



TETRA TECH

August 2, 2010

Mr. Mike Bratcher
Environmental Engineer Specialist
Oil Conservation Division, District 2
1301 West Grand Avenue
Artesia, NM 88210

Re: Work Plan for the COG Operating LLC., RJU Unit #119 and RJU #110 (RJU #121), Injection line leaks, Unit P, Section 27, 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 the spills from the RJU #119 and RJU #110 (RJU #121) sites located in Unit P, Section 27, Township 17 South, Range 29 East, Eddy County, New Mexico (Site). The spill site coordinates are N 32.80042°, W 104.05663°. The site location is shown on Figures 1 and 2.

Background

RJU #119 - May 30, 2009 Release

According to the State of New Mexico C-141 Initial Report, the leak was discovered on May 30, 2009. Approximately 200 barrels of produced water was released from a hole on a 2-inch injection line. The 2 inch poly line was repaired with new connections. Vacuum trucks were utilized to recover 150 barrels of standing fluids. The initial C-141 is enclosed in Appendix A.

RJU # 110 (RJU #121) - October 23, 2009 Release

On October 23, 2009, COG discovered an injection line leak, occurring during a rain storm. Approximately 100 barrels of produced water was released and COG recovered approximately 400 barrels of rainwater mixed with produced water. The release occurred across the road from RJU #121. The majority of the release migrated into the same foot print as the RJU #119 release, which had been investigated and partially excavated. The initial C-141 is enclosed in Appendix A.

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Groundwater

No water wells were listed within Section 27. An abandoned water well was located in Section 35 and Tetra Tech measured a total depth of 153' (dry). According to the Geology and Groundwater Resources of Eddy County, New Mexico (Report 3), one well is located in Section 22 (Bear Grass Draw) with a depth to water of 79.0' below surface. In addition, a well located in Section 29 was reported at 210' below surface. According to the NMOCD groundwater map the average depth to groundwater in this area is approximately 150' below surface. The Geology and Groundwater Resources of Eddy County, New Mexico (Report 3) well report 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 5,000 mg/kg.

Soil Assessment and Results

RJU #119 - May 30, 2009 Release

On June 4, 2009, Tetra Tech personnel inspected the spill area, which measured approximately 40' x 205' and 10' x 100', located west of the County Road. Prior to sampling, COG excavated 1.0' to 2.0' of impacted soil and hauled to proper disposal. A total of seven (7) auger holes (AH-1 through AH-7) were installed using a stainless steel hand auger to assess the impacted soils. Select 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 D. The results of the sampling are summarized in Table 1.

Referring to Table 1, AH-1 and AH-2 samples exceeded the TPH RRAL to a depth of 2.0' below surface. In addition, the total BTEX exceeded the RRAL in AH-2. Elevated chloride concentrations were detected in all of the auger holes, with no delineation in any of the auger holes.

In order to complete delineation of the chlorides at the sites, on June 30, 2009, Tetra Tech personnel were onsite to install ten (10) boreholes (SB-1 through SB-10) utilizing an air rotary rig. Some of the borings were installed in the vicinity of the



previous auger holes. The boreholes were extended to a maximum depth of 15 to 35 feet bgs with samples collected at 2 to 3 foot intervals for the first 15 feet and 5 foot intervals thereafter and submitted to the laboratory for analysis of chlorides and selected samples for BTEX.

Analytical results indicate the maximum extent of chloride impact greater than 1,000 mg/kg extended from 8 feet (SB-2) to 25 feet (SB-1) bgs. Total BTEX concentrations in the vicinity of SB-4 exceeded the RRAL from surface to approximately 5' below excavation bottom. All samples had chloride concentrations that decreased with depth. The soil boring locations are shown in Figure 3. Copies of laboratory analysis and chain-of-custody documentation are included in Appendix D. The results of the sampling are summarized in Table 1. The borehole and auger hole locations are shown on Figure 3.

RJU #110 (RJU #121) - October 23, 2009 Release

On January 20, 2010, Tetra Tech was onsite to supervise the installation of eleven (11) boreholes to assess the spill area. On April 20, 2010, several of the boreholes were deepened to further delineate the chloride impact. The boreholes were installed to depths ranging from 20' to 70' below excavation bottom. The soil boring locations are shown on Figure 4. Select 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 D. The sampling results are summarized in Table 2.

Referring to Table 2, all of the samples selected for TPH and BTEX were below the RRAL. Based on the results, the maximum extent of chloride impact greater than 1,000 mg/kg extended from 6 feet (SB-5, SB-6, SB-10 and SB-11) to 50 feet (SB-3).

Work Plan

On June 4, 2010, Tetra Tech met with Mike Bratcher of the NMOCD to discuss the results and concerns regarding with a deep excavation plan. Since the impacted area is in the native sand dunes, the proposed excavation depths may not be reached due to wall cave ins and safety concerns for lines, equipment operators as well as other onsite personnel. As such, Tetra Tech will excavate the soils to the maximum extent practicable.

Two underground lines are located in the area of spill/excavation. The active line (Conoco) is running east and west through the center of the spill area and an abandoned line (DCP) runs north and south through the spill. These areas will need to be cleared prior to excavating around the lines and may hinder some soil removal around these lines.

Tetra Tech personnel will supervise the removal of impacted soils as shown in attached Table 3 and Figure 6. In addition, selected excavated areas with deeper chloride impact will be capped (lined) with a 40 mil plastic liner. Once the areas are excavated to the appropriate depths, the excavation will be backfilled with clean soil.



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The liner will be installed at a depth of 4.0' below surface. The liner installation areas are shown on Figure 4.

If you require any additional information or have any questions or comments concerning this report, please call at (432) 682-4559.

Respectfully submitted,
TETRA TECH

Ike Tavarez, P.G.
Senior Project Manager

cc: Pat Ellis – COG
Terry Gregston - BLM

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	Kanicia Carrillo
Address	550 W. Texas, Suite 100 Midland, TX 79701	Telephone No.	432-685-4332
Facility Name	RJ Unit 110	Facility Type	Injection Line
Surface Owner	Federal	Mineral Owner	
		Lease No.	30-015-03152

LOCATION OF RELEASE

***Across from the RJ Unit #121 (API# 30-015-03142)


Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
P	27	17S	29E	660	South	660	East	Eddy

Latitude N32° 48.00 Longitude W104° 03.402

NATURE OF RELEASE

Type of Release- Produced water	Volume of Release- 100bbbls	Volume Recovered- 400 bbls prod wtr & rain wtr
Source of Release- Injection Line	Date and Hour of Occurrence- 10/23/09	Date and Hour of Discovery 10/23/09
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Terry Gregston	
By Whom? Pat Ellis	Date and Hour 10/26/09 2:08pm	
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.* Hole in injection line, line is shut in.		
Describe Area Affected and Cleanup Action Taken.* Spill occurred across the road from the RJ Unit #121 well, roughly 50x150 area. 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 NMOCD/BI.M for your 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: Kanicia Carrillo		Approved by District Supervisor:	
Title: Regulatory Analyst	Approval Date:	Expiration Date:	
E-mail Address: kcarrillo@conchoresources.com	Conditions of Approval:		Attached <input type="checkbox"/>
Date: 11/11/09	Phone: 432-685-4332		

* Attach Additional Sheets If Necessary

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
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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-14
Revised October 10, 200

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	Kanicia Carrillo
Address	550 W. Texas, Suite 1300 Midland, TX 79701	Telephone No.	432-685-4332
Facility Name	RJ Unit #119	Facility Type	Injection Well
Surface Owner	Mineral Owner	Lease No.	30-015-03146

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
O	27	17S	29E	660	South	1980	East	Eddy

Latitude _____ Longitude _____

NATURE OF RELEASE

Type of Release-Produced Water	Volume of Release-200bbls	Volume Recovered- 150bbls
Source of Release- Hole in 2" injection line	Date and Hour of Occurrence- 5/30/09- 12:00 pm	Date and Hour of Discovery 5/30/09-12:00pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? Mike Bratcher NMOC District 2	
By Whom? Kent Greenway	Date and Hour 6/1/09- 9:30 am	
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.*

Hole in a 2" steel injection line. Injection was shut in at this location and the line will be replaced.

