

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

Form C-144 CLEZ
July 21, 2008

For closed-loop systems that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, submit to the appropriate NMOCD District Office

Closed-Loop System Permit or Closure Plan Application

(that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure)

Type of action: ☒ Permit ☐ Closure

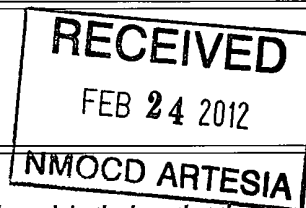
Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

Please be advised that approval of this request does not relieve the operator of liability should operations result in pollution of surface water, ground water or the environment. Nor does approval relieve the operator of its responsibility to comply with any other applicable governmental authority's rules, regulations or ordinances.

1
Operator **COG OPERATING LLC** OGRID # **229137**
Address **550 WEST TEXAS, SUITE 100 MIDLAND, TX 79701**
Facility or well name **PINTO "36" FEE #6H**
API Number **30-015-39971** OCD Permit Number **212581**
U/L or Qtr/Qtr **UL N** Section **36** Township **18S** Range **25E** County **Eddy**
Center of Proposed Design Latitude **N/A** Longitude **N/A** NAD ☐ 1927 ☐ 1983
Surface Owner ☐ Federal ☒ State ☐ Private ☐ Tribal Trust or Indian Allotment

2
☒ **Closed-loop System:** Subsection H of 19 15 17 11 NMAC
Operation: ☒ Drilling a new well ☐ Workover or Drilling (Applies to activities which require prior approval of a permit or notice of intent) ☐ P&A
☐ Above Ground Steel Tanks or ☒ Haul-off Bins

3
Signs: Subsection C of 19 15 17 11 NMAC
☐ 12"x 24", 2" lettering, providing Operator's name, site location, and emergency telephone numbers
☒ Signed in compliance with 19 15 3 103 NMAC



4
Closed-loop Systems Permit Application Attachment Checklist: Subsection B of 19 15 17 9 NMAC
Instructions: Each of the following items must be attached to the application. Please indicate, by a check mark in the box, that the documents are attached.
☒ Design Plan - based upon the appropriate requirements of 19 15 17 11 NMAC
☒ Operating and Maintenance Plan - based upon the appropriate requirements of 19 15 17 12 NMAC
☒ Closure Plan (Please complete Box 5) - based upon the appropriate requirements of Subsection C of 19 15 17 9 NMAC and 19 15 17 13 NMAC
☐ Previously Approved Design (attach copy of design) API Number _____
☐ Previously Approved Operating and Maintenance Plan API Number _____

5
Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only: (19 15 17 13 D NMAC)
Instructions: Please identify the facility or facilities for the disposal of liquids, drilling fluids and drill cuttings. Use attachment if more than two facilities are required.
Disposal Facility Name **CRI** Disposal Facility Permit Number **R1966**
Disposal Facility Name **GM INC** Disposal Facility Permit Number **711-019-001**
Will any of the proposed closed-loop system operations and associated activities occur on or in areas that will not be used for future service and operations?
☐ Yes (If yes, please provide the information below) ☒ No
Required for impacted areas which will not be used for future service and operations
☐ Soil Backfill and Cover Design Specifications - based upon the appropriate requirements of Subsection H of 19 15 17 13 NMAC
☐ Re-vegetation Plan - based upon the appropriate requirements of Subsection I of 19 15 17 13 NMAC
☐ Site Reclamation Plan - based upon the appropriate requirements of Subsection G of 19 15 17 13 NMAC

Operator Application Certification:

I hereby certify that the information submitted with this application is true, accurate and complete to the best of my knowledge and belief

Name (Print) **KACIE CONNALLY** Title **PERMITTING TECH**
Signature *Kacie Connally* Date **12/09/2011**
e-mail address **kconnally@concho.com** Telephone **432-685-4304**

7
OCD Approval: ☒ Permit Application (including closure plan) ☐ Closure Plan (only)

OCD Representative Signature: _____

Approval Date: 03/05/2012

Title: _____

OCD Permit Number: 212581

8
Closure Report (required within 60 days of closure completion): Subsection K of 19 15 17 13 NMAC

Instructions: Operators are required to obtain an approved closure plan prior to implementing any closure activities and submitting the closure report. The closure report is required to be submitted to the division within 60 days of the completion of the closure activities. Please do not complete this section of the form until an approved closure plan has been obtained and the closure activities have been completed.

