

30-015-39675

2105 MARKET STREET
MIDLAND, TX 79703
24 HR (432) 694-9517

STATE OF NEW MEXICO

COUNTY OF Eddy

I, Carl Riehn, Directional Driller certify that I am employed by Baker Hughes INTEQ; did conduct

or supervise on the day(s) of Jul 15, 2012 through Aug 5, 2012 the

taking of MWD surveys from a depth of 7,470 to a depth of 13,470 that

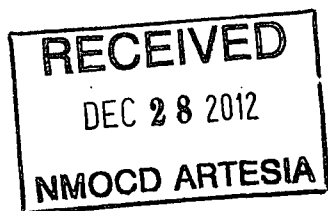
the data is true, correct, complete and within the limitations of the tool as set forth by Baker Hughes INTEQ; that I am

authorized and qualified to make this report; that this survey was conducted at the request of BOPCO

for the Poker Lake Unit #356H in Eddy

County, NM; and that I have reviewed this report and find that it conforms to

the principles and procedures as set forth by INTEQ.



A handwritten signature in cursive script, appearing to read "Carl Riehn".

Field Service Engineer:

Carl Riehn



BOPCO, L.P.

Location: Eddy County, NM
Field: Poker Lake Unit
Facility: Poker Lake Unit No. 356H

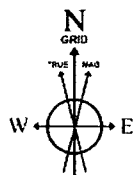
Slot: No.356H SHL
