

Bratcher, Mike, EMNRD

From: Bratcher, Mike, EMNRD
Sent: Wednesday, August 10, 2011 8:22 AM
To: 'Tavarez, Ike'
Cc: Pat Ellis; Joshua Russo
Subject: RE: COG - Operating - Sagebrush Federal Tank Battery - Site Data

Ike,

Let me know when you want to discuss this site. Looks like elevated Benzene to 15' and total BTEX to 20'.

Mike Bratcher

NMOCD District 2
811 S. First Street
Artesia, NM 88210
575-748-1283 Ext. 108
575-626-0857
mike.bratcher@state.nm.us

From: Tavarez, Ike [<mailto:Ike.Tavarez@tetrattech.com>]
Sent: Monday, August 08, 2011 10:57 AM
To: Bratcher, Mike, EMNRD
Cc: Pat Ellis; Joshua Russo
Subject: COG - Operating - Sagebrush Federal Tank Battery - Site Data

Mike,

Please find the enclosed assessment data generated at the Sagebrush Federal Tank Battery (release) located in Eddy County, New Mexico. As shown in the attached Table 1, Tetra Tech installed one (1) hand auger hole and three (3) boreholes to define the extents of the impact at the site. Tetra Tech would like to discuss the results and the proposed remediation for the site. Please let me know if you need additional information or call me if you have any questions, thanks

Ike Tavarez, PG | Senior Project Manager

Main 432 682 4559 | Fax 432 682 3946 | Cell 432 425 3878

Ike.Tavarez@tetrattech.com

Tetra Tech | Complex World, Clear Solutions™

1910 North Big Spring | Midland, TX 79705 | www.tetrattech.com

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Table 1
COG Operating LLC.
Sagebrush Federal Tank Battery
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	OVM (ppm)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX	Chloride (mg/kg)
				In-Situ	Removed	DRO	GRO	Total						
AH-1	7/14/2011	0-1'	-	X		346	2,060	2,406	7.68	2.48	4.49	70.6	85	9,750
"	"	4-4.5	-	X		497	1,470	1,967	6.97	2.18	3.15	52.7	65	2,500
"	"	6-6.5	-	X		439	2,150	2,589	8.15	0.72	6.08	80.0	95	216
"	"	9-9.5	-	X		1,980	5,630	7,610	34.5	1.97	12.90	239	288	<200
BH-1	7/27/2011	0-1'	273	X		-	-	-	-	-	-	-	-	-
"	"	3'	481	X		-	-	-	-	-	-	-	-	-
"	"	5'	603	X		446	2,260	2,706	28.2	101	13.8	117	260	-
"	"	7'	363	X		-	-	-	-	-	-	-	-	-
"	"	10'	463	X		-	-	-	-	-	-	-	-	-
"	"	15'	746	X		1,690	4,760	6,450	33.0	133	26.9	179	372	-
"	"	20'	601	X		86.8	844	931	4.49	19.6	5.06	34.4	64	-
"	"	25'	480	X		64.4	9.16	74	<0.020	0.170	0.135	0.481	0.79	-
"	"	30'	197	X		-	-	-	-	-	-	-	-	-
"	"	40'	301	X		<50.0	<2.00	<50.00	<0.020	<0.020	<0.020	<0.020	<0.020	-
"	"	50'	7	X		<50.0	<2.00	<50.00	<0.020	<0.020	<0.020	<0.020	<0.020	-
"	"	55'	36	X		<50.0	<2.00	<50.00	<0.020	<0.020	<0.020	<0.020	<0.020	-

