

APD

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

FORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		8. Well Name and No. PUCKETT 12 FEDERAL COM 8H
2. Name of Operator COG OPERATING LLC Contact: KELLY J HOLLY E-Mail: kholly@concho.com		9. API Well No. 30-015-40737
3a. Address ONE CONCHO CENTER 600 W ILLINOIS AVE MIDLAND, TX 79701	3b. Phone No. (include area code) Ph: 432-685-4384	10. Field and Pool, or Exploratory FREN; GLORIETA YESO-EAST
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 12 T17S R31E Mer NMP SESE 190FSL 626FEL		11. County or Parish, and State EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
☒ Notice of Intent	☐ Acidize
☐ Subsequent Report	☐ Deepen
☐ Final Abandonment Notice	☐ Fracture Treat
	☐ New Construction
	☐ Plug and Abandon
	☐ Plug Back
	☐ Production (Start/Resume)
	☐ Reclamation
	☐ Recomplete
	☐ Temporarily Abandon
	☐ Water Disposal
	☐ Water Shut-Off
	☐ Well Integrity
	☒ Other Change to Original APD

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

COG permitted this well at this location:
SHL: 190 FSL & 626 FEL, Unit P
BHL: 330 FNL & 330 FEL, Unit A

Accepted for record
NMOCD

10/21/2013

RECEIVED
JAN 31 2013
NMOCD ARTESIA

COG respectfully requests permission to change the SHL of this well to:
SHL: 43 FSL & 590 FEL, Unit P
BHL: 330 FNL & 330 FEL, Unit A

This move is requested to accomodate Drilling Rig. A tank battery was in the original location.

A revised C-102, Directional plan, Flow Line, Road Map, 1 mile map, Rig Layouts, H2S Diagram are

original COA still stand

14. Thereby certify that the foregoing is true and correct.	
Electronic Submission #183216 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Carlsbad Committed to AFMSS for processing by KURT SIMMONS on 01/16/2013 ()	
Name (Printed/Typed) KELLY J HOLLY	Title PERMITTING TECH
Signature (Electronic Submission)	Date 01/15/2013

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By	Title
Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.	
Office	

APPROVED
JAN 29 2013
BUREAU OF LAND MANAGEMENT
CARLSBAD FIELD OFFICE

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

**** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ** OPERATOR-SUBMITTED ****

Additional data for EC transaction #183216 that would not fit on the form

32. Additional remarks, continued

attached for your review.

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, NM 87505

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

WELL LOCATION AND ACREAGE DEDICATION PLAT

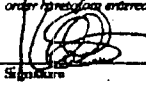
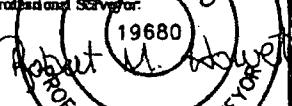
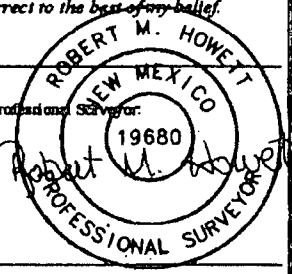
¹ API Number 30-015-40737	² Post Code 97213	³ Post Name Fren; Glorieta Yeso East
⁴ Property Code	⁵ Property Name PUCKETT 12 FEDERAL	⁶ Well Number 8H
⁷ OGRID No. 229137	⁸ Operator Name COG OPERATING, LLC	⁹ Elevation 3966'

¹⁰ Surface Location									
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	12	17-S	31-E		43	SOUTH	590	EAST	EDDY

¹¹ 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
A	12	17-S	31-E		330	NORTH	330	EAST	EDDY

¹² Dedicated Acres 160	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
--------------------------------------	-------------------------------	----------------------------------	-------------------------

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.

CORNER DATA NAD 27 GRID - NM EAST A: BRASS CAP "1916" N 670323.4 - E 654220.9 B: BRASS CAP "1916" N 672963.1 - E 654206.1 C: BRASS CAP "1916" N 675603.8 - E 654191.4 D: BRASS CAP "1913" N 675640.6 - E 659473.2 E: BRASS CAP "1916" N 670360.5 - E 659503.6 GEODETIC DATA NAD 27 GRID - NM EAST SURFACE LOCATION N 670399.3 - E 658913.5 LAT: 32.84194° N LONG: 103.81592° W BOTTOM LOCATION N 675308.3 - E 659145.1 DETAIL "A" 3967.9 600' 3967.9 600' S.L. 3964.6 3964.7 Project Area Producing Area N 02°42'05" E (GRID) 4,914.5' (HORIZ.) SEE DETAIL "A" S.L.	17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or undivided 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.  1-15-13 Signature Date Kelly J. Holly Printed Name kholly@concho.com E-mail Address 18 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. 12/21/12 Date of Survey  Signature and Seal of Professional Surveyor 19680 Certificate Number 
---	---