Well: No.356H
Wellbore: No.356H PWB



Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	11756.00	89.100	131.100	8187.04	-2726.64	2855.01	0.00	3947.84
Projection to bit	11856.00	88.100	131.100	8189.48	-2792.36	2930.35	1.00	4047.69
TL	12315.32	89.550	141.516	8198.93	-3123.95	3247.11	2.29	4505.86
Target No. 2	12324.54	89.550	141.516	8199.00	-3131.16	3252.85	0.00	4515.00
TL	12800.30	88.470	132.060	8207.24	-3477.47	3578.18	2.00	4989.54
No. 365H PBHL	13540.40	88.470	132.060	8227.00	-3973.10	4127.46	0.00	5729.00

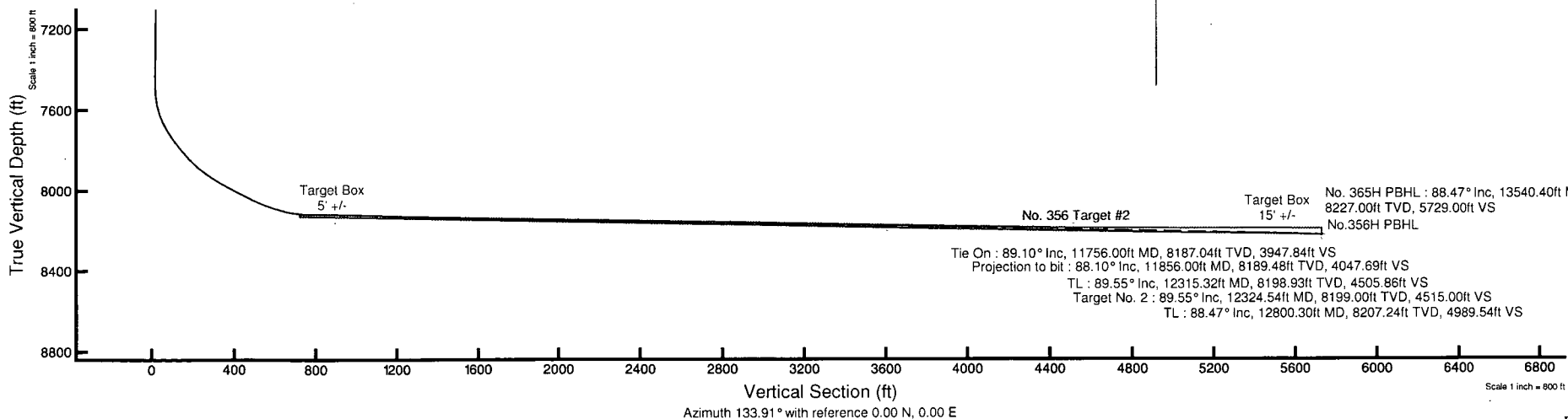
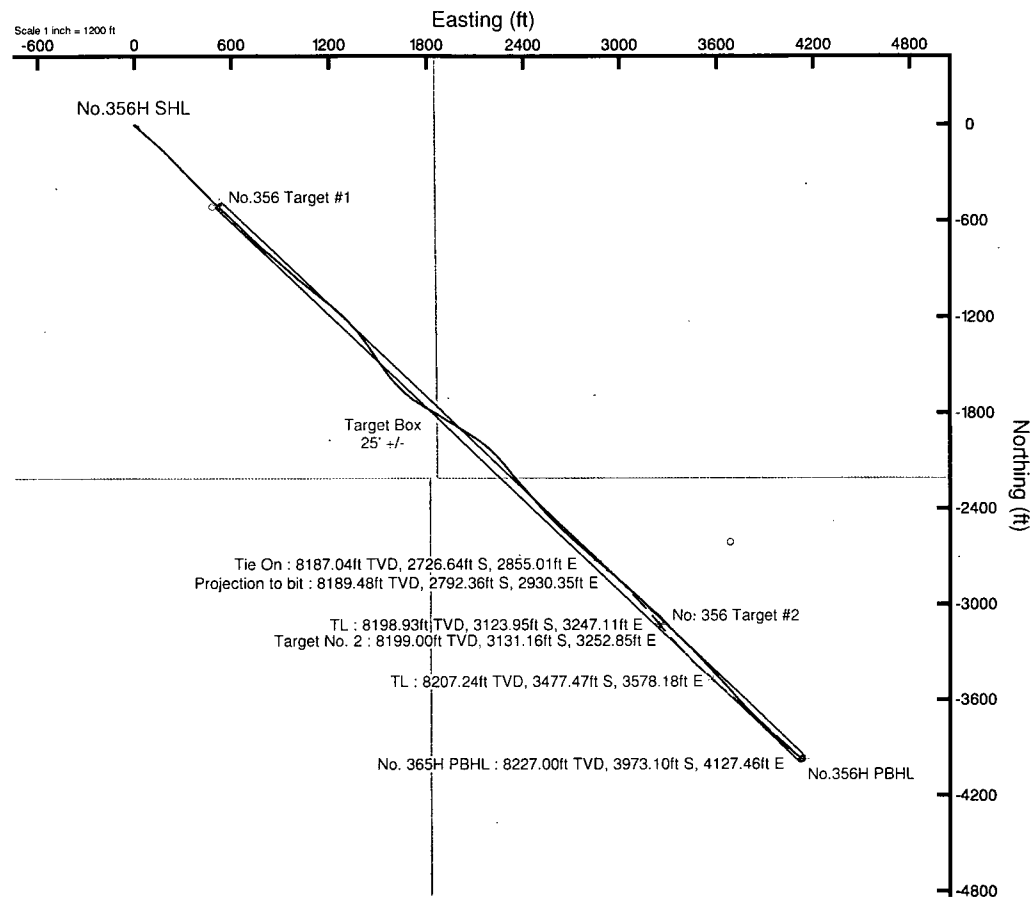
Plot reference wellpath is Rev-G.0	
True vertical depths are referenced to Rig on No.356H SHL (KB)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001). US feet
Measured depths are referenced to Rig on No.356H SHL (KB)	North Reference: Grid north
Rig on No.356H SHL (KB) to Mean Sea Level: 3475 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No.356H SHL): -3453 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: hamkol on 8/3/2012



