

Phoenix Technology Services
SURVEY DATA CERTIFICATION

OCT 04 2016

RECEIVED



PHOENIX JOB NUMBER 1610092

OPERATOR Chevron

WELL NAME SD EA 19FED P6 7H - OH

COUNTY & STATE

Lea County, NM

API WELL NUMBER 30-025-42799

PROPOSED DIRECTION 171.01

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
850.01 ft	849.86 ft	0.9°	72.4°	9.23 N	9.17 E	Well Benders

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
4-Feb	1,050 ft	0.3°	135.3°

SURVEY INSTRUMENT
TYPE
Phoenix MWD

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
11-Feb-16	9,296 ft	51.5°	176.9°

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
11-Feb-16	9,348 ft	56.1°	176.9°

Robert Brewer

PRINT YOUR NAME ABOVE

Robert Brewer

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	6.60°
DECLINATION OR GRID	GRID

2/11/2016

TODAY'S DATE

MWD SUPERVISOR 1

Robert Brewer

DIRECTIONAL DRILLER 1

Casey Tubbe

MWD SUPERVISOR 2

Michael Johnson

DIRECTIONAL DRILLER 2

Brennan Duke



Chevron

Lea County, NM (NAD27 NME)

SD EA 19 Fed

P6 7H

OH / Job 1610092

Survey: Phoenix MWD Surveys

Standard Survey Report

20 February, 2016





Phoenix Technology Services

Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well P6 7H
Project:	Lea County, NM (NAD27 NME)	TVD Reference:	RKB @ 3233.00usft (Pace X30)
Site:	SD EA 19 Fed	MD Reference:	RKB @ 3233.00usft (Pace X30)
Well:	P6 7H	North Reference:	Grid
Wellbore:	OH / Job 1610092	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Pace X30)	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	SD EA 19 Fed		
Site Position:		Northing:	377,402.00 usft
From:	Map	Easting:	724,767.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 2' 7.86475 N
		Longitude:	103° 36' 28.78145 W
		Grid Convergence:	0.38 °

Well	P6 7H		
Well Position	+N/-S	0.00 usft	Northing: 377,442.00 usft
	+E/-W	0.00 usft	Easting: 724,798.00 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 2' 8.25853 N
		Longitude:	103° 36' 28.41821 W
		Ground Level:	3,206.00 usft

Wellbore	OH / Job 1610092		
Magnetics	Model Name	Sample Date	Declination (°)
	HDGM	1/27/2016	6.98
			Dip Angle (°) 59.77
			Field Strength (nT) 48,056

Design	Surveys (Pace X30)		
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 (°) 171.01

Survey Program	Date 2/16/2016		
From (usft)	To (usft)	Survey (Wellbore)	Tool Name
183.00	850.00	Wellbenders MWD Surveys (OH / Job 161	MWD
1,050.00	9,348.00	Phoenix MWD Surveys (OH / Job 1610092	PHX+MWD+HDGM
			Description
			MWD - Standard
			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)
850.00	0.90	72.40	849.85	9.23	9.17	-7.69	0.00	0.00	0.00
850.01	0.90	72.40	849.86	9.23	9.17	-7.69	0.00	0.00	0.00
Tie-in to Wellbenders Surveys									
1,050.00	0.30	135.30	1,049.84	9.34	11.04	-7.50	0.40	-0.30	31.45
First Phoenix Survey									
1,232.00	0.40	163.40	1,231.84	8.39	11.55	-6.48	0.11	0.05	15.44
1,409.00	0.30	148.30	1,408.84	7.40	11.97	-5.44	0.08	-0.06	-8.53
1,587.00	0.30	137.80	1,586.83	6.66	12.53	-4.62	0.03	0.00	-5.90
1,764.00	0.40	137.90	1,763.83	5.86	13.26	-3.72	0.06	0.06	0.06



