



## DELINEATION WORKPLAN

### COG – GRAHAM NASH STATE COM #008H (Leak Date: 12/18/16)

**RP # 2RP-4043**  
**API # 30-015-42203**

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This delineation workplan and remediation proposal addresses the release associated with RP # 2RP-4043.

The following information includes:

1. Scaled digital site map with spill area demarcated and leak point identified along with sample point locations and areas of remediation at appropriate depths.
2. GPS information for sample points and sample methodology
3. Depth to groundwater information (i.e., pdf of OSE search results and/or copy of Chevron groundwater trend map).
4. Laboratory analysis results summary table and original laboratory analysis reports
5. A copy of the initial C-141
6. Potentially other pertinent information as necessary for site specific purposes.

***Based on the information included in this package and the NMOCD guidelines, the following remediation is proposed:***

***COG will excavate the spill area as depicted on the following site diagram. The entire leak area (red shade on diagram) will be excavated to a depth of 2.5 feet.***

The entire site will then be backfilled with clean soil and revegetated (if warranted) to the standards of the appropriate regulatory agency or private surface owner.

All excavated materials will be disposed of at an NMOCD-approved disposal facility.

# COG, Graham Nash State Com #008H

Leak date: 12/18/2016  
Eddy County, NM  
AP#30-015-42203  
2RP-4043

## Legend

-  Leak Area, 2.5' Excavation across the entire site
-  Sample points



Graham Nash T-1

T-2

COG, Graham Nash State Com #008H

Sample points, hand auger

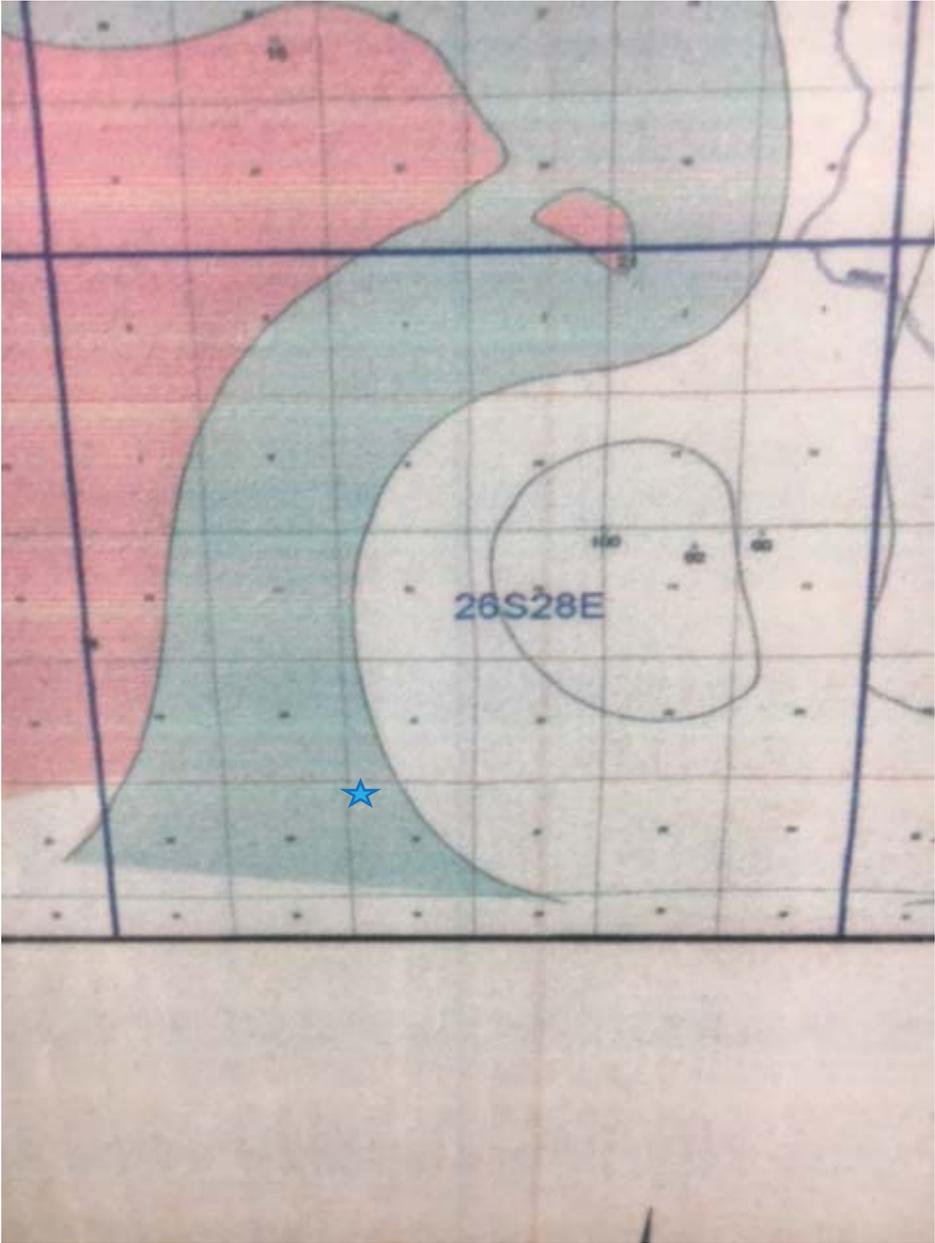
T1, N 32.02029 W-104.09864

T2, N 32.02024 W-104.09838

**COG, Graham Nash State Com #008H**

**U/L D, Section 28, T26S, R28E**

**Groundwater: <50'**





*New Mexico Office of the State Engineer*  
**Water Column/Average Depth to Water**

(quarters are 1=NW 2=NE 3=SW 4=SE)  
(quarters are smallest to largest) (NAD83 UTM in meters)

No records found.

