

30.015-39143



Actual Wellpath Report

No.357HAWP

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**BAKER
HUGHES**

ROD RECORD AND WELL IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.357HSHL
Area	Eddy County, NM	Well	No.357H
Field	Poker Lake Unit	Wellbore	No.357HAWB
Facility	Poker Lake Unit No. 357H		

WELLPATH DATA (171 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	293.160	0.00	0.00	0.00	0.00	670850.17	431675.83	32°11'08.118"N	103°46'51.898"W	0.00	
100.00	1.040	293.160	99.99	0.84	0.36	-0.83	670849.34	431676.19	32°11'08.121"N	103°46'51.908"W	1.04	
200.00	1.330	296.430	199.97	2.78	1.23	-2.71	670847.46	431677.06	32°11'08.130"N	103°46'51.929"W	0.30	
300.00	1.670	294.900	299.94	5.25	2.36	-5.07	670845.10	431678.19	32°11'08.141"N	103°46'51.957"W	0.34	
400.00	2.180	296.260	399.88	8.42	3.82	-8.10	670842.08	431679.65	32°11'08.156"N	103°46'51.992"W	0.51	
432.40	3.230	298.340	432.25	9.87	4.52	-9.45	670840.72	431680.35	32°11'08.163"N	103°46'52.008"W	3.25	
524.40	3.310	300.340	524.10	14.92	7.09	-14.03	670836.15	431682.93	32°11'08.188"N	103°46'52.061"W	0.15	
616.50	2.820	308.150	616.06	19.74	9.84	-18.10	670832.07	431685.67	32°11'08.216"N	103°46'52.108"W	0.70	
708.80	2.090	309.770	708.28	23.67	12.32	-21.18	670828.99	431688.15	32°11'08.241"N	103°46'52.144"W	0.79	
800.70	1.670	313.730	800.13	26.68	14.31	-23.44	670826.74	431690.15	32°11'08.260"N	103°46'52.170"W	0.48	
892.90	1.450	322.870	892.29	29.18	16.17	-25.11	670825.06	431692.00	32°11'08.279"N	103°46'52.189"W	0.36	
987.40	1.290	328.650	986.77	31.40	18.03	-26.39	670823.79	431693.87	32°11'08.297"N	103°46'52.204"W	0.22	
1082.00	1.100	329.120	1081.35	33.32	19.72	-27.41	670822.77	431695.55	32°11'08.314"N	103°46'52.216"W	0.20	
1176.50	0.890	330.260	1175.83	34.90	21.14	-28.24	670821.94	431696.97	32°11'08.328"N	103°46'52.225"W	0.22	
1271.00	0.620	333.850	1270.32	36.10	22.23	-28.83	670821.35	431698.07	32°11'08.339"N	103°46'52.232"W	0.29	
1365.60	0.510	336.410	1364.92	36.97	23.08	-29.22	670820.95	431698.91	32°11'08.347"N	103°46'52.237"W	0.12	
1460.10	0.320	341.980	1459.42	37.60	23.72	-29.47	670820.70	431699.55	32°11'08.354"N	103°46'52.240"W	0.21	
1554.60	0.180	342.190	1553.92	37.97	24.11	-29.60	670820.58	431699.94	32°11'08.358"N	103°46'52.241"W	0.15	
1649.10	0.090	199.960	1648.42	38.07	24.18	-29.67	670820.50	431700.01	32°11'08.358"N	103°46'52.242"W	0.27	
1743.70	0.260	201.510	1743.02	37.95	23.91	-29.77	670820.40	431699.74	32°11'08.356"N	103°46'52.243"W	0.18	
1838.30	0.300	195.700	1837.61	37.74	23.47	-29.92	670820.25	431699.30	32°11'08.351"N	103°46'52.245"W	0.05	
