

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

WELL API NO. 30-015-42644
5. Indicate Type of Lease STATE ☐ FEE ☒
6. State Oil & Gas Lease No.
7. Lease Name or Unit Agreement Name Pilum 15 Fee
8. Well Number 2H
9. OGRID Number 229137
10. Pool name or Wildcat Atoka; Glorieta Yeso 3250

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.)

1. Type of Well: Oil Well ☒ Gas Well ☐ Other

2. Name of Operator

COG Operating LLC

3. Address of Operator

One Concho Center - 600 W Illinois Ave Midland, TX 79701

4. Well Location

Unit Letter **P** 701 feet from the **SOUTH** line and **450** feet from the **EAST** line

Section **16**

Township **18S**

Range **26E**

NMPM

County **EDDY**

11. Elevation (Show whether DR, RKB, RT, GR, etc.)

3356'

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐ PLUG AND ABANDON ☐
TEMPORARILY ABANDON ☐ CHANGE PLANS ☐
PULL OR ALTER CASING ☐ MULTIPLE COMPL ☐
DOWNHOLE COMMINGLE ☐

OTHER: **Change SHL**

☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ ALTERING CASING ☐
COMMENCE DRILLING OPNS. ☐ P AND A ☐
CASING/CEMENT JOB ☐

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: 701' FSL & 450' FEL, Unit P, Section 16, T18S, R26E

BHL: 330' FSL & 1648' FEL, Unit O, Section 15, T18S, R26E

COG Operating LLC respectfully requests permission to change the SHL:

SHL: 789' FSL & 450' FEL, Unit P, Section 16, T18S, R26E

BHL: 330' FSL & 1648' FEL, Unit O, Section 15, T18S, R26E

Reason for changing the SHL is the original location is too close to an existing staked well.

A revised C-102 and directional plan are attached for your review.

Spud Date:

Rig Release Date:

NM OIL CONSERVATION
ARTESIA DISTRICT

DEC 11 2014

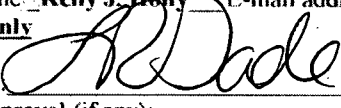
RECEIVED

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

SIGNATURE  TITLE **Permitting Tech** DATE **11/25/14**

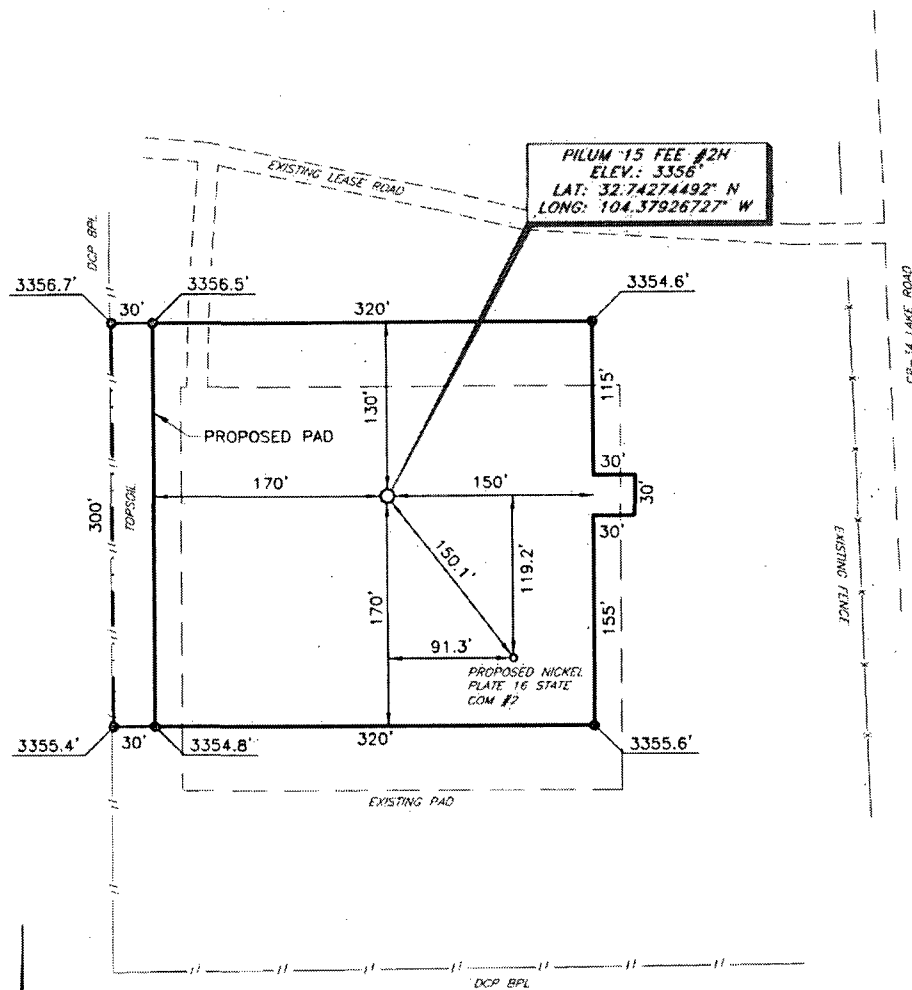
Type or print name: **Kelly J. Holly** E-mail address: **kholly@concho.com** PHONE: **432-685-4384**

