

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTFORM APPROVED
OMB NO. 1004-0135
Expires: July 31, 2010**SUNDRY NOTICES AND REPORTS**
Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.
Carlsbad Field Office
OCD Artesia5. Lease Serial No.
LC029342C

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

8. Well Name and No.
JENKINS B FEDERAL COM 24H9. API Well No.
30-015-43643-00-X110. Field and Pool, or Exploratory
LOCO HILLS11. County or Parish, and State
EDDY COUNTY, NM**SUBMIT IN TRIPLICATE - Other instructions on reverse side.**

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
COG OPERATING LLCContact: ROBYN RUSSELL
E-Mail: russell@concho.com3a. Address/
600 W. ILLINOIS AVENUE
MIDLAND, TX 797013b. Phone No. (include area code)
Ph: 432-685-4385

4. Location of Well (Footage, Sec., T., R., M., or Survey Description)

Sec 19 T17S R30E SENE 2391FNL 45FEL

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 PD
	☐ 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 recomplete 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 recompletion 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 Operating LLC respectfully requests to change the TVD of this well
From: 5147'TVD, 10003'MD, EOC:5225'TVD
To: 4872'TVD, 9735'MD, EOC: 4950'TVD

Attached is a revised directional plan.

Accepted for record - NMOCD**NM OIL CONSERVATION**
ARTESIA DISTRICT
JUN 20 2016**SEE ATTACHED FOR
CONDITIONS OF APPROVAL****RECEIVED**

14. I hereby certify that the foregoing is true and correct. Electronic Submission #341141 verified by the BLM Well Information System For COG OPERATING LLC, sent to the Carlsbad Committed to AFMSS for processing by PRISCILLA PEREZ on 06/13/2016 (16PP1480SE)	
Name (Printed/Typed) ROBYN RUSSELL	Title REGULATORY ANALYST
Signature (Electronic Submission)	Date 06/06/2016

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By <u>(BLM Approver Not Specified) Mustafa Haque</u>	Title PETROLEUM ENGINEER	Date 06/16/2016
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 Carlsbad		

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 ****FS
6/20/16

**PECOS DISTRICT
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	COG Operating
LEASE NO.:	LC029342C
WELL NAME & NO.:	24H-Jenkins B Federal Com
SURFACE HOLE FOOTAGE:	2391'N & 45'E
BOTTOM HOLE FOOTAGE	2311'N & 330'E
LOCATION:	Section 19, T. 17 S., R. 30 E., NMPM
COUNTY:	Eddy County, New Mexico

All previous COAs still apply.

MHH 06162016



COG Operating LLC

Eddy County, NM (NAD-27 2015)

Jenkins B Fed Com #24H

SHL: 2391' FNL, 45' FEL, Sec 19, T17S, R30E, Unit H

PP: 2311' FNL, 372' FEL, Sec 20, T17S, R30E, Unit E

BHL: 2311' FNL, 330' FEL, Sec 20, T17S, R30E, Unit H

Plan: Design #2

Standard Planning Report

05 February, 2016





Database: EDM 5000.1 Single User Db

Company: COG Operating LLC

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

Site: Jenkins B Fed Com #24H

Well: SHL: 2391' FNL, 45' FEL, Sec 19, T17S, R30E, Unit H

Wellbore: BHL: 2311' FNL, 330' FEL, Sec 20, T17S, R30E, Unit H

Design: Design #2

Local Co-ordinate Reference:

Well SHL: 2391' FNL, 45' FEL, Sec 19, T17S, R30E, Unit H

TVD Reference:

KB @ 3648.00usft (Silver Oak 3)

MD Reference:

KB @ 3648.00usft (Silver Oak 3)

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	Jenkins B Fed Com #24H		
Site Position:	Northing:	662,406.20 usft	Latitude: 32° 49' 14.177 N
From: Map	Easting:	601,668.80 usft	Longitude: 104° 0' 8.580 W
Position Uncertainty:	0.00 usft	Slot Radius: 13.20 in	Grid Convergence: 0.18 °

Well	SHL: 2391' FNL, 45' FEL, Sec 19, T17S, R30E, Unit H		
Well Position	+N/-S	0.00 usft	Northing: 662,406.20 usft
	+E/-W	0.00 usft	Easting: 601,668.80 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
			Ground Level: 3,630.00 usft

