AE Order Number Banner

Report Description

This report shows an AE Order Number in Barcode format for purposes of scanning. The Barcode format is Code 39.

App Number: pGRL1011657364

1RP - 2489

EXXON MOBIL CORPORATION

2/12/2016

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

RECEIVED
APR 22
HOBBSOCD

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 ExxonMobil	Contact Toni Collier
Address P.O. Box 4358, Houston, TX 77210	Telephone No. 281-654-1133
Facility Name BDT State S	Facility Type Water Leg on Heater Treater

Surface Owner : Walko Ranch	Mineral Owner	Lease No.

LOCATION OF RELEASE

NEARBY WELL NM S STATE #028
API # 30-025-25268-00-00

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
F	2	22S	37E					Lea

Latitude N32.25.26 Longitude W103.08.122

NATURE OF RELEASE

Type of Release Oil and water	Volume of Release 78.4 oil/8.7 produced water	Volume Recovered 75 oil/8.3 produced water
Source of Release Water leg on heater treater	Date and Hour of Occurrence 3/20/10 8:00AM	Date and Hour of Discovery 3/20/10 8:00AM
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? E.L. Gonzales	
By Whom? Shelby Pennington	Date and Hour 3/20/10 2:30PM	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.*

WATERED 60'

Describe Cause of Problem and Remedial Action Taken.*

2" drain line water leg on heater broke off of heater due to groove in piping developing corrosion.

Describe Area Affected and Cleanup Action Taken.*

A vacuum truck was called out to pick up free fluid. Emergency one call was put in and contaminated soil was excavated. Site will be delineated and remediated according to NM guidelines.

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: Ashley G. Volante

Printed Name: Ashley Volante

Title: Acting Compliance Supervisor

E-mail Address: Ashley.G.Volante@exxonmobil.com

Date: 4/21/10 Phone: 281-654-6119

OIL CONSERVATION DIVISION

Approved by ~~District Supervisor~~ ENV ENGINEER: Geoffrey Leking

Approval Date: 04/26/10 Expiration Date: 06/28/10

Conditions of Approval: DELINEATE TO CLEAN +1, SUBMIT FINAL C-141 BY 06/28/10

Attached ☐ IRP-10-4-2489

* Attach Additional Sheets If Necessary

Fullerton Operating Area

NM State "S" Tank Battery 5

Remediation Proposal

ExxonMobil

Taking on the world's toughest energy challenges.

APPROVED
06/02/11

ENVIRONMENTAL PLUS, INC.
CONSULTING AND REMEDIAL CONSTRUCTION

17 May 2011

Mr. Geoffrey Leking
Environmental Engineer
New Mexico Oil Conservation Division
1625 North French Drive
Hobbs, New Mexico 88240

RE: Remediation Proposal
ExxonMobil Corporation
New Mexico "S" State Tank Battery #5
UL-F (SE¼ of the NW ¼) of Section 02, T 22 S, R 37 E
NMOCD Ref. #1RP-10-4-2489; EPI Ref. #190041

Dear Mr. Leking:

On March 20, 2010 at 8:00 a.m. approximately 78.4-bbls of petroleum products and 8.7-barrels of produced water were released when a water leg broke away from an active heater treater. Approximately 75-barrels of petroleum product and 8.3-barrels of produced water were recovered. The combined fluids covered a release area of approximately 5,300 square feet. After vacuuming of petroleum products and produced water, field activities were initiated to mitigate the release area. Oily impacted material within the release area was blended with existing clean soil to stiffen and transported to Sundance Services, Inc., for disposal. Exxon Mobil retained the services of Environmental Plus, Inc., (EPI) to GPS, take photographs and delineate the release area. This letter report documents results of delineation activities and provides a *Remediation Proposal.*

Site Background

The Site is located in UL-F (SE ¼ of the NW ¼) of Section 02, T17S, R37E at an approximate elevation of 3,364 feet above mean sea level (amsl). The property is owned by the State of New Mexico and managed by New Mexico State Land Office (NMSLO). A search for water wells was completed utilizing the *New Mexico Office of the State Engineers* website and a database maintained by the United States Geological Survey (USGS). No wells (domestic, agriculture or public) or bodies of surface water exist within a 1,000 feet radius of the Site (reference *Figure 2*). Groundwater data indicates the average water depth is approximately 60-feet below ground surface (bgs). Based on available information, it was determined the distance between impacted soil and groundwater is less than 45-feet. Utilizing this information, the New Mexico Oil Conservation Division (NMOCD) Remedial Goals for this Site were determined as follows:

Parameter	Remedial Goal
Benzene	10 mg/Kg
BTEX	50 mg/Kg
TPH	100 mg/Kg
Chlorides	250 mg/Kg

P.O. Box 1558 2100 Avenue "O" Eunice, New Mexico 88231
Telephone (575) 394-3481 Fax (575) 394-2601

ENVIRONMENTAL PLUS, INC.

Field Work

On May 21, 2010 EPI mobilized at the Site to delineate the release area via sample trenches (ST). ST-1 was excavated to a depth of 6-feet and ST-2 to a depth of 11-feet bgs. Soil samples were collected a 1-foot intervals to total depth of each ST. On July 29, 2010 EPI mobilized to the site and excavated ST-3 a total depth of 10-feet bgs. Soil samples were collected at selected intervals (2-, 3.5-, 5-, 7- and 10-feet bgs) for field analyses and laboratory analytical tests.

In response to NMOCD request, EPI and Straub Corporation mobilized to the Site on January 25, 2011 to determine exact depth of impacted material. A single soil boring was advanced in the center of the release area a total depth of twenty-five (25) feet below ground surface (bgs). Impacted material extended from ground surface to a depth of fifteen (15) feet bgs. Soil samples for field analyses and laboratory analytical tests were collected at five (5) foot intervals from ground surface to TD of the soil boring (Ref. *Table 2*). Upon completion of soil boring activities, the hole was plugged with 3/8" pelletized bentonite and cement (Ref. Well Records & Log).

Due to concerns of number and exact location of buried pipelines, EPI and HydroTech mobilized to the site on March 7, 2011. A trench was hydro excavated from the east side of release area to the lease road on the west side. Three (3) buried pipelines were discovered with two (2) 3-inch diameter steel pipe lines running parallel north-south down center line of release area fourteen (14) feet east of the lease road. A third (3rd) 8" diameter steel pipeline is located approximately eight (8) feet east of the lease road skewing towards the east (Ref *Figure 5*). Bury depth of the 3" diameter pipelines is ±2-feet while the 8" diameter steel pipeline is ±4-feet. Field observations indicate the steel pipelines will nearly intersect somewhere in mid or south end of the release area. No soil samples were collected during this activity.

For activities described above where soil samples were collected, a portion of each soil sample was field analyzed for organic vapor and chloride concentrations. Soil samples collected for field testing of organic vapors were placed in self-sealing polyethylene bags and allowed to equilibrate to ~70° F. The samples were then tested for organic vapor concentrations utilizing a MiniRae™ Photoionization detector (PID) equipped with a 10.6 electron-volt (eV) lamp calibrated for detection of benzene vapors. Chloride concentrations were analyzed in the field utilizing a LaMotte Chloride Kit (Titration Method).

Soil samples designated for laboratory analyses were immediately inserted into laboratory provided containers, placed into coolers, iced down and transported to Cardinal Laboratory, Hobbs, New Mexico, for quantification of TPH [Gasoline Range Organics (C6-C12) and Diesel Range Organics (>C12-C28)] and chloride concentrations under Chain-of-Custody protocol.

Analytical Data

In noting Table 2, *Summary of Excavation and Soil Borings Soil Sample Field Analyses and Laboratory Analytical Results,* the release area is void of TPH concentrations above NMOCD Remedial Threshold Goals (NMOCD Goals) of 100 mg/Kg. Chloride concentrations in excess of NMOCD Goals of 250 mg/Kg terminate at fifteen (15) feet bgs.

