



PHOENIX
TECHNOLOGY SERVICES

HOBBS OCD

FEB 29 2016

RECEIVED

February 10, 2016

Oil Conservation Division
State of New Mexico
1625 N. French Drive
District 1 - Hobbs
Hobbs, New Mexico 88240

Attention: Regulatory Department

Re: Apache Corporation ✓
Chipotle State Com #2H ✓
Lea County, NM
API #30-025-42941 ✓
Job No. 1514789

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 Layfield	2H	5,704	13,311	01/06/16	01/20/16	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 5401

AS DRILLED

MAR 04 2016

FEB 29 2016

Phoenix Technology Services SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER

1514789

OPERATOR

Apache Corp.

WELL NAME

Chipotle State Com #2H

COUNTY & STATE

Lea County, New Mexico

API WELL NUMBER

30-025-42941

PROPOSED DIRECTION

179.67°

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
5,642 ft	5,641.85 ft	0.53°	163.47°	-14.12 ft	8.04 ft	Phoenix Gyro

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
6-Jan-16	5,704 ft	1.2°	172.8°

SURVEY INSTRUMENT
TYPE

Phoenix MWD

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
20-Jan-16	13,311 ft	92.2°	180.6°

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
20-Jan-16	13,370 ft	92.2°	180.6°

Mike Layfield

PRINT YOUR NAME ABOVE

Mike Layfield

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	7.07
DECLINATION OR GRID	GRID

1/20/2016

TODAY'S DATE

MWD SUPERVISOR 1

Mike Layfield

DIRECTIONAL DRILLER 1

Terry Parker

MWD SUPERVISOR 2

John Lamarque

DIRECTIONAL DRILLER 2

Thomas Bazan

HOBBS OCD

FEB 29 2016

RECEIVED



Apache Corporation

**Lea County, NM (NAD27 NME)
Chipotle State Com
2H**

OH / Job #1514789

Survey: Phoenix MWD Surveys

Standard Survey Report

20 January, 2016



Company:	Apache Corporation	Local Co-ordinate Reference:	Well 2H
Project:	Lea County, NM (NAD27 NME)	TVD Reference:	GL + KB @ 4371.00usft (Nomac 22)
Site:	Chipotle State Com	MD Reference:	GL + KB @ 4371.00usft (Nomac 22)
Well:	2H	North Reference:	Grid
Wellbore:	OH / Job #1514789	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Nomac 22)	Database:	Compass 5000 GCR

Project	Lea 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	Chipotle State Com		
Site Position:		Northing:	691,301.80 usft
From:	Map	Easting:	665,344.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 53' 57.50632 N
		Longitude:	103° 47' 40.68879 W
		Grid Convergence:	0.29 °

Well	2H		
Well Position	+N/-S	0.00 usft	Northing: 691,301.80 usft
	+E/-W	0.00 usft	Easting: 665,344.00 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 53' 57.50632 N
		Longitude:	103° 47' 40.68879 W
		Ground Level:	4,349.00 usft

Wellbore	OH / Job #1514789		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM	12/22/2015	7.37
			Dip Angle (°) 60.88
			Field Strength (nT) 48,592

Design	Surveys (Nomac 22)		
Audit Notes:			
Version:	1.0	Phase:	ACTUAL
		Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)
	0.00	0.00	0.00
			Direction (°) 179.67

Survey Program	Date 1/20/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
100.00	5,642.00	Phoenix Gyro Surveys (OH / Job #151478	PHX_SPT_GTD
5,704.00	13,370.00	Phoenix MWD Surveys (OH / Job #151478	PHX+MWD+HDGM
			Description
			PHX Continuous north-seeking gyro
			PHX+OWSG MWD + HDGM

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)
5,642.00	0.53	163.47	5,641.85	-14.12	8.04	14.17	0.00	0.00	0.00
Tie In to Phoenix Gyro Surveys									
5,704.00	1.20	172.80	5,703.84	-15.04	8.20	15.09	1.10	1.08	15.05
First Phoenix MWD Survey									
5,735.00	3.50	176.40	5,734.81	-16.31	8.30	16.35	7.43	7.42	11.61
5,766.00	7.20	178.80	5,765.67	-19.19	8.40	19.24	11.95	11.94	7.74
5,797.00	10.70	179.90	5,796.29	-24.02	8.44	24.06	11.30	11.29	3.55
5,828.00	14.50	181.90	5,826.54	-30.78	8.32	30.82	12.34	12.26	6.45
5,859.00	17.90	183.20	5,856.30	-39.41	7.93	39.46	11.03	10.97	4.19