Wellbore	BHL: 2311' FNL, 330' FEL, Sec 20, T17S, R30E, Unit H		
Magnetics	Model Name	Sample Date	Declination, (°)
	IGRF2015	1/27/2016	7.35
			Dip Angle (°)
			60.56
			Field Strength (nT)
			48,388

Design	Design #2		
Audit Notes:			
Version:	Phase:	PLAN	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°)
			88.91

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	
4,429.21	0.00	0.00	4,429.21	0.00	0.00	0.00	0.00	0.00	0.00	
5,256.48	91.00	78.94	4,950.00	101.67	520.12	11.00	11.00	0.00	78.94	
5,644.81	91.00	90.59	4,943.21	137.03	906.10	3.00	0.00	3.00	89.91	
9,734.75	91.00	90.59	4,872.04	94.80	4,995.20	0.00	0.00	0.00	0.00	PBHL (JBFC #24H/L1)



Database: EDM 5000.1 Single User Db

Local Co-ordinate Reference:

Well SHL: 2391' FNL, 45' FEL, Sec 19, T17S,
R30E, Unit H

Company: COG Operating LLC

TVD Reference:

KB @ 3648.00usft (Silver Oak 3)

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

MD Reference:

KB @ 3648.00usft (Silver Oak 3)

Site: Jenkins B Fed Com #24H

North Reference:

Grid

Well: SHL: 2391' FNL, 45' FEL, Sec 19, T17S,
R30E, Unit H

Survey Calculation Method:

Minimum Curvature

Wellbore: SHL: 2311' FNL, 330' FEL, Sec 20, T17S,
R30E, Unit H

Design: Design #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)
0.00	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
4,429.21	0.00	0.00	4,429.21	0.00	0.00	0.00	0.00	0.00	0.00
KOP - Start Build 11.00									
4,450.00	2.29	78.94	4,449.99	0.08	0.41	0.41	11.00	11.00	0.00
4,500.00	7.79	78.94	4,499.78	0.92	4.71	4.73	11.00	11.00	0.00
4,550.00	13.29	78.94	4,548.92	2.67	13.68	13.73	11.00	11.00	0.00
4,600.00	18.79	78.94	4,596.96	5.32	27.24	27.33	11.00	11.00	0.00



Database: EDM 5000.1 Single User Db

Local Co-ordinate Reference:

Well SHL: 2391' FNL, 45' FEL, Sec 19, T17S,
R30E, Unit H

Company: COG Operating LLC

TVD Reference:

KB @ 3648.00usft (Silver Oak 3)

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

MD Reference:

KB @ 3648.00usft (Silver Oak 3)

Site: Jenkins B Fed Com #24H

North Reference:

Grid

Well: SHL: 2391' FNL, 45' FEL, Sec 19, T17S,
R30E, Unit H

Survey Calculation Method:

Minimum Curvature

Wellbore: BHL: 2311' FNL, 330' FEL, Sec 20, T17S,
R30E, Unit H

Design: Design #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)
4,650.00	24.29	78.94	4,643.45	8.84	45.24	45.40	11.00	11.00	0.00
4,700.00	29.79	78.94	4,687.97	13.20	67.54	67.78	11.00	11.00	0.00
4,750.00	35.29	78.94	4,730.10	18.36	93.92	94.25	11.00	11.00	0.00
4,800.00	40.79	78.94	4,769.47	24.27	124.15	124.59	11.00	11.00	0.00
4,850.00	46.29	78.94	4,805.70	30.87	157.94	158.49	11.00	11.00	0.00
4,900.00	51.79	78.94	4,838.47	38.11	194.98	195.66	11.00	11.00	0.00
4,950.00	57.29	78.94	4,867.46	45.92	234.93	235.76	11.00	11.00	0.00
5,000.00	62.79	78.94	4,892.43	54.23	277.43	278.40	11.00	11.00	0.00
5,050.00	68.29	78.94	4,913.12	62.96	322.07	323.21	11.00	11.00	0.00
5,100.00	73.79	78.94	4,929.37	72.02	368.47	369.77	11.00	11.00	0.00
5,150.00	79.29	78.94	4,941.00	81.35	416.17	417.64	11.00	11.00	0.00
5,200.00	84.79	78.94	4,947.93	90.84	464.75	466.39	11.00	11.00	0.00
5,250.00	90.29	78.94	4,950.07	100.42	513.76	515.57	11.00	11.00	0.00
5,256.48	91.00	78.94	4,950.00	101.67	520.12	521.95	11.00	11.00	0.00
EOC/TURN - Start DLS 3.00 TFO 89.91									
5,300.00	91.00	80.25	4,949.24	109.53	562.91	564.89	3.00	0.00	3.00
5,400.00	91.00	83.25	4,947.49	123.88	661.85	664.08	3.00	0.00	3.00
5,500.00	91.00	86.25	4,945.74	133.03	761.40	763.79	3.00	0.00	3.00
5,600.00	91.00	89.25	4,943.99	136.96	861.30	863.74	3.00	0.00	3.00
5,644.81	91.00	90.59	4,943.21	137.03	906.10	908.54	3.00	-0.01	3.00
END OF TURN - Start 4089.93 hold at 5644.81 MD									
5,700.00	91.00	90.59	4,942.25	136.46	961.28	963.70	0.00	0.00	0.00
5,800.00	91.00	90.59	4,940.51	135.42	1,061.26	1,063.64	0.00	0.00	0.00
5,900.00	91.00	90.59	4,938.77	134.39	1,161.24	1,163.58	0.00	0.00	0.00
6,000.00	91.00	90.59	4,937.03	133.36	1,261.22	1,263.52	0.00	0.00	0.00
6,100.00	91.00	90.59	4,935.29	132.33	1,361.20	1,363.46	0.00	0.00	0.00
6,200.00	91.00	90.59	4,933.55	131.29	1,461.18	1,463.41	0.00	0.00	0.00
6,300.00	91.00	90.59	4,931.81	130.26	1,561.16	1,563.35	0.00	0.00	0.00
6,400.00	91.00	90.59	4,930.07	129.23	1,661.14	1,663.29	0.00	0.00	0.00
6,500.00	91.00	90.59	4,928.33	128.20	1,761.12	1,763.23	0.00	0.00	0.00
6,600.00	91.00	90.59	4,926.59	127.16	1,861.10	1,863.17	0.00	0.00	0.00
6,700.00	91.00	90.59	4,924.85	126.13	1,961.08	1,963.12	0.00	0.00	0.00
6,800.00	91.00	90.59	4,923.11	125.10	2,061.05	2,063.06	0.00	0.00	0.00
6,900.00	91.00	90.59	4,921.37	124.07	2,161.03	2,163.00	0.00	0.00	0.00
7,000.00	91.00	90.59	4,919.63	123.03	2,261.01	2,262.94	0.00	0.00	0.00
7,100.00	91.00	90.59	4,917.89	122.00	2,360.99	2,362.88	0.00	0.00	0.00
7,200.00	91.00	90.59	4,916.15	120.97	2,460.97	2,462.83	0.00	0.00	0.00
7,300.00	91.00	90.59	4,914.41	119.94	2,560.95	2,562.77	0.00	0.00	0.00
7,400.00	91.00	90.59	4,912.67	118.90	2,660.93	2,662.71	0.00	0.00	0.00
7,500.00	91.00	90.59	4,910.93	117.87	2,760.91	2,762.65	0.00	0.00	0.00
7,600.00	91.00	90.59	4,909.19	116.84	2,860.89	2,862.59	0.00	0.00	0.00
7,700.00	91.00	90.59	4,907.45	115.81	2,960.87	2,962.53	0.00	0.00	0.00
7,800.00	91.00	90.59	4,905.71	114.77	3,060.85	3,062.48	0.00	0.00	0.00
7,900.00	91.00	90.59	4,903.97	113.74	3,160.83	3,162.42	0.00	0.00	0.00
8,000.00	91.00	90.59	4,902.23	112.71	3,260.81	3,262.36	0.00	0.00	0.00
8,100.00	91.00	90.59	4,900.49	111.68	3,360.79	3,362.30	0.00	0.00	0.00
8,200.00	91.00	90.59	4,898.75	110.65	3,460.77	3,462.24	0.00	0.00	0.00
8,300.00	91.00	90.59	4,897.01	109.61	3,560.75	3,562.19	0.00	0.00	0.00
8,400.00	91.00	90.59	4,895.27	108.58	3,660.73	3,662.13	0.00	0.00	0.00
8,500.00	91.00	90.59	4,893.53	107.55	3,760.71	3,762.07	0.00	0.00	0.00
8,600.00	91.00	90.59	4,891.79	106.52	3,860.69	3,862.01	0.00	0.00	0.00



