

District I
1625 N. French Dr., Hobbs, NM 88340
Phone: (575) 393-6161 Fax: (575) 393-0720
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

NM OIL CONSERVATION
ARTESIA DISTRICT
State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis
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

As Drilled

1 API Number 30-015-43176		2 Pool Code 96836		3 Pool Name Red Lake, Glorieta-Yeso, Northeast	
4 Property Code 302457		5 Property Name BEECH 25 FEDERAL			6 Well Number 11H
7 TOGRID NO 229137		8 Operator Name COG OPERATING, LLC			9 Elevation 3587'
10 Surface Location					
UL or lot no. M	Section 25	Township 17-S	Range 27-E	Lot Idn 581	Feet from the SOUTH
				Feet From the 237	East/West line WEST
				County EDDY	
11 Bottom Hole Location If Different From Surface					
UL or lot no. O	Section 25	Township 17-S	Range 27-E	Lot Idn 905	Feet from the SOUTH
				Feet from the 1710	East/West line EAST
				County EDDY	
12 Dedicated Acres 120		13 Joint or Infill		14 Consolidation Code	
				15 Order No.	

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

16 CORNER DATA NAD 27 GRID - NM EAST A: FND BRASS CAP 1941 N 653959.1 - E 528584.1 B: FND BRASS CAP 1941 N 656592.2 - E 528580.3 C: FND BRASS CAP 1941 N 659226.8 - E 528576.8 D: FND BRASS CAP 1941 N 659215.4 - E 531211.7 E: FND BRASS CAP 1941 N 659203.3 - E 533847.5 F: FND BRASS CAP 1941 N 656562.0 - E 533864.0 G: FND BRASS CAP 1941 N 653920.5 - E 533879.3 H: FND BRASS CAP 1941 N 653939.2 - E 531231.9 1. CALCULATED CORNER N 655275.7 - E 528582.2 2. CALCULATED CORNER N 655249.9 - E 532549.1 3. CALCULATED CORNER N 653929.9 - E 532555.6	17 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 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 a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division. <i>Chasity Jackson</i> 9/9/15 Signature Date Chasity Jackson Printed Name cjackson@concho.com E-mail Address
DETAIL "A" 3579.8 600' 3594.7 3575.0 600' 3593.0 SEE DETAIL "A" 330' 237' 581' 330' 330' 330' N 83°32'18" E (GRID) - 3420.92' (HORIZ.) 1710' 905'	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. 6/4/14 Date of Survey Signature and Seal of Professional Surveyor 19680 Certificate Number Revised 2 Dec 2014: B.H.

RRC - Firm No.: TX 10193838 NM 4655451 - Job No.: LS140265



PHOENIX
TECHNOLOGY SERVICES

August 19, 2015

Oil Conservation Division
State of New Mexico
811 S. First St.
Artesia, New Mexico 88210

NM OIL CONSERVATION

ARTESIA DISTRICT

SEP 17 2015

Dear District 2 - Artesia

Attention: Regulatory Department

RECEIVED

Re: Apache Corporation
NFE Federal #38H
Eddy County, NM
API #30-015-40902
Job No. 1513575

Enclosed please find the Survey Data Certification, and the original Plat and one copy of the Survey Report performed on the above referenced Well by Phoenix Technology Services, Inc. (P-5 No. 664171). Other information required by your office is as follows:

Name & Title of Surveyor	Drain Hole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Mike Miller	38H	4,518	10,965	06/02/15	06/10/15	MWD

A certified plat on which the bottom hole location is oriented both to the surface location and to the lease lines (or unit lines in case of pooling) is attached to the survey report. If any other information is required, please contact the undersigned at the letterhead address and phone number.

Best Regards,

Claudia Carreon

Claudia Carreon
Operations Administrator

Certified mail receipt number: 7015 0640 0000 9907 5067

Phoenix Technology Services SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER

1513575

OPERATOR

Apache

WELL NAME

NFE Federal #38H

COUNTY & STATE

Eddy County, NM

API WELL NUMBER

30-015-40902

PROPOSED DIRECTION

89.60

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
4,400. ft	4,399.72 ft	0.78	303.99	6.33 ft	-4.77 ft	Gyro

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
2-Jun-15	4,518.00 ft	0.80	309.90

SURVEY INSTRUMENT
TYPE
Phoenix MWD

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
10-Jun-15	10,965.00 ft	82.40	92.20

TO THE BEST OF MY KNOWLEDGE I
CERTIFY THIS SURVEY DATA TO BE
TRUE AND CORRECT.

