PHOENIX
TECHNOLOGY SERVICES

February 24, 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
Pacifico State SA Unit #1H
Lea County, NM
API #30-025-42923
Job No. 1610133

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	
Gatlin Finley	1H	4,478	11,787	02/13/16	02/18/16	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

12329 Cutten Rd. Houston, TX 77066 • Phone (713) 337-0600 • Fax (713) 337-0599
www.phxtech.com

AS DRILLED

Phoenix Technology Services
SURVEY DATA CERTIFICATION

PHOENIX TECHNOLOGY SERVICES

PHOENIX JOB NUMBER	1610133	OPERATOR	Apache
WELL NAME	Pacifico State SA Unit #1H	COUNTY & STATE	Lea County, NM
API WELL NUMBER	30-025-42923	PROPOSED DIRECTION	179.38

TIE-IN DATA

MEASURED DEPTH	VERTICAL DEPTH	INCLIN	AZIMUTH	N-S COORD	E-W COORD	DATA SOURCE
4411.12	4,408.76 ft	3.78	186.61	-98.25 ft	-28.43 ft	Gyro Data

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
13-Feb-16	4,478 ft	5.2°	182.9°

SURVEY INSTRUMENT TYPE
Phoenix MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
18-Feb-16	11,787 ft	88.6	179.2

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
18-Feb-16	11,850 ft	88.6	179.2

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	6.28
DECLINATION OR GRID	GRID

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

Gatlin Finley

PRINT YOUR NAME ABOVE

Gatlin Finley

SIGN YOUR NAME ABOVE

2/18/2016

TODAY'S DATE

MWD SUPERVISOR 1	Gatlin Finley	DIRECTIONAL DRILLER 1	Terry Parker
MWD SUPERVISOR 2	Joe Owens	DIRECTIONAL DRILLER 2	Frank Sullivan

12329 Cutten Rd., Houston, Texas 77066 (713)337-0600 (Voice), (713)337-0599 (Fax)

Apache
EXPLORING WHAT'S POSSIBLE

Apache Corporation

Lea County, NM (NAD27 NME)
Pacifico State San Andres Unit
#1H

ST01 / Job #1610133

Survey: Phoenix MWD Surveys

Standard Survey Report

19 February, 2016

PHOENIX
TECHNOLOGY SERVICES

Company:	Apache Corporation	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	GL + KB @ 4048.00usft (Trinidad 222)
Site:	Pacifico State San Andres Unit	**MD Reference:**	GL + KB @ 4048.00usft (Trinidad 222)
Well:	#1H	**North Reference:**	Grid
Wellbore:	ST01 / Job #1610133	**Survey Calculation Method:**	Minimum Curvature
Design:	Surveys (Trinidad 222)	**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 Pacifico State San Andres Unit

Site Position:		**Northing:**	894,260.60 usft	**Latitude:**	33° 27' 13.44443 N
From:	Map	**Easting:**	825,033.60 usft	**Longitude:**	103° 16' 3.68186 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.59 °

Well #1H

Well Position	**+N/-S**	0.00 usft	**Northing:**	894,260.60 usft	**Latitude:**	33° 27' 13.44443 N
	+E/-W	0.00 usft	**Easting:**	825,033.60 usft	**Longitude:**	103° 16' 3.68186 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	0.00 usft	**Ground Level:**	4,026.00 usft

Wellbore ST01 / Job #1610133

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	1/20/2016	6.87	61.22	48,901

Design Surveys (Trinidad 222)

Audit Notes:

Version:	1.0	**Phase:**	ACTUAL	**Tie On Depth:**	4,411.00

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	179.38

Survey Program **Date** 2/19/2016

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
90.10	4,411.00	Gyrodata Gyro Surveys (OH / Job #16101	NS-GYRO-MS	North sensing gyrocompassing m/s
4,411.00	11,850.00	Phoenix MWD Surveys (ST01 / Job #1610	PHX+MWD+HDGM	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)
4,411.12	3.78	186.61	4,408.76	-98.25	-28.43	97.94	0.00	0.00	0.00
Tie In to Gryodata Gyro Surveys									
4,478.00	5.20	182.90	4,475.44	-103.47	-28.84	103.15	2.17	2.12	-5.55
First Phoenix MWD Survey									
4,523.00	9.40	180.50	4,520.06	-109.18	-28.97	108.86	9.36	9.33	-5.33
4,569.00	14.60	183.30	4,565.04	-118.73	-29.34	118.41	11.37	11.30	6.09
4,614.00	20.40	184.10	4,607.94	-132.23	-30.23	131.89	12.90	12.89	1.78
4,659.00	26.20	183.00	4,649.25	-149.99	-31.31	149.64	12.92	12.89	-2.44
4,705.00	32.50	182.70	4,689.33	-172.49	-32.42	172.13	13.70	13.70	-0.65

