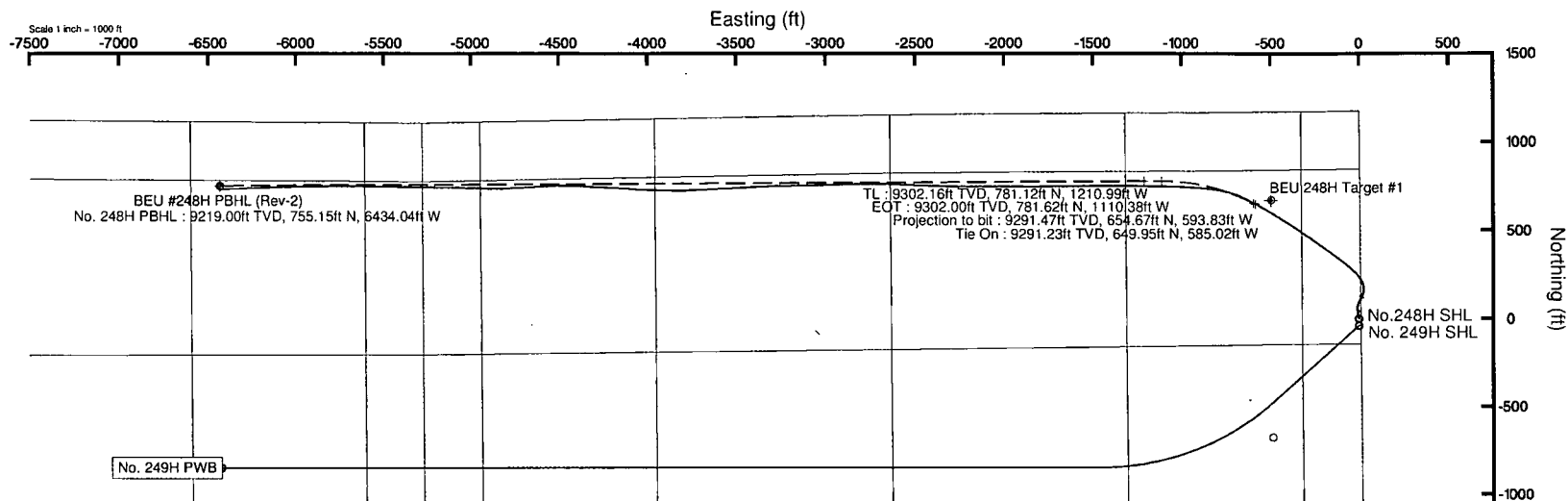




BOPCO, L.P.

Location: Eddy County, NM
Field: Big Eddy
Facility: Big Eddy Unit No.248H & No. 249H

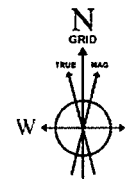
Slot: No.248H SHL
Well: No.248H
Wellbore: No.248H PWB



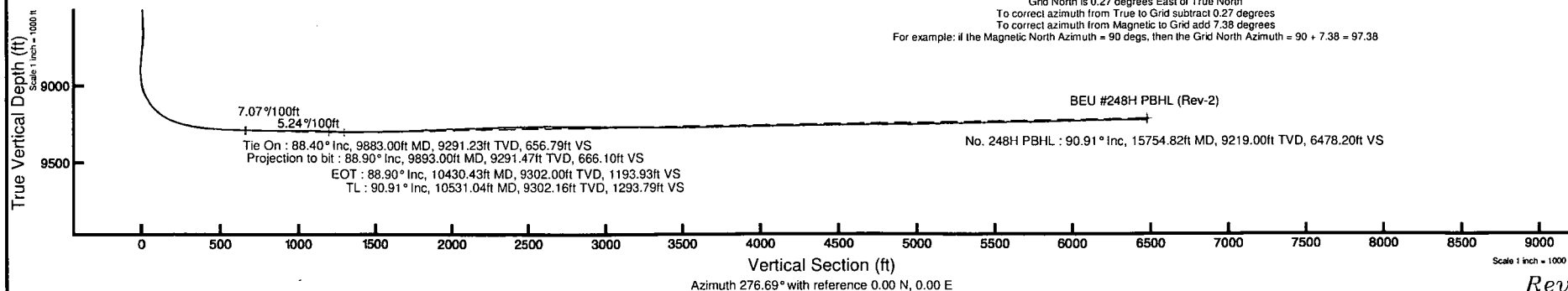
Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	9883.00	88.400	298.400	9291.23	649.95	-585.02	0.00	656.79
Projection to bit	9893.00	88.900	297.900	9291.47	654.67	-593.83	7.07	666.10
EOT	10430.43	88.900	269.715	9302.00	781.62	-1110.38	5.24	1193.93
TL	10531.04	90.912	269.715	9302.16	781.12	-1210.99	2.00	1293.79
No. 248H PBHL	15754.82	90.912	269.715	9219.00	755.15	-6434.04	0.00	6478.20

Plot reference wellpath is Rev 0.0	
True vertical depths are referenced to Rig on No 248H SHL (KB)	Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No 248H SHL (KB)	North Reference: Grid north
Rig on No.248H SHL (KB) to Mean Sea Level: 3516 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: No 248H SHL): -3486 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: harkol on 2/5/2013



