

DATE IN 4/31/2014	SUSPENSE	ENGINEER	LOGGED IN 4/31/2014	TYPE NSL	APP NO. PMAM1403149625
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ABOVE THIS LINE FOR DIVISION USE ONLY

NEW MEXICO OIL CONSERVATION DIVISION
- Engineering Bureau -
 1220 South St. Francis Drive, Santa Fe, NM 87505



7500D

2014-01-13 12:47

ADMINISTRATIVE APPLICATION CHECKLIST

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

Application Acronyms:

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

NSL

[1] TYPE OF APPLICATION - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication
☒ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement
☐ DHC ☐ CTB ☐ PLC ☐ PC ☐ OLS ☐ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify _____

- COG Operating

229137

well

- Noose Federal com 114

- 30-015 - Pending

Pool

*- N. Seven Rivers;
Glorieta - yeso
9 7565*

[2] NOTIFICATION REQUIRED TO: - Check Those Which Apply, or ☒ Does Not Apply

INTEREST ARE THE SAME

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leascholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☐ Notification and/or Concurrent Approval by BLM or SLO
U.S. Bureau of Land Management - Commissioner of Public Lands, State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

[3] SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.

[4] CERTIFICATION: I hereby certify that the information submitted with this application for administrative approval is **accurate and complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

Note: Statement must be completed by an individual with managerial and/or supervisory capacity.

Kelly J. Holly
 Print or Type Name

[Signature]
 Signature

Permitting Tech
 Title

1-30-14
 Date

(432) 685-4384
 Phone Number

kholly@concho.com
 E-mail Address

**Noose Federal Com #11H
Eddy County, NM**

COG is requesting to horizontally drill a SE/4 SE/4 to NE/4 NE/4 160 acre spacing
N. Seven Rivers; Glorieta-Yeso oil well
Approximately: TVD 2988', MD 7604'

Non-standard Location:

SHL: 150' FSL & 1130' FEL	Sec 35, T19S, R25E, Unit P
BHL: 330' FNL & 1130' FEL	Sec 35, T19S, R25E, Unit A

This well had to be staked at a non-standard location due to existing wells too close to original location.

We won't know the exact perms until we drill & log it, but it will be very similar to the Grave Digger State Com #1H and is located at:

SHL: 330' FNL & 380' FWL	Section 2, T20S, R25E, Unit 4
BHL: 322' FSL & 384' FWL	Section 2, T20S, R25E, Unit M

Grave Digger State Com #1H has perms from: 2880' – 6880' overall, but broken up into 5 separate intervals, with 5 separate fracs:

1st Perf: 2880-3480',
acidized w/ 4861 gals, 15% NEFE; frac'd w/256764# sand & 516224 gal fluid

2nd Perf: 3730-4330',
acidized w/ 2521 gals, 15% NEFE; frac'd w/249468# sand & 511005 gal fluid

3rd Perf: 4580-5180',
acidized w/ 2427 gals, 15% NEFE; frac'd w/255948# sand & 519074 gal fluid

4th Perf: 5430-6030',
acidized w/ 3985 gals, 15% NEFE; frac'd w/250253# sand & 532321 gal fluid

5th Perf: 6266-6880',
acidized w/ 1506 gals, 15% NEFE; frac'd w/254588# sand & 512961 gal fluid

Attachment 1

Plat & Map

Attachment 2

Map & legend of offset wells.

Attachment 3

Updated land plat showing that COG Operating LLC owns the 100% of Section 35. The acreage we are encroaching on is Units B, G, J and O of Section 35.

All interests are the same.

COG Operating LLC respectfully requests permission to have this NSL approved.

