

Submit 1 Copy To Appropriate District
Office

District I - (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
District II - (575) 748-1283
811 S First St., Artesia, NM 88210
District III - (505) 334-6178
1000 Rio Brazos Rd., Aztec, NM 87410
District IV - (505) 476-3460
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103
Revised August 1, 2011

SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.)		WELL API NO. 30-015-40570
1. Type of Well: Oil Well ☒ Gas Well ☐ Other ☐		5. Indicate Type of Lease STATE ☒ FEE ☐
2. Name of Operator COG Operating LLC		6. State Oil & Gas Lease No.
3. Address of Operator One Concho Center - 600 W Illinois Ave Midland, TX 79701		7. Lease Name or Unit Agreement Name White Oak State
4. Well Location Unit Letter H : 2270 feet from the SOUTH line and 185 feet from the EAST line Section 23 Township 17S Range 28E NMPM County EDDY		8. Well Number 27
11. Elevation (Show whether DR, RKB, RT, GR, etc.) 3704'		9. OGRID Number 229137
		10. Pool name or Wildcat Empire; Glorieta Yeso 96120

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK ☐	PLUG AND ABANDON ☐	REMEDIAL WORK ☐	ALTERING CASING ☐
TEMPORARILY ABANDON ☐	CHANGE PLANS ☐	COMMENCE DRILLING OPNS. ☐	P AND A ☐
PULL OR ALTER CASING ☐	MULTIPLE COMPL ☐	CASING/CEMENT JOB ☐	
DOWNHOLE COMMINGLE ☐			

OTHER: **Add BHL** ☒ OTHER: ☐

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

COG Operating LLC submitted APD for this well at this location:
SHL: 2270' FNL 185' FEL, Unit H

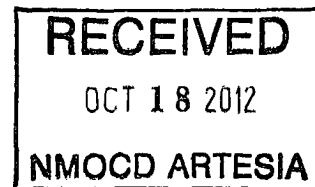
COG Operating LLC respectfully requests permission to add a BHL:
SHL: 2270' FNL 185' FEL, Unit H
BHL: 1980' FNL 330' FEL, Unit H

Reason for adding a BHL is to avoid a Non-Standard location.

A revised C-102, directional plan and anti-collision report are attached for your review.

Spud Date:

Rig Release Date:



I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE [Signature] TITLE Permitting Tech DATE 10/18/2012

Type or print name Kelly J. Holly E-mail address: kholly@concho.com PHONE: 432-685-4384

For State Use Only

APPROVED BY: [Signature] TITLE Geologist DATE 10/19/2012

Conditions of Approval (if any):

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
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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, New Mexico 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number 30-015-40570	Pool Code 96210	Pool Name Empire; Glorieta Yeso
Property Code 302584	Property Name WHITE OAK STATE	Well Number 27
OGRID No. 229137	Operator Name COG OPERATING, LLC	Elevation 3704'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
H	23	17-S	28-E		2270	NORTH	185	EAST	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	23	17-S	28-E		1980	NORTH	330	EAST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

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 COORDINATES
A) Y=663687.3 N; X=558756.0 E
B) Y=663807.9 N; X=560053.7 E
C) Y=662476.4 N; X=560049.7 E
D) Y=662357.1 N; X=558748.0 E

GEODETIC COORDINATES
NAD 27 NME
SURFACE LOCATION
Y=662841.8 N
X=559865.9 E

LAT.=32.822088° N
LONG.=104.138456° W

BOTTOM HOLE LOCATION
Y=663119.5 N
X=559721.8 E

GRID AZ.=322°33'23"
HORZ. DIST.=312.9'

Estimated Completed Interval:
2054 FNL +
380 FEL

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.


Signature
10-18-12
Date

Kelly J. Holly
Printed Name

kholly@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.