BGGM (1945.0 to 2014.0) Dip: 60.44° Field: 48657.9 nT
Magnetic North is 7.66 degrees East of True North (at 12/21/2012)
Grid North is 0.27 degrees East of True North
To correct azimuth from True to Grid subtract 0.27 degrees
To correct azimuth from Magnetic to Grid add 7.38 degrees
For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.38 = 97.38



Rev-0.0

30 015 40714



Actual Wellpath Report

No. 248H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.248H SHL
Area	Eddy County, NM	Well	No.248H
Field	Big Eddy	Wellbore	No. 248H AWB
Facility	Big Eddy Unit No.248H & No. 249H		

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	0.999937	Report Generated	04/08/2013 at 3:58:29 PM
Convergence at slot	0.27° East	Database/Source file	WA Midland/No. 248H_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	654712.40	589947.00	32°37'15.106"N	103°49'51.024"W
Facility Reference Pt			654712.40	589947.00	32°37'15.106"N	103°49'51.024"W
Field Reference Pt			610823.03	524402.80	32°26'28.262"N	103°58'26.774"W

WELLPATH DATUM			
Calculation method	Minimum curvature	Rig on No.248H SHL (KB) to Facility Vertical Datum	30.00ft
Horizontal Reference Pt	Slot	Rig on No.248H SHL (KB) to Mean Sea Level	3516.00ft
Vertical Reference Pt	Rig on No.248H SHL (KB)	Rig on No.248H SHL (KB) to Mud Line at Slot (No.248H SHL)	30.00ft
MD Reference Pt	Rig on No.248H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	276.69°



Actual Wellpath Report

No. 248H AWP

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**BAKER
HUGHES**

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.248H SHL
Area	Eddy County, NM	Well	No.248H
Field	Big Eddy	Wellbore	No. 248H AWB
Facility	Big Eddy Unit No.248H & No. 249H		

