

**RECEIVED**  
 JUN 05 2013  
 NMOCD ARTESIA

DISTRICT I  
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 DISTRICT II  
 871 S. First St., Artesia, NM 88210  
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 1220 S. St. Francis Dr., Santa Fe, NM 87505  
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State of New Mexico  
 Energy, Minerals & Natural Resources Department

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

OIL CONSERVATION DIVISION  
 1220 South St. Francis Dr.  
 Santa Fe, New Mexico 87505

DAMENED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-33472	Pool Code 96718	Pool Name Loco Hills;Glorieta-Yeso
Property Code 302510	Property Name JENKINS B FEDERAL	Well Number 15H
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3639'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
F	20	17-S	30-E		1500	NORTH	2310	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	20	17-S	30-E		1650	NORTH	330	EAST	EDDY

Dedicated Acres 140	Joint or Infill	Consolidation Code	Order No.
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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

Project Area

GEODETIC COORDINATES  
NAD 27 NME

SURFACE LOCATION  
Y=663303.3 N  
X=604020.1 E  
LAT.=32.823050° N  
LONG.=103.994720° W

BOTTOM LOCATION  
Y=663161.7 N  
X=606661.1 E

CORNER COORDINATES TABLE

A-Y=664796.4 N, X=601705.4 E
B-Y=664803.9 N, X=604345.3 E
C-Y=664812.4 N, X=606985.3 E
D-Y=662172.0 N, X=606994.4 E
E-Y=662164.6 N, X=604354.7 E
F-Y=662156.9 N, X=601714.7 E
G-Y=659517.5 N, X=601723.5 E
H-Y=659531.8 N, X=607003.8 E

**DETAIL**

**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.*

5/31/13  
 Date

Signature \_\_\_\_\_  
 Printed Name  
 kcastillo@concho.com  
 E-mail Address

---

**SURVEYOR CERTIFICATION**

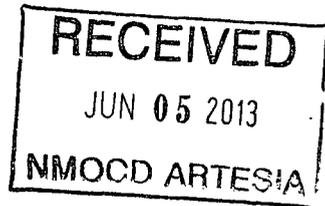
*I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.*

**SEPTEMBER 16, 2002**

Date of Survey  
 Signature & Seal of Professional Surveyor:

Certificate Number: Gary Eidson 12641  
 Ronald J. Eidson 3239

DSR Rel. W.O.#02110620 WSC W.O.: 13.13.0548



**JENKINS B FEDERAL COM #15H LATERAL PROGRAM**

**1. Estimated Tops of Important Geologic Markers**

Glorieta - 4200'  
Paddock - 4250'  
Blinebry - 4800'

**2. Estimated Depths of Anticipated Fresh Water, 130'.**

This deepening originates in the Yeso and will finish in the Yeso. The entire Yeso group is an oil and gas bearing interval.

**3. Casing Program**

Hole Size	Interval	OD Casing	Weight	Grade**	Jt./Condition	Burst/collapse/tension
4-3/4"	4919'-7767'	4"	11.6#	L-80	ULTFJ/New	3.98/4.09/3.21 (L80)

**4. Cement Program**

4" Liner: 50 Sacks Solucem H, 15.0ppg, 2.6 yield, 15% excess.

**NOTE: COG OPERATING LLC REQUESTS A VARIANCE TO THE LINER TOP FLUID ENTRY OR PRESSURE TEST BECAUSE THE NEW LATERAL WILL BE COMPLETED IN THE SAME ZONE AS THE CURRENT PERFS AND THE ENTIRE INTERVAL IS RECOGNIZED BY THE OCD AS ONE INTERVAL (YESO). AS PER ONSHORE ORDER NO. 2 SECT III: REQUIREMENTS, PART B. CASING AND CEMENTING REQUIREMENTS, SUBPART b. "NO TEST SHALL BE REQUIRED FOR LINERS THAT DO NOT INCORPORATE OR NEED A SEAL MECHANISM." COG BELIEVES WE MEET THE CRITERIA TO NOT BE REQUIRED TESTING THE LINER TOP BECAUSE THERE IS NO NEED FOR A SEAL MECHANISM.**

**NOTE: COG OPERATING LLC REQUESTS A VARIANCE TO THE 200' MINIMUM TIE BACK TO THE PRODUCTION CASING BECAUSE THE BOTTOM LATERAL IS PRODUCTIVE FROM THE YESO BELOW THIS PROPOSED LATERAL, COG DESIRES TO NOT COVER THAT OR MAKE IT INACCESSIBLE WITH A LINER OVERLAP.**

**5. Minimum Specifications for Pressure Control**

The BOP equipment will be a 2000 psi double ram type hydraulically operated preventer. This equipment will be nipped up to a 7-1/16" 3K flange. The pipe rams are located above blind rams. The BOP is tested to 2000 psi prior to drilling new formation. Access to the annulus will be through the valves on the 7-1/16" casing head.