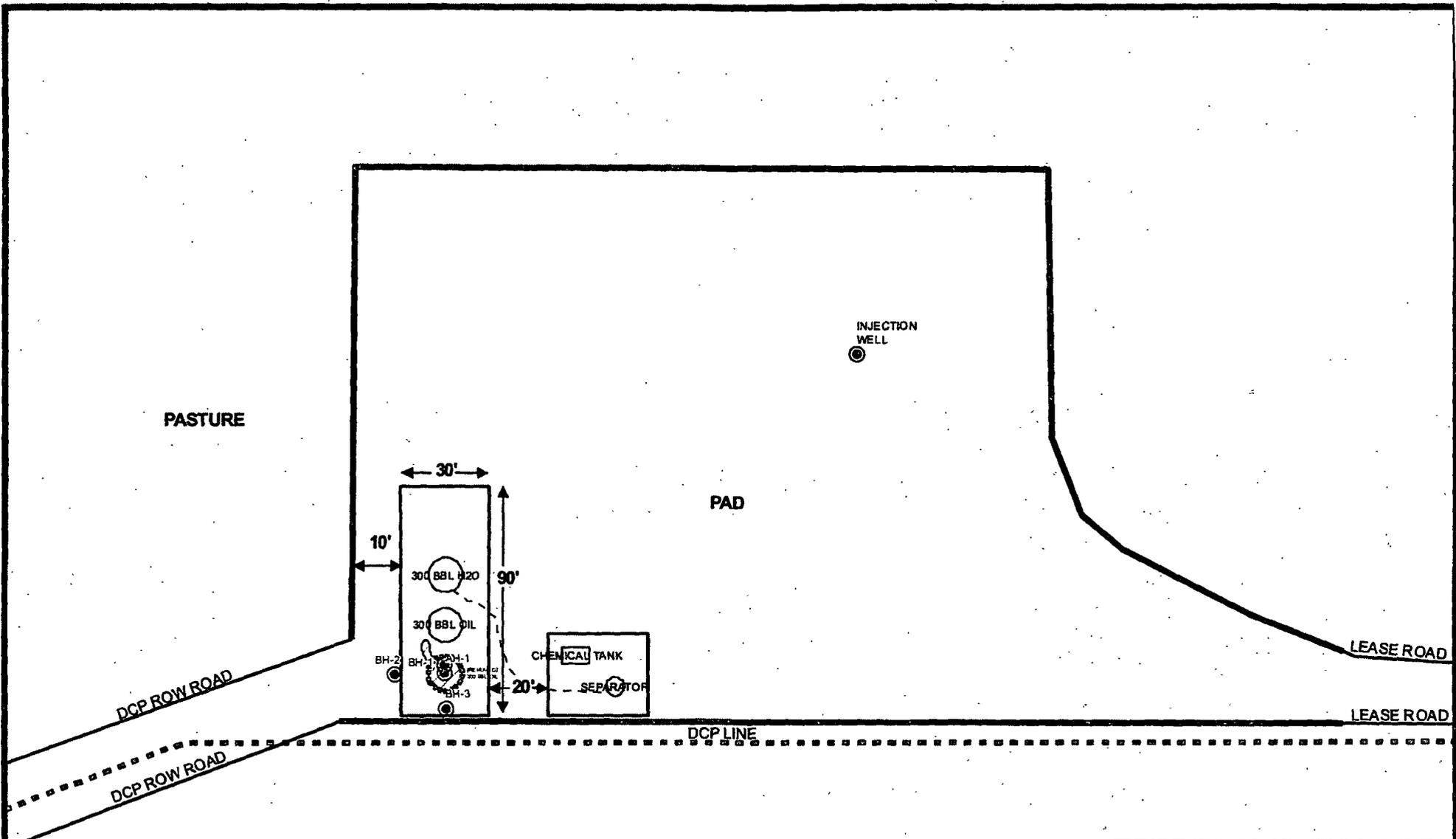
*MAP shows 75-100
to GW
OSB site not op
@ time of sampling
7/10/11*

Table 1
COG Operating LLC.
Sagebrush Federal Tank Battery
Eddy County, New Mexico

Sample ID	Sample Date	Sample Depth (ft)	OVM (ppm)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Total BTEX	Chloride (mg/kg)
				In-Situ	Removed	DRO	GRO	Total						
BH-2	7/28/2011	0-1'	47	X		<50.0	<2.00	<50.0	<0.020	<0.020	<0.020	<0.020	<0.020	-
	"	3'	24	X		-	-	-	-	-	-	-	-	-
	"	5'	18	X		-	-	-	-	-	-	-	-	-
	"	7'	26	X		<50.0	<2.00	<50.0	<0.020	<0.020	<0.020	<0.020	<0.020	-
	"	10'	14	X		-	-	-	-	-	-	-	-	-
	"	15'	9	X		-	-	-	-	-	-	-	-	-
	"	20'	18	X		-	-	-	-	-	-	-	-	-
	"	25'	23	X		-	-	-	-	-	-	-	-	-
	"	30'	6	X		<50.0	<2.00	<50.0	<0.020	<0.020	<0.020	<0.020	<0.020	-
BH-3	7/28/2011	0-1'	86	X		<50.0	<2.00	<50.0	0.276	0.480	<0.0200	0.633	1.39	-
	"	3'	434	X		-	-	-	-	-	-	-	-	-
	"	5'	140	X		-	-	-	-	-	-	-	-	-
	"	7'	156	X		<50.0	<2.00	<50.0	<0.020	0.150	<0.020	<0.020	0.150	-
	"	10'	170	X		-	-	-	-	-	-	-	-	-
	"	15'	296	X		-	-	-	-	-	-	-	-	-
	"	20'	664	X		129	146	275	1.65	4.04	0.738	5.36	11.79	-
	"	25'	-	X		-	-	-	-	-	-	-	-	-
	"	30'	38	X		<50.0	2.12	<50.0	<0.020	<0.020	<0.020	0.377	0.377	-
	"	40	26	X		-	-	-	-	-	-	-	-	-
	"	45	15	X		<50.0	<2.00	<50.0	<0.020	<0.020	<0.020	<0.020	<0.020	-

OVM Organic Vapor Meter

(--) Not Analyzed



EXPLANATION	
⊙	AUGER HOLE LOCATIONS
⊙	BORE HOLE LOCATIONS
⊙	INJECTION WELL
- - -	DCP LINE
- - -	LINE
▨	SPILL AREA
⊠	(REMOVED) 300 BBL OIL