1932.70	0.270	196.130	1932.01	37.51	23.02	-30.05	670820.13	431698.85	32°11'08.347"N	103°46'52.246"W	0.03	
2027.30	0.270	182.390	2026.61	37.26	22.58	-30.12	670820.06	431698.42	32°11'08.343"N	103°46'52.247"W	0.07	
2121.80	0.340	169.290	2121.11	36.87	22.09	-30.07	670820.10	431697.92	32°11'08.338"N	103°46'52.247"W	0.10	
2216.30	0.310	171.370	2215.61	36.43	21.56	-29.98	670820.19	431697.39	32°11'08.332"N	103°46'52.246"W	0.03	
2310.80	0.370	176.520	2310.11	36.00	21.00	-29.93	670820.25	431696.83	32°11'08.327"N	103°46'52.245"W	0.07	
2405.40	0.360	185.900	2404.71	35.58	20.40	-29.94	670820.23	431696.23	32°11'08.321"N	103°46'52.245"W	0.06	
2499.90	0.350	189.310	2499.20	35.23	19.82	-30.02	670820.16	431695.65	32°11'08.315"N	103°46'52.246"W	0.02	
2594.40	0.340	201.970	2593.70	34.95	19.27	-30.17	670820.00	431695.11	32°11'08.310"N	103°46'52.248"W	0.08	
2689.00	0.220	188.640	2688.30	34.73	18.83	-30.30	670819.87	431694.67	32°11'08.305"N	103°46'52.249"W	0.14	
2783.50	0.180	191.180	2782.80	34.54	18.51	-30.36	670819.82	431694.34	32°11'08.302"N	103°46'52.250"W	0.04	
2878.00	0.250	176.830	2877.30	34.30	18.16	-30.37	670819.80	431693.99	32°11'08.299"N	103°46'52.250"W	0.09	
2972.60	0.260	146.010	2971.90	33.94	17.77	-30.24	670819.93	431693.61	32°11'08.295"N	103°46'52.249"W	0.14	
3067.10	0.430	101.610	3066.40	33.43	17.53	-29.78	670820.40	431693.36	32°11'08.292"N	103°46'52.243"W	0.32	
3161.60	0.490	81.930	3160.89	32.89	17.51	-29.03	670821.14	431693.34	32°11'08.292"N	103°46'52.235"W	0.18	
3256.20	0.460	73.140	3255.49	32.47	17.68	-28.26	670821.91	431693.51	32°11'08.294"N	103°46'52.226"W	0.08	
3350.70	0.480	77.820	3349.99	32.08	17.87	-27.51	670822.66	431693.70	32°11'08.296"N	103°46'52.217"W	0.05	
3445.20	0.530	82.510	3444.48	31.60	18.01	-26.69	670823.48	431693.84	32°11'08.297"N	103°46'52.208"W	0.07	
3539.70	0.560	95.640	3538.98	30.98	18.02	-25.80	670824.37	431693.85	32°11'08.297"N	103°46'52.197"W	0.14	
3634.30	0.590	105.080	3633.58	30.20	17.85	-24.87	670825.30	431693.68	32°11'08.295"N	103°46'52.186"W	0.10	
3728.80	0.490	111.100	3728.07	29.41	17.58	-24.02	670826.15	431693.41	32°11'08.293"N	103°46'52.177"W	0.12	
3823.30	0.760	106.650	3822.57	28.49	17.25	-23.05	670827.13	431693.09	32°11'08.289"N	103°46'52.165"W	0.29	
3917.90	1.030	121.410	3917.15	27.11	16.63	-21.72	670828.45	431692.46	32°11'08.283"N	103°46'52.150"W	0.37	
4012.40	0.960	132.200	4011.64	25.50	15.66	-20.41	670829.76	431691.49	32°11'08.274"N	103°46'52.135"W	0.21	
4106.90	0.180	216.540	4106.14	24.68	15.01	-19.91	670830.26	431690.84	32°11'08.267"N	103°46'52.129"W	1.01	



