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: **HOGAN STATE COM #4H**
API Number: **30-015-** 40415 OCD Permit Number: 213109
U/L or Qtr/Qtr **UL P** Section **2** Township **17S** Range **29E** 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

RECEIVED
JUN 21 2012
NMOCD ARTESIA

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 indentify 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: **4-17-2012**
e-mail address: **kconnally@concho.com** Telephone: **432-221-0336**

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

OCD Representative Signature: [signature] **Approval Date:** 6/25/2012

Title: DIST II Supervisor **OCD Permit Number:** 213109

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.

Database:	EDM 5000 1 Single User Db	**Local Co-ordinate Reference:**	Site Hogan State Com #4H
Company:	COG Operating LLC	**TVD Reference:**	GL @ 3661 00usft
Project:	Eddy County, NM (NAN27 NME)	**MD Reference:**	GL @ 3661 00usft
Site:	Hogan State Com #4H	**North Reference:**	Grid
Well:	Hogan State Com #4H	**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 Hogan State Com #4H

Site Position:		**Northing:**	675,652 30 usft	**Latitude:**	32° 51' 25 567 N
From:	Map	**Easting:**	590,870 40 usft	**Longitude:**	104° 2' 14 686 W
Position Uncertainty:	0 00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0 16 °

Well Hogan State Com #4H

Well Position	**+N/-S**	0 00 usft	**Northing:**	675,652 30 usft	**Latitude:**	32° 51' 25 567 N
	+E/-W	0 00 usft	**Easting:**	590,870 40 usft	**Longitude:**	104° 2' 14 686 W
Position Uncertainty		0 00 usft	**Wellhead Elevation:**		**Ground Level:**	3,661 00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	05/30/12	7 73	60 67	48,848

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

Audit Notes:

Version:		**Phase:**	PLAN	**Tie On Depth:**	0 00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0 00	0 00	0 00	270 42

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	
4,722 61	0 00	0 00	4,722 61	0 00	0 00	0 00	0 00	0 00	0 00	
5,480 94	91 00	270 42	5,200 00	3 53	-485 78	12 00	12 00	0 00	270 42	
9,625 30	91 00	270 42	5,127 67	33 60	-4,629 40	0 00	0 00	0 00	0 00	PBHL-Hogan State #4