JUNE 30, 2012

Date of Survey

Signature & Seal of Professional Surveyor:


12641

Certificate Number Gary G. Eidson 12641
Ronald J. Eidson 3239

BKLAIF REG. 07/02/03 SWSC W.O.: 12.13.1679

RECEIVED

OCT 18 2012

NMOCD ARTESIA



COG Operating LLC

Eddy County, NM (NAN27 NME)

White Oak State #27

OH

Plan #2 7-7/8" Hole

Anticollision Report

17 October, 2012





Scientific Drilling
Anticollision Report



Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Reference Site: White Oak State
Site Error: 0.00 usft
Reference Well: #27
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #2 7-7/8" Hole

Local Co-ordinate Reference: Well #27
TVD Reference: GL @ 3704.00usft
MD Reference: GL @ 3704.00usft
North Reference: Grd
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000 1 Single User Db
Offset TVD Reference: Offset Datum

Reference	Plan #2 7-7/8" Hole		
Filter type:	NO GLOBAL FILTER. Using user defined selection & filtering criteria		
Interpolation Method:	Stations	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 9,999.98 usft	Error Surface:	Elliptical Conic
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date 10/17/2012	
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
0.00	1,050.00	Plan #2 7-7/8" Hole (OH)	Keeper
1,050.00	5,263.58	Plan #2 7-7/8" Hole (OH)	MWD
			Description
			Standard Wireline Keeper ver 1.0.2
			MWD - Standard

Summary		Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
Site Name							
Offset Well - Wellbore - Design							
White Oak State							
#4 - OH - OH		1,658.76	1,657.25	149.74	114.81	4.287	CC
#4 - OH - OH		2,200.00	2,196.67	156.14	109.09	3.318	ES
#4 - OH - OH		3,800.00	3,791.32	230.36	147.81	2.791	SF

Offset Design White Oak State - #4 - OH - OH														Offset Site Error: 0.00 usft
Survey Program: 4070-UNIONOWN														Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside		Offset Wellbore Centre		Distance		Minimum Separation		Warning
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)	Toolface (°)		+N/E (usft)	+E/W (usft)	Between Centres (usft)	Between Ellipses (usft)	Separation (usft)	Factor	
0.00	0.00	0.00	0.00	0.00	0.00	-110.44		-54.14	-145.28	155.04				
100.00	100.00	100.00	100.00	0.00	2.00	-110.44		-54.14	-145.28	155.04	152.97	2.07	74.844	
200.00	200.00	200.00	200.00	0.22	4.00	-110.44		-54.14	-145.28	155.04	150.89	4.15	37.391	
300.00	300.00	300.00	300.00	0.35	6.00	-110.44		-54.14	-145.28	155.04	148.82	6.22	24.919	
400.00	400.00	400.00	400.00	0.46	8.00	-110.44		-54.14	-145.28	155.04	146.74	8.30	16.685	
500.00	500.00	500.00	500.00	0.61	10.00	-110.44		-54.14	-145.28	155.04	144.67	10.37	14.947	
600.00	600.00	600.00	600.00	0.74	12.00	-110.44		-54.14	-145.28	155.04	142.59	12.45	12.455	
700.00	700.00	700.00	700.00	0.88	14.00	-110.44		-54.14	-145.28	155.04	140.51	14.52	10.675	
800.00	800.00	800.00	800.00	1.01	16.00	-110.44		-54.14	-145.28	155.04	138.44	16.60	9.340	
900.00	900.00	900.00	900.00	1.14	18.00	-110.44		-54.14	-145.28	155.04	136.36	18.68	8.302	
1,000.00	1,000.00	1,000.00	1,000.00	1.27	20.00	-110.44		-54.14	-145.28	155.04	134.29	20.75	7.472	
1,050.00	1,050.00	1,050.00	1,050.00	1.34	21.00	-110.44		-54.14	-145.28	155.04	133.25	21.79	7.116	
1,100.00	1,100.00	1,100.00	1,100.00	1.36	22.00	-75.13		-54.14	-145.28	154.93	132.09	22.84	6.784	
1,200.00	1,199.83	1,199.83	1,199.83	1.30	24.00	-78.40		-54.14	-145.28	154.07	129.17	24.89	6.189	
1,284.48	1,284.21	1,284.21	1,284.21	1.45	25.68	-78.40		-54.14	-145.28	152.83	126.15	26.68	5.728	
1,300.00	1,299.89	1,299.89	1,299.89	1.47	25.99	-78.95		-54.14	-145.28	152.58	125.57	27.02	5.648	
1,400.00	1,399.35	1,399.35	1,399.35	1.57	27.99	-81.98		-54.14	-145.28	151.23	122.03	29.19	5.180	
1,500.00	1,499.02	1,499.02	1,499.02	1.70	29.98	-85.06		-54.14	-145.28	150.30	118.90	31.40	4.787	
1,600.00	1,598.68	1,598.68	1,598.68	1.86	31.97	-88.17		-54.14	-145.28	149.82	116.20	33.62	4.456	
1,658.76	1,657.25	1,657.25	1,657.25	1.97	33.15	-90.00		-54.14	-145.28	149.74	114.81	34.93	4.287	CC
1,700.00	1,698.35	1,698.35	1,698.35	2.04	33.97	-91.29		-54.14	-145.28	149.78	113.92	35.85	4.178	
1,800.00	1,798.01	1,798.01	1,798.01	2.24	35.98	-94.39		-54.14	-145.28	150.18	112.09	38.09	3.943	
1,900.00	1,897.68	1,897.68	1,897.68	2.45	37.95	-97.48		-54.14	-145.28	151.03	110.70	40.33	3.745	