BGGM (1945.0 to 2013.0) Dip: 60.04° Field: 48465.1 nT
Magnetic North is 7.64 degrees East of True North (at 5/29/2012)

Grid North is 0.29 degrees East of True North
To correct azimuth from True to Grid subtract 0.29 degrees
To correct azimuth from Magnetic to Grid add 7.35 degrees

For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.35 = 97.35



Rev-G.0



Actual Wellpath Report

No.356H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.356H SHL
Area	Eddy County, NM	Well	No.356H
Field	Poker Lake Unit	Wellbore	No.356H AWB
Facility	Poker Lake Unit No. 356H		

REPORT SETUP INFORMATION			
Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Gentbry
Scale	0.999943	Report Generated	08/06/2012 at 7:44:16 AM
Convergence at slot	0.29° East	Database/Source file	WA Midland/No.356H_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	671309.22	427028.82	32°10'22.107"N	103°46'46.835"W
Facility Reference Pt			671309.22	427028.82	32°10'22.107"N	103°46'46.835"W
Field Reference Pt			630272.49	405347.85	32°06'49.387"N	103°54'45.266"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No.356H SHL (KB) to Facility Vertical Datum	22.00ft
Horizontal Reference Pt	Slot	Rig on No.356H SHL (KB) to Mean Sea Level	3475.00ft
Vertical Reference Pt	Rig on No.356H SHL (KB)	Rig on No.356H SHL (KB) to Mud Line at Slot (No.356H SHL)	22.00ft
MD Reference Pt	Rig on No.356H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	133.91°



Actual Wellpath Report

No.356H AWP

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**BAKER
HUGHES**

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.356H SHL
Area	Eddy County, NM	Well	No.356H
Field	Poker Lake Unit	Wellbore	No.356H AWB
Facility	Poker Lake Unit No. 356H		