Figure 3

Sagebrush Federal
Spill Assessment Map

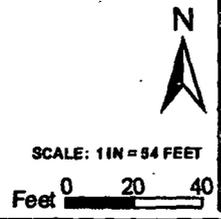
COG Spill Assessment
Eddy County, New Mexico

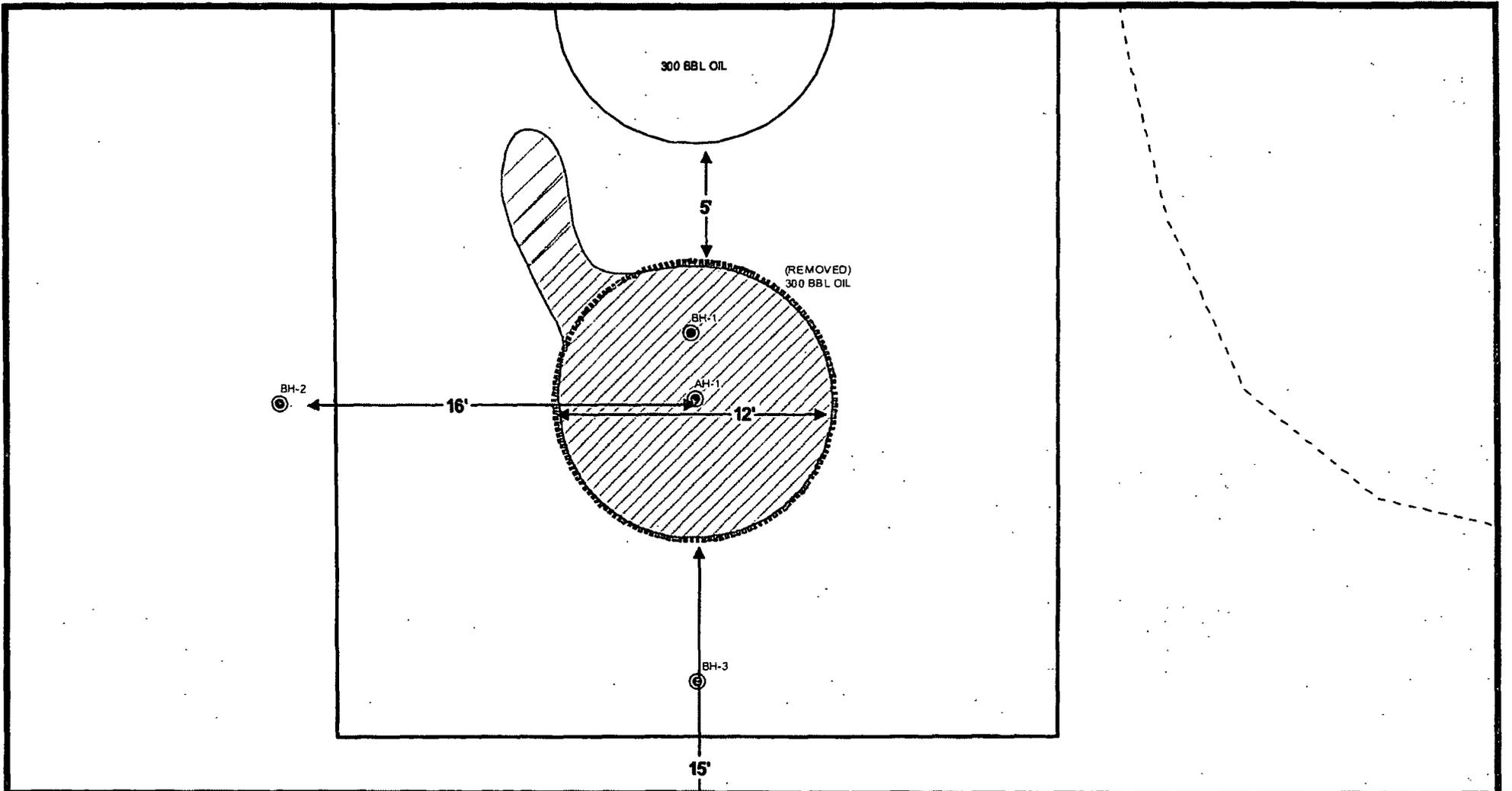
Project: 114-8400956

Date: 08/04/2011

File: HGIS6400956







EXPLANATION	
⊙	AUGER HOLE LOCATIONS
⊙	BORE HOLE LOCATIONS
⊙	INJECTION WELL
- - -	DCP LINE
- - -	LINE
	SPILL AREA
	(REMOVED) 300 BBL OIL



Figure 4

Sagebrush Federal
Spill Assessment Map

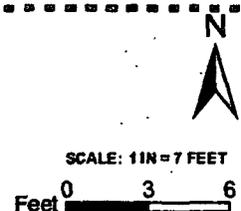
COG Spill Assessment
Eddy County, New Mexico

