

30 015 40659

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

STATE OF NEW MEXICO

COUNTY OF Eddy

I, Rex Long, Directional Driller certify that I am employed by Baker Hughes INTEQ; did conduct

or supervise on the day(s) of Oct 29, 2012 through Nov 14, 2012 the

taking of MWD surveys from a depth of 954 to a depth of 13,741 that

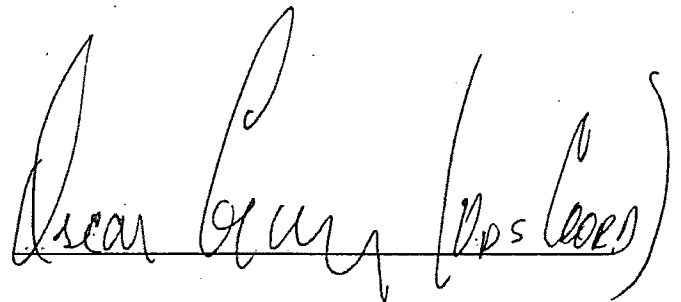
the data is true, correct, complete and within the limitations of the tool as set forth by Baker Hughes INTEQ; that I am

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

for the Poker Lake Unit No. 339H 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 black ink, appearing to read "Rex Long (B.S. Long)", written over a horizontal line.

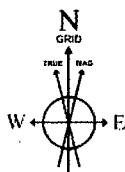
Field Service Engineer: Rex Long



BOPCO, L.P.

Location: Eddy County, NM
Field: Poker Lake Unit
Facility: Poker Lake Unit No. 339H

Slot: No.339H SHL
Well: No.339H
Wellbore: No.339H PWB



BGGM (1945.0 to 2014.0) Dip: 60.06° Field: 48439.5 nT
Magnetic North is 7.56 degrees East of True North (at 09/19/2012)
Grid North is 0.26 degrees East of True North

To correct azimuth from True to Grid subtract 0.26 degrees
To correct azimuth from Magnetic to Grid add 7.40 degrees

For example: if the Magnetic North Azimuth = 90 degs, then the Grid North Azimuth = 90 + 7.40 = 97.40

Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (°/100ft)	VS (ft)
Tie On	7000.00	1.200	159.800	6999.46	-25.33	9.30	0.00	23.12
Est KOP	7061.00	1.200	159.800	7060.45	-26.53	9.74	0.00	24.21
60 Deg Curve	7801.78	60.000	108.000	7671.42	-143.55	348.22	8.00	361.35
200' Hold/ 7" Casing	8001.78	60.000	108.000	7771.42	-197.08	512.95	0.00	523.28
EOC	8298.61	89.750	108.000	7848.00	-284.63	782.42	10.02	788.17
TL	9641.29	89.746	134.854	7854.02	-978.32	1917.66	2.00	2107.61
Target #2	10539.06	89.746	134.854	7858.00	-1611.52	2554.10	0.00	3000.35
TL	10583.53	88.857	134.814	7858.54	-1642.86	2585.63	2.00	3044.56
No.339H PBHL	13816.15	88.857	134.814	7923.00	-3920.80	4878.37	0.00	6258.69

Plot reference wellpath is Rev-L.0

True vertical depths are referenced to Rig on No.339H SHL (KB)

Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet

Measured depths are referenced to Rig on No.339H SHL (KB)