Contact I:
 1625 N French Dr., Hobbs, NM 88240
 Phone (575) 793-6165 Fax (575) 793-3725
 Contact II:
 811 E Fort St., Artesia, NM 88210
 Phone (575) 748-1233 Fax (575) 748-5723
 Contact III:
 1000 Rio Bravo Road, Aztec, NM 87410
 Phone (505) 734-6178 Fax (505) 336-6170
 Contact 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-		² Pool Code 97565		³ Pool Name N Seven Rivers; Glorieta Yeso	
⁴ Property Code 308751		⁵ Property Name NOOSE FEDERAL COM			⁶ Well Number 11H
⁷ OGRID No. 229137		⁸ Operator Name COG OPERATING, LLC			⁹ Elevation 3452'
¹⁰ Surface Location					
UL or lot no. P	Section 35	Township 19-S	Range 25-E	Lot Idn 150	Feet from the North-South line SOUTH 1130
		Feet from the East-West line EAST		County EDDY	
¹¹ Bottom Hole Location If Different From Surface					
UL or lot no. A	Section 35	Township 19-S	Range 25-E	Lot Idn 330	Feet from the North-South line NORTH 1130
		Feet from the East-West line EAST		County EDDY	
¹² Dedicated Acres 160		¹³ Joint or Infill		¹⁴ Consolidation Code	
				¹⁵ Order No.	

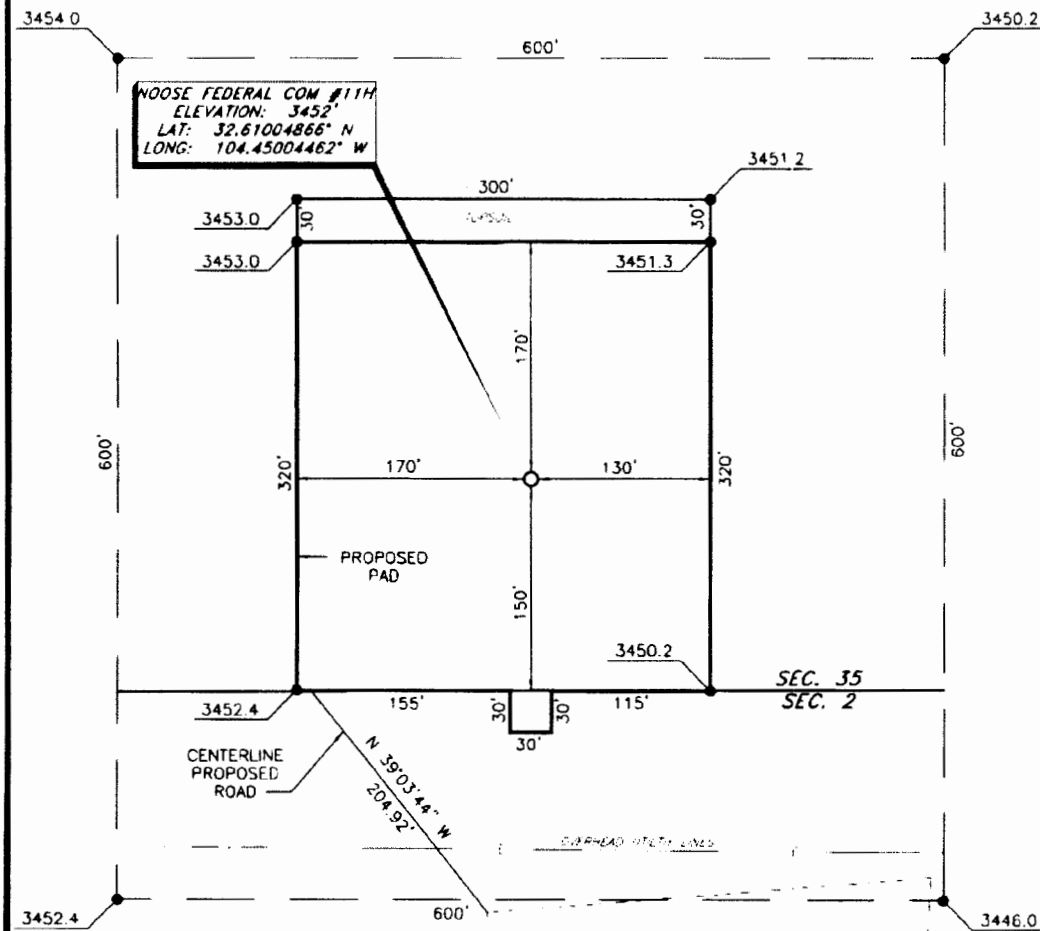
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