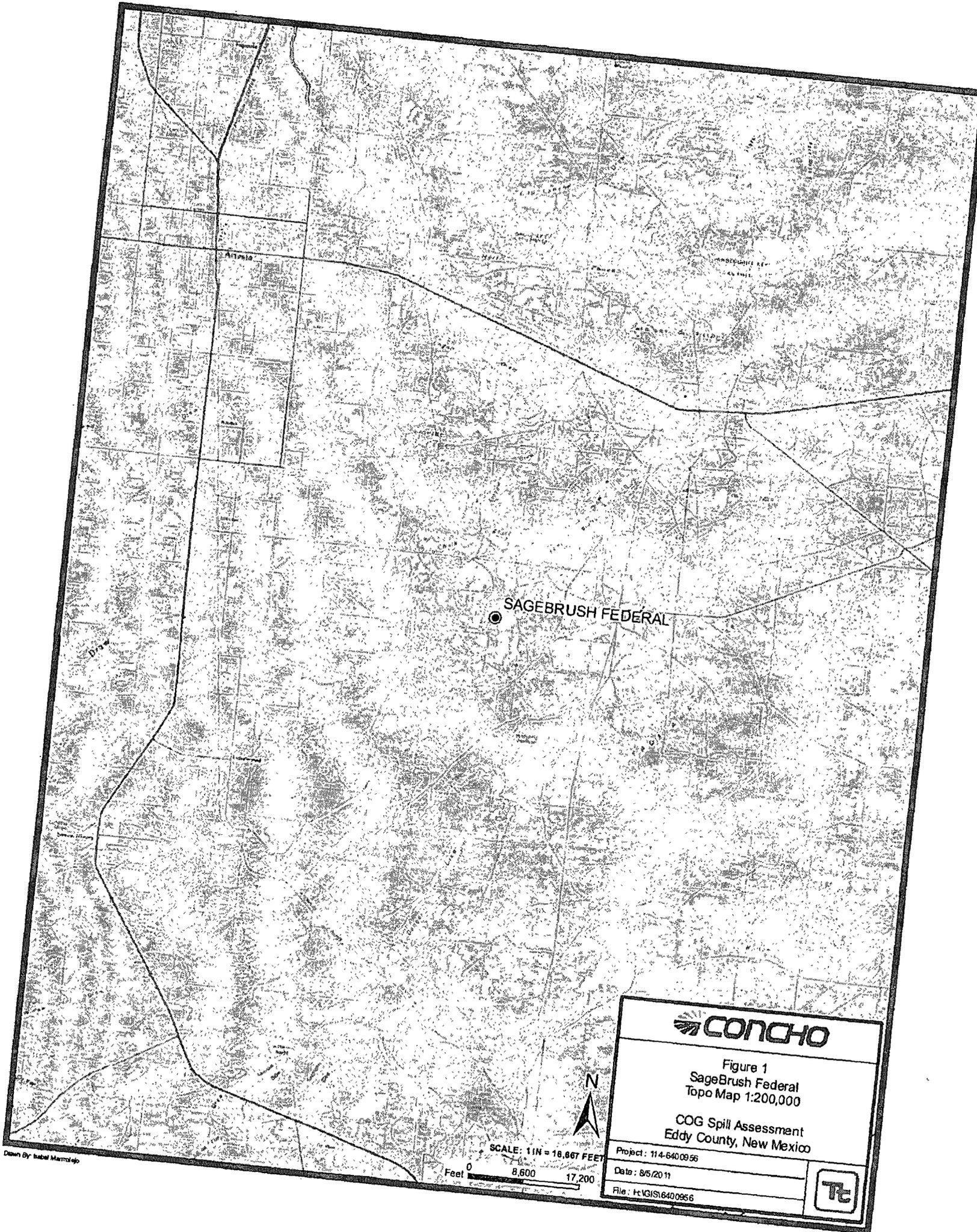
Project: 114-6400966

Date: 09/04/2011

File: H:\GIS\6400966







SAGEBRUSH FEDERAL



SCALE: 1 IN = 16,667 FEET