**6. Types and Characteristics of the Proposed Mud System**

This well will drilled below the 5-1/2" casing to TD with FW/CBW drilling mud.

**7. Auxillary Well Control and Monitoring Equipment**

A. A full opening drill pipe-stabbing valve with proper drill pipe connections will be on the rig floor at all times.

**8. Logging, Testing, and Coring Program**

A. The electric logging program will consist of MWD GR, which will be run from TD to 5-1/2" production casing TD.  
B. No drill stem tests.

- C. No conventional coring anticipated.
- D. Further testing procedures will be determined after the 4" casing has been run to TD, based on drill shows and log evaluation.

#### **9. Abnormal Conditions, Pressure, Temperatures, and Potential Hazards**

No abnormal pressures or temperatures are anticipated. The estimated bottomhole temperature at TD is 98 degrees and the estimated maximum bottomhole pressure is 1800 psig. The drilling starts in the Yeso and ends in the Yeso. The section of Yeso being drilled has very low permeability (less than 1 md).

#### **10. Anticipated Starting Date and Duration of Operations**

There will be no road or location work required as this is an existing well location. Once commenced, drilling operations should be finished in approximately 20 days. If the well is productive, an additional 30-90 days will be required for completion and testing before a decision is made to remove the whipstock and RBP separating the laterals, to commingle the production from the two laterals.

#### **11. Centralizer Program**

Centralizers will not be run or required due to the lack of cement and the centralizing nature of the external casing packers.

#### **12. Summary Drilling and Completion Program**

##### **Prep Work**

- 1) Test anchors, replace as required. One-call and set anchors for Horizontal rig. MIRU WSU.
- 2) Release pkr and TOOH w/ pkr and tbg (tally). LD
- 3) Move/tally 2 7/8" 6.55# L80 workstring.
- 4) PU 4 3/4" bit, casing scraper and WS
- 5) TIH to PBTD
- 6) TOOH standing back WS. LD bit and casing scraper
- 7) PU CICR and RIH to +/- 4,210'
- 8) Pump through retainer
- 9) Set retainer and sting out of
- 10) Ensure well will circulate
- 11) Sting back into retainer, load back side and pressure to 500 psi; monitor during squeeze.
- 12) Pump 300 sxs Class C w/ 3% CaCL<sub>2</sub> + 5# gilsonite followed by 300 sx Class C neat
- 13) After squeeze is obtained, sting out of retainer and reverse out tubing
- 14) Sting out of retainer TOOH
- 15) WOC at least 12 hrs
- 16) PU 4 3/4" roller cone and (6) 3 1/2" DC
- 17) DO squeeze cement. Drill out floats and cement to 4914' (5' from end of casing at 4919'). C&C clean.
- 18) TOOH. LD bit and DC.
- 19) Run CCL/Gamma Ray/Gyro
- 20) RDMO

**At this time, pumping unit, POC, chemical tanks, flowline/inj line (flushed to battery) will need to be moved out of the way. Any caliche work needed will also be done at this time.**