WELLPATH DATA (168 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00	0.000	265.190	0.00	0.00	0.00	0.00	671309.22	427028.82	32°10'22.107"N	103°46'46.835"W	0.00	
100.00	0.230	265.190	100.00	-0.13	-0.02	-0.20	671309.02	427028.80	32°10'22.107"N	103°46'46.837"W	0.23	
200.00	0.440	249.460	200.00	-0.43	-0.17	-0.76	671308.46	427028.65	32°10'22.106"N	103°46'46.844"W	0.23	
300.00	0.530	251.220	299.99	-0.81	-0.45	-1.56	671307.66	427028.37	32°10'22.103"N	103°46'46.853"W	0.09	
400.00	0.400	218.930	399.99	-0.99	-0.87	-2.21	671307.01	427027.95	32°10'22.099"N	103°46'46.861"W	0.29	
500.00	0.490	220.490	499.99	-0.93	-1.47	-2.71	671306.51	427027.35	32°10'22.093"N	103°46'46.866"W	0.09	
600.00	0.390	231.590	599.99	-0.95	-2.01	-3.26	671305.96	427026.81	32°10'22.088"N	103°46'46.873"W	0.13	
700.00	0.370	219.410	699.98	-0.97	-2.47	-3.73	671305.49	427026.35	32°10'22.083"N	103°46'46.878"W	0.08	
800.00	0.390	155.950	799.98	-0.63	-3.03	-3.79	671305.43	427025.79	32°10'22.078"N	103°46'46.879"W	0.40	
900.00	0.520	136.010	899.98	-0.14	-3.66	-3.34	671305.88	427025.16	32°10'22.071"N	103°46'46.874"W	0.20	
926.20	0.530	131.200	926.18	0.37	-3.83	-3.17	671306.05	427024.99	32°10'22.070"N	103°46'46.872"W	0.17	
1020.20	0.560	135.820	1020.17	1.27	-4.45	-2.52	671306.70	427024.37	32°10'22.064"N	103°46'46.864"W	0.06	
1114.20	0.520	136.870	1114.17	2.15	-5.09	-1.91	671307.31	427023.73	32°10'22.057"N	103°46'46.857"W	0.04	
1208.20	0.340	138.130	1208.17	2.86	-5.61	-1.43	671307.79	427023.22	32°10'22.052"N	103°46'46.852"W	0.19	
1302.20	0.150	110.760	1302.17	3.25	-5.86	-1.13	671308.09	427022.96	32°10'22.050"N	103°46'46.848"W	0.23	
1396.20	0.090	29.340	1396.16	3.34	-5.84	-0.98	671308.24	427022.98	32°10'22.050"N	103°46'46.847"W	0.17	
1490.20	0.170	6.020	1490.16	3.24	-5.63	-0.93	671308.29	427023.19	32°10'22.052"N	103°46'46.846"W	0.10	
1584.20	0.210	345.570	1584.16	3.01	-5.33	-0.95	671308.27	427023.49	32°10'22.055"N	103°46'46.846"W	0.08	
1678.10	0.190	356.000	1678.06	2.74	-5.01	-1.01	671308.21	427023.82	32°10'22.058"N	103°46'46.847"W	0.04	
1772.10	0.140	26.260	1772.06	2.59	-4.75	-0.97	671308.25	427024.07	32°10'22.060"N	103°46'46.846"W	0.11	
1866.10	0.060	56.950	1866.06	2.57	-4.62	-0.88	671308.34	427024.20	32°10'22.062"N	103°46'46.845"W	0.10	
1960.10	0.070	159.010	1960.06	2.63	-4.64	-0.81	671308.41	427024.18	32°10'22.062"N	103°46'46.845"W	0.11	
2054.10	0.140	172.580	2054.06	2.78	-4.81	-0.78	671308.44	427024.01	32°10'22.060"N	103°46'46.844"W	0.08	
2148.10	0.160	157.460	2148.06	2.99	-5.05	-0.71	671308.51	427023.77	32°10'22.058"N	103°46'46.843"W	0.05	
2242.10	0.160	136.860	2242.06	3.24	-5.26	-0.57	671308.65	427023.56	32°10'22.055"N	103°46'46.842"W	0.06	
2336.10	0.190	121.070	2336.06	3.52	-5.44	-0.35	671308.87	427023.38	32°10'22.054"N	103°46'46.839"W	0.06	
2430.10	0.250	127.480	2430.06	3.88	-5.64	-0.05	671309.17	427023.18	32°10'22.052"N	103°46'46.836"W	0.07	
2524.10	0.260	146.370	2524.06	4.29	-5.95	0.23	671309.45	427022.87	32°10'22.049"N	103°46'46.833"W	0.09	
2618.00	0.250	165.600	2617.96	4.67	-6.32	0.40	671309.62	427022.50	32°10'22.045"N	103°46'46.831"W	0.09	
2712.00	0.250	176.000	2711.96	5.00	-6.73	0.46	671309.68	427022.09	32°10'22.041"N	103°46'46.830"W	0.05	
2806.00	0.180	152.210	2805.96	5.29	-7.06	0.54	671309.76	427021.76	32°10'22.038"N	103°46'46.829"W	0.12	
2900.00	0.150	119.350	2899.96	5.55	-7.25	0.72	671309.94	427021.57	32°10'22.036"N	103°46'46.827"W	0.10	
2994.00	0.150	101.250	2993.96	5.77	-7.34	0.95	671310.17	427021.48	32°10'22.035"N	103°46'46.824"W	0.05	
3088.00	0.170	106.880	3087.96	6.00	-7.40	1.20	671310.42	427021.42	32°10'22.034"N	103°46'46.821"W	0.03	
3182.00	0.370	106.970	3181.96	6.39	-7.53	1.63	671310.85	427021.29	32°10'22.033"N	103°46'46.816"W	0.21	
3276.00	0.640	107.270	3275.95	7.13	-7.77	2.42	671311.64	427021.05	32°10'22.030"N	103°46'46.807"W	0.29	
3370.00	0.730	109.470	3369.95	8.15	-8.13	3.48	671312.70	427020.69	32°10'22.027"N	103°46'46.795"W	0.10	
3463.90	0.670	114.470	3463.84	9.21	-8.56	4.55	671313.77	427020.26	32°10'22.023"N	103°46'46.782"W	0.09	
3557.90	0.710	118.280	3557.83	10.29	-9.06	5.56	671314.78	427019.76	32°10'22.017"N	103°46'46.771"W	0.06	
3651.90	0.840	116.330	3651.82	11.51	-9.64	6.69	671315.91	427019.18	32°10'22.012"N	103°46'46.758"W	0.14	
3745.90	0.970	116.150	3745.81	12.92	-10.30	8.02	671317.24	427018.52	32°10'22.005"N	103°46'46.742"W	0.14	
3839.90	0.880	120.840	3839.80	14.38	-11.02	9.36	671318.58	427017.80	32°10'21.998"N	103°46'46.727"W	0.13	
3933.90	1.060	123.630	3933.79	15.94	-11.87	10.70	671319.92	427016.95	32°10'21.989"N	103°46'46.711"W	0.20	
4027.90	1.180	128.820	4027.77	17.76	-12.96	12.18	671321.40	427015.86	32°10'21.979"N	103°46'46.694"W	0.17	
4121.90	0.940	135.040	4121.75	19.50	-14.11	13.48	671322.70	427014.71	32°10'21.967"N	103°46'46.679"W	0.28	