Figure 1
SageBrush Federal
Topo Map 1:200,000

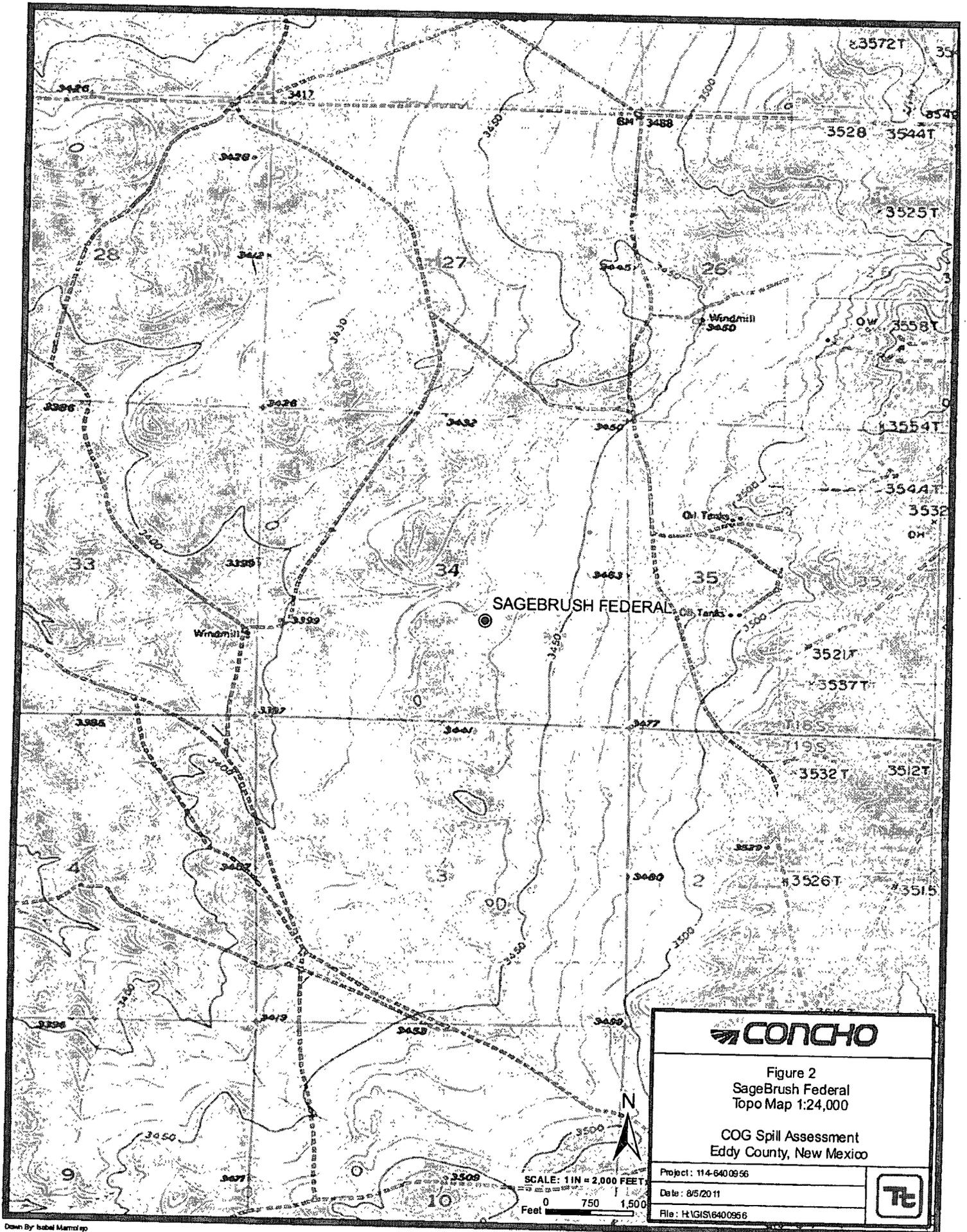
COG Spill Assessment
Eddy County, New Mexico