Estimated
completed
interval:
330 FSL + 575FEL

Plan Proposal

FOR

COG Operating, LLC
Puckett 12 Federal #8H
Eddy Co., NM

Design #1

Presented By:

Aaron Boger
Account Manager

Dusty Moyer
Well Planner

SHL
43' FSL & 590' FEL
Penetration Point
330' FSL & 575' FEL
PBHL
330' FNL & 330' FEL

WATER



Site: Sec.12-T17S-R31E
Well: Puckett 12 Federal #8H
Wellbore: Wellbore #1
Design: Design #1
Lat: 32° 50' 30.996 N
Long: 103° 48' 57.311 W
GL: 3966.00
KB: WELL @ 3980.00usft (Original Well Elev)

Archer

SECTION DETAILS

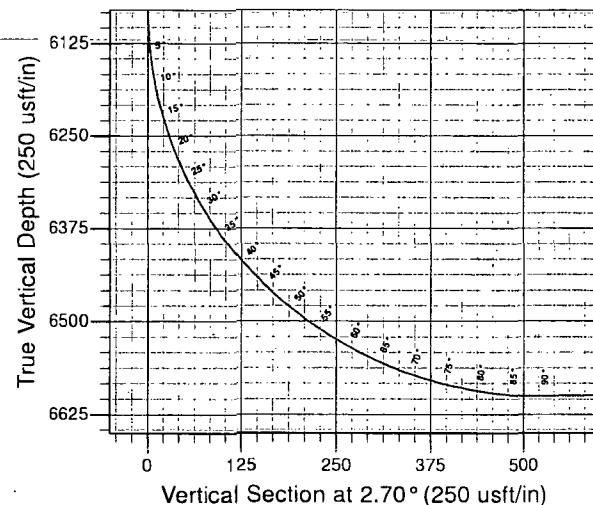
MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
6079.21	0.00	0.00	6079.21	0.00	0.00	0.00	0.00	0.00	KOP - Build 11°/100'
6906.48	91.00	2.70	6600.00	529.37	24.98	11.00	2.70	529.96	EOC - Hold to TD
11291.65	91.00	2.70	6523.47	4909.00	231.60	0.00	0.00	4914.46	TD at 11291.65

WELL DETAILS: Puckett 12 Federal #8H

+N/-S	+E/-W	Northing	Ground Level: Easting	3966.00 Latitude	Longitude	Slot
0.00	0.00	670399.300	658913.500	32° 50' 30.996 N	103° 48' 57.311 W	

WELLBORE TARGET DETAILS (LAT/LONG)

Name	TVD	+N/-S	+E/-W	Latitude	Longitude	Shape
Puckett 12 Fed #8H PBHL	6523.47	4909.00	231.60	32° 51' 19.559 N	103° 48' 54.314 W	Point



