

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**SUNDRY NOTICES AND REPORTS ON WELLS**
Do not use this form for proposals to drill or to re-enter abandoned well. Use form 3160-3 (APD) for such proposals.**Carlsbad Field Office**
OCD Artesia

NMLC028731B

Indian, Allottee or Tribe Name

SUBMIT IN TRIPLICATE - Other instructions on page 2

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		7. If Unit or CA/Agreement, Name and/or No. NMNM111789X
2. Name of Operator COG OPERATING LLC Contact: ROBYN RUSSELL E-Mail: rrussell@concho.com		8. Well Name and No. DOOD FEDERAL UNIT 917H
3a. Address 600 W. ILLINOIS AVENUE MIDLAND, TX 79701	3b. Phone No. (include area code) Ph: 432-685-4385	9. API Well No. 30-015-44128
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 15 T17S R29E NENE 1035FNL 230FEL		10. Field and Pool or Exploratory Area DODD;GLORIETA-UPPER YESO
		11. County or Parish, State EDDY COUNTY, NM

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

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

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 must 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 must be filed once testing has been completed. Final Abandonment Notices must 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 Operating LLC respectfully requests to change the bottom hole location of this well.

From: 990 FNL 330 FEL, Sec 14, T17S, R29E
To: 990 FNL 10 FEL, Sec 14, T17S, R29E

This change is to maximize the returns and reduce waste of the reservoir. Attached is a revised plat and directional plan.

NEW OIL CONSERVATION
ARTESIA DISTRICT

MAY 22 2017

RECEIVED

14. I hereby certify that the foregoing is true and correct. Electronic Submission #375296 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Carlsbad Committed to AFMSS for processing by DEBORAH MCKINNEY on 05/10/2017 ()	
Name (Printed/Typed) ROBYN RUSSELL	Title REGULATORY ANALYST
Signature (Electronic Submission)	Date 05/08/2017
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved By <u>Mustafa Haguel</u>	Title <u>PETROLEUM ENGINEER</u>
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 <u>BUREAU OF LAND MANAGEMENT CARLSBAD FIELD OFFICE</u>
Date <u>5/18/2017</u>	

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 to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

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

District I
1625 N. French Dr. Hobbs, NM 88240
Phone: (505) 393-6161 Fax: (505) 393-0720
District II
811 S. First St. Artesia, NM 88210
Phone: (505) 748-1283 Fax: (505) 748-0720
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

NEW OIL CONSERVATION
ARTESIA DISTRICT Form C-102

State of New Mexico
Energy, Minerals & Natural Resources Department MAY 22 2017 Revised August 1, 2011
OIL CONSERVATION DIVISION
1220 South St. Francis Dr
Santa Fe, NM 87505
Submit one copy to appropriate District Office

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☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number 30 015-44128	2 Pool Code 97917	3 Pool Name Dodd; Glorieta-Upper Yeso
4 Property Code 308195	5 Property Name DODD FEDERAL UNIT	
6 OGRID NO 229137	7 Operator Name COG OPERATING, LLC	8 Well Number 917H
		9 Elevation 3612'

10 Surface Location

11 Twp A	12 S 15	13 Twp 17S	14 Range 29E	15 Section 1035	16 North-South NORTH	17 Feet 230	18 East-West EAST	19 Direction EDDY
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Bottom Hole Location If Different From Surface

20 Twp A	21 S 14	22 Twp 17S	23 Range 29E	24 Section 990	25 North-South NORTH	26 Feet 10	27 East-West EAST	28 Direction EDDY
29 Direction 160								

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.

DETAIL "A"

OPERATOR CERTIFICATION

Signature: _____ Date: **05/01/2017**

Printed Name: **Robyn M. Russell**

Email Address: **Russell@concho.com**

"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.