☐ Closure Completion Date: _____

9
Closure Report Regarding Waste Removal Closure For Closed-loop Systems That Utilize Above Ground Steel Tanks or Haul-off Bins Only:

Instructions: Please indentify the facility or facilities for where the liquids, drilling fluids and drill cuttings were disposed. Use attachment if more than two facilities were utilized.

Disposal Facility Name _____

Disposal Facility Permit Number _____

Disposal Facility Name _____

Disposal Facility Permit Number _____

Were the closed-loop system operations and associated activities performed on or in areas that *will not* be used for future service and operations?

☐ Yes (If yes, please demonstrate compliance to the items below) ☐ No

Required for impacted areas which will not be used for future service and operations

☐ Site Reclamation (Photo Documentation)

☐ Soil Backfilling and Cover Installation

☐ Re-vegetation Application Rates and Seeding Technique

10
Operator Closure Certification:

I hereby certify that the information and attachments submitted with this closure report is true, accurate and complete to the best of my knowledge and belief. I also certify that the closure complies with all applicable closure requirements and conditions specified in the approved closure plan.

Name (Print) _____

Title _____

Signature _____

Date _____

e-mail address _____

Telephone _____

Closed Loop Operation & Maintenance Procedure

All drilling fluid circulated over shaker(s) with cuttings discharged into roll off container.

Fluid and fines below shaker(s) are circulated with transfer pump through centrifuge(s) or solids separator with cuttings and fines discharged into roll off container.

Fluid is continuously re-circulated through equipment with polymer added to aid separation of cutting fines.

Roll off containers are lined and de-watered with fluids re-circulated into system.

Additional tank is used to capture unused drilling fluid or cement returns from casing jobs.

This equipment will be maintained 24 hrs./day by solids control personnel and or rig crews that stay on location.

Cuttings will be hauled to either:

CRI (permit number R9166)