Phoenix Technology Services

Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well P6 7H
Project:	Lea County, NM (NAD27 NME)	TVD Reference:	RKB @ 3233.00usft (Pace X30)
Site:	SD EA 19 Fed	MD Reference:	RKB @ 3233.00usft (Pace X30)
Well:	P6 7H	North Reference:	Grid
Wellbore:	OH / Job 1610092	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Pace X30)	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)
1,941.00	0.30	113.20	1,940.83	5.22	14.10	-2.95	0.10	-0.06	-13.95
2,118.00	0.50	104.70	2,117.82	4.84	15.27	-2.39	0.12	0.11	-4.80
2,296.00	0.30	120.50	2,295.82	4.41	16.42	-1.79	0.13	-0.11	8.88
2,473.00	2.60	100.30	2,472.75	3.45	20.77	-0.16	1.31	1.30	-11.41
2,650.00	7.50	92.00	2,649.01	2.33	36.28	3.37	2.79	2.77	-4.69
2,827.00	6.90	92.90	2,824.61	1.39	58.44	7.76	0.34	-0.34	0.51
3,005.00	6.60	89.60	3,001.38	0.92	79.35	11.49	0.28	-0.17	-1.85
3,182.00	6.60	87.30	3,177.21	1.47	99.68	14.12	0.15	0.00	-1.30
3,359.00	7.60	87.00	3,352.85	2.56	121.53	16.46	0.57	0.56	-0.17
3,536.00	8.40	91.90	3,528.13	2.75	146.14	20.12	0.59	0.45	2.77
3,713.00	8.40	93.60	3,703.23	1.51	171.96	25.38	0.14	0.00	0.96
3,891.00	6.90	99.80	3,879.64	-1.13	195.48	31.66	0.96	-0.84	3.48
4,068.00	4.80	104.20	4,055.71	-4.76	213.14	38.00	1.21	-1.19	2.49
4,246.00	5.50	104.20	4,232.99	-8.68	228.63	44.30	0.39	0.39	0.00
4,423.00	6.80	104.30	4,408.97	-13.35	247.00	51.78	0.73	0.73	0.06
4,601.00	5.40	107.20	4,585.96	-18.43	265.22	59.64	0.81	-0.79	1.63
4,650.00	4.80	104.90	4,634.76	-19.63	269.40	61.49	1.29	-1.22	-4.69
4,793.00	4.20	103.70	4,777.32	-22.41	280.27	65.93	0.42	-0.42	-0.84
4,971.00	3.30	85.40	4,954.94	-23.55	291.71	68.84	0.84	-0.51	-10.28
5,149.00	3.30	86.80	5,132.65	-22.85	301.93	69.75	0.05	0.00	0.79
5,327.00	4.60	87.20	5,310.22	-22.21	314.18	71.04	0.73	0.73	0.22
5,505.00	5.60	84.40	5,487.52	-21.02	329.95	72.32	0.58	0.56	-1.57
5,684.00	5.70	81.10	5,665.65	-18.79	347.42	72.85	0.19	0.06	-1.84
5,862.00	4.80	80.30	5,842.90	-16.17	363.50	72.77	0.51	-0.51	-0.45
6,040.00	5.90	82.40	6,020.12	-13.70	379.91	72.90	0.63	0.62	1.18
6,219.00	5.50	79.70	6,198.24	-10.95	397.47	72.93	0.27	-0.22	-1.51
6,397.00	6.00	93.10	6,375.35	-9.93	415.15	74.68	0.80	0.28	7.53
6,574.00	6.10	95.10	6,551.36	-11.27	433.76	78.91	0.13	0.06	1.13
6,752.00	5.60	92.40	6,728.43	-12.47	451.85	82.93	0.32	-0.28	-1.52
6,929.00	6.20	90.50	6,904.50	-12.92	470.04	86.21	0.36	0.34	-1.07
7,106.00	5.70	94.90	7,080.54	-13.75	488.35	89.89	0.38	-0.28	2.49
7,283.00	5.50	96.40	7,256.70	-15.45	505.54	94.25	0.14	-0.11	0.85
7,461.00	6.60	88.60	7,433.71	-16.15	524.25	97.87	0.77	0.62	-4.38
7,638.00	5.60	88.80	7,609.70	-15.72	543.05	100.38	0.57	-0.56	0.11
7,816.00	5.40	88.70	7,786.88	-15.35	560.11	102.68	0.11	-0.11	-0.06
7,993.00	5.90	90.40	7,963.02	-15.22	577.53	105.28	0.30	0.28	0.96
8,170.00	6.10	97.60	8,139.06	-16.53	595.95	109.45	0.44	0.11	4.07
8,348.00	5.20	94.50	8,316.19	-18.41	613.36	114.03	0.53	-0.51	-1.74
8,526.00	6.80	86.80	8,493.21	-18.46	631.93	116.98	1.00	0.90	-4.33
8,722.00	5.80	82.40	8,688.03	-16.50	653.33	118.39	0.57	-0.51	-2.24
8,763.00	5.50	84.20	8,728.83	-16.03	657.34	118.55	0.85	-0.73	4.39
8,807.00	7.30	113.40	8,772.56	-16.92	662.01	120.16	8.32	4.09	66.36
8,852.00	11.40	135.80	8,816.97	-21.25	667.73	125.33	12.02	9.11	49.78



