Form 3160-5
(August 2007)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

NMOCD
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 ☒ Oil Well ☐ Gas Well ☐ Other	5. Lease Serial No. NMLC029435B
	6. If Indian, Allottee or Tribe Name
	7. If Unit or CA/Agreement, Name and/or No. NMNM134086
	8. Well Name and No. NFE FEDERAL 28H
2. Name of Operator APACHE CORPORATION Contact: EMILY FOLLIS E-Mail: Emily.Follis@apachecorp.com	9. API Well No. 30-015-42653-00-X1
3a. Address 303 VETERANS AIRPARK LANE SUITE 3000 MIDLAND, TX 79705 3b. Phone No. (include area code) Ph: 432-818-1801	10. Field and Pool, or Exploratory CEDAR LAKE
4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)* Sec 6 T17S R31E SESE 0920FSL 0155FEL 32.858687 N Lat, 103.900501 W Lon	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			
☐ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☒ Subsequent Report	☐ Alter Casing	☐ Fracture Treat	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Production Start-up
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ 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 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.)

Apache completed the well as follows: (RR 02/16/15)
04/16/15 RU WEATHERFORD WL RUN GR-CNL-CBL LOG FROM 4351' TO SURF
04/17/15 DO DV TOOL/CIRC CLEAN
04/20/15 MILL DEBRIS SUB RDMO, PREP TO FRAC LATER
08/18/15 RU FRACK STACK, SPOT ACID TANKS
08/19 - 20/15 UNLOAD ACID & SAND TO TANKS
08/20/15 WAITING ON ELITE WELL SERVICE- ISSUES WITH MANIFOLD THERE TRAILER
08/20-21/15 ELITE WELL SERVICE - PACKER PLUS SYSTEM
FRAC 5261-9161' (TD 9200')
PACKERS@ 5260,5485,5750,6020,6284,6551,6830,7105,7377,7640,7917,8183,8453,8730,9008 (15 STAGES)
TOTAL ACID 2466 BBL, TOTAL SAND 2,845,040#
RDMO FRAC & OTHER SERVES NOT NEEDED

Accepted for record
NMOCD
12/2/15

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

Electronic Submission #324191 verified by the BLM Well Information System
For APACHE CORPORATION, sent to the Carlsbad
Committed to AFMSS for processing by JENNIFER SANCHEZ on 11/20/2015 (16JAS1222SE)

Name *(Printed/Typed)* EMILY FOLLIS — Title REGULATORY ANALYST

Signature (Electronic Submission) — Date 11/19/2015

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

ACCEPTED FOR RECORD
/S/ DAVID R. GLASS
NOV 20 2015
DAVID R. GLASS
PETROLEUM ENGINEER

Approved By — Title — Date

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

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.

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

Additional data for EC transaction #324191 that would not fit on the form

32. Additional remarks, continued

09/11/15 MIRU WO -PREP TO MILL OUT SLEEVES SDFWE
09/14 - 09/16/15 MILL OUT SLEEVES
09/17/15 ALL SLEEVES MILLED OUT POOH WITH TBG & MILL, RD WOR & CAP WELL, WAIT ON PRODUCTION
10/30/15 MIRU, RACK & TBG,FLOW WELL BACK SI SDFWE
11/2/15 RIH W/GE SP RDMO
11/7/15 SET SURFACE, RUN ELECTRICAL,PLUMB INTO BATTERY, TURN OVER TO PRODUCTION
11/09/15 POP - FIRST FLOW

Apache Corporation
303 Veterans Airpark Lane, #3000
Midland, TX 79705

NFE Federal #028H
Eddy County, New Mexico

API # 30-015-42653
UL-P, Sec. 6, T17S, R31E
920 FSL, & 155 FEL

196	1.96	0.50	0.88	1.72	1.72
468	2.72	1.50	2.63	7.14	8.86
687	2.19	1.40	2.45	5.37	14.22
877	1.90	1.50	2.63	4.99	19.21
1132	2.55	1.30	2.28	5.80	25.01
1351	2.19	1.90	3.33	7.28	32.29
1540	1.89	1.00	1.75	3.31	35.60
1730	1.90	1.30	2.28	4.32	39.92
2172	4.42	0.60	1.05	4.64	44.56
2362	1.90	0.80	1.40	2.66	47.22
2573	2.11	0.90	1.58	3.32	50.55
2794	2.21	0.80	1.40	3.09	53.64
3014	2.20	0.40	0.70	1.54	55.18
3266	2.52	0.80	1.40	3.53	58.71
3338	0.72	0.70	1.23	0.88	59.59
3611	2.73	1.00	1.75	4.78	64.37
3867	2.56	0.80	1.40	3.58	67.95
4090	2.23	0.90	1.58	3.51	71.46
4380	2.90	0.70	1.23	3.55	75.02

Archie Brown - General Manager

The attached instrument was acknowledged before me on the 24th day of February, 2015 by Archie Brown - General Manager, CapStar Drilling, Inc.