North Reference: Grid north

Rig on No.339H SHL (KB) to Mean Sea Level: 3448 feet

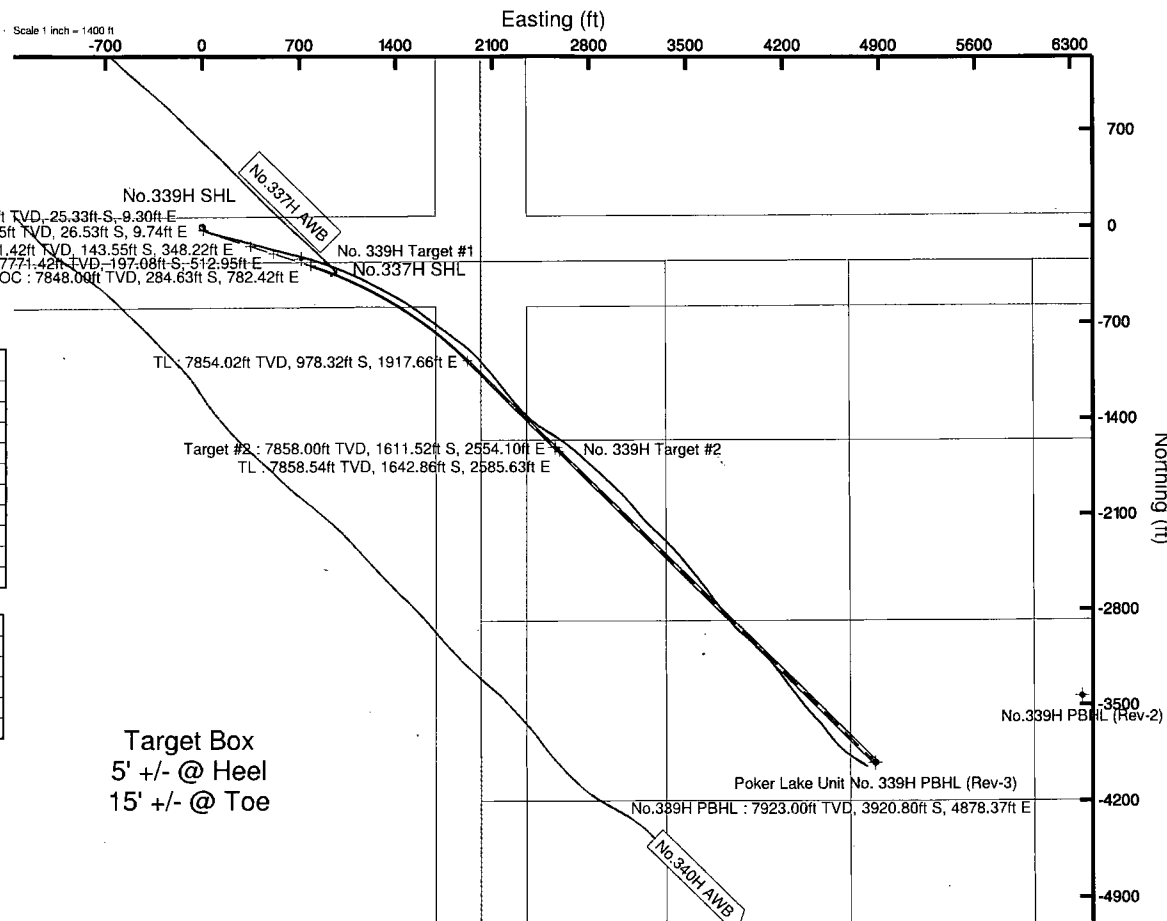
Scale: True distance

Mean Sea Level to Mud line (At Slot: No.339H SHL): -3426 feet

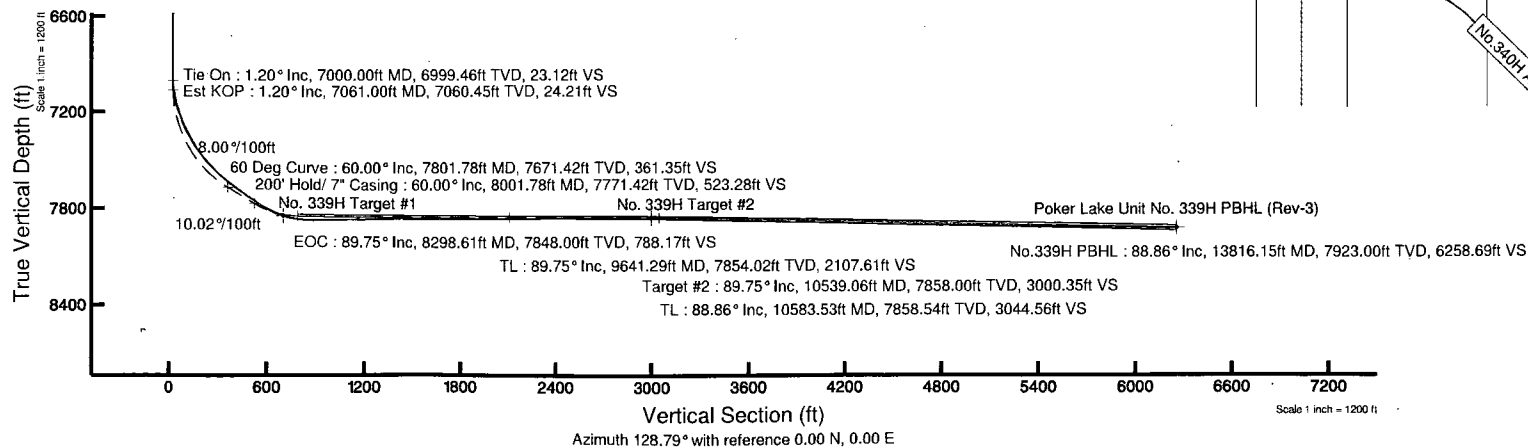
Depths are in feet

Coordinates are in feet referenced to Slot

Created by: genibry on 11/10/2012



Target Box
5' +/- @ Heel
15' +/- @ Toe



Azimuth 128.79° with reference 0.00 N, 0.00 E

Rev-L.0



Actual Wellpath Report

No.339H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.339H SHL
Area	Eddy County, NM	Well	No.339H
Field	Poker Lake Unit	Wellbore	No.339H AWB
Facility	Poker Lake Unit No. 339H		

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	Harrkol
Scale	0.999935	Report Generated	1/30/2013 at 3:17:26 PM
Convergence at slot	0.26° East	Database/Source file	WA Midland/No.339H_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	649798.26	440905.24	32°12'40.456"N	103°50'56.377"W
Facility Reference Pt			649798.26	440905.24	32°12'40.456"N	103°50'56.377"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.339H SHL (KB) to Facility Vertical Datum	22.00ft
Horizontal Reference Pt	Slot	Rig on No.339H SHL (KB) to Mean Sea Level	3448.00ft
Vertical Reference Pt	Rig on No.339H SHL (KB)	Rig on No.339H SHL (KB) to Mud Line at Slot (No.339H SHL)	22.00ft
MD Reference Pt	Rig on No.339H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	128.79°



