

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENTCarlsbad Field Office
HobbsFORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018**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.*Lease Serial No.
NMNM123530

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.
BASEBALL CAP FEDERAL COM 701H9. API Well No.
30-025-45793-00-X110. Field and Pool or Exploratory Area
WILDCAT;WOLFCAMP11. County or Parish, State
LEA COUNTY, NM

SUBMIT IN TRIPLICATE - Other instructions on page 2

AUG 22 2019
RECEIVED

1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator
COG OPERATING LLCContact: MAYTE REYES
E-Mail: mreyes1@concho.com3a. Address
ONE CONCHO CENTER 600 W ILLINOIS AVENUE
MIDLAND, TX 79701-42873b. Phone No. (include area code)
Ph: 575-748-6945

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

Sec 25 T24S R34E SESE 430FSL 1110FEL
32.182232 N Lat, 103.418777 W Lon

12. CHECK THE 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	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	Change to Original APD
	☐ 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 recompleat 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 must 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 must be filed once testing has been completed. Final Abandonment Notices must 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 approval for the following changes to the original APD.

BHL Change

From: 200' FNL & 760' FEL Section 24. T24S. R34E
To: 200' FNL & 990' FEL Section 24. T24S. R34E.C102 attached.
AC attached.
Directional plan attached.

All previous conditions of Approval still apply. DR

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

Electronic Submission #476644 verified by the BLM Well Information System
For COG OPERATING LLC, sent to the Hobbs
Committed to AFMSS for processing by PRISCILLA PEREZ on 08/05/2019 (19PP2756SE)

Name (Printed/Typed) MAYTE REYES

Title SENIOR REGULATORY ANALYST

Signature (Electronic Submission)

Date 08/05/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By DYLAN ROSSMANGO

Title PETROLEUM ENGINEER

Date 08/09/2019

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 Hobbs

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.

(Instructions on page 2)

** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED **

NORTHERN DELAWARE BASIN

LEA COUNTY, NM

BULLDOG

BASEBALL CAP FED COM #701H

OWB

Plan: PLAN #2

Standard Survey Report

31 July, 2019

Survey Report

Company: NORTHERN DELAWARE BASIN
 Project: LEA COUNTY, NM
 Site: BULLDOG
 Well: BASEBALL CAP FED COM #701H
 Wellbore: OWB
 Design: PLAN #2

Local Co-ordinate Reference: Well BASEBALL CAP FED COM #701H
 TVD Reference: KB=30' @ 3407.1usft (SCAN QUEST)
 MD Reference: KB=30' @ 3407.1usft (SCAN QUEST)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM_Users

Project	LEA 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 BULLDOG

Site Position: Northing: 398,637.10 usft Latitude: 32° 5' 36.820 N
 From: Map Easting: 741,887.40 usft Longitude: 103° 33' 8.116 W
 Position Uncertainty: 0.0 usft Slot Radius: 13-3/16 " Grid Convergence: 0.42 °

Well BASEBALL CAP FED COM #701H

Well Position +N/-S 0.0 usft Northing: 431,175.30 usft Latitude: 32° 10' 55.589 N
 +E/-W 0.0 usft Easting: 783,096.90 usft Longitude: 103° 25' 5.901 W
 Position Uncertainty 3.0 usft Wellhead Elevation: usft Ground Level: 3,377.1 usft

Wellbore OWB

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	6/19/2019	6.66	60.02	47,723.27206568

Design PLAN #2

Audit Notes:

Version: Phase: PLAN Tie On Depth: 11,900.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	0.25

Survey Tool Program Date 7/31/2019

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.0	11,900.0	GYRO-SURF/INTER (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4
11,900.0	23,042.6	PLAN #2 (OWB)	Standard Keeper 104	Standard Wireline Keeper ver 1.0.4

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.34	322.07	100.0	0.2	-0.2	0.2	0.34	0.34	0.00
200.0	0.44	320.29	200.0	0.8	-0.8	0.8	0.10	0.10	-1.78
300.0	0.18	286.49	300.0	1.2	-1.3	1.2	0.31	-0.26	-33.80
400.0	0.14	297.79	400.0	1.1	-1.5	1.1	0.05	-0.04	11.30
500.0	0.09	11.26	500.0	1.2	-1.6	1.2	0.14	-0.05	73.47
600.0	0.18	149.35	600.0	1.1	-1.5	1.1	0.25	0.09	138.09
700.0	0.17	198.62	700.0	0.8	-1.4	0.8	0.15	-0.01	49.27
800.0	0.04	52.07	800.0	0.7	-1.5	0.7	0.20	-0.13	-146.55
900.0	0.21	102.32	900.0	0.7	-1.3	0.7	0.19	0.17	50.25

