26 October 2011

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

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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 $\pm 7,300$ 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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EUNICE, NEW MEXICO 88231



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, filter 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 MiniRaeTM 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,

ENVIRONMENTAD 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

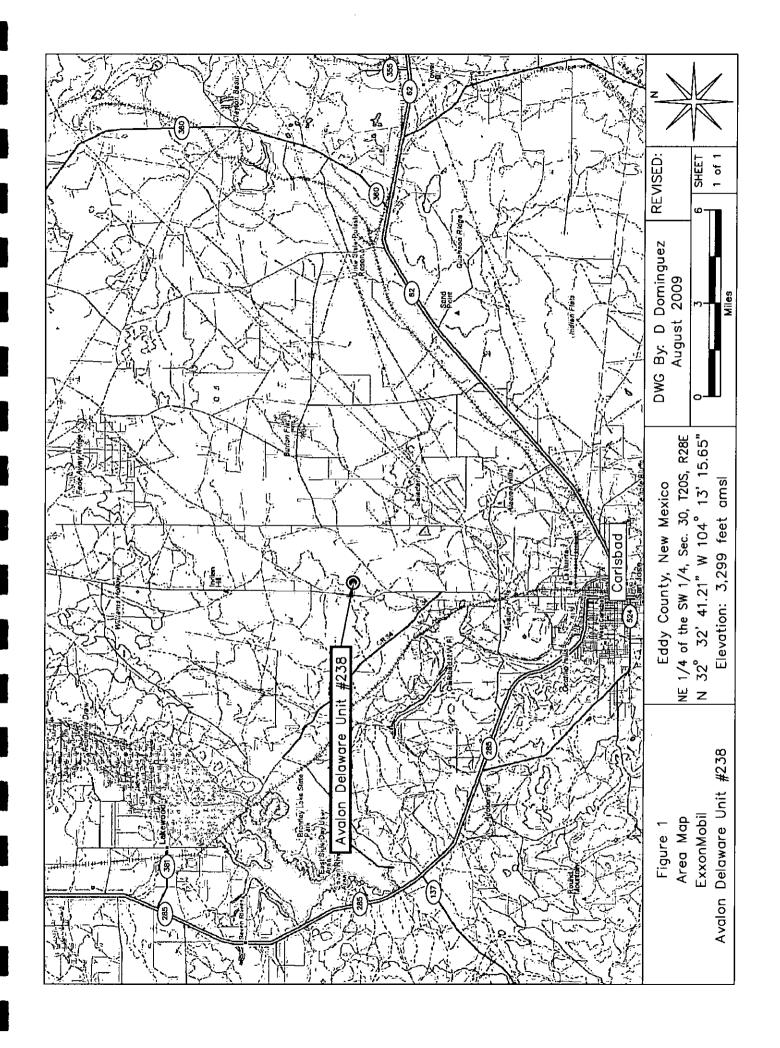
Attachment II – Laboratory Analytical Results and Chain-of-Custody Forms

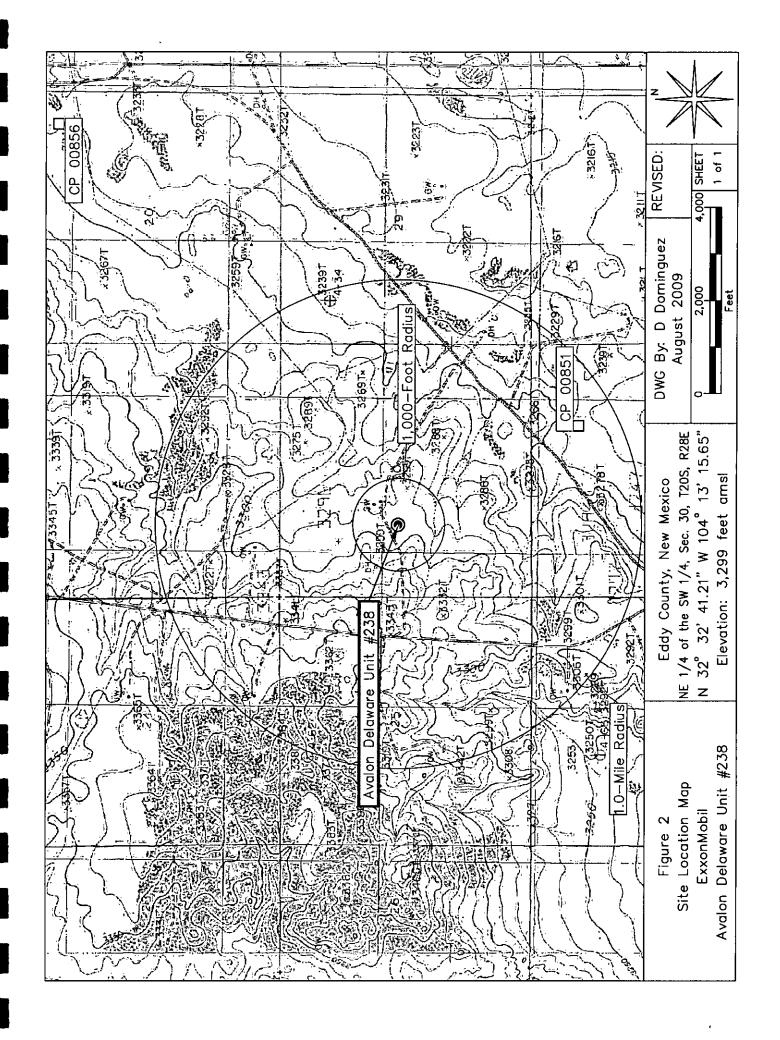
Attachment III – Soil Boring Logs

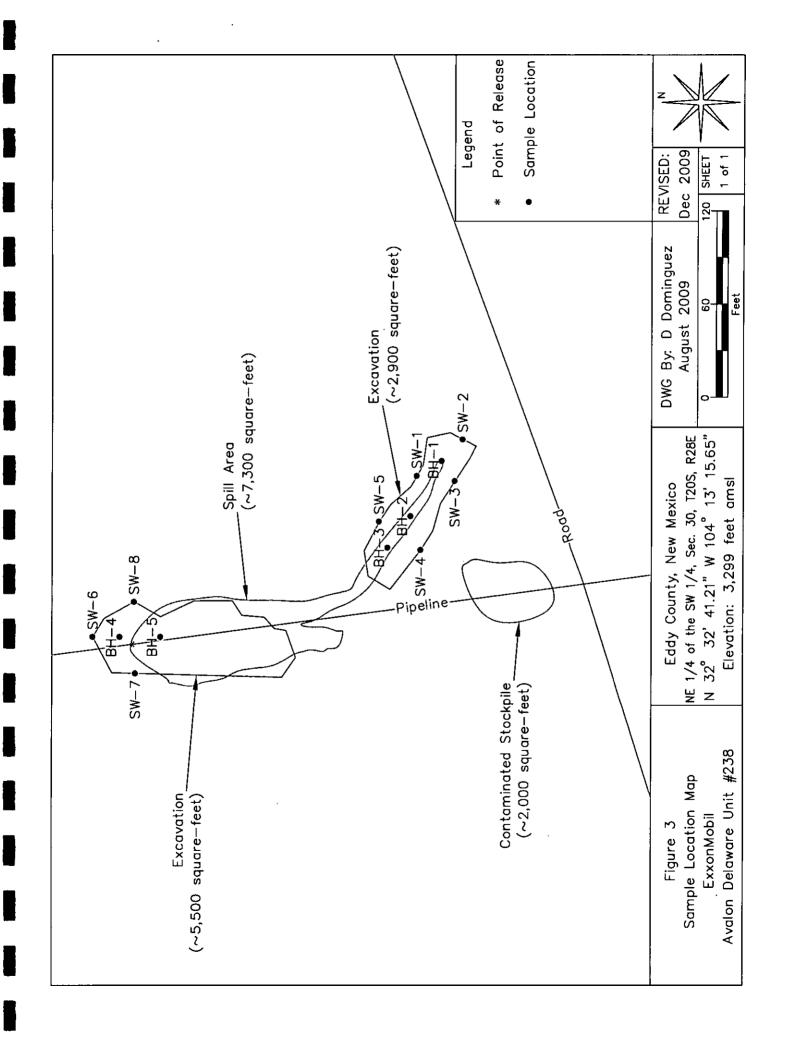
Attachment IV - Copy of Initial NMOCD Form C-141

