SITE	INFO	RMA1	FION
------	-------------	-------------	-------------

X

	en e per composito en completo po	2		TION	
		Repo	rt Type: Clos	ure Report	
General Site In	formation:			2000 (CAL)	
Site:		Empire Federal S	WD #3		
Company:		COG Operating L		1.	
Section, Towns	ship and Range	Unit K	Sec 10	T17S	R29E
Lease Number:		API-30-015-37831			
County:		Eddy County	•	1	
GPS:			32.84720° N		104.06456° W
Surface Owner		Federa	· .	•	
Mineral Owner:		· ·			
Directions:			the intersection of Hw and travel 0.1 miles, tu		arnival Draw), travel north on CR 214 for miles to site.
Release Data:		ist Spill	2nd Spill	3rd Spill	4th Spill
Date Released:		11/25/2012	12/12/2012	12/14/2012	12/18/2012
Type Release:		Produced Water	Produced Water	Produced Water	Produced Water
Source of Conta	mination:	Load Line	Load Line Load Line		Load Line
Fluid Released: 25 bbls		25 bbls	15 bbls	15 bbls	15 bbls
Fluids Recovere	d:	20 bbls	12 bbls	12 bbls	12 bbls
Official Commu	inication:				
Name:	Robert McNeill				lke Tavarez
Company:	COG Operating,	LLC			Tetra Tech
Address:	One Concho Ce	nter			1910 N. Big Spring
	600 W. Illinois A	ve.			<u> </u>
City:	Midland Texas,	79701			Midland, Texas
Phone number:	(432) 686-3023	·			(432) 682-4559
Fax:	(432) 684-7137				
Email:	rmcneill@conc	ho.com			ike.tavarez@tetratech.com
		an a			
Depth to Ground	water:		Ranking Score		Site Data
<50 ft			20		
50-99 ft >100 ft.		· ·	10 0		10
- 100 11.			<u> </u>		
WellHead Protect	tion:		Ranking Score	ſ	Site Data
Water Source <1,		200 ft.	20		
Water Source >1,	000 ft., Private >2	200 ft.	0		0
Surface Body of	Water:		Ranking Score		Site Data
<200 ft.			20		5100 2 200
200 ft - 1,000 ft.			10		
>1,000 ft.			0		0

Acceptable Soil RRAL (mg/kg)								
Benzene	Total BTEX	TPH						
10	50	1,000						

RECEIVED
JAN 2 4 2014
MACCO APTEST



August 30, 2013

Mr. Mike Bratcher Environmental Engineer Specialist Oil Conservation Division, District 2 811 S. First Street Artesia, New Mexico 88210

Re: Closure Report for the COG Operating LLC., Empire Federal SWD #3 Releases, Unit K, Section 10, Township 17 South, Range 29 East, Eddy County, New Mexico.

Mr. Bratcher:

Tetra Tech, Inc. (Tetra Tech) was contacted by COG Operating LLC. (COG) to assess four (4) spills from the Empire Federal SWD #3 located in Unit K, Section 10, Township 17 South, Range 29 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.84720°, W 104.06456°. The site location is shown on Figures 1 and 2.

Background

<u>1st Spill</u> 11/25/12

According to the State of New Mexico C-141 Initial Report, the leak was discovered on November 25, 2012, and released approximately twenty five (25) barrels of produced water from the SWD load line, due to it being left open. To alleviate the problem, COG personnel closed the valve on the load line. Twenty (20) barrels of standing fluids were recovered. The spill initiated at the load line and stayed on the pad affecting an area 40' X 40' around the well head. The initial C-141 form is enclosed in Appendix A.

2nd Spill 12/12/12

According to the State of New Mexico C-141 Initial Report, the leak was discovered on December 12, 2012, and released approximately fifteen (15) barrels of produced water from the SWD load line, due to it being left open. To alleviate the problem, COG personnel closed the valve on the load line. Twelve (12) barrels of standing fluids were recovered. The spill initiated at the load line and stayed on the



pad. The initial C-141 form is enclosed in Appendix A.

<u>3rd Spill</u> 12/14/12

According to the State of New Mexico C-141 Initial Report, the leak was discovered on December 14, 2012, and released approximately fifteen (15) barrels of produced water from the SWD load line, due to it being left open. To alleviate the problem, COG personnel closed the valve on the load line. Twelve (12) barrels of standing fluids were recovered. The spill initiated at the load line and stayed on the pad. The initial C-141 form is enclosed in Appendix A.

<u>4th Spill</u> 12/18/12

According to the State of New Mexico C-141 Initial Report, the leak was discovered on December 18, 2012, and released approximately fifteen (15) barrels of produced water from the SWD load line, due to it being left open. To alleviate the problem, COG personnel closed the valve on the load line. Twelve (12) barrels of standing fluids were recovered. The spill initiated at the load line and stayed on the pad. The initial C-141 form is enclosed in Appendix A.

Groundwater

No water wells were listed within Section 10. According to the NMOCD groundwater map, the average depth to groundwater in this area is approximately 75' to 100' below surface. The groundwater data is shown in Appendix B.

Regulatory

A risk-based evaluation was performed for the Site in accordance with the New Mexico Oil Conservation Division (NMOCD) Guidelines for Remediation of Leaks, Spills and Releases, dated August 13, 1993. The guidelines require a risk-based evaluation of the site to determine recommended remedial action levels (RRAL) for benzene, toluene, ethylbenzene and xylene (collectively referred to as BTEX) and total petroleum hydrocarbons (TPH) in soil. The proposed RRAL for benzene was determined to be 10 parts per million (ppm) or milligrams per kilogram (mg/kg) and 50 ppm for total BTEX (sum of benzene, toluene, ethylbenzene, and xylene). Based upon the depth to groundwater, the proposed RRAL for TPH is 1,000 mg/kg.

Soil Assessment and Analytical Results

On January 23, 2013, Tetra Tech personnel inspected and sampled the spill area. Five (5) auger holes (AH-1 through AH-5) were installed using a stainless steel hand auger to assess the impacted soils. Selected samples were analyzed for TPH analysis by EPA method 8015 modified, BTEX by EPA Method 8021B and chloride by EPA method 300.0. Copies of laboratory analysis and chain-of-custody



documentation are included in Appendix C. The sampling results are summarized in Table 1. The auger hole locations are shown on Figure 3.

Referring to Table 1, none of the samples exceeded the RRAL for TPH and BTEX. A shallow chloride impact was detected in the areas of AH-1, AH-2 and AH-4, with concentrations at 0-1' of 4,910 mg/kg, 10,700 mg/kg and 3,990 mg/kg, respectively. The deeper samples significantly declined with depth at 1-1.5' below surface and were all vertically defined. The areas of AH-3 and AH-5 showed a deeper impact to the soils. Auger hole (AH-3) detected elevated chlorides from surface to 3.0' below surface and declined to 624 mg/kg at 4.0' below surface. However, AH-5 was not vertically defined, with a bottom auger hole sample of 2,360 mg/kg at 3-3.5' below surface.

Site Remediation and Conclusion

On June 19, 2013, Tetra Tech personnel supervised the excavation of the impacted soils. The excavated areas and depths are highlighted in Table 1 and shown on Figure 4. In order to remove the chloride impacts, the excavation depths ranged from 1.0' to 5.0' below surface. Once excavated, Tetra Tech collected confirmation samples from the excavation sidewalls and bottoms. The sampling results are shown in Table 1.

Referring to Table 1, the confirmation samples did not show any elevated remaining chlorides in the soils, except for the areas of AH-1 and AH-2 (south sidewalls) showed chlorides of 2,810 mg/kg and 5,120 mg/kg, respectively. These areas were not excavated due to facility or lines in the area. In addition, AH-1 (north sidewall) did show a chloride concentrations slightly above are target level of 1,000 mg/kg.

Approximately 490 cubic yards³ of soil were removed and transported to R360 facility for proper disposal. Once approved by the BLM, the site was then backfilled with clean material to surface grade.

