

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NM OIL CONSERVATION

ARTESIA DISTRICT

JUN 15 2015

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.

RECEIVED

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well ☒ Oil Well ☐ Gas Well ☐ Other		8. Well Name and No. PUCKETT 13 FEDERAL COM 38H	
2. Name of Operator COG OPERATING LLC		9. API Well No. 30-015-43074-00-X1	
3a. Address ONE CONCHO CENTER 600 W ILLINOIS AVENUE MIDLAND, TX 79701		10. Field and Pool, or Exploratory FREN	
3b. Phone No. (include area code) Ph: 432-685-4385		11. County or Parish, and State EDDY COUNTY, NM	
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 12 T17S R31E SESE 1180FSL 470FEL			

12. CHECK 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	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original A
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	PD

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.)

Per phone conversation with Chris Walls & Jennifer Sanchez. COG Operating LLC requests permission to open hole sidetrack around fish left in hole (diagram attached). Fish is at TD of 8906' MD. Current directional plan (attached) is to sidetrack at 8538' MD, go around fish and resume prior plan.

Verbal given on 6/4/15 - JAM

Accepted for record

RHOCD

6/17/15

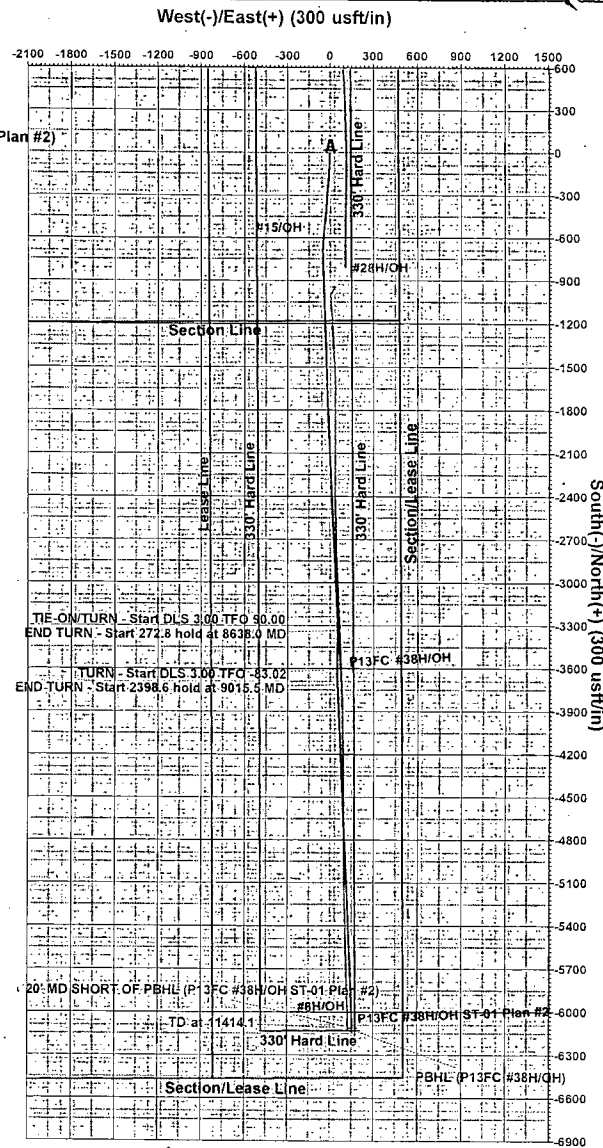
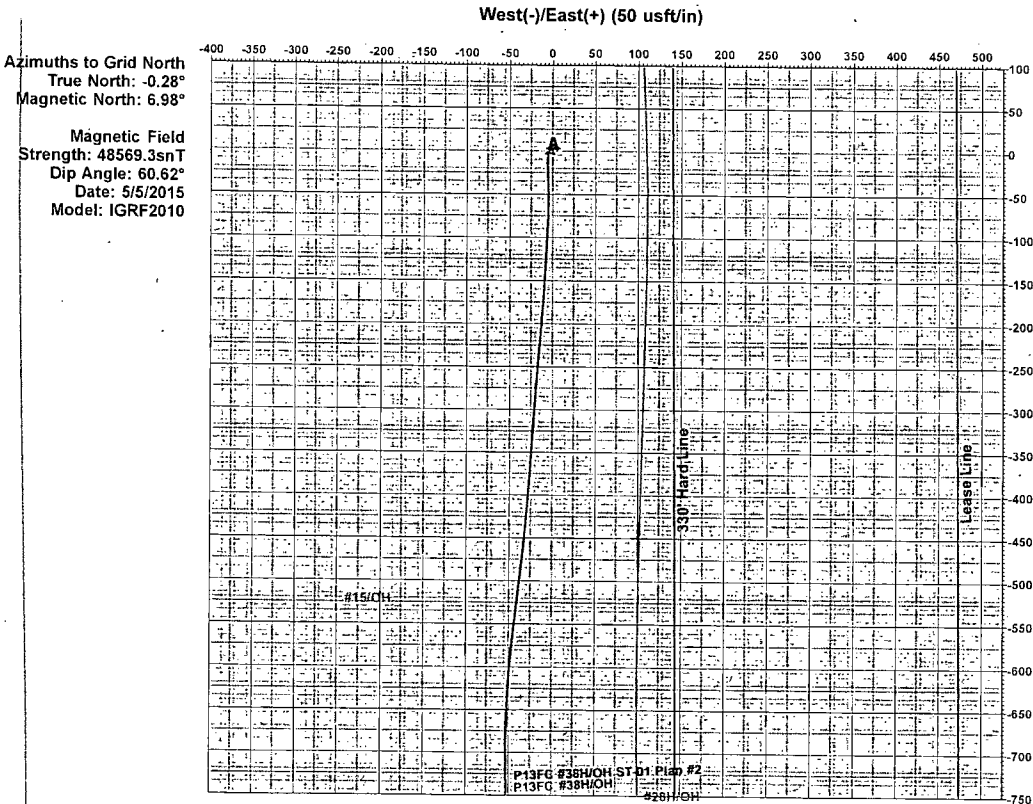
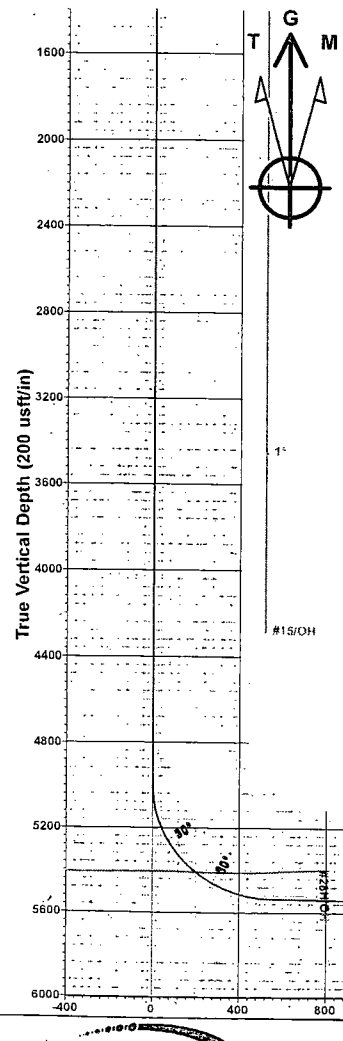
14. I hereby certify that the foregoing is true and correct. Electronic Submission #304114 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Carlsbad Committed to AFMSS for processing by JENNIFER SANCHEZ on 06/08/2015 (15JAS0370SE)	
Name (Printed/Typed) ROBYN ODOM	Title REGULATORY ANALYST
Signature (Electronic Submission)	Date 06/05/2015
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 _____
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.	

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****



Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	Vsect	Target
1	8538.0	89.60	177.60	5546.3	-3235.5	48.4	0.00	0.00	3235.7	
2	8638.0	89.60	180.60	5547.0	-3335.5	50.0	3.00	90.00	3335.7	
3	8910.8	89.60	180.60	5548.9	-3608.3	47.1	0.00	0.00	3608.3	
4	9015.5	89.98	177.48	5549.3	-3713.0	48.9	3.00	-83.02	3713.0	
5	11414.1	89.98	177.48	5550.0	-6109.2	154.2	0.00	0.00	6111.2	20' MD SHORT OF PBHL (P13FC #38H/OH ST-01 Plan #2)

