AP - 086

GENERAL CORRESPONDENCE

2008 - 2007

New Mexico Energy, Minerals and Natural Resources Department

Bill Richardson
Governor

Joanna Prukop
Cabinet Secretary
Reese Fullerton
Deputy Cabinet Secretary

Mark Fesmire
Division Director
Oil Conservation Division

April 25, 2008

Mr. Dennis Newman
OXY USA, Inc.
P.O. Box 4294
Houston, TX 77210-4294

RE: REQUIREMENT TO SUBMIT ABATEMENT PLAN
OXY USA, INC. - TODD ATB NO. 1 (SECTION 36)
SECTION 36, TOWNSHIP 7 SOUTH, RANGE 35 EAST
ROOSEVELT COUNTY, NEW MEXICO
OCD CASE NO. AP086

Dear Mr. Newman:

The Oil Conservation Division (OCD) has determined that OXY USA, Inc. (OXY) must submit a Stage 1 Abatement Plan in accordance with OCD's Rule 19 (19.15.1.19 NMAC) to investigate ground water contamination at its Todd ATB No. 1 (Section 36) tank battery, located in Section 36, Township 7 South, Range 35 East, Roosevelt County, New Mexico. The Stage 1 Abatement Plan proposal must be submitted to the OCD Santa Fe Office with a copy provided to the OCD Hobbs District Office and must meet of all the requirements specified in OCD Rule 19 (19.15.1.19 NMAC), including, but not limited to, the public notice and participation requirements specified in Rule 19G. The Stage 1 Abatement Plan is due sixty (60) days from the receipt by OXY of this written notice.

OXY's Stage 1 Abatement Plan must specifically meet all of the requirements specified in OCD Rule 19E.3, including, but not limited to, a site investigation work plan and monitoring program that will enable it to characterize the chloride release using an appropriate number of isoconcentration maps and cross sections and to provide the data necessary to select and design an effective abatement option. OXY's proposal must include the installation of at least one monitor well beneath the site of the tank battery screened below the water table to determine whether "plume diving" is occurring. OXY may, if it chooses, concurrently submit a Stage 2 Abatement Plan that proposes appropriate proactive abatement options.

OXY should submit one paper copy with and an electronic copy on CD of all future workplans and/or reports. Please refer to ***OCD Case No. AP086*** on all future correspondence. If you have any questions, please contact Glenn von Gonten of my staff at (505) 476-3488.

Sincerely,

Wayne Price
Environmental Bureau Chief

WP/gvg

cc: Chris Williams
Larry Johnson

Occidental Permian Ltd.
A subsidiary of Occidental Petroleum Corporation

5 Greenway Plaza, Suite 110, Houston, Texas 77046-0521
P.O. Box 4294, Houston, Texas 77210-4294
Phone 713.215.7000
www.oxy.com

VIA REGULAR MAIL AND EMAIL

March 11, 2008

Mr. Glenn von Gonten
New Mexico Energy, Mineral and Natural Resources Department
Oil Conservation Division
1220 South Saint Francis Drive
Santa Fe, New Mexico 87505

RE: Submission of Form C-141 – Release Notification and Corrective Action and OXY USA Inc. Authorized Representative
Todd ATB#1
State L-2 Tank Battery
E. M. Elliott Tank Battery
Todd Water Injection Station
Todd Hobbs R #10 Tank Battery
E. C. Hill "B" ATB at Well #24
E. C. Hill B-D Tank Battery
E. C. Hill Federal #7 Tank Battery

Dear Mr. von Gonton:

OXY USA Inc. ("Oxy") appreciates the time you and Wayne Price with the Oil Conservation Division ("OCD") spent meeting with Oxy representatives (Rick Passmore with Glenn Springs Holding, Inc., Tim Reed with Highlander Environmental, and myself) on February 27, 2008 to discuss Oxy's role as the new operator for the subject sites effective March 1, 2008.

Per your request, attached are Form C-141s for the eight (8) referenced sites. Note Rule 116 letter notifications for these sites were sent to the OCD on June 25, 2007 by Latigo Petroleum Inc. ("Latigo"). Pogo Producing ("Pogo") acquired Latigo in 2006 followed by Plains Exploration and Production ("PXP") acquiring Pogo in November 2007. Oxy has recently acquired majority interest in these sites from PXP and is the new operator.

OXY's remediation company, Glenn Springs Holding, Inc. ("GSH") will be responsible for managing the referenced sites; GSH is a subsidiary of Occidental Petroleum Corporation. OXY's authorized project manager for the referenced sites will be:

Mr. Rick Passmore
Glenn Springs Holding, Inc.
5005 LBJ Freeway, Suite 1350
Dallas Texas 75244
Office: 972-687-7504
Mobile: 859-221-7616
Rick_passmore@oxy.com

If you or District I have any questions concerning the C-141s for the referenced sites, please contact Mr. Passmore. Again, we thank you for your time meeting with us.

Sincerely,

Dennis L. Newman, P.E.

cc: New Mexico Energy, Mineral and Natural Resources Department
Oil Conservation Division
District I
1625 N. French Dr.
Hobbs, New Mexico 88240

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 OXY USA, Inc.	Contact Rick Passmore
Address P.O. Box 4294, Houston, Texas 77210-4294	Telephone No. 972-687-7504
Facility Name Todd ATB #1 (Section 36)	Facility Type Abandoned Tank Battery

Surface Owner	Mineral Owner	Lease No.

LOCATION OF RELEASE

Unit Letter	Section	Township	Range	Feet from the	North/South Line	Feet from the	East/West Line	County
	36	7 South	35 East					Roosevelt

Latitude 33.66878 **Longitude** 103.30985

NATURE OF RELEASE

Type of Release Oil and /or produced water	Volume of Release Unknown	Volume Recovered None
Source of Release Historic oil and produced water spills	Date and Hour of Occurrence Unknown	Date and Hour of Discovery
Was Immediate Notice Given? ☐ Yes ☐ No ☒ Not Required	If YES, To Whom? N/A	
By Whom?	Date and Hour N/A	
Was a Watercourse Reached? ☐ Yes ☒ No	If YES, Volume Impacting the Watercourse. N/A	

If a Watercourse was Impacted, Describe Fully.*

N/A

Describe Cause of Problem and Remedial Action Taken.*

Historic spills.

Latigo Petroleum, Inc. made initial notification to the NMOCD on June 25, 2007, based on due diligence. Latigo was bought by Pogo Producing in 2006. Plains Exploration and Production (PXP) bought Pogo Producing in 2007, and finally OXY, USA Inc. purchased a majority interest in the PXP New Mexico assets on February 29, 2008 and became the operator on March 1, 2008.

Describe Area Affected and Cleanup Action Taken.*

Site Investigation and Characterization is in progress.

I hereby certify that the information given above is true and complete to the best of my knowledge and understand that pursuant to NMOCD rules and regulations all operators are required to report and/or file certain release notifications and perform corrective actions for releases which may endanger public health or the environment. The acceptance of a C-141 report by the NMOCD marked as "Final Report" does not relieve the operator of liability should their operations have failed to adequately investigate and remediate contamination that pose a threat to ground water, surface water, human health or the environment. In addition, NMOCD acceptance of a C-141 report does not relieve the operator of responsibility for compliance with any other federal, state, or local laws and/or regulations.

Signature:	OIL CONSERVATION DIVISION
Printed Name: Dennis Newman	Approved by District Supervisor:
Title: Senior Environmental Consultant	Approval Date: / Expiration Date:
E-mail Address: dennis_newman@oxy.com	Conditions of Approval: / ☐ Attached
Date: March 7, 2008 Phone: 713-366-5485	

* Attach Additional Sheets If Necessary

AP086

Highlander Environmental Corp.

Midland, Texas

February 18, 2008

Mr. Glenn von Gonten
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87504

RE: Latigo Petroleum, Inc. – Project Summary
Todd ATB #1 (Section 36)
Section 36, Township 7 South, Range 35 East
Roosevelt County, New Mexico
33.66878° N, 103.30985° W

Mr. von Gonten:

On behalf of Latigo Petroleum, Inc. (Latigo), Highlander Environmental Corp. (Highlander) performed a limited subsurface investigation at the Latigo Todd ATB #1 (Section 36) Section 36, Township 7 South, Range 35 East, Roosevelt County, New Mexico. The site location is shown on Figure 1. The soil investigation consisted of placement of hand auger holess and boreholes to assess the subsurface soils. Based on the soil assessment, a well was installed to assess the groundwater qualities at the Site.

Impacted areas were investigated around the ATB pad and south of the ATB. In the area of AH-3 and AH-7, the subsurface soils were impacted with total petroleum hydrocarbons from surface to maximum depths of 4 feet to 10 feet below surface, respectively. In addition, elevated chloride concentrations were noted from surface to depths of 20 feet to 70 feet below surface. The hand auger and borehole locations are shown on Figure 2. The analytical results are shown in Table 1 and Table 2.

Based on the results, borehole (BH-2) was converted to a temporary 2-inch monitor well. Groundwater was encountered at approximately 63 feet below top of casing (TOC). On September 6, 2006 and May 15, 2007, Highlander purged and sampled the well per OCD guidelines for analyses of chlorides and BTEX. Chloride concentrations exceeded New Mexico Water Quality Control Commission (NMWQCC) standards, while hydrocarbon constituents (BTEX) were detected at levels below the NMWQCC action levels. The analytical results are shown in Table 3.

A total of ten (10) monitor wells have been installed at this facility. The well locations are shown on the attached Figures 3 and 4. The wells have been gauged and sampled. The results are summarized in Table 3.

Should you have any questions or concerns regarding this site, please do not hesitate to contact me at (432) 682-4559.

Highlander Environmental Corp.