Jacki Ann Zent
Notary Public

JACKI ANN ZENT
Notary Public, State of Texas
My Commission Expires
March 03, 2015

Apache
EXPLORING WHAT'S POSSIBLE

Apache Corporation

Eddy County, NM (NAD27 NME)
NFE Federal
#28H

WB1 / Job #1512833

Design: Surveys (Capstar 119)

Standard Survey Report

12 February, 2015

PHOENIX
TECHNOLOGY SERVICES

Company:	Apache Corporation	Local Co-ordinate Reference:	Well #28H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3763.00usft (Capstar 119)
Site:	NFE Federal	MD Reference:	KB @ 3763.00usft (Capstar 119)
Well:	#28H	North Reference:	Grid
Wellbore:	WB1 / Job #1512833	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:		Northing:	673,264.70 usft	Latitude:	32° 51' 0.49036 N
From:	Map	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 #28H

Well Position	+N/-S	0.00 usft	Northing:	676,373.90 usft	Latitude:	32° 51' 31.27214 N
	+E/-W	0.00 usft	Easting:	632,910.80 usft	Longitude:	103° 54' 1.80360 W
Position Uncertainty		0.00 usft	Wellhead Elevation:	usft	Ground Level:	3,752.00 usft

Wellbore WB1 / Job #1512833

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	BGGM2014	1/30/2015	7.52	60.62	48,545

Design Surveys (Capstar 119)

Audit Notes:

Version:	Phase:	Tie On Depth:
1.0	ACTUAL	0.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	269.62

Survey Program Date 2/12/2015

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
100.00	4,275.00	Phoenix Gyro Surveys (WB1 / Job #15128	NS-GYRO-MS	North sensing gyrocompassing m/s
4,354.00	9,200.00	Phoenix MWD Surveys (WB1 / Job #1512	PHX+MWD+BGGM	PHX+MWD+BGGM v3:standard declination

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
100.00	0.22	73.51	100.00	0.05	0.18	-0.18	0.22	0.22	0.00
200.00	0.53	18.71	200.00	0.55	0.52	-0.52	0.44	0.31	-54.80
300.00	0.77	52.81	299.99	1.39	1.20	-1.21	0.44	0.24	34.10
400.00	1.39	14.96	399.97	2.97	2.05	-2.07	0.91	0.62	-37.85
500.00	1.25	19.29	499.95	5.17	2.72	-2.76	0.17	-0.14	4.33
600.00	1.20	60.25	599.93	6.72	3.99	-4.04	0.86	-0.05	40.96
700.00	1.17	142.69	699.91	6.43	5.52	-5.56	1.56	-0.03	82.44
800.00	1.33	54.80	799.90	6.28	7.09	-7.13	1.74	0.16	-87.89
900.00	1.21	2.74	899.87	8.01	8.09	-8.14	1.12	-0.12	-52.06

