

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 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

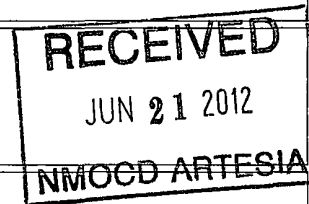
Instructions: Please submit one application (Form C-144 CLEZ) per individual closed-loop system request. For any application request other than for a closed-loop system that only use above ground steel tanks or haul-off bins and propose to implement waste removal for closure, please submit a Form C-144.

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.

1.
Operator: **COG OPERATING LLC** OGRID #: **229137**
Address: **550 WEST TEXAS, SUITE 100 MIDLAND, TX 79701**
Facility or well name: **TEX MACK #252H**
API Number: **30-015-40421** OCD Permit Number: **213115**
U/L or Qtr/Qtr **UL E** Section **2** Township **17S** Range **31E** 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

6.
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): **KEMLY J. HOLLY** Title: **Permitting Tech**
Signature: Date: **04/24/2012**
e-mail address: **kholly@concho.com** Telephone: **432-685-4384**

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

OCD Representative Signature: _____

Approval Date: 6/25/2012

Title: DIST # Supervisor

OCD Permit Number: 213115

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:

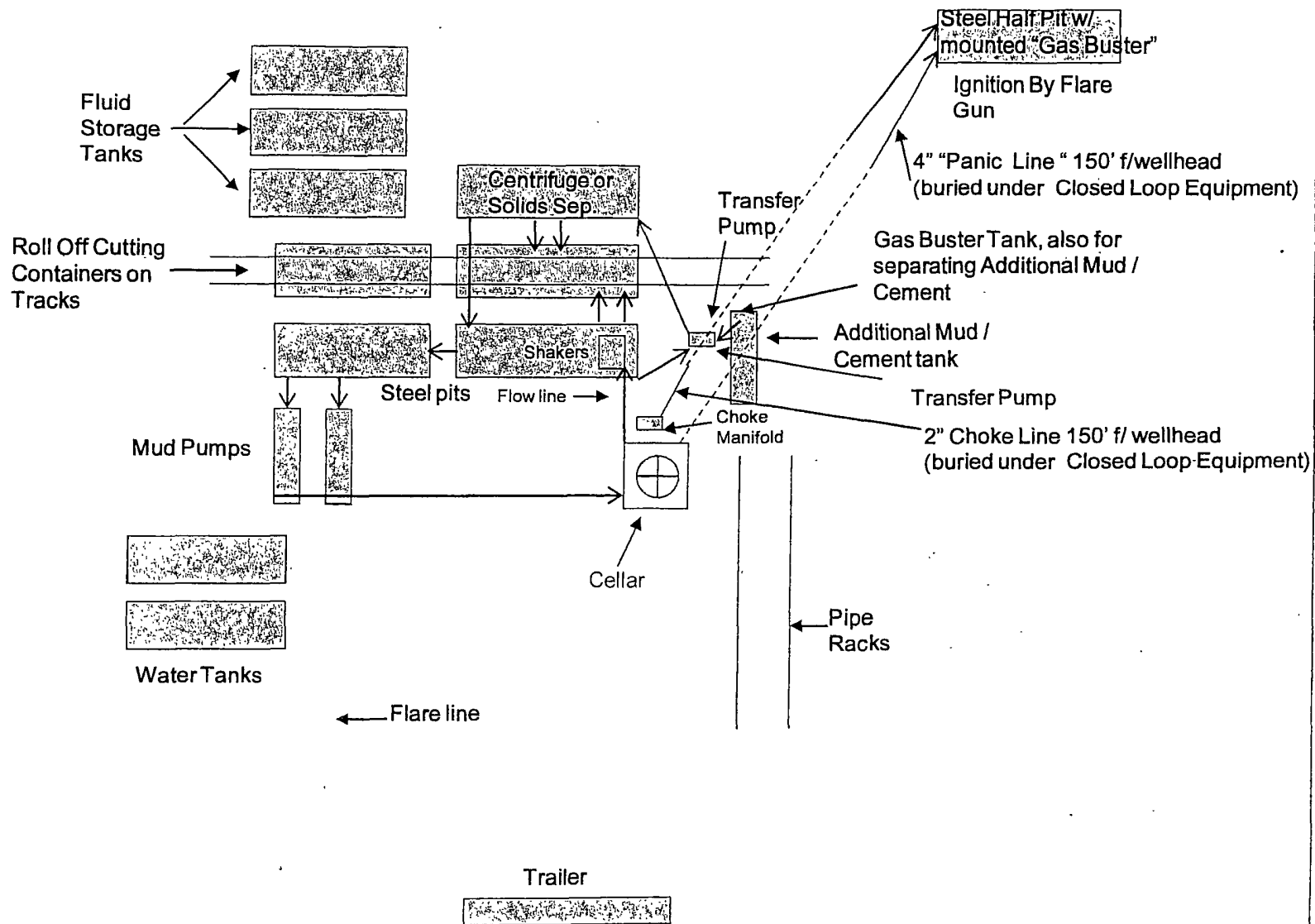
CRI (permit number R9166)

or

GMI (permit number 711-019-001)

dependent upon which rig is available to drill this well.

