



Robert Grubbs Jr.
Senior Environmental Coordinator

October 13, 2015

Oil Conservation Division
District 1 – Hobbs
1625 N. French Drive
Hobbs, New Mexico 88240

Re: Dirty Dozen State Com #3H
30-015-38225
Sec. 36, T19S-R31E
Eddy County, NM
Mr. Bratcher,

COG Operating LLC would like to submit for your consideration the closure documents for the above captioned well. The letter is in response to the C-141 Initial report dated January 29, 2015.

The release was caused when the wellhead pressured up and the packing failed to hold. The pressure on the packing caused a release of 25bbls of oil and 6bbls of produced water. The release was located at wellhead and all fluid staid on location. The situation was remediated by replacing the packing. This area was addressed with an initial scrap and all impacted material hauled to an NMOCD approved facility. Soil samples were taken on May 6, 2015; results indicated all constituents were within RRALs outlined in *OCD Guidelines Leaks, Spills and Releases (1993)* recommended for a site ranking of ten (10).

COG Operating LLC is requesting closure of this incident. If you have, any additional questions or concerns please feel free to contact me (432-661-6601).

Sincerely,

Robert Grubbs Jr.

Enclosed

- (1) C-141 Final
- (2) C-141 Initial
- (3) Site Diagram
- (4) Laboratory Analysis

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☒ Final Report

Name of Company: COG Operating LLC	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No. 432-230-0077
Facility Name: Dirty Dozen State Com #3H	Facility Type: Wellhead

Surface Owner: State	Mineral Owner:	API No. 30-015-38225
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LOCATION OF RELEASE

Unit Letter I	Section 36	Township 19S	Range 31E	Feet from the 1810	North/South Line South	Feet from the 720	East/West Line East	County Eddy
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Latitude 32.6146940334203 Longitude -103.816411683419

NATURE OF RELEASE

Type of Release: Oil and Produced Water	Volume of Release: 25 bbls Oil ; 6 bbls PW	Volume Recovered: 20 bbls Oil ; 5 bbls PW
Source of Release: Wellhead	Date and Hour of Occurrence: 1/29/2015 7:00 am	Date and Hour of Discovery: 1/29/2015 7:00 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher - NMOCD	
By Whom? Amanda Trujillo	Date and Hour: 5:37 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

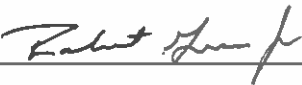
Describe Cause of Problem and Remedial Action Taken.*

This release was caused when the wellhead pressured up and the packing failed to hold. Vacuum trucks were dispatched to pick up all standing fluids.

Describe Area Affected and Cleanup Action Taken.*

This release was contained to the pad area. Concho will have the spill site sampled to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation work.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Robert Grubbs Jr	Approved by Environmental Specialist:		
Title: Senior Environmental Coordinator	Approval Date:	Expiration Date:	
E-mail Address: rgrubbs@concho.com	Conditions of Approval:		Attached ☐
Date: October 12, 2015 Phone: 432-661-6601			

* Attach Additional Sheets If Necessary

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1220 South St. Francis Dr.
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Form C-141
Revised August 8, 2011

Submit 1 Copy to appropriate District Office in
accordance with 19.15.29 NMAC.

Release Notification and Corrective Action

OPERATOR

☒ Initial Report ☐ Final Report

Name of Company: COG Operating LLC	Contact: Robert McNeill	
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No. 432-230-0077	
Facility Name: Dirty Dozen State Com #3H	Facility Type: Wellhead	
Surface Owner: State	Mineral Owner:	API No. 30-015-38225

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
I	36	19S	31E	1810	South	720	East	Eddy

Latitude 32.6146940334203 Longitude -103.816411683419

NATURE OF RELEASE

Type of Release: Oil and Produced Water	Volume of Release: 25 bbls Oil ; 6 bbls PW	Volume Recovered: 20 bbls Oil ; 5 bbls PW
Source of Release: Wellhead	Date and Hour of Occurrence: 1/29/2015 7:00 am	Date and Hour of Discovery: 1/29/2015 7:00 am
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? Mike Bratcher - NMOCD	
By Whom? Amanda Trujillo	Date and Hour: 5:37 pm	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

Describe Cause of Problem and Remedial Action Taken.*

This release was caused when the wellhead pressured up and the packing failed to hold. Vacuum trucks were dispatched to pick up all standing fluids.