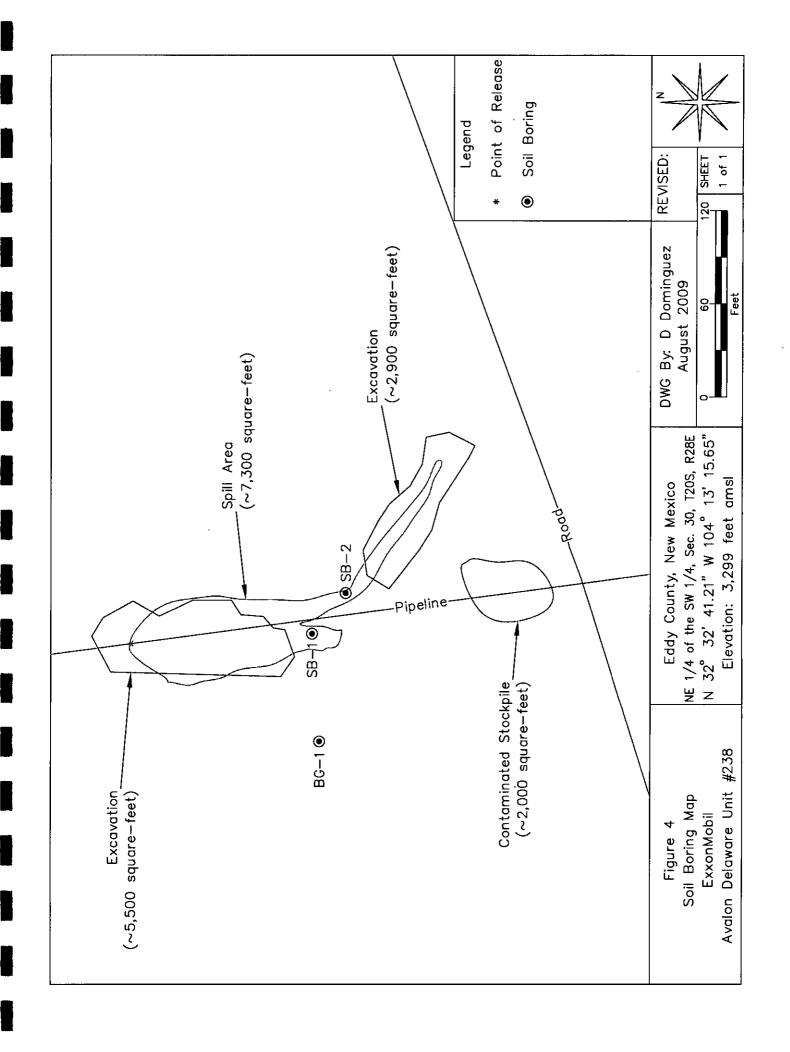
Final NMOCD Form C-141

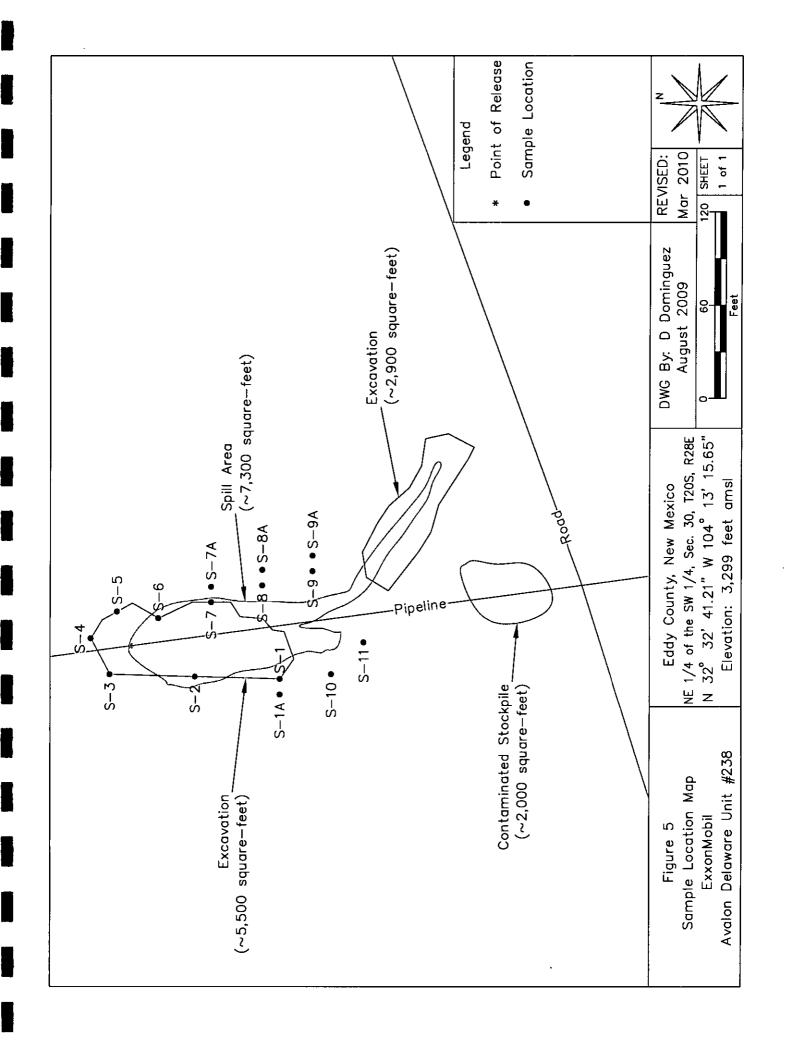
FIGURES

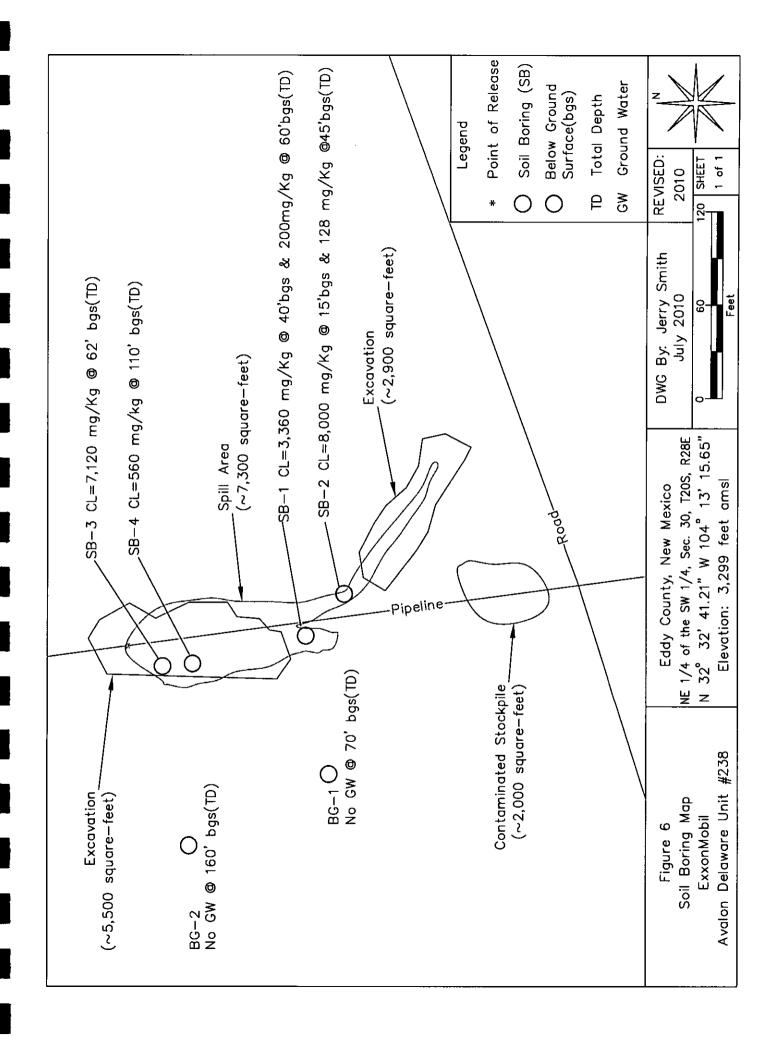


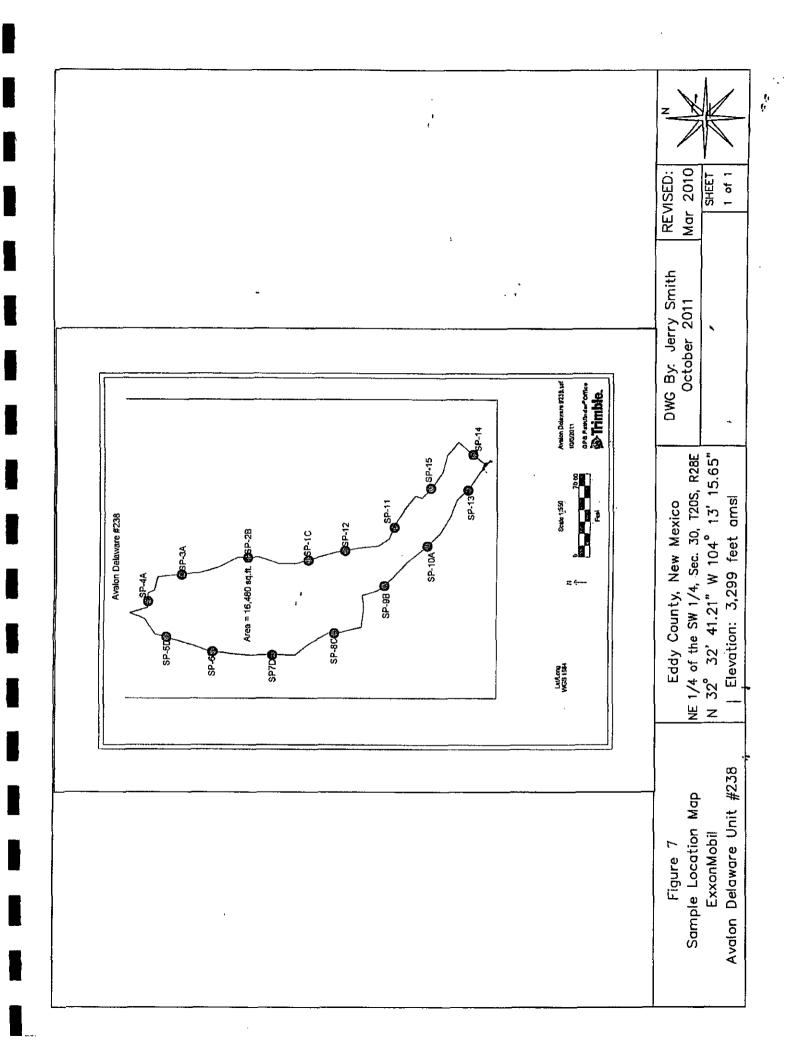












TABLES

TABLE 1

WELL INFORMATION REPORT*

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

Well Number Diversion ^A	Diversion ^A	Owner	Use	Twsp	Rng	Sec q q q	Twsp Rng Sec q q q Latitude	Longitude	Date Measured	Date Surface Measured Elevation ^B	Depth to Water (ft bgs)
CP 00851	3	EXXON CORPORATION	SAN	20S	28E	31 214	28E 31 2 1 4 N32° 32' 3.69"	W104° 12' 51.09" 14-Sep-95 3,235	14-Sep-95	3,235	115
CP 00856	0	INTERCOAST OIL & GAS	PRO	20S	28E	28E 20 22	N32° 33' 51.94"	W104° 11' 36.90"		3,240	
C岩02065.加西阿斯斯		#02065;IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	編PRO記	## 205	4月28日新	3144.4配品	N328:31;27:76"調酬				
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* = Data obtained from the New Mexico Office of the State Engineer Website (http://fwaters.ose.state.nm.us;7001/fWATERS/wr_RegisServlet1) and USGS Database.

 $^{\rm A}$ = in acre feet per annum $^{\rm B}$ = 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

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	Chloride (mg/Kg)	-		1	i	;					:				;							
	TPH (mg/Kg)	:		:	:	:	i. !			:	-	3		<u> </u>	-							,
,	Carbon Ranges C28-C35 (mg/Kg)	1		1		:	- - 1			·	,							:				
	Carbon Ranges C12-C28 (mg/Kg)			;		1	i.				;											
	Carbon Ranges C6-C12 (mg/Kg)	:		1	í I	:	. 1			3	:				;							
	Total BTEX (mg/Kg)	;		:	;	-	;				;				;							
	Total Xylenes (mg/Kg)	:		:	:-	,					:				:							
	Ethylbenzene (mg/Kg)	;		;			,		-		:				;							
	Toluene (mg/Kg)	!		:		;	¦								:							
	Benzene (mg/Kg)	:				:	-			,	••	,										
	Field Chloride (mg/Kg)	400	240	240	240	240	800	3,600	400	>4,000	240	>4,000	>4,000	>4,000	>4,000	400	240	9,480	10,240	>4,000	>4,000	>4,000
ŀ	PID Reading (ppm)				:			:	;		:											
	Sample Date	30-Jul-09	30-Jul-09	30-Jul-09	30-Jul-09	30-Jul-09	60-Inf-08	03-Aug-09	30-Jul-09	30-Jul-09	03-Aug-09	03-Aug-09	03-Aug-09	03-Aug-09	03-Aug-09	30-Jul-09	30-Jul-09	30-Jul-09	30-Jul-09	30-Jul-09	31-Jul-09	31-Jul-09
	Soil Status	In situ	Excavated	In situ	In situ	Excavated	In situ	Excavated	In situ	Excavated	In situ	In situ	In situ	ln situ	In situ	Excavated	Excavated	Excavated				
	Depth (feet)	2.5	2.5	2.5	3	3	3	3 .	3	3	3	3	3	3	æ	S	5	9	3	9	∞`	10
	Sample ID	SW-1	SW-2	SW-3	SW-4	SW-5	SW-6	SW-6A	SW-7	8-MS	SW-8A	6-MS	SW-9A	\$w-10	SW-10A	BH-1	ВН-2	ВН-3	BH-4	ВН-5	BH-5A	BH-5B

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, 720S, R28E; Eddy County, New Mexico

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	Chloride (mg/Kg)				:		1															į į
	TPH (mg/Kg)	Andrew Control of the					,														Ī	
	Carbon Ranges C28-C35 (mg/Kg)			0																		
0	Carbon Ranges C12-C28 (mg/Kg)																					
CW INICAIC	Carbon Ranges C6-C12 (mg/Kg)		2	-			,									,						
County, I	Total BTEX (mg/Kg)							=								-						
c, Eduy	Total Xylenes (mg/Kg)						 - - -															
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oc mona	Tolucne (mg/Kg)						•															
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110 2111	Field Chloride (mg/Kg)	>4,000	>4,000	>4.000	>4,000	11,360	1,300	240	240	240	160	240	2,800	2,640	240	240	240	240	240	240	240	
	PID Reading (ppm)		~ •	:	:	:	:	:	;	:	:	:	;		-:	:		, .	-	;	:	
N-20	Sample Date	31-Jul-09	31-Jul-09	31-Jul-09	31-Jul-09	31-Jul-09	03-Mar-10	03-Mar-10	03-Mar-10	03-Mar-10	03-Mar-10	03-Mar-10	03-Mar-10	03-Mar-11	03-Mar-10	03-Mar-10	03-Mar-10	03-Mar-11	03-Mar-10	03-Mar-11	03-Mar-11	
	Soil Status	Excavated	Excavated	Excavated	Excavated	In situ	Exçavated	In situ	Excavated	In situ	Excavated	In situ	Excavated	In situ	In situ	In situ						
	Depth (feet)	12	14	16	18	20	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	
	Sample ID	BII-5C	BH-5D	вн-5Е	BII-SF	BII-5G	SS-1	SS-1A	SS-2	SS-3	SS-4	SS-5	9-88	SS-7	SS-7A	8-88	SS-8A	6-SS	SS-9A	SS-10	SS-11	

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

	Chloride (mg/Kg)	,	ı		0.96			256		46.0	,	160	· ·				112	<u>,</u>	-	160	į:	
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	Carbon Ranges C12-C28 (mg/Kg)					:))									!					:	
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	Tolucne Ethylbenzene (mg/Kg)						,				,										. ,	
	Toluene (mg/Kg)																					
	Benzene (mg/Kg)		,																			
	Field Chloride (mg/Kg)	4,000+	1,360	1,000	200	4,000+	1,040	400	4,000+	240	4,000+	240	4,000+	4,000,+	4,000+	3,640	400	4,000+	2,640	200	3,400	1,720
	P1D Reading (ppm)	:	:	*	:	:	:	:		!	:	:	:	:	ŧ,	1	:	:		;	;	
	Sample Date	23-Aug-11	24-Aug-11	26-Aug-11	30-Aug-11	23-Aug-11	24-Aug-11	26-Aug-11	23-Aug-11	24-Aug-11	23-Aug-11	24-Aug-11	23-Aug-11	25-Aug-11	26-Aug-11	30-Aug-11	30-Aug-11	23-Aug-11	25-Aug-11	26-Aug-11	24-Aug-11	25-Aug-11
	Soil Status	Excavated	Excavated	Excavated	In Situ	Excavated	Excavated	In Situ	Excavated	In Situ	Excavated	In Situ	Excavated	Excavated	Excavated	Excavated	In Situ	Excavated	Excavated	In Situ	Excavated	Excavated
	Depth (feet)	3	3	3	3	3	3	3	3	3	3	3	3	33	3	3	3	3	3	3	3	3
	Sample ID	SP-1	SP-1A	SP-1B	SP-1C	SP-2	SP-2A	SP-2B	SP-3	SP-3A	SP-4	SP-4A	SP-5	SP-5A	SP-5B	25-48	GS-4S	9-dS	SP-6A	89-dS	<i>L</i> -dS	SP-7A

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

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	Chloride (mg/Kg)		3	144				0.96	,		16.0		16.0	16.0	160	32.0	64.0	64.0			500
	TPH (mg/Kg)																				100
	Carbon Ranges C28-C35 (mg/Kg)		t																i		
	Carbon Ranges C12-C28 (mg/Kg)		-				,														
original designation of the section	Carbon Ranges C6-C12 (mg/Kg)																				
County, 1	Total BTEX (mg/Kg)						-														99
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io a morra	Toluene (mg/Kg)	,							:												
, no (1. (1	Benzene (mg/Kg)																				01
	Field Chloride (mg/Kg)	1,880	999	360	4,000+	1.720	009	240	4,000+	009	320	720	200	360	320	200	240	240			
	PID Reading (ppm)		**	:		:		;			:	:			:	:	:	:			001
	Sample Date	26-Aug-11	30-Aug-11	30-Aug-11	24-Aug-11	25-Aug-11	26-Aug-11	30-Aug-11	26-Aug-11	30-Aug-11	30-Aug-11	26-Aug-11	30-Aug-11	26-Aug-11	26-Aug-11	30-Aug-11	30-Aug-11	30-Aug-11			spic
	Soil Status	Excavated	Excavated	In Situ	Excavated	Excavated	Excavated	In Situ	Excavated	Excavated	In Situ	Excavated	In Situ			NMOCD Remedial Thresholds					
	Depth (feet)	3	3	3	3	3	3	3	3	3	3	. 3	3	3	3	3	3	3			MOCD Re
	Sample ID	SP-7B	SP-7C	SP-7D	SP-8	SP-8A	SP-8B	28-4S	SP-9	SP-9A	SP-9B	SP-10	SP-10A	SP-11	SP-12	SP-13	SP-14	SP-15			Z

Bold values exceed NMOCD remedial threshold goals

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

Chloride (mg/Kg)	:		:	32	:	91	1		:	ith no water	32,800	13,400	12,200	10,800	6,500	008'9	3,360	959	200	11.700	:	8,000
Total TPH C6-C35 (mg/Kg)	ŀ	;	;	;	1			İ	•	#2 dry hole wi	:	:		:	;		;	:	:	-		:
Carbon Ranges >C28-C-35 (mg/Kg)	:	:	:	1	:	:	;	;	;	pth of water; BG	,	-	:		:	:	:		:			1 1
Carbon Ranges >C12-C28 (mg/Kg)	:		:	:	'			,	:	to determine de	:	:	:	:		:	;		1	;	;	
Carbon Ranges C6-C12 (mg/Kg)	**			,					-	on soil boring	;	. ;	:	-	:	:		:		1	-	
Total BTEX (mg/Kg)		:	:	:	;	:	;	;	:	an exploratio	:	:	:	:	:	:		:	:	;	;	
Total Xylenes (mg/Kg)		·	;	;	. ,	~-		:	:	d as this was of well)	;	,	;	;	:	;	:	;	:	:	:	:
Ethylbenzene (mg/Kg)					:				1	0: 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)		-	;	:	:	ŀ	:	;	1	;	!	
Toluene (mg/Kg)	-:	;		:	;		= =	ŀ		5-10; (No soi discov		;	:	;	-	:	;	;	:	;	:	:
Benzene (mg/Kg)				;		1		:	;	water on 6-1				1			:	1	;			• •
Field Chloride (mg/Kg)	240	240	240	240	240	240	240	* *	:	9; tested for	>4,000	>4,000	>4,000	>4,000	>4,000	>4,000	2,640	720	320	>4.000	>4,000	>4,000
PID Reading (ppm)	-			;	-	:	:	:	:		:				•		;	:	:	;		
Sample Date	13-Aug-09	tal depth of 160 v	13-Aug-09																			
Soil Status	Surface	In situ	Soil Boring #2 advanced total depth of 160 v.f. on 6/14/1	In situ	In situ	ln situ	In situ	ln situ	In situ	ln situ	In situ											
Depth (feet)	0.5	5	10	20	30	40	90	99	70	Soil Borii	5	10	15	20	25	30	40	90	09	5	10	15
Sample ID	BG #1 - S	BG #1-1	BG#1-2	BG#1-3	BG #1 - 4	BG#1-5	BG#1-6	BG #1 - 7	BG #1 - 8	BG #2	SB#1 - 1	SB#1 - 2	SB#1 - 3	SB#1 - 4	SB#1 - 5	SB#1 - 6	SB#1 - 7	SB#1 - 8	8B#1 - 9	SB#2 - 1	SB#2 - 3	SB#2 - 3