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Site:	Chipotle State Com	MD Reference:	GL + KB @ 4371.00usft (Nomac 22)
Well:	2H	North Reference:	Grid
Wellbore:	OH / Job #1514789	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Nomac 22)	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)
5,891.00	21.40	183.30	5,886.44	-50.15	7.32	50.20	10.94	10.94	0.31
5,922.00	25.20	181.70	5,914.90	-62.40	6.79	62.44	12.43	12.26	-5.16
5,953.00	28.90	179.00	5,942.51	-76.49	6.73	76.53	12.57	11.94	-8.71
5,984.00	32.60	176.70	5,969.15	-92.33	7.34	92.37	12.52	11.94	-7.42
6,015.00	35.80	175.20	5,994.78	-109.70	8.58	109.75	10.67	10.32	-4.84
6,046.00	39.30	175.20	6,019.36	-128.53	10.16	128.58	11.29	11.29	0.00
6,078.00	43.00	175.60	6,043.45	-149.51	11.85	149.58	11.59	11.56	1.25
6,109.00	46.80	177.00	6,065.40	-171.35	13.25	171.42	12.67	12.26	4.52
6,140.00	50.00	177.70	6,085.98	-194.50	14.32	194.58	10.46	10.32	2.26
6,171.00	53.40	178.10	6,105.19	-218.81	15.21	218.89	11.01	10.97	1.29
6,202.00	56.40	178.80	6,123.02	-244.16	15.89	244.24	9.85	9.68	2.26
6,233.00	59.70	179.70	6,139.42	-270.46	16.23	270.54	10.93	10.65	2.90
6,264.00	63.40	179.90	6,154.18	-297.71	16.33	297.80	11.95	11.94	0.65
6,295.00	67.00	180.70	6,167.18	-325.84	16.18	325.93	11.85	11.61	2.58
6,326.00	70.50	181.30	6,178.42	-354.73	15.67	354.81	11.43	11.29	1.94
6,357.00	73.20	181.90	6,188.07	-384.17	14.85	384.25	8.90	8.71	1.94
6,389.00	76.70	181.50	6,196.38	-415.05	13.93	415.13	11.00	10.94	-1.25
6,420.00	79.80	181.00	6,202.69	-445.39	13.27	445.46	10.12	10.00	-1.61
6,451.00	82.30	181.20	6,207.52	-476.01	12.68	476.07	8.09	8.06	0.65
6,483.00	85.20	180.90	6,211.00	-507.81	12.10	507.87	9.11	9.06	-0.94
6,548.00	88.80	180.90	6,214.40	-572.70	11.08	572.75	5.54	5.54	0.00
6,636.00	88.60	181.10	6,216.40	-660.66	9.54	660.71	0.32	-0.23	0.23
6,729.00	88.30	181.60	6,218.91	-753.60	7.35	753.63	0.63	-0.32	0.54
6,823.00	88.70	182.10	6,221.37	-847.52	4.32	847.53	0.68	0.43	0.53
6,917.00	88.70	180.50	6,223.51	-941.47	2.19	941.47	1.70	0.00	-1.70
7,010.00	88.90	180.70	6,225.45	-1,034.44	1.21	1,034.43	0.30	0.22	0.22
7,104.00	88.90	180.70	6,227.26	-1,128.42	0.07	1,128.40	0.00	0.00	0.00
7,198.00	88.80	181.10	6,229.15	-1,222.39	-1.41	1,222.36	0.44	-0.11	0.43
7,291.00	89.20	181.60	6,230.77	-1,315.35	-3.60	1,315.31	0.69	0.43	0.54
7,384.00	89.10	182.00	6,232.15	-1,408.29	-6.52	1,408.23	0.44	-0.11	0.43
7,478.00	88.80	180.20	6,233.87	-1,502.26	-8.33	1,502.18	1.94	-0.32	-1.91
7,570.00	88.60	180.50	6,235.96	-1,594.23	-8.89	1,594.15	0.39	-0.22	0.33
7,664.00	88.30	180.60	6,238.50	-1,688.19	-9.79	1,688.11	0.34	-0.32	0.11
7,757.00	89.20	179.70	6,240.53	-1,781.17	-10.03	1,781.08	1.37	0.97	-0.97
7,850.00	89.50	179.00	6,241.58	-1,874.15	-8.98	1,874.07	0.82	0.32	-0.75
7,944.00	89.40	178.90	6,242.49	-1,968.13	-7.26	1,968.06	0.15	-0.11	-0.11
8,037.00	89.10	179.30	6,243.70	-2,061.11	-5.80	2,061.05	0.54	-0.32	0.43
8,130.00	89.80	179.20	6,244.60	-2,154.10	-4.58	2,154.04	0.76	0.75	-0.11
8,222.00	90.10	179.30	6,244.68	-2,246.09	-3.37	2,246.04	0.34	0.33	0.11
8,315.00	90.70	179.70	6,244.03	-2,339.09	-2.56	2,339.03	0.78	0.65	0.43
8,371.00	90.80	179.90	6,243.30	-2,395.08	-2.37	2,395.03	0.40	0.18	0.36
8,465.00	91.00	180.20	6,241.82	-2,489.07	-2.45	2,489.02	0.38	0.21	0.32
8,559.00	90.20	179.10	6,240.83	-2,583.06	-1.87	2,583.01	1.45	-0.85	-1.17