For State Use Only

APPROVED BY  TITLE **Dist. Tech Supervisor** DATE **12/11/2014**

Conditions of Approval (if any):

COG OPERATING, LLC
 PILUM 15 FEE #2H
 (789' FSL & 450' FEL)
 SECTION 16, T18S, R26E,
 N. M. P. M., EDDY CO., NEW MEXICO



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

DIRECTIONS TO LOCATION

From intersection of CR-39 (Four Dinkus) and CR-34 (Lake Road);
 Go Southwest on CR-34 (Lake Road) approx. 0.9 miles;
 Location is approx. 372 feet West of CR-34 (Lake Road).

Firm No.: TX 10193838 NM 4655451

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NO.	REVISION	DATE
JOB NO.	LS140541	
DWG. NO.	140541PAD	

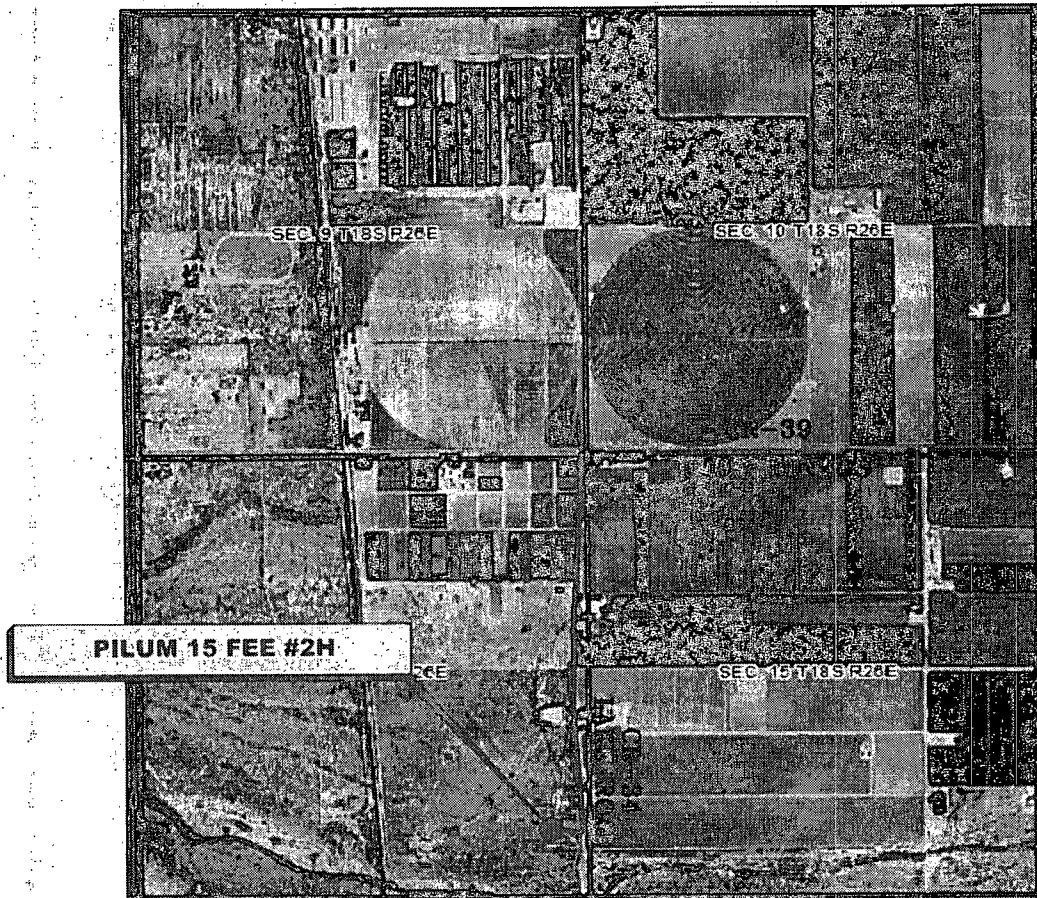
RRC

308 W. BROADWAY ST., HOBBS, NM: 88240 (575) 964-8200

SCALE: 1" = 100'
DATE: 11-18-14
SURVEYED BY: GB/IE
DRAWN BY: ARJ
APPROVED BY: RMH
SHEET: 1 OF 1

VICINITY MAP

NOT TO SCALE



**SECTION 16, TWP. 18 SOUTH, RGE. 26 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO**

OPERATOR: COG Operating, LLC

LOCATION: 789' FSL & 450' FEL

LEASE: Pilum 15 Fee

ELEVATION: 3356'

WELL NO.: 2H

Firm No.: TX 10193638 NM 4655451

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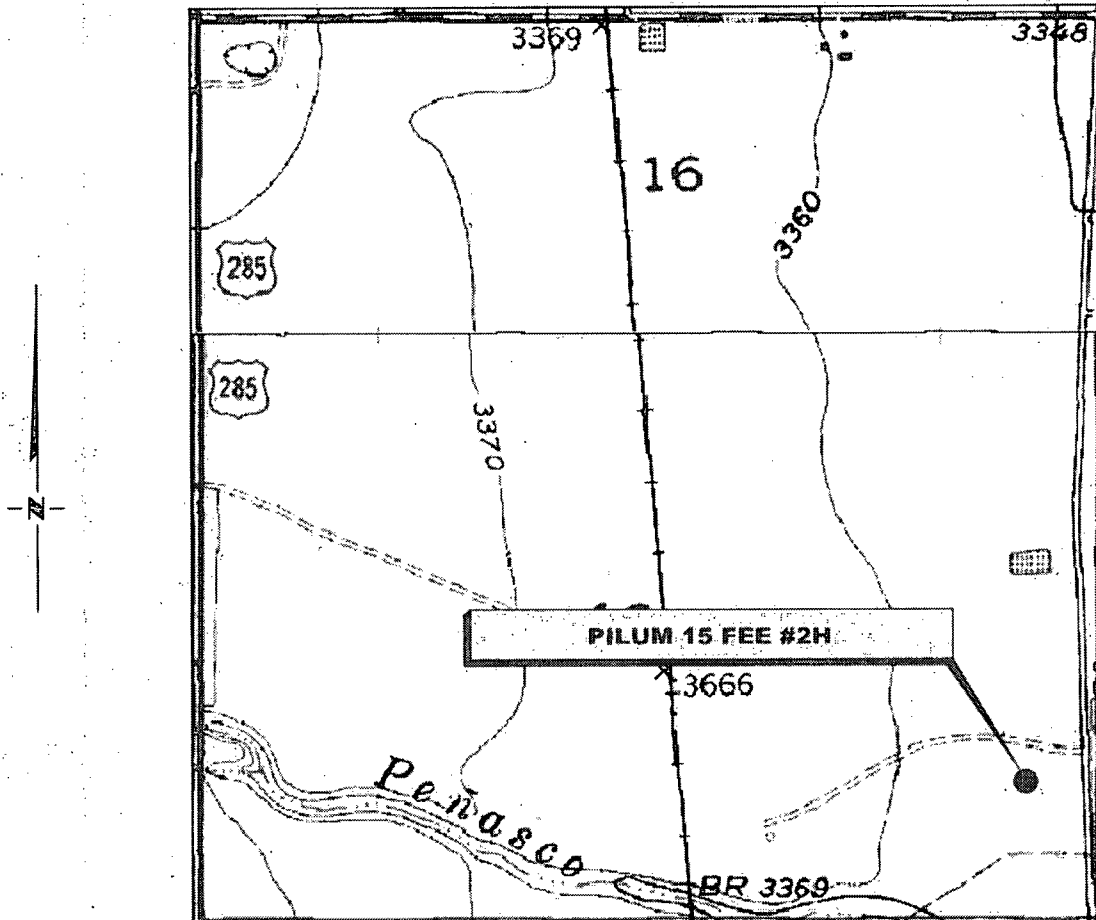
NO.	REVISION	DATE
JOB NO.	LS140541	
DWG. NO.	140541VM	

RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: N.T.S.
DATE: 11-18-14
SURVEYED BY: GB/IE
DRAWN BY: ARJ
APPROVED BY: RMH
SHEET : 1 OF 1

LOCATION VERIFICATION MAP



SECTION 16, TWP. 18 SOUTH, RGE. 26 EAST,
N. M. P. M., EDDY COUNTY, NEW MEXICO

OPERATOR: COG Operating, LLC

LEASE: Pilum 15 Fee

WELL NO.: 2H

ELEVATION: 3356'

LOCATION: 789' FSL & 450' FEL

CONTOUR INTERVAL: 10'

USGS TOPO. SOURCE MAP:

Dayton, N. M. (1955)

Firm No.: TX 10193838 NM 4655451

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NO.	REVISION	DATE
JOB NO.:	LS140541	
DWG. NO.:	140541LVM	

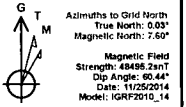
RRC

308 W. BROADWAY ST., HOBBS, NM 88240 (575) 964-8200

SCALE: 1" = 1000'
DATE: 11-18-14
SURVEYED BY: GB/IE
DRAWN BY: ARJ
APPROVED BY: RMH
SHEET: 1 OF 1



Project: Eddy County, NM (NAD27 NME)
Site: Pium 15 Fee
Well: #2H
Wellbore: WB1
Design: Plan #4 11-25-14
Rig: Silver Oak 3



WELL DETAILS									
				Ground Level	3356.00	Latitude	Longitude		
N/S	E/W	North	East	633024.60	485876.70	32° 44' 33.88168 N	104° 22' 45.36216 W		
0.00	0.00	0.00	0.00						

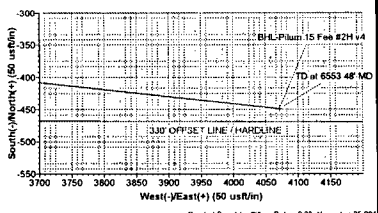
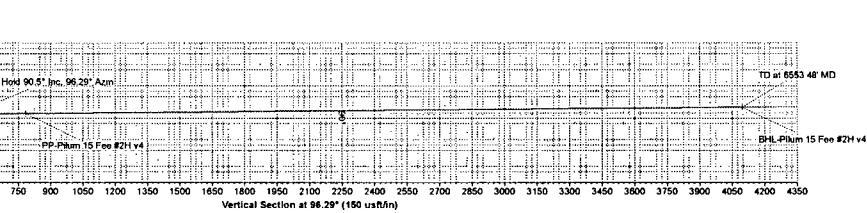
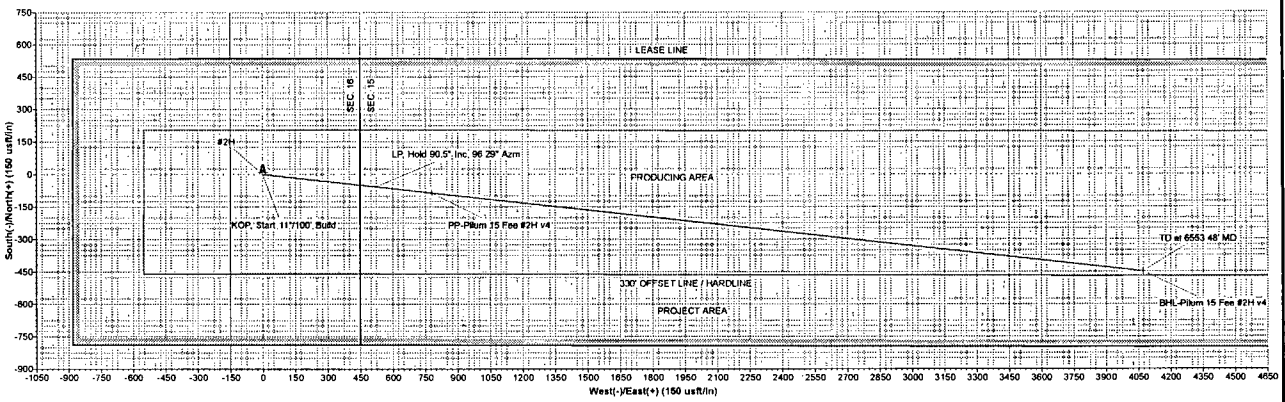
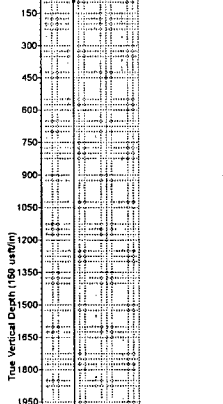
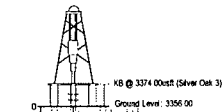
SECTION DETAILS									
Sec	MD	Inc	Azi	TVD	N/S	E/W	Drag	VFace	VSeci
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	2159.96	0.00	0.00	2159.96	0.00	0.00	0.00	0.00	0.00
3	2582.39	90.50	96.29	2580.51	-57.58	522.25	11.00	96.29	525.42
4	6553.48	90.50	96.29	2649.35	-448.90	4071.70	0.00	0.00	4096.37
BHL-Pium 15 Fee #2H v4									
KOP: Start 11°10'00" Build									
LP: Hold 90.5° Inc. 96.29° Azm									
TD at 6553.48 MD									