Describe Area Affected and Cleanup Action Taken.*

This release was contained to the pad area. Concho will have the spill site sampled to delineate any possible contamination from the release and we will present a remediation work plan to the NMOCD for approval prior to any significant remediation work.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature: 	OIL CONSERVATION DIVISION		
Printed Name: Amanda Trujillo	Approved by Environmental Specialist:		
Title: Senior Environmental Coordinator	Approval Date:	Expiration Date:	
E-mail Address: atrujillo@concho.com	Conditions of Approval:		Attached ☐
Date: February 12, 2015 Phone: 575-748-6940			

* Attach Additional Sheets If Necessary

October 12 2015

Dirty Dozen State Com #3H



Site Ranking: Zero						
Depth to GW per SEO: 400'						
T-1	DRO	GRO	TPH	BTEX	CI-	
0-1'	<50.0	<4.00	<50.0	<0.200	654	
2'	<50.0	<4.00	<50.0	<0.200	935	
3'	<50.0	<4.00	<50.0	<0.200	374	
T-2	DRO	GRO	TPH	BTEX	CI-	
0-1'	<50.0	<4.00	<50.0	<0.200	<20.0	
2'	<50.0	<4.00	<50.0	<0.200	374	
3'	<50.0	<4.00	<50.0	<0.200	<20.0	
Bold values exceed RRALs per NMOC Guidelines						



6701 Aberdeen Avenue, Suite 9 Lubbock, Texas 79424 800-378-1296 806-794-1296 FAX 806-794-1298
200 East Sunset Road, Suite E El Paso, Texas 79922 915-585-3443 FAX 915-585-4944
5002 Basin Street, Suite A1 Midland, Texas 79703 432-689-6301 FAX 432-689-6313
(BioAquatic) 2501 Mayes Rd, Suite 100 Carrollton, Texas 75006 972-242-7750
E-Mail lab@traceanalysis.com WEB www.traceanalysis.com

Certifications

WBE HUB NCTRCA DBE NELAP DoD LELAP Kansas Oklahoma ISO 17025

Analytical and Quality Control Report

Robert Grubbs
COG Operating, LLC
550 W. Texas Avenue
Suite 100
Midland, TX, 79701

Report Date: May 20, 2015

Work Order: 15051122



Project Location: Eddy Co, NM
Project Name: Dirty Dozen St Com #3H
Project Number: Dirty Dozen St Com #3H

Enclosed are the Analytical Report and Quality Control Report for the following sample(s) submitted to TraceAnalysis, Inc.

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
393011	T-1 0-1'	soil	2015-05-06	00:00	2015-05-11
393012	T-1 2'	soil	2015-05-06	00:00	2015-05-11
393013	T-1 3'	soil	2015-05-06	00:00	2015-05-11
393014	T-2 0-1'	soil	2015-05-06	00:00	2015-05-11
393015	T-2 2'	soil	2015-05-06	00:00	2015-05-11
393016	T-2 3'	soil	2015-05-06	00:00	2015-05-11

These results represent only the samples received in the laboratory. The Quality Control Report is generated on a batch basis. All information contained in this report is for the analytical batch(es) in which your sample(s) were analyzed.

TraceAnalysis, Inc. uses the attached chain of custody (COC) as the laboratory check-in documentation which includes sample receipt, temperature, sample preservation method and condition, collection date and time, testing requested, company, sampler, contacts and any special remarks.

This report consists of a total of 28 pages and shall not be reproduced except in its entirety, without written approval of TraceAnalysis, Inc.

A handwritten signature in black ink, reading "Blair Leftwich". The signature is written in a cursive style with a prominent horizontal line underneath the name.

Dr. Blair Leftwich, Director
James Taylor, Assistant Director
Brian Pellam, Operations Manager

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Case Narrative

Samples for project Dirty Dozen St Com #3H were received by TraceAnalysis, Inc. on 2015-05-11 and assigned to work order 15051122. Samples for work order 15051122 were received intact at a temperature of 5.6 C.

Samples were analyzed for the following tests using their respective methods.

Test	Method	Prep Batch	Prep Date	QC Batch	Analysis Date
BTEX	S 8021B	102792	2015-05-13 at 15:07	121501	2015-05-14 at 09:32
Chloride (Titration)	SM 4500-Cl B	102871	2015-05-18 at 08:05	121576	2015-05-18 at 09:53
Chloride (Titration)	SM 4500-Cl B	102888	2015-05-18 at 15:26	121616	2015-05-19 at 09:40
TPH DRO - NEW	S 8015 D	102740	2015-05-11 at 18:46	121475	2015-05-13 at 11:15
TPH GRO	S 8015 D	102792	2015-05-13 at 15:07	121502	2015-05-14 at 09:34

Results for these samples are reported on a wet weight basis unless data package indicates otherwise.

