ENVIRONMENTAL PLUS, INC.
CONSULTING AND REMEDIAL CONSTRUCTION

26 October 2011

Mr. Mike Bratcher
Environmental Engineer
New Mexico Oil Conservation Division
1301 West Grand
Artesia, New Mexico 88210

RE: Remediation Closure Report
Exxon Mobil Corp. – Avalon Delaware Unit Well #238 Release Area
UL-K (NE ¼ of the SW ¼), Section 30, T 20 S, R 28 E
Longitude: 32° 32' 41.21"; Latitude: 103° 13' 15.65"
Eddy County, New Mexico
EPI Ref. #190037

Dear Mr. Bratcher:

The below *Remediation Closure Report* (*Report*) is an abbreviated version depicting prominent remedial activities conducted on the above referenced Release Area. However, for clarity and cross references elimination purposes, the *Report* includes *Release History, Site Background, Preliminary Field Work, Analytical Data and Procedures* and *Field Remediation Activities.*

Release History

On July 28, 2009 at 12:30 p.m., produced water was released from a ruptured fiberglass injection flow line (3" dia.). Approximately eighty-three (83) barrels of produced water were released with zero (0) barrels of fluid recovered. Fluids released impacted ±7,300 square feet of surrounding terrain (Ref. *Figure #3*). The New Mexico Oil Conservation Division (NMOCD) was notified of the release on July 28, 2009 at 4:15 p.m.

Site Background

The Site is located in UL-K (NE ¼ of the SW ¼) of Section 30, T20S, R28E at an approximate elevation of 3,299 feet above mean sea level (amsl). The property is owned by the State of New Mexico and managed by the 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*). Subsequent drilling activities as described in *Field Work* indicated groundwater greater than one hundred sixty (160) feet below ground surface (bgs), but impacted material existed to approximately one hundred-ten (110) feet bgs at the point-of-release. Utilizing this information, NMOCD Remedial Threshold Goals (Goals) were determined as follows

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Parameter	Remedial Goal
Benzene	10 mg/Kg
BTEX	50 mg/Kg
TPH	100 parts mg/Kg
Chlorides	500 mg/Kg

Preliminary Field Work

On July 29, 2008 Environmental Plus, Inc., (EPI) reacted to an Emergency Response and started preventative remediation activities on the Release Area. During the period of July 28-29, 2009, the fiberglass injection line was located and exposed allowing roust-a-bout crews to repair it. However, eventually the fiberglass injection line was temporarily abandoned in favor of a shorter route. Initially impacted material surrounding the fiberglass injection line was excavated and stockpiled on plastic liners to prevent contamination of adjacent areas. From July 30-August 03, 2009 approximately 920-cubic yards of impacted material were transported to Sundance Services, Inc., (Permit No. NM-01-0003) for disposal. Remainder of impacted material was stockpiled on plastic liners.

On July 30, 2009 eight (8) soil samples were collected from side walls and five (5) from bottom of the excavation. Soil samples were tested in the field for chloride concentrations. As the nature of the release being produced water, field analyses were not conducted for TPH concentrations. On July 31, 2009 a test trench was excavated to a depth of twenty (20)-feet bgs. Soil samples were collected at two (2)-feet intervals and field tested for chloride concentrations (Ref. *Table #2*). Due to chloride concentrations being greater than NMOCD Goals of 500-mg/Kg, soil samples were not submitted to an independent laboratory for analyses.

EPI and Straub Corporation mobilized to the Site on August 13,2009 to direct the location and advancement of three (3) soil borings (i.e., BG-1, SB-1 and SB-2) with BG-1 serving as background comparison for chloride concentrations (Ref. *Figure #4* for locations). A predetermined depth of seventy (70) vertical feet was established to prevent intrusion into suspected groundwater table. Soil samples were collected at varying intervals dependent upon chloride concentrations derived from field analyses (Ref. *Table #3* for interval ranges and concentrations).

On March 3, 2010 EPI and Straub Corporation mobilized to the Site for advancement of SB-3. The soil boring was advanced to approximately sixty-two (62) feet below bottom of excavation (~70-feet bgs). Thirteen (13) field analyses were conducted on soil samples collected at five (5) feet intervals from bottom of excavation to total depth (TD) of soil boring. However, only portions of soil samples collected initially at five (5) feet bgs then at ten (10) feet intervals to TD were sent to an independent laboratory for analyses of chloride concentrations (Ref. *Table #3*).

Without sufficient data to correctly identify depth of groundwater, EPI and Straub Corporation mobilized to the Site on June 14, 2010 to advance an exploratory bore hole for this purpose. BG-2 was advanced to a depth of one hundred sixty (160) feet bgs with no trace of groundwater indicated

in the drill cuttings. The soil boring was covered for protection and allowed to develop overnight. On June 15, 2010 an E-line water probe was inserted into the soil boring to TD without detecting evidence of groundwater. The soil boring was plugged using bentonite, filler material and cement. Due to the soil boring being exploratory in nature, no soil samples were collected for analyses of chloride concentrations. However, well logs were developed of the underlying formations.

In an endeavor to identify depth of impacted soil, EPI and Straub Corporation mobilized to the Site on August 24, 2010. Locating SB-4 as near to original point-of-release as possible, the soil boring was advanced to one-hundred ten (110) bgs. Soil samples were initially collected at ten (10) feet bgs [approximately two (2) feet below bottom of excavation] then at five (5) feet intervals to thirty (30) feet bgs. From this interval to TD of the soil boring, soil samples were collected at ten (10) feet intervals. Although impacted material at TD indicated chloride concentrations slightly above NMOCD Goals of 500-mg/Kg existed, declining chloride concentration would allow extrapolation of data to determine depth of acceptable levels. The soil boring was plugged using bentonite, filler material and cement.

Analytical Data and Procedures

In reviewing bottom of the excavation, *Table #3* (Analytical Data) and *Figure #6* (Soil Boring Map), indicate chloride concentrations greater than NMOCD Goals of 500-mg/Kg exist in soil borings from ground surface to TD, i.e., SB-3 (7,120 mg/Kg @ 62-feet) and SB-4 (560 mg/Kg @ 110 feet) while other soil borings come into compliance prior to TD, i.e., SB-1 (200mg/Kg @ 60 feet) and SB-2 (448 mg/Kg @ 30 feet). In the southeasterly direction of the excavation, chloride concentrations dissipate between BH-2 (240 mg/Kg) and BH-3 (9,480 mg/Kg). Evaluating these values indicate impacted material surrounds the point-of-release and extends in the southeasterly direction following natural lay of the ground.

Upon collection of soil samples, a portion of each soil sample was field analyzed for organic vapors and chloride concentrations. Soil Samples collected for field testing of organic vapors were p[laced in self-sealing polyethylene bags and allowed to equilibrate to 70° F. The soil sample was 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, labeled, placed into polyethylene bags, inserted in coolers, iced down and transported to an independent laboratory for analyses of Constituent-of-Concern under Chain-of-Custody protocol.

Field Remediation Activities

Vertical limits of impacted material are confined to a relatively small conical shaped area centered around the point-of-release. Geological information derived from well bore logs indicate a dense layer of caliche combined with clay undermines the impacted area. With groundwater depth greater than one hundred-sixty (160) vertical feet bgs, chances of groundwater contamination are remote. After consultations with the NMOCD, it was resolved to place a 40-mil polyethylene liner in the bottom of the excavation and concentrate excavation of sidewalls until NMOCD Goals were achieved. Additionally, bottom of excavation was to be cleaned of loose material and removal of

major irregularities. Remove material bridging the two (2) excavations to a depth which allows smooth transition from the differential gradients.

From August 22-September 1, 2011, EPI excavated and transported approximately 2,600 cubic yards of impacted material from existing stockpiled material, bottom, inter-connecting bridged area and side walls of the excavation to Controlled Recovery, Inc., (CRI) for disposal. Finished excavation covered an area of 16,480 square feet and ranged from 5-15 feet in depth. Soil samples were collected from side walls and field analyzed for chloride concentrations. When field analyses indicated side walls were in conformance with NMOCD Goals, fifteen (15) representative soil samples were collected from side walls (Ref. *Figure #7* for locations and *Table #2* for analytical results), packaged as outlined in *Analytical Data and Procedures* section and remitted to Cardinal Laboratory, Hobbs, New Mexico under Chain-of-Custody protocol. Upon receipt of confirmatory lab results indicating soil samples were in compliance with NMOCD Goals for chloride concentrations, backfill activities commenced.

From September 2-6, 2011, bottom of the excavation was backfilled with a minimum one (1) foot layer of clean top soil free of deleterious material, rocks and large clumps. On September 7, 2011, Akome Inc., Hobbs, New Mexico placed approximately 12,800 square feet of 40-mil polyethylene liner over the entire bottom section. A minimum two (2) feet of clean top soil was carefully placed over the 40-mil polyethylene layer as cushion protection from heavy equipment. The remaining excavation was carefully backfilled with clean top soil using acceptable procedures. From September 2 – September 19, 2011 approximately 4,000 cubic yards of top soil were used for backfill purposes. During this time frame, the backfilled and adjoining areas were contoured for natural drainage, preventing wind/water erosion and water pooling. However, as a precautionary measure, top soil was stockpiled for later surficial use in the event of minor erosion.

Following completion of backfill operations, approximately three-quarter mile of lease road was repaired, bladed and contoured to allow proper drainage. Approximately 300 cubic yards of caliche (NMSLO Pit #514) were used for this activity.

Remaining corrective activity is seeding of the disturbed areas with seed mixture acceptable to the NMSLO. Prior to seeding activity, the entire disturbed area will be disced to loosen the upper soil crust. Seed mixture will be deep drill seeded at a rate exceeding recommended application rate. However, due to the extreme drought conditions, EPI recommends delaying seeding operations until both ground and weather conditions are more conducive to vegetative growth. This may require postponement until late spring of 2012.

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 e-mail at dduncanepi@gmail.com.

Official communications should be directed to Mr. Eric Imken at (432) 596-4211 x 14 (office), (434) 266-0373 (cellular) or via e-mail at eric.imken@exxonmobil.com. Official correspondence should be addressed to:

Mr. Eric Imken
ExxonMobil Fullerton/Seminole and New Mexico
Operations Foreman
6810 NW 8000
Andrews, Texas 79714

Sincerely,

ENVIRONMENTAL PLUS, INC.,

David P. Duncan
Civil Engineer
EPI Project Manager

Cc: Eric Imken, Operations Foreman – ExxonMobil Corporation
Cody Miller, General Manager – EPI
Roger Boone, Operations Superintendent – EPI
Myra Harrison, District Resources Manager – NMSLO (Hobbs, NM)
Steven Ikeda, Field Operations – NMSLO (Santa Fe, NM)

Enclosures:

Figure 1 – Area Map
Figure 2 – Site Location Map
Figure 3 – Site Map with Soil Sample Locations
Figure 4 – Site Map with Side Wall Soil Sample Locations
Figure 5 – Soil Sample Location Map (3-03-10)
Figure 6 – Soil Boring Locations with Analytical results
Figure 7 – Sidewall Soil Sample Location Map
Table 1 – Well Data
Table 2 – Summary of Excavation Field Analyses and Laboratory Analytical Results
Table 3 – Summary of Soil Boring Field Analyses and Laboratory Analytical Results
Attachment I – Site Photographs
Attachment II – Laboratory Analytical Results and Chain-of-Custody Forms
Attachment III – Soil Boring Logs
Attachment IV – Copy of Initial NMOCD Form C-141
Final NMOCD Form C-141