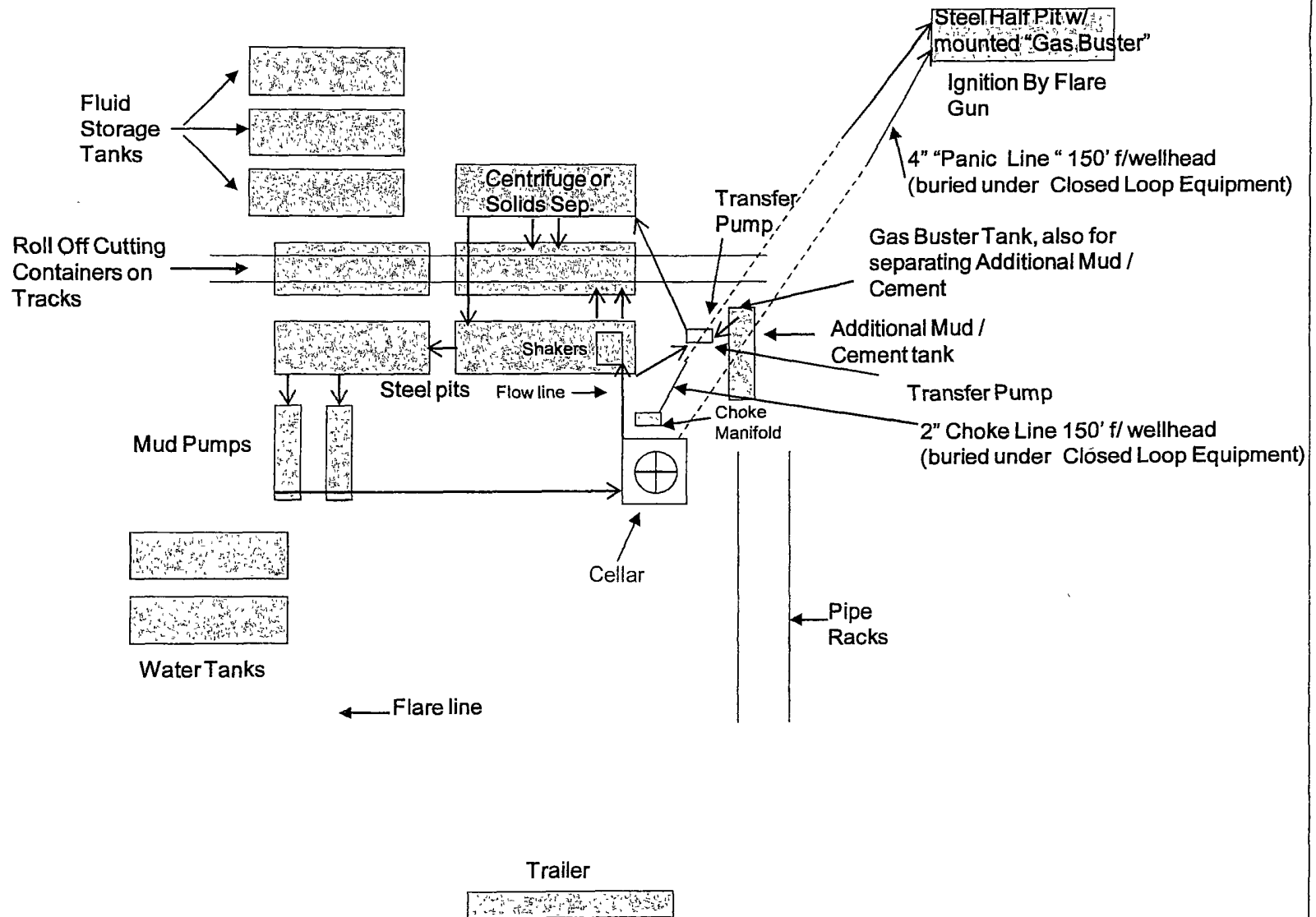
or

GMI (permit number 711-019-001)

dependent upon which rig is available to drill this well.

COG Operating LLC

Closed Loop Equipment Diagram





COG Operating LLC

Eddy County, NM (NAN27 NME)

Pinto 36 State Com #6H

Pinto 36 State Com #6H

OH

Plan: Plan #1 8-3/4" Hole

SHL = 150' FSL & 2230' FWL

PP = 330' FSL & 2230' FWL

BHL = 330' FNL & 2260' FEL

Standard Planning Report

16 February, 2012



Scientific Drilling
Directional Drilling Operations



SDI
Planning Report



Database	EDM 5000 1 Single User Db	Local Co-ordinate Reference	Site Pinto 36 State Com #6H
Company	COG Operating LLC	TVD Reference:	GL @ 3495 00usft
Project	Eddy County, NM (NAN27 NME)	MD Reference:	GL @ 3495 00usft
Site	Pinto 36 State Com #6H	North Reference:	Grid
Well	Pinto 36 State Com #6H	Survey Calculation Method:	Minimum Curvature
Wellbore	OH		
Design	Plan #1 8-3/4" Hole		

Project	Eddy County, NM (NAN27 NME)		
Map System	US State Plane 1927 (Exact solution)	System Datum	Mean Sea Level
Geo Datum	NAD 1927 (NADCON CONUS)		
Map Zone	New Mexico East 3001		

Site	Pinto 36 State Com #6H		
Site Position		Northing	617,435 10 usft
From:	Map	Easting	467,419 10 usft
Position Uncertainty	0 00 usft	Slot Radius	13-3/16 "
		Latitude	32° 41' 50 578 N
		Longitude	104° 26' 21 279 W
		Grid Convergence:	-0 06 °

Well	Pinto 36 State Com #6H		
Well Position	+N/-S	0 00 usft	Northing
	+E/-W	0 00 usft	Easting
Position Uncertainty	0 00 usft	Wellhead Elevation:	Ground Level
			3,495 00 usft