Describe Area Affected and Cleanup Action Taken.*

Approximately 50' X 100' area in pasture was affected. All liquid was vacuumed up. The area is being dug out to a 1' depth for testing. 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 NMOC/BLM for your 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 NMOC 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 NMOC 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, NMOC 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: Kanicia Carrillo		Approved by District Supervisor:	
Title: Regulatory Analyst		Approval Date:	Expiration Date:
E-mail Address: kcarrillo@conchoresources.com		Conditions of Approval:	Attached <input type="checkbox"/>
Date: 6/3/09 Phone: 432-685-4332			

* Attach Additional Sheets If Necessary

Water Well Data
Average Depth to Groundwater (ft)
COG - RJU Unit #119
Eddy County, New Mexico

16 South			28 East		
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

16 South			29 East		
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

16 South			30 East		
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			28 East		
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		
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			30 East		
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 South			28 East		
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 South			29 East		
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 South			30 East		
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

88 New Mexico State Engineers Well Reports

105 USGS Well Reports

90 Geology and Groundwater Conditions in Southern Lea, County, NM (Report 6)
 Geology and Groundwater Resources of Eddy County, NM (Report 3)

34 NMOCD - Groundwater Data

123 Field water level

143 NMOCD Groundwater map well location

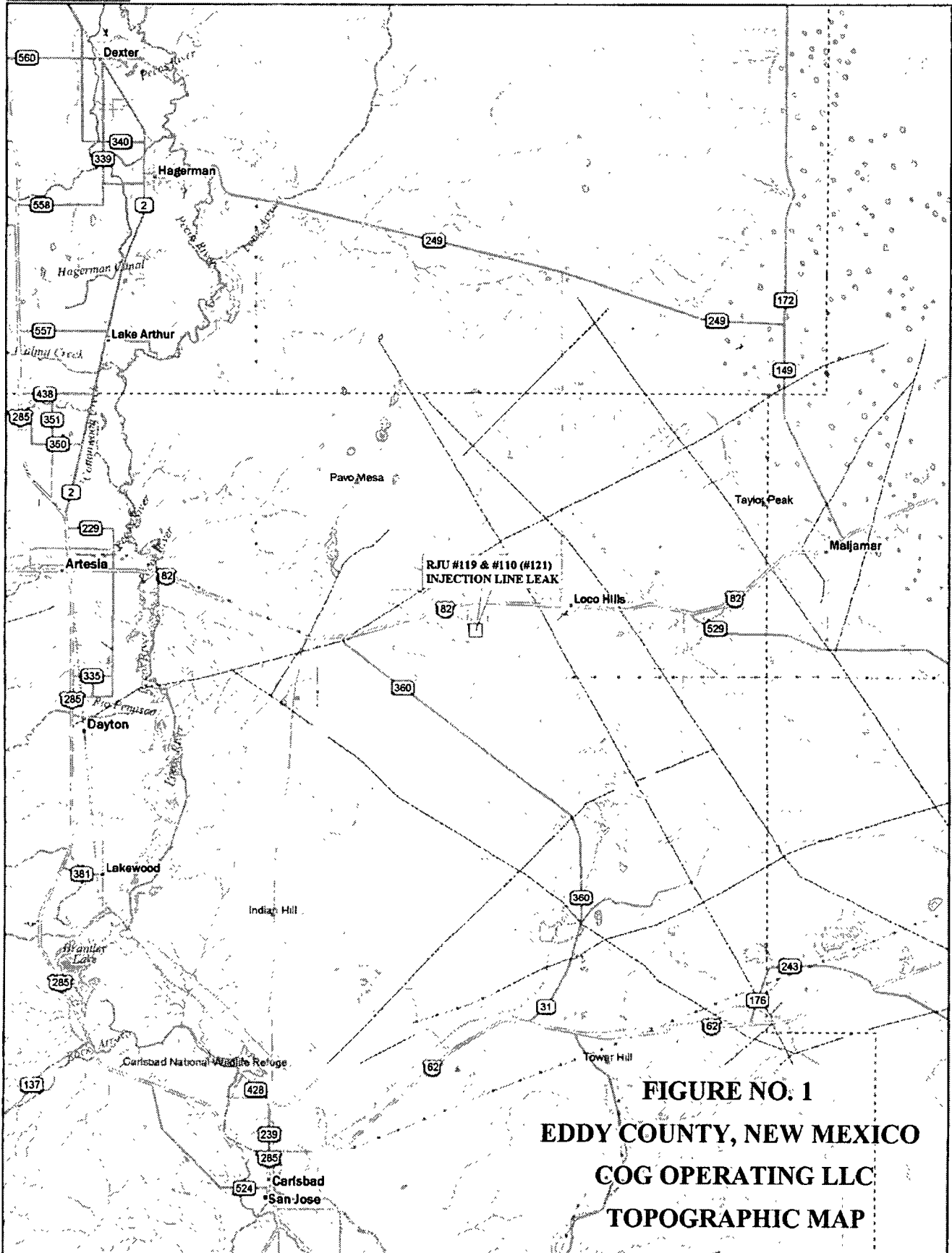
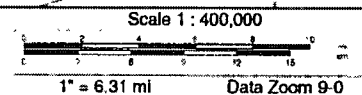


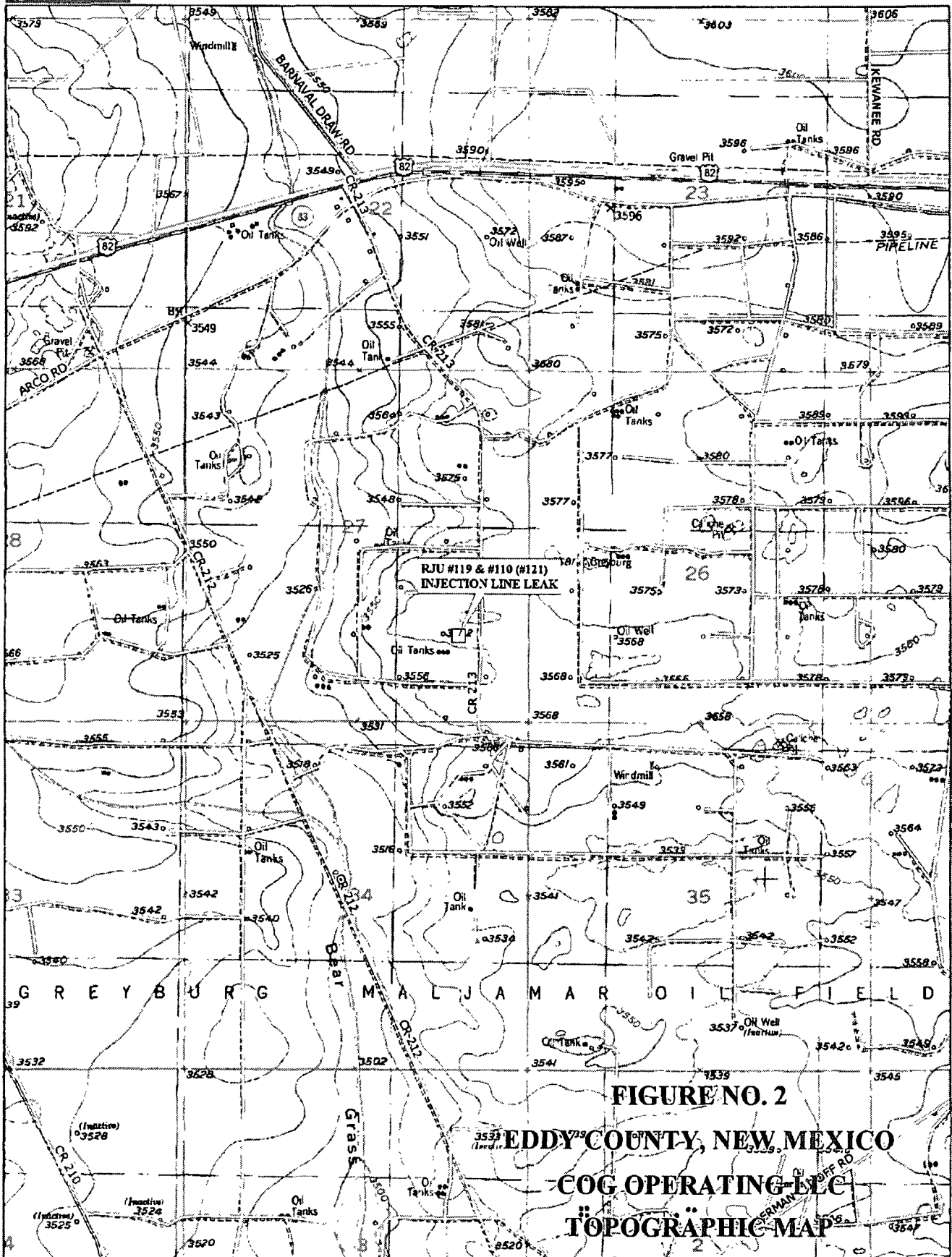
FIGURE NO. 1
EDDY COUNTY, NEW MEXICO
COG OPERATING LLC
TOPOGRAPHIC MAP

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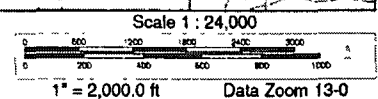