Date of Survey: **7/25/13**

Signature and Seal of Registered Professional Surveyor:

Certificate Number: **19680**

3/23/17 BH CHANGE



NEW OIL CONSERVATION

ARTESIA DISTRICT

MAY 22 2017

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COG Operating LLC

Eddy County, NM (NAD-27 2015)

Dodd Federal Unit #917H

SHL: 1035' FNL, 230' FEL, Sec 15, T17S, R29E, Unit A

PP: 969' FNL, 330' FWL, Sec 14, T17S, R29E, Unit D

BHL: 990' FNL, 10' FEL, Sec 14, T17S, R29E, Unit A

Plan: Design #1

Standard Planning Report

03 May, 2017





Planning Report



Database: EDM 5000.1 Single User Db
Company: COG Operating LLC
Project: Eddy County, NM (NAD-27 2015)
Site: Dodd Federal Unit #917H
Well: SHL: 1035' FNL, 230' FEL, Sec 15, T17S, R29E, Unit A
Wellbore: BHL: 990' FNL, 10' FEL, Sec 14, T17S, R29E, Unit A
Design: Design #1

Local Co-ordinate Reference: Well SHL: 1035' FNL, 230' FEL, Sec 15, T17S, R29E, Unit A
TVD Reference: KB @ 3630.00usft (Patriot 6)
MD Reference: KB @ 3630.00usft (Patriot 6)
North Reference: Grid
Survey Calculation Method: Minimum Curvature

Project	Eddy County, NM (NAD-27 2015)		
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		Dodd Federal Unit #917H			
Site Position:		Northing:	669,009.70 usft	Latitude:	32° 50' 19.976 N
From:	Map	Easting:	585,704.90 usft	Longitude:	104° 3' 15.449 W
Position Uncertainty:	0.00 usft	Slot Radius:	13.20 in	Grid Convergence:	0.15 °

Well	SHL: 1035' FNL, 230' FEL, Sec 15, T17S, R29E, Unit A					
Well Position	+N/-S	0.00 usft	Northing:	669,009.70 usft	Latitude:	32° 50' 19.976 N
	+E/-W	0.00 usft	Easting:	585,704.90 usft	Longitude:	104° 3' 15.449 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	0.00 usft	Ground Level:	3,612.00 usft

Wellbore	BHL: 990' FNL, 10' FEL, Sec 14, T17S, R29E, Unit A				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	05/02/17	7.24	60.55	48,263

Design	Design #1			
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	89.56

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	
4,329.21	0.00	0.00	4,329.21	0.00	0.00	0.00	0.00	0.00	0.00	
5,156.48	91.00	83.39	4,850.00	61.00	526.44	11.00	11.00	0.00	83.39	
5,510.13	91.00	90.46	4,843.82	79.95	879.30	2.00	0.00	2.00	89.95	
10,135.29	91.00	90.46	4,763.18	42.50	5,503.60	0.00	0.00	0.00	0.00	Plat BHL (DFU#917H)



Planning Report



Database: EDM 5000.1 Single User Db

Company: COG Operating LLC

Project: Eddy County, NM (NAD-27 2015)

Site: Dodd Federal Unit #917H

Well: SHL: 1035' FNL, 230' FEL, Sec 15, T17S, R29E, Unit A

Wellbore: BHL: 990' FNL, 10' FEL, Sec 14, T17S, R29E, Unit A

Design: Design #1

Local Co-ordinate Reference: Well SHL: 1035' FNL, 230' FEL, Sec 15, T17S, R29E, Unit A

TVD Reference: KB @ 3630.00usft (Patriot 6)

MD Reference: KB @ 3630.00usft (Patriot 6)

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
4,329.21	0.00	0.00	4,329.21	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 11.00									
4,350.00	2.29	83.39	4,349.99	0.05	0.41	0.41	11.00	11.00	0.00
4,400.00	7.79	83.39	4,399.78	0.55	4.77	4.78	11.00	11.00	0.00
4,450.00	13.29	83.39	4,448.92	1.60	13.85	13.86	11.00	11.00	0.00
4,500.00	18.79	83.39	4,496.96	3.19	27.57	27.59	11.00	11.00	0.00
4,550.00	24.29	83.39	4,543.45	5.31	45.79	45.83	11.00	11.00	0.00



Planning Report



Database: EDM 5000.1 Single User Db
Company: COG Operating LLC
Project: Eddy County, NM (NAD-27 2015)
Site: Dodd Federal Unit #917H
Well: SHL: 1035' FNL, 230' FEL, Sec 15, T17S, R29E, Unit A
Wellbore: BHL: 990' FNL, 10' FEL, Sec 14, T17S, R29E, Unit A
Design: Design #1