A matrix spike (MS) and matrix spike duplicate (MSD) sample is chosen at random from each preparation batch. The MS and MSD will indicate if a site specific matrix problem is occurring, however, it may not pertain to the samples for work order 15051122 since the sample was chosen at random. Therefore, the validity of the analytical data reported has been determined by the laboratory control sample (LCS) and the method blank (MB). These quality control measures are performed with each preparation batch to ensure data integrity.

All other exceptions associated with this report have been footnoted on the appropriate analytical page to assist in general data comprehension. Please contact the laboratory directly if there are any questions regarding this project.

Report Date: May 20, 2015
Dirty Dozen St Com #3H

Work Order: 15051122
Dirty Dozen St Com #3H

Page Number: 6 of 28
Eddy Co, NM

Analytical Report

Sample: 393011 - T-1 0-1'

Laboratory: Midland
Analysis: BTEX
QC Batch: 121501
Prep Batch: 102792

Analytical Method: S 8021B
Date Analyzed: 2015-05-11
Sample Preparation: 2015-05-13

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.0200	mg/Kg	1	0.0200
Toluene	u	s	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	s	<0.0200	mg/Kg	1	0.0200
Xylene	u	s	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.20	mg/Kg	1	2.00	110	70 - 130
4-Bromofluorobenzene (4-BFB)			2.07	mg/Kg	1	2.00	104	70 - 130

Sample: 393011 - T-1 0-1'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 121616
Prep Batch: 102888

Analytical Method: SM 4500-Cl B
Date Analyzed: 2015-05-19
Sample Preparation: 2015-05-18

Prep Method: N/A
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			654	mg/Kg	5	4.00

Sample: 393011 - T-1 0-1'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 121475
Prep Batch: 102740

Analytical Method: S 8015 D
Date Analyzed: 2015-05-13
Sample Preparation: 2015-05-11

Prep Method: N/A
Analyzed By: SC
Prepared By: SC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	u	s	<50.0	mg/Kg	1	50.0

Report Date: May 20, 2015
Dirty Dozen St Com #3H

Work Order: 15051122
Dirty Dozen St Com #3H

Page Number: 7 of 28
Eddy Co, NM

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			106	mg/Kg	1	100	106	70 - 130

Sample: 393011 - T-1 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 121502
Prep Batch: 102792

Analytical Method: S 8015 D
Date Analyzed: 2015-05-14
Sample Preparation: 2015-05-13

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qs, U	s	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.87	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.89	mg/Kg	1	2.00	94	70 - 130

Sample: 393012 - T-1 2'

Laboratory: Midland
Analysis: BTEX
QC Batch: 121501
Prep Batch: 102792

Analytical Method: S 8021B
Date Analyzed: 2015-05-14
Sample Preparation: 2015-05-13

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.0200	mg/Kg	1	0.0200
Toluene	u	s	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	s	<0.0200	mg/Kg	1	0.0200
Xylene	u	s	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.12	mg/Kg	1	2.00	106	70 - 130
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	1	2.00	105	70 - 130

Report Date: May 20, 2015
Dirty Dozen St Com #3H

Work Order: 15051122
Dirty Dozen St Com #3H

Page Number: 8 of 28
Eddy Co, NM

Sample: 393012 - T-1 2'

Laboratory:	Midland	Analytical Method:	SM 4500-Cl B	Prep Method:	N/A
Analysis:	Chloride (Titration)	Date Analyzed:	2015-05-19	Analyzed By:	AK
QC Batch:	121616	Sample Preparation:	2015-05-18	Prepared By:	AK
Prep Batch:	102888				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			935	mg/Kg	5	4.00

Sample: 393012 - T-1 2'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	N/A
Analysis:	TPH DRO - NEW	Date Analyzed:	2015-05-13	Analyzed By:	SC
QC Batch:	121475	Sample Preparation:	2015-05-11	Prepared By:	SC
Prep Batch:	102740				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	U	S	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			94.9	mg/Kg	1	100	95	70 - 130

Sample: 393012 - T-1 2'

Laboratory:	Midland	Analytical Method:	S 8015 D	Prep Method:	S 5035
Analysis:	TPH GRO	Date Analyzed:	2015-05-14	Analyzed By:	AK
QC Batch:	121502	Sample Preparation:	2015-05-13	Prepared By:	AK
Prep Batch:	102792				

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Q, U	S	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.88	mg/Kg	1	2.00	94	70 - 130
4-Bromofluorobenzene (4-BFB)			1.88	mg/Kg	1	2.00	94	70 - 130

Report Date: May 20, 2015
Dirty Dozen St Com #3H

Work Order: 15051122
Dirty Dozen St Com #3H

Page Number: 9 of 28
Eddy Co, NM

Sample: 393013 - T-1 3'