Table 1
COG Operating LLC
RJU #119
EDDY COUNTY, NEW MEXICO

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	DRO	GRO	Total					
AH-5	6/4/2009	0-1	X		3200	19.9	3219.9	-	-	-	-	1170
	6/4/2009	1-1.5	X		-	-	-	-	-	-	-	412
	6/4/2009	2-2.5	X		-	-	-	-	-	-	-	535
	6/4/2009	3-3.5	X		-	-	-	-	-	-	-	638
	6/4/2009	4-4.5	X		-	-	-	-	-	-	-	1160
	6/4/2009	5-5.5	X		-	-	-	-	-	-	-	937
	6/4/2009	6-6.5	X		-	-	-	-	-	-	-	927
	6/4/2009	7-7.5	X		-	-	-	-	-	-	-	1380
	6/4/2009	8-8.5	X		-	-	-	-	-	-	-	1100
SB-1	6/30/2009	5-6	X		-	-	-	-	-	-	-	1,190
	6/30/2009	8-9	X		-	-	-	-	-	-	-	1,630
	6/30/2009	11-12	X		-	-	-	-	-	-	-	6,240
	6/30/2009	13-14	X		-	-	-	-	-	-	-	2,760
	6/30/2009	15-16	X		-	-	-	-	-	-	-	4,210
	6/30/2009	20-21	X		-	-	-	-	-	-	-	1,870
	6/30/2009	25-26	X		-	-	-	-	-	-	-	1,290
	6/30/2009	30-31	X		-	-	-	-	-	-	-	706
	6/30/2009	35-36	X		-	-	-	-	-	-	-	406
AH-4	6/4/2009	0-1	X		<50.0	18.1	18.1	-	-	-	-	5390
	6/4/2009	1-1.5	X		-	-	-	-	-	-	-	5570
	6/4/2009	2-2.5	X		-	-	-	-	-	-	-	8120
	6/4/2009	3-3.5	X		-	-	-	-	-	-	-	3280
	6/4/2009	4-4.5	X		-	-	-	-	-	-	-	2740
	6/4/2009	5-5.5	X		-	-	-	-	-	-	-	2710
SB-2	6/30/2009	5-6	X		-	-	-	-	-	-	-	3,990
	6/30/2009	8-9	X		-	-	-	-	-	-	-	3,290
	6/30/2009	11-12	X		-	-	-	-	-	-	-	590
	6/30/2009	13-14	X		-	-	-	-	-	-	-	207
	6/30/2009	15-16	X		-	-	-	-	-	-	-	<200

(-) Not Analyzed

Table 1
COG Operating LLC
RJU #119
EDDY COUNTY, NEW MEXICO

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	DRO	GRO	Total					
AH-3	6/4/2009	0-1	X		<50.0	31.6	31.6	-	-	-	-	2330
	6/4/2009	1-1.5	X		-	-	-	-	-	-	-	799
	6/4/2009	2-2.5	X		-	-	-	-	-	-	-	468
	6/4/2009	3-3.5	X		-	-	-	-	-	-	-	1350
	6/4/2009	4-4.5	X		-	-	-	-	-	-	-	2490
	6/4/2009	5-5.5	X		-	-	-	-	-	-	-	3540
	6/4/2009	6-6.5	X		-	-	-	-	-	-	-	4080
SB-3		5-6	X		-	-	-	-	-	-	-	1,430
	6/30/2009	8-9	X		-	-	-	-	-	-	-	2,880
	6/30/2009	11-12	X		-	-	-	-	-	-	-	2,820
	6/30/2009	13-14	X		-	-	-	-	-	-	-	2,250
	6/30/2009	15-16	X		-	-	-	-	-	-	-	1,980
	6/30/2009	20-21	X		-	-	-	-	-	-	-	993
	6/30/2009	25-26	X		-	-	-	-	-	-	-	<200
SB-4	6/30/2009	0-1	X		1160	736	1896	<0.0500	7.52	19.5	43.0	1,070
	6/30/2009	2-3	X		691	817	1508	<0.100	7.19	20.1	37.2	1,520
	6/30/2009	5-6	X		-	-	-	<0.0500	6.06	23.2	34.0	1,390
	6/30/2009	8-9	X		-	-	-	<0.0100	<0.0100	<0.0100	<0.0100	1,860
	6/30/2009	11-12	X		-	-	-	-	-	-	-	1,790
	6/30/2009	13-14	X		-	-	-	-	-	-	-	966
	6/30/2009	15-16	X		-	-	-	-	-	-	-	518
	6/30/2009	20-21	X		-	-	-	-	-	-	-	510
	6/30/2009	25-26	X		-	-	-	-	-	-	-	336

(-) Not Analyzed

Table 1
COG Operating LLC
RJU #119
EDDY COUNTY, NEW MEXICO

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	DRO	GRO	Total					
AH-2	6/4/2009	0-1	X		3570	2330	5900	7.55	74.1	72.5	101	1250
	6/4/2009	1-1.5	X		4320	2830	7150	9.86	112	105	129	1670
	6/4/2009	2-2.5	X		1120	2370	3490	4.78	94.4	93.5	118	3250
	6/4/2009	3-3.5	X		-	-	-	-	-	-	-	4760
	6/4/2009	4-4.5	X		-	-	-	-	-	-	-	5240
	6/4/2009	5-5.5	X		-	-	-	-	-	-	-	5740
	6/4/2009	6-6.5	X		-	-	-	-	-	-	-	5270
SB-5	6/30/2009	3-4	X		-	-	-	<0.0100	<0.0100	<0.0100	<0.0100	2,670
	6/30/2009	5-6	X		-	-	-	-	-	-	-	1,790
	6/30/2009	8-9	X		-	-	-	-	-	-	-	2,950
	6/30/2009	11-12	X		-	-	-	-	-	-	-	3,660
	6/30/2009	13-14	X		-	-	-	-	-	-	-	5,090
	6/30/2009	15-16	X		-	-	-	-	-	-	-	5,090
	6/30/2009	20-21	X		-	-	-	-	-	-	-	2,600
	6/30/2009	25-26	X		-	-	-	-	-	-	-	386
SB-6	6/30/2009	0-1	X		-	-	-	-	-	-	-	1,380
	6/30/2009	2-3	X		-	-	-	-	-	-	-	10,200
	6/30/2009	5-6	X		-	-	-	-	-	-	-	5,910
	6/30/2009	8-9	X		-	-	-	-	-	-	-	6,300
	6/30/2009	11-12	X		-	-	-	-	-	-	-	2,430
	6/30/2009	13-14	X		-	-	-	-	-	-	-	1,850
	6/30/2009	15-16	X		-	-	-	-	-	-	-	436
	6/30/2009	20-21	X		-	-	-	-	-	-	-	421
	6/30/2009	25-26	X		-	-	-	-	-	-	-	389
	6/30/2009	30-31	X		-	-	-	-	-	-	-	<200

