

District I
625 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 NMOC 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

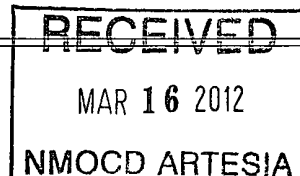
Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

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.

Operator COG OPERATING LLC		OGRID # 229137
Address 550 WEST TEXAS, SUITE 100 MIDLAND, TX 79701		
Facility or well name TARPAN "33" FEE #1H		
API Number 30-015-40056	OCD Permit Number 212673	
U/L or Qtr/Qtr UL M	Section 33	Township 18S Range 26E 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		

☒ 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	

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	



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 _____

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	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: 03/16/2012

Title: _____

OCD Permit Number: 212673

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 identify 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)

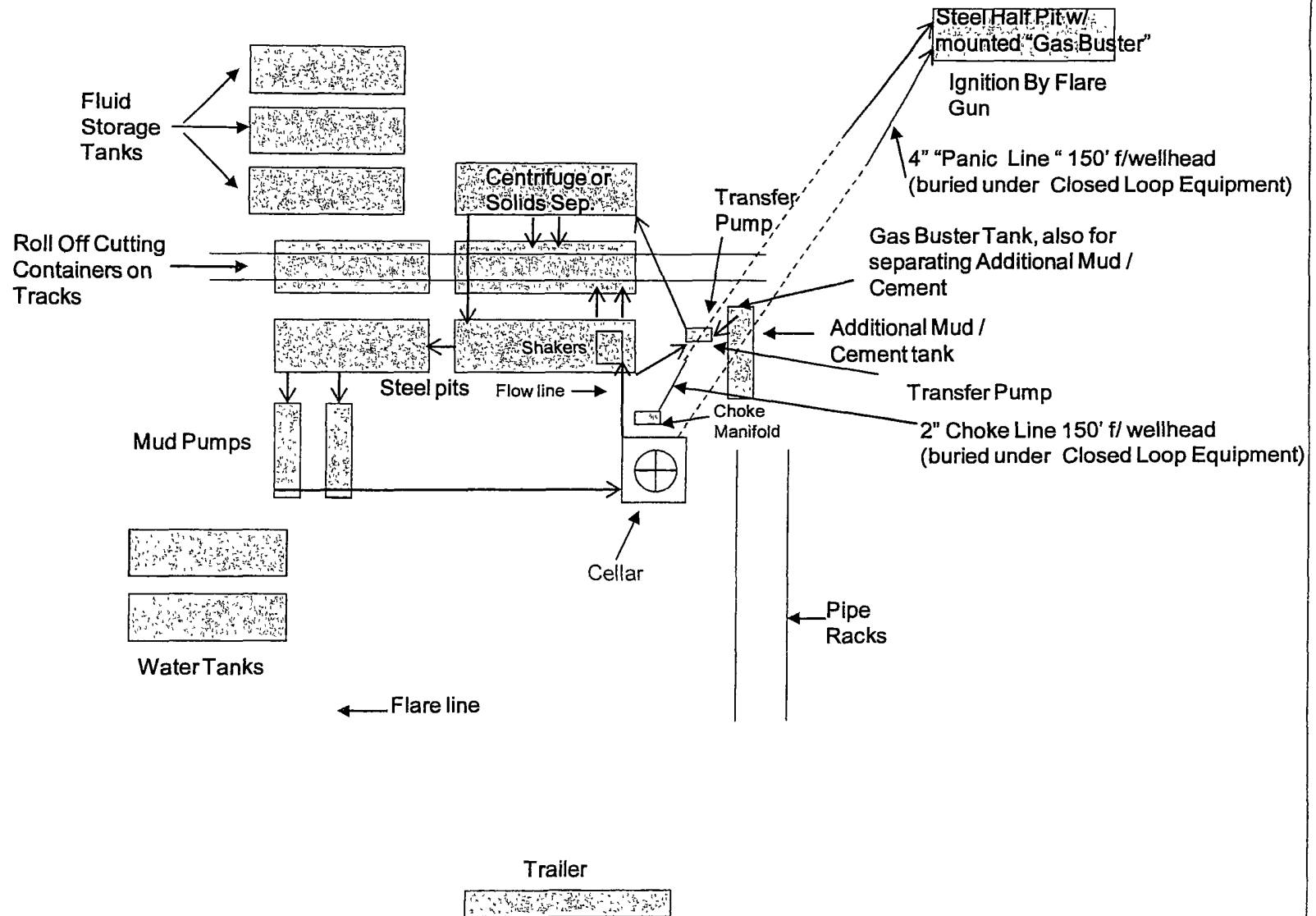
or

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)

Tarpan 33 Fee #1H

Tarpan 33 Fee #1H

OH

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

SHL = 150' FSL & 380' FWL

PP = 330' FSL & 380' FWL

BHL = 330' FNL & 380' FWL

Standard Planning Report

09 March, 2012





Database:	EDM 5000 1 Single User Db	Local Co-ordinate Reference:	Site Tarpan 33 Fee #1H
Company:	COG Operating LLC	TVD Reference:	GL @ 3374 00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL @ 3374 00usft
Site:	Tarpan 33 Fee #1H	North Reference:	Grid
Well:	Tarpan 33 Fee #1H	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:	Tarpan 33 Fee #1H		
Site Position:	From. Map	Northing	617,385 30 usft
		Easting	481,353 30 usft
Position Uncertainty	0 00 usft	Slot Radius:	13-3/16 "
		Latitude	32° 41' 50 193 N
		Longitude	104° 23' 38 213 W
		Grid Convergence:	-0 03 °

Well:	Tarpan 33 Fee #1H		
Well Position	+N/-S	0 00 usft	Northing: 617,385 30 usft
	+E/-W	0 00 usft	Easting 481,353 30 usft
Position Uncertainty	0 00 usft	Wellhead Elevation:	Ground Level: 3,374 00 usft

Wellbore:	OH		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	03/09/12	7 91
			Dip Angle (°)
			60 46
			Field Strength (nT)
			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
			Direction (°)
			359 90

Plan Sections										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
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	359 90	2,750 00	477 46	-0 82	12 00	12 00	0 00	359 90	
7,392 98	90 00	359 90	2,750 00	4,847 90	-8 30	0 00	0 00	0 00	0 00	PBHL-Tarpan 33 Fee