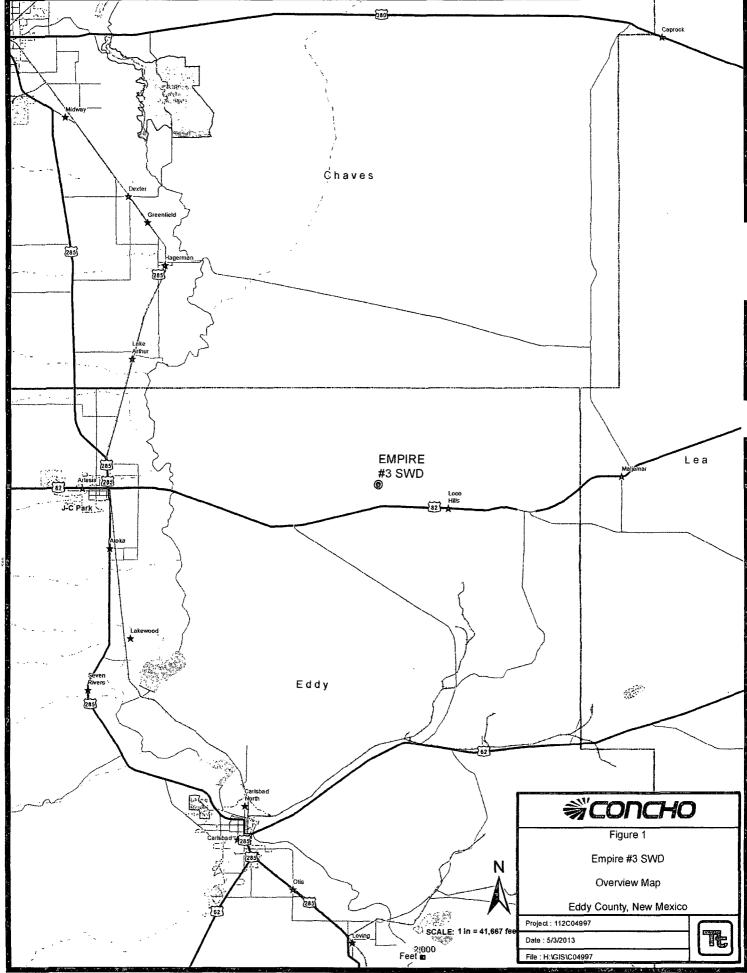
Based on the remediation activities performed at this location, COG requests closure for this site. The C-141's (Finals) are included in Appendix A. If you have any questions or comments concerning the assessment or the remediation activities performed at the site, please call me at (432) 682-4559.