Company:	Apache Corporation	Local Co-ordinate Reference:	Well 2H
Project:	Lea County, NM (NAD27 NME)	TVD Reference:	GL + KB @ 4371.00usft (Nomac 22)
Site:	Chipotle State Corn	MD Reference:	GL + KB @ 4371.00usft (Nomac 22)
Well:	2H	North Reference:	Grid
Wellbore:	OH / Job #1514789	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Nomac 22)	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)
8,654.00	91.40	179.20	6,239.51	-2,678.04	-0.47	2,677.99	1.27	1.26	0.11
8,748.00	90.20	179.20	6,238.20	-2,772.02	0.85	2,771.98	1.28	-1.28	0.00
8,843.00	91.00	179.30	6,237.20	-2,867.01	2.09	2,866.97	0.85	0.84	0.11
8,937.00	89.80	179.90	6,236.54	-2,961.00	2.75	2,960.97	1.43	-1.28	0.64
9,031.00	90.20	180.10	6,236.54	-3,055.00	2.75	3,054.96	0.48	0.43	0.21
9,126.00	90.40	180.60	6,236.05	-3,150.00	2.17	3,149.96	0.57	0.21	0.53
9,220.00	88.50	180.40	6,236.95	-3,243.98	1.35	3,243.94	2.03	-2.02	-0.21
9,314.00	88.80	180.40	6,239.16	-3,337.95	0.69	3,337.90	0.32	0.32	0.00
9,408.00	89.30	181.10	6,240.72	-3,431.93	-0.54	3,431.87	0.92	0.53	0.74
9,502.00	89.10	181.40	6,242.03	-3,525.90	-2.59	3,525.83	0.38	-0.21	0.32
9,597.00	88.60	179.60	6,243.94	-3,620.87	-3.42	3,620.79	1.97	-0.53	-1.89
9,689.00	89.30	180.00	6,245.63	-3,712.86	-3.10	3,712.78	0.88	0.76	0.43
9,784.00	88.70	178.70	6,247.29	-3,807.83	-2.02	3,807.76	1.51	-0.63	-1.37
9,878.00	88.60	177.60	6,249.50	-3,901.76	1.01	3,901.70	1.17	-0.11	-1.17
9,972.00	88.80	177.90	6,251.63	-3,995.66	4.70	3,995.62	0.38	0.21	0.32
10,066.00	88.80	178.50	6,253.60	-4,089.59	7.65	4,089.57	0.64	0.00	0.64
10,160.00	88.80	179.10	6,255.57	-4,183.55	9.62	4,183.54	0.64	0.00	0.64
10,254.00	88.50	179.60	6,257.78	-4,277.52	10.69	4,277.51	0.62	-0.32	0.53
10,347.00	89.30	179.30	6,259.57	-4,370.50	11.58	4,370.49	0.92	0.86	-0.32
10,441.00	89.30	179.80	6,260.72	-4,464.49	12.32	4,464.48	0.53	0.00	0.53
10,535.00	89.10	179.50	6,262.03	-4,558.48	12.89	4,558.47	0.38	-0.21	-0.32
10,630.00	89.10	179.70	6,263.52	-4,653.46	13.56	4,653.46	0.21	0.00	0.21
10,724.00	89.90	179.30	6,264.34	-4,747.45	14.38	4,747.46	0.95	0.85	-0.43
10,818.00	90.20	179.30	6,264.26	-4,841.45	15.52	4,841.46	0.32	0.32	0.00
10,912.00	90.50	178.90	6,263.69	-4,935.43	17.00	4,935.45	0.53	0.32	-0.43
11,007.00	90.80	178.00	6,262.61	-5,030.39	19.57	5,030.42	1.00	0.32	-0.95
11,100.00	91.30	177.20	6,260.91	-5,123.29	23.46	5,123.34	1.01	0.54	-0.86
11,195.00	90.30	177.60	6,259.58	-5,218.18	27.77	5,218.26	1.13	-1.05	0.42
11,288.00	90.60	177.10	6,258.85	-5,311.08	32.07	5,311.18	0.63	0.32	-0.54
11,382.00	89.40	177.20	6,258.85	-5,404.96	36.75	5,405.09	1.28	-1.28	0.11
11,476.00	89.30	177.10	6,259.91	-5,498.84	41.42	5,498.99	0.15	-0.11	-0.11
11,570.00	89.80	177.80	6,260.65	-5,592.74	45.60	5,592.91	0.92	0.53	0.74
11,665.00	89.50	177.60	6,261.23	-5,687.67	49.41	5,687.86	0.38	-0.32	-0.21
11,759.00	90.40	179.10	6,261.32	-5,781.62	52.12	5,781.83	1.86	0.96	1.60
11,823.00	90.90	178.30	6,260.59	-5,845.60	53.57	5,845.81	1.47	0.78	-1.25
11,887.00	90.90	177.80	6,259.58	-5,909.56	55.75	5,909.78	0.78	0.00	-0.78
11,982.00	90.80	179.90	6,258.17	-6,004.52	57.66	6,004.75	2.21	-0.11	2.21
12,077.00	91.70	179.90	6,256.10	-6,099.50	57.82	6,099.73	0.95	0.95	0.00
12,171.00	91.90	180.60	6,253.15	-6,193.45	57.41	6,193.68	0.77	0.21	0.74
12,266.00	89.30	181.40	6,252.15	-6,288.42	55.75	6,288.64	2.86	-2.74	0.84
12,360.00	90.00	181.40	6,252.73	-6,382.39	53.46	6,382.59	0.74	0.74	0.00
12,455.00	89.40	182.00	6,253.23	-6,477.35	50.64	6,477.53	0.89	-0.63	0.63
12,550.00	90.40	181.90	6,253.39	-6,572.29	47.41	6,572.45	1.06	1.05	-0.11
12,644.00	88.30	181.50	6,254.46	-6,666.24	44.62	6,666.38	2.27	-2.23	-0.43