Site Remedial Proposal

In viewing the physical location of the release area, it would require a very large excavation for removal of all chloride impacted soil to approximately fifteen (15) vertical feet. The northern end is blocked by an active heater treater while the west side is confined by the lease road. Excessive excavation in the northerly direction would endanger the heater treater base. Removal of impacted material near the lease road would require a detour and closure of the main north-south route. Adding to the complexity of excavating the release area are three (3) buried steel pipelines. The 3" diameter steel pipelines would require careful excavation procedures and installation of metal braces for support. The 8" and 3" diameter steel pipelines nearly intersect in the mid- to south section of the release area. There is sufficient room on east side of the 3" and west side of the 8" pipelines for limited excavation. However, excavating between pipelines on convergent and divergent sides may not allow sufficient room to do it mechanically. In lieu of this, EPI proposes to excavate the release area a maximum of six (6) feet below ground surface (bgs) which is below root zone (~3-feet bgs) protecting vegetation. While not eliminating all, it will remove bulk of chloride impacted material. Excavation of the north end will commence five (5) feet south of the heater treater and continue in a southerly direction until soils comply with NMOCD Goals. Excavation in a westerly direction will continue until it abuts east edge of existing lease road. Impacted material will be excavated from around the 8" diameter steel pipeline the entire length of the release area. Sidewalls on the east side of the release area will be excavated until soil displaying NMOCD Goals for chloride concentrations are achieved.

Field analyses of chloride concentrations will dictate extent of excavation required in the easterly and southerly direction. Representative soil samples will be collected from sidewalls, prepared and transported to an independent lab for analyses of chloride concentrations as described in *Field Work.* Upon receipt of laboratory analytical data indicating east and south sidewalls are free of chloride impacted material, backfill operations will commence.

A forty (40) mil thick polyethylene liner will be placed in the bottom of the excavation extending up the north (heater treater) and west (lease road) sidewalls to within six (6) inches of finish grade. Polyethylene liner will extend three (3) feet up the east and south sidewalls. Bottom of the polyethylene liner will lay on a one (1) foot thick layer of clean top soil or cushion sand. Depth of excavation will be a maximum of one and one-half (1.5) feet below bottom of the 8" diameter pipeline. This will allow both working area to insert the polyethylene liner under the 8" diameter steel pipeline and tamping backfill soil under the barrel for lateral support. Remainder of the excavation will be backfilled with selected top soil to finish grade. Top soil will be free of deleterious material, rocks or large clumps. Caliche will be placed around the heater treater to provide a working service area. Special care will be taken to ensure the two (2) 3" diameter steel pipelines are encased in clean top soil or sand extending a minimum of one (1) foot around outer sidewalls, top and bottom. Finished gradient will allow natural flow of water away from the heater treater and remediated release area onto the lease road. Soil in disturbed areas will be disced and deep drill seeded with either BLM Mix #2 or a blend preferred by the NMSLO.

EPI and ExxonMobil personnel are cognizant this represents a "risk based" closure procedure, but feel it is justified under conditions as described above and an active tank battery supported by the

heater treater. When New Mexico "S" State Tank Battery #5 has been abandoned per New Mexico Administrative Title 19, Chapter 15 requirements, remaining impacted material will be removed and area returned to natural state.

Should you have any technical questions, concerns or need additional information, please contact me at (575) 394-3481 (office), (575) 441-7802 (cellular) or via email at dduncanepi@gmail.com.

Official communications should be directed to Mr. Eric Imken at (432) 596-4210 (office), (432) 266-0373 (cellular) or via email at eric.imken@exxonmobil.com with correspondence addressed to:

Mr. Eric Imken
ExxonMobil Fullerton/Seminole & New Mexico
Operator
6810 NW 8000
Andrews, Texas 79714

Sincerely,

ENVIRONMENTAL PLUS, INC.,

David P. Duncan
Civil Engineer
EPI Project Manager

Cc: Shelby Pennington, Operations Foreman – ExxonMobil Corp.
Eric Imken, Operator – ExxonMobil Corp.
Cody Miller, General Manager – EPI
Roger Boone, Operations Manager - EPI
New Mexico State Land Office

Encl: Figure 1 – Area Map
Figure 2 – Site Location Map
Figure 3 – Site Map
Figure 4 – Sample Trench Excavation Map
Figure 5 – Release Area and Underground Pipelines
Table 1 – Well Data
Table 2 – Summary Excavation and Soil Borings Soil Sample Field Analyses and Laboratory Analytical Results

Attachment I – Site Photographs
Attachment II – Laboratory Analytical Results and Chain-of-Custody Forms
Attachment III – Sample Trench Logs (FM & OL Forms)
Attachment IV – Well Record & Log Office of the State Engineer
Attachment V – Copy of Initial C-141

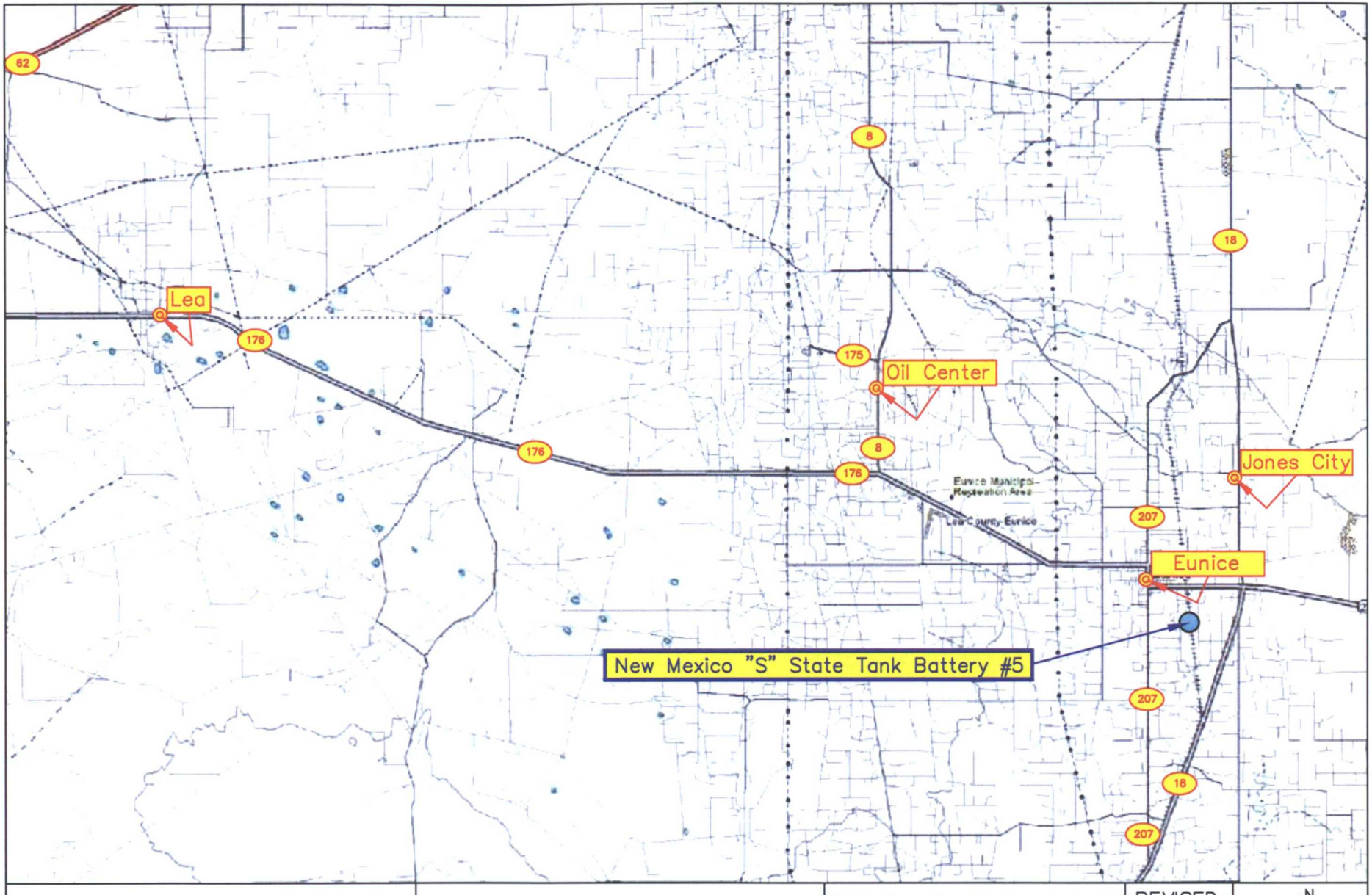

Figure 1
Area Map
ExxonMobil
New Mexico "S" State Tank Battery #5

Lea County, New Mexico
SE 1/4 of the NW 1/4, Sec. 2, T22S, R37E
N 32° 25' 15.99" W 103° 08' 07.42"
Elevation: 3,364 feet amsl