Project: 114-640.0956

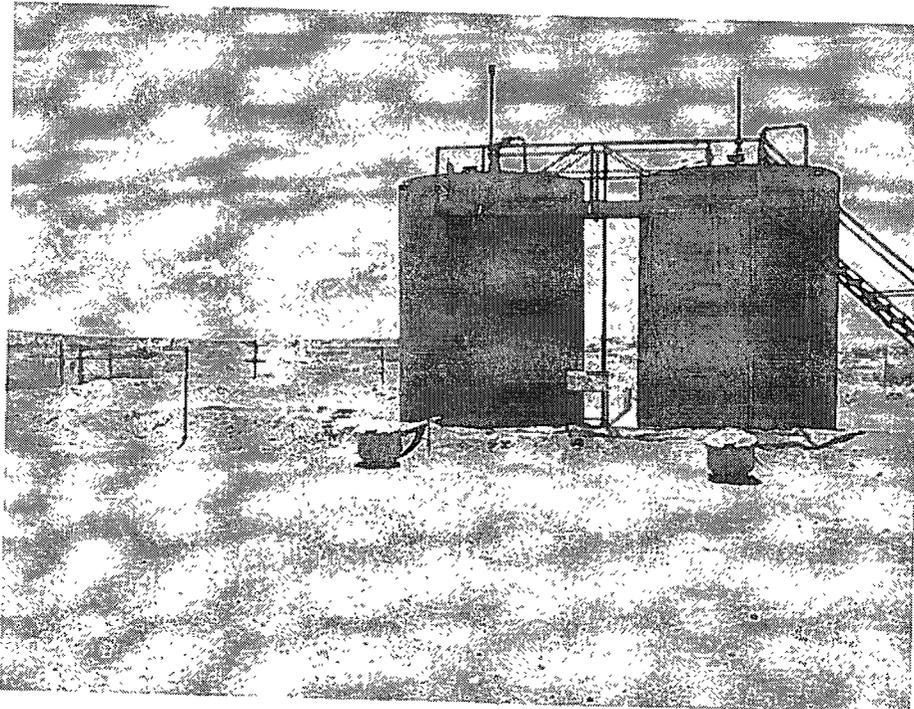
Date: 8/5/20 11

File: H:\GIS\1640.0956

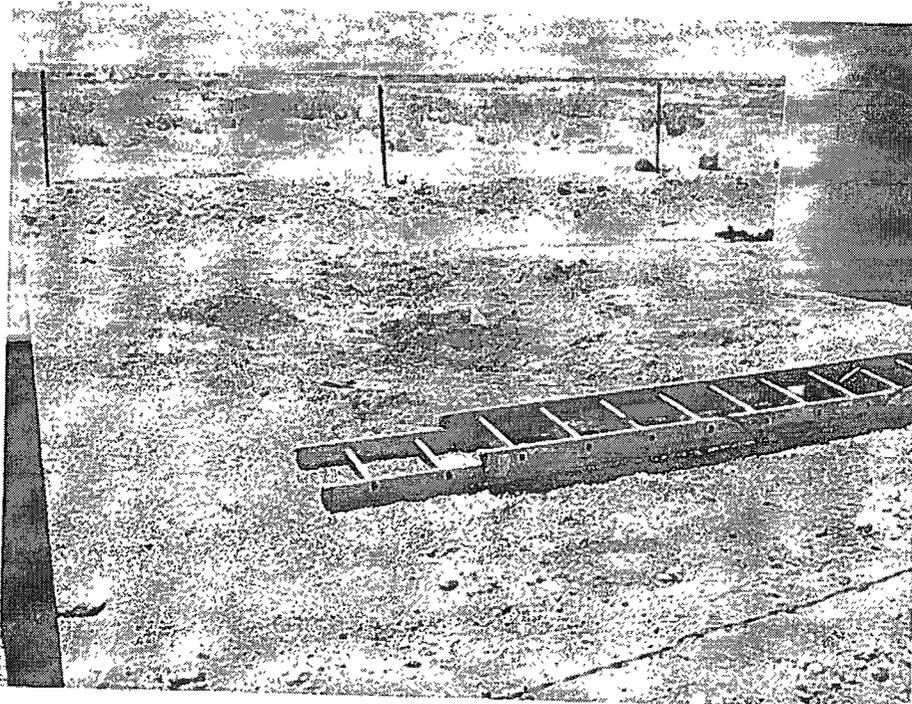




COG - Sagebrush Federal Tank Battery
Eddy County, NM

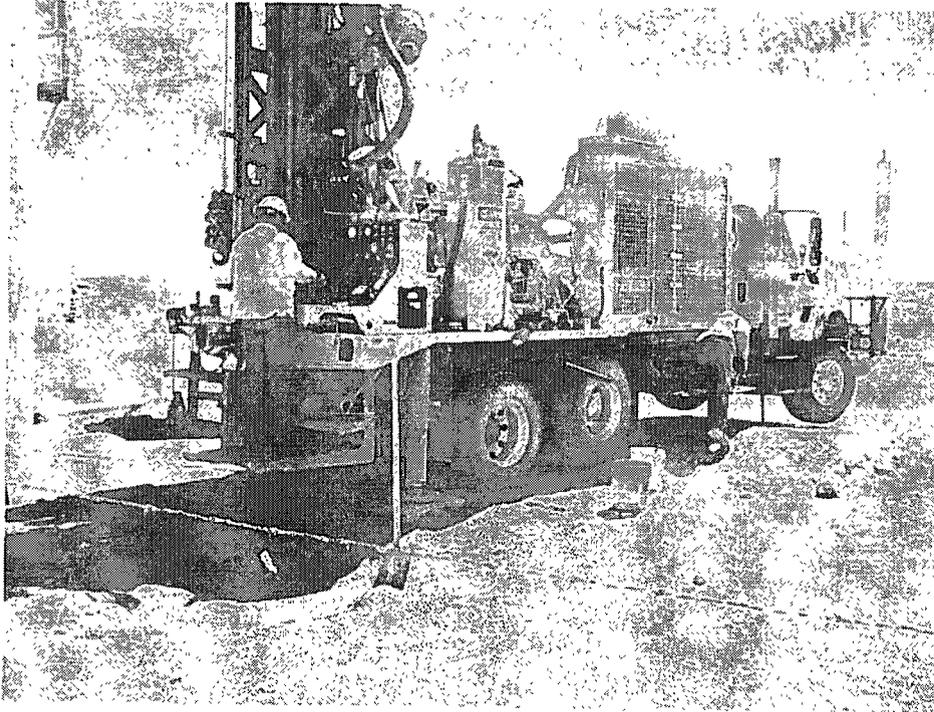


1. View of facility and removed south tank

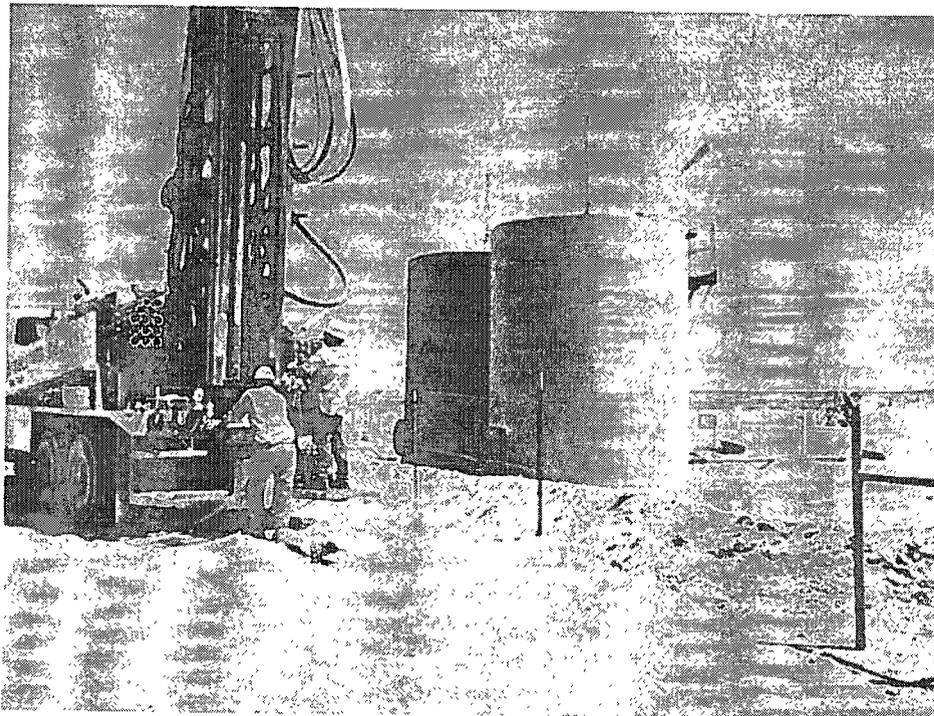


2. Area of removed south tank

COG - Sagebrush Federal Tank Battery
Eddy County, NM

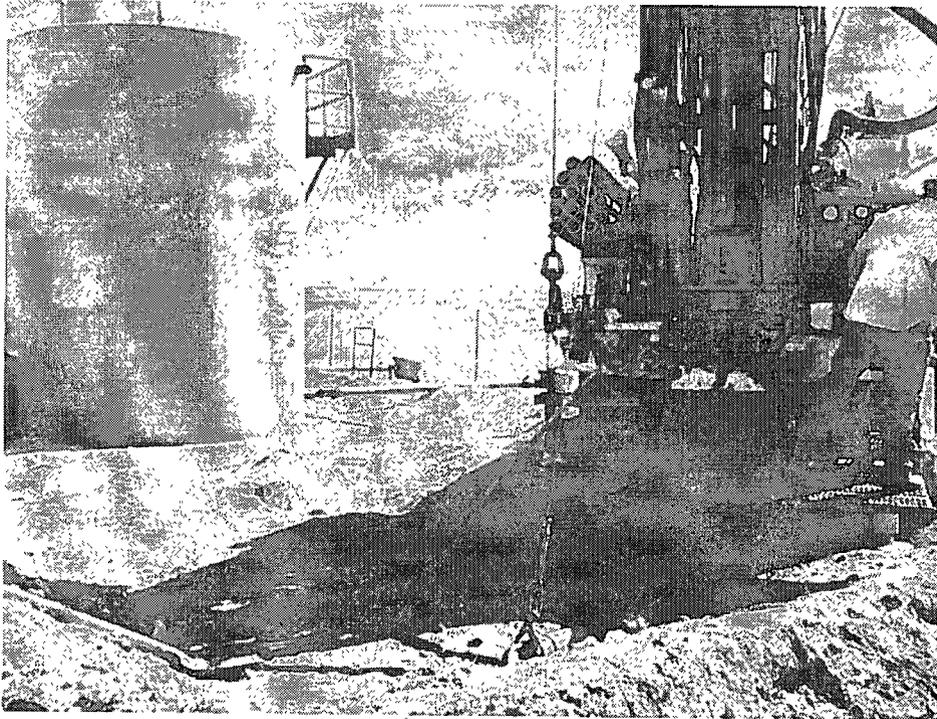


3. View of BH-1 Installation



4. View of BH-2 Installation

COG - Sagebrush Federal Tank Battery
Eddy County, NM



5. View of BH-3 Installation



6. View of BH-1, BH-2 and BH-3

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, 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 October 10, 2003

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	550 W. Texas, Suite 100, Midland, TX 79701	Telephone No.	432-230-0077
Facility Name	Sagebrush Federal	Facility Type	Tank Battery

Surface Owner	Federal	Mineral Owner		Lease No. (API#)	30-015-33910
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LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
J	34	18S	27E					Eddy

Latitude 32 42.105 Longitude 104 15.876

NATURE OF RELEASE

Type of Release	Condensate	Volume of Release	217bbbls	Volume Recovered	0bbbls
Source of Release	Hole in bottom of tank	Date and Hour of Occurrence	07/11/2011	Date and Hour of Discovery	07/11/2011 6:00 p.m.
Was Immediate Notice Given?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom?	Mike Bratcher-OCD		
By Whom?	Josh Russo	Date and Hour	07/13/2011 1:18 a.m.		
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.*

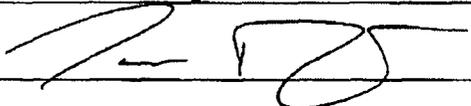
Describe Cause of Problem and Remedial Action Taken.*

A hole developed in the bottom of the oil tank causing the release of condensate. The tank has been taken out of service and will be switched with a new tank.

