

30-015-42652



NM OIL CONSERVATION
ARTESIA DISTRICT

NOV 21 2016

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

STATE OF NEW MEXICO

COUNTY OF EDDY

RECEIVED

I, David Davilla, Directional Driller certify that I am employed by Baker Hughes INTEQ; did conduct

or supervise on the day(s) of 11/17/2014 through 01/09/2015 the

taking of MWD surveys from a depth of 2789 to a depth of 16403 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, LP

for the BEU DI-4 No. 271H Well, API No. 30-015-42652

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.

Thomas
Janousek

Digitally signed by Thomas Janousek
DN: cn=Thomas Janousek, o=Baker
Hughes, ou=INTEQ,
email=Thomas.Janousek@BakerHughe
s.com, c=US
Date: 2015.01.13 08:17:44 -06'00'

Field Service Engineer: David Davilla



BUFCO, LP
Location: Eddy County, NM Slot: No.271H SHL
Field: Big Eddy Well: SL 358 FNL, 2078 FEL
Facility: Big Eddy Unit DI-4 Wellbore: BEU DI-4 No. 271H AWB

**BAKER
HUGHES**

Plot reference wellpath is BEU DI-4 No. 271H AWP

True vertical depths are referenced to Rig on No.271H SHL (KB) Grid System: NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet
Measured depths are referenced to Rig on No.271H SHL (KB) North Reference: Grid north
Rig on No.271H SHL (KB) to Mean Sea Level: 3491 feet Scale: True distance
Mean Sea Level to Mud line (At Slot: No.271H SHL): 0 feet
Coordinates are in feet referenced to Slot
Depths are in feet
Created by: jancino on 01/13/15

Location Information

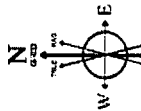
Facility Name		Grid East (US ft)	Grid North (US ft)	Latitude	Longitude
Big Eddy Unit DI-4		637263.900	585075.100	32°36'27.686"N	103°53'15.274"W
Slot	Local N (ft)	Local E (ft)	Grid North (US ft)	Latitude	Longitude
No.271H SHL	295.62	-481.03	636782.900	32°36'30.611"N	103°53'20.882"W
Rig on No.271H SHL (KB) to Mud line (At Slot: No.271H SHL)					
Mean Sea Level to Mud line (At Slot: No.271H SHL)					
Rig on No.271H SHL (KB) to Mean Sea Level					

Tie On : 3.54° Inc. 2632.75ft MD. 2631.94ft TVD, 0.77ft VS

Easting (ft)

Scale 1 inch = 300 ft

Tie On : 2631.94ft TVD, 35.37ft N, 8.90ft E



DGM (1345.0) 2016.0) DE 68.49° East 44428.1 ft
Magnetic North is 82.49 degrees East of True North (11/01/14)
Grid North is 0.24 degrees East of True North
To correct azimuth from True to Grid subtract 0.24 degrees
To correct azimuth from Magnetic to Grid add 1.28 degrees

North (ft)

BEU DI-4 No. 271H AWP

No.271H AWP

Projection to Bit : 88.63° Inc. 16475.00ft MD, 9141.71ft TVD, 7158.67ft VS

Vertical Section (ft)

Scale 1 inch = 300 ft



Actual Wellpath Report

BEU DI-4 No. 271H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.271H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2078 FEL
Field	Big Eddy	Wellbore	BEU DI-4 No. 271H AWP
Facility	Big Eddy Unit DI-4		

REPORT SETUP INFORMATION

Projection System	NAD27 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 4.0.0
North Reference	Grid	User	Janotho
Scale	0.999931	Report Generated	01/13/15 at 7:16:27 AM
Convergence at slot	0.24° East	Database/Source file	WA_Midland/BEU_DI-4_No._271H_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	295.62	-481.03	636782.90	585370.70	32°36'30.611"N	103°53'20.882"W
Facility Reference Pt			637263.90	585075.10	32°36'27.666"N	103°53'15.274"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.271H SHL (KB) to Facility Vertical Datum	3491.00ft
Horizontal Reference Pt	Slot	Rig on No.271H SHL (KB) to Mean Sea Level	3491.00ft
Vertical Reference Pt	Rig on No.271H SHL (KB)	Rig on No.271H SHL (KB) to Mud Line at Slot (No.271H SHL)	3491.00ft
MD Reference Pt	Rig on No.271H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	102.91°