WELLPATH DATA (200 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	307.980	0.00	0.00	0.00	0.00	654712.40	589947.00	32°37'15.106"N	103°49'51.024"W	0.00	
100.00	0.090	307.980	100.00	0.07	0.05	-0.06	654712.34	589947.05	32°37'15.106"N	103°49'51.024"W	0.09	
200.00	0.130	37.040	200.00	0.08	0.19	-0.06	654712.34	589947.19	32°37'15.108"N	103°49'51.024"W	0.16	
300.00	0.290	2.820	300.00	0.04	0.53	0.03	654712.43	589947.53	32°37'15.111"N	103°49'51.023"W	0.20	
400.00	0.580	344.890	400.00	0.24	1.27	-0.09	654712.31	589948.27	32°37'15.118"N	103°49'51.025"W	0.32	
500.00	0.810	345.360	499.99	0.69	2.44	-0.40	654712.00	589949.44	32°37'15.130"N	103°49'51.028"W	0.23	
600.00	1.040	341.580	599.98	1.33	3.99	-0.87	654711.53	589950.99	32°37'15.145"N	103°49'51.034"W	0.24	
700.00	1.380	346.400	699.95	2.13	6.02	-1.44	654710.96	589953.02	32°37'15.165"N	103°49'51.040"W	0.35	
800.00	1.390	342.100	799.92	3.05	8.35	-2.10	654710.30	589955.34	32°37'15.188"N	103°49'51.048"W	0.10	
912.20	1.670	344.050	912.08	4.25	11.21	-2.96	654709.44	589958.21	32°37'15.217"N	103°49'51.058"W	0.25	
1006.80	2.060	347.980	1006.63	5.33	14.20	-3.70	654708.70	589961.20	32°37'15.246"N	103°49'51.066"W	0.43	
1101.40	2.690	358.100	1101.15	6.20	18.08	-4.12	654708.28	589965.08	32°37'15.285"N	103°49'51.071"W	0.80	
1196.00	3.030	351.700	1195.63	7.18	22.78	-4.56	654707.84	589969.77	32°37'15.331"N	103°49'51.076"W	0.49	
1290.60	2.820	354.910	1290.11	8.30	27.57	-5.13	654707.27	589974.57	32°37'15.379"N	103°49'51.082"W	0.28	
1385.20	1.630	352.260	1384.64	9.12	31.22	-5.51	654706.89	589978.22	32°37'15.415"N	103°49'51.086"W	1.26	
1479.80	1.150	348.920	1479.21	9.74	33.48	-5.88	654706.52	589980.48	32°37'15.437"N	103°49'51.090"W	0.51	
1574.40	0.890	348.610	1573.80	10.26	35.13	-6.20	654706.20	589982.13	32°37'15.454"N	103°49'51.094"W	0.27	
1669.00	0.840	29.930	1668.39	10.21	36.46	-6.00	654706.40	589983.45	32°37'15.467"N	103°49'51.092"W	0.65	
1952.80	0.870	59.030	1952.16	7.69	39.37	-3.12	654709.28	589986.37	32°37'15.495"N	103°49'51.058"W	0.15	
2047.40	0.880	66.890	2046.74	6.49	40.02	-1.83	654710.57	589987.02	32°37'15.502"N	103°49'51.043"W	0.13	
2142.00	1.000	68.930	2141.33	5.13	40.60	-0.40	654712.00	589987.60	32°37'15.507"N	103°49'51.026"W	0.13	
2331.20	0.360	90.500	2330.52	3.07	41.19	1.74	654714.14	589988.19	32°37'15.513"N	103°49'51.001"W	0.36	
2425.80	0.090	14.190	2425.12	2.77	41.26	2.05	654714.45	589988.26	32°37'15.514"N	103°49'50.997"W	0.37	
2520.40	0.190	305.390	2519.72	2.90	41.43	1.94	654714.34	589988.42	32°37'15.515"N	103°49'50.999"W	0.19	
2615.00	0.290	311.180	2614.32	3.23	41.67	1.64	654714.04	589988.67	32°37'15.518"N	103°49'51.002"W	0.11	
2709.60	0.440	275.160	2708.91	3.79	41.86	1.09	654713.49	589988.86	32°37'15.520"N	103°49'51.008"W	0.28	
2804.20	0.360	277.500	2803.51	4.45	41.94	0.44	654712.84	589988.93	32°37'15.521"N	103°49'51.016"W	0.09	
2898.80	0.600	270.570	2898.11	5.24	41.98	-0.35	654712.05	589988.98	32°37'15.521"N	103°49'51.025"W	0.26	
2993.40	0.810	282.690	2992.70	6.40	42.13	-1.50	654710.90	589989.13	32°37'15.523"N	103°49'51.039"W	0.27	
3088.00	0.800	324.800	3087.29	7.51	42.82	-2.53	654709.87	589989.81	32°37'15.529"N	103°49'51.051"W	0.61	
3182.60	1.280	327.190	3181.88	8.62	44.25	-3.49	654708.91	589991.24	32°37'15.544"N	103°49'51.062"W	0.51	
3277.20	1.450	304.370	3276.45	10.35	45.81	-5.05	654707.35	589992.81	32°37'15.559"N	103°49'51.080"W	0.60	
3371.80	1.270	289.840	3371.02	12.43	46.84	-7.02	654705.38	589993.84	32°37'15.569"N	103°49'51.103"W	0.41	
3466.40	1.550	337.240	3465.60	14.08	48.38	-8.50	654703.90	589995.37	32°37'15.585"N	103°49'51.120"W	1.23	
3561.00	1.460	350.130	3560.17	15.06	50.74	-9.20	654703.20	589997.74	32°37'15.608"N	103°49'51.128"W	0.37	
3655.60	1.480	352.450	3654.73	15.70	53.14	-9.57	654702.83	590000.14	32°37'15.632"N	103°49'51.133"W	0.07	
3750.20	1.180	9.900	3749.31	15.95	55.31	-9.56	654702.84	590002.31	32°37'15.653"N	103°49'51.132"W	0.53	
3844.80	1.210	4.770	3843.89	15.92	57.27	-9.31	654703.09	590004.26	32°37'15.673"N	103°49'51.129"W	0.12	
3939.40	1.280	6.300	3938.47	15.97	59.31	-9.11	654703.29	590006.31	32°37'15.693"N	103°49'51.127"W	0.08	
4128.60	1.420	9.370	4127.61	15.87	63.73	-8.50	654703.90	590010.72	32°37'15.737"N	103°49'51.119"W	0.08	
4223.20	1.360	10.220	4222.19	15.75	65.99	-8.11	654704.29	590012.98	32°37'15.759"N	103°49'51.115"W	0.07	
4317.80	1.420	10.340	4316.76	15.60	68.25	-7.70	654704.70	590015.24	32°37'15.781"N	103°49'51.110"W	0.06	
4412.40	1.270	10.820	4411.33	15.45	70.43	-7.29	654705.11	590017.42	32°37'15.803"N	103°49'51.105"W	0.16	
4507.00	1.160	12.220	4505.91	15.29	72.39	-6.89	654705.51	590019.39	32°37'15.822"N	103°49'51.100"W	0.12	
4601.60	1.070	18.600	4600.49	15.01	74.17	-6.41	654705.99	590021.16	32°37'15.840"N	103°49'51.094"W	0.16	



Actual Wellpath Report

No. 248H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.248H SHL
Area	Eddy County, NM	Well	No.248H
Field	Big Eddy	Wellbore	No. 248H AWP
Facility	Big Eddy Unit No.248H & No. 249H		