(-) Not Analyzed

Table 1
COG Operating LLC
RJU #119
EDDY COUNTY, NEW MEXICO

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	DRO	GRO	Total					
AH-1	6/4/2009	0-1	X		6910	766	7676	<0.0500	2.80	22.2	34.9	1520
	6/4/2009	1-1.5	X		4140	1130	5270	-	-	-	-	1690
	6/4/2009	2-2.5	X		<50.0	21.0	21.0	-	-	-	-	675
	6/4/2009	3-3.5	X		-	-	-	-	-	-	-	1280
	6/4/2009	4-4.5	X		-	-	-	-	-	-	-	1440
	6/4/2009	5-5.5	X		-	-	-	-	-	-	-	1450
	6/4/2009	6-6.5	X		-	-	-	-	-	-	-	994
SB-7	6/30/2009	5-6	X		-	-	-	-	-	-	-	6,230
	6/30/2009	8-9	X		-	-	-	-	-	-	-	4,100
	6/30/2009	11-12	X		-	-	-	-	-	-	-	3,180
	6/30/2009	13-14	X		-	-	-	-	-	-	-	1,820
	6/30/2009	15-16	X		-	-	-	-	-	-	-	1,590
	6/30/2009	20-21	X		-	-	-	-	-	-	-	1,180
	6/30/2009	25-26	X		-	-	-	-	-	-	-	952
SB-8	6/30/2009	30-31	X		-	-	-	-	-	-	-	309
	6/30/2009	0-1	X		-	-	-	-	-	-	-	10,700
	6/30/2009	2-3	X		-	-	-	-	-	-	-	3,980
	6/30/2009	5-6	X		-	-	-	-	-	-	-	3,120
	6/30/2009	8-9	X		-	-	-	-	-	-	-	3,390
	6/30/2009	11-12	X		-	-	-	-	-	-	-	3,130
	6/30/2009	13-14	X		-	-	-	-	-	-	-	4,020
	6/30/2009	15-16	X		-	-	-	-	-	-	-	5,120
	6/30/2009	20-21	X		-	-	-	-	-	-	-	4,480
	6/30/2009	25-26	X		-	-	-	-	-	-	-	275
	6/30/2009	30-31	X		-	-	-	-	-	-	-	310

(-) Not Analyzed

Table 1
COG Operating LLC
RJU #119
EDDY COUNTY, NEW MEXICO

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	DRO	GRO	Total					
AH-6	6/4/2009	0-1	X		<50.0	<1.00	<50.0	-	-	-	-	6750
	6/4/2009	1-1.5	X		-	-	-	-	-	-	-	8750
	6/4/2009	2-2.5	X		-	-	-	-	-	-	-	1180
	6/4/2009	3-3.5	X		-	-	-	-	-	-	-	1120
	6/4/2009	4-4.5	X		-	-	-	-	-	-	-	3710
	6/4/2009	5-5.5	X		-	-	-	-	-	-	-	2850
	6/4/2009	6-6.5	X		-	-	-	-	-	-	-	2540
SB-9	6/30/2009	5-6	X		-	-	-	-	-	-	-	2,080
	6/30/2009	8-9	X		-	-	-	-	-	-	-	3,030
	6/30/2009	11-12	X		-	-	-	-	-	-	-	3,150
	6/30/2009	13-14	X		-	-	-	-	-	-	-	2,370
	6/30/2009	15-16	X		-	-	-	-	-	-	-	2,260
	6/30/2009	20-21	X		-	-	-	-	-	-	-	5,250
	6/30/2009	25-26	X		-	-	-	-	-	-	-	838
	6/30/2009	30-31	X		-	-	-	-	-	-	-	486
SB-10	6/30/2009	0-1	X		-	-	-	-	-	-	-	<200
	6/30/2009	2-3	X		-	-	-	-	-	-	-	527
	6/30/2009	5-6	X		-	-	-	-	-	-	-	1,150
	6/30/2009	8-9	X		-	-	-	-	-	-	-	2,360
	6/30/2009	11-12	X		-	-	-	-	-	-	-	9,190
	6/30/2009	13-14	X		-	-	-	-	-	-	-	7,050
	6/30/2009	15-16	X		-	-	-	-	-	-	-	4,920
	6/30/2009	20-21	X		-	-	-	-	-	-	-	3,620
	6/30/2009	25-26	X		-	-	-	-	-	-	-	2,140
	6/30/2009	30-31	X		-	-	-	-	-	-	-	709
	6/30/2009	35-36	X		-	-	-	-	-	-	-	274

(-) Not Analyzed

Table 1
COG Operating LLC
RJU #119
EDDY COUNTY, NEW MEXICO

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			In-Situ	Removed	DRO	GRO	Total					
AH-7	6/4/2009	0-1	X		<50.0	6.14	6.14	-	-	-	-	8240
	6/4/2009	1-1.5	X		-	-	-	-	-	-	-	6460
	6/4/2009	2-2.5	X									9000
	6/4/2009	3-3.5	X									9310
SB-11	6/30/2009	5-6	X		-	-	-	-	-	-	-	3,820
	6/30/2009	8-9	X		-	-	-	-	-	-	-	4,030
	6/30/2009	11-12	X		-	-	-	-	-	-	-	9,070
	6/30/2009	13-14	X		-	-	-	-	-	-	-	4,930
	6/30/2009	15-16	X		-	-	-	-	-	-	-	3,750
	6/30/2009	20-21	X		-	-	-	-	-	-	-	1,330
	6/30/2009	25-26	X		-	-	-	-	-	-	-	310
	6/30/2009	30-31	X		-	-	-	-	-	-	-	284

(-) Not Analyzed

Table 2
COG Operating LLC
RJU #121
EDDY COUNTY, NEW MEXICO

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride
			In-Situ	Removed	DRO	GRO	Total					
SB-4	1/20/10	0-1'	X		<50.0	<1.00	<50.0	<0.0100	<0.0100	<0.0100	<0.0100	6,120
		2-3'	X		-	-	-	-	-	-	-	2,720
		4-5'	X		-	-	-	-	-	-	-	3,840
		6-7'	X		-	-	-	-	-	-	-	3,320
		10-11'	X		-	-	-	-	-	-	-	4,130
		15-16'	X		-	-	-	-	-	-	-	2,330
		20-21'	X		-	-	-	-	-	-	-	2,680
		25-26'	X		-	-	-	-	-	-	-	2,250
		30-31'	X		-	-	-	-	-	-	-	1,850
SB-4	4/20/10	20'	X		-	-	-	-	-	-	-	1,440
		25'	X		-	-	-	-	-	-	-	1,260
		30'	X		-	-	-	-	-	-	-	586
		35'	X		-	-	-	-	-	-	-	631
		40'	X		-	-	-	-	-	-	-	<200
		45'	X		-	-	-	-	-	-	-	<200
SB-5	1/20/10	0-1'	X		<50.0	<1.00	<50.0	-	-	-	-	729
		2-3'	X		-	-	-	-	-	-	-	1,290
		4-5'	X		-	-	-	-	-	-	-	2,170
		6-7'	X		-	-	-	-	-	-	-	2,190
		10-11'	X		-	-	-	-	-	-	-	343
		15-16'	X		-	-	-	-	-	-	-	<200
		20-21'	X		-	-	-	-	-	-	-	213

Table 2
COG Operating LLC
RJU #121
EDDY COUNTY, NEW MEXICO

[illegible]

Table 2
COG Operating LLC
RJU #121
EDDY COUNTY, NEW MEXICO

[illegible]

Table 2
COG Operating LLC
RJU #121
EDDY COUNTY, NEW MEXICO

Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethylbenzene (mg/kg)	Xylene (mg/kg)	Chloride
			In-Situ	Removed	DRO	GRO	Total					
SB-10	1/20/10	0-1'	X		<50.0	<1.00	<50.0	-	-	-	-	<200
		2-3'	X		-	-	-	-	-	-	-	<200
		4-5'	X		-	-	-	-	-	-	-	707
		6-7'	X		-	-	-	-	-	-	-	1,700
		10-11'	X		-	-	-	-	-	-	-	759
		15-16'	X		-	-	-	-	-	-	-	258
		20-21'	X		-	-	-	-	-	-	-	253
SB-11	1/20/10	0-1'	X		<50.0	<1.00	<50.0	-	-	-	-	409
		2-3'	X		-	-	-	-	-	-	-	574
		4-5'	X		-	-	-	-	-	-	-	3,910
		6-7'	X		-	-	-	-	-	-	-	8,000
		10-11'	X		-	-	-	-	-	-	-	248
		15-16'	X		-	-	-	-	-	-	-	306
		20-21'	X		-	-	-	-	-	-	-	311

(-) Not Analyzed

Table 3
COG Operating LLC
RJU #119 and RJU #110 (#121) Spill Data
Eddy County, New Mexico

Area	Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		Chloride (mg/kg)
				In-Situ	Removed	
Spill #1 Data - RJU #119						
AREA 1	AH-7	6/4/2009	0-1	X		8240
		6/4/2009	1-1.5	X		6460
		6/4/2009	2-2.5	X		9000
		6/4/2009	3-3.5	X		9310
	SB-11	6/30/2009	5-6	X		3,820
		6/30/2009	8-9	X		4,030
		6/30/2009	11-12	X		9,070
		6/30/2009	13-14	X		4,930
		6/30/2009	15-16	X		3,750
		6/30/2009	20-21	X		1,330
		6/30/2009	25-26	X		310
		6/30/2009	30-31	X		284

