_IVYREAR_057dat-Back Signal.d

Column 1 : Det: 060815_BATMANBACK_002dat-BatmanBa
Process Host: XAWRK009

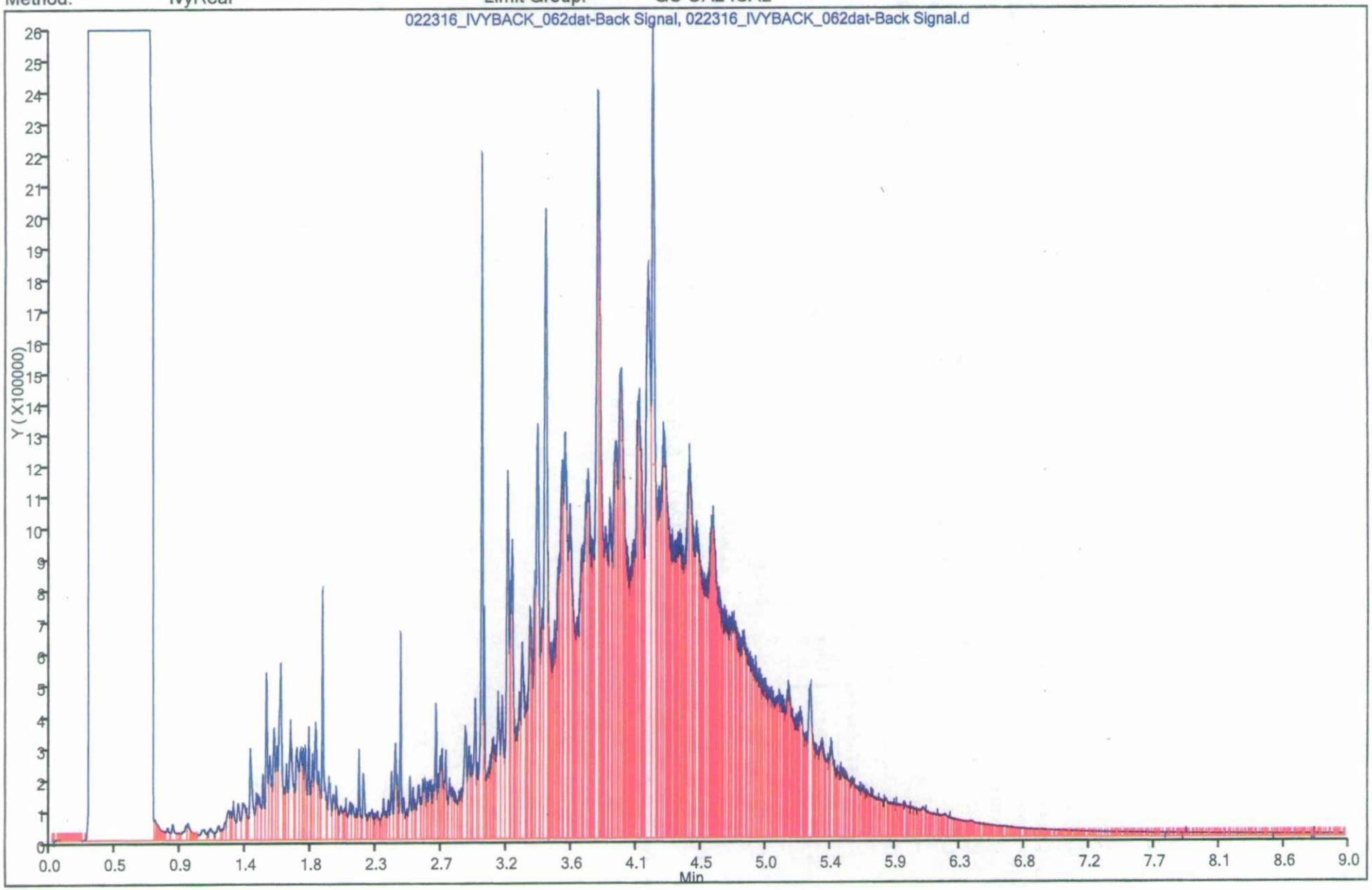
First Level Reviewer: scarfll Date: 24-Feb-2016 11:59:53

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
$	11 n-Octacosane					
	4.162	4.159	0.003	1290355	53.9	
A	7 Total Extractable Hydrocarbons					
	4.375	(0.750-8.000)		131471247	5279.9	
A	19 Motor Oil					
	4.500	(3.000-6.000)		109030456	4152.6	

Report Date: 24-Feb-2016 12:01:48 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File:	\\chromna\cedarfalls\ChromData\Ivy-R\20160223-27646.b\022316_IVYBACK_062dat-Back Signal.d				
Injection Date:	24-Feb-2016 04:13:00	Instrument ID:	Ivy-R	Operator ID:	System
Lims ID:	310-74724-A-1-A	Lab Sample ID:	310-74724-1	Worklist Smp#:	36
Client ID:	MW-1 6-7'				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IvyRear	Limit Group:	GC OA2 ICAL		



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_028dat-Back Signal.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2016 19:34:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 310-0027639-028
Misc. Info.: 310-0027639-028
Operator ID: System Instrument ID: Ivy-R
Sublist: chrom-IvyRear*sub2

Method: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\IvyRear.m
Limit Group: GC OA2 ICAL
Last Update: 24-Feb-2016 10:42:37 Calib Date: 18-Jan-2016 22:58:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\cedarfalls\ChromData\Ivy-R\20160118-27082.b\011816_IVYREAR_057dat-Back Signal.d

Column 1 : Det: 060815_BATMANBACK_002dat-BatmanBa
Process Host: XAWRK009

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 1 Diesel						
2.862	(1.300-4.423)		122043887	5000.0	5081.6	
A 7 Total Extractable Hydrocarbons						
4.375	(0.750-8.000)		126153551	5000.0	5064.2	

Reagents:

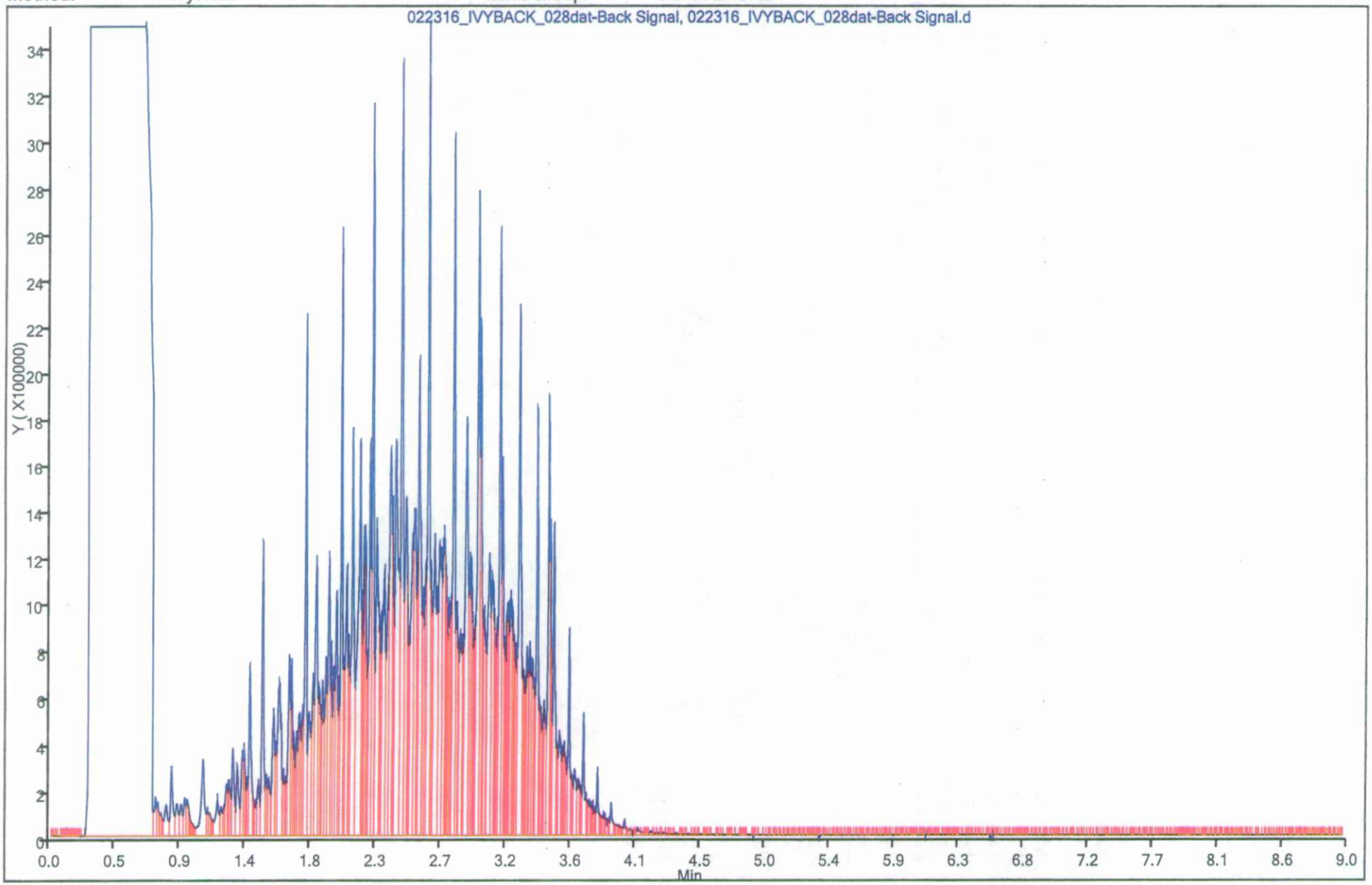
GE_I_DIESEL_00019 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2016 10:42:38 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_028dat-Back Signal.d

Injection Date:	23-Feb-2016 19:34:00	Instrument ID:	Ivy-R	Operator ID:	System
Lims ID:	CCV			Worklist Smp#:	28
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IvyRear	Limit Group:	GC OA2 ICAL		



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27646.b\022316_IVYBACK_068dat-Back Signal.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 24-Feb-2016 05:43:00 ALS Bottle#: 0 Worklist Smp#: 42
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 310-0027646-042
Misc. Info.: 310-0027646-042
Operator ID: System Instrument ID: Ivy-R
Sublist: chrom-IvyRear*sub2

Method: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27646.b\IvyRear.m
Limit Group: GC OA2 ICAL
Last Update: 24-Feb-2016 12:01:06 Calib Date: 18-Jan-2016 22:58:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\cedarfalls\ChromData\Ivy-R\20160118-27082.b\011816_IVYREAR_057dat-Back Signal.d

Column 1 : Det: 060815_BATMANBACK_002dat-BatmanBa
Process Host: XAWRK009

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 1 Diesel						
2.862	(1.300-4.423)		126503444	5000.0	5268.5	
A 7 Total Extractable Hydrocarbons						
4.375	(0.750-8.000)		132701809	5000.0	5329.8	

Reagents:

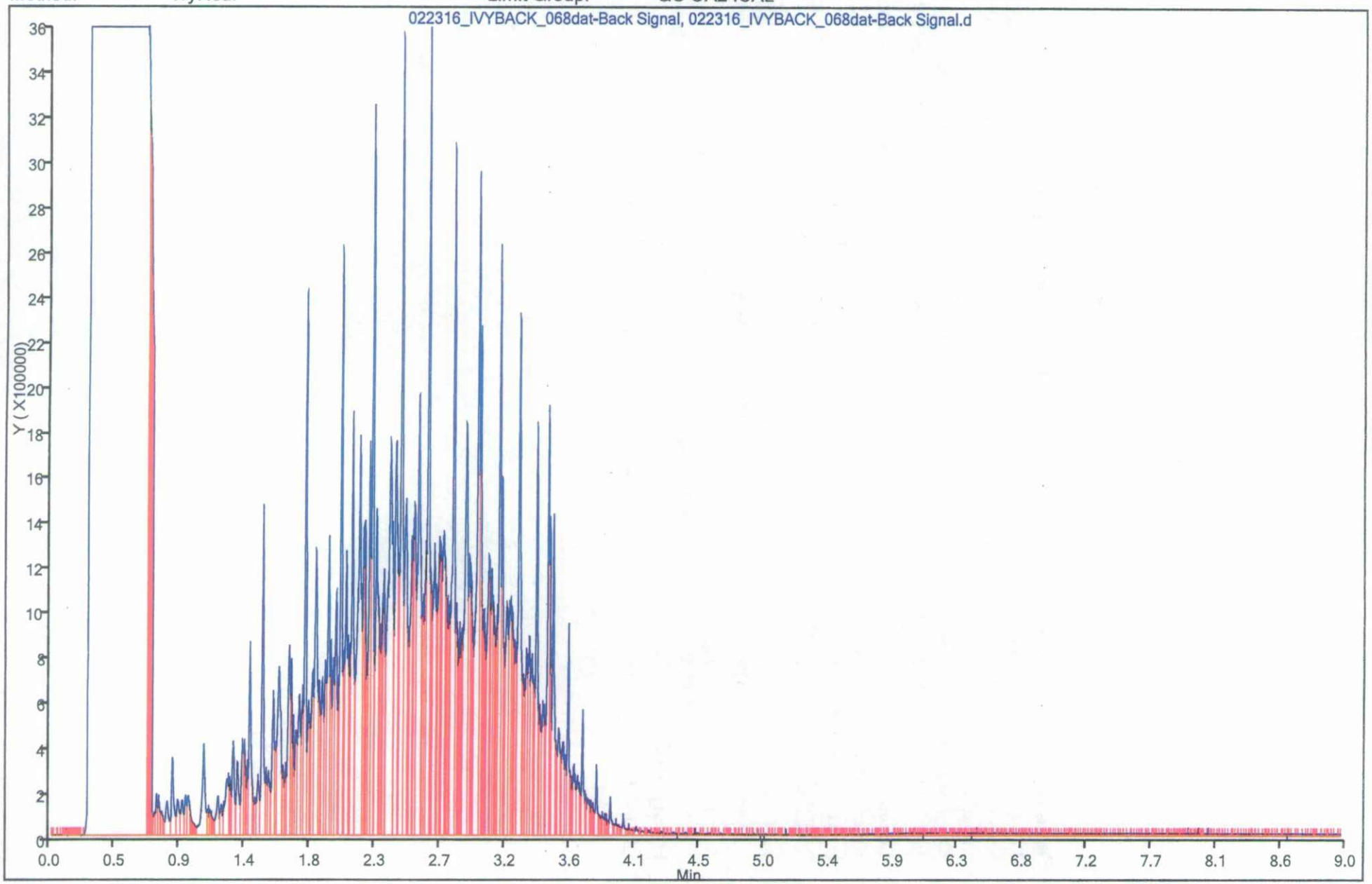
GE_I_DIESEL_00019 Amount Added: 1.00 Units: mL

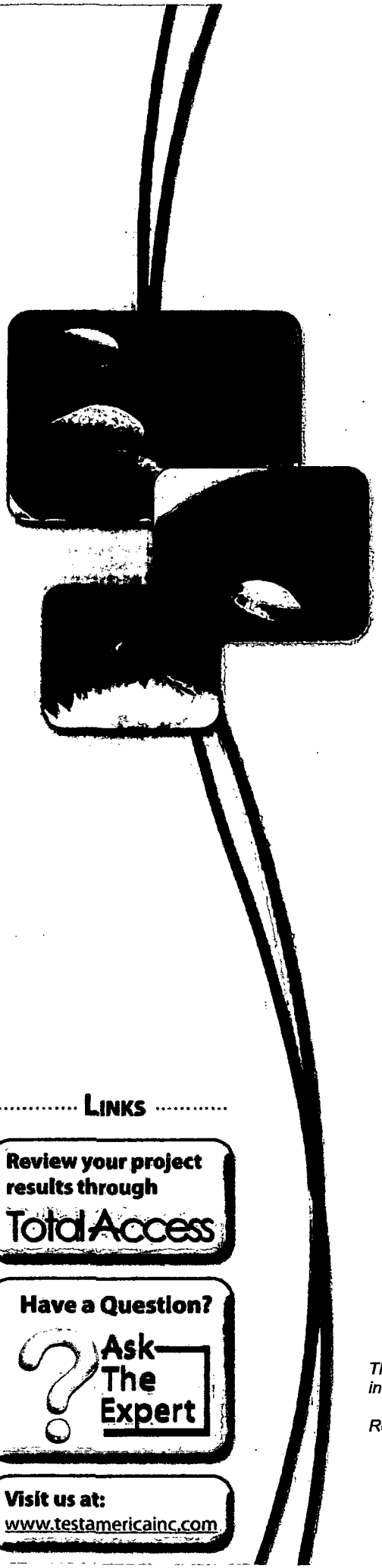
Report Date: 24-Feb-2016 12:01:08 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27646.b\022316_IVYBACK_068dat-Back Signal.d

Injection Date:	24-Feb-2016 05:43:00	Instrument ID:	Ivy-R	Operator ID:	System
Lims ID:	CCV			Worklist Smp#:	42
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IvyRear	Limit Group:	GC OA2 ICAL		





TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

TestAmerica Laboratories, Inc.
TestAmerica Cedar Falls
704 Enterprise Drive
Cedar Falls, IA 50613
Tel: (319)277-2401

TestAmerica Job ID: 310-74789-1
TestAmerica Sample Delivery Group: Carter Lake, Iowa
Client Project/Site: TSL Companies

For:
RDG Geoscience & Engineering
10360 Sapp Bros. Dr.
Omaha, Nebraska 68138

Attn: Kris LeVier

Angela Muehling

Authorized for release by:
2/25/2016 9:02:38 AM

Angela Muehling, Project Manager I
(319)277-2401
angela.muehling@testamericainc.com

Table of Contents

Job ID: 310-74789-1

Laboratory: TestAmerica Cedar Falls

Narrative

Job Narrative
310-74789-1

Comments
No additional comments.

Receipt
The samples were received on 2/20/2016 9:10 AM; the samples arrived in good condition, properly preserved and, where required, on ice. The temperature of the cooler at receipt was 0.8° C.