WELLPATH DATA (200 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
4696.20	0.920	17.160	4695.08	14.69	75.73	-5.90	654706.50	590022.72	32°37'15.855"N	103°49'51.088"W	0.16	
4790.80	0.780	10.420	4789.67	14.51	77.09	-5.56	654706.84	590024.08	32°37'15.869"N	103°49'51.084"W	0.18	
4885.40	0.680	13.850	4884.26	14.40	78.27	-5.31	654707.09	590025.26	32°37'15.880"N	103°49'51.081"W	0.12	
4980.00	0.850	13.750	4978.85	14.24	79.49	-5.01	654707.39	590026.49	32°37'15.892"N	103°49'51.078"W	0.18	
5263.80	1.030	13.720	5262.61	13.67	84.02	-3.91	654708.49	590031.01	32°37'15.937"N	103°49'51.065"W	0.06	
5358.40	1.080	9.750	5357.20	13.52	85.72	-3.55	654708.85	590032.72	32°37'15.954"N	103°49'51.060"W	0.09	
5453.00	0.980	31.900	5451.78	13.13	87.29	-2.97	654709.43	590034.28	32°37'15.970"N	103°49'51.054"W	0.43	
5547.60	1.170	32.950	5546.37	12.36	88.78	-2.02	654710.38	590035.78	32°37'15.984"N	103°49'51.042"W	0.20	
5642.20	1.120	40.750	5640.95	11.41	90.29	-0.89	654711.51	590037.29	32°37'15.999"N	103°49'51.029"W	0.17	
5736.80	1.190	33.070	5735.53	10.46	91.82	0.25	654712.65	590038.81	32°37'16.014"N	103°49'51.016"W	0.18	
5831.40	1.210	31.940	5830.11	9.60	93.49	1.31	654713.71	590040.48	32°37'16.031"N	103°49'51.003"W	0.03	
5926.00	1.250	28.620	5924.69	8.78	95.24	2.33	654714.73	590042.24	32°37'16.048"N	103°49'50.991"W	0.09	
6020.60	1.290	26.730	6019.26	8.03	97.10	3.31	654715.71	590044.09	32°37'16.066"N	103°49'50.980"W	0.06	
6115.20	1.150	27.770	6113.84	7.33	98.89	4.23	654716.63	590045.88	32°37'16.084"N	103°49'50.969"W	0.15	
6209.80	1.150	29.290	6208.42	6.62	100.56	5.13	654717.53	590047.55	32°37'16.100"N	103°49'50.958"W	0.03	
6304.40	1.180	28.770	6303.00	5.89	102.24	6.07	654718.47	590049.23	32°37'16.117"N	103°49'50.947"W	0.03	
6399.00	1.190	29.220	6397.58	5.15	103.95	7.02	654719.42	590050.94	32°37'16.134"N	103°49'50.936"W	0.01	
6493.60	1.150	28.960	6492.16	4.41	105.64	7.96	654720.36	590052.63	32°37'16.151"N	103°49'50.925"W	0.04	
6588.20	1.080	28.170	6586.74	3.73	107.26	8.84	654721.24	590054.25	32°37'16.167"N	103°49'50.914"W	0.08	
6682.80	1.170	23.240	6681.33	3.13	108.93	9.64	654722.04	590055.92	32°37'16.183"N	103°49'50.905"W	0.14	
6777.40	1.270	15.100	6775.90	2.70	110.83	10.29	654722.69	590057.82	32°37'16.202"N	103°49'50.897"W	0.21	
6872.00	1.320	8.150	6870.48	2.52	112.92	10.72	654723.12	590059.91	32°37'16.222"N	103°49'50.892"W	0.17	
6966.60	1.270	9.560	6965.06	2.44	115.03	11.05	654723.45	590062.02	32°37'16.243"N	103°49'50.888"W	0.06	
7155.80	1.250	19.520	7154.21	1.87	119.04	12.09	654724.49	590066.04	32°37'16.283"N	103°49'50.876"W	0.12	
7250.40	1.310	28.720	7248.79	1.24	120.97	12.95	654725.35	590067.96	32°37'16.302"N	103°49'50.865"W	0.23	
7345.00	1.000	27.470	7343.37	0.54	122.65	13.85	654726.25	590069.64	32°37'16.319"N	103°49'50.855"W	0.33	
7439.60	1.020	49.450	7437.95	-0.32	123.93	14.87	654727.27	590070.92	32°37'16.331"N	103°49'50.843"W	0.41	
7534.20	0.690	44.470	7532.54	-1.25	124.88	15.91	654728.31	590071.87	32°37'16.341"N	103°49'50.831"W	0.36	
7628.80	0.800	29.020	7627.14	-1.84	125.86	16.63	654729.03	590072.86	32°37'16.350"N	103°49'50.822"W	0.24	
7723.40	0.810	46.720	7721.73	-2.53	126.90	17.44	654729.84	590073.89	32°37'16.361"N	103°49'50.813"W	0.26	
7818.00	1.160	153.320	7816.32	-3.48	126.50	18.35	654730.75	590073.49	32°37'16.357"N	103°49'50.802"W	1.68	
7912.60	1.800	167.880	7910.89	-4.49	124.19	19.10	654731.49	590071.19	32°37'16.334"N	103°49'50.793"W	0.78	
8007.20	1.140	141.720	8005.46	-5.63	122.00	19.99	654732.39	590068.99	32°37'16.312"N	103°49'50.783"W	0.98	
8101.80	0.220	156.570	8100.05	-6.39	121.10	20.65	654733.04	590068.09	32°37'16.303"N	103°49'50.776"W	0.98	
8196.40	1.000	297.520	8194.64	-5.71	121.31	19.99	654732.38	590068.30	32°37'16.305"N	103°49'50.783"W	1.25	
8291.00	1.950	287.150	8289.21	-3.35	122.17	17.72	654730.11	590069.16	32°37'16.314"N	103°49'50.810"W	1.04	
8385.60	2.230	282.000	8383.75	0.06	123.03	14.38	654726.78	590070.02	32°37'16.322"N	103°49'50.849"W	0.36	
8480.20	2.380	283.630	8478.27	3.84	123.87	10.67	654723.07	590070.86	32°37'16.331"N	103°49'50.892"W	0.17	
8574.80	1.820	287.240	8572.81	7.27	124.78	7.33	654719.72	590071.77	32°37'16.340"N	103°49'50.931"W	0.61	
8647.00	1.100	285.800	8644.98	9.08	125.31	5.56	654717.96	590072.30	32°37'16.345"N	103°49'50.952"W	1.00	
8679.00	1.400	50.100	8676.98	9.12	125.64	5.57	654717.97	590072.63	32°37'16.349"N	103°49'50.952"W	6.92	
8712.00	4.300	71.300	8709.94	7.72	126.30	7.05	654719.45	590073.29	32°37'16.355"N	103°49'50.934"W	9.20	
8744.00	6.800	68.800	8741.78	4.96	127.37	9.95	654722.35	590074.36	32°37'16.365"N	103°49'50.900"W	7.85	
8774.00	7.900	53.300	8771.54	1.89	129.24	13.26	654725.66	590076.23	32°37'16.384"N	103°49'50.861"W	7.53	
8807.00	10.500	39.800	8804.12	-1.40	132.91	17.01	654729.40	590079.90	32°37'16.420"N	103°49'50.817"W	10.19	