Database:	EDM 5000 1 Single User Db	**Local Co-ordinate Reference:**	Site Hogan State Com #4H
Company:	COG Operating LLC	**TVD Reference:**	GL @ 3661 00usft
Project:	Eddy County, NM (NAN27 NME)	**MD Reference:**	GL @ 3661 00usft
Site:	Hogan State Com #4H	**North Reference:**	Grid
Well:	Hogan State Com #4H	**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
4,722 61	0 00	0 00	4,722 61	0 00	0 00	0 00	0 00	0 00	0 00
KOP Start Build 12.00°/100'									
4,800 00	9 29	270 42	4,799 66	0 05	-6 26	6 26	12 00	12 00	0.00
4,900 00	21.29	270 42	4,895 95	0 24	-32 58	32 58	12 00	12 00	0 00
5,000 00	33 29	270 42	4,984 66	0.57	-78 34	78 34	12 00	12 00	0 00
5,100 00	45 29	270 42	5,061 91	1 03	-141 54	141 54	12 00	12 00	0 00
5,200 00	57 29	270 42	5,124 34	1 59	-219 42	219 43	12 00	12.00	0 00
5,300 00	69 29	270 42	5,169.21	2.24	-308.58	308 59	12 00	12 00	0 00
5,400 00	81 29	270 42	5,194 56	2 94	-405 13	405 14	12 00	12 00	0 00
5,480 94	91 00	270 42	5,200.00	3 53	-485 78	485 80	12 00	12 00	0 00
Land hold 91.00°									
5,500 00	91 00	270 42	5,199 67	3.66	-504 84	504 85	0 00	0 00	0 00
5,600 00	91 00	270 42	5,197 92	4 39	-604 82	604 84	0 00	0 00	0 00
5,700 00	91 00	270 42	5,196 18	5 12	-704 81	704 82	0 00	0 00	0 00
5,800 00	91 00	270 42	5,194 43	5 84	-804 79	804 81	0 00	0 00	0 00
5,900 00	91 00	270 42	5,192 69	6.57	-904 77	904 79	0 00	0 00	0.00
6,000 00	91 00	270 42	5,190 94	7 29	-1,004 75	1,004 78	0 00	0 00	0 00
6,100 00	91.00	270 42	5,189 20	8 02	-1,104 73	1,104 76	0 00	0.00	0 00
6,200 00	91 00	270 42	5,187.45	8 74	-1,204 72	1,204 75	0 00	0 00	0 00
6,300 00	91 00	270 42	5,185 70	9 47	-1,304 70	1,304 73	0 00	0 00	0 00
6,400 00	91 00	270 42	5,183 96	10 20	-1,404.68	1,404 72	0 00	0 00	0 00
6,500 00	91 00	270 42	5,182 21	10 92	-1,504 66	1,504 70	0 00	0 00	0 00
6,600 00	91 00	270 42	5,180 47	11 65	-1,604 64	1,604 69	0 00	0 00	0 00
6,700 00	91 00	270 42	5,178 72	12 37	-1,704 63	1,704 67	0 00	0 00	0 00
6,800 00	91.00	270 42	5,176 98	13 10	-1,804 61	1,804 66	0 00	0 00	0 00
6,900 00	91 00	270 42	5,175 23	13 82	-1,904 59	1,904 64	0 00	0 00	0 00
7,000 00	91.00	270 42	5,173 49	14 55	-2,004 57	2,004 63	0 00	0 00	0 00
7,100 00	91 00	270 42	5,171 74	15 27	-2,104 56	2,104 61	0 00	0.00	0 00
7,200 00	91 00	270 42	5,170 00	16 00	-2,204 54	2,204 60	0 00	0 00	0 00
7,300 00	91 00	270 42	5,168 25	16.73	-2,304 52	2,304 58	0.00	0 00	0 00
7,400 00	91 00	270 42	5,166 51	17 45	-2,404 50	2,404 57	0 00	0 00	0 00
7,500 00	91 00	270 42	5,164.76	18 18	-2,504 48	2,504 55	0 00	0 00	0 00
7,600.00	91 00	270 42	5,163 02	18.90	-2,604.47	2,604 53	0 00	0 00	0 00
7,700 00	91 00	270 42	5,161.27	19 63	-2,704 45	2,704 52	0 00	0 00	0 00
7,800 00	91 00	270 42	5,159 53	20 35	-2,804 43	2,804 50	0 00	0 00	0 00
7,900 00	91 00	270 42	5,157 78	21 08	-2,904 41	2,904 49	0 00	0 00	0 00
8,000 00	91 00	270 42	5,156 04	21 81	-3,004 39	3,004 47	0 00	0 00	0 00
8,100 00	91 00	270 42	5,154 29	22.53	-3,104 38	3,104 46	0 00	0 00	0 00
8,200 00	91 00	270 42	5,152.54	23 26	-3,204.36	3,204 44	0 00	0 00	0 00
8,300 00	91 00	270 42	5,150 80	23 98	-3,304 34	3,304 43	0 00	0 00	0 00
8,400 00	91 00	270 42	5,149 05	24 71	-3,404 32	3,404 41	0 00	0 00	0 00
8,500 00	91.00	270 42	5,147 31	25 43	-3,504 31	3,504 40	0 00	0 00	0 00
8,600 00	91 00	270 42	5,145.56	26 16	-3,604 29	3,604 38	0 00	0 00	0 00
8,700 00	91 00	270 42	5,143 82	26 89	-3,704 27	3,704 37	0.00	0 00	0 00
8,800 00	91 00	270 42	5,142 07	27 61	-3,804 25	3,804 35	0 00	0 00	0 00
8,900 00	91 00	270 42	5,140 33	28 34	-3,904 23	3,904 34	0 00	0.00	0 00
9,000 00	91 00	270 42	5,138.58	29 06	-4,004.22	4,004.32	0 00	0 00	0 00
9,100 00	91.00	270 42	5,136 84	29 79	-4,104 20	4,104 31	0 00	0 00	0.00
9,200 00	91.00	270 42	5,135.09	30 51	-4,204.18	4,204 29	0 00	0 00	0 00
9,300 00	91 00	270 42	5,133 35	31 24	-4,304 16	4,304 28	0 00	0 00	0 00
9,400 00	91 00	270 42	5,131.60	31 97	-4,404 14	4,404 26	0 00	0 00	0 00
9,500 00	91 00	270 42	5,129.86	32 69	-4,504 13	4,504 25	0 00	0 00	0 00
9,600 00	91 00	270 42	5,128.11	33 42	-4,604 11	4,604 23	0 00	0 00	0 00