Company:	Apache Corporation	Local Co-ordinate Reference:	Well #28H
Project:	Eddy County, NM (NAD27 NME)	TVD Reference:	KB @ 3763.00usft (Capstar 119)
Site:	NFE Federal	MD Reference:	KB @ 3763.00usft (Capstar 119)
Well:	#28H	North Reference:	Grid
Wellbore:	WB1 / Job #1512833	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)
1,000.00	1.21	273.52	999.86	9.13	7.08	-7.14	1.70	0.00	-89.22
1,100.00	1.56	65.21	1,099.85	9.76	7.26	-7.33	2.69	0.35	151.69
1,200.00	1.64	45.24	1,199.81	11.34	9.52	-9.59	0.56	0.08	-19.97
1,300.00	1.51	49.28	1,299.77	13.21	11.53	-11.62	0.17	-0.13	4.04
1,400.00	1.15	140.53	1,399.75	13.29	13.17	-13.26	1.92	-0.36	91.25
1,500.00	1.20	50.03	1,499.74	13.19	14.61	-14.69	1.67	0.05	-90.50
1,600.00	1.40	37.80	1,599.71	14.83	16.16	-16.26	0.34	0.20	-12.23
1,700.00	1.14	169.91	1,699.70	14.82	17.08	-17.18	2.32	-0.26	132.11
1,800.00	0.87	340.76	1,799.70	14.55	17.01	-17.10	2.00	-0.27	170.85
1,900.00	0.87	293.21	1,899.69	15.57	16.06	-16.16	0.70	0.00	-47.55
2,000.00	1.12	141.75	1,999.68	15.10	15.97	-16.07	1.93	0.25	-151.46
2,100.00	1.11	71.59	2,099.67	14.64	17.49	-17.59	1.28	-0.01	-70.16
2,200.00	0.77	228.67	2,199.66	14.50	17.90	-18.00	1.84	-0.34	157.08
2,300.00	0.79	19.45	2,299.66	14.71	17.63	-17.73	1.51	0.02	150.78
2,400.00	0.71	239.32	2,399.65	15.04	17.33	-17.43	1.41	-0.08	-140.13
2,500.00	0.66	30.88	2,499.65	15.22	17.09	-17.19	1.33	-0.05	151.56
2,600.00	0.55	150.88	2,599.65	15.29	17.62	-17.72	1.05	-0.11	120.00
2,700.00	0.75	224.02	2,699.64	14.40	17.40	-17.49	0.79	0.20	73.14
2,800.00	0.56	38.90	2,799.64	14.31	17.25	-17.34	1.31	-0.19	174.88
2,900.00	0.42	359.41	2,899.64	15.06	17.55	-17.65	0.36	-0.14	-39.49
3,000.00	0.48	270.43	2,999.64	15.43	17.13	-17.23	0.63	0.06	-88.98
3,100.00	0.59	266.51	3,099.63	15.40	16.20	-16.30	0.12	0.11	-3.92
3,200.00	0.53	76.45	3,199.63	15.48	16.13	-16.23	1.12	-0.06	169.94
3,300.00	0.64	353.88	3,299.63	16.14	16.52	-16.63	0.78	0.11	-82.57
3,400.00	0.64	343.19	3,399.62	17.23	16.30	-16.42	0.12	0.00	-10.69
3,500.00	0.72	322.27	3,499.61	18.26	15.76	-15.88	0.26	0.08	-20.92
3,600.00	0.75	341.87	3,599.61	19.38	15.17	-15.30	0.25	0.03	19.60
3,700.00	0.99	311.54	3,699.59	20.58	14.32	-14.45	0.51	0.24	-30.33
3,800.00	0.89	226.28	3,799.58	20.61	13.11	-13.25	1.28	-0.10	-85.26
3,900.00	0.73	183.67	3,899.58	19.44	12.51	-12.64	0.61	-0.16	-42.61
4,000.00	0.74	312.43	3,999.57	19.24	11.99	-12.12	1.33	0.01	128.76
4,100.00	0.68	101.84	4,099.57	19.56	12.09	-12.22	1.37	-0.06	149.41
4,200.00	0.56	153.76	4,199.56	19.00	12.89	-13.02	0.55	-0.12	51.92
4,275.00	0.46	292.42	4,274.56	18.78	12.77	-12.90	1.27	-0.13	184.88
Tie in to Phoenix Gyro Surveys									
4,354.00	0.70	304.70	4,353.56	19.18	12.08	-12.21	0.34	0.30	15.54
First Phoenix MWD Survey									
4,386.00	1.80	288.10	4,385.55	19.44	11.45	-11.57	3.58	3.44	-51.88
4,417.00	4.00	278.20	4,416.51	19.75	9.91	-10.04	7.25	7.10	-31.94
4,449.00	6.80	273.90	4,448.36	20.04	6.92	-7.05	8.83	8.75	-13.44
4,480.00	10.10	271.50	4,479.02	20.23	2.37	-2.50	10.70	10.65	-7.74
4,512.00	13.60	269.40	4,510.34	20.27	-4.20	4.07	11.02	10.94	-6.56
4,544.00	17.40	266.80	4,541.17	19.96	-12.74	12.61	12.07	11.88	-8.13