Database:	EDM 5000-1 Single User Db	Local Co-ordinate Reference:	Site Tarpan 33 Fee #1H
Company:	COG Operating LLC	TVD Reference:	GL @ 3374 00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL @ 3374 00usft
Site:	Tarpan 33 Fee #1H	North Reference:	Grid
Well:	Tarpan 33 Fee #1H	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	359 90	2,299 98	0 79	0 00	0 79	12 00	12 00	0 00	
2,400 00	15 30	359 90	2,398 49	16 91	-0 03	16 91	12 00	12 00	0 00	
2,500 00	27 30	359 90	2,491 49	53 17	-0 09	53 17	12 00	12 00	0 00	
2,600 00	39 30	359 90	2,574 93	107 96	-0 18	107 96	12 00	12 00	0 00	
2,700 00	51 30	359 90	2,645 14	178 91	-0 31	178 91	12 00	12 00	0 00	
2,701 40	51 46	359 90	2,646 01	180 00	-0 31	180 00	12 00	12 00	0 00	
PP=330° FSL Tarpan 33 Fee #1H										
2,800 00	63 30	359 90	2,699 07	262 90	-0 45	262 90	12 00	12 00	0 00	
2,900 00	75 30	359 90	2,734 36	356 27	-0 61	356 27	12 00	12 00	0 00	
3,000 00	87 30	359 90	2,749 47	454 94	-0 78	454 94	12 00	12 00	0 00	
3,022 54	90 00	359 90	2,750 00	477 47	-0 82	477 47	12 00	12 00	0 00	
Land EOC hold 90.00°										
3,100 00	90 00	359 90	2,750 00	554 93	-0 95	554 93	0 00	0 00	0 00	
3,200 00	90 00	359 90	2,750 00	654 93	-1 12	654 93	0 00	0 00	0 00	
3,300 00	90 00	359 90	2,750 00	754 93	-1 29	754 93	0 00	0 00	0 00	
3,400 00	90 00	359 90	2,750 00	854 93	-1 46	854 93	0 00	0 00	0 00	
3,500 00	90 00	359 90	2,750 00	954 93	-1 63	954 93	0 00	0 00	0 00	
3,600 00	90 00	359 90	2,750 00	1,054 93	-1 81	1,054 93	0 00	0 00	0 00	
3,700 00	90 00	359 90	2,750 00	1,154 93	-1 98	1,154 93	0 00	0 00	0 00	
3,800 00	90 00	359 90	2,750 00	1,254 93	-2 15	1,254 93	0 00	0 00	0 00	
3,900 00	90 00	359 90	2,750 00	1,354 93	-2 32	1,354 93	0 00	0 00	0 00	
4,000 00	90 00	359 90	2,750 00	1,454 93	-2 49	1,454 93	0 00	0 00	0 00	
4,100 00	90 00	359 90	2,750 00	1,554 93	-2 66	1,554 93	0 00	0 00	0 00	
4,200 00	90 00	359 90	2,750 00	1,654 93	-2 83	1,654 93	0 00	0 00	0 00	
4,300 00	90 00	359 90	2,750 00	1,754 93	-3 00	1,754 93	0 00	0 00	0 00	
4,400 00	90 00	359 90	2,750 00	1,854 93	-3 18	1,854 93	0 00	0 00	0 00	
4,500 00	90 00	359 90	2,750 00	1,954 93	-3 35	1,954 93	0 00	0 00	0 00	
4,600 00	90 00	359 90	2,750 00	2,054 93	-3 52	2,054 93	0 00	0 00	0 00	
4,700 00	90 00	359 90	2,750 00	2,154 93	-3 69	2,154 93	0 00	0 00	0 00	
4,800 00	90 00	359 90	2,750 00	2,254 93	-3 86	2,254 93	0 00	0 00	0 00	
4,900 00	90 00	359 90	2,750 00	2,354 93	-4 03	2,354 93	0 00	0 00	0 00	
5,000 00	90 00	359 90	2,750 00	2,454 93	-4 20	2,454 93	0 00	0 00	0 00	
5,100 00	90 00	359 90	2,750 00	2,554 93	-4 37	2,554 93	0 00	0 00	0 00	
5,200 00	90 00	359 90	2,750 00	2,654 93	-4 55	2,654 93	0 00	0 00	0 00	
5,300 00	90 00	359 90	2,750 00	2,754 93	-4 72	2,754 93	0 00	0 00	0 00	
5,400 00	90 00	359 90	2,750 00	2,854 93	-4 89	2,854 93	0 00	0 00	0 00	
5,500 00	90 00	359 90	2,750 00	2,954 93	-5 06	2,954 93	0 00	0 00	0 00	
5,600 00	90 00	359 90	2,750 00	3,054 93	-5 23	3,054 93	0 00	0 00	0 00	
5,700 00	90 00	359 90	2,750 00	3,154 93	-5 40	3,154 93	0 00	0 00	0 00	
5,800 00	90 00	359 90	2,750 00	3,254 92	-5 57	3,254 93	0 00	0 00	0 00	
5,900 00	90 00	359 90	2,750 00	3,354 92	-5 74	3,354 93	0 00	0 00	0 00	
6,000 00	90 00	359 90	2,750 00	3,454 92	-5 92	3,454 93	0 00	0 00	0 00	
6,100 00	90 00	359 90	2,750 00	3,554 92	-6 09	3,554 93	0 00	0 00	0 00	
6,200 00	90 00	359 90	2,750 00	3,654 92	-6 26	3,654 93	0 00	0 00	0 00	
6,300 00	90 00	359 90	2,750 00	3,754 92	-6 43	3,754 93	0 00	0 00	0 00	
6,400 00	90 00	359 90	2,750 00	3,854 92	-6 60	3,854 93	0 00	0 00	0 00	
6,500 00	90 00	359 90	2,750 00	3,954 92	-6 77	3,954 93	0 00	0 00	0 00	
6,600 00	90 00	359 90	2,750 00	4,054 92	-6 94	4,054 93	0 00	0 00	0 00	
6,700 00	90 00	359 90	2,750 00	4,154 92	-7 11	4,154 93	0 00	0 00	0 00	
6,800 00	90 00	359 90	2,750 00	4,254 92	-7 28	4,254 93	0 00	0 00	0 00	