FIGURES

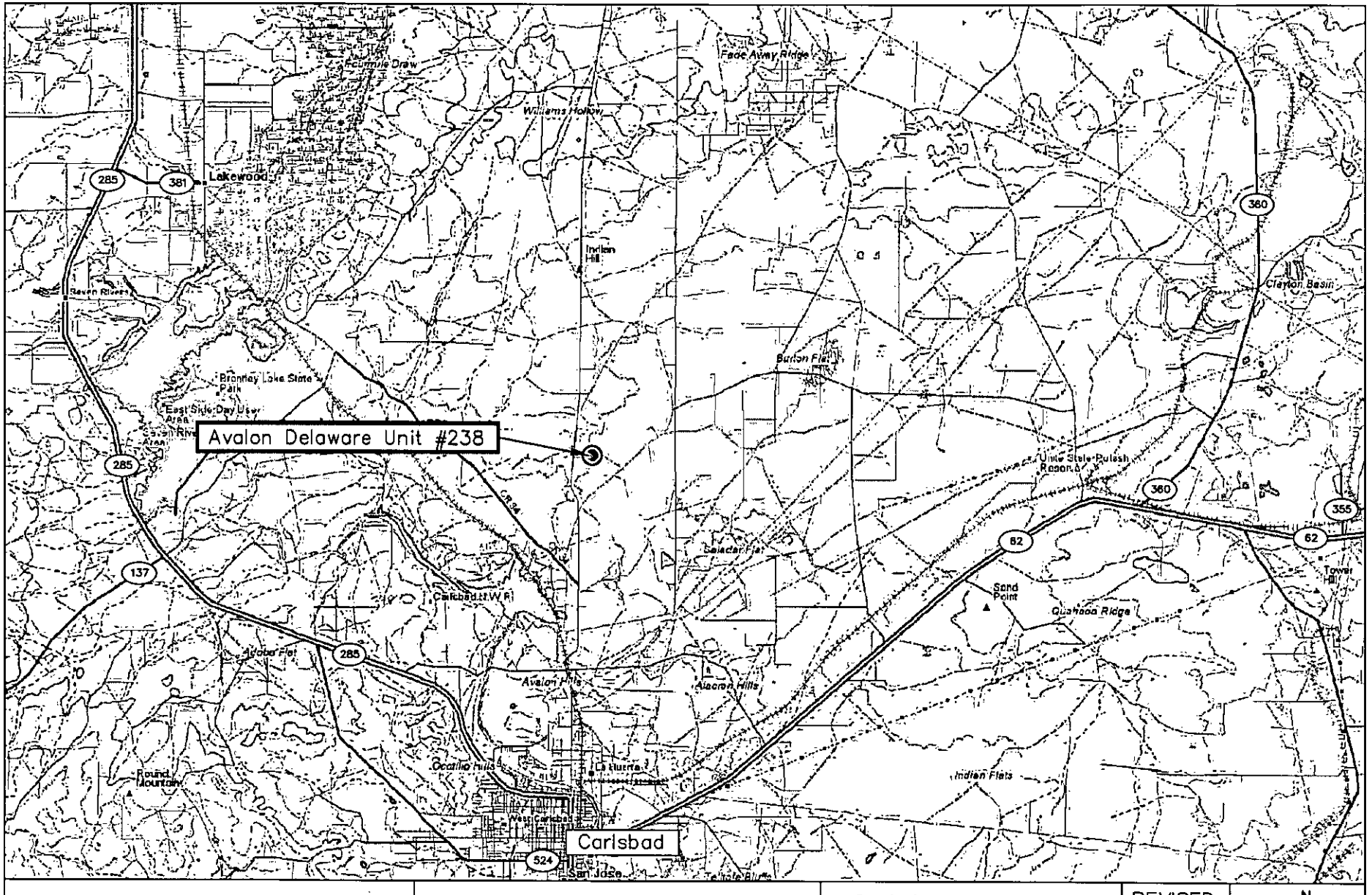

Figure 1 Area Map ExxonMobil Avalon Delaware Unit #238	Eddy County, New Mexico NE 1/4 of the SW 1/4, Sec. 30, T20S, R28E N 32° 32' 41.21" W 104° 13' 15.65" Elevation: 3,299 feet amsl	DWG By: D Dominguez August 2009	REVISED:	N
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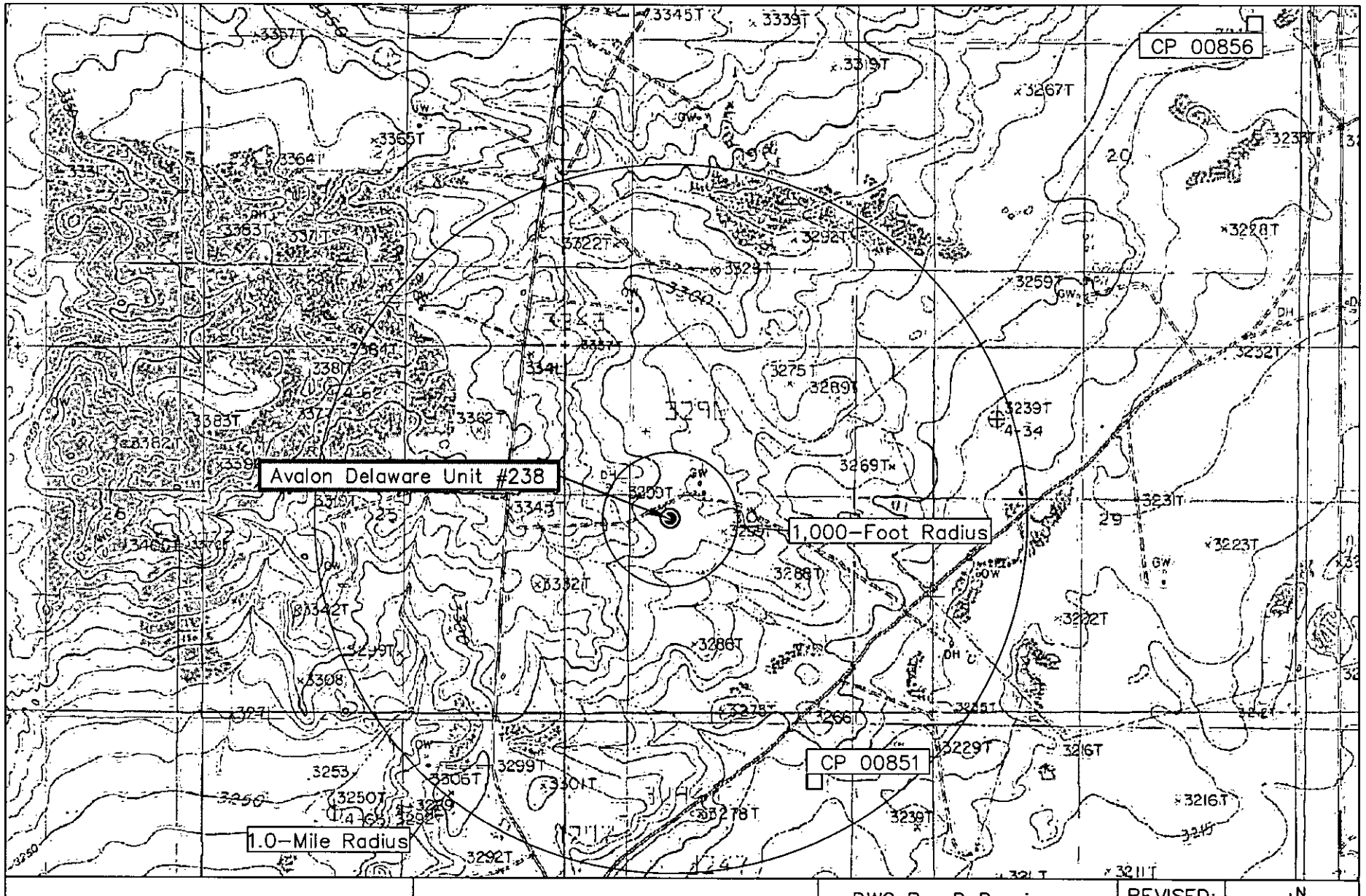

Figure 2 Site Location Map ExxonMobil Avalon Delaware Unit #238	Eddy County, New Mexico NE 1/4 of the SW 1/4, Sec. 30, T20S, R28E N 32° 32' 41.21" W 104° 13' 15.65" Elevation: 3,299 feet amsl	DWG By: D Dominguez August 2009	REVISED: SHEET 1 of 1

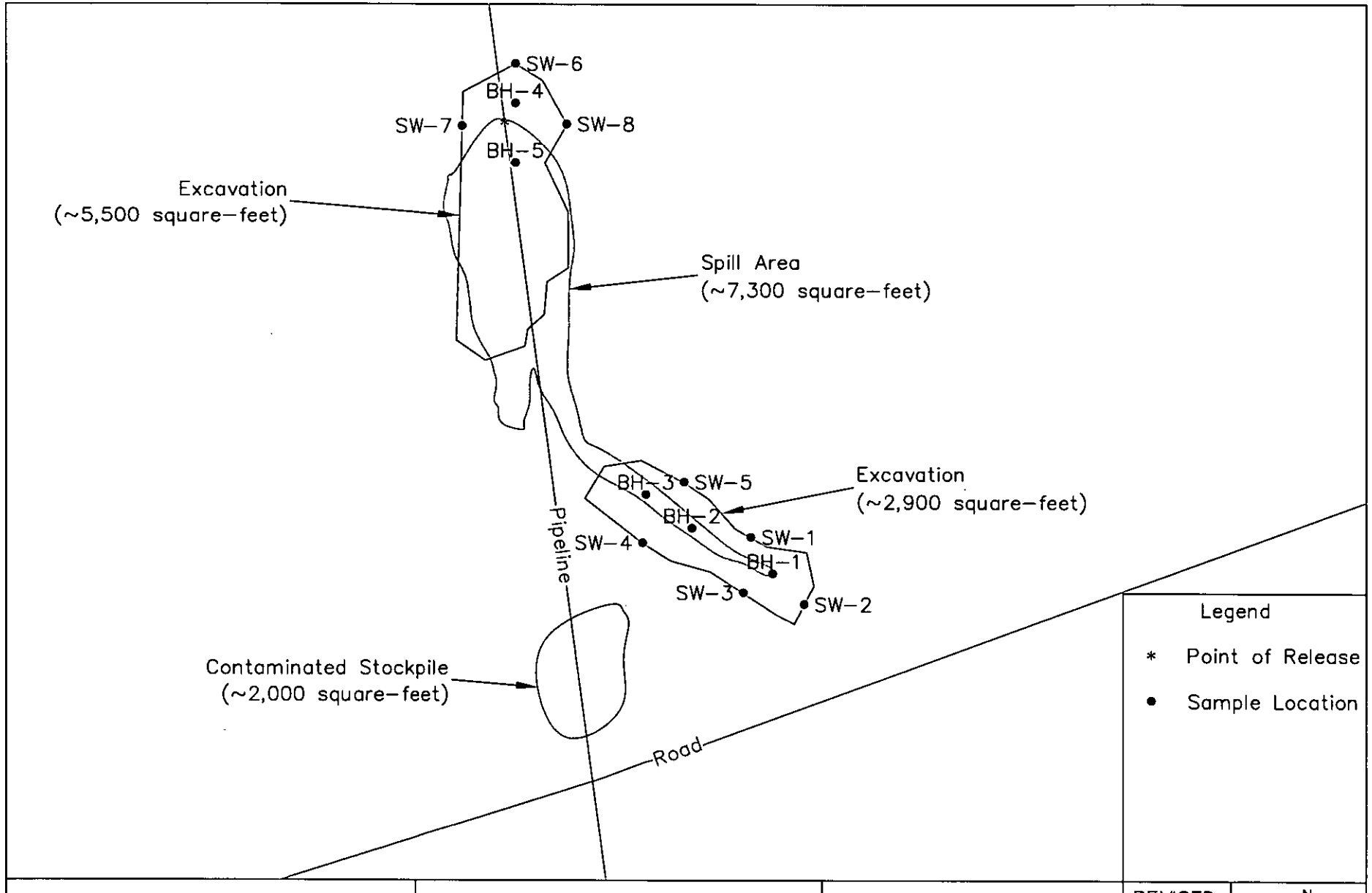

Figure 3 Sample Location Map ExxonMobil Avalon Delaware Unit #238	Eddy County, New Mexico NE 1/4 of the SW 1/4, Sec. 30, T20S, R28E N 32° 32' 41.21" W 104° 13' 15.65" Elevation: 3,299 feet amsl	DWG By: D Dominguez August 2009	REVISED: Dec 2009	SHEET 1 of 1

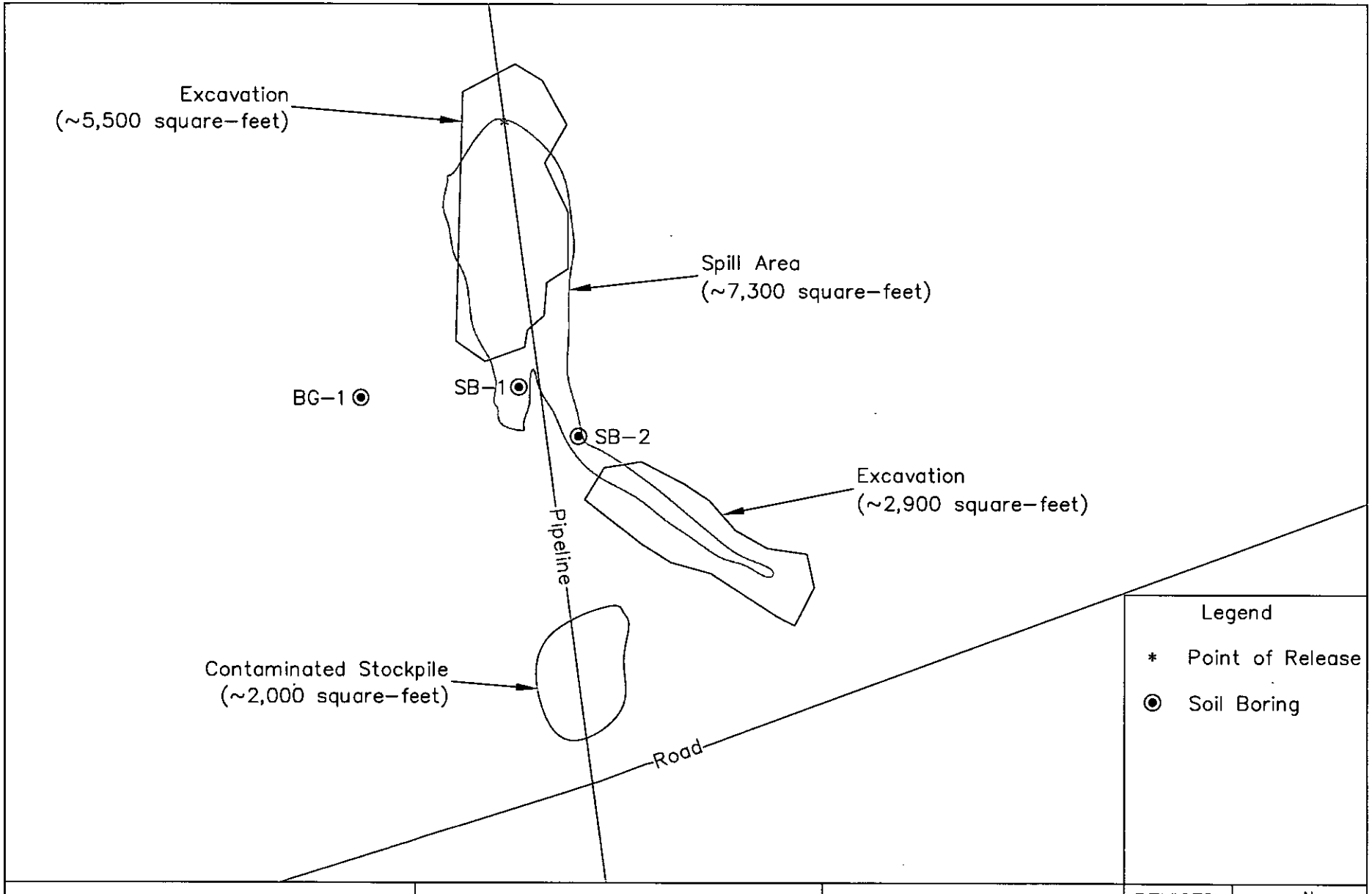

Figure 4 Soil Boring Map ExxonMobil Avalon Delaware Unit #238	Eddy County, New Mexico NE 1/4 of the SW 1/4, Sec. 30, T20S, R28E N 32° 32' 41.21" W 104° 13' 15.65" Elevation: 3,299 feet amsl	DWG By: D Dominguez August 2009	REVISED:	N
		0 60 120 Feet	SHEET 1 of 1	