Actual Wellpath Report

No.339H AWP

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**BAKER
HUGHES**

REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.339H SHL
Area	Eddy County, NM	Well	No.339H
Field	Poker Lake Unit	Wellbore	No.339H AWP
Facility	Poker Lake Unit No. 339H		

WELLPATH DATA (160 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	0.000	0.00	0.00	0.00	0.00	649798.26	440905.24	32°12'40.456"N	103°50'56.377"W	0.00	
244.00	0.260	0.000	244.00	-0.35	0.55	0.00	649798.26	440905.79	32°12'40.462"N	103°50'56.377"W	0.11	
469.00	0.180	0.000	469.00	-0.89	1.42	0.00	649798.26	440906.66	32°12'40.470"N	103°50'56.377"W	0.04	
734.00	0.860	0.000	733.99	-2.39	3.82	0.00	649798.26	440909.06	32°12'40.494"N	103°50'56.377"W	0.26	
900.00	1.220	0.000	899.96	-4.28	6.84	0.00	649798.26	440912.08	32°12'40.524"N	103°50'56.377"W	0.22	
954.00	1.900	57.200	953.94	-4.36	7.90	0.75	649799.01	440913.13	32°12'40.534"N	103°50'56.368"W	2.98	
1139.00	1.000	46.100	1138.88	-3.19	10.68	4.49	649802.75	440915.92	32°12'40.562"N	103°50'56.324"W	0.51	
1327.00	1.100	53.400	1326.85	-2.52	12.89	7.12	649805.38	440918.13	32°12'40.583"N	103°50'56.294"W	0.09	
1517.00	0.600	61.300	1516.83	-1.68	14.45	9.46	649807.72	440919.69	32°12'40.599"N	103°50'56.266"W	0.27	
1705.00	0.300	29.200	1704.82	-1.39	15.36	10.56	649808.82	440920.60	32°12'40.608"N	103°50'56.254"W	0.20	
1894.00	0.300	30.300	1893.82	-1.54	16.22	11.06	649809.32	440921.46	32°12'40.616"N	103°50'56.248"W	0.00	
2079.00	0.100	88.400	2078.82	-1.49	16.64	11.46	649809.72	440921.88	32°12'40.620"N	103°50'56.243"W	0.14	
2268.00	0.200	105.800	2267.82	-1.06	16.55	11.94	649810.20	440921.79	32°12'40.619"N	103°50'56.237"W	0.06	
2456.00	0.400	189.800	2455.81	-0.44	15.82	12.15	649810.41	440921.06	32°12'40.612"N	103°50'56.235"W	0.23	
2643.00	0.900	237.500	2642.80	-0.60	14.39	10.80	649809.06	440919.62	32°12'40.598"N	103°50'56.251"W	0.37	
2830.00	0.300	167.800	2829.79	-0.69	13.12	9.66	649807.92	440918.36	32°12'40.586"N	103°50'56.264"W	0.45	
3017.00	0.500	257.900	3016.79	-0.82	12.47	8.97	649807.23	440917.71	32°12'40.579"N	103°50'56.272"W	0.31	
3205.00	0.500	286.100	3204.78	-2.09	12.52	7.38	649805.64	440917.76	32°12'40.580"N	103°50'56.291"W	0.13	
3393.00	0.900	115.500	3392.78	-1.41	12.12	7.92	649806.18	440917.35	32°12'40.576"N	103°50'56.284"W	0.74	
3581.00	1.400	132.500	3580.74	-2.31	9.93	10.95	649809.21	440915.17	32°12'40.554"N	103°50'56.249"W	0.32	
3768.00	1.700	135.600	3767.67	7.35	6.40	14.57	649812.83	440911.64	32°12'40.519"N	103°50'56.207"W	0.17	
3957.00	0.400	191.700	3956.64	10.43	3.75	16.40	649814.66	440908.99	32°12'40.493"N	103°50'56.186"W	0.80	
4019.00	0.000	352.600	4018.64	10.53	3.54	16.36	649814.62	440908.78	32°12'40.490"N	103°50'56.187"W	0.65	
4176.00	0.500	189.600	4175.64	10.87	2.87	16.24	649814.50	440908.11	32°12'40.484"N	103°50'56.188"W	0.32	
4365.00	0.600	183.300	4364.63	-11.84	1.07	16.05	649814.31	440906.31	32°12'40.466"N	103°50'56.190"W	0.06	
4552.00	0.800	168.600	4551.61	13.41	-1.19	16.25	649814.51	440904.05	32°12'40.444"N	103°50'56.188"W	0.14	
4739.00	0.600	163.800	4738.60	15.22	-3.41	16.78	649815.04	440901.83	32°12'40.422"N	103°50'56.182"W	0.11	
4928.00	0.400	177.000	4927.59	16.47	-5.02	17.09	649815.35	440900.22	32°12'40.406"N	103°50'56.179"W	0.12	
5117.00	0.600	186.000	5116.58	17.44	-6.66	17.02	649815.28	440898.58	32°12'40.389"N	103°50'56.180"W	0.11	
5305.00	0.400	187.800	5304.58	-18.31	-8.29	16.83	649815.09	440896.95	32°12'40.373"N	103°50'56.182"W	0.11	