Database:	EDM 5000-1-Single User Db	Local Co-ordinate Reference:	Site Tarpan 33 Fee #1H
Company:	COG Operating LLC	TVD Reference:	GL @ 3374 00usft
Project:	Eddy County, NM (NAN27 NME)	MD Reference:	GL @ 3374 00usft
Site:	Tarpan 33 Fee #1H	North Reference:	Grid
Well:	Tarpan 33 Fee #1H	Survey Calculation Method:	Minimum Curvature
Wellbore:	QH		
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	359 90	2,750 00	4,354 92	-7 46	4,354 93	0 00	0 00	0 00
7,000 00	90 00	359 90	2,750 00	4,454 92	-7 63	4,454 93	0 00	0 00	0 00
7,100 00	90 00	359 90	2,750 00	4,554 92	-7 80	4,554 93	0 00	0 00	0 00
7,200 00	90 00	359 90	2,750 00	4,654 92	-7 97	4,654 93	0 00	0 00	0 00
7,300 00	90 00	359 90	2,750 00	4,754 92	-8 14	4,754 93	0 00	0 00	0 00
7,392 98	90 00	359 90	2,750 00	4,847 90	-8 30	4,847 91	0 00	0 00	0 00
PBHL-Tarpan 33 Fee #1H									

Design Targets									
Target Name	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
hit/miss target									
Shape									
PP=330' FSL Tarpan 33	0 00	360 00	2,646 02	180 00	-0 31	617,565 30	481,352 99	32° 41' 51 974 N	104° 23' 38 218 W
- plan hits target center									
- Point									
PBHL-Tarpan 33 Fee #1	0 00	0 00	2,750 00	4,847 90	-8 30	622,233 20	481,345 00	32° 42' 38 166 N	104° 23' 38 343 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	477 47	-0 82	Land EOC hold 90 00°



Azimuths to Grid North
True North 0.03°
Magnetic North 7.94°
Magnetic Field
Strength 48395 GauT
Dip Angle 60.45°
Date 03/09/2012
Model IGRF2010

To convert Magnetic North to Grid, Add 7.94°
To convert True North to Grid, Add 0.03°

Tarpan 33 Fee #1H
Eddy County, NM (NAN27 NME)
Northing (Y) 617385 30
Easting (X) 481353 30
Plan #1 8-3/4" Hole

WELL DETAILS Tarpan 33 Fee #1H									
+N-S	+E-W	Ground Level	3374.00						
0.00	0.00	Northing	617385.30	Easting	481353.30	32	41	50	193 N
		Latitude	104	23	38	213 W			
		Longitude							
		Slot							

