Results of Directional Survey

API number:	30-025-40486		
OGRID:		Operator:	EOG RESOURCES INC
		Property:	DIAMOND 31 FEDERAL COM # 4H

surface	ULSTR:	C	31	T	24S	R	34E
				280	FNL	2188	FWL

BH Loc	ULSTR:	F	06	T	25S	R	34E
16690	MD	9477.6	TVD	2400	FNL	2247	FWL

Top Perf/OH	ULSTR:	C	31	T	24S	R	34E
9600	MD	9461.9	TVD	618	FNL	2217	FWL

Bot Perf/OH	ULSTR:	F	06	T	25S	R	34E
16566	MD	9478.7	TVD	2277	FNL	2238	FWL

	MD	N/S	E/W	VD
	9598	-336.61	28.90	9461.13
TOP PERFS/OH	**9600**	-338.47	28.99	9461.86
	9631	-367.28	30.35	9473.19
	16537	-7247.67	48.14	9479.10
BOT PERFS/OH	**16566**	-7276.74	50.09	9478.74
	16589	-7299.80	51.64	9478.45

NEXT TO LAST	16649	-7359.40	55.91	9477.89
LAST READING	16690	-7400.28	58.94	9477.58
TD	**16690**	-7400.28	58.94	9477.58

Surface Location	280	FN	2188	FW
Projected BHL	7680	FN	2247	FW
Location of				
Top Perfs/OH	618	FN	2217	FW
Bottom Perfs/OH	7557	FN	2238	FW

SUMMARY of Subsurface Locations

Surface Location	C-31-24S-34E	280	FN	2188	FW	Vert. Depth
Top Perfs/OH	C-31-24S-34E	618	FN	2217	FW	9461.86
Bottom Perfs/OH	F-06-25S-34E	2277	FN	2238	FW	9478.74
Projected TD	F-06-25S-34E	2400	FN	2247	FW	9477.58

PHOENIX
TECHNOLOGY SERVICES

December 28, 2012

HOBBS OCD

JAN 17 2013

RECEIVED

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

Dear District 1 - Hobbs

Re: EOG Resources
Diamond 31 Federal Com #4H
Lea Co., NM
API #30-025-40486
Job No. 1211165

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. Other information required by your office is as follows:

Name & Title of Surveyor	Drainhole Number	Surveyed Depths		Dates Performed		Type of Survey
		From	To	Start	End	
Dustin St. Clair	4	1321	5077	12-13-12	12-19-12	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,

Kelly Jo Walter

Kelly Jo Walter
Operations Administrator

Certified mail receipt number: 7011 1570 0001 4364 8264

1805 Brittmoore Rd. Houston, TX 77043 • Phone (713) 337-0600 • Fax (713) 337-0599
www.phxtech.com

PHOENIX TECHNOLOGY SERVICES
SURVEY DATA CERTIFICATION

PHOENIX TECHNOLOGY SERVICES

PHOENIX JOB NUMBER 1211165 OPERATOR EOG Resources

WELL NAME Diamond 31 Federal Com# 4H COUNTY & STATE Lea County

API WELL NUMBER	30-025-40486

PROPOSED DIRECTION	179.55

TIE-IN DATA						
MEASURED DEPTH	VERTICAL DEPTH	INCLIN	AZIMUTH	N-S COORD	E-W COORD	DATA SOURCE
1,180 ft	1,179.91 ft	1.73	298.24	1.2	-11.31	GYRO

FIRST SURVEY DATE	FIRST SURVEY DEPTH	INCLIN	AZIMUTH
13-Dec-12	1,321 ft	2.4	299.5

SURVEY INSTRUMENT TYPE
PHOENIX MWD

LAST SURVEY DATE	LAST SURVEY DEPTH	INCLIN	AZIMUTH
19-Dec-12	5,077 ft	3.9	100.8

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

PROJECTED TD SURVEY DATE	PROJECTED TD SURVEY DEPTH	INCLIN	AZIMUTH
19-Dec-12	5,124 ft	3.9	100.8

Dustin St. Clair

PRINT YOUR NAME ABOVE

SIGN YOUR NAME ABOVE

MAGNETIC DECLINATION OR TOTAL GRID

TOTAL CORRECTION USED	6.94
DECLINATION OR GRID	Grid

12/19/2012

TODAY'S DATE

MWD SUPERVISOR 1 Dustin St. Clair DIRECTIONAL DRILLER 1 Brad Hays

MWD SUPERVISOR 2 Eric Burchinal DIRECTIONAL DRILLER 2 Victor Mata

1805 Brittmore Road Houston, Texas 77043 (713)3370609 (Voice), (713)337-0599 (Fax)

EOG Resources

Lea County, NM (Nad27)
Diamond 31 Fed Com
Diamond 31 Fed Com 4H
Wellbore #1

Survey: Phoenix MWD Surveys

Survey Report

20 December, 2012

Survey Report

Company:	EOG Resources	**Local Co-ordinate Reference:**	Well Diamond 31 Fed Com 4H
Project:	Lea County, NM (Nad27)	**TVD Reference:**	Well @ 3510.00usft (Original Well Elev + 14' KB)
Site:	Diamond 31 Fed Com	**MD Reference:**	Well @ 3510.00usft (Original Well Elev + 14' KB)
Well:	Diamond 31 Fed Com 4H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	GCR DB v5000

Project Lea County, NM (Nad27)

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 Diamond 31 Fed Com

Site Position:		**Northing:**	430,543.30 usft	**Latitude:**	32° 10' 51.7346 N
From:	Map	**Easting:**	752,984.40 usft	**Longitude:**	103° 30' 56.3113 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.44 °

Well Diamond 31 Fed Com 4H

Well Position	**+N/-S**	0.00 usft	**Northing:**	430,324.29 usft	**Latitude:**	32° 10' 49.4346 N
	+E/-W	0.00 usft	**Easting:**	754,744.10 usft	**Longitude:**	103° 30' 35.8570 W
Position Uncertainty		0.00 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,496.00 usft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2010_14	12/03/12	7.37	60.12	48,449

Design Wellbore #1

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	179.55

Survey Program **Date** 12/20/12

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
1,321.00	5,124.00	Phoenix MWD Surveys (Wellbore #1)	MWD	MWD - Standard

Survey Report

Company:	EOG Resources	**Local Co-ordinate Reference:**	Well Diamond 31 Fed Com 4H
Project:	Lea County, NM (Nad27)	**TVD Reference:**	Well @ 3510.00usft (Original Well Elev + 14' KB)
Site:	Diamond 31 Fed Com	**MD Reference:**	Well @ 3510.00usft (Original Well Elev + 14' KB)
Well:	Diamond 31 Fed Com 4H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	GCR DB v5000