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R30E, Unit H

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Minimum Curvature

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R30E, Unit H

Design: Design #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)
8,700.00	91.00	90.59	4,890.05	105.48	3,960.67	3,961.95	0.00	0.00	0.00
8,800.00	91.00	90.59	4,888.31	104.45	4,060.65	4,061.90	0.00	0.00	0.00
8,900.00	91.00	90.59	4,886.57	103.42	4,160.62	4,161.84	0.00	0.00	0.00
9,000.00	91.00	90.59	4,884.83	102.39	4,260.60	4,261.78	0.00	0.00	0.00
9,100.00	91.00	90.59	4,883.09	101.35	4,360.58	4,361.72	0.00	0.00	0.00
9,200.00	91.00	90.59	4,881.35	100.32	4,460.56	4,461.66	0.00	0.00	0.00
9,300.00	91.00	90.59	4,879.61	99.29	4,560.54	4,561.61	0.00	0.00	0.00
9,400.00	91.00	90.59	4,877.87	98.26	4,660.52	4,661.55	0.00	0.00	0.00
9,500.00	91.00	90.59	4,876.13	97.22	4,760.50	4,761.49	0.00	0.00	0.00
9,600.00	91.00	90.59	4,874.38	96.19	4,860.48	4,861.43	0.00	0.00	0.00
9,700.00	91.00	90.59	4,872.64	95.16	4,960.46	4,961.37	0.00	0.00	0.00
9,734.75	91.00	90.59	4,872.04	94.80	4,995.20	4,996.10	0.00	0.00	0.00

TD at 9734.75

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
KOP (JBFC #24H/L1 De - plan hits target center - Point	0.00	0.00	4,429.21	0.00	0.00	662,406.20	601,668.80	32° 49' 14.177 N	104° 0' 8.580 W
PBHL (JBFC #24H/L1) - plan hits target center - Point	0.00	0.00	4,872.04	94.80	4,995.20	662,501.00	606,664.00	32° 49' 14.956 N	103° 59' 10.040 W
PP (JBFC #24H/L1 Desi - plan misses target center by 0.08usft at 5153.22usft MD (4941.59 TVD, 81.96 N, 419.28 E) - Point	0.00	0.00	4,941.54	81.90	419.30	662,488.11	602,088.10	32° 49' 14.974 N	104° 0' 3.663 W
END OF TURN (JBFC # - plan hits target center - Point	0.00	0.00	4,943.21	137.03	906.10	662,543.23	602,574.90	32° 49' 15.504 N	103° 59' 57.957 W
EOC (JBFC #24H/L1 De - plan hits target center - Point	0.00	0.00	4,950.00	101.67	520.12	662,507.87	602,188.92	32° 49' 15.167 N	104° 0' 2.481 W

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
4,429.21	4,429.21	0.00	0.00	KOP - Start Build 11.00
5,256.48	4,950.00	101.67	520.12	EOC/TURN - Start DLS 3.00 TFO 89.91
5,644.81	4,943.21	137.03	906.10	END OF TURN - Start 4089.93 hold at 5644.81 MD
9,734.75	4,872.04	94.80	4,995.20	TD at 9734.75