Local Co-ordinate Reference: Well SHL: 1035' FNL, 230' FEL, Sec 15, T17S, R29E, Unit A
TVD Reference: KB @ 3630.00usft (Patriot 6)
MD Reference: KB @ 3630.00usft (Patriot 6)
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)
4,600.00	29.79	83.39	4,587.97	7.92	68.36	68.42	11.00	11.00	0.00
4,650.00	35.29	83.39	4,630.10	11.02	95.06	95.15	11.00	11.00	0.00
4,700.00	40.79	83.39	4,669.47	14.56	125.66	125.76	11.00	11.00	0.00
4,750.00	46.29	83.39	4,705.70	18.52	159.85	159.99	11.00	11.00	0.00
4,800.00	51.79	83.39	4,738.47	22.87	197.35	197.52	11.00	11.00	0.00
4,850.00	57.29	83.39	4,767.46	27.55	237.78	237.99	11.00	11.00	0.00
4,900.00	62.79	83.39	4,792.43	32.54	280.80	281.04	11.00	11.00	0.00
4,950.00	68.29	83.39	4,813.12	37.78	325.99	326.27	11.00	11.00	0.00
5,000.00	73.79	83.39	4,829.37	43.22	372.94	373.27	11.00	11.00	0.00
5,050.00	79.29	83.39	4,841.00	48.81	421.23	421.59	11.00	11.00	0.00
5,100.00	84.79	83.39	4,847.93	54.51	470.40	470.80	11.00	11.00	0.00
5,150.00	90.29	83.39	4,850.07	60.26	520.00	520.45	11.00	11.00	0.00
5,156.48	91.00	83.39	4,850.00	61.00	526.44	526.89	11.00	11.00	0.00
Start DLS 2.00 TFO 89.95									
5,200.00	91.00	84.26	4,849.24	65.68	569.70	570.19	2.00	0.00	2.00
5,300.00	91.00	86.26	4,847.49	73.94	669.33	669.89	2.00	0.00	2.00
5,400.00	91.00	88.26	4,845.75	78.72	769.20	769.78	2.00	0.00	2.00
5,500.00	91.00	90.26	4,844.00	80.01	869.17	869.76	2.00	0.00	2.00
5,510.13	91.00	90.46	4,843.82	79.95	879.30	879.89	2.00	0.00	2.00
Start 4625.16 hold at 5510.13 MD									
5,600.00	91.00	90.46	4,842.26	79.22	969.15	969.74	0.00	0.00	0.00
5,700.00	91.00	90.46	4,840.51	78.41	1,069.13	1,069.71	0.00	0.00	0.00
5,800.00	91.00	90.46	4,838.77	77.60	1,169.12	1,169.68	0.00	0.00	0.00
5,900.00	91.00	90.46	4,837.03	76.79	1,269.10	1,269.65	0.00	0.00	0.00
6,000.00	91.00	90.46	4,835.28	75.98	1,369.08	1,369.62	0.00	0.00	0.00
6,100.00	91.00	90.46	4,833.54	75.17	1,469.06	1,469.60	0.00	0.00	0.00
6,200.00	91.00	90.46	4,831.80	74.36	1,569.04	1,569.57	0.00	0.00	0.00
6,300.00	91.00	90.46	4,830.05	73.55	1,669.02	1,669.54	0.00	0.00	0.00
6,400.00	91.00	90.46	4,828.31	72.74	1,769.00	1,769.51	0.00	0.00	0.00
6,500.00	91.00	90.46	4,826.57	71.93	1,868.99	1,869.49	0.00	0.00	0.00
6,600.00	91.00	90.46	4,824.82	71.12	1,968.97	1,969.46	0.00	0.00	0.00
6,700.00	91.00	90.46	4,823.08	70.31	2,068.95	2,069.43	0.00	0.00	0.00
6,800.00	91.00	90.46	4,821.33	69.50	2,168.93	2,169.40	0.00	0.00	0.00
6,900.00	91.00	90.46	4,819.59	68.69	2,268.91	2,269.38	0.00	0.00	0.00
7,000.00	91.00	90.46	4,817.85	67.88	2,368.89	2,369.35	0.00	0.00	0.00
7,100.00	91.00	90.46	4,816.10	67.08	2,468.88	2,469.32	0.00	0.00	0.00
7,200.00	91.00	90.46	4,814.36	66.27	2,568.86	2,569.29	0.00	0.00	0.00
7,300.00	91.00	90.46	4,812.62	65.46	2,668.84	2,669.26	0.00	0.00	0.00
7,400.00	91.00	90.46	4,810.87	64.65	2,768.82	2,769.24	0.00	0.00	0.00
7,500.00	91.00	90.46	4,809.13	63.84	2,868.80	2,869.21	0.00	0.00	0.00
7,600.00	91.00	90.46	4,807.39	63.03	2,968.78	2,969.18	0.00	0.00	0.00
7,700.00	91.00	90.46	4,805.64	62.22	3,068.76	3,069.15	0.00	0.00	0.00
7,800.00	91.00	90.46	4,803.90	61.41	3,168.75	3,169.13	0.00	0.00	0.00
7,900.00	91.00	90.46	4,802.15	60.60	3,268.73	3,269.10	0.00	0.00	0.00
8,000.00	91.00	90.46	4,800.41	59.79	3,368.71	3,369.07	0.00	0.00	0.00
8,100.00	91.00	90.46	4,798.67	58.98	3,468.69	3,469.04	0.00	0.00	0.00
8,200.00	91.00	90.46	4,796.92	58.17	3,568.67	3,569.01	0.00	0.00	0.00
8,300.00	91.00	90.46	4,795.18	57.36	3,668.65	3,668.99	0.00	0.00	0.00
8,400.00	91.00	90.46	4,793.44	56.55	3,768.64	3,768.96	0.00	0.00	0.00
8,500.00	91.00	90.46	4,791.69	55.74	3,868.62	3,868.93	0.00	0.00	0.00
8,600.00	91.00	90.46	4,789.95	54.93	3,968.60	3,968.90	0.00	0.00	0.00



