

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

OCD Artesia

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.

SUBMIT IN TRIPLICATE - Other instructions on reverse side.

1. Type of Well <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		5. Lease Serial No. NMNM7752
2. Name of Operator COG OPERATING LLC		6. If Indian, Allottee or Tribe Name
3a. Address ONE CONCHO CENTER 600 WILLINOIS AVENUE MIDLAND, TX 79701		7. If Unit or CA/Agreement, Name and/or No.
3b. Phone No. (include area code) Ph: 432-685-4384		8. Well Name and No. HOBGOBLIN 7 FEDERAL COM LBB 3H
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) Sec 7 T17S R30E SENE 1650FNL 0150FEL 32.851660 N Lat, 104.002740 W Lon		9. API Well No. 30-015-41814-00-X1
		10. Field and Pool, or Exploratory LOCO HILLS
		11. County or Parish, and State EDDY COUNTY, NM

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Deepen
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Alter Casing
	<input type="checkbox"/> Fracture Treat
	<input type="checkbox"/> Casing Repair
	<input type="checkbox"/> New Construction
	<input type="checkbox"/> Change Plans
	<input type="checkbox"/> Plug and Abandon
	<input type="checkbox"/> Convert to Injection
	<input type="checkbox"/> Plug Back
	<input type="checkbox"/> Production (Start/Resume)
	<input type="checkbox"/> Reclamation
	<input type="checkbox"/> Recomplete
	<input type="checkbox"/> Temporarily Abandon
	<input type="checkbox"/> Water Disposal
	<input type="checkbox"/> Water Shut-Off
	<input type="checkbox"/> Well Integrity
	<input checked="" type="checkbox"/> Other Change to Original APD

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 and name of this well:

FROM: Hobgoblin 7 Federal Com LBB #3H
TO: Hobgoblin 7 Federal Com PDK #3H 313343

FROM: 5527' TVD; 10095' MD
TO: 4552' TVD; 9121' MD

Attached is the revised C-102 and directional plan.

NM OIL CONSERVATION
ARTESIA DISTRICT

JUN 06 2014

Accepted for record
NMOCD 10/6/14

RECEIVED

Original COAs still stand

additional cement may be needed on 7 1/2" casing - 2 1/2' excess

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #247134 verified by the BLM Well Information System
For COG OPERATING LLC, sent to the Carlsbad
Committed to AFMSS for processing by CATHY QUEEN on 05/28/2014 (14CQ0053SE)

Name (Printed/Typed) KELLY J HOLLY	Title PERMITTING TECH
Signature (Electronic Submission)	Date 05/28/2014
THIS SPACE FOR FEDERAL OR STATE OFFICE USE	
Approved By	Title
BUREAU OF LAND MANAGEMENT CARLSBAD FIELD OFFICE	
Office	

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.

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.

District I
1623 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-9720

District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720

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, 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 30-015-41814	² Pool Code 96718	³ Pool Name Loco Hills; Glorieta Yeso
⁴ Property Code 40239	⁵ Property Name HOBGOBLIN 7 FED COM PDK	
⁷ OGRID No. 229137	⁸ Operator Name COG OPERATING, LLC	⁶ Well Number 3H
		⁹ Elevation 3674'

10 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	7	17-S	30-E		1650	NORTH	150	EAST	EDDY

11 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
2	7	17-S	30-E		1650	NORTH	330	WEST	EDDY

¹² Dedicated Acres 157.37	¹³ Joint or Infill	¹⁴ Consolidation Code	¹⁵ Order No.
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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.

	<p>17 OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and complies 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 at this 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 or unitization ordered by the division.</p> <p>Signature: <i>Kelly J. Holly</i> Date: 5-28-14</p> <p>Printed Name: Kelly J. Holly</p> <p>E-mail Address: kholly@concho.com</p>
	<p>18 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.</p> <p>Date of Survey: 1/31/13</p> <p>Signature and Seal of Professional Surveyor: <i>Robert M. Howett</i></p> <p>19680 Certificate Number</p> <p>Revised: 5/5/14 NAME</p>