CORNER DATA NAD 27 GRID - NM EAST A: FOUND BRASS CAP 1947 N 585504.1 - E 459908.0 B: FOUND 1/2" RBR W/STNS N 590786.8 - E 459921.5 C: FOUND 1/2" RBR #12641 JWSC N 590802.2 - E 465207.3 D: FOUND BRASS CAP 1947 N 585520.8 - E 465190.9 E: FOUND BRASS CAP 1947 N 585511.7 - E 462548.4 GEODETIC DATA NAD 27 GRID - NM EAST SURFACE LOCATION N 585666.9 - E 484061.7 LAT: 32.61004866° N LONG: 104.45004462° W BOTTOM LOCATION N 590468.9 - E 464078.3 DETAIL "A" 3454.0 800' 3450.2 3452.4 800' 3446.0 SEE DETAIL "A"	"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 as the 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. 1-30-14 Date <i>Kelly J. Holly</i> Signature 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. 11/8/13 Date of Survey <i>Robert M. Howett</i> Signature and Seal of Professional Surveyor 19680 Certificate Number REVISED: 12-17-13 B.H.
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Prosperity Consultants, LLC - Firm No.: TR 10193838 NM 4655451 - Job No.: LS130467

Estimated
 Completed
 Interval:
 330 FSL +
 1130 FEL

COG OPERATING, LLC
Noose Federal Com #11H
(150' FSL & 1130' FEL)
Section 35, T-19-S, R-25-E,
N. M. P. M., Eddy Co., New Mexico



DIRECTIONS TO LOCATION

From the intersection of U. S. Hwy. No. 285 and County Road No. 23 (Rock Daisy):

Go West on Co. Rd. 23 approx. 3.0 miles;

Turn left on lease road and go South approx. 0.8 mile;

Turn left and go Southeast approx. 0.3 mile;

Turn right and go South approx. 0.2 mile;

Turn left and go East approx. 0.4 mile to the COG Gravedigger St. Com. #7H;

Location is approx. 415' Northwest of the existing pumping unit.

SCALE: 1" = 100'
 0 50 100
 BEARINGS ARE
 NAD 27 GRID - NM EAST
 DISTANCES ARE
 GROUND.

PROSPERITY CONSULTANTS, LLC



SCALE: 1" = 100'