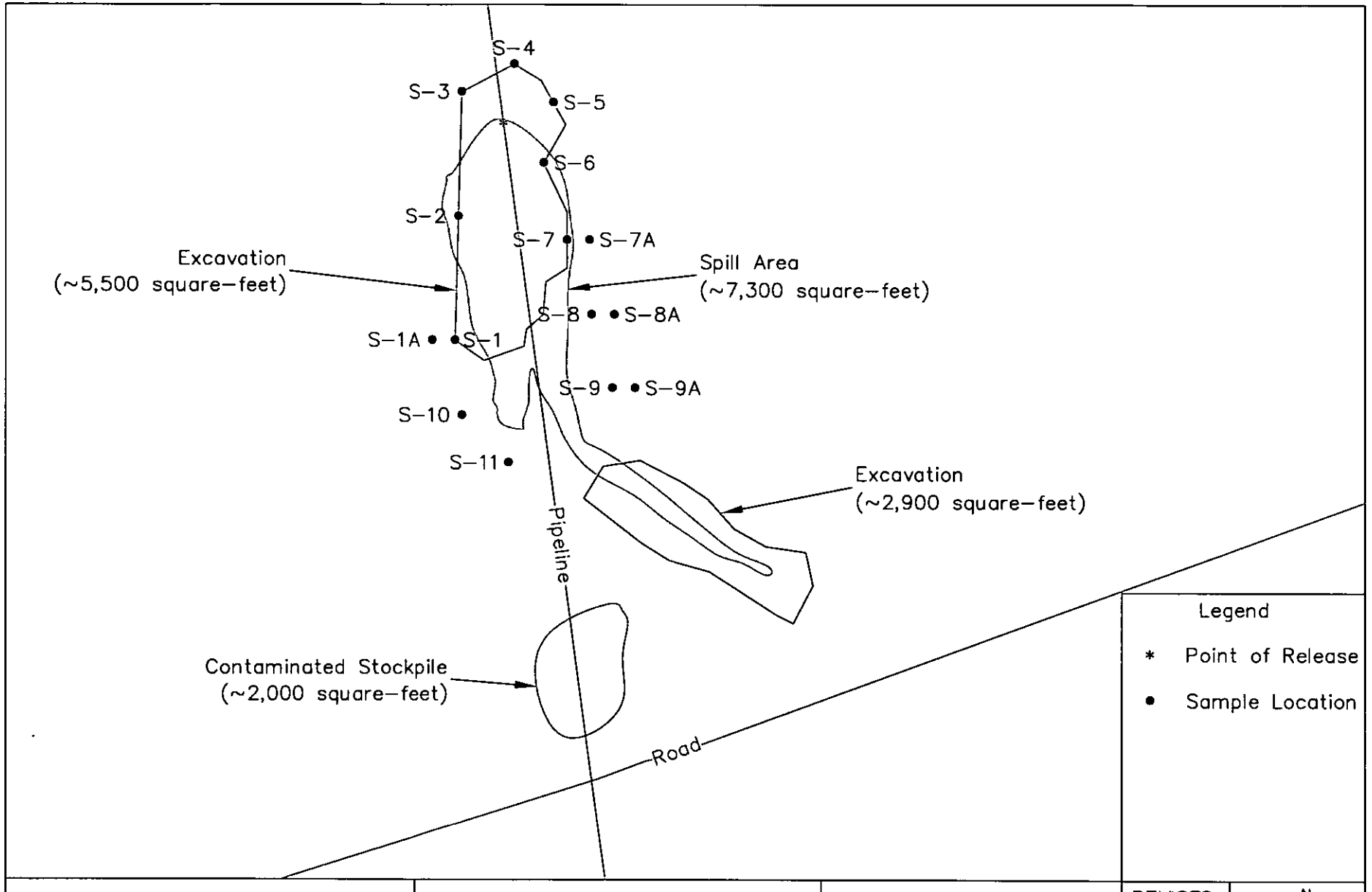

Figure 5 Sample Location Map ExxonMobil Avalon Delaware Unit #238	Eddy County, New Mexico NE 1/4 of the SW 1/4, Sec. 30, T20S, R28E N 32° 32' 41.21" W 104° 13' 15.65" Elevation: 3,299 feet amsl	DWG By: D Dominguez August 2009 0 60 120 Feet	REVISED: Mar 2010 SHEET 1 of 1

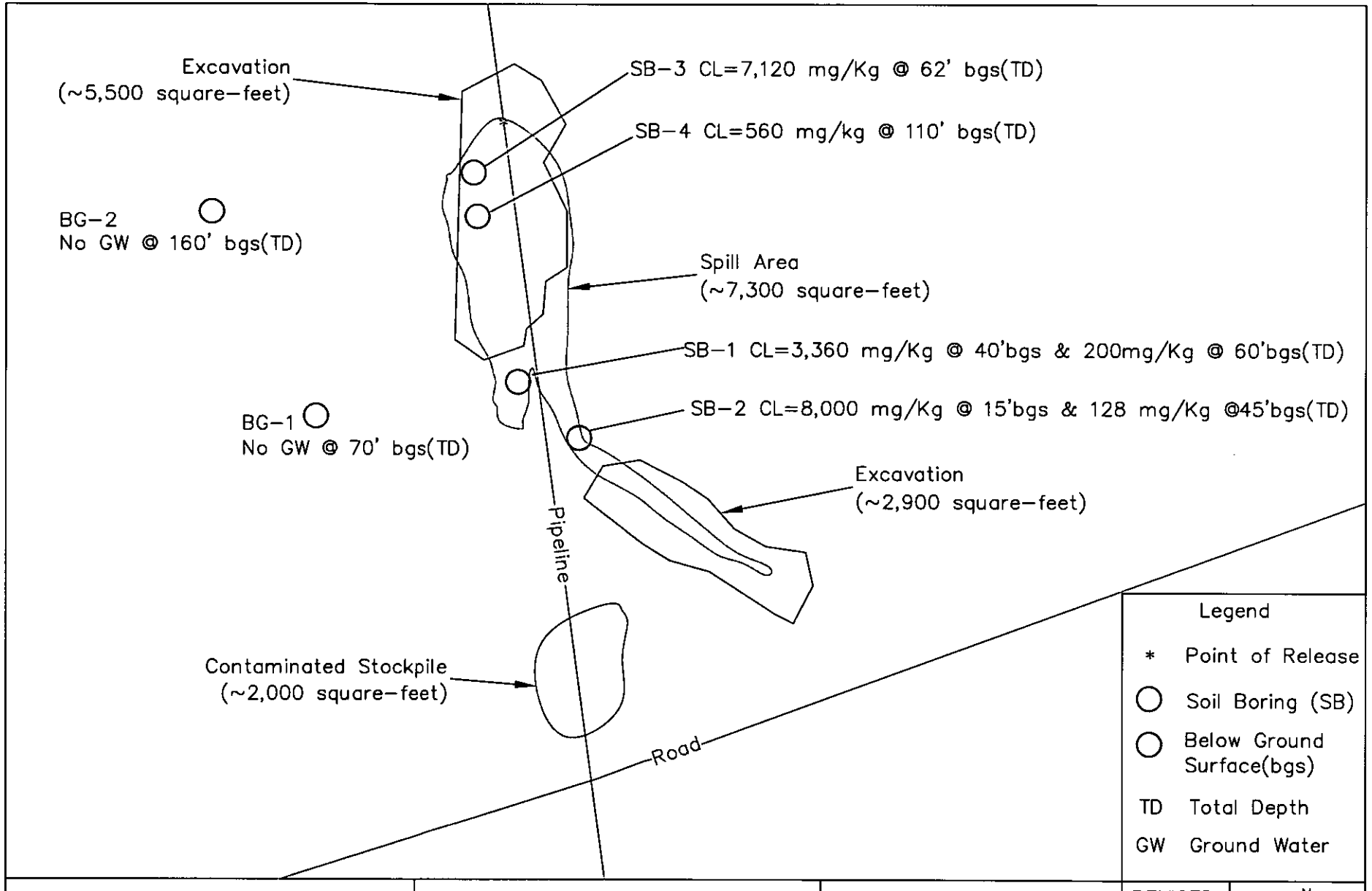

Figure 6 Soil Boring Map ExxonMobil Avalon Delaware Unit #238	Eddy County, New Mexico NE 1/4 of the SW 1/4, Sec. 30, T20S, R28E N 32° 32' 41.21" W 104° 13' 15.65" Elevation: 3,299 feet amsl	DWG By: Jerry Smith July 2010	REVISED: 2010	N
		0 60 120 Feet	SHEET 1 of 1	

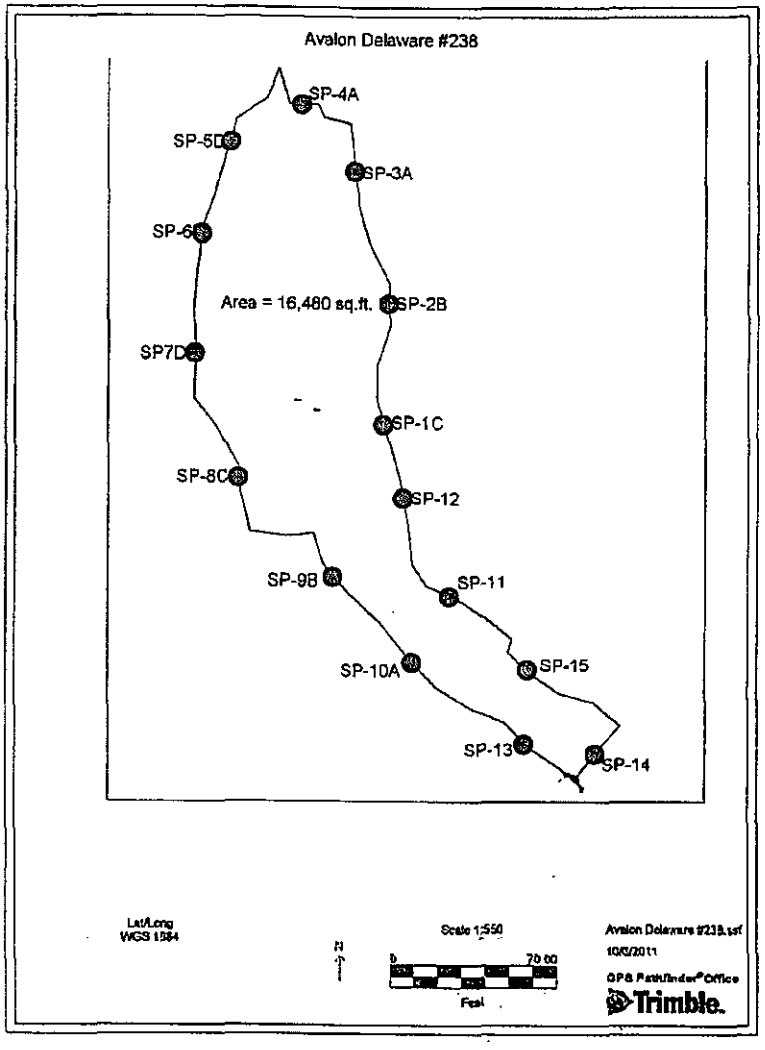

Figure 7 Sample Location Map ExxonMobil Avalon Delaware Unit #238	Eddy County, New Mexico NE 1/4 of the SW 1/4, Sec. 30, T20S, R28E N 32° 32' 41.21" W 104° 13' 15.65" Elevation: 3,299 feet amsl	DWG By: Jerry Smith October 2011	REVISED: Mar 2010 SHEET 1 of 1	N

TABLES

TABLE 1

WELL INFORMATION REPORT*

ExxonMobil - Avalon Delaware Unit #238 (Ref #190037)

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 00851	3	EXXON CORPORATION	SAN	20S	28E	31 2 1 4	N32° 32' 3.69"	W104° 12' 51.09"	14-Sep-95	3,235	115
CP 00856	0	INTERCOAST OIL & GAS	PRO	20S	28E	20 2 2	N32° 33' 51.94"	W104° 11' 36.90"		3,240	
C 02065	3	EXXON CORPORATION	PRO	20S	28E	31 4 4 4	N32° 31' 27.76"	W104° 12' 39.03"		3,215	
CP 00746 EXP	0	BRUCE RIGGS	STK	20S	28E	32 4 3 1	N32° 31' 31.13"	W104° 11' 56.26"		3,199	
C 01923	3	MWJ PRODUCING COMPANY	PRO	20S	27E	36 4 2	N32° 31' 40.75"	W104° 13' 41.97"	03-Sep-80	3,280	

* = Data obtained from the New Mexico Office of the State Engineer Website (http://iwaters.ose.state.nm.us:7001/iWATERS/wr_RegisServlet1) and USGS Database.