### **Drilling**

- 1) MIRU Key #115 workover rig & horizontal package. NU hydraulic 6" 5M double BOP w/2-7/8" pipe rams on top & blind rams on bottom. Wellhead has 6" 600 series Larkin connection, needs R45/R46 combination ring gasket and adaptor flange. Move in and rig up pumps, power swivel, frac tanks, generators, pipe racks, and other equipment. Use outside tester to test BOP; use rig pump to test casing to 500 psi for 30 minutes, close blind rams in BOP and test BOP above rams to 1000/200 psi for 30 minutes and document on report.
- 2) PBDT is @ 4,914'. PU & TIH w/4-3/4" bit on rental 2-7/8" 10.4# E or S135 drill pipe (2-7/8" AOH) tag PBDT. TOH. (Note: Strap drill pipe carefully and check measurements with wireline setting depth, ADJUST DRILL PIPE MEASUREMENT TO MATCH PBDT DEPTH, REPORT TD AS PBDT DEPTH.) Verify that the fisherman, directional driller, driller, Pason, geologist, Gyro operator, production engineer and wellsite drilling supervisor are all using the same depth reference corrected to PBDT and wireline tag depth.
- 3) PU 4-3/4" tri-cone bit, downhole motor, muleshoe (UBHO sub), (2) monel drill collars (Install MWD probe inside NMDC and obtain offset), XO flow sub, & muleshoe sub f/gyro on workstring. Surface test motor and MWD. TIH to btm filling pipe as necessary.
- 4) PU swivel and establish circulation (130 gpm). RU Gyro. Time drill away from casing using continuous readout gyro for checking well path and tool face. Magnetic interference may occur, particularly while motor is in the casing. If necessary, use gyro single shots for drilling away from casing. Once MWD readouts can function without magnetic influence from casing, RD Gyro & drill remaining curve at 164 GPM to EOC ( $\pm 5,443'$  MD 5,260' TVD) using MWD.
- 5) Build curve at  $17.85^\circ/100'$  BUR to planned inclination of  $90.0^\circ$  and azimuth (after gyro correction) of  $93.07^\circ$ . Survey as needed to ensure curve is built according to plan. Sweep hole with high viscosity polymer pills (if needed) for good hole cleaning. Sweep hole at least once per day.
- 6) At EOC, TOH. PU & TIH w/4-3/4" **PDC** bit, downhole motor, muleshoe (UBHO sub), (2) monel drill collars (Install MWD probe inside NMDC and obtain offset) & XO flow sub on workstring. TIH very carefully with bit through the casing to prevent bit damage. Ream curve as necessary to remove any severe "kinks" or doglegs.
- 7) Drill the lateral section with the angle hold motor in the oriented and rotary mode as necessary. At TD, circ hole clean. TOH, LD DP and tools.
- 8) Rack/Tally 7,800' 4" 11.6# L-80 ULTFJ

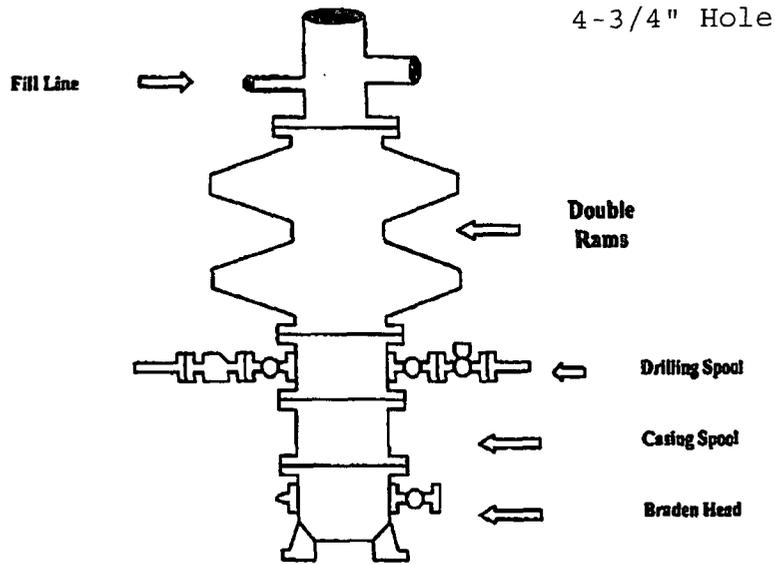
- 9) RIH w/ 4" casing and float equipment
- 10) Pump gel sweeps & circulate 2x casing capacity
- 11) DV tool setting depth +/- 4819'
- 12) Cement w/ 20 bbls FW spacer, Lead: (50 sxs) Solucem H 15.0 ppg / 2.6 yld
- 13) Displace w/ 89 bbls FW
- 14) After landing plug, check floats, drop DV bomb, wait 20 min, open DV tool, circulate cement off DV tool with fresh water, shut down/check for flow up annulus, drop closing plug, displace to DV tool and close DV tool, shut in annulus.
- 15) RD drilling rig
- 16) MIRU WSU
- 17) Unload and tally 7,850' of 2 3/8" PH6 WS
- 18) RIH to DO DV tool
- 19) DO DV tool w/ 3.25" tri-cone bit w/ gauge protection and (6) DC
- 20) Work through DV tool multiple times
- 21) TOOH and LD bit and DC
- 22) PU 3.25" stringmill and RIH to dress DV tool. Work through at least 12 times
- 23) TOOH. LD stringmill
- 24) PU 3.25" junk bit and RIH to PBTD to ensure casing is clear
- 25) Spot 500 gal 15% HCL at toe
- 26) TOOH, LD 3.25" junk bit
- 27) PU slimhole guns
- 28) TIH to perf first stage per design, pressure casing to 4000#
- 29) Perf 1<sup>st</sup> stage, Open toe w/ 3000 gal 15% HCL
- 30) TOOH LD WS and guns
- 31) ND BOPE, NU WH frac valve
- 32) RDMO WSU

## **Completion**

- 1) RU frac valve. Frac as per Completion Engineer's design. Treat via plug and perf.
- 2) Rig down frac company.
- 3) After frac, rig up PU for cleanout
- 4) RDMO
- 5) Flow well back until fluid recovery reduces to 10 barrel/hour
- 6) Rig up Pulling unit.
- 7) NU BOPE.
- 8) Free point 4" and back off at DV tool
- 9) Run production equipment & place on pump
- 10) Report test results.