Actual Wellpath Report

No.356H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.356H SHL
Area	Eddy County, NM	Well	No.356H
Field	Poker Lake Unit	Wellbore	No.356H AWB
Facility	Poker Lake Unit No. 356H		

WELLPATH DATA (168 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4215.90	0.870	135.800	4215.74	20.98	-15.17	14.52	671323.74	427013.65	32°10'21.957"N	103°46'46.667"W	0.08	
4309.90	0.730	133.810	4309.73	22.29	-16.09	15.45	671324.67	427012.73	32°10'21.947"N	103°46'46.656"W	0.15	
4403.90	0.460	113.950	4403.73	23.25	-16.66	16.23	671325.45	427012.16	32°10'21.942"N	103°46'46.647"W	0.36	
4497.80	0.570	82.100	4497.62	23.89	-16.75	17.03	671326.25	427012.07	32°10'21.941"N	103°46'46.638"W	0.32	
4591.80	0.640	70.050	4591.62	24.41	-16.51	17.99	671327.21	427012.31	32°10'21.943"N	103°46'46.627"W	0.15	
4685.80	0.580	67.470	4685.61	24.83	-16.15	18.92	671328.14	427012.67	32°10'21.947"N	103°46'46.616"W	0.07	
4779.80	0.320	64.510	4779.61	25.11	-15.85	19.60	671328.82	427012.97	32°10'21.950"N	103°46'46.608"W	0.28	
4873.80	0.310	48.510	4873.61	25.23	-15.57	20.03	671329.25	427013.25	32°10'21.952"N	103°46'46.603"W	0.09	
4967.80	0.370	29.490	4967.60	25.17	-15.14	20.37	671329.59	427013.68	32°10'21.957"N	103°46'46.599"W	0.14	
5061.80	0.460	19.790	5061.60	24.94	-14.52	20.64	671329.86	427014.30	32°10'21.963"N	103°46'46.596"W	0.12	
5155.80	0.420	0.640	5155.60	24.55	-13.82	20.78	671329.99	427015.00	32°10'21.970"N	103°46'46.594"W	0.16	
5249.80	0.480	338.900	5249.60	23.96	-13.11	20.64	671329.86	427015.71	32°10'21.977"N	103°46'46.596"W	0.19	
5343.80	0.490	327.260	5343.59	23.21	-12.40	20.28	671329.50	427016.42	32°10'21.984"N	103°46'46.600"W	0.11	
5437.70	0.450	330.590	5437.49	22.47	-11.74	19.88	671329.10	427017.08	32°10'21.990"N	103°46'46.604"W	0.05	
5531.70	0.330	335.280	5531.49	21.86	-11.17	19.59	671328.80	427017.65	32°10'21.996"N	103°46'46.608"W	0.13	
5625.70	0.260	334.940	5625.49	21.41	-10.74	19.38	671328.60	427018.09	32°10'22.000"N	103°46'46.610"W	0.07	
5719.70	0.270	353.970	5719.49	21.04	-10.32	19.27	671328.49	427018.50	32°10'22.004"N	103°46'46.611"W	0.09	
5813.70	0.260	20.390	5813.49	20.79	-9.90	19.32	671328.54	427018.92	32°10'22.008"N	103°46'46.611"W	0.13	
5907.70	0.340	57.640	5907.48	20.77	-9.55	19.63	671328.85	427019.27	32°10'22.012"N	103°46'46.607"W	0.22	
6001.70	0.340	83.680	6001.48	21.01	-9.57	20.14	671329.36	427019.45	32°10'22.014"N	103°46'46.601"W	0.16	
6095.70	0.300	91.980	6095.48	21.37	-9.35	20.67	671329.88	427019.47	32°10'22.014"N	103°46'46.595"W	0.07	
6189.70	0.250	108.810	6189.48	21.74	-9.42	21.11	671330.32	427019.40	32°10'22.013"N	103°46'46.590"W	0.10	