[A] = in acre feet per annum

[B] = Interpolated from USGS Topographical Map

PRO = 72-12-1 Prospecting or development of natural resource

STK = 72-12-1 Livestock watering

SAN = 72-12-1 Sanitary in conjunction with a commercial use

(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 Soil Sample Field Analyses and Laboratory Analytical Results

Exxon Mobil - Avalon Delaware Unit Well #238

NMOCD Ref. ; EPI Ref. #190037

UL-K (NE1/4 of the SW1/4) of Section 30, T20S, R28E; Eddy County, New Mexico

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-C12 (mg/Kg)	Carbon Ranges C12-C28 (mg/Kg)	Carbon Ranges C28-C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
SW-1	2.5	In situ	30-Jul-09	--	400	--	--	--	--	--	--	--	--	--	--
SW-2	2.5	In situ	30-Jul-09	--	240										
SW-3	2.5	In situ	30-Jul-09	--	240	--	--	--	--	--	--	--	--	--	--
SW-4	3	In situ	30-Jul-09	--	240	--	--	--	--	--	--	--	--	--	--
SW-5	3	in Situ	30-Jul-09	--	240	--	--	--	--	--	--	--	--	--	--
SW-6	3	Excavated	30-Jul-09	--	800	--	--	--	--	--	--	--	--	--	--
SW-6A	3	In situ	03-Aug-09	--	3,600										
SW-7	3	In situ	30-Jul-09	--	400										
SW-8	3	Excavated	30-Jul-09	--	>4,000										
SW-8A	3	In situ	03-Aug-09	--	240	--	--	--	--	--	--	--	--	--	--
SW-9	3	Excavated	03-Aug-09	--	>4,000										
SW-9A	3	In situ	03-Aug-09	--	>4,000										
SW-10	3	Excavated	03-Aug-09	--	>4,000										
SW-10A	3	In situ	03-Aug-09	--	>4,000	--	--	--	--	--	--	--	--	--	--
BH-1	5	In situ	30-Jul-09	--	400										
BH-2	5	In situ	30-Jul-09	--	240										
BH-3	6	In situ	30-Jul-09	--	9,480										
BH-4	3	In situ	30-Jul-09	--	10,240										
BH-5	6	Excavated	30-Jul-09	--	>4,000										
BH-5A	8	Excavated	31-Jul-09	--	>4,000										
BH-5B	10	Excavated	31-Jul-09	--	>4,000										

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Exxon Mobil - Avalon Delaware Unit Well #238

NMOCD Ref. ; EPI Ref. #190037

UL-K (NE1/4 of the SW1/4) of Section 30, T20S, R28E; Eddy County, New Mexico

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-C12 (mg/Kg)	Carbon Ranges C12-C28 (mg/Kg)	Carbon Ranges C28-C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
BH-5C	12	Excavated	31-Jul-09	--	>4,000										
BH-5D	14	Excavated	31-Jul-09	--	>4,000										
BH-5E	16	Excavated	31-Jul-09	--	>4,000										
BH-5F	18	Excavated	31-Jul-09	--	>4,000										
BH-5G	20	In situ	31-Jul-09	--	11,360										
SS-1	0.5	Excavated	03-Mar-10	--	1,300										
SS-1A	0.5	In situ	03-Mar-10	--	240										
SS-2	0.5	In situ	03-Mar-10	--	240										
SS-3	0.5	In situ	03-Mar-10	--	240										
SS-4	0.5	In situ	03-Mar-10	--	160										
SS-5	0.5	In situ	03-Mar-10	--	240										
SS-6	0.5	In situ	03-Mar-10	--	2,800										
SS-7	0.5	Excavated	03-Mar-11	--	2,640										
SS-7A	0.5	In situ	03-Mar-10	--	240										
SS-8	0.5	Excavated	03-Mar-10	--	240										
SS-8A	0.5	In situ	03-Mar-10	--	240										
SS-9	0.5	Excavated	03-Mar-11	--	240										
SS-9A	0.5	In situ	03-Mar-10	--	240										
SS-10	0.5	In situ	03-Mar-11	--	240										
SS-11	0.5	In situ	03-Mar-11	--	240										

TABLE 2

Summary Excavation Soil Sample Field Analyses and Laboratory Analytical Results

Exxon Mobil - Avalon Delaware Unit Well #238

NMOCD Ref. ; EPI Ref. #190037

UL-K (NE1/4 of the SW1/4) of Section 30, T20S, R28E; Eddy County, New Mexico

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-C12 (mg/Kg)	Carbon Ranges C12-C28 (mg/Kg)	Carbon Ranges C28-C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
SP-1	3	Excavated	23-Aug-11	--	4,000+										
SP-1A	3	Excavated	24-Aug-11	--	1,360										
SP-1B	3	Excavated	26-Aug-11	--	1,000										
SP-1C	3	In Situ	30-Aug-11	--	200										96.0
SP-2	3	Excavated	23-Aug-11	--	4,000+										
SP-2A	3	Excavated	24-Aug-11	--	1,040										
SP-2B	3	In Situ	26-Aug-11	--	400										256
SP-3	3	Excavated	23-Aug-11	--	4,000+										
SP-3A	3	In Situ	24-Aug-11	--	240										46.0
SP-4	3	Excavated	23-Aug-11	--	4,000+										
SP-4A	3	In Situ	24-Aug-11	--	240										160
SP-5	3	Excavated	23-Aug-11	--	4,000+										
SP-5A	3	Excavated	25-Aug-11	--	4,000+										
SP-5B	3	Excavated	26-Aug-11	--	4,000+										
SP-5C	3	Excavated	30-Aug-11	--	3,640										
SP-5D	3	In Situ	30-Aug-11	--	400										112
SP-6	3	Excavated	23-Aug-11	--	4,000+										
SP-6A	3	Excavated	25-Aug-11	--	2,640										
SP-6B	3	In Situ	26-Aug-11	--	200										160
SP-7	3	Excavated	24-Aug-11	--	3,400										
SP-7A	3	Excavated	25-Aug-11	--	1,720										

TABLE 2

Summary Excavation Soil Sample Field Analyses and Laboratory Analytical Results

Exxon Mobil - Avalon Delaware Unit Well #238

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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-C12 (mg/Kg)	Carbon Ranges C12-C28 (mg/Kg)	Carbon Ranges C28-C35 (mg/Kg)	TPH (mg/Kg)	Chloride (mg/Kg)
SP-7B	3	Excavated	26-Aug-11	--	1,880										
SP-7C	3	Excavated	30-Aug-11	--	560										
SP-7D	3	In Situ	30-Aug-11	--	360										144
SP-8	3	Excavated	24-Aug-11	--	4,000+										
SP-8A	3	Excavated	25-Aug-11	--	1,720										
SP-8B	3	Excavated	26-Aug-11	--	600										
SP-8C	3	In Situ	30-Aug-11	--	240										96.0
SP-9	3	Excavated	26-Aug-11	--	4,000+										
SP-9A	3	Excavated	30-Aug-11	--	600										
SP-9B	3	In Situ	30-Aug-11	--	320										16.0
SP-10	3	Excavated	26-Aug-11	--	720										
SP-10A	3	In Situ	30-Aug-11	--	200										16.0
SP-11	3	In Situ	26-Aug-11	--	360										16.0
SP-12	3	In Situ	26-Aug-11	--	320										160
SP-13	3	In Situ	30-Aug-11	--	200										32.0
SP-14	3	In Situ	30-Aug-11	--	240										64.0
SP-15	3	In Situ	30-Aug-11	--	240										64.0
NMOCD Remedial Thresholds				100		10				50				100	500

Bold values exceed NMOCD remedial threshold goals

-- = Not Analyzed

TABLE 3

Summary Soil Boring Field Analyses and Laboratory Analytical Results

Exxon Mobil - Avalon Delaware Unit #238

NMOCD Ref. ; EPI Ref. #190037

UL-K (NE1/4 of the SW1/4) of Section 30, T20S. R28E; Eddy County, New Mexico

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-C12 (mg/Kg)	Carbon Ranges >C12-C28 (mg/Kg)	Carbon Ranges >C28-C-35 (mg/Kg)	Total TPH C6-C35 (mg/Kg)	Chloride (mg/Kg)
BG #1 - S	0.5	Surface	13-Aug-09	--	240	--	--	--	--	--	--	--	--	--	--
BG #1 - 1	5	In situ	13-Aug-09	--	240	--	--	--	--	--	--	--	--	--	--
BG #1 - 2	10	In situ	13-Aug-09	--	240	--	--	--	--	--	--	--	--	--	--
BG #1-3	20	In situ	13-Aug-09	--	240	--	--	--	--	--	--	--	--	--	32
BG #1 - 4	30	In situ	13-Aug-09	--	240	--	--	--	--	--	--	--	--	--	--
BG #1 - 5	40	In situ	13-Aug-09	--	240	--	--	--	--	--	--	--	--	--	16
BG #1 - 6	50	In situ	13-Aug-09	--	240	--	--	--	--	--	--	--	--	--	--
BG #1 - 7	60	In situ	13-Aug-09	--	**	--	--	--	--	--	--	--	--	--	--
BG #1 - 8	70	In situ	13-Aug-09	--	**	--	--	--	--	--	--	--	--	--	--
BG #2	Soil Boring #2 advanced total depth of 160 v.f. on 6/14/10; tested for water on 6-15-10; (No soil samples collected as this was an exploration soil boring to determine depth of water; BG #2 dry hole with no water discovered at total depth of well)														
SB#1 - 1	5	In situ	13-Aug-09	--	>4,000	--	--	--	--	--	--	--	--	--	**32,800**
SB#1 - 2	10	In situ	13-Aug-09	--	>4,000	--	--	--	--	--	--	--	--	--	**13,400**
SB#1 - 3	15	In situ	13-Aug-09	--	>4,000	--	--	--	--	--	--	--	--	--	**12,200**
SB#1 - 4	20	In situ	13-Aug-09	--	>4,000	--	--	--	--	--	--	--	--	--	**10,800**
SB#1 - 5	25	In situ	13-Aug-09	--	>4,000	--	--	--	--	--	--	--	--	--	**6,500**
SB#1 - 6	30	In situ	13-Aug-09	--	>4,000	--	--	--	--	--	--	--	--	--	**6,800**
SB#1 - 7	40	In situ	13-Aug-09	--	2,640	--	--	--	--	--	--	--	--	--	**3,360**
SB#1 - 8	50	In situ	13-Aug-09	--	720	--	--	--	--	--	--	--	--	--	**656**
SB#1 - 9	60	In situ	13-Aug-09	--	320	--	--	--	--	--	--	--	--	--	200
SB#2 - 1	5	In situ	13-Aug-09	--	>4,000	--	--	--	--	--	--	--	--	--	**11,700**
SB#2 - 2	10	In situ	13-Aug-09	--	>4,000	--	--	--	--	--	--	--	--	--	--
SB#2 - 3	15	In situ	13-Aug-09	--	>4,000	--	--	--	--	--	--	--	--	--	**8,000**

TABLE 3

Summary Soil Boring Field Analyses and Laboratory Analytical Results

Exxon Mobil - Avalon Delaware Unit #238

NMOCD Ref. ; EPI Ref. #190037

UL-K (NE1/4 of the SW1/4) of Section 30, T20S. R28E; Eddy County, New Mexico

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-C12 (mg/Kg)	Carbon Ranges >C12-C28 (mg/Kg)	Carbon Ranges >C28-C-35 (mg/Kg)	Total TPH C6-C35 (mg/Kg)	Chloride (mg/Kg)
SB#2 - 4	20	In situ	13-Aug-09	--	800	--	--	--	--	--	--	--	--	--	**608**
SB#2 - 5	25	In situ	13-Aug-09	--	560	--	--	--	--	--	--	--	--	--	**656**
SB#2 - 6	30	In situ	13-Aug-09	--	400	--	--	--	--	--	--	--	--	--	448
SB#2 - 7	35	In situ	13-Aug-09	--	640	--	--	--	--	--	--	--	--	--	416
SB#2 - 8	40	In situ	13-Aug-09	--	400	--	--	--	--	--	--	--	--	--	112
SB#2 - 9	45	In situ	13-Aug-09	--	320	--	--	--	--	--	--	--	--	--	128
SB#3 - 1	5	In situ	03-Mar-10	--	>4,000	--	--	--	--	--	--	--	--	--	**9,800**
SB#3 - 2	10	In situ	03-Mar-10	--	>4,000	--	--	--	--	--	--	--	--	--	--
SB#3 - 3	15	In situ	03-Mar-10	--	>4,000	--	--	--	--	--	--	--	--	--	**8,800**
SB#3 - 4	20	In situ	03-Mar-10	--	>4,000	--	--	--	--	--	--	--	--	--	--
SB#3 - 5	25	In situ	03-Mar-10	--	>4,000	--	--	--	--	--	--	--	--	--	**6,400**
SB#3 - 6	30	In situ	03-Mar-10	--	>4,000	--	--	--	--	--	--	--	--	--	--
SB#3 - 7	35	In situ	03-Mar-10	--	>4,000	--	--	--	--	--	--	--	--	--	**6,960**
SB#3 - 8	40	In situ	03-Mar-10	--	>4,000	--	--	--	--	--	--	--	--	--	--
SB#3 - 9	45	In situ	03-Mar-10	--	>4,000	--	--	--	--	--	--	--	--	--	**8,720**
SB#3 - 10	50	In situ	03-Mar-10	--	>4,000	--	--	--	--	--	--	--	--	--	--
SB#3 - 11	55	In situ	03-Mar-10	--	>4,000	--	--	--	--	--	--	--	--	--	**5,920**
SB#3 - 12	60	In situ	03-Mar-10	--	>4,000	--	--	--	--	--	--	--	--	--	--
SB#3 - 13	62	In situ	03-Mar-10	--	6,160	--	--	--	--	--	--	--	--	--	**7,120**
SB #4 - 0	0-7	Bottom of Excavation	24-Aug-10	--	--	--	--	--	--	--	--	--	--	--	--
SB #4 -1	10	In situ	24-Aug-10	--	>4,000	--	--	--	--	--	--	--	--	--	**7,200**
SB #4 - 2	15	In situ	24-Aug-10	--	>4,000	--	--	--	--	--	--	--	--	--	**7,000**