Ike Tavarez, P.G.
Sr. Geologist/Project Manager

FIGURES

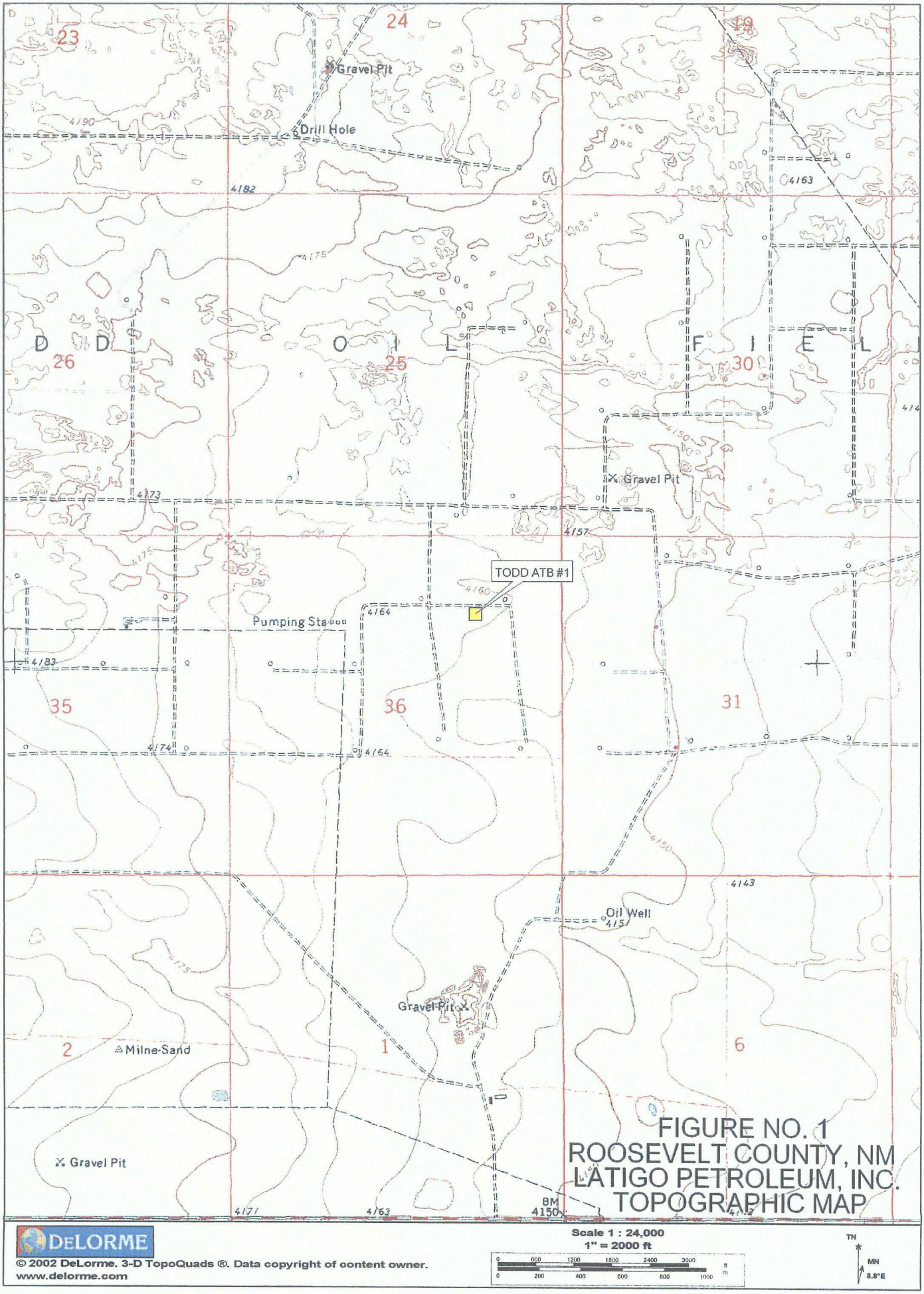


FIGURE NO. 1
ROOSEVELT COUNTY, NM
LATIGO PETROLEUM, INC.
TOPOGRAPHIC MAP

BORE HOLES
SPILL AREAS
SAMPLE LOCATIONS

NOT TO SCALE

FIGURE NO. 2

ROOSEVELT COUNTY, NEW MEXICO

LATIGO PETROLEUM, INC.
TODD UT ATB #1 (SECTION 36)

DATE: 7/20/07
DWN. BY: RC
FILE: C:\POGO\2617\TODD ATB #1

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

OVERHEAD POWERLINE

PLUGGED OIL WELL

WELL PAD

MW-5
DRY

MW-8
4099.90

MW-10
DRY

10' CALICHE RD.

MW-2
4094.98

SPILL
AREA

MW-1
4099.34

PIT

MW-4
4099.18

MW-3
4089.08

MW-7
4096.75

MW-9
DRY

MW-6
DRY

4095

4095

10' CALICHE RD.

C.I. – 5 FEET
WATER LEVELS OBTAINED ON
9/19/07

SCALE: 1" = 60'

0 30 60

DATE: 10/8/07
DWG. BY: RC
FILE: C:\POGO\3617

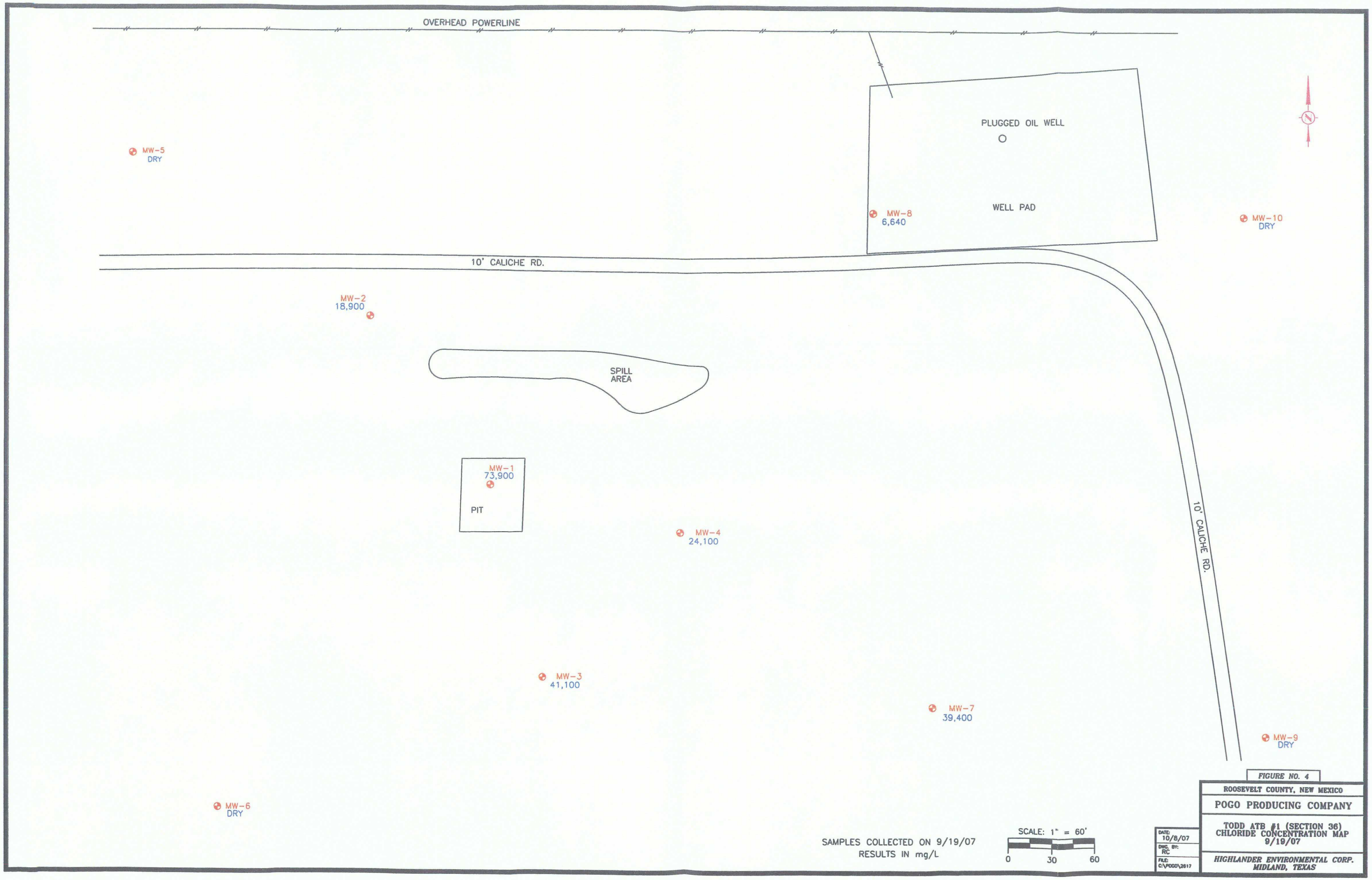
FIGURE NO. 3

ROOSEVELT COUNTY, NEW MEXICO

POGO PRODUCING COMPANY

TODD ATB #1 (SECTION 36)
GROUNDWATER GRADIENT MAP
9/19/07

HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS


OVERHEAD POWERLINE
PLUGGED OIL WELL
WELL PAD
MW-5
DRY
MW-8
6,640
MW-10
DRY
10' CALICHE RD.
MW-2
18,900
SPILL
AREA
MW-1
73,900
PIT
MW-4
24,100
MW-3
41,100
MW-7
39,400
MW-9
DRY
10' CALICHE RD.
MW-6
DRY
SAMPLES COLLECTED ON 9/19/07
RESULTS IN mg/L
SCALE: 1" = 60'
0
30
60
DATE: 10/8/07
DWG. BY: RC
FILE: C:\POGO\2817
FIGURE NO. 4
ROOSEVELT COUNTY, NEW MEXICO
POGO PRODUCING COMPANY
TODD ATB #1 (SECTION 36)
CHLORIDE CONCENTRATION MAP
9/19/07
HIGHLANDER ENVIRONMENTAL CORP.
MIDLAND, TEXAS