DATE: 11-8-13

SURVEYED BY: GB/IE

DRAWN BY: LWB

APPROVED BY: LWB

SHEET : 1 OF 1

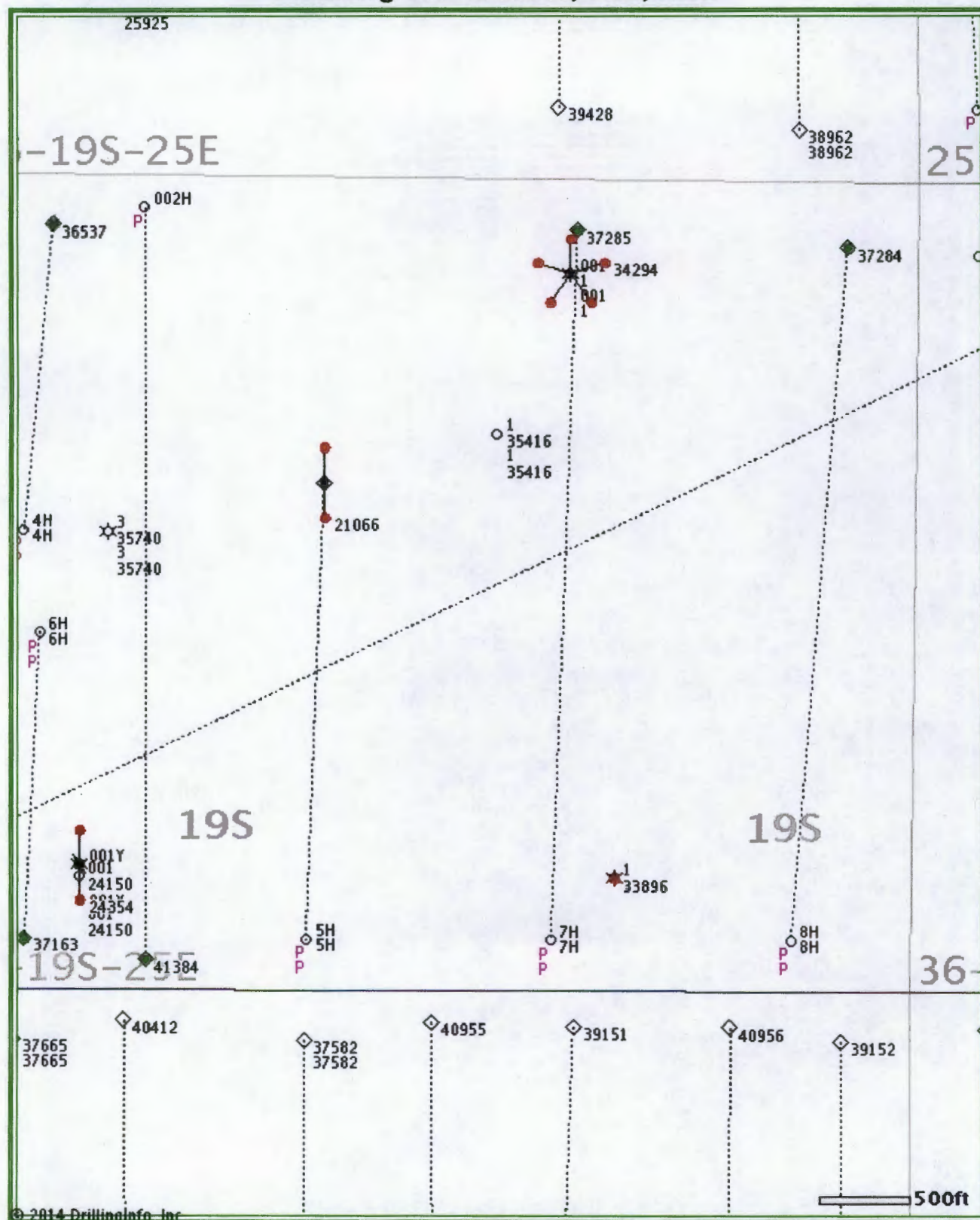
NO.	REVISION	DATE
JOB NO.:	LS130467	
DWG NO.:	130467PAD	