Planning Report



Database: EDM 5000.1 Single User Db

Company: COG Operating LLC

Project: Eddy County, NM (NAD-27 2015)

Site: Dodd Federal Unit #917H

Well: SHL: 1035' FNL, 230' FEL, Sec 15, T17S, R29E, Unit A

Wellbore: BHL: 990' FNL, 10' FEL, Sec 14, T17S, R29E, Unit A

Design: Design #1

Local Co-ordinate Reference: Well SHL: 1035' FNL, 230' FEL, Sec 15, T17S, R29E, Unit A

TVD Reference: KB @ 3630.00usft (Patriot 6)

MD Reference: KB @ 3630.00usft (Patriot 6)

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)
8,700.00	91.00	90.46	4,788.21	54.12	4,068.58	4,068.88	0.00	0.00	0.00
8,800.00	91.00	90.46	4,786.46	53.31	4,168.56	4,168.85	0.00	0.00	0.00
8,900.00	91.00	90.46	4,784.72	52.50	4,268.54	4,268.82	0.00	0.00	0.00
9,000.00	91.00	90.46	4,782.98	51.69	4,368.52	4,368.79	0.00	0.00	0.00
9,100.00	91.00	90.46	4,781.23	50.88	4,468.51	4,468.77	0.00	0.00	0.00
9,200.00	91.00	90.46	4,779.49	50.07	4,568.49	4,568.74	0.00	0.00	0.00
9,300.00	91.00	90.46	4,777.74	49.26	4,668.47	4,668.71	0.00	0.00	0.00
9,400.00	91.00	90.46	4,776.00	48.45	4,768.45	4,768.68	0.00	0.00	0.00
9,500.00	91.00	90.46	4,774.26	47.64	4,868.43	4,868.65	0.00	0.00	0.00
9,600.00	91.00	90.46	4,772.51	46.83	4,968.41	4,968.63	0.00	0.00	0.00
9,700.00	91.00	90.46	4,770.77	46.02	5,068.39	5,068.60	0.00	0.00	0.00
9,800.00	91.00	90.46	4,769.03	45.21	5,168.38	5,168.57	0.00	0.00	0.00
9,900.00	91.00	90.46	4,767.28	44.40	5,268.36	5,268.54	0.00	0.00	0.00
10,000.00	91.00	90.46	4,765.54	43.60	5,368.34	5,368.52	0.00	0.00	0.00
10,100.00	91.00	90.46	4,763.80	42.79	5,468.32	5,468.49	0.00	0.00	0.00
10,135.29	91.00	90.46	4,763.18	42.50	5,503.60	5,503.76	0.00	0.00	0.00