Company:	Apache Corporation	Local Co-ordinate Reference:	Well #28H
Project:	Eddy County, NM (NAD27-NME)	TVD Reference:	KB @ 3763.00usft (Capstar 119)
Site:	NFE Federal	MD Reference:	KB @ 3763.00usft (Capstar 119)
Well:	#28H	North Reference:	Grid
Wellbore:	WB1 / Job #1512833	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)
4,576.00	21.20	265.80	4,571.36	19.27	-23.30	23.17	11.92	11.88	-3.13
4,607.00	24.80	265.50	4,599.89	18.35	-35.37	35.25	11.62	11.61	-0.97
4,639.00	28.00	265.90	4,628.55	17.29	-49.56	49.44	10.02	10.00	1.25
4,670.00	31.70	265.50	4,655.44	16.13	-64.94	64.83	11.95	11.94	-1.29
4,701.00	35.60	265.90	4,681.24	14.84	-82.07	81.97	12.60	12.58	1.29
4,733.00	39.70	268.40	4,706.57	13.53	-101.57	101.47	12.85	12.81	1.56
4,764.00	43.60	268.10	4,729.73	12.56	-122.14	122.05	13.10	12.58	5.48
4,796.00	47.10	270.10	4,752.21	12.21	-144.90	144.81	11.81	10.94	6.25
4,828.00	50.70	271.40	4,773.25	12.53	-169.00	168.92	11.66	11.25	4.06
4,859.00	54.60	272.30	4,792.05	13.33	-193.63	193.53	12.79	12.58	2.90
4,891.00	58.10	271.80	4,809.78	14.29	-220.24	220.14	11.01	10.94	-1.56
4,922.00	61.70	271.30	4,825.32	15.01	-247.05	246.94	11.70	11.61	-1.61
4,954.00	63.80	268.30	4,839.98	14.90	-275.49	275.39	10.61	6.56	-9.38
4,986.00	66.20	266.10	4,853.50	13.48	-304.45	304.36	9.75	7.50	-6.88
5,017.00	68.20	265.30	4,865.52	11.34	-332.95	332.87	6.88	6.45	-2.58
5,048.00	71.20	264.50	4,876.27	8.75	-361.91	361.84	9.98	9.68	-2.58
5,080.00	74.90	263.50	4,885.60	5.55	-392.34	392.30	11.94	11.56	-3.13
5,112.00	78.70	264.50	4,892.90	2.29	-423.32	423.30	12.26	11.88	3.13
5,143.00	82.40	264.60	4,897.99	-0.61	-453.76	453.75	11.94	11.94	0.32
5,174.00	85.60	264.50	4,901.23	-3.54	-484.44	484.46	10.33	10.32	-0.32
5,205.00	89.10	265.50	4,902.66	-6.24	-515.29	515.32	11.74	11.29	3.23
5,237.00	90.10	266.70	4,902.89	-8.41	-547.21	547.25	4.88	3.13	3.75
5,269.00	90.70	269.30	4,902.66	-9.53	-579.19	579.24	8.34	1.88	8.13
5,300.00	91.00	269.50	4,902.20	-9.85	-610.18	610.23	1.16	0.97	0.65
5,332.00	91.70	269.40	4,901.45	-10.16	-642.17	642.22	2.21	2.19	-0.31
5,364.00	92.00	268.90	4,900.42	-10.63	-674.15	674.21	1.82	0.94	-1.56
5,395.00	91.70	269.40	4,899.42	-11.09	-705.13	705.19	1.88	-0.97	1.61
5,427.00	90.60	269.90	4,898.77	-11.29	-737.12	737.18	3.78	-3.44	1.56
5,459.00	90.40	270.70	4,898.50	-11.12	-769.12	769.18	2.58	-0.63	2.50
5,491.00	90.60	270.90	4,898.16	-10.67	-801.12	801.17	1.40	1.25	0.63
5,521.00	91.20	270.80	4,897.64	-10.23	-831.11	831.16	1.37	1.33	-0.33
5,616.00	92.40	270.60	4,894.65	-9.07	-926.05	926.09	1.28	1.26	-0.21
5,711.00	91.30	270.10	4,891.59	-8.49	-1,021.00	1,021.03	1.27	-1.16	-0.53
5,805.00	91.70	270.00	4,889.13	-8.41	-1,114.97	1,115.00	0.44	0.43	-0.11
5,900.00	92.00	269.90	4,886.06	-8.49	-1,209.92	1,209.95	0.33	0.32	-0.11
5,995.00	92.70	269.80	4,882.16	-8.74	-1,304.84	1,304.87	0.74	0.74	-0.11
6,090.00	91.00	269.50	4,879.10	-9.32	-1,399.78	1,399.81	1.82	-1.79	-0.32
6,184.00	91.30	269.80	4,877.21	-9.89	-1,493.76	1,493.79	0.45	0.32	0.32
6,279.00	91.00	268.90	4,875.30	-10.97	-1,588.74	1,588.77	1.00	-0.32	-0.95
6,374.00	90.80	268.40	4,873.81	-13.21	-1,683.70	1,683.75	0.57	-0.21	-0.53
6,469.00	90.80	267.80	4,872.48	-16.36	-1,778.63	1,778.70	0.63	0.00	-0.63
6,564.00	89.40	269.70	4,872.32	-18.43	-1,873.61	1,873.69	2.48	-1.47	2.00
6,659.00	89.80	269.60	4,872.98	-19.01	-1,968.60	1,968.68	0.43	0.42	-0.11
6,753.00	90.10	269.40	4,873.06	-19.83	-2,062.60	2,062.68	0.38	0.32	-0.21

Company:	Apache Corporation	Local Co-ordinate Reference:	Well #28H
Project:	Eddy County, NM (NAD27, NME)	TVD Reference:	KB @ 3763.00usft (Capstar 119)
Site:	NFE Federal	MD Reference:	KB @ 3763.00usft (Capstar 119)
Well:	#28H	North Reference:	Grid
Wellbore:	WB1 / Job #1512833	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)
6,846.00	90.00	268.90	4,872.98	-21.24	-2,157.59	2,157.68	0.54	-0.11	-0.53
6,943.00	91.30	269.60	4,871.90	-22.48	-2,252.57	2,252.67	1.55	1.37	0.74
7,039.00	91.30	270.50	4,869.73	-22.40	-2,348.54	2,348.64	0.94	0.00	0.94
7,134.00	92.00	271.20	4,866.99	-20.99	-2,443.49	2,443.58	1.04	0.74	0.74
7,229.00	92.20	271.30	4,863.51	-18.92	-2,538.41	2,538.48	0.24	0.21	0.11
7,323.00	91.80	269.70	4,860.23	-18.10	-2,632.34	2,632.40	1.75	-0.43	-1.70
7,418.00	91.80	268.80	4,857.24	-19.34	-2,727.29	2,727.35	0.95	0.00	-0.95
7,513.00	91.10	270.00	4,854.84	-20.34	-2,822.25	2,822.32	1.46	-0.74	1.26
7,608.00	91.60	269.70	4,852.60	-20.59	-2,917.22	2,917.29	0.61	0.53	-0.32
7,703.00	91.80	269.40	4,849.78	-21.33	-3,012.18	3,012.25	0.38	0.21	-0.32
7,797.00	91.30	270.10	4,847.24	-21.74	-3,106.14	3,106.22	0.91	-0.53	0.74
7,892.00	92.00	270.10	4,844.51	-21.58	-3,201.10	3,201.17	0.74	0.74	0.00
7,987.00	89.80	269.90	4,843.01	-21.58	-3,296.08	3,296.15	2.33	-2.32	-0.21
8,082.00	90.30	269.70	4,842.93	-21.91	-3,391.08	3,391.15	0.57	0.53	-0.21
8,176.00	90.90	269.60	4,841.95	-22.48	-3,485.07	3,485.15	0.65	0.64	-0.11
8,271.00	91.60	269.80	4,839.87	-22.98	-3,580.05	3,580.12	0.77	0.74	0.21
8,460.00	91.60	271.70	4,834.60	-20.51	-3,768.95	3,769.00	1.00	0.00	1.01
8,555.00	92.20	271.30	4,831.45	-18.02	-3,863.87	3,863.90	0.76	0.63	-0.42
8,649.00	90.30	270.80	4,829.40	-16.30	-3,957.82	3,957.84	2.09	-2.02	-0.53
8,744.00	89.50	270.90	4,829.56	-14.89	-4,052.81	4,052.82	0.85	-0.84	0.11
8,839.00	89.80	268.10	4,830.14	-15.72	-4,147.80	4,147.81	2.96	0.32	-2.95
8,932.00	90.40	267.20	4,829.98	-19.53	-4,240.72	4,240.75	1.16	0.65	-0.97
9,029.00	91.20	266.80	4,828.63	-24.61	-4,337.57	4,337.64	0.92	0.82	-0.41
9,124.00	92.10	266.50	4,825.89	-30.16	-4,432.37	4,432.47	1.00	0.95	-0.32
Last Phoenix MWD Survey									
9,200.00	92.10	266.50	4,823.11	-34.79	-4,508.18	4,508.31	0.00	0.00	0.00
Projection to Bit									