3011 S. Co. Rd. 1260 Midland TX 79706 | Firm No.: TX 10193838 NM 4655451 | (432) 561-5780

Producing wells in Sec 35, T19S, R25E

API#	Operator	Lease	Well#	County	Legal	Total Depth	Well Type	Well Status	First Prod.	Last Prod.	Prac. IP (MCF/D)
30-015-24354	NEARBURG PRODUCING CO	GULF FEDERAL COM	001Y	EDDY	S:35, T:19S, R:25E		G	Plugged and Abandoned	Dec 1998	Dec 1998	0.00
30-015-37284	COG OPERATING LLC	NOOSE FEDERAL COM	8H	EDDY	S:35, T:19S, R:25E	7,050	W	Active	Nov 2010	Oct 2013	0.42
30-015-34294	COG OPERATING LLC	HANG EM HIGH FEDERAL	1	EDDY	S:35, T:19S, R:25E	9,920	G	Active	Aug 2007	Oct 2013	1.43
30-015-34294	COG OPERATING LLC	HANG EM HIGH FEDERAL	1	EDDY	S:35, T:19S, R:25E	9,920	G	Active	Aug 2007	Oct 2013	5.77
30-015-31066	LRE OPERATING, LLC	MARATHON 26 STATE	004	EDDY	S:35, T:19S, R:25E	3,515	O	Active	Sep 2000	Oct 2013	22.58
30-015-21066	COG OPERATING LLC	NOOSE FEDERAL COM	5H	EDDY	S:35, T:19S, R:25E	9,835	W	Active	Jul 2009	Oct 2013	77.65
30-015-24354	NEARBURG PRODUCING CO	GULF FEDERAL COM	001Y	EDDY	S:35, T:19S, R:25E		G	Plugged and Abandoned	May 1984	Nov 1998	88.10
30-015-36537	COG OPERATING LLC	NOOSE FEDERAL	4H	EDDY	S:35, T:19S, R:25E	4,422	W	Active	Dec 2008	Oct 2013	91.81
30-015-37285	COG OPERATING LLC	NOOSE FEDERAL COM	7H	EDDY	S:35, T:19S, R:25E	7,100	W	Active	Feb 2010	Oct 2013	93.10
30-015-34294	COG OPERATING LLC	HANG EM HIGH FEDERAL	1	EDDY	S:35, T:19S, R:25E	9,920	G	Active	Aug 2007	Oct 2013	136.23
30-015-41384	COG OPERATING LLC	NOOSE FEDERAL COM	002H	EDDY	S:35, T:19S, R:25E	7,475	G	Active	Jul 2013	Oct 2013	188.35
30-015-21066	NEARBURG PRODUCING CO	HILLIARD GULF FEDERAL COM	5H	EDDY	S:35, T:19S, R:25E	9,835	W	Active	Jan 1977	May 1984	257.89
30-015-34294	MARBOB ENERGY CORP	HANG 'EM HIGH FEDERAL	1	EDDY	S:35, T:19S, R:25E	9,920	G	Active	Feb 2006	Apr 2007	351.32
30-015-34294	MARBOB ENERGY CORP	HANG EM HIGH FEDERAL	1	EDDY	S:35, T:19S, R:25E	9,920	G	Active	Feb 2006	May 2007	351.32
30-015-37163	COG OPERATING LLC	NOOSE FEDERAL	6H	EDDY	S:35, T:19S, R:25E	4,376	W	Active	Dec 2009	Oct 2013	383.19
30-015-33896	COG OPERATING LLC	TOMBSTONE FEDERAL	1	EDDY	S:35, T:19S, R:25E	10,000	G	Inactive	Jul 2005	Sep 2013	601.42

Producing wells in Sec 35, T19S, R25E



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Well: Noose Federal Com #11H
Legal: SEC35 T19S-R25E UL-P-A,
Eddy County NM

NSL Location
Operator: COG Operating, LLC
Legal: SEC35 T19S-R25E UL-O-B,
Eddy County NM



COG Operating LLC

Eddy County, NM (NAD 27 NME)

Noose Federal Com

#11H

Wellbore #1

Plan: Plan #1 01-08-14

Surface: 150' FSL, 1130' FEL, Sec 35, T19S, R25E, Unit P

PP: 330' FSL, 1130' FEL, Sec 35, T19S, R25E, Unit P

BHL: 330' FNL, 1130' FEL, Sec 35, T19S, R25E, Unit A

Standard Planning Report

08 January, 2014





Phoenix Technology Services
Planning Report



Database: GCR DB
Company: COG Operating LLC
Project: Eddy County, NM (NAD 27 NME)
Site: Noose Federal Com
Well: #11H
Wellbore: Wellbore #1
Design: Plan #1 01-08-14

Local Co-ordinate Reference:
TVD Reference:
MD Reference:
North Reference:
Survey Calculation Method:

Well #11H
WELL @ 3470.00usft (Original Well Elev)
WELL @ 3470.00usft (Original Well Elev)
Grid
Minimum Curvature

Project: Eddy County, NM (NAD 27 NME)

Map System: US State Plane 1927 (Exact solution)
Geo Datum: NAD 1927 (NADCON CONUS)
Map Zone: New Mexico East 3001

System Datum:

Mean Sea Level

Site: Noose Federal Com

Site Position: Northing: 585,657.00 usft Latitude: 32° 36' 36.04153 N
From: Map Easting: 460,945.50 usft Longitude: 104° 27' 36.59241 W
Position Uncertainty: 0.00 usft Slot Radius: 13-3/16 " Grid Convergence: -0.07 °