COG Operating LLC
Project: Eddy County, NM
Site: Puckett 13 Federal Com #38H
Well: SHL: 1180' FSL, 470' FEL, Sec 12, T17S, R31E, Unit P
Wellbore: BHL: 350' FSL, 350' FEL, Sec 13, T17S, R31E, Unit P
Plan: ST-01 Plan #2 (SHL: 1180' FSL, 470' FEL, Sec 12, T17S, R31E, Unit P/BHL: 350' FSL, 350' FEL, Sec 13, T17S, R31E, Unit P)



Vertical Section at 178.55° (200 usft/in)

Terra Directional Services LLC
322 Spring Hill Drive, Suite A300, Spring, Tx 77386
Phone: 432-425-7532

WELL DETAILS: SHL: 1180' FSL, 470' FEL, Sec 12, T17S, R31E, Unit P

Ground Elevation: 3977.0
RKB Elevation: KB @ 3989.0usft (United 43)
Rig Name: United 43

Northing 671536.90 Easting 659026.90 Latitude 32° 50' 42.247 N Longitude 103° 48' 55.916 W

PROJECT DETAILS: Eddy County, NM
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





NM OIL CONSERVATION
ARTESIA DISTRICT

JUN 15 2015

RECEIVED

COG Operating LLC

Eddy County, NM

Puckett 13 Federal Com #38H

SHL: 1180' FSL, 470' FEL, Sec 12, T17S, R31E, Unit P

EOC: 6007.9' MD, 5620.0' TVD, 682.2' S, 65.2' W, 680.4' VS

BHL: 350' FSL, 350' FEL, Sec 13, T17S, R31E, Unit P

Plan: ST-01 Plan #2

Standard Planning Report

04 June, 2015





Database:	EDM-5000.1 Single User Db	Local Co-ordinate Reference:	Site Puckett 13 Federal Com #38H
Company:	COG Operating LLC	TVD Reference:	KB @ 3989.0usft (United 43)
Project:	Eddy County, NM	MD Reference:	KB @ 3989.0usft (United 43)
Site:	Puckett 13 Federal Com #38H	North Reference:	Grid
Well:	SHL 1180' FSL 470' FEL Sec 12, T17S, R31E, Unit P	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL 350' FSL 350' FEL Sec 13, T17S, R31E, Unit P		
Design:	ST-01 Plan #2		

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	Puckett 13 Federal Com #38H		
Site Position:	Map	Northing:	671,536.90 usft
From:		Easting:	659,026.90 usft
Position Uncertainty:	0.0 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 50' 42.247 N
		Longitude:	103° 48' 55.916 W
		Grid Convergence:	0.28 °

Well:	SHL 1180' FSL 470' FEL Sec 12, T17S, R31E, Unit P		
Well Position	+N/-S	0.0 usft	Northing:
	+E/-W	0.0 usft	Easting:
Position Uncertainty	0.0 usft	Wellhead Elevation:	0.0 usft
		Ground Level:	3,977.0 usft
		Latitude:	32° 50' 42.247 N
		Longitude:	103° 48' 55.916 W

Wellbore	BHL 350' FSL 350' FEL Sec 13, T17S, R31E, Unit P		
Magnetics	Model Name	Sample Date	Declination
	IGRF2010	5/5/2015	7.27
			Dip Angle
			60.62
			Field Strength
			48,569

Design	ST-01 Plan #2		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth:
			8,538.0
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W
	(usft)	(usft)	(usft)
	0.0	0.0	0.0
			Direction
			(°)
			178.55

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
8,538.0	89.60	177.60	5,546.3	-3,235.5	48.4	0.00	0.00	0.00	0.00	
8,638.0	89.60	180.60	5,547.0	-3,335.5	50.0	3.00	0.00	3.00	90.00	
8,910.8	89.60	180.60	5,548.9	-3,608.3	47.1	0.00	0.00	0.00	0.00	
9,015.5	89.98	177.48	5,549.3	-3,713.0	48.9	3.00	0.36	-2.98	-83.02	
11,414.1	89.98	177.48	5,550.0	-6,109.2	154.2	0.00	0.00	0.00	0.00	20' MD SHORT OF P