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 Wellbore: OWB
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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)
1,000.0	0.23	200.61	1,000.0	0.5	-1.1	0.5	0.33	0.02	98.29
1,100.0	0.14	324.47	1,100.0	0.4	-1.2	0.4	0.33	-0.09	123.86
1,200.0	0.16	127.19	1,200.0	0.4	-1.0	0.4	0.30	0.02	162.72
1,300.0	0.79	260.40	1,300.0	0.2	-1.4	0.2	0.91	0.63	133.21
1,400.0	0.61	253.59	1,400.0	0.0	-2.6	0.0	0.20	-0.18	-6.81
1,500.0	0.86	236.39	1,500.0	-0.5	-3.7	-0.5	0.33	0.25	-17.20
1,600.0	0.96	220.31	1,600.0	-1.7	-4.8	-1.7	0.27	0.10	-16.08
1,700.0	0.95	218.81	1,699.9	-2.9	-5.9	-2.9	0.03	-0.01	-1.50
1,800.0	0.26	183.22	1,799.9	-3.8	-6.7	-3.9	0.75	-0.69	-35.59
1,900.0	0.27	131.10	1,899.9	-4.2	-6.4	-4.2	0.23	0.01	-52.12
2,000.0	0.36	121.92	1,999.9	-4.5	-6.0	-4.5	0.10	0.09	-9.18
2,100.0	0.49	122.06	2,099.9	-4.9	-5.5	-4.9	0.13	0.13	0.14
2,200.0	0.56	123.91	2,199.9	-5.4	-4.7	-5.4	0.07	0.07	1.85
2,300.0	0.54	134.04	2,299.9	-6.0	-4.0	-6.0	0.10	-0.02	10.13
2,400.0	0.54	124.43	2,399.9	-6.7	-3.0	-6.8	0.09	0.00	-9.61
2,500.0	2.31	135.82	2,499.9	-8.7	-1.2	-8.7	1.78	1.77	11.39
2,600.0	3.37	139.65	2,599.7	-12.7	2.3	-12.7	1.08	1.06	3.83
2,700.0	3.71	135.24	2,699.5	-17.3	6.5	-17.3	0.44	0.34	-4.41
2,800.0	5.01	131.89	2,799.2	-22.4	12.1	-22.4	1.32	1.30	-3.35
2,900.0	5.72	132.68	2,898.8	-28.8	19.2	-28.7	0.71	0.71	0.79
3,000.0	5.80	132.85	2,998.3	-35.6	26.6	-35.5	0.08	0.08	0.17
3,100.0	6.46	139.66	3,097.7	-43.0	34.0	-42.9	0.98	0.66	6.81
3,200.0	6.68	140.95	3,197.1	-52.0	41.4	-51.8	0.26	0.22	1.29
3,300.0	6.96	140.39	3,296.3	-61.2	49.0	-61.0	0.29	0.28	-0.56
3,400.0	6.93	140.35	3,395.6	-70.6	56.8	-70.3	0.03	-0.03	-0.04
3,500.0	6.65	137.96	3,494.9	-79.7	64.6	-79.4	0.40	-0.28	-2.39
3,600.0	6.32	135.36	3,594.2	-87.9	72.2	-87.5	0.44	-0.33	-2.60
3,700.0	6.41	135.52	3,693.6	-95.8	80.0	-95.5	0.09	0.09	0.16
3,800.0	6.39	135.95	3,793.0	-103.8	87.7	-103.4	0.05	-0.02	0.43
3,900.0	6.29	136.69	3,892.4	-111.8	95.4	-111.3	0.13	-0.10	0.74
4,000.0	6.32	136.46	3,991.8	-119.8	102.9	-119.4	0.04	0.03	-0.23
4,100.0	6.46	136.70	4,091.2	-127.9	110.6	-127.5	0.14	0.14	0.24
4,200.0	6.49	137.22	4,190.5	-136.2	118.3	-135.7	0.07	0.03	0.52
4,300.0	6.56	137.26	4,289.9	-144.5	126.1	-144.0	0.07	0.07	0.04
4,400.0	5.65	138.21	4,389.3	-152.4	133.3	-151.8	0.92	-0.91	0.95
4,500.0	5.17	135.91	4,488.9	-159.1	139.5	-158.5	0.53	-0.48	-2.30
4,600.0	5.53	134.41	4,588.4	-165.7	145.9	-165.1	0.39	0.36	-1.50
4,700.0	6.44	137.00	4,687.9	-173.1	153.3	-172.4	0.95	0.91	2.59
4,800.0	6.99	140.81	4,787.2	-182.3	160.9	-181.6	0.71	0.55	3.81
4,900.0	7.06	141.16	4,886.4	-191.9	168.6	-191.2	0.08	0.07	0.35
5,000.0	7.14	141.01	4,985.7	-201.6	176.3	-200.8	0.08	0.08	-0.15
5,100.0	7.23	140.61	5,084.9	-211.2	184.3	-210.5	0.10	0.09	-0.40
5,200.0	7.12	138.26	5,184.1	-220.8	192.4	-220.0	0.31	-0.11	-2.35