Well: #11H

Well Position: +N/-S 9.90 usft Northing: 585,666.90 usft Latitude: 32° 36' 36.17482 N
+E/-W 3,116.20 usft Easting: 464,061.70 usft Longitude: 104° 27' 0.16061 W
Position Uncertainty: 0.00 usft Wellhead Elevation: Ground Level: 3,452.00 usft

Wellbore: Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	01/08/14	7.70	60.33	48,494

Design: Plan #1 01-08-14

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	0.17

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	
2,504.60	0.00	0.00	2,504.60	0.00	0.00	0.00	0.00	0.00	0.00	
3,327.33	90.50	0.17	3,025.45	525.42	1.60	11.00	11.00	0.02	0.17	
7,604.10	90.50	0.17	2,988.09	4,802.00	14.60	0.00	0.00	0.00	0.00	BHL Noose Federal C



Phoenix Technology Services
Planning Report



Database: GCR DB
Company: COG Operating LLC
Project: Eddy County, NM (NAD 27 NME)
Site: Noose Federal Com
Well: #11H
Wellbore: Wellbore #1
Design: Plan #1 01-08-14

Local Co-ordinate Reference: Well #11H
TVD Reference: WELL @ 3470.00usft (Original Well Elev)
MD Reference: WELL @ 3470.00usft (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
2,504.60	0.00	0.00	2,504.60	0.00	0.00	0.00	0.00	0.00	0.00
KOP: Start Build 11.00°/100'									
2,600.00	10.49	0.17	2,599.47	8.71	0.03	8.71	11.00	11.00	0.00
2,700.00	21.49	0.17	2,695.45	36.22	0.11	36.22	11.00	11.00	0.00
2,800.00	32.49	0.17	2,784.42	81.54	0.25	81.54	11.00	11.00	0.00
2,900.00	43.49	0.17	2,863.10	143.01	0.43	143.01	11.00	11.00	0.00
2,951.20	49.13	0.17	2,898.46	180.01	0.55	180.01	11.00	11.00	0.00
PP Noose Federal Com #11H									
3,000.00	54.49	0.17	2,928.62	218.35	0.66	218.36	11.00	11.00	0.00
3,100.00	65.49	0.17	2,978.55	304.82	0.93	304.82	11.00	11.00	0.00
3,200.00	76.49	0.17	3,011.07	399.22	1.21	399.22	11.00	11.00	0.00
3,300.00	87.49	0.17	3,024.97	498.09	1.51	498.10	11.00	11.00	0.00
3,321.19	89.83	0.17	3,025.47	519.28	1.58	519.28	11.00	11.00	0.00
TL: 3030' TVD @ 0° VS w/90.5° Inc									
3,327.33	90.50	0.17	3,025.45	525.42	1.60	525.42	11.00	11.00	0.00
LP: 90.5° Inc at 0.17° Azi									
3,400.00	90.50	0.17	3,024.82	598.08	1.82	598.09	0.00	0.00	0.00
3,500.00	90.50	0.17	3,023.94	698.08	2.12	698.08	0.00	0.00	0.00
3,600.00	90.50	0.17	3,023.07	798.07	2.43	798.08	0.00	0.00	0.00
3,700.00	90.50	0.17	3,022.20	898.07	2.73	898.07	0.00	0.00	0.00
3,800.00	90.50	0.17	3,021.32	998.07	3.03	998.07	0.00	0.00	0.00
3,900.00	90.50	0.17	3,020.45	1,098.06	3.34	1,098.07	0.00	0.00	0.00
4,000.00	90.50	0.17	3,019.57	1,198.06	3.64	1,198.06	0.00	0.00	0.00
4,100.00	90.50	0.17	3,018.70	1,298.05	3.95	1,298.06	0.00	0.00	0.00
4,200.00	90.50	0.17	3,017.83	1,398.05	4.25	1,398.06	0.00	0.00	0.00
4,300.00	90.50	0.17	3,016.95	1,498.04	4.55	1,498.05	0.00	0.00	0.00
4,400.00	90.50	0.17	3,016.08	1,598.04	4.86	1,598.05	0.00	0.00	0.00