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, 720S. R28E; Eddy County, New Mexico

Chlonde (mg/Kg)	809	959	448	416	112	128	9.800	-	8.800	,	6,400		096'9		8.720		5,920	1	7,120	1	7,200	7,000
Total TPH C6-C35 (mg/Kg)		-	:	:		-		:	:	:		,	:	;	:	:	;	-	1	;	:	••
Carbon Ranges >C28-C-35 (mg/Kg)	;	:	:	:	;	;	:		1	;		:			;	:	;	•				
Carbon Ranges >C12-C28 (mg/Kg)	- ,	;	:	ŀ	;	;	;	1	,	1	:	,	:	1	:		1		-		:	
Carbon Ranges C6-C12 (mg/Kg)	;	:	:	:	:	:		:	:	:	;	:	:		:	:	:	;	:			:
Total BTEX (mg/Kg)		;	;	1	;	;	;	;	;	;	:	:	:	:	;	;	:	:	;	:	:	;
Total Xylenes (mg/Kg)		:	:	-			;	1	. !	;	;	;	:	:	;	!	:		;	;		
Ethylbenzene (mg/Kg)	•		;	;		**		:	:	:	1	:	ř	:	:	:	;	:	-	;		-
Toluene (mg/Kg)	:	:	:	:	:	:	;	;	:	:	:	:	: 1	:	:	:	:	:	:	:	:	-
Benzene (mg/Kg)						-:	;	;	;	:	;	;		:	;	: ,			;	:	:	•
Field Chloride (mg/Kg)	800	999	400	640	400	320	>4,000	>4.000	>4,000	>4,000	>4,000	>4,000	>4,000	>4,000	>4,000	>4,000	>4,000	>4,000	6,160	:	>4,000	>4,000
PID Reading (ppm)	•	* *			;	:		;				:		:	:				;	;		,
Sample Date	13-Aug-09	13-Aug-09	13-Aug-09	13-Aug-09	13-Aug-09	13-Aug-09	03-Mar-10	24-Aug-10	24-Aug-10	24-Aug-10												
Soil Status	In situ	ln situ	In situ	ln situ	Bottom of Excavation	ln situ	In situ															
Depth (fcet)	30	25	30	35	40	45	5	10	15	20	25	30	35	40	45	90	55	09	62	0-7	9	15
Sample ID	SB#2 - 4	SB#2 - 5	SB#2 - 6	SB#2 - 7	SB#2 - 8	SB#2 - 9	SB#3 - 1	SB#3 - 2	SB#3 - 3	SI3#3 - 4	SB#3 - 5	SB#3 - 6	SB#3 - 7	SB#3 - 8	SB#3 - 9	SB#3 - 10	SB#3 - 11	SB#3 - 12	SB#3 - 13	SB #4 - 0	SB #4 -1	SB #4-2

TABLE 3

Summary Soil Boring Field Analyses and Laboratory Analytical Results Exxon Mobil - Avalon Delaware Unit #238

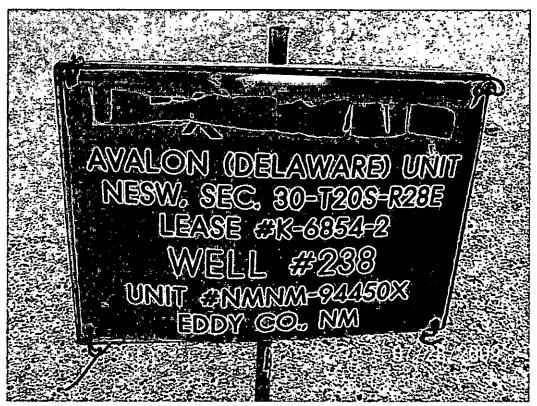
NMOCD Ref.; EPI Ref. #190037

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

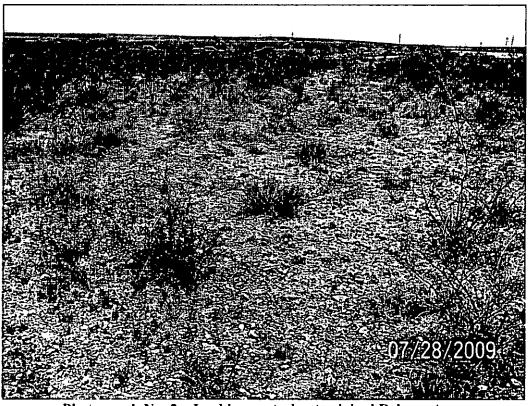
	_	Carbon Carbon Total TPH Chloride C-C12-C28 > C28-C-35 (mg/Kg) (mg/Kg)	Carbon Total TPH Ranges C6-C35 >C28-C-35 (mg/Kg)	Carbon Total TPH Ranges C6-C35 >C28-C-35 (mg/Kg)	Carbon Total TPH Ranges C6-C35 >C28-C-35 (mg/Kg)	Carbon Total TPH Ranges C6-C35 (mg/Kg) (mg/Kg)	Carbon Total TPH Ranges C6-C35 (mg/Kg) (mg/Kg)	Carbon Total TPH Ranges C6-C35 (mg/Kg) (mg/Kg)	Carbon Total TPH Ranges C6-C35 (mg/Kg) (mg/Kg)	Carbon Total TPH Ranges C6-C35 (mg/Kg) (mg/Kg)	Carbon Total TPH Ranges C6-C35 (mg/Kg) (mg/Kg)	Carbon Total TPH Ranges C6-C35 (mg/Kg) (mg/Kg)	Carbon Total TPH Ranges C6-C35 (mg/Kg) (mg/Kg)	Carbon Total TPH Ranges C6-C35 (mg/Kg) (mg/Kg)	Carbon Total TPH Ranges C6-C35 (mg/Kg) (mg/Kg)
	Carbon Ranges C6-C12	(BV/Sm)	(mg//gm)	(a)	(84/8u)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(mg/kg)	(III)	(mg/kg)	(mg/kg)
	Total Total Xylenes BTEX (mg/Kg)														
	Ethylbenzene (mg/Kg)		-	: :											
_	e Toluene		;	; ;	; ; ;		3 3 3 1 1	: : : : : :	: : : : : :						
	Benzene (mg/Kg)	-		1		 									
	Field Chloride (mg/Kg)	>4,000		>4,000	>4,000	>4,000	>4,000	74,000 74,000 74,000 74,000	>4,000 >4,000 >4,000 >4,000 >4,000 1,440	>4,000 >4,000 >4,000 >4,000 1.440	>4,000 >4,000 >4,000 >4,000 >4,000 1.040 640	>4,000 >4,000 >4,000 >4,000 >4,000 1,440 1,040 640	>4,000 >4,000 >4,000 >4,000 >4,000 1,440 1,040 640 640	>4,000 >4,000 >4,000 >4,000 >4,000 1,040 1,040 400 560	>4,000 >4,000 >4,000 >4,000 >4,000 >4,000 1,040 640 640 560
	PID Reading (ppm)	:			:	; ;	: : :	: : :	: : : : :						
	Sample Date	24-Aug-10	24-Aug-10		24-Aug-10	24-Aug-10 24-Aug-10	24-Aug-10 24-Aug-10 24-Aug-10	24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10	24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10	24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10	24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10	24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10	24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10	24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10	24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10 24-Aug-10
	Soil Status	In situ	In situ		In situ	In situ In situ	In situ In situ In situ	In situ In situ In situ In situ	In situ In situ In situ In situ In situ In situ	In situ In situ In situ In situ In situ In situ	In situ	In situ	In situ	In situ	In situ
_	Depth (feet)	20	25		30	30	30 40 50	30 40 50 60	30 40 50 60 60 70	30 50 60 70 80 80	30 50 50 70 80 80 80 80 80	30 40 50 60 60 70 90 100	30 50 60 60 70 70 80 90 1100	30 50 50 60 60 80 80 90 110	30 50 60 60 90 1100
	Sample ID	SB #4-3	SB #4 - 4		SB #4 - 5	SB #4 - 5 SB #4 - 6	SB #4 - 5 SB #4 - 6 SB #4 - 7	SB #4 - 5 SB #4 - 6 SB #4 - 7 SB #4 - 8	SB #4 - 5 SB #4 - 6 SB #4 - 7 SB #4 - 9	SB #4 - 5 SB #4 - 7 SB #4 - 7 SB #4 - 9 SB #4 - 10	SB #4 - 5 SB #4 - 6 SB #4 - 7 SB #4 - 9 SB #4 - 10 SB #4 - 11	SB #4 - 5 SB #4 - 6 SB #4 - 7 SB #4 - 9 SB #4 - 10 SB #4 - 11 SB #4 - 12	SB #4 - 5 SB #4 - 6 SB #4 - 7 SB #4 - 9 SB #4 - 10 SB #4 - 11 SB #4 - 12 SB #4 - 12 SB #4 - 13	SB #4 - 5 SB #4 - 6 SB #4 - 7 SB #4 - 8 SB #4 - 10 SB #4 - 11 SB #4 - 11 SB #4 - 11 SB #4 - 13	SB #4 - 5 SB #4 - 6 SB #4 - 7 SB #4 - 8 SB #4 - 9 SB #4 - 10 SB #4 - 11 SB #4 - 12 SB #4 - 13

ATTACHMENTS

ATTACHMENT I PHOTOGRAPHS



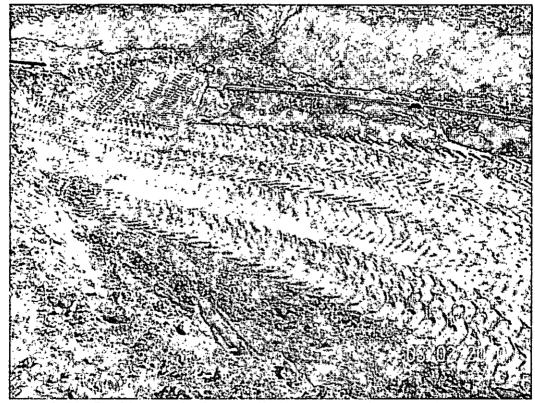
Photograph No. 1 – Lease Sign



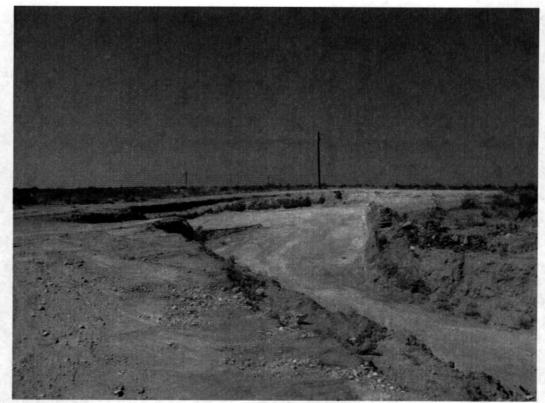
Photograph No. 2 – Looking easterly at original Release Area



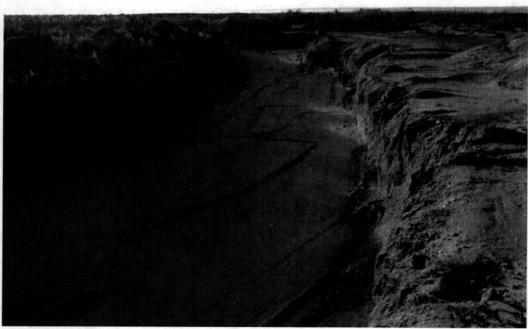
Photograph No. 3 – Looking northwesterly at preliminary excavation and 3" dia. FG Injection Line



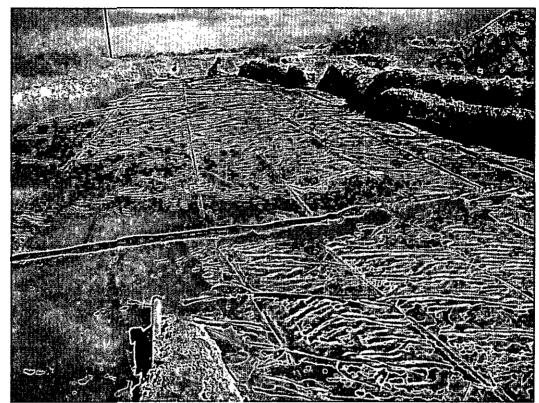
Photograph #4 – Looking northerly at preliminary excavation ands disconnected 3" dia. FG Injection Line



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



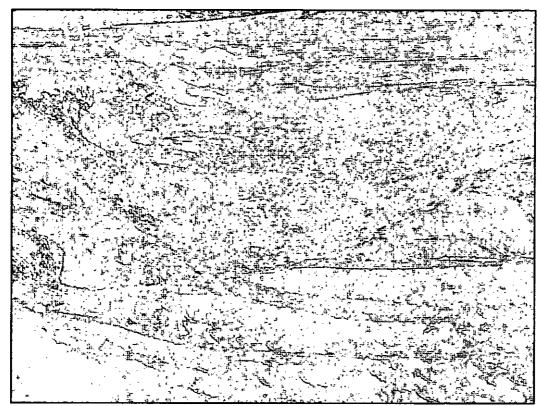
Photograph No. 6 – Looking easterly at final excavation and layer of cushion top soil across bottom for 40-mil polyethylene liner



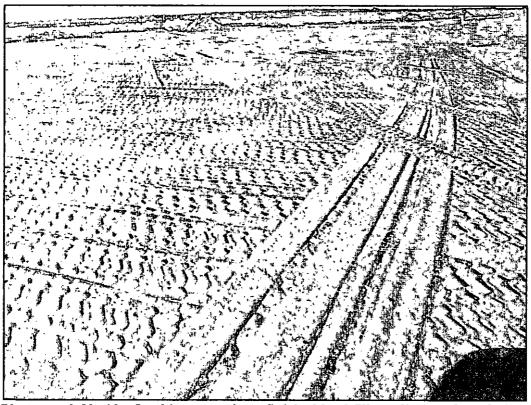
Photograph No. 7 – Looking northwesterly at 40-mil Polyethylene Liner on bottom of excavation



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



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 Benzene, Toluene, Ethyl Benzene, and Total Xylenes

Method SW-846 8260 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



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

 C_{\perp}

		Cl
LAB NUMBER	SAMPLE ID	(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 Percer	t Difference	< 0.1

METHOD: Standard Methods

lene

4500-CIB

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

Chemist

Date

H17993EPI

Environmental Plus, Inc.