Respectfully submitted, TET/ŔA/TEG/Ĥ/ Ike Tavarez PG

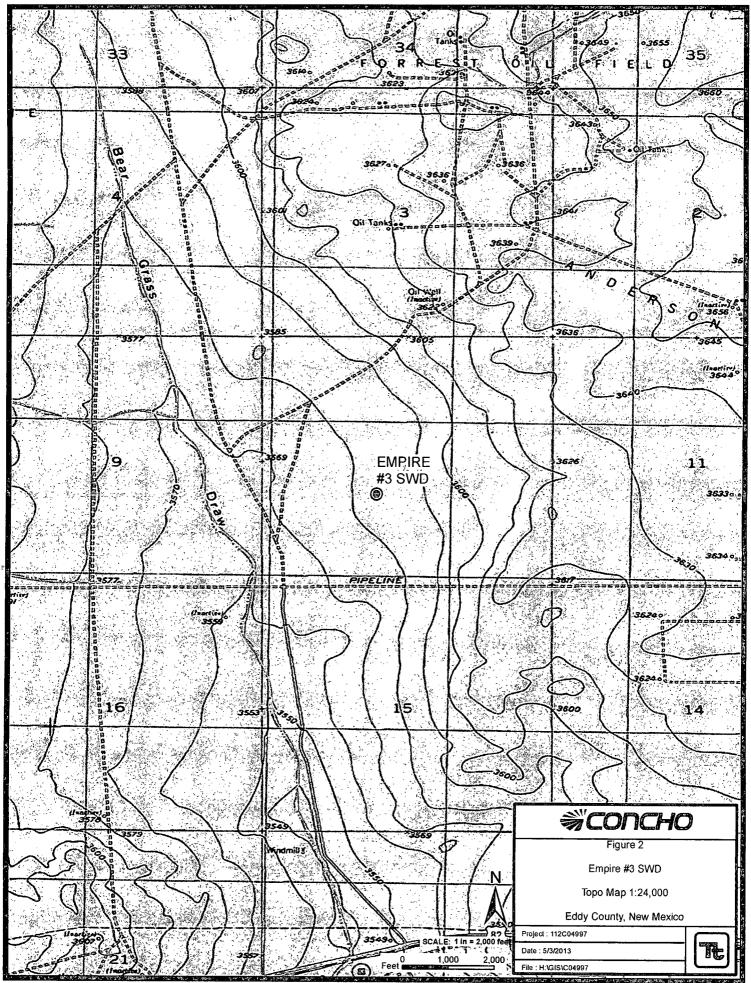
Senior Project Manager

cc: Pat Ellis – COG Jeff Robertson - BLM

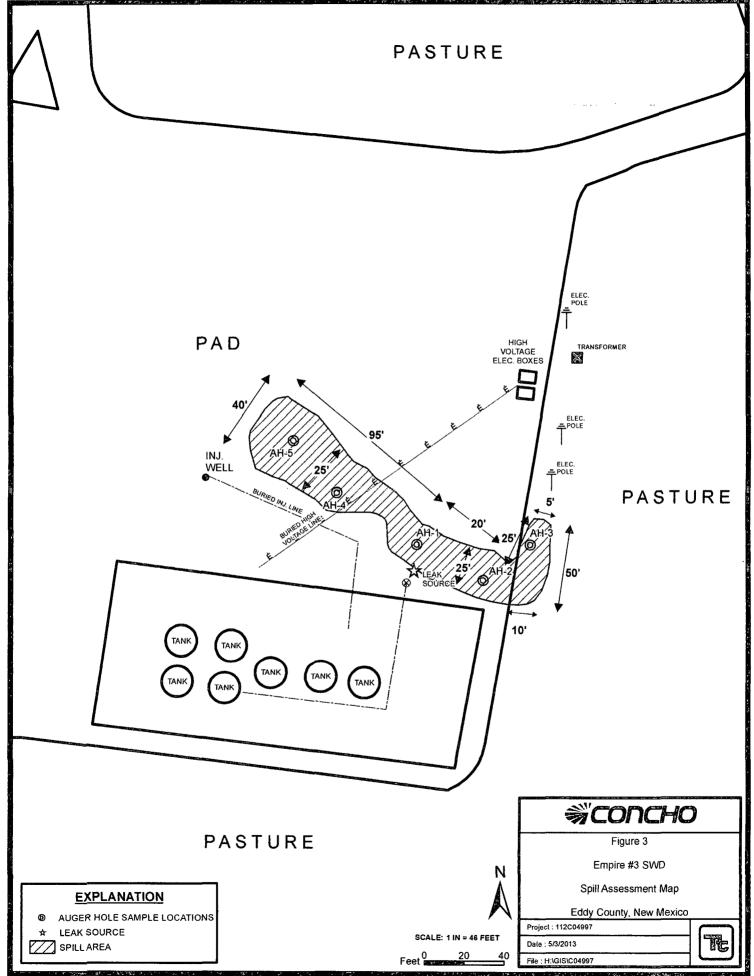
Figures



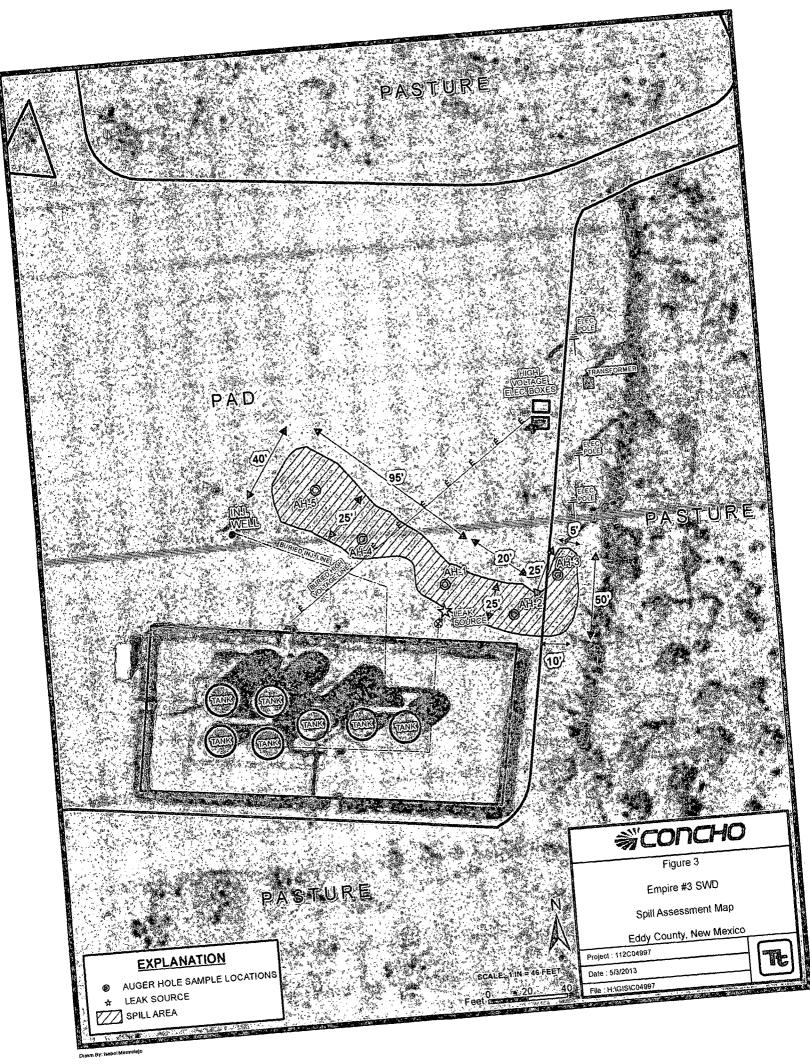
Drawn By: isabel Marmole

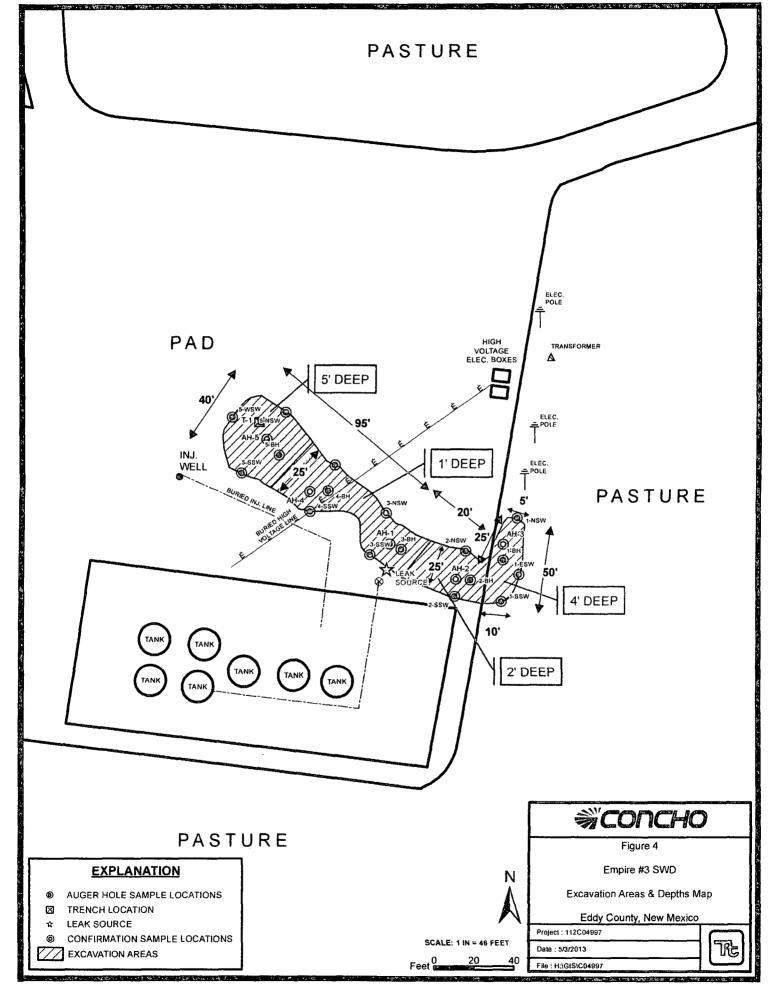


Drawn By; isabel Marmoleji



Drawn By: Isabel Marmolejo





Tables

Table 1 COG Operating LLC. Empire Federal Salt Water Disposal #3 Eddy County, New Mexico

	Sample	Sample	Soil	Status		TPH (mg/kg)		Benzene	Toluene	Ethlybenzene	Xylene	Total	Chloride
Sample ID	Date	Depth (ft)	In-Situ	Removed		DRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	BTEX (mg/kg)	(mg/kg)
AH-1	1/23/2013	0-1		X	≤<4.00	<50.0	<50.04	<0.0200.	<0.0200	<0.0200	<0.0200	<0.0200	4,910>
		1-1.5	Х		-	-	-	-	-	-	-	-	<20.0
	"	2-2.5	Х		-	-	-	-	-	_	-	-	<20.0
	**	3-3.5	Х		-	-	-	-	-	-	-	ł	<20.0
	N	4-4.5	X		-	-	-	-	-	-	-	-	36.8
CS-3 NSW	6/25/2013	1	x		-	-	-	-	-	-	-	-	1,670
CS-3 SSW	11	1	Х		-	-	-	-	-	-	-	-	2,810
CS-3 Bottom Hole	"	1	Х		-	-	-	-	-	-	-	-	49.4
AH-2	1/23/2013	0-1.		X	<4.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	10,700
	11	1-1-5	124	X									308.0
	"	2-2.5	Х		-	-	-	-	-	-	-	-	152
	"	3-3.5	Х		-	-	-	-	-	-	-	-	<20.0
CS-2 NSW	6/25/2013	2	X	[-	-	-	-	-	-	-	-	<20.0
CS-2 SSW	11	2	Х		-	-	-	-	-	-	-	-	5,120
CS-2 Bottom Hole	11	2	Х			-	-	-	-		-	-	202
AH-3	1/23/2013	·<∮0-1∕≧,	3.42	× X ×	S<4.00 .	<50.0		<0.0200	<0.0200	<0:0200	<0.0200	<0.0200	· 4,200
	"	1-1.5		× X									_13,900
	н	2-2.5		X				and the stand	12. J. A.		200 - 200 - 200 200 - 200 - 200 - 200 200 - 200 - 200		10,900
	"			X		3.4							5,450
	11	4-4.5	Х		-	-	-	-	-	-	-	-	624
	,,	5-5.5	Х		-	-	-	-	-	-	-	-	213
· ·	11	6-6.5	Х		-	-	-	-	-	-	-	-	<20.0
CS-1 NSW	6/25/2013	4	X	<u> </u>	-	-	-	-	-		-	-	104
CS-1 NSW		4	X		-	-	-		-	-	-	-	<20.0
CS-1 ESW	11	4	Х		-	-	-	-	-	-	-	-	<20.0
CS-1 SSW	17	4	Х		-	-	-	-	-		-	-	404
CS-1 Bottom Hole	17	4	X		-	-	-	-	-	-	-	-	537

Table 1 COG Operating LLC. Empire Federal Salt Water Disposal #3 Eddy County, New Mexico

Comple ID	Sample	Sample	Soil Status		1	ſPH (mg/k	g)	Benzene	Toluene	Ethlybenzene	Xylene	Total BTEX	Chloride
Sample ID	Date	Depth (ft)	In-Situ	Removed	GRO	DRO	Total	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)
AH-4	1/23/2013	0-1		X	, < <u>4.00</u> *	<50.0	<50.0	<0:0200	<0.0200	<0.0200	<0.0200	<0 0200	3,990
	н	1-1.5	Х		-	-	-	-	-	-	-	-	795
	"	2-2.5	Х		-	-	-	-	-	-	-	-	<20.0
CS-4 NSW	6/25/2013	1	Х		-	-	-	-	-	_	-	-	765
CS-4 SSW	74	1	Х		-	-	-	-	-	-	-	-	1,070
CS-4 Bottom Hole	11	1	Х		-	-	-	-	-	-	-		479
AH-5	1/23/2013	0-1		~ X	<4.00	<50.0	<50.0	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	7,990
	17	1-1-5		X									5,520
	,,	2-2.5		X			12						4,090
	()	3-3.5		X				8.24 8.24 8.24 (1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1				÷ 3	2,360
T-1	6/25/2013	0	ور الأنور بيلي المرار الأر حواطريو معاطريو	X	-								3,740
	13	2		- X					1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1				7,580
		4	K.	. X									1,370
	11	6	Х		-	-	-	-	-	-	-	-	<20.0
	17	8	Х		-	-	-	-	-	-	-	-	<20.0
	11	10	Х		-	-	-	-	-	-	-	-	<20.0
	"	12	Х		-	-	-	-	-		-	-	55.3
CS-5 NSW	6/25/2013	5	Х		-	-	-	-	-	-	-	-	<20.0
CS-5 SSW	"	5	Х		-	-	-	-	-	-	-	-	104
CS-5 WSW	it	5	Х		-	-	-	-	-	-	-	_	168
CS-5 Bottom Hole	11	5	Х		-	-	-	-	-	-	-	-	158