TD at 10135.29

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
Plat BHL (DFU#917H/L1 - plan hits target center - Point	0.00	0.00	4,763.18	42.50	5,503.60	669,052.20	591,208.50	32° 50' 20.248 N	104° 2' 10.940 W
PP (DFU#917H/L1) - plan hits target center - Point	0.00	0.00	4,849.34	65.13	564.23	669,074.83	586,269.13	32° 50' 20.606 N	104° 3' 8.833 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
4,329.21	4,329.21	0.00	0.00	Start Build 11.00
5,156.48	4,850.00	61.00	526.44	Start DLS 2.00 TFO 89.95
5,510.13	4,843.82	65.13	564.23	Start 4625.16 hold at 5510.13 MD
10,135.29	4,763.18	79.95	879.30	TD at 10135.29



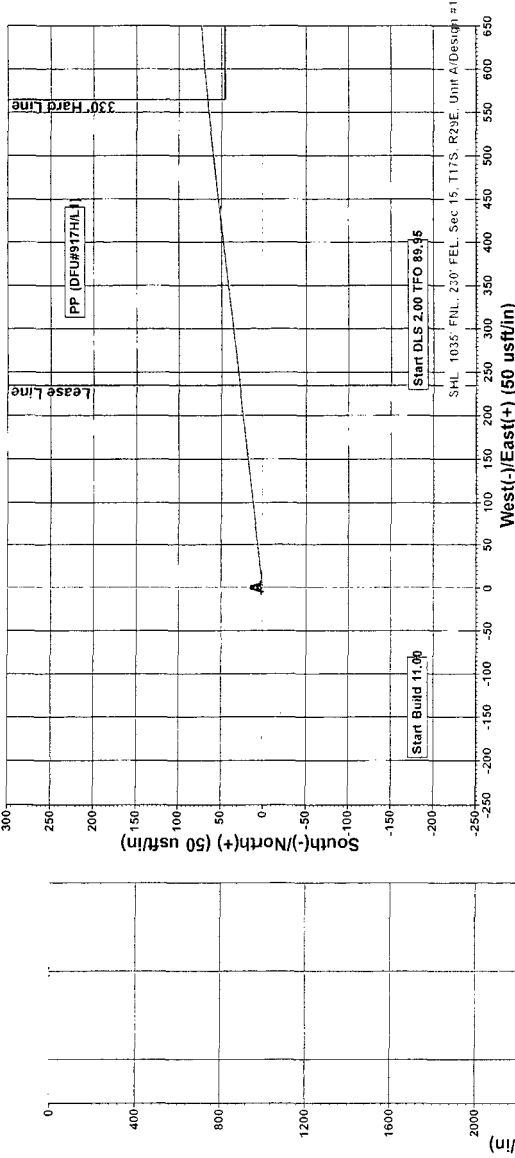
Project: Eddy County, NM (NAD-27 2015)
Site: Dodd Federal Unit #917H

Well: SHL: 1035' FNL, 230' FEL, Sec 15, T17S, R29E, Unit A
Wellbore: BHL: 990' FNL, 10' FEL, Sec 14, T17S, R29E, Unit A