Actual Wellpath Report

No. 248H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.248H SHL
Area	Eddy County, NM	Well	No.248H
Field	Big Eddy	Wellbore	No. 248H A WB
Facility	Big Eddy Unit No.248H & No. 249H		

WELLPATH DATA (200 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
8838.00	13.200	27.500	8834.46	-4.20	138.22	20.45	654732.85	590085.21	32°37'16.472"N	103°49'50.777"W	11.88	
8869.00	15.500	17.200	8864.49	-6.21	145.32	23.31	654735.71	590092.31	32°37'16.542"N	103°49'50.743"W	11.06	
8900.00	17.500	7.800	8894.22	-7.06	153.90	25.17	654737.57	590100.89	32°37'16.627"N	103°49'50.721"W	10.74	
8932.00	19.600	359.800	8924.56	-6.50	164.03	25.80	654738.20	590111.02	32°37'16.728"N	103°49'50.713"W	10.30	
8962.00	22.600	353.500	8952.55	-4.58	174.80	25.13	654737.53	590121.78	32°37'16.834"N	103°49'50.720"W	12.52	
8993.00	25.600	348.500	8980.85	-1.13	187.28	23.12	654735.52	590134.27	32°37'16.958"N	103°49'50.743"W	11.70	
9024.00	28.300	341.800	9008.49	4.05	200.83	19.49	654731.89	590147.82	32°37'17.092"N	103°49'50.785"W	13.10	
9055.00	31.400	334.000	9035.38	11.51	215.08	13.65	654726.05	590162.06	32°37'17.233"N	103°49'50.852"W	16.01	
9088.00	34.400	326.200	9063.10	22.22	230.56	4.69	654717.09	590177.55	32°37'17.387"N	103°49'50.956"W	15.72	
9120.00	37.600	319.500	9088.99	35.26	245.51	-6.69	654705.71	590192.49	32°37'17.535"N	103°49'51.088"W	15.85	
9151.00	41.500	314.300	9112.90	50.34	259.88	-20.19	654692.21	590206.86	32°37'17.678"N	103°49'51.245"W	16.49	
9182.00	45.700	312.300	9135.34	67.51	274.53	-35.75	654676.65	590221.51	32°37'17.824"N	103°49'51.426"W	14.26	
9214.00	49.300	311.200	9156.96	86.82	290.23	-53.35	654659.05	590237.21	32°37'17.980"N	103°49'51.631"W	11.53	
9245.00	53.300	309.200	9176.34	107.00	305.83	-71.83	654640.57	590252.81	32°37'18.135"N	103°49'51.847"W	13.85	
9276.00	58.000	307.500	9193.83	128.78	321.70	-91.91	654620.50	590268.68	32°37'18.293"N	103°49'52.080"W	15.82	
9307.00	63.200	306.000	9209.04	152.15	337.84	-113.54	654598.86	590284.82	32°37'18.454"N	103°49'52.332"W	17.30	
9339.00	68.100	307.100	9222.23	177.42	355.20	-136.95	654575.46	590302.18	32°37'18.627"N	103°49'52.605"W	15.63	
9360.00	70.500	306.700	9229.65	194.40	367.00	-152.66	654559.75	590313.97	32°37'18.744"N	103°49'52.788"W	11.57	
9377.00	70.700	305.700	9235.30	208.36	376.47	-165.60	654546.81	590323.44	32°37'18.838"N	103°49'52.939"W	5.67	
9409.00	73.800	305.600	9245.05	235.02	394.23	-190.36	654522.05	590341.20	32°37'19.015"N	103°49'53.227"W	9.69	
9440.00	77.000	305.500	9252.87	261.29	411.67	-214.77	654497.65	590358.64	32°37'19.189"N	103°49'53.512"W	10.33	
9472.00	78.700	305.200	9259.60	288.74	429.77	-240.28	654472.13	590376.74	32°37'19.369"N	103°49'53.809"W	5.39	
9503.00	80.600	304.900	9265.17	315.58	447.28	-265.25	654447.17	590394.25	32°37'19.544"N	103°49'54.100"W	6.20	
9535.00	82.700	304.800	9269.82	343.49	465.37	-291.23	654421.19	590412.34	32°37'19.724"N	103°49'54.403"W	6.57	
9567.00	83.100	304.500	9273.77	371.54	483.42	-317.35	654395.07	590430.39	32°37'19.904"N	103°49'54.707"W	11.56	
9598.00	84.100	304.200	9277.23	398.82	500.81	-342.78	654369.64	590447.77	32°37'20.077"N	103°49'55.004"W	3.37	
9630.00	85.700	303.700	9280.07	427.16	518.60	-369.22	654343.20	590465.57	32°37'20.254"N	103°49'55.312"W	5.24	
9661.00	86.400	303.200	9282.21	454.77	535.65	-395.03	654317.40	590482.62	32°37'20.424"N	103°49'55.612"W	2.77	
9693.00	87.000	302.500	9284.05	483.45	552.98	-421.86	654290.56	590499.94	32°37'20.597"N	103°49'55.925"W	2.88	
9725.00	87.400	302.300	9285.61	512.25	570.11	-448.85	654263.58	590517.07	32°37'20.768"N	103°49'56.240"W	1.40	
9756.00	87.700	302.100	9286.94	540.20	586.61	-475.06	654237.37	590533.57	32°37'20.932"N	103°49'56.545"W	1.16	
9788.00	87.900	301.200	9288.17	569.19	603.39	-502.28	654210.15	590550.35	32°37'21.100"N	103°49'56.863"W	2.88	
9820.00	88.100	299.700	9289.28	598.46	619.60	-529.85	654182.59	590566.56	32°37'21.261"N	103°49'57.184"W	4.73	
9851.00	88.200	298.600	9290.28	627.09	634.69	-556.91	654155.53	590581.65	32°37'21.412"N	103°49'57.500"W	3.56	
9883.00	88.400	298.400	9291.23	656.79	649.95	-585.02	654127.42	590596.91	32°37'21.564"N	103°49'57.827"W	0.88	
9914.00	88.500	299.300	9292.07	685.49	664.90	-612.16	654100.28	590611.86	32°37'21.713"N	103°49'58.144"W	2.92	
9946.00	88.800	298.400	9292.83	715.12	680.34	-640.18	654072.26	590627.29	32°37'21.867"N	103°49'58.471"W	2.96	
9978.00	88.900	294.600	9293.47	745.22	694.61	-668.81	654043.64	590641.57	32°37'22.010"N	103°49'58.805"W	11.88	
10009.00	89.000	289.600	9294.04	775.09	706.27	-697.51	654014.93	590653.22	32°37'22.127"N	103°49'59.140"W	16.13	
10041.00	89.700	284.200	9294.40	806.57	715.57	-728.12	653984.33	590662.52	32°37'22.220"N	103°49'59.497"W	17.02	
10073.00	90.300	281.700	9294.40	838.37	722.74	-759.30	653953.15	590669.69	32°37'22.292"N	103°49'59.861"W	8.03	
10104.00	90.300	280.200	9294.24	869.29	728.63	-789.74	653922.72	590675.58	32°37'22.352"N	103°50'00.217"W	4.84	
10136.00	90.100	278.300	9294.13	901.25	733.77	-821.32	653891.14	590680.72	32°37'22.404"N	103°50'00.586"W	5.97	
10167.00	89.700	277.000	9294.18	932.25	737.90	-852.04	653860.41	590684.85	32°37'22.447"N	103°50'00.945"W	4.39	
10199.00	89.800	275.900	9294.32	964.25	741.49	-883.84	653828.62	590688.44	32°37'22.484"N	103°50'01.316"W	3.45	