DWG By: Daniel Dominguez
May 2007

REVISED:

0 3 6
Miles

SHEET
1 of 1

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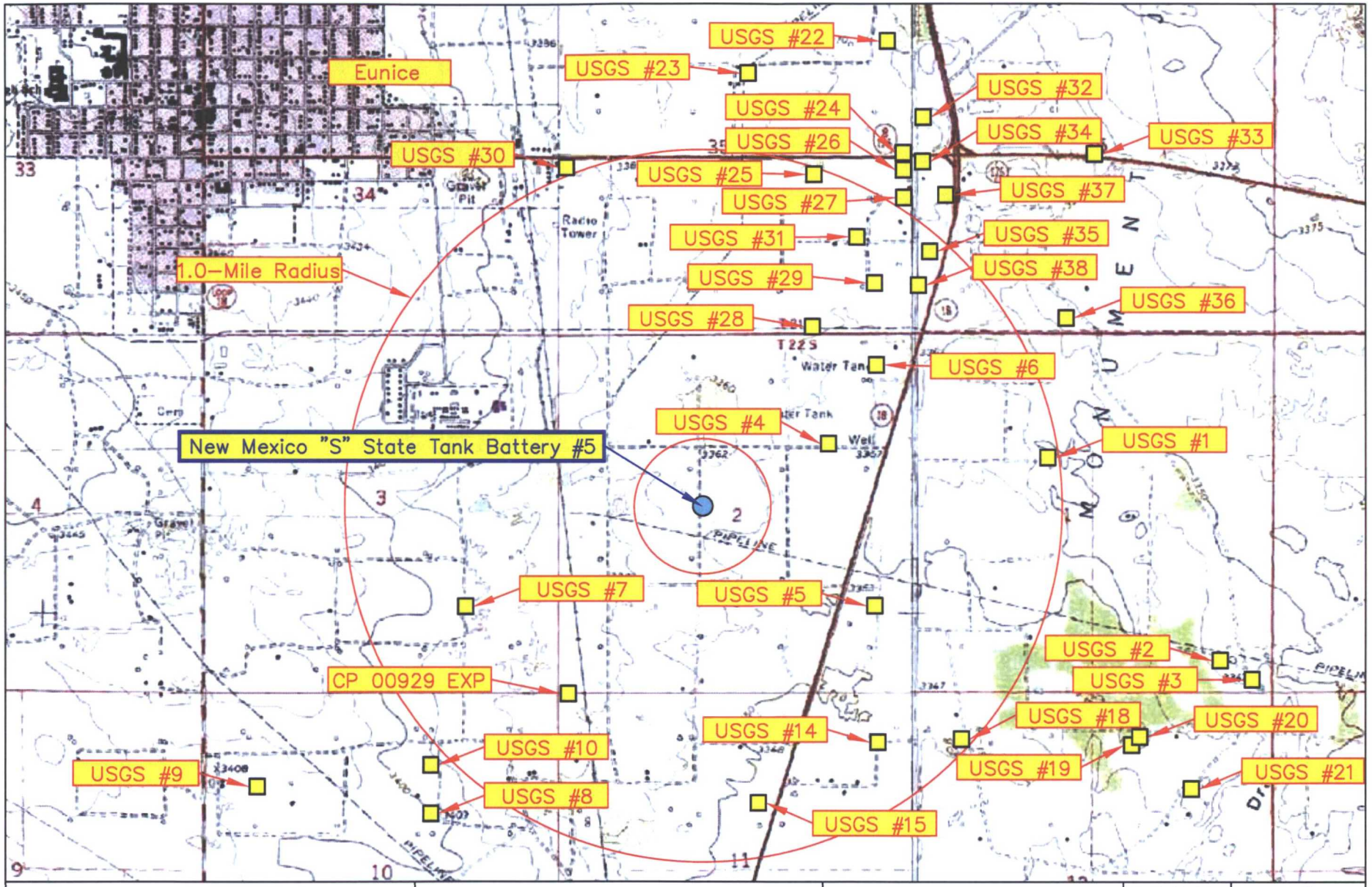

Figure 2
Site Location Map
ExxonMobil
New Mexico "S" State Tank Battery #5

Lea County, New Mexico
SE 1/4 of the NW 1/4, Sec. 2, T22S, R37E
N 32° 25' 15.99" W 103° 08' 07.42"
Elevation: 3,364 feet amsl

DWG By: Daniel Dominguez
May 2007

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0 2,000 4,000
Feet

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1 of 1

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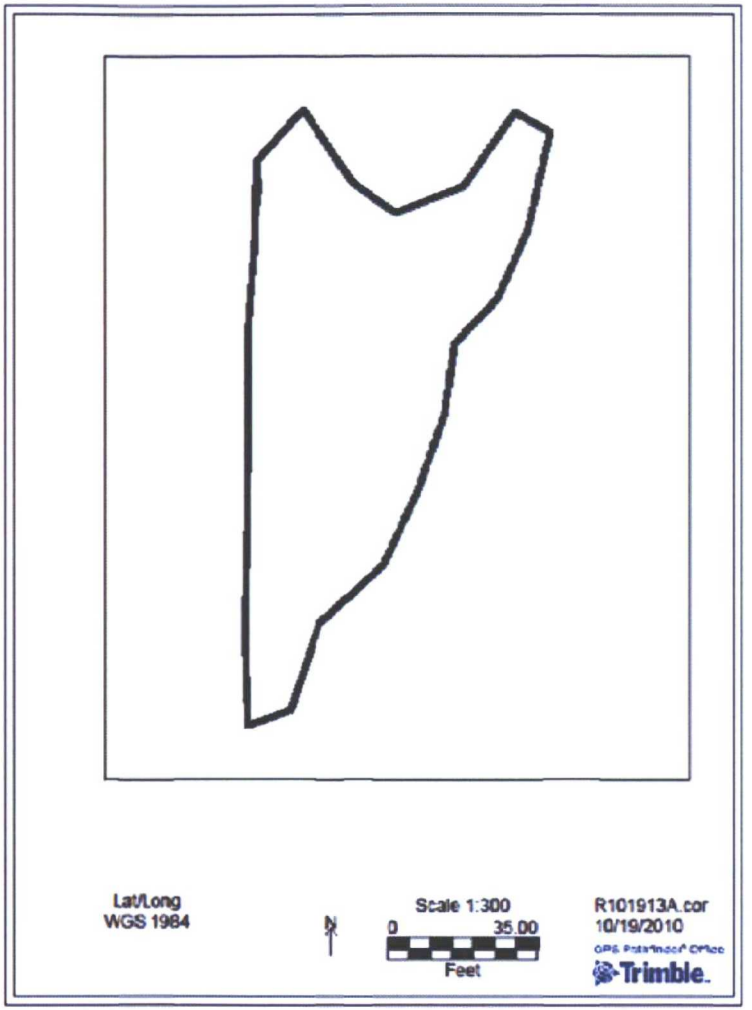
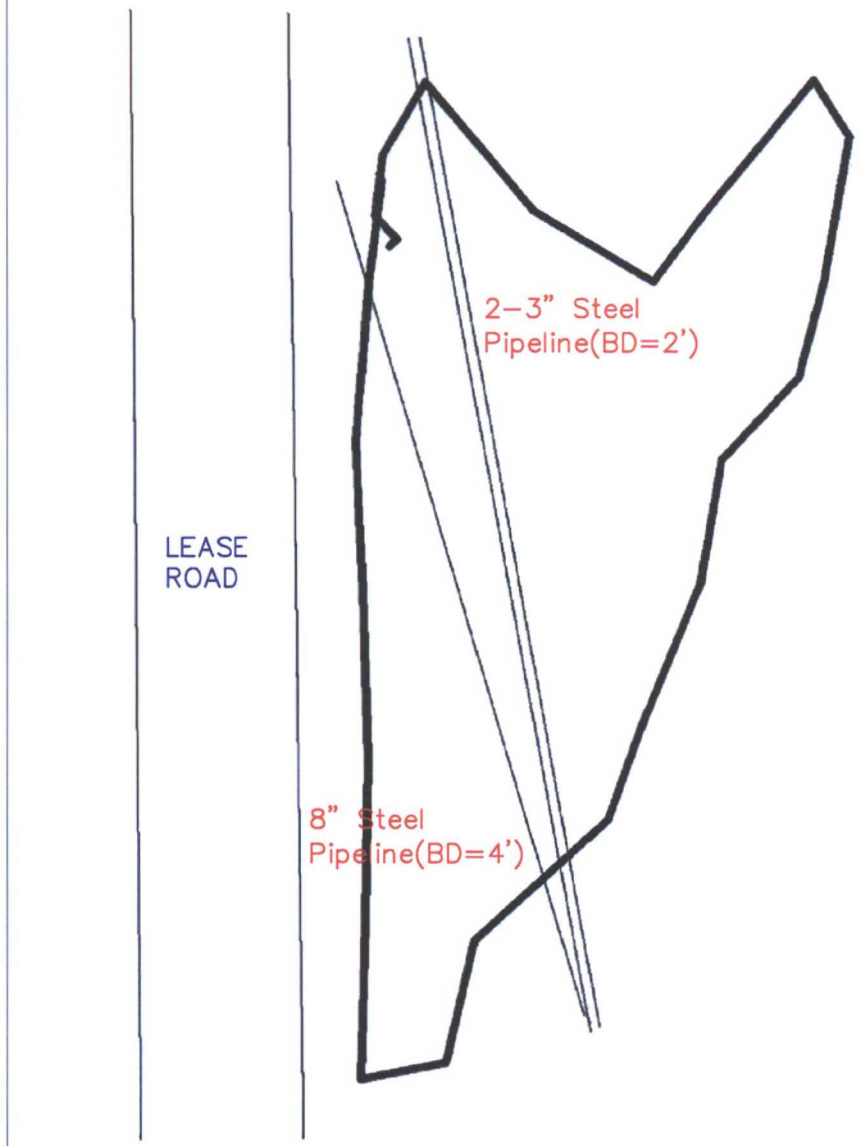