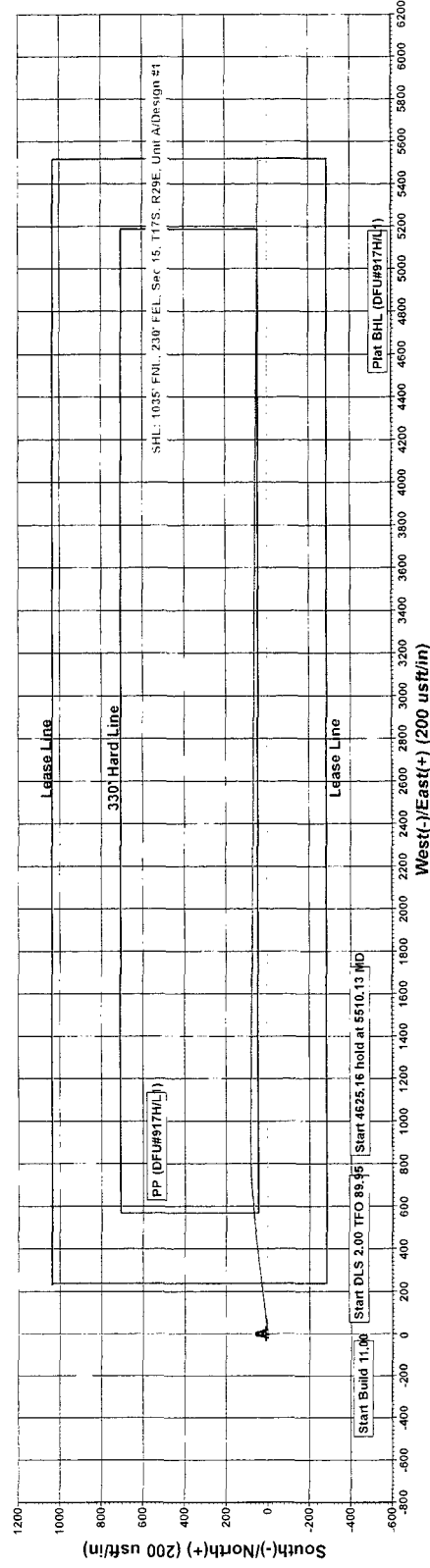
Plan: Design #1 (SHL: 1035' FNL, 230' FEL, Sec 15, T17S, R29E, Unit A/BHL: 990' FNL, 10' FEL, Sec 14, T17S, R29E, Unit A)

Section Details

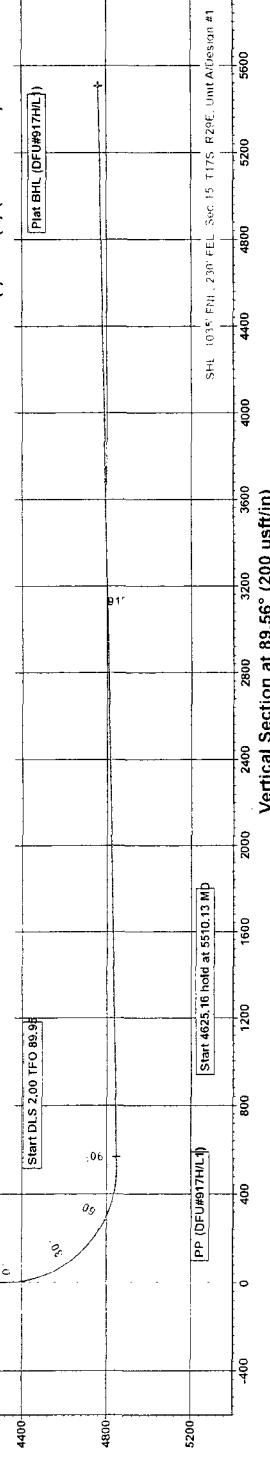
Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	4329.21	0.00	0.00	4329.21	0.00	0.00	0.00	0.00	0.00	
3	5156.48	91.00	83.39	4850.00	61.00	526.44	11.00	83.39	526.89	
4	5510.13	91.00	90.46	4843.82	79.95	879.30	2.00	89.95	879.89	
5	10135.29	91.00	90.46	4763.18	42.50	5503.60	0.00	0.00	5503.76	Plat BHL (DFU#917H/L1)



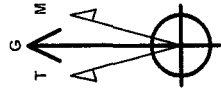
West(-)/East(+) (50 usft/in)



West(-)/East(+) (200 usft/in)



Vertical Section at 89.56° (200 usft/in)



Azimuths to Grid North
True North: -0.15°
Magnetic North: 7.09°
Magnetic Field
Strength: 48262.5 nT
Dip Angle: 80.35°
Date: 05/02/2017
Model: IGRF-2015

PROJECT DETAILS: Eddy County, NM (NAD-27 2015)
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
Local North: Grid

Ground Elevation: 3612.00
RKB Elevation: KB @ 3630.00 usft (Patriot 6)
Northing: 669009.70
Easting: 585704.90
Latitude: 32° 50' 19.976 N
Longitude: 104° 3' 15.449 W

Terra Directional Services LLC
3705 South County Road 1210, Midland, TX 79706
Phone: 432-618-1210