GC VOA
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

GC Semi VOA
Method(s) OA-2: The surrogate recovery for the blank associated with preparation batch 310-118343 and analytical batch 310-118442 was outside the upper control limits. All associated sample surrogates fell within acceptance criteria; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

Organic Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

VOA Prep
No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

Sample Summary

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74789-1
SDG: Carter Lake, Iowa

Lab Sample ID	Client Sample ID	Matrix	Collected	Received
310-74789-1	MW-1	Ground Water	02/19/16 10:56	02/20/16 09:10
310-74789-2	MW-2	Ground Water	02/19/16 10:49	02/20/16 09:10
310-74789-3	MW-3	Ground Water	02/19/16 11:07	02/20/16 09:10
310-74789-4	MW-4	Ground Water	02/19/16 11:14	02/20/16 09:10

Client Sample ID: MW-2
Date Collected: 02/19/16 10:49
Date Received: 02/20/16 09:10
Sampler Name: Adam Cassidy

Lab Sample ID: 310-74789-2
Matrix: Ground Water
Sampler Phone Number: 402-894-2678

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<2.00		2.00		ug/L			02/22/16 23:31	1
Toluene	<2.00		2.00		ug/L			02/22/16 23:31	1
Ethylbenzene	<2.00		2.00		ug/L			02/22/16 23:31	1
Xylenes, Total	<3.00		3.00		ug/L			02/22/16 23:31	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*50 - 145*		*02/22/16 23:31*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<278		278		ug/L		02/22/16 15:23	02/23/16 14:58	1
Diesel	<278		278		ug/L		02/22/16 15:23	02/23/16 14:58	1
Waste Oil	<278		278		ug/L		02/22/16 15:23	02/23/16 14:58	1
Total Extractable Hydrocarbons	<463		463		ug/L		02/22/16 15:23	02/23/16 14:58	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*106*		*45 - 140*	*02/22/16 15:23*	*02/23/16 14:58*	*1*

Client Sample ID: MW-3
Date Collected: 02/19/16 11:07
Date Received: 02/20/16 09:10
Sampler Name: Adam Cassidy

Lab Sample ID: 310-74789-3
Matrix: Ground Water
Sampler Phone Number: 402-894-2678

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<2.00		2.00		ug/L			02/22/16 23:59	1
Toluene	<2.00		2.00		ug/L			02/22/16 23:59	1
Ethylbenzene	<2.00		2.00		ug/L			02/22/16 23:59	1
Xylenes, Total	<3.00		3.00		ug/L			02/22/16 23:59	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*50 - 145*		*02/22/16 23:59*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<278		278		ug/L		02/22/16 15:23	02/23/16 15:14	1
Diesel	<278		278		ug/L		02/22/16 15:23	02/23/16 15:14	1
Waste Oil	<278		278		ug/L		02/22/16 15:23	02/23/16 15:14	1
Total Extractable Hydrocarbons	<463		463		ug/L		02/22/16 15:23	02/23/16 15:14	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*105*		*45 - 140*	*02/22/16 15:23*	*02/23/16 15:14*	*1*

Client Sample ID: MW-4
Date Collected: 02/19/16 11:14
Date Received: 02/20/16 09:10
Sampler Name: Adam Cassidy

Lab Sample ID: 310-74789-4
Matrix: Ground Water
Sampler Phone Number: 402-894-2678

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<2.00		2.00		ug/L			02/23/16 00:27	1
Toluene	<2.00		2.00		ug/L			02/23/16 00:27	1
Ethylbenzene	<2.00		2.00		ug/L			02/23/16 00:27	1
Xylenes, Total	<3.00		3.00		ug/L			02/23/16 00:27	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*50 - 145*		*02/23/16 00:27*	*1*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<278		278		ug/L		02/22/16 15:23	02/23/16 15:29	1
Diesel	<278		278		ug/L		02/22/16 15:23	02/23/16 15:29	1
Waste Oil	<278		278		ug/L		02/22/16 15:23	02/23/16 15:29	1
Total Extractable Hydrocarbons	<463		463		ug/L		02/22/16 15:23	02/23/16 15:29	1

Surrogate	*%Recovery*	*Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*100*		*45 - 140*	*02/22/16 15:23*	*02/23/16 15:29*	*1*

Qualifiers

GC Semi VOA

Qualifier	Qualifier Description
X	Surrogate is outside control limits

Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
¤	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CNF	Contains no Free Liquid
DER	Duplicate error ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision level concentration
MDA	Minimum detectable activity
EDL	Estimated Detection Limit
MDC	Minimum detectable concentration
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
NC	Not Calculated
ND	Not detected at the reporting limit (or MDL or EDL if shown)
PQL	Practical Quantitation Limit
QC	Quality Control
RER	Relative error ratio
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)

Surrogate Summary

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74789-1
SDG: Carter Lake, Iowa

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	BFB (50-145)
310-74789-1	MW-1	97
310-74789-2	MW-2	96
310-74789-3	MW-3	95
310-74789-4	MW-4	96

Surrogate Legend
BFB = 4-Bromofluorobenzene (Surr)

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	BFB (50-145)
LCS 310-118321/5	Lab Control Sample	99
LCS 310-118346/11	Lab Control Sample	98
LCSD 310-118346/19	Lab Control Sample Dup	95
MB 310-118321/4	Method Blank	96
MB 310-118346/1	Method Blank	95

Surrogate Legend
BFB = 4-Bromofluorobenzene (Surr)

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Matrix: Ground Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OTC (45-140)
310-74789-1	MW-1	104
310-74789-2	MW-2	106
310-74789-3	MW-3	105
310-74789-4	MW-4	100

Surrogate Legend
OTC = n-Octacosane

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Matrix: Water **Prep Type: Total/NA**

		Percent Surrogate Recovery (Acceptance Limits)
Lab Sample ID	Client Sample ID	OTC (45-140)
LCS 310-118343/2-A	Lab Control Sample	105
LCSD 310-118343/3-A	Lab Control Sample Dup	118
MB 310-118343/1-A	Method Blank	222 X

Surrogate Legend
OTC = n-Octacosane

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 310-118321/4
Matrix: Water
Analysis Batch: 118321

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<2.00		2.00		ug/L			02/22/16 15:06	1
Toluene	<2.00		2.00		ug/L			02/22/16 15:06	1
Ethylbenzene	<2.00		2.00		ug/L			02/22/16 15:06	1
Xylenes, Total	<3.00		3.00		ug/L			02/22/16 15:06	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*96*		*50 - 145*		*02/22/16 15:06*	*1*

Lab Sample ID: LCS 310-118321/5
Matrix: Water
Analysis Batch: 118321

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	80.0	86.60		ug/L		108	75 - 120
Toluene	80.0	84.54		ug/L		106	75 - 120
Ethylbenzene	80.0	84.01		ug/L		105	75 - 115
Xylenes, Total	240	233.0		ug/L		97	75 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*99*		*50 - 145*

Lab Sample ID: MB 310-118346/1
Matrix: Water
Analysis Batch: 118346

Client Sample ID: Method Blank
Prep Type: Total/NA

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzene	<2.00		2.00		ug/L			02/23/16 04:10	1
Toluene	<2.00		2.00		ug/L			02/23/16 04:10	1
Ethylbenzene	<2.00		2.00		ug/L			02/23/16 04:10	1
Xylenes, Total	<3.00		3.00		ug/L			02/23/16 04:10	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
4-Bromofluorobenzene (Surr)	*95*		*50 - 145*		*02/23/16 04:10*	*1*

Lab Sample ID: LCS 310-118346/11
Matrix: Water
Analysis Batch: 118346

Client Sample ID: Lab Control Sample
Prep Type: Total/NA

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Benzene	80.0	87.78		ug/L		110	75 - 120
Toluene	80.0	85.44		ug/L		107	75 - 120
Ethylbenzene	80.0	85.67		ug/L		107	75 - 115
Xylenes, Total	240	238.1		ug/L		99	75 - 115

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*98*		*50 - 145*

Method: OA-1 (GC) - Volatile Petroleum Hydrocarbons (GC) (Continued)

Lab Sample ID: LCSD 310-118346/19
Matrix: Water
Analysis Batch: 118346

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Benzene			80.0	86.84		ug/L		109	75 - 120	1	15
Toluene			80.0	84.91		ug/L		106	75 - 120	1	15
Ethylbenzene			80.0	84.64		ug/L		106	75 - 115	1	15
Xylenes, Total			240	234.1		ug/L		98	75 - 115	2	15

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
4-Bromofluorobenzene (Surr)	*95*		*50 - 145*

Method: OA-2 - Iowa - Extractable Petroleum Hydrocarbons (GC)

Lab Sample ID: MB 310-118343/1-A
Matrix: Water
Analysis Batch: 118442

Client Sample ID: Method Blank
Prep Type: Total/NA
Prep Batch: 118343

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Gasoline	<300		300		ug/L		02/22/16 15:23	02/23/16 14:01	1
Diesel	<300		300		ug/L		02/22/16 15:23	02/23/16 14:01	1
Waste Oil	<300		300		ug/L		02/22/16 15:23	02/23/16 14:01	1
Total Extractable Hydrocarbons	<500		500		ug/L		02/22/16 15:23	02/23/16 14:01	1

Surrogate	*MB %Recovery*	*MB Qualifier*	*Limits*	*Prepared*	*Analyzed*	*Dil Fac*
n-Octacosane	*222*	*X*	*45 - 140*	*02/22/16 15:23*	*02/23/16 14:01*	*1*

Lab Sample ID: LCS 310-118343/2-A
Matrix: Water
Analysis Batch: 118442

Client Sample ID: Lab Control Sample
Prep Type: Total/NA
Prep Batch: 118343

Analyte			Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec. Limits
Diesel			2000	1598		ug/L		80	30 - 125

Surrogate	*LCS %Recovery*	*LCS Qualifier*	*Limits*
n-Octacosane	*105*		*45 - 140*

Lab Sample ID: LCSD 310-118343/3-A
Matrix: Water
Analysis Batch: 118442

Client Sample ID: Lab Control Sample Dup
Prep Type: Total/NA
Prep Batch: 118343

Analyte			Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec. Limits	RPD	RPD Limit
Diesel			2000	1731		ug/L		87	30 - 125	8	35

Surrogate	*LCSD %Recovery*	*LCSD Qualifier*	*Limits*
n-Octacosane	*118*		*45 - 140*

QC Association Summary

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74789-1
SDG: Carter Lake, Iowa

GC VOA

Analysis Batch: 118321

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-74789-2	MW-2	Total/NA	Ground Water	OA-1 (GC)	
310-74789-3	MW-3	Total/NA	Ground Water	OA-1 (GC)	
310-74789-4	MW-4	Total/NA	Ground Water	OA-1 (GC)	
LCS 310-118321/5	Lab Control Sample	Total/NA	Water	OA-1 (GC)	
MB 310-118321/4	Method Blank	Total/NA	Water	OA-1 (GC)	

Analysis Batch: 118346

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-74789-1	MW-1	Total/NA	Ground Water	OA-1 (GC)	
LCS 310-118346/11	Lab Control Sample	Total/NA	Water	OA-1 (GC)	
LCSD 310-118346/19	Lab Control Sample Dup	Total/NA	Water	OA-1 (GC)	
MB 310-118346/1	Method Blank	Total/NA	Water	OA-1 (GC)	

GC Semi VOA

Prep Batch: 118343

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-74789-1	MW-1	Total/NA	Ground Water	3510C	
310-74789-2	MW-2	Total/NA	Ground Water	3510C	
310-74789-3	MW-3	Total/NA	Ground Water	3510C	
310-74789-4	MW-4	Total/NA	Ground Water	3510C	
LCS 310-118343/2-A	Lab Control Sample	Total/NA	Water	3510C	
LCSD 310-118343/3-A	Lab Control Sample Dup	Total/NA	Water	3510C	
MB 310-118343/1-A	Method Blank	Total/NA	Water	3510C	

Analysis Batch: 118442

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
310-74789-1	MW-1	Total/NA	Ground Water	OA-2	118343
310-74789-2	MW-2	Total/NA	Ground Water	OA-2	118343
310-74789-3	MW-3	Total/NA	Ground Water	OA-2	118343
310-74789-4	MW-4	Total/NA	Ground Water	OA-2	118343
LCS 310-118343/2-A	Lab Control Sample	Total/NA	Water	OA-2	118343
LCSD 310-118343/3-A	Lab Control Sample Dup	Total/NA	Water	OA-2	118343
MB 310-118343/1-A	Method Blank	Total/NA	Water	OA-2	118343

Lab Chronicle

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74789-1
SDG: Carter Lake, Iowa

Client Sample ID: MW-1
Date Collected: 02/19/16 10:56
Date Received: 02/20/16 09:10

Lab Sample ID: 310-74789-1
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OA-1 (GC)		1	118346	02/23/16 10:54	CMM	TAL CF
Total/NA	Prep	3510C			118343	02/22/16 15:23	HTM	TAL CF
Total/NA	Analysis	OA-2		1	118442	02/23/16 14:43	LLS	TAL CF

Client Sample ID: MW-2
Date Collected: 02/19/16 10:49
Date Received: 02/20/16 09:10

Lab Sample ID: 310-74789-2
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OA-1 (GC)		1	118321	02/22/16 23:31	CMM	TAL CF
Total/NA	Prep	3510C			118343	02/22/16 15:23	HTM	TAL CF
Total/NA	Analysis	OA-2		1	118442	02/23/16 14:58	LLS	TAL CF

Client Sample ID: MW-3
Date Collected: 02/19/16 11:07
Date Received: 02/20/16 09:10

Lab Sample ID: 310-74789-3
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OA-1 (GC)		1	118321	02/22/16 23:59	CMM	TAL CF
Total/NA	Prep	3510C			118343	02/22/16 15:23	HTM	TAL CF
Total/NA	Analysis	OA-2		1	118442	02/23/16 15:14	LLS	TAL CF

Client Sample ID: MW-4
Date Collected: 02/19/16 11:14
Date Received: 02/20/16 09:10

Lab Sample ID: 310-74789-4
Matrix: Ground Water

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Prepared or Analyzed	Analyst	Lab
Total/NA	Analysis	OA-1 (GC)		1	118321	02/23/16 00:27	CMM	TAL CF
Total/NA	Prep	3510C			118343	02/22/16 15:23	HTM	TAL CF
Total/NA	Analysis	OA-2		1	118442	02/23/16 15:29	LLS	TAL CF

Laboratory References:
TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

Certification Summary

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74789-1
SDG: Carter Lake, Iowa

Laboratory: TestAmerica Cedar Falls

All certifications held by this laboratory are listed. Not all certifications are applicable to this report.

Authority	Program	EPA Region	Certification ID	Expiration Date
AIHA-LAP, LLC	IHLAP		101044	11-01-16
Georgia	State Program	4	N/A	09-29-16
Illinois	NELAP	5	200024	11-29-16
Iowa	State Program	7	007	12-01-15 *
Kansas	NELAP	7	E-10341	01-31-15 *
Minnesota	NELAP	5	019-999-319	12-31-16
Minnesota (Petrofund)	State Program	1	3349	08-22-16
North Dakota	State Program	8	R-186	09-29-16
Oregon	NELAP	10	IA100001	09-29-16

* Certification renewal pending - certification considered valid.

Method Summary

Client: RDG Geoscience & Engineering
Project/Site: TSL Companies

TestAmerica Job ID: 310-74789-1
SDG: Carter Lake, Iowa

Method	Method Description	Protocol	Laboratory
OA-1 (GC)	Volatile Petroleum Hydrocarbons (GC)	Iowa DNR	TAL CF
OA-2	Iowa - Extractable Petroleum Hydrocarbons (GC)	Iowa DNR	TAL CF

Protocol References:

Iowa DNR = Iowa Department of Natural Resources

Laboratory References:

TAL CF = TestAmerica Cedar Falls, 704 Enterprise Drive, Cedar Falls, IA 50613, TEL (319)277-2401

TestAmerica
THE LEADER IN ENVIRONMENTAL TESTING

310-74789 Chain of Custody

Cooler/Sample Receipt and Temperature Log Form

Client Information

Client: RDG

City/State:

Project: TSL Companies

Receipt Information

Date/Time Received: 2-2-16 9:10

Received By: CH

Delivery Type: ☐ UPS ☒ FedEx ☐ FedEx Ground ☐ US Mail ☐ Spee-Dee ☐ TA Courier ☐ TA Field Services ☐ Client Drop-off ☐ Other:_____

Condition of Cooler/Containers

Sample(s) received in Cooler? ☒ Yes ☐ No *If yes:* Cooler ID: Client

Multiple Coolers? ☐ Yes ☒ No *If yes:* Cooler # ____ of ____

Cooler Custody Seals Present? ☒ Yes ☐ No *If yes:* Cooler custody seals intact? ☒ Yes ☐ No

Sample Custody Seals Present? ☐ Yes ☒ No *If yes:* Sample custody seals intact? ☐ Yes ☒ No

Trip Blank Present? ☐ Yes ☐ No *If yes:* Which VOA samples are in cooler? ↓

Temperature Record

Coolant: ☒ Wet ice ☐ Blue ice ☐ Dry ice ☐ Other:_____ ☐ NONE

Temperature Blank? ☒ Yes ☐ No ID & Bottle Type:

Note: If yes, use temp blank for measurement. If no, specify sample ID(s) and bottle type used to take measurement.

Thermometer ID: H

Correction Factor (°C): +0.1°C

Uncorrected Temp (°C): 0.7°C

Corrected Temp (°C): 0.8°C

Exceptions Noted

1) If temperature exceeds criteria, was sample(s) received same day of sampling? ☐ Yes ☐ No
   a) *If yes:* Is there evidence that the chilling process began? ☐ Yes ☐ No

2) If temperature is <0°C, are there obvious signs that the integrity of sample containers is compromised? (e.g., bulging septa, broken/cracked bottles?) ☐ Yes ☐ No

Note: If yes, contact PM before proceeding. If no, proceed with login

Additional Comments

TestAmerica
INCORPORATED

Cedar Falls Division
704 Enterprise Drive
Cedar Falls, IA 50613

Phone: 319 - 277 - 2401 or 1 - 800 - 750 - 2401
Fax: 319 - 277 - 2425

Company: RDG Geoscience & Engineering

Your PO #: 849

Send Report To: Kris LeVier

Invoice To: RDG

Address: 10360 Sapp Brothers Drive

City/State/Zip Code: Omaha, NE 68138

Project Name: TSL Companies

Telephone Number: 402-894-2678

Fax: (402) 894-9043

Project Number: Carter Lake, Iowa

Sampled by: (Print Name) Adam Cassidy

(Signature)

Email Address: klevier@rdgge.com

Sample ID	Date Sampled - 2016	Time Sampled	# of containers shipped	Grab	Composite	Field Filtered	Preservative: Ice	HNO_3 (Red & White Label)	HCl (Blue & White Label)	NaOH (Orange & White Label)	H_2SO_4 Plastic (Yellow & White Label)	H_2SO_4 Glass (Yellow & White Label)	None (Black & White Label)	Other (Specify)	Matrix: Groundwater	Wastewater	Drinking Water	Sludge	Soil	Other Specify:	Analyze For: BTEX OA-1	TEH OA-2	Standard TAT	Fax Results	Send QC with report
MW-1	2/19/16	1056	4	x			x		3				1		x						X	x	x		
MW-2	2/19/16	1049	4	x			x		3				1		x						x	x	x		
MW-3	2/19/16	1107	4	x			x		3				1		x						x	x	x		
MW-4	2/19/16	1114	4	x			x		3				1		x						x	x	x		

NOTE: All turn around times are calculated from the time of receipt at TestAmerica.
NOTICE: **Pre-Arrangements must be made *AT LEAST 48 Hours in ADVANCE* to receive results with RUSH turn around time commitments; *additional charges* may be assessed.**
NOTE: There may be a charge assessed for TestAmerica disposing of sample remainders.