Database:	EDM 5000 1 Single User Db	**Local Co-ordinate Reference:**	Site Hogan State Com #4H
Company:	COG Operating LLC	**TVD Reference:**	GL @ 3661 00usft
Project:	Eddy County, NM (NAN27 NME)	**MD Reference:**	GL @ 3661 00usft
Site:	Hogan State Com #4H	**North Reference:**	Grid
Well:	Hogan State Com #4H	**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)
9,625 30	91.00	270 42	5,127.67	33 60	-4,629 40	4,629 52	0 00	0 00	0.00
PBHL-Hogan State #4H									

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBHL-Hogan State #4H - plan hits target center - Point	0 00	0 01	5,127 67	33 60	-4,629 40	675,685 90	586,241 00	32° 51' 26 025 N	104° 3' 8 957 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
4,722 61	4,722 61	0 00	0 00	KOP Start Build 12 00°/100'
5,480 94	5,200 00	3 53	-485 78	Land hold 91 00°

CONCHO

Scientific Drilling

Hogan State Com #4H
Eddy County, NM (NAN27 NME)
Northing (Y) 675652.30
Easting (X) 590870.40
Plan #1 - 8-3/4" Hole

T G M

Azimuths to Grid North
True North -0 16°
Magnetic North 7 57°

* Magnetic Field
Strength 48848 2snT
Dip Angle 60 67°
Date 05/30/2012
Model IGRF2010

To convert Magnetic North to Grid: Add 7 57°
To convert True North to Grid: Subtract 0 16°

WELL DETAILS. Hogan State Com #4H

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Slot
0 00	0 00	675652 30	590870 40	32° 51 25 567 N	104° 2' 14 686 W	

Ground Level 3661 00 *

PROJECT DETAILS. Eddy County, NM (NAN27 NME)

Geodetic System US State Plane 1927 (Exact solution)
Datum NAD 1927 (NADCON CONUS)
Ellipsoid Clarke 1866
Zone New Mexico East 3001

System Datum Mean Sea Level

Map System US State Plane 1927 (Exact solution)
Datum NAD 1927 (NADCON CONUS)
Ellipsoid Clarke 1866
Zone Name New Mexico East 3001

Local Origin Site Hogan State Com #4H, Grid North

Latitude 32° 51 25 567 N
Longitude 104° 2 14 686 W

* Grid East 590870 40
Grid North 675652 30
Scale Factor 1 000

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target
1	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
2	4722 61	0 00	0 00	4722 61	0 00	0 00	0 00	0 00	0 00	
3	5480 94	91 00	270 42	5200 00	3 53	-465 78	12 00	270 42	465 80	
4	9625 30	91 00	270 42	5127 67	33 60	-4629 40	0 00	0 00	4629 52	PBHL-Hogan State #4H

SITE DETAILS: Hogan State Com #4H

Site Centre Northing 675652 30
Easting 590870 40

Positional Uncertainty 0 00
Convergence 0 16
Local North Grid

Geomagnetic Model IGRF2010
Sample Date 30-May-12
Magnetic Declination 7 73°
Dip Angle from Horizontal 60 67°
Magnetic Field Strength 48848

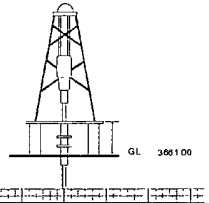
To convert Magnetic North to Grid, Add 7 57°
To convert Magnetic North to True North Add 7 73° East
To convert True North to Grid, Subtract 0 16°