Actual Wellpath Report

No.339H AWP

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**BAKER
HUGHES**

REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.339H SHL
Area	Eddy County, NM	Well	No.339H
Field	Poker Lake Unit	Wellbore	No.339H AWB
Facility	Poker Lake Unit No. 339H		

WELLPATH DATA (160 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
5495.00	0.400	187.300	5494.57	19.00	-9.61	16.66	649814.92	440895.63	32°12'40.360"N	103°50'56.184"W	0.00	
5684.00	0.600	181.800	5683.56	19.94	-11.25	16.54	649814.80	440893.99	32°12'40.344"N	103°50'56.185"W	0.11	
5872.00	0.700	216.000	5871.55	20.59	-13.16	15.84	649814.10	440892.08	32°12'40.325"N	103°50'56.194"W	0.21	
6060.00	0.800	213.600	6059.54	20.77	-15.19	14.44	649812.69	440890.05	32°12'40.305"N	103°50'56.210"W	0.06	
6247.00	0.500	206.600	6246.53	21.06	-17.00	13.35	649811.61	440888.24	32°12'40.287"N	103°50'56.223"W	0.17	
6435.00	0.700	210.900	6434.51	21.39	-18.72	12.39	649810.65	440886.52	32°12'40.270"N	103°50'56.234"W	0.11	
6623.00	0.900	220.700	6622.50	21.49	-20.83	10.84	649809.10	440884.41	32°12'40.250"N	103°50'56.252"W	0.13	
6811.00	0.600	219.500	6810.48	21.43	-22.71	9.25	649807.51	440882.54	32°12'40.231"N	103°50'56.271"W	0.16	
7000.00	1.200	159.800	6999.46	23.12	-25.33	9.30	649807.56	440879.91	32°12'40.205"N	103°50'56.270"W	0.55	
7032.00	3.500	123.900	7031.43	24.38	-26.19	10.23	649808.49	440879.06	32°12'40.197"N	103°50'56.260"W	8.20	
7063.00	6.500	117.900	7062.31	27.04	-27.54	12.57	649810.83	440877.71	32°12'40.183"N	103°50'56.232"W	9.81	
7095.00	9.600	114.600	7093.99	31.41	-29.49	16.59	649814.85	440875.75	32°12'40.164"N	103°50'56.186"W	9.79	
7126.00	13.800	111.800	7124.34	37.46	-31.94	22.38	649820.64	440873.30	32°12'40.139"N	103°50'56.119"W	13.67	
7158.00	17.300	111.400	7155.16	45.65	-35.10	30.36	649828.61	440870.14	32°12'40.107"N	103°50'56.026"W	10.94	
7189.00	19.400	110.200	7184.59	54.93	-38.56	39.48	649837.74	440866.68	32°12'40.073"N	103°50'55.920"W	6.88	
7220.00	20.700	108.600	7213.71	64.95	-42.08	49.51	649847.76	440863.16	32°12'40.037"N	103°50'55.803"W	4.55	
7252.00	22.500	109.200	7243.46	76.03	-45.90	60.65	649858.90	440859.34	32°12'39.999"N	103°50'55.674"W	5.67	
7283.00	24.400	107.900	7271.90	87.60	-49.82	72.34	649870.60	440855.42	32°12'39.960"N	103°50'55.538"W	6.35	
7315.00	26.300	107.200	7300.82	100.37	-53.95	85.41	649883.66	440851.29	32°12'39.918"N	103°50'55.386"W	6.01	
7347.00	28.100	105.200	7329.28	113.87	-58.02	99.45	649897.71	440847.22	32°12'39.878"N	103°50'55.223"W	6.31	
7378.00	30.400	104.300	7356.32	127.70	-61.87	114.10	649912.35	440843.37	32°12'39.839"N	103°50'55.053"W	7.55	
7409.00	32.700	104.000	7382.74	142.44	-65.84	129.83	649928.08	440839.41	32°12'39.799"N	103°50'54.870"W	7.44	
7440.00	34.900	103.800	7408.50	158.08	-69.98	146.57	649944.82	440835.27	32°12'39.757"N	103°50'54.675"W	7.11	
7472.00	37.000	102.800	7434.40	175.04	-74.30	164.85	649963.10	440830.95	32°12'39.714"N	103°50'54.463"W	6.81	
7503.00	38.700	103.900	7458.88	192.22	-78.69	183.36	649981.60	440826.55	32°12'39.669"N	103°50'54.247"W	5.90	
7534.00	40.900	104.400	7482.69	210.25	-83.54	202.60	650000.84	440821.70	32°12'39.620"N	103°50'54.024"W	7.17	
7564.00	42.500	104.700	7505.09	228.45	-88.56	221.91	650020.16	440816.69	32°12'39.570"N	103°50'53.799"W	5.37	
7595.00	44.500	105.100	7527.58	247.96	-94.05	242.53	650040.78	440811.20	32°12'39.515"N	103°50'53.559"W	6.51	
7626.00	45.900	104.900	7549.42	268.09	-99.74	263.78	650062.02	440805.51	32°12'39.457"N	103°50'53.313"W	4.54	
7658.00	47.400	105.400	7571.39	289.40	-105.82	286.24	650084.48	440799.43	32°12'39.396"N	103°50'53.051"W	4.82	