Laboratory: Midland

Analysis: BTEX

QC Batch: 121501

Prep Batch: 102792

Analytical Method: S 8021B

Date Analyzed: 2015-05-14

Sample Preparation: 2015-05-13

Prep Method: S 5035

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.0200	mg/Kg	1	0.0200
Toluene	u	s	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	s	<0.0200	mg/Kg	1	0.0200
Xylene	u	s	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.15	mg/Kg	1	2.00	108	70 - 130
4-Bromofluorobenzene (4-BFB)			1.90	mg/Kg	1	2.00	95	70 - 130

Sample: 393013 - T-1 3'

Laboratory: Midland

Analysis: Chloride (Titration)

QC Batch: 121616

Prep Batch: 102888

Analytical Method: SM 4500-Cl B

Date Analyzed: 2015-05-19

Sample Preparation: 2015-05-18

Prep Method: N/A

Analyzed By: AK

Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			374	mg/Kg	5	4.00

Sample: 393013 - T-1 3'

Laboratory: Midland

Analysis: TPH DRO - NEW

QC Batch: 121475

Prep Batch: 102740

Analytical Method: S 8015 D

Date Analyzed: 2015-05-13

Sample Preparation: 2015-05-11

Prep Method: N/A

Analyzed By: SC

Prepared By: SC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	u	s	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			90.2	mg/Kg	1	100	90	70 - 130

Report Date: May 20, 2015
Dirty Dozen St Com #3H

Work Order: 15051122
Dirty Dozen St Com #3H

Page Number: 10 of 28
Eddy Co, NM

Sample: 393013 - T-1 3'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 121502
Prep Batch: 102792

Analytical Method: S 8015 D
Date Analyzed: 2015-05-14
Sample Preparation: 2015-05-13

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Q ₃ , U	S	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.76	mg/Kg	1	2.00	88	70 - 130
4-Bromofluorobenzene (4-BFB)			1.76	mg/Kg	1	2.00	88	70 - 130

Sample: 393014 - T-2 0-1'

Laboratory: Midland
Analysis: BTEX
QC Batch: 121501
Prep Batch: 102792

Analytical Method: S 8021B
Date Analyzed: 2015-05-14
Sample Preparation: 2015-05-13

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	U	S	<0.0200	mg/Kg	1	0.0200
Toluene	U	S	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	U	S	<0.0200	mg/Kg	1	0.0200
Xylene	U	S	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.13	mg/Kg	1	2.00	106	70 - 130
4-Bromofluorobenzene (4-BFB)			2.10	mg/Kg	1	2.00	105	70 - 130

Sample: 393014 - T-2 0-1'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 121616
Prep Batch: 102888

Analytical Method: SM 4500-Cl B
Date Analyzed: 2015-05-19
Sample Preparation: 2015-05-18

Prep Method: N/A
Analyzed By: AK
Prepared By: AK

continued ...

Report Date: May 20, 2015
Dirty Dozen St Com #3H

Work Order: 15051122
Dirty Dozen St Com #3H

Page Number: 11 of 28
Eddy Co, NM

sample 393014 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 393014 - T-2 0-1'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 121475
Prep Batch: 102740

Analytical Method: S 8015 D
Date Analyzed: 2015-05-13
Sample Preparation: 2015-05-11

Prep Method: N/A
Analyzed By: SC
Prepared By: SC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	u	s	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			103	mg/Kg	1	100	103	70 - 130

Sample: 393014 - T-2 0-1'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 121502
Prep Batch: 102792

Analytical Method: S 8015 D
Date Analyzed: 2015-05-14
Sample Preparation: 2015-05-13

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	q,u	s	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.92	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.91	mg/Kg	1	2.00	96	70 - 130

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Sample: 393015 - T-2 2'

Laboratory: Midland
Analysis: BTEX
QC Batch: 121501
Prep Batch: 102792

Analytical Method: S 8021B
Date Analyzed: 2015-05-14
Sample Preparation: 2015-05-13

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.0200	mg/Kg	1	0.0200
Toluene	u	s	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	s	<0.0200	mg/Kg	1	0.0200
Xylene	u	s	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.18	mg/Kg	1	2.00	109	70 - 130
4-Bromofluorobenzene (4-BFB)			2.09	mg/Kg	1	2.00	104	70 - 130

Sample: 393015 - T-2 2'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 121616
Prep Batch: 102888

Analytical Method: SM 4500-Cl B
Date Analyzed: 2015-05-19
Sample Preparation: 2015-05-18

Prep Method: N/A
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride			374	mg/Kg	5	4.00

Sample: 393015 - T-2 2'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 121475
Prep Batch: 102740