Phoenix Technology Services
Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well P6 7H
Project:	Lea County, NM (NAD27 NME)	TVD Reference:	RKB @ 3233.00usft (Pace X30)
Site:	SD EA 19 Fed	MD Reference:	RKB @ 3233.00usft (Pace X30)
Well:	P6 7H	North Reference:	Grid
Wellbore:	OH / Job 1610092	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Pace X30)	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)
8,896.00	16.60	143.60	8,859.65	-29.43	674.50	134.47	12.55	11.82	17.73
8,940.00	21.70	147.00	8,901.20	-41.32	682.67	147.49	11.86	11.59	7.73
8,985.00	25.80	154.60	8,942.39	-57.16	691.40	164.50	11.35	9.11	16.89
9,029.00	28.20	158.90	8,981.60	-75.51	699.25	183.85	7.03	5.45	9.77
9,074.00	30.90	165.40	9,020.75	-96.62	706.00	205.75	9.31	6.00	14.44
9,118.00	33.80	168.00	9,057.92	-119.53	711.39	229.23	7.31	6.59	5.91
9,163.00	38.10	170.30	9,094.34	-145.47	716.34	255.62	10.01	9.56	5.11
9,207.00	42.60	172.80	9,127.87	-173.64	720.49	284.10	10.87	10.23	5.68
9,251.00	47.80	174.90	9,158.86	-204.67	723.81	315.26	12.29	11.82	4.77
9,296.00	51.50	176.90	9,188.00	-238.87	726.24	349.42	8.89	8.22	4.44
9,348.00	56.10	176.90	9,218.70	-280.76	728.51	391.15	8.85	8.85	0.00
Projection to TD - OH									

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
850.01	849.86	9.23	9.17	Tie-in to Wellbenders Surveys
1,050.00	1,049.84	9.34	11.04	First Phoenix Survey
9,348.00	9,218.70	-280.76	728.51	Projection to TD - OH

Checked By: _____ Approved By: _____ Date: _____

Phoenix Technology Services SURVEY DATA CERTIFICATION



PHOENIX JOB NUMBER **1610092**

OPERATOR **Chevron**

WELL NAME **SD EA 19 Fed P6 7H - ST01**

COUNTY & STATE **Lea County, NM**

API WELL NUMBER **30-025-42799**

PROPOSED DIRECTION **171.01**

TIE-IN DATA						
MEASURED	VERTICAL			N-S	E-W	DATA
DEPTH	DEPTH	INCLIN	AZIMUTH	COORD	COORD	SOURCE
8,526.00 ft	8,493.21 ft	6.8°	86.8°	18.46 S	631.93 E	Phoenix MWD

FIRST	FIRST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
13-Feb	8,718 ft	11.2°	134.4°

SURVEY INSTRUMENT
TYPE
Phoenix MWD

LAST	LAST		
SURVEY	SURVEY		
DATE	DEPTH	INCLIN	AZIMUTH
18-Feb-16	13,790 ft	87.5°	177.4°

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
18-Feb-16	13,846 ft	87.5°	177.4°

Robert Brewer

PRINT YOUR NAME ABOVE

Robert Brewer

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	6.60°
DECLINATION OR GRID	GRID