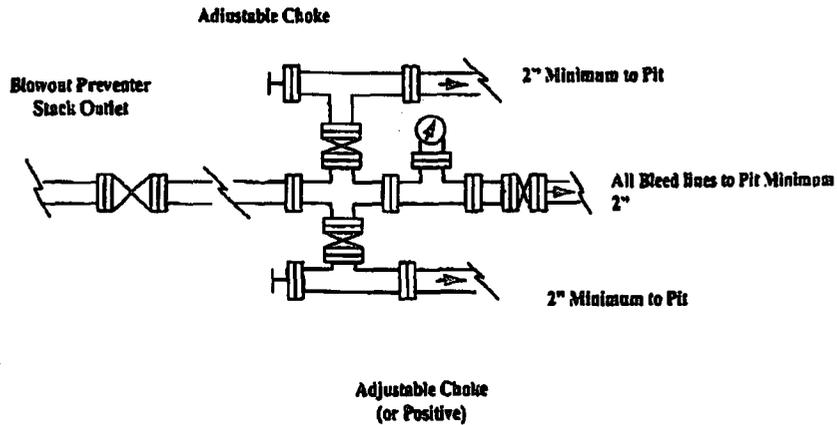
# COG Operating LLC

## BOPE and Choke Schematic



Minimum 3" Nominal choke and kill lines

**Choke Manifold Requirement (2000 psi WP)  
No Annular Required**



**NOTES REGARDING THE BLOWOUT PREVENTERS**  
**Master Drilling Plan**  
**Eddy County, New Mexico**

1. Drilling nipple to be so constructed that it can be removed without use of a welder through rotary table opening, with minimum I.D. equal to preventer bore.
2. Wear ring to be properly installed in head.
3. Blow out preventer and all fittings must be in good condition, 2000 psi WP minimum.
4. All fittings to be flanged
5. Safety valve must be available on rig floor at all times with proper connections, valve to be full 2000 psi WP minimum.
6. All choke and fill lines to be securely anchored especially ends of choke lines
7. Equipment through which bit must pass shall be at least as large as the diameter of the casing being drilled through
8. Kelly cock on Kelly.
9. Extension wrenches and hands wheels to be properly installed.
10. Blow out preventer control to be located as close to driller's position as feasible.
11. Blow out preventer closing equipment to include minimum 40-gallon accumulator, two independent sources of pump power on each closing unit installation all API specifications.



# PROPOSED WELL SKETCH

API: 30-015-37288  
 SPUD: 5/05/2005  
 RR:  
 RIG:

**Jenkins B #15**  
**Eddy County, NM**

Sec 20, T-17S, R-30E  
 SHL: 1500' FNL & 2310' FWL  
 BHL: 1650' FNL & 330' FEL  
 GL: 3,639'  
 KB: 3655'

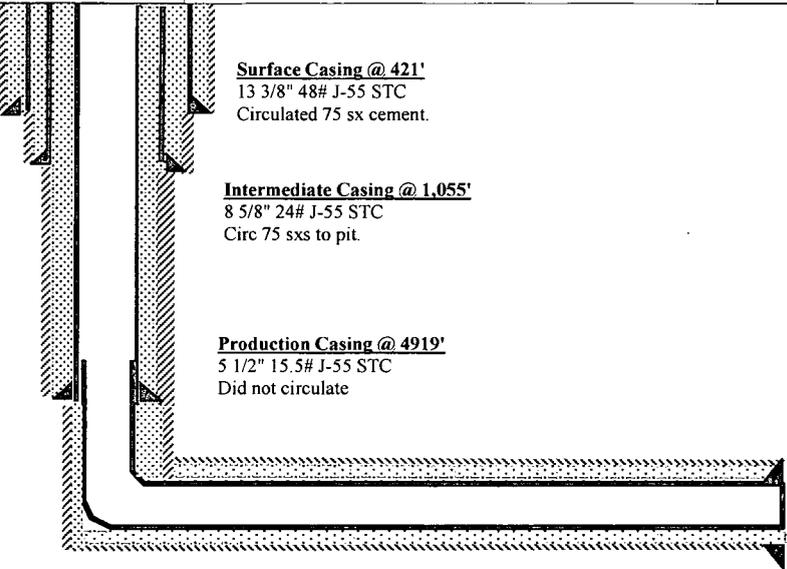
HOLE SIZE	MW (ppg)	BHST (°F)			EVALUATION

GB/SA: 3046 - 3270.5, 72 holes Acid 2500 gal 15%, frac 100,580 gal lg, 98,380# sd Squeezed perms w/ 1,634 sxs

3379 - 3573.5 62 holes Acid 2000 gal 15%, frac 91,202 gal lg, 99,000 # sd \*\*Squeezed off above perms with 500 sx.