Actual Wellpath Report

No. 248H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.248H SHL
Area	Eddy County, NM	Well	No.248H
Field	Big Eddy	Wellbore	No. 248H AWB
Facility	Big Eddy Unit No.248H & No. 249H		

WELLPATH DATA (200 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
10231.00	89.900	274.700	9294.40	996.24	744.45	-915.70	653796.76	590691.40	32°37'22.514"N	103°50'01.688"W	3.76	
10262.00	89.400	273.400	9294.59	1027.20	746.64	-946.62	653765.84	590693.59	32°37'22.538"N	103°50'02.050"W	4.49	
10294.00	89.000	273.200	9295.04	1059.14	748.48	-978.57	653733.90	590695.43	32°37'22.557"N	103°50'02.423"W	1.40	
10325.00	88.500	272.600	9295.72	1090.07	750.05	-1009.52	653702.95	590697.00	32°37'22.574"N	103°50'02.785"W	2.52	
10357.00	88.900	271.400	9296.44	1121.95	751.16	-1041.49	653670.98	590698.11	32°37'22.587"N	103°50'03.159"W	3.95	
10389.00	88.500	271.100	9297.17	1153.80	751.86	-1073.47	653639.00	590698.81	32°37'22.595"N	103°50'03.533"W	1.56	
10420.00	87.600	271.000	9298.22	1184.63	752.43	-1104.45	653608.02	590699.38	32°37'22.602"N	103°50'03.895"W	2.92	
10453.00	86.800	271.000	9299.84	1217.43	753.00	-1137.41	653575.07	590699.95	32°37'22.609"N	103°50'04.280"W	2.42	
10516.00	89.000	270.100	9302.14	1280.02	753.61	-1200.36	653512.12	590700.56	32°37'22.618"N	103°50'05.016"W	3.77	
10612.00	90.600	270.800	9302.48	1375.45	754.36	-1296.35	653416.14	590701.31	32°37'22.630"N	103°50'06.138"W	1.82	
10707.00	90.700	270.100	9301.40	1469.88	755.11	-1391.34	653321.15	590702.06	32°37'22.642"N	103°50'07.249"W	0.74	
10802.00	91.100	269.300	9299.91	1564.16	754.61	-1486.33	653226.17	590701.56	32°37'22.642"N	103°50'08.359"W	0.94	
10897.00	91.500	269.600	9297.75	1658.37	753.70	-1581.30	653131.21	590700.65	32°37'22.637"N	103°50'09.470"W	0.53	
10992.00	92.700	269.300	9294.27	1752.55	752.79	-1676.23	653036.28	590699.74	32°37'22.632"N	103°50'10.580"W	1.30	
11087.00	93.000	268.500	9289.55	1846.56	750.97	-1771.09	652941.43	590697.92	32°37'22.619"N	103°50'11.689"W	0.90	
11182.00	91.500	270.600	9285.82	1940.74	750.22	-1866.01	652846.52	590697.17	32°37'22.616"N	103°50'12.799"W	2.72	
11277.00	91.400	270.800	9283.42	2035.19	751.38	-1960.97	652751.56	590698.33	32°37'22.632"N	103°50'13.909"W	0.24	
11372.00	91.500	270.000	9281.01	2129.58	752.04	-2055.94	652656.60	590699.00	32°37'22.643"N	103°50'15.019"W	0.85	
11467.00	92.100	269.400	9278.03	2223.83	751.55	-2150.89	652561.65	590698.50	32°37'22.642"N	103°50'16.129"W	0.89	
11563.00	91.800	270.700	9274.76	2319.13	751.63	-2246.83	652465.72	590698.58	32°37'22.647"N	103°50'17.251"W	1.39	
11658.00	90.100	272.200	9273.19	2413.71	754.03	-2341.78	652370.77	590700.99	32°37'22.675"N	103°50'18.361"W	2.39	