COG Operating LLC
Closed Loop Equipment Diagram



DISTRICT I
1625 N French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-	Pool Code 26770	Pool Name Fren; Glorieta Yeso
Property Code 36836	Property Name TEXMACK	Well Number 252H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3983'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	2	17-S	31-E		2340	NORTH	330	WEST	EDDY

Bottom Hole Location If Different From Surface

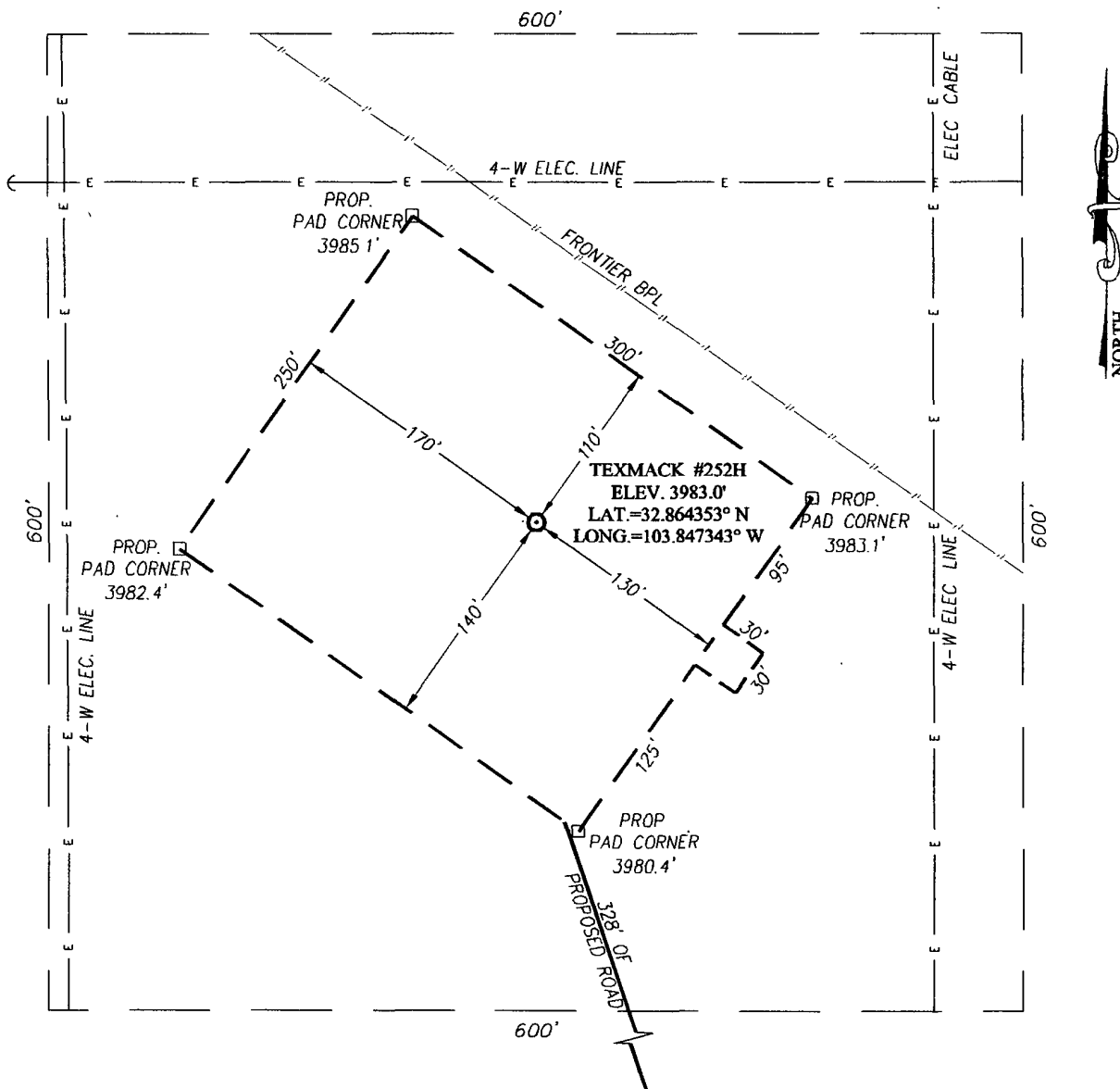
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	2	17-S	31-E		2310	NORTH	330	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
160			