Company:	Apache Corporation	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	GL + KB @ 4048.00usft (Trinidad 222)
Site:	Pacifico State San Andres Unit	**MD Reference:**	GL + KB @ 4048.00usft (Trinidad 222)
Well:	#1H	**North Reference:**	Grid
Wellbore:	ST01 / Job #1610133	**Survey Calculation Method:**	Minimum Curvature
Design:	Surveys (Trinidad 222)	**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)
4,750.00	37.80	182.00	4,726.11	-198.37	-33.47	198.00	11.81	11.78	-1.56
4,795.00	43.50	180.10	4,760.24	-227.67	-33.98	227.28	12.96	12.67	-4.22
4,841.00	47.70	179.80	4,792.42	-260.52	-33.95	260.14	9.14	9.13	-0.65
4,886.00	51.20	179.20	4,821.67	-294.71	-33.65	294.33	7.84	7.78	-1.33
4,932.00	54.30	179.50	4,849.51	-331.32	-33.24	330.94	6.76	6.74	0.65
4,977.00	57.00	178.60	4,874.90	-368.46	-32.61	368.09	6.22	6.00	-2.00
5,022.00	61.00	177.10	4,898.07	-407.00	-31.16	406.64	9.34	8.89	-3.33
5,068.00	65.70	176.20	4,918.70	-448.03	-28.75	447.69	10.37	10.22	-1.96
5,113.00	70.00	175.60	4,935.66	-489.59	-25.77	489.28	9.63	9.56	-1.33
5,158.00	74.00	174.70	4,949.56	-532.23	-22.15	531.95	9.09	8.89	-2.00
5,204.00	79.00	173.70	4,960.30	-576.71	-17.62	576.49	11.07	10.87	-2.17
5,244.00	83.00	174.90	4,966.55	-616.01	-13.70	615.83	10.43	10.00	3.00
5,278.00	84.90	175.60	4,970.14	-649.71	-10.90	649.55	5.95	5.59	2.06
5,320.00	89.30	178.20	4,972.26	-691.58	-8.64	691.44	12.16	10.48	6.19
5,365.00	90.80	179.40	4,972.22	-736.57	-7.69	736.44	4.27	3.33	2.67
5,410.00	89.80	180.60	4,971.99	-781.56	-7.69	781.43	3.47	-2.22	2.67
5,501.00	89.00	180.70	4,972.94	-872.55	-8.73	872.41	0.89	-0.88	0.11
5,592.00	89.90	179.80	4,973.81	-963.54	-9.12	963.39	1.40	0.99	-0.99
5,682.00	89.90	179.60	4,973.97	-1,053.54	-8.65	1,053.39	0.22	0.00	-0.22
5,773.00	89.90	178.80	4,974.13	-1,144.53	-7.38	1,144.39	0.88	0.00	-0.88
5,863.00	90.10	178.60	4,974.13	-1,234.51	-5.34	1,234.38	0.31	0.22	-0.22
5,953.00	87.80	178.60	4,975.78	-1,324.46	-3.14	1,324.35	2.56	-2.56	0.00
6,044.00	87.90	180.60	4,979.19	-1,415.39	-2.51	1,415.28	2.20	0.11	2.20
6,135.00	92.40	180.30	4,978.96	-1,506.36	-3.22	1,506.24	4.96	4.95	-0.33
6,225.00	88.90	178.30	4,977.93	-1,596.33	-2.12	1,596.22	4.48	-3.89	-2.22
6,316.00	86.60	179.90	4,981.51	-1,687.24	-0.69	1,687.14	3.08	-2.53	1.76
6,407.00	88.00	177.80	4,985.79	-1,778.12	1.13	1,778.02	2.77	1.54	-2.31
6,496.00	88.10	178.50	4,988.82	-1,867.02	4.00	1,866.95	0.79	0.11	0.79
6,587.00	89.70	178.90	4,990.57	-1,957.97	6.07	1,957.93	1.81	1.76	0.44
6,678.00	91.70	178.00	4,989.46	-2,048.93	8.53	2,048.90	2.41	2.20	-0.99
6,768.00	94.20	177.10	4,984.83	-2,138.72	12.37	2,138.73	2.95	2.78	-1.00
6,859.00	92.60	179.60	4,979.43	-2,229.51	14.98	2,229.54	3.26	-1.76	2.75
6,949.00	90.20	181.20	4,977.23	-2,319.47	14.36	2,319.49	3.20	-2.67	1.78
7,040.00	90.80	180.60	4,976.44	-2,410.46	12.93	2,410.46	0.93	0.66	-0.66
7,130.00	91.00	179.70	4,975.02	-2,500.45	12.69	2,500.44	1.02	0.22	-1.00
7,221.00	91.20	179.10	4,973.28	-2,591.42	13.64	2,591.42	0.69	0.22	-0.66
7,312.00	91.30	177.80	4,971.29	-2,682.37	16.10	2,682.38	1.43	0.11	-1.43
7,402.00	92.20	177.80	4,968.54	-2,772.26	19.56	2,772.31	1.00	1.00	0.00
7,496.00	91.60	177.80	4,965.42	-2,866.14	23.16	2,866.22	0.64	-0.64	0.00
7,588.00	91.80	178.60	4,962.70	-2,958.05	26.05	2,958.16	0.90	0.22	0.87
7,680.00	91.40	179.40	4,960.13	-3,050.00	27.66	3,050.12	0.97	-0.43	0.87
7,773.00	91.40	180.40	4,957.85	-3,142.97	27.82	3,143.09	1.07	0.00	1.08
7,865.00	89.30	179.50	4,957.29	-3,234.96	27.90	3,235.07	2.48	-2.28	-0.98