6283.60	0.260	153.990	6283.38	22.13	-9.68	21.39	671330.61	427019.14	32°10'22.011"N	103°46'46.587"W	0.21	
6377.60	0.380	194.660	6377.38	22.48	-10.18	21.41	671330.63	427018.64	32°10'22.006"N	103°46'46.586"W	0.27	
6471.60	0.540	222.670	6471.37	22.64	-10.80	21.03	671330.25	427018.02	32°10'21.999"N	103°46'46.591"W	0.29	
6565.60	0.620	203.540	6565.37	22.83	-11.59	20.53	671329.74	427017.23	32°10'21.992"N	103°46'46.597"W	0.22	
6659.60	0.610	210.170	6659.36	23.12	-12.49	20.07	671329.29	427016.33	32°10'21.983"N	103°46'46.602"W	0.08	
6753.60	0.590	261.740	6753.36	22.95	-13.00	19.34	671328.56	427015.82	32°10'21.978"N	103°46'46.611"W	0.56	
6847.60	0.700	279.990	6847.35	22.17	-12.97	18.30	671327.51	427015.86	32°10'21.978"N	103°46'46.623"W	0.25	
6941.60	0.830	283.780	6941.35	21.11	-12.70	17.07	671326.29	427016.12	32°10'21.981"N	103°46'46.637"W	0.15	
7035.60	0.810	277.280	7035.34	19.99	-12.46	15.75	671324.97	427016.36	32°10'21.983"N	103°46'46.652"W	0.10	
7129.60	0.650	271.210	7129.33	19.06	-12.36	14.56	671323.78	427016.46	32°10'21.984"N	103°46'46.666"W	0.19	
7223.60	0.630	266.780	7223.32	18.32	-12.38	13.51	671322.73	427016.44	32°10'21.984"N	103°46'46.678"W	0.06	
7317.50	0.590	266.600	7317.22	17.64	-12.44	12.51	671321.73	427016.38	32°10'21.984"N	103°46'46.690"W	0.04	
7411.50	0.420	254.850	7411.21	17.13	-12.56	11.69	671320.91	427016.26	32°10'21.983"N	103°46'46.700"W	0.21	
7470.00	0.300	244.100	7469.71	16.97	-12.68	11.35	671320.57	427016.14	32°10'21.981"N	103°46'46.704"W	0.23	
7501.00	2.000	139.900	7500.71	17.48	-13.13	11.62	671320.84	427015.69	32°10'21.977"N	103°46'46.700"W	6.75	
7533.00	5.300	138.000	7532.64	19.51	-14.65	12.97	671322.19	427014.17	32°10'21.962"N	103°46'46.685"W	10.32	
7563.00	9.200	138.600	7562.39	23.28	-17.48	15.49	671324.71	427011.34	32°10'21.934"N	103°46'46.656"W	13.00	
7594.00	13.900	138.700	7592.76	29.47	-22.14	19.59	671328.80	427006.68	32°10'21.887"N	103°46'46.608"W	15.16	
7626.00	18.600	137.200	7623.47	38.40	-28.78	25.59	671334.81	427000.04	32°10'21.821"N	103°46'46.539"W	14.74	
7658.00	23.400	134.900	7653.33	49.85	-37.01	33.57	671342.79	426991.81	32°10'21.739"N	103°46'46.447"W	15.22	
7688.00	27.700	132.200	7680.40	62.78	-45.91	42.96	671352.17	426982.92	32°10'21.651"N	103°46'46.338"W	14.85	
7719.00	30.900	131.400	7707.43	77.94	-56.01	54.27	671363.48	426972.81	32°10'21.550"N	103°46'46.207"W	10.40	
7750.00	33.100	130.700	7733.71	94.35	-66.80	66.66	671375.87	426962.03	32°10'21.443"N	103°46'46.063"W	7.20	



Actual Wellpath Report

No.356H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.356H SHL
Area	Eddy County, NM	Well	No.356H
Field	Poker Lake Unit	Wellbore	No.356H AWB
Facility	Poker Lake Unit No. 356H		