3958- 3968, 10 holes Acid 1500 gal 15%, frac 53,676 gal lg, 35,250 # sd \*\*Squeezed off with 200 sx

Paddock  
 4272 - 4685.5, 100 holes Acidized w/2,500 gal 15% HCL Trt w/32,000 gal 20% HCL, 54,000 gal LG, 5,000 gal 15% HCL Acidized w/2,500 gal 15% HCL when converted to injector. \*\*Reacidized w/2,500 gal 15% HCL  
 --Will squeeze w/ 300 sxs lead and 300 sxs tail



Surface Casing @ 421'  
 13 3/8" 48# J-55 STC  
 Circulated 75 sx cement.

Intermediate Casing @ 1,055'  
 8 5/8" 24# J-55 STC  
 Circ 75 sxs to pit.

Production Casing @ 4919'  
 5 1/2" 15.5# J-55 STC  
 Did not circulate

DV tool set atleast at +/- 4799'

Production Liner @ 7,740'  
 4" 11.6# L80 ULTFJ Liner  
 Cement to DV tool

Updated by S.Brumley  
 Date: 5/7/2013



**COG OPERATING LLC**  
 Field: Permian NME'27  
 Site: Jenkins B Federal 15H  
 Well: #15H  
 Wellpath: Horizontal  
 Plan: Plan #5