COG OPERATING, LLC

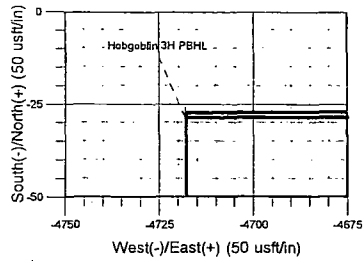
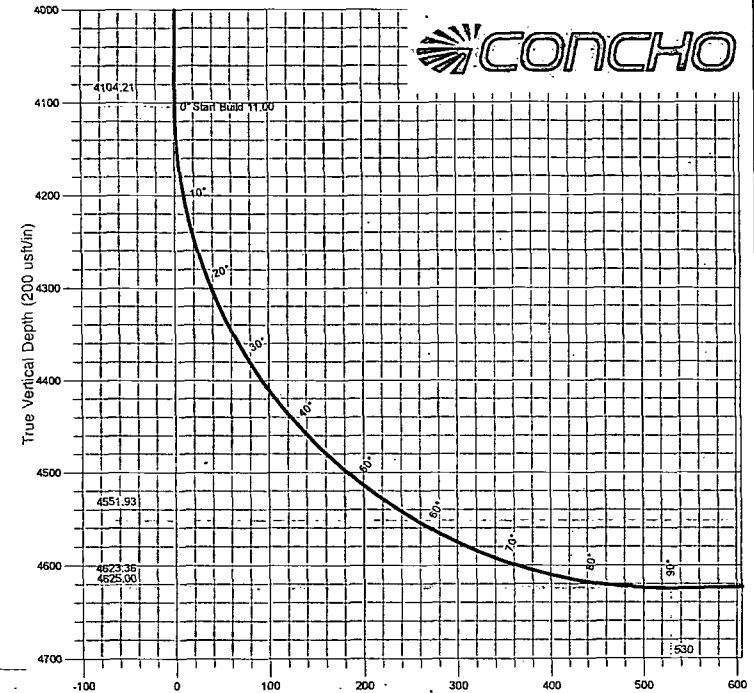
Field: Eddy County, NM
 Site: Hobgoblin 7 Federal Com PDK 3H
 Well: 3H
 Wellbore: Lateral
 Plan: Plan #2

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dipg	TFace	VSec	Target
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2	4104.21	0.00	0.00	4104.21	0.00	0.00	0.00	0.00	0.00	
3	4931.48	91.00	268.00	4625.00	-18.50	-529.64	11.00	268.00	529.74	
4	5025.56	91.00	269.88	4623.36	-20.23	-623.68	2.00	90.00	623.79	
5	9120.52	91.00	269.88	4551.93	-28.68	-4718.01	0.00	0.00	4718.10	Hobgoblin 3H PBHL

TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	Shape
Hobgoblin 3H PP	0.00	-5.84	-179.98	673699.54	601345.03	32° 51' 5.94 N	104° 0' 11.96 W	Point
Hobgoblin 3H Surface	0.00	0.00	0.00	673705.38	601525.01	32° 51' 5.99 N	104° 0' 9.85 W	Point
Hobgoblin 3H PBHL	4551.93	-28.68	-4718.01	673676.70	596807.00	32° 51' 5.85 N	104° 1' 5.16 W	Point