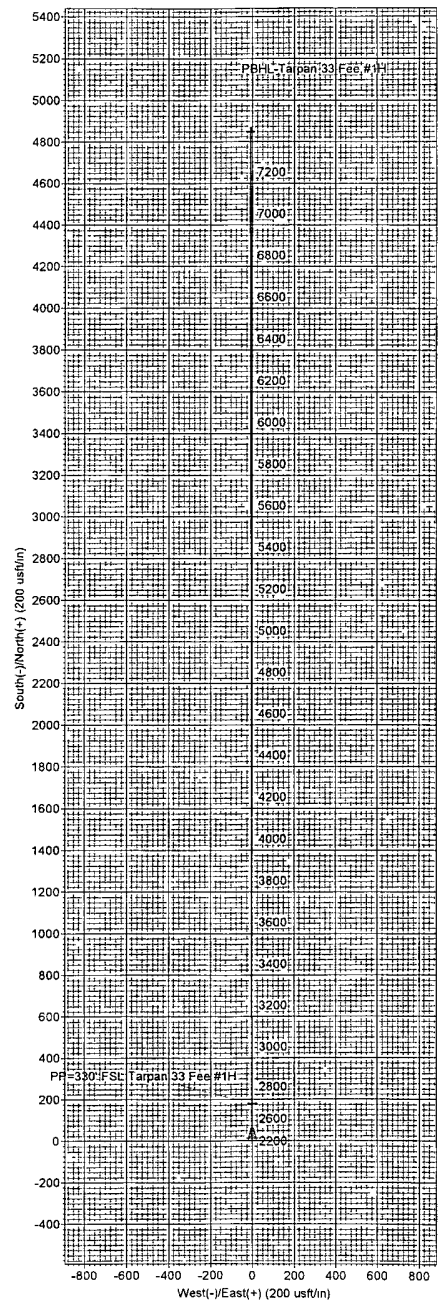
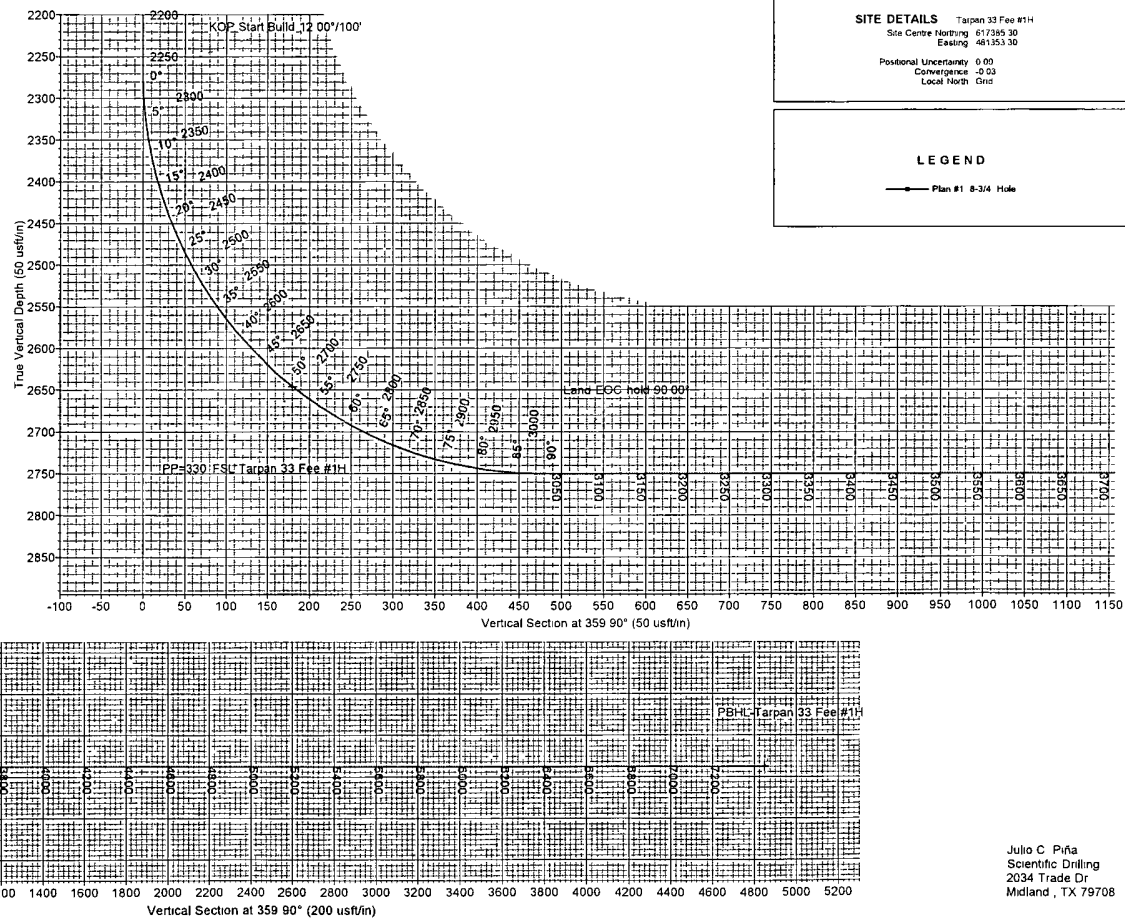
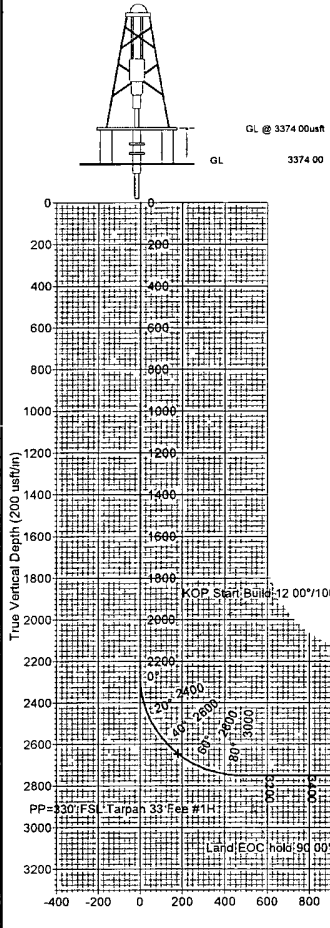
SECTION DETAILS									
Sec	MD	Inc	Az	TVD	+N-S	+E-W	Dleg	TFace	VStart
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2272.54	0.00	0.00	2272.54	0.00	0.00	0.00	0.00	0.00
3	3022.54	90.00	359.90	2750.00	477.46	-0.82	12.00	359.90	477.46
4	7352.98	90.00	359.90	2750.00	4847.50	-8.30	0.00	0.00	4847.51
PBHL-Tarpan 33 Fee #1H									