11753.00	91.600	272.200	9271.78	2508.41	757.68	-2436.70	652275.86	590704.63	32°37'22.716"N	103°50'19.471"W	1.58	
11848.00	90.400	272.300	9270.12	2603.10	761.41	-2531.61	652180.96	590708.36	32°37'22.757"N	103°50'20.580"W	1.27	
11943.00	89.600	271.900	9270.12	2697.80	764.89	-2626.54	652086.03	590711.84	32°37'22.796"N	103°50'21.690"W	0.94	
12038.00	89.700	269.800	9270.70	2792.30	766.30	-2721.52	651991.05	590713.25	32°37'22.814"N	103°50'22.800"W	2.21	
12133.00	89.600	269.500	9271.28	2886.58	765.72	-2816.52	651896.06	590712.67	32°37'22.813"N	103°50'23.911"W	0.33	
12228.00	89.600	267.800	9271.94	2980.64	763.48	-2911.49	651801.10	590710.43	32°37'22.795"N	103°50'25.021"W	1.79	
12323.00	89.700	268.100	9272.52	3074.53	760.08	-3006.43	651706.17	590707.03	32°37'22.766"N	103°50'26.132"W	0.33	
12418.00	89.600	269.700	9273.10	3168.65	758.26	-3101.40	651611.20	590705.21	32°37'22.752"N	103°50'27.242"W	1.69	
12513.00	89.600	269.000	9273.77	3262.87	757.18	-3196.39	651516.22	590704.13	32°37'22.746"N	103°50'28.353"W	0.74	
12609.00	89.600	268.200	9274.44	3357.91	754.84	-3292.36	651420.25	590701.79	32°37'22.727"N	103°50'29.475"W	0.83	
12704.00	89.600	266.500	9275.10	3451.64	750.45	-3387.25	651325.37	590697.40	32°37'22.688"N	103°50'30.585"W	1.79	
12799.00	91.100	266.400	9274.52	3545.12	744.56	-3482.07	651230.56	590691.51	32°37'22.634"N	103°50'31.694"W	1.58	
12894.00	91.100	267.600	9272.70	3638.75	739.59	-3576.92	651135.72	590686.54	32°37'22.589"N	103°50'32.803"W	1.26	
12989.00	91.100	266.400	9270.87	3732.37	734.62	-3671.77	651040.87	590681.57	32°37'22.544"N	103°50'33.912"W	1.26	
13084.00	91.100	267.400	9269.05	3825.97	729.48	-3766.61	650946.04	590676.44	32°37'22.498"N	103°50'35.021"W	1.05	
13180.00	91.100	271.600	9267.20	3921.17	728.65	-3862.57	650850.08	590675.60	32°37'22.494"N	103°50'36.143"W	4.37	
13275.00	90.700	270.800	9265.71	4015.72	730.64	-3957.54	650755.12	590677.59	32°37'22.518"N	103°50'37.253"W	0.94	
13370.00	90.600	273.800	9264.63	4110.43	734.45	-4052.44	650660.22	590681.40	32°37'22.560"N	103°50'38.363"W	3.16	
13465.00	90.600	273.600	9263.64	4205.29	740.58	-4147.24	650565.43	590687.53	32°37'22.625"N	103°50'39.471"W	0.21	
13561.00	90.600	273.300	9262.63	4301.13	746.36	-4243.06	650469.62	590693.31	32°37'22.686"N	103°50'40.591"W	0.31	
13656.00	90.600	272.600	9261.64	4395.93	751.24	-4337.93	650374.76	590698.19	32°37'22.739"N	103°50'41.700"W	0.74	
13751.00	90.600	272.100	9260.64	4490.65	755.14	-4432.84	650279.85	590702.09	32°37'22.782"N	103°50'42.809"W	0.53	
13846.00	90.600	267.700	9259.65	4584.95	754.97	-4527.81	650184.88	590701.92	32°37'22.785"N	103°50'43.919"W	4.63	
13941.00	90.700	267.200	9258.57	4678.71	750.75	-4622.71	650089.99	590697.70	32°37'22.747"N	103°50'45.029"W	0.54	