TABLE 3

Summary Soil Boring Field Analyses and Laboratory Analytical Results

Exxon Mobil - Avalon Delaware Unit #238

NMOCD Ref. ; EPI Ref. #190037

UL-K (NE1/4 of the SW1/4) of Section 30, T20S. R28E; Eddy County, New Mexico

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-C12 (mg/Kg)	Carbon Ranges >C12-C28 (mg/Kg)	Carbon Ranges >C28-C-35 (mg/Kg)	Total TPH C6-C35 (mg/Kg)	Chloride (mg/Kg)
SB #4 - 3	20	In situ	24-Aug-10	--	>4,000	--	--	--	--	--	--	--	--	--	**6,880**
SB #4 - 4	25	In situ	24-Aug-10	--	>4,000	--	--	--	--	--	--	--	--	--	**8,400**
SB #4 - 5	30	In situ	24-Aug-10	--	>4,000	--	--	--	--	--	--	--	--	--	**7,100**
SB #4 - 6	40	In situ	24-Aug-10	--	>4,000	--	--	--	--	--	--	--	--	--	**8,560**
SB #4 - 7	50	In situ	24-Aug-10	--	>4,000	--	--	--	--	--	--	--	--	--	**7,760**
SB #4 - 8	60	In situ	24-Aug-10	--	>4,000	--	--	--	--	--	--	--	--	--	**5,840**
SB #4 - 9	70	In situ	24-Aug-10	--	1,440	--	--	--	--	--	--	--	--	--	**1,620**
SB #4 - 10	80	In situ	24-Aug-10	--	1,040	--	--	--	--	--	--	--	--	--	**1,200**
SB #4 - 11	90	In situ	24-Aug-10	--	640	--	--	--	--	--	--	--	--	--	**672**
SB #4 - 12	100	In situ	24-Aug-10	--	400	--	--	--	--	--	--	--	--	--	**400**
SB #4 - 13	110	In situ	24-Aug-10	--	560	--	--	--	--	--	--	--	--	--	**560**
NMOCD Remedial Thresholds				100		10				50				1,000	500

Bold values exceed NMOCD remedial threshold goals

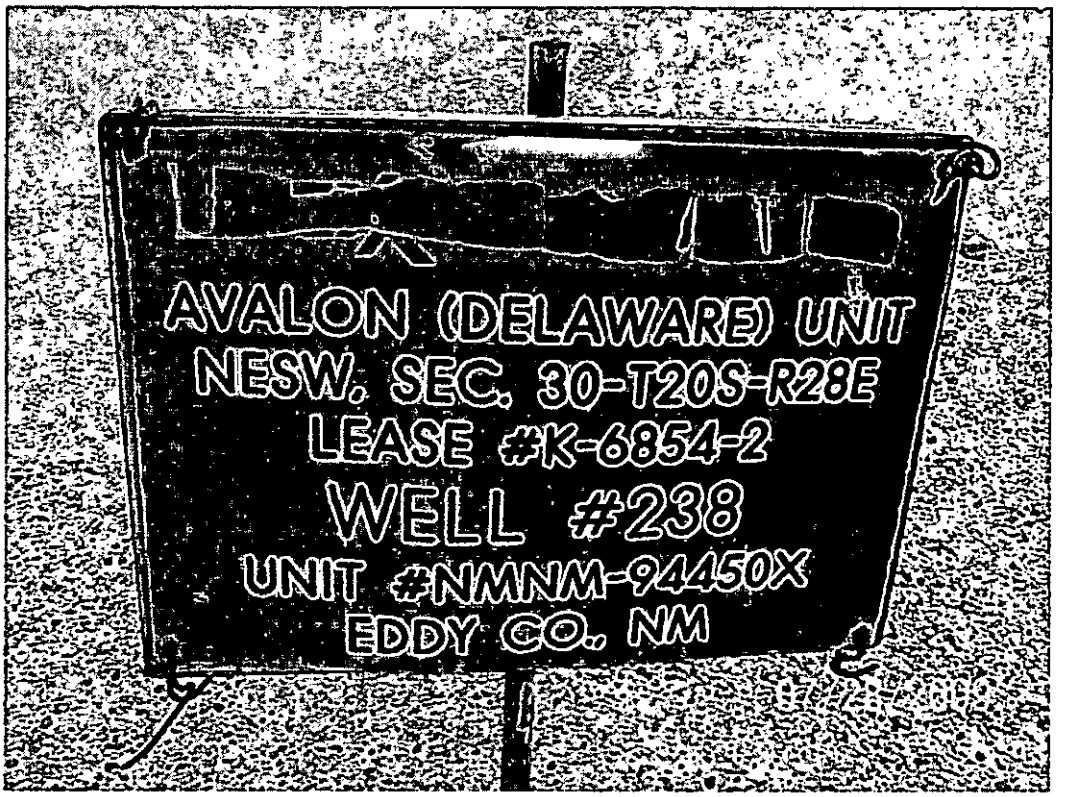
* * = Soilds would not settle out due to clay particulate matter

-- = Not Analyzed

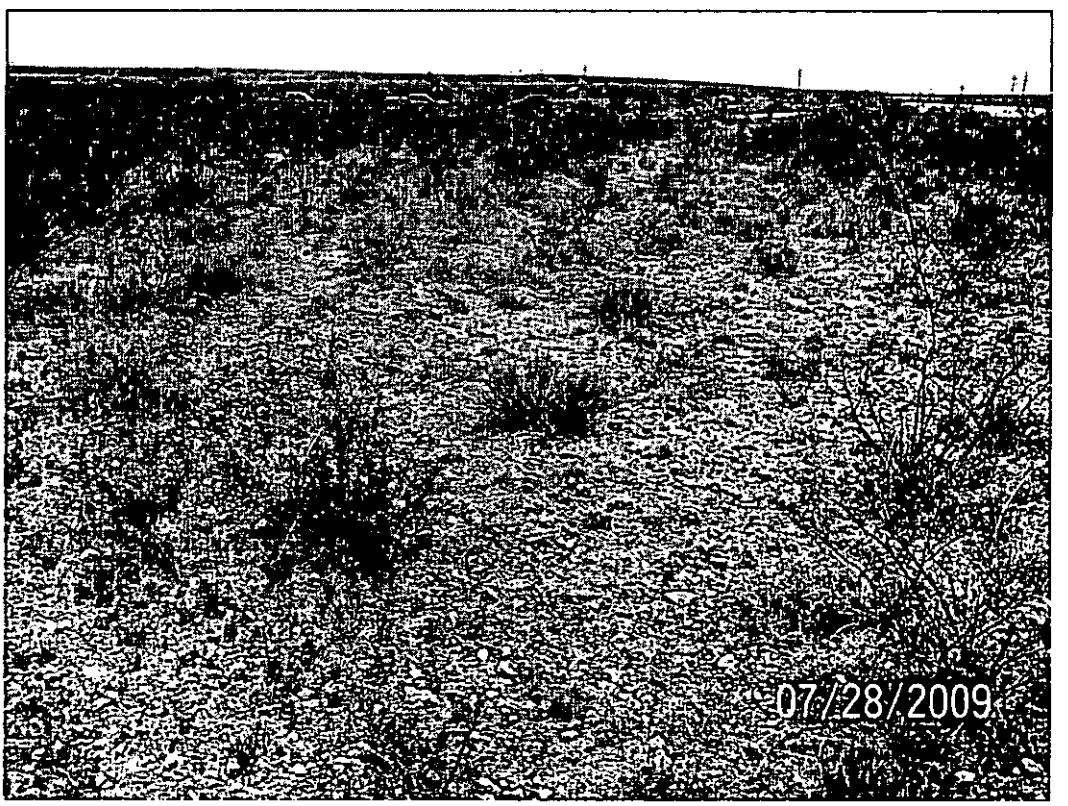
Soil Sample Nomenclature: SB = Soil Boring Hole; BG = Background Soil Boring Hole; S = Surface

ATTACHMENTS

ATTACHMENT I
PHOTOGRAPHS

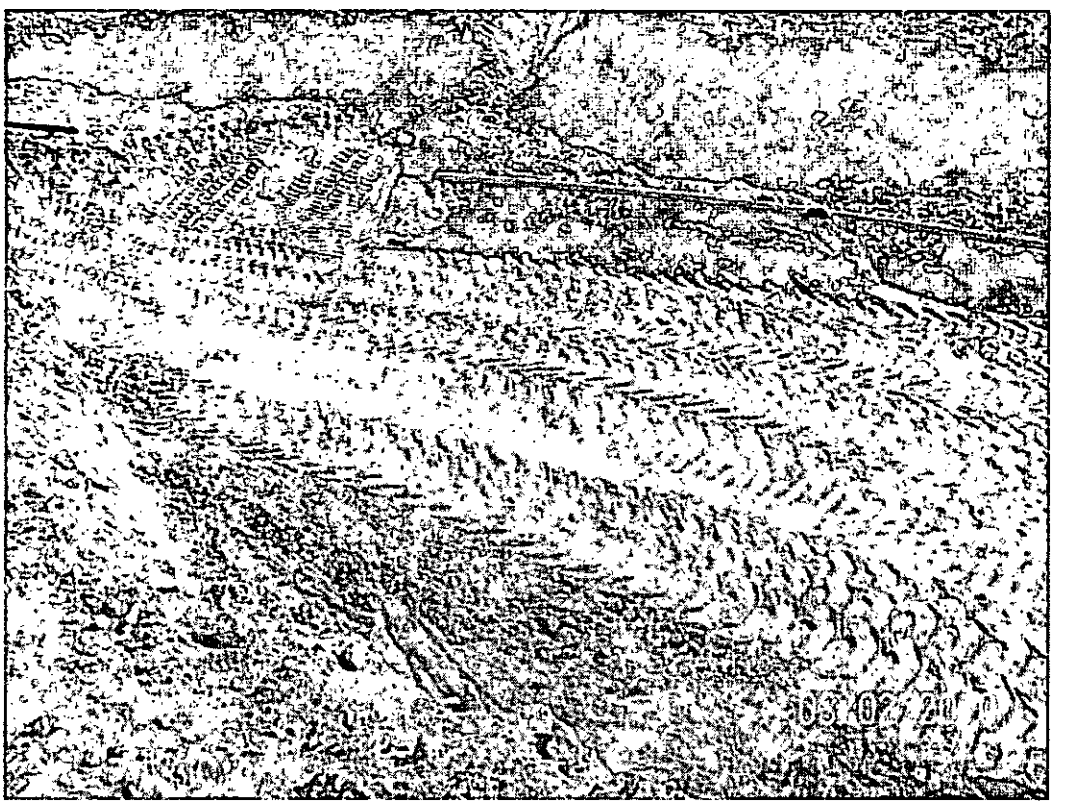


Photograph No. 1 – Lease Sign

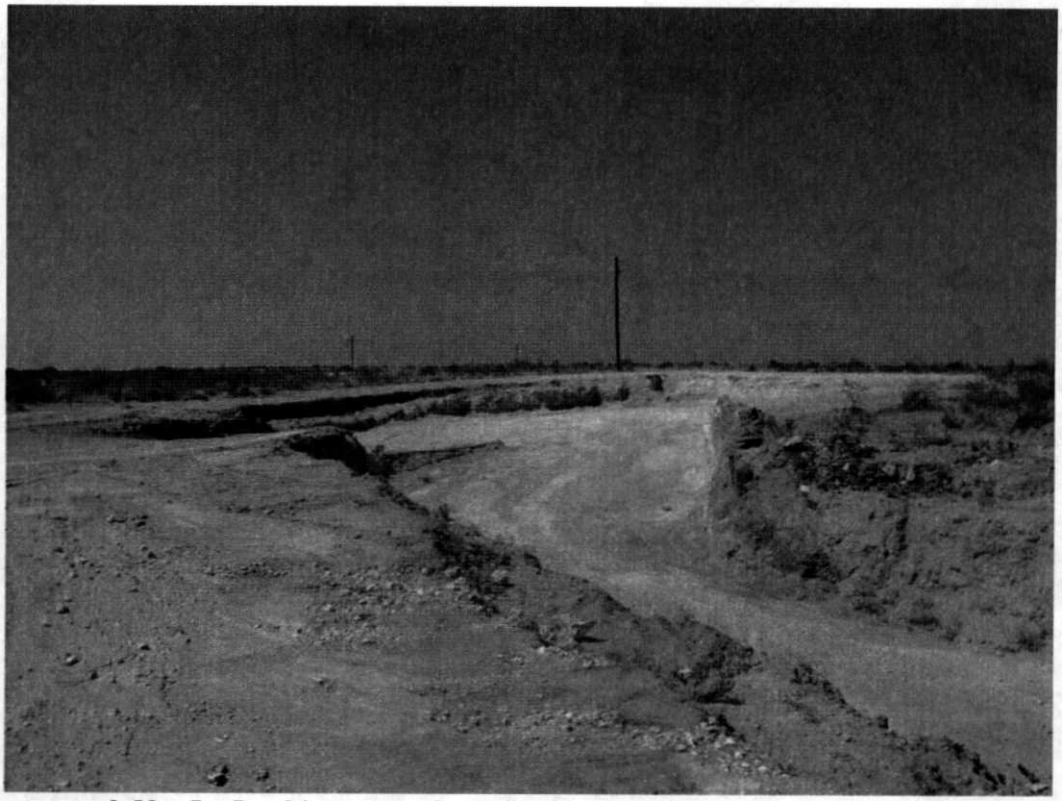


Photograph No. 2 – Looking easterly at original Release Area

Photograph No. 3 – Looking northwesterly at preliminary excavation and 3" dia. FG Injection Line