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

Site: Jenkins B Fed Com #24H

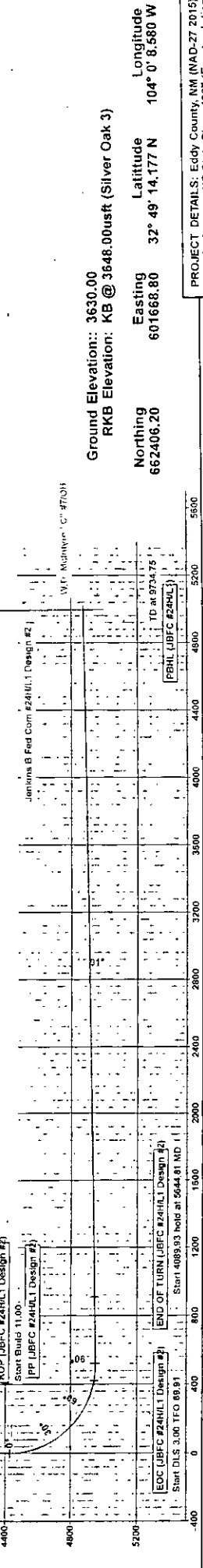
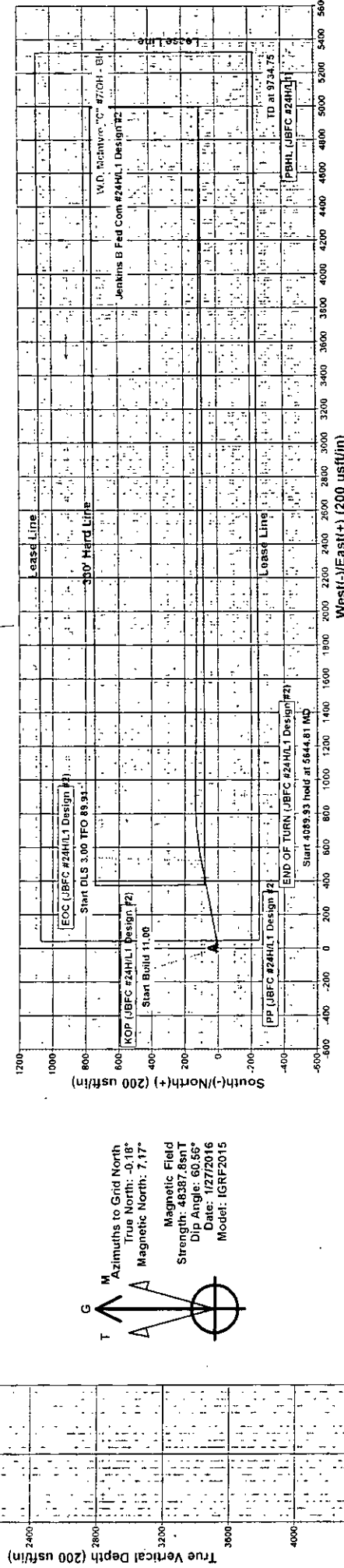
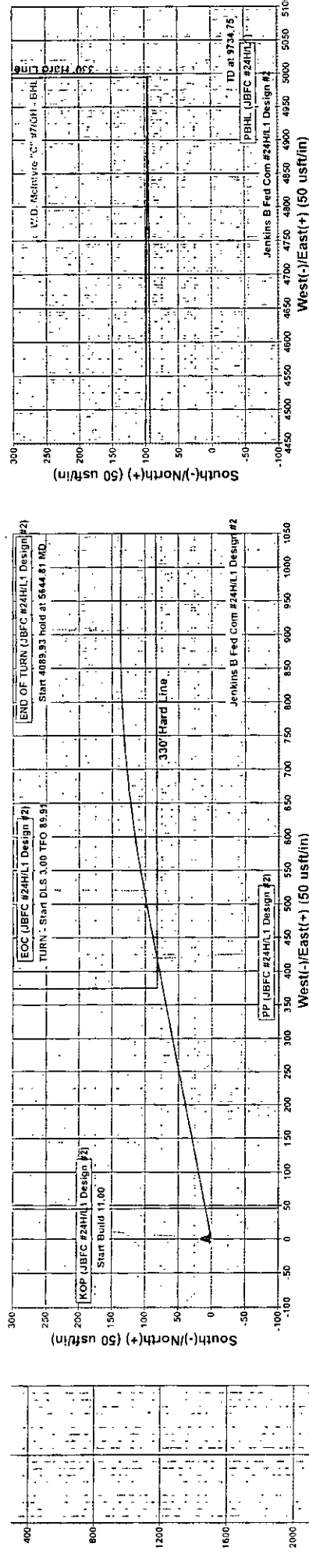
Well: SHL: 2391' FNL, 45' FEL, Sec 19, T17S, R30E, Unit H

Wellbore: BHL: 2311' FNL, 330' FEL, Sec 20, T17S, R30E, Unit H

Plan: Design #2 (SHL: 2391' FNL, 45' FEL, Sec 19, T17S, R30E, Unit H/BHL: 2311' FNL, 330' FEL, Sec 20, T17S, R30E, Unit H)

Section Details

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	4429.21	0.00	0.00	4429.21	0.00	0.00	0.00	0.00	0.00	
3	5256.48	91.00	78.94	4950.00	101.67	520.12	11.00	78.94	521.95	
4	5644.81	91.00	90.59	4943.21	137.03	906.10	3.00	89.91	908.54	
5	9734.75	91.00	90.59	4872.04	94.80	4995.20	0.00	0.00	4996.10	PBHL (JBFC #24H/L1)



Ground Elevation: 3630.00
RKB Elevation: KB @ 3648.00usft (Silver Oak 3)
Northing: 662406.20
Easting: 601668.80
Latitude: 32° 49' 14.77 N
Longitude: 104° 0' 8.580 W

PROJECT DETAILS: Eddy County, NM (NAD-27 2015)
Geoid 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



Terra Directional Services LLC
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