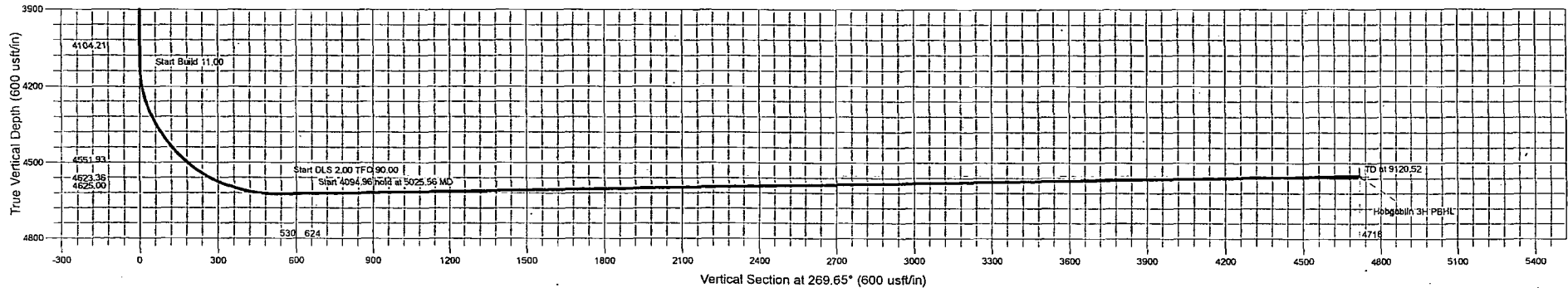
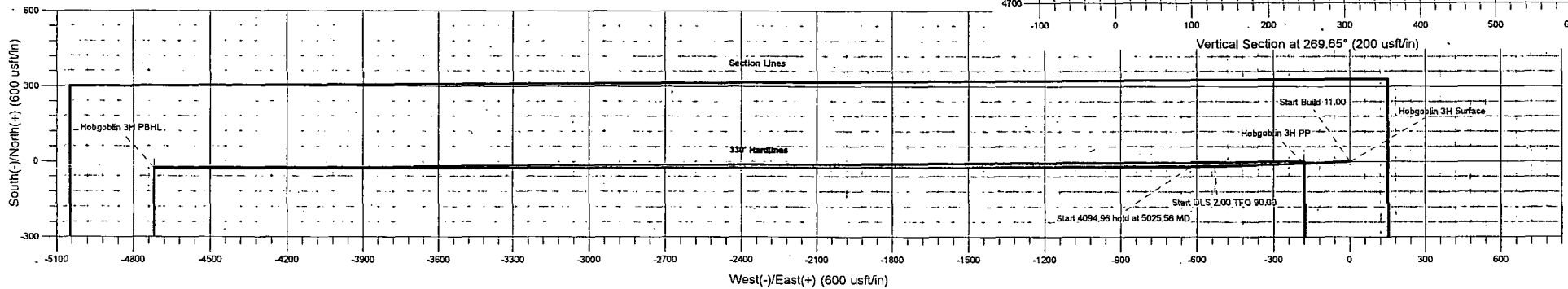
Section Distances

Sec 7 T17S, R30E
 SHL - Unit H
 1650'FNL, 150'FEL
 PP
 1655'FNL, 330'FEL
 PBHL - Lot 2
 1650'FNL, 330'FWL



Azimuths to Grid North
 True North: -0.18°
 Magnetic North: 7.30°

Magnetic Field
 Strength: 48654.9snT
 Dip Angle: 60.62°
 Date: 5/7/2014
 Model: IGRF2010



ARCHER DIRECTIONAL DRILLING SERVICES
 12101 Cutten Rd. Houston, Texas 77066
 Phone: 281-301-2600 Fax: 281-301-2795

Design: Plan #2 (3H/Lateral)
 Created By: Ivonne Gonzalez
 Date: 15:59, May 07 2014

COG OPERATING, LLC

Eddy County, NM

Hobgoblin 7 Federal Com PDK 3H

3H

Lateral

Plan: Plan #2

Standard Planning Report

07 May, 2014

Section Distances

Sec7,T17S,R30E

SHL - Unit H

1650'FNL, 150'FEL

PP

1655'FNL, 330'FEL

PBHL - Lot 2

1650'FNL, 330'FWL

Archer Planning Report

Database:	EDM 5000:1" Single User Db	Local Co-ordinate Reference:	Well 3H#
Company:	COG OPERATING, LLC	TVD Reference:	3674'GL+14'KB @ 3688.00usft (Planning)
Project:	Eddy County, NM	MD Reference:	3674'GL+14'KB @ 3688.00usft (Planning)
Site:	Hobgoblin 7 Federal Com PDK 3H	North Reference:	Grid
Well:	3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	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: Hobgoblin 7 Federal Com PDK 3H			
Site Position:		Northing:	673,705.38 usft
From:	Map	Easting:	601,525.01 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13.200 in
		Latitude:	32° 51' 5.99 N
		Longitude:	104° 0' 9.85 W
		Grid Convergence:	-0.18 °

Well: 3H			
Well Position	+N-S	0.00 usft	Northing: 673,705.38 usft
	+E-W	0.00 usft	Easting: 601,525.01 usft
Position Uncertainty		0.00 usft	Wellhead Elevation:
			Latitude: 32° 51' 5.99 N
			Longitude: 104° 0' 9.85 W
			Ground Level: 3,674.00 usft

Wellbore: Lateral					
Magnetics	Model Name	Sample Date	Declination	Dip Angle	Field Strength
	IGRF2010	5/7/2014	(°)	(°)	(nT)
			7.48	60.62	48,655