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
1,180.00	1.73	298.24	-2,330.09	1,179.91	1.20	-11.31	-1.29	0.00	430,325.49	754,732.79
1,180.01	1.73	298.24	-2,330.08	1,179.92	1.20	-11.31	-1.29	0.00	430,325.49	754,732.79
Tie In to MS Gyro Surveys, 1180'										
1,321.00	2.40	299.50	-2,189.18	1,320.82	3.66	-15.75	-3.78	0.48	430,327.95	754,728.35
First Phoenix MWD Survey, 1321'										
1,415.00	2.90	294.30	-2,095.28	1,414.72	5.61	-19.63	-5.76	0.59	430,329.90	754,724.47
1,509.00	2.50	294.40	-2,001.39	1,508.61	7.43	-23.67	-7.62	0.43	430,331.73	754,720.43
1,604.00	1.20	287.00	-1,906.44	1,603.56	8.58	-26.51	-8.79	1.39	430,332.87	754,717.59
1,698.00	1.10	296.10	-1,812.46	1,697.54	9.27	-28.26	-9.49	0.22	430,333.56	754,715.84
1,791.00	1.30	274.30	-1,719.48	1,790.52	9.74	-30.11	-9.97	0.53	430,334.03	754,713.99
1,886.00	1.30	292.20	-1,624.50	1,885.50	10.23	-32.18	-10.48	0.43	430,334.52	754,711.92
1,981.00	0.70	274.50	-1,529.52	1,980.48	10.68	-33.76	-10.94	0.70	430,334.97	754,710.34
2,077.00	0.10	45.70	-1,433.52	2,076.48	10.78	-34.29	-11.05	0.80	430,335.08	754,709.81
2,171.00	0.20	56.30	-1,339.52	2,170.48	10.93	-34.09	-11.20	0.11	430,335.22	754,710.01
2,263.00	0.40	64.70	-1,247.52	2,262.48	11.16	-33.67	-11.42	0.22	430,335.45	754,710.43
2,358.00	0.50	65.90	-1,152.52	2,357.48	11.47	-32.99	-11.73	0.11	430,335.76	754,711.11
2,453.00	0.50	91.70	-1,057.53	2,452.47	11.63	-32.20	-11.88	0.23	430,335.92	754,711.90
2,547.00	0.70	87.80	-963.53	2,546.47	11.64	-31.21	-11.88	0.22	430,335.93	754,712.89
2,642.00	0.70	80.40	-868.54	2,641.46	11.75	-30.06	-11.99	0.10	430,336.05	754,714.04
2,737.00	0.60	98.40	-773.55	2,736.45	11.78	-29.00	-12.01	0.24	430,336.07	754,715.10
2,832.00	0.60	79.90	-678.55	2,831.45	11.79	-28.01	-12.01	0.20	430,336.09	754,716.09
2,927.00	0.50	88.70	-583.55	2,926.45	11.89	-27.11	-12.10	0.14	430,336.18	754,716.99
3,021.00	0.60	86.10	-489.56	3,020.44	11.93	-26.21	-12.14	0.11	430,336.22	754,717.89
3,115.00	0.40	78.10	-395.56	3,114.44	12.03	-25.40	-12.23	0.22	430,336.33	754,718.70
3,209.00	0.40	88.80	-301.56	3,208.44	12.11	-24.75	-12.30	0.08	430,336.40	754,719.35
3,304.00	0.40	123.00	-206.57	3,303.43	11.93	-24.14	-12.12	0.25	430,336.23	754,719.96
3,398.00	0.40	133.00	-112.57	3,397.43	11.53	-23.62	-11.72	0.07	430,335.82	754,720.48

Survey Report

Company:	EOG Resources	**Local Co-ordinate Reference:**	Well Diamond 31 Fed Com 4H
Project:	Lea County, NM (Nad27)	**TVD Reference:**	Well @ 3510.00usft (Original Well Elev + 14' KB)
Site:	Diamond 31 Fed Com	**MD Reference:**	Well @ 3510.00usft (Original Well Elev + 14' KB)
Well:	Diamond 31 Fed Com 4H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	GCR DB v5000

Survey

MD (usft)	Inc (°)	Azi (azimuth) (°)	TVDSS (usft)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100usft)	Northing (usft)	Easting (usft)
3,493.00	0.20	147.70	-17.57	3,492.43	11.17	-23.29	-11.35	0.22	430,335.46	754,720.81
3,587.00	0.10	49.40	76.43	3,586.43	11.08	-23.14	-11.26	0.25	430,335.37	754,720.96
3,682.00	0.40	36.60	171.43	3,681.43	11.40	-22.88	-11.58	0.32	430,335.69	754,721.22
3,777.00	0.60	30.30	266.42	3,776.42	12.10	-22.43	-12.27	0.22	430,336.39	754,721.67
3,871.00	0.50	14.90	360.42	3,870.42	12.92	-22.08	-13.09	0.19	430,337.21	754,722.02
3,966.00	0.40	3.90	455.42	3,965.42	13.65	-21.95	-13.82	0.14	430,337.94	754,722.15
4,061.00	0.50	287.80	550.41	4,060.41	14.11	-22.32	-14.28	0.59	430,338.40	754,721.78
4,155.00	0.80	301.10	644.41	4,154.41	14.57	-23.27	-14.75	0.36	430,338.86	754,720.83
4,250.00	1.20	299.90	739.39	4,249.39	15.41	-24.70	-15.60	0.42	430,339.70	754,719.40
4,345.00	1.20	309.40	834.37	4,344.37	16.54	-26.34	-16.74	0.21	430,340.83	754,717.76
4,439.00	1.00	326.30	928.36	4,438.36	17.84	-27.55	-18.06	0.40	430,342.14	754,716.55
4,535.00	0.90	49.20	1,024.35	4,534.35	19.03	-27.45	-19.25	1.31	430,343.33	754,716.65
4,629.00	1.80	72.90	1,118.32	4,628.32	19.95	-25.48	-20.15	1.11	430,344.24	754,718.62
4,721.00	2.00	80.00	1,210.27	4,720.27	20.65	-22.51	-20.83	0.34	430,344.95	754,721.59
4,814.00	2.90	93.50	1,303.18	4,813.18	20.79	-18.57	-20.94	1.14	430,345.08	754,725.53
4,909.00	3.60	101.50	1,398.03	4,908.03	20.05	-13.25	-20.15	0.88	430,344.34	754,730.85
5,004.00	3.90	102.90	1,492.83	5,002.83	18.73	-7.17	-18.79	0.33	430,343.03	754,736.93
5,077.00	3.90	100.80	1,565.66	5,075.66	17.71	-2.31	-17.73	0.20	430,342.01	754,741.79
5,124.00	3.90	100.80	1,612.55	5,122.55	17.12	0.83	-17.11	0.00	430,341.41	754,744.93
Projection to TD, 5124'										

Survey Report

Company:	EOG Resources	**Local Co-ordinate Reference:**	Well Diamond 31 Fed Com 4H
Project:	Lea County, NM (Nad27)	**TVD Reference:**	Well @ 3510.00usft (Original Well Elev + 14' KB)
Site:	Diamond 31 Fed Com	**MD Reference:**	Well @ 3510.00usft (Original Well Elev + 14' KB)
Well:	Diamond 31 Fed Com 4H	**North Reference:**	Grid
Wellbore:	Wellbore #1	**Survey Calculation Method:**	Minimum Curvature
Design:	Wellbore #1	**Database:**	GCR DB v5000