Design Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
4,275.00	4,274.56	18.78	12.77	Tie In to Phoenix Gyro Surveys
4,354.00	4,353.56	19.18	12.08	First Phoenix MWD Survey
9,124.00	4,825.89	-30.16	-4,432.37	Last Phoenix MWD Survey
9,200.00	4,823.11	-34.79	-4,508.18	Projection to Bit

Checked By: _____ Approved By: _____ Date: _____

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240
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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, New Mexico 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-015-42653	96831	Cedar Lake; Glorieta-Yeso

Property Code	Property Name	Well Number
308724	NFE FEDERAL	28H

OGRID No.	Operator Name	Elevation
873	APACHE CORPORATION	3752'

Surface Location

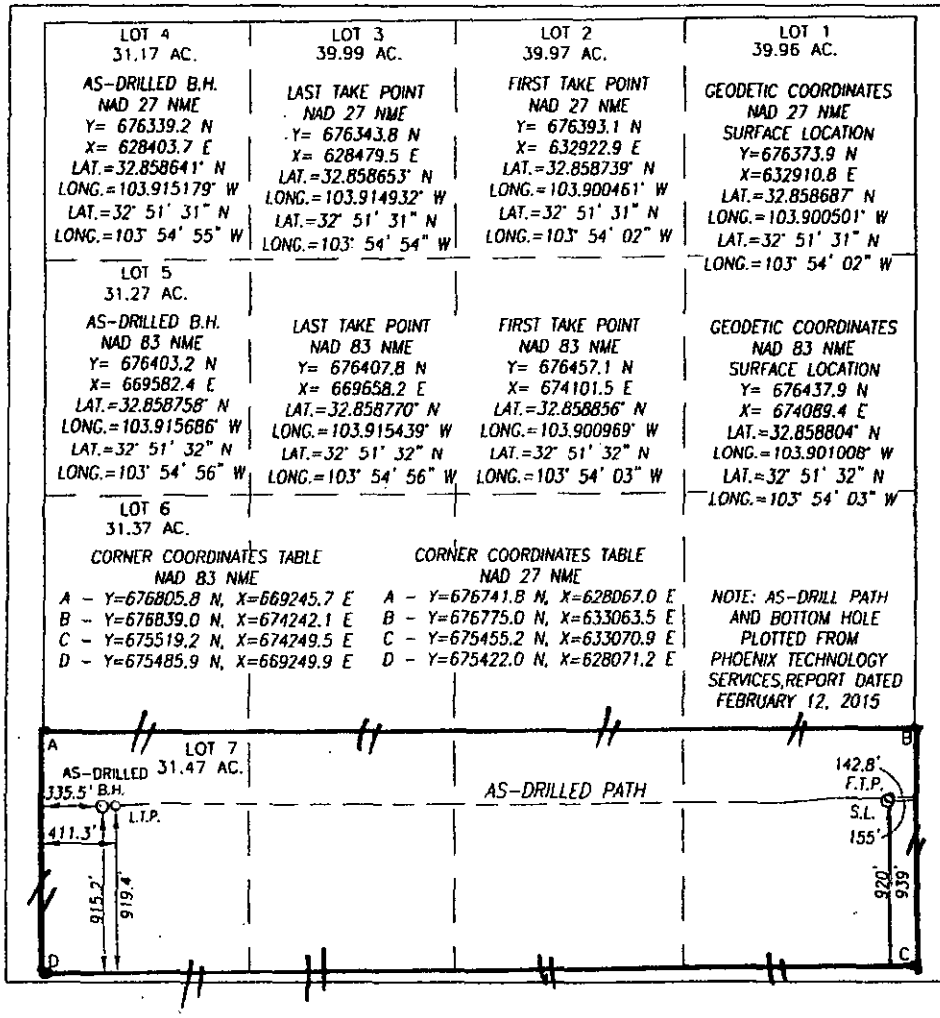
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	6	17-S	31-E		920	SOUTH	155	EAST	EDDY