TDS
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Puckett 13 Federal Com #38H
Company:	COG Operating LLC	TVD Reference:	KB @ 3989.0usft (United 43)
Project:	Eddy County, NM	MD Reference:	KB @ 3989.0usft (United 43)
Site:	Puckett 13 Federal Com #38H	North Reference:	Grid
Well:	SHL: 1180' ESL, 470' FEL, Sec 12, T17S, R31E, Unit P	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 350' ESL, 350' FEL, Sec 13, T17S, R31E, Unit P		
Design:	ST-01 Plan #2		

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.11	318.50	100.0	0.1	-0.1	-0.1	0.11	0.11	0.00
200.0	0.25	23.69	200.0	0.3	0.0	-0.3	0.23	0.14	65.19
300.0	0.21	6.08	300.0	0.7	0.1	-0.7	0.08	-0.04	-17.61
400.0	0.22	279.16	400.0	0.9	-0.1	-0.9	0.30	0.01	-86.92
500.0	0.24	296.14	500.0	1.1	-0.5	-1.1	0.07	0.02	16.98
600.0	0.28	266.70	600.0	1.1	-0.9	-1.2	0.14	0.04	-29.44
700.0	0.32	273.94	700.0	1.1	-1.4	-1.2	0.06	0.04	7.24
800.0	0.37	265.58	800.0	1.1	-2.0	-1.2	0.07	0.05	-8.36
900.0	0.50	229.86	900.0	0.8	-2.7	-0.9	0.29	0.13	-35.72
1,000.0	0.64	256.67	1,000.0	0.4	-3.6	-0.5	0.30	0.14	26.81
1,100.0	0.45	240.06	1,100.0	0.1	-4.5	-0.2	0.25	-0.19	-16.61
1,200.0	0.62	228.12	1,200.0	-0.5	-5.2	0.3	0.20	0.17	-11.94
1,300.0	0.57	226.66	1,300.0	-1.2	-6.0	1.0	0.05	-0.05	-1.46
1,400.0	0.57	219.30	1,400.0	-1.9	-6.6	1.7	0.07	0.00	-7.36
1,500.0	0.70	236.16	1,500.0	-2.6	-7.5	2.4	0.23	0.13	16.86
1,600.0	0.27	232.50	1,600.0	-3.1	-8.2	2.9	0.43	-0.43	-3.66
1,700.0	0.31	59.47	1,700.0	-3.1	-8.1	2.9	0.58	0.04	-173.03
1,800.0	0.79	76.85	1,800.0	-2.8	-7.2	2.6	0.50	0.48	17.38
1,900.0	0.86	77.52	1,899.9	-2.5	-5.8	2.3	0.07	0.07	0.67
2,000.0	1.03	79.63	1,999.9	-2.2	-4.2	2.1	0.17	0.17	2.11
2,100.0	1.24	93.19	2,099.9	-2.1	-2.2	2.0	0.34	0.21	13.56
2,200.0	0.82	111.60	2,199.9	-2.4	-0.5	2.4	0.53	-0.42	18.41
2,300.0	0.23	120.60	2,299.9	-2.8	0.4	2.8	0.59	-0.59	9.00
2,400.0	0.43	129.88	2,399.9	-3.1	0.8	3.1	0.21	0.20	9.28
2,500.0	0.31	104.99	2,499.9	-3.4	1.4	3.4	0.20	-0.12	-24.89
2,600.0	0.15	298.81	2,599.9	-3.4	1.5	3.5	0.46	-0.16	-166.18
2,700.0	0.25	175.36	2,699.9	-3.6	1.4	3.6	0.36	0.10	-123.45
2,800.0	0.24	340.90	2,799.9	-3.6	1.4	3.6	0.49	-0.01	165.54
2,900.0	0.20	50.95	2,899.9	-3.3	1.4	3.3	0.25	-0.04	70.05
3,000.0	0.19	3.88	2,999.9	-3.0	1.6	3.0	0.16	-0.01	-47.07
3,100.0	0.24	193.89	3,099.9	-3.0	1.6	3.1	0.43	0.05	-169.99
3,200.0	0.14	347.12	3,199.9	-3.1	1.5	3.2	0.37	-0.10	153.23
3,300.0	0.21	300.32	3,299.9	-2.9	1.3	2.9	0.15	0.07	-46.80
3,400.0	0.13	324.39	3,399.9	-2.7	1.1	2.8	0.11	-0.08	24.07
3,500.0	0.06	298.60	3,499.9	-2.6	1.0	2.6	0.08	-0.07	-25.79
3,600.0	0.39	280.55	3,599.9	-2.5	0.6	2.5	0.33	0.33	-18.05
3,700.0	0.38	290.20	3,699.9	-2.3	-0.1	2.3	0.07	-0.01	9.65
3,800.0	0.42	239.88	3,799.9	-2.4	-0.7	2.4	0.34	0.04	-50.32
3,900.0	0.53	262.53	3,899.9	-2.7	-1.5	2.6	0.22	0.11	22.65
4,000.0	0.33	274.40	3,999.9	-2.7	-2.2	2.6	0.22	-0.20	11.87
4,100.0	0.40	310.39	4,099.9	-2.5	-2.8	2.4	0.24	0.07	35.99
4,200.0	0.23	277.01	4,199.9	-2.2	-3.2	2.1	0.24	-0.17	-33.38
4,300.0	0.38	237.25	4,299.9	-2.4	-3.7	2.3	0.25	0.15	-39.76
4,400.0	0.43	279.61	4,399.9	-2.5	-4.4	2.4	0.30	0.05	42.36
4,500.0	0.44	263.32	4,499.9	-2.5	-5.1	2.3	0.12	0.01	-16.29
4,600.0	0.07	13.69	4,599.9	-2.4	-5.5	2.3	0.47	-0.37	110.37
4,700.0	0.10	209.88	4,699.9	-2.5	-5.5	2.3	0.17	0.03	-163.81
4,800.0	0.14	337.40	4,799.9	-2.4	-5.6	2.3	0.22	0.04	127.52
4,833.0	0.27	2.57	4,832.9	-2.3	-5.6	2.2	0.47	0.39	76.27
4,916.0	0.10	296.50	4,915.9	-2.1	-5.7	1.9	0.30	-0.20	-79.60
4,948.0	0.10	293.40	4,947.9	-2.1	-5.7	1.9	0.02	0.00	-9.69