Survey Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
1,180.01	1,179.92	1.20	-11.31	Tie In to MS Gyro Surveys, 1180'
1,321.00	1,320.82	3.66	-15.75	First Phoenix MWD Survey, 1321'
5,124.00	5,122.55	17.12	0.83	Projection to TD, 5124'

PATHFINDER
A Schlumberger Company

EOG Diamond 31 Fed Com #4H Gyro+MWD 0-16690'MD Survey Geodetic Report

(Def Survey)

eog resources

Report Date:	January 11, 2013 - 10:50 AM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:	Eog Resources	**Vertical Section Azimuth:**	179.551 ° (Grid North)
Field:	NM Lea County (NAD 27)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	EOG Diamond 31 Fed Com #4H / EOG Diamond 31 Fed Com #4H	**TVD Reference Datum:**	KB
Well:	EOG Diamond 31 Fed Com #4H	**TVD Reference Elevation:**	3526.100 ft above
Borehole:	Original Borehole	**Seabed / Ground Elevation:**	3496.100 ft above
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	7.468 °
Survey Name:	EOG Diamond 31 Fed Com #4H Gyro+MWD 0-16690'MD	**Total Gravity Field Strength:**	999.1514 mgn (9.8 based)
Survey Date:	December 26, 2012	**Total Magnetic Field Strength:**	48427.599 nT
Tort / AHD / DDI / ERD Ratio:	212.223 ° / 7550.579 ft / 6.449 / 0.795	**Magnetic Dip Angle:**	60.079 °
Coordinate Reference System:	NAD27 New Mexico State Plane, Eastern Zone, US Feet	**Declination Date:**	December 26, 2012
Location Lat / Long:	N 32° 10' 49.43471", W 103° 30' 35.85705"	**Magnetic Declination Model:**	BGGM 2012
Location Grid N/E Y/X:	N 430324.300 ftUS, E 754744.100 ftUS	**North Reference:**	Grid North
CRS Grid Convergence Angle:	0.4385 °	**Grid Convergence Used:**	0.4385 °
Grid Scale Factor:	0.99998342	**Total Corr Mag North->Grid North:**	7.0294 °
		Local Coord Referenced To:	Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
EOG Diamond 31 Fed Com #4H SHL	0.00	0.00	179.55	0.00	0.00	0.00	0.00	N/A	430324.30	754744.10	N 32 10 49.43	W 103 30 35.86
	19.00	0.00	0.00	19.00	0.00	0.00	0.00	0.00	430324.30	754744.10	N 32 10 49.43	W 103 30 35.86
	119.00	0.32	306.95	119.00	-0.17	0.17	-0.22	0.32	430324.47	754743.88	N 32 10 49.44	W 103 30 35.86
	219.00	0.34	302.44	219.00	-0.50	0.49	-0.70	0.03	430324.79	754743.40	N 32 10 49.44	W 103 30 35.87
	319.00	0.38	272.05	319.00	-0.68	0.67	-1.28	0.19	430324.97	754742.82	N 32 10 49.44	W 103 30 35.87
	419.00	0.23	267.62	418.99	-0.68	0.67	-1.81	0.15	430324.97	754742.29	N 32 10 49.44	W 103 30 35.88
	519.00	0.18	226.51	518.99	-0.57	0.55	-2.12	0.15	430324.85	754741.98	N 32 10 49.44	W 103 30 35.88
	619.00	0.30	255.00	618.99	-0.40	0.38	-2.49	0.17	430324.68	754741.61	N 32 10 49.44	W 103 30 35.89
	719.00	0.58	253.65	718.99	-0.19	0.17	-3.23	0.28	430324.47	754740.87	N 32 10 49.44	W 103 30 35.89
	819.00	0.63	260.08	818.98	0.04	-0.07	-4.26	0.08	430324.23	754739.84	N 32 10 49.43	W 103 30 35.91
	919.00	0.86	269.27	918.98	0.13	-0.17	-5.55	0.26	430324.13	754738.55	N 32 10 49.43	W 103 30 35.92
	1019.00	1.15	274.31	1018.96	0.05	-0.11	-7.30	0.30	430324.19	754736.80	N 32 10 49.43	W 103 30 35.94
	1119.00	1.31	288.70	1118.94	-0.41	0.33	-9.38	0.35	430324.63	754734.72	N 32 10 49.44	W 103 30 35.97
Last gyro	1199.00	1.73	298.24	1198.91	-1.29	1.20	-11.31	0.61	430325.50	754732.79	N 32 10 49.45	W 103 30 35.99
	1340.00	2.40	299.50	1339.82	-3.78	3.66	-15.76	0.48	430327.96	754728.34	N 32 10 49.47	W 103 30 36.04
	1434.00	2.90	294.30	1433.72	-5.76	5.61	-19.64	0.59	430329.91	754724.46	N 32 10 49.49	W 103 30 36.09
	1528.00	2.50	294.40	1527.61	-7.62	7.43	-23.67	0.43	430331.73	754720.43	N 32 10 49.51	W 103 30 36.13
	1623.00	1.20	287.00	1622.56	-8.79	8.58	-26.51	1.39	430332.88	754717.59	N 32 10 49.52	W 103 30 36.16
	1717.00	1.10	298.10	1716.54	-9.48	9.26	-28.26	0.22	430333.56	754715.84	N 32 10 49.53	W 103 30 36.19
	1810.00	1.30	274.30	1809.52	-9.97	9.74	-30.12	0.53	430334.03	754713.98	N 32 10 49.53	W 103 30 36.21
	1905.00	1.30	292.20	1904.50	-10.47	10.22	-32.19	0.43	430334.52	754711.91	N 32 10 49.54	W 103 30 36.23
	2000.00	0.70	274.90	1999.48	-10.94	10.68	-33.76	0.70	430334.98	754710.34	N 32 10 49.54	W 103 30 36.25
	2096.00	0.10	45.70	2095.48	-11.06	10.79	-34.29	0.80	430335.09	754709.81	N 32 10 49.54	W 103 30 36.26
	2190.00	0.20	56.30	2189.48	-11.20	10.94	-34.09	0.11	430335.24	754710.01	N 32 10 49.55	W 103 30 36.25
	2282.00	0.40	64.70	2281.48	-11.43	11.16	-33.67	0.22	430335.46	754710.43	N 32 10 49.55	W 103 30 36.25
	2377.00	0.50	65.90	2376.48	-11.73	11.47	-32.99	0.11	430335.77	754711.11	N 32 10 49.55	W 103 30 36.24
	2472.00	0.50	91.70	2471.47	-11.88	11.63	-32.20	0.23	430335.93	754711.90	N 32 10 49.55	W 103 30 36.23
	2566.00	0.70	87.80	2565.47	-11.89	11.64	-31.22	0.22	430335.94	754712.89	N 32 10 49.55	W 103 30 36.22
	2661.00	0.70	80.40	2660.46	-12.00	11.76	-30.06	0.10	430336.06	754714.04	N 32 10 49.55	W 103 30 36.21
	2756.00	0.60	98.40	2755.45	-12.01	11.78	-29.00	0.24	430336.08	754715.10	N 32 10 49.55	W 103 30 36.19
	2851.00	0.60	79.90	2850.45	-12.02	11.80	-28.02	0.20	430336.10	754716.08	N 32 10 49.55	W 103 30 36.18
	2946.00	0.50	88.70	2945.44	-12.11	11.90	-27.11	0.14	430336.20	754716.99	N 32 10 49.55	W 103 30 36.17
	3040.00	0.60	86.10	3039.44	-12.14	11.94	-26.21	0.11	430336.24	754717.89	N 32 10 49.55	W 103 30 36.16
	3134.00	0.40	78.10	3133.44	-12.24	12.04	-25.40	0.22	430336.34	754718.70	N 32 10 49.56	W 103 30 36.15
	3228.00	0.40	88.80	3227.43	-12.31	12.11	-24.75	0.08	430336.41	754719.35	N 32 10 49.56	W 103 30 36.14
	3323.00	0.40	123.00	3322.43	-12.13	11.94	-24.14	0.25	430336.24	754719.96	N 32 10 49.55	W 103 30 36.14
	3417.00	0.40	133.00	3416.43	-11.72	11.54	-23.63	0.07	430335.84	754720.47	N 32 10 49.55	W 103 30 36.13
	3512.00	0.20	147.70	3511.43	-11.35	11.17	-23.30	0.22	430335.47	754720.81	N 32 10 49.55	W 103 30 36.13
	3606.00	0.10	49.40	3605.43	-11.27	11.09	-23.15	0.25	430335.39	754720.96	N 32 10 49.55	W 103 30 36.13
	3701.00	0.40	36.60	3700.43	-11.59	11.41	-22.88	0.32	430335.71	754721.22	N 32 10 49.55	W 103 30 36.12
	3796.00	0.60	30.30	3795.42	-12.28	12.10	-22.44	0.22	430336.40	754721.66	N 32 10 49.56	W 103 30 36.12
	3890.00	0.50	14.90	3889.42	-13.10	12.92	-22.08	0.19	430337.22	754722.02	N 32 10 49.56	W 103 30 36.11
	3985.00	0.40	3.90	3984.42	-13.83	13.65	-21.95	0.14	430337.95	754722.15	N 32 10 49.57	W 103 30 36.11
	4080.00	0.50	287.80	4079.41	-14.29	14.11	-22.33	0.59	430338.41	754721.78	N 32 10 49.58	W 103 30 36.12
	4174.00	0.80	301.10	4173.41	-14.76	14.58	-23.28	0.36	430338.88	754720.82	N 32 10 49.58	W 103 30 36.13
	4269.00	1.20	299.90	4268.39	-15.61	15.41	-24.71	0.42	430339.71	754719.39	N 32 10 49.59	W 103 30 36.14
	4364.00	1.20	309.40	4363.37	-16.75	16.54	-26.34	0.21	430340.84	754717.76	N 32 10 49.60	W 103 30 36.16
	4458.00	1.00	326.30	4457.36	-18.06	17.85	-27.55	0.40	430342.15	754716.55	N 32 10 49.61	W 103 30 36.18
	4554.00	0.90	49.20	4553.35	-19.25	19.04	-27.45	1.31	430343.34	754716.65	N 32 10 49.63	W 103 30 36.17
	4648.00	1.80	72.90	4647.32	-20.15	19.96	-25.48	1.11	430344.26	754718.62	N 32 10 49.63	W 103 30 36.15
	4740.00	2.00	80.00	4739.27	-20.83	20.66	-22.52	0.34	430344.96	754721.58	N 32 10 49.64	W 103 30 36.12
	4833.00	2.90	93.50	4832.18	-20.94	20.80	-18.57	1.14	430345.10	754725.53	N 32 10 49.64	W 103 30 36.07
	4928.00	3.60	101.50	4927.03	-20.16	20.06	-13.25	0.88	430344.36	754730.85	N 32 10 49.63	W 103 30 36.01
	5023.00	3.90	102.90	5021.83	-18.80	18.74	-7.18	0.33	430343.04	754736.92	N 32 10 49.62	W 103 30 35.94
Last Phoenix MWD survey	5096.00	3.90	100.80	5094.66	-17.74	17.72	-2.32	0.20	430342.02	754741.78	N 32 10 49.61	W 103 30 35.88
	5196.00	2.03	99.35	5194.52	-16.77	16.80	2.77	1.87	430341.10	754746.87	N 32 10 49.60	W 103 30 35.82