Actual Wellpath Report

No. 248H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.248H SHL
Area	Eddy County, NM	Well	No.248H
Field	Big Eddy	Wellbore	No. 248H AWB
Facility	Big Eddy Unit No.248H & No. 249H		

WELLPATH DATA (200 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
14037.00	90.700	266.000	9257.40	4773.22	745.05	-4718.53	649994.17	590692.01	32°37'22.695"N	103°50'46.150"W	1.25	
14132.00	90.600	268.000	9256.32	4866.85	740.08	-4813.39	649899.32	590687.03	32°37'22.650"N	103°50'47.259"W	2.11	
14227.00	90.600	272.400	9255.32	4961.21	740.41	-4908.36	649804.36	590687.37	32°37'22.658"N	103°50'48.369"W	4.63	
14322.00	91.100	271.800	9253.92	5055.90	743.90	-5003.29	649709.44	590690.85	32°37'22.697"N	103°50'49.479"W	0.82	
14418.00	91.100	271.700	9252.07	5151.52	746.83	-5099.23	649613.51	590693.78	32°37'22.730"N	103°50'50.601"W	0.10	
14513.00	91.300	270.500	9250.08	5246.05	748.65	-5194.19	649518.55	590695.60	32°37'22.752"N	103°50'51.711"W	1.28	
14609.00	91.000	270.400	9248.16	5341.46	749.40	-5290.16	649422.58	590696.35	32°37'22.764"N	103°50'52.833"W	0.33	
14704.00	91.100	270.400	9246.42	5435.87	750.07	-5385.15	649327.61	590697.02	32°37'22.775"N	103°50'53.943"W	0.11	
14800.00	91.200	270.900	9244.49	5531.31	751.16	-5481.12	649231.64	590698.11	32°37'22.790"N	103°50'55.065"W	0.53	
14895.00	91.000	270.300	9242.66	5625.76	752.15	-5576.10	649136.67	590699.10	32°37'22.804"N	103°50'56.176"W	0.67	
14990.00	91.100	270.000	9240.92	5720.13	752.40	-5671.08	649041.69	590699.35	32°37'22.811"N	103°50'57.286"W	0.33	
15085.00	91.100	270.000	9239.10	5814.46	752.40	-5766.06	648946.71	590699.35	32°37'22.815"N	103°50'58.397"W	0.00	
15181.00	91.000	269.600	9237.34	5909.75	752.06	-5862.05	648850.74	590699.01	32°37'22.816"N	103°50'59.519"W	0.43	
15276.00	91.400	269.400	9235.35	6003.98	751.23	-5957.02	648755.77	590698.19	32°37'22.812"N	103°51'00.629"W	0.47	
15371.00	91.200	268.600	9233.20	6098.10	749.58	-6051.98	648660.81	590696.53	32°37'22.800"N	103°51'01.740"W	0.87	
15466.00	91.100	268.400	9231.29	6192.11	747.09	-6146.93	648565.87	590694.04	32°37'22.780"N	103°51'02.850"W	0.24	
15561.00	90.800	267.500	9229.71	6285.99	743.69	-6241.86	648470.95	590690.64	32°37'22.750"N	103°51'03.960"W	1.00	
15657.00	89.900	267.900	9229.13	6380.81	739.84	-6337.78	648375.04	590686.79	32°37'22.717"N	103°51'05.082"W	1.03	
15681.00	89.700	267.800	9229.21	6404.52	738.94	-6361.76	648351.06	590685.89	32°37'22.709"N	103°51'05.362"W	0.93	
15754.00	89.700	267.800	9229.59	6476.65	736.14	-6434.70	648278.12	590683.09	32°37'22.684"N	103°51'06.215"W	0.00	Proj to Bit

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
BEU #248H PBHL (Rev-1)		9204.00	755.15	-6434.04	648278.78	590702.10	32°37'22.872"N	103°51'06.206"W	point
BEU 248H Target #1		9321.00	671.84	-494.53	654217.90	590618.80	32°37'21.776"N	103°49'56.768"W	point

WELLPATH COMPOSITION - Ref Wellbore: No. 248H AWB Ref Wellpath: No. 248H AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	8574.80	Generic gyro - northseeking (Standard)	Gyrodata / Gyros <100-8574.8>	No. 248H AWB
8574.80	15681.00	NaviTrak (Standard)	BHI / Navitrak MWD <8647-xxxx>	No. 248H AWB
15681.00	15754.00	Blind Drilling (std)	Projection to bit	No. 248H AWB