
29 October 2010

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

RE: Revised Remediation Proposal
Exxon Mobil –Avalon Delaware Unit Well #238
UL-K (NE ¼ of the SW ¼) of Section 30, T 20 S, R 28 E
Latitude: 32° 32' 41.21"; Longitude: 104° 13' 15.65"
Eddy County, New Mexico
EPI Ref. #190037

Dear Mr. Bratcher:

Release History

On July 28, 2009 at 12:30 p.m., produced water was released from a fiberglass injection flow line (3" dia.) when a leak developed. Approximately eighty-three (83) barrels of produced water were released with zero (0) barrels of fluid recovered. Fluids released impacted approximately 7,300 ft² of the surrounding terrain (Ref. *Figure #3*). NMOCD (M. Bratcher-Artesia) 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, T 20 S, R 28 E 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 (Ref. *Figure 2*). Subsequent drilling activities as described in *Field Work* indicated groundwater is greater than one hundred sixty (160) feet below ground surface (bgs), but impacted material exist to approximately one hundred-ten (110) feet bgs. Utilizing this information, New Mexico Oil Conservation Division (NMOCD) Remedial Goals for this Site were determined as follows:

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

Field Work

On July 28, 2009 EPI reacted to an Emergency Response and started preventative remediation activities on the release area. Initially EPI performed site assessment, GPS Survey and photographed the release area. During the period of July 28-29, 2009, the fiberglass injection line was located and exposed to allow roust-a-bout crews to repair it. However, eventually the injection line was temporarily abandoned in favor of a shorter route. Contaminated soil surrounding the 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 contaminated material was stockpiled on plastic liners

On July 30, 2009 eight (8) soil samples were collected from sidewalls and five (5) from bottom of excavation (Ref. *Figure #3*). Soil samples were tested in the field for chloride concentrations. As the nature of the release being produced water, analyses were not conducted for BTEX or 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 Remedial Threshold Goals (NMOCD Goals) of 500-mg/Kg, soil samples were not submitted to an independent laboratory for analyses. A LaMotte Chloride Test Kit (Titration Method) was used for field analyses of chloride concentrations.

EPI and Straub Corporation mobilized at 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 chloride concentrations).

On March 3, 2010 EPI and Straub Corporation mobilized to job site for advancement of SB-3. The soil boring located near the point of release was advanced to approximately 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 job site on June 14, 2010 to advance an exploratory bore hole for this purpose. BG-2 was advanced to a depth of 160 feet bgs with no trace of groundwater indicated in the drill cuttings. The soil boring was covered for protection and allowed to set overnight. On June 15, 2010 a water probe was inserted into the soil boring to TD without detecting evidence of groundwater. The soil boring was plugged using bentonite, filler material and cement. Due to the soil boring being exploratory in nature, no soil samples were collected. However, well logs were kept of the underlying formations.

In an endeavor to identify depth of contaminated soil, EPI and Straub Corporation mobilized to the job site again on August 24, 2010. Locating SB-4 as near to original point of release as possible, the soil boring was advanced to approximately 110 feet 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, the tendency of decreased chloride concentrations would allow extrapolation of data to locate depth of acceptable levels. The soil boring was plugged using bentonite, filler material and cement.

During advancement of all soil borings, soil samples designated for laboratory analyses were immediately placed in laboratory provided containers, appropriately labeled, placed in ice and transported to Cardinal Laboratory, Hobbs, New Mexico for quantification of chloride concentrations under Chain-of-Custody protocol.

Analytical Data

In reviewing *Table #3* (data) and *Figure #6* (location and data), it should be noted chloride concentrations greater than NMOCD Goals of 500-mg/Kg exist in some soil borings from ground surface to TD, i.e., SB-3 (7,120-mg/Kg @ 62 feet bgs) and SB-4 (560-mg/Kg @ 110 feet bgs). The two (2) other soil borings come into compliance with NMOCD Goals prior to TD, i.e., SB-1 (200-mg/Kg @ 60 feet bgs) and SB-2 (448-mg/Kg @ 30 feet bgs).

Field analyses of chloride concentrations in southerly Excavation #2 indicate BH-1 (400-mg/Kg) and BH-2 (240-mg/Kg) are below NMOCD Goals. However, BH-3 (9,480-mg/Kg) is significantly above NMOCD Goals (Ref. *Figure #3* for location). Correspondingly, SW-1 (400-mg/Kg), SW-2 (240-mg/Kg), SW-3 (240-mg/Kg), SW-4 (240-mg/Kg) and SW-5 (240-mg/Kg) indicate termination of lateral extent impacted material.

Field analyses of chloride concentrations in northerly Excavation #1 indicate BH-4 (10,240-mg/Kg) and bottom of Sample Trench soil sample BH-5G (11,360-mg/Kg) are above NMOCD Goals. Sidewall soil samples SW-7 (400-mg/Kg) and SW-8A (240-mg/Kg) are below while SW-6A (800-mg/Kg) is above NMOCD Goals.

Evaluation of these values indicate impacted material surrounds the point of release and extends in a southerly direction following natural lay of the ground. The impacted area appears to terminate at the southerly tip of Excavation #2 between BH-3 and BH-2. Chloride concentrations above NMOCD Goals in bottom in Excavation #1 are known to exist to approximately one hundred-ten (110) feet bgs. However, chloride concentrations in SW-7 and SW-8 indicate NMOCD Goals have been achieved laterally in the east-west direction while SW-6 indicates extension of sidewall excavation in the northerly direction.

Site Remedial Proposal

Horizontal and vertical limits of impacted material are confined to a relatively small area as denoted above. Geological information derived from well log bores 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. In view of these arguments, EPI proposes no additional vertical excavation of the release area be undertaken. The bottom of existing excavation will be cleaned of loose material and removal of major irregularities. Material breaching the two (2) excavation sites will be removed to a depth which allows smooth transition from the differential gradients. Sidewalls will be excavated to whatever width is required to achieve MNOCD Goals of 500-mg/Kg. Soil samples will be collected from sidewalls, bottom of Excavation #2 (BH-1 and BH-2) and transported to an independent laboratory for analyses of chloride concentrations. Upon receipt of laboratory results indicating NMOCD Goals have been achieved, backfill operations will commence.



Bottom of the excavation will be backfilled with select caliche to within five (5) feet of original ground surface. A minimum two (2) feet thick layer of clean top soil or cushion sand will be placed over the caliche backfill. A forty (40) mil thick layer polyethylene liner installed over the cushion material extending a minimum of two and one-half (2.5) vertical feet up sidewalls. Backfill remainder of the excavation with clean top soil free of deleterious material, rocks and clumps. This will allow a three (3) feet thick layer of top soil to establish vegetative root growth.

After backfill operations are complete, the entire disturbed area will be returned to natural surface gradient with contours preventing wind/water erosion. Disturbed areas will be seeded with a grass mixture as determined by the NMSLO. However, EPI recommends immediate drill seeding of disturbed areas with winter wheat mixture to assist in preventing wind/water erosion. This activity will be followed with drill seeding of areas with a NMSLO Mixture in late spring of 2011 when ground and weather conditions are more conducive to vegetative growth.

Upon approval of the *Remediation Proposal* with amendments as may be noted by NMOCD or NMSLO personnel, EPI will initiate remedial phase of the project. At conclusion of the project, a *Site Closure Report* will be submitted to appropriate NMOCD, ExxonMobil Corporation and NMSLO personnel.

Should you have any technical questions or concerns, please contact me at (575) 394-3481 (office), (575) 441-7802 (mobile) or via email at dduncanepi@gmail.com. Official communications should be directed to Mr. Shelby Pennington at (432) 266-1454 (mobile), (432) 596-4211 ext. 14 (office) or via email at shelby.g.pennington@exxonmobil.com. Official correspondence should be addressed to:

Mr. Shelby G. Pennington
ExxonMobil Fullerton/Seminole & New Mexico
Operations Foreman
Work Management System Functional Lead
6810 NW 8000
Andrews, Texas 79714

Sincerely,

ENVIRONMENTAL PLUS, INC.

David P. Duncan
Civil Engineer
EPI Project Manager

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



Enclosures:

Figure 1 – Area Map

Figure 2 – Site Location Map

Figure 3 – Site Map with Soil Sample Locations

Figure 4 – Soil Boring Location Map

Figure 5 – Soil Sample Location Map (3-03-10)

Figure 6 – Soil Boring Location Map with Analytical Results

Table 1 – Well Data

Table 2 – Summary of Soil Boring Soil Sample Field Analysis and Laboratory Analytical Results

Table 3 – Summary of Excavation Soil Sample Field Analysis and Laboratory Analytical Results

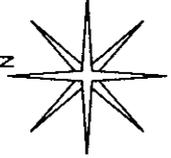
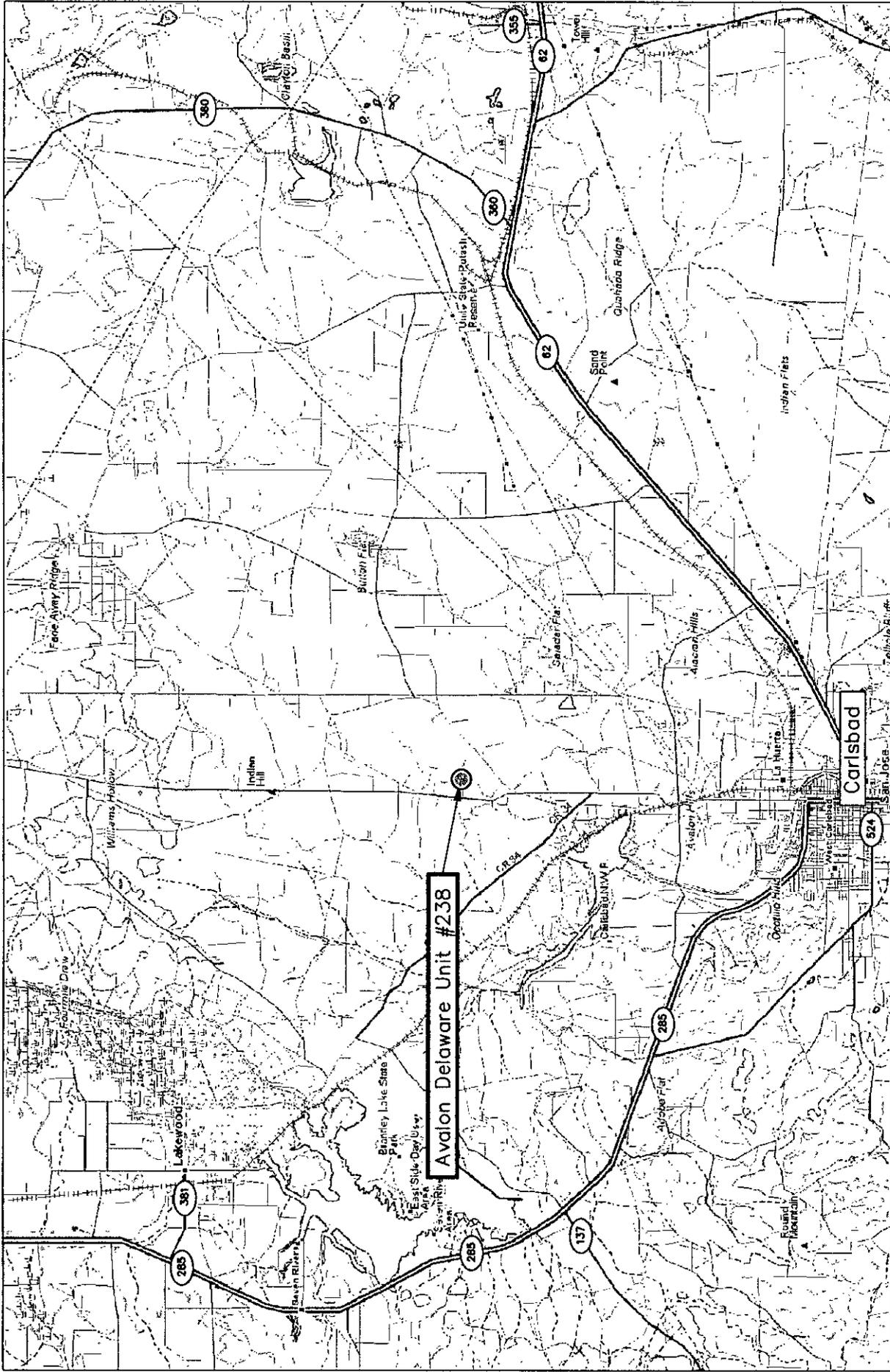
Attachment I – Site Photographs