(-) Not Analyzed

☐ Propose Excavation Depths

Table 3
COG Operating LLC
RJU #119 and RJU #110 (#121) Spill Data
Eddy County, New Mexico

Area	Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		Chloride (mg/kg)		Sample ID	Date Sampled	Sample Depth (ft)	Chloride (mg/kg)
				In-Situ	Removed						
Spill #1 Data - RJU #119								Spill #2 Data - RJU #110) (#121)			
AREA 2	AH-5	6/4/2009	0-1	X		1170		SB-9	1/20/10	0-1'	1,540
		6/4/2009	1-1.5	X		412			1/20/10	2-3'	1,630
		6/4/2009	2-2.5	X		535			1/20/10	4-5'	3,390
		6/4/2009	3-3.5	X		638			1/20/10	6-7'	3,600
		6/4/2009	4-4.5	X		1160			1/20/10	10-11'	2,680
		6/4/2009	5-5.5	X		937			1/20/10	15-16'	5,110
		6/4/2009	6-6.5	X		927			1/20/10	20-21'	3,430
		6/4/2009	7-7.5	X		1380			1/20/10	25-26'	682
		6/4/2009	8-8.5	X		1100			1/20/10	30-31'	941
									1/20/10	40-41'	1,410
	SB-1	6/30/2009	5-6	X		1,190					
		6/30/2009	8-9	X		1,630		SB-9	4/20/10	30'	<200
		6/30/2009	11-12	X		6,240			4/20/10	35'	<200
		6/30/2009	13-14	X		2,760			4/20/10	40'	207
		6/30/2009	15-16	X		4,210			4/20/10	45'	<200
		6/30/2009	20-21	X		1,870					
		6/30/2009	25-26	X		1,290					
		6/30/2009	30-31	X		706					
		6/30/2009	35-36	X		406					

(-) Not Analyzed

Propose Excavation Depths
Propose Liner Installation

Table 3
COG Operating LLC
RJU #119 and RJU #110 (#121) Spill Data
Eddy County, New Mexico

Area	Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		Chloride (mg/kg)		Sample ID	Date Sampled	Sample Depth (ft)	Chloride (mg/kg)
				In-Situ	Removed						
Spill #1 Data - RJU #119								Spill #2 Data - RJU #110) (#121)			
AREA 3	AH-4	6/4/2009	0-1	X		5390		SB-8	1/20/10	0-1'	1,610
		6/4/2009	1-1.5	X		5570			1/20/10	2-3'	3,160
		6/4/2009	2-2.5	X		8120			1/20/10	4-5'	4,500
		6/4/2009	3-3.5	X		3280			1/20/10	6-7'	5,390
		6/4/2009	4-4.5	X		2740			1/20/10	10-11'	4,190
		6/4/2009	5-5.5	X		2710			1/20/10	15-16'	1,550
									1/20/10	20-21'	678
	SB-2	6/30/2009	5-6	X		3,990					
6/30/2009		8-9	X		3,290						
6/30/2009		11-12	X		590						
6/30/2009		13-14	X		207						
6/30/2009		15-16	X		<200						

(-) Not Analyzed

 Propose Excavation Depths
 Propose Liner Installation

Table 3
COG Operating LLC
RJU #119 and RJU #110 (#121) Spill Data
Eddy County, New Mexico

Area	Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		Chloride (mg/kg)		Sample ID	Date Sampled	Sample Depth (ft)	Chloride (mg/kg)
				In-Situ	Removed						
Spill #1 Data - RJU #119								Spill #2 Data - RJU #110) (#121)			
AREA 4	AH-3	6/4/2009	0-1	X		2330		SB-7	1/20/10	0-1'	716
		6/4/2009	1-1.5	X		799			1/20/10	2-3'	1,850
		6/4/2009	2-2.5	X		468			1/20/10	4-5'	2,000
		6/4/2009	3-3.5	X		1350			1/20/10	6-7'	2,050
		6/4/2009	4-4.5	X		2490			1/20/10	10-11'	2,840
		6/4/2009	5-5.5	X		3540			1/20/10	15-16'	1,430
		6/4/2009	6-6.5	X		4080			1/20/10	20-21'	1,150
	SB-3	6/30/2009	5-6	X		1,430		SB-7	4/20/10	10'	2,180
		6/30/2009	8-9	X		2,880			4/20/10	15'	1,110
		6/30/2009	11-12	X		2,820			4/20/10	20'	1,150
		6/30/2009	13-14	X		2,250			4/20/10	25'	340
		6/30/2009	15-16	X		1,980			4/20/10	30'	<200
		6/30/2009	20-21	X		993					
		6/30/2009	25-26	X		<200					

(-) Not Analyzed

 Propose Excavation Depths
 Propose Liner Installation

Table 3
COG Operating LLC
RJU #119 and RJU #110 (#121) Spill Data
Eddy County, New Mexico

Area	Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		Chloride (mg/kg)		Sample ID	Date Sampled	Sample Depth (ft)	Chloride (mg/kg)
				In-Situ	Removed						
Spill #1 Data - RJU #119								Spill #2 Data - RJU #110) (#121)			
AREA 5	SB-6	6/30/2009	0-1	X		1,380		SB-1	1/20/10	0-1'	781
		6/30/2009	2-3	X		10,200			1/20/10	2-3'	2,660
		6/30/2009	5-6	X		5,910			1/20/10	4-5'	10,700
		6/30/2009	8-9	X		6,300			1/20/10	6-7'	9,960
		6/30/2009	11-12	X		2,430			1/20/10	10-11'	6,070
		6/30/2009	13-14	X		1,850			1/20/10	15-16'	1,860
		6/30/2009	15-16	X		436			1/20/10	20-21'	1,100
		6/30/2009	20-21	X		421			1/20/10	25-26'	<200
		6/30/2009	25-26	X		389			1/20/10	30-31'	<200
		6/30/2009	30-31	X		<200					

(-) Not Analyzed

 Propose Excavation Depths

 Propose Liner Installation

Table 3
COG Operating LLC
RJU #119 and RJU #110 (#121) Spill Data
Eddy County, New Mexico

Area	Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		Chloride (mg/kg)		Sample ID	Date Sampled	Sample Depth (ft)	Chloride (mg/kg)
				In-Situ	Removed						
Spill #1 Data - RJU #119								Spill #2 Data - RJU #110) (#121)			
AREA 6	AH-2	6/4/2009	0-1	X		1250		SB-2	1/20/10	0-1'	2,780
		6/4/2009	1-1.5	X		1670			1/20/10	2-3'	1,040
		6/4/2009	2-2.5	X		3250	liner		1/20/10	4-5'	1,400
		6/4/2009	3-3.5	X		4760			1/20/10	6-7'	1,210
		6/4/2009	4-4.5	X		5240			1/20/10	10-11'	3,910
		6/4/2009	5-5.5	X		5740			1/20/10	15-16'	5,550
		6/4/2009	6-6.5	X		5270			1/20/10	20-21'	2,580
									1/20/10	25-26'	968
	SB-5	6/30/2009	3-4	X		2,670			1/20/10	30-31'	718
		6/30/2009	5-6	X		1,790			1/20/10	40-41'	<200
		6/30/2009	8-9	X		2,950					
		6/30/2009	11-12	X		3,660					
liner		6/30/2009	13-14	X		5,090					
		6/30/2009	15-16	X		5,090					
		6/30/2009	20-21	X		2,600					
		6/30/2009	25-26	X		386					

(-) Not Analyzed


 Propose Excavation Depths
 Propose Liner Installation

Table 3
COG Operating LLC
RJU #119 and RJU #110 (#121) Spill Data
Eddy County, New Mexico

Area	Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		Chloride (mg/kg)
				In-Situ	Removed	
Spill #1 Data - RJU #119						
AREA 7	SB-4	6/30/2009	0-1	X		1,070
		6/30/2009	2-3	X		1,520
		6/30/2009	5-6	X		1,390
		6/30/2009	8-9	X		1,860
		6/30/2009	11-12	X		1,790
		6/30/2009	13-14	X		966
		6/30/2009	15-16	X		518
		6/30/2009	20-21	X		510
		6/30/2009	25-26	X		336