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	5291.00	0.68	83.75	5289.49	-16.54	16.58	4.99	1.46	430340.88	754749.09	N 32 10 49.60	W 103 30 35.80
	5386.00	0.74	74.74	5384.48	-16.76	16.81	6.14	0.13	430341.11	754750.24	N 32 10 49.60	W 103 30 35.78
	5480.00	0.55	74.36	5478.48	-17.03	17.09	7.16	0.20	430341.39	754751.26	N 32 10 49.60	W 103 30 35.77
	5576.00	0.20	151.24	5574.48	-17.00	17.07	7.69	0.56	430341.36	754751.79	N 32 10 49.60	W 103 30 35.77
	5670.00	0.33	151.34	5668.48	-16.82	16.88	7.90	0.14	430340.98	754752.00	N 32 10 49.60	W 103 30 35.76
	5765.00	0.38	150.52	5763.47	-16.10	16.17	8.18	0.05	430340.47	754752.28	N 32 10 49.59	W 103 30 35.76
	5860.00	0.36	162.95	5858.47	-15.54	15.61	8.43	0.09	430339.91	754752.53	N 32 10 49.59	W 103 30 35.76
	5954.00	0.22	163.70	5952.47	-15.09	15.15	8.56	0.15	430339.45	754752.66	N 32 10 49.58	W 103 30 35.76
	6049.00	0.07	323.23	6047.47	-14.96	15.03	8.58	0.30	430339.33	754752.68	N 32 10 49.58	W 103 30 35.76
	6144.00	0.07	36.42	6142.47	-15.05	15.12	8.58	0.09	430339.42	754752.68	N 32 10 49.58	W 103 30 35.76
	6334.00	0.05	88.61	6332.47	-15.15	15.21	8.73	0.03	430339.51	754752.83	N 32 10 49.58	W 103 30 35.75
	6524.00	0.05	67.50	6522.47	-15.18	15.25	8.89	0.01	430339.55	754752.99	N 32 10 49.58	W 103 30 35.75
	6714.00	0.05	103.83	6712.47	-15.19	15.26	9.05	0.02	430339.56	754753.15	N 32 10 49.59	W 103 30 35.75
	6904.00	0.05	37.84	6902.47	-15.23	15.31	9.18	0.03	430339.61	754753.28	N 32 10 49.59	W 103 30 35.75
	7093.00	0.23	38.27	7091.47	-15.59	15.67	9.46	0.10	430339.97	754753.56	N 32 10 49.59	W 103 30 35.75
	7283.00	0.17	103.27	7281.47	-15.82	15.90	9.97	0.12	430340.20	754754.07	N 32 10 49.59	W 103 30 35.74
	7473.00	0.10	156.97	7471.47	-15.60	15.69	10.31	0.07	430339.99	754754.41	N 32 10 49.59	W 103 30 35.74
	7663.00	0.17	151.57	7661.47	-15.20	15.29	10.51	0.04	430339.59	754754.61	N 32 10 49.59	W 103 30 35.73
	7853.00	0.38	159.82	7851.47	-14.36	14.45	10.86	0.11	430338.75	754754.96	N 32 10 49.58	W 103 30 35.73
	8043.00	1.20	97.95	8041.45	-13.48	13.58	13.05	0.57	430337.88	754757.15	N 32 10 49.57	W 103 30 35.70
	8138.00	0.81	101.28	8136.43	-13.20	13.31	14.70	0.41	430337.61	754758.80	N 32 10 49.57	W 103 30 35.68
	8232.00	0.60	108.22	8230.43	-12.90	13.03	15.81	0.24	430337.33	754759.91	N 32 10 49.56	W 103 30 35.67
	8327.00	0.69	119.75	8325.42	-12.46	12.59	16.78	0.17	430336.89	754760.88	N 32 10 49.56	W 103 30 35.66
	8459.00	0.91	99.88	8457.41	-11.87	12.01	18.51	0.27	430336.31	754762.61	N 32 10 49.55	W 103 30 35.64
	8611.00	0.72	83.35	8609.39	-11.75	11.92	20.64	0.20	430336.22	754764.74	N 32 10 49.55	W 103 30 35.62
	8801.00	0.58	95.18	8799.38	-11.79	11.97	22.79	0.10	430336.27	754766.89	N 32 10 49.55	W 103 30 35.59
	8896.00	0.42	102.08	8894.38	-11.67	11.85	23.61	0.18	430336.15	754767.71	N 32 10 49.55	W 103 30 35.58
	8966.00	1.03	158.39	8964.37	-11.02	11.21	24.09	1.24	430335.51	754768.19	N 32 10 49.54	W 103 30 35.58
	8998.00	4.57	174.46	8996.33	-9.49	9.68	24.32	11.22	430333.98	754768.42	N 32 10 49.53	W 103 30 35.57
	9029.00	10.02	177.37	9027.07	-5.56	5.75	24.56	17.62	430330.05	754768.66	N 32 10 49.49	W 103 30 35.57
	9061.00	15.70	180.43	9058.25	1.56	-1.37	24.66	17.87	430322.93	754768.76	N 32 10 49.42	W 103 30 35.57
	9093.00	20.85	181.50	9088.63	11.59	-11.40	24.48	16.13	430312.91	754768.58	N 32 10 49.32	W 103 30 35.57
	9124.00	24.52	181.08	9117.22	23.53	-23.35	24.21	11.85	430300.95	754768.31	N 32 10 49.20	W 103 30 35.58
	9156.00	27.77	180.30	9145.95	37.63	-37.44	24.05	10.21	430286.86	754768.15	N 32 10 49.06	W 103 30 35.58
	9187.00	30.67	178.24	9173.00	52.76	-52.57	24.25	9.90	430271.73	754768.35	N 32 10 48.91	W 103 30 35.58
	9219.00	32.84	176.68	9200.21	69.59	-69.39	25.00	7.25	430254.91	754769.10	N 32 10 48.75	W 103 30 35.57
	9251.00	34.86	179.12	9226.78	87.40	-87.20	25.65	7.61	430237.10	754769.75	N 32 10 48.57	W 103 30 35.57
	9282.00	36.41	181.71	9251.98	105.46	-105.26	25.51	6.98	430219.04	754769.61	N 32 10 48.39	W 103 30 35.57
	9314.00	36.66	182.88	9277.69	124.48	-124.29	24.75	2.31	430200.01	754768.84	N 32 10 48.20	W 103 30 35.58
	9346.00	38.83	182.43	9302.99	144.04	-143.86	23.84	6.84	430180.44	754767.94	N 32 10 48.01	W 103 30 35.59
	9377.00	40.98	182.14	9326.77	163.90	-163.73	23.05	6.96	430160.57	754767.15	N 32 10 47.81	W 103 30 35.60
	9409.00	43.44	180.25	9350.47	185.39	-185.22	22.61	8.85	430139.08	754766.71	N 32 10 47.60	W 103 30 35.61