WELLPATH DATA (168 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7782.00	35.100	130.600	7760.21	112.26	-78.48	80.27	671389.48	426950.34	32°10'21.327"N	103°46'45.906"W	6.25	
7812.00	37.600	130.900	7784.37	130.01	-90.09	93.74	671402.95	426938.73	32°10'21.211"N	103°46'45.750"W	8.35	
7844.00	40.000	130.700	7809.31	150.03	-103.19	108.92	671418.13	426925.63	32°10'21.081"N	103°46'45.574"W	7.51	
7876.00	41.600	131.500	7833.53	170.92	-116.94	124.67	671433.88	426911.89	32°10'20.944"N	103°46'45.391"W	5.26	
7907.00	43.700	131.900	7856.33	191.90	-130.91	140.35	671449.56	426897.92	32°10'20.805"N	103°46'45.210"W	6.83	
7938.00	47.200	133.000	7878.08	213.98	-145.82	156.64	671465.85	426883.01	32°10'20.656"N	103°46'45.021"W	11.57	
7970.00	50.300	134.900	7899.17	238.04	-162.52	173.95	671483.16	426866.31	32°10'20.490"N	103°46'44.821"W	10.67	
8001.00	53.400	135.800	7918.32	262.40	-179.87	191.08	671500.29	426848.96	32°10'20.318"N	103°46'44.623"W	10.26	
8032.00	56.000	136.200	7936.23	287.68	-198.07	208.65	671517.86	426830.77	32°10'20.137"N	103°46'44.419"W	8.45	
8064.00	57.500	135.800	7953.78	314.43	-217.32	227.24	671536.45	426811.52	32°10'19.945"N	103°46'44.204"W	4.80	
8096.00	59.500	136.400	7970.50	341.69	-236.98	246.16	671555.37	426791.86	32°10'19.750"N	103°46'43.985"W	6.45	
8128.00	61.600	136.600	7986.23	369.53	-257.19	265.34	671574.54	426771.65	32°10'19.549"N	103°46'43.763"W	6.59	
8159.00	62.000	136.300	8000.88	396.82	-276.99	284.16	671593.37	426751.85	32°10'19.352"N	103°46'43.546"W	1.55	
8182.00	62.400	136.100	8011.60	417.15	-291.67	298.25	671607.45	426737.16	32°10'19.206"N	103°46'43.383"W	1.90	
8248.00	62.300	135.800	8042.23	475.57	-333.69	338.89	671648.09	426695.15	32°10'18.788"N	103°46'42.912"W	0.43	
8269.00	64.100	135.800	8051.70	494.31	-347.13	351.96	671661.16	426681.71	32°10'18.654"N	103°46'42.761"W	8.57	
8301.00	67.300	135.600	8064.87	523.45	-368.00	372.33	671681.53	426660.84	32°10'18.447"N	103°46'42.525"W	10.02	
8332.00	68.900	135.200	8076.43	552.21	-388.48	392.52	671701.72	426640.37	32°10'18.243"N	103°46'42.292"W	5.30	
8364.00	71.800	135.800	8087.19	582.33	-409.97	413.64	671722.84	426618.87	32°10'18.029"N	103°46'42.047"W	9.23	
8396.00	73.800	135.600	8096.65	612.88	-431.85	434.99	671744.19	426597.00	32°10'17.812"N	103°46'41.800"W	6.28	
8429.00	75.900	135.900	8105.28	644.71	-454.66	457.22	671766.41	426574.18	32°10'17.585"N	103°46'41.543"W	6.42	
8460.00	79.300	134.400	8111.93	674.98	-476.12	478.57	671787.76	426552.73	32°10'17.372"N	103°46'41.296"W	11.94	
8492.00	82.600	133.700	8116.97	706.58	-498.09	501.28	671810.47	426530.76	32°10'17.153"N	103°46'41.033"W	10.54	
8524.00	85.600	133.800	8120.25	738.40	-520.10	524.27	671833.46	426508.75	32°10'16.934"N	103°46'40.767"W	9.38	
8555.00	89.100	133.600	8121.69	769.36	-541.49	546.65	671855.84	426487.36	32°10'16.721"N	103°46'40.508"W	11.31	
8618.00	89.400	133.700	8122.51	832.36	-584.97	592.23	671901.42	426443.88	32°10'16.289"N	103°46'39.980"W	0.50	
8714.00	88.500	134.600	8124.27	928.34	-651.83	661.10	671970.28	426377.03	32°10'15.624"N	103°46'39.183"W	1.33	
8809.00	88.100	135.400	8127.09	1023.28	-718.97	728.25	672037.43	426309.89	32°10'14.956"N	103°46'38.406"W	0.94	
8904.00	88.200	130.900	8130.16	1118.20	-783.89	797.50	672106.68	426244.97	32°10'14.310"N	103°46'37.604"W	4.74	
9000.00	88.600	130.800	8132.84	1214.02	-846.66	870.09	672179.26	426182.21	32°10'13.685"N	103°46'36.763"W	0.43	
9095.00	89.000	132.300	8134.83	1308.92	-909.66	941.17	672250.33	426119.22	32°10'13.058"N	103°46'35.940"W	1.63	
9191.00	88.400	130.400	8137.01	1404.79	-973.06	1013.21	672322.37	426055.82	32°10'12.427"N	103°46'35.106"W	2.08	
9287.00	88.500	128.700	8139.60	1500.48	-1034.16	1087.21	672396.36	425994.72	32°10'11.818"N	103°46'34.249"W	1.77	
9383.00	88.700	128.300	8141.95	1596.02	-1093.91	1162.31	672471.47	425934.98	32°10'11.223"N	103°46'33.379"W	0.47	
9477.00	88.400	131.300	8144.33	1689.74	-1154.05	1234.50	672543.65	425874.84	32°10'10.625"N	103°46'32.543"W	3.21	
9572.00	88.400	135.800	8146.98	1784.68	-1219.46	1303.31	672612.45	425809.43	32°10'09.974"N	103°46'31.746"W	4.73	
9667.00	88.700	140.300	8149.39	1879.37	-1290.08	1366.78	672675.92	425738.82	32°10'09.272"N	103°46'31.012"W	4.75	
9762.00	88.700	144.400	8151.54	1973.30	-1365.26	1424.78	672733.92	425663.64	32°10'08.525"N	103°46'30.342"W	4.31	
9859.00	88.500	146.900	8153.91	2068.23	-1445.31	1479.49	672788.62	425583.60	32°10'07.730"N	103°46'29.710"W	2.58	
9954.00	88.600	145.600	8156.32	2161.01	-1524.27	1532.25	672841.38	425504.64	32°10'06.946"N	103°46'29.101"W	1.37	
10049.00	89.400	139.700	8157.98	2254.85	-1599.75	1589.85	672898.98	425429.17	32°10'06.196"N	103°46'28.436"W	6.27	
10144.00	89.800	133.100	8158.64	2349.70	-1668.50	1655.33	672964.45	425360.42	32°10'05.512"N	103°46'27.678"W	6.96	
10239.00	88.400	124.400	8160.14	2444.21	-1727.90	1729.34	673038.45	425301.02	32°10'04.921"N	103°46'26.821"W	9.27	
10334.00	88.400	120.300	8162.79	2537.23	-1778.70	1809.54	673118.66	425250.22	32°10'04.414"N	103°46'25.891"W	4.31	
10429.00	88.400	121.200	8165.44	2629.70	-1827.26	1891.15	673200.26	425201.67	32°10'03.929"N	103°46'24.944"W	0.95	