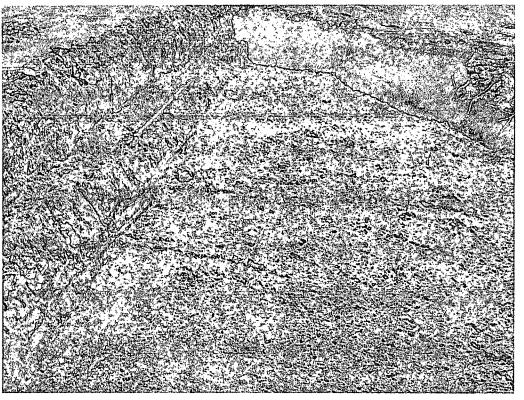
(-)

Not Analyzed

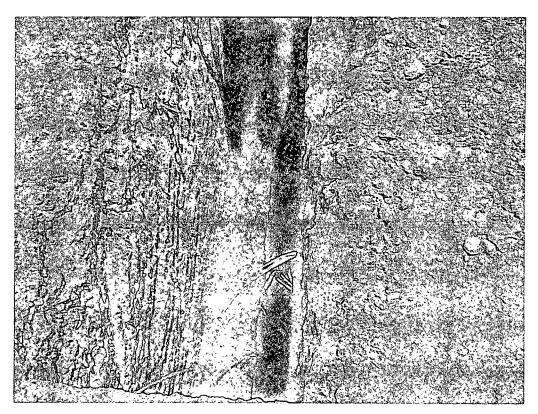
Excavated Depths

Photos

COG Operating LLC Empire Federal SWD #3 Eddy County, New Mexico



View West – Area of AH-5.



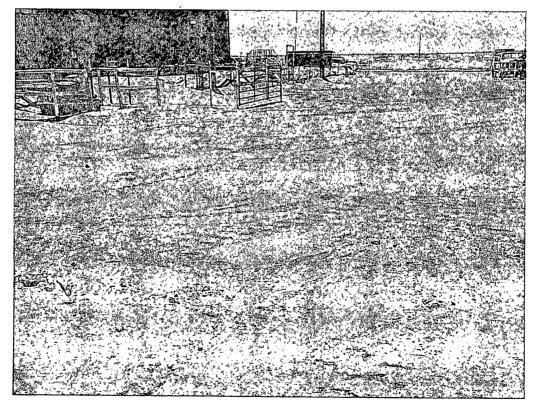
Area of Trench-1 in AH-5.

tetra tech

COG Operating LLC Empire Federal SWD #3 Eddy County, New Mexico



View Southeast- Backfill



View West – Backfill

Appendix A

Surface Owner Federal

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Lease No. (API#) 30-015-37831

Release Notification and Corrective Action

		OPERATOR	\boxtimes	Initial Report	Final Report
Name of Company	COG OPERATING LLC	Contact	Pat Ellis		
Address 600 West I	llinois Avenue, Midland, TX 79701	Telephone No.	432-230-0077		
Facility Name	Empire Federal SWD #3	Facility Type	SWD		

10		
Mineral Ov	uner	
initiation of the second	** ****	

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
ĸ	10	17S	29E					Eddy

Latitude 32.84736 Longitude 104.06480

NATURE OF RELEASE

Type of Release Produced water	Volume of Release 25bbls	Volume Reco	overed 20bbls
Source of Release Ball valve on trucking load line	Date and Hour of Occurrence	Date and Hou	ur of Discovery
	11/25/2012	11/25/2012	12:30 p.m.
Was Immediate Notice Given?	If YES, To Whom?		
Yes No Not Required		Bratcher-OCD	
By Whom? Michelle Mullins	Date and Hour 11/26/2012 4:27).m.	
Was a Watercourse Reached?	If YES, Volume Impacting the Wa		
🗌 Yes 🖾 No			
	1		
If a Watercourse was Impacted, Describe Fully.*			
Describe Cause of Problem and Remedial Action Taken.*			······
The ball valve on the load line was partially left open causing a release of	produced water. The ball valve has b	een closed.	
Describe Area Affected and Cleanup Action Taken.*			
Initially 25bbls of produced water were released from the ball valve at the			
release remained on the pad location and measured and area of 40' x 40' a	around the wellhead. The location has	been scraped a	and contaminated caliche has
been hauled to disposal. Tetra Tech will sample the spill site area to delin	leate any possible contamination from	the release and	we will present a work plan
to the NMOCD/BLM for approval prior to any significant remediation we			• •
I hereby certify that the information given above is true and complete to the	he best of my knowledge and understa	nd that pursuan	nt to NMOCD rules and
regulations all operators are required to report and/or file certain release n	otifications and perform corrective ac	tions for release	es which may endanger
public health or the environment. The acceptance of a C-141 report by the	e NMOCD marked as "Final Report"	does not relieve	the operator of liability
should their operations have failed to adequately investigate and remediat	e contamination that pose a threat to g	round water, su	urface water, human health
or the environment. In addition, NMOCD acceptance of a C-141 report d	oes not relieve the operator of response	ibility for comp	pliance with any other
federal, state, or local laws and/or regulations.	-		
\cap $($	OIL CONSERV	ATION DI	VISION
	- <u></u>		
Signature:			
	Approved by District Supervisor:		
Printed Name: Josh Russo			
Title: Senior Environmental Coordinator	Approval Date:	Expiration Date	e:
E-mail Address: jrusso@concho.com	Conditions of Approval:		Attached
		1	
Date: 12/06/2012 Phone: 432-212-2399			

* Attach Additional Sheets If Necessary

*

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action

		OPERATOR	[Initial Report	🛛 Final Report
Name of Company	COG Operating LLC	Contact	Pat Ellis		
Address 600 West	Illinois Avenue, Midland, TX 79701	I Telephone No.	(432) 230-007	7	
Facility Name	Empire Federal SWD #3	Facility Type	SWD		
Surface Owner: Federal	Mineral Owner	•		Lease No. (API#)	30-015-37831
	LOCATI	ON OF RELEAS	E		

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County	
К	10	17S	29E					Eddy	

Latitude N32.84736° Longitude W104.06480°

NATURE OF RELEASE

	OF RELEASE							
Type of Release: Produced Water	Volume of Release 25 bb	ls Volum	e Recovered 20 bbls					
Source of Release: Ball Valve on trucking load line.	Date and Hour of Occurren 11/25/2012		nd Hour of Discovery 2012 4:27 p.m.					
Was Immediate Notice Given?	If YES, To Whom?							
Yes 🗌 No 🗌 Not Required								
By Whom? Michelle Mullins	Date and Hour 11/26/2012 4:27 p.m.							
Was a Watercourse Reached?	If YES, Volume Impacting	the Watercourse.	,					
🗌 Yes 🖾 No	N/A							
If a Watercourse was Impacted, Describe Fully.*								
Describe Cause of Problem and Remedial Action Taken.*								
The ball value on the load line was partially left open causing a release of produced water. The ball value has been closed.								
Describe Area Affected and Cleanup Action Taken.*								
Tetra Tech personnel inspected the site and collected samples to define the spill extents. Soil that exceeded the RRAL was removed and hauled away for proper disposal. The site was then brought up to surface grade with clean backfill material. Tetra Tech prepared a closure report and submitted it to NMOCD for review.								
I hereby certify that the information given above is true and complete to t regulations all operators are required to report and/or file certain release r public health or the environment. The acceptance of a C-141 report by th should their operations have failed to adequately investigate and remediat or the environment. In addition, NMOCD acceptance of a C-141 report d federal, state, or local laws and/or regulations.	notifications and perform correct the NMOCD marked as "Final late the contamination that pose a th	ective actions for a Report" does not a reat to ground wa	releases which may endanger relieve the operator of liability ater, surface water, human health					
(19)	OIL CON	ISERVATIO	N DIVISION					
Signature:								
Printed Name: Ike Tavarez (agent for COG)	Approved by District Supervi	sor:						
Title: Project Manager	Approval Date:	Expiratio	on Date:					
E-mail Address: Ike Tavarez@tetratech.com	Conditions of Approval:							
Date: 8/30/13 Phone: (432) 682-4559	Attached							
Attach Additional Sheets If Necessary		DEOF	VEDI					
ž		HECE	VEU					
		JAN 24	2014					