DESIGN TARGET DETAILS									
Name	MD	TVD	+N-S	+E-W	Northing	Easting	Latitude	Longitude	Shape
PP-330 FSL Tarpan 33 Fee #1H	186.46	0.00	-0.31	617385.30	481352.99	32	41	51	974 M04
PBHL-Tarpan 33 Fee #1H	2750.00	4847.50	-8.30	622233.20	481345.00	32	42	38	166 M04
- 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 Tarpan 33 Fee #1H Grid North								
Latitude	32° 41' 50.193 N								
Longitude	104° 23' 38.213 W								
Grid East	481353.30								
Grid North	617385.30								
Scale Factor	1.000								
Geomagnetic Model	IGRF2010								
Sample Date	09 Mar 12								
Magnetic Declination	7.91°								
Dip Angle from Horizontal	60.46°								
Magnetic Field Strength	48395								
To convert Magnetic North to Grid, Add 7.94°									
To convert True North to Grid, Add 0.03°									

SITE DETAILS Tarpan 33 Fee #1H									
Site Centre Northing	617385.30								
Easting	481353.30								
Positional Uncertainty	0.00								
Convergence	-0.03								
Local North	Grid								

LEGEND									
Plan #1 8-3/4" Hole									



Julio C. Pila
Scientific Drilling
2034 Trade Dr
Midland, TX 79708