Actual Wellpath Report

No.357HAWP

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WELLPATH DATA INDICATION			
Operator	BOPCQ LP.	Slot	No.357HSHL
Area	Eddy County, NM	Well	No.357H
Field	Poker Lake Unit	Wellbore	No.357HAWB
Facility	Poker Lake Unit No. 357H		

WELLPATH DATA (171 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
4201.40	0.240	283.930	4200.64	24.83	14.93	-20.19	670829.98	431690.77	32°11'08.266"N	103°46'52.132"W	0.25	
4296.00	0.250	335.130	4295.23	25.19	15.17	-20.47	670829.70	431691.00	32°11'08.269"N	103°46'52.135"W	0.22	
4390.50	0.370	344.100	4389.73	25.65	15.65	-20.64	670829.53	431691.48	32°11'08.273"N	103°46'52.137"W	0.14	
4485.00	0.370	346.100	4484.23	26.18	16.24	-20.80	670829.38	431692.07	32°11'08.279"N	103°46'52.139"W	0.01	
4579.60	0.360	346.710	4578.83	26.70	16.82	-20.94	670829.23	431692.66	32°11'08.285"N	103°46'52.141"W	0.01	
4674.10	0.280	344.010	4673.33	27.15	17.34	-21.07	670829.10	431693.17	32°11'08.290"N	103°46'52.142"W	0.09	
4768.60	0.290	348.490	4767.83	27.55	17.79	-21.18	670828.99	431693.62	32°11'08.295"N	103°46'52.143"W	0.03	
4863.20	0.420	339.790	4862.42	28.07	18.35	-21.35	670828.82	431694.18	32°11'08.300"N	103°46'52.145"W	0.15	
4957.70	0.400	333.980	4956.92	28.70	18.97	-21.61	670828.56	431694.81	32°11'08.306"N	103°46'52.148"W	0.05	
5052.20	0.420	334.730	5051.42	29.33	19.58	-21.91	670828.27	431695.41	32°11'08.312"N	103°46'52.152"W	0.02	
5146.80	0.380	345.330	5146.02	29.93	20.20	-22.13	670828.04	431696.03	32°11'08.319"N	103°46'52.154"W	0.09	
5241.30	0.460	354.320	5240.51	30.50	20.88	-22.25	670827.92	431696.71	32°11'08.325"N	103°46'52.156"W	0.11	
5335.80	0.460	353.900	5335.01	31.09	21.64	-22.33	670827.84	431697.47	32°11'08.333"N	103°46'52.157"W	0.00	
5430.30	0.400	349.710	5429.51	31.65	22.34	-22.43	670827.74	431698.17	32°11'08.340"N	103°46'52.158"W	0.07	
5524.90	0.400	347.700	5524.11	32.20	22.98	-22.56	670827.62	431698.82	32°11'08.346"N	103°46'52.159"W	0.01	
5619.40	0.360	350.050	5618.60	32.72	23.60	-22.68	670827.49	431699.43	32°11'08.352"N	103°46'52.161"W	0.05	
5713.90	0.410	4.040	5713.10	33.19	24.23	-22.71	670827.47	431700.06	32°11'08.358"N	103°46'52.161"W	0.11	
5808.50	0.460	54.160	5807.70	33.35	24.79	-22.37	670827.80	431700.62	32°11'08.364"N	103°46'52.157"W	0.39	
5903.00	0.610	66.000	5902.20	33.11	25.22	-21.61	670828.56	431701.05	32°11'08.368"N	103°46'52.148"W	0.20	
5997.50	0.570	66.820	5996.69	32.76	25.61	-20.72	670829.46	431701.44	32°11'08.372"N	103°46'52.138"W	0.04	
6092.10	0.540	57.660	6091.29	32.49	26.03	-19.91	670830.27	431701.86	32°11'08.376"N	103°46'52.128"W	0.10	