Legend

Figure 3 Site Map ExxonMobil NM S State TB #5	Lea County, New Mexico SE/4 of NW/4 Section 2, T 22S, R 37E 32° 25' 14.02"N 103° 08' 08.35"W Elevation: 3,364 feet amsl	DWG By: Jerry Smith October 2010	REVISED:	N
			SHEET 1 of 1	



Legend

Total Area = 5,300 ft.sq.

BD = Buried Depth

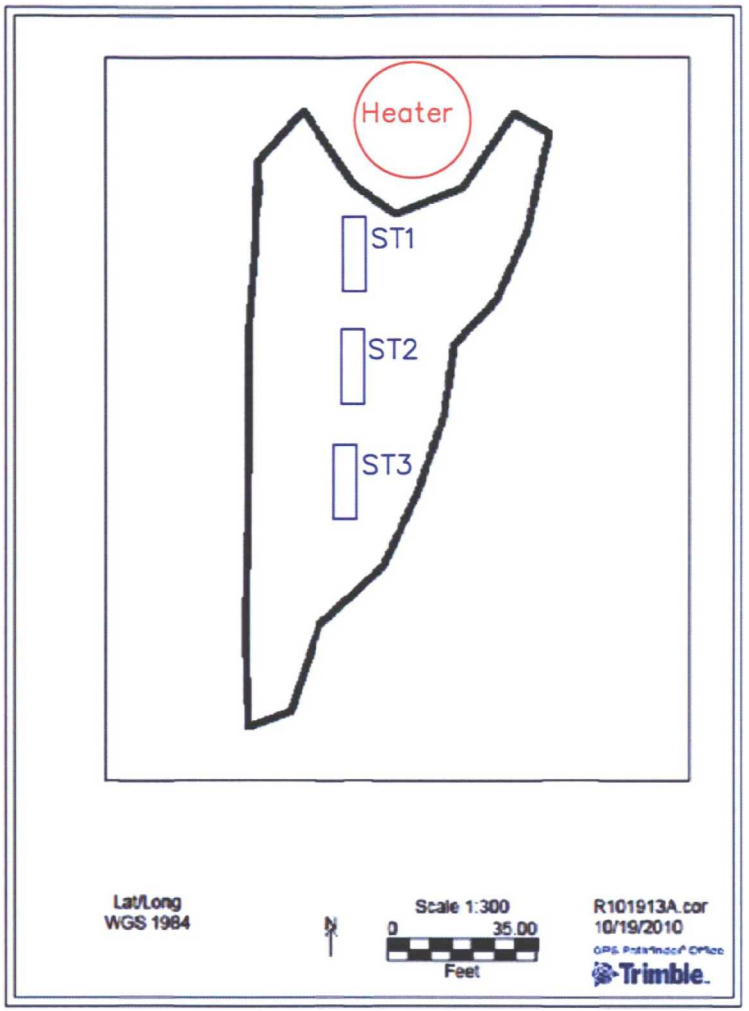
N

Scale 1:260

0 30.00

Feet

Figure 5 Release Area/Underground Pipelines ExxonMobil NM S State TB #5	Lea County, New Mexico SE/4 of NW/4 Section 2, T 22S, R 37E 32° 25' 14.02"N 103° 08' 08.35"W Elevation: 3,364 feet amsl	DWG By: Jerry Smith October 2010	REVISED: SHEET 1 of 1	N



Legend

ST = Sample Trench

Figure 4 Sample Trench Site Map ExxonMobil NM S State TB #5	Lea County, New Mexico SE/4 of NW/4 Section 2, T 22S, R 37E 32° 25' 14.02"N 103° 08' 08.35"W Elevation: 3,364 feet amsl	DWG By: Jerry Smith October 2010	REVISED: SHEET 1 of 1	N

TABLE 1

WELL INFORMATION REPORT*

ExxonMobil - New Mexico "S" State Tank Battery #5 (Ref #190031)