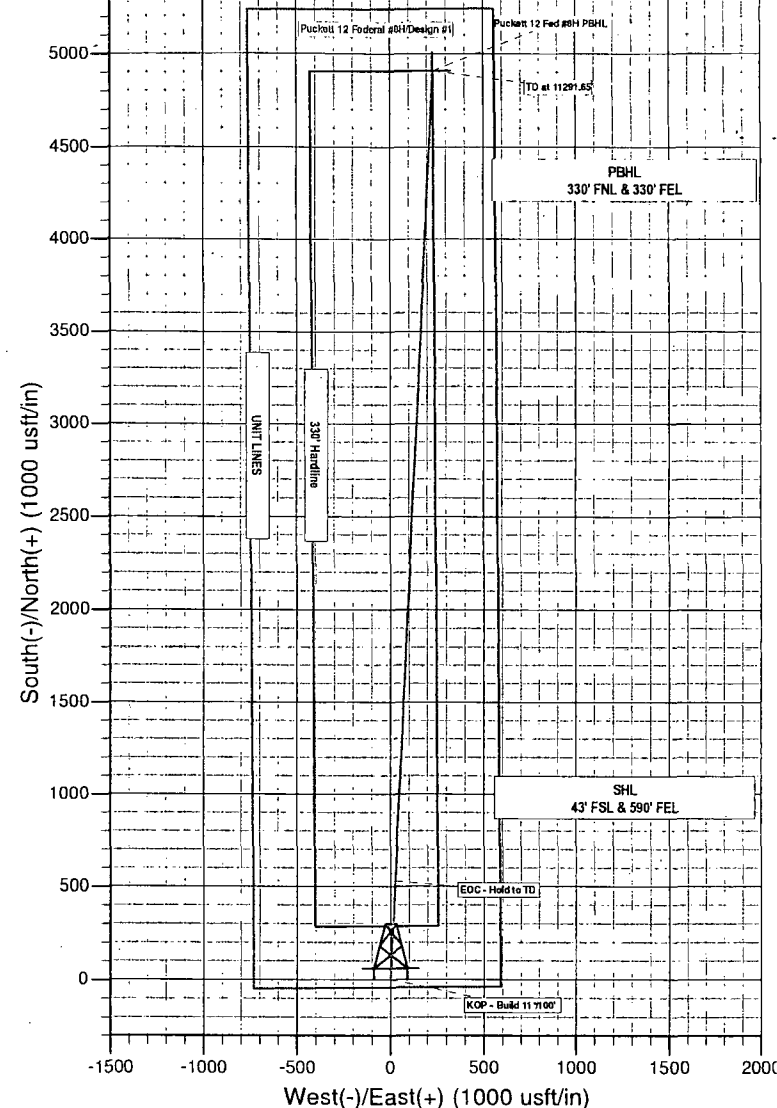
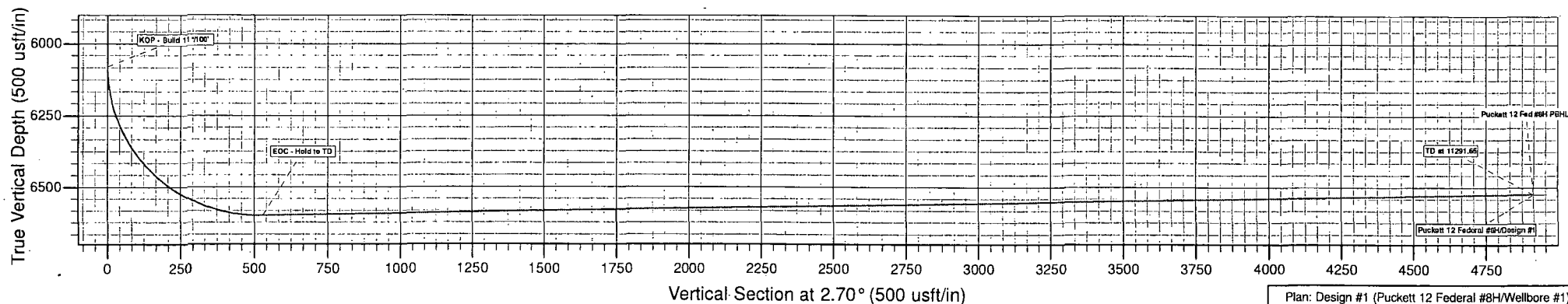
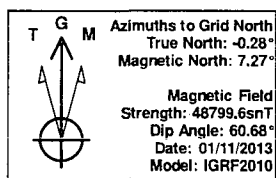
PROJECT DETAILS: Eddy County(NM27E)

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

SITE DETAILS: Sec.12-T17S-R31E

Site Centre Latitude: 32° 50' 30.996 N
Longitude: 103° 48' 57.311 W

Positional Uncertainty: 0.00
Convergence: 0.28
Local North: Grid



Plan: Design #1 (Puckett 12 Federal #8H/Wellbore #1)

Created By: Dusty Moyer Date: 14:57, January 11 2013

Archer

COG Operating, LLC

Eddy County(NM27E)

Sec.12-T17S-R31E

Puckett 12 Federal #8H

Wellbore #1

Plan: Design #1

Standard Planning Report

11 January, 2013





Archer
Planning Report



Database: EDMDBBW
Company: COG Operating, LLC
Project: Eddy County(NM27E)
Site: Sec.12-T17S-R31E
Well: Puckett 12 Federal #8H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Puckett 12 Federal #8H
TVD Reference: WELL @ 3980.00usft (Original Well Elev)
MD Reference: WELL @ 3980.00usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Eddy County(NM27E);		
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	Sec.12-T17S-R31E		
Site Position:		Northing:	670,399.300 usft
From:	Map	Easting:	658,913.500 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16"
		Latitude:	32° 50' 30.996 N
		Longitude:	103° 48' 57.311 W
		Grid Convergence:	0.28 °