6186.60	0.540	53.770	6185.78	32.33	26.53	-19.17	670831.00	431702.36	32°11'08.381"N	103°46'52.120"W	0.04	
6281.10	0.520	55.220	6280.28	32.18	27.04	-18.46	670831.71	431702.87	32°11'08.386"N	103°46'52.111"W	0.03	
6375.60	0.460	68.730	6374.78	31.96	27.42	-17.75	670832.42	431703.25	32°11'08.390"N	103°46'52.103"W	0.14	
6470.20	0.500	75.240	6469.37	31.60	27.66	-17.00	670833.17	431703.49	32°11'08.392"N	103°46'52.094"W	0.07	
6564.70	0.560	82.700	6563.87	31.11	27.83	-16.14	670834.03	431703.66	32°11'08.394"N	103°46'52.084"W	0.10	
6659.20	0.450	75.660	6658.36	30.64	27.98	-15.33	670834.85	431703.81	32°11'08.395"N	103°46'52.075"W	0.13	
6753.80	0.340	56.840	6752.96	30.39	28.22	-14.73	670835.44	431704.05	32°11'08.398"N	103°46'52.068"W	0.18	
6848.20	0.300	92.010	6847.36	30.15	28.37	-14.25	670835.92	431704.20	32°11'08.399"N	103°46'52.062"W	0.21	
6942.80	0.280	126.520	6941.96	29.74	28.22	-13.82	670836.35	431704.05	32°11'08.398"N	103°46'52.057"W	0.18	
7037.40	0.280	190.990	7036.56	29.39	27.86	-13.68	670836.50	431703.69	32°11'08.394"N	103°46'52.056"W	0.32	
7131.90	0.410	202.070	7131.06	29.12	27.32	-13.85	670836.33	431703.15	32°11'08.389"N	103°46'52.058"W	0.15	
7226.40	0.520	193.730	7225.55	28.77	26.59	-14.08	670836.10	431702.42	32°11'08.381"N	103°46'52.060"W	0.14	
7320.90	0.650	174.440	7320.05	28.13	25.64	-14.12	670836.05	431701.47	32°11'08.372"N	103°46'52.061"W	0.25	
7415.50	0.610	161.690	7414.64	27.27	24.62	-13.91	670836.26	431700.46	32°11'08.362"N	103°46'52.058"W	0.15	
7510.00	0.560	145.160	7509.14	26.36	23.77	-13.49	670836.68	431699.60	32°11'08.353"N	103°46'52.054"W	0.19	
7530.00	0.700	136.500	7529.14	26.14	23.60	-13.35	670836.82	431699.43	32°11'08.352"N	103°46'52.052"W	0.84	
7572.00	0.700	111.800	7571.13	25.65	23.32	-12.94	670837.23	431699.15	32°11'08.349"N	103°46'52.047"W	0.71	
7603.00	2.200	332.600	7602.13	26.04	23.78	-13.04	670837.14	431699.61	32°11'08.353"N	103°46'52.048"W	8.93	
7634.00	6.000	328.700	7633.04	28.19	25.69	-14.15	670836.02	431701.52	32°11'08.372"N	103°46'52.061"W	12.28	
7666.00	10.100	328.900	7664.72	32.54	29.52	-16.47	670833.70	431705.35	32°11'08.411"N	103°46'52.088"W	12.81	
7698.00	15.200	328.000	7695.93	39.36	35.49	-20.15	670830.03	431711.32	32°11'08.470"N	103°46'52.130"W	15.95	
7730.00	19.900	325.900	7726.44	48.80	43.56	-25.43	670824.75	431719.39	32°11'08.550"N	103°46'52.191"W	14.82	
7761.00	22.400	324.800	7755.35	59.81	52.76	-31.79	670818.38	431728.59	32°11'08.641"N	103°46'52.265"W	8.17	
7792.00	24.800	323.400	7783.75	72.07	62.80	-39.07	670811.10	431738.63	32°11'08.741"N	103°46'52.349"W	7.95	