AS-DRILLED 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
7	6	17-S	31-E		915.2	SOUTH	335.5	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
151.47			

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



OPERATOR CERTIFICATION

I hereby certify that the information 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 mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature — Date 11/19/15

Printed Name: Emily Follis

E-mail Address: emily.follis@apachecorp.com

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.

APRIL 5, 2012

Date of Survey

Signature & Seal of Professional Surveyor:

RONALD J. EIDSON NEW MEXICO 3239 REGISTERED PROFESSIONAL SURVEYOR

Ronald J. Eidson 03/04/2015

Certificate Number		
SSA	Gary G. Eidson	12641
	Ronald J. Eidson	3239

LSL REL W.O.: 14.13.0077 JWSC W.O.: 15.13.0267

District I
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District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-104
Revised August 1, 2011

Submit one copy to appropriate District Office

☐ AMENDED REPORT

I. REQUEST FOR ALLOWABLE AND AUTHORIZATION TO TRANSPORT

[1] Operator name and Address	[2] OGRID Number
Apache Corporation 303 Veterans Airpark Lane Suite 1000 Midland TX 79705	873
	[3] Reason for Filing Code/ Effective Date NW / 11/06/15

[4] API Number	[5] Pool Name	[6] Pool Code
30-015-42653	CEDAR LAKE; GLORIETA-YESO	96831
[7] Property Code	[8] Property Name	[9] Well Number
[308724]	NFE FEDERAL	#028H

II. [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
P	6	17S	31E		920	SOUTH	155	EAST	EDDY

[11] Bottom Hole Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
	6	17S	31E		915	SOUTH	335	WEST	EDDY

[12] Lse Code	[13] Producing Method Code	[14] Gas Connection Date	[15] C-129 Permit Number	[16] C-129 Effective Date	[17] C-129 Expiration Date
F	P	11/06/15			

III. Oil and Gas Transporters

[18] Transporter OGRID	[19] Transporter Name and Address	[20] O/G/W
252293	Holly Energy Pipeline 311 W Quay / PO Box 1360 Artesia NM 88210	O
221115	Frontier Field Services LLC 4200 East Skelly Drive Suite 700 Tulsa OK 74135	G

IV. Well Completion Data

[21] Spud Date	[22] Ready Date	[23] TD	[24] PBTD	[25] Perforations	[26] DHC, MC
01/30/2015	11/06/15	9200'	9200'	5261-9161'	

[27] Hole Size	[28] Casing & Tubing Size	[29] Depth Set	[30] Sacks Cement
17.50	13.375" H40 48#	406'	470 sx Class C
12.	9.625" J55 40#	3383'	1190 sx Class C
8.75	7" L80 29#/5"	9170'	725 sx Class C
TUBING	2-7/8" J55	4601"	

V. Well Test Data

[31] Date New Oil	[32] Gas Delivery Date	[33] Test Date	[34] Test Length	[35] Tbg. Pressure	[36] Csg. Pressure
11/06/15	11/06/15	11/17/15	24 hrs		
[37] Choke Size	[38] Oil	[39] Water	[40] Gas		[41] Test Method
	504	2992	176		P

[42] I hereby certify that the rules of the Oil Conservation Division have been complied with and that the information given above is true and complete to the best of my knowledge and belief.

Signature: Emily Follis

Printed name: Emily Follis	OIL CONSERVATION DIVISION
	Approved by:
Title: Reg Analyst	Title:
E-mail Address: emily.follis@apachecorp.com	Approval Date:
Date: 11/19/15 Phone: 432-818-1801	

Hydraulic Fracturing Fluid Product Component Information Disclosure

Fracture Date	8/19/2015
State:	NM
County:	Eddy
API Number:	30-015-42653
Operator Name:	Apache
Well Name and Number:	NFE Federal #28H
Longitude:	-103.901172
Latitude:	32.85878702
Long/Lat Projection:	NAD83
Production Type:	Oil
True Vertical Depth (TVD):	9,170
Total Water Volume (gal)*:	2,724,960