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

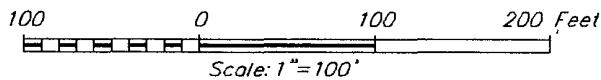
Diagram showing well location and acreage. The diagram includes a grid with sections 1, 2, 3, and 4. The Project Area is a rectangle with a width of 39.90 AC and a height of 2340'. The Producing Area is a smaller rectangle within the Project Area. The diagram also shows the well location (S) and the bottom hole location (BH). The horizontal distance between the well and the bottom hole is 4621.7'. The grid azimuth is 89°13'06". Estimated Completed Interval: 2310 FNL 541 FWL CORNER COORDINATES TABLE <table border="1"> <tr> <td>Ⓐ</td> <td>Y=679525.0 N, X=648889.2 E</td> </tr> <tr> <td>Ⓑ</td> <td>Y=679562.2 N, X=654169.5 E</td> </tr> <tr> <td>Ⓒ</td> <td>Y=678206.6 N, X=648896.5 E</td> </tr> <tr> <td>Ⓓ</td> <td>Y=678243.3 N, X=654176.5 E</td> </tr> </table> GEODETIC COORDINATES NAD 27 NME SURFACE LOCATION Y=678506.3 N X=649224.8 E LAT.=32.864353° N LONG.=103.847343° W BOTTOM HOLE LOCATION Y=678569.3 N X=653844.9 E	Ⓐ	Y=679525.0 N, X=648889.2 E	Ⓑ	Y=679562.2 N, X=654169.5 E	Ⓒ	Y=678206.6 N, X=648896.5 E	Ⓓ	Y=678243.3 N, X=654176.5 E	OPERATOR CERTIFICATION I hereby certify that the information herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. 6-19-12 Signature Date Kelly J. Holly Printed Name kholly@concho.com E-mail Address SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. MARCH 27, 2012 Date of Survey Signature & Seal of Professional Surveyor: Certificate Number 3239 AF JWSC W.O.: 12.11.0149
Ⓐ	Y=679525.0 N, X=648889.2 E								
Ⓑ	Y=679562.2 N, X=654169.5 E								
Ⓒ	Y=678206.6 N, X=648896.5 E								
Ⓓ	Y=678243.3 N, X=654176.5 E								

SECTION 2, TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY **NEW MEXICO**



DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY #82 (LOVINGTON HWY.)
 FROM MILE MARKER 141 GO APPROX. 0.5 MILE. TURN RIGHT
 AND GO NORTHWEST APPROX. 0.3 MILES. TURN RIGHT AND GO
 NORTHEAST APPROX. 2.4 MILES. TURN LEFT AND GO WEST
 APPROX. 0.2 MILES. TURN RIGHT AND GO NORTH APPROX. 0.3
 MILES. TURN LEFT AND GO WEST APPROX. 335 FEET TO ROAD
 SURVEY. FOLLOW ROAD SURVEY NORTHWEST 328 FEET TO THE
 LOCATION