Actual Wellpath Report

No.357HAWP

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BAKER HUGHES

GENERAL INFORMATION			
Operator	BOPCO, L.P.	Slot	No.357HSHL
Area	Eddy County, NM	Well	No.357H
Field	Poker Lake Unit	Wellbore	No.357HAWB
Facility	Poker Lake Unit No. 357H		

WELLPATH DATA (171 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [USft]	Grid North [USft]	Latitude	Longitude	DLS [°/100ft]	Comments
7824.00	28.000	318.600	7812.41	86.21	73.83	-48.04	670802.13	431749.66	32°11'08.851"N	108°46'52.453"W	12.01	
7855.00	30.000	315.000	7839.53	101.23	84.77	-58.34	670791.84	431760.60	32°11'08.959"N	108°46'52.572"W	8.56	
7886.00	31.600	313.900	7866.15	117.10	95.88	-69.67	670780.50	431771.71	32°11'09.070"N	108°46'52.703"W	5.47	
7917.00	35.200	313.900	7892.03	134.16	107.71	-81.96	670768.21	431783.54	32°11'09.188"N	108°46'52.845"W	11.61	
7949.00	39.700	314.200	7917.43	153.61	121.24	-95.94	670754.23	431797.07	32°11'09.322"N	108°46'53.007"W	14.07	
7981.00	45.100	314.100	7941.05	175.17	136.26	-111.42	670738.76	431812.09	32°11'09.472"N	108°46'53.186"W	16.88	
8012.00	47.800	313.500	7962.41	197.63	151.81	-127.64	670722.54	431827.64	32°11'09.626"N	108°46'53.374"W	8.82	
8044.00	49.300	312.300	7983.59	221.60	168.14	-145.21	670704.97	431843.96	32°11'09.789"N	108°46'53.578"W	5.47	
8076.00	52.700	311.400	8003.72	246.42	184.72	-163.73	670686.45	431860.54	32°11'09.954"N	108°46'53.792"W	10.85	
8108.00	56.800	311.000	8022.19	272.49	201.93	-183.39	670666.79	431877.75	32°11'10.125"N	108°46'54.020"W	12.85	
8139.00	61.500	311.300	8038.08	299.03	219.44	-203.43	670646.76	431895.26	32°11'10.299"N	108°46'54.252"W	15.18	
8171.00	64.700	312.400	8052.56	327.52	238.48	-224.68	670625.51	431914.30	32°11'10.489"N	108°46'54.498"W	10.46	
8202.00	65.700	312.700	8065.56	355.63	257.51	-245.41	670604.78	431933.33	32°11'10.678"N	108°46'54.738"W	3.34	
8233.00	67.100	313.100	8077.97	384.02	276.85	-266.22	670583.97	431952.66	32°11'10.871"N	108°46'54.979"W	4.67	
8264.00	70.200	314.200	8089.26	412.88	296.77	-287.10	670563.08	431972.59	32°11'11.069"N	108°46'55.221"W	10.53	
8295.00	74.900	315.000	8098.55	442.44	317.53	-308.15	670542.04	431993.35	32°11'11.275"N	108°46'55.465"W	15.36	
8326.00	80.400	315.800	8105.18	472.71	339.09	-329.41	670520.78	432014.90	32°11'11.490"N	108°46'55.711"W	17.92	
8357.00	87.100	317.200	8108.55	503.50	361.43	-350.60	670499.59	432037.24	32°11'11.712"N	108°46'55.956"W	22.07	
8388.00	91.300	318.100	8108.98	534.46	384.33	-371.48	670478.71	432060.14	32°11'11.940"N	108°46'56.197"W	13.86	
8401.00	92.000	318.100	8108.61	547.43	394.01	-380.16	670470.03	432069.82	32°11'12.036"N	108°46'56.298"W	5.38	
8529.00	91.700	317.000	8104.48	675.25	488.40	-466.51	670383.69	432164.21	32°11'12.974"N	108°46'57.297"W	0.89	