Wellbore	OH		
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Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
			(°)	(°)	(nT)
	IGRF2010	02/16/12	7 94	60 46	48,736

Design	Plan #1 8-3/4" Hole		
Audit Notes:			
Version	Phase	PLAN	Tie On Depth: 0 00
Vertical Section	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0 00	0 00	0 00
			1 44

Plan Sections										
Measured	Inclination	Azimuth	Vertical	+N/-S	+E/-W	Dogleg	Build	Turn	TFO	Target
Depth	(°)	(°)	Depth	(usft)	(usft)	Rate	Rate	Rate	(°)	
(usft)			(usft)			(°/100usft)	(°/100usft)	(°/100usft)		
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
2,272 54	0 00	0 00	2,272 54	0 00	0 00	0 00	0 00	0 00	0 00	
3,022 54	90 00	1 44	2,750 00	477 31	11 97	12 00	12 00	0 00	1 44	
7,338 38	90 00	1 44	2,750 00	4,791 80	120 20	0 00	0 00	0 00	0 00	PBHL-Pinto 36 #6H



Database:	EDM 5000-1 Single User Db	Local Co-ordinate Reference:	Site Pinto 36 State Com #6H
Company:	COG Operating LLC	TVD Reference:	GL @ 3495 00usft
Project:	Eddy County NM (NAN27 NME)	MD Reference:	GL @ 3495 00usft
Site:	Pinto 36 State Com #6H	North Reference:	Grd
Well:	Pinto 36 State Com #6H	Survey Calculation Method:	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1 8-3/4" Hole		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00
2,272 54	0 00	0 00	2,272 54	0 00	0 00	0 00	0 00	0 00	0 00
KOP Start Build 12.00°/100'									
2,300 00	3 30	1 44	2,299 98	0 79	0 02	0 79	12 00	12 00	0 00
2,400 00	15 30	1 44	2,398 49	16 91	0 42	16 91	12 00	12 00	0 00
2,500 00	27 30	1 44	2,491 49	53 15	1 33	53 17	12 00	12 00	0 00
2,600 00	39 30	1 44	2,574 93	107 93	2 71	107 96	12 00	12 00	0 00
2,700 00	51 30	1 44	2,645 14	178 85	4 49	178 91	12 00	12 00	0 00
2,701 40	51 46	1 44	2,646 01	179 94	4 51	180 00	12 00	12 00	0 00
PP=330' FNL Pinto 36 #6H									
2,800 00	63 30	1 44	2,699 07	262 82	6 59	262 90	12 00	12 00	0 00
2,900 00	75 30	1 44	2,734 36	356 16	8 93	356 27	12 00	12 00	0 00
3,000 00	87 30	1 44	2,749 47	454 79	11 41	454 94	12 00	12 00	0 00
3,022 54	90 00	1 44	2,750 00	477 32	11 97	477 47	12 00	12 00	0 00
Land EOC hold 90.00°									
3,100 00	90 00	1 44	2,750 00	554 76	13 92	554 93	0 00	0 00	0 00
3,200 00	90 00	1 44	2,750 00	654 72	16 42	654 93	0 00	0 00	0 00
3,300 00	90 00	1 44	2,750 00	754 69	18 93	754 93	0 00	0 00	0 00
3,400 00	90 00	1 44	2,750 00	854 66	21 44	854 93	0 00	0 00	0 00
3,500 00	90 00	1 44	2,750 00	954 63	23 95	954 93	0 00	0 00	0 00
3,600 00	90 00	1 44	2,750 00	1,054 60	26 45	1,054 93	0 00	0 00	0 00
3,700 00	90 00	1 44	2,750 00	1,154 57	28 96	1,154 93	0 00	0 00	0 00