Actual Wellpath Report

No.339H AWP

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REFERENCE WELLPATH IDENTIFICATION			
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Area	Eddy County, NM	Well	No.339H
Field	Poker Lake Unit	Wellbore	No.339H AWB
Facility	Poker Lake Unit No. 339H		

WELLPATH DATA (160 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
7689.00	49.000	105.700	7592.05	310.64	-112.02	308.50	650106.74	440793.23	32°12'39.334"N	103°50'52.793"W	5.21	
7721.00	50.600	105.800	7612.70	333.13	-118.65	332.02	650130.26	440786.60	32°12'39.267"N	103°50'52.519"W	5.01	
7752.00	52.200	105.300	7632.04	355.39	-125.15	355.36	650153.60	440780.10	32°12'39.202"N	103°50'52.248"W	5.31	
7783.00	54.200	105.200	7650.61	378.14	-131.67	379.31	650177.55	440773.57	32°12'39.136"N	103°50'51.970"W	6.46	
7815.00	55.600	105.500	7669.01	402.16	-138.60	404.56	650202.79	440766.64	32°12'39.067"N	103°50'51.676"W	4.44	
7847.00	56.300	106.000	7686.93	426.56	-145.80	430.07	650228.31	440759.45	32°12'38.994"N	103°50'51.379"W	2.54	
7878.00	56.800	105.200	7704.02	450.34	-152.76	454.99	650253.22	440752.49	32°12'38.924"N	103°50'51.090"W	2.69	
7910.00	56.900	105.500	7721.51	474.92	-159.85	480.82	650279.05	440745.40	32°12'38.853"N	103°50'50.790"W	0.84	
7938.00	57.500	105.200	7736.68	496.51	-166.08	503.52	650301.75	440739.17	32°12'38.790"N	103°50'50.526"W	2.32	
8043.00	60.100	104.000	7791.07	578.43	-188.70	590.43	650388.65	440716.55	32°12'38.562"N	103°50'49.515"W	2.66	
8075.00	62.200	104.200	7806.51	603.89	-195.53	617.61	650415.83	440709.72	32°12'38.494"N	103°50'49.199"W	6.59	
8106.00	65.200	104.100	7820.24	629.15	-202.32	644.55	650442.77	440702.93	32°12'38.425"N	103°50'48.886"W	9.68	
8138.00	68.100	104.200	7832.93	655.85	-209.51	673.04	650471.25	440695.75	32°12'38.353"N	103°50'48.555"W	9.07	
8169.00	71.700	104.300	7843.58	682.33	-216.67	701.25	650499.46	440688.58	32°12'38.281"N	103°50'48.227"W	11.62	
8201.00	75.200	104.300	7852.69	710.24	-224.25	730.97	650529.18	440681.01	32°12'38.204"N	103°50'47.882"W	10.94	
8233.00	78.700	105.300	7859.92	738.71	-232.21	761.10	650559.31	440673.05	32°12'38.124"N	103°50'47.531"W	11.35	
8264.00	81.100	106.400	7865.35	766.82	-240.55	790.46	650588.67	440664.71	32°12'38.041"N	103°50'47.190"W	8.49	
8296.00	84.200	107.800	7869.45	796.31	-249.88	820.79	650618.99	440655.38	32°12'37.947"N	103°50'46.838"W	10.61	
8328.00	86.900	109.000	7871.93	826.21	-259.95	851.06	650649.26	440645.31	32°12'37.846"N	103°50'46.486"W	9.23	
8360.00	88.700	109.800	7873.16	856.37	-270.57	881.22	650679.42	440634.69	32°12'37.739"N	103°50'46.135"W	6.15	
8392.00	90.400	110.000	7873.41	886.64	-281.46	911.30	650709.50	440623.80	32°12'37.630"N	103°50'45.786"W	5.35	
8424.00	91.200	110.300	7872.96	916.96	-292.48	941.34	650739.54	440612.78	32°12'37.520"N	103°50'45.437"W	2.67	
8456.00	91.000	110.800	7872.35	947.35	-303.71	971.30	650769.49	440601.55	32°12'37.407"N	103°50'45.089"W	1.68	
8488.00	91.300	111.300	7871.71	977.82	-315.20	1001.16	650799.35	440590.06	32°12'37.292"N	103°50'44.742"W	1.82	
8519.00	91.000	112.100	7871.08	1007.44	-326.66	1029.95	650828.15	440578.60	32°12'37.178"N	103°50'44.407"W	2.76	
8551.00	91.100	112.600	7870.50	1038.13	-338.83	1059.55	650857.73	440566.43	32°12'37.056"N	103°50'44.063"W	1.59	
8583.00	91.200	113.700	7869.85	1068.94	-351.41	1088.96	650887.15	440553.86	32°12'36.930"N	103°50'43.722"W	3.45	
8615.00	91.100	115.200	7869.21	1099.94	-364.65	1118.09	650916.27	440540.61	32°12'36.798"N	103°50'43.384"W	4.70	
8646.00	91.000	115.900	7868.64	1130.11	-378.02	1146.05	650944.23	440527.25	32°12'36.664"N	103°50'43.059"W	2.28	
8678.00	91.100	116.900	7868.06	1161.36	-392.24	1174.71	650972.89	440513.02	32°12'36.522"N	103°50'42.726"W	3.14	