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

Attachment III – Soil Boring Logs

Attachment IV – Copy of Initial NMOCD Form C-141

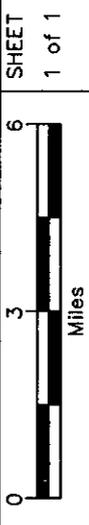
FIGURES



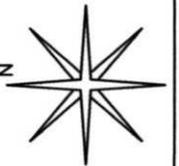
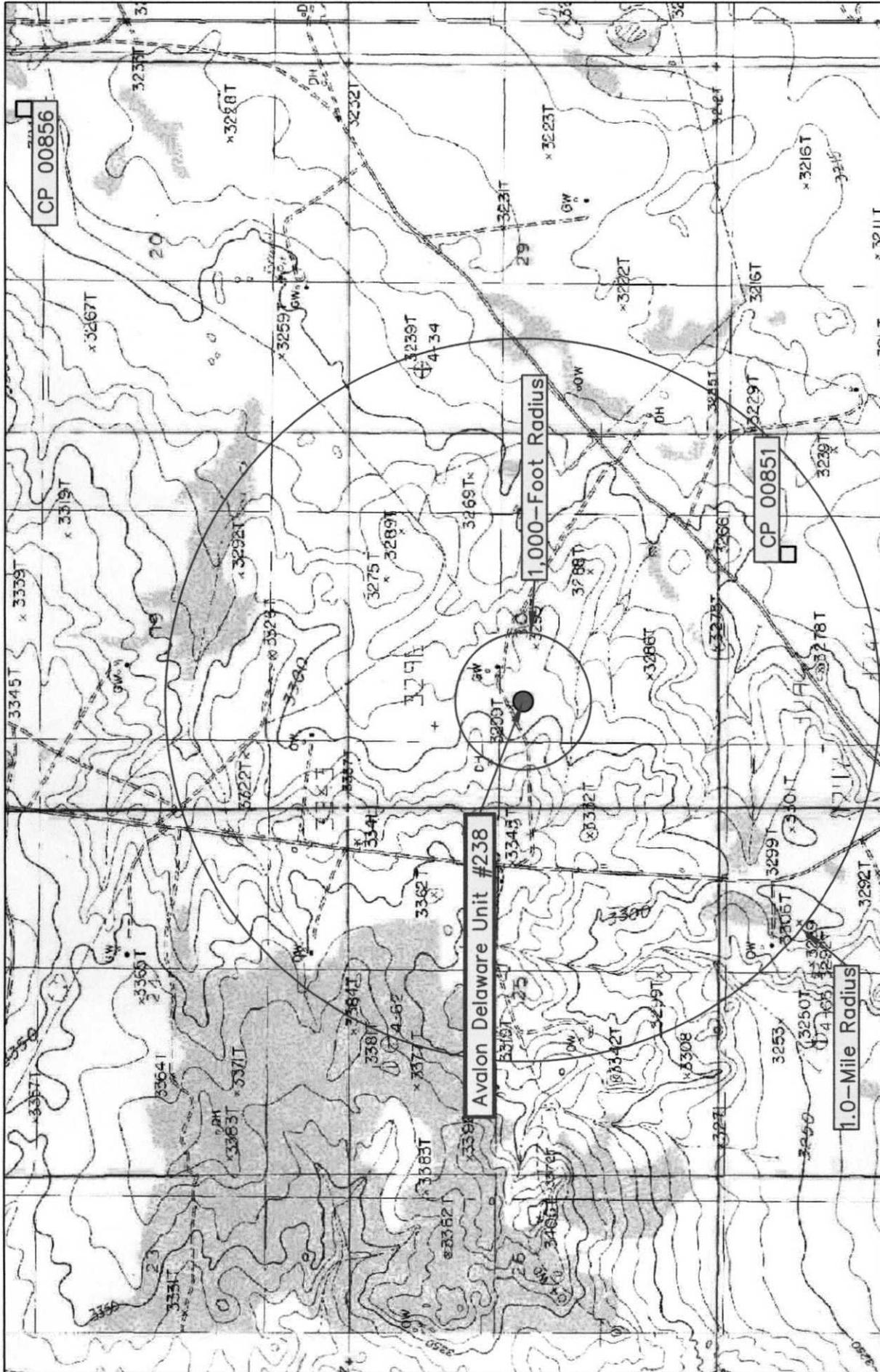
DWG By: D Dominguez
August 2009

Eddy County, New Mexico
NE 1/4 of the SW 1/4, Sec. 30, T20S, R28E
N 32° 32' 41.21" W 104° 13' 15.65"
Elevation: 3,299 feet amsl

Figure 1
Area Map
ExxonMobil
Avalon Delaware Unit #238

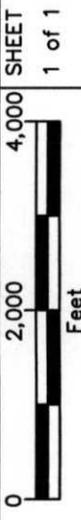


REVISED:
SHEET
1 of 1



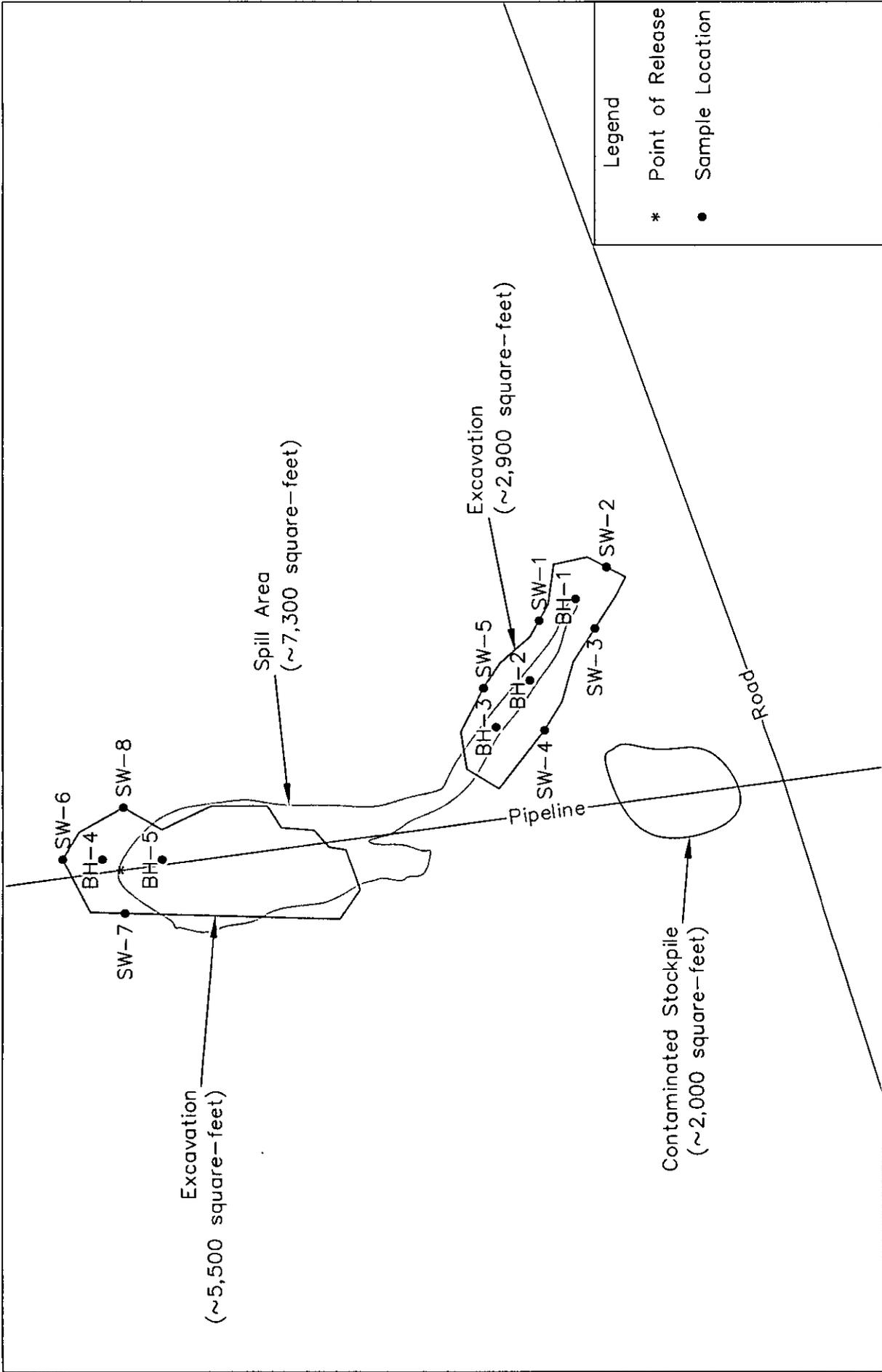
DWG By: D Dominguez
August 2009

REVISED:

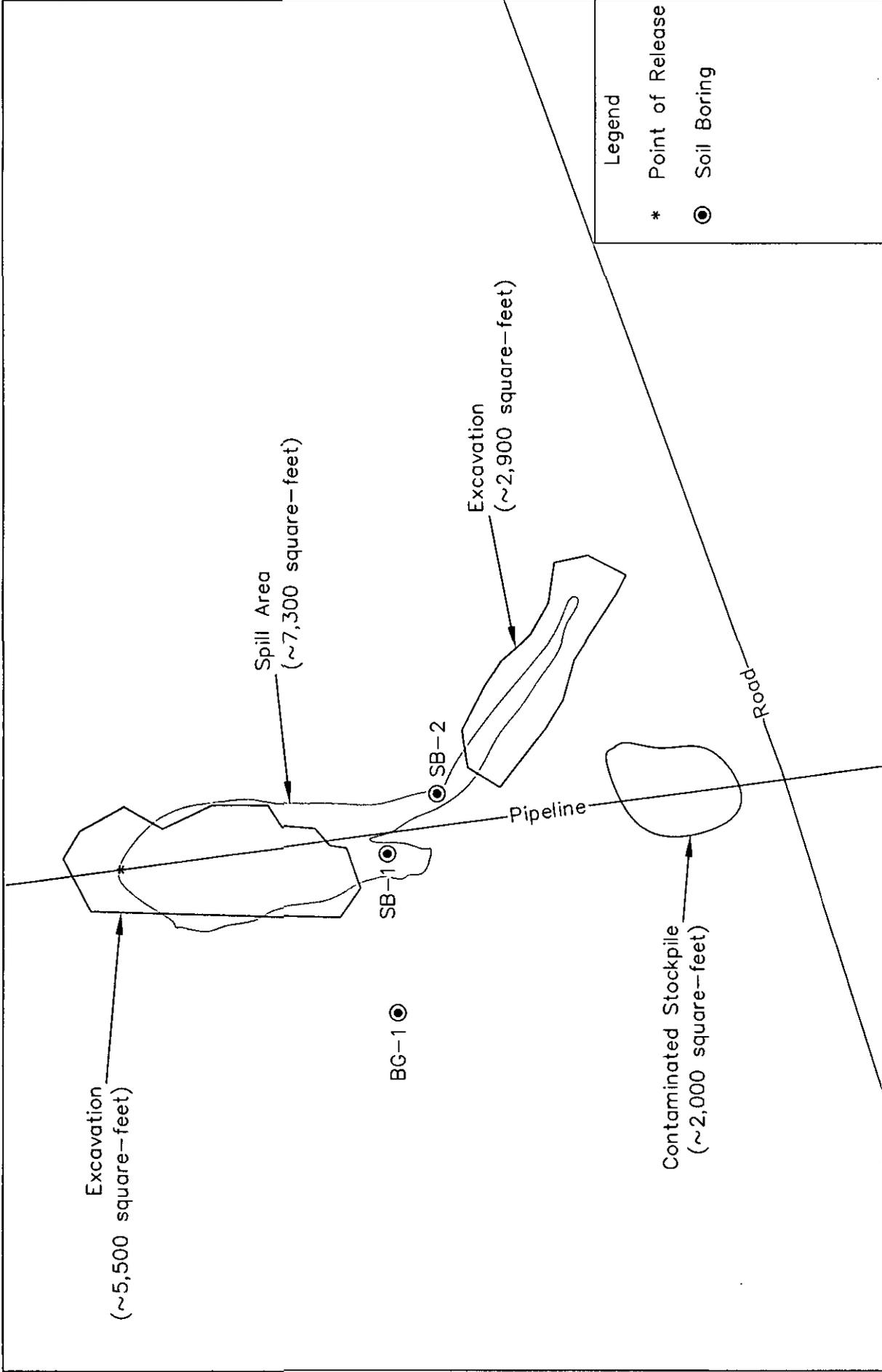


Eddy County, New Mexico
NE 1/4 of the SW 1/4, Sec. 30, T20S, R28E
N 32° 32' 41.21" W 104° 13' 15.65"
Elevation: 3,299 feet amsl

Figure 2
Site Location Map
ExxonMobil
Avalon Delaware Unit #238



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



Legend

- * Point of Release
- ⊙ Soil Boring

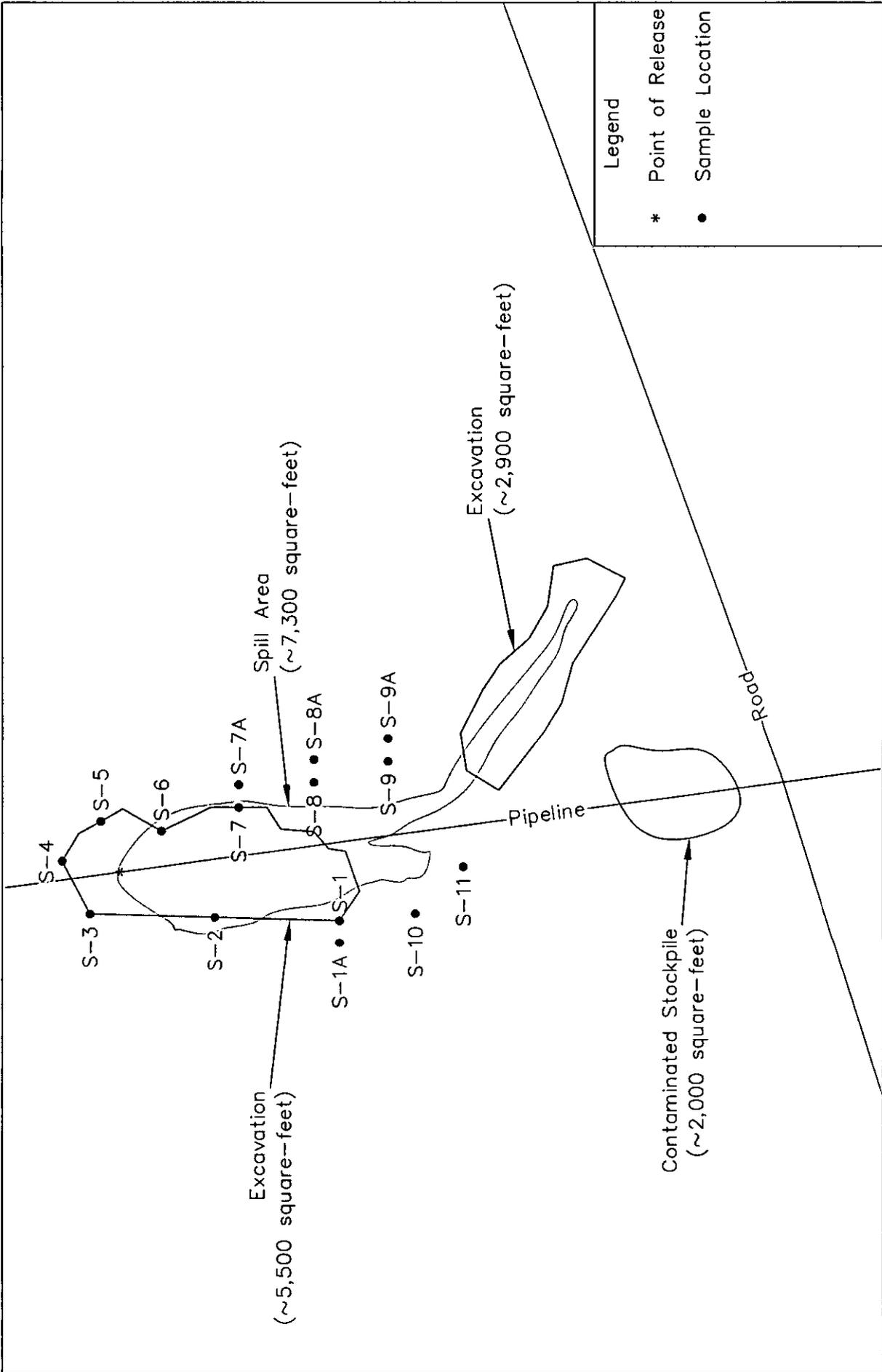
REVISED:

120 SHEET
1 of 1

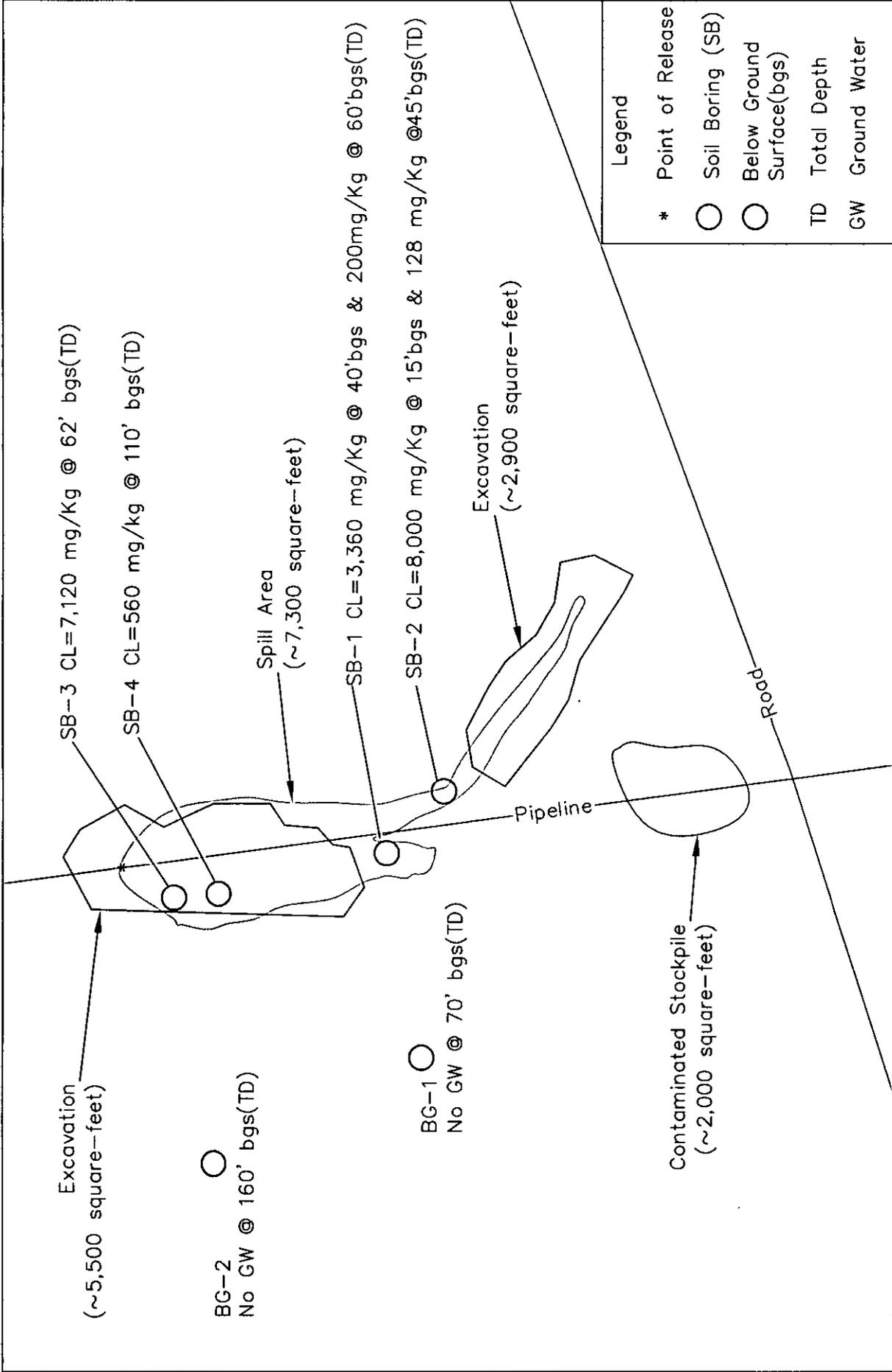
DWG By: D Dominguez
August 2009

Eddy County, New Mexico
NE 1/4 of the SW 1/4, Sec. 30, T20S, R28E
N 32° 32' 41.21" W 104° 13' 15.65"
Elevation: 3,299 feet amsl