NOTES:
Chromatograms required for highest contaminant and standard

Relinquished by:	Date	Time	Received by:	Date	Time	Relinquished by:	Date	Time
	2/19/16	1700						

Shipped Via:

Comments:

Shipped Via:

Received for TestAmerica by:	Date	Time	Temperature Upon Receipt:	Laboratory Comments:
	2/20/16	910		

Login Sample Receipt Checklist

Client: RDG Geoscience & Engineering

Job Number: 310-74789-1
SDG Number: Carter Lake, Iowa

Login Number: 74789
List Number: 1
Creator: Worthy, Ashley L

List Source: TestAmerica Cedar Falls

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	N/A	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	N/A	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	False	Containers recd broken. Sufficient sample in remaining containers for analysis.
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	True	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	

TestAmerica

THE LEADER IN ENVIRONMENTAL TESTING

ANALYTICAL REPORT

Job Number: 310-74789-1

SDG Number: Carter Lake, Iowa

Job Description: TSL Companies

For:
RDG Geoscience & Engineering
10360 Sapp Bros. Dr.
Omaha, NE 68138

Attention: Kris LeVier

Angela Muehling

Approved for release.
Angela C Muehling
Project Manager I
3/3/2016 9:36 AM

Angela C Muehling, Project Manager I
704 Enterprise Drive, Cedar Falls, IA, 50613
angela.muehling@testamericainc.com
03/03/2016

Table of Contents

Method OA1

Volatile Petroleum Hydrocarbons (GC) by Method OA1

TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27616.b\S01335.D
Lims ID: 310-74789-C-1 Lab Sample ID: 310-74789-1
Client ID: MW-1
Sample Type: Client
Inject. Date: 23-Feb-2016 10:54:53 ALS Bottle#: 0 Worklist Smp#: 12
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 310-0027616-012
Operator ID: cmm Instrument ID: Saffron

Method: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27616.b\SaffronWater.m
Limit Group: GCV OA1 ICAL
Last Update: 24-Feb-2016 10:46:21 Calib Date: 16-Feb-2016 19:51:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\CedarFalls\ChromData\Saffron\20160216-27482.b\S01191.D

Column 1 : Det: GC ELC2B
Column 2 : Det: GC FID1A
Process Host: XAWRK028

First Level Reviewer: meyerch Date: 24-Feb-2016 10:36:41

Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
3 Benzene						M
1	5.055	5.059	-0.004	786020	0.2375	M
6 Toluene						M
1	6.313	6.314	-0.001	892087	0.3040	M
12 Ethylbenzene						M
1	7.417	7.419	-0.002	647108	0.2627	M
2 m-Xylene & p-Xylene						M
1	7.586	7.589	-0.003	1585395	0.5879	M
4 o-Xylene						M
1	7.951	7.954	-0.003	637615	0.2514	M
$ 14 4-Bromofluorobenzene (Surr)						M
1	8.360	8.363	-0.003	71953043	19.4	M
S 15 Xylenes, Total						
1					0.8393	

QC Flag Legend

Review Flags
M - Manually Integrated

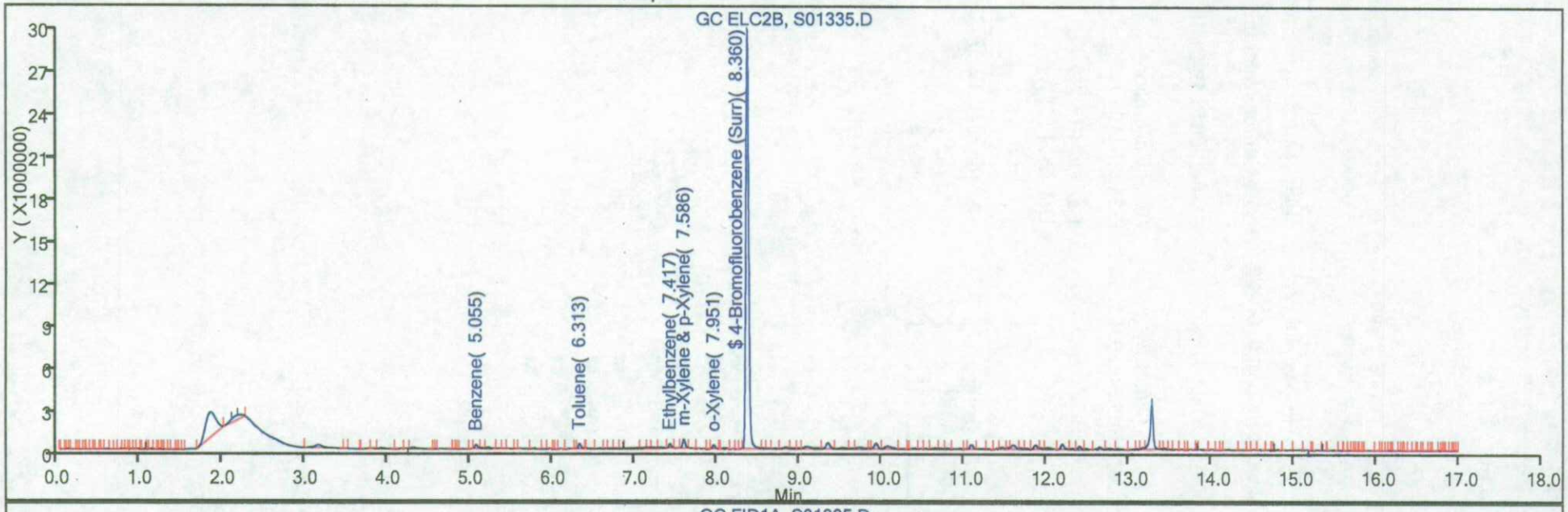
Reagents:

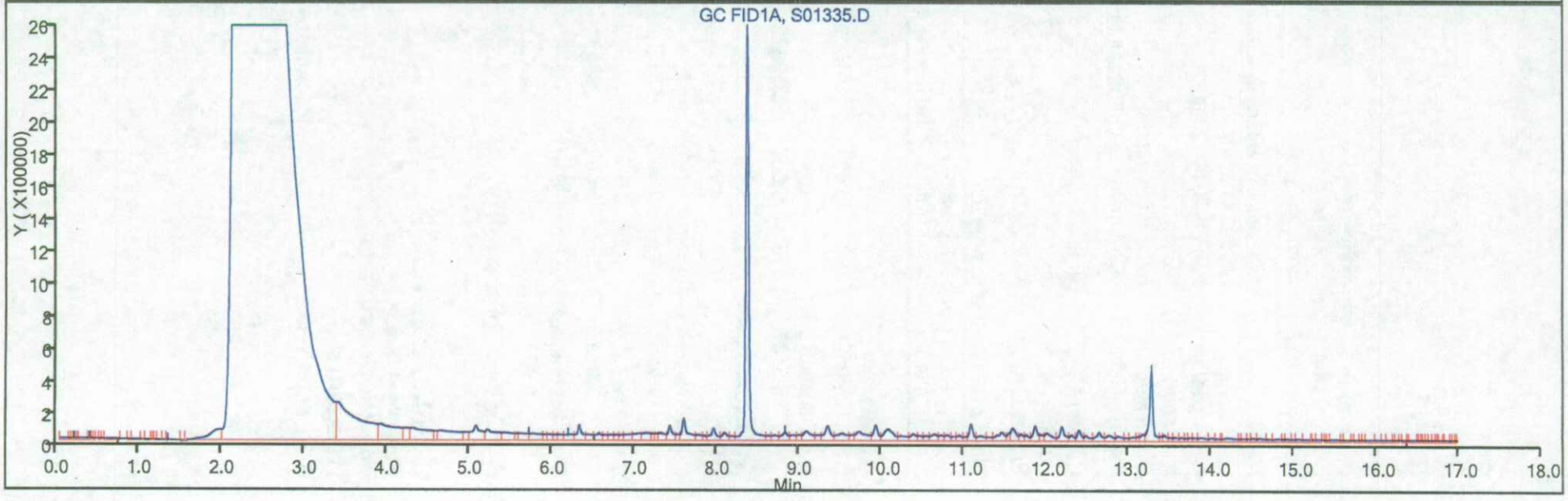
GV_I_BFB6_00002 Amount Added: 1.00 Units: uL Run Reagent

Report Date: 24-Feb-2016 10:47:14 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File:	\\ChromNA\CedarFalls\ChromData\Saffron\20160222-27616.b\S01335.D				
Injection Date:	23-Feb-2016 10:54:53	Instrument ID:	Saffron	Operator ID:	cmm
Lims ID:	310-74789-C-1	Lab Sample ID:	310-74789-1	Worklist Smp#:	12
Client ID:	MW-1				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SaffronWater	Limit Group:	GCV OA1 ICAL		





TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\S01314.D
Lims ID: 310-74789-C-2 Lab Sample ID: 310-74789-2
Client ID: MW-2
Sample Type: Client
Inject. Date: 22-Feb-2016 23:31:11 ALS Bottle#: 0 Worklist Smp#: 22
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 310-0027607-022
Operator ID: cmm Instrument ID: Saffron

Method: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\SaffronWater.m
Limit Group: GCV OA1 ICAL
Last Update: 23-Feb-2016 12:56:27 Calib Date: 16-Feb-2016 19:51:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\CedarFalls\ChromData\Saffron\20160216-27482.b\S01191.D

Column 1 : Det: GC ELC2B
Column 2 : Det: GC FID1A
Process Host: XAWRK018

First Level Reviewer: meyerch Date: 23-Feb-2016 12:47:52

Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
3 Benzene						M
1	5.055	5.062	-0.007	591008	0.1786	M
6 Toluene						M
1	6.313	6.315	-0.002	323675	0.1103	M
12 Ethylbenzene						M
1	7.417	7.421	-0.004	151272	0.0614	M
2 m-Xylene & p-Xylene						M
1	7.585	7.590	-0.005	656081	0.2433	M
4 o-Xylene						M
1	7.953	7.955	-0.002	288171	0.1136	M
$ 14 4-Bromofluorobenzene (Surr)						M
1	8.361	8.362	-0.001	70951175	19.1	M
S 15 Xylenes, Total						
1					0.3569	

QC Flag Legend

Review Flags
M - Manually Integrated

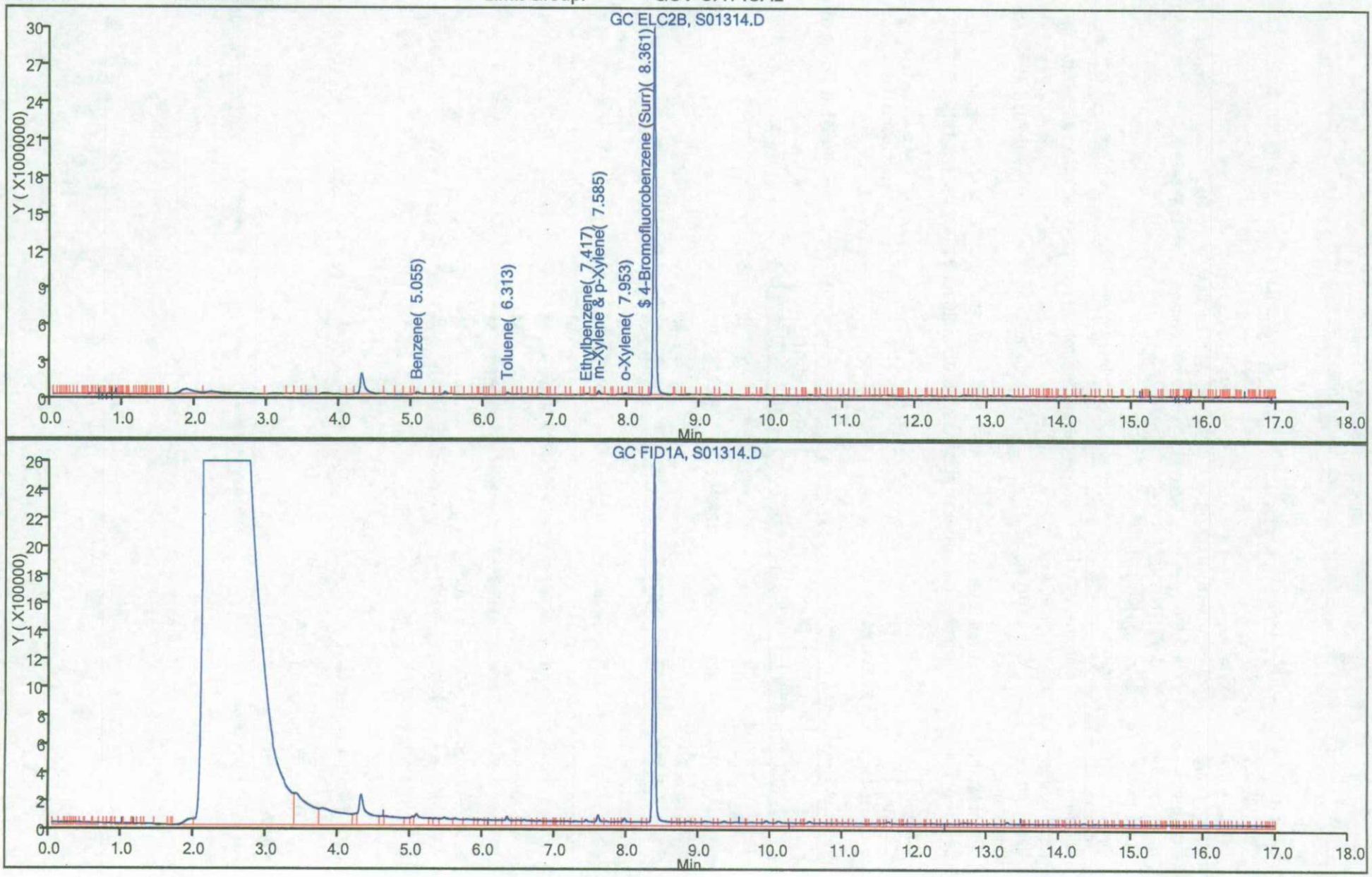
Reagents:

GV_I_BFB6_00002 Amount Added: 1.00 Units: uL Run Reagent

Report Date: 23-Feb-2016 12:57:07 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File:	\\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\S01314.D				
Injection Date:	22-Feb-2016 23:31:11	Instrument ID:	Saffron	Operator ID:	cmm
Lims ID:	310-74789-C-2	Lab Sample ID:	310-74789-2	Worklist Smp#:	22
Client ID:	MW-2				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SaffronWater	Limit Group:	GCV OA1 ICAL		



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\S01315.D
Lims ID: 310-74789-C-3 Lab Sample ID: 310-74789-3
Client ID: MW-3
Sample Type: Client
Inject. Date: 22-Feb-2016 23:59:08 ALS Bottle#: 0 Worklist Smp#: 23
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 310-0027607-023
Misc. Info.: 2-22-16 H20 TEST
Operator ID: cmm Instrument ID: Saffron

Method: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\SaffronWater.m
Limit Group: GCV OA1 ICAL
Last Update: 23-Feb-2016 12:56:27 Calib Date: 16-Feb-2016 19:51:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\CedarFalls\ChromData\Saffron\20160216-27482.b\S01191.D

Column 1 : Det: GC ELC2B
Column 2 : Det: GC FID1A
Process Host: XAWRK018

First Level Reviewer: meyerch Date: 23-Feb-2016 12:49:20

Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
3 Benzene						M
1	5.055	5.062	-0.007	1365014	0.4125	M
6 Toluene						M
1	6.313	6.315	-0.002	264786	0.0902	M
12 Ethylbenzene						M
1	7.418	7.421	-0.003	92315	0.0375	M
2 m-Xylene & p-Xylene						M
1	7.586	7.590	-0.004	291053	0.1079	M
4 o-Xylene						M
1	7.951	7.955	-0.004	97760	0.0386	M
$ 14 4-Bromofluorobenzene (Surr)						M
1	8.361	8.362	-0.001	70680461	19.0	M
S 15 Xylenes, Total						
1					0.1465	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

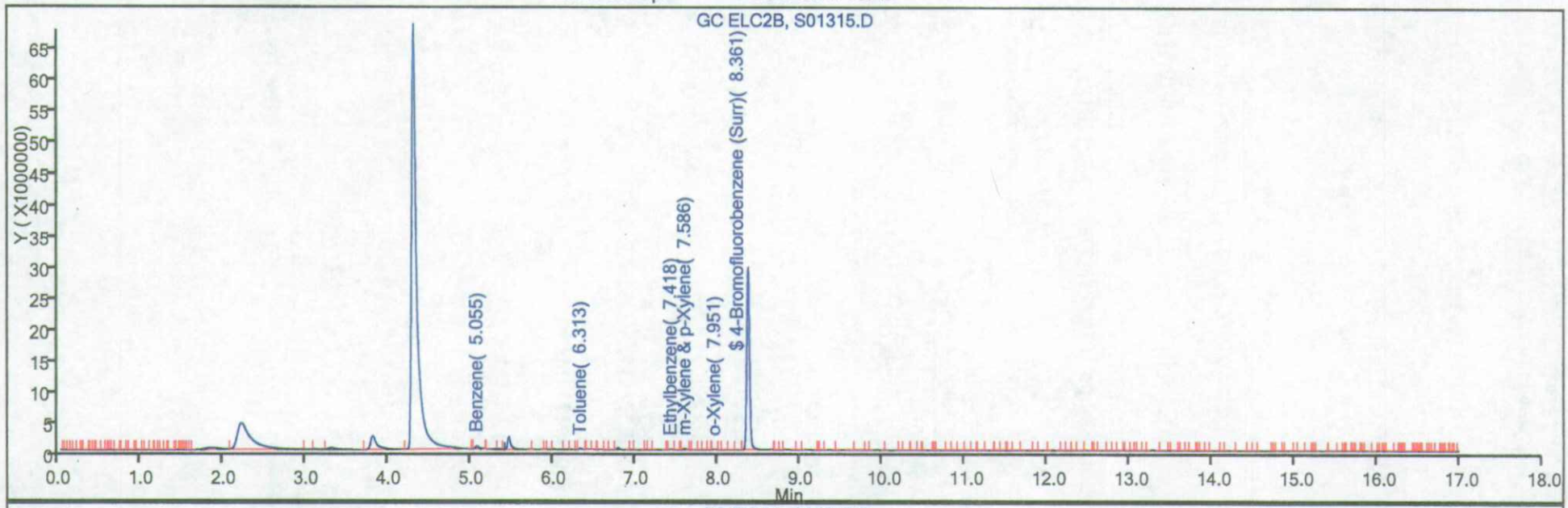
GV_I_BFB6_00002 Amount Added: 1.00 Units: uL Run Reagent

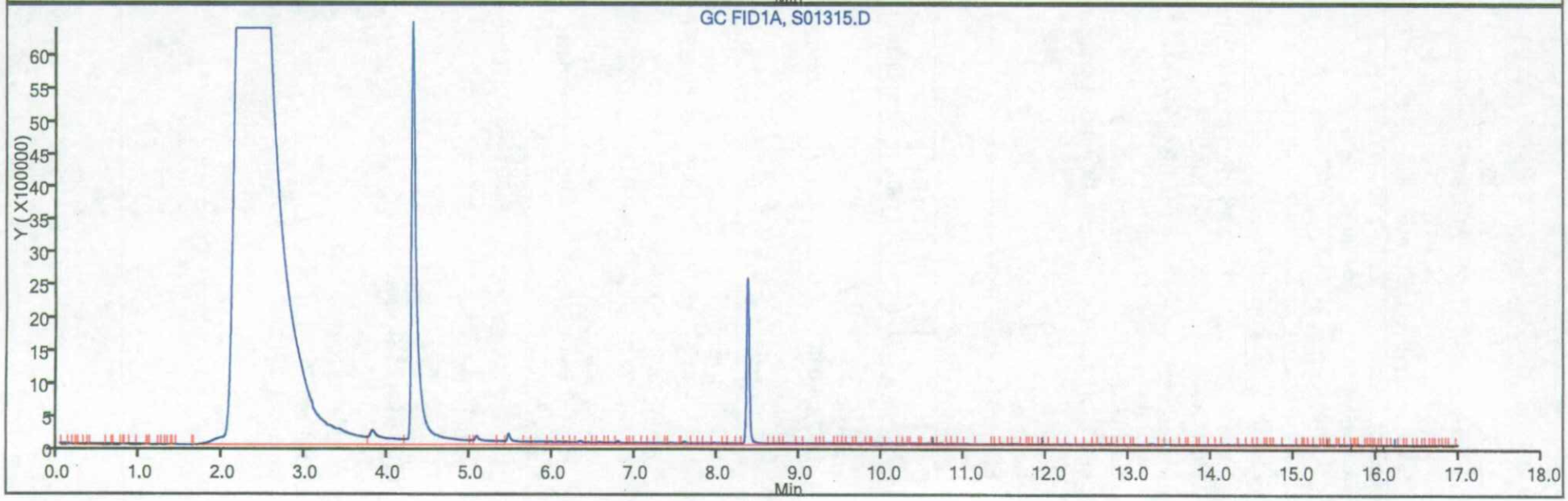
Report Date: 23-Feb-2016 12:57:09 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\S01315.D