DESIGN TARGET DETAILS									
Name	TVD	N/S	E/W	North	East	Latitude	Longitude	Shape	
BHL-Pium 15 Fee #2H v4	2649.35	-448.90	4071.70	633475.70	485948.42	32° 44' 29.45432 N	104° 21' 57.66719 W	Point	
PP-Pium 15 Fee #2H v4	2678.25	-45.99	780.00	633838.61	486556.70	32° 44' 33.03988 N	104° 22' 36.22915 W	Point	
plan hits target center									
plan hits target center									

FORMATION TOP DETAILS									
TVD	MD	Formation	Dip	Angle	Dp	Dr			
2680.50	2972.29	TL 2685 TVD @ 0 VZ 90.5° Inc	-0.50	96.34					

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 #2H, Grid North
Latitude: 32° 44' 33.88168 N
Longitude: 104° 22' 45.36216 W
Grid East: 485876.70
Grid North: 633024.60
Scale Factor: 1.000
Geomagnetic Model: IGRF2010.14
Sample Date: 25-Nov-14
Magnetic Declination: 7.57°
Dip Angle from Horizontal: 60.44°
Magnetic Field Strength: 48495
To convert a Magnetic Direction to a Grid Direction, Add 7.60°
To convert a Magnetic Direction to a True Direction, Add 7.57° East
To convert a True Direction to a Grid Direction, Add 0.02°

LEGEND									
Plan #4 11-25-14									



Created By: Juro Rila Date: 9/33 November 25/2014



COG Operating LLC

Eddy County, NM (NAD27 NME)

Pilum 15 Fee

#2H

WB1

Plan: Plan #4 11-25-14

Surface: 789' FSL, 450' FEL, Sec 16, T18S, R26E, Unit P

PP: 633' FSL, 330' FWL, Sec 15, T18S, R26E, Unit M

BHL: 350' FSL, 1648' FEL, Sec 15, T18S, R26E, Unit O

Standard Planning Report

25 November, 2014





Planning Report



Database:	Compass 5000 GCR	Local Co-ordinate Reference:	Well #2H
Company:	COG Operating LLC	TVD Reference:	KB @ 3374.00usft (Silver Oak 3)
Project:	Eddy County, NM (NAD27 NME)	MD Reference:	KB @ 3374.00usft (Silver Oak 3)
Site:	Pilum 15' Fee	North Reference:	Grid
Well:	#2H	Survey Calculation Method:	Minimum Curvature
Wellbore:	WB1		
Design:	Plan #4 11-25-14		

Project Eddy County, NM (NAD27 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 Pilum 15' Fee

Site Position:	Map	Northing:	632,879.50 usft	Latitude:	32° 44' 23.54811 N
From:		Easting:	487,958.90 usft	Longitude:	104° 22' 20.97828 W
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "	Grid Convergence:	-0.02 °