PROJECTED	PROJECTED		
TD SURVEY	TD SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
10-Jun-15	11,035.00 ft	82.40	92.20

Mike Miller

PRINT YOUR NAME ABOVE

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	
	7.45
DECLINATION OR GRID	GRID

10-Jun-15

TODAY'S DATE

MWD SUPERVISOR 1

Mike Miller

DIRECTIONAL DRILLER 1

Steven Hawkins

MWD SUPERVISOR 2

Jay Conyers

DIRECTIONAL DRILLER 2

Brant Duplechain

12329 Cutten Rd., Houston, Texas 777066

(713)337-0600 (Voice), (713)337-0599 (Fax)



Apache Corporation

Eddy County, NM (NAD27 NME)

NFE Federal

#38H

OH / Job #1513575

Survey: Phoenix MWD Survey

Standard Survey Report

11 June, 2015



Company:	Apache Corporation	Local Co-ordinate Reference:	Well #38H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3758.00usft (Capstar 119)
Site:	NFE Federal	MD Reference:	KB @ 3758.00usft (Capstar 119)
Well:	#38H	North Reference:	Grid
Wellbore:	OH / Job #1513575	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Capstar 119)	Database:	Compass 5000 GCR

Project	Eddy County, NM (NAD27 NME)		
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	NFE Federal		
Site Position:	From: Map	Northing: 673,264.70 usft	Latitude: 32° 51' 0.49036 N
		Easting: 633,303.50 usft	Longitude: 103° 53' 57.34966 W
Position Uncertainty:	0.00 usft	Slot Radius: 13-3/16 "	Grid Convergence: 0.24 °

Well	#38H		
Well Position	+N/-S 0.00 usft	Northing: 674,811.70 usft	Latitude: 32° 51' 15.84782 N
	+E/-W 0.00 usft	Easting: 632,074.90 usft	Longitude: 103° 54' 11.67773 W
Position Uncertainty	0.00 usft	Wellhead Elevation: usft	Ground Level: 3,747.00 usft

Wellbore	OH / Job #1513575				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/16/2015	7.68	60.80	48,567

Design:		Surveys (Capstar 119)		
Audit Notes:				
Version:	1.0	Phase:	ACTUAL	Tie On Depth: 0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	89.60

Survey Program		Date	6/11/2015		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
100.00	4,400.00	Phoenix Gyro Survey (OH / Job #1513575	PHX_SPT_GTD	PHX Continuous north-seeking gyro	
4,518.00	11,035.00	Phoenix MWD Survey (OH / Job #1513575	PHX+MWD+HDGM	PHX+MWD+HDGM	

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)
4,400.00	0.78	303.99	4,399.72	6.33	-4.77	-4.73	0.00	0.00	0.00
Tie-on to Phoenix Gyro Survey									
4,518.00	0.80	309.90	4,517.71	7.31	-6.07	-6.02	0.07	0.02	5.01
First Phoenix MWD Survey									
4,645.00	0.90	307.20	4,644.69	8.48	-7.54	-7.48	0.08	0.08	-2.13
4,772.00	0.80	312.30	4,771.68	9.68	-8.99	-8.93	0.10	-0.08	4.02
4,815.00	3.10	76.30	4,814.66	10.16	-8.09	-8.01	8.39	5.35	288.37
4,857.00	8.70	82.00	4,856.42	10.87	-3.83	-3.76	13.39	13.33	13.57
4,900.00	14.60	81.70	4,898.52	12.10	4.76	4.84	13.72	13.72	-0.70

Company:	Apache Corporation	Local Co-ordinate Reference:	Well #38H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3758.00usft (Capstar 119)
Site:	NFE Federal	MD Reference:	KB @ 3758.00usft (Capstar 119)
Well:	#38H	North Reference:	Grid
Wellbore:	OH / Job #1513575	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Capstar 119)	Database:	Compass 5000 GCR