NMOCD ARTES'A

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 1 16 on back side of form

	Release Notification and Corrective Action											
						OPERAT			Initi	al Report		Final Repor
Name of Co		COG OP				Contact		at Ellis				Andrew (1997)
Address Facility Nat		Empire F		idland, TX 7970	<u>, 1</u>	Telephone N Facility Typ		230-0077 SWD				
Surface Ow	ner Fede	ral		Mineral C	Jwner		······	Le	ease r	No. (API#)	30-0	15-37831
	<u>,</u>					N OF REL		.				
Unit Letter K	Section 10	Township 17S	Range 29E	Feet from the	Nort	h/South Line	Feet from the	East/West	Line	County	Eddy	
				Latitude 32.		•	ide 104.06480			* <u></u>		
Turne of Bala	Drodu	ced water		NAT	URI	COF REL	EASE Release 15bbls	Val		Recovered	12661	
Type of Rele Source of Re		valve on truch	king load l	line			lour of Occurrenc			Hour of Dis		
						12/12/2012		12/	2/20	12 7:00 a.r	<u>n.</u>	
	Was Immediate Notice Given?											
By Whom?						Date and H	lour blume Impacting t	ha Watana au				
was a water	Was a Watercourse Reached?				II 125, VC	sume impacting t	ne watercou	rse.				
If a Watercou	irse was Im	pacted, Descr	ibe Fully.'	*								<u> </u>
Describe Cau	se of Probl	em and Reme	dial Action	n Taken.*		······						
The ball valv	e on the loa	d line was pa	rtially left	open causing a re	lease o	of produced wa	ter. The ball valve	e has been clo	osed.			
Describe Are	a Affected	and Cleanup /	Action Tak	(en.*				· · · · · · · · · · · · · · · · · · ·				
has been scra	ped and con	ntaminated ca	liche has b	been hauled to dis	posal.	Tetra Tech wil	l we were able to a ll sample the spill or to any significa	site area to d	lelinea	te any possi		
I hereby certi	fy that the i	nformation gi	ven above	is true and comp	lete to	the best of my	knowledge and u	nderstand that	t purs	uant to NM	OCD r	ules and
public health should their of or the environ	or the environment or the environment home of the original sector of	ronment. The ave failed to a	acceptance idequately OCD accept	ce of a C-141 report investigate and r	ort by ti emedia	he NMOCD m te contaminati	nd perform correc arked as "Final Re on that pose a thre e the operator of r	eport" does n eat to ground responsibility	ot reli water for co	eve the oper , surface wa ompliance w	ator o ter, hu vith an	f liability Iman health
		7 -					OIL CONS	SERVAT	ION	DIVISIC	<u>N</u>	
Signature:		1 - 1	(5								
Printed Name	Printed Name: Josh Russo					Approved by District Supervisor:						
Title:		Senior Enviro	nmental C	oordinator		Approval Dat	e:	Expir	ation	Date:		
E-mail Addre	SS:	jrusso@c	concho.com	n		Conditions of	Approval:			Attached		
Date: 1 Attach Addit	2/27/2012 tional Shee	Phone: ets If Necess		212-2399								

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

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notificati	on and Co	orrective A	ction	
	OPERAT			al Report 🛛 Final Report
Name of Company COG Operating LLC	Contact		at Ellis	
Address600 West Illinois Avenue, Midland, TX 79701Facility NameEmpire Federal SWD #3	Telephone N Facility Typ		230-0077	
Surface Owner: Federal Mineral Owne	r		Lease I	No. (API#)30-015-37831
	ON OF REI			······
Unit LetterSectionTownshipRangeFeet from theNoK1017S29E	rth/South Line	Feet from the	East/West Line	County Eddy
Latitude N32.8473	86° Longitud	e W104.06480	0	
NATUR	E OF RELI	EASE		
Type of Release: Produced Water	Volume of	Release 15 bbls	Volume I	Recovered 12 bbls
Source of Release: Ball Valve on trucking load line.	12/12/2012			Hour of Discovery 12 7:00 a.m.
Was Immediate Notice Given?	If YES, To	Whom?		
By Whom? Michelle Mullins	Date and H			······
Was a Watercourse Reached?	lf YES, Vo N/A	lume Impacting t	he Watercourse.	
If a Watercourse was Impacted, Describe Fully.*		· · · · · · · · · · · · · · · · · · ·	······································	
The ball valve on the load line was partially left open causing a release Describe Area Affected and Cleanup Action Taken.* Tetra Tech personnel inspected the site and collected samples to define proper disposal. The site was then brought up to surface grade with clean NMOCD for review.	the spill extents	Soil that exceed	ed the RRAL was	
I hereby certify that the information given above is true and complete to regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-141 report by should their operations have failed to adequately investigate and remed or the environment. In addition, NMOCD acceptance of a C-141 report federal, state, or local laws and/or regulations.	e notifications an the NMOCD ma iate contamination	Id perform correct arked as "Final Re on that pose a thre e the operator of r	tive actions for rele eport" does not rele eat to ground water esponsibility for c	eases which may endanger ieve the operator of liability r, surface water, human health ompliance with any other
Signature:	4	<u>OIL CONS</u>	SERVATION	DIVISION
Printed Name: Ike Tavarez (agent for COG)	Approved by	District Supervisc	or: 	
Title: Project Manager	Approval Date	e:	Expiration	Date:
E-mail Address: Ike Tavarez@tetratech.com Date: \$/36/17 Phone: (432) 682-4559	Conditions of	Approval:		Attached
Attach Additional Sheets If Necessary			RECE	IVED I
			1	1
			JAN 2	
			NMOCD /	ARTESIA

State of New Mexico Energy Minerals and Natural Resources

Form C-141 Revised October 10, 2003 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back

side of form

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

	Release Notification and Corrective Action										
						OPERA	ΓOR	🛛 In	itial Report		Final Report
Name of Co		COG OP				Contact	Pa	at Ellis			
Address	600 We			idland, TX 797	01	Telephone I		230-0077			
Facility Na	ne	Empire I	ederal S	WD #3		Facility Typ	e s	SWD			
Surface Ow	ner Fede	ral		Mineral C)wne r	· · · · · · · · · · · · · · · · · · ·		Leas	e No. (API#) 30-01	5-37831
				LOCA	TIC	N OF RE	LEASE				
Unit Letter	Section	Township	Range	Feet from the		h/South Line	Feet from the	East/West Lin	e County		
К	10	17S	29E							Eddy	
L	I	L	L	Latitude 32. NAT		5 Longiti E OF REL	ide 104.06480 EASE	J <u></u>	- I		
Type of Rele		ced water					Release 15bbls		e Recovered		
Source of Re	lease Ball	valve on truch	king load l	ine		Date and H 12/14/2013	lour of Occurrenc		nd Hour of Di 2012 7:00 a.		
Was Immedi	ate Notice (Yes 🛛	No 🔀 Not R	equired	If YES, To	Whom?				
By Whom?						Date and I					
Was a Water	Was a Watercourse Reached?					If YES, Vo	olume Impacting t	the Watercourse			
If a Waterco	ırse was Im	pacted, Descr	ibe Fully.'	k							
The ball valu	e on the loa		rtially left	open causing a re	lease c	of produced wa	ter. The ball valve	e has been close	ł.		
Initially 15bl has been scra from the rele	ols of produ ped and con ase and we	ntaminated ca will present a	e released liche has h work plan	from the ball value een hauled to dis to the NMOCD/	posal. BLM f	Tetra Tech wi or approval pr	ll sample the spill for to any signific	site area to deli ant remediation	neate any poss work.	ible con	tamination
regulations a public health should their or the enviro	Il operators or the environment operations homent. In a	are required to ronment. The ave failed to a	o report an acceptanc idequately ICD accep	is true and comp id/or file certain r the of a C-141 report investigate and ro tance of a C-141	elcase ort by t emedia	notifications a he NMOCD mate contamination	nd perform correct arked as "Final R on that pose a thr	etive actions for eport" does not eat to ground wa	eleases which elieve the ope ter, surface w	n may en rrator of ater, hur	idanger liability man health
		~ ~	7				OIL CON	SERVATIO	N DIVISI	ON	
Signature:		<u> 1</u>	$\left(\begin{array}{c} \cdot \\ \cdot \end{array} \right)$	5							
Printed Name	Printed Name: Josh Russo					Approved by	District Supervis	or:			
Title:		Senior Enviro	nmental C	oordinator		Approval Da	te:	Expiratio	on Date:		
E-mail Addro	ss:	jrusso@c	oncho.cor	n		Conditions of	f Approval:		Attached	I 🗌	
Date:	2/27/2012	Phone:	432-	212-2399							