Figure 4
Soil Boring Map
ExxonMobil
Avalon Delaware Unit #238



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



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

TABLES

TABLE 1

WELL INFORMATION REPORT*
ExxonMobil - Avalon Delaware Unit #238 (Ref #190037)

Well Number	Diversion ^A	Owner	Use	Twsp	Rng	Sec q q q	Latitude	Longitude	Date Measured	Surface Elevation ^B	Depth to Water (ft bgs)
CP 00851	3	EXXON CORPORATION	SAN	20S	28E	31 2 1 4	N32° 32' 3.69"	W104° 12' 51.09"	14-Sep-95	3,235	115
CP 00856	0	INTERCOAST OIL & GAS	PRO	20S	28E	20 2 2	N32° 33' 51.94"	W104° 11' 56.90"		3,240	
C: 02065	3	EXXON CORPORATION	PRO	20S	28E	31 4 4	N32° 31' 27.76"	W104° 12' 39.03"		3,215	
CP 00746 EXP	0	BRUCE RIGGS	STK	20S	28E	32 4 3 1	N32° 31' 31.13"	W104° 11' 56.26"		3,199	
C 01923	3	MWJ PRODUCING COMPANY	PRO	20S	27E	36 4 2	N32° 31' 40.75"	W104° 13' 41.97"	03-Sep-80	3,280	

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

^A = in acre feet per annum

^B = Interpolated from USGS Topographical Map

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

STK = 72-12-1 Livestock watering

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

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

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

Shaded area indicates wells not shown on Figure 2

TABLE 2
 Summary Excavation Soil Sample Field Analyses and Laboratory Analytical Results
 Exxon Mobil - Avalon Delaware Unit #238
 NMOCD Ref. : EPI Ref. #190037

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

Sample ID	Depth (feet)	Soil Status	Sample Date	PID Reading (ppm)	Field Chloride (mg/Kg)	Benzene (mg/Kg)	Toluene (mg/Kg)	Ethylbenzene (mg/Kg)	Total Xylenes (mg/Kg)	Total BTEX (mg/Kg)	Carbon Ranges C6-C12 (mg/Kg)	Carbon Ranges >C12-C28 (mg/Kg)	Carbon Ranges >C28-C-35 (mg/Kg)	Total TPH C6-C35 (mg/Kg)	Chloride (mg/Kg)
SS - 5	0.5	In situ	03-Mar-10	--	240	--	--	--	--	--	--	--	--	--	--
SS - 6	0.5	In situ	03-Mar-10	--	2,800	--	--	--	--	--	--	--	--	--	--
SS - 7	0.5	Excavated	03-Mar-10	--	2,640	--	--	--	--	--	--	--	--	--	--
SS - 7A	0.5	In situ	03-Mar-10	--	240	--	--	--	--	--	--	--	--	--	--
SS - 8	0.5	Excavated	03-Mar-10	--	240	--	--	--	--	--	--	--	--	--	--
SS - 8A	0.5	In situ	03-Mar-10	--	240	--	--	--	--	--	--	--	--	--	--
SS - 9	0.5	Excavated	03-Mar-10	--	240	--	--	--	--	--	--	--	--	--	--
SS - 9A	0.5	In situ	03-Mar-10	--	240	--	--	--	--	--	--	--	--	--	--
SS - 10	0.5	In situ	03-Mar-10	--	240	--	--	--	--	--	--	--	--	--	--
SS - 11	0.5	In situ	03-Mar-10	--	240	--	--	--	--	--	--	--	--	--	--
NMOCD Remedial Thresholds															
				100		10				50				1,000	500

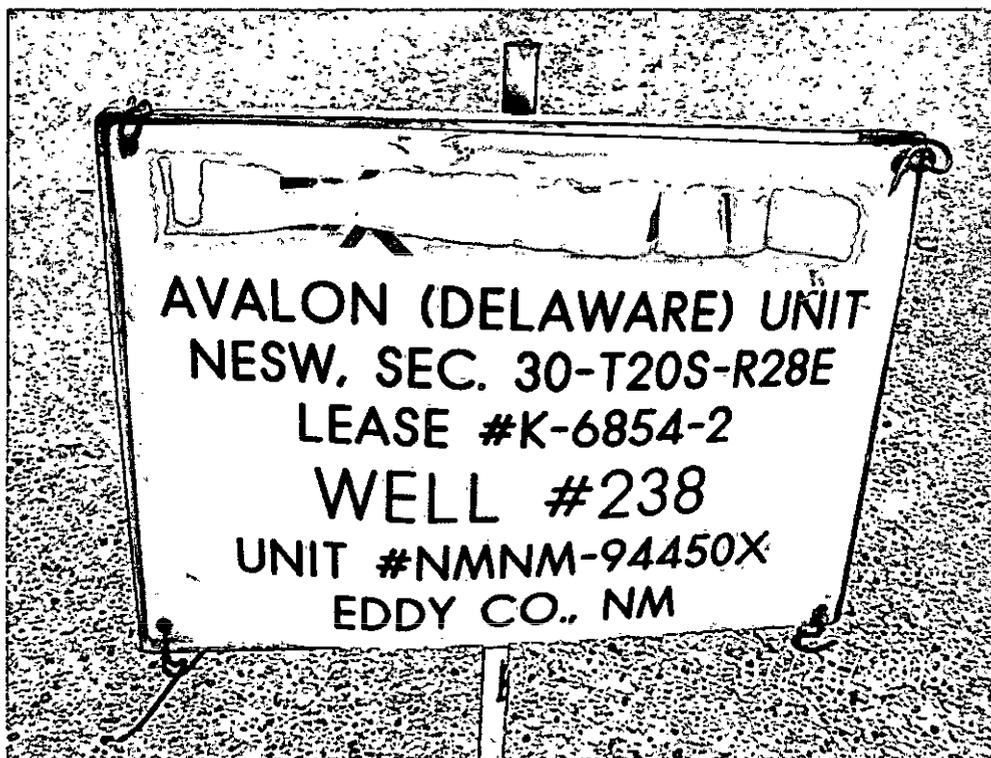
Build values exceed NMOCD remedial threshold goals

-- = Not Analyzed

Soil Sample Nomenclature: BH = Bottom Hole; NW = Sidewall; E = East, W = West, N = North and S = South; SP = Sample Point; SS = Soil Sample