Survey Report

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Project: LEA COUNTY, NM
Site: BULLDOG
Well: BASEBALL CAP FED COM #701H
Wellbore: OWB
Design: PLAN #2

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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)
5,300.0	5.76	139.85	5,283.4	-229.8	200.3	-228.9	1.37	-1.36	1.59
5,400.0	4.99	135.88	5,382.9	-236.7	206.3	-235.8	0.85	-0.77	-3.97
5,500.0	4.88	134.81	5,482.6	-242.8	212.4	-241.9	0.14	-0.11	-1.07
5,600.0	4.76	135.12	5,582.2	-248.6	218.3	-247.7	0.12	-0.12	0.31
5,700.0	4.75	133.80	5,681.9	-254.3	224.2	-253.4	0.11	-0.01	-1.32
5,800.0	4.83	133.40	5,781.5	-260.1	230.2	-259.1	0.09	0.08	-0.40
5,900.0	4.83	132.38	5,881.2	-265.9	236.3	-264.9	0.09	0.00	-1.02
6,000.0	4.84	133.83	5,980.8	-271.7	242.3	-270.7	0.12	0.01	1.45
6,100.0	4.83	133.76	6,080.5	-277.5	248.5	-276.5	0.01	-0.01	-0.07
6,200.0	4.95	133.11	6,180.1	-283.4	254.7	-282.3	0.13	0.12	-0.65
6,300.0	4.79	135.35	6,279.7	-289.3	260.8	-288.2	0.25	-0.16	2.24
6,400.0	4.80	133.99	6,379.4	-295.3	266.8	-294.1	0.11	0.01	-1.36
6,500.0	4.73	133.82	6,479.0	-301.1	272.6	-299.9	0.07	-0.07	-0.17
6,600.0	4.60	132.52	6,578.7	-306.7	278.5	-305.5	0.17	-0.13	-1.30
6,700.0	4.71	134.44	6,678.4	-312.4	284.4	-311.2	0.19	0.11	1.92
6,800.0	5.03	137.76	6,778.0	-318.8	290.3	-317.5	0.43	0.32	3.32
6,900.0	5.10	138.82	6,877.6	-325.4	296.3	-324.1	0.12	0.07	1.06
7,000.0	5.15	138.33	6,977.2	-331.9	302.1	-330.6	0.07	0.05	-0.49
7,100.0	5.11	137.41	7,076.8	-338.6	308.1	-337.2	0.09	-0.04	-0.92
7,200.0	5.25	137.65	7,176.4	-345.3	314.2	-344.0	0.14	0.14	0.24
7,300.0	5.26	138.07	7,276.0	-352.1	320.4	-350.8	0.04	0.01	0.42
7,400.0	4.50	142.06	7,375.6	-358.7	326.0	-357.3	0.83	-0.76	3.99
7,500.0	4.40	141.82	7,475.3	-364.7	330.8	-363.3	0.10	-0.10	-0.24
7,600.0	3.32	145.13	7,575.1	-370.3	335.0	-368.9	1.10	-1.08	3.31
7,700.0	2.39	155.85	7,674.9	-374.4	337.8	-373.0	1.07	-0.93	10.72
7,800.0	2.50	153.36	7,774.8	-378.3	339.8	-376.8	0.15	0.11	-2.49
7,900.0	2.35	160.74	7,874.7	-382.2	341.4	-380.7	0.35	-0.15	7.38
8,000.0	2.25	175.03	7,974.7	-386.1	342.1	-384.7	0.58	-0.10	14.29
8,100.0	2.29	174.69	8,074.6	-390.0	342.5	-388.5	0.04	0.04	-0.34
8,200.0	2.30	173.86	8,174.5	-393.9	343.0	-392.4	0.03	0.01	-0.83
8,300.0	1.85	171.57	8,274.4	-397.5	343.4	-396.1	0.46	-0.45	-2.29
8,400.0	1.30	174.23	8,374.4	-399.9	343.7	-398.5	0.55	-0.55	2.66
8,500.0	1.27	170.15	8,474.4	-402.1	344.0	-400.6	0.10	-0.03	-4.08
8,600.0	1.04	177.12	8,574.4	-404.1	344.3	-402.6	0.27	-0.23	6.97
8,700.0	1.16	173.83	8,674.3	-406.0	344.6	-404.5	0.14	0.12	-3.29
8,800.0	1.17	175.87	8,774.3	-408.0	344.9	-406.5	0.04	0.01	2.04
8,900.0	1.16	175.64	8,874.3	-409.9	345.0	-408.4	0.01	-0.01	-0.23
9,000.0	1.21	181.56	8,974.3	-411.8	345.1	-410.3	0.13	0.05	5.92
9,100.0	1.16	184.39	9,074.3	-413.8	345.0	-412.3	0.08	-0.05	2.83
9,200.0	1.17	184.86	9,174.3	-415.7	344.9	-414.2	0.01	0.01	0.47
9,300.0	1.08	188.26	9,274.2	-417.7	344.7	-416.2	0.11	-0.09	3.40
9,400.0	1.19	191.23	9,374.2	-419.7	344.5	-418.2	0.12	0.11	2.97
9,500.0	1.14	194.85	9,474.2	-421.6	344.1	-420.1	0.09	-0.05	3.62