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
Water	Customer	Carrier/Base Fluid	Water	7732-18-5	100.00%	85.51208%	
Sand (Proppant)	US Silica	Proppant	Silica Substrate	14808-60-7	100.00%	8.02016%	
RCS (Proppant)	Momentive	Proppant	Silica Substrate	14808-60-7	100.00%	2.67730%	
Hydrochloric Acid (15	CNR	Acidizing	Hydrochloric Acid	7647-01-0	38.80000%	1.38114%	
Clayplex 650	Chemplex	Clay Stabilizer	Choline Chloride	67-48-1	62.00000%	0.00000%	
4-N-1 Plus	Chemplex	Iron Control,Corr Inhib,Su	Acetic Acid	64-19-7	80.00000%	0.00000%	
			Methanol	67-56-1	10.00000%	0.00000%	
Plexcide 24L	Chemplex	Biocide	Tetrahydro-3,Dimethyl-2H	533-74-4	24.00000%	0.00000%	
Plexset 730	Chemplex	Activator	Secondary Alcohol Ethoxylate	84133-50-6	50.00000%	0.00000%	
Plexsurf 240 E	Chemplex	Surfactant	Methyl Alcohol	67-56-1	10.00000%	0.00828%	
			Alcohol Alkoxylate	Proprietary	50.00000%	0.04141%	
Plexslick 953	Chemplex	Friction Reducer	Alcohol Ethoxylate Surfactants	Proprietary	8.00000%	0.00606%	
			Hydrotreated Petroleum Distillate	64742-47-8	30.00000%	0.02272%	
			Polyacrylamide-co-Acrytic Acid	9003-06-9	31.00000%	0.02348%	
AMA 398	Chemplex	Biocide	Tetrahydro-3,Dimethyl-2H	533-74-4	98.00%	0.00000%	
Plexgel 907 LE	Chemplex	Polymer	Guar Gum	9000-30-0	50.00000%	0.00000%	
			Mineral Oil	64742-47-8	55.00000%	0.00000%	
			Bentonite Clay	14808-60-7	2.00000%	0.00000%	
			Surfactant	68439-51-0	2.00000%	0.00000%	
Plexbor 101	Chemplex	Crosslinker	Ethylene Glycol	107-21-1	9.99000%	0.00000%	
			Potssium Metaborate	13709-94-9	30.00000%	0.00000%	
			Potassium Hydroxide	1310-58-3	5.00000%	0.00000%	
Plexgel Breaker 10L	Chemplex	Gel Breaker	Mannanase Enzymes	Proprietary	2.00000%	0.00000%	
			Sodium Chloride	7647-14-5	15.00000%	0.00000%	
Sodium Persulfate	Chemplex	Gel Breaker	Sodium Persulfate	7775-27-1	98.00%	0.00000%	
Buffer 11	Chemplex	PH Control	Potassium Hydroxide	1310-58-3	23.00000%	0.00000%	
Greenhib 679	Chemplex	Scale Inhibitor	Glycerine	56-81-5	35.00000%	0.01717%	
			Proprietary	Proprietary	35.00000%	0.01717%	

Hydraulic Fracturing Fluid Composition:

Trade Name	Supplier	Purpose	Ingredients	Chemical Abstract Service Number (CAS #)	Maximum Ingredient Concentration in Additive (% by mass)**	Maximum Ingredient Concentration in HF Fluid (% by mass)**	Comments
			Water	7732-18-5	30.00000%	0.01471%	
Clayplex 650	Chemplex	Clay Stabilizer	Water	7732-18-5	60.00000%	0.00000%	
			Ethanaminium, 2-hydroxy-N,N,N-trimet	67-48-1	35.00000%	0.00000%	
Plexcide 15G	Chemplex, LC	Biocide	Glutaraldehyde	111-30-8	14.00000%	0.00308%	
			Didecyl dimethyl ammonium chloride	7173-51-5	3.00000%	0.00066%	
			Alkyl dimethyl benzyl ammonium chlori	68424-85-1	3.00000%	0.00066%	
			Ethanol	64-17-5	3.00000%	0.00066%	

* Total Water Volume sources may include fresh water, produced water, and/or recycled water