Design: Plan #2				
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD)	+N/-S	+E/-W	Direction
	(usft)	(usft)	(usft)	(°)
	0.00	0.00	0.00	269.65

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		
4,104.21	0.00	0.00	4,104.21	0.00	0.00	0.00	0.00	0.00	0.00		
4,931.48	91.00	268.00	4,625.00	-18.50	-529.64	11.00	11.00	0.00	268.00		
5,025.56	91.00	269.88	4,623.36	-20.23	-623.68	2.00	0.00	2.00	90.00		
9,120.52	91.00	269.88	4,551.93	-28.68	-4,718.01	0.00	0.00	0.00	0.00	Hobgoblin 3H PBHL	

Archer Planning Report

Database:	EDM 5000.1 Single User Db	Local Co-ordinate Reference:	Well: 3H
Company:	COG OPERATING, LLC	TVD Reference:	3674'GL+14'KB @ 3688.00usft (Planning)
Project:	Eddy County, NM	MD Reference:	3674'GL+14'KB @ 3688.00usft (Planning)
Site:	Hobgoblin 7 Federal Com PDK 3H	North Reference:	Grid
Well:	3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	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)	
0.00	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	0.00
200.00	0.00	0.00	200.00	0.00	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	0.00
400.00	0.00	0.00	400.00	0.00	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	0.00
600.00	0.00	0.00	600.00	0.00	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	0.00
800.00	0.00	0.00	800.00	0.00	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	0.00
1,000.00	0.00	0.00	1,000.00	0.00	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	0.00
1,200.00	0.00	0.00	1,200.00	0.00	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	0.00
1,400.00	0.00	0.00	1,400.00	0.00	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	0.00
1,600.00	0.00	0.00	1,600.00	0.00	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	0.00
1,800.00	0.00	0.00	1,800.00	0.00	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	0.00
2,000.00	0.00	0.00	2,000.00	0.00	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	0.00
2,200.00	0.00	0.00	2,200.00	0.00	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	0.00
2,400.00	0.00	0.00	2,400.00	0.00	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	0.00
2,600.00	0.00	0.00	2,600.00	0.00	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	0.00
2,800.00	0.00	0.00	2,800.00	0.00	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	0.00
3,000.00	0.00	0.00	3,000.00	0.00	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	0.00
3,200.00	0.00	0.00	3,200.00	0.00	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	0.00
3,400.00	0.00	0.00	3,400.00	0.00	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	0.00
3,600.00	0.00	0.00	3,600.00	0.00	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	0.00
3,800.00	0.00	0.00	3,800.00	0.00	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	0.00
4,000.00	0.00	0.00	4,000.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
4,104.21	0.00	0.00	4,104.21	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Start Build 11.00										
4,150.00	5.04	268.00	4,149.94	-0.07	-2.01	2.01	11.00	11.00	0.00	0.00
4,200.00	10.54	268.00	4,199.46	-0.31	-8.78	8.78	11.00	11.00	0.00	0.00
4,250.00	16.04	268.00	4,248.10	-0.71	-20.26	20.26	11.00	11.00	0.00	0.00
4,300.00	21.54	268.00	4,295.42	-1.27	-36.34	36.35	11.00	11.00	0.00	0.00
4,350.00	27.04	268.00	4,340.98	-1.99	-56.89	56.90	11.00	11.00	0.00	0.00
4,400.00	32.54	268.00	4,384.36	-2.85	-81.70	81.72	11.00	11.00	0.00	0.00
4,450.00	38.04	268.00	4,425.15	-3.86	-110.56	110.58	11.00	11.00	0.00	0.00
4,500.00	43.54	268.00	4,463.00	-5.00	-143.19	143.22	11.00	11.00	0.00	0.00
4,550.00	49.04	268.00	4,497.54	-6.26	-179.29	179.33	11.00	11.00	0.00	0.00
4,600.00	54.54	268.00	4,528.45	-7.63	-218.54	218.58	11.00	11.00	0.00	0.00
4,650.00	60.04	268.00	4,555.47	-9.10	-260.57	260.62	11.00	11.00	0.00	0.00