Well	Puckett 12 Federal #8H		
Well Position	+N/-S	0.00 usft	Northing:
	+E/-W	0.00 usft	Easting:
Position Uncertainty	0.00 usft	Wellhead Elevation:	usft
		Latitude:	32° 50' 30.996 N
		Longitude:	103° 48' 57.311 W
		Ground Level:	3,966.00 usft

Wellbore	Wellbore #1		
Magnetics	Model Name	Sample Date	Declination
			(°)
	IGRF2010	2013/01/11	7.55
			Dip Angle
			(°)
			60.68
			Field Strength
			(nT)
			48,800

Design	Design #1		
Audit Notes:			
Version:	Phase:	PROTOTYPE	Tie On Depth:
			0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.00	0.00	0.00
			Direction
			(°)
			2.70

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	
6,079.21	0.00	0.00	6,079.21	0.00	0.00	0.00	0.00	0.00	0.00	
6,906.48	91.00	2.70	6,600.00	529.37	24.98	11.00	11.00	0.00	2.70	Puckett 12 Fed #8H F
11,291.65	91.00	2.70	6,523.47	4,909.00	231.60	0.00	0.00	0.00	0.00	Puckett 12 Fed #8H F



Archer
Planning Report



Database: EDMDBBW
Company: COG Operating, LLC
Project: Eddy County(NM27E)
Site: Sec.12-T17S-R31E
Well: Puckett 12 Federal #8H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Puckett 12 Federal #8H
TVD Reference: WELL @ 3980.00usft (Original Well Elev)
MD Reference: WELL @ 3980.00usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	0.00	0.00	3,800.00	0.00	0.00	0.00	0.00	0.00	0.00
3,900.00	0.00	0.00	3,900.00	0.00	0.00	0.00	0.00	0.00	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00
4,100.00	0.00	0.00	4,100.00	0.00	0.00	0.00	0.00	0.00	0.00
4,200.00	0.00	0.00	4,200.00	0.00	0.00	0.00	0.00	0.00	0.00
4,300.00	0.00	0.00	4,300.00	0.00	0.00	0.00	0.00	0.00	0.00
4,400.00	0.00	0.00	4,400.00	0.00	0.00	0.00	0.00	0.00	0.00
4,500.00	0.00	0.00	4,500.00	0.00	0.00	0.00	0.00	0.00	0.00
4,600.00	0.00	0.00	4,600.00	0.00	0.00	0.00	0.00	0.00	0.00
4,700.00	0.00	0.00	4,700.00	0.00	0.00	0.00	0.00	0.00	0.00
4,800.00	0.00	0.00	4,800.00	0.00	0.00	0.00	0.00	0.00	0.00
4,900.00	0.00	0.00	4,900.00	0.00	0.00	0.00	0.00	0.00	0.00
5,000.00	0.00	0.00	5,000.00	0.00	0.00	0.00	0.00	0.00	0.00
5,100.00	0.00	0.00	5,100.00	0.00	0.00	0.00	0.00	0.00	0.00
5,200.00	0.00	0.00	5,200.00	0.00	0.00	0.00	0.00	0.00	0.00
5,300.00	0.00	0.00	5,300.00	0.00	0.00	0.00	0.00	0.00	0.00