Survey Report

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9,600.0	1.13	194.02	9,574.2	-423.4	343.6	-421.9	0.02	-0.01	-0.83
9,700.0	1.16	198.02	9,674.2	-425.3	343.1	-423.9	0.09	0.03	4.00
9,800.0	1.14	199.75	9,774.1	-427.2	342.6	-425.7	0.04	-0.02	1.73
9,900.0	1.14	199.88	9,874.1	-429.1	341.9	-427.6	0.00	0.00	0.13
10,000.0	1.11	197.43	9,974.1	-431.1	341.3	-429.6	0.06	-0.03	-2.45
10,100.0	1.01	214.38	10,074.1	-432.7	340.6	-431.2	0.33	-0.10	16.95
10,200.0	3.75	359.07	10,174.0	-432.1	339.7	-430.7	4.61	2.74	144.69
10,300.0	5.61	2.60	10,273.6	-423.0	340.0	-421.6	1.88	1.86	3.53
10,400.0	5.28	2.70	10,373.2	-413.7	340.3	-412.2	0.33	-0.33	0.10
10,500.0	4.44	0.47	10,472.8	-405.4	340.4	-403.9	0.86	-0.84	-2.23
10,600.0	4.02	358.80	10,572.6	-397.9	340.3	-396.4	0.44	-0.42	-1.67
10,700.0	3.63	356.96	10,672.3	-391.2	340.0	-389.7	0.41	-0.39	-1.84
10,800.0	3.55	356.61	10,772.1	-384.8	339.8	-383.3	0.08	-0.08	-0.35
10,900.0	2.72	357.85	10,871.9	-378.7	339.6	-377.3	0.83	-0.83	1.24
11,000.0	2.25	356.37	10,971.9	-374.6	339.5	-373.2	0.47	-0.47	-1.48
11,100.0	2.10	353.50	11,071.8	-370.8	339.2	-369.4	0.19	-0.15	-2.87
11,200.0	1.88	354.08	11,171.7	-367.4	338.8	-365.9	0.22	-0.22	0.58
11,300.0	1.68	348.62	11,271.7	-364.4	338.2	-362.9	0.26	-0.20	-5.46
11,400.0	1.80	349.63	11,371.6	-361.4	337.6	-359.9	0.12	0.12	1.01
11,500.0	1.59	346.50	11,471.6	-358.4	336.9	-357.0	0.23	-0.21	-3.13
11,600.0	0.93	330.56	11,571.6	-356.4	336.2	-355.0	0.74	-0.66	-15.94
11,700.0	0.75	298.98	11,671.6	-355.4	335.2	-354.0	0.49	-0.18	-31.58
11,800.0	0.74	286.54	11,771.5	-354.8	334.1	-353.4	0.16	-0.01	-12.44
11,900.0	1.11	283.09	11,871.5	-354.3	332.6	-352.9	0.37	0.37	-3.45
TIE ON POINT									
12,000.0	1.11	283.09	11,971.5	-353.9	330.7	-352.5	0.00	0.00	0.00
12,100.0	1.11	283.09	12,071.5	-353.5	328.8	-352.0	0.00	0.00	0.00
12,200.0	1.11	283.09	12,171.5	-353.0	326.9	-351.6	0.00	0.00	0.00
12,300.0	1.11	283.09	12,271.5	-352.6	325.1	-351.2	0.00	0.00	0.00
12,342.7	1.11	283.09	12,314.1	-352.4	324.3	-351.0	0.00	0.00	0.00
Start DLS 10.00 TFO 64.07									
12,400.0	6.29	338.07	12,371.3	-349.4	322.5	-348.0	10.00	9.05	95.94
12,500.0	16.25	343.73	12,469.3	-330.8	316.6	-329.4	10.00	9.95	5.66
12,600.0	26.23	345.13	12,562.4	-295.9	306.9	-294.6	10.00	9.99	1.40
12,700.0	36.23	345.79	12,647.8	-245.8	294.0	-244.5	10.00	9.99	0.66
12,800.0	46.22	346.20	12,722.9	-181.9	278.1	-180.7	10.00	10.00	0.41
12,900.0	56.22	346.49	12,785.4	-106.3	259.7	-105.1	10.00	10.00	0.29
13,000.0	66.22	346.71	12,833.5	-21.1	239.4	-20.1	10.00	10.00	0.23
13,100.0	76.22	346.91	12,865.7	71.0	217.9	71.9	10.00	10.00	0.20
13,200.0	86.22	347.09	12,880.9	167.1	195.7	168.0	10.00	10.00	0.18
13,252.2	91.44	347.18	12,882.0	218.0	184.0	218.8	10.00	10.00	0.17
Start DLS 2.00 TFO 89.88									
13,300.0	91.44	348.14	12,880.8	264.7	173.8	265.4	2.00	0.00	2.00
13,400.0	91.44	350.14	12,878.3	362.8	155.0	363.5	2.00	0.00	2.00