Archer

Planning Report

Database:	EDM_5000.1 Single User Db	Local Co-ordinate Reference:	Well: 3H
Company:	COG OPERATING, LLC	TVD Reference:	3674'GL+14'KB @ 3688.00usft (Planning)
Project:	Eddy County, NM	MD Reference:	3674'GL+14'KB @ 3688.00usft (Planning)
Site:	Hobgoblin 7 Federal Com.PDK 3H	North Reference:	Grid
Well:	3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	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)	
4,700.00	65.54	268.00	4,578.32	-10.65	-304.99	305.05	11.00	11.00	0.00	
4,750.00	71.04	268.00	4,596.81	-12.27	-351.39	351.46	11.00	11.00	0.00	
4,800.00	76.54	268.00	4,610.77	-13.95	-399.36	399.44	11.00	11.00	0.00	
4,850.00	82.04	268.00	4,620.06	-15.66	-448.44	448.53	11.00	11.00	0.00	
4,900.00	87.54	268.00	4,624.60	-17.40	-498.18	498.28	11.00	11.00	0.00	
4,931.48	91.00	268.00	4,625.00	-18.50	-529.64	529.74	11.00	11.00	0.00	
Start DLS 2.00 TFO 90.00										
5,000.00	91.00	269.37	4,623.81	-20.07	-598.13	598.24	2.00	0.00	2.00	
5,025.56	91.00	269.88	4,623.36	-20.23	-623.68	623.79	2.00	0.00	2.00	
Start 4094.96 hold at 5025.56 MD										
5,100.00	91.00	269.88	4,622.06	-20.39	-698.11	698.22	0.00	0.00	0.00	
5,200.00	91.00	269.88	4,620.32	-20.59	-798.09	798.20	0.00	0.00	0.00	
5,300.00	91.00	269.88	4,618.57	-20.80	-898.08	898.19	0.00	0.00	0.00	
5,400.00	91.00	269.88	4,616.83	-21.01	-998.06	998.17	0.00	0.00	0.00	
5,500.00	91.00	269.88	4,615.08	-21.21	-1,098.05	1,098.16	0.00	0.00	0.00	
5,600.00	91.00	269.88	4,613.34	-21.42	-1,198.03	1,198.14	0.00	0.00	0.00	
5,700.00	91.00	269.88	4,611.60	-21.62	-1,298.02	1,298.12	0.00	0.00	0.00	
5,800.00	91.00	269.88	4,609.85	-21.83	-1,398.00	1,398.11	0.00	0.00	0.00	
5,900.00	91.00	269.88	4,608.11	-22.04	-1,497.99	1,498.09	0.00	0.00	0.00	
6,000.00	91.00	269.88	4,606.36	-22.24	-1,597.97	1,598.08	0.00	0.00	0.00	
6,100.00	91.00	269.88	4,604.62	-22.45	-1,697.96	1,698.06	0.00	0.00	0.00	
6,200.00	91.00	269.88	4,602.87	-22.66	-1,797.94	1,798.04	0.00	0.00	0.00	
6,300.00	91.00	269.88	4,601.13	-22.86	-1,897.92	1,898.03	0.00	0.00	0.00	
6,400.00	91.00	269.88	4,599.39	-23.07	-1,997.91	1,998.01	0.00	0.00	0.00	
6,500.00	91.00	269.88	4,597.64	-23.28	-2,097.89	2,098.00	0.00	0.00	0.00	
6,600.00	91.00	269.88	4,595.90	-23.48	-2,197.88	2,197.98	0.00	0.00	0.00	
6,700.00	91.00	269.88	4,594.15	-23.69	-2,297.86	2,297.96	0.00	0.00	0.00	
6,800.00	91.00	269.88	4,592.41	-23.89	-2,397.85	2,397.95	0.00	0.00	0.00	
6,900.00	91.00	269.88	4,590.66	-24.10	-2,497.83	2,497.93	0.00	0.00	0.00	
7,000.00	91.00	269.88	4,588.92	-24.31	-2,597.82	2,597.92	0.00	0.00	0.00	
7,100.00	91.00	269.88	4,587.17	-24.51	-2,697.80	2,697.90	0.00	0.00	0.00	
7,200.00	91.00	269.88	4,585.43	-24.72	-2,797.79	2,797.88	0.00	0.00	0.00	
7,300.00	91.00	269.88	4,583.69	-24.93	-2,897.77	2,897.87	0.00	0.00	0.00	
7,400.00	91.00	269.88	4,581.94	-25.13	-2,997.75	2,997.85	0.00	0.00	0.00	
7,500.00	91.00	269.88	4,580.20	-25.34	-3,097.74	3,097.84	0.00	0.00	0.00	
7,600.00	91.00	269.88	4,578.45	-25.54	-3,197.72	3,197.82	0.00	0.00	0.00	
7,700.00	91.00	269.88	4,576.71	-25.75	-3,297.71	3,297.80	0.00	0.00	0.00	
7,800.00	91.00	269.88	4,574.96	-25.96	-3,397.69	3,397.79	0.00	0.00	0.00	
7,900.00	91.00	269.88	4,573.22	-26.16	-3,497.68	3,497.77	0.00	0.00	0.00	
8,000.00	91.00	269.88	4,571.48	-26.37	-3,597.66	3,597.76	0.00	0.00	0.00	
8,100.00	91.00	269.88	4,569.73	-26.58	-3,697.65	3,697.74	0.00	0.00	0.00	
8,200.00	91.00	269.88	4,567.99	-26.78	-3,797.63	3,797.72	0.00	0.00	0.00	
8,300.00	91.00	269.88	4,566.24	-26.99	-3,897.62	3,897.71	0.00	0.00	0.00	
8,400.00	91.00	269.88	4,564.50	-27.19	-3,997.60	3,997.69	0.00	0.00	0.00	
8,500.00	91.00	269.88	4,562.75	-27.40	-4,097.59	4,097.68	0.00	0.00	0.00	
8,600.00	91.00	269.88	4,561.01	-27.61	-4,197.57	4,197.66	0.00	0.00	0.00	
8,700.00	91.00	269.88	4,559.27	-27.81	-4,297.55	4,297.64	0.00	0.00	0.00	
8,800.00	91.00	269.88	4,557.52	-28.02	-4,397.54	4,397.63	0.00	0.00	0.00	
8,900.00	91.00	269.88	4,555.78	-28.23	-4,497.52	4,497.61	0.00	0.00	0.00	
9,000.00	91.00	269.88	4,554.03	-28.43	-4,597.51	4,597.60	0.00	0.00	0.00	
9,100.00	91.00	269.88	4,552.29	-28.64	-4,697.49	4,697.58	0.00	0.00	0.00	
9,120.52	91.00	269.88	4,551.93	-28.68	-4,718.01	4,718.10	0.00	0.00	0.00	
TD at 9120.52										