Well Number	Diversion[A]	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation[B]	Depth to Water (ft bgs)
CP 00929 EXPLORE	0	STATE OF NM STATE ENGINEER	EXP	22S	37E	02 3 3 3	N32° 24' 48.58"	W103° 08' 30.64"		3,379	
USGS #1				22S	37E	1 1 4 1			14-Mar-68		54.46
USGS #2				22S	37E	1 4 4 3			17-Mar-81		53.81
USGS #3				22S	37E	1 4 4 4			28-Feb-96		54.15
USGS #4				22S	37E	2 2 4 2			17-Mar-81		58.79
USGS #5				22S	37E	2 4 4 2			09-Oct-53		53.3
USGS #6				22S	37E	2 2 2 2			26-Feb-86		55.12
USGS #7				22S	37E	3 4 3 2			27-Jan-76		32.58
USGS #8				22S	37E	10 2 3 2			27-Jan-76		54.44
USGS #9				22S	37E	10 1 3 2			27-Jan-76		65.59
USGS #10				22S	37E	10 2 1 4			27-Jan-76		41.88
USGS #14				22S	37E	11 2 2 4			26-Apr-91		54.87
USGS #15				22S	37E	11 2 3 1			30-Jun-76		20.51
USGS #18				22S	37E	12 1 1 4			26-Oct-65		57.4
USGS #19				22S	37E	12 2 1 3			14-Oct-53		53.26
USGS #20				22S	37E	12 2 1 2			14-Oct-53		53.82
USGS #21				22S	37E	12 2 4 1			26-Oct-65		54.63
USGS #22				21S	37E	35 2 2 4			22-Jan-76		55.77
USGS #23				21S	37E	35 2 3 1			01-Feb-96		43.68
USGS #24				21S	37E	35 2 4 4			23-Jan-76		58.29
USGS #25				21S	37E	35 4 1 2			23-Jan-76		57.05
USGS #26				21S	37E	35 4 2 2			23-Jan-76		58.97
USGS #27				21S	37E	35 4 2 2			23-Jan-76		58.76
USGS #28				21S	37E	35 4 3 4			23-Jan-76		62.44
USGS #29				21S	37E	35 4 4 2			23-Jan-76		59.08
USGS #30				21S	37E	35 3 2 1			25-Apr-91		54.51
USGS #31				21S	37E	35 4 2 3			23-Jan-76		59.77
USGS #32				21S	37E	36 1 3 3			23-Jan-76		58.88
USGS #33				21S	37E	36 2 3 3			27-Jan-76		50.07
USGS #34				21S	37E	36 3 1 1			02-Mar-81		60.08
USGS #35				21S	37E	36 3 3 1			02-Mar-81		58.07
USGS #36				21S	37E	36 3 4 4			09-Dec-70		55.48
USGS #37				21S	37E	36 3 1 1			09-Dec-70		63.51
USGS #38				21S	37E	36 3 3 1			27-Jan-76		62.21
USGS #11				22S	37E	10 3 2 1			27-Jan-76		69.54
USGS #12				22S	37E	10 3 2 1			17-Mar-81		66.05
USGS #13				22S	37E	10 3 4 1			15-Feb-96		91.64
USGS #16				22S	37E	11 3 2 2			18-Mar-96		38.97
USGS #17				22S	37E	11 4 4 4			25-Apr-91		57.98

* = Data obtained from the New Mexico Office of the State Engineer Website (http://iwaters.ose.state.nm.us:7001/iWATERS/wr_RegisServlet) and USGS Database.

[A] = in acre feet per annum

[B] = Interpolated from USGS Topographical Map

EXP = Exploration

(quarters are 1=NW, 2=NE, 3=SW, 4=SE)

(quarters are biggest to smallest - X Y are in Feet - UTM are in Meters)

Shaded area indicates wells not shown on Figure 2

TABLE 2

Summary Excavation and Soil Borings Soil Sample Field Analyses and Laboratory Analytical Results

Exxon Mobil - New Mexico "S" State Tank Battery #5

NMOCD Ref. ; EPI Ref. #190041

UL-F (SE1/4 of the NW1/4) of Section 02, T22S, R37E; Lea County, New Mexicvo

Sample ID	Depth (feet)	Soil Status	Sample Date	PID Reading (ppm)	Field Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	Carbon Ranges C6-C10 (mg/Kg)	Carbon Ranges >C10-C28 (mg/Kg)	Carbon Ranges >C28-C-35 (mg/Kg)	Total TPH C6-C35 (mg/Kg)	Chloride (mg/Kg)
ST-1	1	In-Situ	21-May-10	117	880	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**736**
ST-1	2	In-Situ	21-May-10	310	800	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**608**
ST-1	3	In-Situ	21-May-10	320	720	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**512**
ST-1	4	In-Situ	21-May-10	19.0	560	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**400**
ST-1	5	In-Situ	21-May-10	15.7	720	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**624**
ST-1	6	In-Situ	21-May-10	17.4	480	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**384**
BG-1	1	In-Situ	21-May-10	0.00	240	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	<16
ST-2	1	In-Situ	21-May-10	18.6	1,280	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**1,440**
ST-2	2	In-Situ	21-May-10	20.5	1,600	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**1,380**
ST-2	3	In-Situ	21-May-10	22.8	1,280	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**1,140**
ST-2	4	In-Situ	21-May-10	18.4	1,280	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**1,220**
ST-2	5	In-Situ	21-May-10	8.6	1,600	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**1,410**
ST-2	6	In-Situ	21-May-05	3.6	1,600	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**1,440**
ST-2	7	In-Situ	21-May-05	3.1	1,360	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**1,420**
ST-2	8	In-Situ	21-May-10	1.7	880	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**864**
ST-2	9	In-Situ	21-May-10	0.6	1,.440	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**1,800**
ST-2	10	In-Situ	21-May-10	0.7	1,040	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**1,570**
ST-2	11	In-Situ	21-May-10	1.8	560	<0.050	<0.050	<0.050	<0.300	<0.450	<10.0	<10.0	- -	<20.0	**736**
ST-3	2	In-Situ	29-Jul-10	1.3	280	- -	- -	- -	- -	- -	- -	- -	- -	- -	**- -**
ST-3	3.5	In-Situ	29-Jul-10	0.0	640	- -	- -	- -	- -	- -	- -	- -	- -	- -	**- -**
ST-3	5	In-Situ	29-Jul-10	1.1	280	- -	- -	- -	- -	- -	- -	- -	- -	- -	48

TABLE 2

Summary Excavation and Soil Borings Soil Sample Field Analyses and Laboratory Analytical Results

Exxon Mobil - New Mexico "S" State Tank Battery #5

NMOCD Ref. ; EPI Ref. #190041

UL-F (SE1/4 of the NW1/4) of Section 02, T22S, R37E; Lea County, New Mexicvo

Sample ID	Depth (feet)	Soil Status	Sample Date	PID Reading (ppm)	Field Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	Carbon Ranges C6-C10 (mg/Kg)	Carbon Ranges >C10-C28 (mg/Kg)	Carbon Ranges >C28-C-35 (mg/Kg)	Total TPH C6-C35 (mg/Kg)	Chloride (mg/Kg)
ST-3	7	In-Situ	29-Jul-10	0.0	360	- -	- -	- -	- -	- -	- -	- -	- -	- -	96
ST-3	10	In-Situ	29-Jul-10	0.0	800	- -	- -	- -	- -	- -	- -	- -	- -	- -	- -
SB-1	5	In-Situ	25-Jan-11	- -	1,600	- -	- -	- -	- -	- -	- -	- -	- -	- -	**1,120**
SB-1	10	In-Situ	25-Jan-11	- -	460	- -	- -	- -	- -	- -	- -	- -	- -	- -	**592**
SB-1	15	In-Situ	25-Jan-11	- -	400	- -	- -	- -	- -	- -	- -	- -	- -	- -	**384**
SB-1	20	In-Situ	25-Jan-11	- -	60	- -	- -	- -	- -	- -	- -	- -	- -	- -	32.0
SB-1	25	In-Situ	25-Jan-11	- -	60	- -	- -	- -	- -	- -	- -	- -	- -	- -	96.0
NMOCD Remedial Thresholds				100		10				50				100	250

Bold values exceed NMOCD Remedial Threshold Goals

- - = Not Analyzed

Soil Sample Nomenclature: BG = Background Reference; ST = Sample Trench; BH = Bottom Hole;SW = Sidewall (E = East, W = West, N = North and S = South); SP = Sample Point; SB - Soil Boring

Photograph No. 1 – Lease Sign

Photograph No. 2 – Looking northerly at release area and cleanup effort

Photograph No. 3 – Looking a broken water leg

Photograph No. 4 – Looking southerly at release area and cleanup efforts

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

May 26, 2010

David P. Duncan
Environmental Plus, Inc.
P.O. Box 1558
Eunice, NM 88231

Re: NM State S State TB (190041)

Enclosed are the results of analyses for sample number H19949, received by the laboratory on 05/21/10 at 3:25 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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

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

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 5 (includes Chain of Custody)

Sincerely,

Celey D. Keene
Laboratory Director

This report conforms with NELAP requirements.