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)
4,942.00	20.10	82.90	4,938.59	13.76	17.17	17.26	13.12	13.10	2.86
4,985.00	24.70	86.40	4,978.34	15.24	33.47	33.58	11.13	10.70	8.14
5,027.00	28.70	89.40	5,015.85	15.90	52.32	52.43	10.05	9.52	7.14
5,070.00	32.50	92.70	5,052.86	15.46	74.20	74.30	9.66	8.84	7.67
5,113.00	37.10	94.40	5,088.16	13.92	98.68	98.78	10.93	10.70	3.95
5,155.00	41.60	95.80	5,120.63	11.54	125.20	125.27	10.92	10.71	3.33
5,198.00	46.80	95.10	5,151.45	8.70	155.03	155.09	12.15	12.09	-1.63
5,240.00	51.70	93.20	5,178.86	6.42	186.75	186.79	12.16	11.67	-4.52
5,283.00	56.00	91.70	5,204.22	4.95	221.43	221.46	10.39	10.00	-3.49
5,325.00	60.20	90.30	5,226.41	4.33	257.08	257.10	10.39	10.00	-3.33
5,368.00	64.30	90.40	5,246.43	4.10	295.12	295.14	9.54	9.53	0.23
5,411.00	69.80	90.60	5,263.19	3.75	334.70	334.72	12.80	12.79	0.47
5,453.00	74.80	91.00	5,275.95	3.19	374.70	374.71	11.94	11.90	0.95
5,496.00	79.80	91.50	5,285.40	2.28	416.62	416.63	11.68	11.63	1.16
5,537.00	83.80	92.30	5,291.25	0.93	457.17	457.17	9.95	9.76	1.95
5,580.00	87.40	91.40	5,294.55	-0.45	500.01	500.00	8.63	8.37	-2.09
5,623.00	90.00	90.90	5,295.52	-1.31	542.99	542.97	6.16	6.05	-1.16
5,665.00	91.30	91.50	5,295.05	-2.19	584.98	584.95	3.41	3.10	1.43
5,793.00	89.10	88.70	5,294.60	-2.42	712.96	712.92	2.78	-1.72	-2.19
5,921.00	90.00	87.20	5,295.61	2.16	840.86	840.86	1.37	0.70	-1.17
6,048.00	88.10	87.50	5,297.71	8.03	967.71	967.74	1.51	-1.50	0.24
6,176.00	89.10	86.70	5,300.84	14.51	1,095.50	1,095.58	1.00	0.78	-0.63
6,303.00	88.80	88.20	5,303.17	20.16	1,222.35	1,222.46	1.20	-0.24	1.18
6,431.00	88.10	89.80	5,306.63	22.39	1,350.28	1,350.40	1.36	-0.55	1.25
6,558.00	87.80	91.10	5,311.17	21.39	1,477.19	1,477.30	1.05	-0.24	1.02
6,686.00	88.50	90.80	5,315.30	19.27	1,605.11	1,605.20	0.59	0.55	-0.23
6,813.00	86.60	91.10	5,320.73	17.17	1,731.97	1,732.04	1.51	-1.50	0.24
6,941.00	86.70	91.20	5,328.21	14.60	1,859.72	1,859.78	0.11	0.08	0.08
7,069.00	86.70	91.00	5,335.58	12.15	1,987.49	1,987.52	0.16	0.00	-0.16
7,197.00	87.10	90.80	5,342.50	10.14	2,115.28	2,115.30	0.35	0.31	-0.16
7,324.00	86.90	89.00	5,349.15	10.36	2,242.10	2,242.12	1.42	-0.16	-1.42
7,451.00	89.00	88.30	5,353.69	13.35	2,368.98	2,369.01	1.74	1.65	-0.55
7,579.00	87.90	85.50	5,357.16	20.27	2,496.73	2,496.81	2.35	-0.86	-2.19
7,707.00	88.40	86.90	5,361.29	28.75	2,624.38	2,624.51	1.16	0.39	1.09
7,834.00	88.80	89.90	5,364.39	32.29	2,751.28	2,751.43	2.38	0.31	2.36
7,961.00	89.50	89.70	5,366.28	32.74	2,878.26	2,878.42	0.57	0.55	-0.16
8,089.00	89.40	90.50	5,367.50	32.51	3,006.25	3,006.41	0.63	-0.08	0.63
8,217.00	89.80	90.90	5,368.40	30.95	3,134.24	3,134.38	0.44	0.31	0.31
8,344.00	90.10	90.30	5,368.51	29.62	3,261.23	3,261.36	0.53	0.24	-0.47
8,472.00	90.60	89.70	5,367.73	29.62	3,389.23	3,389.35	0.61	0.39	-0.47
8,600.00	89.00	90.10	5,368.17	29.84	3,517.22	3,517.35	1.29	-1.25	0.31
8,728.00	89.00	89.80	5,370.41	29.96	3,645.20	3,645.32	0.23	0.00	-0.23
8,855.00	89.70	89.50	5,371.85	30.73	3,772.19	3,772.31	0.60	0.55	-0.24