2/18/2016

TODAY'S DATE

MWD SUPERVISOR 1 **Robert Brewer**

DIRECTIONAL DRILLER 1 **Casey Tubbe**

MWD SUPERVISOR 2 **Lance Mosby**

DIRECTIONAL DRILLER 2 **Brennan Duke**



Chevron

Lea County, NM (NAD27 NME)

SD EA 19 Fed

P6 7H

ST01 / Job 1610092

Survey: Phoenix MWD Surveys

Standard Survey Report

19 February, 2016

HOBBS OCD

OCT 04 2016

RECEIVED



PHOENIX
TECHNOLOGY SERVICES



Phoenix Technology Services

Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well P6 7H
Project:	Lea County, NM (NAD27 NME)	TVD Reference:	RKB @ 3233.00usft (Pace X30)
Site:	SD EA 19 Fed	MD Reference:	RKB @ 3233.00usft (Pace X30)
Well:	P6 7H	North Reference:	Grid
Wellbore:	ST01 / Job 1610092	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Pace X30)	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	SD EA 19 Fed		
Site Position:		Northing:	377,402.00 usft
From:	Map	Easting:	724,767.00 usft
Position Uncertainty:	0.00 usft	Slot Radius:	13-3/16 "
		Latitude:	32° 2' 7.86475 N
		Longitude:	103° 36' 28.78145 W
		Grid Convergence:	0.38 °

Well	P6 7H		
Well Position	+N/-S	0.00 usft	Northing: 377,442.00 usft
	+E/-W	0.00 usft	Easting: 724,798.00 usft
Position Uncertainty	0.00 usft	Wellhead Elevation:	0.00 usft
		Latitude:	32° 2' 8.25853 N
		Longitude:	103° 36' 28.41821 W
		Ground Level:	3,206.00 usft

Wellbore	ST01 / Job 1610092				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	2/11/2016	6.98	59.77	48,051

Design	Surveys (Pace X30)				
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	171.01	

Survey Program	Date	2/19/2016			
From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description	
183.00	850.00	Wellbenders MWD Surveys (OH / Job 161	MWD	MWD - Standard	
1,050.00	8,526.00	Phoenix MWD Surveys (OH / Job 1610092	PHX+MWD+HDGM	PHX+OWSG MWD + HDGM	
8,718.00	13,846.00	Phoenix MWD Surveys (ST01 / Job 16100	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)	
8,526.00	6.80	86.80	8,493.21	-18.46	631.93	116.98	0.00	0.00	0.00	
Tie-in to Phoenix Surveys										
8,718.00	11.20	134.40	8,683.04	-30.89	656.64	133.12	4.32	2.29	24.79	
First Phoenix MWD Survey - ST01										
8,763.00	17.70	138.80	8,726.59	-39.10	664.28	142.43	14.64	14.44	9.78	
8,807.00	25.20	150.20	8,767.53	-52.29	673.36	156.87	19.43	17.05	25.91	
8,852.00	29.00	163.10	8,807.62	-71.06	681.30	176.65	15.51	8.44	28.67	
8,896.00	33.90	167.70	8,845.15	-93.27	687.02	199.48	12.39	11.14	10.45	