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Reference Site: White Oak State
Site Error: 0.00 usft
Reference Well: #27
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #2 7-7/8" Hole

Local Co-ordinate Reference: Well #27
TVD Reference: GL @ 3704.00usft
MD Reference: GL @ 3704.00usft
North Reference: Gnd
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000 1 Single User Db
Offset TVD Reference: Offset Datum

Offset Design White Oak State - #4 - OH - OH												Offset Site Error: 0.00 usft
Survey Program: 4070-UNKNOWN												Offset Well Error: 0.00 usft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Minimum Separation (usft)	Separation Factor	Warning	
Measured Depth (usft)	Vertical Depth (usft)	Measured Depth (usft)	Vertical Depth (usft)	Reference (usft)	Offset (usft)		Offset Wellbore Centre +H/E (usft)	Between Centres (usft)				
2,000.00	1,997.34	1,997.34	1,997.34	2.67	39.95	-100.52	-54.14	-145.28	152.32	109.74	42.58	3.578
2,100.00	2,097.01	2,097.01	2,097.01	2.90	41.94	-103.50	-54.14	-145.28	154.02	109.21	44.82	3.437
2,200.00	2,196.67	2,196.67	2,196.67	3.14	43.93	-106.41	-54.14	-145.28	156.14	109.09	47.06	3.318 ES
2,300.00	2,296.34	2,296.34	2,296.34	3.38	45.93	-109.24	-54.14	-145.28	158.65	109.36	49.29	3.219
2,400.00	2,396.00	2,396.00	2,396.00	3.63	47.92	-111.97	-54.14	-145.28	161.54	110.01	51.52	3.135
2,500.00	2,495.67	2,495.67	2,495.67	3.88	49.91	-114.60	-54.14	-145.28	164.78	111.02	53.78	3.065
2,600.00	2,595.33	2,595.33	2,595.33	4.14	51.91	-117.12	-54.14	-145.28	168.35	112.37	56.98	3.007
2,700.00	2,695.00	2,695.00	2,695.00	4.39	53.90	-119.54	-54.14	-145.28	172.25	114.04	58.21	2.959
2,800.00	2,794.66	2,794.66	2,794.66	4.65	55.89	-121.84	-54.14	-145.28	176.43	116.00	60.43	2.920
2,900.00	2,894.33	2,894.33	2,894.33	4.91	57.89	-124.04	-54.14	-145.28	180.89	118.24	62.65	2.887
3,000.00	2,994.00	2,994.00	2,994.00	5.17	59.88	-126.12	-54.14	-145.28	185.60	120.73	64.86	2.861
3,100.00	3,093.66	3,093.66	3,093.66	5.43	61.87	-128.11	-54.14	-145.28	190.54	123.48	67.08	2.841
3,200.00	3,193.33	3,193.33	3,193.33	5.69	63.87	-129.99	-54.14	-145.28	195.70	126.41	69.29	2.824