Analytical Method: S 8015 D
Date Analyzed: 2015-05-13
Sample Preparation: 2015-05-11

Prep Method: N/A
Analyzed By: SC
Prepared By: SC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	u	s	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			103	mg/Kg	1	100	103	70 - 130

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Sample: 393015 - T-2 2'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 121502
Prep Batch: 102792

Analytical Method: S 8015 D
Date Analyzed: 2015-05-14
Sample Preparation: 2015-05-13

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Q#U	s	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.91	mg/Kg	1	2.00	96	70 - 130
4-Bromofluorobenzene (4-BFB)			1.93	mg/Kg	1	2.00	96	70 - 130

Sample: 393016 - T-2 3'

Laboratory: Midland
Analysis: BTEX
QC Batch: 121501
Prep Batch: 102792

Analytical Method: S 8021B
Date Analyzed: 2015-05-14
Sample Preparation: 2015-05-13

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Benzene	u	s	<0.0200	mg/Kg	1	0.0200
Toluene	u	s	<0.0200	mg/Kg	1	0.0200
Ethylbenzene	u	s	<0.0200	mg/Kg	1	0.0200
Xylene	u	s	<0.0200	mg/Kg	1	0.0200

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.96	mg/Kg	1	2.00	98	70 - 130
4-Bromofluorobenzene (4-BFB)			2.00	mg/Kg	1	2.00	100	70 - 130

Sample: 393016 - T-2 3'

Laboratory: Midland
Analysis: Chloride (Titration)
QC Batch: 121576
Prep Batch: 102871

Analytical Method: SM 4500-Cl B
Date Analyzed: 2015-05-18
Sample Preparation: 2015-05-18

Prep Method: N/A
Analyzed By: AK
Prepared By: AK

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sample 393016 continued ...

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Parameter	Flag	Cert	RL Result	Units	Dilution	RL
Chloride	u		<20.0	mg/Kg	5	4.00

Sample: 393016 - T-2 3'

Laboratory: Midland
Analysis: TPH DRO - NEW
QC Batch: 121475
Prep Batch: 102740

Analytical Method: S 8015 D
Date Analyzed: 2015-05-13
Sample Preparation: 2015-05-11

Prep Method: N/A
Analyzed By: SC
Prepared By: SC

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
DRO	u	s	<50.0	mg/Kg	1	50.0

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			103	mg/Kg	1	100	103	70 - 130

Sample: 393016 - T-2 3'

Laboratory: Midland
Analysis: TPH GRO
QC Batch: 121502
Prep Batch: 102792

Analytical Method: S 8015 D
Date Analyzed: 2015-05-14
Sample Preparation: 2015-05-13

Prep Method: S 5035
Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	RL Result	Units	Dilution	RL
GRO	Qs,U	s	<4.00	mg/Kg	1	4.00

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.80	mg/Kg	1	2.00	90	70 - 130
4-Bromofluorobenzene (4-BFB)			1.84	mg/Kg	1	2.00	92	70 - 130

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Method Blanks

Method Blank (1) QC Batch: 121475

QC Batch: 121475 Date Analyzed: 2015-05-13 Analyzed By: SC
Prep Batch: 102740 QC Preparation: 2015-05-11 Prepared By: SC

Parameter	Flag	Cert	MDL Result	Units	RL
DRO		s	7.66	mg/Kg	50

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
n-Tricosane			92.6	mg/Kg	1	100	93	70 - 130

Method Blank (1) QC Batch: 121501

QC Batch: 121501 Date Analyzed: 2015-05-14 Analyzed By: AK
Prep Batch: 102792 QC Preparation: 2015-05-13 Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Benzene		s	<0.00533	mg/Kg	0.02
Toluene		s	<0.00645	mg/Kg	0.02
Ethylbenzene		s	<0.0116	mg/Kg	0.02
Xylene		s	<0.00874	mg/Kg	0.02

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			2.28	mg/Kg	1	2.00	114	70 - 130
4-Bromofluorobenzene (4-BFB)			2.04	mg/Kg	1	2.00	102	70 - 130

Method Blank (1) QC Batch: 121502

QC Batch: 121502 Date Analyzed: 2015-05-14 Analyzed By: AK
Prep Batch: 102792 QC Preparation: 2015-05-13 Prepared By: AK

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Parameter	Flag	Cert	MDL Result	Units	RL
GRO		5	<2.32	mg/Kg	4

Surrogate	Flag	Cert	Result	Units	Dilution	Spike Amount	Percent Recovery	Recovery Limits
Trifluorotoluene (TFT)			1.90	mg/Kg	1	2.00	95	70 - 130
4-Bromofluorobenzene (4-BFB)			1.90	mg/Kg	1	2.00	95	70 - 130