**UTMNAD83 Radius Search (in meters):**

**Easting (X):** 585157

**Northing (Y):** 3542855

**Radius:** 1700

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The data is furnished by the NMOSE/ISC and is accepted by the recipient with the expressed understanding that the OSE/ISC make no warranties, expressed or implied, concerning the accuracy, completeness, reliability, usability, or suitability for any particular purpose of the data.

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6/21/17 2:57 PM

WATER COLUMN/ AVERAGE  
DEPTH TO WATER

### Public Land Survey System (PLSS)

Q64:  Q16:  Q4:  Sec:  Tws:  Rng:

### State Plane Coordinate System - NAD27

X:  ft Y:  ft Zone:

### State Plane Coordinate System - NAD83

X:  ft Y:  ft Zone:

### Degrees/Minutes/Seconds

Longitude (X):                      Degrees:  °                      Minutes:  '                      Seconds:  ''  
Latitude (Y):                      Degrees:  °                      Minutes:  '                      Seconds:  ''

### UTM - NAD27

Easting (X):  mtrs Northing (Y):  mtrs Zone:

**SUBMIT**

All Conversion Results are displayed as **NAD 1983 UTM Zone 13**

Easting (X):  mtrs                      Northing (Y):  mtrs

~~ Please keep screen open to copy UTM values for Reports. ~~

Laboratory Analytical Results Summary  
Graham Nash State Com #008H

Analyte	Method	Sample Date	T1 @ 1'	T1 @ 2'	T1 @ 3'	T1 @ 4'	T1 @ 5'	T1 @ 6'	T1 @ 8'	T1 @ 10'	T1 @ 12'
			mg/kg	mg/kg	mg/kg						
<b>Benzene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a	n/a
<b>Toluene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a	n/a
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a	n/a
<b>Total Xylenes</b>	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150	n/a	n/a	n/a	n/a
<b>Total BTEX</b>	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	<0.300	n/a	n/a	n/a	n/a
<b>Chloride</b>	SM4500C1B		<b>560</b>	<b>912</b>	<b>400</b>	<b>320</b>	<b>304</b>	<b>224</b>	<b>128</b>	<b>64</b>	<b>304</b>
<b>GRO</b>	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	n/a	n/a	n/a	n/a
<b>DRO</b>	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	n/a	n/a	n/a	n/a