Injection Date:	22-Feb-2016 23:59:08	Instrument ID:	Saffron	Operator ID:	cmm
Lims ID:	310-74789-C-3	Lab Sample ID:	310-74789-3	Worklist Smp#:	23
Client ID:	MW-3				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SaffronWater	Limit Group:	GCV OA1 ICAL		





TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\S01316.D
Lims ID: 310-74789-C-4 Lab Sample ID: 310-74789-4
Client ID: MW-4
Sample Type: Client
Inject. Date: 23-Feb-2016 00:27:11 ALS Bottle#: 0 Worklist Smp#: 24
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 310-0027607-024
Misc. Info.: 2-22-16 H20 TEST
Operator ID: cmm Instrument ID: Saffron

Method: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\SaffronWater.m
Limit Group: GCV OA1 ICAL
Last Update: 23-Feb-2016 12:56:27 Calib Date: 16-Feb-2016 19:51:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\CedarFalls\ChromData\Saffron\20160216-27482.b\S01191.D

Column 1 : Det: GC ELC2B
Column 2 : Det: GC FID1A
Process Host: XAWRK018

First Level Reviewer: meyerch Date: 23-Feb-2016 12:50:38

Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/l	Flags
3 Benzene						M
1	5.055	5.062	-0.007	222463	0.0672	M
6 Toluene						M
1	6.313	6.315	-0.002	214555	0.0731	M
12 Ethylbenzene						M
1	7.417	7.421	-0.004	80329	0.0326	M
2 m-Xylene & p-Xylene						M
1	7.587	7.590	-0.003	251395	0.0932	M
4 o-Xylene						M
1	7.954	7.955	-0.001	61648	0.0243	M
$ 14 4-Bromofluorobenzene (Surr)						M
1	8.360	8.362	-0.002	71310040	19.2	M
S 15 Xylenes, Total						
1					0.1175	

QC Flag Legend

Review Flags
M - Manually Integrated

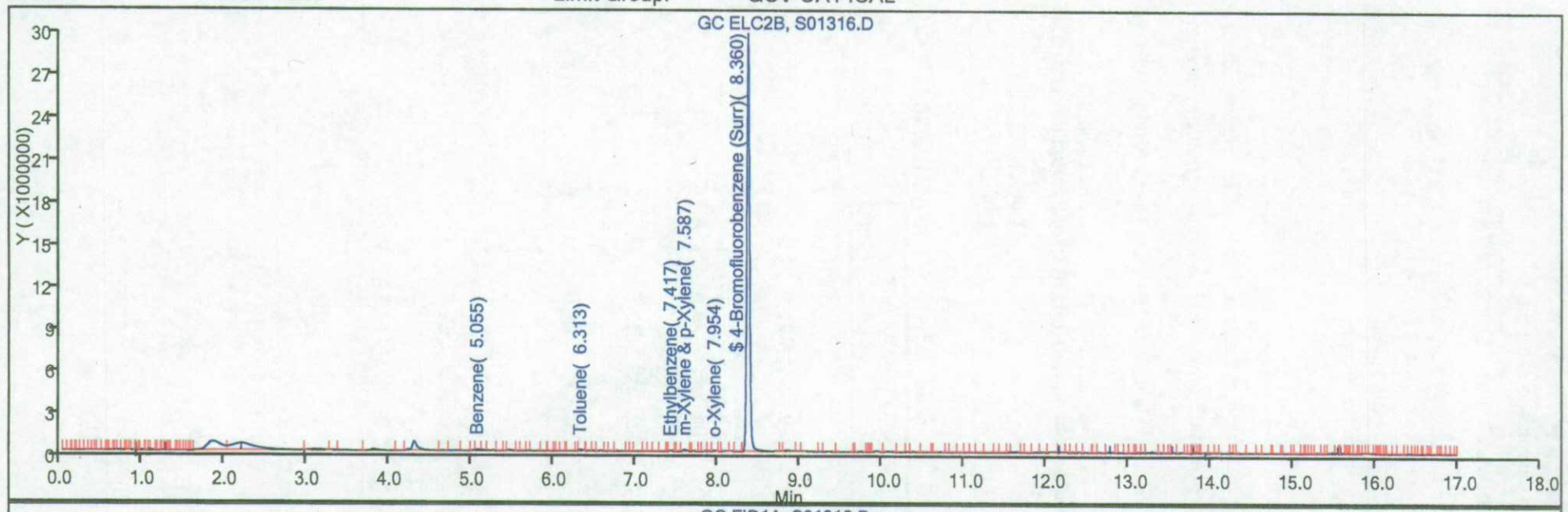
Reagents:

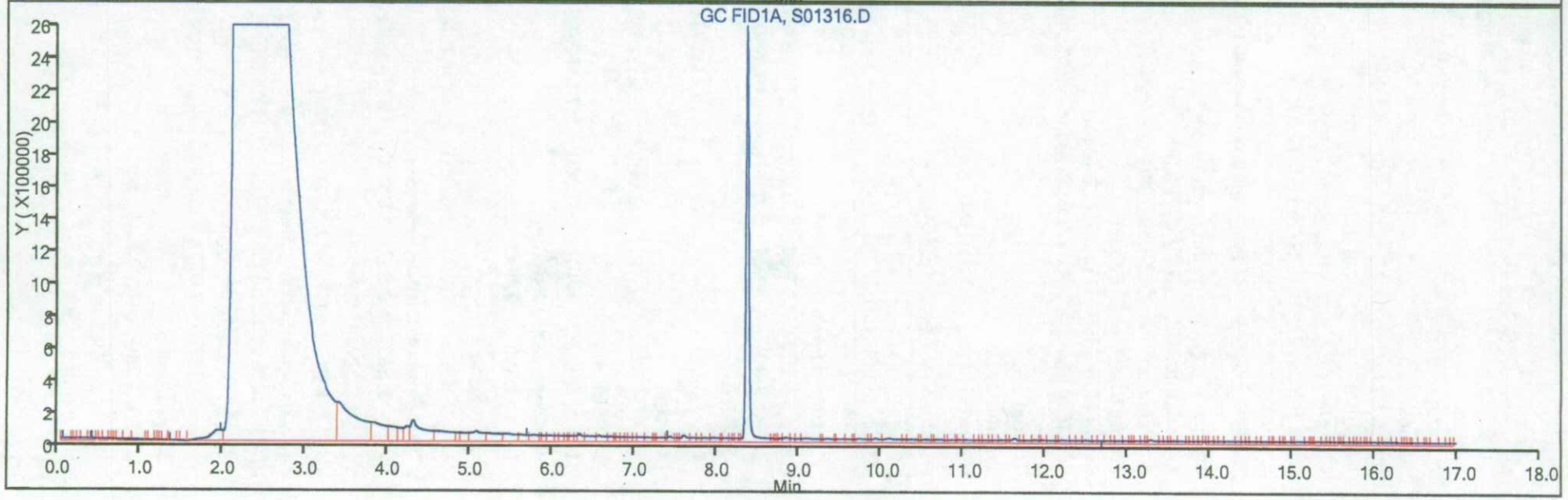
GV_I_BFB6_00002 Amount Added: 1.00 Units: uL Run Reagent

Report Date: 23-Feb-2016 12:57:10 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File:	\\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\S01316.D				
Injection Date:	23-Feb-2016 00:27:11	Instrument ID:	Saffron	Operator ID:	cmm
Lims ID:	310-74789-C-4	Lab Sample ID:	310-74789-4	Worklist Smp#:	24
Client ID:	MW-4				
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SaffronWater	Limit Group:	GCV OA1 ICAL		





TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\S01294.D
Lims ID: ccv
Client ID:
Sample Type: CCV
Inject. Date: 22-Feb-2016 14:10:09 ALS Bottle#: 0 Worklist Smp#: 2
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 310-0027607-002
Misc. Info.: 2-22-16 H20 TEST
Operator ID: cmm Instrument ID: Saffron
Sublist: chrom-SaffronWater*sub1

Method: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\SaffronWater.m
Limit Group: GCV OA1 ICAL
Last Update: 23-Feb-2016 12:56:27 Calib Date: 16-Feb-2016 19:51:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\CedarFalls\ChromData\Saffron\20160216-27482.b\S01191.D

Column 1 : Det: GC ELC2B
Column 2 : Det: GC FID1A
Process Host: XAWRK018

First Level Reviewer: meyerch Date: 23-Feb-2016 12:23:49

Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
11 Methyl tert-butyl ether							M
1	3.904	3.904	0.000	57136909	40.0	44.5	M
2	3.905	3.904	0.001	31996901			
3 Benzene							M
1	5.062	5.062	0.000	142042715	40.0	42.9	M
6 Toluene							M
1	6.315	6.315	0.000	125502689	40.0	42.8	M
12 Ethylbenzene							M
1	7.421	7.421	0.000	104870888	40.0	42.6	M
2 m-Xylene & p-Xylene							M
1	7.590	7.590	0.000	231604130	80.0	85.9	M
4 o-Xylene							M
1	7.955	7.955	0.000	108182850	40.0	42.7	M
$ 14 4-Bromofluorobenzene (Surr)							M
1	8.362	8.362	0.000	73653589	20.0	19.9	M
A 1 C6-C10 WI							
2	8.617	(3.804-13.390)		246136703	NC	NC	
9 1,3,5-Trimethylbenzene							
1	9.346	9.346	0.000	120234241	NC	NC	
5 1,2,4-Trimethylbenzene							
1	9.932	9.932	0.000	95954624	NC	NC	
8 Naphthalene							
1	13.290	13.290	0.000	67436695	NC	NC	
2	13.291	13.290	0.001	9687341			
S 15 Xylenes, Total							
1					120.0	128.5	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

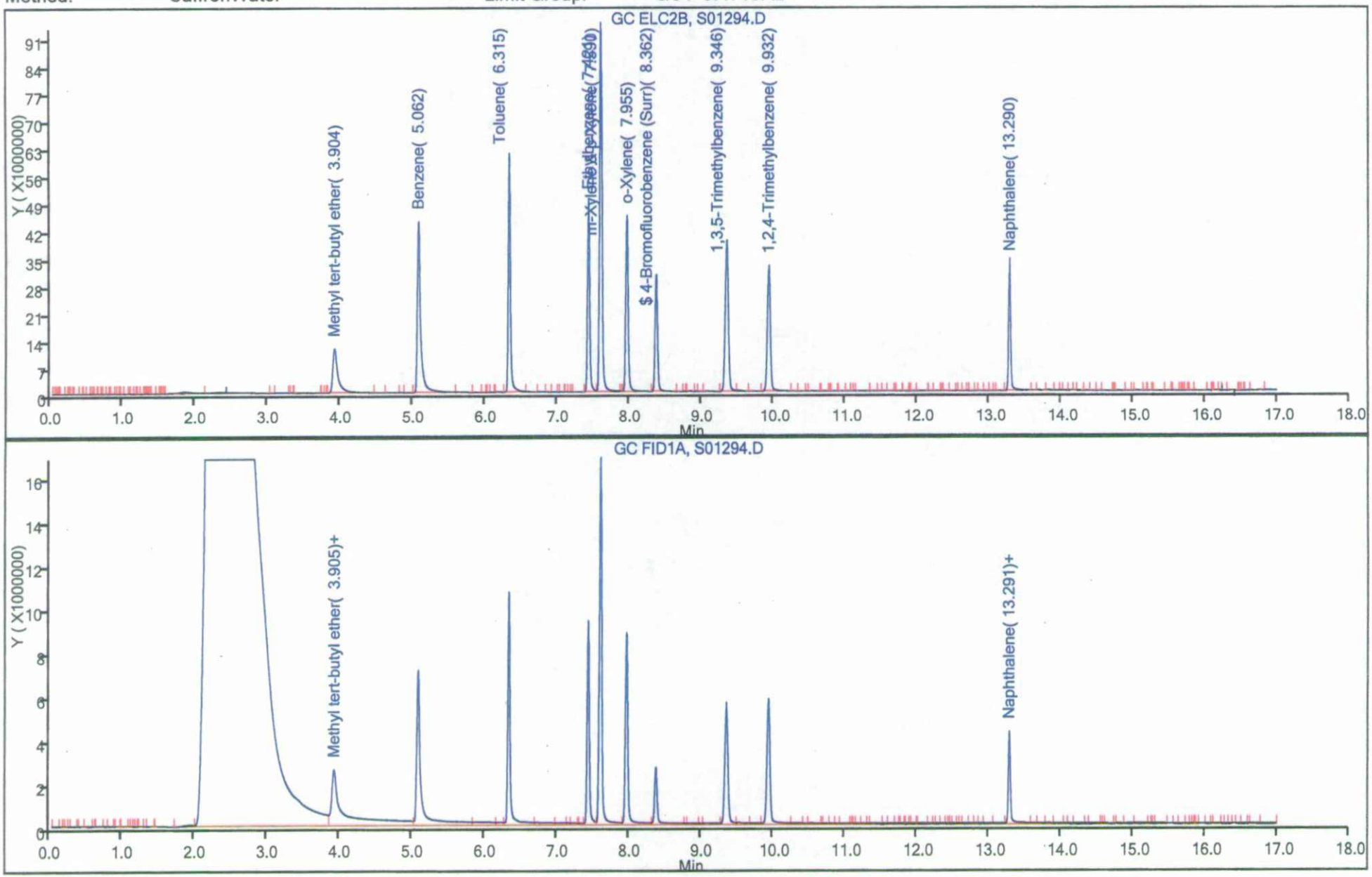
GV_I_WI CCV35_00001	Amount Added: 50.00	Units: uL	
GV_I_BFB6_00002	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 23-Feb-2016 12:56:29 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\S01294.D

Injection Date:	22-Feb-2016 14:10:09	Instrument ID:	Saffron	Operator ID:	cmm
Lims ID:	ccv			Worklist Smp#:	2
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SaffronWater	Limit Group:	GCV OA1 ICAL		



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\S01321.D
Lims ID: ccv btex
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2016 02:46:55 ALS Bottle#: 0 Worklist Smp#: 29
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 310-0027607-029
Operator ID: cmm Instrument ID: Saffron
Sublist: chrom-SaffronWater*sub1

Method: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\SaffronWater.m
Limit Group: GCV OA1 ICAL
Last Update: 23-Feb-2016 13:07:29 Calib Date: 16-Feb-2016 19:51:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\CedarFalls\ChromData\Saffron\20160216-27482.b\S01191.D

Column 1 : Det: GC ELC2B
Column 2 : Det: GC FID1A
Process Host: XAWRK018

First Level Reviewer: meyerch Date: 23-Feb-2016 12:56:01

Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
11 Methyl tert-butyl ether							M
1	3.904	3.904	0.000	57502575	40.0	44.8	M
2	3.903	3.904	-0.001	32312055			
3 Benzene							M
1	5.059	5.059	0.000	147511759	40.0	44.6	M
6 Toluene							M
1	6.314	6.314	0.000	129541035	40.0	44.1	M
12 Ethylbenzene							M
1	7.419	7.419	0.000	108480692	40.0	44.0	M
2 m-Xylene & p-Xylene							M
1	7.589	7.589	0.000	238826792	80.0	88.6	M
4 o-Xylene							M
1	7.954	7.954	0.000	111296978	40.0	43.9	M
$ 14 4-Bromofluorobenzene (Surr)							M
1	8.363	8.363	0.000	71252382	20.0	19.2	M
A 1 C6-C10 WI							
2	8.614	(3.804-13.390)		255921535	NC	NC	
9 1,3,5-Trimethylbenzene							
1	9.345	9.345	0.000	124215109	NC	NC	
5 1,2,4-Trimethylbenzene							
1	9.932	9.932	0.000	98710897	NC	NC	
8 Naphthalene							
1	13.290	13.290	0.000	75259594	NC	NC	
2	13.291	13.290	0.001	11615467			
S 15 Xylenes, Total							
1					120.0	132.4	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

GV_I_WI CCV35_00001	Amount Added: 50.00	Units: uL	
GV_I_BFB6_00002	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 23-Feb-2016 13:07:29 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\S01321.D

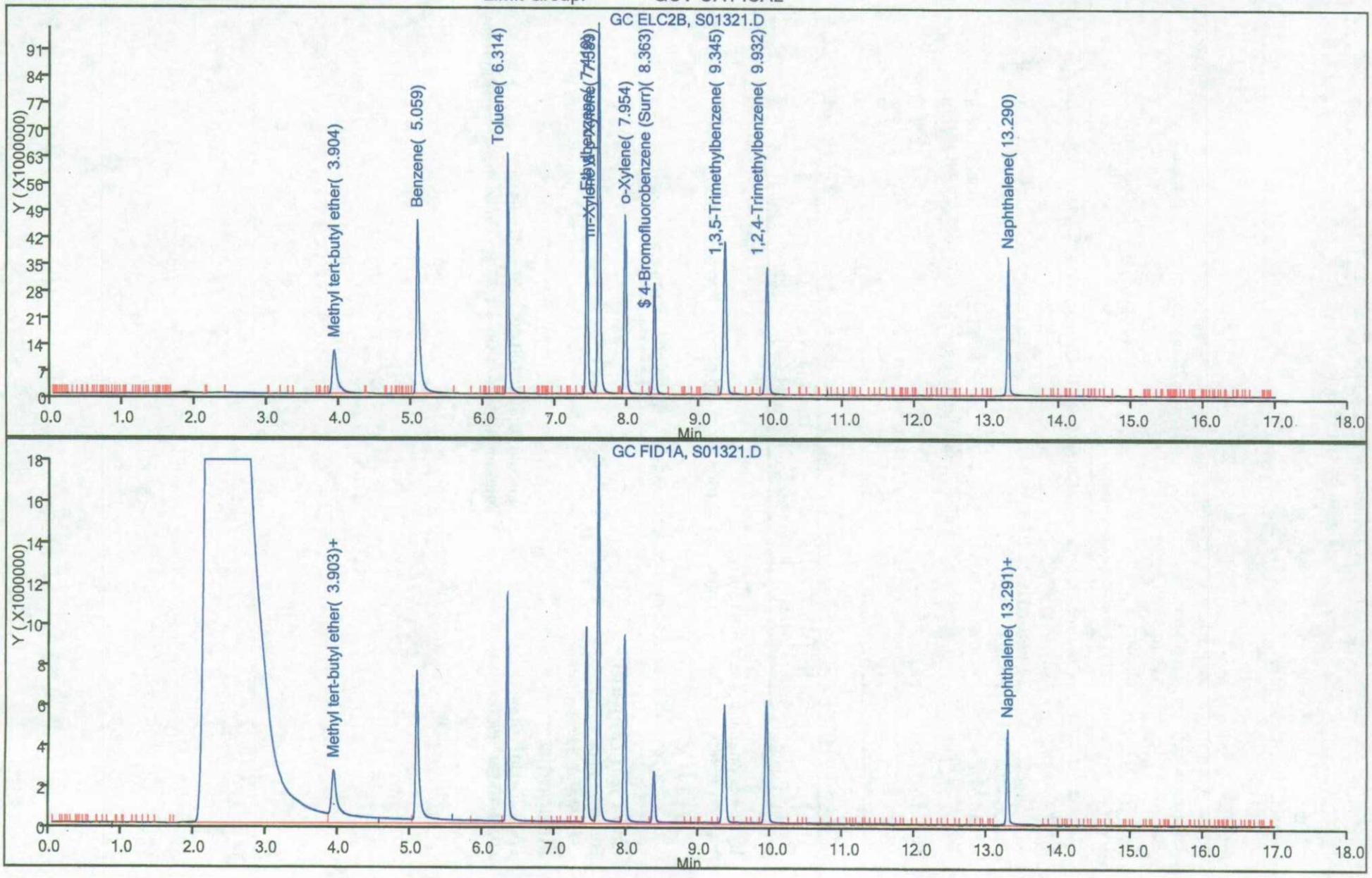
Injection Date: 23-Feb-2016 02:46:55 Instrument ID: Saffron Operator ID: cmm