ATTACHMENTS

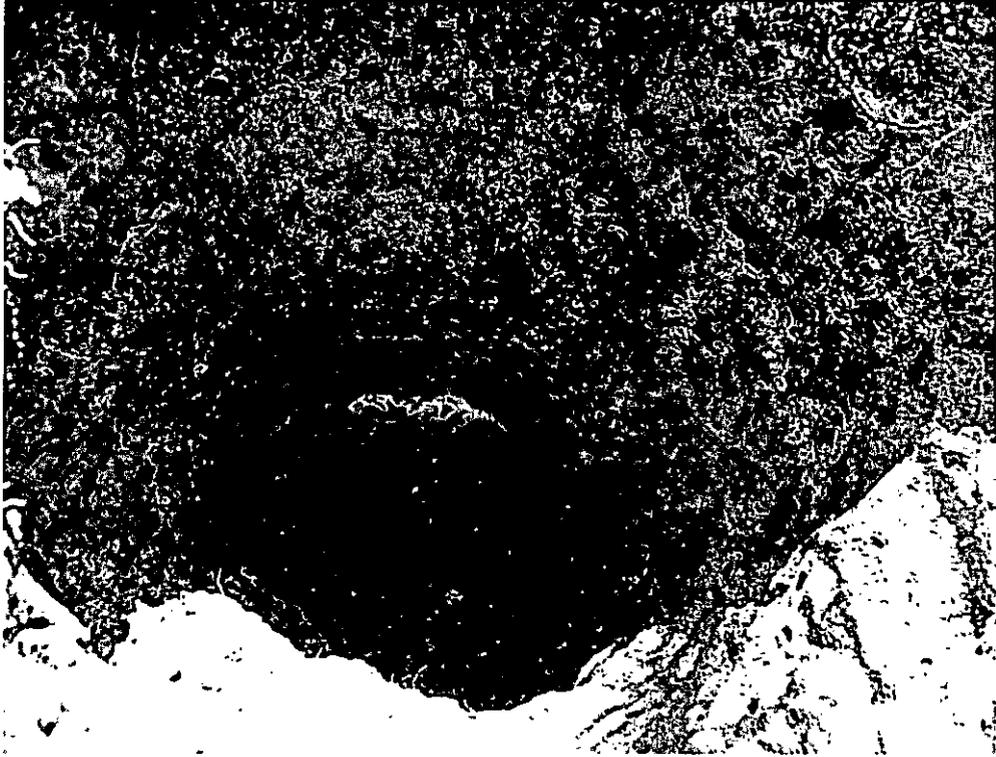
**ATTACHMENT I
PHOTOGRAPHS**



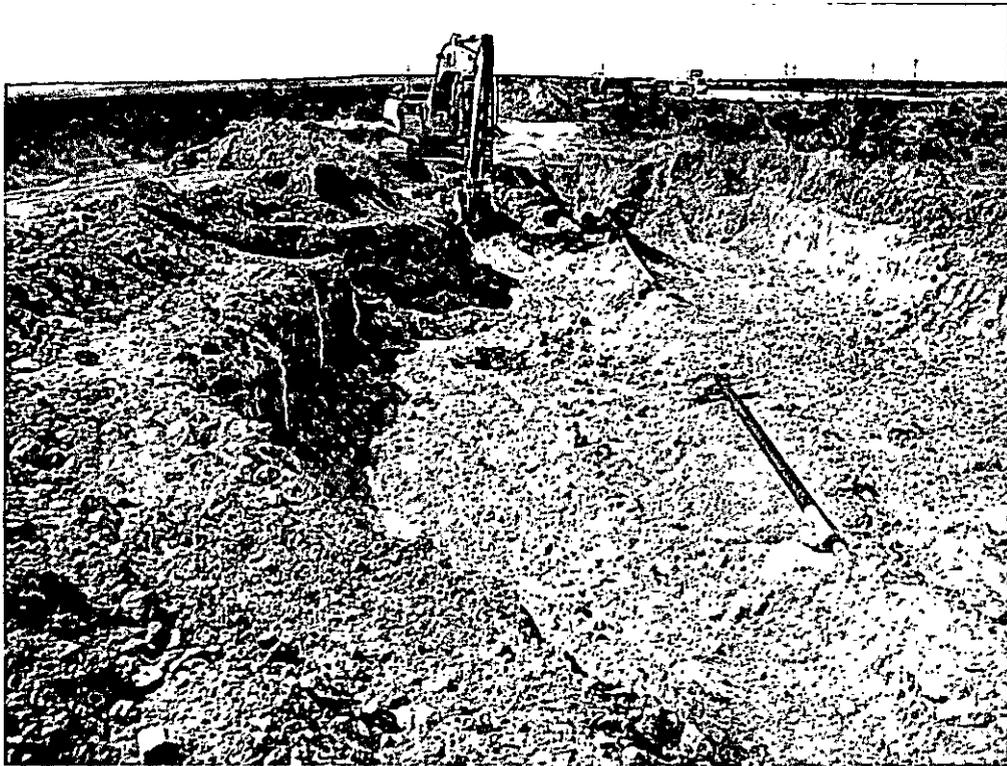
Photograph No. 1 – Lease sign



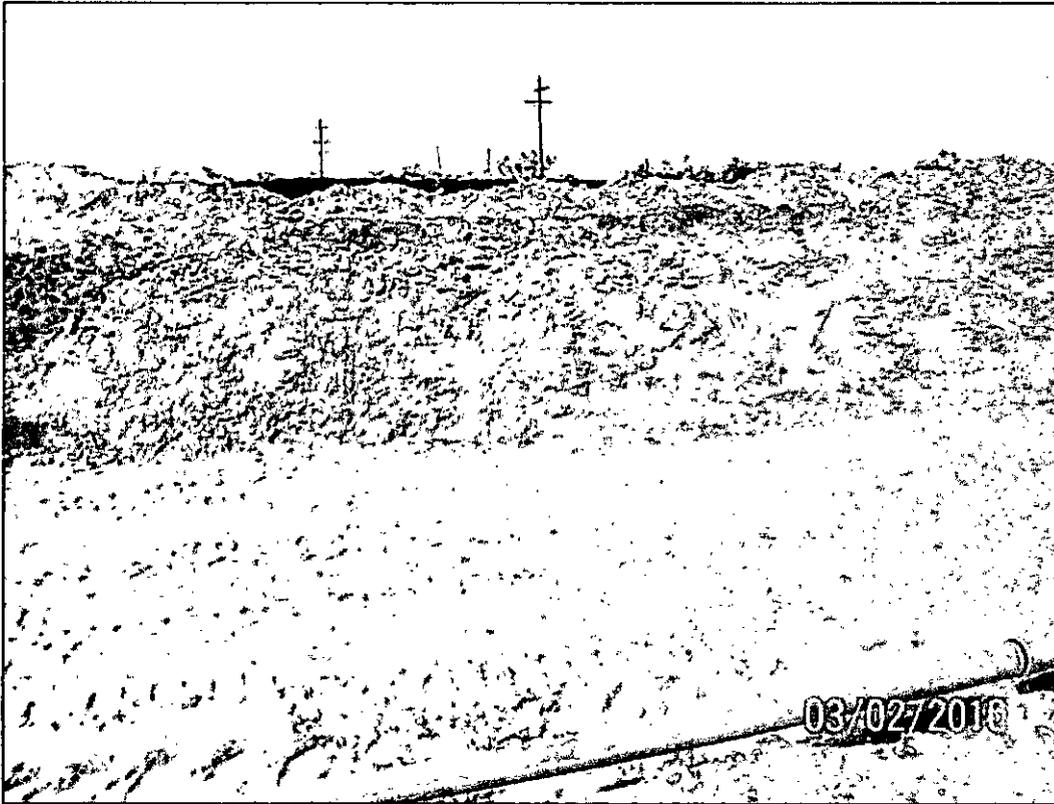
Photograph No. 2 – Looking south at release area



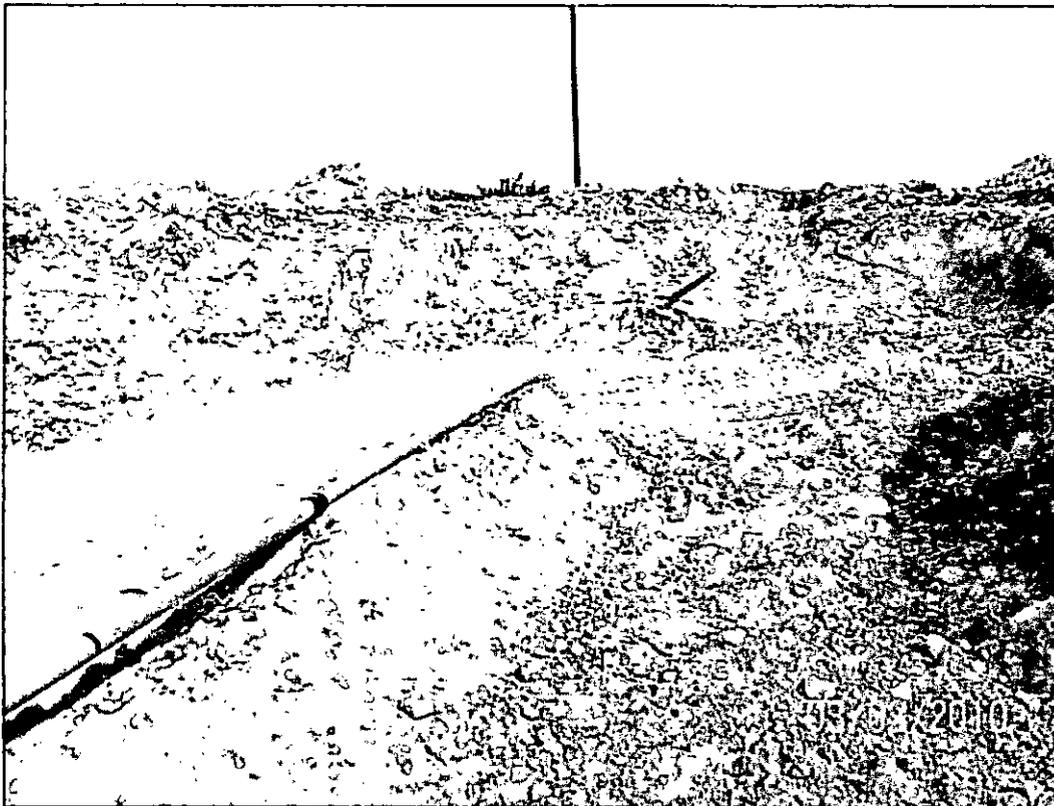
Photograph No. 3 – Looking at 3" FG Injection Line near Point of Release



Photograph No. 4 – Looking south at excavation and 3" dia. FG Injection Line



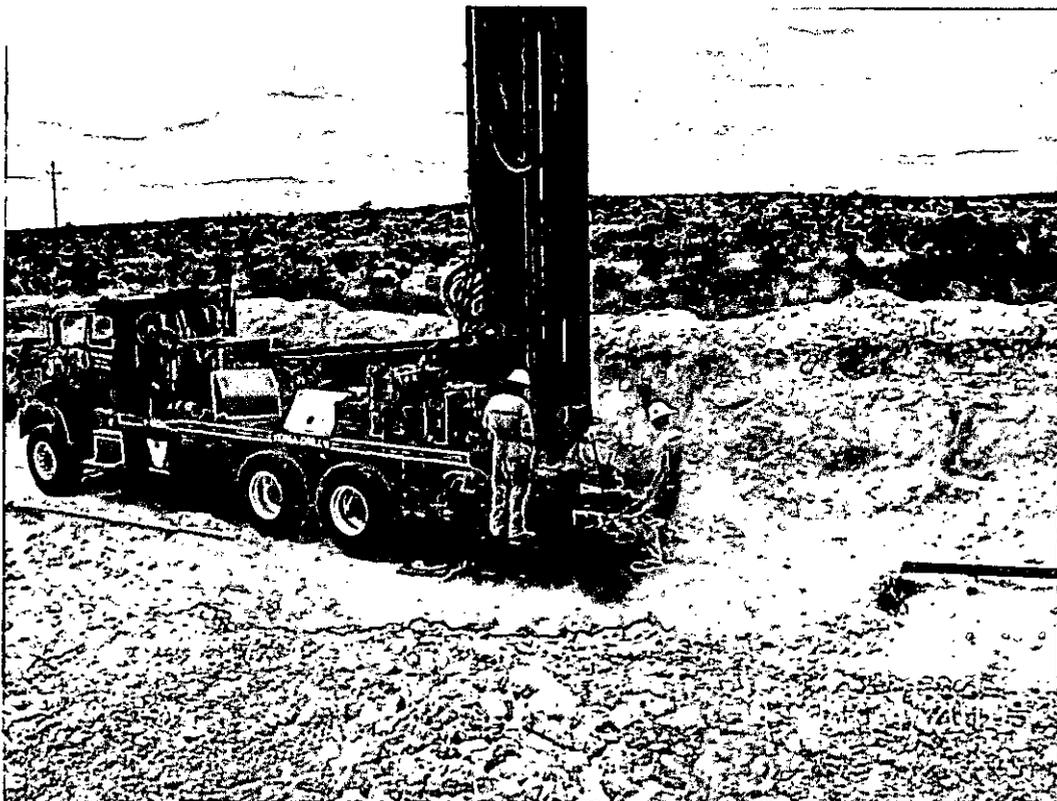
Photograph No. 5 – Looking westerly at excavation bottom, sidewalls and new 3" FG Injection Line



Photograph No. 6 – Looking northerly at excavation bottom, sidewalls, new 3" FG Injection Line and ingress/egress ramp