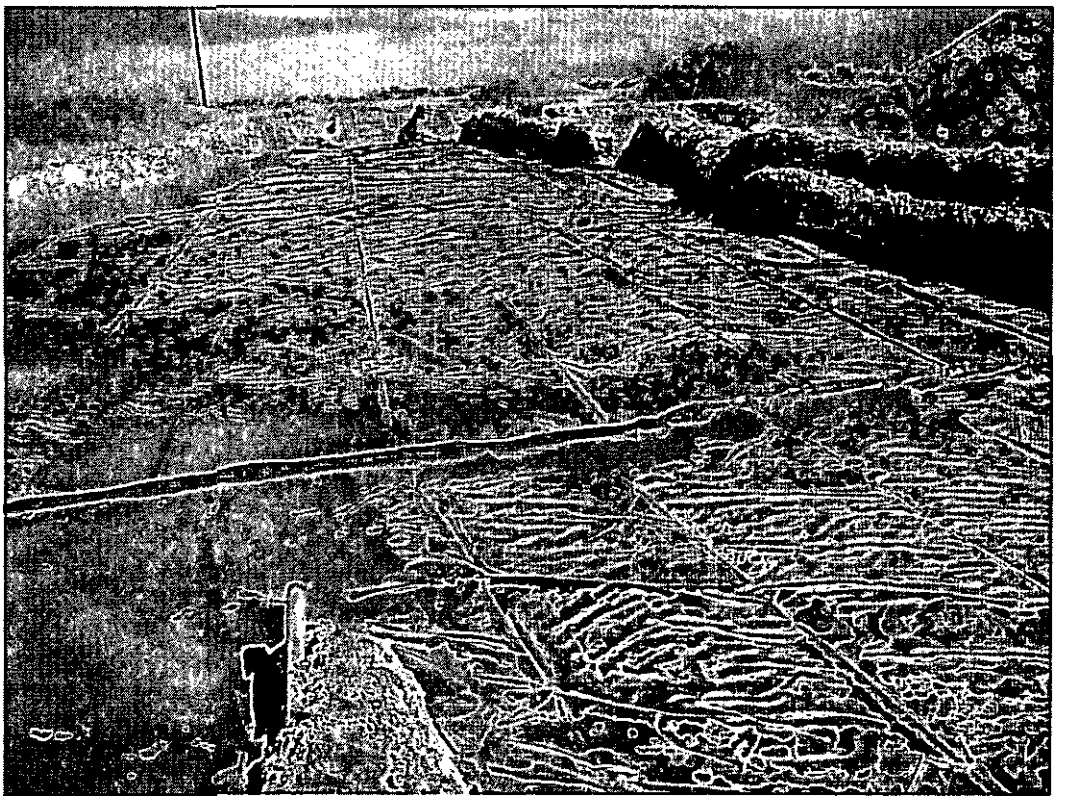


Photograph #4 – Looking northerly at preliminary excavation ands disconnected 3" dia. FG Injection Line



Photograph No. 5 – Looking westerly at final excavation and partially leveled bottom

Photograph No. 6 –Looking easterly at final excavation and layer of cushion top soil across bottom for 40-mil polyethylene liner



Photograph No. 7 – Looking northwesterly at 40-mil Polyethylene Liner on bottom of excavation

Photograph No. 8 – Looking westerly at partial backfill over 40-mil Polyethylene Liner

Photograph No. 9 – Looking at partially backfilled excavation

Photograph No.10 – Looking easterly at finished backfill gradient and stockpiled top soil

ATTACHMENT II

LABORATORY ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY FORMS

CARDINAL LABORATORIES

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

August 18, 2009

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

Re: ExxonMobil (190037)

Enclosed are the results of analyses for sample number H17993, received by the laboratory on 08/14/09 at 10:20 am.

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: 4 (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: 08/14/09
Reporting Date: 08/18/09
Project Owner: EXXONMOBIL (190037)
Project Name: AVALON DELEWARE UNIT #238
Project Location: UL-K, SEC. 30, T20S, R28E

Analysis Date: 08/17/09
Sampling Date: 08/13/09
Sample Type: SOIL
Sample Condition: COOL & INTACT @ 6°C
Sample Received By: AB
Analyzed By: AB

LAB NUMBER	SAMPLE ID	Cl^- (mg/kg)
H17993-1	BG-3 (20')	32
H17993-2	BG-5 (40')	16
H17993-3	BH#1-1 (5')	32,800
H17993-4	BH#1-6 (30')	6,800
H17993-5	BH#1-7 (40')	3,360
H17993-6	BH#1-8 (50')	656
H17993-7	BH#1-9 (60')	200
H17993-8	BH#2-1 (5')	11,700
H17993-9	BH#2-3 (15')	8,000
H17993-10	BH#2-4 (20')	608
H17993-11	BH#2-5 (25')	656
H17993-12	BH#2-6 (30')	448
H17993-13	BH#2-7 (35')	416
H17993-14	BH#2-8 (40')	112
H17993-15	BH#2-9 (45')	128
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		< 0.1

METHOD: Standard Methods	4500-ClˉB

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

Chemist

08/18/09
Date

H17993EPI

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	Avalon Deleware Unit #238
Location	UL-K, Sec. 30, T20S, R28E
Project Reference	190037
EPI Sampler Name	Kirt Tyree

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	BTEX 8021B	TPH 8015M	CHLORIDES (Cl⁻)	SULFATES ($SO_4^{=}$)	pH	TCLP	OTHER >>>	PAH			
H17993 — 1	BG-3 (20')	G	1			X					X		13-Aug-09	10:30			X								
— 2	BG-5 (40')	G	1			X					X		13-Aug-09	10:40			X								
— 3	BH#1-1 (5')	G	1			X					X		13-Aug-09	11:45			X								
— 4	BH#1-6 (30')	G	1			X					X		13-Aug-09	13:15			X								
— 5	BH#1-7 (40')	G	1			X					X		13-Aug-09	13:25			X								
— 6	BH#1-8 (50')	G	1			X					X		13-Aug-09	13:30			X								
— 7	BH#1-9 (60')	G	1			X					X		13-Aug-09	13:45			X								
— 8	BH#2-1 (5')	G	1			X					X		13-Aug-09	14:00			X								
— 9	BH#2-3 (15')	G	1			X					X		13-Aug-09	14:15			X								
—10	BH#2-4 (20')	G	1			X					X		13-Aug-09	14:25			X								

ANALYSIS REQUEST

Sampler Relinquished: Kirt Tyree	8/14/2009 Time 0700	Received By: Kogen Boone	E-mail results to: dduncan@envplus.net
Relinquished by: Kogen Boone	8/14/2009 Time 10:20	Received By: (lab staff)	
Delivered by: #26 6°C	Sample Cool & Intact: (Yes) No	Checked By:	

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	Avalon Deleware Unit #238
Location	UL-K, Sec. 30, T20S, R28E
Project Reference	190037
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			
H17993 - 11	BH#2-5 (25')	G	1			X					X		13-Aug-09	14:30			X								
- 12	BH#2-6 (30')	G	1			X					X		13-Aug-09	14:35			X								
- 13	BH#2-7 (35')	G	1			X					X		13-Aug-09	14:45			X								
- 14	BH#2-8 (40')	G	1			X					X		13-Aug-09	14:55			X								
- 15	BH#2-9 (45')	G	1			X					X		13-Aug-09	15:10			X								
16																									
17																									
18																									
19																									
20																									

Sampler Relinquished: Kirt Tyree	8/14/2009 Time 0700	Received By: Roger Boone	E-mail results to: dduncan@envplus.net
Relinquished by: Roger Boone	8/14/2009 Time 10:20	Received By: (lab staff)	
Delivered by: #26	6.0 Sample Cool & Intact Yes / No	Checked By:	

CARDINAL LABORATORIES

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

March 8, 2010

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

Re: ExxonMobil (190037)

Enclosed are the results of analyses for sample number H19377, received by the laboratory on 03/04/10 at 3:40 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: 03/04/10
Reporting Date: 03/05/10
Project Owner: EXXONMOBIL (190037)
Project Name: AVALON DELEWARE UNIT #238
Project Location: UL-K, SEC.30, T20S, R28E

Analysis Date: 03/05/10
Sampling Date: 08/13/09
Sample Type: SOIL
Sample Condition: COOL & INTACT @ 4.5°C
Sample Received By: JH
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl^- (mg/kg)
H19377-1	BH#1 - 2 (10')	13,400
H19377-2	BH#1 - 3 (15')	12,200
H19377-3	BH#1 - 4 (20')	10,800
H19377-4	BH#1 - 5 (25')	6,500
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		2.0

METHOD: Standard Methods	4500-Cl^-B

Note: Analyses performed on 1:4 w:v aqueous extracts.
*Analyses performed outside EPA recommended hold time of 28 days.

Chemist

03/08/10
Date

H19377 EPI

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	Avalon Deleware Unit #238
Location	UL-K, Sec. 30, T20S, R28E
Project Reference	190037
EPI Sampler Name	Kirt Tyree

Remit Invoice 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^{-2})	pH	TCLP	OTHER >>>	PAH
H19377 -1	1	BH#1 - 2 (10')	G	1			X					X		13-Aug-09	12:00			X					
-2	2	BH#1 - 3 (15')	G	1			X					X		13-Aug-09	12:15			X					
-3	3	BH#1 - 4 (20')	G	1			X					X		13-Aug-09	12:30			X					
-4	4	BH#1 - 5 (25')	G	1			X					X		13-Aug-09	13:00			X					
	5																						
	6																						
	7																						
	8																						
	9																						
	10																						

Sampler Relinquished:	3/4/2010	Received By:	E-mail results to: ~~dduncan@envplus.net~~
	Time 9:40		dduncanepi@gmail.com
Relinquished by:	3/4/2010	Received By: (lab staff)	
	Time 3:40		
Delivered by:	Sample Cool & Intact Yes 4.5°C / No	Checked By:	

#26

CARDINAL LABORATORIES

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

March 8, 2010

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

Re: ExxonMobil (190037)

Enclosed are the results of analyses for sample number H19378, received by the laboratory on 03/04/10 at 3:40 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: 03/04/10
Reporting Date: 03/05/10
Project Owner: EXXONMOBIL (190037)
Project Name: AVALON DELEWARE UNIT #238
Project Location: UL-K, SEC.30, T20S, R28E

Analysis Date: 03/05/10
Sampling Date: 03/03/10
Sample Type: SOIL
Sample Condition: COOL & INTACT @ 4.5°C
Sample Received By: JH
Analyzed By: HM

LAB NUMBER	SAMPLE ID	Cl^- (mg/kg)
H19378-1	BH#3 - 1 (5')	9,800
H19378-2	BH#3 - 3 (15')	8,800
H19378-3	BH#3 - 5 (25')	6,400
H19378-4	BH#3 - 7 (35')	6,960
H19378-5	BH#3 - 9 (45')	8,720
H19378-6	BH#3 - 11 (55')	5,920
H19378-7	BH#3 - 13 (62')	7,120
Quality Control		500
True Value QC		500
% Recovery		100
Relative Percent Difference		2.0

METHOD: Standard Methods	4500-ClˉB

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

Chemist

03/08/10
Date

H19378 EPI

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	Avalon Deleware Unit #238
Location	UL-K, Sec. 30, T20S, R28E
Project Reference	190037
EPI Sampler Name	Kirt Tyree

Remit Invoice 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			
H19378-1	1 BH#3 -1 (5')	G	1			X					X		03-Mar-10	10:00			X								
-2	2 BH#3 - 3 (15')	G	1			X					X		03-Mar-10	10:07			X								
-3	3 BH#3 - 5 (25')	G	1			X					X		03-Mar-10	10:14			X								
-4	4 BH#3 - 7 (35')	G	1			X					X		03-Mar-10	10:20			X								
-5	5 BH#3 - 9 (45')	G	1			X					X		03-Mar-10	10:26			X								
-6	6 BH#3 - 11 (55')	G	1			X					X		03-Mar-10	10:34			X								
-7	7 SB#3 - 13 (62')	G	1			X					X		03-Mar-10	10:40			X								
-8	8																								
	9																								
	10																								

Sampler Relinquished:	3/4/2010	Received By:	E-mail results to: ~~ddduncan@envplus.net~~
Relinquished by:	3/4/2010 Time 3:40	Received By: (lab staff) Jodi Henson	
Delivered by:	Sample Cool & Intact: 4.5 Yes / No	Checked By:	

#26

CARDINAL Laboratories

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

August 27, 2010

David P. Duncan

Environmental Plus, Inc.

P.O. Box 1558

Eunice, NM 88231

RE: AVALON DELEWARE UNIT #238

Enclosed are the results of analyses for samples received by the laboratory on 08/25/10 11:25.