Lims ID: ccv btex Worklist Smp#: 29

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 0

Method: SaffronWater Limit Group: GCV OA1 ICAL



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\S01322.D
Lims ID: ccv tph
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2016 03:14:54 ALS Bottle#: 0 Worklist Smp#: 30
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 310-0027607-030
Operator ID: cmm Instrument ID: Saffron
Sublist: chrom-SaffronWater*sub3

Method: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\SaffronWater.m
Limit Group: GCV OA1 ICAL
Last Update: 23-Feb-2016 13:07:31 Calib Date: 16-Feb-2016 19:51:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\CedarFalls\ChromData\Saffron\20160216-27482.b\S01191.D

Column 1 : Det: GC ELC2B
Column 2 : Det: GC FID1A
Process Host: XAWRK018

First Level Reviewer: meyerch Date: 23-Feb-2016 12:56:17

Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 14 4-Bromofluorobenzene (Surr)							M
1	8.362	8.363	-0.001	77046050	20.0	20.8	M
A 10 GRO							
2	8.745	(4.170-13.320)		585976569	2000.0	1997.2	

QC Flag Legend

Review Flags
M - Manually Integrated

Reagents:

GV_I_TPHn7_00001 Amount Added: 100.00 Units: uL
GV_I_BFB6_00002 Amount Added: 1.00 Units: uL Run Reagent

Report Date: 23-Feb-2016 13:07:32 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27607.b\S01322.D

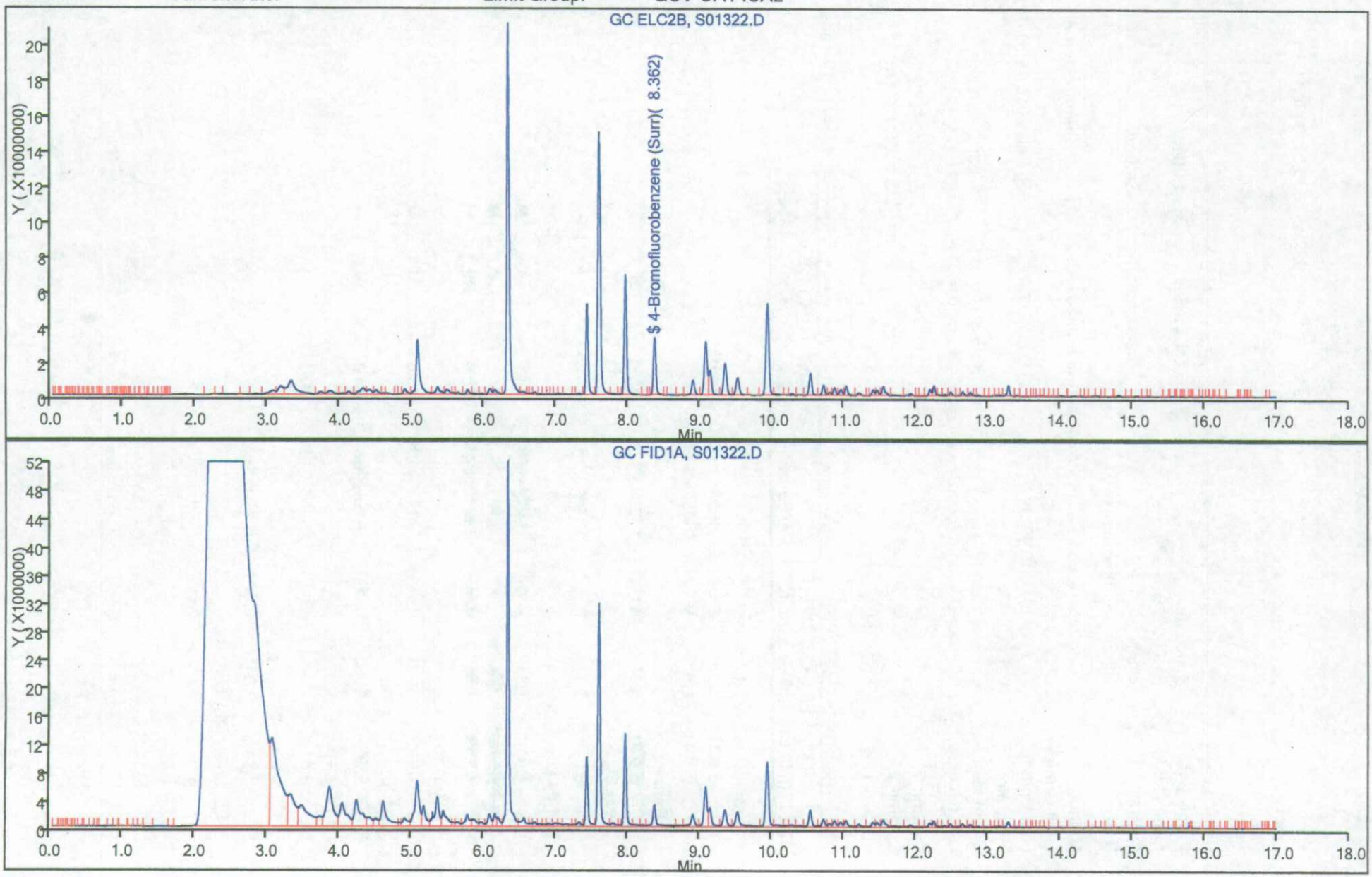
Injection Date: 23-Feb-2016 03:14:54 Instrument ID: Saffron Operator ID: cmm

Lims ID: ccv tph Worklist Smp#: 30

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 0

Method: SaffronWater Limit Group: GCV OA1 ICAL



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27616.b\S01343.D
Lims ID: ccv btex
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2016 16:36:58 ALS Bottle#: 0 Worklist Smp#: 20
Purge Vol: 5.000 mL Dil. Factor: 1.0000
Sample Info: 310-0027616-020
Operator ID: cmm Instrument ID: Saffron
Sublist: chrom-SaffronWater*sub1

Method: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27616.b\SaffronWater.m
Limit Group: GCV OA1 ICAL
Last Update: 24-Feb-2016 10:47:39 Calib Date: 16-Feb-2016 19:51:15
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\CedarFalls\ChromData\Saffron\20160216-27482.b\S01191.D

Column 1 : Det: GC ELC2B
Column 2 : Det: GC FID1A
Process Host: XAWRK028

First Level Reviewer: meyerch Date: 24-Feb-2016 10:46:02

Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
11 Methyl tert-butyl ether							
1	3.903	3.904	-0.001	56865758	40.0	44.3	
2	3.903	3.904	-0.001	30884560			
3 Benzene							M
1	5.060	5.059	0.001	147348748	40.0	44.5	M
6 Toluene							M
1	6.314	6.314	0.000	129684796	40.0	44.2	M
12 Ethylbenzene							M
1	7.419	7.419	0.000	108845350	40.0	44.2	M
2 m-Xylene & p-Xylene							M
1	7.589	7.589	0.000	239120349	80.0	88.7	M
4 o-Xylene							M
1	7.954	7.954	0.000	111301228	40.0	43.9	M
$ 14 4-Bromofluorobenzene (Surr)							M
1	8.363	8.363	0.000	70552068	20.0	19.0	M
A 1 C6-C10 WI							
2	8.614	(3.804-13.360)		253557996	NC	NC	
9 1,3,5-Trimethylbenzene							
1	9.344	9.345	-0.001	124745581	NC	NC	
5 1,2,4-Trimethylbenzene							
1	9.934	9.932	0.002	98991270	NC	NC	
8 Naphthalene							
1	13.289	13.290	-0.001	74763036	NC	NC	
2	13.291	13.290	0.001	11652982			
S 15 Xylenes, Total							
1					120.0	132.6	

QC Flag Legend

Processing Flags

NC - Not Calibrated

Review Flags

M - Manually Integrated

Reagents:

GV_I_WI CCV35_00001	Amount Added: 50.00	Units: uL	
GV_I_BFB6_00002	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 24-Feb-2016 10:47:40 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27616.b\S01343.D

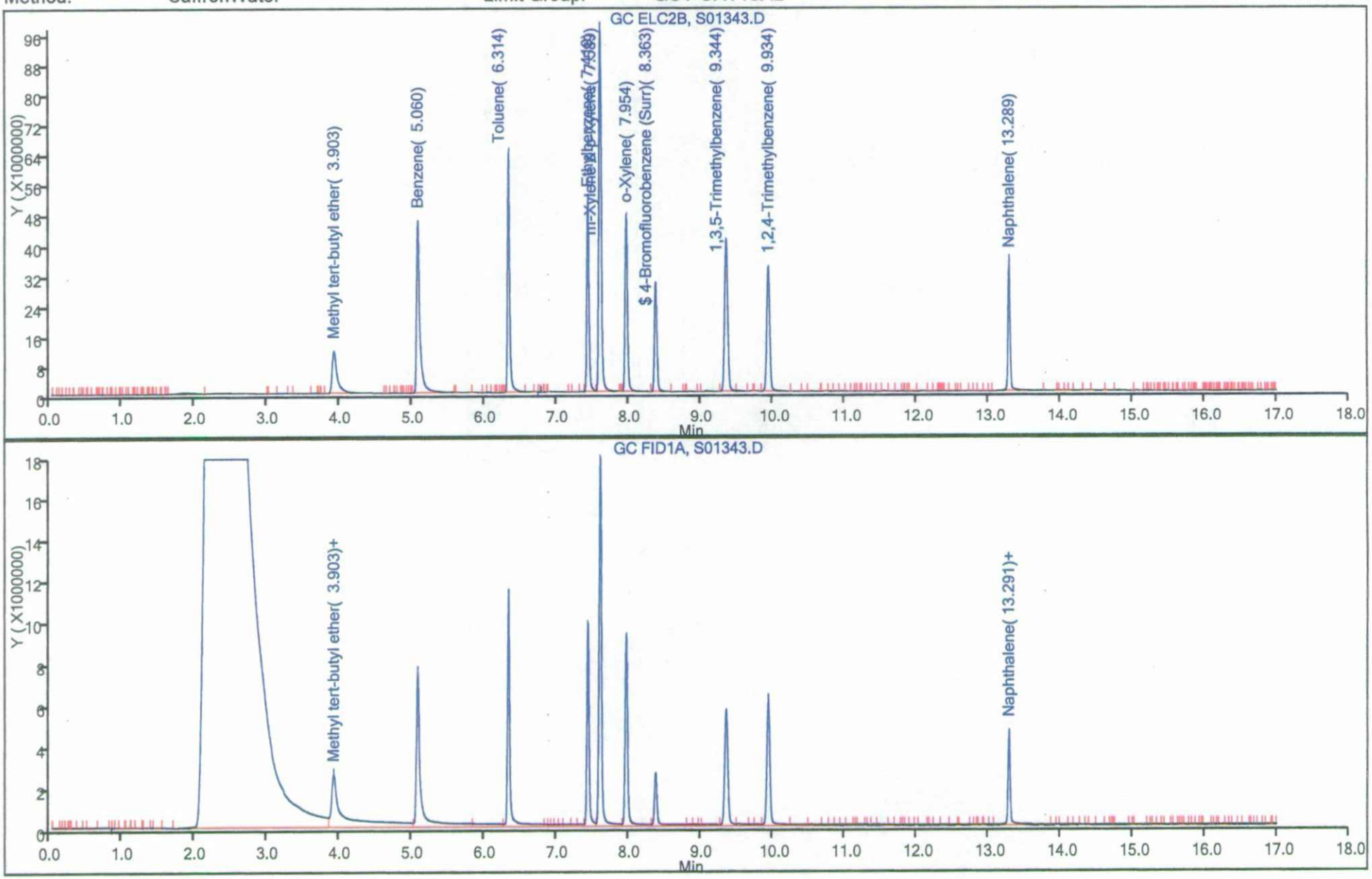
Injection Date: 23-Feb-2016 16:36:58 Instrument ID: Saffron Operator ID: cmm

Lims ID: ccv btex Worklist Smp#: 20

Client ID:

Purge Vol: 5.000 mL Dil. Factor: 1.0000 ALS Bottle#: 0

Method: SaffronWater Limit Group: GCV OA1 ICAL



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File:	\\ChromNA\CedarFalls\ChromData\Saffron\20160222-27616.b\S01344.D			
Lims ID:	ccv tph			
Client ID:				
Sample Type:	CCV			
Inject. Date:	23-Feb-2016 17:04:53	ALS Bottle#:	0	Worklist Smp#: 21
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	
Sample Info:	310-0027616-021			
Operator ID:	cmm	Instrument ID:	Saffron	
Sublist:	chrom-SaffronWater*sub3			
Method:	\\ChromNA\CedarFalls\ChromData\Saffron\20160222-27616.b\SaffronWater.m			
Limit Group:	GCV OA1 ICAL			
Last Update:	24-Feb-2016 10:47:43	Calib Date:	16-Feb-2016 19:51:15	
Integrator:	Falcon			
Quant Method:	External Standard	Quant By:	Initial Calibration	
Last ICal File:	\\ChromNA\CedarFalls\ChromData\Saffron\20160216-27482.b\S01191.D			
Column 1 :			Det: GC ELC2B	
Column 2 :			Det: GC FID1A	
Process Host:	XAWRK028			

First Level Reviewer: meyerch Date: 24-Feb-2016 10:46:21

Det	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/l	OnCol Amt ug/l	Flags
$ 14 4-Bromofluorobenzene (Surr)							M
1	8.362	8.363	-0.001	76924606	20.0	20.7	M
A 10 GRO							
2	8.744	(4.175-13.320)		598510118	2000.0	2042.1	

QC Flag Legend

Review Flags

M - Manually Integrated

Reagents:

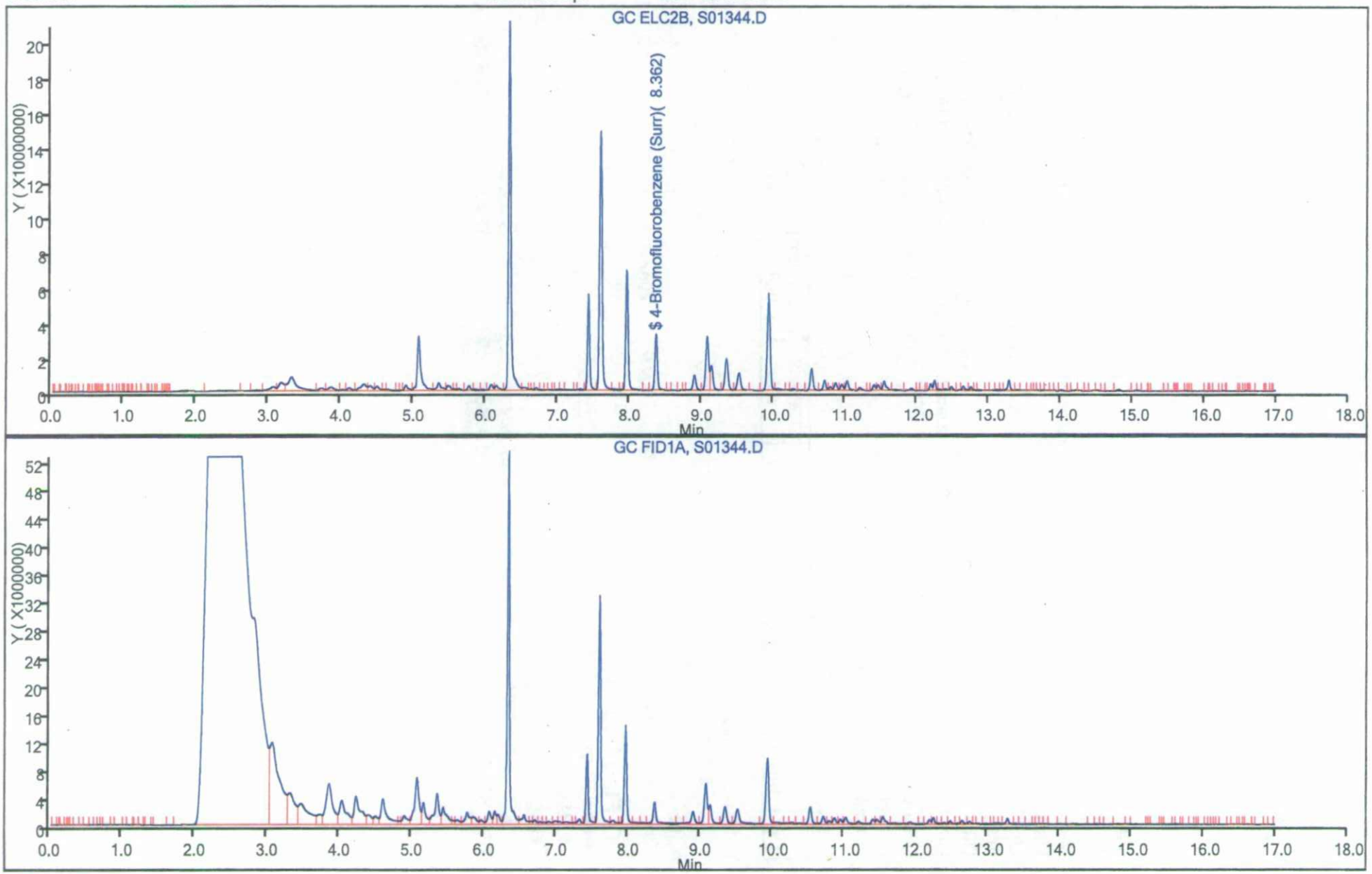
GV_I_TPHn7_00001	Amount Added: 100.00	Units: uL	
GV_I_BFB6_00002	Amount Added: 1.00	Units: uL	Run Reagent

Report Date: 24-Feb-2016 10:47:43 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\ChromNA\CedarFalls\ChromData\Saffron\20160222-27616.b\S01344.D

Injection Date:	23-Feb-2016 17:04:53	Instrument ID:	Saffron	Operator ID:	cmm
Lims ID:	ccv tph			Worklist Smp#:	21
Client ID:					
Purge Vol:	5.000 mL	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	SaffronWater	Limit Group:	GCV OA1 ICAL		



Method OA2

Iowa - Extractable Petroleum Hydrocarbons (GC) by Method OA2

TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File:	\\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_009dat-Back Signal.d				
Lims ID:	310-74789-A-1-A	Lab Sample ID:	310-74789-1		
Client ID:	MW-1				
Sample Type:	Client				
Inject. Date:	23-Feb-2016 14:43:00	ALS Bottle#:	0	Worklist Smp#:	9
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	310-0027639-009				
Misc. Info.:	310-0027639-009				
Operator ID:	System	Instrument ID:	Ivy-R		
Method:	\\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\IvyRear.m				
Limit Group:	GC OA2 ICAL				
Last Update:	24-Feb-2016 09:45:15	Calib Date:	18-Jan-2016 22:58:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\cedarfalls\ChromData\Ivy-R\20160118-27082.b\011816_IVYREAR_057dat-Back Signal.d				
Column 1 :			Det: 060815_BATMANBACK_002dat-BatmanL		
Process Host:	XAWRK009				