	9441.00	46.58	177.88	9373.10	208.02	-207.84	22.99	11.12	430116.46	754767.09	N 32 10 47.38	W 103 30 35.61
	9473.00	49.25	177.57	9394.54	231.75	-231.57	23.93	8.37	430092.73	754768.03	N 32 10 47.14	W 103 30 35.60
	9504.00	52.36	177.65	9414.13	255.76	-255.57	24.94	10.03	430068.73	754769.04	N 32 10 46.90	W 103 30 35.59
	9536.00	57.97	177.62	9432.40	282.00	-281.80	26.02	17.53	430042.50	754770.12	N 32 10 46.64	W 103 30 35.58
	9568.00	62.81	176.82	9448.21	309.79	-309.58	27.37	15.28	430014.72	754771.47	N 32 10 46.37	W 103 30 35.57
	9598.00	66.14	176.70	9461.13	336.82	-336.61	28.90	11.11	429987.70	754773.00	N 32 10 46.10	W 103 30 35.55
	9631.00	70.98	177.88	9473.19	367.51	-367.28	30.35	15.04	429957.03	754774.45	N 32 10 45.80	W 103 30 35.54
	9663.00	75.25	179.00	9482.48	398.11	-397.88	31.18	13.76	429926.42	754775.28	N 32 10 45.50	W 103 30 35.53
	9695.00	78.75	179.02	9489.68	429.29	-429.05	31.72	10.94	429895.26	754775.82	N 32 10 45.19	W 103 30 35.53
	9726.00	83.38	178.41	9494.50	459.90	-459.66	32.41	15.06	429864.65	754776.51	N 32 10 44.88	W 103 30 35.52
	9758.00	86.70	178.18	9497.26	491.77	-491.52	33.35	10.40	429832.79	754777.45	N 32 10 44.57	W 103 30 35.51
	9790.00	87.04	177.85	9499.01	523.71	-523.45	34.46	1.48	429800.85	754778.56	N 32 10 44.25	W 103 30 35.50
	9905.00	89.62	178.28	9502.36	638.61	-638.33	38.34	2.27	429685.98	754782.44	N 32 10 43.12	W 103 30 35.47
	10000.00	89.90	178.05	9502.76	733.58	-733.28	41.38	0.38	429591.03	754785.48	N 32 10 42.18	W 103 30 35.44
	10095.00	90.41	178.26	9502.50	828.55	-828.23	44.44	0.58	429496.08	754788.54	N 32 10 41.24	W 103 30 35.41
	10190.00	90.96	180.00	9501.37	923.54	-923.21	45.88	1.92	429401.11	754789.98	N 32 10 40.30	W 103 30 35.41
	10286.00	90.89	179.40	9499.82	1019.53	-1019.19	46.39	0.63	429305.12	754790.49	N 32 10 39.35	W 103 30 35.41
	10380.00	90.69	179.75	9498.52	1113.52	-1113.18	47.08	0.43	429211.14	754791.18	N 32 10 38.42	W 103 30 35.41
	10476.00	90.69	180.05	9497.36	1209.51	-1209.18	47.25	0.31	429115.15	754791.35	N 32 10 37.47	W 103 30 35.41
	10571.00	90.52	180.35	9496.36	1304.50	-1304.17	46.92	0.36	429020.15	754791.02	N 32 10 36.53	W 103 30 35.43
	10666.00	90.48	181.38	9495.53	1399.47	-1399.15	45.49	1.08	428925.17	754789.59	N 32 10 35.59	W 103 30 35.45
	10761.00	90.58	181.79	9494.65	1494.40	-1494.11	42.86	0.44	428830.21	754786.96	N 32 10 34.65	W 103 30 35.49
	10856.00	90.21	181.10	9494.00	1589.35	-1589.08	40.46	0.82	428735.25	754784.56	N 32 10 33.71	W 103 30 35.53
	10951.00	90.65	181.66	9493.28	1684.30	-1684.05	38.18	0.75	428640.28	754782.27	N 32 10 32.77	W 103 30 35.56
	11046.00	90.52	182.32	9492.31	1779.21	-1778.99	34.88	0.71	428545.35	754778.98	N 32 10 31.83	W 103 30 35.61
	11141.00	89.62	184.04	9492.20	1874.01	-1873.84	29.61	2.04	428450.50	754773.71	N 32 10 30.89	W 103 30 35.68
	11235.00	89.21	182.33	9493.16	1967.81	-1967.68	24.38	1.87	428356.65	754768.48	N 32 10 29.96	W 103 30 35.75
	11330.00	89.72	183.34	9494.05	2062.65	-2062.56	19.69	1.19	428261.78	754763.79	N 32 10 29.02	W 103 30 35.81
	11425.00	89.04	181.53	9495.07	2157.52	-2157.46	15.65	2.04	428166.88	754759.75	N 32 10 28.08	W 103 30 35.87
	11519.00	89.59	176.80	9496.20	2251.48	-2251.42	17.02	5.07	428072.92	754761.12	N 32 10 27.16	W 103 30 35.86
	11614.00	89.48	174.34	9496.97	2346.25	-2346.13	24.36	2.59	427978.22	754768.46	N 32 10 26.22	W 103 30 35.78
	11710.00	90.24	172.96	9497.20	2441.73	-2441.53	34.97	1.64	427882.81	754779.07	N 32 10 25.27	W 103 30 35.67
	11804.00	91.17	173.42	9496.05	2535.15	-2534.86	46.12	1.10	427789.48	754790.22	N 32 10 24.35	W 103 30 35.55
	11898.00	89.69	172.45	9495.34	2628.51	-2628.14	57.68	1.88	427696.21	754801.78	N 32 10 23.42	W 103 30 35.42
	11993.00	90.07	170.85	9495.54	2722.61	-2722.13	71.48	1.73	427602.22	754815.57	N 32 10 22.49	W 103 30 35.27
	12025.00	90.31	171.57	9495.43	2754.27	-2753.76	76.37	2.37	427570.60	754820.46	N 32 10 22.18	W 103 30 35.21
	12057.00	90.62	172.12	9495.17	2785.98	-2785.43	80.91	1.97	427538.92	754825.00	N 32 10 21.87	W 103 30 35.16
	12088.00	90.62	172.60	9494.84	2816.73	-2816.15	85.03	1.55	427508.20	754829.12	N 32 10 21.56	W 103 30 35.12
	12120.00	90.89	173.22	9494.42	2848.52	-2847.91	88.98	2.11	427476.45	754833.07	N 32 10 21.25	W 103 30 35.08
	12152.00	90.79	173.32	9493.95	2880.32	-2879.68	92.73	0.44	427444.67	754836.82	N 32 10 20.93	W 103 30 35.03
	12183.00	90.76	173.77	9493.53	2911.15	-2910.48	96.21	1.45	427413.87	754840.31	N 32 10 20.63	W 103 30 35.00