Photograph No. 7 – Looking easterly at excavation bottom, sidewalls, 3” FG Injection Line and ingress/egress ramps



Photograph No. 8 – Looking southerly at drilling rig advancing SB-4

ATTACHMENT II
**LABORATORY ANALYTICAL RESULTS AND CHAIN-
OF-CUSTODY FORMS**

**ATTACHMENT III
SOIL BORING LOGS**



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	POD NUMBER (WELL NUMBER) AVALON DELAWARE UNIT #238 SB-1				OSE FILE NUMBER(S)								
	WELL OWNER NAME(S) MOBIL/EXXON				PHONE (OPTIONAL)								
	WELL OWNER MAILING ADDRESS				CITY MIDLAND		STATE TX		ZIP				
	WELL LOCATION (FROM GPS)		DEGREES MINUTES SECONDS LATITUDE 32 32 40.00 N LONGITUDE 104 13 16.00 W		* ACCURACY REQUIRED: ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84								
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS FROM HOBBS GO W ON 62/180, TURN R ON THE CALRLSBAD RELIEF RD & TURN R ON LAKE AVALON RD.													
2. OPTIONAL	(2.5 ACRE) ¼		(10 ACRE) ¼		(40 ACRE) ¼		(160 ACRE) ¼		SECTION	TOWNSHIP	RANGE <input type="checkbox"/> NORTH <input type="checkbox"/> EAST <input type="checkbox"/> SOUTH <input type="checkbox"/> WEST		
	SUBDIVISION NAME				LOT NUMBER		BLOCK NUMBER		UNIT/TRACT				
	HYDROGRAPHIC SURVEY						MAP NUMBER		TRACT NUMBER				
3. DRILLING INFORMATION	LICENSE NUMBER WD1478		NAME OF LICENSED DRILLER EDWARD BRYAN				NAME OF WELL DRILLING COMPANY STRAUB CORPORATION						
	DRILLING STARTED 8-13-09		DRILLING ENDED 8-13-09		DEPTH OF COMPLETED WELL (FT) 0		BORE HOLE DEPTH (FT) 70'		DEPTH WATER FIRST ENCOUNTERED (FT) N/A				
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)						STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A						
	DRILLING FLUID		<input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD		<input type="checkbox"/> ADDITIVES - SPECIFY:								
	DRILLING METHOD:		<input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER		<input type="checkbox"/> CABLE TOOL		<input type="checkbox"/> OTHER - SPECIFY:						
	DEPTH (FT)		BORE HOLE DIA. (IN)		CASING MATERIAL		CONNECTION TYPE (CASING)		INSIDE DIA. CASING (IN)		CASING WALL THICKNESS (IN)		SLOT SIZE (IN)
	FROM	TO											
0	70	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A		
4. WATER BEARING STRATA	DEPTH (FT)		THICKNESS (FT)		FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)						YIELD (GPM)		
	FROM	TO											
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA								TOTAL ESTIMATED WELL YIELD (GPM)					

FOR OSE INTERNAL USE

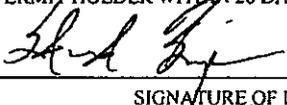
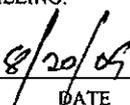
WELL RECORD & LOG (Version 6/9/08)

FILE NUMBER		POD NUMBER		TRN NUMBER	
LOCATION					PAGE 1 OF 2

5. SEAL AND PUMP	TYPE OF PUMP: <input type="checkbox"/> SUBMERSIBLE <input type="checkbox"/> JET <input type="checkbox"/> NO PUMP - WELL NOT EQUIPPED <input type="checkbox"/> TURBINE <input type="checkbox"/> CYLINDER <input type="checkbox"/> OTHER - SPECIFY:						
	ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT)		BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
		FROM	TO				
		0	2	5	.5 BAG OF CEMENT		TOPLOAD
2	70	5	17 BAGS OF 3/8 PLUG		TOPLOAD		

6. GEOLOGIC LOG OF WELL	DEPTH (FT)		THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?	
	FROM	TO			<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	0	3	3	BROWN FINE SAND - CALICHE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	3	41	38	TAN FINE SAND - SANDSTONE - CALICHE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	41	53	12	TAN SANDSTONE (MED) DENSE - CALICHE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	53	59	6	GREENISH - TAN CLAY	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	59	70	11	RED SILTY CLAY & RED VERY FINE SAND	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	TD	70			<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
	ATTACH ADDITIONAL PAGES AS NEEDED TO FULLY DESCRIBE THE GEOLOGIC LOG OF THE WELL					

7. TEST & ADDITIONAL INFO	WELL TEST	METHOD: <input type="checkbox"/> BAILER <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> OTHER - SPECIFY:
		TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	ADDITIONAL STATEMENTS OR EXPLANATIONS	
SOIL BORING ONLY- SOIL BORING WAS PLUGGED AND ABANDONED UPON COMPLETION OF SAMPLING		

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



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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1. GENERAL AND WELL LOCATION	POD NUMBER (WELL NUMBER) ADU # 238 BG2- (GS)				OSE FILE NUMBER(S)			
	WELL OWNER NAME(S) EXXON/MOBIL				PHONE (OPTIONAL)			
	WELL OWNER MAILING ADDRESS 503 S MARIENFELD, ST				CITY MIDLAND	STATE TX	ZIP 79701	
	WELL LOCATION (FROM GPS)	DEGREES 32	MINUTES 32	SECONDS 40.00 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND			
	LONGITUDE 104	13	17.00 W	* DATUM REQUIRED: WGS 84				
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS FROM HWY 206 GO E FOR .5 MILES TURN R .1TH MI TURN R TO SITE.								
2. OPTIONAL	(2.5 ACRE) ¼	(10 ACRE) ¼	(40 ACRE) ¼	(160 ACRE) ¼	SECTION	TOWNSHIP <input type="checkbox"/> NORTH <input type="checkbox"/> SOUTH	RANGE <input type="checkbox"/> EAST <input type="checkbox"/> WEST	
	SUBDIVISION NAME				LOT NUMBER	BLOCK NUMBER	UNIT/TRACT	
	HYDROGRAPHIC SURVEY					MAP NUMBER	TRACT NUMBER	
3. DRILLING INFORMATION	LICENSE NUMBER WD1478	NAME OF LICENSED DRILLER EDWARD BRYAN			NAME OF WELL DRILLING COMPANY STRAUB CORPORATION			
	DRILLING STARTED 6/14/10	DRILLING ENDED 6/14/10	DEPTH OF COMPLETED WELL (FT) 0	BORE HOLE DEPTH (FT) 160	DEPTH WATER FIRST ENCOUNTERED (FT) N/A			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)				STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD <input type="checkbox"/> ADDITIVES - SPECIFY:							
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:							
	DEPTH (FT) FROM 0 TO 160		BORE HOLE DIA. (IN) 5	CASING MATERIAL N/A	CONNECTION TYPE (CASING) N/A	INSIDE DIA. CASING (IN) N/A	CASING WALL THICKNESS (IN) N/A	SLOT SIZE (IN) N/A
4. WATER BEARING STRATA	DEPTH (FT) FROM TO		THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)			YIELD (GPM)	
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA					TOTAL ESTIMATED WELL YIELD (GPM)			

FOR OSE INTERNAL USE

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

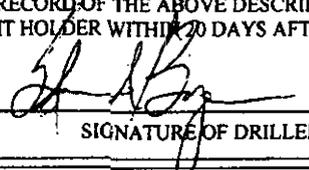
FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION	PAGE 1 OF 2	

5. SEAL AND PUMP	TYPE OF PUMP: <input type="checkbox"/> SUBMERSIBLE <input type="checkbox"/> JET <input type="checkbox"/> NO PUMP - WELL NOT EQUIPPED <input type="checkbox"/> TURBINE <input type="checkbox"/> CYLINDER <input type="checkbox"/> OTHER - SPECIFY:						
	ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT)		BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
		FROM	TO				
		0	2	5	2 BAG OF CEMENT		TOPLOAD
2	160	5	40 BAGS OF 3/8 PLUG		TOPLOAD		

6. GEOLOGIC LOG OF WELL	DEPTH (FT)		THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?	
	FROM	TO			YES	NO
	0	2	2	BROWN FINE SAND - WITH CLAY	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	2	21	19	TAN FINE SAND - SANDSTONE - CALICHE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	21	33	12	TAN FINE SAND - SANDSTONE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	33	39	6	TAN FINE SAND - MED SANDTONE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	39	42	3	(DENSE) SANDSTONE - TAN FINE SAND	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	42	60	18	(DENSE) SANDSTONE - CALICHE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	60	64	4	RED SILTY CLAY - SILTY SAND	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	64	65	1	TAN SILTY CLAY	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	65	78	13	RED SILTY CLAY - RED SILTY SAND	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	78	94	16	TAN SILTY SAND - TAN SILTY CLAY	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	94	138	44	TAN SILTY SAND - TAN SILTY STONE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	138	140	2	RED SILTY CLAY (DRY)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	140	142	2	TAN SILTY SAND	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	142	144	2	TAN SILTY SAND - SILTY CLAY	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	144	148	4	TAN SILTY SAND - SILT STONE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	148	150	2	RED FINE SAND - SILTY CLAY WITH GYPSUM	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	150	TD160	10	TAN SILTY SAND	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO

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

7. TEST & ADDITIONAL INFO	WELL TEST	METHOD: <input type="checkbox"/> BAILER <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> OTHER - SPECIFY:
		TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	ADDITIONAL STATEMENTS OR EXPLANATIONS: SOIL BORING ONLY- SOIL BORING WAS PLUGGED AND ABANDONED UPON COMPLETION OF SAMPLING	

8. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 30 DAYS AFTER COMPLETION OF WELL DRILLING:	
	 _____ SIGNATURE OF DRILLER	6/22/10 _____ DATE