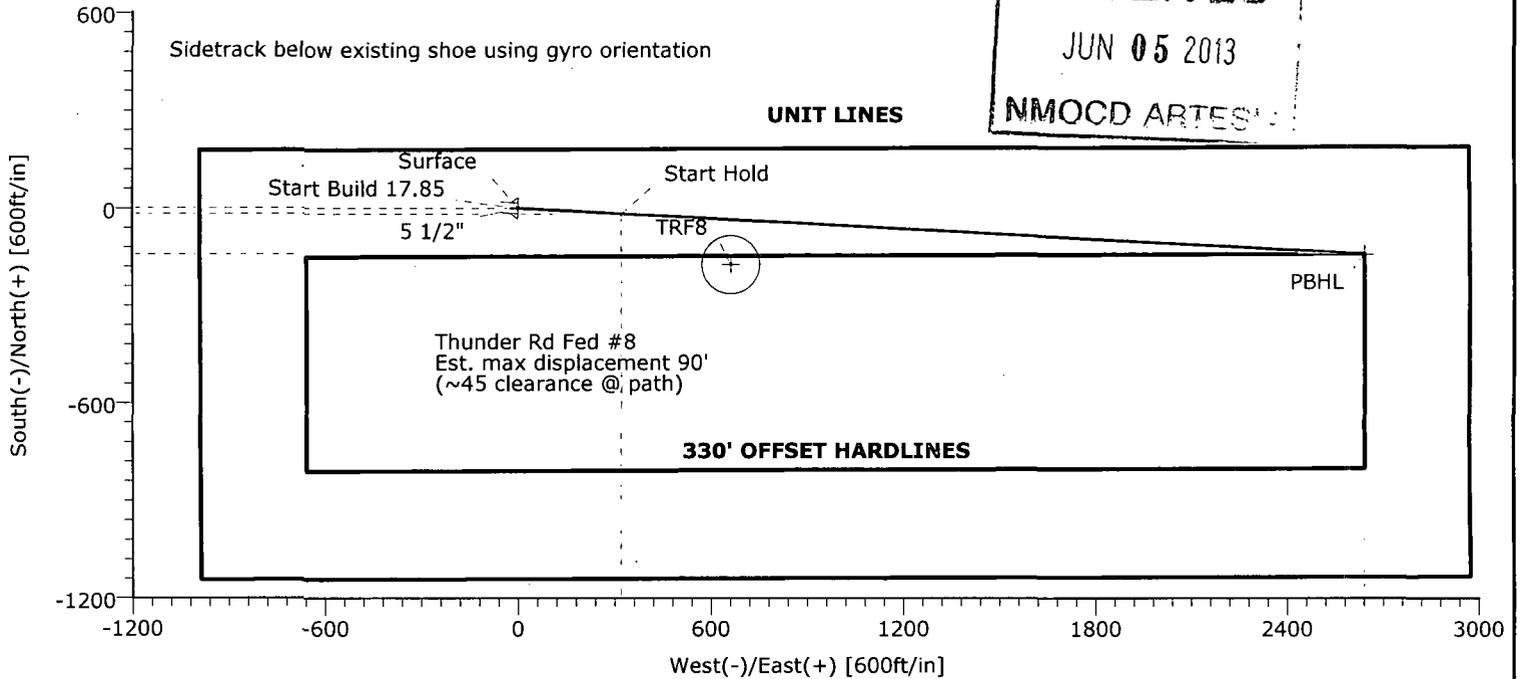


**Precision**  
 Directional Services

**CASING DETAILS**

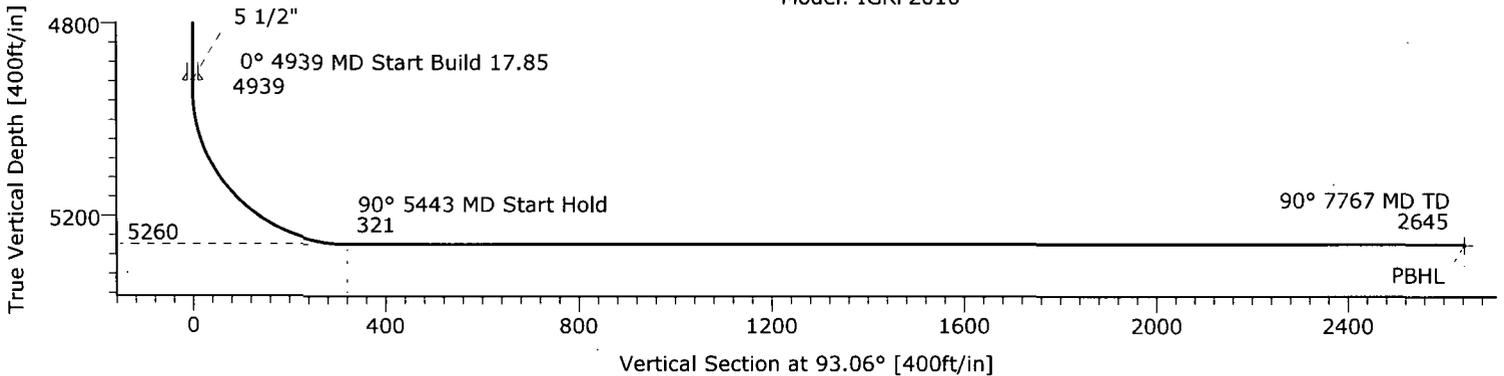
No.	TVD	MD	Name	Size
1	4919.00	4919.00	5 1/2"	5.500

**RECEIVED**  
 JUN 05 2013  
 NMOCD ARTES



Azimuths to Grid North  
 True North: -0.18°  
 Magnetic North: 7.41°  
 Magnetic Field  
 Strength: 48767nT  
 Dip Angle: 60.62°  
 Date: 06/10/2013  
 Model: IGRF2010

Eddy County  
 Section 20 T17S-R30E  
 Surface  
 1500' FNL, 2310' FWL  
 PBHL  
 1650' FNL, 330' FEL



**TARGET DETAILS**

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Surface	0.00	0.00	0.00	663303.30	604020.10	32°49'22.980N	103°59'40.993W	Point
TRF8	0.00	-173.00	661.50	663130.30	604681.60	32°49'21.247N	103°59'33.247W	Circle (Radius: 90)
PBHL	5260.00	-141.60	2641.00	663161.70	606661.10	32°49'21.494N	103°59'10.049W	Point

**SECTION DETAILS**

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSec	Target
1	0.00	0.00	93.07	0.00	0.00	0.00	0.00	0.00	0.00	
2	4939.00	0.00	93.07	4939.00	0.00	0.00	0.00	0.00	0.00	
3	5443.23	90.00	93.07	5260.00	-17.19	320.54	17.85	93.07	321.00	
4	7767.02	90.00	93.07	5260.00	-141.60	2641.00	0.00	0.00	2644.79	PBHL

# Precision Directional Services, Inc

## Planning Report

Company: COG OPERATING LLC	Date: 05/29/2013	Time: 15:54:55	Page: 1
Field: Permian NME'27	Co-ordinate(NE) Reference: Well: #15H, Grid North		
Site: Jenkins B Federal 15H	Vertical (TVD) Reference: 3639'GL+est.12'KB 3651.0		
Well: #15H	Section (VS) Reference: Well (0.00N,0.00E,93.06Azi)		
Wellpath: Horizontal	Plan: Plan #5		