(-) Not Analyzed

☐ Propose Excavation Depths
☐ Propose Liner Installation

Table 3
COG Operating LLC
RJU #119 and RJU #121 Spill Data
Eddy County, New Mexico

Area	Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		Chloride (mg/kg)
				In-Situ	Removed	
Spill #2 Data - RJU #110) (#121)						
AREA 8	SB-3	1/20/10	0-1'	X		2,240
		1/20/10	2-3'	X		1,190
liner		1/20/10	4-5'	X		4,570
		1/20/10	6-7'	X		6,010
		1/20/10	10-11'	X		3,600
		1/20/10	15-16'	X		3,790
		1/20/10	20-21'	X		1,570
		1/20/10	25-26'	X		2,260
		1/20/10	30-31'	X		5,310
	SB-3	4/20/10	20'	X		2,400
		4/20/10	25'	X		2,380
		4/20/10	30'	X		2,210
		4/20/10	35'	X		3,590
		4/20/10	40'	X		1,900
		4/20/10	45'	X		631
		4/20/10	50'	X		1,360
		4/20/10	55'	X		336
		4/20/10	60'	X		306
		4/20/10	65'	X		519
		4/20/10	70'	X		<200

(-) Not Analyzed

Propose Excavation Depths
 Propose Liner Installation

Table 3
COG Operating LLC
RJU #119 and RJU #110 (#121) Spill Data
Eddy County, New Mexico

Area	Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		Chloride (mg/kg)		Sample ID	Date Sampled	Sample Depth (ft)	Chloride (mg/kg)
				In-Situ	Removed						
Spill #1 Data - RJU #119								Spill #2 Data - RJU #110) (#121)			
AREA 9	AH-1	6/4/2009	0-1	X		1520		SB-4	1/20/10	0-1'	6,120
		6/4/2009	1-1.5	X		1690			1/20/10	2-3'	2,720
		6/4/2009	2-2.5	X		675	liner		1/20/10	4-5'	3,840
		6/4/2009	3-3.5	X		1280			1/20/10	6-7'	3,320
		6/4/2009	4-4.5	X		1440			1/20/10	10-11'	4,130
		6/4/2009	5-5.5	X		1450			1/20/10	15-16'	2,330
		6/4/2009	6-6.5	X		994			1/20/10	20-21'	2,680
									1/20/10	25-26'	2,250
	SB-7	6/30/2009	5-6	X		6,230			1/20/10	30-31'	1,850
		6/30/2009	8-9	X		4,100					
		6/30/2009	11-12	X		3,180		SB-4	4/20/10	20'	1,440
		6/30/2009	13-14	X		1,820			4/20/10	25'	1,260
		6/30/2009	15-16	X		1,590			4/20/10	30'	586
		6/30/2009	20-21	X		1,180			4/20/10	35'	631
		6/30/2009	25-26	X		952			4/20/10	40'	<200
		6/30/2009	30-31	X		309			4/20/10	45'	<200

(-) Not Analyzed

 Propose Excavation Depths

 Propose Liner Installation

Table 3
COG Operating LLC
RJU #119 and RJU #110 (#121) Spill Data
Eddy County, New Mexico

Area	Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		Chloride (mg/kg)
				In-Situ	Removed	
Spill #1 Data - RJU #119						
AREA 10	SB-8	6/30/2009	0-1	X		10,700
		6/30/2009	2-3	X		3,980
liner		6/30/2009	5-6	X		3,120
		6/30/2009	8-9	X		3,390
		6/30/2009	11-12	X		3,130
		6/30/2009	13-14	X		4,020
		6/30/2009	15-16	X		5,120
		6/30/2009	20-21	X		4,480
		6/30/2009	25-26	X		275
		6/30/2009	30-31	X		310

(-) Not Analyzed

☐ Propose Excavation Depths

☐ Propose Liner Installation

Table 3
COG Operating LLC
RJU #119 and RJU #110 (#121) Spill Data
Eddy County, New Mexico

Area	Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		Chloride (mg/kg)
				In-Situ	Removed	
Spill #1 Data - RJU #119						
AREA 11	AH-6	6/4/2009	0-1	X		6750
		6/4/2009	1-1.5	X		8750
		6/4/2009	2-2.5	X		1180
		6/4/2009	3-3.5	X		1120
		6/4/2009	4-4.5	X		3710
		6/4/2009	5-5.5	X		2850
		6/4/2009	6-6.5	X		2540
	SB-9	6/30/2009	5-6	X		2,080
		6/30/2009	8-9	X		3,030
		6/30/2009	11-12	X		3,150
		6/30/2009	13-14	X		2,370
		6/30/2009	15-16	X		2,260
		6/30/2009	20-21	X		5,250
		6/30/2009	25-26	X		838
		6/30/2009	30-31	X		486

(-) Not Analyzed



 Propose Excavation Depths
 Propose Liner Installation

Table 3
COG Operating LLC
RJU #119 and RJU #110 (#121) Spill Data
Eddy County, New Mexico

Area	Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		Chloride (mg/kg)
				In-Situ	Removed	
Spill #1 Data - RJU #119						
AREA 12	SB-10	6/30/2009	0-1	X		<200
liner		6/30/2009	2-3	X		527
		6/30/2009	5-6	X		1,150
		6/30/2009	8-9	X		2,360
		6/30/2009	11-12	X		9,190
		6/30/2009	13-14	X		7,050
		6/30/2009	15-16	X		4,920
		6/30/2009	20-21	X		3,620
		6/30/2009	25-26	X		2,140
		6/30/2009	30-31	X		709
		6/30/2009	35-36	X		274

(-) Not Analyzed

☐ Propose Excavation Depths

☐ Propose Liner Installation

Table 3
COG Operating LLC
RJU #119 and RJU #110 (#121) Spill Data
Eddy County, New Mexico

Area	Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		Chloride (mg/kg)
				In-Situ	Removed	
Spill #2 Data - RJU #110) (#121)						
AREA 13	SB-5	1/20/10	0-1'	X		729
			2-3'	X		1,290
			4-5'	X		2,170
			6-7'	X		2,190
			10-11'	X		343
			15-16'	X		<200
			20-21'	X		213
AREA 14	SB-6	1/20/10	0-1'	X		659
			2-3'	X		737
			4-5'	X		1,870
			6-7'	X		1,640
			10-11'	X		<200
			15-16'	X		222
			20-21'	X		202