* Attach Additional Sheets If Necessary

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

NMOCD ARTESIA

Release Notification and Corrective Action

		OPERATOR		Initial Report	Final Report
Name of Company	COG Operating LLC	Contact	Pat Ellis		_
Address 600 West I	Telephone No.	(432) 230-0077	7		
Facility Name	Facility Type	SWD			
Surface Owner: Federal	Mineral Owner			Lease No. (API#)	30-015-37831

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
К	10	17S	29E					Eddy

Latitude N32.84736° Longitude W104.06480°

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release 15 bbls	Volume R	ecovered 12 bbls						
Source of Release: Ball Valve on trucking load line.	Date and Hour of Occurrence 12/14/2012		Hour of Discovery 2 7:00 a.m.						
Was Immediate Notice Given?	If YES, To Whom?								
By Whom? Michelle Mullins	Date and Hour								
Was a Watercourse Reached?	If YES, Volume Impacting the Wa	tercourse.							
🗌 Yes 🛛 No	N/A								
If a Watercourse was Impacted, Describe Fully.*									
Describe Cause of Problem and Remedial Action Taken.*	Describe Cause of Problem and Remedial Action Taken.*								
The ball value on the load line was partially left open causing a release of produced water. The ball value has been closed.									
Describe Area Affected and Cleanup Action Taken.*									
Tetra Tech personnel inspected the site and collected samples to define the spill extents. Soil that exceeded the RRAL was removed and hauled away for proper disposal. The site was then brought up to surface grade with clean backfill material. Tetra Tech prepared a closure report and submitted it to NMOCD for review.									
I hereby certify that the information given above is true and complete to the regulations all operators are required to report and/or file certain release ne public health or the environment. The acceptance of a C-141 report by the should their operations have failed to adequately investigate and remediate or the environment. In addition, NMOCD acceptance of a C-141 report defederal, state, or local laws and/or regulations	otifications and perform corrective ac e NMOCD marked as "Final Report" e contamination that pose a threat to g	tions for relea does not relie ground water,	ases which may end we the operator of li surface water, huma	anger ability an health					
Signature:	OIL CONSERV	VATION I	DIVISION						
<u> </u>	Approved by District Supervisor:								
Title: Project Manager	Approval Date:	Expiration D	ate:						
E-mail Address: Ike Tavarez@tetratech.com	Conditions of Approval:								
Date: 8-30-13 Phone: (432) 682-4559			Attached						
Attach Additional Sheets If Necessary		REC	EIVED						
		(
		JAN	2 4 2014						
		1							

State of New Mexico Energy Minerals and Natural Resources

Oil Conservation Division 1220 South St. Francis Dr. Santa Fe, NM 87505 Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

Release Notification and Corrective Action OPERATOR Initial Report **Final Report** Name of Company COG OPERATING LLC Contact Pat Ellis 600 West Illinois Avenue, Midland, TX 79701 Telephone No. 432-230-0077 Address **Empire Federal SWD #3** SWD Facility Type Facility Name Mineral Owner Lease No. (API#) 30-015-37831 Surface Owner Federal LOCATION OF RELEASE Feet from the North/South Line Unit Letter Section Township Range Feet from the East/West Line County 17S 29E Κ 10 Eddy Latitude 32.84736 Longitude 104.06480 NATURE OF RELEASE Type of Release Produced water Volume of Release 15bbls Volume Recovered 12bbls Source of Release Ball valve on trucking load line Date and Hour of Occurrence Date and Hour of Discovery 12/18/2012 12/18/2012 7:00 a.m. Was Immediate Notice Given? If YES, To Whom? Yes No Not Required Date and Hour By Whom? Was a Watercourse Reached? If YES, Volume Impacting the Watercourse. Yes No If a Watercourse was Impacted, Describe Fully.* Describe Cause of Problem and Remedial Action Taken.* The ball valve on the load line was partially left open causing a release of produced water. The ball valve has been closed. Describe Area Affected and Cleanup Action Taken.* Initially 15bbls of produced water were released from the ball valve at the load line and we were able to recover 12bbls with a vacuum truck. The location has been scraped and contaminated caliche has been hauled to disposal. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a work plan to the NMOCD/BLM 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. OIL CONSERVATION DIVISION Signature: Approved by District Supervisor: Printed Name: Josh Russo Senior Environmental Coordinator Title: Approval Date: **Expiration Date:** E-mail Address: jrusso@concho.com Conditions of Approval: Attached 12/27/2012 432-212-2399 Date: Phone:

* Attach Additional Sheets If Necessary

State of New Mexico Energy Minerals and Natural Resources

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

Submit 2 Copies to appropriate District Office in accordance with Rule 116 on back side of form

NMOCD ARTESIA

Release Notification and Corrective Action

		OPERATOR		Initial Report	Final Report
Name of Company	COG Operating LLC	Contact	Pat Ellis		
Address 600 West	Illinois Avenue, Midland, TX 79701	Telephone No.	(432) 230-0077		
Facility Name	Empire Federal SWD #3	Facility Type	SWD		
Surface Owner: Federal	Mineral Owner	r		Lease No. (API#)3	0-015-37831

LOCATION OF RELEASE

	Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County	
Ì	К	10	17S	29E						Eddy

Latitude N32.84736° Longitude W104.06480°

NATURE OF RELEASE

Type of Release: Produced Water	Volume of Release 15 bbls	Volume Recovered 12 bbls						
Source of Release: Ball Valve on trucking load line.	Date and Hour of Occurrence 12/18/2012	Date and Hour of Discovery 12/18/2012 7:00 a.m.						
Was Immediate Notice Given?	If YES, To Whom?							
By Whom? Michelle Mullins	Date and Hour							
Was a Watercourse Reached?	If YES, Volume Impacting the W N/A	/atercourse.						
If a Watercourse was Impacted, Describe Fully.*								
Describe Cause of Problem and Remedial Action Taken.*								
The ball value on the load line was partially left open causing a release of produced water. The ball value has been closed.								
Describe Area Affected and Cleanup Action Taken.*								
Tetra Tech personnel inspected the site and collected samples to define the spill extents. Soil that exceeded the RRAL was removed and hauled away for proper disposal. The site was then brought up to surface grade with clean backfill material. Tetra Tech prepared a closure report and submitted it to NMOCD for review.								
I hereby certify that the information given above is true and complete to regulations all operators are required to report and/or file certain release public health or the environment. The acceptance of a C-141 report by the should their operations have failed to adequately investigate and remedia or the environment. In addition, NMOCD acceptance of a C-141 report federal, state, or local laws and/or regulations.	notifications and perform corrective the NMOCD marked as "Final Report the contamination that pose a threat to	actions for releases which may endanger " does not relieve the operator of liability ground water, surface water, human health						
Signature:	OIL CONSER	EVATION DIVISION						
Printed Name: Ike Tavarez (agent for COG)	Approved by District Supervisor:							
Title: Project Manager	Approval Date:	Expiration Date:						
E-mail Address: Ike Tavarez@tetratech.com Date: S- 30- / 7 Phone: (432) 682-4559	Conditions of Approval:	Attached						
Attach Additional Sheets If Necessary		- RECEIVED						
		1 1						
		JAN 24 2014						