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: DAVID P. DUNCAN
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (575) 394-2601

Receiving Date: 05/21/10
Reporting Date: 05/26/10
Project Owner: EXXON MOBIL (190041)
Project Name: NM STATE S STATE TB
Project Location: UL-F, SEC. 02, T22S, R37E

Sampling Date: 05/21/10
Sample Type: SOIL
Sample Condition: COOL & INTACT @ 4.5°C
Sample Received By: JH
Analyzed By: AB/ZL/HM

LAB NO.	SAMPLE ID	GRO (C_6-C_{10}) (mg/kg)	DRO (>C_{10}-C_{28}) (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)	Cl* (mg/kg)
ANALYSIS DATE:		05/25/10	05/25/10	05/24/10	05/24/10	05/24/10	05/24/10	05/24/10
H19949-1	ST-1 (1')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	736
H19949-2	ST-1 (2')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	608
H19949-3	ST-1 (3')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	512
H19949-4	ST-1 (4')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	400
H19949-5	ST-1 (5')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	624
H19949-6	ST-1 (6')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	384
H19949-7	BG-1 (1')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	< 16
H19949-8	ST-2 (1')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	1,440
H19949-9	ST-2 (2')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	1,380
Quality Control		478	471	0.018	0.018	0.018	0.054	500
True Value QC		500	500	0.020	0.020	0.020	0.060	500
% Recovery		95.6	94.2	90.0	90.0	90.0	90.0	100
Relative Percent Difference		2.4	0.5	6.8	6.6	7.5	5.3	< 0.1

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8021B; Cl-: Std. Methods 4500-Cl-B
*Analyses performed on 1:4 w:v aqueous extracts. Reported on wet weight.

TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE, AND TOTAL XYLENES. Not accredited for GRO/DRO and Chloride.

Chris D. Keene
Lab Director

05/26/10
Date

H19949 TBCL EPI

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: DAVID P. DUNCAN
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (575) 394-2601

Receiving Date: 05/21/10
Reporting Date: 05/26/10
Project Owner: EXXON MOBIL (190041)
Project Name: NM STATE S STATE TB
Project Location: UL-F, SEC. 02, T22S, R37E

Sampling Date: 05/21/10
Sample Type: SOIL
Sample Condition: COOL & INTACT @ 4.5°C
Sample Received By: JH
Analyzed By: AB/ZL/HM

LAB NO.	SAMPLE ID	GRO (C_6-C_{10}) (mg/kg)	DRO (>C_{10}-C_{28}) (mg/kg)	BENZENE (mg/kg)	TOLUENE (mg/kg)	ETHYL BENZENE (mg/kg)	TOTAL XYLENES (mg/kg)	Cl* (mg/kg)
ANALYSIS DATE:		05/25/10	05/25/10	05/25/10	05/25/10	05/25/10	05/25/10	05/24/10
H19949-10	ST-2 (3')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	1,140
H19949-11	ST-2 (4')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	1,220
H19949-12	ST-2 (5')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	1,410
H19949-13	ST-2 (6')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	1,440
H19949-14	ST-2 (7)	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	1,420
H19949-15	ST-2 (8')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	864
H19949-16	ST-2 (9')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	1,800
H19949-17	ST-2 (10')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	1,570
H19949-18	ST-2 (11')	<10.0	<10.0	<0.050	<0.050	<0.050	<0.300	736
Quality Control		478	471	0.017	0.019	0.017	0.051	500
True Value QC		500	500	0.020	0.020	0.020	0.060	500
% Recovery		95.6	94.2	85.0	95.0	85.0	85.0	100
Relative Percent Difference		2.4	0.5	<1.0	4.6	3.7	2.8	< 0.1

METHODS: TPH GRO & DRO - EPA SW-846 8015 M; BTEX - SW-846 8021B; Cl-: Std. Methods 4500-Cl-B
*Analyses performed on 1:4 w:v aqueous extracts. Reported on wet weight.

TEXAS NELAP ACCREDITATION T104704398-08-TX FOR BENZENE, TOLUENE, ETHYL BENZENE, AND TOTAL XYLENES. Not accredited for GRO/DRO and Chloride.

Lab Director

05/26/10
Date

H19949 TBCL EPI

Environmental Plus, Inc.

2100 Avenue O, Eunice, NM 88231 P.O. Box 1558, Eunice, NM 88231
(575) 394-3481 FAX: (575) 394-2601

Chain of Custody Form

LAB: Cardinal

Company Name	Environmental Plus, Inc.	Bill To	
EPI Project Manager	David P. Duncan		
Mailing Address	P.O. BOX 1558		
City, State, Zip	Eunice New Mexico 88231		
EPI Phone#/Fax#	575-394-3481 / 575-394-2601		
Client Company	ExxonMobil		
Facility Name	NM State S State TB		
Location	UL-F, Sec. 02, T22S, R37E		
Project Reference	190041		
EPI Sampler Name	Kirt Tyree		

Attn: David P. Duncan
P.O. Box 1558
Eunice, NM 88231

LAB I.D.		SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO_4^{-})	pH	TCLP	OTHER >>>	PAH			
H19949-1	1	ST-1 (1')	G	1			X					X		21-May-10	8:50	X	X	X								
2	2	ST-1 (2')	G	1			X					X		21-May-10	8:55	X	X	X								
3	3	ST-1 (3')	G	1			X					X		21-May-10	9:00	X	X	X								
4	4	ST-1 (4')	G	1			X					X		21-May-10	9:40	X	X	X								
5	5	ST-1 (5')	G	1			X					X		21-May-10	9:45	X	X	X								
6	6	ST-1 (6')	G	1			X					X		21-May-10	9:50	X	X	X								
7	7	BG-1 (1')	G	1			X					X		21-May-10	10:15	X	X	X								
8	8	ST-2 (1')	G	1			X					X		21-May-10	10:22	X	X	X								
9	9	ST-2 (2')	G	1			X					X		21-May-10	10:24	X	X	X								
10	10	ST-2 (3')	G	1			X					X		21-May-10	10:26	X	X	X								

Sampler Relinquished: KT	5/21/2010 Time	Received By:	E-mail results to: dduncan@envplus.net
Relinquished by:	5/21/2010 Time 3:25	Received By: (lab staff) Jodi Henson	
Delivered by: 4.9°C	Sample Cool & Intact Yes No	Checked By: JH	

#26

Environmental Plus, Inc.

Chain of Custody Form

2100 Avenue O, Eunice, NM 88231 P.O. Box 1558, Eunice, NM 88231
(575) 394-3481 FAX: (575) 394-2601

LAB: Cardinal

Company Name	Environmental Plus, Inc.
EPI Project Manager	David P. Duncan
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	575-394-3481 / 575-394-2601
Client Company	ExxonMobil
Facility Name	NM State S State TB
Location	UL-F, Sec. 02, T22S, R37E
Project Reference	190041
EPI Sampler Name	Kirt Tyree

Bill To

Attn: David P. Duncan
P.O. Box 1558
Eunice, NM 88231

ANALYSIS REQUEST

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO_4^{-2})	pH	TCLP	OTHER >>>	PAH			
H19949 – 11	ST-2(4')	G	1			X					X		21-May-10	10:27	X	X	X								
– 12	ST-2 (5')	G	1			X					X		21-May-10	10:28	X	X	X								
– 13	ST-2 (6')	G	1			X					X		21-May-10	10:30	X	X	X								
– 14	ST-2 (7')	G	1			X					X		21-May-10	11:25	X	X	X								
– 15	ST-2 (8')	G	1			X					X		21-May-10	11:27	X	X	X								
– 16	ST-2 (9')	G	1			X					X		21-May-10	11:30	X	X	X								
– 17	ST-2 (10')	G	1			X					X		21-May-10	11:50	X	X	X								
– 18	ST-2 (11')	G	1			X					X		21-May-10	12:45	X	X	X								
19																									
20																									

Sampler Relinquished:	5/21/2010 Time	Received By:	E-mail results to: dduncan@envplus.net
Relinquished by:	5/21/2010 Time 3:25	Received By: (lab staff) Jodi Henson	
Delivered by:	4.5°C	Sample Cool & Intact Yes / No	Checked By:

#126

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

August 4, 2010

David P. Duncan
Environmental Plus, Inc.
P.O. Box 1558
Eunice, NM 88231

Re: NM State S State TB (190041)

Enclosed are the results of analyses for sample number H20457, received by the laboratory on 07/30/10 at 2:45 pm.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydrocarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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

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

Accreditation applies to public drinking water matrices.