Well	#2H					
Well Position	+N/-S	1,045.10 usft	Northing:	633,924.60 usft	Latitude:	32° 44' 33.88168 N
	+E/-W	-2,082.20 usft	Easting:	485,876.70 usft	Longitude:	104° 22' 45.36216 W
Position Uncertainty		0.00 usft	Wellhead Elevation:		Ground Level:	3,356.00 usft

Wellbore WB1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	11/25/2014	7.57	60.44	48,495

Design Plan #4 11-25-14

Audit Notes:

Version:	Phase:	PLAN	Tie On Depth:	0.00
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Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	96.29

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	
2,159.66	0.00	0.00	2,159.66	0.00	0.00	0.00	0.00	0.00	0.00	
2,982.39	90.50	96.29	2,680.51	-57.58	522.25	11.00	11.00	0.00	96.29	
6,553.48	90.50	96.29	2,649.35	-448.90	4,071.70	0.00	0.00	0.00	0.00	BHL-Pilum 15 Fee #2



Planning Report



Database: Compass 5000 GCR
Company: COG Operating LLC
Project: Eddy County, NM (NAD27 NME)
Site: Pilum 15 Fee
Well: #2H
Wellbore: WB1
Design: Plan #4 11-25-14

Local Co-ordinate Reference:
TVD Reference: KB @ 3374.00usft (Silver Oak 3)
MD Reference: KB @ 3374.00usft (Silver Oak 3)
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
2,159.66	0.00	0.00	2,159.66	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Start 11°/100' Build									
2,200.00	4.44	96.29	2,199.96	-0.17	1.55	1.56	11.00	11.00	0.00
2,300.00	15.44	96.29	2,298.31	-2.06	18.68	18.79	11.00	11.00	0.00
2,400.00	26.44	96.29	2,391.56	-5.97	54.14	54.47	11.00	11.00	0.00
2,500.00	37.44	96.29	2,476.29	-11.76	106.64	107.29	11.00	11.00	0.00
2,600.00	48.44	96.29	2,549.39	-19.21	174.25	175.30	11.00	11.00	0.00
2,700.00	59.44	96.29	2,608.17	-28.06	254.47	256.02	11.00	11.00	0.00
2,800.00	70.44	96.29	2,650.47	-37.97	344.38	346.46	11.00	11.00	0.00
2,900.00	81.44	96.29	2,674.73	-48.58	440.65	443.32	11.00	11.00	0.00
2,972.29	89.39	96.29	2,680.50	-56.47	512.22	515.32	11.00	11.00	0.00
TL, 2685° TVD @ 0.5° Inc									
2,982.39	90.50	96.29	2,680.51	-57.58	522.25	525.42	11.00	11.00	0.00
LP, Hold 90.5° Inc, 96.29° Azm									
3,000.00	90.50	96.29	2,680.36	-59.51	539.76	543.03	0.00	0.00	0.00
3,100.00	90.50	96.29	2,679.49	-70.47	639.15	643.02	0.00	0.00	0.00
3,200.00	90.50	96.29	2,678.61	-81.42	738.54	743.02	0.00	0.00	0.00
3,300.00	90.50	96.29	2,677.74	-92.38	837.94	843.01	0.00	0.00	0.00
3,400.00	90.50	96.29	2,676.87	-103.34	937.33	943.01	0.00	0.00	0.00
3,500.00	90.50	96.29	2,676.00	-114.30	1,036.73	1,043.01	0.00	0.00	0.00
3,600.00	90.50	96.29	2,675.12	-125.26	1,136.12	1,143.00	0.00	0.00	0.00
3,700.00	90.50	96.29	2,674.25	-136.21	1,235.51	1,243.00	0.00	0.00	0.00
3,800.00	90.50	96.29	2,673.38	-147.17	1,334.91	1,343.00	0.00	0.00	0.00
3,900.00	90.50	96.29	2,672.51	-158.13	1,434.30	1,442.99	0.00	0.00	0.00
4,000.00	90.50	96.29	2,671.63	-169.09	1,533.70	1,542.99	0.00	0.00	0.00
4,100.00	90.50	96.29	2,670.76	-180.05	1,633.09	1,642.98	0.00	0.00	0.00
4,200.00	90.50	96.29	2,669.89	-191.00	1,732.48	1,742.98	0.00	0.00	0.00
4,300.00	90.50	96.29	2,669.02	-201.96	1,831.88	1,842.98	0.00	0.00	0.00
4,400.00	90.50	96.29	2,668.14	-212.92	1,931.27	1,942.97	0.00	0.00	0.00
4,500.00	90.50	96.29	2,667.27	-223.88	2,030.66	2,042.97	0.00	0.00	0.00
4,600.00	90.50	96.29	2,666.40	-234.84	2,130.06	2,142.96	0.00	0.00	0.00
4,700.00	90.50	96.29	2,665.52	-245.79	2,229.45	2,242.96	0.00	0.00	0.00
4,800.00	90.50	96.29	2,664.65	-256.75	2,328.85	2,342.96	0.00	0.00	0.00
4,900.00	90.50	96.29	2,663.78	-267.71	2,428.24	2,442.95	0.00	0.00	0.00
5,000.00	90.50	96.29	2,662.91	-278.67	2,527.63	2,542.95	0.00	0.00	0.00
5,100.00	90.50	96.29	2,662.03	-289.63	2,627.03	2,642.95	0.00	0.00	0.00
5,200.00	90.50	96.29	2,661.16	-300.58	2,726.42	2,742.94	0.00	0.00	0.00
5,300.00	90.50	96.29	2,660.29	-311.54	2,825.82	2,842.94	0.00	0.00	0.00
5,400.00	90.50	96.29	2,659.42	-322.50	2,925.21	2,942.93	0.00	0.00	0.00
5,500.00	90.50	96.29	2,658.54	-333.46	3,024.60	3,042.93	0.00	0.00	0.00
5,600.00	90.50	96.29	2,657.67	-344.42	3,124.00	3,142.93	0.00	0.00	0.00
5,700.00	90.50	96.29	2,656.80	-355.38	3,223.39	3,242.92	0.00	0.00	0.00
5,800.00	90.50	96.29	2,655.93	-366.33	3,322.79	3,342.92	0.00	0.00	0.00
5,900.00	90.50	96.29	2,655.05	-377.29	3,422.18	3,442.92	0.00	0.00	0.00
6,000.00	90.50	96.29	2,654.18	-388.25	3,521.57	3,542.91	0.00	0.00	0.00
6,100.00	90.50	96.29	2,653.31	-399.21	3,620.97	3,642.91	0.00	0.00	0.00
6,200.00	90.50	96.29	2,652.43	-410.17	3,720.36	3,742.90	0.00	0.00	0.00
6,300.00	90.50	96.29	2,651.56	-421.12	3,819.76	3,842.90	0.00	0.00	0.00
6,400.00	90.50	96.29	2,650.69	-432.08	3,919.15	3,942.90	0.00	0.00	0.00
6,500.00	90.50	96.29	2,649.82	-443.04	4,018.54	4,042.89	0.00	0.00	0.00
6,553.48	90.50	96.29	2,649.35	-448.90	4,071.70	4,096.37	0.00	0.00	0.00