8624.00	91.500	318.600	8101.82	770.11	558.75	-530.29	670319.91	432234.55	32°11'13.674"N	108°46'58.035"W	1.70	
8720.00	90.700	317.500	8099.98	865.96	630.13	-594.45	670255.75	432305.93	32°11'14.383"N	108°46'58.777"W	1.42	
8815.00	88.600	319.700	8100.56	960.77	701.38	-657.27	670192.94	432377.17	32°11'15.091"N	108°46'59.504"W	3.20	
8910.00	86.500	318.600	8104.62	1055.44	773.17	-719.35	670130.87	432448.96	32°11'15.805"N	108°47'00.222"W	2.49	
9005.00	84.800	317.700	8111.83	1150.03	843.73	-782.54	670067.68	432519.51	32°11'16.506"N	108°47'00.953"W	2.02	
9100.00	85.100	315.600	8120.19	1244.62	912.54	-847.50	670002.72	432588.32	32°11'17.190"N	108°47'01.705"W	2.22	
9195.00	87.600	313.400	8126.24	1339.41	978.98	-915.11	669935.11	432654.75	32°11'17.851"N	108°47'02.488"W	3.50	
9291.00	90.800	315.600	8127.58	1435.38	1046.25	-983.56	669866.67	432722.02	32°11'18.520"N	108°47'03.280"W	4.04	
9386.00	91.500	313.300	8125.67	1530.34	1112.76	-1051.36	669798.87	432788.52	32°11'19.182"N	108°47'04.065"W	2.53	
9481.00	91.200	311.800	8123.43	1625.22	1176.98	-1121.33	669728.91	432852.74	32°11'19.821"N	108°47'04.875"W	1.61	
9577.00	90.500	310.200	8122.01	1720.96	1239.95	-1193.77	669656.48	432915.71	32°11'20.448"N	108°47'05.714"W	1.82	
9671.00	90.800	312.000	8120.94	1814.72	1301.74	-1264.59	669585.65	432977.49	32°11'21.063"N	108°47'06.535"W	1.94	
9767.00	89.900	311.700	8120.36	1910.56	1365.79	-1336.10	669514.15	433041.54	32°11'21.700"N	108°47'07.363"W	0.99	
9862.00	90.800	312.400	8119.78	2005.42	1429.41	-1406.64	669443.61	433105.16	32°11'22.333"N	108°47'08.180"W	1.20	
9957.00	90.900	312.600	8118.37	2100.31	1493.59	-1476.68	669373.58	433169.33	32°11'22.972"N	108°47'08.991"W	0.24	
10052.00	90.900	311.700	8116.88	2195.17	1557.33	-1547.10	669303.16	433233.07	32°11'23.606"N	108°47'09.807"W	0.95	
10148.00	91.100	313.300	8115.20	2291.06	1622.18	-1617.86	669232.40	433297.91	32°11'24.251"N	108°47'10.627"W	1.68	
10243.00	91.500	312.900	8113.04	2385.97	1687.07	-1687.21	669163.06	433362.80	32°11'24.897"N	108°47'11.430"W	0.60	
10338.00	91.000	316.400	8110.97	2480.93	1753.81	-1754.77	669095.51	433429.54	32°11'25.561"N	108°47'12.212"W	3.72	
10433.00	89.900	316.000	8110.23	2575.91	1822.37	-1820.52	669029.76	433498.10	32°11'26.243"N	108°47'12.973"W	1.23	
10529.00	90.300	315.400	8110.06	2671.90	1891.08	-1887.57	668962.72	433566.80	32°11'26.926"N	108°47'13.749"W	0.75	
10624.00	90.500	314.700	8109.39	2766.90	1958.31	-1954.68	668895.61	433634.02	32°11'27.595"N	108°47'14.526"W	0.77	
10719.00	87.400	314.200	8111.14	2861.87	2024.82	-2022.48	668827.81	433700.53	32°11'28.256"N	108°47'15.311"W	3.31	
10814.00	90.300	314.500	8113.04	2956.83	2091.20	-2090.39	668759.91	433766.91	32°11'28.916"N	108°47'16.097"W	3.07	