TABLES

Table 1
Pogo Producing Company
TODD UT ATB #1 (SECTION 36)
Roosevelt County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			C6-C12	C12-C35	Total					
AH-1	7/25/2006	0-1	<2.00	**1260**	**1260**	<0.0200	<0.0200	<0.0200	<0.0200	**67.4**
	7/25/2006	1-1.5	<1.00	**158**	**158**	-	-	-	-	<10.0
	7/25/2006	2-2.5	<1.00	<50.0	<50.0	-	-	-	-	**83.7**
AH-2	7/25/2006	0-1	<2.00	**726**	**726**	<0.0200	<0.0200	<0.0200	<0.0200	**22.1**
	7/25/2006	1-1.5	<1.00	**61.6**	**61.6**	-	-	-	-	**23.2**
	7/25/2006	2-2.5	<1.00	<50.0	<50.0	-	-	-	-	**43.0**
AH-3	7/25/2006	0-1	**1180**	**969**	**2149**	<0.100	<0.100	**0.213**	**0.817**	**5780**
	7/25/2006	1-1.5	**1530**	**9310**	**10840**	<0.200	<0.200	<0.200	**1.41**	**3860**
	7/25/2006	2-2.5	**578**	**6710**	**7288**	-	-	-	-	**1760**
	7/25/2006	4-4.5	**29.7**	**1010**	**1039.7**	-	-	-	-	**2690**
	7/25/2006	5-5.5	<1.00	**98.7**	**98.7**	-	-	-	-	**3320**
	7/25/2006	6-6.5	-	-	-	-	-	-	-	**4030**
	7/25/2006	7-7.5	**2.29**	**63.9**	**66.19**	-	-	-	-	**3180**
AH-4	7/25/2006	0-1	**869**	**2270**	**3139**	<0.0500	<0.0500	**0.408**	**1.02**	**126**
	7/25/2006	1-1.5	<1.00	<50.0	<50.0	-	-	-	-	**172**
	7/25/2006	2-2.5	<1.00	<50.0	<50.0	-	-	-	-	**102**
AH-5	7/25/2006	0-1	<1.00	**157**	**157**	-	-	-	-	**14.5**
	7/25/2006	1-1.5	<1.00	**131**	**131**	-	-	-	-	**49.2**
	7/25/2006	2-2.5	<1.00	<50.0	<50.0	-	-	-	-	**22.3**

Pogo Producing Company
TODD UT ATB #1 (SECTION 36)
Roosevelt County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			C6-C12	C12-C35	Total					
AH-6	7/25/2006	0-1	<5.00	**1250**	**1250**	<0.0500	<0.0500	<0.0500	<0.0500	**12.3**
	7/25/2006	1-1.5	<1.00	**95.4**	**95.4**	-	-	-	-	**62.6**
	7/25/2006	2-2.5	<1.00	**52.7**	**52.7**	-	-	-	-	**12.5**
AH-7	7/25/2006	0-1	**14.0**	**4960**	**4974.0**	<0.100	<0.100	**0.735**	**0.292**	**163**
	7/25/2006	1-1.5	**229**	**7420**	**7649**	<0.0500	<0.0500	**2.81**	**1.55**	**895**
	7/25/2006	2-2.5	**75.6**	**20400**	**20475.6**	-	-	-	-	**2040**
	7/25/2006	3-3.5	**154**	**12800**	**12954**	-	-	-	-	**1980**
	7/25/2006	4-4.5	**234**	**11300**	**11534**	-	-	-	-	**4190**
	7/25/2006	5-5.5	**218**	**7850**	**8068**	-	-	-	-	**2960**
AH-8	8/31/2007	0-1	<1.00	<50.0	<50.00					
	8/31/2007	2-2.5	<1.00	<50.0	<50.00					
	8/31/2007	4-4.5	**278**	**1940**	**2218**					
	8/31/2007	6-6.5	**51.8**	**431**	**482.8**					
AH-9	8/31/2007	0-1	<1.00	**693**	**693**					
	8/31/2007	2-2.5	<1.00	<50.0	<50.00					
	8/31/2007	4-4.5	<1.00	<50.0	<50.00					
AH-10	8/31/2007	0-1	<1.00	**692**	**692**					
	8/31/2007	2-2.5	<1.00	<50.0	<50.00					
	8/31/2007	4-4.5	<1.00	<50.0	<50.00					

Pogo Producing Company
TODD UT ATB #1 (SECTION 36)
Roosevelt County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			C6-C12	C12-C35	Total					
AH-11	8/31/2007	0-1	<10.0	**11200**	**11200**					
	8/31/2007	2-2.5	<1.00	<50.0	<50.00					
	8/31/2007	4-4.5	<1.00	<50.0	<50.00					
Area AH-1,2	8/25/2006	0-.5'	**14.9**	**6710**	**6724.9**	-	-	-	-	-
Area AH-4	8/25/2006	0-.5'	<5.00	**3770**	**3770**	-	-	-	-	-
Area AH-6	8/25/2006	0-.5'	<5.00	**4080**	**4080**	-	-	-	-	-

(-) not analyzed

Table 2
Pogo Producing Company
TODD UT ATB #1 (SECTION 36)
Roosevelt County, New Mexico

Sample ID	Date Sampled	Sample Depth (ft)	TPH (mg/kg)			Benzene (mg/kg)	Toluene (mg/kg)	Ethlybenzene (mg/kg)	Xylene (mg/kg)	Chloride (mg/kg)
			C6-C12	C12-C35	Total					
BH-1	9/1/2006	10-12'	**110**	**770**	**880**	-	-	-	-	**1960**
	9/1/2006	15-17'	**47.1**	<50.0	**47.1**	-	-	-	-	**693**
	9/1/2006	20-22'	**17.7**	<50.0	**17.7**	-	-	-	-	**289**
BH-2	9/1/2006	10-12'	**81.9**	**136**	**217.9**	-	-	-	-	**770**
	9/1/2006	15-17'	**22.7**	**242**	**264.7**	-	-	-	-	**250**
	9/1/2006	20-22'	-	-	-	-	-	-	-	**1670**
	9/1/2006	30-32'	-	-	-	-	-	-	-	**5400**
	9/1/2006	40-42'	-	-	-	-	-	-	-	**5730**
	9/1/2006	50-52'	-	-	-	-	-	-	-	**1710**
	9/1/2006	60-62'	-	-	-	-	-	-	-	**3460**
	9/1/2006	70-72'	-	-	-	-	-	-	-	<200

(-) not analyzed

Table 3
Pogo Producing Company
TODD UT ATB #1 (SECTION 36)
Roosevelt County, New Mexico

Sample ID	Date Sampled	Date Gauged	Total Depth (feet)	Top of Casing Elevation (feet)	Measured Groundwater Elevations (feet)	Corrected Groundwater Elevations (feet)	Sample Number	Benzene (mg/L)	Toluene (mg/L)	Ethyl-benzene (mg/L)	Xylene (mg/L)	Chloride (mg/L)	TDS (mg/L)
TMW-1 (MW-1)	09/06/06	N.G.	77.80	4,162.45	N.G.	N.G.	N.A.	**0.00200**	<0.00100	**0.00180**	<0.00100	**23,700**	-
	05/15/07	N.G.		4,162.45	N.G.	N.G.	N.A.	<0.00100	<0.00100	<0.00100	<0.00100	**100,000**	-
	09/19/07	09/19/07		4,162.45	63.11	4,099.34	137419	<0.00100	<0.00100	<0.00100	**0.02110**	**73,900**	-
	12/07/07	12/04/07		4,162.45	63.03	4,099.42	-	-	-	-	-	**71,000**	**125,700**
MW-2	09/21/07	09/19/07	78.66	4,164.75	69.77	4,094.98	137491	<0.00100	<0.00100	<0.00100	<0.00100	**18,900**	-
	12/07/07	12/04/07		4,164.75	68.25	4,096.50	-	-	-	-	-	**20,100**	**49,400**
MW-3	09/21/07	09/19/07	78.86	4,162.53	73.45	4,089.08	137492	**0.00220**	<0.00100	<0.00100	<0.00100	**41,100**	-
	12/07/07	12/04/07		4,162.53	70.42	4,092.11	-	-	-	-	-	**36,600**	**88,200**
MW-4	09/19/07	09/19/07	78.82	4,162.45	63.27	4,099.18	137420	<0.00100	<0.00100	<0.00100	**0.01020**	**24,100**	-
	12/07/07	12/04/07		4,162.45	63.26	4,099.19	-	-	-	-	-	**23,500**	**44,500**
MW-5	09/19/07	09/19/07	81.75	4,164.26	Dry	Dry	-	-	-	-	-	-	-
	12/07/07	12/04/07		4,164.26	Dry	Dry	-	-	-	-	-	-	-
MW-6	09/19/07	09/19/07	81.66	4,163.06	Dry	Dry	-	-	-	-	-	-	-
	12/07/07	12/04/07		4,163.06	Dry	Dry	-	-	-	-	-	-	-
MW-7	09/19/07	09/19/07	81.51	4,161.93	65.18	4,096.75	137421	<0.00100	<0.00100	<0.00100	<0.00100	**39,400**	-
	12/07/07	12/04/07		4,161.93	65.23	4,096.70	-	-	-	-	-	**22,700**	**46,400**
MW-8	09/19/07	09/19/07	81.51	4,162.49	62.59	4,099.90	137422	<0.00100	<0.00100	<0.00100	<0.00100	**6,640**	-
	12/07/07	12/04/07		4,162.49	62.43	4,100.06	-	-	-	-	-	***39,100***	***95,100***
MW-9	09/25/07	09/25/07	78.00	4,161.67	Dry	Dry	-	-	-	-	-	-	-
	12/07/07	12/04/07		4,161.67	Dry	Dry	-	-	-	-	-	-	-
MW-10	09/25/07	09/25/07	78.00	4,161.83	Dry	Dry	-	-	-	-	-	-	-
	-	12/04/07		4,161.83	Dry	Dry	-	-	-	-	-	-	-

(-) not analyzed N.G. - Not gauged N.A. - Not Availabe TMW-1 converted to MW-1 on September 17, 2007

SAMPLE LOG

SAMPLE LOG

Boring/Well: MW-1
Project Number: 2617
Client: Pogo Production Inc.
Site Location: Todd ATB #1
Location: Roosevelt County, New Mexico
Total Depth 80
Date Installed: 09/01/06

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
10-15	--	Dark hydrocarbon stainded soil with caliche intermixed
15-20	--	Buff limestone with strong hydocarbon odor
20-25	--	Tan/buff limestone with no hydrocarbon odor (no salt)
30-35	--	Tan calcareous sand (salty)
40-45	--	Tan calcareous sand (salty)
50-55	--	Brown/tan large grain sand with small pebbles (very salty)
60-65	--	Brown/tan sand (salty)
70-75	--	Tan/yellow mottled clay
75-80	--	Tan/yellow mottled clay

Total Depth is 80 feet Groundwater encountered at 71 feet below ground surface.