Actual Wellpath Report

No.339H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.339H SHL
Area	Eddy County, NM	Well	No.339H
Field	Poker Lake Unit	Wellbore	No.339H AWB
Facility	Poker Lake Unit No. 339H		

WELLPATH DATA (160 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
8708.00	91.000	117.700	7867.51	1190.75	-406.00	1201.36	650999.54	440499.27	32°12'36.385"N	103°50'42.417"W	2.69	
8740.00	91.100	117.700	7866.92	1222.15	-420.87	1229.69	651027.87	440484.40	32°12'36.236"N	103°50'42.088"W	0.31	
8772.00	91.100	117.700	7866.31	1253.54	-435.75	1258.02	651056.19	440469.52	32°12'36.088"N	103°50'41.759"W	0.00	
8804.00	91.200	117.700	7865.66	1284.94	-450.62	1286.34	651084.52	440454.65	32°12'35.940"N	103°50'41.430"W	0.31	
8836.00	91.400	118.000	7864.94	1316.35	-465.56	1314.63	651112.80	440439.71	32°12'35.790"N	103°50'41.101"W	1.13	
8868.00	91.700	118.200	7864.07	1347.78	-480.63	1342.85	651141.02	440424.64	32°12'35.640"N	103°50'40.774"W	1.13	
8899.00	91.000	118.500	7863.34	1378.26	-495.35	1370.12	651168.29	440409.93	32°12'35.493"N	103°50'40.457"W	2.46	
8931.00	91.300	119.800	7862.70	1409.80	-510.93	1398.06	651196.23	440394.35	32°12'35.338"N	103°50'40.133"W	4.17	
8962.00	90.500	120.500	7862.21	1440.45	-526.50	1424.86	651223.03	440378.78	32°12'35.182"N	103°50'39.822"W	3.43	
8994.00	90.600	121.500	7861.91	1472.15	-542.98	1452.29	651250.45	440362.30	32°12'35.018"N	103°50'39.503"W	3.14	
9025.00	90.600	123.300	7861.58	1502.95	-559.59	1478.46	651276.62	440345.69	32°12'34.853"N	103°50'39.200"W	5.81	
9058.00	90.000	124.300	7861.41	1535.83	-577.94	1505.89	651304.04	440327.34	32°12'34.670"N	103°50'38.881"W	3.53	
9089.00	90.000	125.300	7861.41	1566.75	-595.64	1531.34	651329.50	440309.64	32°12'34.493"N	103°50'38.586"W	3.23	
9120.00	90.000	126.200	7861.41	1597.71	-613.75	1556.50	651354.65	440291.53	32°12'34.313"N	103°50'38.294"W	2.90	
9152.00	90.100	127.100	7861.38	1629.69	-632.85	1582.17	651380.33	440272.43	32°12'34.123"N	103°50'37.996"W	2.83	
9184.00	90.000	127.100	7861.35	1661.67	-652.15	1607.70	651405.85	440253.13	32°12'33.931"N	103°50'37.700"W	0.31	
9215.00	90.000	126.900	7861.35	1692.66	-670.81	1632.45	651430.60	440234.48	32°12'33.745"N	103°50'37.413"W	0.65	
9247.00	90.000	126.800	7861.35	1724.64	-690.00	1658.06	651456.21	440215.29	32°12'33.554"N	103°50'37.116"W	0.31	
9279.00	90.000	126.600	7861.35	1756.62	-709.12	1683.72	651481.86	440196.17	32°12'33.364"N	103°50'36.819"W	0.62	
9310.00	90.000	126.800	7861.35	1787.60	-727.65	1708.57	651506.72	440177.64	32°12'33.179"N	103°50'36.530"W	0.65	
9342.00	89.900	127.100	7861.38	1819.58	-746.88	1734.14	651532.29	440158.41	32°12'32.988"N	103°50'36.234"W	0.99	
9373.00	90.000	127.300	7861.41	1850.57	-765.63	1758.84	651556.98	440139.66	32°12'32.801"N	103°50'35.947"W	0.72	
9405.00	90.000	126.900	7861.41	1882.55	-784.93	1784.36	651582.50	440120.36	32°12'32.609"N	103°50'35.651"W	1.25	
9500.00	89.900	126.800	7861.49	1977.50	-841.90	1860.38	651658.51	440063.39	32°12'32.042"N	103°50'34.770"W	0.15	
9595.00	90.000	131.300	7861.57	2072.47	-901.74	1934.14	651732.27	440003.56	32°12'31.446"N	103°50'33.914"W	4.74	
9690.00	90.100	138.500	7861.49	2166.87	-968.75	2001.39	651799.51	439936.55	32°12'30.780"N	103°50'33.135"W	7.58	
9785.00	90.100	139.100	7861.33	2260.43	-1040.23	2063.96	651862.08	439865.08	32°12'30.070"N	103°50'32.411"W	0.63	
9880.00	90.300	141.800	7860.99	2353.46	-1113.47	2124.45	651922.56	439791.84	32°12'29.342"N	103°50'31.711"W	2.85	
9975.00	90.000	141.900	7860.75	2446.00	-1188.18	2183.13	651981.24	439717.14	32°12'28.601"N	103°50'31.032"W	0.33	
10071.00	90.000	140.900	7860.75	2539.68	-1263.21	2243.02	652041.13	439642.12	32°12'27.855"N	103°50'30.339"W	1.04	