Actual Wellpath Report

No.357HAWP

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BAKER HUGHES

REFERENCE WELLPATH INDICATION

Operator	BOPCO, L.P.	Slot	No.357HSHL
Area	Eddy County, NM	Well	No.357H
Field	Poker Lake Unit	Wellbore	No.357HAWB
Facility	Poker Lake Unit No. 357H		

WELLPATH DATA (171 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Grid East [USft]	Grid North [USft]	Latitude	Longitude	DLS [%/100ft]	Comments
10909.00	89.500	312.800	8113.21	3051.79	2156.78	-2159.13	668691.17	433832.48	32°11'29.569"N	108°47'16.893"W	1.98	
11005.00	93.200	315.900	8110.95	3147.73	2223.84	-2227.74	668622.57	433899.54	32°11'30.236"N	108°47'17.687"W	5.03	
11100.00	95.400	316.300	8103.82	3242.44	2292.10	-2293.42	668556.89	433967.79	32°11'30.915"N	108°47'18.448"W	2.35	
11195.00	94.400	315.100	8095.71	3337.09	2359.84	-2359.52	668490.79	434035.53	32°11'31.588"N	108°47'19.213"W	1.64	
11290.00	91.400	317.600	8090.90	3431.93	2428.48	-2425.00	668425.32	434104.17	32°11'32.271"N	108°47'19.971"W	4.11	
11385.00	87.200	318.300	8092.06	3526.78	2499.00	-2488.61	668361.71	434174.68	32°11'32.972"N	108°47'20.707"W	4.48	
11481.00	86.200	319.400	8097.59	3622.41	2571.16	-2551.67	668298.65	434246.84	32°11'33.689"N	108°47'21.436"W	1.55	
11576.00	87.900	319.500	8102.48	3717.01	2643.25	-2613.35	668236.98	434318.93	32°11'34.405"N	108°47'22.150"W	1.79	
11671.00	87.700	317.000	8106.12	3811.79	2714.07	-2676.56	668173.77	434389.74	32°11'35.109"N	108°47'22.881"W	2.64	
11766.00	92.500	318.200	8105.96	3906.67	2784.20	-2740.60	668109.74	434459.87	32°11'35.806"N	108°47'23.622"W	5.21	
11861.00	89.700	314.900	8104.14	4001.60	2853.14	-2805.90	668044.43	434528.80	32°11'36.492"N	108°47'24.378"W	4.55	
11956.00	87.200	313.100	8106.70	4096.54	2919.10	-2874.21	667976.13	434594.76	32°11'37.148"N	108°47'25.169"W	3.24	
12051.00	87.200	312.300	8111.35	4191.34	2983.45	-2943.94	667906.41	434659.10	32°11'37.788"N	108°47'25.977"W	0.84	
12147.00	86.600	311.500	8116.54	4287.05	3047.46	-3015.29	667835.06	434723.11	32°11'38.425"N	108°47'26.803"W	1.04	
12242.00	86.300	310.200	8122.42	4381.60	3109.48	-3087.01	667763.35	434785.13	32°11'39.043"N	108°47'27.634"W	1.40	
12337.00	88.700	310.500	8126.56	4476.18	3170.93	-3159.33	667691.02	434846.57	32°11'39.654"N	108°47'28.472"W	2.55	
12432.00	91.800	312.000	8126.15	4570.95	3233.55	-3230.75	667619.61	434909.19	32°11'40.277"N	108°47'29.299"W	3.62	
12527.00	92.300	313.900	8122.75	4665.81	3298.24	-3300.24	667550.13	434973.87	32°11'40.921"N	108°47'30.104"W	2.07	
12623.00	92.800	313.900	8118.48	4761.70	3364.74	-3369.34	667481.03	435040.37	32°11'41.583"N	108°47'30.905"W	0.52	
12718.00	91.300	314.100	8115.08	4856.62	3430.69	-3437.63	667412.74	435106.32	32°11'42.238"N	108°47'31.695"W	1.59	
12813.00	93.400	313.900	8111.19	4951.51	3496.62	-3505.91	667344.47	435172.24	32°11'42.894"N	108°47'32.486"W	2.22	
12908.00	91.400	314.900	8107.21	5046.42	3563.03	-3573.72	667276.67	435238.65	32°11'43.555"N	108°47'33.271"W	2.35	
13003.00	90.300	315.300	8105.80	5141.40	3630.31	-3640.77	667209.62	435305.93	32°11'44.224"N	108°47'34.047"W	1.23	
13098.00	89.900	316.000	8105.63	5236.40	3698.24	-3707.18	667143.22	435373.85	32°11'44.899"N	108°47'34.816"W	0.85	
13194.00	89.100	315.300	8106.47	5332.39	3766.89	-3774.28	667076.12	435442.50	32°11'45.582"N	108°47'35.593"W	1.11	
13289.00	91.300	317.000	8106.14	5427.36	3835.39	-3840.09	667010.31	435510.99	32°11'46.263"N	108°47'36.355"W	2.93	
13384.00	90.100	316.100	8104.98	5522.32	3904.35	-3905.41	666944.99	435579.95	32°11'46.949"N	108°47'37.111"W	1.58	
13479.00	90.200	317.300	8104.73	5617.29	3973.49	-3970.56	666879.84	435649.08	32°11'47.636"N	108°47'37.865"W	1.27	
13574.00	91.200	317.600	8103.57	5712.20	4043.47	-4084.80	666815.61	435719.06	32°11'48.332"N	108°47'38.609"W	1.10	
13669.00	90.900	315.900	8102.33	5807.15	4112.65	-4099.88	666750.53	435788.24	32°11'49.020"N	108°47'39.362"W	2.02	
13765.00	91.500	316.100	8100.82	5903.12	4181.70	-4166.56	666683.86	435857.28	32°11'49.706"N	108°47'40.134"W	1.27	
13860.00	91.100	315.700	8098.66	5998.09	4249.90	-4232.66	666617.77	435925.48	32°11'50.384"N	108°47'40.899"W	0.60	
13955.00	90.100	314.200	8097.67	6093.08	4317.01	-4299.88	666550.54	435992.59	32°11'51.052"N	108°47'41.677"W	1.90	
14050.00	89.600	312.500	8097.92	6188.03	4382.22	-4368.96	666481.47	436057.79	32°11'51.701"N	108°47'42.477"W	1.87	
14121.00	90.300	314.300	8097.98	6258.99	4431.00	-4420.55	666429.89	436106.57	32°11'52.186"N	108°47'43.075"W	2.72	
14172.00	90.300	314.300	8097.71	6309.99	4466.62	-4457.05	666393.39	436142.19	32°11'52.540"N	108°47'43.498"W	0.00	Proj to Bit