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

P.O. Box 1558, Eunice, NM 88231

LAB: Cardinal

Chain of Custody Form

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Company Name		Environmental Plus, Inc.	2	٠							8	第一张 BIII TO 数					Z	¥	Sis	W W	Ž	MANALYSIS REQUEST ####################################	
EPI Project Manager	lager David P. Duncan	Duncan				\vdash									H	H	\vdash	├	-	\vdash	_		
Mailing Address		(1558				Г				W.	V					-:							
City, State, Zip	Eunice N	Eunice New Mexico 88231	882	31		Г					Ŋ												
EPI Phone#/Fax#		575-394-3481 / 575-394-2601	94.	1601		Τ																	
Cllent Company	/ ExxonMobil	Ē				Ι_																	
Facility Name	Avaion D	Avaion Deleware Unit #238	##	38		Γ					y												
Location	UL-K, Se	UL-K, Sec. 30, T20S, R28E	R 2	Щ		Τ			ď	tn: E	Javi	Attn: David P. Duncan	5										
Project Reference						Ī				تَ	O E	P.O. Box 1558	:							_			
EPI Sampler Name	me Kirt Tyree	6								Eun	ice,	Eunice, NM 88231											-
			Ŀ	<u> </u>		Ž	MATRIX	Ļ		PRE	PRESERV.		SAMPLING	/#t									
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)	2 BG-5 (40')		5	1	Н	X]	Ц			П	×	13-Aug-09	-	10:40			×	-	\vdash	┞	_		
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1	4 BH#1-6 (30')		IJ	ᅱ	\dashv	×	Ц				×	13-Aug-09	_	13:15		\vdash	X	Н	Н	Н	Ц		
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Environmental Plus, Inc.

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

P.O. Box 1558, Eunice, NM 88231

s, NM 88231

Chain of Custody Form

LAB: Cardinal

Company Name	Environmental Plus, Inc.	tal Pius,	길			羅					BBI	HANNE BINTO		HEIRAGE			AN	ALX	Sis	REG	SE		HEALES ANALYSISIREQUEST FIRE
EPI Project Manager		ncan										and the state of t		_			-	┡	<u>.</u>	_	_		-
Mailing Address	P.O. BOX 1558	58				Γ				4		Ĺ		•								•	
City, State, Zip	Eunice New Mexico 88231	Mexico (8823	 -		Γ-																•	
EPI Phone#/Fax#	# 575-394-3481 / 575-394-2601	1 / 575-3	94-2	601		_					u: Perí	Щ											
Client Company	ExxonMobil					Τ		•															
Facility Name	Avaion Deleware Unit #238	ware Uni	#2	38		ı				ar .													
Location	UL-K, Sec. 30, T20S, R28E	0, T20S,	R28	يرِ		<u> </u>			¥	th: E	Javic	Attn: David P. Duncan	can										
Project Reference						Γ.				٣.	0.8	P.O. Box 1558											
EPI Sampler Name	ne Kirt Tyree									Euni	ce,	Eunice, NM 8823	31										_
			-	H		M	MATRIX			PRE	PRESERV.	۷.	SAMPLING	S									-
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_ 12	12 BH#2-6 (30')		១	-	Н	×	Ц			Н	×	13-/	13-Aug-09	14:35			×			_			
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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 Method SW-846 8260 Benzene, Toluene, Ethyl Benzene, and Total Xylenes 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



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

	•	CI
LAB NUMBER	SAMPLE ID	(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 Percer	nt Difference	2.0

METHOD: Standard Methods 4500-Cl'B

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

H19377 EPI

^{*}Analyses performed outside EPA recommended hold time of 28 days.

Chain of Custody Form

LAB: Cardinal

Environmental Plus, Inc.

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

P.O. Box 1558, Eunice, NM 88231

W 88231

T. ANALYSISIREQUEST HA9 OTHER >>> TCLP aduncance i g gmail.com Hd (",OS) SETARIUS CHFORIDES (CL) M&108 H9T E-mail results to: dduncan@envplus.heT BTEX 80218 12:15 12:30 13:00 12:00 TIME SAMPLING Remit Invoice To: 13-Aug-09 13-Aug-09 13-Aug-09 13-Aug-09 DATE Attn: David P. Duncan Eunice, NM 88231 P.O. Box 1558 PRESERV. **SERTO** ICE/COOF ACID/BASE OTHER: SLUDGE MATRIX CENDE OIF 7105 × **MASTEWATER** ВЕКОПИВ МАТЕК Sample Cool & Intact 575-394-3481 / 575-394-2601 Avaion Deleware Unit #238 UL-K, Sec. 30, T20S, R28E # CONTAINERS Eunice New Mexico 88231 Environmental Plus, Inc. Ö Ö O Ö (G)RAB OR (C)OMP. iline 9/16 3/4/2010 3/4/2010 2.40 David P. Duncan P.O. BOX 1558 SAMPLE 1.D. **ExxonMobil** Kirt Tyree 190037 2 BH#1 - 3 (15") -5 3 BH#1 -4 (20°) 14 4 BH#1 - 5 (25') BH#1 - 2 (10') **EPI Project Manager** EPI Sampler Name Project Reference EPi Phone#/Fax# Company Name Mailing Address Client Company 10 City, State, Zip Facility Name Retingulshoc LAB I.D. allnquished by _ocation Delivered by:

#26



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 Method SW-846 8260 Benzene, Toluene, Ethyl Benzene, and Total Xylenes 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 Method EPA 524.2

Haloacetic Acids (HAA-5)
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



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

		CI ⁻
LAB NUMBER	SAMPLE ID	(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 Percer	t Difference	2.0

METHOD: Standard Methods	4500-CFB

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

Chemist/

Date

Chain of Custody Form

LAB: Cardinal

Environmental Plus, Inc.

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

P.O. Box 1558, Eunice, NM 88231

- ANALYSIS REQUEST HA9 <<< REMAINS TCLP Ηđ (",08) STTA1JUS CHLORIDES (Cf) × × E-mail results to: ddunean@envplus.net M2108 H9T BTEX 8021B 10:26 10:40 10:14 10:34 10:00 10:20 TIME 10:01 SAMPLING 03-Mar-10 03-Mar-10 03-Mar-10 03-Mar-10 03-Mar-10 03-Mar-10 03-Mar-10 DATE Attn: David P. Duncan A A Remit Invoice To: Eunice, NM 88231 P.O. Box 1558 PRESERV. **R**3HTO × × ICE/COOF **ACID/BASE** отнев: STUDGE MATRIX CENDE OIL × ROIF **MASTEWATER GROUND WATER** Sample Cool & Intact Received By 575-394-3481 / 575-394-2601 Avalon Deleware Unit #238 UL-K, Sec. 30, T20S, R28E Eunice New Mexico 88231 # CONTAINERS Environmental Plus, Inc. G G G G Ö Ö Ö (G)RAB OR (C)OMP. 340 DOG. 3/4/2010 3/4/2010 David P. Duncan P.O. BOX 1558 2 SAMPLE I.D. ExxonMobil Kirt Tyree Lo 6 BH#3 - 11 (55") SB#3 - 13 (62") BH#3 - 3 (15') 4 BH#3 - 7 (35") - 5 5 BH#3 - 9 (45') 3 BH#3 - 5 (25) BH#3 -1 (5') EPI Project Manager **EPI Sampler Name** える Project Reference EPI Phone#Fax# Company Name Mailing Address Client Company City, State, Zip Facility Name ampler Relinquisher LAB I.D. Relinquished by Location Delivered by: 19.3



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

Lab Director/Quality Manager

Celey D. Keine



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

Fax To:

(505) 394-2601

Received:

08/25/2010

Reported:

08/27/2010

Project Name: Project Number: **AVALON DELEWARE UNIT #238**

190037

Project Location:

UL-K, SEC 30, T20S, R28E

08/24/2010

Sampling Date: Sampling Type:

Soil

Sampling Condition:

Cool & Intact

Sample Received By:

Jodi Henson

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

Chloride, SM4500Cl-B

mg/kg

Analyzed By: HM

Analyte

Analyte

Analyte

Result

Method Blank

BS

True Value QC

RPD 0.00 Qualifier

Chloride

7200

16.0

Reporting Limit

Reporting Limit

Analyzed 08/26/2010

ND

432

108

% Recovery

400

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

Chloride, SM4500Cl-B

Analyzed By: HM

Analyzed

Method Blank

BS

% Recovery

True Value OC

Qualifier

Chloride

Result 7000

16.0 08/26/2010 ND

432

108

400

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

Chloride, SM4500CI-B

Analyzed By: HM Analyzed

BS

Chloride

Result 6880 Reporting Limit

Method Blank

% Recovery

True Value QC

RPD

RPD

0.00

Qualifier

16.0

08/26/2010

ND

432

108

400

Chloride, SM4500CI-B

mg/kg

Analyzed By: HM

0.00

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

Analyte

Result

8400

Result

7100

Reporting Limit

16.0

Analyzed

Method Blank

BS

% Recovery

True Value QC

RPD

Qualifier

08/26/2010

ND

ND

432

432

108

400

0.00

Chloride

Chloride

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

Chloride, SM4500Cl-B

Reporting Limit

16.0

Analyzed 08/26/2010

Analyzed By: HM

Method Blank BS

% Recovery

108

True Value OC

400

RPD 0.00 Oualifier

Cardinal Laboratories

Analyte

*=Accredited Analyte

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Celey D. Keine

Celey D. Keene, Lab Director/Quality Manager



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

Fax To:

(505) 394-2601

Received:

08/25/2010

Reported:

08/27/2010

Project Name: Project Number: **AVALON DELEWARE UNIT #238**

Project Location:

190037

UL-K, SEC 30, T20S, R28E

Sampling Date:

Sampling Type:

08/24/2010

Soil

Sampling Condition: Sample Received By: Cool & Intact

Jodi Henson

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

Chlorid	e, SM4	-500C	l-E

Chloride

Chloride

mg/kg

Analyzed By: HM

Analyte

Result

8560

Result

7760

16.0

08/26/2010

Analyzed

Method Blank ND

BS 432 % Recovery 108

True Value QC 400

RPD 0.00 Qualifier

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

Chloride, SM4500CI-B

Analyzed By: HM

Analyte

Reporting Limit 16.0

Reporting Limit

Reporting Limit

Analyzed 08/26/2010 Method Blank ND

BS

432

% Recovery 108

True Value QC 400

RPD

0.00

Qualifier

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

Chloride, SM4500Cl-B

Analyte

Analyte

Analyte

Analyzed By: HM

BS

% Recovery

Chloride

Result 5840

16.0

08/26/2010

Method Blank ND

432

108

True Value QC

RPD

Qualifier

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

Chloride, SM4500Cl-B

mg/kg

400

0.00

Reporting Limit

Analyzed

Analyzed

Analyzed By: HM

Chloride

Result 1620

16.0

Reporting Limit

16.0

08/26/2010

Method Blank ND

BS 432 % Recovery 108

True Value QC

RPD

Qualifier

Chloride

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

Chloride, SM4500Cl-B

Analyzed By: HM

ND

BS

432

400

0.00

mg/kg

Result

1200

Analyzed 08/26/2010

Method Blank

% Recovery 108

True Value QC 400

RPD 0.00 Qualifier

Cardinal Laboratories

*=Accredited Analyte

Celey D. Keine



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

Fax To:

(505) 394-2601

Received:

08/25/2010

Reported:

Chloride

08/27/2010

Project Name: Project Number:

190037

560

16.0

Project Location:

AVALON DELEWARE UNIT #238

·UL-K, SEC 30, T20S, R28E

Sampling Date:

08/24/2010

Sampling Type:

Soil

Sampling Condition:

Cool & Intact

0.00

400

Sample Received By:

Jodi Henson

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

Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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 (1	LOO') (HO2071	6-12)							
Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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 (1	L10') (H02071	6-13)							
Chloride, SM4500CI-B	mg	/kg	Analyze	d By: HM					
Analyte	Result	Reporting Limit	Analyzed	Method Blank	BS	% Recovery	True Value QC	RPD	Qualifier

ND

432

108

08/26/2010

Cardinal Laboratories *=Accredited Analyte

Cardinal's liability and client's exclusive remedy for any claim ansing, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All daims, including those for negligence and any other cause whatsoever shall be deemed waived unless made in writing and received by Cardinal writin thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for incidental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiances, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such



Notes and Definitions

RPD	Relative Percent Difference
**	Samples not received at proper temperature of 6°C or below.
***	Insufficient time to reach temperature.
-	Chloride by SM4500Cl-8 does not require samples be received at or below 6°C
	Samples reported on an as received basis (wet) unless otherwise noted on report

Analyte NOT DETECTED at or above the reporting limit

ND

Cardinal Laboratories *=Accredited Analyte

PLEASE NOTE. Liability and Damages. Cardanal's hability and client's exclusive remedy for any daim ansing, whether based in contract or tort, shall be limited to the amount paid by client for analyses. All claims, including those for negligence and any other cause whitescever shall be deemed waived unless made in writing and received by Cleritina (analyses). In no event shall Cardinal be liable for incidental or consequential damages, including, writing limitation, usualises interprotocopics, loss of use, or loss of profits incruned by client, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claims is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories.

Celuy D. Keine

Chain of Custody Form

LAB:

Environmental Plus, Inc.

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

ocation

P.O. Box 1558, Eunice, NM 88231

ANALYSIS REQUES HA9 <<< A3HTO **GLOT** Ηđ (",OS) SETARIUS CHFORIDES (CL) M2108 H41 81£X 8021B 10:44 11:16 12:43 13:26 10:38 11:03 10:55 11:52 10:50 11:32 TIME SAMPLING 24-Aug-10 Attn: David P. Duncan DATE Remit Invoice To: Eunice, NM 88231 P.O. Box 1558 PRESERV. **NAHTO** CE/COOF \times ACID/BASE :ABHTO SLUDGE MATRIX CKADE OIL TIOS **MASTEWATER** яэтам оирояа 575-394-3481 / 575-394-2601 Avalon Deleware Unit #238 UL-K, Sec. 30, T20S, R28E # CONTAINERS Eunice New Mexico 88231 Environmental Plus, Inc. Ü ග G G ပ <u>က</u> ග Ġ Ç (G)RAB OR (C)OMP. David P. Duncan P.O. BOX 1558 ExxonMobil SAMPLE I.D. Kirt Tyree 190037 O10 BH #4 - 10 (80") Sit 12 (15) 3 BH #4 - 3 (20") 5 BH #4 - 5 (30°) 7 BH #4 - 7 (50°) 9 BH #4 - 9 (70°) BH #4 - 1 (10" 4 BH #4 - 4 (25") 6 BH #4 - 6 (40" 8 BH #4 - 8 (60°) **EPI Project Manager** EP! Sampler Name Project Reference EPI Phone#/Fax# Mailing Address Company Name Client Company City, State, Zip σ **Facility Name** ל 420716-LABI.D.

Sample Clos & Intact

ું છે

Mine M 08/25/10

ampler Relinquished

Relinquished By

Delivered by

08/25/10 52/1

E-mail results to: districency@granal.com

₽# Page 6.of 7.

Environmental Plus, Inc.