Survey Report

Company: NORTHERN DELAWARE BASIN
Project: LEA COUNTY, NM
Site: BULLDOG
Well: BASEBALL CAP FED COM #701H
Wellbore: OWB
Design: PLAN #2

Local Co-ordinate Reference: Well BASEBALL CAP FED COM #701H
TVD Reference: KB=30' @ 3407.1usft (SCAN QUEST)
MD Reference: KB=30' @ 3407.1usft (SCAN QUEST)
North Reference: Grid
Survey Calculation Method: Minimum Curvature
Database: EDM_Users

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)
13,500.0	91.45	352.14	12,875.7	461.6	139.6	462.2	2.00	0.00	2.00
13,600.0	91.44	354.14	12,873.2	560.9	127.6	561.4	2.00	0.00	2.00
13,700.0	91.44	356.14	12,870.7	660.5	119.2	661.0	2.00	0.00	2.00
13,800.0	91.44	358.14	12,868.2	760.3	114.2	760.8	2.00	0.00	2.00
13,871.3	91.43	359.56	12,866.4	831.5	112.7	832.0	2.00	-0.01	2.00
Start 9171.6 hold at 13871.3 MD									
13,900.0	91.43	359.56	12,865.7	860.3	112.5	860.7	0.00	0.00	0.00
14,000.0	91.43	359.56	12,863.2	960.2	111.8	960.7	0.00	0.00	0.00
14,100.0	91.43	359.56	12,860.7	1,060.2	111.0	1,060.7	0.00	0.00	0.00
14,200.0	91.43	359.56	12,858.2	1,160.2	110.2	1,160.6	0.00	0.00	0.00
14,300.0	91.43	359.56	12,855.7	1,260.1	109.5	1,260.6	0.00	0.00	0.00
14,400.0	91.43	359.56	12,853.2	1,360.1	108.7	1,360.5	0.00	0.00	0.00
14,500.0	91.43	359.56	12,850.7	1,460.1	108.0	1,460.5	0.00	0.00	0.00
14,600.0	91.43	359.56	12,848.2	1,560.0	107.2	1,560.5	0.00	0.00	0.00
14,700.0	91.43	359.56	12,845.7	1,660.0	106.4	1,660.4	0.00	0.00	0.00
14,800.0	91.43	359.56	12,843.2	1,760.0	105.7	1,760.4	0.00	0.00	0.00
14,900.0	91.43	359.56	12,840.7	1,859.9	104.9	1,860.4	0.00	0.00	0.00
15,000.0	91.43	359.56	12,838.2	1,959.9	104.2	1,960.3	0.00	0.00	0.00
15,100.0	91.43	359.56	12,835.7	2,059.8	103.4	2,060.3	0.00	0.00	0.00
15,200.0	91.43	359.56	12,833.2	2,159.8	102.6	2,160.2	0.00	0.00	0.00
15,300.0	91.43	359.56	12,830.7	2,259.8	101.9	2,260.2	0.00	0.00	0.00
15,400.0	91.43	359.56	12,828.2	2,359.7	101.1	2,360.2	0.00	0.00	0.00