Total Number of Pages of Report: 3 (includes Chain of Custody)

Sincerely,

Celey D. Keene
Laboratory Director

This report conforms with NELAP requirements.

CARDINAL LABORATORIES

PHONE (575) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR
ENVIRONMENTAL PLUS, INC.
ATTN: DAVID P. DUNCAN
P.O. BOX 1558
EUNICE, NM 88231
FAX TO: (575) 394-2601

Receiving Date: 07/30/10
Reporting Date: 07/30/10
Project Owner: EXXONMOBIL (190041)
Project Name: NM STATE S STATE TB
Project Location: UL-F, SEC.02, T22S, R37E

Analysis Date: 07/30/10
Sampling Date: 07/29/10
Sample Type: SOIL
Sample Condition: COOL & INTACT @ 0°C
Sample Received By: AB
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl^- (mg/kg)
H20457-1	ST-3 (5')	48
H20457-2	ST-3 (7')	96
Quality Control		510
True Value QC		500
% Recovery		102
Relative Percent Difference		< 0.1

METHOD: Standard Methods	4500-Cl^-B

Note: Analyses performed on 1:4 w:v aqueous extracts.

Chemist

08/04/10
Date

H20457 EPI

Environmental Plus, Inc.

P.O. Box 1558, 2100 Avenue "O", Eunice, NM 88231
(575) 394-3481 FAX: (575) 394-2601

Chain of Custody Form

LAB: Cardinal

Company Name	Environmental Plus, Inc.
EPI Project Manager	David P. Duncan
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	575-394-3481 / 575-394-2601
Client Company	ExxonMobil
Facility Name	NM State S State TB
Location	UL-F, Sec. 02, T22S, R37E
Project Reference	190041
EPI Sampler Name	Danny Deaton

Bill To

Attn: David P. Duncan
P.O. Box 1558
Eunice, NM 88231

LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH
H20457-1	ST-3 (5')	G	1			X					X		29-Jul-10	10:00			X					
-2	ST-3 (7')	G	1			X					X		29-Jul-10	12:15			X					
13																						
14																						
15																						
16																						
17																						
18																						
19																						
20																						

Sampler Relinquished: Danny Deaton	7/30/2010 Time 200	Received By:	E-mail results to: dduncan@envplus.net
Relinquished by:	7/30/2010 Time 2:45pm	Received By: (lab staff)	
Delivered by: 0°C #76	Sample Cool & Intact: Yes / No	Checked By:	

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

January 27, 2011

David P. Duncan

Environmental Plus, Inc.

P.O. Box 1558

Eunice, NM 88231

RE: NM STATE S STATE TB

Enclosed are the results of analyses for samples received by the laboratory on 01/26/11 8:50.

Cardinal Laboratories is accredited through Texas NELAP for:

Method SW-846 8021	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method SW-846 8260	Benzene, Toluene, Ethyl Benzene, and Total Xylenes
Method TX 1005	Total Petroleum Hydorcarbons

Certificate number T104704398-08-TX. Accreditation applies to solid and chemical materials and non-potable water matrices.

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

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

Accreditation applies to public drinking water matrices.

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

Sincerely,

Celey D. Keene

Celey D. Keene
Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Analytical Results For:

Environmental Plus, Inc.
David P. Duncan
P.O. Box 1558
Eunice NM, 88231
Fax To: (505) 394-2601

Received:	01/26/2011	Sampling Date:	01/25/2011
Reported:	01/27/2011	Sampling Type:	Soil
Project Name:	NM STATE S STATE TB	Sampling Condition:	Cool & Intact
Project Number:	190041	Sample Received By:	Jodi Henson
Project Location:	UL-F, SEC. 02, T22S, R37E		

Sample ID: SB - 1 (5') (H100177-01)

Chloride, SM4500Cl-B mg/kg **Analyzed By: LR**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1120**	16.0	01/27/2011	ND	432	108	400	0.00	

Sample ID: SB - 1 (10') (H100177-02)

Chloride, SM4500Cl-B mg/kg **Analyzed By: LR**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**592**	16.0	01/26/2011	ND	432	108	400	0.00	

Sample ID: SB - 1 (15') (H100177-03)

Chloride, SM4500Cl-B mg/kg **Analyzed By: LR**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**384**	16.0	01/26/2011	ND	432	108	400	0.00	

Sample ID: SB - 1 (20') (H100177-04)

Chloride, SM4500Cl-B mg/kg **Analyzed By: LR**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	01/26/2011	ND	432	108	400	0.00	

Sample ID: SB - 1 (25') (H100177-05)

Chloride, SM4500Cl-B mg/kg **Analyzed By: LR**

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	01/26/2011	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

CARDINAL Laboratories

PHONE (575) 393-2326 ° 101 E. MARLAND ° HOBBS, NM 88240

Notes and Definitions

ND	Analyte NOT DETECTED at or above the reporting limit
RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-B does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Celey D. Keene

Celey D. Keene, Lab Director/Quality Manager

Environmental Plus, Inc.

2100 Avenue "O", P.o. Box 1558, Eunice, NM 88231
(575) 394-3481 FAX: (575) 394-2601

Chain of Custody Form

LAB:

Company Name	Environmental Plus, Inc.
EPI Project Manager	David P. Duncan
Mailing Address	P.O. BOX 1558
City, State, Zip	Eunice New Mexico 88231
EPI Phone#/Fax#	575-394-3481 / 575-394-2601
Client Company	ExxonMobil
Facility Name	NM State S State TB
Location	UL-F, Sec. 02, T22S, R37E
Project Reference	190041
EPI Sampler Name	Kirby Bingham

Bill To

Attn: David P. Duncan
P.O. Box 1558
Eunice, NM 88231

ANALYSIS REQUEST

LAB I.D.		SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	MATRIX: GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	PRESERV.: ACID/BASE	ICE/COOL	OTHER	SAMPLING: DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH			
H100177-1	1	SB-1 (5')	G	1			X					X		25-Jan-11	10:40			X							
2	2	SB-1 (10')	G	1			X					X		25-Jan-11	10:50			X							
3	3	SB-1 (15')	G	1			X					X		25-Jan-11	11:00			X							
4	4	SB-1 (20')	G	1			X					X		25-Jan-11	11:07			X							
5	5	SB-1 (25')	G	1			X					X		25-Jan-11	11:20			X							
	6																								
	7																								
	8																								
	9																								
	10																								

Sampler Relinquished:	1/26/2011 Time	Received By: Jodi Henson	E-mail results to: [illegible]
Relinquished by: K. Bingham	1/26/2011 Time 5:50	Received By: (lab staff)	
Delivered by: K. Bingham	-1.0°C Sample Cool & Intact Yes / No	Checked By: JH	

#26

Environmental Plus, Inc.
P.O. Box 1558
2100 Avenue O
Eunice, NM 88231
(575) 394-3481
(575) 394-2601 (fax)

FIELD MEASUREMENT/OBSERVATION LOG

COMPANY: ExxonMobil Corp. | **PROJECT NAME:** New Mexico "S" State TB #5 | **PROJECT NUMBER:** EPI #190041

PROJECT MANAGER: David Duncan | **FIELD TECHNICIAN:** Kurt Tyree | **DATE:** 5-21-10