3,800 00	90 00	1 44	2,750 00	1,254 54	31 47	1,254 93	0 00	0 00	0 00
3,900 00	90 00	1 44	2,750 00	1,354 50	33 98	1,354 93	0 00	0 00	0 00
4,000 00	90 00	1 44	2,750 00	1,454 47	36 48	1,454 93	0 00	0 00	0 00
4,100 00	90 00	1 44	2,750 00	1,554 44	38 99	1,554 93	0 00	0 00	0 00
4,200 00	90 00	1 44	2,750 00	1,654 41	41 50	1,654 93	0 00	0 00	0 00
4,300 00	90 00	1 44	2,750 00	1,754 38	44 01	1,754 93	0 00	0 00	0 00
4,400 00	90 00	1 44	2,750 00	1,854 35	46 52	1,854 93	0 00	0 00	0 00
4,500 00	90 00	1 44	2,750 00	1,954 31	49 02	1,954 93	0 00	0 00	0 00
4,600 00	90 00	1 44	2,750 00	2,054 28	51 53	2,054 93	0 00	0 00	0 00
4,700 00	90 00	1 44	2,750 00	2,154 25	54 04	2,154 93	0 00	0 00	0 00
4,800 00	90 00	1 44	2,750 00	2,254 22	56 55	2,254 93	0 00	0 00	0 00
4,900 00	90 00	1 44	2,750 00	2,354 19	59 05	2,354 93	0 00	0 00	0 00
5,000 00	90 00	1 44	2,750 00	2,454 16	61 56	2,454 93	0 00	0 00	0 00
5,100 00	90 00	1 44	2,750 00	2,554 13	64 07	2,554 93	0 00	0 00	0 00
5,200 00	90 00	1 44	2,750 00	2,654 09	66 58	2,654 93	0 00	0 00	0 00
5,300 00	90 00	1 44	2,750 00	2,754 06	69 08	2,754 93	0 00	0 00	0 00
5,400 00	90 00	1 44	2,750 00	2,854 03	71 59	2,854 93	0 00	0 00	0 00
5,500 00	90 00	1 44	2,750 00	2,954 00	74 10	2,954 93	0 00	0 00	0 00
5,600 00	90 00	1 44	2,750 00	3,053 97	76 61	3,054 93	0 00	0 00	0 00
5,700 00	90 00	1 44	2,750 00	3,153 94	79 12	3,154 93	0 00	0 00	0 00
5,800 00	90 00	1 44	2,750 00	3,253 91	81 62	3,254 93	0 00	0 00	0 00
5,900 00	90 00	1 44	2,750 00	3,353 87	84 13	3,354 93	0 00	0 00	0 00
6,000 00	90 00	1 44	2,750 00	3,453 84	86 64	3,454 93	0 00	0 00	0 00
6,100 00	90 00	1 44	2,750 00	3,553 81	89 15	3,554 93	0 00	0 00	0 00
6,200 00	90 00	1 44	2,750 00	3,653 78	91 65	3,654 93	0 00	0 00	0 00
6,300 00	90 00	1 44	2,750 00	3,753 75	94 16	3,754 93	0 00	0 00	0 00
6,400 00	90 00	1 44	2,750 00	3,853 72	96 67	3,854 93	0 00	0 00	0 00
6,500 00	90 00	1 44	2,750 00	3,953 69	99 18	3,954 93	0 00	0 00	0 00
6,600 00	90 00	1 44	2,750 00	4,053 65	101 68	4,054 93	0 00	0 00	0 00
6,700 00	90 00	1 44	2,750 00	4,153 62	104 19	4,154 93	0 00	0 00	0 00
6,800 00	90 00	1 44	2,750 00	4,253 59	106 70	4,254 93	0 00	0 00	0 00



Database:	EDM 5000 1.Single User Db	Local Co-ordinate Reference:	Site Pinto 36 State Com #6H
Company:	COG Operating LLC	TVD Reference:	GL @ 3495 00usft
Project:	Eddy County NM (NAN27 NME)	MD Reference:	GL @ 3495 00usft
Site:	Pinto 36 State Com #6H	North Reference:	Grid
Well:	Pinto 36 State Com #6H	Survey Calculation Method	Minimum Curvature
Wellbore:	OH		
Design:	Plan #1. 8-3/4" Hole		