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

P.O. Box 1558, Eunice, NM 88231

88231

Chain of Custody Form

LAB:

	7	004-400																				
Company Name		Environmental Plus, In	s, In	ي		-			ľ	emi	틢	Remit Invoice To:		L		Z	ANALYSIS REQUEST	Sis	REC	SES	 -	
EPI Project Manager	ager	David P. Duncan				\vdash									\vdash	\vdash	H	_	_		r	-
Mailing Address		P.O. BOX 1558				Τ-																
City, State, Zip		Eunice New Mexico 88	0 882	231		T																
EPI Phone#/Fax#		575-394-3481 / 575-394-2601	394	2601		Т																
Client Company		ExxonMobil				T									-							
Facility Name	Ava	Avalon Deleware Unit		#238		Т													.,			
Location		UL-K, Sec. 30, T20S, R28E	S. R2	끯		Т			Att	<u>ث</u> ء	Zi.	Atto: David P. Duncan			····							
Project Reference		037				T				O.	BO	P.O. Box 1558										
EPI Sampler Name		Kirt Tyree				Т			ш	unic	Z e	Eunice, NM 88231								~		
						ΜĀ	MATRIX		F	PRES	PRESERV.	SAMPLING	QC QC								_	
LAB I.D.	SAME	SAMPLE I.D.	PRAB OR (C)OMP	CONTAINERS	SOUND WATER	ASTEWATER JIC	SUDE OIL	Jooe	тнев:	E\COOF	7000/2 73HT			LEX 8054B	MS108 H	HOBIDES (CL)	الدATES (SO4ِ [*]) ا	an:	THER >>>	Н		
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13.13	313 35 #4 - 13 (110')		B	-	_	×				Ĥ	×	24-Aug-10	14:49			×	-	_	<u> </u>			-
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Sampler Relinquished:		08/25/10	Rece	Received By:		-				W	mail	E-mail results to: deleterasspi@gmissl.com	(Egy):terca	Digital C	l Si							
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422

≅ #Page 7₄of 7 ···



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.

Celeg D. Keene

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

Lab Director/Quality Manager



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:

Analyte

Analyte

Analyte

UL-K, SEC 30, T20S, R28E

Reporting Limit

Reporting Limit

16.0

Reporting Limit

16.0

Reporting Limit

16.0

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

Chloride, SM4500Cl-B

mg/kg

Analyzed By: HM

% Recovery

True Value QC

Qualifier

Chloride

Result 48.0

Result

160

Result

160

Result

16.0

16.0 08/31/2011 Method Blank ND

BS 432

108

400

400

True Value QC

400

RPD 0.00

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

Chlorid	e, S	M45	500	CI-B

mg/kg

Analyzed By: HM

B\$

True Value QC % Recovery

RPD

Qualifier

Chloride

Analyzed 08/31/2011

Analyzed

Method Blank ND

432

108

0.00

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

Chloride, SM4500CI-B

mg/kg

Analyzed By: HM

BS

% Recovery

Chloride

Analyzed 08/31/2011

Analyzed

08/31/2011

Method Blank ND

Method Blank

ND

432

108

RPD 0.00

Qualifier

Chloride

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

Chloride,	SM4500CI-B
	•

Analyte

mg/kg

Analyzed By: HM

BS

432

% Recovery 108

True Value QC

400

RPD

Qualifier 0.00

Cardinal Laboratories

*=Accredited Analyte

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Celey D. Krene

Celey D. Keene, Lab Director/Quality Manager

Page 2 of 8.



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:

Project Name:

AVALON DELEWARE UNIT #238

Sampling Condition:

** (See Notes)

Project Number:

190037

Sample Received By:

Jodi Henson

Project Location:

Analyte

Analyte

UL-K, SEC 30, T20S, R28E

Reporting Limit

Reporting Limit

16.0

16.0

Reporting Limit

16.0

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

Chl	oride,	SM45	00Cl	-8

mg/kg

Analyzed By: HM

% Recovery

True Value QC

400

Qualifier

Chloride

Chloride

Result 160

Result

256

16.0 08/31/2011

Analyzed

Analyzed

08/31/2011

Method Blank ND

BS 432

BS

432

108

RPD 0.00

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

Chloride, SM4500CI-B

mg/kg

Analyzed By: HM

Method Blank

% Recovery

108

108

True Value QC

400

Qualifier

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

Chloride, SM4500Cl-B

mg/kg

Analyzed By: HM

Analyte

Result Reporting Limit

Analyzed 08/31/2011

Method Blank ND

ND

BS 432 % Recovery True Value QC RPD

RPD

0.00

Qualifier

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

Chloride, SM4500Cl-B

Analyte

Analyte

mg/kg

Analyzed By: HM

Analyzed Method Blank

400

0.00

Chloride

Chloride

Chloride

Result 96.0

96.0

Reporting Limit 16.0 08/31/2011

ND

RS 432 % Recovery 108

% Recovery

108

True Value OC 400

0.00

RPD Qualifier

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

Chloride, SM4500Cl-B

Result

16.0

Analyzed By: HM

Analyzed

08/31/2011

Method Blank

ND

B\$ 432 True Value QC

400

Qualifier RPD

0.00

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Celey D. Kuna

Celey D. Keene, Lab Director/Quality Manager



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	

Chloride, SM4500Cl-B	mg	/kg	Analyze	d 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, 5M4500CI-B	mg	/kg	Analyze	d 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	Analyze	d 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, SM4500CI-B	mg,	/kg	Analyze	d 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, St	M4500Cl-B	m	g/kg	Analyze	d 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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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	Analyze	d Bý: 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	

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Celeg D. Keine

Celey D. Keene, Lab Director/Quality Manager



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.

Chioride by SM4500CI-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

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PLEASE NOTE: Liability and Damages. Cardinal's liability and dient's exclusive remedy for any daim ansing, whether based in contract or tort, shall be limited to the amount paid by client for analysise. All claims, including those for negligence and any other cause whatsoever shall be deemed waved unless made in writing and received by Cardinal within thirty (30) days after completion of the applicable service. In no event shall Cardinal be liable for inodental or consequential damages, including, without limitation, business interruptions, loss of use, or loss of profits incurred by client, its subsidiaries, affiliates or successors arising out of or related to the performance of the services hereunder by Cardinal, regardless of whether such claim is based upon any of the above stated reasons or otherwise. Results relate only to the samples identified above. This report shall not be reproduced except in full with written approval of Cardinal Laboratories

Celeg & Keene

Celey D. Keene, Lab Director/Quality Manager

Environmental Plus, Inc.

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

P.O. Box 1558, Eunice, NM 88231

Chain of Custody Form

LAB: Significant

1040-466 (616)	LAA. (3/3) 384-2001		١	ļ																	
Company Name	Environmental Plus, Inc	, Inc						æ	ımit	nvo	Remit Invoice To:				AN	ANALYSIS REQUEST	IS F	(EQ	JESI		
EPI Project Manager	iger David P. Duncan				_									H	-	L	_		-	<u> </u>	L
Mailing Address	P.O. BOX 1558				_								·					_			
City, State, Zip	Eunice New Mexico 88231	8823	_											•,							
EPI Phone#/Fax#	575-394-3481 / 575-394-2	194-20	601																		
Client Company	ExxonMobil Production	۽																			
Facility Name	Avalon Deleware Ur	11 #2	33																		
Location	UL-K, Sec. 30, T20S, R28E	, R28	Ш				•	Attn:	Dav	ď P.	Attn: David P. Duncan										
Project Reference					,			_	P.O. Box 1558	Box	1558								-		
EPI Sampler Name	ъе Danny Deaton							Щ	ınice,	Σ	Eunice, NM 88231										
					MATRIX	RIX		直	PRESERV.	RV.	SAMPLING	9									
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4101849			# CONT	WASTE	soir	CRUDE	SLUDGE OTHER:	ACIDIBA	ICE/COC	ЯЭНТО	DATE	TIME	BTEX 80	108 HqT	CHLORIE	PH	TCLP	< ЯЭНТО	НАЧ		
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2 2	2 SP-4A (3')	9		\vdash	×		-	_	×		23-Aug-11	14:50		┪	×		_		十	-	
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9 9	6 SP-2B (3')	IJ	-		×			Н	×		26-Aug-11	14:10			×	L			┢	_	
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& &	8 SP-8C (3')		-	\sqcup	×		\dashv	Н	×		30-Aug-11	10:10		-	×				┢	-	
ı	9 SP-10A (3')				×		-		X		30-Aug-11	11:15			×				-	L	
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Sampler Relinquished:	8/31/2011	Receive	ved By:		~				Ē,	all re	E-mail results to: ಸರುಗಾತಗಾಧಿಸಿ@gmail.com	Hō@pdqua	0.18.23 0.18.23	3110							
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Delivered by:	Sample Sample	Sample Gool & Yes	Intact No	}			Yad By	.,	,												
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r - Page 7 of 8 🛴

Environmental Plus, Inc.

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

P.O. Box 1558, Eunice, NM 88231

188231

Chain of Custody Form

LAB:

Company Name Environmental Plus, Inc	, Inc.	Ì					Re	i i i	l N	Remit Invoice To:				F	A	SIS,	R	ANALYSIS REQUEST	ST	
David P. Duncan															Г	-	-	ļ		-
P.O. BOX 1558																				
Eunice New Mexico 88231	88231		Γ																	
575-394-3481 / 575-394-2601	394-2601	_											_							
ExxonMobil Production	Ę																			
Avalon Deleware Ur	nit #238															-				
UL-K, Sec. 30, T20S, R28E	, R28E	ĺ				_	Attn:	Day	Nid P	Attn: David P. Duncan										
190037							ш_	O.	Box	P.O. Box 1558									_	
Danny Deaton			П				Ш	nice	Z	Eunice, NM 88231								·		
			-	MATRIX	×		ď	PRESERV.	Α.	SAMPLING	NG									
SAMPLE I.D.	G)RAB OR (C)OMP SABINATIOD	звоиир матек	RETAWETER	OS	PENDEE OIL	DTHER:	CIDIBASE	CE/COOF	язнто	at A.C.	<u>и</u> Е	81EX 8021B	M2108 Hq	нговірег (сі.)	ULFATES (SO, T)	H10.	CLP	HA		`
11 SP-14 (3")	-				-}	+	+	+		30-Aug-11	12:15			, ×	4	+-	+	+		+
12 SP-15 (3')	G 1			×	┝	-		×		30-Aug-11	12:45			×	t	╀	╀	Ļ		\vdash
13 SP-5D (3')	G 1		Н	Ι×	-	_		×		30-Aug-11	13:20			×	\vdash	╀	\vdash	╀		\vdash
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8/31/2011	Received By		200	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	.ة			II.	ail re	E-mail results to: ddareranap@gasali.com	iS@ideux:	15.5	E S							
1102/15/8 Tune 8/31/2011	Redeived B	J. 120	ved By: (lab staff)		3	75/10%	Į													
Sample Shot & Intact	e Gool & Intai	, e	4		in the second	Depley By:														
1.4 6			\dashv		2	_				i										

∵Page 8 of 8

ATTACHMENT III SOIL BORING LOGS



NC	POD NUMI			UMBER) VARE UNIT	#238 SB-1					OSE FILE NUI	MBER(S)			
TOCATION	MOBIL/									PHONE (OPTI	ONAL)			
GENERAL AND WELL L	WELL OW	NER MA	ILING	ADDRESS						CITY MIDLAND)	STATE TX		ZIP
ND	WELI	L			DEGREES	MINU	ЛES	SECON	DS					
ILA	LOCATI		LAT	TITUDE	32		32	40	.00 м	* ACCURACY	REQUIRED ONE TEN	ITH OF A SE	COND	
(ER	(FROM C	JPS)	LON	GITUDE	104		13	16	.00 W	* DATUM REG	QUIRED. WGS 84			
1. GE					ON TO STREET ADDRES 2/180, TURN R					LIEF RD 8	TURN R ON I	LAKE A\	/ALON F	RD.
17. ing	(2 5 AC	RE)		(10 ACRE)	(40 ACRE)		(160 ACRE)		SECTION		TOWNSHIP	□ NORTH	RANGE	
AL		/4		1/4	1/4		1/4					soum		☐ West
OPTIONAL	SUBDIVISI	ION NAN	16		•				LOT NUM	BER	BLOCK NUMBER		UNIT/TRA	ict
OPT	HYDROGR	APHICS	URVE		<u></u>						MAP NUMBER	****	TRACT N	INTREP
2											MA NOMBER			Jatota
	LICENSE			ŀ	NSED DRILLER						NAME OF WELL DR			
	DRILLING	1478		EDWARD DRILLING END		w crep	NICL LATER		D000000	r pentil (Th	STRAUB COL			
		3-09	ט	8-13-09		0	WELL (FI)			E DEPTH (FT). 70'	DEPTH WATER FIR	N/A		
TION				<u></u> _			·				STATIC WATER LE			LL (FT)
RNIA	COMPLET	ED WELI	. 15	ARTESIAN			SHALLOW ((UNCON	FINED)			N/A		
INFC	DRILLING	FLUID.	••	✓ AIR	MUD	Ц	ADDITIVES							
Ŋ	DRILLING		Э,	✓ ROTARY	HAMMER		CABLETOC	DL.	П ОТНЕ	R - SPECIFY:				
DRILLING INFORMATION	DEPT FROM	H (FT) TO)	BORE HOL DIA. (IN)	ř	ASING ATERI				ECTION CASING)	INSIDE DIA. CASING (IN)		WALL ESS (IN)	SLOT SIZE (IN)
	0	70	1	5		N/A			1	V/A	N/A	N	/A	N/A
·		-			1			-		-				
555	DEPT	H (FT)		THICKNES	s FC	RMA'	TION DESC	CRIPTI	ON OF P	RINCIPAL W	ATER-BEARING S	TRATA		YIELD
ĭ	FROM		,	(FT)							R FRACTURE ZON			(GPM)
Æ												·	,	
C S		-								 				
AR I		<u> </u>												
'BE											·			
TET	METHOD I	ISED TO	ESTIN	MATE VIELD OF	VATER-BEARING STRA	TA					TOTAL ESTIMATED	WFLL YIPL	D (OPM)	
4. WATER BEARING STRAT	ML CINO		20111		on white of the						TOTAL ESTRICTED	***************************************	w (w) (ii)	