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	12215.00	90.69	174.21	9493.12	2942.99	-2942.30	99.56	1.39	427382.05	754843.66	N 32 10 20.31	W 103 30 34.96
	12247.00	90.79	174.31	9492.71	2974.85	-2974.14	102.76	0.44	427350.21	754846.86	N 32 10 20.00	W 103 30 34.93
	12278.00	90.65	174.86	9492.32	3005.74	-3005.00	105.69	1.83	427319.36	754849.78	N 32 10 19.69	W 103 30 34.90
	12310.00	90.76	175.76	9491.93	3037.65	-3036.89	108.30	2.83	427287.47	754852.40	N 32 10 19.38	W 103 30 34.87
	12341.00	90.83	176.06	9491.50	3068.58	-3067.81	110.51	0.99	427256.55	754854.61	N 32 10 19.07	W 103 30 34.84
	12373.00	90.69	176.34	9491.07	3100.52	-3099.74	112.63	0.98	427224.62	754856.73	N 32 10 18.75	W 103 30 34.82
	12404.00	90.83	177.07	9490.66	3131.48	-3130.68	114.42	2.40	427193.68	754858.51	N 32 10 18.45	W 103 30 34.80
	12436.00	90.76	177.84	9490.22	3163.46	-3162.65	115.84	2.42	427161.71	754859.93	N 32 10 18.13	W 103 30 34.79
	12468.00	90.93	178.33	9489.75	3195.44	-3194.62	116.91	1.62	427129.73	754861.00	N 32 10 17.81	W 103 30 34.78
	12499.00	90.45	178.54	9489.37	3226.43	-3225.61	117.75	1.69	427098.75	754861.85	N 32 10 17.51	W 103 30 34.77
	12531.00	90.14	178.43	9489.21	3258.43	-3257.60	118.60	1.03	427066.76	754862.70	N 32 10 17.19	W 103 30 34.77
	12563.00	90.48	178.81	9489.03	3290.42	-3289.59	119.37	1.59	427034.77	754863.47	N 32 10 16.87	W 103 30 34.76
	12594.00	90.48	178.95	9488.78	3321.42	-3320.58	119.97	0.45	427003.78	754864.07	N 32 10 16.57	W 103 30 34.76
	12626.00	90.41	179.11	9488.53	3353.42	-3352.58	120.52	0.55	426971.79	754864.61	N 32 10 16.25	W 103 30 34.75
	12658.00	90.52	179.68	9488.27	3385.42	-3384.57	120.85	1.81	426939.79	754864.95	N 32 10 15.93	W 103 30 34.75
	12689.00	90.58	179.88	9487.97	3416.41	-3415.57	120.97	0.67	426908.79	754865.07	N 32 10 15.63	W 103 30 34.75
Closest point to hardline 24'	12721.00	90.38	180.09	9487.70	3448.41	-3447.57	120.98	0.91	426876.79	754865.08	N 32 10 15.31	W 103 30 34.76
	12753.00	90.62	180.49	9487.42	3480.41	-3479.57	120.82	1.46	426844.80	754864.92	N 32 10 14.99	W 103 30 34.76
	12784.00	90.76	180.99	9487.05	3511.40	-3510.56	120.42	1.67	426813.80	754864.52	N 32 10 14.69	W 103 30 34.77
	12816.00	90.69	181.26	9486.64	3543.39	-3542.56	119.79	0.87	426781.81	754863.89	N 32 10 14.37	W 103 30 34.78
	12847.00	90.72	181.73	9486.26	3574.36	-3573.54	118.98	1.52	426750.82	754863.08	N 32 10 14.06	W 103 30 34.79
	12879.00	90.76	182.98	9485.85	3606.32	-3605.51	117.67	3.91	426718.85	754861.77	N 32 10 13.75	W 103 30 34.81
	12911.00	90.48	183.48	9485.50	3638.26	-3637.46	115.86	1.79	426686.91	754859.96	N 32 10 13.43	W 103 30 34.83
	12943.00	90.34	183.45	9485.27	3670.18	-3669.40	113.93	0.45	426654.97	754858.03	N 32 10 13.12	W 103 30 34.86
	12974.00	90.21	183.56	9485.13	3701.11	-3700.34	112.04	0.55	426624.03	754856.13	N 32 10 12.81	W 103 30 34.88
	13006.00	89.97	183.85	9485.07	3733.02	-3732.27	109.97	1.18	426592.09	754854.07	N 32 10 12.49	W 103 30 34.91
	13037.00	90.14	183.54	9485.05	3763.94	-3763.21	107.97	1.14	426561.16	754852.07	N 32 10 12.19	W 103 30 34.94
	13132.00	89.62	182.89	9485.24	3858.75	-3858.06	102.64	0.88	426466.31	754846.74	N 32 10 11.25	W 103 30 35.01
	13227.00	90.14	183.39	9485.44	3953.56	-3952.92	97.44	0.76	426371.46	754841.54	N 32 10 10.31	W 103 30 35.08
	13322.00	89.93	183.79	9485.38	4048.32	-4047.73	91.49	0.48	426276.65	754835.59	N 32 10 9.37	W 103 30 35.15
	13417.00	89.93	187.35	9485.50	4142.78	-4142.27	82.27	3.75	426182.11	754826.37	N 32 10 8.44	W 103 30 35.27
	13512.00	89.45	186.55	9486.02	4236.99	-4236.57	70.78	0.98	426087.81	754814.87	N 32 10 7.51	W 103 30 35.41
	13607.00	89.52	185.59	9486.67	4331.37	-4331.03	60.73	1.01	425993.35	754804.83	N 32 10 6.57	W 103 30 35.54