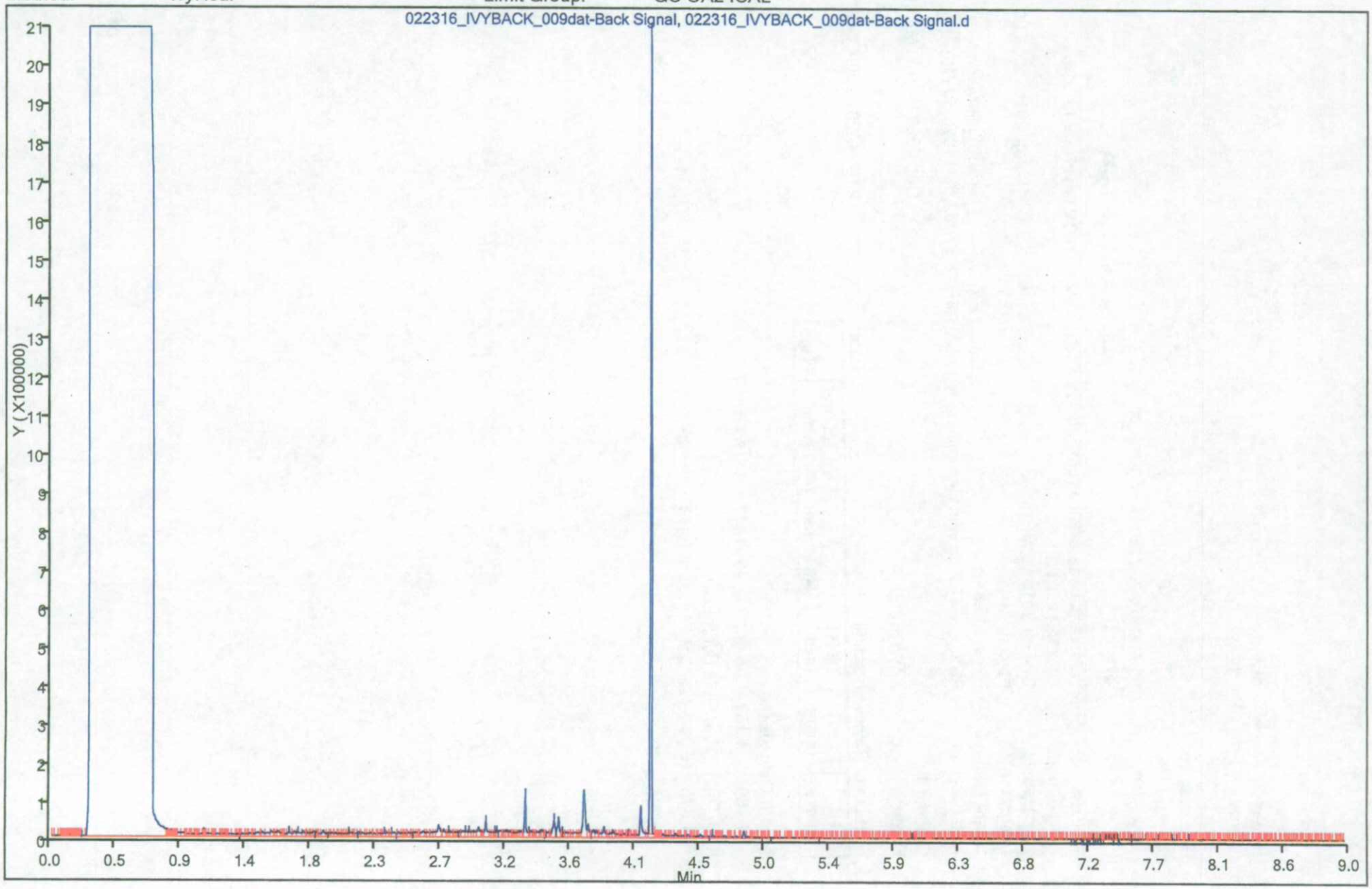
First Level Reviewer: scarfll Date: 24-Feb-2016 09:37:37

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
$ 11 n-Octacosane					
4.161	4.161	0.000	1249824	52.2	
A 7 Total Extractable Hydrocarbons					
4.375	(0.750-8.000)		3128262	75.6	

Report Date: 24-Feb-2016 09:45:25 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File:	\\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_009dat-Back Signal.d				
Injection Date:	23-Feb-2016 14:43:00	Instrument ID:	Ivy-R	Operator ID:	System
Lims ID:	310-74789-A-1-A	Lab Sample ID:	310-74789-1	Worklist Smp#:	9
Client ID:	MW-1				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IvyRear	Limit Group:	GC OA2 ICAL		



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_010dat-Back Signal.d
Lims ID: 310-74789-A-2-A Lab Sample ID: 310-74789-2
Client ID: MW-2
Sample Type: Client
Inject. Date: 23-Feb-2016 14:58:00 ALS Bottle#: 0 Worklist Smp#: 10
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 310-0027639-010
Misc. Info.: 310-0027639-010
Operator ID: System Instrument ID: Ivy-R

Method: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\IvyRear.m
Limit Group: GC OA2 ICAL
Last Update: 24-Feb-2016 09:45:15 Calib Date: 18-Jan-2016 22:58:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\cedarfalls\ChromData\Ivy-R\20160118-27082.b\011816_IVYREAR_057dat-Back Signal.d

Column 1 : Det: 060815_BATMANBACK_002dat-BatmanBa
Process Host: XAWRK009

First Level Reviewer: scarfll Date: 24-Feb-2016 09:41:18

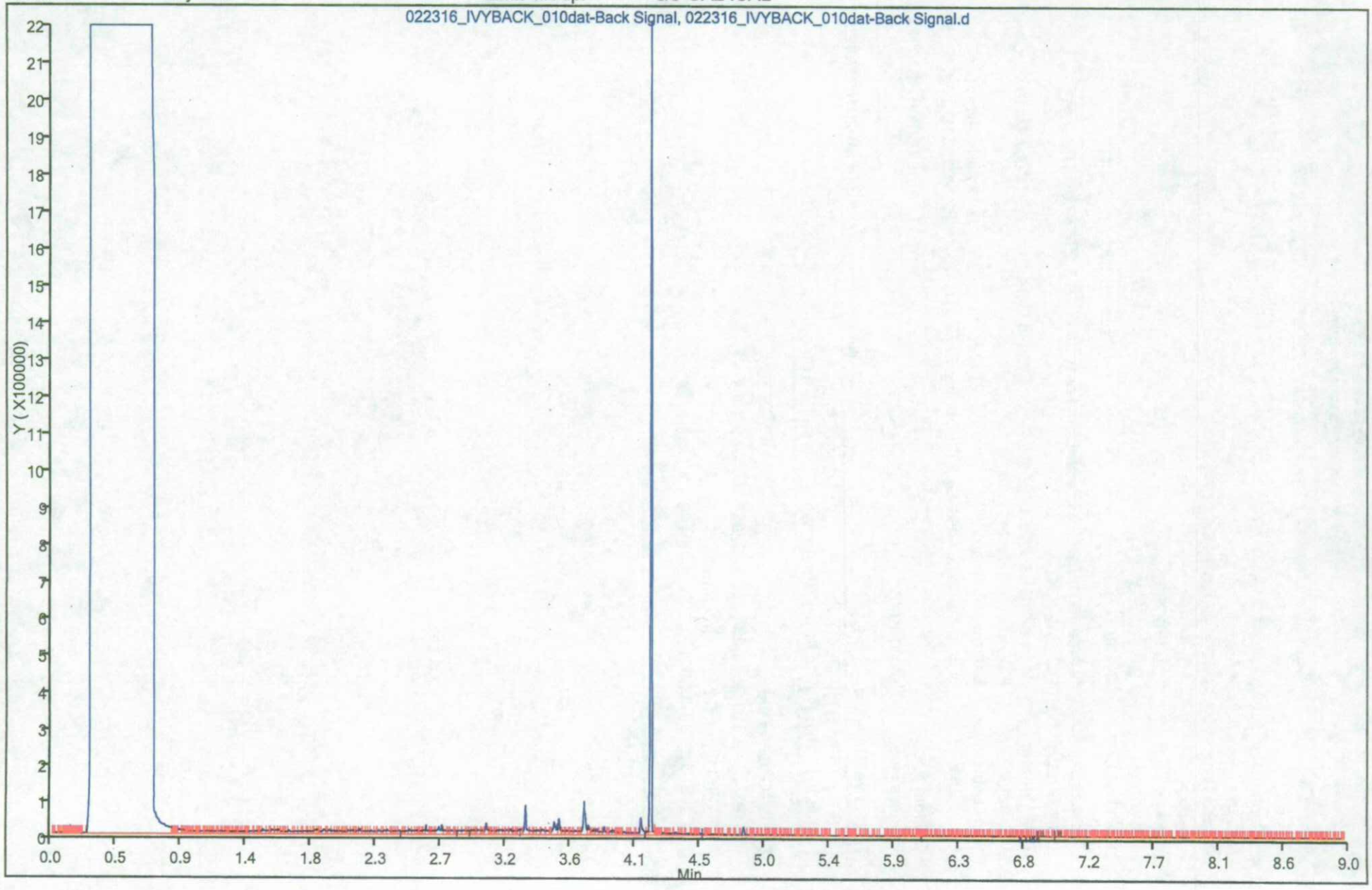
RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
$ 11 n-Octacosane					
4.159	4.161	-0.002	1267847	53.0	
A 7 Total Extractable Hydrocarbons					
4.375	(0.750-8.000)		2400919	46.1	

Report Date: 24-Feb-2016 09:45:28 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_010dat-Back Signal.d

Injection Date:	23-Feb-2016 14:58:00	Instrument ID:	Ivy-R	Operator ID:	System
Lims ID:	310-74789-A-2-A	Lab Sample ID:	310-74789-2	Worklist Smp#:	10
Client ID:	MW-2				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IvyRear	Limit Group:	GC OA2 ICAL		



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File:	\\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_011dat-Back Signal.d				
Lims ID:	310-74789-A-3-A	Lab Sample ID:	310-74789-3		
Client ID:	MW-3				
Sample Type:	Client				
Inject. Date:	23-Feb-2016 15:14:00	ALS Bottle#:	0	Worklist Smp#:	11
Injection Vol:	1.0 ul	Dil. Factor:	1.0000		
Sample Info:	310-0027639-011				
Misc. Info.:	310-0027639-011				
Operator ID:	System	Instrument ID:	Ivy-R		
Method:	\\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\IvyRear.m				
Limit Group:	GC OA2 ICAL				
Last Update:	24-Feb-2016 09:45:15	Calib Date:	18-Jan-2016 22:58:00		
Integrator:	Falcon				
Quant Method:	External Standard	Quant By:	Initial Calibration		
Last ICal File:	\\ChromNA\cedarfalls\ChromData\Ivy-R\20160118-27082.b\011816_IVYREAR_057dat-Back Signal.d				
Column 1 :			Det: 060815_BATMANBACK_002dat-BatmanL		
Process Host:	XAWRK009				
First Level Reviewer: scarfil		Date:	24-Feb-2016 09:42:58		

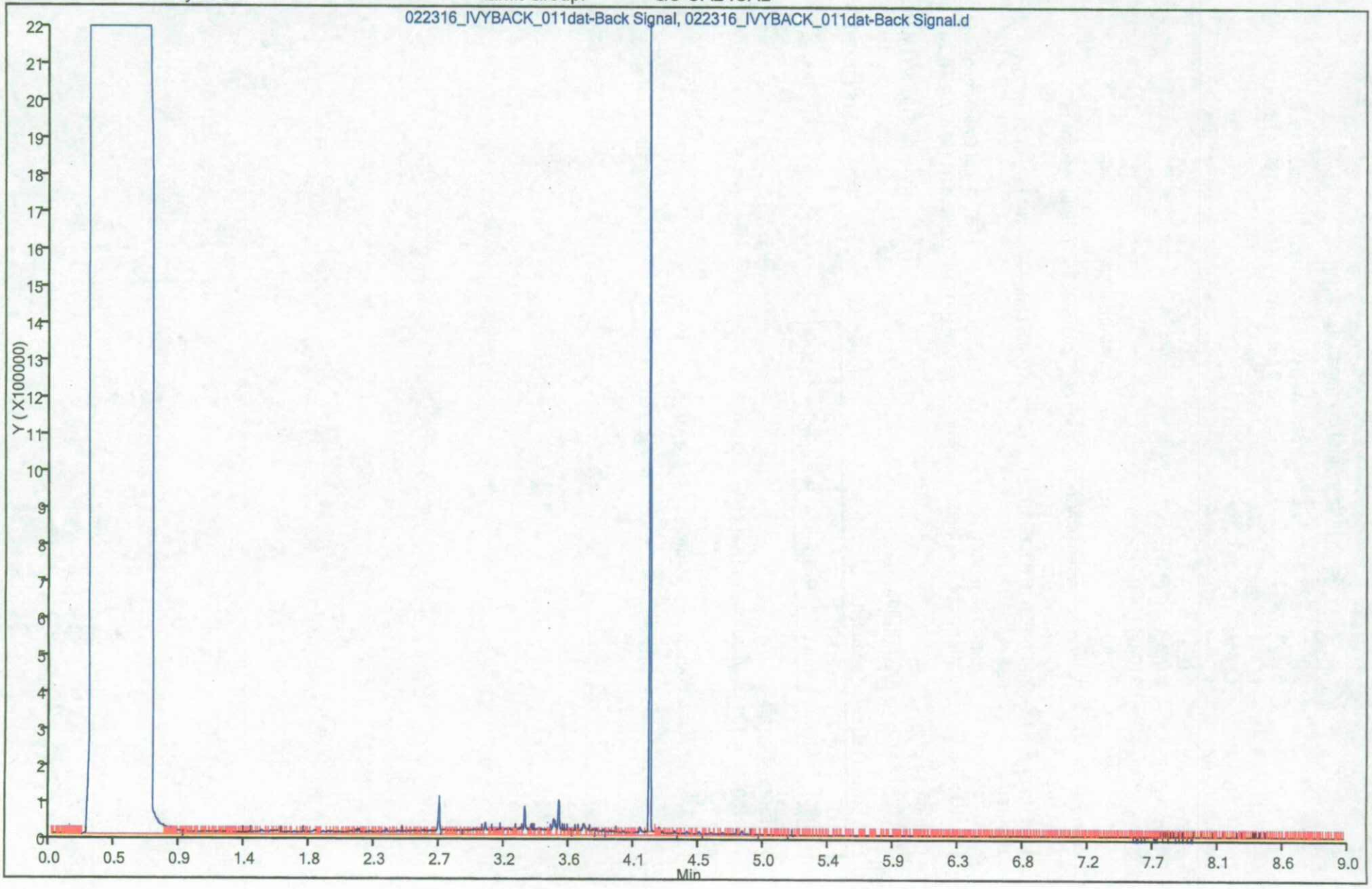
	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
$	11 n-Octacosane					
	4.157	4.161	-0.004	1262661	52.7	
A	7 Total Extractable Hydrocarbons					
	4.375	(0.750-8.000)		2886186	65.7	

Report Date: 24-Feb-2016 09:45:31 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_011dat-Back Signal.d

Injection Date:	23-Feb-2016 15:14:00	Instrument ID:	Ivy-R	Operator ID:	System
Lims ID:	310-74789-A-3-A	Lab Sample ID:	310-74789-3	Worklist Smp#:	11
Client ID:	MW-3				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IvyRear	Limit Group:	GC OA2 ICAL		



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_012dat-Back Signal.d
Lims ID: 310-74789-A-4-A Lab Sample ID: 310-74789-4
Client ID: MW-4
Sample Type: Client
Inject. Date: 23-Feb-2016 15:29:00 ALS Bottle#: 0 Worklist Smp#: 12
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 310-0027639-012
Misc. Info.: 310-0027639-012
Operator ID: System Instrument ID: Ivy-R

Method: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\IvyRear.m
Limit Group: GC OA2 ICAL
Last Update: 24-Feb-2016 09:45:15 Calib Date: 18-Jan-2016 22:58:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\cedarfalls\ChromData\Ivy-R\20160118-27082.b\011816_IVYREAR_057dat-Back Signal.d

Column 1 : Det: 060815_BATMANBACK_002dat-Batmanba
Process Host: XAWRK009

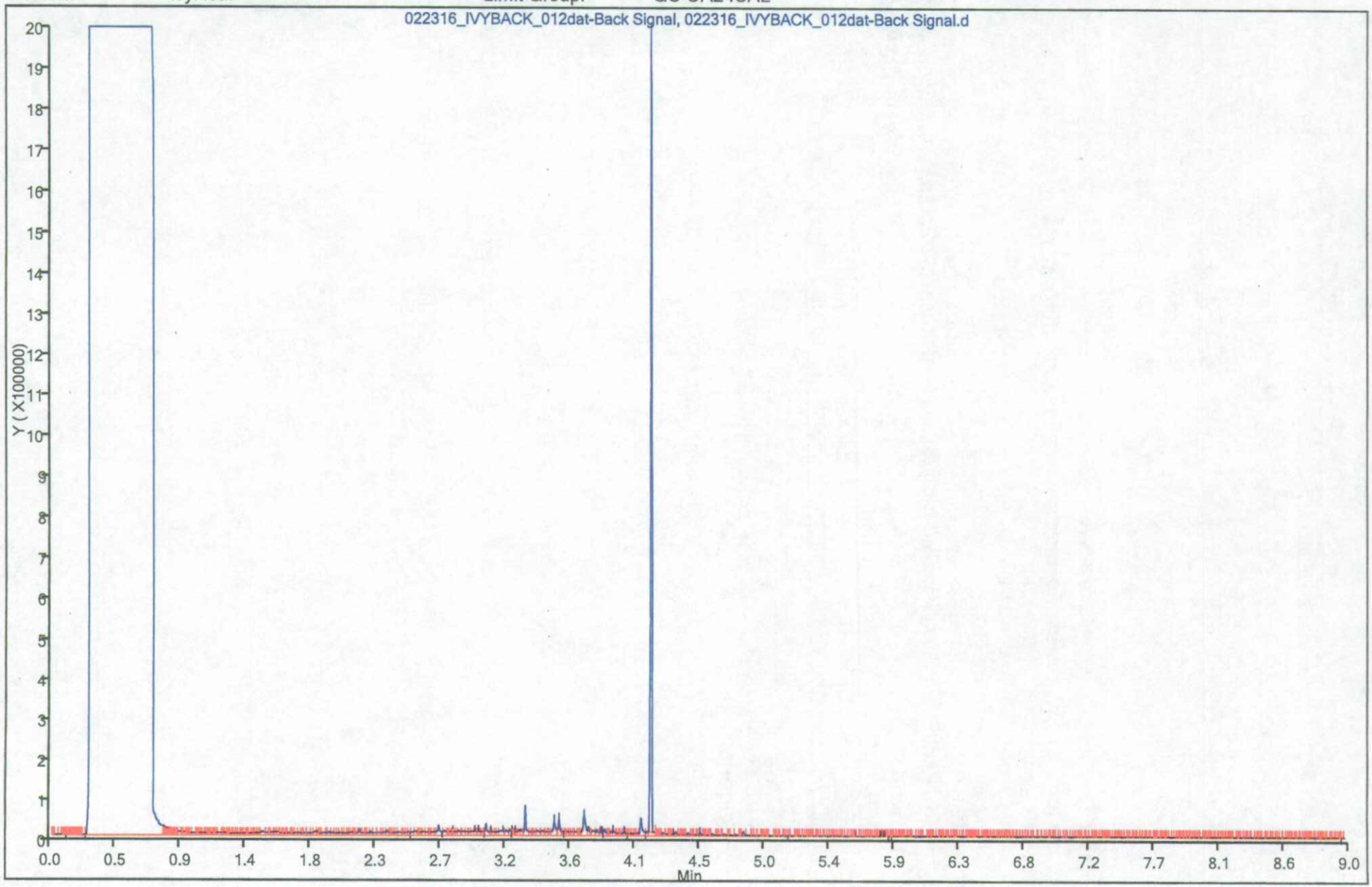
First Level Reviewer: scarfll Date: 24-Feb-2016 09:43:15