TD at 6553.48' MD



Planning Report



Database: Compass 5000 GCR
Company: COG Operating LLC
Project: Eddy County, NM (NAD27 NME)
Site: Pilum 15 Fee
Well: #2H
Wellbore: WB1
Design: Plan #4 11-25-14

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

Well #2H
KB @ 3374.00usft (Silver Oak 3)
KB @ 3374.00usft (Silver Oak 3)
Grid
Minimum Curvature

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									
BHL-Pilum 15 Fee #2H v1 - plan hits target center - Point	0.00	360.00	2,649.35	-448.90	4,071.70	633,475.70	489,948.40	32° 44' 29.45452 N	104° 21' 57.68719 W
PP-Pilum 15 Fee #2H v4 - plan hits target center - Point	0.00	0.00	2,678.25	-85.99	780.00	633,838.61	486,656.70	32° 44' 33.03398 N	104° 22' 36.22915 W

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,972.29	2,680.50	TL, 2685' TVD @ 0 VZ, 90.5° Inc		-0.50	95.34

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
2,159.66	2,159.66	0.00	0.00	KOP, Start 11"/100' Build
2,982.39	2,680.51	-57.58	522.25	LP, Hold 90.5° Inc, 96.29° Azm
6,553.48	2,649.35	-448.90	4,071.70	TD at 6553.48' MD