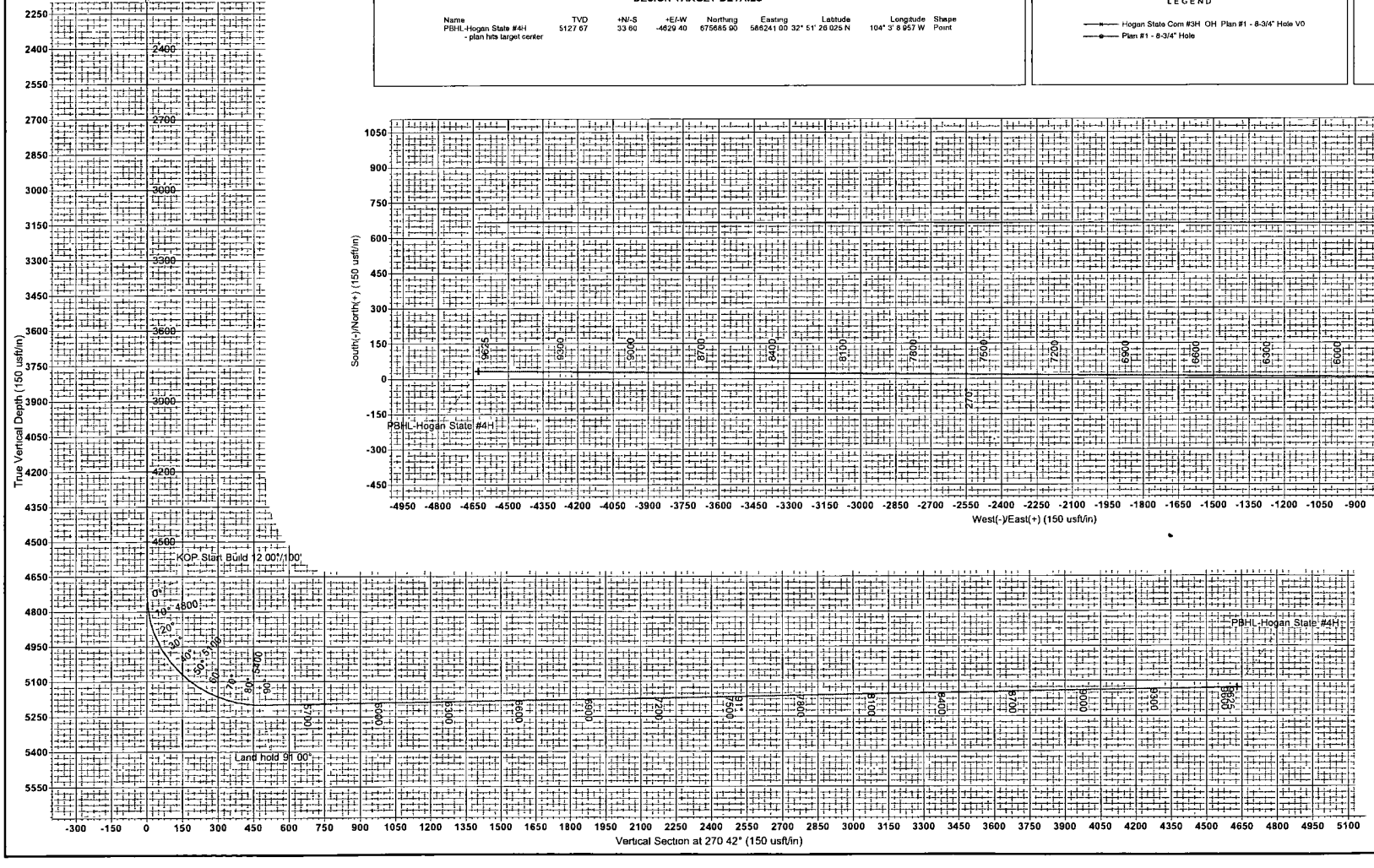
DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
PBHL-Hogan State #4H - plan hits target center	5127 67	33 60	-4629 40	675685 90	586241 00	32° 51' 26 025 N	104° 3' 8 957 W	Point

LEGEND

Hogan State Com #3H OH Plan #1 - 8-3/4" Hole V0
Plan #1 - 8-3/4" Hole





Julio C Piña
Scientific Drilling
2034 Trade Drive
Midland, TX 79703