TDS
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Puckett 13 Federal Com #38H
Company:	COG Operating LLC	TVD Reference:	KB @ 3989.0usft (United 43)
Project:	Eddy County, NM	MD Reference:	KB @ 3989.0usft (United 43)
Site:	Puckett 13 Federal Com #38H	North Reference:	Grid
Well:	SHL: 1180' FSL, 470' FEL, Sec 12, T17S, R31E, Unit P	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 350' FSL, 350' FEL, Sec 13, T17S, R31E, Unit P		
Design:	ST-01 Plan #2		

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)
4,979.0	0.20	176.30	4,978.9	-2.1	-5.7	2.0	0.84	0.32	-377.74
5,011.0	2.10	179.30	5,010.8	-2.7	-5.7	2.6	5.94	5.94	9.38
5,042.0	4.50	186.40	5,041.8	-4.5	-5.9	4.4	7.84	7.74	22.90
5,074.0	7.50	183.00	5,073.6	-7.8	-6.1	7.7	9.44	9.38	-10.63
5,105.0	11.00	178.20	5,104.2	-12.8	-6.1	12.7	11.55	11.29	-15.48
5,137.0	14.90	178.10	5,135.4	-20.0	-5.9	19.8	12.19	12.19	-0.31
5,168.0	19.00	178.10	5,165.0	-29.0	-5.6	28.9	13.23	13.23	0.00
5,200.0	22.70	178.60	5,194.9	-40.4	-5.3	40.3	11.58	11.56	1.56
5,232.0	26.00	179.40	5,224.1	-53.6	-5.0	53.5	10.36	10.31	2.50
5,263.0	29.30	181.30	5,251.5	-68.0	-5.1	67.8	11.02	10.65	6.13
5,295.0	32.50	182.80	5,279.0	-84.4	-5.7	84.2	10.28	10.00	4.69
5,327.0	35.60	182.70	5,305.5	-102.3	-6.6	102.1	9.69	9.69	-0.31
5,358.0	39.10	183.10	5,330.1	-121.1	-7.6	120.8	11.32	11.29	1.29
5,390.0	43.10	183.80	5,354.3	-142.1	-8.8	141.8	12.58	12.50	2.19
5,421.0	46.60	183.60	5,376.2	-163.9	-10.2	163.6	11.30	11.29	-0.65
5,453.0	49.70	184.40	5,397.6	-187.7	-11.9	187.3	9.86	9.69	2.50
5,484.0	52.70	185.10	5,417.0	-211.7	-13.9	211.3	9.84	9.68	2.26
5,516.0	55.60	185.10	5,435.7	-237.6	-16.2	237.1	9.06	9.06	0.00
5,547.0	58.70	184.50	5,452.6	-263.5	-18.4	263.0	10.13	10.00	-1.94
5,578.0	62.20	184.30	5,467.8	-290.4	-20.5	289.8	11.30	11.29	-0.65
5,610.0	65.50	183.80	5,481.9	-319.0	-22.5	318.4	10.41	10.31	-1.56
5,641.0	68.40	184.00	5,494.1	-347.5	-24.4	346.8	9.37	9.35	0.65
5,673.0	71.20	184.20	5,505.1	-377.4	-26.6	376.7	8.77	8.75	0.63