Appendix B

Water Well Data Average Depth to Groundwater (ft) COG-Empire Federal SWD #3 Eddy County, New Mexico

	16	South		28 East	t
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21 61	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

	17 :	South	:	ł	
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22 79	23	24
30	29	28	27	26	25
31	32	33	34	35 2	58 36

	16 :	South		29 East	
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14 220 dry	13
19 110	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

	16	South		30 East	ł
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

17 South		29	East		
5	4	3	2	1	
8	9	10 SITE	11	12	
 17	16	15	14	13	
20	21	22 80	23	24	
29 210 208'	28	27	26	25	
32	33	34	35 153	36	

	17 :	South		30 East	 t
6	5	4	3	2	1
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

	18 \$	outh		28 East	t
6	5	4 108	3	2	1
749	8 69	9	10	11	12
18	17	16	15	14	13
19	20	21 226	22	23	24
49	29	28	27	26	25
31	32	33	34	35 65	36

	18	South	29	9 Eas	t
6	5	4	3	2	1
7	8	9	10 95	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

L	10	South		30 East	
6	15	4	3	2 Eas	11
ľ	ľ	ľ	ľ	-	ľ
7	8	9	10	11	12
18	17	16	15	14	13
19	20	21	22	23	24
30	29	28	27	26	25
31	32	33	34	35	36

New Mexico State Engineers Well Reports

USGS Well Reports

Geology and Groundwater Conditions in Southern Eddy, County, NM

NMOCD - Groundwater Data

Field water level

New Mexico Water and Infrastructure Data System

Appendix C

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Summary Report

(Corrected Report)

Ike Tavarez Tetra Tech 1910 N. Big Spring Street Midland, TX 79705

Report Date: February 11, 2013

Work Order: 13012803

Project Location:Eddy Co., NMProject Name:COG/Empire Fed SWD #3Project Number:112C04997

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
319460	AH-1 0-1'	soil	2013-01-23	00:00	2013-01-25
319461	AH-1 1-1.5'	soil	2013-01-23	00:00	2013-01-25
319462	AH-1 2-2.5'	soil	2013-01-23	00:00	2013-01-25
319463	AH-1 3-3.5'	soil	2013-01-23	00:00	2013-01-25
319464	AH-1 4-4.5'	soil	2013-01-23	00:00	2013-01-25
319466	AH-2 0-1'	soil	2013-01-23	00:00	2013-01-25
319467	AH-2 1-1.5'	soil	2013-01-23	00:00	2013-01-25
319468	AH-2 2-2.5'	soil	2013-01-23	00:00	2013-01-25
319469	AH-2 3-3.5'	soil	2013-01-23	00:00	2013-01-25
319471	AH-3 0-1'	soil	2013-01-23	00:00	2013-01-25
319472	AH-3 1-1.5'	soil	2013-01-23	00:00	2013-01-25
319473	AH-3 2-2.5'	soil	2013-01-23	00:00	2013-01-25
319474	AH-3 3-3.5'	soil	2013-01-23	00:00	2013-01-25
319475	AH-3 4-4.5'	soil	2013-01-23	00:00	2013-01-25
319476	AH-3 5-5.5'	soil	2013-01-23	00:00	2013-01-25
319477	AH-3 6-6.5'	soil	2013-01-23	00:00	2013-01-25
319479	AH-4 0-1'	soil	2013-01-23	00:00	2013-01-25
319480	AH-4 1-1.5'	soil	2013-01-23	00:00	2013-01-25
319481	AH-4 2-2.5'	soil	2013-01-23	00:00	2013-01-25
319483	AH-5 0-1'	soil	2013-01-23	00:00	2013-01-25
319484	AH-5 1-1.5'	soil	2013-01-23	00:00	2013-01-25
319485	AH-5 2-2.5'	soil	2013-01-23	00:00	2013-01-25
319486	AH-5 3-3.5'	soil	2013-01-23	00:00	2013-01-25

Report Date: February 11, 2013

Work Order: 13012803

Page Number: 2 of 5

		BTEX				TPH GRO
	Benzene	Toluene	Ethylbenzene	Xylene	DRO	GRO
Sample - Field Code	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)	(mg/Kg)
319460 - AH-1 0-1'	<0.0200 Qr,Qs	<0.0200 qr,qs	<0.0200 qr,qs	<0.0200 Qr,Qs	<50.0	<4.00 Qs
319466 - AH-2 0-1'	<0.0200 Qr,Qs	<0.0200 qr,qs	<0.0200 qr,qs	<0.0200 Qr,Qs	<50.0	<4.00 Qs
319471 - AH-3 0-1'	<0.0200 qr,qs	<0.0200 qr,qs	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	<4.00 Qs
319479 - AH-4 0-1'	<0.0200 Qr,Q8	<0.0200 Qr,Q0	<0.0200 Qr,Qs	<0.0200 Qr,Qs	<50.0	<4.00 Qs
319483 - AH-5 0-1'	<0.0200 Qr,Qs	<0.0200 qr,qs	<0.0200 qr,qs	<0.0200 Qr,Qs	<50.0	<4.00 Qs

Sample: 319460 - AH-1 0-1'

Param	Flag	Result	Units	\mathbf{RL}
Chloride	· · · · · · · · · · · · · · · · · · ·	4910	mg/Kg	4
Sample: 319461	- AH-1 1-1.5'			
Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4
Sample: 319462 Param	- AH-1 2-2.5' Flag	Result	Units	RL
-		Besult	Units	BI.
Chloride		<20.0	mg/Kg	4
Sample: 319463	- AH-1 3-3.5'			
Param	Flag	Result	Units	\mathbf{RL}
Chloride		<20.0	mg/Kg	4

Sample: 319464 - AH-1 4-4.5'

Param	Flag	Result	Units	\mathbf{RL}
Chloride		36.8	mg/Kg	4

Sample: 319466 - AH-2 0-1'

Param	Flag	Result	Units	RL
Chloride		10700	mg/Kg	4

Sample: 319467 - AH-2 1-1.5'

Report Date: February 11, 2013		Work Order: 13012803	Page	Page Number: 3 of 5	
Param	Flag	Result	Units	RL	
Chloride		308	mg/Kg	4	
Sample: 319468	- AH-2 2-2.5'				
Param	Flag	Result	Units	RL	
Chloride	v	152	mg/Kg	4	
Sample: 319469	- AH-2 3-3.5'				
Param	Flag	Result	Units	RL	
Chloride		<20.0	mg/Kg	4	
Sample: 319471	- AH-3 0-1'				
Param	Flag	Result	Units	\mathbf{RL}	
Chloride		4200	mg/Kg	4	
Sample: 319472	- AH-3 1-1.5'				
Param	Flag	Result	Units	\mathbf{RL}	
Chloride		13900	mg/Kg	4	
Sample: 319473	- AH-3 2-2.5'		·		
Param	Flag	Result	Units	\mathbf{RL}	
Chloride		10900	mg/Kg	4	
Sample: 319474	- AH-3 3-3.5'				
Param	Flag	Result	Units	RL	
Chloride	······	5450	mg/Kg	4	
Sample: 319475	- AH-3 4-4.5'				
Param	Flag	Result	Units	RL	
Chloride		624	mg/Kg	4	

Report Date: February 11, 2013		Work Order: 13012803	P	age Number: 4 of 5
Sample: 319476	- AH-3 5-5.5'			
Param	Flag	Result	Units	RL
Chloride		213	mg/Kg	4
Sample: 319477	- AH-3 6-6.5'			
Param	Flag	Result	Units	RL
Chloride	0	<20.0	mg/Kg	4
Sample: 319479	- AH-4 0-1'			
Param	Flag	Result	Units	RL
Chloride		3990	mg/Kg	4
Sample: 319480	- AH-4 1-1.5'			
Param	Flag	Result	Units	RL
Chloride	······	795	mg/Kg	4
Sample: 319481	- AH-4 2-2.5'			
Param	Flag	Result	Units	\mathbf{RL}
Chloride		<20.0	mg/Kg	4
Sample: 319483	- AH-5 0-1'			
Param	Flag	Result	Units	RL
Chloride		7990	mg/Kg	4
Sample: 319484	- AH-5 1-1.5'			
Param	Flag	Result	Units	RL
Chloride		5520	mg/Kg	4
Sample: 319485	- AH-5 2-2.5'			
Param	Flag	Result	Units	RL
Chloride		4090	mg/Kg	4