Database: EDMDBBW
Company: COG Operating, LLC
Project: Eddy County(NM27E)
Site: Sec.12-T17S-R31E
Well: Puckett 12 Federal #8H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Puckett 12 Federal #8H
TVD Reference: WELL @ 3980.00usft (Original Well Elev)
MD Reference: WELL @ 3980.00usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
5,400.00	0.00	0.00	5,400.00	0.00	0.00	0.00	0.00	0.00	0.00
5,500.00	0.00	0.00	5,500.00	0.00	0.00	0.00	0.00	0.00	0.00
5,600.00	0.00	0.00	5,600.00	0.00	0.00	0.00	0.00	0.00	0.00
5,700.00	0.00	0.00	5,700.00	0.00	0.00	0.00	0.00	0.00	0.00
5,800.00	0.00	0.00	5,800.00	0.00	0.00	0.00	0.00	0.00	0.00
5,900.00	0.00	0.00	5,900.00	0.00	0.00	0.00	0.00	0.00	0.00
6,000.00	0.00	0.00	6,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP - Build 11°/100'									
6,079.21	0.00	0.00	6,079.21	0.00	0.00	0.00	0.00	0.00	0.00
6,100.00	2.29	2.70	6,099.99	0.41	0.02	0.41	11.00	11.00	0.00
6,150.00	7.79	2.70	6,149.78	4.80	0.23	4.80	11.00	11.00	0.00
6,200.00	13.29	2.70	6,198.92	13.93	0.66	13.94	11.00	11.00	0.00
6,250.00	18.79	2.70	6,246.96	27.72	1.31	27.75	11.00	11.00	0.00
6,300.00	24.29	2.70	6,293.45	46.05	2.17	46.10	11.00	11.00	0.00
6,350.00	29.79	2.70	6,337.97	68.74	3.24	68.82	11.00	11.00	0.00
6,400.00	35.29	2.70	6,380.10	95.59	4.51	95.70	11.00	11.00	0.00
6,450.00	40.79	2.70	6,419.47	126.36	5.96	126.50	11.00	11.00	0.00
6,500.00	46.29	2.70	6,455.70	160.75	7.58	160.92	11.00	11.00	0.00
6,550.00	51.79	2.70	6,488.47	198.45	9.36	198.67	11.00	11.00	0.00
6,600.00	57.29	2.70	6,517.46	239.11	11.28	239.38	11.00	11.00	0.00
6,650.00	62.79	2.70	6,542.43	282.36	13.32	282.68	11.00	11.00	0.00
6,700.00	68.29	2.70	6,563.12	327.81	15.47	328.17	11.00	11.00	0.00
6,750.00	73.79	2.70	6,579.37	375.02	17.69	375.44	11.00	11.00	0.00
6,800.00	79.29	2.70	6,591.00	423.57	19.98	424.05	11.00	11.00	0.00
6,850.00	84.79	2.70	6,597.93	473.02	22.32	473.54	11.00	11.00	0.00
6,900.00	90.29	2.70	6,600.07	522.90	24.67	523.48	11.00	11.00	0.00
EOC - Hold to TD									
6,906.48	91.00	2.70	6,600.00	529.37	24.98	529.96	11.00	11.00	0.00
7,000.00	91.00	2.70	6,598.37	622.77	29.38	623.46	0.00	0.00	0.00
7,100.00	91.00	2.70	6,596.62	722.65	34.09	723.45	0.00	0.00	0.00
7,200.00	91.00	2.70	6,594.88	822.52	38.81	823.43	0.00	0.00	0.00
7,300.00	91.00	2.70	6,593.13	922.39	43.52	923.42	0.00	0.00	0.00
7,400.00	91.00	2.70	6,591.39	1,022.27	48.23	1,023.40	0.00	0.00	0.00
7,500.00	91.00	2.70	6,589.64	1,122.14	52.94	1,123.39	0.00	0.00	0.00
7,600.00	91.00	2.70	6,587.90	1,222.01	57.65	1,223.37	0.00	0.00	0.00
7,700.00	91.00	2.70	6,586.15	1,321.89	62.36	1,323.36	0.00	0.00	0.00
7,800.00	91.00	2.70	6,584.41	1,421.76	67.08	1,423.34	0.00	0.00	0.00
7,900.00	91.00	2.70	6,582.66	1,521.63	71.79	1,523.33	0.00	0.00	0.00
8,000.00	91.00	2.70	6,580.92	1,621.51	76.50	1,623.31	0.00	0.00	0.00
8,100.00	91.00	2.70	6,579.17	1,721.38	81.21	1,723.30	0.00	0.00	0.00
8,200.00	91.00	2.70	6,577.43	1,821.26	85.92	1,823.28	0.00	0.00	0.00
8,300.00	91.00	2.70	6,575.68	1,921.13	90.64	1,923.27	0.00	0.00	0.00
8,400.00	91.00	2.70	6,573.94	2,021.00	95.35	2,023.25	0.00	0.00	0.00
8,500.00	91.00	2.70	6,572.19	2,120.88	100.06	2,123.24	0.00	0.00	0.00
8,600.00	91.00	2.70	6,570.45	2,220.75	104.77	2,223.22	0.00	0.00	0.00
8,700.00	91.00	2.70	6,568.70	2,320.62	109.48	2,323.21	0.00	0.00	0.00
8,800.00	91.00	2.70	6,566.95	2,420.50	114.20	2,423.19	0.00	0.00	0.00
8,900.00	91.00	2.70	6,565.21	2,520.37	118.91	2,523.17	0.00	0.00	0.00
9,000.00	91.00	2.70	6,563.46	2,620.25	123.62	2,623.16	0.00	0.00	0.00
9,100.00	91.00	2.70	6,561.72	2,720.12	128.33	2,723.14	0.00	0.00	0.00
9,200.00	91.00	2.70	6,559.97	2,819.99	133.04	2,823.13	0.00	0.00	0.00
9,300.00	91.00	2.70	6,558.23	2,919.87	137.76	2,923.11	0.00	0.00	0.00
9,400.00	91.00	2.70	6,556.48	3,019.74	142.47	3,023.10	0.00	0.00	0.00