(-) Not Analyzed

☐ Propose Excavation Depths

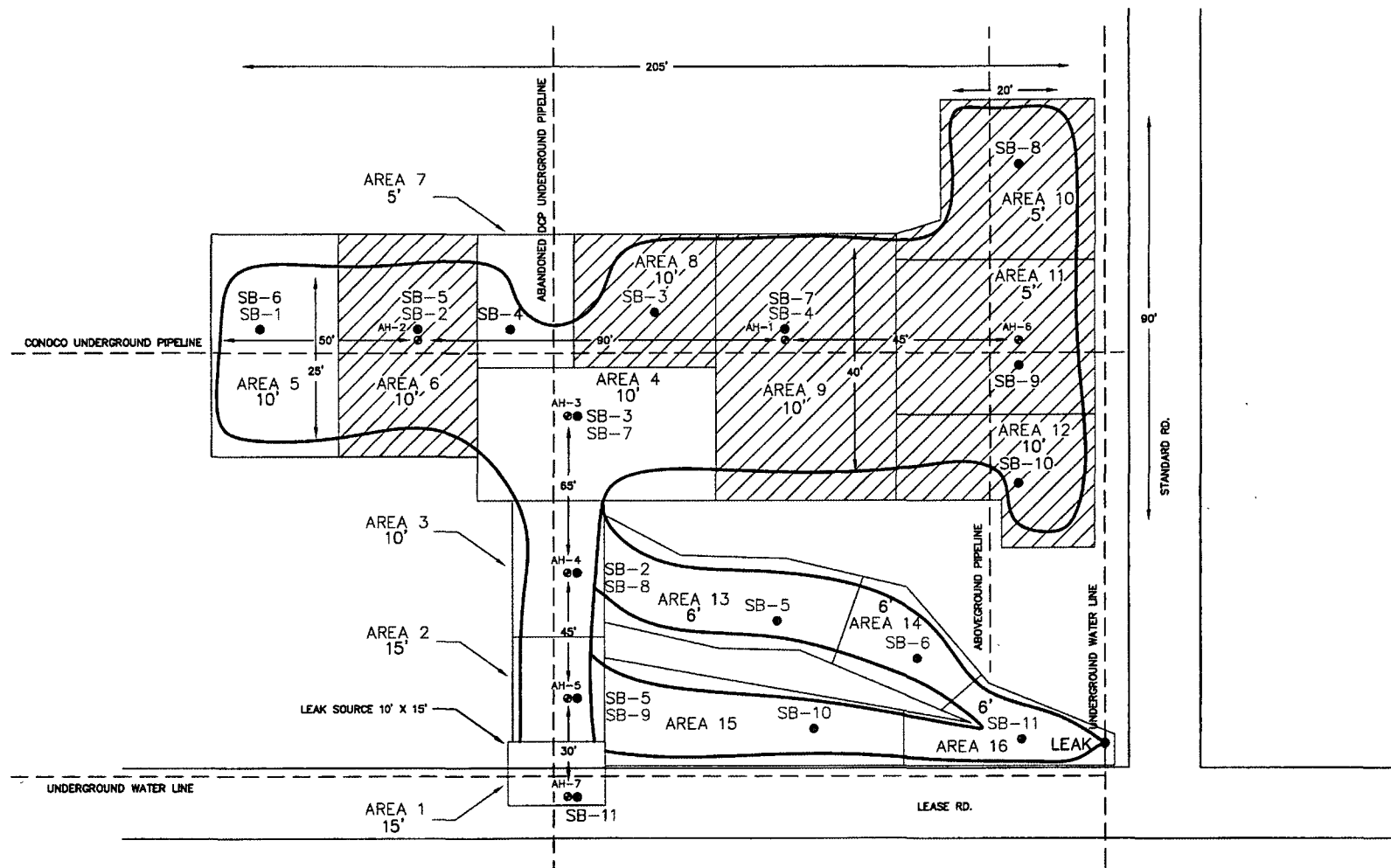
☐ Propose Liner Installation

Table 3
COG Operating LLC
RJU #119 and RJU #121 Spill Data
Eddy County, New Mexico

Area	Sample ID	Date Sampled	Sample Depth (ft)	Soil Status		Chloride (mg/kg)
				In-Situ	Removed	
Spill #2 Data - RJU #110) (#121)						
AREA 15	SB-10	1/20/10	0-1'	X		<200
		1/20/10	2-3'	X		<200
		1/20/10	4-5'	X		707
		1/20/10	6-7'	X		1,700
		1/20/10	10-11'	X		759
		1/20/10	15-16'	X		258
		1/20/10	20-21'	X		253
AREA 16	SB-11	1/20/10	0-1'	X		409
		1/20/10	2-3'	X		574
		1/20/10	4-5'	X		3,910
		1/20/10	6-7'	X		8,000
		1/20/10	10-11'	X		248
		1/20/10	15-16'	X		306
		1/20/10	20-21'	X		311

(-) Not Analyzed

Propose Excavation Depths
Propose Liner Installation



- 15' = PROPOSED EXCAVATION DEPTHS
 ▨ PROPOSED LINER
 □ SPILL SEGREGATED AREAS
 ● SAMPLE LOCATIONS
 ● SOIL BORING LOCATIONS (6-30-09)
 ● SOIL BORING LOCATIONS (1-20-10 & 4-20-10)