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	OnCol Amt ug/ml	Flags
$ 11 n-Octacosane					
4.160	4.161	-0.001	1194181	49.9	
A 7 Total Extractable Hydrocarbons					
4.375	(0.750-8.000)		2488936	49.6	

Report Date: 24-Feb-2016 09:45:34 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File:	\\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_012dat-Back Signal.d				
Injection Date:	23-Feb-2016 15:29:00	Instrument ID:	Ivy-R	Operator ID:	System
Lims ID:	310-74789-A-4-A	Lab Sample ID:	310-74789-4	Worklist Smp#:	12
Client ID:	MW-4				
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IvyRear	Limit Group:	GC OA2 ICAL		



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_002dat-Back Signal.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2016 11:30:00 ALS Bottle#: 0 Worklist Smp#: 2
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: M CCV
Misc. Info.: M CCV
Operator ID: System Instrument ID: Ivy-R
Sublist: chrom-IvyRear*sub3

Method: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\IvyRear.m
Limit Group: GC OA2 ICAL
Last Update: 24-Feb-2016 09:45:15 Calib Date: 18-Jan-2016 22:58:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\cedarfalls\ChromData\Ivy-R\20160118-27082.b\011816_IVYREAR_057dat-Back Signal.d

Column 1 : Det: 060815_BATMANBACK_002dat-BatmanB
Process Host: XAWRK009

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 19 Motor Oil						
4.500	(3.000-6.000)		148924446	5000.0	5672.0	

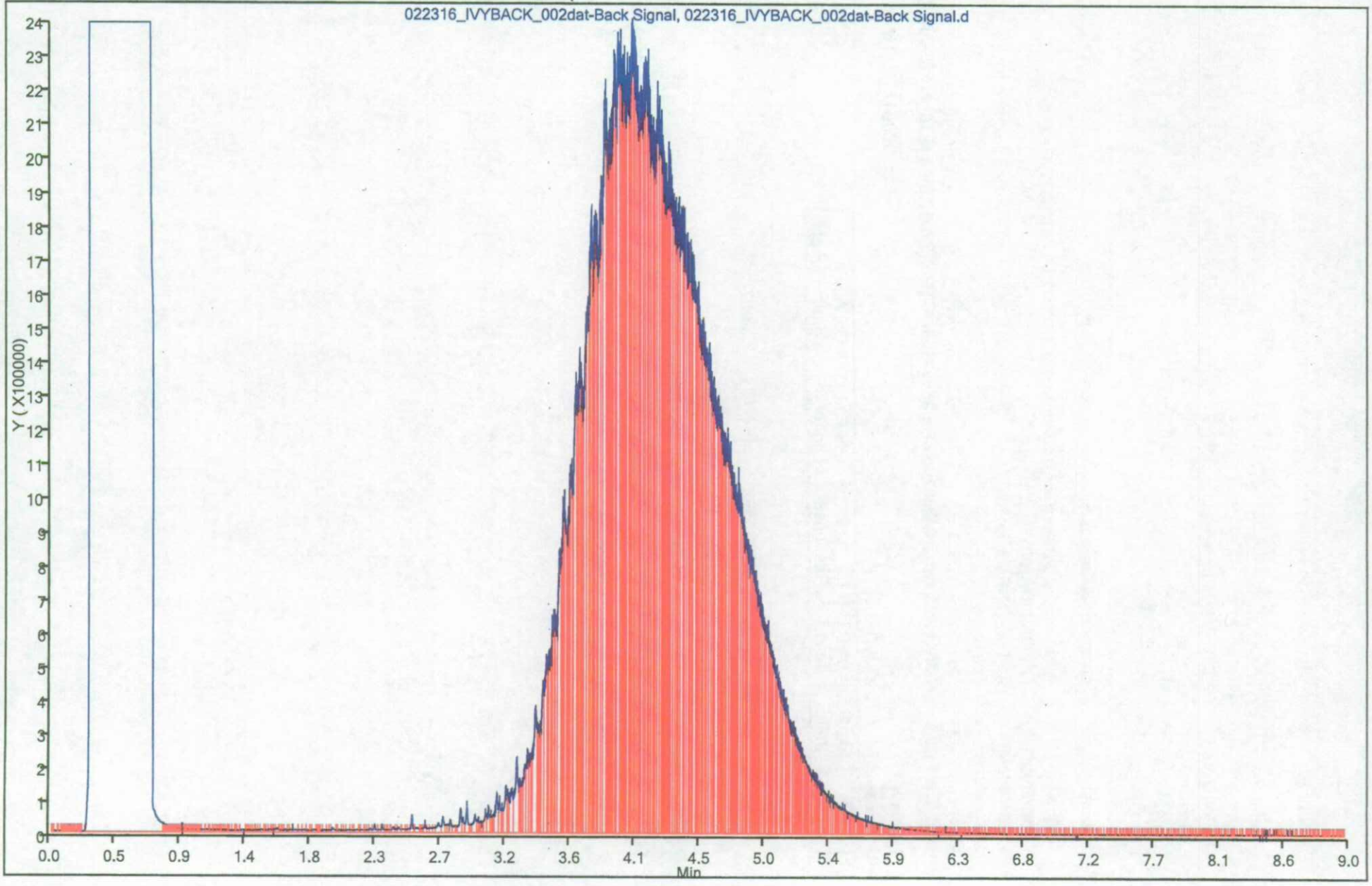
Reagents:

GE_CL_CCV_00024 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2016 09:45:16 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File:	\\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_002dat-Back Signal.d				
Injection Date:	23-Feb-2016 11:30:00	Instrument ID:	Ivy-R	Operator ID:	System
Lims ID:	CCV			Worklist Smp#:	2
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IvyRear	Limit Group:	GC OA2 ICAL		



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_003dat-Back Signal.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2016 11:51:00 ALS Bottle#: 0 Worklist Smp#: 3
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: D CCV
Misc. Info.: D CCV
Operator ID: System Instrument ID: Ivy-R
Sublist: chrom-IvyRear*sub2

Method: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\IvyRear.m
Limit Group: GC OA2 ICAL
Last Update: 24-Feb-2016 09:45:13 Calib Date: 18-Jan-2016 22:58:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\cedarfalls\ChromData\Ivy-R\20160118-27082.b\011816_IVYREAR_057dat-Back Signal.d

Column 1 : Det: 060815_BATMANBACK_002dat-BatmanBa
Process Host: XAWRK009

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 1 Diesel						
2.862	(1.300-4.423)		129369392	5000.0	5388.7	
A 7 Total Extractable Hydrocarbons						
4.375	(0.750-8.000)		133888024	5000.0	5377.9	

Reagents:

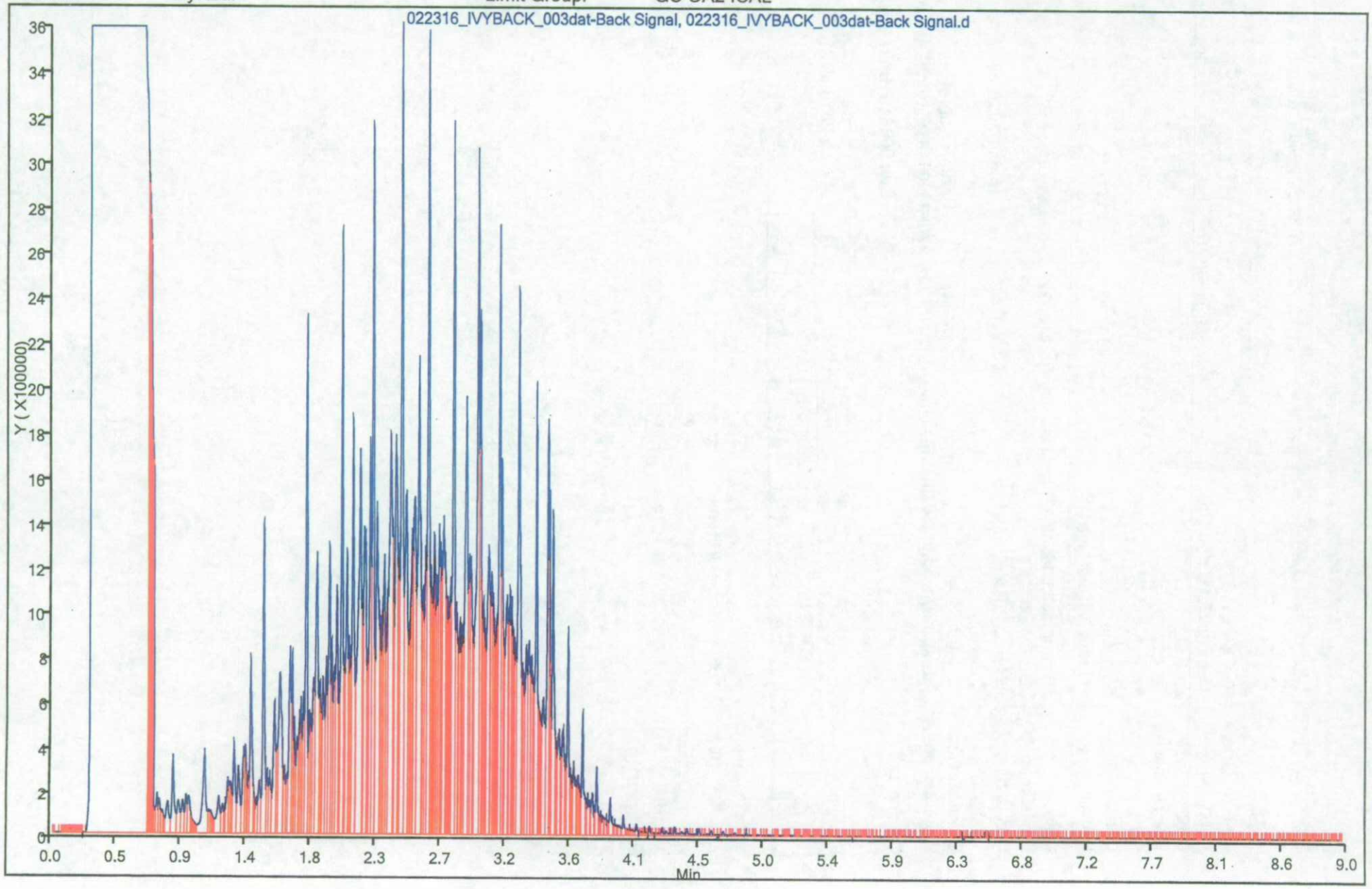
GE_I_DIESEL_00019 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2016 09:45:13 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_003dat-Back Signal.d

Injection Date:	23-Feb-2016 11:51:00	Instrument ID:	Ivy-R	Operator ID:	System
Lims ID:	CCV			Worklist Smp#:	3
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IvyRear	Limit Group:	GC OA2 ICAL		



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_004dat-Back Signal.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2016 12:06:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: G CCV
Misc. Info.: G CCV
Operator ID: System Instrument ID: Ivy-R
Sublist: chrom-IvyRear*sub1

Method: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\IvyRear.m
Limit Group: GC OA2 ICAL
Last Update: 24-Feb-2016 11:03:42 Calib Date: 18-Jan-2016 22:58:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\cedarfalls\ChromData\Ivy-R\20160118-27082.b\011816_IVYREAR_057dat-Back Signal.d

Column 1 : Det: 060815_BATMANBACK_002dat-BatmanBa
Process Host: XAWRK009

First Level Reviewer: scarfll Date: 24-Feb-2016 09:45:11

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 13 Gasoline						
1.725	(0.750-2.700)		15811708	2500.0	2601.9	
$ 11 n-Octacosane						
4.164	4.161	0.003	2601679	100.0	108.7	

Reagents:

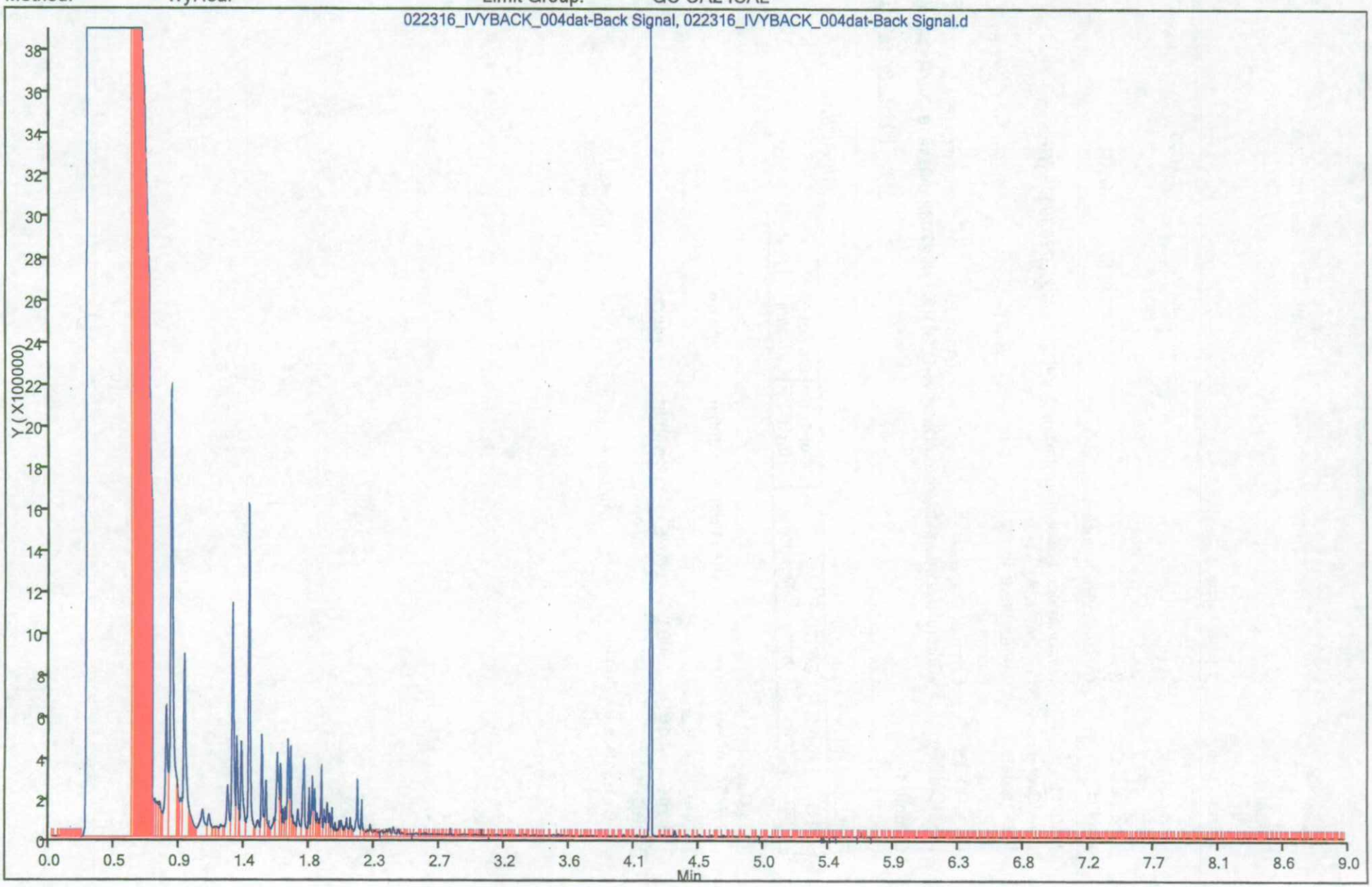
GE_CL_GASOLIN_00015 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2016 11:03:43 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_004dat-Back Signal.d

Injection Date:	23-Feb-2016 12:06:00	Instrument ID:	Ivy-R	Operator ID:	System
Lims ID:	CCV			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IvyRear	Limit Group:	GC OA2 ICAL		



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_004dat-Back Signal.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2016 12:06:00 ALS Bottle#: 0 Worklist Smp#: 4
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: G CCV
Misc. Info.: G CCV
Operator ID: System Instrument ID: Ivy-R
Sublist: chrom-IvyRear*sub1

Method: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\IvyRear.m
Limit Group: GC OA2 ICAL
Last Update: 24-Feb-2016 11:03:42 Calib Date: 18-Jan-2016 22:58:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\cedarfalls\ChromData\Ivy-R\20160118-27082.b\011816_IVYREAR_057dat-Back Signal.d

Column 1 : Det: 060815_BATMANBACK_002dat-BatmanBa
Process Host: XAWRK009

First Level Reviewer: scarfll Date: 24-Feb-2016 09:45:11

	RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A	13 Gasoline						
	1.725	(0.750-2.700)		15811708	2500.0	2601.9	
$	11 n-Octacosane						
	4.164	4.161	0.003	2601679	100.0	108.7	

Reagents:

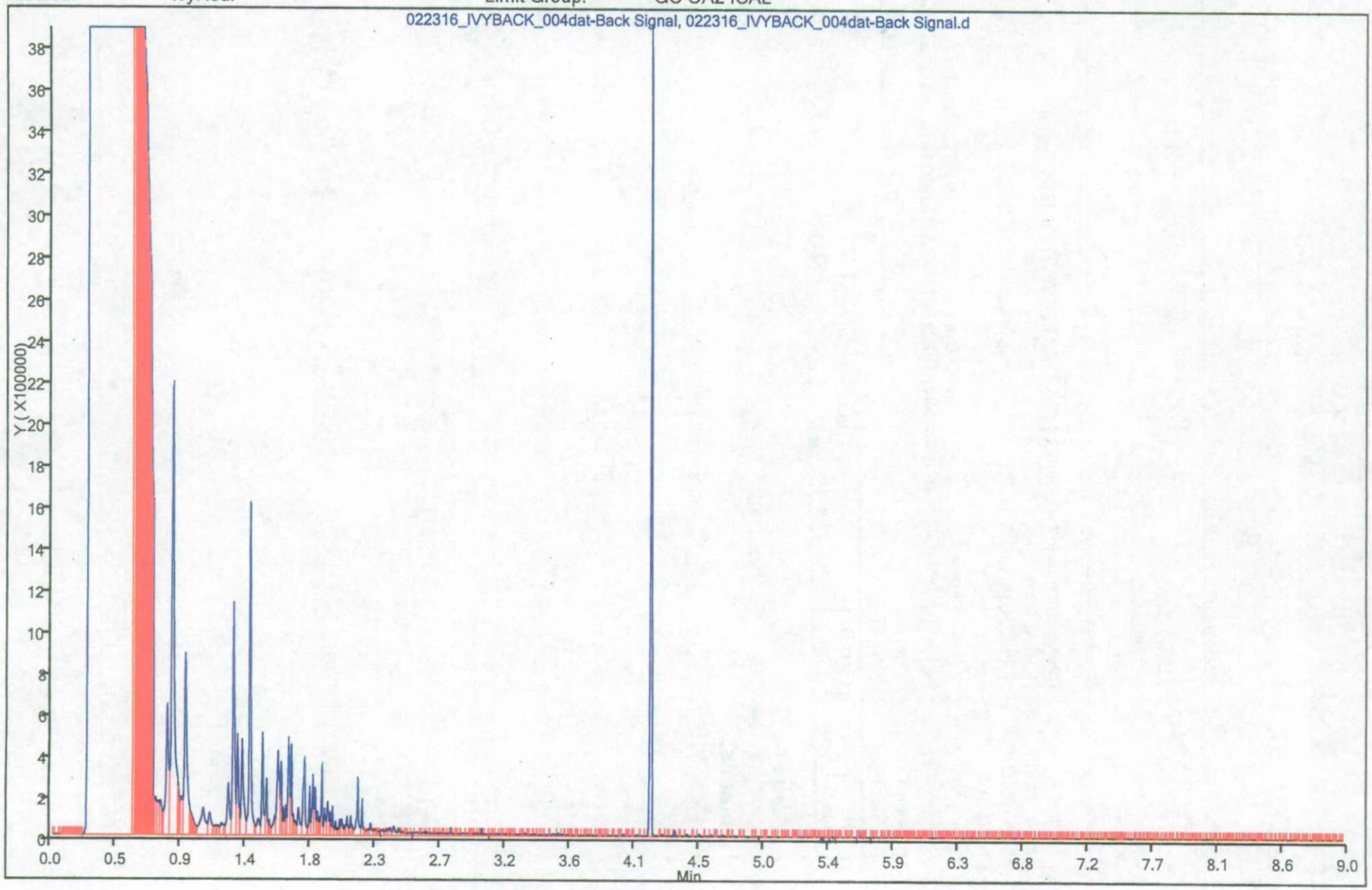
GE_CL_GASOLIN_00015 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2016 11:03:43 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_004dat-Back Signal.d

Injection Date:	23-Feb-2016 12:06:00	Instrument ID:	Ivy-R	Operator ID:	System
Lims ID:	CCV			Worklist Smp#:	4
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IvyRear	Limit Group:	GC OA2 ICAL		



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_027dat-Back Signal.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2016 19:19:00 ALS Bottle#: 0 Worklist Smp#: 27
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 310-0027639-027
Misc. Info.: 310-0027639-027
Operator ID: System Instrument ID: Ivy-R
Sublist: chrom-IvyRear*sub3

Method: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\IvyRear.m
Limit Group: GC OA2 ICAL
Last Update: 24-Feb-2016 10:42:36 Calib Date: 18-Jan-2016 22:58:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\cedarfalls\ChromData\Ivy-R\20160118-27082.b\011816_IVYREAR_057dat-Back Signal.d

Column 1 : Det: 060815_BATMANBACK_002dat-BatmanBa
Process Host: XAWRK009

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 19 Motor Oil						
4.500	(3.000-6.000)		118904540	5000.0	4528.7	

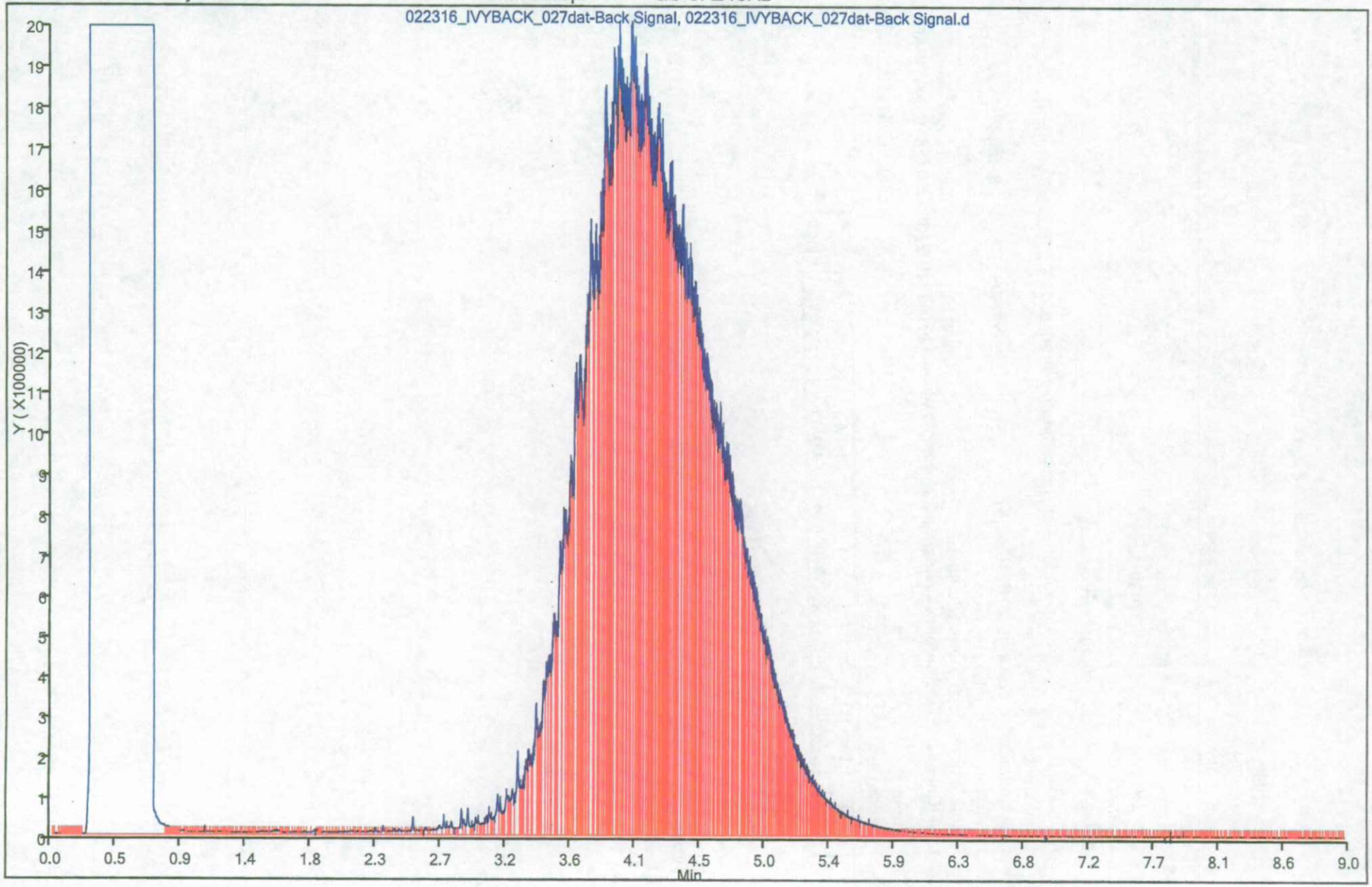
Reagents:

GE_CL_CCV_00024 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2016 10:42:37 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File:	\\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_027dat-Back Signal.d				
Injection Date:	23-Feb-2016 19:19:00	Instrument ID:	Ivy-R	Operator ID:	System
Lims ID:	CCV			Worklist Smp#:	27
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IvyRear	Limit Group:	GC OA2 ICAL		



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_028dat-Back Signal.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2016 19:34:00 ALS Bottle#: 0 Worklist Smp#: 28
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 310-0027639-028
Misc. Info.: 310-0027639-028
Operator ID: System Instrument ID: Ivy-R
Sublist: chrom-IvyRear*sub2

Method: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\IvyRear.m
Limit Group: GC OA2 ICAL
Last Update: 24-Feb-2016 10:42:37 Calib Date: 18-Jan-2016 22:58:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\cedarfalls\ChromData\Ivy-R\20160118-27082.b\011816_IVYREAR_057dat-Back Signal.d

Column 1 : Det: 060815_BATMANBACK_002dat-BatmanB
Process Host: XAWRK009

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 1 Diesel						
2.862	(1.300-4.423)		122043887	5000.0	5081.6	
A 7 Total Extractable Hydrocarbons						
4.375	(0.750-8.000)		126153551	5000.0	5064.2	

Reagents:

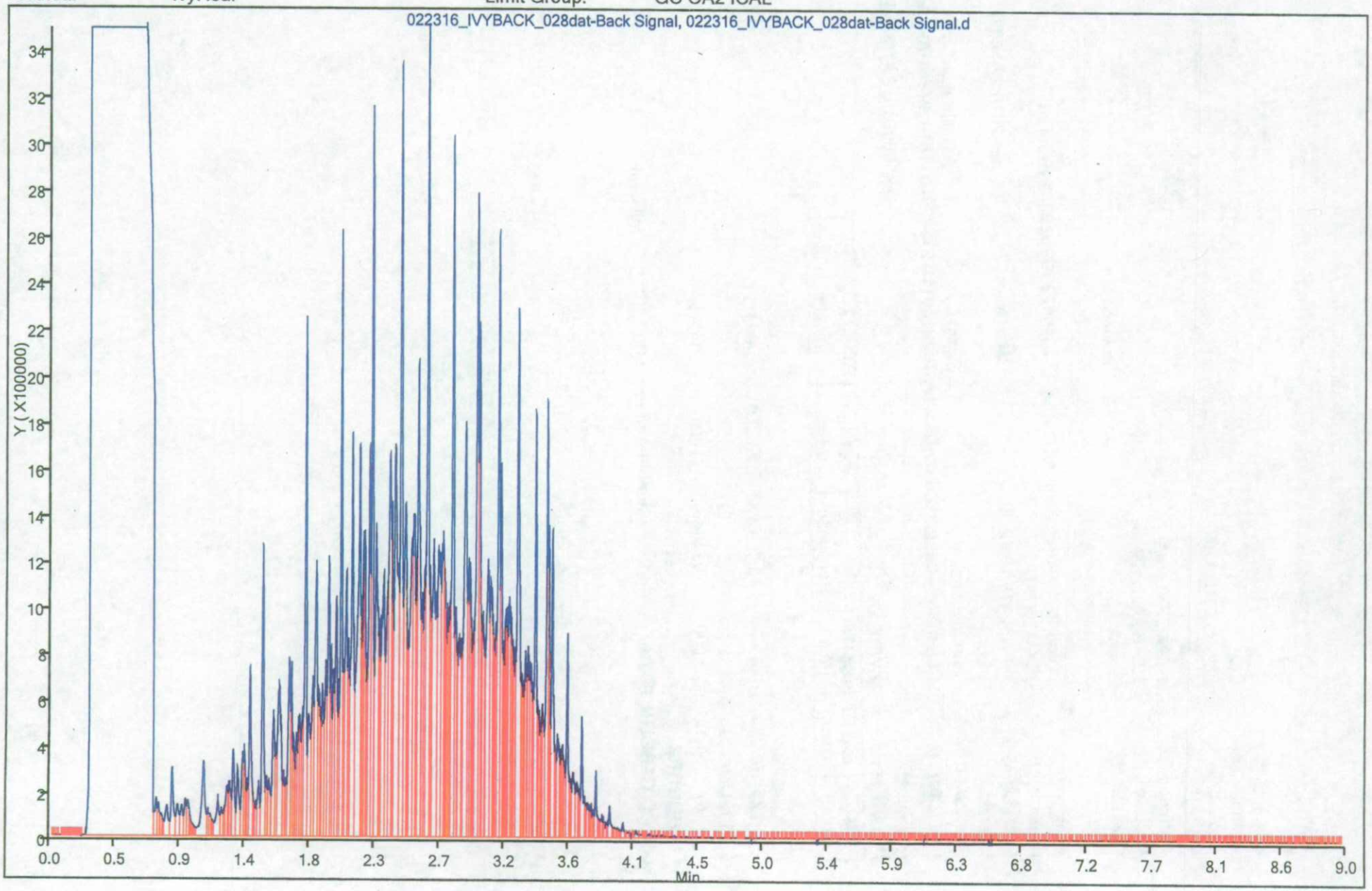
GE_I_DIESEL_00019 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2016 10:42:38 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_028dat-Back Signal.d

Injection Date:	23-Feb-2016 19:34:00	Instrument ID:	Ivy-R	Operator ID:	System
Lims ID:	CCV			Worklist Smp#:	28
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IvyRear	Limit Group:	GC OA2 ICAL		



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_029dat-Back Signal.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2016 19:49:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 310-0027639-029
Misc. Info.: 310-0027639-029
Operator ID: System Instrument ID: Ivy-R
Sublist: chrom-IvyRear*sub1

Method: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\IvyRear.m
Limit Group: GC OA2 ICAL
Last Update: 24-Feb-2016 10:42:39 Calib Date: 18-Jan-2016 22:58:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\cedarfalls\ChromData\Ivy-R\20160118-27082.b\011816_IVYREAR_057dat-Back Signal.d

Column 1 : Det: 060815_BATMANBACK_002dat-BatmanBa
Process Host: XAWRK009

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 13 Gasoline						
1.725	(0.750-2.700)		16335623	2500.0	2691.5	
$ 11 n-Octacosane						
4.167	4.161	0.006	2691866	100.0	112.4	

Reagents:

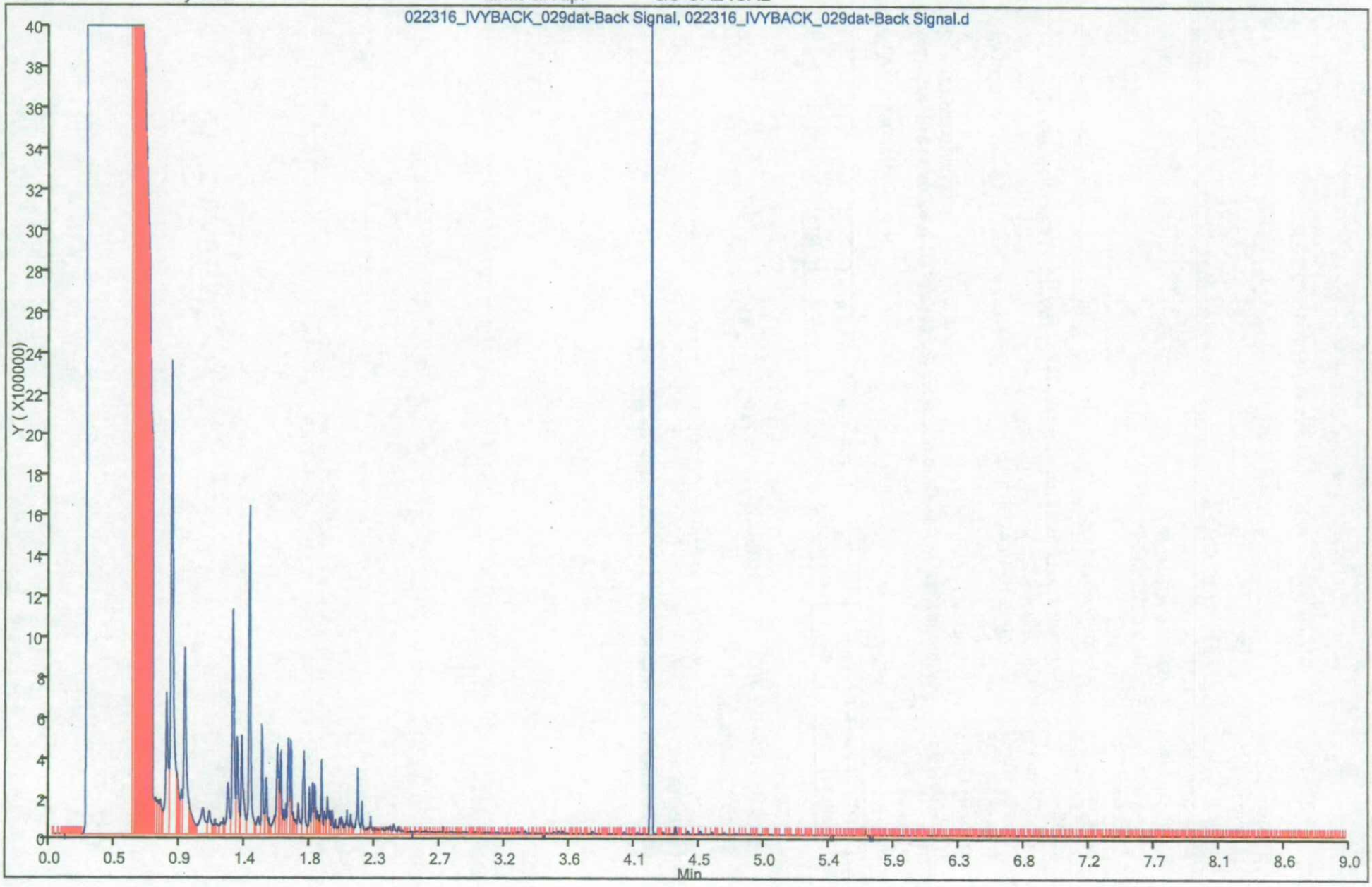
GE_CL_GASOLIN_00015 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2016 10:42:40 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_029dat-Back Signal.d

Injection Date:	23-Feb-2016 19:49:00	Instrument ID:	Ivy-R	Operator ID:	System
Lims ID:	CCV			Worklist Smp#:	29
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IvyRear	Limit Group:	GC OA2 ICAL		



TestAmerica Cedar Falls
Target Compound Quantitation Report

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_029dat-Back Signal.d
Lims ID: CCV
Client ID:
Sample Type: CCV
Inject. Date: 23-Feb-2016 19:49:00 ALS Bottle#: 0 Worklist Smp#: 29
Injection Vol: 1.0 ul Dil. Factor: 1.0000
Sample Info: 310-0027639-029
Misc. Info.: 310-0027639-029
Operator ID: System Instrument ID: Ivy-R
Sublist: chrom-IvyRear*sub1

Method: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\IvyRear.m
Limit Group: GC OA2 ICAL
Last Update: 24-Feb-2016 10:42:39 Calib Date: 18-Jan-2016 22:58:00
Integrator: Falcon
Quant Method: External Standard Quant By: Initial Calibration
Last ICal File: \\ChromNA\cedarfalls\ChromData\Ivy-R\20160118-27082.b\011816_IVYREAR_057dat-Back Signal.d

Column 1 : Det: 060815_BATMANBACK_002dat-BatmanBa
Process Host: XAWRK009

RT (min.)	Exp RT (min.)	Dlt RT (min.)	Response	Cal Amt ug/ml	OnCol Amt ug/ml	Flags
A 13 Gasoline						
1.725	(0.750-2.700)		16335623	2500.0	2691.5	
$ 11 n-Octacosane						
4.167	4.161	0.006	2691866	100.0	112.4	

Reagents:

GE_CL_GASOLIN_00015 Amount Added: 1.00 Units: mL

Report Date: 24-Feb-2016 10:42:40 Chrom Revision: 2.2 02-Dec-2015 11:51:48

TestAmerica Cedar Falls

Data File: \\chromna\cedarfalls\ChromData\Ivy-R\20160223-27639.b\022316_IVYBACK_029dat-Back Signal.d

Injection Date:	23-Feb-2016 19:49:00	Instrument ID:	Ivy-R	Operator ID:	System
Lims ID:	CCV			Worklist Smp#:	29
Client ID:					
Injection Vol:	1.0 ul	Dil. Factor:	1.0000	ALS Bottle#:	0
Method:	IvyRear	Limit Group:	GC OA2 ICAL