Company:	Apache Corporation	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	GL + KB @ 4048.00usft (Trinidad 222)
Site:	Pacifico State San Andres Unit	**MD Reference:**	GL + KB @ 4048.00usft (Trinidad 222)
Well:	#1H	**North Reference:**	Grid
Wellbore:	ST01 / Job #1610133	**Survey Calculation Method:**	Minimum Curvature
Design:	Surveys (Trinidad 222)	**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)
7,957.00	89.20	179.40	4,958.50	-3,326.95	28.78	3,327.07	0.15	-0.11	-0.11
8,050.00	89.10	179.90	4,959.88	-3,419.94	29.35	3,420.05	0.55	-0.11	0.54
8,142.00	89.30	181.00	4,961.16	-3,511.92	28.63	3,512.03	1.22	0.22	1.20
8,234.00	89.90	179.60	4,961.80	-3,603.92	28.15	3,604.01	1.66	0.65	-1.52
8,327.00	90.00	178.00	4,961.88	-3,696.89	30.09	3,697.00	1.72	0.11	-1.72
8,418.00	89.10	177.90	4,962.60	-3,787.83	33.35	3,787.97	1.00	-0.99	-0.11
8,509.00	88.20	178.70	4,964.74	-3,878.76	36.05	3,878.93	1.32	-0.99	0.88
8,599.00	89.20	180.30	4,966.79	-3,968.73	36.83	3,968.90	2.10	1.11	1.78
8,690.00	90.20	182.00	4,967.26	-4,059.71	35.01	4,059.85	2.17	1.10	1.87
8,781.00	90.30	180.20	4,966.86	-4,150.69	33.26	4,150.81	1.98	0.11	-1.98
8,871.00	90.90	179.30	4,965.92	-4,240.68	33.65	4,240.80	1.20	0.67	-1.00
8,962.00	91.40	178.50	4,964.10	-4,331.65	35.40	4,331.78	1.04	0.55	-0.88
9,053.00	90.80	179.30	4,962.35	-4,422.61	37.15	4,422.75	1.10	-0.66	0.88
9,143.00	90.40	178.20	4,961.41	-4,512.58	39.11	4,512.74	1.30	-0.44	-1.22
9,234.00	89.70	179.30	4,961.33	-4,603.56	41.09	4,603.73	1.43	-0.77	1.21
9,325.00	90.10	179.50	4,961.49	-4,694.55	42.05	4,694.73	0.49	0.44	0.22
9,416.00	90.80	178.90	4,960.77	-4,785.54	43.32	4,785.73	1.01	0.77	-0.66
9,506.00	90.30	180.70	4,959.91	-4,875.53	43.63	4,875.72	2.08	-0.56	2.00
9,597.00	89.60	178.60	4,959.99	-4,966.53	44.19	4,966.71	2.43	-0.77	-2.31
9,688.00	91.80	179.90	4,958.87	-5,057.50	45.38	5,057.70	2.81	2.42	1.43
9,778.00	91.50	180.80	4,956.28	-5,147.46	44.83	5,147.65	1.05	-0.33	1.00
9,869.00	89.80	178.50	4,955.25	-5,238.45	45.38	5,238.63	3.14	-1.87	-2.53
9,959.00	88.90	178.50	4,956.27	-5,328.41	47.74	5,328.61	1.00	-1.00	0.00
10,050.00	89.30	177.90	4,957.70	-5,419.35	50.60	5,419.58	0.79	0.44	-0.66
10,140.00	91.90	178.50	4,956.76	-5,509.29	53.43	5,509.55	2.96	2.89	0.67