Phoenix Technology Services

Survey Report



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Site:	SD EA 19 Fed	MD Reference:	RKB @ 3233.00usft (Pace X30)
Well:	P6 7H	North Reference:	Grid
Wellbore:	ST01 / Job 1610092	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Pace X30)	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)
8,941.00	37.00	170.10	8,881.81	-118.88	692.02	225.56	7.55	6.89	5.33
8,985.00	39.80	171.20	8,916.29	-145.85	696.45	252.89	6.55	6.36	2.50
9,029.00	43.30	171.90	8,949.21	-174.71	700.74	282.06	8.02	7.95	1.59
9,074.00	45.60	172.50	8,981.33	-205.93	705.01	313.57	5.20	5.11	1.33
9,118.00	46.90	173.30	9,011.76	-237.47	708.93	345.33	3.23	2.95	1.82
9,163.00	48.30	174.60	9,042.10	-270.51	712.43	378.52	3.77	3.11	2.89
9,207.00	51.30	175.70	9,070.50	-304.00	715.27	412.03	7.08	6.82	2.50
9,251.00	54.80	176.10	9,096.94	-339.06	717.78	447.06	7.99	7.95	0.91
9,296.00	59.30	176.80	9,121.41	-376.74	720.11	484.64	10.08	10.00	1.56
9,341.00	65.40	177.70	9,142.29	-416.54	722.01	524.25	13.67	13.56	2.00
9,385.00	68.30	177.60	9,159.58	-456.96	723.67	564.43	6.59	6.59	-0.23
9,429.00	69.20	177.30	9,175.53	-497.92	725.50	605.18	2.14	2.05	-0.68
9,474.00	73.10	175.40	9,190.07	-540.41	728.21	647.57	9.54	8.67	-4.22
9,519.00	79.30	174.10	9,200.80	-583.91	732.22	691.15	14.06	13.78	-2.89
9,587.00	86.10	177.30	9,209.43	-651.12	737.26	758.33	11.03	10.00	4.71
9,676.00	86.40	177.30	9,215.26	-739.83	741.44	846.60	0.34	0.34	0.00
9,765.00	88.60	176.80	9,219.14	-828.62	746.02	935.02	2.53	2.47	-0.56
9,853.00	90.40	178.30	9,219.91	-916.53	749.78	1,022.44	2.66	2.05	1.70
9,942.00	92.00	178.70	9,218.04	-1,005.48	752.11	1,110.65	1.85	1.80	0.45
10,030.00	91.40	178.20	9,215.43	-1,093.41	754.49	1,197.87	0.89	-0.68	-0.57
10,120.00	90.20	178.80	9,214.17	-1,183.37	756.84	1,287.10	1.49	-1.33	0.67
10,209.00	91.00	178.90	9,213.24	-1,272.34	758.63	1,375.26	0.91	0.90	0.11
10,298.00	92.70	179.40	9,210.37	-1,361.28	759.95	1,463.31	1.99	1.91	0.56
10,386.00	92.20	180.30	9,206.61	-1,449.20	760.18	1,550.19	1.17	-0.57	1.02
10,475.00	92.20	181.80	9,203.19	-1,538.12	758.55	1,637.76	1.68	0.00	1.69
10,564.00	94.10	183.10	9,198.30	-1,626.90	754.75	1,724.85	2.59	2.13	1.46
10,652.00	91.40	182.30	9,194.08	-1,714.69	750.61	1,810.92	3.20	-3.07	-0.91
10,741.00	90.00	180.80	9,192.99	-1,803.64	748.20	1,898.40	2.31	-1.57	-1.69
10,830.00	90.80	179.40	9,192.37	-1,892.64	748.05	1,986.28	1.81	0.90	-1.57
10,918.00	88.80	178.40	9,192.68	-1,980.62	749.74	2,073.44	2.54	-2.27	-1.14
11,007.00	88.50	177.50	9,194.77	-2,069.53	752.92	2,161.76	1.07	-0.34	-1.01
11,095.00	89.10	177.10	9,196.62	-2,157.42	757.07	2,249.22	0.82	0.68	-0.45
11,184.00	90.90	177.00	9,196.62	-2,246.30	761.65	2,337.72	2.03	2.02	-0.11
11,273.00	89.70	177.90	9,196.15	-2,335.20	765.60	2,426.15	1.69	-1.35	1.01
11,361.00	90.30	177.80	9,196.15	-2,423.14	768.91	2,513.53	0.69	0.68	-0.11
11,450.00	90.00	180.20	9,195.92	-2,512.12	770.46	2,601.65	2.72	-0.34	2.70
11,538.00	88.50	176.60	9,197.07	-2,600.06	772.92	2,688.90	4.43	-1.70	-4.09
11,627.00	88.10	176.80	9,199.71	-2,688.88	778.04	2,777.42	0.50	-0.45	0.22
11,716.00	89.60	178.30	9,201.50	-2,777.77	781.84	2,865.82	2.38	1.69	1.69
11,804.00	92.20	181.10	9,200.11	-2,865.74	782.30	2,952.78	4.34	2.95	3.18
11,893.00	91.40	180.80	9,197.32	-2,954.69	780.83	3,040.40	0.96	-0.90	-0.34
11,982.00	88.70	180.10	9,197.24	-3,043.67	780.13	3,128.19	3.13	-3.03	-0.79
12,071.00	88.60	180.90	9,199.34	-3,132.64	779.35	3,215.95	0.91	-0.11	0.90
12,160.00	90.00	181.90	9,200.43	-3,221.61	777.18	3,303.48	1.93	1.57	1.12