15,500.0	91.43	359.56	12,825.7	2,459.7	100.4	2,460.1	0.00	0.00	0.00
15,600.0	91.43	359.56	12,823.2	2,559.7	99.6	2,560.1	0.00	0.00	0.00
15,700.0	91.43	359.56	12,820.7	2,659.6	98.8	2,660.0	0.00	0.00	0.00
15,800.0	91.43	359.56	12,818.2	2,759.6	98.1	2,760.0	0.00	0.00	0.00
15,900.0	91.43	359.56	12,815.7	2,859.6	97.3	2,860.0	0.00	0.00	0.00
16,000.0	91.43	359.56	12,813.2	2,959.5	96.6	2,959.9	0.00	0.00	0.00
16,100.0	91.43	359.56	12,810.7	3,059.5	95.8	3,059.9	0.00	0.00	0.00
16,200.0	91.43	359.56	12,808.2	3,159.5	95.0	3,159.9	0.00	0.00	0.00
16,300.0	91.43	359.56	12,805.7	3,259.4	94.3	3,259.8	0.00	0.00	0.00
16,400.0	91.43	359.56	12,803.2	3,359.4	93.5	3,359.8	0.00	0.00	0.00
16,500.0	91.43	359.56	12,800.7	3,459.4	92.8	3,459.7	0.00	0.00	0.00
16,600.0	91.43	359.56	12,798.2	3,559.3	92.0	3,559.7	0.00	0.00	0.00
16,700.0	91.43	359.56	12,795.7	3,659.3	91.2	3,659.7	0.00	0.00	0.00
16,800.0	91.43	359.56	12,793.1	3,759.3	90.5	3,759.6	0.00	0.00	0.00
16,900.0	91.43	359.56	12,790.6	3,859.2	89.7	3,859.6	0.00	0.00	0.00
17,000.0	91.43	359.56	12,788.1	3,959.2	89.0	3,959.5	0.00	0.00	0.00
17,100.0	91.43	359.56	12,785.6	4,059.2	88.2	4,059.5	0.00	0.00	0.00
17,200.0	91.43	359.56	12,783.1	4,159.1	87.4	4,159.5	0.00	0.00	0.00
17,300.0	91.43	359.56	12,780.6	4,259.1	86.7	4,259.4	0.00	0.00	0.00
17,400.0	91.43	359.56	12,778.1	4,359.1	85.9	4,359.4	0.00	0.00	0.00
17,500.0	91.43	359.56	12,775.6	4,459.0	85.2	4,459.4	0.00	0.00	0.00
17,600.0	91.43	359.56	12,773.1	4,559.0	84.4	4,559.3	0.00	0.00	0.00

Survey Report

Company: NORTHERN DELAWARE BASIN
 Project: LEA COUNTY, NM
 Site: BULLDOG
 Well: BASEBALL CAP FED COM #701H
 Wellbore: OWB
 Design: PLAN #2

Local Co-ordinate Reference: Well BASEBALL CAP FED COM #701H
 TVD Reference: KB=30' @ 3407.1usft (SCAN QUEST)
 MD Reference: KB=30' @ 3407.1usft (SCAN QUEST)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM_Users