SAMPLE ID	SAMPLE DEPTH (FT)	COLLECTION TIME	PID ANALYSIS TIME	PID READING (PPM)	CHLORIDE ANALYSIS					SOIL DESCRIPTION
							Titration Tube Reading		mg/Kg	
ST-1	1	8:50	9:05	117	2 gms of soil	40 ml H2O	44	x 20 =	880	Clay/Sand
ST-1	2	8:55	9:15	310	2 gms of soil	40 ml H2O	40	x 20 =	800	Clay/Sand
ST-1	3	9:00	9:30	320	2 gms of soil	40 ml H2O	36	x 20 =	720	Clay/Sand
ST-1	4	9:40	10:00	19.0	2 gms of soil	40 ml H2O	28	x 20 =	560	Clay/Sand
ST-1	5	9:45	10:05	15.7	2 gms of soil	40 ml H2O	36	x 20 =	720	Caliche
ST-1	6	9:50	10:10	17.4	2 gms of soil	40 ml H2O	24	x 20 =	480	Caliche
BG-1	1	10:15	10:20	0.0	2 gms of soil	40 ml H2O	12	x 20 =	240	Sand
ST-2	1	10:22	10:55	18.6	2 gms of soil	40 ml H2O	64	x 20 =	1,280	Clay/Sand
ST-2	2	10:24	11:00	20.5	2 gms of soil	40 ml H2O	80	x 20 =	1,600	Clay/Sand
ST-2	3	10:26	11:05	22.8	2 gms of soil	40 ml H2O	64	x 20 =	1,280	Clay/Sand
ST-2	4	10:27	11:10	18.4	2 gms of soil	40 ml H2O	64	x 20 =	1,280	Clay/Sand
ST-2	5	10:28	11:15	8.6	2 gms of soil	40 ml H2O	80	x 20 =	1,600	Clay/Sand
ST-2	6	10:30	11:20	3.6	2 gms of soil	40 ml H2O	80	x 20 =	1,600	Clay/Sand
ST-2	7	11:25	11:40	3.1	2 gms of soil	40 ml H2O	68	x 20 =	1,360	Clay/Sand
ST-2	8	11:27	11:42	1.7	2 gms of soil	40 ml H2O	44	x 20 =	880	Clay/Sand
ST-2	9	11:30	11:45	0.6	2 gms of soil	40 ml H2O	72	x 20 =	1,440	Caliche
ST-2	10	11:50	12:10	0.7	2 gms of soil	40 ml H2O	52	x 20 =	1,040	Caliche
ST-2	11	12:45	13:00	1.8	2 gms of soil	40 ml H2O	28	x 20 =	560	Caliche
					2 gms of soil	40 ml H2O		x 20 =		

PID CALIBRATION

Time	Fresh Air	Span Gas	Time	Fresh Air	Span Gas

WEATHER

Time	Temp.	Misc

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FIELD MEASUREMENT/OBSERVATION LOG

COMPANY: ExxonMobil Corp.	PROJECT NAME: New Mexico "S" State TB #5	PROJECT NUMBER: EPI #190041
PROJECT MANAGER: David Duncan	FIELD TECHNICIAN: Danny Deaton	DATE: 7-29-10

SAMPLE ID	SAMPLE DEPTH (FT)	COLLECTION TIME	PID ANALYSIS TIME	PID READING (PPM)	CHLORIDE ANALYSIS					SOIL DESCRIPTION
							Titration Tube Reading		mg/Kg	
ST-3	2	11:15	11:25	1.3	2 gms of soil	40 ml H2O	28	x 20 =	560	Clay/Sand
ST-3	3.5	10:30	10:35	0.0	2 gms of soil	40 ml H2O	32	x 20 =	640	Clay/Sand
ST-3	5	10:00	10:05	1.1	2 gms of soil	40 ml H2O	14	x 20 =	280	Clay/Sand
ST-3	7	12:15	12:20	0.0	2 gms of soil	40 ml H2O	18	x 20 =	360	Clay/Sand
ST-3	10	10:20	10:30	0.0	2 gms of soil	40 ml H2O	40	x 20 =	800	Clay/Sand
					2 gms of soil	40 ml H2O		x 20 =		
					2 gms of soil	40 ml H2O		x 20 =		
					2 gms of soil	40 ml H2O		x 20 =		
					2 gms of soil	40 ml H2O		x 20 =		
					2 gms of soil	40 ml H2O		x 20 =		
					2 gms of soil	40 ml H2O		x 20 =		
					2 gms of soil	40 ml H2O		x 20 =		
					2 gms of soil	40 ml H2O		x 20 =		
					2 gms of soil	40 ml H2O		x 20 =		
					2 gms of soil	40 ml H2O		x 20 =		
					2 gms of soil	40 ml H2O		x 20 =		
					2 gms of soil	40 ml H2O		x 20 =		
					2 gms of soil	40 ml H2O		x 20 =		
					2 gms of soil	40 ml H2O		x 20 =		

PID CALIBRATION

Time	Fresh Air	Span Gas	Time	Fresh Air	Span Gas

WEATHER

Time	Temp.	Misc

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

POD NUMBER (WELL NUMBER)	OSE FILE NUMBER(S)
NEW MEXICO S STATE TANK BATTERY SB-1	
WELL OWNER NAME(S)	**PHONE (OPTIONAL)**
EXXON/MOBIL	
WELL OWNER MAILING ADDRESS	**CITY / STATE / ZIP**
6810 NW 8000	ANDREWS / TX / 79714

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	25	13.00	N
	LONGITUDE	103	8	8.00	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND
* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS
WEST OF 18 & DRINKARD RD

2. OPTIONAL

(2.5 ACRE)	(10 ACRE)	(40 ACRE)	(160 ACRE)	SECTION	TOWNSHIP ☐ NORTH ☐ SOUTH	RANGE ☐ EAST ☐ WEST
¼	¼	¼	¼			

SUBDIVISION NAME	LOT NUMBER	BLOCK NUMBER	UNIT/TRACT

HYDROGRAPHIC SURVEY	MAP NUMBER	TRACT NUMBER

3. DRILLING INFORMATION

LICENSE NUMBER	NAME OF LICENSED DRILLER	NAME OF WELL DRILLING COMPANY
WD1478	MARTIN STRAUB	STRAUB CORPORATION

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
1-25-11	1-25-11	0	25	N/A

COMPLETED WELL IS: ☐ ARTESIAN ☑ DRY HOLE ☐ SHALLOW (UNCONFINED) — STATIC WATER LEVEL IN COMPLETED WELL (FT): N/A

DRILLING FLUID: ☑ AIR ☐ MUD ☐ ADDITIVES – SPECIFY

DRILLING METHOD: ☑ ROTARY ☐ HAMMER ☐ CABLE TOOL ☐ OTHER – SPECIFY

DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)
0	25	6	N/A	N/A	N/A	N/A	N/A

4. WATER BEARING STRATA

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	YIELD (GPM)

METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA	TOTAL ESTIMATED WELL YIELD (GPM)

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 1 OF 2

5. SEAL AND PUMP

TYPE OF PUMP: ☐ SUBMERSIBLE ☐ JET ☐ NO PUMP – WELL NOT EQUIPPED
☐ TURBINE ☐ CYLINDER ☐ OTHER – SPECIFY

ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT) FROM	DEPTH (FT) TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
	0	2	5	1 BAG OF CEMENT		TOPLOAD
	2	25	5	8 BAGS OF 3/8 PLUG		TOPLOAD

6. GEOLOGIC LOG OF WELL

DEPTH (FT) FROM	DEPTH (FT) TO	THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?
0	8	8	TAN RED SILTY CLAY & SAND	☐ YES ☑ NO
8	9	1	TAN SILTY CLAY	☐ YES ☑ NO
9	13	4	SOFT CALICHE	☐ YES ☑ NO
13	17	4	TAN RED SILTY SAND & CLAY	☐ YES ☑ NO
17	25	8	TAN SILTY SAND & SOFT SANDSTONE	☐ YES ☑ NO
TD	25			☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO
				☐ YES ☐ NO

ATTACH ADDITIONAL PAGES AS NEEDED TO FULLY DESCRIBE THE GEOLOGIC LOG OF THE WELL

7. TEST & ADDITIONAL INFO

WELL TEST: METHOD: ☐ BAILER ☐ PUMP ☐ AIR LIFT ☐ OTHER – SPECIFY:

TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.

ADDITIONAL STATEMENTS OR EXPLANATIONS

SOIL BORING ONLY- SOIL BORING WAS PLUGGED AND ABANDONED UPON COMPLETION OF SAMPLING

8. SIGNATURE

THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING.

Mark Stark — SIGNATURE OF DRILLER

2-10-11 — DATE

FOR OSE INTERNAL USE — WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2