Phoenix Technology Services

Survey Report



Company:	Chevron	Local Co-ordinate Reference:	Well P6 7H
Project:	Lea County, NM (NAD27 NME)	TVD Reference:	RKB @ 3233.00usft (Pace X30)
Site:	SD EA 19 Fed	MD Reference:	RKB @ 3233.00usft (Pace X30)
Well:	P6 7H	North Reference:	Grid
Wellbore:	ST01 / Job 1610092	Survey Calculation Method:	Minimum Curvature
Design:	Surveys (Pace X30)	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)
12,248.00	91.00	182.00	9,199.66	-3,309.55	774.18	3,389.87	1.14	1.14	0.11
12,337.00	90.20	181.90	9,198.73	-3,398.50	771.15	3,477.25	0.91	-0.90	-0.11
12,426.00	89.40	181.40	9,199.04	-3,487.46	768.59	3,564.72	1.06	-0.90	-0.56
12,515.00	90.60	182.40	9,199.04	-3,576.41	765.64	3,652.11	1.76	1.35	1.12
12,604.00	90.40	181.80	9,198.26	-3,665.34	762.38	3,739.45	0.71	-0.22	-0.67
12,693.00	90.40	182.10	9,197.64	-3,754.29	759.35	3,826.83	0.34	0.00	0.34
12,780.00	90.50	181.80	9,196.95	-3,841.24	756.39	3,912.24	0.36	0.11	-0.34
12,869.00	89.90	179.50	9,196.64	-3,930.22	755.38	3,999.98	2.67	-0.67	-2.58
12,957.00	89.70	178.40	9,196.95	-4,018.21	756.99	4,087.13	1.27	-0.23	-1.25
13,046.00	89.90	177.80	9,197.26	-4,107.16	759.94	4,175.45	0.71	0.22	-0.67
13,134.00	89.90	176.20	9,197.42	-4,195.03	764.55	4,262.97	1.82	0.00	-1.82
13,223.00	90.80	176.70	9,196.87	-4,283.86	770.06	4,351.57	1.16	1.01	0.56
13,311.00	92.50	176.90	9,194.34	-4,371.68	774.97	4,439.08	1.95	1.93	0.23
13,400.00	92.20	178.50	9,190.69	-4,460.53	778.54	4,527.39	1.83	-0.34	1.80
13,489.00	91.30	178.10	9,187.97	-4,549.45	781.18	4,615.63	1.11	-1.01	-0.45
13,577.00	89.40	178.30	9,187.43	-4,637.40	783.94	4,702.93	2.17	-2.16	0.23
13,666.00	87.60	178.40	9,189.76	-4,726.33	786.50	4,791.17	2.03	-2.02	0.11
13,755.00	88.00	178.20	9,193.18	-4,815.23	789.14	4,879.39	0.50	0.45	-0.22
13,790.00	87.50	177.40	9,194.55	-4,850.17	790.48	4,914.11	2.69	-1.43	-2.29
13,846.00	87.50	177.40	9,197.00	-4,906.06	793.02	4,969.71	0.00	0.00	0.00
Projection to Bit									

Survey Annotations				
Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates		Comment
		+N/-S (usft)	+E/-W (usft)	
8,526.00	8,493.21	-18.46	631.93	Tie-in to Phoenix Surveys
8,718.00	8,683.04	-30.89	656.64	First Phoenix MWD Survey - ST01
13,846.00	9,197.00	-4,906.06	793.02	Projection to Bit

Checked By: _____ Approved By: _____ Date: _____