NOT TO SCALE

DATE:
6/12/09
DRAWN BY:
JJ
FILE:
M:\COG\400210
R01 #119 FLOOR

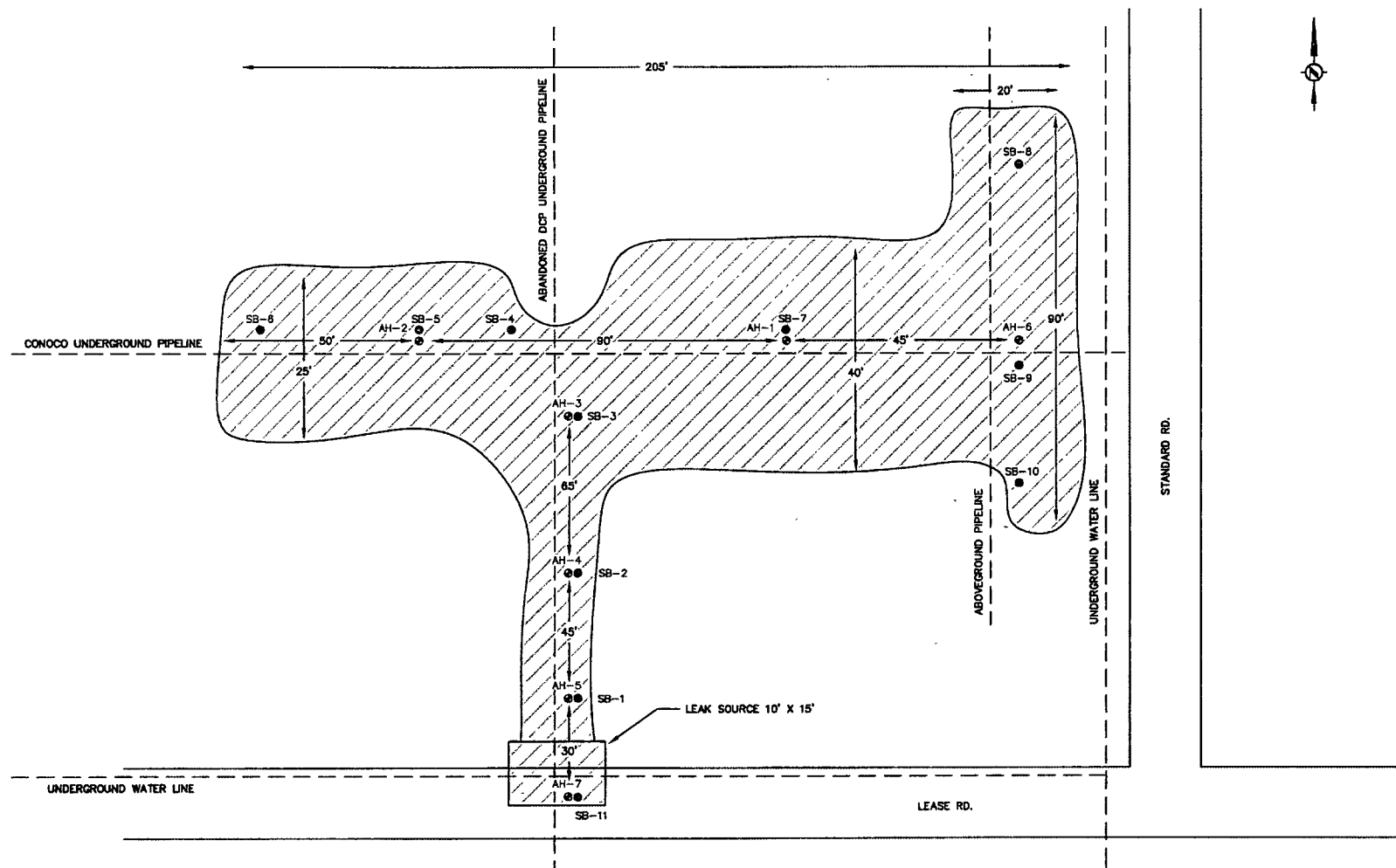
FIGURE NO. 6

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

RJU #119 & #110 (#121)
INJECTION LINE LEAK

TETRA TECH, INC.
MIDLAND, TEXAS



1st RELEASE DATE 5/30/10

NOT TO SCALE

- ☐ SPILL AREA
- SAMPLE LOCATIONS
- SOIL BORING LOCATIONS

FIGURE NO. 3

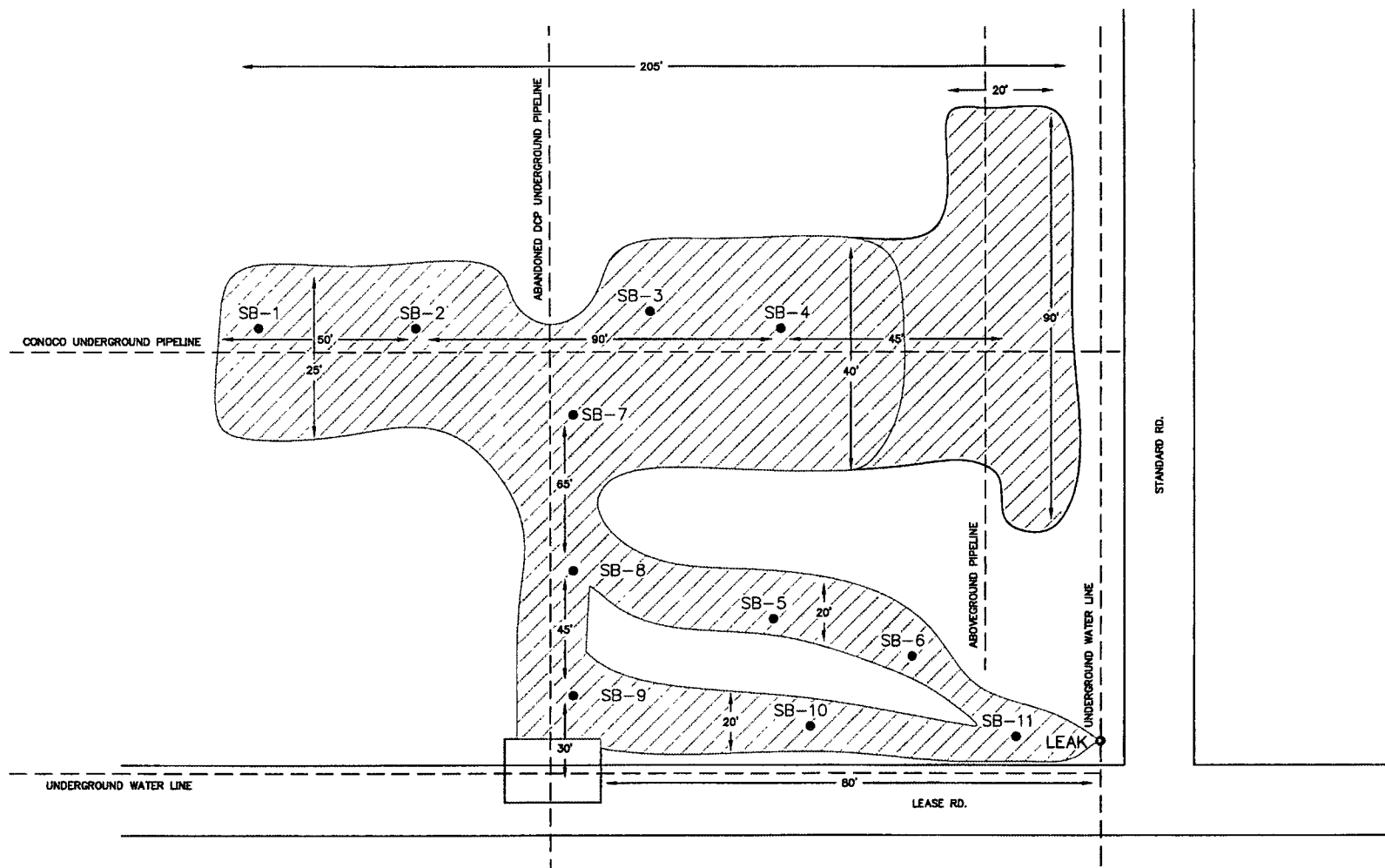
EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

RJU #119 INJECTION LINE LEAK

TETRA TECH, INC.
MIDLAND, TEXAS

DATE:
6/12/09
DRAWN BY:
LJ
FILE:
H:\COG\AS00010
000 P109 PLOUSE



- SPILL AREA
- 2nd RELEASE AREA (10/23/09)
- SOIL BORING LOCATIONS

2nd RELEASE DATE 10/23/09

NOT TO SCALE

FIGURE NO. 4

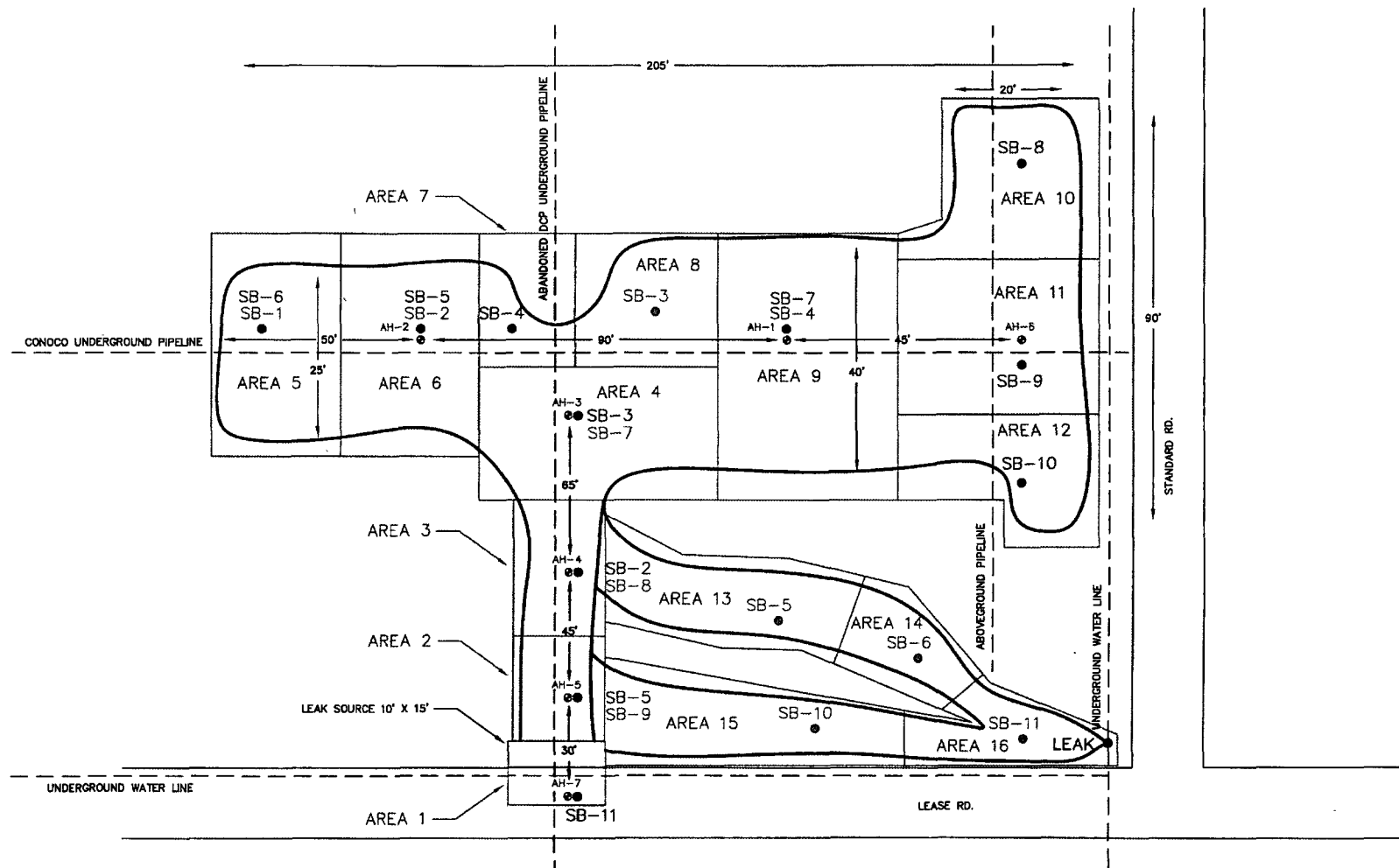
EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

RJU #110 (#121) INJECTION LINE LEAK

TETRA TECH, INC.
MIDLAND, TEXAS

DATE: 6/12/09
DRAWN BY: JJ
FILE: 10/23/09
RJU #110 (#121) INJECTION LINE LEAK



AREA MAP 1st & 2nd SPILL

- SPILL AREA
- SPILL SEGREGATED AREAS
- SAMPLE LOCATIONS
- SOIL BORING LOCATIONS (6-30-09)
- SOIL BORING LOCATIONS (1-20-10 & 4-20-10)

NOT TO SCALE

DATE
6/12/09
DRAWN BY
JL
FILE
H:\COG\400030
SAL P119 FIGURE

FIGURE NO. 5

EDDY COUNTY, NEW MEXICO

COG OPERATING LLC

RJU #119 & #110 (#121)
INJECTION LINE LEAK

TETRA TECH, INC.
MIDLAND, TEXAS