Archer Planning Report

Database:	EDM:5000.1:Single User Db	Local Co-ordinate Reference:	Well 3H
Company:	COG OPERATING, LLC	TVD Reference:	3674'GL+14'KB @ 3688.00usft (Planning)
Project:	Eddy County, NM	MD Reference:	3674'GL+14'KB @ 3688.00usft (Planning)
Site:	Hobgoblin 7 Federal Com PDK 3H	North Reference:	Grid:
Well:	3H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Lateral		
Design:	Plan #2		

Design Targets										
Target Name	hit/miss target	Dip Angle (°)	Dip Dir (°)	TVD (usft)	+N-S (usft)	+E-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
Hobgoblin 3H PP		0.00	0.00	0.00	-5.84	-179.98	673,699.54	601,345.03	32° 51' 5.94 N	104° 0' 11.96 W
- plan misses target center by 180.07usft at 0.00usft MD (0.00 TVD, 0.00 N, 0.00 E)										
- Point										
Hobgoblin 3H Surface		0.00	0.00	0.00	0.00	0.00	673,705.38	601,525.01	32° 51' 5.99 N	104° 0' 9.85 W
- plan hits target center										
- Point										
Hobgoblin 3H PBHL		0.00	0.00	4,551.93	-28.68	-4,718.01	673,676.70	596,807.00	32° 51' 5.85 N	104° 1' 5.16 W
- plan hits target center										
- Point										

Plan Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N-S (usft)	+E-W (usft)	
4,104.21	4,104.21	0.00	0.00	Start Build 11.00
4,931.48	4,625.00	-18.50	-529.64	Start DLS 2.00 TFO 90.00
5,025.56	4,623.36	-20.23	-623.68	Start 4094.96 hold at 5025.56 MD
9,120.52	4,551.93	-28.68	-4,718.01	TD at 9120.52