Actual Wellpath Report

BEU DI-4 No. 271H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.271H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2078 FEL
Field	Big Eddy	Wellbore	BEU DI-4 No. 271H AWP
Facility	Big Eddy Unit DI-4		

WELLPATH DATA (193 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
2632.75	3.540	339.900	2631.94	0.77	35.37	8.90	636791.80	585406.07	32°36'30.961"N	103°53'20.776"W	0.27	Tie On
2789.00	3.550	357.110	2787.90	-3.17	44.73	7.00	636789.90	585415.43	32°36'31.054"N	103°53'20.798"W	0.68	
2883.00	2.830	356.750	2881.75	-4.61	49.96	6.72	636789.62	585420.65	32°36'31.105"N	103°53'20.801"W	0.77	
2978.00	1.880	345.690	2976.67	-5.97	53.81	6.20	636789.10	585424.50	32°36'31.143"N	103°53'20.807"W	1.10	
3072.00	1.400	337.440	3070.63	-7.34	56.36	5.38	636788.28	585427.06	32°36'31.169"N	103°53'20.817"W	0.57	
3167.00	1.440	277.860	3165.61	-9.21	57.60	3.75	636786.65	585428.29	32°36'31.181"N	103°53'20.836"W	1.49	
3261.00	1.300	208.620	3259.59	-10.67	56.82	2.07	636784.97	585427.52	32°36'31.173"N	103°53'20.855"W	1.66	
3356.00	1.480	208.910	3354.56	-11.30	54.80	0.96	636783.86	585425.50	32°36'31.154"N	103°53'20.868"W	0.19	
3451.00	1.760	225.100	3449.52	-12.42	52.70	-0.66	636782.24	585423.40	32°36'31.133"N	103°53'20.887"W	0.56	
3546.00	3.220	220.560	3544.43	-14.43	49.64	-3.43	636779.47	585420.34	32°36'31.103"N	103°53'20.920"W	1.55	
3640.00	2.990	205.320	3638.29	-16.19	45.42	-6.20	636776.70	585416.12	32°36'31.061"N	103°53'20.952"W	0.91	
3735.00	1.950	190.900	3733.20	-16.66	41.59	-7.56	636775.34	585412.29	32°36'31.023"N	103°53'20.969"W	1.27	
3830.00	2.020	187.750	3828.15	-16.46	38.35	-8.10	636774.81	585409.05	32°36'30.991"N	103°53'20.975"W	0.14	
3924.00	1.860	185.630	3922.09	-16.11	35.19	-8.47	636774.43	585405.89	32°36'30.960"N	103°53'20.980"W	0.19	
4019.00	1.710	190.080	4017.05	-15.85	32.26	-8.87	636774.03	585402.96	32°36'30.931"N	103°53'20.984"W	0.21	
4069.00	1.740	178.180	4067.02	-15.62	30.77	-8.97	636773.93	585401.46	32°36'30.916"N	103°53'20.986"W	0.72	
4110.00	1.800	177.550	4108.00	-15.29	29.50	-8.93	636773.97	585400.20	32°36'30.904"N	103°53'20.985"W	0.15	
4282.00	1.440	220.900	4279.94	-15.59	25.17	-10.23	636772.67	585395.87	32°36'30.861"N	103°53'21.001"W	0.72	
4378.00	1.020	226.010	4375.92	-16.62	23.66	-11.63	636771.27	585394.36	32°36'30.846"N	103°53'21.017"W	0.45	
4473.00	1.500	221.690	4470.90	-17.68	22.15	-13.07	636769.83	585392.84	32°36'30.831"N	103°53'21.034"W	0.51	
4568.00	1.300	214.380	4565.87	-18.68	20.33	-14.50	636768.40	585391.03	32°36'30.813"N	103°53'21.051"W	0.28	
4663.00	1.410	224.940	4660.84	-19.69	18.61	-15.94	636766.97	585389.31	32°36'30.796"N	103°53'21.068"W	0.29	
4757.00	1.420	230.340	4754.81	-21.01	17.05	-17.65	636765.25	585387.75	32°36'30.781"N	103°53'21.088"W	0.14	
4852.00	1.560	231.280	4849.78	-22.53	15.49	-19.56	636763.34	585386.19	32°36'30.765"N	103°53'21.110"W	0.15	
4947.00	2.010	187.310	4944.74	-23.17	13.03	-20.79	636762.12	585383.73	32°36'30.741"N	103°53'21.125"W	1.47	