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)
17,700.0	91.43	359.56	12,770.6	4,659.0	83.6	4,659.3	0.00	0.00	0.00
17,800.0	91.43	359.56	12,768.1	4,758.9	82.9	4,759.2	0.00	0.00	0.00
17,900.0	91.43	359.56	12,765.6	4,858.9	82.1	4,859.2	0.00	0.00	0.00
18,000.0	91.43	359.56	12,763.1	4,958.9	81.3	4,959.2	0.00	0.00	0.00
18,100.0	91.43	359.56	12,760.6	5,058.8	80.6	5,059.1	0.00	0.00	0.00
18,200.0	91.43	359.56	12,758.1	5,158.8	79.8	5,159.1	0.00	0.00	0.00
18,300.0	91.43	359.56	12,755.6	5,258.8	79.1	5,259.0	0.00	0.00	0.00
18,400.0	91.43	359.56	12,753.1	5,358.7	78.3	5,359.0	0.00	0.00	0.00
18,500.0	91.43	359.56	12,750.6	5,458.7	77.5	5,459.0	0.00	0.00	0.00
18,600.0	91.43	359.56	12,748.1	5,558.7	76.8	5,558.9	0.00	0.00	0.00
18,700.0	91.43	359.56	12,745.6	5,658.6	76.0	5,658.9	0.00	0.00	0.00
18,800.0	91.43	359.56	12,743.1	5,758.6	75.3	5,758.9	0.00	0.00	0.00
18,900.0	91.43	359.56	12,740.6	5,858.6	74.5	5,858.8	0.00	0.00	0.00
19,000.0	91.43	359.56	12,738.1	5,958.5	73.7	5,958.8	0.00	0.00	0.00
19,100.0	91.43	359.56	12,735.6	6,058.5	73.0	6,058.7	0.00	0.00	0.00
19,200.0	91.43	359.56	12,733.1	6,158.4	72.2	6,158.7	0.00	0.00	0.00
19,300.0	91.43	359.56	12,730.6	6,258.4	71.5	6,258.7	0.00	0.00	0.00
19,400.0	91.43	359.56	12,728.1	6,358.4	70.7	6,358.6	0.00	0.00	0.00
19,500.0	91.43	359.56	12,725.6	6,458.3	69.9	6,458.6	0.00	0.00	0.00
19,600.0	91.43	359.56	12,723.1	6,558.3	69.2	6,558.5	0.00	0.00	0.00
19,700.0	91.43	359.56	12,720.6	6,658.3	68.4	6,658.5	0.00	0.00	0.00
19,800.0	91.43	359.56	12,718.1	6,758.2	67.7	6,758.5	0.00	0.00	0.00
19,900.0	91.43	359.56	12,715.6	6,858.2	66.9	6,858.4	0.00	0.00	0.00
20,000.0	91.43	359.56	12,713.1	6,958.2	66.1	6,958.4	0.00	0.00	0.00
20,100.0	91.43	359.56	12,710.6	7,058.1	65.4	7,058.4	0.00	0.00	0.00
20,200.0	91.43	359.56	12,708.1	7,158.1	64.6	7,158.3	0.00	0.00	0.00
20,300.0	91.43	359.56	12,705.6	7,258.1	63.9	7,258.3	0.00	0.00	0.00
20,400.0	91.43	359.56	12,703.1	7,358.0	63.1	7,358.2	0.00	0.00	0.00
20,500.0	91.43	359.56	12,700.6	7,458.0	62.3	7,458.2	0.00	0.00	0.00
20,600.0	91.43	359.56	12,698.1	7,558.0	61.6	7,558.2	0.00	0.00	0.00
20,700.0	91.43	359.56	12,695.6	7,657.9	60.8	7,658.1	0.00	0.00	0.00
20,800.0	91.43	359.56	12,693.1	7,757.9	60.1	7,758.1	0.00	0.00	0.00
20,900.0	91.43	359.56	12,690.6	7,857.9	59.3	7,858.0	0.00	0.00	0.00
21,000.0	91.43	359.56	12,688.1	7,957.8	58.5	7,958.0	0.00	0.00	0.00
21,100.0	91.43	359.56	12,685.6	8,057.8	57.8	8,058.0	0.00	0.00	0.00
21,200.0	91.43	359.56	12,683.1	8,157.8	57.0	8,157.9	0.00	0.00	0.00
21,300.0	91.43	359.56	12,680.6	8,257.7	56.3	8,257.9	0.00	0.00	0.00
21,400.0	91.43	359.56	12,678.1	8,357.7	55.5	8,357.9	0.00	0.00	0.00
21,500.0	91.43	359.56	12,675.6	8,457.7	54.7	8,457.8	0.00	0.00	0.00
21,600.0	91.43	359.56	12,673.1	8,557.6	54.0	8,557.8	0.00	0.00	0.00
21,700.0	91.43	359.56	12,670.6	8,657.6	53.2	8,657.7	0.00	0.00	0.00
21,800.0	91.43	359.56	12,668.1	8,757.6	52.5	8,757.7	0.00	0.00	0.00
21,900.0	91.43	359.56	12,665.6	8,857.5	51.7	8,857.7	0.00	0.00	0.00