COG OPERATING, LLC

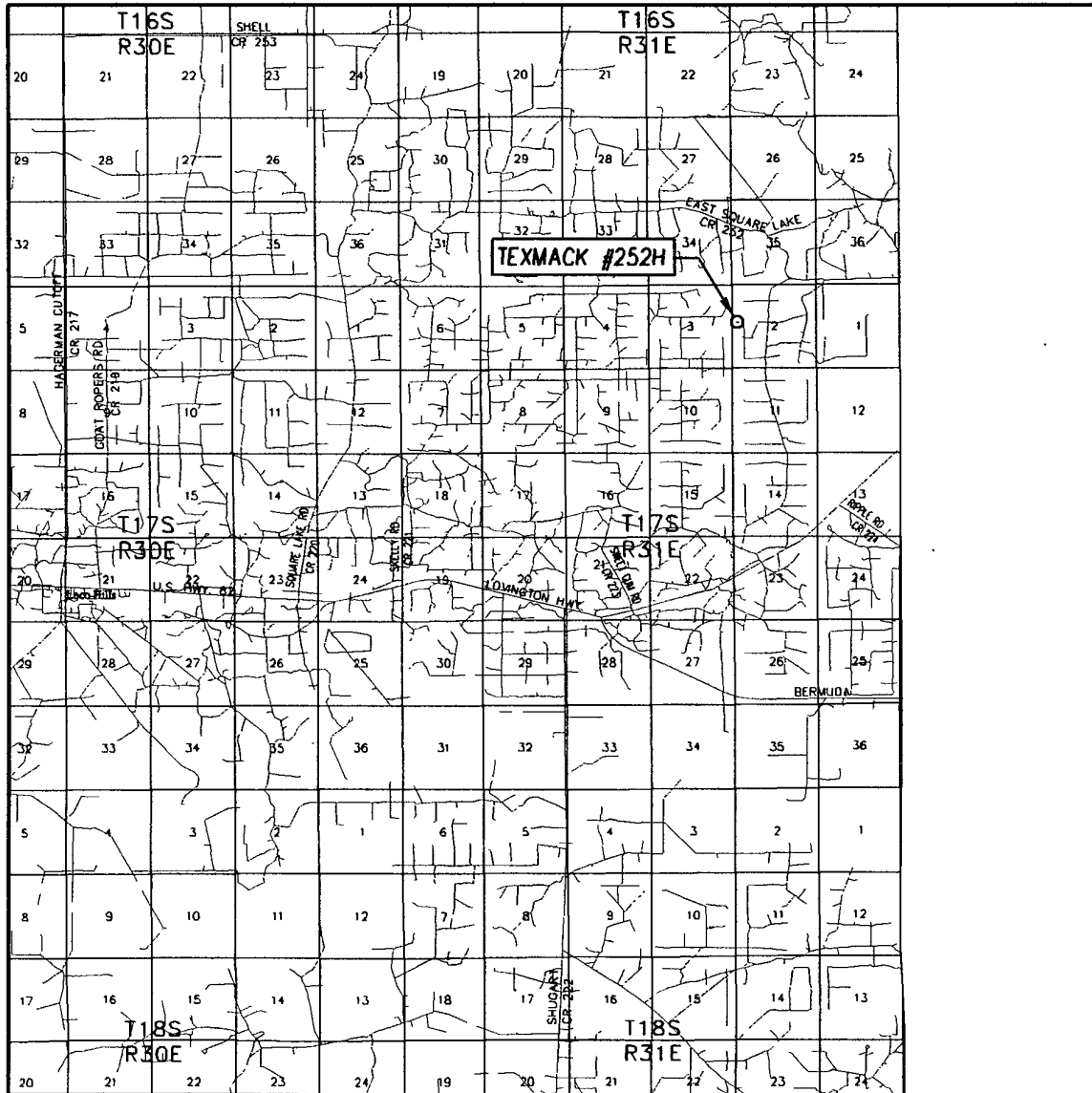
TEXMACK #252H WELL
LOCATED 2340 FEET FROM THE NORTH LINE
AND 330 FEET FROM THE WEST LINE OF SECTION 2,
TOWNSHIP 17 SOUTH, RANGE 31 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

PROVIDING SURVEYING SERVICES
 SINCE 1946
JOHN WEST SURVEYING COMPANY
 412 N DAL PASO
 HOBBS, N.M. 88240
 (575) 393-3117 www.jwsc.biz

Survey Date: 3/27/12	CAD Date: 4/17/12	Drawn By: AF
W.O. No.: 12110149	Rev:	Rel. W.O.:

Sheet 1 of 1

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 2 TWP. 17-S RGE. 31-E

SURVEY N.M.P.M.