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Wellbore:	OH / Job #1514789	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Nomac 22)	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)
12,739.00	89.10	181.40	6,256.61	-6,761.18	42.22	6,761.31	0.85	0.84	-0.11
12,834.00	88.00	181.60	6,259.02	-6,856.12	39.73	6,856.23	1.18	-1.16	0.21
12,929.00	89.40	181.20	6,261.17	-6,951.06	37.41	6,951.16	1.53	1.47	-0.42
13,023.00	90.60	181.30	6,261.17	-7,045.04	35.36	7,045.13	1.28	1.28	0.11
13,118.00	91.10	181.20	6,259.76	-7,140.00	33.29	7,140.08	0.54	0.53	-0.11
13,213.00	90.70	180.80	6,258.27	-7,234.98	31.63	7,235.04	0.60	-0.42	-0.42
13,311.00	92.20	180.60	6,255.79	-7,332.94	30.43	7,332.99	1.54	1.53	-0.20
Final Phoenix MWD Survey									
13,370.00	92.20	180.60	6,253.53	-7,391.89	29.81	7,391.94	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)	
5,642.00	5,641.85	-14.12	8.04	Tie In to Phoenix Gyro Surveys
5,704.00	5,703.84	-15.04	8.20	First Phoenix MWD Survey
13,311.00	6,255.79	-7,332.94	30.43	Final Phoenix MWD Survey
13,370.00	6,253.53	-7,391.89	29.81	Projection to TD