3,300.00	3,292.99	3,292.99	3,292.99	5.95	65.86	-131.77	-54.14	-145.28	201.08	129.58	71.50	2.812
3,400.00	3,392.66	3,392.66	3,392.66	6.21	67.85	-133.48	-54.14	-145.28	206.61	132.89	73.72	2.803
3,500.00	3,492.32	3,492.32	3,492.32	6.48	69.85	-135.06	-54.14	-145.28	212.32	136.40	75.93	2.798
3,600.00	3,591.99	3,591.99	3,591.99	6.74	71.84	-136.57	-54.14	-145.28	218.20	140.06	78.13	2.793
3,700.00	3,691.65	3,691.65	3,691.65	7.00	73.83	-138.00	-54.14	-145.28	224.21	143.87	80.34	2.791
3,800.00	3,791.32	3,791.32	3,791.32	7.27	75.83	-139.36	-54.14	-145.28	230.36	147.81	82.55	2.791 SF
3,900.00	3,890.98	3,890.98	3,890.98	7.53	77.82	-140.65	-54.14	-145.28	236.64	151.88	84.76	2.792
4,000.00	3,990.65	3,990.65	3,990.65	7.79	79.81	-141.87	-54.14	-145.28	243.02	156.06	86.97	2.794
4,100.00	4,090.31	4,070.00	4,070.00	8.06	81.40	-142.80	-54.14	-145.28	250.34	161.56	88.77	2.820
4,200.00	4,189.98	4,070.00	4,070.00	8.32	81.40	-142.80	-54.14	-145.28	262.81	193.79	89.02	3.177
4,300.00	4,289.64	4,070.00	4,070.00	8.59	81.40	-142.80	-54.14	-145.28	342.48	253.22	89.26	3.837
4,400.00	4,389.31	4,070.00	4,070.00	8.85	81.40	-142.80	-54.14	-145.28	417.88	328.38	89.50	4.899
4,500.00	4,488.97	4,070.00	4,070.00	9.12	81.40	-142.80	-54.14	-145.28	501.92	412.17	89.75	5.593
4,600.00	4,588.64	4,070.00	4,070.00	9.38	81.40	-142.80	-54.14	-145.28	590.98	500.97	89.98	6.587
4,700.00	4,688.30	4,070.00	4,070.00	9.65	81.40	-142.80	-54.14	-145.28	683.04	592.81	90.23	7.570
4,800.00	4,787.97	4,070.00	4,070.00	9.91	81.40	-142.80	-54.14	-145.28	777.08	686.61	90.48	8.589
4,900.00	4,887.63	4,070.00	4,070.00	10.18	81.40	-142.80	-54.14	-145.28	872.45	781.73	90.72	9.617
5,000.00	4,987.30	4,070.00	4,070.00	10.44	81.40	-142.80	-54.14	-145.28	968.75	877.79	90.98	10.850
5,100.00	5,086.97	4,070.00	4,070.00	10.71	81.40	-142.80	-54.14	-145.28	1,065.74	974.53	91.21	11.665
5,200.00	5,186.63	4,070.00	4,070.00	10.97	81.40	-142.80	-54.14	-145.28	1,163.23	1,071.78	91.45	12.719
5,263.58	5,250.00	4,070.00	4,070.00	11.14	81.40	-142.80	-54.14	-145.28	1,225.43	1,133.82	91.61	13.377