	13701.00	90.31	189.24	9487.01	4424.47	-4424.22	48.60	3.97	425900.16	754792.70	N 32 10 5.65	W 103 30 35.69
	13796.00	90.52	189.66	9486.32	4518.05	-4517.93	33.00	0.49	425808.45	754777.10	N 32 10 4.73	W 103 30 35.88
	13891.00	90.21	189.23	9485.72	4611.64	-4611.64	17.41	0.56	425712.74	754761.51	N 32 10 3.80	W 103 30 36.07
	13986.00	90.31	189.98	9485.28	4705.18	-4705.31	1.56	0.80	425619.08	754745.66	N 32 10 2.87	W 103 30 36.26
	14081.00	89.62	187.91	9485.34	4798.90	-4799.15	-13.21	2.30	425525.24	754730.89	N 32 10 1.95	W 103 30 36.44
	14176.00	89.38	186.79	9486.17	4893.01	-4893.36	-25.36	1.21	425431.03	754718.74	N 32 10 1.02	W 103 30 36.59
	14271.00	89.93	186.05	9486.74	4987.33	-4987.76	-35.98	0.97	425336.63	754708.12	N 32 10 0.08	W 103 30 36.72
	14365.00	90.10	185.42	9486.72	5080.78	-5081.29	-45.37	0.69	425243.10	754698.73	N 32 9 59.16	W 103 30 36.84
	14461.00	90.07	184.91	9486.58	5176.32	-5176.90	-54.02	0.53	425147.49	754690.08	N 32 9 58.21	W 103 30 36.95
101' from plan	14555.00	90.90	181.31	9485.78	5270.12	-5270.74	-59.12	3.93	425053.65	754684.99	N 32 9 57.28	W 103 30 37.01
	14650.00	91.79	177.59	9483.55	5365.08	-5365.70	-58.21	4.03	424958.70	754685.90	N 32 9 56.34	W 103 30 37.01
	14745.00	91.24	175.72	9481.04	5459.92	-5460.50	-52.66	2.05	424863.90	754691.44	N 32 9 55.41	W 103 30 36.96
	14840.00	90.31	174.31	9479.75	5554.61	-5555.13	-44.41	1.78	424769.28	754699.69	N 32 9 54.47	W 103 30 36.87
	14935.00	90.34	174.38	9479.21	5649.21	-5649.66	-35.05	0.08	424674.74	754709.05	N 32 9 53.53	W 103 30 36.77
	15030.00	89.69	173.76	9479.19	5743.78	-5744.15	-25.23	0.95	424580.25	754718.87	N 32 9 52.60	W 103 30 36.66
	15125.00	89.35	173.70	9479.98	5838.29	-5838.58	-14.86	0.36	424485.83	754729.24	N 32 9 51.66	W 103 30 36.55
	15221.00	89.48	173.28	9480.97	5933.74	-5933.96	-3.98	0.46	424390.45	754740.12	N 32 9 50.72	W 103 30 36.43
	15315.00	89.86	173.75	9481.51	6027.22	-6027.35	6.64	0.64	424297.06	754750.74	N 32 9 49.79	W 103 30 36.32
	15410.00	89.90	174.39	9481.71	6121.79	-6121.84	16.46	0.67	424202.57	754760.56	N 32 9 48.86	W 103 30 36.21
	15505.00	89.86	175.17	9481.90	6216.46	-6216.45	25.10	0.82	424107.97	754769.20	N 32 9 47.92	W 103 30 36.12
	15600.00	88.87	176.48	9482.96	6311.25	-6311.19	32.01	1.73	424013.23	754776.11	N 32 9 46.98	W 103 30 36.05
	15695.00	88.90	180.14	9484.81	6406.19	-6406.11	34.81	3.85	423918.31	754778.91	N 32 9 46.04	W 103 30 36.02
	15790.00	89.55	181.35	9486.09	6501.16	-6501.09	33.58	1.45	423823.33	754777.68	N 32 9 45.10	W 103 30 36.05
	15884.00	90.28	180.52	9486.23	6595.13	-6595.08	32.05	1.18	423729.34	754776.15	N 32 9 44.17	W 103 30 36.07
	15979.00	90.93	179.91	9485.23	6690.12	-6690.07	31.69	0.94	423634.35	754775.79	N 32 9 43.23	W 103 30 36.08
	16074.00	90.55	178.79	9484.00	6785.11	-6785.06	32.77	1.24	423539.37	754776.87	N 32 9 42.29	W 103 30 36.08
	16158.00	90.79	178.96	9483.02	6869.09	-6869.03	34.42	0.35	423455.39	754778.52	N 32 9 41.46	W 103 30 36.07
	16253.00	90.52	179.97	9481.93	6964.09	-6964.02	35.30	1.10	423360.41	754779.40	N 32 9 40.52	W 103 30 36.07
	16348.00	90.65	177.35	9480.96	7059.06	-7058.98	37.52	2.76	423265.45	754781.62	N 32 9 39.58	W 103 30 36.05
	16442.00	90.41	176.75	9480.09	7152.97	-7152.85	42.36	0.69	423171.58	754786.46	N 32 9 38.65	W 103 30 36.00
	16537.00	90.79	176.28	9479.10	7247.83	-7247.67	48.14	0.64	423076.76	754792.24	N 32 9 37.71	W 103 30 35.94
South Hardline Crossing	*16589.25*	*90.63*	*176.04*	*9478.45*	*7299.98*	*-7299.80*	*51.64*	*0.55*	*423024.64*	*754795.74*	*N 32 9 37.20*	*W 103 30 35.91*
Last MWD Survey	16649.00	90.45	175.76	9477.89	7359.61	-7359.40	55.91	0.55	422965.04	754800.01	N 32 9 36.61	W 103 30 35.86
Projection to Bit	16690.00	90.45	175.76	9477.56	7400.52	-7400.28	58.94	0.00	422924.15	754803.04	N 32 9 36.20	W 103 30 35.83