Field: Permian NME'27		
Map System: US State Plane Coordinate System 1927	Map Zone:	New Mexico, Eastern Zone
Geo Datum: NAD27 (Clarke 1866)	Coordinate System:	Well Centre
Sys Datum: Mean Sea Level	Geomagnetic Model:	IGRF2010

Site: Jenkins B Federal 15H Section 20; T17S-R30E; Unit F Eddy County		
Site Position:	Northing: 663303.30 ft	Latitude: 32 49 22.980 N
From: Map	Easting: 604020.10 ft	Longitude: 103 59 40.993 W
Position Uncertainty: 0.00 ft		North Reference: Grid
Ground Level: 3639.00 ft		Grid Convergence: 0.18 deg

Well: #15H			Slot Name:		
Well Position:	+N/-S 0.00 ft	Northing: 663303.30 ft	Latitude: 32 49 22.980 N		
	+E/-W 0.00 ft	Easting: 604020.10 ft	Longitude: 103 59 40.993 W		
Position Uncertainty: 0.00 ft					

Wellpath: Horizontal			Drilled From: Surface		
Current Datum: 3639'GL+est.12'KB	Height 3651.00 ft		Tie-on Depth: 0.00 ft		
Magnetic Data: 06/10/2013			Above System Datum: Mean Sea Level		
Field Strength: 48767 nT			Declination: 7.60 deg		
Vertical Section: Depth From (TVD)	+N/-S		Mag Dip Angle: 60.62 deg		
ft	ft		+E/-W	Direction	
			ft	deg	
0.00	0.00		0.00	93.06	

Plan: Plan #5	Date Composed: 05/29/2013
Principal: No	Version: 1
	Tied-to: From Surface

### Plan Section Information

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	TFO deg	Target
0.00	0.00	93.07	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
4939.00	0.00	93.07	4939.00	0.00	0.00	0.00	0.00	0.00	0.00	
5443.23	90.00	93.07	5260.00	-17.19	320.54	17.85	17.85	0.00	93.07	
7767.02	90.00	93.07	5260.00	-141.60	2641.00	0.00	0.00	0.00	0.00	PBHL

### Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
4919.00	0.00	93.07	4919.00	0.00	0.00	0.00	0.00	0.00	0.00	5 1/2"
4939.00	0.00	93.07	4939.00	0.00	0.00	0.00	0.00	0.00	0.00	
4950.00	1.96	93.07	4950.00	-0.01	0.19	0.19	17.85	17.85	0.00	
4975.00	6.43	93.07	4974.92	-0.11	2.01	2.02	17.85	17.85	0.00	
5000.00	10.89	93.07	4999.63	-0.31	5.77	5.78	17.85	17.85	0.00	
5025.00	15.35	93.07	5023.97	-0.61	11.44	11.45	17.85	17.85	0.00	
5050.00	19.81	93.07	5047.80	-1.02	18.97	19.00	17.85	17.85	0.00	
5075.00	24.27	93.07	5070.97	-1.52	28.34	28.38	17.85	17.85	0.00	
5100.00	28.74	93.07	5093.33	-2.12	39.48	39.54	17.85	17.85	0.00	
5125.00	33.20	93.07	5114.77	-2.81	52.32	52.40	17.85	17.85	0.00	
5150.00	37.66	93.07	5135.13	-3.58	66.79	66.89	17.85	17.85	0.00	
5175.00	42.12	93.07	5154.31	-4.44	82.80	82.92	17.85	17.85	0.00	
5200.00	46.59	93.07	5172.18	-5.37	100.25	100.39	17.85	17.85	0.00	
5225.00	51.05	93.07	5188.64	-6.38	119.03	119.20	17.85	17.85	0.00	
5250.00	55.51	93.07	5203.58	-7.45	139.03	139.23	17.85	17.85	0.00	
5275.00	59.97	93.07	5216.92	-8.59	160.14	160.37	17.85	17.85	0.00	
5300.00	64.44	93.07	5228.57	-9.77	182.22	182.48	17.85	17.85	0.00	

# Precision Directional Services, Inc

## Planning Report

**Company:** COG OPERATING LLC  
**Field:** Permian NME'27  
**Site:** Jenkins B Federal 15H  
**Well:** #15H  
**Wellpath:** Horizontal