Report Date: February 11, 2013		Work Order: 13012803	Work Order: 13012803 Pag			
Sample: 319486 - AH-5 3-3.5'						
Param	Flag	Result	Units	RL		
Chloride		2360	mg/Kg	4		

Summary Report

Ike Tavarez Tetra Tech 1910 N. Big Spring Street Midland, TX 79705

Report Date: July 5, 2013

Work Order: 13062644

Project Location:Eddy Co., NMProject Name:COG/Empire Fed. SWD #3Project Number:112C04997

			Date	Time	Date
Sample	Description	Matrix	Taken	Taken	Received
333411	CS 1 (AH-3) 3' NSW	soil	2013-06-25	00:00	2013-06-26
333412	CS 1 (AH-3) 3' ESW	soil	2013-06-25	00:00	2013-06-26
333413	CS 1 (AH-3) 3' SSW	soil	2013-06-25	00:00	2013-06-26
333414	CS 1 (AH-3) 4' BH	soil	2013-06-25	00:00	2013-06-26
333415	CS 2 (AH-2) 2' NSW	soil	2013-06-25	00:00	2013-06-26
333416	CS 2 (AH-2) 2' SSW	soil	2013-06-25	00:00	2013-06-26
333417	CS 2 (AH-2) 2' BH	soil	2013-06-25	00:00	2013-06-26
333418	CS 3 (AH-1) 1' NSW	soil	2013-06-25	00:00	2013-06-26
333419	CS 3 (AH-1) 1' SSW	soil	2013-06-25	00:00	2013-06-26
333420	CS 3 (AH-1) 1' BH	soil	2013-06-25	00:00	2013-06-26
333421	CS 4 (AH-4) 1' NSW	soil	2013-06-25	00:00	2013-06-26
333422	CS 4 (AH-4) 1' SSW	soil	2013-06-25	00:00	2013-06-26
333423	CS 4 (AH-4) 1' BH	soil	2013-06-25	00:00	2013-06-26
333424	CS 5 (AH-5) NSW	soil	2013-06-25	00:00	2013-06-26
333425	CS 5 (AH-5) SSW	soil	2013-06-25	00:00	2013-06-26
333426	CS 5 (AH-5) WSW	soil	2013-06-25	00:00	2013-06-26
333427	CS 5 (AH-5) BH	soil	2013-06-25	00:00	2013-06-26
333428	T1 (AH-5) 0'	soil	2013-06-25	00:00	2013-06-26
333429	T1 (AH-5) 2'	soil	2013-06-25	00:00	2013-06-26
333430	T1 (AH-5) 4'	soil	2013-06-25	00:00	2013-06-26
333431	T1 (AH-5) 6'	soil	2013-06-25	00:00	2013-06-26
333432	T1 (AH-5) 8'	soil	2013-06-25	00:00	2013-06-26
333433	T1 (AH-5) 10'	soil	2013-06-25	00:00	2013-06-26
333434	T1 (AH-5) 12'	soil	2013-06-25	00:00	2013-06-26
333435	CS 1 (AH-3) 4' NSW	soil	2013-06-25	00:00	2013-06-26

Sample: 333411 - CS 1 (AH-3) 3' NSW

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Param	Flag	Result	Units	RL
Chloride		104	mg/Kg	4
Sample: 333412	- CS 1 (AH-3) 3' ES'	W		
Param	Flag	Result	Units	RI
Chloride		<20.0	mg/Kg	4
Sample: 333413	- CS 1 (AH-3) 3' SSV	W		
Param	Flag	Result	Units	RI
Chloride	· · · · · · · · · · · · · · · · · · ·	404	mg/Kg	4
Sample: 333414 Param	- CS 1 (AH-3) 4' BH Flag	Result	Units	RI
Chloride		537	mg/Kg	
Commiss 999415	CC 9 (AH 9) 97 NG	11 7		
Param	- CS 2 (AH-2) 2' NS Flag	Result	Units	
			Units mg/Kg	
Param Chloride		Result <20.0		
Param Chloride Sample: 333416 - Param	Flag	Result <20.0 V Result	mg/Kg Units	4
Param Chloride	Flag - CS 2 (AH-2) 2' SSV	Result <20.0	mg/Kg	4 RL
Param Chloride Sample: 333416 - Param Chloride	Flag - CS 2 (AH-2) 2' SSV	Result <20.0 V Result 5120	mg/Kg Units	4 RL
Param Chloride Sample: 333416 - Param Chloride Sample: 333417 - Param	Flag - CS 2 (AH-2) 2' SSV Flag	Result <20.0 V Result 5120 Result	mg/Kg Units mg/Kg Units	RL 4 RL 4
Param Chloride Sample: 333416 - Param Chloride Sample: 333417 - Param	Flag - CS 2 (AH-2) 2' SSV Flag - CS 2 (AH-2) 2' BH	Result <20.0 V Result 5120	mg/Kg Units mg/Kg	RL 4 RL
Param Chloride Sample: 333416 - Param Chloride Sample: 333417 - Param Chloride	Flag - CS 2 (AH-2) 2' SSV Flag - CS 2 (AH-2) 2' BH	Result <20.0 V Result 5120 Result 202	mg/Kg Units mg/Kg Units	RL 4 RL
Param Chloride Sample: 333416 - Param Chloride Sample: 333417 - Param Chloride	Flag - CS 2 (AH-2) 2' SSV Flag - CS 2 (AH-2) 2' BH Flag	Result <20.0 V Result 5120 Result 202	mg/Kg Units mg/Kg Units	4 RL 4

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Sample: 333419 - CS 3 (AH-1) 1' SSW			
Param Flag	Result	Units	RL
Chloride	2810	mg/Kg	4
Sample: 333420 - CS 3 (AH-1) 1' BH			
Param Flag	Result	Units	RL
Chloride	49.4	mg/Kg	4
Sample: 333421 - CS 4 (AH-4) 1' NSW			
Param Flag	Result	Units	RL
Chloride	765	mg/Kg	4
Sample: 333422 - CS 4 (AH-4) 1' SSW			
Param Flag	Result	Units	RL
Chloride	1070	mg/Kg	4
Sample: 333423 - CS 4 (AH-4) 1' BH			
Param Flag	Result	Units	RL
Chloride	479	mg/Kg	4
Sample: 333424 - CS 5 (AH-5) NSW			
Param Flag	Result	Units	\mathbf{RL}
Chloride	<20.0	mg/Kg	4
Sample: 333425 - CS 5 (AH-5) SSW			
Param Flag	Result	Units	\mathbf{RL}
Chloride	104	mg/Kg	4
Sample: 333426 - CS 5 (AH-5) WSW			
Param Flag	Result	Units	\mathbf{RL}
Chloride	168	ing/Kg	4

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Sample: 333427	- CS 5 (AH-5) BH			
Param	Flag	Result	Units	RL
Chloride		158	mg/Kg	4
Sample: 333428	- T1 (AH-5) 0'			
Param	Flag	Result	Units	RL
Chloride		3740	mg/Kg	4
Sample: 333429	- T1 (AH-5) 2'			
Param	Flag	Result	Units	RL
Chloride	0	7580	mg/Kg	4
Sample: 333430 Param Chloride	- T1 (AH-5) 4' Flag	Result 1370	Units mg/Kg	RL 4
Sample: 333431				
Param Chloride	Flag	Result <20.0	Units mg/Kg	RL 4
Sample: 333432	- T1 (AH-5) 8'	~20.0	mg/ Kg	<u>+</u>
Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4
Sample: 333433 ·	- T1 (AH-5) 10'			
Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4
Sample: 333434 -	- T1 (AH-5) 12'			
Param	Flag	Result	Units	RL
Chloride		55.3	mg/Kg	4

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Sample: 333435	- CS 1 (AH-3) 4' NS	w		
Param	Flag	Result	Units	RL
Chloride		<20.0	mg/Kg	4