5,704.0	74.50	184.40	5,514.3	-407.0	-28.8	406.1	10.66	10.65	0.65
5,736.0	78.00	185.30	5,521.9	-437.9	-31.4	437.0	11.27	10.94	2.81
5,767.0	80.60	186.20	5,527.6	-468.3	-34.5	467.2	8.86	8.39	2.90
5,798.0	84.00	186.50	5,531.8	-498.8	-37.9	497.7	11.01	10.97	0.97
5,829.0	87.60	187.10	5,534.0	-529.5	-41.5	528.3	11.77	11.61	1.94
5,861.0	89.00	186.60	5,535.0	-561.2	-45.3	559.9	4.65	4.38	-1.56
5,892.0	89.60	184.70	5,535.4	-592.1	-48.4	590.7	6.43	1.94	-6.13
5,987.0	88.70	181.10	5,536.8	-686.9	-53.2	685.4	3.91	-0.95	-3.79
6,082.0	89.00	177.80	5,538.7	-781.9	-52.3	780.3	3.49	0.32	-3.47
6,176.0	88.60	177.70	5,540.7	-875.8	-48.6	874.3	0.44	-0.43	-0.11
6,271.0	88.40	177.70	5,543.1	-970.7	-44.8	969.3	0.21	-0.21	0.00
6,365.0	87.90	177.90	5,546.2	-1,064.6	-41.2	1,063.2	0.57	-0.53	0.21
6,459.0	89.40	178.30	5,548.4	-1,158.5	-38.1	1,157.2	1.65	1.60	0.43
6,553.0	89.40	178.40	5,549.4	-1,252.4	-35.4	1,251.2	0.11	0.00	0.11
6,648.0	89.20	177.90	5,550.5	-1,347.4	-32.3	1,346.1	0.57	-0.21	-0.53
6,743.0	89.50	177.70	5,551.6	-1,442.3	-28.7	1,441.1	0.38	0.32	-0.21
6,836.0	89.50	178.20	5,552.4	-1,535.2	-25.3	1,534.1	0.54	0.00	0.54
6,932.0	88.60	178.50	5,554.0	-1,631.2	-22.6	1,630.1	0.99	-0.94	0.31
7,027.0	90.20	177.70	5,555.0	-1,726.1	-19.4	1,725.1	1.88	1.68	-0.84
7,121.0	89.90	177.50	5,554.9	-1,820.1	-15.5	1,819.1	0.38	-0.32	-0.21
7,215.0	89.70	177.40	5,555.3	-1,914.0	-11.3	1,913.1	0.24	-0.21	-0.11
7,310.0	91.20	177.60	5,554.5	-2,008.9	-7.2	2,008.0	1.59	1.58	0.21
7,404.0	91.00	177.60	5,552.7	-2,102.8	-3.2	2,102.0	0.21	-0.21	0.00
7,499.0	90.70	177.60	5,551.3	-2,197.7	0.8	2,197.0	0.32	-0.32	0.00
7,593.0	90.50	177.50	5,550.3	-2,291.6	4.8	2,291.0	0.24	-0.21	-0.11
7,688.0	90.50	177.10	5,549.5	-2,386.5	9.3	2,385.9	0.42	0.00	-0.42
7,782.0	90.50	177.10	5,548.7	-2,480.3	14.0	2,479.9	0.00	0.00	0.00
7,876.0	89.90	176.80	5,548.3	-2,574.2	19.0	2,573.9	0.71	-0.64	-0.32
7,971.0	89.50	177.20	5,548.8	-2,669.1	24.0	2,668.8	0.60	-0.42	0.42