**Date:** 05/29/2013      **Time:** 15:54:55  
**Co-ordinate(NE) Reference:** Well: #15H, Grid North  
**Vertical (TVD) Reference:** 3639'GL+est.12'KB 3651.0  
**Section (VS) Reference:** Well (0.00N,0.00E,93.06Azi)  
**Plan:** Plan #5

**Page:** 2

### Survey

MD ft	Incl deg	Azim deg	TVD ft	+N/-S ft	+E/-W ft	VS ft	DLS deg/100ft	Build deg/100ft	Turn deg/100ft	Tool/Comment
5325.00	68.90	93.07	5238.47	-11.00	205.13	205.43	17.85	17.85	0.00	
5350.00	73.36	93.07	5246.56	-12.26	228.75	229.08	17.85	17.85	0.00	
5375.00	77.82	93.07	5252.78	-13.56	252.92	253.29	17.85	17.85	0.00	
5400.00	82.28	93.07	5257.09	-14.88	277.51	277.90	17.85	17.85	0.00	
5425.00	86.75	93.07	5259.48	-16.21	302.35	302.78	17.85	17.85	0.00	
5443.23	90.00	93.07	5260.00	-17.19	320.54	321.00	17.85	17.85	0.00	
5500.00	90.00	93.07	5260.00	-20.23	377.23	377.77	0.00	0.00	0.00	
5600.00	90.00	93.07	5260.00	-25.58	477.09	477.77	0.00	0.00	0.00	
5700.00	90.00	93.07	5260.00	-30.93	576.95	577.77	0.00	0.00	0.00	
5800.00	90.00	93.07	5260.00	-36.29	676.80	677.77	0.00	0.00	0.00	
5900.00	90.00	93.07	5260.00	-41.64	776.66	777.77	0.00	0.00	0.00	
6000.00	90.00	93.07	5260.00	-47.00	876.52	877.77	0.00	0.00	0.00	
6100.00	90.00	93.07	5260.00	-52.35	976.37	977.77	0.00	0.00	0.00	
6200.00	90.00	93.07	5260.00	-57.70	1076.23	1077.77	0.00	0.00	0.00	
6300.00	90.00	93.07	5260.00	-63.06	1176.09	1177.77	0.00	0.00	0.00	
6400.00	90.00	93.07	5260.00	-68.41	1275.94	1277.77	0.00	0.00	0.00	
6500.00	90.00	93.07	5260.00	-73.76	1375.80	1377.77	0.00	0.00	0.00	
6600.00	90.00	93.07	5260.00	-79.12	1475.65	1477.77	0.00	0.00	0.00	
6700.00	90.00	93.07	5260.00	-84.47	1575.51	1577.77	0.00	0.00	0.00	
6800.00	90.00	93.07	5260.00	-89.83	1675.37	1677.77	0.00	0.00	0.00	
6900.00	90.00	93.07	5260.00	-95.18	1775.22	1777.77	0.00	0.00	0.00	
7000.00	90.00	93.07	5260.00	-100.53	1875.08	1877.77	0.00	0.00	0.00	
7100.00	90.00	93.07	5260.00	-105.89	1974.94	1977.77	0.00	0.00	0.00	
7200.00	90.00	93.07	5260.00	-111.24	2074.79	2077.77	0.00	0.00	0.00	
7300.00	90.00	93.07	5260.00	-116.60	2174.65	2177.77	0.00	0.00	0.00	
7400.00	90.00	93.07	5260.00	-121.95	2274.51	2277.77	0.00	0.00	0.00	
7500.00	90.00	93.07	5260.00	-127.30	2374.36	2377.77	0.00	0.00	0.00	
7600.00	90.00	93.07	5260.00	-132.66	2474.22	2477.77	0.00	0.00	0.00	
7700.00	90.00	93.07	5260.00	-138.01	2574.08	2577.77	0.00	0.00	0.00	
7767.02	90.00	93.07	5260.00	-141.60	2641.00	2644.79	0.00	0.00	0.00	PBHL

### Targets

Name	Description Dip. Dir.	TVD ft	+N/-S ft	+E/-W ft	Map Northing ft	Map Easting ft	<--- Latitude ---> Deg Min Sec	<--- Longitude ---> Deg Min Sec
Surface		0.00	0.00	0.00	663303.30	604020.10	32 49 22.980 N	103 59 40.993 W
TRF8 -Circle (Radius: 90)		0.00	-173.00	661.50	663130.30	604681.60	32 49 21.247 N	103 59 33.247 W
PBHL		5260.00	-141.60	2641.00	663161.70	606661.10	32 49 21.494 N	103 59 10.049 W

### Casing Points

MD ft	TVD ft	Diameter in	Hole Size in	Name
4919.00	4919.00	5.500	7.875	5 1/2"