SAMPLE LOG

Boring/Well: ***MW-2***
Project Number: **2617**
Client: **Pogo Production Inc.**
Site Location: **Todd ATB #1**
Location: **Roosevelt County, New Mexico**
Total Depth **76**
Date Installed: **08/31/07**

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	--	Grayish to red medium grain sand
5-10	--	Grayish tan fine grain sand
10-15	--	Buff (slightly sandy) limestone
15-20	--	Buff (slightly sandy) limestone
20-25	--	Buff (slightly sandy) limestone
25-30	--	Tan/buff calcareous fine grain sand
30-35	--	Tan/buff calcareous fine grain sand
35-40	--	Tan/buff calcareous fine grain sand
40-45	--	Tan/buff calcareous fine grain sand
45-50	--	Buff limestone with chert (hard)
50-55	--	Buff/tan medium grain sand with pebbles (poorly sorted)
55-60	--	Buff/tan medium grain sand with pebbles (poorly sorted)
60-65	--	Reddish tan fine to medium grain well sorted sand
65-70	--	Tan/brown slightly sandy clay
70-75	--	Tan/brown clay of high plasticity

Total Depth is 76 feet Groundwater encountered at 63 feet below ground surface.

SAMPLE LOG

Boring/Well: MW-3
Project Number: 2617
Client: Pogo Production Inc.
Site Location: Todd ATB #1
Location: Roosevelt County, New Mexico
Total Depth 76
Date Installed: 08/31/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	--	Brown silty sand
5-10	--	Buff slightly sandy limestone
10-15	--	Buff/tan sandy limestone
15-20	--	Buff/tan sandy limestone
20-25	--	Buff/tan sandy limestone
25-30	--	Tan/buff calcareous sand
30-35	--	Tan/buff calcareous sand
35-40	--	Tan fine grain calcareous sand
40-45	--	Buff sandy limestone
45-50	--	Buff/tan calcareous sand with chert
50-55	--	Buff/tan calcareous sand intermixed with gravel
55-60	--	Tan clayey sand to a sandy clay
60-65	--	Tan clay of high plasticity
65-70	--	Tan clay of high plasticity
70-75	--	Tan/yellow clay of high plasticity

Total Depth is 76 feet Groundwater encountered at 61 feet below ground surface.

SAMPLE LOG

Boring/Well: MW-4
Project Number: 2617
Client: Pogo Production Inc.
Site Location: Todd ATB #1
Location: Roosevelt County, New Mexico
Total Depth 76
Date Installed: 08/31/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	--	Gray/brown silty sand
5-10	--	Buff/tan (slightly sandy) limestone
10-15	--	Buff/tan (slightly sandy) limestone
15-20	--	Buff/tan (slightly sandy) limestone
20-25	--	Buff/tan calcareous fine grain sand
25-30	--	Buff/tan calcareous fine grain sand
30-35	--	Buff/tan calcareous fine grain sand (increasing sand)
35-40	--	Tan calcareous sand
40-45	--	Buff slightly sandy limestone with chert
45-50	--	Buff slightly sandy limestone with chert and pebbles intermixed
50-55	--	Brown/tan fine to medium grain sand with pebbles intermixed (some gravel)
55-60	--	Brown/tan fine to medium grain sand with pebbles intermixed (some gravel)
60-65	--	Tan slightly sandy clay of high plasticity
65-70	--	Tan clay of high plasticity
70-75	--	Tan clay of high plasticity

Total Depth is 76 feet Groundwater encountered at 63 feet below ground surface.

SAMPLE LOG

Boring/Well: MW-5
Project Number: 2617
Client: Pogo Production Inc.
Site Location: Todd ATB #1
Location: Roosevelt County, New Mexico
Total Depth 80
Date Installed: 09/17/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	--	Brown medium grain sand
5-10	--	Tan/buff sand intermixed with limestone
10-15	--	Buff fine grain sandy limestone
15-20	--	Buff fine grain sandy limestone
20-25	--	Buff fine grain sandy limestone
25-30	--	Tan well sorted fine grain sand with sandstone intermixed
30-35	--	Tan well sorted fine grain sand with sandstone intermixed
35-40	--	Tan well sorted fine grain sand with sandstone intermixed
40-45	--	Tan well sorted fine grain calcareous sand with chert intermixed
45-50	--	Sandstone (hard) about 1.5 feet thick at 48 to 49.5
50-55	--	Tan medium grain sand with gravel intermixed
55-60	--	Tan fine grain sand with sandstone intermixed
60-65	--	Tan/brown clay
65-70	--	Tan/yellow clay of high plasticity (moist)
70-75	--	Tan medium grain sand
75-80	--	Tan clay of high plasticity

Total Depth is 80 feet Slight moisture encountered at 65 feet however, no groundwater observed.

SAMPLE LOG

Boring/Well: MW-6
Project Number: 2617
Client: Pogo Production Inc.
Site Location: Todd ATB #1
Location: Roosevelt County, New Mexico
Total Depth 80
Date Installed: 09/17/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	--	Tan fine grain sand
5-10	--	Grey to brown medium grain sand
10-15	--	Buff fine grain sandy limestone
15-20	--	Buff fine grain sandy limestone with increasing sand
20-25	--	Buff limestone (hard) intermixed with chert and sand
25-30	--	Tan/buff calcareous fine grain sand
30-35	--	Tan fine grain well sorted sand
35-40	--	Tan fine grain well sorted sand
40-45	--	Tan fine grain well sorted sand
45-50	--	Tan fine grain well sorted sand
50-55	--	Tan fine grain well sorted sand
55-60	--	Tan fine grain well sorted sand intermixed with sandstone
60-65	--	Tan to yellow well sorted fine grain sand
65-70	--	Tan clay of high plasticity
70-75	--	Tan clay of high plasticity
75-80	--	Brown medium grain sand with clay intermixed

Total Depth is 80 feet Slight moisture encountered at 65 feet however, no groundwater observed.

SAMPLE LOG

Boring/Well: MW-7
Project Number: 2617
Client: Pogo Production Inc.
Site Location: Todd ATB #1
Location: Roosevelt County, New Mexico
Total Depth 80
Date Installed: 09/17/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	--	Tan/brown fine grain sand (blow sand)
5-10	--	Tan/buff calcareous sand
10-15	--	Tan/buff calcareous sand
15-20	--	Buff/tan fine grain sandy limestone
20-25	--	Buff/tan fine grain sandy limestone
25-30	--	Tan/buff calcareous sand
30-35	--	Tan/buff calcareous sand
35-40	--	Tan fine grain sand
40-45	--	Tan fine grain sandy intermixed with sandstone
45-50	--	Brown medium grain sand with gravel intermixed
50-55	--	Brown medium grain sand with gravel intermixed
55-60	--	Brown medium grain sand with gravel intermixed
60-65	--	Brown/tan medium grain sand (moist)
65-70	--	Tan/brown sandy clay of high plasticity
70-75	--	Tan/yellow clay of high plasticity
75-80	--	Tan/yellow clay of high plasticity

Total Depth is 80 feet Groundwater encountered at 65 feet below ground surface.

SAMPLE LOG

Boring/Well: MW-8
Project Number: 2617
Client: Pogo Production Inc.
Site Location: Todd ATB #1
Location: Roosevelt County, New Mexico
Total Depth 80
Date Installed: 09/17/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	--	Gray/brown medium grain sand
5-10	--	Tan fine grain calcareous sand
10-15	--	Buff/tan fine grain sandy limestone
15-20	--	Buff/tan fine grain sandy limestone
20-25	--	Tan/buff fine grain calcareous sand with sandstone intermixed
25-30	--	Tan fine grain sand with sandstone intermixed
30-35	--	Tan fine grain sand with sandstone intermixed
35-40	--	Tan fine grain sand with sandstone intermixed
40-45	--	Tan fine grain sand with sandstone intermixed
45-50	--	Tan fine grain sand with sandstone intermixed
50-55	--	Tan medium grain sand with gravel intermixed
55-60	--	Brown medium grain sand with gravel intermixed
60-65	--	Brown medium grain sand (moist)
65-70	--	Tan clay of high plasticity
70-75	--	Tan clay of high plasticity
75-80	--	Tan clay of high plasticity

Total Depth is 80 feet Groundwater encountered at 63 feet below ground surface.

SAMPLE LOG

Boring/Well: MW-9
Project Number: 2617
Client: Pogo Production Inc.
Site Location: Todd ATB #1
Location: Roosevelt County, New Mexico
Total Depth 78
Date Installed: 09/25/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	--	Tan/brown fine grain sand (blow sand)
5-10	--	Buff/tan calcareous sand
10-15	--	Buff limestone with chert
15-20	--	Buff limestone with chert
20-25	--	Buff fine grain sandy limestone
25-30	--	Tan/buff calcareous sand
30-35	--	Tan/buff calcareous sand
35-40	--	Tan/buff calcareous sand
40-45	--	Tan/buff calcareous sand
45-50	--	Tan/buff calcareous sand
50-55	--	Tan/buff calcareous sand
55-60	--	Brown medium grain sand
60-65	--	Brown medium grain sand
65-70	--	Brown clay of high plasticity
70-75	--	Brown clay of high plasticity
75-78	--	Brown clay of high plasticity

Total Depth is 78 feet Slight moisture at 64 feet.