TDS
Planning Report



Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Puckett 13 Federal Com #38H
Company:	COG Operating LLC	TVD Reference:	KB @ 3989.0usft (United 43)
Project:	Eddy County, NM	MD Reference:	KB @ 3989.0usft (United 43)
Site:	Puckett 13 Federal Com #38H	North Reference:	Grid
Well:	SHL: 1180' FSL: 470' FEL: Sec 12, T17S, R31E, Unit P	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 350' FSL: 350' FEL: Sec 13, T17S, R31E, Unit P		
Design:	ST-01 Plan #2		

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)	
8,065.0	90.70	177.60	5,548.7	-2,763.0	28.2	2,762.8	1.35	1.28	0.43	
8,159.0	90.60	177.40	5,547.6	-2,856.9	32.3	2,856.8	0.24	-0.11	-0.21	
8,254.0	90.50	177.50	5,546.7	-2,951.8	36.6	2,951.8	0.15	-0.11	0.11	
8,349.0	90.20	177.80	5,546.1	-3,046.7	40.5	3,046.8	0.45	-0.32	0.32	
8,443.0	90.00	177.50	5,546.0	-3,140.6	44.3	3,140.7	0.38	-0.21	-0.32	
8,538.0	89.60	177.60	5,546.3	-3,235.5	48.4	3,235.7	0.43	-0.42	0.11	
TIE-ON/TURN - Start DLS 3.00 TFO 90.00										
8,600.0	89.60	179.46	5,546.7	-3,297.5	50.0	3,297.7	3.00	0.00	3.00	
8,638.0	89.60	180.60	5,547.0	-3,335.5	50.0	3,335.7	3.00	0.00	3.00	
END TURN - Start 272.8 hold at 8638.0 MD										
8,700.0	89.60	180.60	5,547.4	-3,397.5	49.3	3,397.7	0.00	0.00	0.00	
8,800.0	89.60	180.60	5,548.1	-3,497.5	48.3	3,497.6	0.00	0.00	0.00	
8,900.0	89.60	180.60	5,548.8	-3,597.5	47.2	3,597.5	0.00	0.00	0.00	
8,910.8	89.60	180.60	5,548.9	-3,608.3	47.1	3,608.3	0.00	0.00	0.00	
TURN - Start DLS 3.00 TFO -83.02										
9,000.0	89.93	177.94	5,549.3	-3,697.5	48.2	3,697.5	3.00	0.36	-2.98	
9,015.5	89.98	177.48	5,549.3	-3,713.0	48.9	3,713.0	3.00	0.37	-2.98	
END TURN - Start 2398.6 hold at 9015.5 MD										
9,100.0	89.98	177.48	5,549.3	-3,797.4	52.6	3,797.5	0.00	0.00	0.00	
9,200.0	89.98	177.48	5,549.3	-3,897.3	57.0	3,897.5	0.00	0.00	0.00	
9,300.0	89.98	177.48	5,549.4	-3,997.2	61.3	3,997.5	0.00	0.00	0.00	
9,400.0	89.98	177.48	5,549.4	-4,097.1	65.7	4,097.4	0.00	0.00	0.00	
9,500.0	89.98	177.48	5,549.4	-4,197.0	70.1	4,197.4	0.00	0.00	0.00	
9,600.0	89.98	177.48	5,549.4	-4,296.9	74.5	4,297.4	0.00	0.00	0.00	
9,700.0	89.98	177.48	5,549.5	-4,396.8	78.9	4,397.4	0.00	0.00	0.00	
9,800.0	89.98	177.48	5,549.5	-4,496.7	83.3	4,497.4	0.00	0.00	0.00	
9,900.0	89.98	177.48	5,549.5	-4,596.6	87.7	4,597.4	0.00	0.00	0.00	
10,000.0	89.98	177.48	5,549.6	-4,696.5	92.1	4,697.3	0.00	0.00	0.00	
10,100.0	89.98	177.48	5,549.6	-4,796.4	96.5	4,797.3	0.00	0.00	0.00	
10,200.0	89.98	177.48	5,549.6	-4,896.3	100.9	4,897.3	0.00	0.00	0.00	
10,300.0	89.98	177.48	5,549.7	-4,996.2	105.3	4,997.3	0.00	0.00	0.00	
10,400.0	89.98	177.48	5,549.7	-5,096.1	109.7	5,097.3	0.00	0.00	0.00	
10,500.0	89.98	177.48	5,549.7	-5,196.0	114.1	5,197.3	0.00	0.00	0.00	
10,600.0	89.98	177.48	5,549.7	-5,295.9	118.5	5,297.2	0.00	0.00	0.00	
10,700.0	89.98	177.48	5,549.8	-5,395.8	122.9	5,397.2	0.00	0.00	0.00	
10,800.0	89.98	177.48	5,549.8	-5,495.7	127.2	5,497.2	0.00	0.00	0.00	
10,900.0	89.98	177.48	5,549.8	-5,595.6	131.6	5,597.2	0.00	0.00	0.00	
11,000.0	89.98	177.48	5,549.9	-5,695.5	136.0	5,697.2	0.00	0.00	0.00	
11,100.0	89.98	177.48	5,549.9	-5,795.4	140.4	5,797.1	0.00	0.00	0.00	
11,200.0	89.98	177.48	5,549.9	-5,895.4	144.8	5,897.1	0.00	0.00	0.00	
11,300.0	89.98	177.48	5,550.0	-5,995.3	149.2	5,997.1	0.00	0.00	0.00	
11,400.0	89.98	177.48	5,550.0	-6,095.2	153.6	6,097.1	0.00	0.00	0.00	
11,414.1	89.98	177.48	5,550.0	-6,109.2	154.2	6,111.2	0.00	0.00	0.00	
TD at 11414.1										