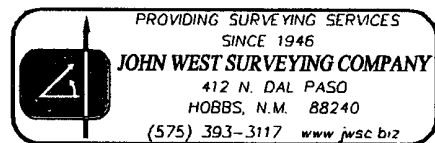
COUNTY EDDY STATE NEW MEXICO

DESCRIPTION 2340' FNL & 330' FWL

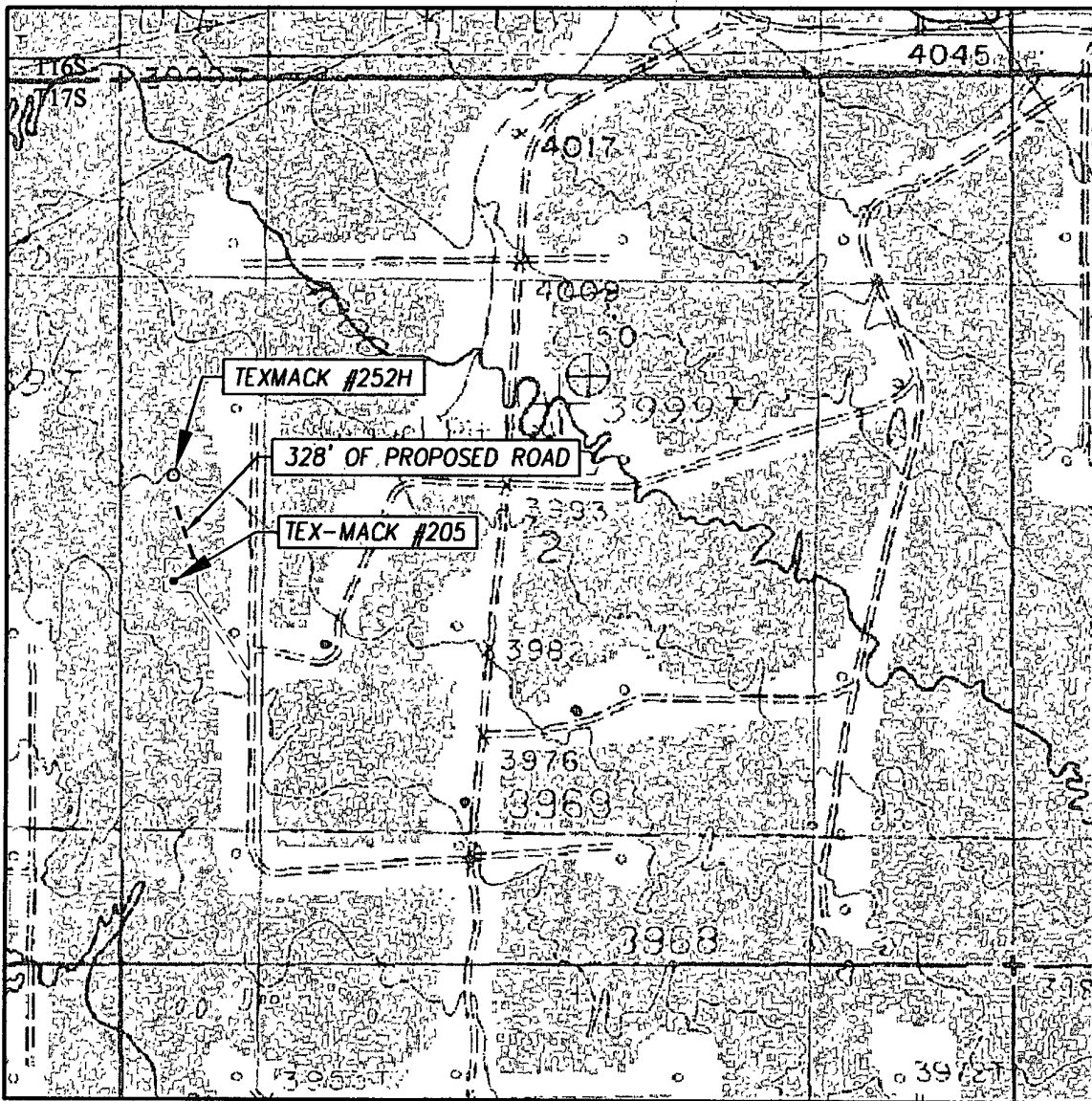
ELEVATION 3983'

OPERATOR COG OPERATING, LLC

LEASE TEXMACK



LOCATION VERIFICATION MAP



SCALE: 1" = 1000'

CONTOUR INTERVAL:
MALJAMAR, N.M. - 10'

SEC. 2 TWP. 17-S RGE 31-E

SURVEY _____ N.M.P.M.

COUNTY EDDY STATE NEW MEXICO

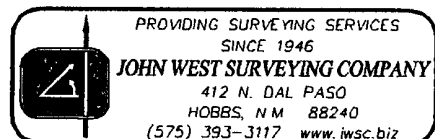
DESCRIPTION 2340' FNL & 330' FWL

ELEVATION 3983'

OPERATOR COG OPERATING, LLC

LEASE TEXMACK

U.S.G.S. TOPOGRAPHIC MAP
MALJAMAR, N.M.