Analyte	Method	Sample Date	T2 @ 1'	T2 @ 2'	T2 @ 3'	T2 @ 4'	T2 @ 5'	T2 @ 6'	T2 @ 8'	T2 @ 9'
			mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg
<b>Benzene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a
<b>Toluene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a
<b>Ethylbenzene</b>	BTEX 8021B		<0.050	<0.050	<0.050	<0.050	<0.050	n/a	n/a	n/a
<b>Total Xylenes</b>	BTEX 8021B		<0.150	<0.150	<0.150	<0.150	<0.150	n/a	n/a	n/a
<b>Total BTEX</b>	BTEX 8021B		<0.300	<0.300	<0.300	<0.300	<0.300	n/a	n/a	n/a
<b>Chloride</b>	SM4500C1B		<b>832</b>	<b>1550</b>	<b>64</b>	<b>64</b>	<b>128</b>	<b>48</b>	<b>64</b>	<b>224</b>
<b>GRO</b>	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	n/a	n/a	n/a
<b>DRO</b>	TPH 8015M		<10.0	<10.0	<10.0	<10.0	<10.0	n/a	n/a	n/a

January 31, 2017

AARON LIEB  
COG OPERATING  
P. O. BOX 1630  
ARTESIA, NM 88210

RE: GRAHAM NASH STATE #8H

Enclosed are the results of analyses for samples received by the laboratory on 01/25/17 12:15.

Cardinal Laboratories is accredited through Texas NELAP under certificate number T104704398-16-8. Accreditation applies to drinking water, non-potable water and solid and chemical materials. All accredited analytes are denoted by an asterisk (\*). For a complete list of accredited analytes and matrices visit the TCEQ website at [www.tceq.texas.gov/field/qa/lab\\_accred\\_certif.html](http://www.tceq.texas.gov/field/qa/lab_accred_certif.html).

Cardinal Laboratories is accredited through the State of Colorado Department of Public Health and Environment for:

Method EPA 552.2	Haloacetic Acids (HAA-5)
Method EPA 524.2	Total Trihalomethanes (TTHM)
Method EPA 524.4	Regulated VOCs (V1, V2, V3)

Accreditation applies to public drinking water matrices.

This report meets NELAP requirements and is made up of a cover page, analytical results, and a copy of the original chain-of-custody. If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Celey D. Keene  
Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 AARON LIEB  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

**Sample ID: T1 - 1' (H700186-01)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.91	95.6	2.00	0.678	
Toluene*	<0.050	0.050	01/30/2017	ND	1.92	95.9	2.00	0.381	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	1.96	98.2	2.00	0.486	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.55	92.6	6.00	0.146	
Total BTEX	<0.300	0.300	01/30/2017	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>560</b>	16.0	01/28/2017	ND	432	108	400	3.77	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

*Surrogate: 1-Chlorooctane 78.6 % 35-147*
*Surrogate: 1-Chlorooctadecane 92.4 % 28-171*

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 AARON LIEB  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

**Sample ID: T1 - 2' (H700186-02)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/30/2017	ND	1.91	95.6	2.00	0.678		
Toluene*	<0.050	0.050	01/30/2017	ND	1.92	95.9	2.00	0.381		
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	1.96	98.2	2.00	0.486		
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.55	92.6	6.00	0.146		
Total BTEX	<0.300	0.300	01/30/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	912	16.0	01/28/2017	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81		
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15		

Surrogate: 1-Chlorooctane 75.3 % 35-147

Surrogate: 1-Chlorooctadecane 91.5 % 28-171

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 AARON LIEB  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

**Sample ID: T1 - 3' (H700186-03)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680		
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817		
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340		
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184		
Total BTEX	<0.300	0.300	01/30/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Chloride	<b>400</b>	16.0	01/28/2017	ND	432	108	400	3.77		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81		
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15		

Surrogate: 1-Chlorooctane 77.7 % 35-147

Surrogate: 1-Chlorooctadecane 92.1 % 28-171

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 AARON LIEB  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 01/25/2017  
 Reported: 01/31/2017  
 Project Name: GRAHAM NASH STATE #8H  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 01/24/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Angela Cabrera

**Sample ID: T1 - 4' (H700186-04)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680		
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817		
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340		
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184		
Total BTEX	<0.300	0.300	01/30/2017	ND						

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>320</b>	16.0	01/28/2017	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81		
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15		

Surrogate: 1-Chlorooctane 72.4 % 35-147

Surrogate: 1-Chlorooctadecane 83.1 % 28-171

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 AARON LIEB  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