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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1. GENERAL AND WELL LOCATION	POD NUMBER (WELL NUMBER) AVALON DELAWARE UNIT #238 SB-2				OSE FILE NUMBER(S)				
	WELL OWNER NAME(S) MOBIL/EXXON				PHONE (OPTIONAL)				
	WELL OWNER MAILING ADDRESS				CITY MIDLAND		STATE TX		ZIP
	WELL LOCATION (FROM GPS)	DEGREES LATITUDE	MINUTES 32	SECONDS 32	40.00 N	* ACCURACY REQUIRED. ONE TENTH OF A SECOND * DATUM REQUIRED. WGS 84			
	LONGITUDE	104	13	16.00 W					
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS FROM HOBBS GO W ON 62/180, TURN R ON THE CALRLSBAD RELIEF RD & TURN R ON LAKE AVALON RD.									
2. OPTIONAL	(2.5 ACRE) ¼	(10 ACRE) ¼	(40 ACRE) ¼	(160 ACRE) ¼	SECTION	TOWNSHIP <input type="checkbox"/> NORTH <input type="checkbox"/> SOUTH	RANGE <input type="checkbox"/> EAST <input type="checkbox"/> WEST		
	SUBDIVISION NAME				LOT NUMBER	BLOCK NUMBER	UNIT/TRACT		
	HYDROGRAPHIC SURVEY				MAP NUMBER		TRACT NUMBER		
3. DRILLING INFORMATION	LICENSE NUMBER WD1478		NAME OF LICENSED DRILLER EDWARD BRYAN			NAME OF WELL DRILLING COMPANY STRAUB CORPORATION			
	DRILLING STARTED 8-13-09		DRILLING ENDED 8-13-09	DEPTH OF COMPLETED WELL (FT) 0	BORE HOLE DEPTH (FT) 60'	DEPTH WATER FIRST ENCOUNTERED (FT) N/A			
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD <input type="checkbox"/> ADDITIVES - SPECIFY:								
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:								
	DEPTH (FT)		BORE HOLE DIA. (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)	
	FROM	TO							
0	60	5	N/A	N/A	N/A	N/A	N/A		
DEPTH (FT)		THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)				YIELD (GPM)		
FROM	TO								
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA						TOTAL ESTIMATED WELL YIELD (GPM)			

FOR OSE INTERNAL USE

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

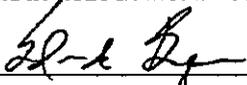
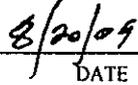
FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION	PAGE 1 OF 2	

5. SEAL AND PUMP	TYPE OF PUMP: <input type="checkbox"/> SUBMERSIBLE <input type="checkbox"/> JET <input type="checkbox"/> NO PUMP - WELL NOT EQUIPPED <input type="checkbox"/> TURBINE <input type="checkbox"/> CYLINDER <input type="checkbox"/> OTHER - SPECIFY:						
	ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT)		BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
		FROM	TO				
		0	2	5	.5 BAGS OF CEMENT		TOPLOAD
2	60	5	13 BAGS OF 3/8 PLUG		TOPLOAD		

6. GEOLOGIC LOG OF WELL	DEPTH (FT)		THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?	
	FROM	TO			<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	0	3	3	BROWN FINE SAND - CALICHE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	3	20	17	TAN FINE SAND - W/CLAY	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	20	52	32	TAN FINE SAND - SANDSTONE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	52	60	8	TAN FINE SAND	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	TD	60			<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO

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

7. TEST & ADDITIONAL INFO	WELL TEST	METHOD: <input type="checkbox"/> BAILER <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> OTHER - SPECIFY:
		TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.
	ADDITIONAL STATEMENTS OR EXPLANATIONS SOIL BORING ONLY- SOIL BORING WAS PLUGGED AND ABANDONED UPON COMPLETION OF SAMPLING	

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



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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1. GENERAL AND WELL LOCATION	POD NUMBER (WELL NUMBER) AVALON DELAWARE UNIT #238 SB-3				OSE FILE NUMBER(S)				
	WELL OWNER NAME(S) MOBIL/EXXON				PHONE (OPTIONAL)				
	WELL OWNER MAILING ADDRESS				CITY MIDLAND		STATE TX		ZIP
	WELL LOCATION (FROM GPS)	DEGREES 32	MINUTES 32	SECONDS 40.00 N	* ACCURACY REQUIRED: ONE TENTH OF A SECOND				
	LONGITUDE 104	13	16.00 W	* DATUM REQUIRED: WGS 84					
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS FROM HOBBS GO W ON 62/180, TURN R ON THE CALRLSBAD RELIEF RD & TURN R ON LAKE AVALON RD.									
2. OPTIONAL	(2.5 ACRE) <input type="checkbox"/>	(10 ACRE) <input type="checkbox"/>	(40 ACRE) <input type="checkbox"/>	(160 ACRE) <input type="checkbox"/>	SECTION	TOWNSHIP <input type="checkbox"/> NORTH <input type="checkbox"/> SOUTH	RANGE <input type="checkbox"/> EAST <input type="checkbox"/> WEST		
	SUBDIVISION NAME				LOT NUMBER	BLOCK NUMBER	UNIT/TRACT		
	HYDROGRAPHIC SURVEY					MAP NUMBER	TRACT NUMBER		
3. DRILLING INFORMATION	LICENSE NUMBER WD1478		NAME OF LICENSED DRILLER EDWARD BRYAN			NAME OF WELL DRILLING COMPANY STRAUB CORPORATION			
	DRILLING STARTED 8-13-09		DRILLING ENDED 8-13-09		DEPTH OF COMPLETED WELL (FT) 0	BORE HOLE DEPTH (FT) 45	DEPTH WATER FIRST ENCOUNTERED (FT) N/A		
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)					STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A			
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD <input type="checkbox"/> ADDITIVES - SPECIFY:								
	DRILLING METHOD: <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:								
	DEPTH (FT)		BORE HOLE DIA. (IN)	CASING MATERIAL	CONNECTION TYPE (CASING)	INSIDE DIA. CASING (IN)	CASING WALL THICKNESS (IN)	SLOT SIZE (IN)	
	FROM	TO							
0	45	5	N/A	N/A	N/A	N/A	N/A		
4. WATER BEARING STRATA	DEPTH (FT)		THICKNESS (FT)	FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)				YIELD (GPM)	
	FROM	TO							
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA						TOTAL ESTIMATED WELL YIELD (GPM)			

FOR OSE INTERNAL USE

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

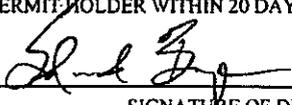
FILE NUMBER	POD NUMBER	TRN NUMBER
LOCATION	PAGE 1 OF 2	

5. SEAL AND PUMP	TYPE OF PUMP: <input type="checkbox"/> SUBMERSIBLE <input type="checkbox"/> JET <input type="checkbox"/> NO PUMP - WELL NOT EQUIPPED <input type="checkbox"/> TURBINE <input type="checkbox"/> CYLINDER <input type="checkbox"/> OTHER - SPECIFY:						
	ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT)		BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
		FROM	TO				
		0	2	5	.5 BAG OF CEMENT		TOPLoad
2	45	5	11 BAGS OF 3/8 PLUG		TOPLoad		

6. GEOLOGIC LOG OF WELL	DEPTH (FT)		THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?	
	FROM	TO			<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	0	3	3	BROWN FINE SAND - CALICHE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	3	13	10	TAN FINE SAND - W/CLAY	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	13	22	9	TAN FINE SAND - SANDSTONE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	22	45	23	TAN FINE SAND - SANDSTONE- CALICHE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	TD	45			<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO
					<input type="checkbox"/> YES	<input type="checkbox"/> NO

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

7. TEST & ADDITIONAL INFO	WELL TEST		METHOD: <input type="checkbox"/> BAILER <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> OTHER - SPECIFY:
	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.		
	ADDITIONAL STATEMENTS OR EXPLANATIONS: SOIL BORING ONLY- SOIL BORING WAS PLUGGED AND ABANDONED UPON COMPLETION OF SAMPLING		

8. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:	
	 _____ SIGNATURE OF DRILLER	8/20/09 _____ DATE



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

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1. GENERAL AND WELL LOCATION	POD NUMBER (WELL NUMBER) AVALON DELAWARE UNIT 238 BH-4				OSE FILE NUMBER(S)									
	WELL OWNER NAME(S) NEW MEXICO STATE LAND OFFICE				PHONE (OPTIONAL) 685-9020									
	WELL OWNER MAILING ADDRESS 310 OLD SANTA FE TRAIL				CITY SANTA FE		STATE NM		ZIP 87504					
	WELL LOCATION (FROM GPS)		DEGREES LATITUDE 32		MINUTES 32		SECONDS 41.00 N		* ACCURACY REQUIRED ONE TENTH OF A SECOND					
		LONGITUDE 104		13		16.00 W		* DATUM REQUIRED: WGS 84						
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS 5 MI NORTH ON CO RD 206 CARLSBAD NM.														
2. OPTIONAL	(2.5 ACRE) ¼		(10 ACRE) ¼		(40 ACRE) ¼		(160 ACRE) ¼		SECTION					
	SUBDIVISION NAME				LOT NUMBER		BLOCK NUMBER		UNIT TRACT					
	HYDROGRAPHIC SURVEY						MAP NUMBER		TRACT NUMBER					
3. DRILLING INFORMATION	LICENSE NUMBER WD1478		NAME OF LICENSED DRILLER MARTIN STRAUB				NAME OF WELL DRILLING COMPANY STRAUB CORPORATION							
	DRILLING STARTED 3-3-10		DRILLING ENDED 3-3-10		DEPTH OF COMPLETED WELL (FT) 0		BORE HOLE DEPTH (FT) 62		DEPTH WATER FIRST ENCOUNTERED (FT)					
	COMPLETED WELL IS: <input type="checkbox"/> ARTESIAN <input checked="" type="checkbox"/> DRY HOLE <input type="checkbox"/> SHALLOW (UNCONFINED)								STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A					
	DRILLING FLUID: <input checked="" type="checkbox"/> AIR <input type="checkbox"/> MUD <input type="checkbox"/> ADDITIVES - SPECIFY:													
	DRILLING METHOD <input checked="" type="checkbox"/> ROTARY <input type="checkbox"/> HAMMER <input type="checkbox"/> CABLE TOOL <input type="checkbox"/> OTHER - SPECIFY:													
	DEPTH (FT)		BORE HOLE DIA. (IN)		CASING MATERIAL		CONNECTION TYPE (CASING)		INSIDE DIA. CASING (IN)		CASING WALL THICKNESS (IN)		SLOT SIZE (IN)	
	FROM 0		TO 62		6		N/A		N/A		N/A		N/A	
4. WATER BEARING STRATA	DEPTH (FT)		THICKNESS (FT)		FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)						YIELD (GPM)			
	FROM		TO											
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA								TOTAL ESTIMATED WELL YIELD (GPM)						