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:	08/25/2010	Sampling Date:	08/24/2010
Reported:	08/27/2010	Sampling Type:	Soil
Project Name:	AVALON DELEWARE UNIT #238	Sampling Condition:	Cool & Intact
Project Number:	190037	Sample Received By:	Jodi Henson
Project Location:	UL-K, SEC 30, T20S, R28E		

Sample ID: BH #4 - 1 (10') (H020716-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7200**	16.0	08/26/2010	ND	432	108	400	0.00	

Sample ID: BH #4 - 2 (15') (H020716-02)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7000**	16.0	08/26/2010	ND	432	108	400	0.00	

Sample ID: BH #4 - 3 (20') (H020716-03)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**6880**	16.0	08/26/2010	ND	432	108	400	0.00	

Sample ID: BH #4 - 4 (25') (H020716-04)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**8400**	16.0	08/26/2010	ND	432	108	400	0.00	

Sample ID: BH #4 - 5 (30') (H020716-05)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7100**	16.0	08/26/2010	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

Analytical Results For:

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

Received:	08/25/2010	Sampling Date:	08/24/2010
Reported:	08/27/2010	Sampling Type:	Soil
Project Name:	AVALON DELEWARE UNIT #238	Sampling Condition:	Cool & Intact
Project Number:	190037	Sample Received By:	Jodi Henson
Project Location:	UL-K, SEC 30, T20S, R28E		

Sample ID: BH #4 - 6 (40') (H020716-06)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**8560**	16.0	08/26/2010	ND	432	108	400	0.00	

Sample ID: BH #4 - 7 (50') (H020716-07)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**7760**	16.0	08/26/2010	ND	432	108	400	0.00	

Sample ID: BH #4 - 8 (60') (H020716-08)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**5840**	16.0	08/26/2010	ND	432	108	400	0.00	

Sample ID: BH #4 - 9 (70') (H020716-09)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1620**	16.0	08/26/2010	ND	432	108	400	0.00	

Sample ID: BH #4 - 10 (80') (H020716-10)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**1200**	16.0	08/26/2010	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

Analytical Results For:

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

Received:	08/25/2010	Sampling Date:	08/24/2010
Reported:	08/27/2010	Sampling Type:	Soil
Project Name:	AVALON DELEWARE UNIT #238	Sampling Condition:	Cool & Intact
Project Number:	190037	Sample Received By:	Jodi Henson
Project Location:	UL-K, SEC 30, T20S, R28E		

Sample ID: BH #4 - 11 (90') (H020716-11)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**672**	16.0	08/26/2010	ND	432	108	400	0.00	

Sample ID: BH #4 - 12 (100') (H020716-12)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**400**	16.0	08/26/2010	ND	432	108	400	0.00	

Sample ID: BH #4 - 13 (110') (H020716-13)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**560**	16.0	08/26/2010	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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, Eunice, NM 88231 *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	Avalon Deleware Unit #238
Location	UL-K, Sec. 30, T20S, R28E
Project Reference	190037
EPI Sampler Name	Kirt Tyree

Remit Invoice 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	MATRIX: WASTEWATER	MATRIX: SOIL	MATRIX: CRUDE OIL	MATRIX: SLUDGE	MATRIX: OTHER:	PRESERV.: ACID/BASE	PRESERV.: ICE/COOL	PRESERV.: OTHER	SAMPLING: DATE	SAMPLING: TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES (SO_4^{-2})	pH	TCLP	OTHER >>>	PAH			
H20716-1	1	BH #4 - 1 (10')	G	1			X					X		24-Aug-10	10:38			X							
2	2	BH #4 - 2 (15')	G	1			X					X		24-Aug-10	10:44			X							
3	3	BH #4 - 3 (20')	G	1			X					X		24-Aug-10	10:50			X							
4	4	BH #4 - 4 (25')	G	1			X					X		24-Aug-10	10:55			X							
5	5	BH #4 - 5 (30')	G	1			X					X		24-Aug-10	11:03			X							
6	6	BH #4 - 6 (40')	G	1			X					X		24-Aug-10	11:16			X							
7	7	BH #4 - 7 (50')	G	1			X					X		24-Aug-10	11:32			X							
8	8	BH #4 - 8 (60')	G	1			X					X		24-Aug-10	11:52			X							
9	9	BH #4 - 9 (70')	G	1			X					X		24-Aug-10	12:43			X							
10	10	BH #4 - 10 (80')	G	1			X					X		24-Aug-10	13:26			X							

Sampler Relinquished: Kirt Tyree	08/25/10	Received By: Kerry Pace	E-mail results to: dduncanepi@gmail.com
Relinquished by: Kerry Pace	08/25/10 Time 11:25	Received By: (lab staff) Jodi Henson	
Delivered by:	Sample Cool & Intact: Yes / No	Checked By:	

6°C

#26

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:

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	Avalon Deleware Unit #238
Location	UL-K, Sec. 30, T20S, R28E
Project Reference	190037
EPI Sampler Name	Kirt Tyree

Remit Invoice To:

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

ANALYSIS REQUEST

				MATRIX						PRESERV.			SAMPLING		ANALYSIS REQUEST										
LAB I.D.	SAMPLE I.D.	(G)RAB OR (C)OMP.	# CONTAINERS	GROUND WATER	WASTEWATER	SOIL	CRUDE OIL	SLUDGE	OTHER:	ACID/BASE	ICE/COOL	OTHER	DATE	TIME	BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES ($SO_4^=$)	pH	TCLP	OTHER >>>	PAH			
H20716-11 11	SB #4 - 11 (90')	G	1			X					X		24-Aug-10	14:31			X								
12 12	SB #4 - 12 (100')	G	1			X					X		24-Aug-10	14:42			X								
13 13	SB #4 - 13 (110')	G	1			X					X		24-Aug-10	14:49			X								
14																									
15																									
16																									
17																									
18																									
19																									
20																									

Sampler Relinquished: Kirt Tyree	08/25/10 Time 0700	Received By: Kenya Boone
Relinquished by: Kenya Boone	08/25/10 Time 11:24	Received By: (lab staff) Jodi Henson
Delivered by:	Sample Cool & Intact 6°C Yes ✓ No	Checked By: [signature]

E-mail results to: [illegible]

#26

CARDINAL Laboratories

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

August 31, 2011

David P. Duncan

Environmental Plus, Inc.

P.O. Box 1558

Eunice, NM 88231

RE: AVALON DELEWARE UNIT #238

Enclosed are the results of analyses for samples received by the laboratory on 08/31/11 8:12.

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:	08/31/2011	Sampling Date:	08/23/2011
Reported:	08/31/2011	Sampling Type:	Soil
Project Name:	AVALON DELEWARE UNIT #238	Sampling Condition:	** (See Notes)
Project Number:	190037	Sample Received By:	Jodi Henson
Project Location:	UL-K, SEC 30, T20S, R28E		

Sample ID: SP-3A (3') (H101849-01)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**48.0**	16.0	08/31/2011	ND	432	108	400	0.00	

Sample ID: SP-4A (3') (H101849-02)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	08/31/2011	ND	432	108	400	0.00	

Sample ID: SP-6B (3') (H101849-03)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	08/31/2011	ND	432	108	400	0.00	

Sample ID: SP-11 (3') (H101849-04)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	08/31/2011	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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:	08/31/2011	Sampling Date:	08/26/2011
Reported:	08/31/2011	Sampling Type:	Soil
Project Name:	AVALON DELEWARE UNIT #238	Sampling Condition:	** (See Notes)
Project Number:	190037	Sample Received By:	Jodi Henson
Project Location:	UL-K, SEC 30, T20S, R28E		

Sample ID: SP-12 (3') (H101849-05)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**160**	16.0	08/31/2011	ND	432	108	400	0.00	

Sample ID: SP-2B (3') (H101849-06)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**256**	16.0	08/31/2011	ND	432	108	400	0.00	

Sample ID: SP-1C (3') (H101849-07)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	08/31/2011	ND	432	108	400	0.00	

Sample ID: SP-8C (3') (H101849-08)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**96.0**	16.0	08/31/2011	ND	432	108	400	0.00	

Sample ID: SP-10A (3') (H101849-09)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	08/31/2011	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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:	08/31/2011	Sampling Date:	08/30/2011
Reported:	08/31/2011	Sampling Type:	Soil
Project Name:	AVALON DELEWARE UNIT #238	Sampling Condition:	** (See Notes)
Project Number:	190037	Sample Received By:	Jodi Henson
Project Location:	UL-K, SEC 30, T20S, R28E		

Sample ID: SP-13 (3') (H101849-10)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**32.0**	16.0	08/31/2011	ND	432	108	400	0.00	

Sample ID: SP-14 (3') (H101849-11)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	08/31/2011	ND	432	108	400	0.00	

Sample ID: SP-15 (3') (H101849-12)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**64.0**	16.0	08/31/2011	ND	432	108	400	0.00	

Sample ID: SP-5D (3') (H101849-13)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**112**	16.0	08/31/2011	ND	432	108	400	0.00	

Sample ID: SP-7D (3') (H101849-14)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**144**	16.0	08/31/2011	ND	432	108	400	0.00	

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Eunice NM, 88231
Fax To: (505) 394-2601

Received:	08/31/2011	Sampling Date:	08/30/2011
Reported:	08/31/2011	Sampling Type:	Soil
Project Name:	AVALON DELEWARE UNIT #238	Sampling Condition:	** (See Notes)
Project Number:	190037	Sample Received By:	Jodi Henson
Project Location:	UL-K, SEC 30, T20S, R28E		

Sample ID: SP-9B (3') (H101849-15)

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

Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier
Chloride	**16.0**	16.0	08/31/2011	ND	432	108	400	0.00	

Cardinal Laboratories

*=Accredited Analyte

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, Lab Director/Quality Manager

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:

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 Production
Facility Name	Avalon Deleware Unit #238
Location	UL-K, Sec. 30, T20S, R28E
Project Reference	190037
EPI Sampler Name	Danny Deaton

Remit Invoice 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
H101849																						
1	SP-3A (3')	G	1			X					X		23-Aug-11	14:20			X					
2	SP-4A (3')	G	1			X					X		23-Aug-11	14:50			X					
3	SP-6B (3')	G	1			X					X		26-Aug-11	8:50			X					
4	SP-11 (3')	G	1			X					X		26-Aug-11	12:00			X					
5	SP-12 (3')	G	1			X					X		26-Aug-11	13:30			X					
6	SP-2B (3')	G	1			X					X		26-Aug-11	14:10			X					
7	SP-1C (3')	G	1			X					X		30-Aug-11	9:00			X					
8	SP-8C (3')	G	1			X					X		30-Aug-11	10:10			X					
9	SP-10A (3')	G	1			X					X		30-Aug-11	11:15			X					
10	SP-13 (3')	G	1			X					X		30-Aug-11	11:45			X					

Sampler Relinquished: Danny Deaton	8/31/2011 5:15 AM	Received By:	E-mail results to: duncanepi@gmail.com
Relinquished by:	8/31/2011 Time: 8:12	Received By: (lab staff) Jodi Henson	
Delivered by:	Sample Cool & Intact 14°c Yes No	Checked By:	

#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:

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 Production
Facility Name	Avalon Deleware Unit #238
Location	UL-K, Sec. 30, T20S, R28E
Project Reference	190037
EPI Sampler Name	Danny Deaton

Remit Invoice 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	MATRIX: WASTEWATER	MATRIX: SOIL	MATRIX: CRUDE OIL	MATRIX: SLUDGE	MATRIX: OTHER:	PRESERV.: ACID/BASE	PRESERV.: ICE/COOL	PRESERV.: OTHER	SAMPLING: DATE	SAMPLING: TIME	ANALYSIS REQUEST: BTEX 8021B	TPH 8015M	CHLORIDES (Cl)	SULFATES ($SO_4^=$)	pH	TCLP	OTHER >>>	PAH
11	11	SP-14 (3')	G	1			X					X		30-Aug-11	12:15			X					
12	12	SP-15 (3')	G	1			X					X		30-Aug-11	12:45			X					
13	13	SP-5D (3')	G	1			X					X		30-Aug-11	13:20			X					
14	14	SP-7D (3')	G	1			X					X		30-Aug-11	14:10			X					
15	15	SP-9B (3')	G	1			X					X		30-Aug-11	15:20			X					
	16																						
	17																						
	18																						
	19																						
	20																						

20

Sampler Relinquished: Danny Deaton	8/31/2011 5:15 AM	Received By:	E-mail results to:
Relinquished by:	8/31/2011 Time 8:12	Received By: (lab staff)	
Delivered by:	Sample Cool & Intact 14°c Yes No	Checked By:	

#26

ATTACHMENT III
SOIL BORING LOGS

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)
AVALON DELAWARE UNIT #238 SB-1	
WELL OWNER NAME(S)	**PHONE (OPTIONAL)**
MOBIL/EXXON	
WELL OWNER MAILING ADDRESS	**CITY** / **STATE** / **ZIP**
	MIDLAND / TX

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	32	40.00	N
	LONGITUDE	104	13	16.00	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS

FROM HOBBS GO W ON 62/180, TURN R ON THE CALRLSBAD RELIEF RD & TURN R ON LAKE AVALON RD.

2. OPTIONAL

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

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	EDWARD BRYAN	STRAUB CORPORATION

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
8-13-09	8-13-09	0	70'	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	70	5	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	.5 BAG OF CEMENT		TOPLOAD
	2	70	5	17 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	3	3	BROWN FINE SAND - CALICHE	☐ YES ☑ NO
3	41	38	TAN FINE SAND - SANDSTONE - CALICHE	☐ YES ☑ NO
41	53	12	TAN SANDSTONE (MED) DENSE - CALICHE	☐ YES ☑ NO
53	59	6	GREENISH - TAN CLAY	☐ YES ☑ NO
59	70	11	RED SILTY CLAY & RED VERY FINE SAND	☐ YES ☑ NO
TD	70			☐ 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:

SIGNATURE OF DRILLER — DATE: 8/20/09

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

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

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)
ADU # 238 BG2- (GS)	
WELL OWNER NAME(S)	**PHONE (OPTIONAL)**
EXXON/MOBIL	
WELL OWNER MAILING ADDRESS	**CITY** / **STATE** / **ZIP**
503 S MARIENFELD, ST	MIDLAND / TX / 79701

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	32	40.00	N
	LONGITUDE	104	13	17.00	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS

FROM HWY 206 GO E FOR .5 MILES TURN R .1TH MI TURN R TO SITE.