Actual Wellpath Report

No.339H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.339H SHL
Area	Eddy County, NM	Well	No.339H
Field	Poker Lake Unit	Wellbore	No.339H AWB
Facility	Poker Lake Unit No. 339H		

WELLPATH DATA (160 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
10166.00	90.200	136.200	7860.58	2633.28	-1334.39	2305.89	652103.99	439570.94	32°12'27.148"N	103°50'29.611"W	4.95	
10261.00	90.100	133.000	7860.33	2727.78	-1401.09	2373.52	652171.62	439504.25	32°12'26.485"N	103°50'28.827"W	3.37	
10357.00	89.200	123.900	7860.92	2823.67	-1460.72	2448.62	652246.72	439444.62	32°12'25.892"N	103°50'27.956"W	9.53	
10453.00	89.400	122.100	7862.09	2919.17	-1513.00	2529.13	652327.22	439392.34	32°12'25.371"N	103°50'27.022"W	1.89	
10548.00	90.000	125.600	7862.59	3013.80	-1565.91	2608.01	652406.10	439339.44	32°12'24.844"N	103°50'26.107"W	3.74	
10643.00	90.000	129.700	7862.59	3108.76	-1623.92	2683.21	652481.29	439281.42	32°12'24.266"N	103°50'25.235"W	4.32	
10738.00	90.100	133.300	7862.51	3203.64	-1686.86	2754.35	652552.43	439218.49	32°12'23.640"N	103°50'24.410"W	3.79	
10834.00	87.400	131.600	7864.60	3299.41	-1751.63	2825.16	652623.23	439153.72	32°12'22.996"N	103°50'23.590"W	3.32	
10929.00	90.000	133.300	7866.76	3394.18	-1815.73	2895.23	652693.30	439089.63	32°12'22.358"N	103°50'22.778"W	3.27	
11024.00	89.300	133.500	7867.34	3488.87	-1881.00	2964.25	652762.31	439024.36	32°12'21.709"N	103°50'21.978"W	0.77	
11119.00	90.000	136.000	7867.92	3583.35	-1947.88	3031.71	652829.77	438957.49	32°12'21.045"N	103°50'21.196"W	2.73	
11215.00	89.900	139.900	7868.00	3678.10	-2019.15	3096.00	652894.05	438886.23	32°12'20.336"N	103°50'20.452"W	4.06	
11310.00	89.400	141.400	7868.58	3771.07	-2092.61	3156.23	652954.28	438812.77	32°12'19.607"N	103°50'19.755"W	1.66	
11405.00	88.500	135.700	7870.32	3864.64	-2163.77	3219.08	653017.12	438741.61	32°12'18.900"N	103°50'19.027"W	6.07	
11500.00	89.600	132.100	7871.90	3959.23	-2229.62	3287.51	653085.55	438675.77	32°12'18.245"N	103°50'18.235"W	3.96	
11595.00	88.100	135.300	7873.80	4053.85	-2295.23	3356.17	653154.20	438610.16	32°12'17.593"N	103°50'17.439"W	3.72	
11691.00	88.500	138.400	7876.65	4148.85	-2365.23	3421.79	653219.82	438540.17	32°12'16.897"N	103°50'16.679"W	3.25	
11786.00	88.500	140.800	7879.14	4242.12	-2437.55	3483.33	653281.36	438467.86	32°12'16.179"N	103°50'15.967"W	2.53	
11881.00	88.500	141.400	7881.63	4334.91	-2511.46	3542.97	653340.99	438393.95	32°12'15.445"N	103°50'15.277"W	0.63	
11976.00	88.500	142.200	7884.11	4427.44	-2586.09	3601.70	653399.72	438319.33	32°12'14.703"N	103°50'14.597"W	0.84	
12071.00	88.400	143.300	7886.68	4519.59	-2661.68	3659.18	653457.19	438243.74	32°12'13.953"N	103°50'13.932"W	1.16	
12166.00	88.500	144.800	7889.25	4611.21	-2738.55	3714.93	653512.94	438166.87	32°12'13.189"N	103°50'13.288"W	1.58	
12261.00	88.400	144.300	7891.82	4702.60	-2815.91	3770.01	653568.01	438089.52	32°12'12.421"N	103°50'12.651"W	0.54	
12357.00	88.600	141.100	7894.34	4795.74	-2892.24	3828.16	653626.16	438013.19	32°12'11.663"N	103°50'11.978"W	3.34	
12452.00	88.300	133.700	7896.91	4889.57	-2962.10	3892.39	653690.39	437943.34	32°12'10.969"N	103°50'11.234"W	7.79	
12547.00	88.500	129.400	7899.56	4984.40	-3025.07	3963.44	653761.43	437880.38	32°12'10.343"N	103°50'10.411"W	4.53	
12643.00	88.500	135.200	7902.08	5080.15	-3089.63	4034.39	653832.38	437815.82	32°12'09.701"N	103°50'09.589"W	6.04	
12737.00	88.500	140.500	7904.54	5172.91	-3159.27	4097.43	653895.41	437746.18	32°12'09.009"N	103°50'08.859"W	5.64	
12833.00	88.400	141.700	7907.14	5266.67	-3233.95	4157.69	653955.67	437671.51	32°12'08.267"N	103°50'08.162"W	1.25	
12928.00	89.000	144.500	7909.29	5358.69	-3309.89	4214.71	654012.69	437595.57	32°12'07.513"N	103°50'07.502"W	3.01	