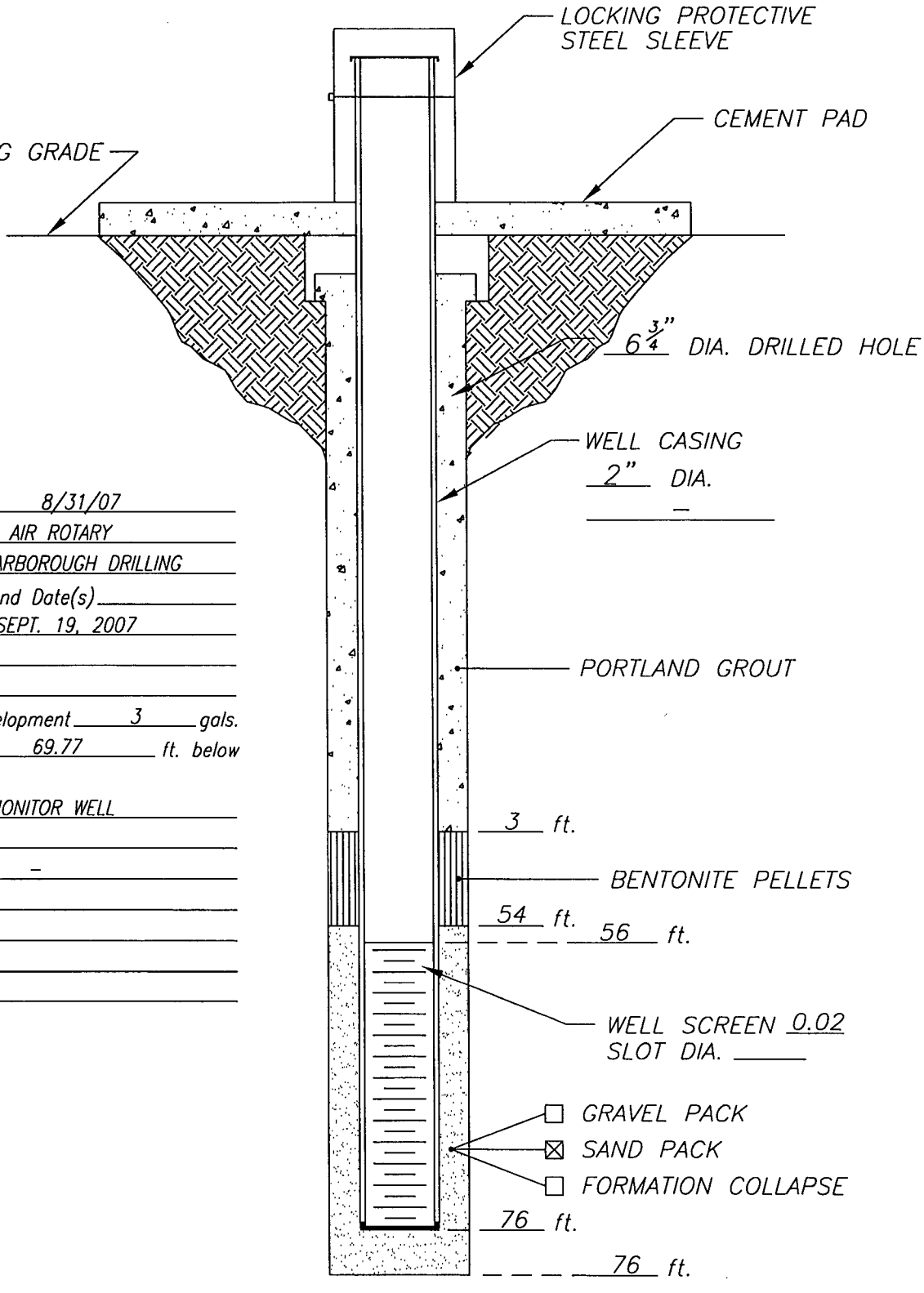
SAMPLE LOG

Boring/Well: MW-10
Project Number: 2617
Client: Pogo Production Inc.
Site Location: Todd ATB #1
Location: Roosevelt County, New Mexico
Total Depth 78
Date Installed: 09/25/07

DEPTH (Ft)	OVM	SAMPLE DESCRIPTION
0-5	--	Tan/brown medium grain sand
5-10	--	Buff/tan calcareous sand
10-15	--	Buff/tan calcareous sand
15-20	--	Buff limestone with chert
20-25	--	Buff limestone with chert
25-30	--	Tan/buff fine grain calcareous sand
30-35	--	Tan/buff fine grain calcareous sand
35-40	--	Tan fine grain sand
40-45	--	Tan/buff fine grain calcareous sand
45-50	--	Buff fine grain sandy limestone
50-55	--	Brown medium grain sand intermixed with sandstone
55-60	--	Brown medium grain sand intermixed with sandstone
60-65	--	Brown medium grain sand
65-70	--	Brown clay of high plasticity
70-75	--	Brown clay of high plasticity
75-78	--	Brown clay of high plasticity

Total Depth is 78 feet Slight moisture at 64 feet.

WELL CONSTRUCTION LOG



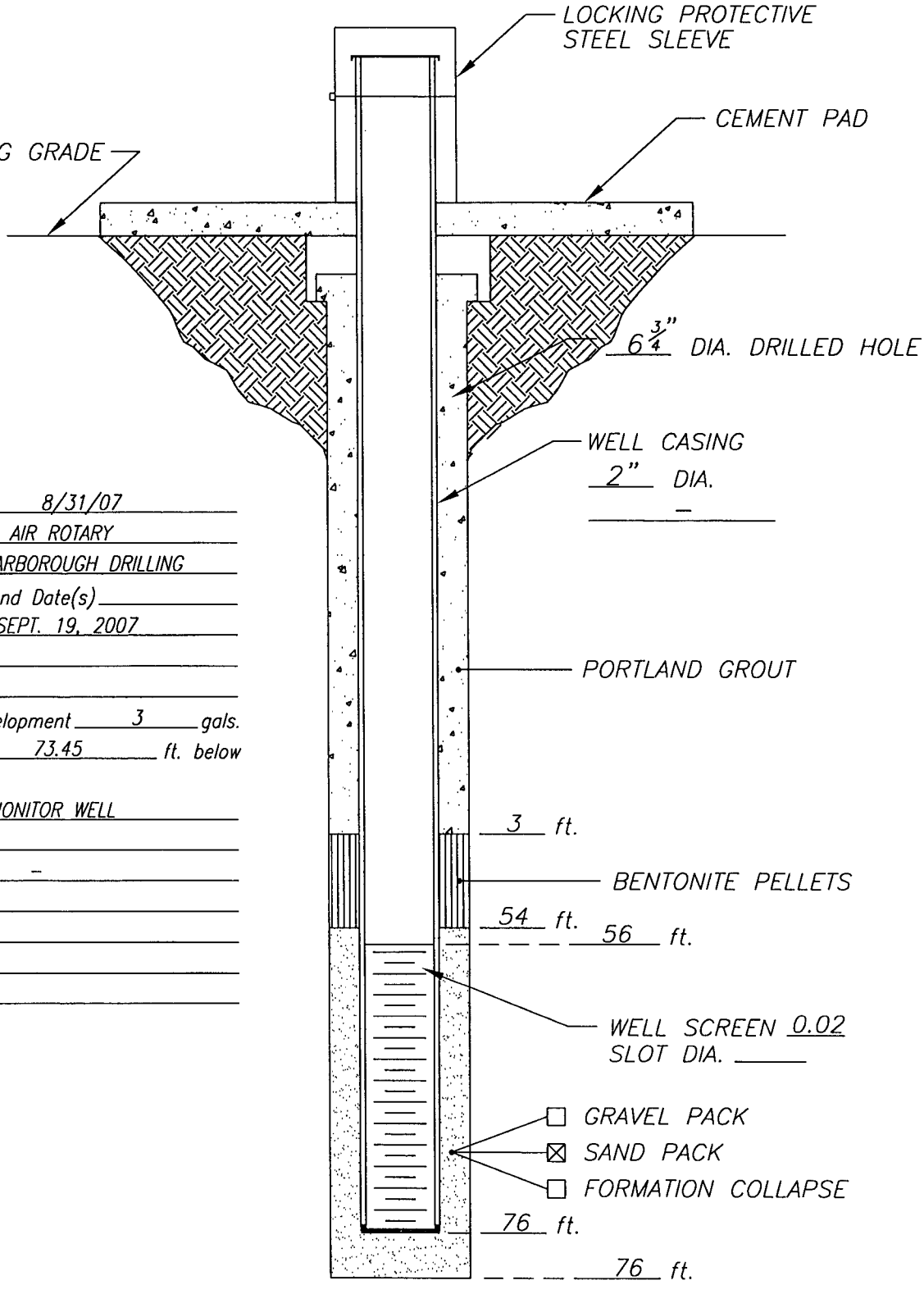
Installation Date(s) 8/31/07
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s)
HANDBAILING – SEPT. 19, 2007

Water Removed During Development 3 gals.
Static Depth to Water 69.77 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks –

DATE: 10/3/07	CLIENT: POGO PRODUCING INC	WELL NO.
Highlander Environmental	PROJECT: TODD ATB #1	MW-2
	LOCATION: ROOSEVELT CO, NM	

WELL CONSTRUCTION LOG



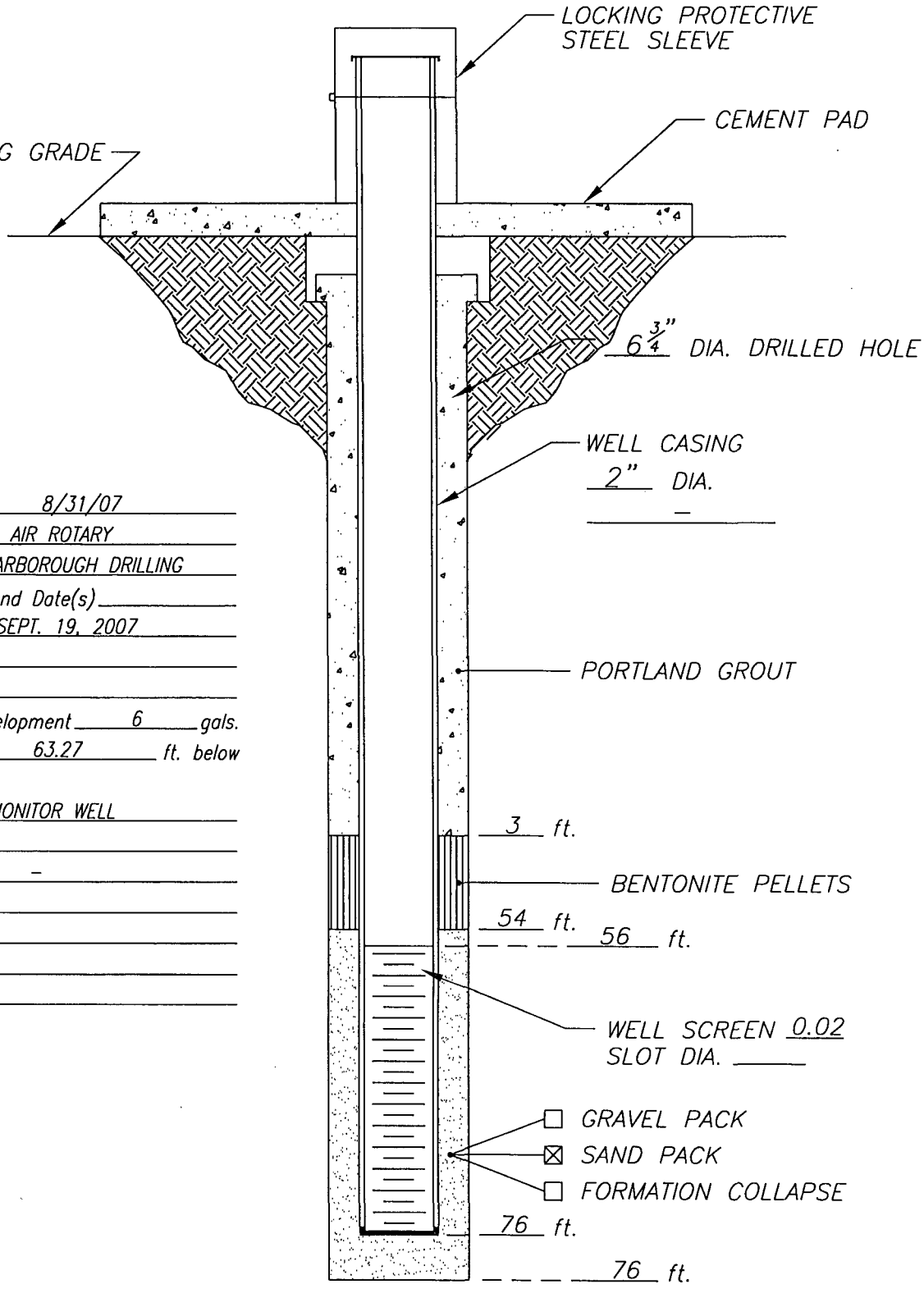
Installation Date(s) 8/31/07
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s)
HANDBAILING – SEPT. 19, 2007