Describe Area Affected and Cleanup Action Taken.*

Initially 217bbbls of condensate were released from the oil tank and we were unable to recover any fluid with a vacuum truck. The release area is located directly where the tank was sitting inside the tank battery. Tetra Tech will sample the spill site area to delineate any possible contamination from the release and we will present a remediation work plan to the BLM/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:	Josh Russo	Approved by District Supervisor:	
Title:	HSE Coordinator	Approval Date:	Expiration Date:
E-mail Address:	jrusso@conchoresources.com	Conditions of Approval:	
Date:	07/25/2011	Phone:	432-212-2399
		Attached <input type="checkbox"/>	

* Attach Additional Sheets If Necessary

Summary Report

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

Report Date: July 19, 2011

Work Order: 11071514



Project Location: Eddy Co., NM
Project Name: COG/Sagebrush Federal TB
Project Number: 114-6400956

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
272048	AH-1 0-1'	soil	2011-07-14	00:00	2011-07-15
272052	AH-1 4-4.5	soil	2011-07-14	00:00	2011-07-15
272054	AH-1 6-6.5	soil	2011-07-14	00:00	2011-07-15
272057	AH-1 9-9.5	soil	2011-07-14	00:00	2011-07-15

Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
272048 - AH-1 0-1'	7.68	2.48	4.49	70.6	346	2060
272052 - AH-1 4-4.5	6.97	2.18	3.15	52.7	497	1470
272054 - AH-1 6-6.5	8.15	0.716	6.08	80.0	439	2150
272057 - AH-1 9-9.5	34.5	1.97	12.9	236	1980	5630

Sample: 272048 - AH-1 0-1'

Param	Flag	Result	Units	RL
Chloride		9750	mg/Kg	4

Sample: 272052 - AH-1 4-4.5

Param	Flag	Result	Units	RL
Chloride		2500	mg/Kg	4

Sample: 272054 - AH-1 6-6.5

Param	Flag	Result	Units	RL
Chloride		216	mg/Kg	4

Sample: 272057 - AH-1 9-9.5

Param	Flag	Result	Units	RL
Chloride		<200	mg/Kg	4

Summary Report

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

Report Date: August 4, 2011

Work Order: 11072934



Project Location: Eddy Co., NM
Project Name: COG/Sagebrush Federal TB
Project Number: 114-6400956

Sample	Description	Matrix	Date Taken	Time Taken	Date Received
273122	BH-1 5'	soil	2011-07-27	00:00	2011-07-29
273125	BH-1 15'	soil	2011-07-27	00:00	2011-07-29
273126	BH-1 20'	soil	2011-07-27	00:00	2011-07-29
273127	BH-1 25'	soil	2011-07-27	00:00	2011-07-29
273129	BH-1 40'	soil	2011-07-27	00:00	2011-07-29
273130	BH-1 50'	soil	2011-07-27	00:00	2011-07-29
273131	BH-1 55'	soil	2011-07-27	00:00	2011-07-29
273132	BH-2 0-1'	soil	2011-07-28	00:00	2011-07-29
273135	BH-2 7'	soil	2011-07-28	00:00	2011-07-29
273140	BH-2 30'	soil	2011-07-28	00:00	2011-07-29
273142	BH-3 3'	soil	2011-07-28	00:00	2011-07-29
273144	BH-3 7'	soil	2011-07-28	00:00	2011-07-29
273147	BH-3 20'	soil	2011-07-28	00:00	2011-07-29
273149	BH-3 30'	soil	2011-07-28	00:00	2011-07-29
273151	BH-3 45'	soil	2011-07-28	00:00	2011-07-29

Sample - Field Code	BTEX				TPH DRO - NEW	TPH GRO
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)	DRO (mg/Kg)	GRO (mg/Kg)
273122 - BH-1 5'	28.2	101	13.8	117	446	2260
273125 - BH-1 15'	33.0	133	26.9	179	1690	4760
273126 - BH-1 20'	4.49	19.6	5.06	34.4	86.8	844
273127 - BH-1 25'	<0.0200	0.170	0.135	0.481	64.4	9.16
273129 - BH-1 40'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
273130 - BH-1 50'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
273131 - BH-1 55'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
273132 - BH-2 0-1'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
273135 - BH-2 7'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00
273140 - BH-2 30'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00

continued ..

... continued

Sample - Field Code	BTEX				TPH DRO - NEW DRO (mg/Kg)	TPH GRO GRO (mg/Kg)
	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Xylene (mg/Kg)		
273142 - BH-3 3'	0.276	0.480	<0.0200	0.633	<50.0	<2.00
273144 - BH-3 7'	<0.0200	0.150	<0.0200	<0.0200	<50.0	<2.00
273147 - BH-3 20'	1.65	4.04	0.738	5.36	129	146
273149 - BH-3 30'	<0.0200	<0.0200	<0.0200	0.377	<50.0	2.12
273151 - BH-3 45'	<0.0200	<0.0200	<0.0200	<0.0200	<50.0	<2.00