10,231.00	91.50	178.80	4,954.06	-5,600.23	55.57	5,600.50	0.55	-0.44	0.33
10,321.00	90.50	179.30	4,952.49	-5,690.20	57.06	5,690.49	1.24	-1.11	0.56
10,412.00	89.80	179.10	4,952.25	-5,781.19	58.33	5,781.48	0.80	-0.77	-0.22
10,503.00	89.10	179.90	4,953.12	-5,872.18	59.12	5,872.48	1.17	-0.77	0.88
10,593.00	89.50	179.00	4,954.22	-5,962.17	59.99	5,962.47	1.09	0.44	-1.00
10,684.00	90.60	179.00	4,954.14	-6,053.16	61.58	6,053.47	1.21	1.21	0.00
10,774.00	90.50	180.20	4,953.28	-6,143.15	62.21	6,143.46	1.34	-0.11	1.33
10,865.00	90.00	180.60	4,952.88	-6,234.14	61.57	6,234.44	0.70	-0.55	0.44
10,956.00	90.40	181.30	4,952.57	-6,325.13	60.06	6,325.41	0.89	0.44	0.77
11,046.00	90.70	178.20	4,951.70	-6,415.11	60.45	6,415.39	3.46	0.33	-3.44
11,137.00	92.70	176.80	4,949.00	-6,505.98	64.42	6,506.30	2.68	2.20	-1.54
11,227.00	92.90	177.40	4,944.60	-6,595.76	68.97	6,596.12	0.70	0.22	0.67
11,318.00	92.80	177.30	4,940.08	-6,686.55	73.17	6,686.95	0.16	-0.11	-0.11
11,409.00	92.80	177.40	4,935.63	-6,777.34	77.37	6,777.78	0.11	0.00	0.11
11,499.00	90.70	177.90	4,932.89	-6,867.22	81.06	6,867.69	2.40	-2.33	0.56
11,590.00	90.70	177.60	4,931.77	-6,958.14	84.63	6,958.65	0.33	0.00	-0.33
11,680.00	89.00	178.30	4,932.01	-7,048.08	87.85	7,048.62	2.04	-1.89	0.78
11,771.00	88.70	179.20	4,933.84	-7,139.04	89.84	7,139.59	1.04	-0.33	0.99
11,787.00	88.60	179.20	4,934.21	-7,155.03	90.06	7,155.59	0.63	-0.63	0.00

Company:	Apache Corporation	**Local Co-ordinate Reference:**	Well #1H
Project:	Lea County, NM (NAD27 NME)	**TVD Reference:**	GL + KB @ 4048.00usft (Trinidad 222)
Site:	Pacifico State San Andres Unit	**MD Reference:**	GL + KB @ 4048.00usft (Trinidad 222)
Well:	#1H	**North Reference:**	Grid
Wellbore:	ST01 / Job #1610133	**Survey Calculation Method:**	Minimum Curvature
Design:	Surveys (Trinidad 222)	**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)
Final Phoenix MWD Survey									
11,850.00	88.60	179.20	4,935.75	-7,218.01	90.94	7,218.57	0.00	0.00	0.00
Projection to TD									

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
4,411.12	4,408.76	-98.25	-28.43	Tie In to Gryodata Gyro Surveys
4,478.00	4,475.44	-103.47	-28.84	First Phoenix MWD Survey
11,787.00	4,934.21	-7,155.03	90.06	Final Phoenix MWD Survey
11,850.00	4,935.75	-7,218.01	90.94	Projection to TD