Method Blank (1) QC Batch: 121576

QC Batch: 121576
Prep Batch: 102871

Date Analyzed: 2015-05-18
QC Preparation: 2015-05-18

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

Method Blank (1) QC Batch: 121616

QC Batch: 121616
Prep Batch: 102888

Date Analyzed: 2015-05-19
QC Preparation: 2015-05-18

Analyzed By: AK
Prepared By: AK

Parameter	Flag	Cert	MDL Result	Units	RL
Chloride			<3.85	mg/Kg	4

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Laboratory Control Spikes

Laboratory Control Spike (LCS-1)

QC Batch: 121475
Prep Batch: 102740

Date Analyzed: 2015-05-13
QC Preparation: 2015-05-11

Analyzed By: SC
Prepared By: SC

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		s	239	mg/Kg	1	250	7.66	92	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		s	219	mg/Kg	1	250	7.66	84	70 - 130	9	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
n-Tricosane	118	113	mg/Kg	1	100	118	113	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 121501
Prep Batch: 102792

Date Analyzed: 2015-05-14
QC Preparation: 2015-05-13

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		s	2.26	mg/Kg	1	2.00	<0.00533	113	70 - 130
Toluene		s	1.99	mg/Kg	1	2.00	<0.00645	100	70 - 130
Ethylbenzene		s	1.94	mg/Kg	1	2.00	<0.0116	97	70 - 130
Xylene		s	5.76	mg/Kg	1	6.00	<0.00874	96	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		s	2.23	mg/Kg	1	2.00	<0.00533	112	70 - 130	1	20
Toluene		s	2.01	mg/Kg	1	2.00	<0.00645	100	70 - 130	1	20
Ethylbenzene		s	1.96	mg/Kg	1	2.00	<0.0116	98	70 - 130	1	20
Xylene		s	5.75	mg/Kg	1	6.00	<0.00874	96	70 - 130	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	2.20	2.12	mg/Kg	1	2.00	110	106	70 - 130
4-Bromofluorobenzene (4-BFB)	1.94	1.92	mg/Kg	1	2.00	97	96	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 121502
Prep Batch: 102792

Date Analyzed: 2015-05-14
QC Preparation: 2015-05-13

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO		s	14.5	mg/Kg	1	20.0	<2.32	72	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO		s	15.2	mg/Kg	1	20.0	<2.32	76	70 - 130	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	LCS Result	LCSD Result	Units	Dil.	Spike Amount	LCS Rec.	LCSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.72	1.79	mg/Kg	1	2.00	86	90	70 - 130
4-Bromofluorobenzene (4-BFB)	1.85	1.92	mg/Kg	1	2.00	92	96	70 - 130

Laboratory Control Spike (LCS-1)

QC Batch: 121576
Prep Batch: 102871

Date Analyzed: 2015-05-18
QC Preparation: 2015-05-18

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2130	mg/Kg	5	2500	<19.2	85	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2230	mg/Kg	5	2500	<19.2	89	85 - 115	5	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Laboratory Control Spike (LCS-1)

QC Batch: 121616
Prep Batch: 102888

Date Analyzed: 2015-05-19
QC Preparation: 2015-05-18

Analyzed By: AK
Prepared By: AK

Param	F	C	LCS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2520	mg/Kg	5	2500	<19.2	101	85 - 115

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	LCSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2520	mg/Kg	5	2500	<19.2	101	85 - 115	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Matrix Spikes

Matrix Spike (MS-1) Spiked Sample: 393011

QC Batch: 121475
Prep Batch: 102740

Date Analyzed: 2015-05-13
QC Preparation: 2015-05-11

Analyzed By: SC
Prepared By: SC

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
DRO		s	197	mg/Kg	1	250	18.7	71	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
DRO		s	206	mg/Kg	1	250	18.7	75	70 - 130	4	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
n-Tricosane	94.7	97.6	mg/Kg	1	100	95	98	70 - 130

Matrix Spike (MS-1) Spiked Sample: 393011

QC Batch: 121501
Prep Batch: 102792

Date Analyzed: 2015-05-14
QC Preparation: 2015-05-13

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Benzene		s	2.07	mg/Kg	1	2.00	<0.00533	104	70 - 130
Toluene		s	1.88	mg/Kg	1	2.00	<0.00645	94	70 - 130
Ethylbenzene		s	1.88	mg/Kg	1	2.00	<0.0116	94	70 - 130
Xylene		s	5.69	mg/Kg	1	6.00	<0.00874	95	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Benzene		s	2.03	mg/Kg	1	2.00	<0.00533	102	70 - 130	2	20
Toluene		s	1.86	mg/Kg	1	2.00	<0.00645	93	70 - 130	1	20
Ethylbenzene		s	1.91	mg/Kg	1	2.00	<0.0116	96	70 - 130	2	20
Xylene		s	5.61	mg/Kg	1	6.00	<0.00874	94	70 - 130	1	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.93	1.66	mg/Kg	1	2	96	83	70 - 130
4-Bromofluorobenzene (4-BFB)	1.95	1.71	mg/Kg	1	2	98	86	70 - 130