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Site Puckett 13 Federal Com #38H
Company:	COG Operating LLC	TVD Reference:	KB @ 3989.0usft (United 43)
Project:	Eddy County, NM	MD Reference:	KB @ 3989.0usft (United 43)
Site:	Puckett 13 Federal Com #38H	North Reference:	Grid
Well:	SHL: 1180' FSL, 470' FEL, Sec 12, T17S, R31E, Unit P	Survey Calculation Method:	Minimum Curvature
Wellbore:	BHL: 350' FSL, 350' FEL, Sec 13, T17S, R31E, Unit P		
Design:	ST-01 Plan #2		

Design Targets									
Target Name	Dip Angle	Dip Dir	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- hit/miss target	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
- Shape									
20' MD SHORT OF PBH - plan hits target center - Point	0.00	0.00	5,550.0	-6,109.2	154.2	665,427.66	659,181.13	32° 49' 41.788 N	103° 48' 54.460 W
PBHL (P13FC #38H/OH - plan misses target center by 28.9usft at 11414.1usft MD (5550.0 TVD, -6109.2 N, 154.2 E) - Point	0.00	0.00	5,550.0	-6,129.2	175.1	665,407.70	659,202.00	32° 49' 41.590 N	103° 48' 54.216 W

Plan Annotations				
Measured Depth	Vertical Depth	Local Coordinates		Comment
(usft)	(usft)	+N/-S (usft)	+E/-W (usft)	
8,538.0	5,546.3	-3,235.5	48.4	TIE-ON/TURN - Start DLS 3.00 TFO 90.00
8,638.0	5,547.0	-3,335.5	50.0	END TURN - Start 272.8 hold at 8638.0 MD
8,910.8	5,548.9	-3,608.3	47.1	TURN - Start DLS 3.00 TFO -83.02
9,015.5	5,549.3	-3,713.0	48.9	END TURN - Start 2398.6 hold at 9015.5 MD
11,414.1	5,550.0	-6,109.2	154.2	TD at 11414.1



Well Information

BHA #

3

JOB NO.:	NM-536	FIELD:	Fren; Glorietta-Yeso, East
Company:	COG Operating, LLC	Township:	T17S, R31E, Sec. 12
LOCATION:	32.84506853°N, 109.9155888°W	SECT/RANGE:	
RIG NAME:	United 43		
STATE:	NM		
COUNTY:	Eddy	BHA TYPE	Steerable Assembly
WELL NAME:	Puckett 13 Federal Com 38H		

Motor R/G: 0.24