FOR OSE INTERNAL USE

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

FILE NUMBER			POD NUMBER			TRN NUMBER		
LOCATION						PAGE 1 OF 2		

5. SEAL AND PUMP	TYPE OF PUMP: <input type="checkbox"/> SUBMERSIBLE <input type="checkbox"/> JET <input type="checkbox"/> NO PUMP - WELL NOT EQUIPPED <input type="checkbox"/> TURBINE <input type="checkbox"/> CYLINDER <input type="checkbox"/> OTHER - SPECIFY:						
	ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT)		BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
		FROM	TO				
		62	2	6	19 BAGS OF 3/8 HOLEPLUG		TOPLOAD
2	0	6	1 BAGS OF CEMENT		TOPLOAD		
6. GEOLOGIC LOG OF WELL	DEPTH (FT)		THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?		
	FROM	TO			<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
	0	9	9	CALICHE & TAN SILTY SAND	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
	9	33	24	TAN PINK SILTY SAND & SANDSTONE	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
	33	56	23	TAN RED SILTY SAND & GYPSUM LAYERS	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
	56	59	3	TAN FED SILTY SAND & GYPSUM LAYERS	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
	59	62	3	TAN RED SILTY SAND & SANDSTONE LAYERS	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	<input type="checkbox"/> YES <input checked="" type="checkbox"/> NO	
	TD	62			<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	
					<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	
					<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	
					<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	
					<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	
					<input type="checkbox"/> YES <input type="checkbox"/> NO	<input type="checkbox"/> YES <input type="checkbox"/> NO	
	ATTACH ADDITIONAL PAGES AS NEEDED TO FULLY DESCRIBE THE GEOLOGIC LOG OF THE WELL.						
7. TEST & ADDITIONAL INFO	WELL TEST	METHOD: <input type="checkbox"/> BAILER <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> OTHER - SPECIFY:					
		TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.					
		ADDITIONAL STATEMENTS OR EXPLANATIONS: SOIL BORING ONLY- SOIL BORING WAS PLUGGED AND ABANDONED UPON COMPLETION OF SAMPLING					
8. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:						
	<u>Mark Stahl</u> SIGNATURE OF DRILLER			<u>3-24-10</u> DATE			

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



WELL RECORD & LOG

OFFICE OF THE STATE ENGINEER

www.ose.state.nm.us

1. GENERAL AND WELL LOCATION	POD NUMBER (WELL NUMBER) ADU # 238 SB-4				OSE FILE NUMBER(S)							
	WELL OWNER NAME(S) EXXON/MOBIL				PHONE (OPTIONAL)							
	WELL OWNER MAILING ADDRESS 503 S MARIENFELD, ST				CITY MIDLAND		STATE TX		ZIP 79701			
	WELL LOCATION (FROM GPS)		DEGREES		MINUTES		SECONDS		* ACCURACY REQUIRED. ONE TENTH OF A SECOND * DATUM REQUIRED: WGS 84			
			LATITUDE		32		32				41.00 N	
		LONGITUDE		104		13		15.00 W				
DESCRIPTION RELATING WELL LOCATION TO STREET ADDRESS AND COMMON LANDMARKS FROM HWY 206 GO E FOR .5 MILES TURN R .1TH MI TURN R TO SITE. EDDY COUNTY												
2. OPTIONAL	(2.5 ACRE) 1/4		(10 ACRE) 1/4		(40 ACRE) 1/4		(160 ACRE) 1/4		SECTION			
	SUBDIVISION NAME				LOT NUMBER		BLOCK NUMBER		UNIT/TRACT			
	HYDROGRAPHIC SURVEY				MAP NUMBER				TRACT NUMBER			
									TOWNSHIP <input type="checkbox"/> NORTH <input type="checkbox"/> SOUTH			
								RANGE <input type="checkbox"/> EAST <input type="checkbox"/> WEST				
3. DRILLING INFORMATION	LICENSE NUMBER WD1478		NAME OF LICENSED DRILLER EDWARD BRYAN				NAME OF WELL DRILLING COMPANY STRAUB CORPORATION					
	DRILLING STARTED 6/24/10		DRILLING ENDED 6/24/10		DEPTH OF COMPLETED WELL (FT) 0		BORE HOLE DEPTH (FT) 110		DEPTH WATER FIRST ENCOUNTERED (FT) N/A			
	COMPLETED WELL IS.		<input type="checkbox"/> ARTESIAN		<input checked="" type="checkbox"/> DRY HOLE		<input type="checkbox"/> SHALLOW (UNCONFINED)		STATIC WATER LEVEL IN COMPLETED WELL (FT) N/A			
	DRILLING FLUID:		<input checked="" type="checkbox"/> AIR		<input type="checkbox"/> MUD		<input type="checkbox"/> ADDITIVES - SPECIFY:					
	DRILLING METHOD:		<input checked="" type="checkbox"/> ROTARY		<input type="checkbox"/> HAMMER		<input type="checkbox"/> CABLE TOOL		<input type="checkbox"/> OTHER - SPECIFY:			
	DEPTH (FT)		BORE HOLE DIA. (IN)		CASING MATERIAL		CONNECTION TYPE (CASING)		INSIDE DIA. CASING (IN)		CASING WALL THICKNESS (IN)	SLOT SIZE (IN)
	FROM	TO										
	0	110	5	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
4. WATER BEARING STRATA	DEPTH (FT)		THICKNESS (FT)		FORMATION DESCRIPTION OF PRINCIPAL WATER-BEARING STRATA (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)					YIELD (GPM)		
	FROM	TO										
METHOD USED TO ESTIMATE YIELD OF WATER-BEARING STRATA								TOTAL ESTIMATED WELL YIELD (GPM)				

FOR OSE INTERNAL USE

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

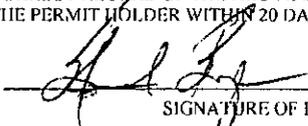
FILE NUMBER		POD NUMBER		TRN NUMBER	
LOCATION					PAGE 1 OF 2

5. SEAL AND PUMP	TYPE OF PUMP: <input type="checkbox"/> SUBMERSIBLE <input type="checkbox"/> JET <input type="checkbox"/> NO PUMP - WELL NOT EQUIPPED <input type="checkbox"/> TURBINE <input type="checkbox"/> CYLINDER <input type="checkbox"/> OTHER - SPECIFY:						
	ANNULAR SEAL AND GRAVEL PACK	DEPTH (FT)		BORE HOLE DIA. (IN)	MATERIAL TYPE AND SIZE	AMOUNT (CUBIC FT)	METHOD OF PLACEMENT
		FROM	TO				
		0	2	5	.5 BAG OF CEMENT		TOPLOAD
2	110	5	23 BAGS OF 3/8 PLUG		TOPLOAD		

6. GEOLOGIC LOG OF WELL	DEPTH (FT)		THICKNESS (FT)	COLOR AND TYPE OF MATERIAL ENCOUNTERED (INCLUDE WATER-BEARING CAVITIES OR FRACTURE ZONES)	WATER BEARING?	
	FROM	TO			<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	0	3	3	TAN FINE SAND - SANDSTONE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	3	10	7	TAN FINE SAND - GRAVEL SANDSTONE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	10	55	45	TAN FINE SAND - SANDSTONE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	55	63	8	TAN FINE SAND - MED SANDTONE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	63	67	4	GRAY CEMENTED SANDSTONE (DENSE)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	67	72	5	GOLD CEMENTED SANDSTONE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	72	73	1	GRAY CLAY SILTY	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	73	78	5	TAN CEMENTED SANDSTONE (DENSE)	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	78	94	16	TAN (DENSE) SANDSTONE - TAN FINE SAND	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	94	110	16	CALCRETE	<input type="checkbox"/> YES	<input checked="" type="checkbox"/> NO
	TD	110			<input type="checkbox"/> YES	<input type="checkbox"/> NO

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

7. TEST & ADDITIONAL INFO	WELL TEST	METHOD: <input type="checkbox"/> BAILER <input type="checkbox"/> PUMP <input type="checkbox"/> AIR LIFT <input type="checkbox"/> OTHER - SPECIFY:
	TEST RESULTS - ATTACH A COPY OF DATA COLLECTED DURING WELL TESTING, INCLUDING START TIME, END TIME, AND A TABLE SHOWING DISCHARGE AND DRAWDOWN OVER THE TESTING PERIOD.	
	ADDITIONAL STATEMENTS OR EXPLANATIONS SOIL BORING ONLY- SOIL BORING WAS PLUGGED AND ABANDONED UPON COMPLETION OF SAMPLING	

8. SIGNATURE	THE UNDERSIGNED HEREBY CERTIFIES THAT, TO THE BEST OF HIS OR HER KNOWLEDGE AND BELIEF, THE FOREGOING IS A TRUE AND CORRECT RECORD OF THE ABOVE DESCRIBED HOLE AND THAT HE OR SHE WILL FILE THIS WELL RECORD WITH THE STATE ENGINEER AND THE PERMIT HOLDER WITHIN 20 DAYS AFTER COMPLETION OF WELL DRILLING:	
	 SIGNATURE OF DRILLER	9/3/10 DATE

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

ATTACHMENT IV
COPY OF NMOCD FORM C-141

District I
1625 N. French Dr., Hobbs, NM 88240
District II
1301 W. Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-141
Revised October 10, 2003

Submit 2 Copies to appropriate
District Office in accordance
with Rule 116 on back
side of form

Release Notification and Corrective Action

OPERATOR

Initial Report Final Report

Name of Company ExxonMobil	Contact Toni Collier
Address P.O. Box 4358, Houston, TX 77210	Telephone No. 281-654-1133
Facility Name Avalon Delaware Unit #238	Facility Type Injection line
Surface Owner State Of New Mexico	Mineral Owner
Lease No. API#3001528659	

LOCATION OF RELEASE

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

Latitude 32 32.641 Longitude 104 13.243

NATURE OF RELEASE

Type of Release :Produced Water	Volume of Release 83 bbls of produced water	Volume 0 bbls
Source of Release 3" Fiberglass injection line	Date and Hour of Occurrence	Date and Hour of Discovery 7/28/09 12:00 pm
Was Immediate Notice Given? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Required	If YES, To Whom? NMOCD Artesia Office Answering Machine-Mike Bratcher	
By Whom? Shelby Pennington	Date and Hour 7/28/09 4:15	
Was a Watercourse Reached? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	If YES, Volume Impacting the Watercourse.	
If a Watercourse was Impacted, Describe Fully.* No watercourse in area		
Describe Cause of Problem and Remedial Action Taken.* 3" Fiberglass line developed leak. Leak was isolated and repaired. Emergency crew was sent to site to begin remediation		
Describe Area Affected and Cleanup Action Taken.* Area covered approx. 7,000 square foot. Emergency crew was sent to site to begin excavation of highly saturated soil. Site will be delineated and a remediation plan will be submitted for approval to the NMOCD Artesia office.		
I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.		

OIL CONSERVATION DIVISION

Signature: 	Approved by District Supervisor:	
Printed Name: Kevin M. Dillow	Approval Date:	Expiration Date:
Title: Compliance Supervisor	Conditions of Approval:	
E-mail Address: Kevin.m.dillow@exxonmobil.com	Attached <input type="checkbox"/>	
Date:	Phone: 281-654-1557	

* Attach Additional Sheets If Necessary