**Sample ID: T1 - 5' (H700186-05)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680	
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184	
Total BTEX	<0.300	0.300	01/30/2017	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140*

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>304</b>	16.0	01/28/2017	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

*Surrogate: 1-Chlorooctane 87.3 % 35-147*
*Surrogate: 1-Chlorooctadecane 83.7 % 28-171*
**Sample ID: T1 - 6' (H700186-06)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>224</b>	16.0	01/28/2017	ND	448	112	400	0.00	

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 AARON LIEB  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

**Sample ID: T1 - 8' (H700186-07)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	128	16.0	01/28/2017	ND	448	112	400	0.00	

**Sample ID: T1 - 10' (H700186-08)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	01/28/2017	ND	448	112	400	0.00	

**Sample ID: T1 - 12' (H700186-09)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	304	16.0	01/28/2017	ND	448	112	400	0.00	

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 AARON LIEB  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

**Sample ID: T2 - 1' (H700186-10)**

BTEX 8021B		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680		
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817		
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340		
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184		
Total BTEX	<0.300	0.300	01/30/2017	ND						

*Surrogate: 4-Bromofluorobenzene (PID) 103 % 73.6-140*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
<b>Chloride</b>	<b>832</b>	16.0	01/28/2017	ND	448	112	400	0.00		

TPH 8015M		mg/kg		Analyzed By: MS						
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier	
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81		
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15		

*Surrogate: 1-Chlorooctane 86.3 % 35-147*
*Surrogate: 1-Chlorooctadecane 94.4 % 28-171*

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 AARON LIEB  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

**Sample ID: T2 - 2' (H700186-11)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680	
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184	
Total BTEX	<0.300	0.300	01/30/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	1550	16.0	01/28/2017	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

Surrogate: 1-Chlorooctane 72.1 % 35-147

Surrogate: 1-Chlorooctadecane 84.3 % 28-171

Cardinal Laboratories

\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 AARON LIEB  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

**Sample ID: T2 - 3' (H700186-12)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680	
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184	
Total BTEX	<0.300	0.300	01/30/2017	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 102 % 73.6-140*

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	01/28/2017	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

*Surrogate: 1-Chlorooctane 63.5 % 35-147*
*Surrogate: 1-Chlorooctadecane 75.4 % 28-171*

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 AARON LIEB  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

 Received: 01/25/2017  
 Reported: 01/31/2017  
 Project Name: GRAHAM NASH STATE #8H  
 Project Number: NONE GIVEN  
 Project Location: NOT GIVEN

 Sampling Date: 01/24/2017  
 Sampling Type: Soil  
 Sampling Condition: Cool & Intact  
 Sample Received By: Angela Cabrera

**Sample ID: T2 - 4' (H700186-13)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680	
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184	
Total BTEX	<0.300	0.300	01/30/2017	ND					

Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	64.0	16.0	01/28/2017	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

Surrogate: 1-Chlorooctane 89.3 % 35-147

Surrogate: 1-Chlorooctadecane 81.7 % 28-171

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\*=Accredited Analyte

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 AARON LIEB  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

**Sample ID: T2 - 5' (H700186-14)**

BTEX 8021B		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Benzene*	<0.050	0.050	01/30/2017	ND	1.93	96.7	2.00	0.0680	
Toluene*	<0.050	0.050	01/30/2017	ND	1.95	97.5	2.00	0.0817	
Ethylbenzene*	<0.050	0.050	01/30/2017	ND	2.01	100	2.00	0.340	
Total Xylenes*	<0.150	0.150	01/30/2017	ND	5.70	95.1	6.00	0.184	
Total BTEX	<0.300	0.300	01/30/2017	ND					

*Surrogate: 4-Bromofluorobenzene (PID) 104 % 73.6-140*

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>128</b>	16.0	01/28/2017	ND	448	112	400	0.00	

TPH 8015M		mg/kg		Analyzed By: MS					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
GRO C6-C10	<10.0	10.0	01/27/2017	ND	199	99.7	200	1.81	
DRO >C10-C28	<10.0	10.0	01/27/2017	ND	209	104	200	1.15	