Actual Wellpath Report

No.356H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.356H SHL
Area	Eddy County, NM	Well	No.356H
Field	Poker Lake Unit	Wellbore	No.356H AWB
Facility	Poker Lake Unit No. 356H		

WELLPATH DATA (168 stations)												
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	DLS [°/100ft]	Comments
10524.00	89.000	121.900	8167.60	2722.47	-1876.95	1972.09	673281.19	425151.98	32°10'03.433"N	103°46'24.006"W	0.97	
10619.00	89.200	122.000	8169.09	2815.40	-1927.22	2052.69	673361.79	425101.72	32°10'02.932"N	103°46'23.071"W	0.24	
10714.00	89.000	125.600	8170.58	2908.90	-1980.05	2131.61	673440.70	425048.89	32°10'02.405"N	103°46'22.156"W	3.79	
10808.00	89.900	133.400	8171.49	3002.54	-2039.79	2204.08	673513.17	424989.15	32°10'01.810"N	103°46'21.317"W	8.35	
10903.00	89.100	139.900	8172.32	3097.38	-2108.83	2269.26	673578.34	424920.11	32°10'01.123"N	103°46'20.563"W	6.89	
10998.00	88.900	141.500	8173.97	3191.69	-2182.34	2329.42	673638.50	424846.61	32°10'00.393"N	103°46'19.867"W	1.70	
11093.00	88.900	138.100	8175.80	3286.16	-2254.87	2390.72	673699.79	424774.08	32°09'59.672"N	103°46'19.159"W	3.58	
11188.00	89.100	139.400	8177.46	3380.80	-2326.28	2453.34	673762.42	424702.67	32°09'58.962"N	103°46'18.435"W	1.38	
11283.00	88.900	139.600	8179.11	3475.34	-2398.51	2515.03	673824.10	424630.45	32°09'58.244"N	103°46'17.721"W	0.30	
11377.00	89.000	136.800	8180.84	3569.05	-2468.57	2577.67	673886.73	424560.40	32°09'57.548"N	103°46'16.997"W	2.98	
11472.00	89.000	133.100	8182.50	3664.00	-2535.66	2644.88	673953.94	424493.31	32°09'56.880"N	103°46'16.219"W	3.89	
11567.00	89.100	132.300	8184.07	3758.97	-2600.08	2714.69	674023.75	424428.90	32°09'56.239"N	103°46'15.411"W	0.85	
11661.00	89.100	132.400	8185.55	3852.92	-2663.39	2784.15	674093.20	424365.58	32°09'55.609"N	103°46'14.607"W	0.11	
11756.00	89.100	131.100	8187.04	3947.84	-2726.64	2855.01	674164.06	424302.34	32°09'54.980"N	103°46'13.786"W	1.37	
11851.00	88.600	131.600	8188.95	4042.73	-2789.39	2926.31	674235.36	424239.59	32°09'54.355"N	103°46'12.961"W	0.74	
11946.00	88.200	131.100	8191.60	4137.59	-2852.13	2997.60	674306.64	424176.86	32°09'53.730"N	103°46'12.135"W	0.67	
12041.00	87.900	132.700	8194.83	4232.48	-2915.54	3068.27	674377.30	424113.46	32°09'53.099"N	103°46'11.317"W	1.71	
12136.00	88.400	133.400	8197.90	4327.42	-2980.35	3137.65	674446.69	424048.64	32°09'52.454"N	103°46'10.514"W	0.91	
12231.00	88.400	131.900	8200.55	4422.35	-3044.69	3207.50	674516.53	423984.31	32°09'51.814"N	103°46'09.705"W	1.58	
12326.00	88.300	136.800	8203.29	4517.28	-3111.05	3275.38	674584.41	423917.95	32°09'51.154"N	103°46'08.920"W	5.16	
12420.00	88.400	137.500	8206.00	4611.09	-3179.94	3339.28	674648.30	423849.07	32°09'50.469"N	103°46'08.181"W	0.75	
12515.00	88.400	132.700	8208.65	4706.01	-3247.18	3406.29	674715.31	423781.83	32°09'49.800"N	103°46'07.405"W	5.05	
12610.00	88.500	137.200	8211.22	4800.93	-3314.26	3473.48	674782.50	423714.76	32°09'49.133"N	103°46'06.628"W	4.74	
12705.00	88.900	137.900	8213.38	4895.71	-3384.34	3537.59	674846.60	423644.69	32°09'48.436"N	103°46'05.886"W	0.85	
12799.00	89.000	136.900	8215.10	4989.52	-3453.52	3601.20	674910.21	423575.51	32°09'47.748"N	103°46'05.150"W	1.07	
12894.00	89.600	139.100	8216.26	5084.27	-3524.11	3664.76	674973.76	423504.92	32°09'47.046"N	103°46'04.415"W	2.40	
12989.00	89.400	139.500	8217.09	5178.84	-3596.12	3726.71	675035.71	423432.91	32°09'46.330"N	103°46'03.699"W	0.47	
13083.00	89.500	136.300	8217.99	5272.60	-3665.86	3789.72	675098.71	423363.18	32°09'45.637"N	103°46'02.971"W	3.41	
13178.00	89.000	134.300	8219.23	5367.56	-3733.37	3856.53	675165.52	423295.67	32°09'44.966"N	103°46'02.197"W	2.17	
13274.00	88.600	133.600	8221.24	5463.54	-3799.99	3925.63	675234.62	423229.06	32°09'44.303"N	103°46'01.398"W	0.84	
13369.00	88.500	131.500	8223.65	5558.47	-3864.20	3995.59	675304.57	423164.84	32°09'43.664"N	103°46'00.588"W	2.21	
13470.00	88.400	130.100	8226.38	5659.29	-3930.17	4072.01	675380.99	423098.88	32°09'43.007"N	103°45'59.703"W	1.39	
13540.00	88.400	130.100	8228.34	5729.10	-3975.25	4125.54	675434.51	423053.81	32°09'42.558"N	103°45'59.083"W	0.00	Proj to Bit



Actual Wellpath Report

No.356H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.356H SHL
Area	Eddy County, NM	Well	No.356H
Field	Poker Lake Unit	Wellbore	No.356H AWB
Facility	Poker Lake Unit No. 356H		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
No.356 Target #1		8143.00	-503.31	522.87	671832.06	426525.54	32°10'17.100"N	103°46'40.782"W	rectangle
No. 356 Target #2		8199.00	-3131.16	3252.85	674561.88	423897.84	32°09'50.956"N	103°46'09.183"W	rectangle
No.356H PBHL		8227.00	-3973.10	4127.46	675436.44	423055.96	32°09'42.579"N	103°45'59.061"W	rectangle

WELLPATH COMPOSITION - Ref Wellbore: No.356H AWB					Ref Wellpath: No.356H AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment	Wellbore
0.00	7411.50	Generic gyro - northseeking (Standard)			Gyrodatta / Gyros <100-7411.50>	No.356H AWB
7411.50	13470.00	NaviTrak (Standard)			BHI MWD NaviTrak <7470-XXXX>	No.356H AWB
13470.00	13540.00	Blind Drilling (std)			Projection to bit	No.356H AWB