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation



Scientific Drilling
Anticollision Report



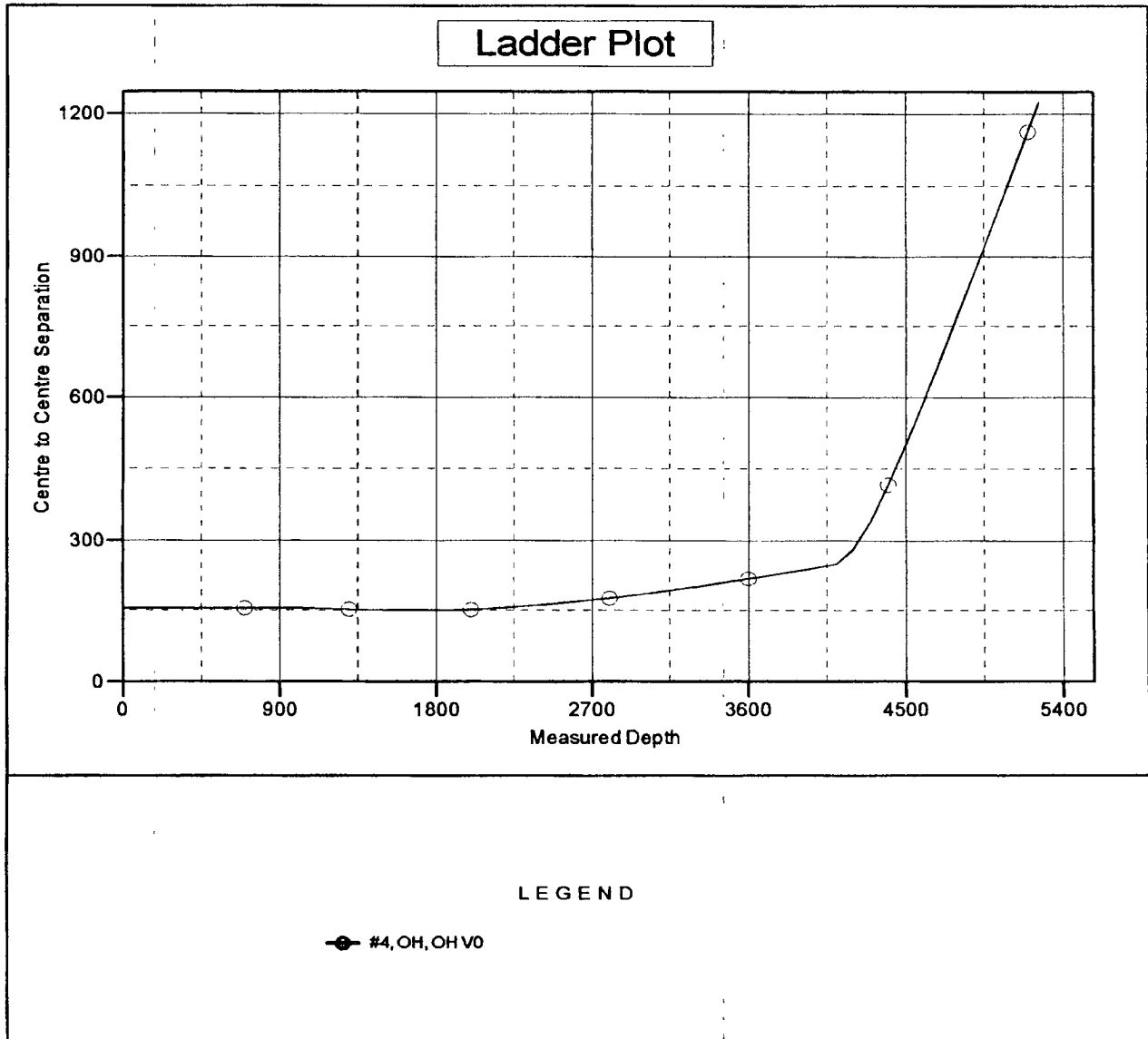
Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Reference Site: White Oak State
Site Error: 0.00 usft
Reference Well: #27
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #2 7-7/8" Hole

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:
Output errors are at
Database:
Offset TVD Reference:

Well #27
GL @ 3704.00usft
GL @ 3704.00usft
Grid
Minimum Curvature
2.00 sigma
EDM 5000 1 Single User Db
Offset Datum

Reference Depths are relative to GL @ 3704.00usft
Offset Depths are relative to Offset Datum
Central Meridian is 104° 20' 0.000 W

Coordinates are relative to #27
Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30
Grid Convergence at Surface is 0.11°





Scientific Drilling
Anticollision Report



Company: COG Operating LLC
Project: Eddy County, NM (NAN27 NME)
Reference Site: White Oak State
Site Error: 0.00 usft
Reference Well: #27
Well Error: 0.00 usft
Reference Wellbore: OH
Reference Design: Plan #2 7-7/8" Hole

Local Co-ordinate Reference: Well #27
TVD Reference: GL @ 3704 00usft
MD Reference: GL @ 3704 00usft
North Reference: Grd
Survey Calculation Method: Minimum Curvature
Output errors are at: 2.00 sigma
Database: EDM 5000 1 Single User Db
Offset TVD Reference: Offset Datum

Reference Depths are relative to GL @ 3704 00usft

Offset Depths are relative to Offset Datum

Central Meridian is 104° 20' 0 000 W

Coordinates are relative to: #27

Coordinate System is US State Plane 1927 (Exact solution), New Mexico East 30

Grd Convergence at Surface is 0 11°