*Surrogate: 1-Chlorooctane 81.3 % 35-147*
*Surrogate: 1-Chlorooctadecane 94.1 % 28-171*
**Sample ID: T2 - 6' (H700186-15)**

Chloride, SM4500CI-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>48.0</b>	16.0	01/28/2017	ND	448	112	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

**Analytical Results For:**

 COG OPERATING  
 AARON LIEB  
 P. O. BOX 1630  
 ARTESIA NM, 88210  
 Fax To: NONE

Received:	01/25/2017	Sampling Date:	01/24/2017
Reported:	01/31/2017	Sampling Type:	Soil
Project Name:	GRAHAM NASH STATE #8H	Sampling Condition:	Cool & Intact
Project Number:	NONE GIVEN	Sample Received By:	Angela Cabrera
Project Location:	NOT GIVEN		

**Sample ID: T2 - 8' (H700186-16)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>64.0</b>	16.0	01/28/2017	ND	448	112	400	0.00	

**Sample ID: T2 - 9' (H700186-17)**

Chloride, SM4500Cl-B		mg/kg		Analyzed By: AC					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
<b>Chloride</b>	<b>224</b>	16.0	01/28/2017	ND	448	112	400	0.00	

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Celey D. Keene, Lab Director/Quality Manager

**Notes and Definitions**

- QM-07 The spike recovery was outside acceptance limits for the MS and/or MSD. The batch was accepted based on acceptable LCS recovery.
- ND Analyte NOT DETECTED at or above the reporting limit
- RPD Relative Percent Difference
- \*\* Samples not received at proper temperature of 6°C or below.
- \*\*\* Insufficient time to reach temperature.
- Chloride by SM4500Cl-B does not require samples be received at or below 6°C  
Samples reported on an as received basis (wet) unless otherwise noted on report



101 East Marland, Hobbs, NM 88240  
 (575) 393-2326 FAX (575) 393-2476

Company Name: COG Operating LLC

Project Manager: Aaron Lieb

Address: 2407 Peccos Avenue

City: Artesia

State: NM Zip: 88210

Phone #: 575-748-1553

Fax #:

Project #:

Project Owner:

Project Name: Graham Nash State #8H

Project Location:

Sampler Name: Aaron Lieb

FOR LAB USE ONLY

### BILL TO

P.O. #:

Company: COG Operating LLC

Attn: Robert McNeill

Address: 600 W Illinois

City: Midland

State: TX Zip: 79701

Phone #: (432) 221-0388

Fax #:

### ANALYSIS REQUEST

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							DATE	TIME	BTX	TPH	Chloride
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:					
H700186	01										1/24/17	11:00AM	X	X	X
	02										1/24/17	11:00AM	X	X	X
	03										1/24/17	11:00AM	X	X	X
	04										1/24/17	11:00AM	X	X	X
	05										1/24/17	11:00AM	X	X	X
	06										1/24/17	11:00AM	X	X	X
	07										1/24/17	11:00AM	X	X	X
	08										1/24/17	11:00AM	X	X	X
	09										1/24/17	11:00AM	X	X	X

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Relinquished By: *[Signature]*

Received By: *[Signature]*

Date: 1-25-17  
 Time: 12:15

Received By: *[Signature]*

Delivered By: (Circle One)

Sampler - UPS - Bus - Other:

FOR INFORMATION:

4.6°C

Sample Condition  
 Cool  Intact   
 Yes  No

CHECKED BY: *[Signature]*  
 (Initials) #75

Phone Result:  Yes  No Add'l Phone #:

Fax Result:  Yes  No Add'l Fax #:

REMARKS:

dneel2@concho.com  
 alieb@concho.com  
 rarrubs@concho.com  
 rhaskell@concho.com

Note: Run Deqet Horizons for BTEX + TPH  
 if Benzene > 10ppm, BTEX > 50ppm  
 + TPH > 5000ppm.