Survey Type: Def Survey

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma

Survey Program:

Description	MD From (ft)	MD To (ft)	EOU Freq (ft)		Hole Size (in)	Casing Diameter (in)	Survey Tool Type	Borehole / Survey
	0.000	30.000		Act Stns	30.000	30.000	SLB_FREE GYRO-Depth Only	Original Borehole / EOG Diamond 31 Fed Com #4H
	30.000	1199.000		Act Stns	30.000	30.000	SLB_FREE GYRO	Original Borehole / EOG Diamond 31 Fed Com #4H

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
		1199.000	16649.000		Act Stns	30.000	30.000	SLB_MWD-STD		Original Borehole / EOG Diamond 31 Fed Com #4H		
		16649.000	16690.000		Act Stns	30.000	30.000	SLB_BLIND+TREND		Original Borehole / EOG Diamond 31 Fed Com #4H		

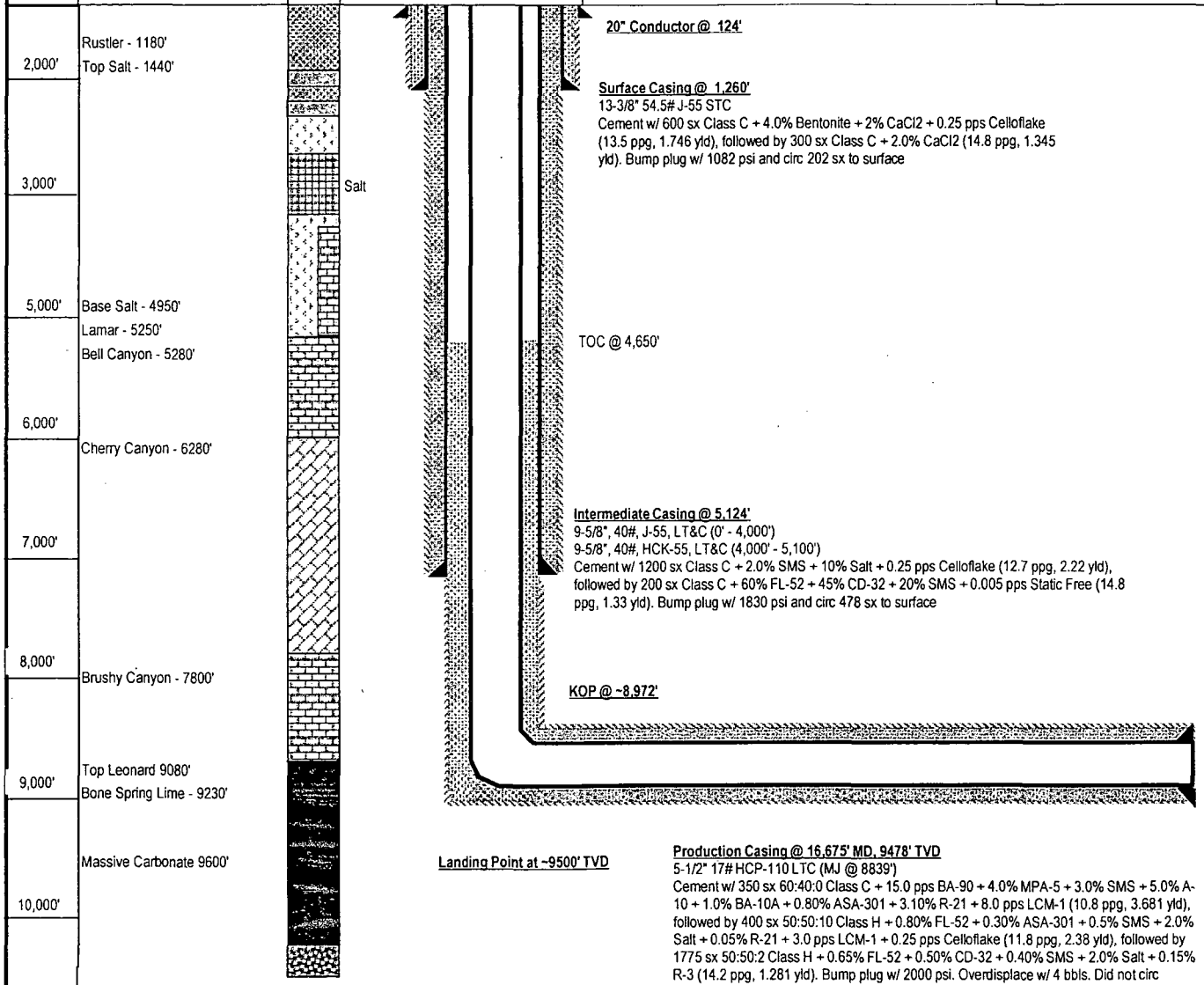
CURRENT WELL SKETCH

eog resources

API: 30-025-40486
AFE: 104933
SPUD: 12/8/12 @ 19:00 hrs
12/29/12 @ 22:30 hrs
FRR: 12/21/12 @ 06:00 hrs
1/12/13 @ 08:00 hrs
RIG: Felderhoff #25/Cactus #123

Diamond 31 Fed Com #4H
Red Hills(Bone Spring) Field
Lea County, New Mexico

SURF: 280' FSL, 2188' FWL
LOC: Sec. 31
SURVEY: T-24-S, R-34-E
GL: 3496.1'
KB: 3526.1
ZERO:



HOLE SIZE	MW (ppg)	MUD	BHST (°F)	LOT (ppg)	EVALUATION
17-1/2"	8.6 – 9.0	FW	86	N/A	
12-1/4"	10.0 – 10.2	Brine	117	NA	
8-3/4" from ICP to 8-1/2 in Lateral	8.4 – 9.3	WBM	156	N/A	

Drlg Eng:	S. Brannan
Date:	1/14/2013