Survey Report

Company: NORTHERN DELAWARE BASIN
 Project: LEA COUNTY, NM
 Site: BULLDOG
 Well: BASEBALL CAP FED COM #701H
 Wellbore: OWB
 Design: PLAN #2

Local Co-ordinate Reference: Well BASEBALL CAP FED COM #701H
 TVD Reference: KB=30' @ 3407.1usft (SCAN QUEST)
 MD Reference: KB=30' @ 3407.1usft (SCAN QUEST)
 North Reference: Grid
 Survey Calculation Method: Minimum Curvature
 Database: EDM_Users

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)
22,000.0	91.43	359.56	12,663.1	8,957.5	50.9	8,957.6	0.00	0.00	0.00
22,100.0	91.43	359.56	12,660.6	9,057.5	50.2	9,057.6	0.00	0.00	0.00
22,200.0	91.43	359.56	12,658.1	9,157.4	49.4	9,157.6	0.00	0.00	0.00
22,300.0	91.43	359.56	12,655.6	9,257.4	48.6	9,257.5	0.00	0.00	0.00
22,400.0	91.43	359.56	12,653.1	9,357.4	47.9	9,357.5	0.00	0.00	0.00
22,500.0	91.43	359.56	12,650.6	9,457.3	47.1	9,457.4	0.00	0.00	0.00
22,600.0	91.43	359.56	12,648.1	9,557.3	46.4	9,557.4	0.00	0.00	0.00
22,700.0	91.43	359.56	12,645.6	9,657.3	45.6	9,657.4	0.00	0.00	0.00
22,800.0	91.43	359.56	12,643.1	9,757.2	44.8	9,757.3	0.00	0.00	0.00
22,900.0	91.43	359.56	12,640.6	9,857.2	44.1	9,857.3	0.00	0.00	0.00
23,000.0	91.43	359.56	12,638.1	9,957.1	43.3	9,957.2	0.00	0.00	0.00
23,042.9	91.43	359.56	12,637.0	10,000.0	43.0	10,000.1	0.00	0.00	0.00
TD at 23042.9									

Design Targets

Target Name

- hit/miss target	Dip Angle	Dip Dir.	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
- Shape	(°)	(°)	(usft)	(usft)	(usft)	(usft)	(usft)		
BHL (BASEBALL CAF	1.43	179.56	12,637.0	10,000.0	43.0	441,175.30	783,139.90	32° 12' 34.537 N	103° 25' 4.410 W
- plan hits target center									
- Rectangle (sides W100.0 H10,379.0 D20.0)									
LTP (BASEBALL CAP	0.00	0.00	12,640.3	9,870.0	44.0	441,045.30	783,140.90	32° 12' 33.250 N	103° 25' 4.411 W
- plan hits target center									
- Point									
FTP (BASEBALL CAF	0.00	0.00	12,882.0	-101.0	120.6	431,074.30	783,217.50	32° 10' 54.579 N	103° 25' 4.507 W
- plan misses target center by 149.1usft at 12979.3usft MD (12824.8 TVD, -39.4 N, 243.7 E)									
- Point									

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	+E/-W (usft)	Comment
11,900	11,872	-354	333	TIE ON POINT
12,343	12,314	-352	324	Start DLS 10.00 TFO 64.07
13,252	12,882	218	184	Start DLS 2.00 TFO 89.88
13,871	12,866	832	113	Start 9171.6 hold at 13871.3 MD
23,043	12,637	10,000	43	TD at 23042.9

Checked By: _____ Approved By: _____ Date: _____

PRINCE LIA COUNTY, MS
 THE BALLOON CAP RD COM RTH
 BALLOON CAP RD COM RTH
 11. 3371.6
 (Note: @ 100' (100' RADIUS CURVE))

Station	Offset	Station	Offset	Station	Offset	Station	Offset	Station	Offset
11. 3371.6	0.0	11. 3371.6	0.0	11. 3371.6	0.0	11. 3371.6	0.0	11. 3371.6	0.0

Station	Offset	Station	Offset	Station	Offset	Station	Offset	Station	Offset
11. 3371.6	0.0	11. 3371.6	0.0	11. 3371.6	0.0	11. 3371.6	0.0	11. 3371.6	0.0



CONC 11.0