101 East Marland, Hobbs, NM 88240  
 (575) 393-2326 FAX (575) 393-2476

Company Name: COG Operating LLC

Project Manager: Aaron Lieb

Address: 2407 Pecos Avenue

City: Artesia

State: NM Zip: 88210

Phone #: 575-748-1553

Fax #:

Project #:

Project Owner:

Project Name: Graham Nash State #8H

Project Location:

Sampler Name: Aaron Lieb

FOR LAB USE ONLY

### BILL TO

### ANALYSIS REQUEST

P.O. #:

Company: COG Operating LLC

Attn: Robert McNeill

Address: 600 W Illinois

City: Midland

State: TX Zip: 79701

Phone #: (432) 221-0388

Fax #:

Lab I.D.	Sample I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX							PRESERV.	SAMPLING	DATE	TIME	BTEX	TPH	Chloride
				GROUNDWATER	WASTEWATER	SOIL	OIL	SLUDGE	OTHER :	ACID/BASE:							
H-7001870-10	T2-1'			X								1/24/17	11:30AM	X	X	X	
	T2-2'			X								1/24/17	11:30AM	X	X	X	
	T2-3'			X								1/24/17	11:30AM	X	X	X	
	T2-4'			X								1/24/17	11:30AM	X	X	X	
	T2-5'			X								1/24/17	11:30AM	X	X	X	
	T2-6'			X								1/24/17	11:30AM	X	X	X	
	T2-8'			X								1/24/17	11:30AM	X	X	X	
	T2-9'			X								1/24/17	11:30AM	X	X	X	

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Relinquished By: *[Signature]*  
 Date: 1-25-17  
 Time: 12:15  
 Received By: *[Signature]*  
 Date: \_\_\_\_\_  
 Time: \_\_\_\_\_

Delivered By: (Circle One)  
 Sampler - UPS - Bus - Other:  
 Sample Condition:  
 Cool  Intact   
 Yes  No   
 Checked By: \_\_\_\_\_

Phone Result:  Yes  No Add'l Phone #:  
 Fax Result:  Yes  No Add'l Fax #:  
 REMARKS:  
 dneel2@concho.com  
 alieb@concho.com  
 rrrubbs@concho.com  
 rhaskeill@concho.com  
 Note: Run Deeper Horizons for BTEX + TPH  
 if Benzene > 10 ppm, BTEX > 50 ppm &  
 TPH > 5000 ppm

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

**NM OIL CONSERVATION**  
ARTESIA DISTRICT  
Submit 1 Copy to appropriate District Office in accordance with 19.15.29 NMAC.  
DEC 19 2016

Form C-141  
Revised August 8, 2011

**Release Notification and Corrective Action** RECEIVED

*NAB 11635756020*

**OPERATOR**  Initial Report  Final Report

Name of Company: COG Operating LLC <i>229137</i>	Contact: Robert McNeill
Address: 600 West Illinois Avenue, Midland TX 79701	Telephone No. 432-683-7443
Facility Name: GRAHAM NASH STATE COM #008H	Facility Type: Tank Battery
Surface Owner: State	Mineral Owner: API No. 30-015-42203

**LOCATION OF RELEASE**

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
D	28	26S	28E	190'	North	760'	West	Eddy

Latitude 32.019989 Longitude 104.0983429

**NATURE OF RELEASE**

Type of Release: Oil & Produced Water	Volume of Release: 40bbls of Oil & 30bbls of Produced Water	Volume Recovered: 39bbls of Oil & 27bbls of Produced Water
Source of Release: Ball Valve	Date and Hour of Occurrence: 12-18-2016 07:00 am	Date and Hour of Discovery: 12-18-2016 07:00 am
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? <i>Crystal + Mike + Heather Kristen Lynch - NMOCD / Amber Groves - SLO</i>	
By Whom? Robert Grubbs Jr.	Date and Hour: Mon 12/19/2016 2:24 PM	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> 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 by a corroded ball valve due to age. The ball valve has been replaced with a new one.