4,500.00	90.50	0.17	3,015.21	1,698.04	5.16	1,698.04	0.00	0.00	0.00
4,600.00	90.50	0.17	3,014.33	1,798.03	5.47	1,798.04	0.00	0.00	0.00
4,700.00	90.50	0.17	3,013.46	1,898.03	5.77	1,898.04	0.00	0.00	0.00
4,800.00	90.50	0.17	3,012.59	1,998.02	6.07	1,998.03	0.00	0.00	0.00
4,900.00	90.50	0.17	3,011.71	2,098.02	6.38	2,098.03	0.00	0.00	0.00
5,000.00	90.50	0.17	3,010.84	2,198.01	6.68	2,198.03	0.00	0.00	0.00
5,100.00	90.50	0.17	3,009.97	2,298.01	6.99	2,298.02	0.00	0.00	0.00
5,200.00	90.50	0.17	3,009.09	2,398.01	7.29	2,398.02	0.00	0.00	0.00
5,300.00	90.50	0.17	3,008.22	2,498.00	7.59	2,498.01	0.00	0.00	0.00
5,400.00	90.50	0.17	3,007.34	2,598.00	7.90	2,598.01	0.00	0.00	0.00
5,500.00	90.50	0.17	3,006.47	2,697.99	8.20	2,698.01	0.00	0.00	0.00
5,600.00	90.50	0.17	3,005.60	2,797.99	8.51	2,798.00	0.00	0.00	0.00
5,700.00	90.50	0.17	3,004.72	2,897.98	8.81	2,898.00	0.00	0.00	0.00
5,800.00	90.50	0.17	3,003.85	2,997.98	9.12	2,997.99	0.00	0.00	0.00
5,900.00	90.50	0.17	3,002.98	3,097.98	9.42	3,097.99	0.00	0.00	0.00
6,000.00	90.50	0.17	3,002.10	3,197.97	9.72	3,197.99	0.00	0.00	0.00
6,100.00	90.50	0.17	3,001.23	3,297.97	10.03	3,297.98	0.00	0.00	0.00
6,200.00	90.50	0.17	3,000.36	3,397.96	10.33	3,397.98	0.00	0.00	0.00
6,300.00	90.50	0.17	2,999.48	3,497.96	10.64	3,497.98	0.00	0.00	0.00
6,400.00	90.50	0.17	2,998.61	3,597.96	10.94	3,597.97	0.00	0.00	0.00
6,500.00	90.50	0.17	2,997.74	3,697.95	11.24	3,697.97	0.00	0.00	0.00
6,600.00	90.50	0.17	2,996.86	3,797.95	11.55	3,797.96	0.00	0.00	0.00
6,700.00	90.50	0.17	2,995.99	3,897.94	11.85	3,897.96	0.00	0.00	0.00
6,800.00	90.50	0.17	2,995.11	3,997.94	12.16	3,997.96	0.00	0.00	0.00
6,900.00	90.50	0.17	2,994.24	4,097.93	12.46	4,097.95	0.00	0.00	0.00
7,000.00	90.50	0.17	2,993.37	4,197.93	12.76	4,197.95	0.00	0.00	0.00



Phoenix Technology Services Planning Report



Database:	GCR DB	Local Co-ordinate Reference:	Well #11H
Company:	COG Operating LLC	TVD Reference:	WELL @ 3470.00usft (Original Well Elev)
Project:	Eddy County, NM (NAD 27 NME)	MD Reference:	WELL @ 3470.00usft (Original Well Elev)
Site:	Noose Federal Com	North Reference:	Grid
Well:	#11H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Plan #1 01-08-14		

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)
7,100.00	90.50	0.17	2,992.49	4,297.93	13.07	4,297.94	0.00	0.00	0.00
7,200.00	90.50	0.17	2,991.62	4,397.92	13.37	4,397.94	0.00	0.00	0.00
7,300.00	90.50	0.17	2,990.75	4,497.92	13.68	4,497.94	0.00	0.00	0.00
7,400.00	90.50	0.17	2,989.87	4,597.91	13.98	4,597.93	0.00	0.00	0.00
7,500.00	90.50	0.17	2,989.00	4,697.91	14.28	4,697.93	0.00	0.00	0.00
7,600.00	90.50	0.17	2,988.13	4,797.90	14.59	4,797.93	0.00	0.00	0.00
7,604.10	90.50	0.17	2,988.09	4,802.00	14.60	4,802.02	0.00	0.00	0.00
TD at 7604.10 - BHL Noose Federal Com #11H									