Planned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
6,900 00	90 00	1 44	2,750 00	4,353 56	109 21	4,354 93	0 00	0 00	0 00
7,000 00	90 00	1 44	2,750 00	4,453 53	111 71	4,454 93	0 00	0 00	0 00
7,100 00	90 00	1 44	2,750 00	4,553 50	114 22	4,554 93	0 00	0 00	0 00
7,200 00	90 00	1 44	2,750 00	4,653 47	116 73	4,654 93	0 00	0 00	0 00
7,300 00	90 00	1 44	2,750 00	4,753 43	119 24	4,754 93	0 00	0 00	0 00
7,338 38	90 00	1 44	2,750 00	4,791 80	120 20	4,793 31	0 00	0 00	0 00
PBHL-Pinto 36 #6H									

Design Targets									
Target Name	hit/miss target	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	
Shape									Latitude Longitude
PP=330' FNL Pinto 36 #		0 00	0 00	2,646 02	179 94	4 51	617,615 05	467,423 61	32° 41' 52 358 N 104° 26' 21 228 W
- plan hits target center									
- Point									
PBHL-Pinto 36 #6H		0 00	0 00	2,750 00	4,791 80	120 20	622,226 90	467,539 30	32° 42' 37 997 N 104° 26' 19 928 W
- plan hits target center									
- Point									

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,272 54	2,272 54	0 00	0 00	KOP Start Build 12 00°/100'
3,022 54	2,750 00	436 75	192 94	Land EOC hold 90 00°



Pinto 36 State Com #6H
Eddy County, NM (NAN27 NME)
Northing (Y) 617435 10
Easting (X) 467419 10
Plan #1 8-3/4" Hole



WELL DETAILS										
Pinto 36 State Com #6H										
+N/S		+E/W		Ground Level		3495.00		Latitude		Longitude
0.00		0.00		Northing		Easting		32 41 50 578 N		104 26 21 279 W
				617435 10		467419 10				Slot
SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/S	+E/W	Dleg	TFace	VSet	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2272.54	0.00	0.00	2272.54	0.00	0.00	0.00	0.00	0.00	0.00
3	3022.54	90.00	1.44	2750.00	477.31	11.97	12.00	1.44	477.46	
4	7336.36	90.00	1.44	2750.00	4791.80	120.20	0.00	0.00	4793.31	PBHL-Pinto 36 #6H
DESIGN TARGET DETAILS										
Name	TVD			+N/S	+E/W	Northing	Easting	Latitude	Longitude	Shape
PP=330 FNL Pinto 36 #6H	2646.02			179.94	4.51	617615.04	467423.6132	41 52 358.804	26 21 228 W	Point
- plan hits target center										
PBHL-Pinto 36 #6H	2750.00			4791.80	120.20	622226.90	467539.3032	42 37 997.804	26 19 928 W	Point
- plan hits target center										

PROJECT DETAILS Eddy County NM (NAN27 NME)									
Geodetic System US State Plane 1927 (Exact solution)									
Datum NAD 1927 (NADCON CONUS)									
Ellipsoid Clarke 1866									
Zone Name New Mexico East 3001									
Local Origin Site Pinto 36 State Com #6H Grid North									
Latitude 32° 41' 50.578 N									
Longitude 104° 26' 21.279 W									
Grid East 467419 10									
Grid North 617435 10									
Scale Factor 1.000									
Geomagnetic Model IGRF2010									
Sample Date 16 Feb 12									
Magnetic Declination 7.94°									
Dip Angle from Horizontal 60.46									
Magnetic Field Strength 46736									
To convert a Magnetic Direction to a Grid Direction Add 7.99									
To convert a Magnetic Direction to a True Direction Add 7.94 East									
To convert a True Direction to a Grid Direction Add 0.06									
SITE DETAILS Pinto 36 State Com #6H									
Site Centre Northing 617435 10									
Easting 467419 10									
Positional Uncertainty 0.00									
Convergence 0.06									
Local North Grid									
LEGEND									
Pinto 36 State Com #3H OH Plan #1 8-3/4" Hole V0									
Plan #1 8-3/4" Hole									