Water Removed During Development 3 gals.
Static Depth to Water 73.45 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks –

DATE: 10/3/07	CLIENT: POGO PRODUCING INC	WELL NO.
Highlander Environmental	PROJECT: TODD ATB #1	MW-3
	LOCATION: ROOSEVELT CO, NM	

WELL CONSTRUCTION LOG



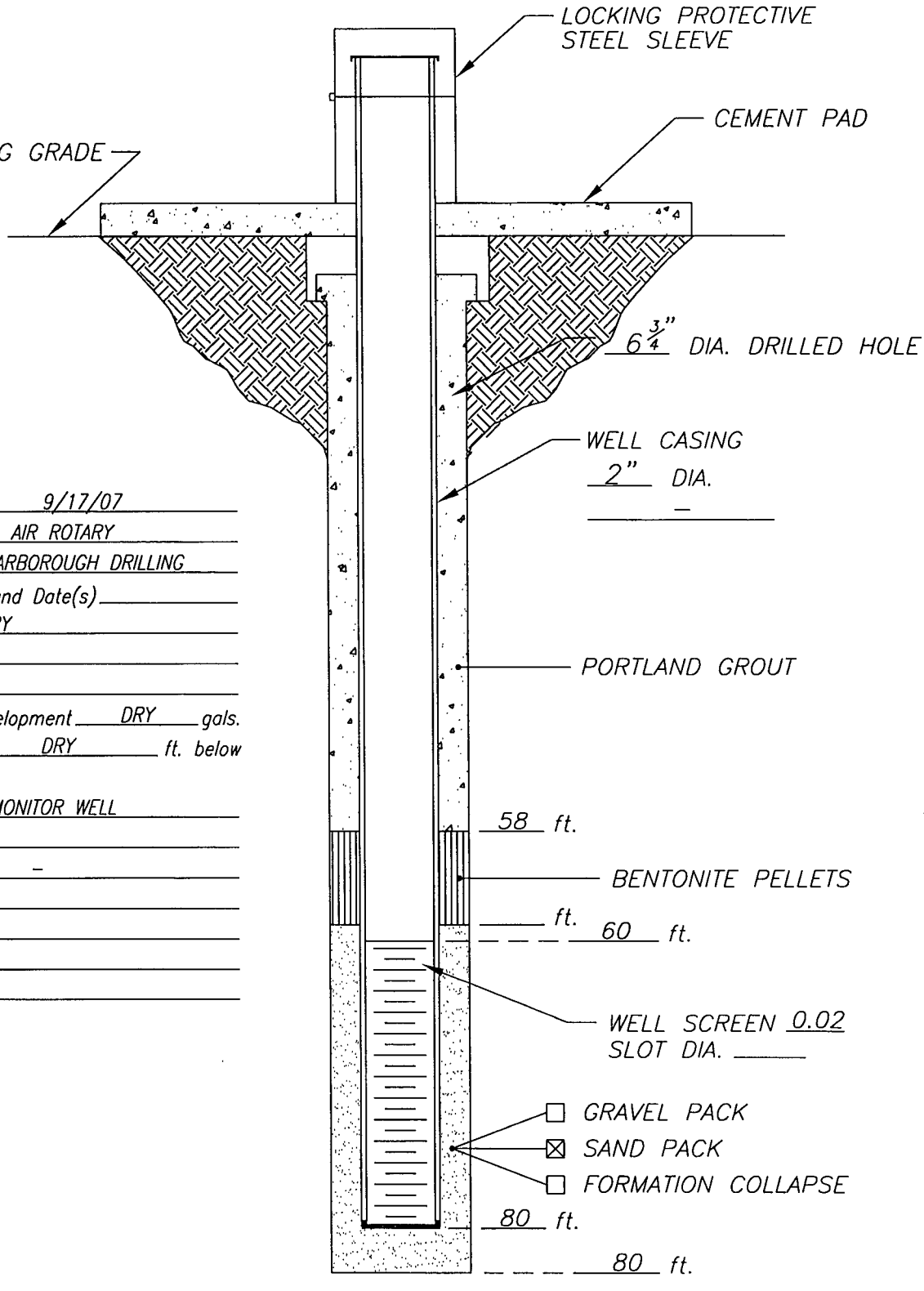
Installation Date(s) 8/31/07
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s)
HANDBAILING – SEPT. 19, 2007

Water Removed During Development 6 gals.
Static Depth to Water 63.27 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks –

DATE: 10/3/07	CLIENT: POGO PRODUCING INC	WELL NO.
Highlander Environmental	PROJECT: TODD ATB #1	MW-4
	LOCATION: ROOSEVELT CO, NM	

WELL CONSTRUCTION LOG



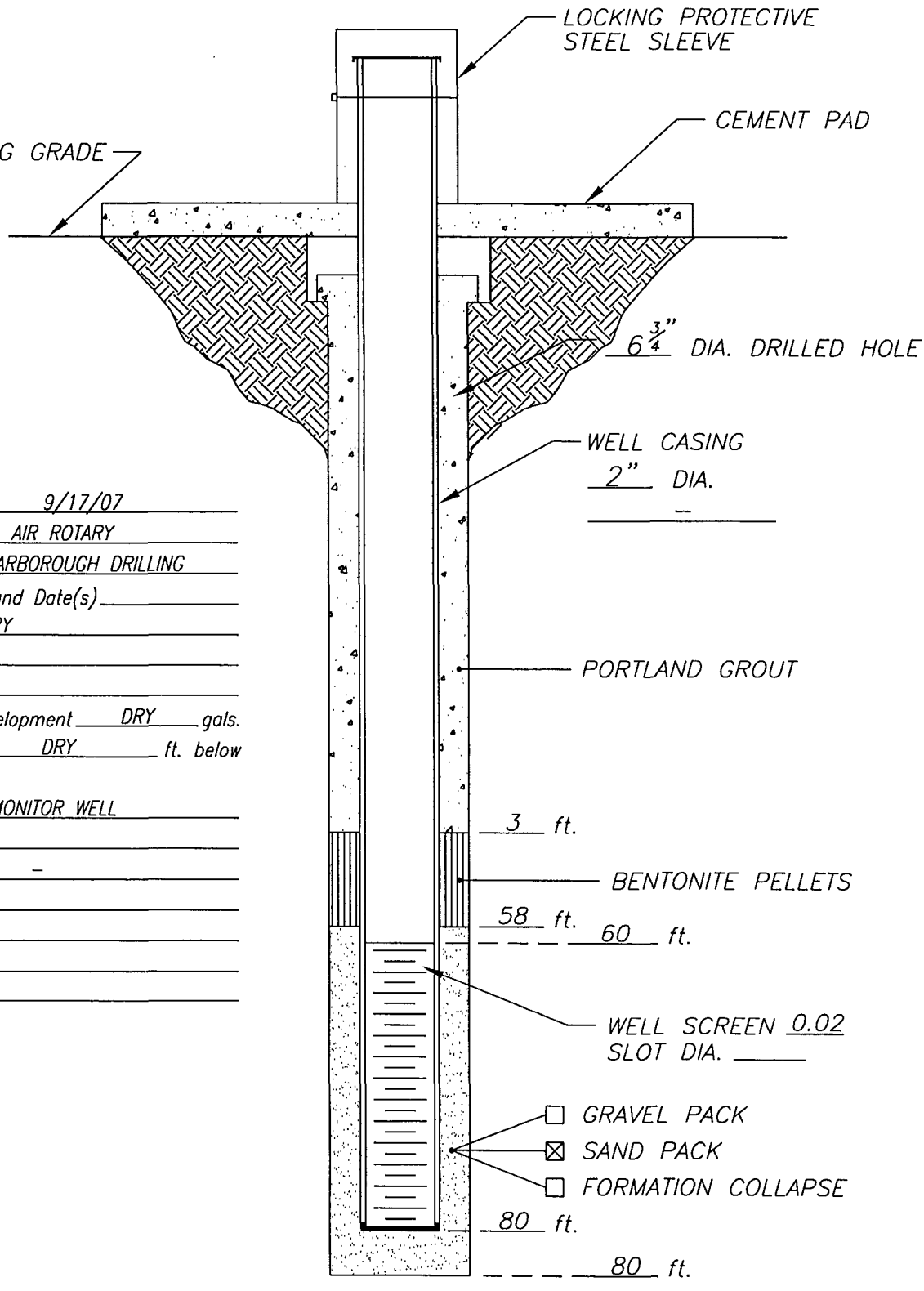
Installation Date(s) 9/17/07
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s) DRY