COG Operating LLC

Eddy County, NM

Texmack 252H

Texmack 252H

Wellbore #1

Plan: Plan #1

Surface: 2340' FNL, 330' FWL, Sec 2, T17S, R31E, Unit E

BHL: 2310' FNL, 330' FEL, Sec 2, T17S, R31E, Unit H

PP: 2310' FNL, 541' FWL, Sec 2, T17S, R31E, Unit E

Standard Planning Report

13 June, 2012

Planning Report

Database:	Houston R5000 Database	Local Co-ordinate Reference:	Site Texmack 252H
Company:	COG Operating LLC	TVD Reference:	WELL @ 4001 00ft (Original Well Elev)
Project:	Eddy County, NM	MD Reference:	WELL @ 4001 00ft (Original Well Elev)
Site:	Texmack 252H	North Reference:	Grid
Well:	Texmack 252H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Project: Eddy County, NM			
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						Texmack 252H					
Site Position:		Northing:		678,506 30 ft		Latitude:		32 86434906			
From:		Map		Easting:		649,224 80 ft		Longitude:		-103 84734729	
Position Uncertainty:		0 00 ft		Slot Radius:		13 200 in		Grid Convergence:		0 26 °	

Well: Texmack 252H					
Well Position	+N/-S	0 00 ft	Northing:	678,506 30 ft	Latitude: 32 86434906
	+E/-W	0 00 ft	Easting:	649,224 80 ft	Longitude: -103 84734729
Position Uncertainty	0 00 ft	Wellhead Elevation:		Ground Level:	3,983 00 ft

Wellbore		Wellbore #1			
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010	6/13/2012	7 64	60 71	48,868

Design		Plan #1		
Audit Notes:				
Version:		Phase:	PLAN	Tie On Depth: 0 00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(ft)	(ft)	(ft)	(°)
	0 00	0 00	0 00	89 22

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	0 00	
4,972 61	0 00	0 00	4,972 61	0 00	0 00	0 00	0 00	0 00	0 00	
5,730 94	91 00	80 52	5,450 00	80 01	479 16	12 00	12 00	0 00	80 52	
5,981 34	91 00	90 54	5,445 63	99 51	728 44	4 00	0 00	4 00	89 92	
9,873 76	91 00	90 54	5,377 83	63 00	4,620 10	0 00	0 00	0 00	0 00	PBHL (Texmack 252H)