Describe Area Affected and Cleanup Action Taken.\*  
This release was mostly contained within the lined facility a small area of 24 X30 on the pad. 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: <i>Robert Grubbs Jr.</i>	<b>OIL CONSERVATION DIVISION</b>	
Printed Name: Robert Grubbs Jr.	Approved by Environmental Specialist: <i>[Signature]</i>	
Title: Senior HSE Coordinator	Approval Date: <i>12/23/16</i>	Expiration Date: <i>N/A</i>
E-mail Address: rgrubbs@concho.com	Conditions of Approval:	Attached <input checked="" type="checkbox"/>
Date: Phone: 432-683-7443		

\* Attach Additional Sheets If Necessary

*2RP 4043*

Operator/Responsible Party,

The OCD has received the form C-141 you provided on **12/22/16** regarding an unauthorized release. The information contained on that form has been entered into our incident database and remediation case number 2 RP-4043 has been assigned. **Please refer to this case number in all future correspondence.**

It is the Division's obligation under both the Oil & Gas Act and Water Quality Act to provide for the protection of public health and the environment. Our regulations (19.15.29.11 NMAC) state the following,

*The responsible person shall complete division-approved corrective action for releases that endanger public health or the environment. The responsible person shall address releases in accordance with a remediation plan submitted to and approved by the division or with an abatement plan submitted in accordance with 19.15.30 NMAC. [emphasis added]*

Release characterization is the first phase of corrective action unless the release is ongoing or is of limited volume and all impacts can be immediately addressed. Proper and cost-effective remediation typically cannot occur without adequate characterization of the impacts of any release. Furthermore, the Division has the ability to impose reasonable conditions upon the efforts it oversees. **As such, the Division is requiring a workplan for the characterization of impacts associated with this release be submitted to the OCD District II office in Artesia on or before 2/1/17. If and when the release characterization workplan is approved, there will be an associated deadline for submittal of the resultant investigation report. Modest extensions of time to these deadlines may be granted, but only with acceptable justification.**

The goals of a characterization effort are: 1) determination of the lateral and vertical extents along with the magnitude of soil contamination. 2) determine if groundwater or surface waters have been impacted. 3) If groundwater or surface waters have been impacted, what are the extents and magnitude of that impact. 4) The characterization of any other adverse impacts that may have occurred (examples: impacts on vegetation, impacts on wildlife, air quality, loss of use of property, etc.). To meet these goals as quickly as possible, the following items must, at a minimum, be addressed in the release characterization workplan and subsequent reporting:

- Horizontal delineation of soil impacts in each of the four cardinal compass directions. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. This is not an exclusive list of potential contaminants. Analyzed parameters should be modified based on the nature of the released substance(s). Soil sampling must be both within the impacted area and beyond.
- Vertical delineation of soil impacts. Adsorbed soil contamination must be characterized for the following constituents using the associated laboratory methods: benzene, toluene, ethylbenzene, and total xylenes by either Method 8260 or 8021, total petroleum hydrocarbons by Method 8015 extended range (GRO+DRO+MRO; C<sub>6</sub> thru C<sub>36</sub>), and for chloride by Method 300. As above, this is not an exclusive list of potential contaminants and can be modified. Vertical characterization samples should be taken at depth intervals no greater than five feet apart. Lithologic description of encountered soils must also be provided. At least ten vertical feet of soils with contaminant concentrations at or below these values must be demonstrated as existing above the water table.
- Nominal detection limits for field and laboratory analyses must be provided.
- Composite sampling is not generally allowed.
- Field screening and assessment techniques are acceptable (headspace, titration, EC [include algorithm for validation purposes], EM, etc.), but the sampling and assay procedures must be clearly defined. Copies of field notes are highly desirable. A statistically significant set of split samples must be submitted for confirmatory laboratory analysis, including the laterally farthest and vertically deepest sets of soil samples. Make sure there are at least two soil samples submitted

for laboratory analysis from each borehole or test pit (highest observed contamination and deepest depth investigated). Copies of the actual laboratory results must be provided including chain of custody documentation.

- Probable depth to shallowest protectable groundwater and lateral distance to nearest surface water. If there is an estimate of groundwater depth, the information used to arrive at that estimate must be provided. If there is a reasonable assumption that the depth to protectable water is 50 feet or less, the responsible party should anticipate the need for at least one groundwater monitoring well to be installed in the area of likely maximum contamination.

- If groundwater contamination is encountered, an additional investigation workplan may be required to determine the extents of that contamination. Groundwater and/or surface water samples, if any, must be analyzed by a competent laboratory for volatile organic hydrocarbons (typically Method 8260 full list), total dissolved solids, pH, major anions and cations including chloride and sulfate, dissolved iron, and dissolved manganese. The investigation workplan must provide the groundwater sampling method(s) and sample handling protocols. To the fullest extent possible, aqueous analyses must be undertaken using nominal method detection limits. As with the soil analyses, copies of the actual laboratory results must be provided including chain of custody documentation.