Water Removed During Development DRY gals.
Static Depth to Water DRY ft. below Ground Level
Well Purpose MONITOR WELL

Remarks –

DATE: 10/3/07	CLIENT: POGO PRODUCING INC	WELL NO.
Highlander Environmental	PROJECT: TODD ATB #1	MW-5
	LOCATION: ROOSEVELT CO, NM	

WELL CONSTRUCTION LOG



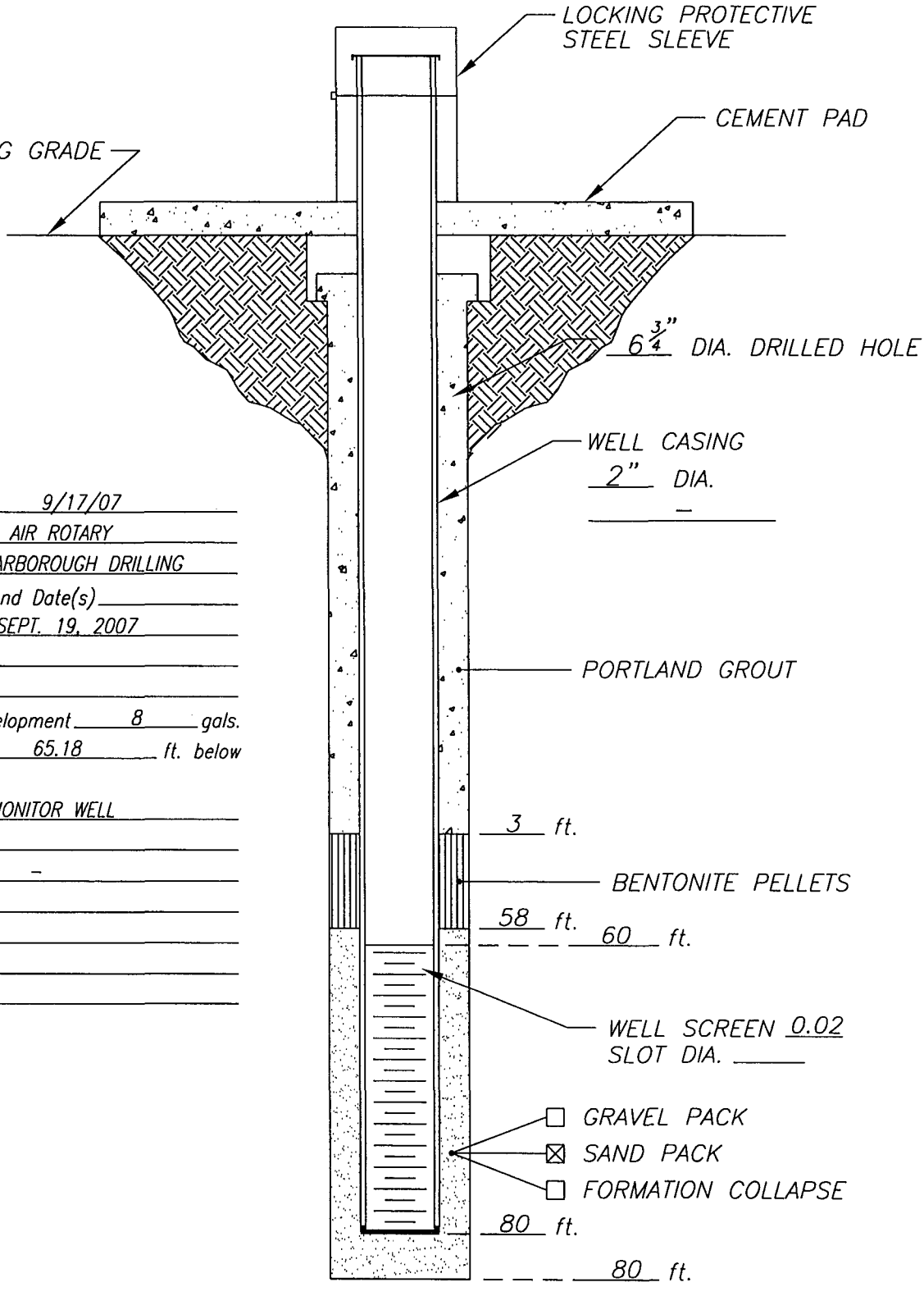
Installation Date(s) 9/17/07
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s) DRY

Water Removed During Development DRY gals.
Static Depth to Water DRY ft. below Ground Level
Well Purpose MONITOR WELL

Remarks –

DATE: 10/3/07	CLIENT: POGO PRODUCING INC	WELL NO.
Highlander Environmental	PROJECT: TODD ATB #1	MW-6
	LOCATION: ROOSEVELT CO, NM	

WELL CONSTRUCTION LOG



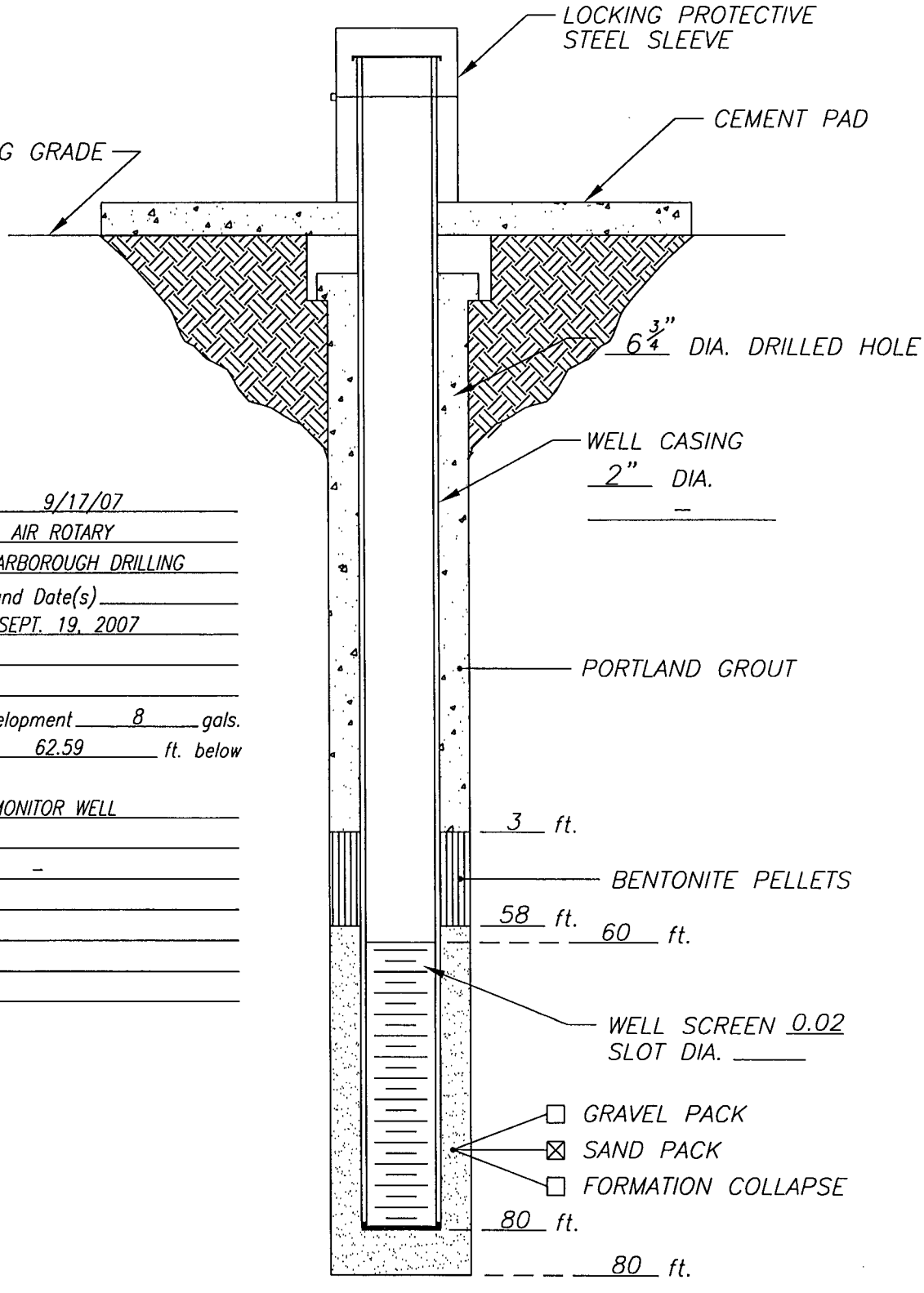
Installation Date(s) 9/17/07
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s)
HANDBAILING - SEPT. 19, 2007

Water Removed During Development 8 gals.
Static Depth to Water 65.18 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks -

DATE: 10/3/07	CLIENT: POGO PRODUCING INC	WELL NO.
Highlander Environmental	PROJECT: TODD ATB #1	MW-7
	LOCATION: ROOSEVELT CO, NM	