Planning Report

Database:	Houston R5000 Database	Local Co-ordinate Reference:	Site: Texmack 252H
Company:	COG Operating LLC	TVD Reference:	WELL @ 4001 00ft (Original Well Elev)
Project:	Eddy County, NM	MD Reference:	WELL @ 4001 00ft (Original Well Elev)
Site:	Texmack 252H	North Reference:	Grnd
Well:	Texmack 252H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
4,972.61	0.00	0.00	4,972.61	0.00	0.00	0.00	0.00	0.00	0.00
KOP - Start Build @ 12.00°/100'									
5,000.00	3.29	80.52	4,999.99	0.13	0.77	0.78	12.00	12.00	0.00
5,100.00	15.29	80.52	5,098.49	2.78	16.66	16.70	12.00	12.00	0.00
5,200.00	27.29	80.52	5,191.50	8.75	52.41	52.52	12.00	12.00	0.00
5,300.00	39.29	80.52	5,274.94	17.77	106.44	106.67	12.00	12.00	0.00
5,400.00	51.29	80.52	5,345.17	29.46	176.41	176.79	12.00	12.00	0.00
5,443.43	56.50	80.52	5,370.75	35.23	211.00	211.46	12.00	12.00	0.00
PP @ 5443.43 MD, 5370.75 TVD, 56.50 INC, 80.52 AZ, 211.46 VS									
5,500.00	63.29	80.52	5,399.11	43.29	259.24	259.81	12.00	12.00	0.00
5,600.00	75.29	80.52	5,434.42	58.67	351.33	352.10	12.00	12.00	0.00
5,700.00	87.29	80.52	5,449.54	74.92	448.65	449.63	12.00	12.00	0.00
5,730.94	91.00	80.52	5,450.00	80.01	479.16	480.21	12.00	12.00	0.00
Landing Point - Start Turn @ 4.00°/100'									
5,800.00	91.00	83.28	5,448.80	89.74	547.51	548.69	4.00	0.00	4.00
5,900.00	91.00	87.28	5,447.05	97.96	647.14	648.42	4.00	0.00	4.00
5,981.34	91.00	90.54	5,445.63	99.51	728.44	729.73	4.00	0.00	4.00
EOT - Hold @ 90.54° AZ									
6,000.00	91.00	90.54	5,445.30	99.33	747.10	748.38	0.00	0.00	0.00
6,100.00	91.00	90.54	5,443.56	98.39	847.08	848.34	0.00	0.00	0.00
6,200.00	91.00	90.54	5,441.82	97.45	947.06	948.30	0.00	0.00	0.00
6,300.00	91.00	90.54	5,440.08	96.52	1,047.04	1,048.26	0.00	0.00	0.00
6,400.00	91.00	90.54	5,438.33	95.58	1,147.02	1,148.22	0.00	0.00	0.00
6,500.00	91.00	90.54	5,436.59	94.64	1,247.00	1,248.17	0.00	0.00	0.00
6,600.00	91.00	90.54	5,434.85	93.70	1,346.98	1,348.13	0.00	0.00	0.00
6,700.00	91.00	90.54	5,433.11	92.77	1,446.96	1,448.09	0.00	0.00	0.00
6,800.00	91.00	90.54	5,431.37	91.83	1,546.94	1,548.05	0.00	0.00	0.00
6,900.00	91.00	90.54	5,429.62	90.89	1,646.92	1,648.01	0.00	0.00	0.00
7,000.00	91.00	90.54	5,427.88	89.95	1,746.90	1,747.97	0.00	0.00	0.00
7,100.00	91.00	90.54	5,426.14	89.01	1,846.88	1,847.93	0.00	0.00	0.00
7,200.00	91.00	90.54	5,424.40	88.08	1,946.86	1,947.88	0.00	0.00	0.00
7,300.00	91.00	90.54	5,422.66	87.14	2,046.84	2,047.84	0.00	0.00	0.00
7,400.00	91.00	90.54	5,420.92	86.20	2,146.82	2,147.80	0.00	0.00	0.00
7,500.00	91.00	90.54	5,419.17	85.26	2,246.80	2,247.76	0.00	0.00	0.00
7,600.00	91.00	90.54	5,417.43	84.32	2,346.79	2,347.72	0.00	0.00	0.00
7,700.00	91.00	90.54	5,415.69	83.39	2,446.77	2,447.68	0.00	0.00	0.00
7,800.00	91.00	90.54	5,413.95	82.45	2,546.75	2,547.63	0.00	0.00	0.00
7,900.00	91.00	90.54	5,412.21	81.51	2,646.73	2,647.59	0.00	0.00	0.00
8,000.00	91.00	90.54	5,410.47	80.57	2,746.71	2,747.55	0.00	0.00	0.00
8,100.00	91.00	90.54	5,408.72	79.64	2,846.69	2,847.51	0.00	0.00	0.00
8,200.00	91.00	90.54	5,406.98	78.70	2,946.67	2,947.47	0.00	0.00	0.00
8,300.00	91.00	90.54	5,405.24	77.76	3,046.65	3,047.43	0.00	0.00	0.00
8,400.00	91.00	90.54	5,403.50	76.82	3,146.63	3,147.38	0.00	0.00	0.00
8,500.00	91.00	90.54	5,401.76	75.88	3,246.61	3,247.34	0.00	0.00	0.00
8,600.00	91.00	90.54	5,400.02	74.95	3,346.59	3,347.30	0.00	0.00	0.00
8,700.00	91.00	90.54	5,398.27	74.01	3,446.57	3,447.26	0.00	0.00	0.00
8,800.00	91.00	90.54	5,396.53	73.07	3,546.55	3,547.22	0.00	0.00	0.00
8,900.00	91.00	90.54	5,394.79	72.13	3,646.53	3,647.18	0.00	0.00	0.00
9,000.00	91.00	90.54	5,393.05	71.19	3,746.51	3,747.13	0.00	0.00	0.00
9,100.00	91.00	90.54	5,391.31	70.26	3,846.49	3,847.09	0.00	0.00	0.00
9,200.00	91.00	90.54	5,389.57	69.32	3,946.47	3,947.05	0.00	0.00	0.00
9,300.00	91.00	90.54	5,387.82	68.38	4,046.45	4,047.01	0.00	0.00	0.00
9,400.00	91.00	90.54	5,386.08	67.44	4,146.43	4,146.97	0.00	0.00	0.00
9,500.00	91.00	90.54	5,384.34	66.51	4,246.41	4,246.93	0.00	0.00	0.00

Planning Report

Database:	Houston R5000 Database	Local Co-ordinate Reference:	Site, Texmack 252H
Company:	COG Operating LLC	TVD Reference:	WELL @ 4001' 00ft (Original Well Elev)
Project:	Eddy County, NM	MD Reference:	WELL @ 4001' 00ft (Original Well Elev)
Site:	Texmack 252H	North Reference:	Grid
Well:	Texmack 252H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
9,600 00	91 00	90 54	5,382 60	65 57	4,346 39	4,346 88	0 00	0 00	0 00
9,700 00	91 00	90 54	5,380 86	64 63	4,446 37	4,446 84	0 00	0 00	0 00
9,800 00	91 00	90 54	5,379 11	63 69	4,546 35	4,546 80	0 00	0 00	0 00
9,873 76	91 00	90 54	5,377 83	63 00	4,620 10	4,620 53	0 00	0 00	0 00
TD @ 9873.76' MD, 5377.83' TVD - PBHL (Texmack 252H Plan 1)									