- Accurately scaled and well-drafted site maps must be provided providing the location of borings, test pits, monitoring wells, potentially impacted areas, and significant surface features including roads and site infrastructure that might limit either the release characterization or remedial efforts. Field sketches may be included in subsequent reporting, but should not be considered stand-alone documentation of the site's layout. Digital photographic documentation of the location and fieldwork is recommended, especially if unusual circumstances are encountered.

**Nothing herein should be interpreted to preclude emergency response actions or to imply immediate remediation by removal cannot proceed as warranted. Nonetheless, characterization of impacts and confirmation of the effectiveness of remedial efforts must still be provided to the OCD before any release incident will be closed.**

**Jim Griswold**

OCD Environmental Bureau Chief

1220 South St. Francis Drive

Santa Fe, New Mexico 87505

505-476-3465

[jim.griswold@state.nm.us](mailto:jim.griswold@state.nm.us)

**Patterson, Heather, EMNRD**

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**From:** Robert Grubbs <RGrubbs@concho.com>  
**Sent:** Monday, December 19, 2016 1:32 PM  
**To:** Bratcher, Mike, EMNRD; Patterson, Heather, EMNRD; Weaver, Crystal, EMNRD; 'agroves@slo.state.nm.us'  
**Subject:** (C-141) Initial GRAHAM NASH STATE COM #008H (TB) 30-015-42203  
**Attachments:** Graham Nash State Com #008H (TB) Initial.pdf

MR. BRATCHER / MS. GROVES,

ATTACHED IS A C-141 FOR YOUR CONSIDERATION. IF YOU HAVE ANY ADDITIONAL QUESTIONS PLEASE FEEL FREE TO CONTACT ME.

THANK YOU,

ROBERT GRUBBS JR.  
SR. HSE COORDINATOR  
432.683.7443 (MAIN)  
432.818.2369 (DIRECT)  
432.661.6601 (CELL)  
432.221.0892 (FAX)  
RGRUBBS@CONCHO.COM  
MAILING ADDRESS:  
ONE CONCHO CENTER  
600 W. ILLINOIS AVENUE  
MIDLAND, TEXAS 79701

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**Patterson, Heather, EMNRD**

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**From:** Robert Grubbs <RGrubbs@concho.com>  
**Sent:** Monday, December 19, 2016 1:24 PM  
**To:** Bratcher, Mike, EMNRD; Patterson, Heather, EMNRD; Weaver, Crystal, EMNRD; 'agroves@slo.state.nm.us'  
**Subject:** (Notification) GRAHAM NASH STATE COM #008H (TB) 30-015-42203

MR. BRATCHER / MS. GROVES,

COG OPERATING LLC IS REPORTING A RELEASE ON THE GRAHAM NASH STATE COM #008H (30-015-42203)

UNIT D SECTION 28 TOWNSHIP 26S RANGE 28E

THE RELEASE OCCURRED AT APPROXIMATELY 07:00 AM ON 12-18-2016

ESTIMATED RELEASED: APPROX. 40BBLS OIL & 30BBLS OF PRODUCED WATER

ESTIMATED RECOVERED: APPROX. 39BBLS OF OIL & 27BBLS OF PRODUCED WATER

THE RELEASE WAS CAUSED BY A CORRODED BALL VALVE DUE TO AGE. THIS RELEASE WAS MOSTLY CONTAINED WITHIN THE LINED FACILITY A SMALL AREA OF 24 X30 ON THE PAD. THIS AREA IS BEING EVALUATED AND A C-141 WILL BE SUBMITTED. IF YOU HAVE ANY ADDITIONAL QUESTIONS

THANK YOU,

ROBERT GRUBBS JR.  
SR. HSE COORDINATOR  
432.683.7443 (MAIN)  
432.818.2369 (DIRECT)  
432.661.6601 (CELL)  
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## Weaver, Crystal, EMNRD

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**Sent:** Monday, December 19, 2016 1:24 PM  
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**Subject:** (Notification) GRAHAM NASH STATE COM #008H (TB) 30-015-42203

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