FOR OSE INTERNAL USE			WELL RECORD & LOG	(Version 6/9/08)
FILE NUMBER	POD NUMBER	ŕ	TRN NUMBER	
LOCATION				PAGE 1 OF 2

IMP	TYPE O	F PUMP:	☐ SUBMER		□ JET □ CYLINDER	☐ NO PUMP – WELL NOT EQUIPPED ☐ OTHER – SPECIFY:		• • • • • • • • • • • • • • • • • • • •	
SEAL AND PUMP	ANNI	JLAR	DEPTH FROM	TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)		OD OF MENT
1 43 1 43	SEAL	AND	0	2	5	.5 BAG OF CEMENT		TOPL	.OAD
2. 1.	GRAVE	L PACK	2	70	5	17 BAGS OF 3/8 PLUG		TOPI	OAD
<u> </u>	· · · · · · · · · · · · · · · · · · ·		<u> </u>						
	DEPT	H (FT)	THICK	NESS		COLOR AND TYPE OF MATERIAL ENCOUNTE			TER
	FROM	TO	(F1	<u> </u>	(INCL	UDE WATER-BEARING CAVITIES OR FRACTU	RE ZONES)		ING?
,, L	0	3	3			BROWN FINE SAND - CALICHE		☐ YE\$	Ø NO
Ĺ	3	41	38	<u> </u>		AN FINE SAND - SANDSTONE - CAL	ICHE	☐ YES	Ø NO
	41	53	12	<u> </u>	T/	AN SANDSTONE (MED) DENSE - CA	LICHE	☐ YES	Ø NO
ـــا بد	53	59	6			GREENISH - TAN CLAY		☐ YES	☑ NO
: _	59	70	11		R	RED SILTY CLAY & RED VERY FINE S	SAND	☐ YES	Ø NO
	TD	70						☐ YES	□ио
		·						☐ YES	. 🗆 ко
								☐ YES	□ NO
Γ							,	☐ YES	□ NO
							±119	☐ YES	□NO
			, , , , , , , , , , , , , , , , , , ,					☐ YES	□NO
								☐ YES	□ NO
:								☐ YES	□ио
								☐ YES	□NO
								☐ YES	□ №
. [☐ YES	□ NO
						·		☐ YES	□ NO
Г			ATTACH	ADDITION.	AL PAGES AS NE	EDED TO FULLY DESCRIBE THE GEOLOGIC I	OG OF THE WELL	-1	,
Ϋ́			METHOD:	BAILE	R □ PUMP	☐ AIR LIFT ☐ OTHER SPECIFY:			
	WELL	TEST				DATA COLLECTED DURING WELL TESTING, IN	ICLUDING START T	IME END TI	MF
L						AND DRAWDOWN OVER THE TESTING PERIO			,
F	ADDITION	AL STATEN	IENTS OR EXPLA	NATIONS					
8	SOIL BO	ORING (ONLY- SOI	L BORIN	G WAS PLUG	GGED AND ABANDONED UPON COM	IPLETION OF SA	AMPLING	
+	THE HAVE	DEDGICAL	IN HERERY C	EDTIFICS T	ከልጉ ተ <u>ስ</u> ተሀር ኮር	EST OF HIS OR HER KNOWLEDGE AND BELIEF	THE EODECOING	C A TOLIE A	NID
	CORREC	TREZOR	D OF THE ABO	OVE DESCR	RIBED HOLE AND	O THAT HE OR SHE WILL FILE THIS WELL REC			
	THE PER	MITHOL	DER WITHIN	20 DAYS AI	TER COMPLETI	ON OF WELL DRILLING:			İ
	9	24-54	1 2.			alantal			
		(- (SIGNATUR	FOE DRILL	FR				ļ
			Sidinyidi	- OI DKIDL		/ WATE			

FOR OSE INTERNAL USE		WELL RECORD & LOG	(Version 6/9/08)
FILE NUMBER	POD NUMBER	TRN NUMBER	
LOCATION			PAGE 2 OF 2

•



FILE NUMBER

LOCATION

	POD NUM	BER (WE	LLN	JMBER)			<u>- </u>			OSE FILE NU	MBER(S)			
8	ADU#	238 B	G2-	(GS)										
Ē	WELL ON	NER NA	ME(S)				·			PHONE (OPT)	ONAL)			
Š	EXXON	I/MOB	IL											
ננ	WELL OW	NER MA	LING	ADDRESS						CITY		STATE		ZIP
) - -	503 S	MARIE	NFI	ELD, ST						MIDLAND		TX	79	9701
≯			===					SECO		<u> </u>				
Z	WEL	_			Di	EGREES	MINUTES			. ACCUBACS	REQUIRED: ONE TEN	TU OC A SE	COND	
AL.	LOCAT		LAT	TTUDE		32	32		0.00 _N	j	•	THI OF A SE	COND	
GENERAL AND WELL LOCATION	(FROM	GPS)	LON	IGITUDE		104	13	1	7.00 W	DATOM RE	QUIRED: WGS 84			
ន៍	DESCRIP	TION REL	ATIN	G WELL LOCATI	ON TO	STREET ADDRE	SS AND COMM	ON LANDA	1ARKS		·			
	FROM	HWY	208	GO E FO	₹.5	MILES TUR	NR.1TH	MI TUF	RN R TO	SITE.				
		 ,											, <u> </u>	
	(2.5 AC	RE)		(10 ACRE)		(40 ACRE)	(160 AC	RE)	SECTION		TOWNSHIP	NORTH	RANGE	☐ FAST
¥.		/4		1/4				1/4				L SOUTH		WEST
OPTIONAL	SUBDIVIS	ION NAM	E						LOT NUM	IBER	BLOCK NUMBER		UNIT/TRA	.CT
140									<u> </u>					
7.	HYDROGE	APHIC ST	URVE	Ϋ́							MAPNUMBER		TRACT NO	MBEK
											<u> </u>			
	LICENSE N	UMBER		NAME OF LICE	ENSED	DRILLER					NAME OF WELL DE			
	WD	1478	İ	EDWARD	BRY	/AN					STRAUB CO	RPORAT	ION	
	DRILLING	STARTE	0	DRILLING ENI	DED	DEPTH OF COM	PLETED WELL	(FT)	1	LE DEPTH (FT)	DEPTH WATER FIR			
Z.	6/1	4/10		6/14/10	' [0			160		N/A		_
TIC	•					C T					STATIC WATER LE			LL(FT)
MA.	COMPLET	ED WELL	. IS:	ARTESIAN	· _	✓ DRY HOLE SHALLOW (UNCONFINED) N/A								
10	DRILLING	FLUID:		 ✓ AJR		MUD	ADDIT	1VES - SPE	CIFY:				N/A	
DRILLING INFORMATION	DRILLING	METHOD):	✓ ROTARY		HAMMER	CABLE	TOOL	OTHE	R - SPECIFY:				
Š	DEPT	H (FT)	=	BORE HOL	Б		CASING		CONN	NECTION	INSIDE DIA.	CASING	WALL	SLOT
	FROM	то		DIA. (IN)			ATERIAL			(CASING)	CASING (IN)		ESS (IN)	SIZE (IN)
3.0	0	160	—-ſ	5	一		N/A			N/A	N/A	N	/A	N/A
			_†		_									
			7									<u> </u>		
ı			_								-	-		
	DEPT	H (FT)		THICKNES		E/	DEMATION	DESCRIB.	TION OF P	DINCIPAL W	ATER-BEARING S	TDATA		VIELD
ا≥	FROM	то	\dashv	THICKNES (FT)	٠	• • • • • • • • • • • • • • • • • • • •					R FRACTURE ZON		1	(GPM)
≨					-									
5			+		\dashv						····			
Z I			_+		-									·
4. WATER BEARING STRATA					-+					 	<u> </u>			
8			\dashv		+					· · · · · · · · · · · · · · · · · · ·	-			
	METHOD	SED TO		ATE VIELD OF	VATE	R-BEARING STRA	<u> </u>				TOTAL COTIMATES	Well Vier		
*	METHOD	SED IUI	63 I J.M.	INTE TIELD OF	MAIL	n-BEARING STRA	114				TOTAL ESTIMATED	WELL TIEL	J(UPM)	1
4														
			_=											
	FOR OSE	INTER	NAL	USE							WELL RECO	RD & LOG	(Version 6/	9/08)

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	77/700	T DUD 4D.	SUBME	RSIBLE	☐ JET	☐ NO PUMP – WELL NOT EQUIPPED			
₩.	TYPEO	F PUMP:	☐ TURBIN	E	☐ CYLINDER	OTHER - SPECIFY:			
SEAL AND PUMP	ANN	ULAR	DEPTI	I (FT)	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)		OD OF EMENT
EAL	SEAL	AND	0	2	5	2 BAG OF CEMENT	· · · · · · · · · · · · · · · · · · ·	TOP	LOAD .
S. S.	GRAVE	L PACK	2	160	5	40 BAGS OF 3/8 PLUG		TOPI	LOAD
	<u> </u>		<u> </u>	<u></u>			<u> </u>	<u>L.,</u>	
	DEPT	H (FT)	THICK	NESS		COLOR AND TYPE OF MATERIAL ENCOUNT	ERED	WA	TER
	FROM	то	(F1	ັງ	(INCL	UDE WATER-BEARING CAVITIES OR FRACTU	JRE ZONES)	BEAR	ung?
	0	2	2			BROWN FINE SAND - WITH CLA	Y	☐ YES	Ø NO
	2	21	19)	T	AN FINE SAND - SANDSTONE - CAL	ICHE	☐ YES	Ø №
1	21	33	12	?		TAN FINE SAND - SANDSTONE		☐ YES	Ø NO
<u> </u>	33	39	6			TAN FINE SAND - MED SANDTON	IE	☐ YES	Ø NO
3	39	42	3	ı	(DENSE) SANDSTONE - TAN FINE S	AND	☐ YES	☑ NO
≰	42	60	18	3		(DENSE) SANDSTONE - CALICH	Ε	☐ YES	⊠ NO
j ģ	60	64	4			RED SILTY CLAY - SILTY SAND		☐ YES	☑ NO
Š	64	65	1			TAN SILTY CLAY		☐ YES	₽ NO
ျား	65	78	13	}		RED SILTY CLAY - RED SILTY SAI	4D	☐ YES	В ио
GEOLOGIC LOG OF WELL	78	94	16	;		TAN SILTY SAND - TAN SILTY CLA	4Y_	☐ YES	Ø NO
99	94	138	44			TAN SILTY SAND - TAN SILTY STO	NE	☐ YES	Ø NO
ف	138	140	2			RED SILTY CLAY (DRY)		☐ YES	Ю №
•	140	142	2			TAN SILTY SAND		☐ YES	Ю №
	142	144	2			TAN SILTY SAND - SILTY CLAY	<u>.</u>	☐ YES	RS NO
	144	148	4				☐ YES	D NO	
	148	150	2		REC	FINE SAND - SILTY CLAY WITH G	YPSUM	☐ YES	⊠ №
]	150	TD160	10			TAN SILTY SAND		☐ YES	NO 🖸
			ATTACH	ADDITION	AL PAGES AS NE	EDED TO FULLY DESCRIBE THE GEOLOGIC	LOG OF THE WELL		
			METHOD:	BAILE	R 🔲 PUMP	☐ AIR LIFT ☐ OTHER – SPECIFY:	,		
ONAL INFO	WELL	TEST	TEST RESUL	TS - ATTA	CH A COPY OF D	ATA COLLECTED DURING WELL TESTING, II	CLUDING START TI	ME, END TI	ME,
NA.	ADDITION	AL STATEM	ENTS OR EXPLA						
					G WAS PLUG	GED AND ABANDONED UPON COM	PLETION OF SA	MPLING	
ADDITI									
જ									
7. TEST					• ,				
7.									
	THE UNI	DERSIGNE	D HEREBY C	ERTIFIES T	HAT. TO THE BE	ST OF HIS OR HER KNOWLEDGE AND BELIE	THE FOREGOING IS	A TRUE A	ND NO
8. SIGNATURE	CORREC	T RECORI	OF THE ABO	OVE DESCR	IBED HOLE AND	THAT HE OR SHE WILL FILE THIS WELL RED ON OF WELL DRILLING:	CORD WITH THE STA	TE ENGINE	ER AND
VAT	1112121	4	1 1/2	N DAIS AI	TER COMITEETIC	SNO. WELL DRIEDE			
SIG		\mathcal{A}	A	2		6/22/10	•		
œ		9-1	SIGNATUR	OF DRILL	ER	DATE			
				/					

FOR OSE INTERNAL USE		WELL RECORD & LOG (Ve	rsion 6/9/08)
FILE NUMBER	POD NUMBER	TRN NUMBER	
LOCATION		PA	AGE 2 OF 2



FILE NUMBER

LOCATION

							~							
N O	AVALO	N DE	LL NUMBER) LAWARE UN	T #2	38 SB-2				OSE FILE NUI	MBER(S)				
OCATI	WELL OW MOBIL/		_ ' '						PHONE (OPTI	ONAL)		· · · · · · · · · · · · · · · · · · ·		
GENERAL AND WELL LOCATION	WELL OW	NER MA	ILING ADDRESS						CITY MIDLAND)	STATE TX	,	ZIP	
2				D	EGREES	MINUTES	SECO	ONDS	1					
AL AN	LOCATI		LATITUDE		32	32		0.00 _N _	j	REQUIRED, ONE TEN	ITH OF A SEC	COND		
ER	(FROM C	GPS)	LONGITUDE		104	13	1	6.00 W	* DATUM REG	QUIRED, WGS 84				
SEN	DESCRIPT	ION REI	ATING WELL LOCA	TION T	O STREET ADDRE	SS AND COMMO	N LAND	MARKS						
	FROM I	HOBE	S GO W ON	62/18	30, TURN R	ON THE CA	ALRLS	SBAD RE	LIEF RD 8	TURN R ON I	LAKE A\	ALON F	RD.	
.1 1	(2.5 ACI	RE) 📝	(10 ACRE)	1	(40 ACRE)	(160 ACR	E)	SECTION		TOWNSHIP	NORTH	RANGE	L'AST	
AL.	,	¼	1/4		1/4	,	4				South		WEST	
OPTIONAL	SUBDIVISI	ION NAM	iE .	- ,,,,				LOT NUM	IBER	BLOCK NUMBER		UNIT/TRA		
1 4	HYDROGR	(APHIC S	URVEY					<u> </u>		MAPNUMBER		TRACT NU	MBER	
	l													
31	LICENSE N	NUMBER	NAME OF L	CENSE	DORILLER					NAME OF WELL DR	ULLING COX	IPANY	-	
	WD	1478	EDWAR) BR	YAN					STRAUB CO	RPORAT	NOF		
	DRILLING		I		DEPTH OF COM	1	LE DEPTH (FT)	DEPTH WATER FIR						
3	8-1 L	3-09	8-13-0)9		0			60'		N/A			
3. DRILLING INFORMATION	COMPLET	ED WELI	LIS: ARTESI	AN	✓ DRY HOLE	SHALLO	W (UNC	ONFINED)	STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A					
FOR	DRILLING	FLUID.	✓ AIR		MUD	ADDITIV	/ES - SPI	ECIFY.						
NG IN	DRILLING	метно	D. ROTAR	Y	HAMMER	CABLE	TOOL	ОТНЕ	R - SPECIFY.					
RILI	DEPT FROM	H (FT)	BORE HO			CASING ATERIAL			NECTION (CASING)	INSIDE DIA. CASING (IN)		WALL ESS (IN)	SLOT SIZE (IN)	
3. DI	0	60	<u> </u>			N/A	-		N/A	N/A	N	/A	N/A	
					٠.									
<u>:</u> ,,	DEPT	H (FT)	THICKN	ESS	F	ORMATION D	ESCRIP	TION OF P	RINCIPAL W	ATER-BEARING S	TRATA		YIELD	
TA	FROM	TC	(FT)			(INCLUDE V	VATER	BEARING	CAVITIES O	R FRACTURE ZON	ES)		(GPM)	
IRA														
G S.														
RIN		ļ												
BEA														
ER		<u>L </u>			<u></u>			·						
4. WATER BEARING STRAT	METHOD (USED TO	ESTIMATE YIELD (F WAT	ER-BEARING STR	ATA				TOTAL ESTIMATED	WELL YIEL	D (GPM)	-	
	<u></u>							<u></u>		<u> </u>				
	FOR OSE	E INTER	RNAL USE							WELL RECO	RD & LOG	(Version 6)	9/08\	