Design Targets

Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (ft)	Easting (ft)	Latitude	Longitude
hit/miss target									
Shape									
PBHL (Texmack 252H P	0 00	0 00	5,377 83	63 00	4,620 10	678,569 30	653,844 90	32 86446287	-103 83230025
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates	+N/-S (ft)	+E/-W (ft)	Comment
4,972 61	4,972 61		0 00	0 00	KOP - Start Build @ 12 00°/100'
5,443 43	5,370 75		35 23	211 00	PP @ 5443 43 MD, 5370 75 TVD, 56 50 INC, 80 52 AZ, 211 46 VS
5,730 94	5,450 00		80 01	479 16	Landing Point - Start Turn @ 4 00°/100'
5,981 34	5,445 63		99 51	728 44	EOT - Hold @ 90 54° AZ
9,873 76	5,377 83		63 00	4,620 10	TD @ 9873 76' MD, 5377 83' TVD



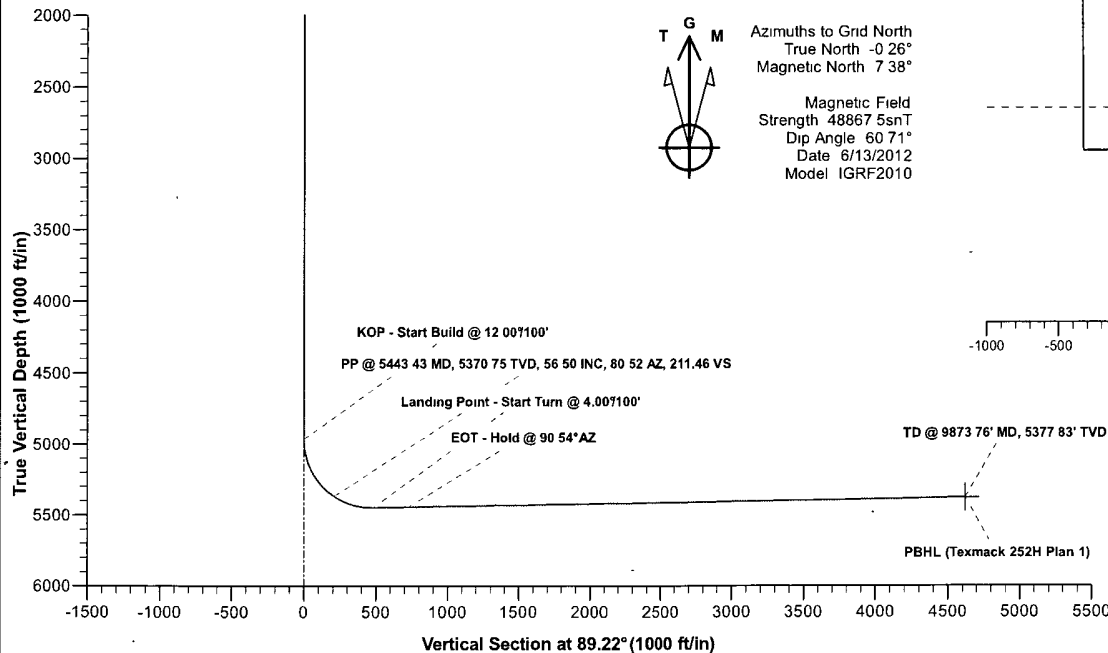
COG Operating LLC
Texmack 252H
Eddy County, NM
Plan #1



Surface Location		Ground Elev: 3983.00 WELL @ 4001.00ft (Original Well Elev)				
+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	678506.30	649224.80	32.86434906	-103.84734729	

TARGET DETAILS							
Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
PBHL (Texmack 252H Plan 1)	5377.83	63.00	4620.10	678569.30	653844.90	32.86446287	-103.83230025

SECTION DETAILS										
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	KOP - Start Build @ 12.00°100'
2	4972.61	0.00	0.00	4972.61	0.00	0.00	0.00	0.00	0.00	Landing Point - Start Turn @ 4.00°100'
3	5730.94	91.00	80.52	5450.00	80.01	479.16	12.00	80.52	480.21	EOT - Hold @ 90.54°AZ
4	5981.34	91.00	90.54	5445.63	99.51	728.44	4.00	89.92	729.73	TD @ 9873.76' MD, 5377.83' TVD
5	9873.76	91.00	90.54	5377.83	63.00	4620.10	0.00	0.00	4620.53	



Azimuths to Grid North
True North -0.26°
Magnetic North 7.38°

Magnetic Field
Strength 48867.5nT
Dip Angle 60.71°
Date 6/13/2012
Model IGRF2010