Matrix Spike (MS-1) Spiked Sample: 393011

QC Batch: 121502
 Prep Batch: 102792

Date Analyzed: 2015-05-14
 QC Preparation: 2015-05-13

Analyzed By: AK
 Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
GRO	q*	q*	11.4	mg/Kg	1	20.0	<2.32	57	70 - 130

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
GRO	q*	q*	12.8	mg/Kg	1	20.0	<2.32	64	70 - 130	12	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Surrogate	MS Result	MSD Result	Units	Dil.	Spike Amount	MS Rec.	MSD Rec.	Rec. Limit
Trifluorotoluene (TFT)	1.77	1.74	mg/Kg	1	2	88	87	70 - 130
4-Bromofluorobenzene (4-BFB)	1.86	1.91	mg/Kg	1	2	93	96	70 - 130

Matrix Spike (MS-1) Spiked Sample: 393016

QC Batch: 121576
 Prep Batch: 102871

Date Analyzed: 2015-05-18
 QC Preparation: 2015-05-18

Analyzed By: AK
 Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2540	mg/Kg	5	2500	<19.2	102	78.9 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2340	mg/Kg	5	2500	<19.2	94	78.9 - 121	8	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

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Matrix Spike (MS-1) Spiked Sample: 391853

QC Batch: 121616
Prep Batch: 102888

Date Analyzed: 2015-05-19
QC Preparation: 2015-05-18

Analyzed By: AK
Prepared By: AK

Param	F	C	MS Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit
Chloride			2900	mg/Kg	5	2500	748	86	78.9 - 121

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Param	F	C	MSD Result	Units	Dil.	Spike Amount	Matrix Result	Rec.	Rec. Limit	RPD	RPD Limit
Chloride			2900	mg/Kg	5	2500	748	86	78.9 - 121	0	20

Percent recovery is based on the spike result. RPD is based on the spike and spike duplicate result.

Calibration Standards

Standard (CCV-1)

QC Batch: 121475

Date Analyzed: 2015-05-13

Analyzed By: SC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		s	mg/Kg	250	216	86	80 - 120	2015-05-13

Standard (CCV-2)

QC Batch: 121475

Date Analyzed: 2015-05-13

Analyzed By: SC

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
DRO		s	mg/Kg	250	224	90	80 - 120	2015-05-13

Standard (CCV-1)

QC Batch: 121501

Date Analyzed: 2015-05-14

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		s	mg/kg	0.100	0.111	111	80 - 120	2015-05-14
Toluene		s	mg/kg	0.100	0.0985	98	80 - 120	2015-05-14
Ethylbenzene		s	mg/kg	0.100	0.0972	97	80 - 120	2015-05-14
Xylene		s	mg/kg	0.300	0.284	95	80 - 120	2015-05-14

Standard (CCV-2)

QC Batch: 121501

Date Analyzed: 2015-05-14

Analyzed By: AK

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Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		s	mg/kg	0.100	0.109	109	80 - 120	2015-05-14
Toluene		s	mg/kg	0.100	0.0970	97	80 - 120	2015-05-14
Ethylbenzene		s	mg/kg	0.100	0.0955	96	80 - 120	2015-05-14
Xylene		s	mg/kg	0.300	0.281	94	80 - 120	2015-05-14

Standard (CCV-3)

QC Batch: 121501

Date Analyzed: 2015-05-14

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Benzene		s	mg/kg	0.100	0.106	106	80 - 120	2015-05-14
Toluene		s	mg/kg	0.100	0.0931	93	80 - 120	2015-05-14
Ethylbenzene		s	mg/kg	0.100	0.0911	91	80 - 120	2015-05-14
Xylene		s	mg/kg	0.300	0.269	90	80 - 120	2015-05-14

Standard (CCV-1)

QC Batch: 121502

Date Analyzed: 2015-05-14

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		s	mg/Kg	1.00	0.913	91	80 - 120	2015-05-14

Standard (CCV-2)

QC Batch: 121502

Date Analyzed: 2015-05-14

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		s	mg/Kg	1.00	0.904	90	80 - 120	2015-05-14

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Eddy Co, NM

Standard (CCV-3)