WELL CONSTRUCTION LOG



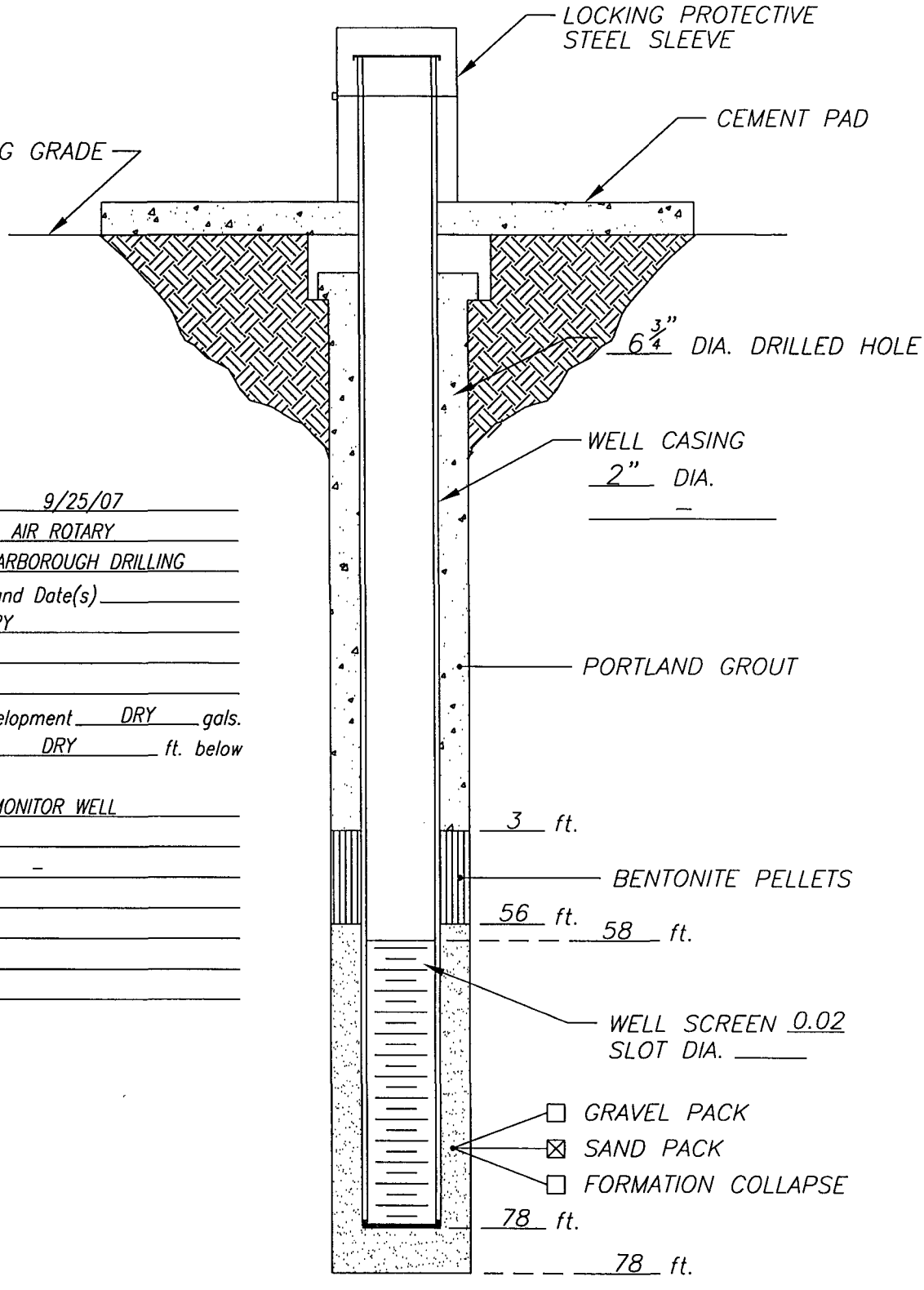
Installation Date(s) 9/17/07
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s)
HANDBAILING – SEPT. 19, 2007

Water Removed During Development 8 gals.
Static Depth to Water 62.59 ft. below Ground Level
Well Purpose MONITOR WELL

Remarks –

DATE: 10/3/07	CLIENT: POGO PRODUCING INC PROJECT: TODD ATB #1 LOCATION: ROOSEVELT CO, NM	WELL NO.
Highlander Environmental		MW-8

WELL CONSTRUCTION LOG



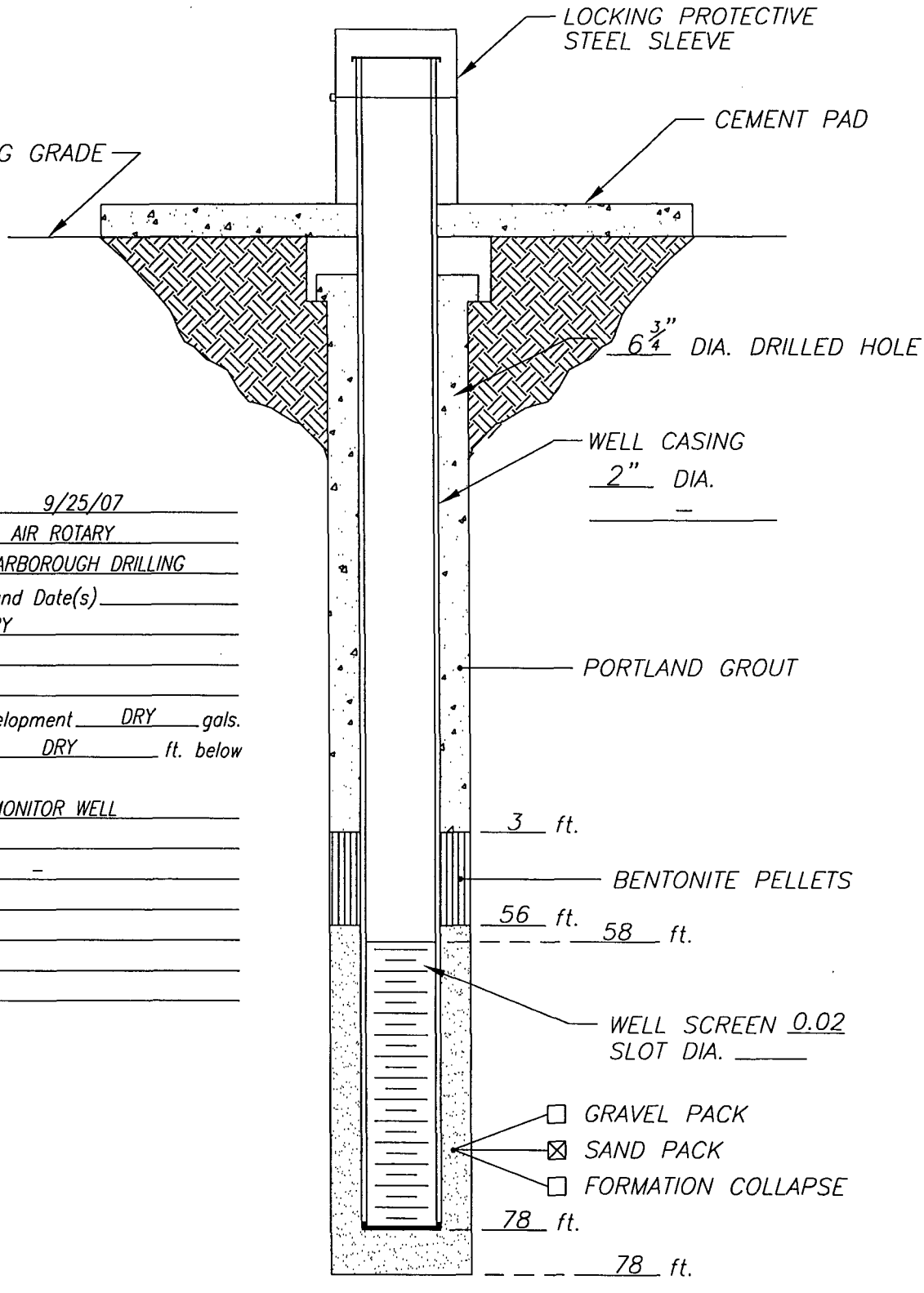
Installation Date(s) 9/25/07
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s) DRY

Water Removed During Development DRY gals.
Static Depth to Water DRY ft. below Ground Level
Well Purpose MONITOR WELL

Remarks -

DATE: 10/3/07	CLIENT: POGO PRODUCING INC	WELL NO.
Highlander Environmental	PROJECT: TODD ATB #1	MW-9
	LOCATION: ROOSEVELT CO, NM	

WELL CONSTRUCTION LOG



Installation Date(s) 9/25/07
Drilling Method AIR ROTARY
Drilling Contractor SCARBOROUGH DRILLING
Development Technique(s) and Date(s) DRY

Water Removed During Development DRY gals.
Static Depth to Water DRY ft. below Ground Level
Well Purpose MONITOR WELL

Remarks –

DATE: 10/3/07	CLIENT: POGO PRODUCING INC	WELL NO.
Highlander Environmental	PROJECT: TODD ATB #1	MW-10
	LOCATION: ROOSEVELT CO, NM	

Highlander Environmental Corp.

Midland, Texas

CERTIFIED MAIL
RETURN RECIEPT NO. 7005 1160 0005 3780 6047

June 25, 2007

Mr. Wayne Price
New Mexico Energy, Minerals, & Natural Resources
Oil Conservation Division, Environmental Bureau
1220 S. St. Francis Drive
Santa Fe, New Mexico 87504

RE: NOTIFICATION OF GROUNDWATER IMPACT
TODD ATB #1 (SECTION 36)
SEC. 36, T7S, R35E
ROOSEVELT COUNTY, NEW MEXICO

Mr. Price:

On behalf of Latigo Petroleum, Inc. (Latigo), Highlander Environmental Corp. (Highlander) notifies the Director of the New Mexico Oil Conservation Division (OCD), Environmental Bureau of groundwater impact at the above-referenced site in accordance with NM Rule 116.

Highlander of Midland, Texas was engaged to investigate this site. Highlander installed one soil boring at the site. Highlander installed two soil borings at the site. The soils were found to be impacted from the surface to the vadose zone in one of the two soil borings with chlorides and to a maximum depth of 6 feet for total petroleum hydrocarbons. Both the chlorides and the TPH exceed state regulated levels in soils. Based on the results of the field sampling, the boring impacted to the vadose zone was converted to a temporary 2-inch monitor well. Groundwater was encountered at approximately 62 feet below ground surface (bgs). After appropriate development, the well was sampled pursuant to OCD guidelines by Highlander and submitted to Environmental Lab of Texas for analysis of chlorides and BTEX. Chloride concentrations exceed New Mexico Water Quality Control Commission (NMWQCC) standards, while hydrocarbon constituents (BTEX) were detected at levels below the NMWQCC action levels. Highlander will present a remedy for this site in the submission of a Corrective Action Plan.

Please accept this notification for the above-referenced site. Should you have any questions or concerns regarding this site, please do not hesitate to contact me at (432) 682-4559.

Highlander Environmental Corp.

Timothy M. Reed, P.G.
Vice President

STATE OF TEXAS
TIMOTHY M. REED
GEOLOGY
2038
LICENSED
PROFESSIONAL GEOSCIENTIST

cc: Mr. Glenn von Gonten – NMOCD, Santa Fe
Mr. Larry Johnson, NMOCD, Hobbs

Midland, Texas 79705 • (432) 682-4559 • Fax (432) 682-3946