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	EDWARD BRYAN	STRAUB CORPORATION

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
6/14/10	6/14/10	0	160	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	160	5	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	2 BAG OF CEMENT		TOPLOAD
	2	160	5	40 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	2	2	BROWN FINE SAND - WITH CLAY	☐ YES ☑ NO
2	21	19	TAN FINE SAND - SANDSTONE - CALICHE	☐ YES ☑ NO
21	33	12	TAN FINE SAND - SANDSTONE	☐ YES ☑ NO
33	39	6	TAN FINE SAND - MED SANDTONE	☐ YES ☑ NO
39	42	3	(DENSE) SANDSTONE - TAN FINE SAND	☐ YES ☑ NO
42	60	18	(DENSE) SANDSTONE - CALICHE	☐ YES ☑ NO
60	64	4	RED SILTY CLAY - SILTY SAND	☐ YES ☑ NO
64	65	1	TAN SILTY CLAY	☐ YES ☑ NO
65	78	13	RED SILTY CLAY - RED SILTY SAND	☐ YES ☑ NO
78	94	16	TAN SILTY SAND - TAN SILTY CLAY	☐ YES ☑ NO
94	138	44	TAN SILTY SAND - TAN SILTY STONE	☐ YES ☑ NO
138	140	2	RED SILTY CLAY (DRY)	☐ YES ☑ NO
140	142	2	TAN SILTY SAND	☐ YES ☑ NO
142	144	2	TAN SILTY SAND - SILTY CLAY	☐ YES ☑ NO
144	148	4	TAN SILTY SAND - SILT STONE	☐ YES ☑ NO
148	150	2	RED FINE SAND - SILTY CLAY WITH GYPSUM	☐ YES ☑ NO
150	TD160	10	TAN SILTY SAND	☐ 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:

SIGNATURE OF DRILLER — DATE: 6/22/10

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

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION

POD NUMBER (WELL NUMBER): AVALON DELAWARE UNIT #238 SB-2	OSE FILE NUMBER(S):
WELL OWNER NAME(S): MOBIL/EXXON	PHONE (OPTIONAL):
WELL OWNER MAILING ADDRESS	CITY: MIDLAND / STATE: TX / ZIP:

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	32	40.00	N
	LONGITUDE	104	13	16.00	W

* ACCURACY REQUIRED: ONE TENTH OF A SECOND

* DATUM REQUIRED: WGS 84

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS: FROM HOBBS GO W ON 62/180, TURN R ON THE CALRLSBAD RELIEF RD & TURN R ON LAKE AVALON RD.

2. OPTIONAL

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

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	EDWARD BRYAN	STRAUB CORPORATION

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
8-13-09	8-13-09	0	60'	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	60	5	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	.5 BAGS OF CEMENT		TOPLOAD
	2	60	5	13 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	3	3	BROWN FINE SAND - CALICHE	☐ YES ☑ NO
3	20	17	TAN FINE SAND - W/CLAY	☐ YES ☑ NO
20	52	32	TAN FINE SAND - SANDSTONE	☐ YES ☑ NO
52	60	8	TAN FINE SAND	☐ YES ☑ NO
TD	60			☐ YES ☐ NO
				☐ 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:

SIGNATURE OF DRILLER

8/20/09
DATE

FOR OSE INTERNAL USE

WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

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)
AVALON DELAWARE UNIT #238 SB-3	
WELL OWNER NAME(S)	PHONE (OPTIONAL)
MOBIL/EXXON	
WELL OWNER MAILING ADDRESS	CITY / STATE / ZIP
	MIDLAND / TX

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	32	40.00	N
	LONGITUDE	104	13	16.00	W

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

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS

FROM HOBBS GO W ON 62/180, TURN R ON THE CALRLSBAD RELIEF RD & TURN R ON LAKE AVALON 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	EDWARD BRYAN	STRAUB CORPORATION

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
8-13-09	8-13-09	0	45	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	45	5	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	.5 BAG OF CEMENT		TOPLOAD
	2	45	5	11 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	3	3	BROWN FINE SAND - CALICHE	☐ YES ☑ NO
3	13	10	TAN FINE SAND - W/CLAY	☐ YES ☑ NO
13	22	9	TAN FINE SAND - SANDSTONE	☐ YES ☑ NO
22	45	23	TAN FINE SAND - SANDSTONE- CALICHE	☐ YES ☑ NO
TD	45			☐ YES ☐ NO
				☐ 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:

SIGNATURE OF DRILLER — DATE: 8/20/09

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

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

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)
AVALON DELAWARE UNIT 238 BH-4	

WELL OWNER NAME(S)	PHONE (OPTIONAL)
NEW MEXICO STATE LAND OFFICE	685-9020

WELL OWNER MAILING ADDRESS	CITY	STATE	ZIP
310 OLD SANTA FE TRAIL	SANTA FE	NM	87504

WELL LOCATION (FROM GPS)		DEGREES	MINUTES	SECONDS	
	LATITUDE	32	32	41.00	N
	LONGITUDE	104	13	16.00	W

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

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS

5 MI NORTH ON CO RD 206 CARLSBAD NM.

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)
3-3-10	3-3-10	0	62	

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	62	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
	62	2	6	19 BAGS OF 3/8 HOLEPLUG		TOPLOAD
	2	0	6	1 BAGS OF CEMENT		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	9	9	CALICHE & TAN SILTY SAND	☐ YES ☑ NO
9	33	24	TAN PINK SILTY SAND & SANDSTONE	☐ YES ☑ NO
33	56	23	TAN RED SILTY SAND & GYPSUM LAYERS	☐ YES ☑ NO
56	59	3	TAN FED SILTY SAND & GYPSUM LAYERS	☐ YES ☑ NO
59	62	3	TAN RED SILTY SAND & SANDSTONE LAYERS	☐ YES ☑ NO
TD	62			☐ 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:

Martin Stroh. — SIGNATURE OF DRILLER

3-24-10 — DATE

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

FILE NUMBER	POD NUMBER	TRN NUMBER:
LOCATION		PAGE 2 OF 2

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)
ADU # 238 SB-4	
WELL OWNER NAME(S)	**PHONE (OPTIONAL)**
EXXON/MOBIL	
WELL OWNER MAILING ADDRESS	**CITY / STATE / ZIP**
503 S MARIENFELD, ST	MIDLAND / TX / 79701

WELL LOCATION (FROM GPS)	DEGREES	MINUTES	SECONDS	
LATITUDE	32	32	41.00	N
LONGITUDE	104	13	15.00	W

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

DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS
FROM HWY 206 GO E FOR .5 MILES TURN R .1TH MI TURN R TO SITE. EDDY COUNTY

2. OPTIONAL

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

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	EDWARD BRYAN	STRAUB CORPORATION

DRILLING STARTED	DRILLING ENDED	DEPTH OF COMPLETED WELL (FT)	BORE HOLE DEPTH (FT)	DEPTH WATER FIRST ENCOUNTERED (FT)
6/24/10	6/24/10	0	110	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	110	5	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	.5 BAG OF CEMENT		TOPLOAD
	2	110	5	23 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	3	3	TAN FINE SAND - SANDSTONE	☐ YES ☑ NO
3	10	7	TAN FINE SAND - GRAVEL SANDSTONE	☐ YES ☑ NO
10	55	45	TAN FINE SAND - SANDSTONE	☐ YES ☑ NO
55	63	8	TAN FINE SAND - MED SANDTONE	☐ YES ☑ NO
63	67	4	GRAY CEMENTED SANDSTONE (DENSE)	☐ YES ☑ NO
67	72	5	GOLD CEMENTED SANDSTONE	☐ YES ☑ NO
72	73	1	GRAY CLAY SILTY	☐ YES ☑ NO
73	78	5	TAN CEMENTED SANDSTONE (DENSE)	☐ YES ☑ NO
78	94	16	TAN (DENSE) SANDSTONE - TAN FINE SAND	☐ YES ☑ NO
94	110	16	CALCRETE	☐ YES ☑ NO
TD	110			☐ 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:

SIGNATURE OF DRILLER — DATE: 9/3/10

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

FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION		PAGE 2 OF 2

ATTACHMENT IV

COPY OF INITIAL NMOCD FORM C-141
FINAL NMOCD FORM C-141

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 ExxonMobil	Contact Toni Collier
Address P.O. Box 4358, Houston, TX 77210	Telephone No. 281-654-1133
Facility Name Avalon Delaware Unit #238.	Facility Type Injection line

Surface Owner State Of New Mexico	Mineral Owner	Lease No. API#3001528659

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	South Line	Feet from the	West Line	County
K	30	20S	28E	2301		1485		Eddy

Latitude 32 32.641 **Longitude** 104 13.243

NATURE OF RELEASE

Type of Release :Produced Water	Volume of Release 83 bbls of produced water	Volume 0 bbls
Source of Release 3" Fiberglass injection line	Date and Hour of Occurrence	Date and Hour of Discovery 7/28/09 12:00 pm
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	If YES, To Whom? NMOCD Artesia Office Answering Machine-Mike Bratcher	
By Whom? Shelby Pennington	Date and Hour 7/28/09 4:15	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse.	

If a Watercourse was Impacted, Describe Fully.* No watercourse in area

Describe Cause of Problem and Remedial Action Taken.*
3" Fiberglass line developed leak. Leak was isolated and repaired. Emergency crew was sent to site to begin remediation

Describe Area Affected and Cleanup Action Taken.*
Area covered approx. 7,000 square foot. Emergency crew was sent to site to begin excavation of highly saturated soil. Site will be delineated and a remediation plan will be submitted for approval to the NMOCD Artesia office.

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: Kevin Dillow	OIL CONSERVATION DIVISION	
Printed Name: Kevin M. Dillow	Approved by District Supervisor:	
Title: Compliance Supervisor	Approval Date:	Expiration Date:
E-mail Address: Kevin.m.dillow@exxonmobil.com	Conditions of Approval:	Attached ☐
Date: Phone: 281-654-1557		

* Attach Additional Sheets If Necessary

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: ExxonMobil	**Contact:** Lisa Andrews
Address: P.O. Box 4358, Houston, TX. 77210	**Telephone No.:** (281) 654-1125
Facility Name: Avalon Delaware Unit #238	**Facility Type:** Fiberglass Injection Line

Surface Owner: State of New Mexico	**Mineral Owner:** State of New Mexico	**Lease No.** API # 30-015-28659

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	South Line	Feet from the	West Line	County
K	30	20S	28E	2301		1485		Eddy

Latitude: N32° 32' 38.46" **Longitude:** W103° 13' 14.58"

NATURE OF RELEASE

Type of Release: Produced Water	**Volume of Release:** 83-Bbls of produced water	**Volume Recovered:** 0-Bbls.
Source of Release: 3" Fiberglass Injection Line	**Date and Hour of Occurrence:**	**Date and Hour of Discovery:** 7/28/09 @ 12:00 P.M.
Was Immediate Notice Given? ☒ Yes ☐ No ☐ Not Required	**If YES, To Whom?** NMOCD Office Answering Machine-Mike Bratcher	
By Whom? Shelby Pennington	**Date and Hour:** 7/28/09 @ 4:15	
Was a Watercourse Reached? ☐ Yes ☒ No	**If YES, Volume Impacting the Watercourse:** N/A	

If a Watercourse was Impacted, Describe Fully.* No watercourse in area

Depth to Groundwater: > 160- feet below ground surface (bgs)

Describe Cause of Problem and Remedial Action Taken.* 3" Fiberglass line developed leak. Leak was isolated and repaired. Emergency crew was sent to site to begin remediation

Describe Area Affected and Cleanup Action Taken.* From 7-30-09 thru 8-10-09 ±920-c.y. of impacted material were excavated and transported to Sundance Services for disposal or stockpiled on plastic sheets EPI and Straub Corp. advanced several soil and background borings (SB and BG) in the release area. Namely a.) 8-13-09 three (3) soil borings (SB-1, SB-2 and BG-1) to determine depth of impacted material, b.) On 3-03-10 advanced SB-3 to a depth of 63-feet from bottom of excavation to determine depth of impacted material, c.) On 6-14-10 advanced BG-2 to a depth of 160-feet bgs to determine depth of water with negative results and d.) On 8-24-10 advanced SB-4 near release point to 110-feet bgs to determine depth of impacted material. From 8-22-11 thru 9-01-11, ±2,600 c.y. of impacted material were excavated and transported to CRI for disposal. From 9-02-11 thru 9-06-11 placed a minimum one (1) foot layer of clean top soil in bottom of excavation for cushion pad. On 9-07-11placed ±12,800 s.f. of 40-mil polyethylene liner over entire bottom of excavation. From 9-02-11 thru 9-19-11 backfilled excavation with ±4,000 c.y. of clean top soil. Disturbed areas were contoured to prevent wind/water erosion, pooling of water and promote natural drainage. Lease road was repaired using ±300-c.y. of caliche from NMSLO Pit #514. Recommend postponing deep drill seeding of areas until ground and weather conditions promote growth

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: Jennifer W. Baird	**Approved by Environmental Engineer:**	
Title: Regulatory Compliance Supervisor	**Approval Date:**	**Expiration Date:**
E-mail Address: Jennifer.w.baird@exxonmobil.com	**Conditions of Approval:**	**Attached** ☐
Date: 10-26-11 **Phone:** (281) 654-6119		

*** Attach Additional Sheets If Necessary**