QC Batch: 121502

Date Analyzed: 2015-05-14

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
GRO		s	mg/Kg	1.00	0.797	80	80 - 120	2015-05-14

Standard (ICV-1)

QC Batch: 121576

Date Analyzed: 2015-05-18

Analyzed By: AK

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2015-05-18

Standard (CCV-1)

QC Batch: 121576

Date Analyzed: 2015-05-18

Analyzed By: AK

Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.0	99	85 - 115	2015-05-18

Standard (ICV-1)

QC Batch: 121616

Date Analyzed: 2015-05-19

Analyzed By: AK

Param	Flag	Cert	Units	ICVs True Conc.	ICVs Found Conc.	ICVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	101	101	85 - 115	2015-05-19

Standard (CCV-1)

QC Batch: 121616

Date Analyzed: 2015-05-19

Analyzed By: AK

Report Date: May 20, 2015
Dirty Dozen St Com #3H

Work Order: 15051122
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Param	Flag	Cert	Units	CCVs True Conc.	CCVs Found Conc.	CCVs Percent Recovery	Percent Recovery Limits	Date Analyzed
Chloride			mg/Kg	100	99.0	99	85 - 115	2015-05-19

Appendix

Report Definitions

Name	Definition
MDL	Method Detection Limit
MQL	Minimum Quantitation Limit
SDL	Sample Detection Limit

Laboratory Certifications

C	Certifying Authority	Certification Number	Laboratory Location
-	NCTRCA	WFWB384444Y0909	TraceAnalysis
-	DBE	VN 20657	TraceAnalysis
-	HUB	1752439743100-86536	TraceAnalysis
-	WBE	237019	TraceAnalysis
1	L-A-B	L2418	Lubbock
2	Kansas	Kansas E-10317	Lubbock
3	LELAP	LELAP-02003	Lubbock
4	NELAP	T104704219-15-11	Lubbock
5	NELAP	T104704392-14-8	Midland
6		2014-018	Lubbock

Standard Flags

F	Description
B	Analyte detected in the corresponding method blank above the method detection limit
H	Analyzed out of hold time
J	Estimated concentration
Jb	The analyte is positively identified and the value is approximated between the SDL and MQL. Sample contains less then ten times the concentration found in the method blank. The result should be considered non-detect to the SDL.
Je	Estimated concentration exceeding calibration range.
MI1	Split peak or shoulder peak
MI2	Instrument software did not integrate
MI3	Instrument software misidentified the peak
MI4	Instrument software integrated improperly
MI5	Baseline correction
Qc	Calibration check outside of laboratory limits.
Qr	RPD outside of laboratory limits
Qs	Spike recovery outside of laboratory limits.

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F	Description
Qsr	Surrogate recovery outside of laboratory limits.
U	The analyte is not detected above the SDL

Attachments

The scanned attachments will follow this page.
Please note, each attachment may consist of more than one page.

BioAquatec Testing
2501 Mayes Rd., Ste 100
Carrollton, Texas 75006
Tel (972) 242-7750

Submittal of samples constitutes agreement to Terms and Conditions

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Summary Report

Robert Grubbs
COG Operating, LLC
550 W. Texas Avenue
Suite 100
Midland, TX 79701

Report Date: May 20, 2015

Work Order: 15051122



Project Location: Eddy Co, NM
Project Name: Dirty Dozen St Com #3H

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
393011	T-1 0-1'	soil	2015-05-06	00:00	2015-05-11
393012	T-1 2'	soil	2015-05-06	00:00	2015-05-11
393013	T-1 3'	soil	2015-05-06	00:00	2015-05-11
393014	T-2 0-1'	soil	2015-05-06	00:00	2015-05-11
393015	T-2 2'	soil	2015-05-06	00:00	2015-05-11
393016	T-2 3'	soil	2015-05-06	00:00	2015-05-11

Sample - Field Code	BTX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
393011 - T-1 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00 Q*
393012 - T-1 2'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00 Q*
393013 - T-1 3'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00 Q*
393014 - T-2 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00 Q*
393015 - T-2 2'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00 Q*
393016 - T-2 3'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<4.00 Q*

Sample: 393011 - T-1 0-1'

Param	Flag	Result	Units	RL
Chloride		654	mg/Kg	4

Sample: 393012 - T-1 2'

Param	Flag	Result	Units	RL
Chloride		935	mg/Kg	4

Sample: 393013 - T-1 3'

Param	Flag	Result	Units	RL
Chloride		374	mg/Kg	4

Sample: 393014 - T-2 0-1'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4

Sample: 393015 - T-2 2'

Param	Flag	Result	Units	RL
Chloride		374	mg/Kg	4

Sample: 393016 - T-2 3'

Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4