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MP	TYPE O	F PUMP.	□ SUBMER		☐ JET ☐ CYLINDER	☐ NO PUMP – WELL NOT EQUIPPED ☐ OTHER – SPECIFY:				
SEAL AND PUMP	ANNI	JLAR	DEPTI- FROM	(FT)	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	L	OD OF MENT	
.AL	SEAL	AND	0	2	5	.5 BAGS OF CEMENT		TOPI	.OAD	
. S.	GRAVE	L PACK	2	60	5	13 BAGS OF 3/8 PLUG		TOP	OAD	
(+2+2 () (+2)			<u> </u>	<u></u>	<u> </u>			<u> </u>		
	DEPT	H (FT)	ТНІСК	NESS		COLOR AND TYPE OF MATERIAL ENCOUNT	ERED	WA	TER -	
je.	FROM	то	(F7	Γ)	(INCL	UDE WATER-BEARING CAVITIES OR FRACTU	JRE ZONES)	BEAF	UNG?	
	0	3	3			BROWN FINE SAND - CALICHE		☐ YES	☑ NO	
	3	20	17	7		TAN FINE SAND - W/CLAY		☐ YES	☑ NO	
	20	52	32	2		TAN FINE SAND - SANDSTONE		☐ YES	Ø NO	
	52	60	8			TAN FINE SAND		☐ YES	☑ NO	
T	TD	60						☐ YES	□ NO	
WE								☐ YES	□ №	
ō								☐ YES	, 🗆 NO	
507							,	☐ YE\$	□ №	
GEOLOGIC LOG OF WELL								☐ YES	□ NO	
LO							* 24	☐ YES	□ №	
GEC										
ن			-					☐ YES	□ NO	
price street					-			☐ YES	□ NO	
								☐ YES	□ NO	
								☐ YES	□ №	
								☐ YES	□ №	
								☐ YES	□ №	
i.v.			ATTACH	ADDITION	AL PAGES AS NE	EDED TO FULLY DESCRIBE THE GEOLOGIC	LOG OF THE WELL			
.0			метнор:	BAILE	R 🔲 PUMP	☐ AIR LIFT ☐ OTHER – SPECIFY:				
ONAL INFO	WELL	TEST				ATA COLLECTED DURING WELL TESTING, I AND DRAWDOWN OVER THE TESTING PERIO		ME, END T	ME,	
			MENTS OR EXPL							
TEST & ADDIT	SOIL B	ORING (ONLY- SOI	IL BORIN	G WAS PLUG	GED AND ABANDONED UPON COM	APLETION OF SA	MPLING		
& A.									·	
EST										
7.1										
		25001011		TERRIFICA E						
Æ	CORREC	T RECOR	D OF THE AB	OVE DESCI	RIBED HOLE AND	ST OF HIS OR HER KNOWLEDGE AND BELIE O THAT HE OR SHE WILL FILE THIS WELL RE				
ATL	THE PER	MIT HOL	DER WITHIN	20 DAYS AI	FTER COMPLETI	ON OF WELL DRILLING:				
8. SIGNATURE		20-	& De			2/20/09				
တ်			SIGNATUR	E OF DRILL	ER	DATE				

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FILE NUMBER	POD NUMBER	TRN NUMBER				
LOCATION			PAGE 2 OF 2			



			-															
NOI	POD NUM AVALO			UMBER) VARE UNIT	#23	88 SB-3					OSE FILE NU	MBER(S)						
OCAT	WELL OW MOBIL										PHONE (OPTI	ONAL)						
GENERAL AND WELL LOCATION	WELL OW	NER MA	ILING	ADDRESS	•						CITY MIDLAND)	STATE TX		ZIP			
. 9			_	-	DE	GREES	MIN	UTES	SECO	NDS								
AL A	LOCAT	ЮН	LAT	THUDE		32		32	40	и 00.0		REQUIRED ONE TEN	ITH OF A SEC	COND				
ER	(FROM	GPS)	LON	NGITUDE		104		13	11	6.00 W	DATOM RE	QUIRED. WGS 84						
I. GEN						STREET ADDRE O, TURN R					LIEF RD 8	TURN R ON	LAKE A\	/ALON F	RD.			
3.527	(2.5 AC	RE)		(10 ACRE)		(40 ACRE)		(160 ACRE)		SECTION		TOWNSHIP		RANGE	• _			
: \ V		1/4		1/4		1/4		1/4					SOUTH		EAST WLST			
2. OPTIONAL	SUBDIVIS	AAN NOI	1E							LOT NUM	IBER	BLOCK NUMBER	r ar	UNIT/TRA	.CT			
2.0	HYDROGR	APHIC S	URVE	EY								MAP NUMBER		TRACT NI	JMBER			
5 - 500	LICENSE N	NUMBER		NAME OF LICE	ENSED	DRILLER						NAME OF WELL DR	ILLING COM	(PANY				
77 J. 1941	WD	1478		EDWARD	BRY	/AN	· · · · · · · · · · · · · · · · · · ·	·		,	·-	STRAUB CO	RPORAT	ION				
	DRILLING		D	DRILLING ENI		DEPTH OF COM		O WELL (FT))		LE DEPTH (FT)	DEPTH WATER FIR						
z	8-1	3-09_		8-13-09	•		0 45				l	N/A						
DRILLING INFORMATION	COMPLET	ED WELI	. IS:	ARTESIAN	١	✓ DRY HOLE		SHALLOW	(UNCC	NFINED)		STATIC WATER LE	VEL IN COM		LL (FT)			
Ë	DRILLING	FLUID:		✓ AIR		MUD		ADDITIVE	S - SPE	CIFY.								
NG IN	DRILLING		D	✓ ROTARY		HAMMER		CABLE TO	OL	ОТНЕ	R - SPECIFY:							
RILLI	DEPT FROM	T (FT))	BORE HOL DIA. (IN)	- 1		ASIN ATERI		:		VECTION (CASING)	INSIDE DIA. CASING (IN)	CASING THICKN	WALL ESS (IN)	SLOT SIZE (IN)			
<u>≅</u>	0	45		5		 -	N/A				N/A	N/A	N	/A	N/A			
``'													· · · · · · · · · · · · · · · · · · ·					
ŀ															-			
· }					$\neg +$	····	···········											
								·		·			<u></u>					
		'H (FT)		THICKNES	s	FC						ATER-BEARING S			YIELD			
STRATA	FROM	T _C		(FT)			(INC	TODE W	AIEK-	BEAKING	CAVITIES OF	R FRACTURE ZON	ES)		(GPM)			
. K								<u> </u>		<u> </u>								
ا يّ																		
: 💈																		
E.A																		
ି 🖁		l																
4. WATER BEARING	METHOD U	JSED TO	ESTI	MATE YIELD OF	WATE	R-BEARING STRA	TA		•			TOTAL ESTIMATED	WELL YIEL	D (GPM)	·			
	FOR OSI	EINTE	RNAL	. USE								WELL RECO	RD & LOG	(Version 6)	/9/08)			

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LOCATION

IMP	TYPE O	F PUMP:	☐ SUBMER		☐ JET ☐ CYLINDER	☐ NO PUMP – WELL NOT EQUIPPED ☐ OTHER – SPECIFY:						
SEAL AND PUMP	ANNU	II.AR	DEPTH FROM	I (FT)	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)		OD OF EMENT			
Y	SEAL	AND	0	2	5	.5 BAG OF CEMENT		TOPI	OAD			
.S. S.	GRAVE	LPACK	2	45	5	11 BAGS OF 3/8 PLUG		TOPL	OAD			
		 		<u> </u>				<u> </u>				
	DEPTI	H (FT)	тніск	NESS		COLOR AND TYPE OF MATERIAL ENCOUNTE	RED	WA	TER			
	FROM	TO	(F7	r)	(INCL	JDE WATER-BEARING CAVITIES OR FRACTU	RE ZONES)	BEAF	UNG?			
	0	3	3			BROWN FINE SAND - CALICHE		☐ YES	☑ NO			
	3	13	10)		TAN FINE SAND - W/CLAY		☐ YES	Ø NO			
lv	13	22	9			TAN FINE SAND - SANDSTONE		☐ YES	Ø NO			
	22	45	· 23	3	T	AN FINE SAND - SANDSTONE- CAL	ICHE	☐ YES	Ø NO			
	TD	45						☐ YES	Ои			
WEI								☐ YES	□ №			
P								☐ YES	. 🗆 мо			
9								☐ YES	□ NO			
Ω								☐ YES	□ NO			
GEOLOGIC LOG OF WELL							;**/f	☐ YES	□ NO			
SEO												
9					☐ YES	□ио						
				·········				☐ YES	□ио			
01 (1)								☐ YES	□ №			
	•		•					☐ YES	□ №			
								☐ YES	□ №			
50.73.0 57.23.72								☐ YES	□ NO			
1014	•		ATTACH	ADDITION.	AL PAGES AS NE	EDED TO FULLY DESCRIBE THE GEOLOGIC I	OG OF THE WELL	·····				
			METHOD:	BAILE	R ☐ PUMP	☐ AIR LIFT ☐ OTHER – SPECIFY:						
ONAL INFO	WELL	TEST	TEST RESU	LTS - ATTA	CH A COPY OF D	ATA COLLECTED DURING WELL TESTING, IN	CLUDING START TI	ME, END TI	ме,			
ÄL			AND A TAB	LE SHOWIN	NG DISCHARGE A	AND DRAWDOWN OVER THE TESTING PERIO	D.					
I # . I			IENTS OR EXPLA									
& ADDIT	SOIL BO	ORING (ONLY- SOI	L BORIN	G WAS PLUG	GED AND ABANDONED UPON COM	IPLETION OF SA	MPLING	ļ			
& A]												
ST												
7. TEST												
13.41												
н	THE UNI	DERSIGNE	ED HEREBY C	ERTIFIES T	HAT, TO THE BE	ST OF HIS OR HER KNOWLEDGE AND BELIEF THAT HE OR SHE WILL FILE THIS WELL REC	THE FOREGOING IS	A TRUE A	ND EB AND			
) 1	THE PER	MIT HOL	DER WITHIN:	20 DAYS AF	TER COMPLETION	ON OF WELL DRILLING:	OKD WITH THE STA	TE ENOUNE	UNA NA			
SIGNATURE		50	04			0610						
8. SI		×(~~	4 479	E OF BB		8/20/09						
			SIGNATUK	Ë OF DRILL	EK	, DATE						

FOR OSE INTERNAL USE

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٠			LL NUMBER				··		OSE FILE NU	1BER(Ş)				
GENERAL AND WELL LOCATION:		-		E UNII	238 BH-4								.	
CAT	WELL OW			E LANES	OFFICE				PHONE (OPTION					
10			LUNG ADDI		OFFICE				685-9020	,				
ELL	1		NTA FE						SANTA F	F	STATE NM	87	zip 7504	
ΜQ	010 02						-		ONIXIA I		14141			
AN	WELI				DEGREES .32	MINUTES	SECO:		*,TCCHBTCA	REQUIRED, ONE TEN	TH OF A SEC	COND		
RAL	LOCATI (FROM C	L	LATITUDE			32		1.00 N	[DURED: WGS 84	·III OI A 3L	0.10		
- EN-			LONGITU		104	13		5.00 W						
5					N TO STREET ADDRES		LANDM	ARKS						
	J WILLING	יוו אכ		3ND-200	CARLSDAD N	ijvi.								
	(2 5 AC	RE)	(10 AC	CRE)	(40 ACRE)	(160 ACRE)		SECTION		TOWNSHIP	NORTH	RANGE	□ EAST	
AL	!	1/4		1/4	1/4	1/4					South		□ nest	
OI.	SUBDIVIS	ION NAM	E	_				LOT NUV	BER	BLOCK NUMBER		UNIT/TRA	ICT .	
OPTIONAL													<u></u>	
2.	HYDROGR	CAPHICS	UKVEY							MAP NUMBER		TRACT N	GMBER	
								<u> </u>						
	LICENSE NUMBER NAME OF LICENSED DRILLER 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)													
	2.2.10 0 62													
OI.	STATIC WATER LEVEL IN COMPLETED WELL (FT)													
N.	COMPLETI	ED WELL	. IS: 🔲	ARTESIAN	✓ DRY HÔLE	SHALLOW	(UNCO	NFIŅĒD)			N/A			
FOF	DRILLING	FLUID:	7	AIR	MUD	ADDITIVE	S – SPEC	CIFY;					·	
DRILLING INFORMATION	DRILLING	мётног): /	ROTARY	HAMMER	CABLE TO	OL	ОТНЕ	R - SPECIFY				****	
LIN	DEPT	H (FT)	В	ORE HOLE	5 (CASING		CON	ECTION	INSIDE DIA.	CASING	G WALL	SLOT	
K	FROM	то		DIA. (IN)	M	ATERIAL		TYPE	(CASING)	CASING (IN)	THICKN	IESS (IN)	SIZE (IN)	
~ €	0	62		6.		N/A ·		1	N/A	· N/A	N	/A '	N/A	
								· - · · · ·			ļ			
					_									
											<u> </u>		<u> </u>	
- A		H (FT)		HICKNESS (FT)	; FC					ATER-BEARING S ₹FRACTURE ZON			YIELD (GPM)	
STRATA	FROM	то				(INCLUDE W	- ILK	BEARING	CAVITIES OF	CHOICHORE ZON			(44,447)	
			<u> </u>											
ING			_			_	···················		·					
EAB														
4. WATER BEARING														
ATI	METHOD I	USED TO	ESTIMATE	YIELD OF W	ATER-BEARING STRA	TA.				TOTAL ESTIMATED	WELL YIEL	D (GPM)		
*														
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			RNAL USE	<u> </u>				,		WELL RECO		(Version 6	/9/08)	
	FILE NU					POD N	UMBE	R		TRN NUMBE	R	En.cui		