Company:	Apache Corporation	Local Co-ordinate Reference:	Well #38H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3758.00usft (Capstar.119)
Site:	NFE Federal	MD Reference:	KB @ 3758.00usft (Capstar 119)
Well:	#38H	North Reference:	Grid
Wellbore:	OH / Job #1513575	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Capstar 119)	Database:	Compass 5000 GCR

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)
8,983.00	87.60	89.60	5,374.86	31.74	3,900.15	3,900.27	1.64	-1.64	0.08
9,111.00	88.40	89.50	5,379.33	32.74	4,028.06	4,028.19	0.63	0.63	-0.08
9,238.00	88.40	88.80	5,382.88	34.62	4,155.00	4,155.14	0.55	0.00	-0.55
9,367.00	88.60	90.50	5,386.25	35.41	4,283.95	4,284.09	1.33	0.16	1.32
9,494.00	87.80	90.30	5,390.24	34.53	4,410.88	4,411.01	0.65	-0.63	-0.16
9,622.00	88.90	90.30	5,393.93	33.86	4,538.82	4,538.95	0.86	0.86	0.00
9,750.00	88.90	89.40	5,396.39	34.19	4,666.80	4,666.92	0.70	0.00	-0.70
9,877.00	90.70	90.20	5,396.83	34.63	4,793.79	4,793.91	1.55	1.42	0.63
10,005.00	90.30	90.20	5,395.71	34.19	4,921.78	4,921.90	0.31	-0.31	0.00
10,133.00	90.30	90.70	5,395.04	33.18	5,049.78	5,049.89	0.39	0.00	0.39
10,260.00	89.40	91.30	5,395.38	30.97	5,176.76	5,176.85	0.85	-0.71	0.47
10,388.00	87.80	91.50	5,398.50	27.84	5,304.68	5,304.74	1.26	-1.25	0.16
10,516.00	86.30	90.90	5,405.09	25.16	5,432.47	5,432.52	1.26	-1.17	-0.47
10,643.00	85.60	90.10	5,414.06	24.06	5,559.15	5,559.18	0.84	-0.55	-0.63
10,771.00	85.00	91.00	5,424.55	22.83	5,686.71	5,686.73	0.84	-0.47	0.70
10,899.00	83.50	91.70	5,437.37	19.83	5,814.03	5,814.02	1.29	-1.17	0.55
10,965.00	82.40	92.20	5,445.47	17.60	5,879.49	5,879.47	1.83	-1.67	0.76
Last Phoenix MWD Survey									
11,035.00	82.40	92.20	5,454.73	14.94	5,948.82	5,948.78	0.00	0.00	0.00
Projection to TD									

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
4,400.00	4,399.72	6.33	-4.77	Tie-on to Phoenix Gyro Survey
4,518.00	4,517.71	7.31	-6.07	First Phoenix MWD Survey
10,965.00	5,445.47	17.60	5,879.49	Last Phoenix MWD Survey
11,035.00	5,454.73	14.94	5,948.82	Projection to TD

Checked By: _____ Approved By: _____ Date: _____