Actual Wellpath Report

No.357HAWP

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RECOMMENDED WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.357HSHL
Area	Eddy County, NM	Well	No.357H
Field	Poker Lake Unit	Wellbore	No.357HAWB
Facility	Poker Lake Unit No. 357H		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
No.357H PBHL		8095.00	4470.83	-4453.91	666396.53	436146.39	32°11'52.582"N	103°47'43.461"W	point
No.357H Target #1		8111.00	495.92	-494.03	670356.17	432171.72	32°11'13.050"N	103°46'57.617"W	point
No.357H Target #2		8117.00	2125.35	-2117.28	668733.02	433801.06	32°11'29.256"N	103°47'16.408"W	point
No.357H Target #3		8118.00	2833.80	-2823.04	668027.30	434509.47	32°11'36.301"N	103°47'24.579"W	point

WELLPATH COMPOSITION - Ref Wellbore: No.357HAWB Ref Wellpath: No.357HAWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	7510.00	NaviTrak (Standard)	GyroData Gyros <100-7510>	No.357HAWB
7510.00	14172.00	NaviTrak (Standard)	MWD NaviTrak <7530-xxxx>	No.357HAWB



Actual Wellpath Report

No.357HAWP

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**BAKER
HUGHES**

REFERENCE WELL PATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.357HSHL
Area	Eddy County, NM	Well	No.357H
Field	Poker Lake Unit	Wellbore	No.357HAWB
Facility	Poker Lake Unit No. 357H		

REPORTS INPUT INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect@3.0.0
North Reference	Grid	User	Gentry
Scale	0.999943	Report Generated	2/21/2012 at 7:30:14 AM
Convergence at slot	0.29° East	Database/Source file	WA Midland/No.357H_AWB.xml

WELL PATH 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	670850.17	431675.83	32°11'08.118"N	103°46'51.898"W
Facility Reference Pt			670850.17	431675.83	32°11'08.118"N	103°46'51.898"W
Field Reference Pt			630272.49	405347.85	32°06'49.387"N	103°54'45.266"W

WELL PATH DATUM

Calculation method	Minimum curvature	Rig on No.357HSHL (KB) to Facility Vertical Datum	22.00ft
Horizontal Reference Pt	Slot	Rig on No.357HSHL (KB) to Mean Sea Level	3488.00ft
Vertical Reference Pt	Rig on No.357HSHL (KB)	Rig on No.357HSHL (KB) to Mid Line at Slot (No.357HSHL)	22.00ft
MD Reference Pt	Rig on No.357HSHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	315.11°

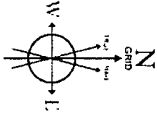


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NMOC D ARTESIA

BGCM (1945.0 to 2012.0) Dip: 60.12°; P: 4692.9 ft
Magnetic North is 0.28 degrees East of True North
Grid North is 0.28 degrees East of True North
To correct azimuth from True to Grid subtract 0.28 degrees
For example if the Magnetic North Azimuth = 90 degrees, then the Grid North Azimuth = 90 + 0.28 = 90.28



Location: Eddy County, NM
Field: Pecos Lake Unit
Facility: Pecos Lake Unit No. 357H

BOPCO, L.P.

Site: No. 357H SHL
Well: No. 357H
Wellbore: No. 357H PWB



Well Profile Data								
Design Comment	MD (ft)	Inc 13	AS 13	TVD (ft)	Local N (m)	Local E (ft)	DLS (7100m)	VS (ft)
7th On	7510.00	0.580	145.160	7509.14	22.27	-1.849	0.00	28.35
Hd KOP	7509.00	0.580	145.160	7508.14	22.21	-1.822	0.00	
EOG	6394.30	80.000	314.500	6394.77	356.70	-353.84	12.00	592.43
7 casing	6459.00	80.000	314.500	6459.27	409.27	-407.23	0.00	575.43
Hold	6456.45	80.000	315.043	6456.61	426.51	-426.51	0.00	604.59
No 357 Target #1	6591.67	90.000	315.043	6591.00	455.92	-454.63	0.00	700.00
Drop	6590.05	86.850	315.109	6590.11	501.71	-499.81	2.00	708.18
No 357V Target #2	10881.88	88.850	315.109	10877.00	2123.35	-2117.28	0.00	3000.00
Blind	10886.51	89.843	313.109	10877.01	2128.63	-2130.55	2.00	3004.83
No 357V Target #3	10981.88	91.843	313.109	10978.00	2633.40	-2628.64	0.00	4000.00
10981.88	92.836	313.109	313.109	10978.00	2633.18	-2628.33	2.00	4031.35
No 357M P&H	14192.75	80.975	915.100	14192.00	4470.53	-4465.31	0.00	6310.75