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									
PP Noose Federal Com	0.00	0.00	2,898.45	180.02	0.55	585,846.92	464,062.25	32° 36' 37.95621 N	104° 27' 0.15652 W
- plan misses target center by 0.01usft at 2951.20usft MD (2898.45 TVD, 180.01 N, 0.55 E)									
- Point									
BHL Noose Federal Con	0.00	0.00	2,988.09	4,802.00	14.60	590,468.90	464,076.30	32° 37' 23.69431 N	104° 27' 0.05154 W
- plan hits target center									
- Point									

Formations					
Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
3,321.19	3,025.47	TL: 3030' TVD @ 0° VS w/90.5° Inc		-0.50	0.17

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
2,504.60	2,504.60	0.00	0.00	KOP: Start Build 11.00°/100'
3,327.33	3,025.45	525.42	1.60	LP: 90.5° Inc at 0.17° Azi
7,604.10	2,988.09	4,802.00	14.60	TD at 7604.10



Project: Eddy County, NM (NAD 27 NME)
Site: Moose Federal Com
Well: #11H
Wellbore: Wellbore #1
Design: Plan #1 01-08-14
Rig: Original Well Elev



Azimuths to Grid North
True North: 0.06°
Magnetic North: 7.77°
Magnetic Field
Strength: 48494.3anT
Dip Angle: 60.33°
Date: 01/08/2014
Model: IGRF2010_14

WELL DETAILS

+N-S	+E-W	North	Ground Level	3452.00	Latitude	Longitude
0.00	0.00	585668.90	Easting	464081.70	32° 38' 36.17482 N	104° 27' 0.18061 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N-S	+E-W	Mag	TFace	VFace	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	2504.80	0.00	0.00	2504.80	0.00	0.00	0.00	0.00	0.00		KOP: Start Build 11.00°/100'
3	3327.33	90.50	0.17	3025.45	525.42	1.60	11.00	6.17	525.42		LP: 90.5° Inc at 0.17° Azi
4	7604.10	90.50	0.17	2988.09	4802.00	14.60	0.00	0.00	4802.02	BHL Moose Federal Com #11H	TD at 7604.10

DESIGN TARGET DETAILS

Name	TVD	+N-S	+E-W	North	Easting	Latitude	Longitude	Shape
PP Moose Federal Com #11H	2898.45	180.01	0.55	585848.92	464062.25	32° 38' 37.95621 N	104° 27' 0.15952 W	Point
- plan misses target center by 0.01usft at 2951.20usft MD (2898.45 TVD, 180.01 N, 0.55 E)								
BHL Moose Federal Com #11H	2988.09	4802.00	14.60	580488.50	464076.30	32° 37' 23.88431 N	104° 27' 0.05154 W	Point
- plan hits target center								

LEGEND

— Plan #1 01-08-14

Map System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone Name: New Mexico East 3001

Local Origin: Well #11H, Grid North

Latitude: 32° 38' 36.17482 N
Longitude: 104° 27' 0.18061 W

Grid East: 464081.70
Grid North: 585668.90
Scale Factor: 1.000

Geomagnetic Model: IGRF2010_14

Sample Date: 08-Jan-14

Magnetic Declination: 7.70°

Dip Angle from Horizontal: 60.33°

Magnetic Field Strength: 48494

To convert a Magnetic Direction to a Grid Direction, Add 7.77°
To convert a Magnetic Direction to a True Direction, Add 7.70° East
To convert a True Direction to a Grid Direction, Add 0.06°

FORMATION TOP DETAILS

TVDPath	MDPath	Formation	DipAngle	DpDir
3025.47	3321.19	TL: 3030° TVD @ 0° VS w/90.5° Inc	-0.50	0.17