Actual Wellpath Report

No.339H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No.339H SHL
Area	Eddy County, NM	Well	No.339H
Field	Poker Lake Unit	Wellbore	No.339H AWB
Facility	Poker Lake Unit No. 339H		

WELLPATH DATA (160 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
13023.00	89.000	143.200	7910.95	5450.41	-3386.59	4270.74	654068.71	437518.88	32°12'06.751"N	103°50'06.854"W	1.37	
13118.00	89.000	142.000	7912.61	5542.65	-3462.05	4328.43	654126.40	437443.42	32°12'06.002"N	103°50'06.187"W	1.26	
13213.00	89.600	140.100	7913.77	5635.47	-3535.92	4388.14	654186.11	437369.56	32°12'05.268"N	103°50'05.496"W	2.10	
13308.00	88.900	135.600	7915.02	5729.25	-3606.33	4451.87	654249.83	437299.15	32°12'04.569"N	103°50'04.758"W	4.79	
13403.00	89.100	144.100	7916.68	5822.38	-3678.86	4513.06	654311.02	437226.62	32°12'03.848"N	103°50'04.050"W	8.95	
13497.00	88.900	139.800	7918.32	5913.88	-3752.86	4570.98	654368.93	437152.63	32°12'03.113"N	103°50'03.380"W	4.58	
13593.00	88.900	133.400	7920.16	6008.92	-3822.56	4636.89	654434.84	437082.94	32°12'02.421"N	103°50'02.617"W	6.67	
13688.00	88.900	123.200	7921.99	6103.78	-3881.35	4711.33	654509.28	437024.15	32°12'01.835"N	103°50'01.754"W	10.73	
13741.00	89.000	122.500	7922.96	6156.48	-3910.09	4755.85	654553.79	436995.41	32°12'01.549"N	103°50'01.237"W	1.33	
13816.00	89.000	122.500	7924.27	6231.02	-3950.39	4819.09	654617.03	436955.12	32°12'01.147"N	103°50'00.503"W	0.00	Projection to bit



Actual Wellpath Report

No.339H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No.339H SHL
Area	Eddy County, NM	Well	No.339H
Field	Poker Lake Unit	Wellbore	No.339H AWB
Facility	Poker Lake Unit No. 339H		

TARGETS									
Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
No. 339H Target #1		7848.00	-231.76	713.29	650511.50	440673.49	32°12'38.131"N	103°50'48.088"W	point
No. 339H Target #2		7858.00	-1611.52	2554.10	652352.19	439293.83	32°12'24.395"N	103°50'26.737"W	point
Poker Lake Unit No. 339H PBHL (Rev-3)		7923.00	-3920.80	4878.37	654676.30	436984.70	32°12'01.437"N	103°49'59.812"W	point
No.339H PBHL (Rev-2)		7934.00	-3433.37	6386.87	656184.70	437472.10	32°12'06.191"N	103°49'42.230"W	point
Poker Lake Unit No.339H PBHL (Rev-0)		7934.00	-4122.65	5072.51	654870.43	436782.87	32°11'59.431"N	103°49'57.564"W	point

WELLPATH COMPOSITION - Ref-Wellbore: No.339H-AWB Ref-Wellpath: No.339H-AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
0.00	900.00	Drift Indicator (Standard)	Rig Shots	No.339H AWB
900.00	13741.00	NaviTrak (Standard)	BHI MWD NaviTrak <954-13741>	No.339H AWB
13741.00	13816.00	Blind Drilling (std)	Projection to bit	No.339H AWB