	TYPEO	E OF PUMP: SUBMERSIBLE SET NO PUMP – WELL NOT EQUIPPED TURBINE CYLINDER OTHER – SPECIFY:											
M.		i Civii .	TURBIN	E	CYLINDER	OTHER - SPECIFY:							
SEAL AND PUMP			DEPTI	I (FT)	BORE HOLE	MATERIAL TUDE AND SIZE	AMOUNT	METH	OD OF				
Z	ANNU	Л.AR	FROM	то	DIA. (IN)	MATERIAL TYPE AND SIZE	(CUBIC FT)	PLACE	MENT				
EAL	SEAL	ÀND	62	2	6	19 BAGS OF 3/8 HOLEPLUG		TOPL	.OAD				
S. S.	GRAVE	LPACK	2	0	6	1 BAGS OF CEMENT		TOPL	.OAD				
ļ						·		<u> </u>					
	DEPT	I (FT)	ТНІСК	NESS		COLOR AND TYPE OF MATERIAL ENCOUNT	ŖRED	WA	TER				
	FROM	TO	(FT	ח	(INCL	JDE WATER-BEARING CAVITIES OR FRACTU	(RE ZONES)	BEAR	UNG?				
	0	9	9			CALICHE & TAN SILTY SAND.		☐ YES	Ø NÖ				
	9	33	24	1		TAN PINK SILTY SAND & SANDSTO	DNE	☐ YES	Ø NO				
	33	56	23	3	Ţ,	AN RED SILTY SAND & GYPSUM LA	YÉRS	☐ YES	Ø NO				
	56	59	3		T	AN FED SILTY SAND & GYPSUM LA	YERS,	☐ YES	☑ NO				
13	59	62	3		TAN	RED SILTY SAND & SANDSTONE I	AYERS	☐ YES	☑ NO.				
WE	TD	62						☐ YES	□ио				
Q.								☐ YES	□NO				
90								☐ YES	□ NO				
101								☐ YES	□NO				
6. GEOLOGIC LOG OF WELL								☐ YES	□ NO.				
380													
6		-											
								☐ YES	□NO				
								☐ YES	□NO				
						•		☐ YES	□NO				
								☐ YES	□NO				
					·			YES	□.NO				
			ATTACII	ADDITION.	AL PAGES AS NE	EDED TO FULLY DESCRIBE THE GEOLOGIC	LOG OF THE WELL						
			METHÓD:	□BAILE	R	☐ ÂIR LIFT ☐ OTHER – SPECIFY:							
NFC	WELL	TEST	TEST RESU	LTS - ATTA	CH A COPY OF D	ATA COLLECTED DURING WELL TESTING, D	NCLUDING START TI	ME, END TI	ME,				
ADDITIONAL INFO	_					AND DRAWDOWN OVER THE TESTING PERIO							
-S-			LENTS OR EXPL										
TIQ	ŞOIL BO	ORING (ONĻY- SOI	L BORIN	G WAS PLUG	GED AND ABANDONED UPON CON	IPLETION OF SA	MPLING					
& AL													
7. TEST													
						-							
31						ST OF HIS OR HER KNOWLEDGE AND BELIE THAT HE OR SHE WILL FILE THIS WELL RE							
TUR						ON OF WELL DRILLING:	CORD WITH THE STA	IL CHOINE	ALK BIND				
SIGNATURE	97	1 - 4	t- //t	. . l		2-24-11							
8. SIC		w		~~~.	rn	<u> </u>							
			SIGNATUR	E OF DRILL	HK.	, DATE							

FOR OSE INTERNAL USE	WELL RECORD & LOG	WELL RECORD & LOG (Version 6/9/08)			
FILE NUMBER	POD NUMBER	TRN NUMBER;			
LOCATION	•		PAGE 2 OF 2		



LOCATION

NO	POD NUMI ADU # :		-								OSE FILE NU	IBER(S)					
GENERAL AND WELL LOCATION	WELL OW										PHONE (OPTI	ONAL)					
17	WELL OW	NER MA	ILING	ADDRESS							CITY	- 1	STATE		ZiP		
EI.	503 S N	/ARIE	NF	ELD, ST							MIDLAND)	TX	79	9701		
,×											<u> </u>						
Z	WEL	L			DI	GREES	MINUT		SECON								
J	LOCAT	юх	LAT	TTUDE		32	3	32	41	.00 _N		REQUIRED: ONE TEX	TH OF A SE	COND			
~ 3	(FROM (GPS)	LON	OITUDE *		104	1	3	15	.00-W	• DATUM REC	OURED, WGS 84					
Ä	DESCRIPT	IOV BEI			ON TO	STREET ADDRE	C dva 22	OMMONI			<u> </u>						
1.6		,									SITE. EDI	DY COUNTY					
	(2.5 AC	RE)		(10 ACRE)		(40 ACRE)	(10	60 ACRE)		SECTION		TOWNSHIP		RANGE			
7	,	1 /4		1/4		1/4		1/4					NORTH SOUTH		□ east □ west		
Y	SUBDIVIS	-	.se			74		- /-		LOT NUM	IBER .	BLOCK NUMBER	SOETH	UNIT/TRA			
=			-														
2, OPTIONAL	HYDROGR	ADLITO	11017									MAP NUMBER		TRACT N	MIREP		
rá		MIIIC 3	OKT	-1								, in the state of		, indicates	J. I. J. L. L. L. L. L. L. L. L. L. L. L. L. L.		
														L			
	LICENSEN			NAME OF LICE			_					NAME OF WELL DE					
	WD	1478		EDWARD	BRY	'AN						STRAUB COI	RPORAT	LION			
	DRILLING	STARTE	D	DRILLING ENI	DED	DEPTH OF COM	PLETED W	ELL (FT)	1	BORE HOL	LE DEPTH (FT)	DEPTH WATER FIR	ST ENCOUN	TERED (FT)			
6/24/10 6/24/10 0 110													N/A				
1.10		······										STATIC WATER LE	VEL IN COM	PLETED WE	LL (FT)		
3.DRILLÍNG INFORMATION	COMPLET.	ED WELI	L IS:	ARTESIAN	1	✓ DRY HOLE	s	HALLOW (UNCON	(FINED)			N/A	Į.			
OR	DRILLING	E 100.		✓ AIR		Пмир	\Box .	DDITIVES	CDEC	iev.	_	J					
Z																	
NC.	DRILLING	METHO	D:	✓ ROTARY		HAMMER	2	ABLE TOO)L	OTHE	R - SPECIFY:		,				
רניו	DEPT	H(FT)		BORE HOL	E	C	CASING				VECTION	INSIDE DIA.		3 WALL	SLOT		
ORI	FROM	TO)	DIA. (IN)		M.	ATERIA	Ĺ		TYPE	(CASING) .	CASING (IN)	THICKN	IESS_(IN)	SIZE (IN)		
<u></u>	0	111	0	5			N/A				N/A	N/A	N	/A	N/A		
					l								<u> </u>				
	Dept	'H (FT)	_	**************************************		· E/	3DMATI	ON DESC	CDIDT	ON OF B	DINCIDAL W	ATER-BEARING S	TDATA		VIELD		
<	FROM	тс		THICKNES (FT)	55	E.						R FRACTURE ZON			YIELD (GPM)		
V	FROM	10					(11101)				,01111111111111111111111111111111111111	2.2.2.2.2.2.			<u> </u>		
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ĀTI	METHOD I	USED TO	ESTI	MATE YIELD OF	WATE	R-BEARING STRA	\TA	•		••••		TOTAL ESTIMATE	WELL YIEL	D (GPM)			
4. WATER BEARING STRATA																	
4												<u> </u>					
	EOP on	e namei	DATA	LICE								WELL RECO	ያከ ል ነ ሳሳ	(Version 4	/0/0g\		
	FOR OSI			L USE				POD NU	(M/DED	,		TRN NUMBE		/ A CT21011 O	7100)		

PAGE 1 OF 2

	TYPE OF PUMP: SUBMERS(BLE DET NO PUMP – WELL NOT EQUIPPED TURBINE CYLINDER OTHER – SPECIFY:												
MP.	TTPEO	r rumr:	TURBIN	E	CYLINDER	☐ OTHER – SPECIFY:							
SEAL AND PUMP	ANINI	u áb	DEPTH FROM	TO	BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METH- PLACE					
AL.		ULAR . AND	0	2	5	.5 BAG OF CEMENT		TOPL	OAD				
5. SE	GRAVE	L PACK	2	110	5	23 BAGS OF 3/8 PLUG		TOPL	.OAD				
"													
1	DEPT	H (FT)	THIČK	NĖSŚ		COLOR AND TYPE OF MATERIAL ENCOUNTS		WA	TER				
	FROM	то	(F)	Γ)	1 -	UDE WATER-BEARING CAVITIES OR FRACTU		BEAR					
	0	3	3	;	· · ·	TAN FINE SAND - SANDSTONE		☐ YES	Ø NO				
	3	10	7		1	TAN FINE SAND - GRAVEL SANDST	ONE	YES	☑ NO				
	10	55	45	5		TAN FINE SAND - SANDSTONE		☐ YES	Ø NO				
~	55	63	8			TAN FINE SAND - MED SANDTON	IE	☐ ÝES¹	Ø NO				
_ı	63	67	4	ļ		BRAY CEMENTED SANDSTONE (DE	NSE)	YES	☑ NO				
VEL	67	72	5			GOLD CEMENTED SANDSTONE		☐ YES	☑ NO				
OF.	72	73	1			GRAY CLAY SILTY		☐ YES	☑ NO				
9	73	78	5	5		TAN CEMENTED SANDSTONE (DEN	ISE)	☐ YES	☑ NO				
12	78	94	1:	6		N (DENSE) SANDSTONE - TAN FINE		☐ YES	☑ NO				
90	94	110	1	6		CALCRETE		☐ YES	☑ NO				
GEOLOGIC LOG OF WELL	TD	110											
9 9													
			L					☐ YÈS	□ №				
ľ								☐ YES	□NO				
F			<u> </u>					☐ YES	□ NO				
ľ						•		☐ YES	□ NO				
								☐ YES	□ NO				
Ì			ATTACH	ADDITION	AL PAGÉS AS NE	EEDED TO FULLY DESCRIBE THE GEOLOGIC	OG OF THE WELL	1					
			метнор:	BAILE	R □ PUMP	☐ AIR LIFT ☐ OTHER – SPECIFY:							
ADDITIONAL INFO	WELL	TEST	L			DATA COLLECTED DURING WELL TESTING, II	JCI LIDENG START TI	ME END TI	ME				
===			AND A TAB	LE SHOWI	O DISCHARGE	AND DRAWDOWN OVER THE TESTING PERIO	D.	ML, LND II	will,				
<u>~</u> ⋛-			ENTS OR EXPL										
ᆵ	SOIL B	ORING	ONLY- SOI	L BORIN	G WAS PLUG	GED AND ABANDONED UPON COM	IPLETION OF SA	MPLING					
ST &						•							
TEST													
7.													
E						ST OF HIS OR HER KNOWLEDGE AND BELIEF O THAT HE OR SHE WILL FILE THIS WELL REC							
SIGNATURE	THE PER	MIT HOL	DER WITHIR	20 DAYS AI	TER COMPLETION	ON OF WELL DRILLING:	OKD WITH THE STA	IE ENGINE	EK AND				
A.			1 %			alala							
8. SI	-6	4	1-1-1			<u> </u>							
			SIGNATUR	E OF DRILL	ek	, DATE							
	************	: INTERN	. LICE				LL RECORD & LOG C	uti. em:	0.				

POD NUMBER

TRN NUMBER .

PAGE 2 OF 2

FILE NUMBER

LOCATION

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

		· · · · · · · · · · · · · · · · · · ·				OPERA'	TOR		Init	ial Report		Final F	<u>Report</u>
Name of Co	mpany Ex	xonMobil				Contact Toni Collier							
Address P.0	D. Box 43	58, Houston,	TX 772	10		Telephone l	No. 281-654-11	33			_		
Facility Nar	ne Avalor	n Delaware U	Jnit #238	3,		Facility Typ	e Injection line	:					
Surface Ow	ner State	Of New Mex	rico	Mineral (lwner				Lease	No. API#30	0152	8659	
Surface OW	ile. Giate	011101111101	1100						Douge	110. 731 11150	0132	0007	
(N OF RE			·				
Unit Letter K	Section 30	Township 20S	Range 28E	Feet from the 2301	South	h Line	Feet from the	West L	ine,	County			
	30	203	20E	2301			1463		Eddy				
				Latituda 22 22	6411		04 12 242	1		<u> </u>			
				Latitude <u>32 32</u> NA T				_					•
Type of Relea	se :Produc	ed Water		NAI	UKE	Volume of	Release 83 bbls of	of	Volume	0 bbls			
<u></u>		····-				produced v							
Source of Rel	ease 3" Fi	berglass inject	ion line			Date and F	lour of Occurrenc		12:00 pm				
Was Immedia	ite Notice (Yes [No Not Re	equired	If YES, To Bratcher	Whom? NM	OCD An	esia Offi	ce Answering	Mach	iine-Mike	•
By Whom? S	helby Penr	ington		.,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,		Date and F	lour 7/28/09 4:1	5					
Was a Watero	ourse Reac		Yes ⊠	No		If YES, Vo	lume Impacting t	he Water	course.				
If a Watergou	rca una Imi	anatad Dacari	ha Eully #	No watercourse	in area								
Describe Caus 3º Fiberglass					Emerg	gency crew wa	s sent to site to be	gin reme	diation		<u> </u>		
	approx. 7,0	00 square foo	t. Emergei				vation of highly s	aturated :	soil. Site	will be deline	ated a	ınd a	
regulations all public health of should their of	operators a or the environmentations ha ment. In ac	are required to conment. The a live failed to a dittion, NMO	report and acceptance déquately CD accept	d/or file certain re e of a C-141 repo investigate and re	lease n rt by th mediat	otifications an e NMOCD ma e contamination	knowledge and ur d perform correct trked as "Final Re on that pose a thre the operator of re	ive actio port" do at to gro	ns for rel es not rel und water	eases which n ieve the opera r, surface wate	nay en tor of er, hu	idanger Tiability man healt	h
							OIL CONS	SERVA	TION	DIVISION	1	-	
Signature:	tuin	7 Out	<i></i>	3							<u></u>		
Printed Name:	Kevin M.	Dillow				Approved by District Supervisor:				y-ma			
Title: Complia	ince Super	visor				Approval Date:		Expiration Date:					
E-mail Addres	s: Kevin.m	dillow@exxo	nmobil.co	om	Conditions of Approval:								
Date: Attach Addition	onal Sheet	Phone: 281-			/ macrea								

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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: Lease No. API # 30-015-State of New Mexico 28659 LOCATION OF RELEASE Unit Letter Section Township Range Feet from the South Line Feet from the West Line County 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 Volume Recovered: 0-Bbls. produced water 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? If YES, To Whom? NMOCD Office Answering Machine-Mike ✓ Yes ☐ No ☐ Not Required Bratcher By Whom? Shelby Pennington Date and Hour: 7/28/09 @ 4:15 Was a Watercourse Reached? If YES, Volume Impacting the Watercourse: ☐ Yes ⊠ No 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 9-07-11 placed ±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 ±300c.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. OIL CONSERVATION DIVISION Signature: Approved by Environmental Engineer: Printed Name: Jennifer W. Baird Title: Regulatory Compliance Supervisor **Approval Date: Expiration Date:** E-mail Address: Jennifer.w.baird@exxonmobil.com Conditions of Approval: Attached

Phone: (281) 654-6119

Date: 10-26-11

^{*} Attach Additional Sheets If Necessary