** Information is based on the maximum potential for concentration and thus the total may be over 100%

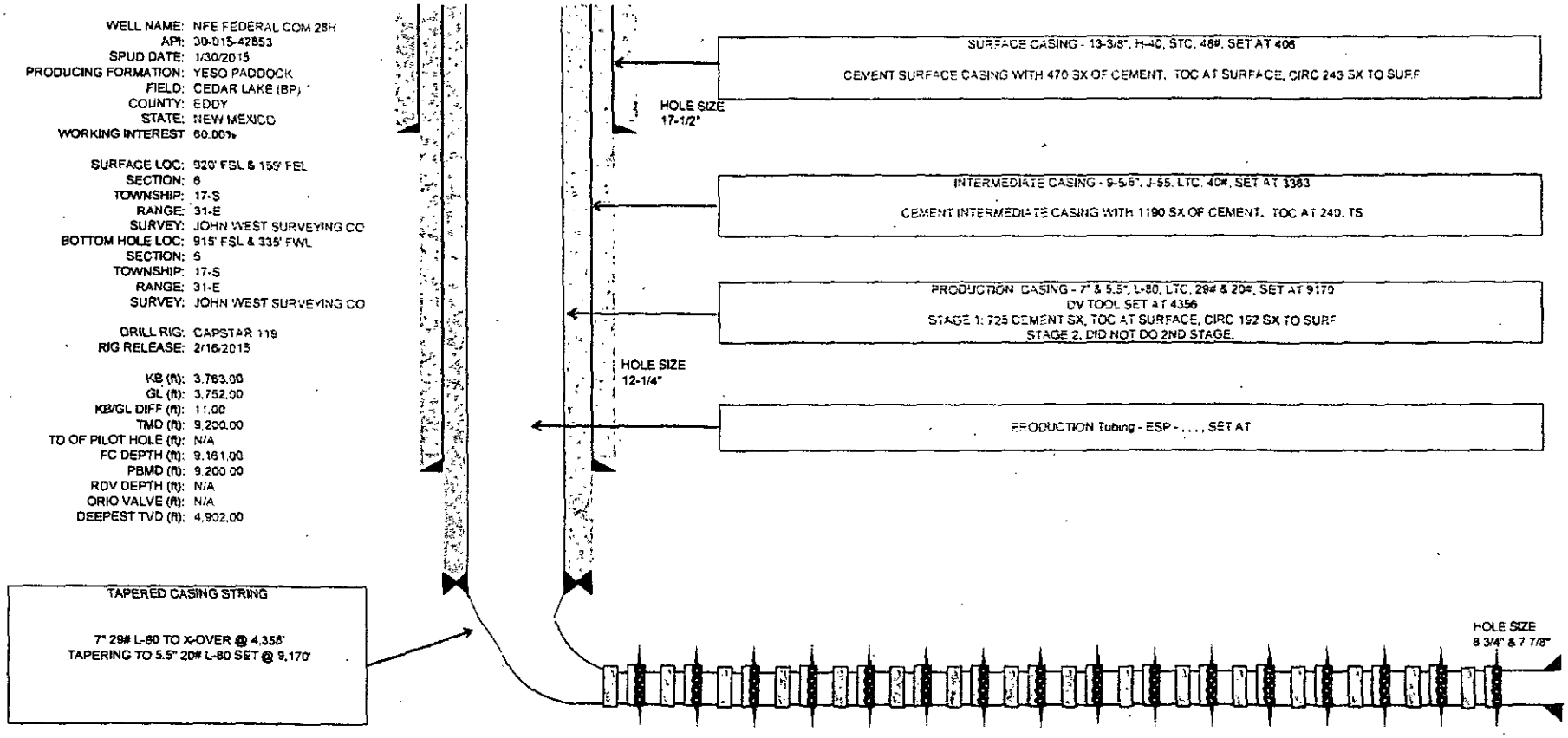
All component information listed was obtained from the supplier's Material Safety Data Sheets (MSDS). As such, the Operator is not responsible for inaccurate and/or incomplete information. Any questions regarding the content of the MSDS should be directed to the supplier who provided it. The Occupational Safety and Health Administration's (OSHA) regulations govern the criteria for the disclosure of this information. Please note that Federal Law protects "proprietary", "trade secret", and "confidential business information" and the criteria for how this information is reported on an MSDS is subject to 29 CFR 1910.1200(i) and Appendix D.

WELL NAME: NFE FEDERAL COM 28H
API: 30-015-42853
SPUD DATE: 1/30/2015
PRODUCING FORMATION: YESO PADDOCK
FIELD: CEDAR LAKE (BP)
COUNTY: EDDY
STATE: NEW MEXICO
WORKING INTEREST 60.00%

SURFACE LOC: 920' FSL & 155' FEL
SECTION: 6
TOWNSHIP: 17-S
RANGE: 31-E
SURVEY: JOHN WEST SURVEYING CO
BOTTOM HOLE LOC: 915' FSL & 335' FWL
SECTION: 5
TOWNSHIP: 17-S
RANGE: 31-E
SURVEY: JOHN WEST SURVEYING CO

DRILL RIG: CAPSTAR 119
RIG RELEASE: 2/16/2015

KB (ft): 3,763.00
GL (ft): 3,752.00
KB/GL DIFF (ft): 11.00
TMD (ft): 9,200.00
TD OF PILOT HOLE (ft): N/A
FC DEPTH (ft): 9,161.00
PBMD (ft): 9,200.00
RDV DEPTH (ft): N/A
ORIO VALVE (ft): N/A
DEEPEST TVD (ft): 4,902.00



KOP (ft): 4,380
LATERAL LENGTH (ft): 3,939
TD OF PILOT HOLE (ft): N/A

PACKERS & SLEEVES
TOP PERF (MD): 5,261
BOTTOM PERF (MD): 9,161

TMD (ft): 9,200
FC DEPTH (ft): 9,161
PBMD (ft): 9,200
RDV DEPTH (ft): N/A
ORIO VALVE (ft): N/A

COMPLETION: PACKERS & SLEEVES - 15 STAGES

STIMULATON:

TOTAL ACID (gal)	TOTAL LTR (bbl)	TOTAL PROPPANT (lbs)	MAX WH RATE (bpm)	MAX WH PRESSURE (psi)
2,466	64,883	2,945,040	94.00	5,706

STATUS:

PRODUCTION METHOD	LIFT TYPE	SETTING DEPTH
Pumping	ESP	0

COMMENTS: CROSSOVER SUB @ 4,358'

LAST UPDATED BY: HILLARI GOULD
LAST UPDATED: 10/12/2015