Database: EDMDBBW
Company: COG Operating, LLC
Project: Eddy County(NM27E)
Site: Sec.12-T17S-R31E
Well: Puckett 12 Federal #8H
Wellbore: Wellbore #1
Design: Design #1

Local Co-ordinate Reference: Well Puckett 12 Federal #8H
TVD Reference: WELL @ 3980.00usft (Original Well Elev)
MD Reference: WELL @ 3980.00usft (Original Well Elev)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

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)
9,500.00	91.00	2.70	6,554.74	3,119.61	147.18	3,123.08	0.00	0.00	0.00
9,600.00	91.00	2.70	6,552.99	3,219.49	151.89	3,223.07	0.00	0.00	0.00
9,700.00	91.00	2.70	6,551.25	3,319.36	156.60	3,323.05	0.00	0.00	0.00
9,800.00	91.00	2.70	6,549.50	3,419.23	161.31	3,423.04	0.00	0.00	0.00
9,900.00	91.00	2.70	6,547.76	3,519.11	166.03	3,523.02	0.00	0.00	0.00
10,000.00	91.00	2.70	6,546.01	3,618.98	170.74	3,623.01	0.00	0.00	0.00
10,100.00	91.00	2.70	6,544.27	3,718.86	175.45	3,722.99	0.00	0.00	0.00
10,200.00	91.00	2.70	6,542.52	3,818.73	180.16	3,822.98	0.00	0.00	0.00
10,300.00	91.00	2.70	6,540.78	3,918.60	184.87	3,922.96	0.00	0.00	0.00
10,400.00	91.00	2.70	6,539.03	4,018.48	189.59	4,022.95	0.00	0.00	0.00
10,500.00	91.00	2.70	6,537.29	4,118.35	194.30	4,122.93	0.00	0.00	0.00
10,600.00	91.00	2.70	6,535.54	4,218.22	199.01	4,222.92	0.00	0.00	0.00
10,700.00	91.00	2.70	6,533.80	4,318.10	203.72	4,322.90	0.00	0.00	0.00
10,800.00	91.00	2.70	6,532.05	4,417.97	208.43	4,422.89	0.00	0.00	0.00
10,900.00	91.00	2.70	6,530.30	4,517.85	213.15	4,522.87	0.00	0.00	0.00
11,000.00	91.00	2.70	6,528.56	4,617.72	217.86	4,622.85	0.00	0.00	0.00
11,100.00	91.00	2.70	6,526.81	4,717.59	222.57	4,722.84	0.00	0.00	0.00
11,200.00	91.00	2.70	6,525.07	4,817.47	227.28	4,822.82	0.00	0.00	0.00
TD at 11291.65									
11,291.65	91.00	2.70	6,523.47	4,909.00	231.60	4,914.46	0.00	0.00	0.00

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									
Puckett 12 Fed #8H PBI	0.00	0.00	6,523.47	4,909.00	231.60	675,308.300	659,145.100	32° 51' 19.559 N	103° 48' 54.314 W
- plan hits target center									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
6,079.21	6,079.21	0.00	0.00	KOP - Build 11°/100'
6,906.48	6,600.00	529.37	24.98	EOC - Hold to TD
11,291.65	6,523.47	4,909.00	231.60	TD at 11291.65