5042.00	2.050	181.370	5039.68	-22.67	9.68	-21.04	636761.86	585380.38	32°36'30.708"N	103°53'21.128"W	0.23	
5137.00	1.610	179.440	5134.63	-22.02	6.64	-21.07	636761.84	585377.34	32°36'30.678"N	103°53'21.128"W	0.47	
5232.00	1.810	185.410	5229.59	-21.51	3.82	-21.19	636761.71	585374.52	32°36'30.650"N	103°53'21.130"W	0.28	
5327.00	1.950	124.040	5324.55	-19.81	1.42	-20.00	636762.91	585372.12	32°36'30.626"N	103°53'21.116"W	2.02	
5421.00	1.850	123.150	5418.49	-16.89	-0.31	-17.40	636765.50	585370.39	32°36'30.609"N	103°53'21.086"W	0.11	
5516.00	0.380	227.860	5513.48	-15.63	-1.36	-16.35	636766.55	585369.34	32°36'30.599"N	103°53'21.073"W	2.09	
5611.00	0.400	228.850	5608.48	-16.01	-1.79	-16.83	636766.07	585368.91	32°36'30.594"N	103°53'21.079"W	0.02	
5706.00	0.400	239.490	5703.47	-16.44	-2.17	-17.37	636765.53	585368.53	32°36'30.591"N	103°53'21.085"W	0.08	
5801.00	0.400	247.550	5798.47	-16.96	-2.47	-17.96	636764.94	585368.23	32°36'30.588"N	103°53'21.092"W	0.06	
5896.00	0.370	270.990	5893.47	-17.53	-2.59	-18.57	636764.33	585368.11	32°36'30.586"N	103°53'21.100"W	0.17	
6086.00	0.500	336.150	6083.46	-18.62	-1.82	-19.52	636763.38	585368.88	32°36'30.594"N	103°53'21.111"W	0.25	
6275.00	0.570	349.250	6272.46	-19.49	-0.14	-20.03	636762.87	585370.56	32°36'30.611"N	103°53'21.116"W	0.07	
6456.00	1.050	10.690	6453.44	-19.92	2.37	-19.89	636763.01	585373.07	32°36'30.636"N	103°53'21.115"W	0.31	
6655.00	1.200	12.270	6652.40	-20.01	6.20	-19.11	636763.79	585376.90	32°36'30.673"N	103°53'21.105"W	0.08	
6845.00	1.430	4.430	6842.35	-20.38	10.51	-18.50	636764.40	585381.21	32°36'30.716"N	103°53'21.098"W	0.15	
7035.00	1.310	56.170	7032.30	-19.24	14.08	-16.52	636766.38	585384.78	32°36'30.751"N	103°53'21.075"W	0.63	
7225.00	1.200	97.330	7222.26	-15.78	15.03	-12.74	636770.16	585385.73	32°36'30.761"N	103°53'21.030"W	0.47	
7415.00	0.190	88.700	7412.24	-13.49	14.79	-10.45	636772.45	585385.49	32°36'30.758"N	103°53'21.004"W	0.53	
7605.00	0.790	197.460	7602.24	-13.29	13.55	-10.53	636772.37	585384.24	32°36'30.746"N	103°53'21.005"W	0.46	
7795.00	0.690	255.440	7792.22	-14.41	12.01	-12.03	636770.87	585382.71	32°36'30.731"N	103°53'21.022"W	0.38	



Actual Wellpath Report

BEU DI-4 No. 271H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.271H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2078 FEL
Field	Big Eddy	Wellbore	BEU DI-4 No. 271H AWP
Facility	Big Eddy Unit DI-4		

WELLPATH DATA (193 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
7949.00	0.410	179.120	7946.22	-15.10	11.22	-12.92	636769.98	585381.92	32°36'30.723"N	103°53'21.033"W	0.46	
7986.00	1.020	182.240	7983.22	-15.01	10.76	-12.93	636769.97	585381.46	32°36'30.718"N	103°53'21.033"W	1.65	
8017.00	4.660	178.930	8014.17	-14.65	9.23	-12.92	636769.98	585379.93	32°36'30.703"N	103°53'21.033"W	11.75	
8049.00	9.550	178.660	8045.92	-13.68	5.27	-12.83	636770.07	585375.97	32°36'30.664"N	103°53'21.032"W	15.28	
8081.00	13.840	178.710	8077.25	-12.09	-1.21	-12.68	636770.22	585369.49	32°36'30.600"N	103°53'21.031"W	13.41	
8113.00	18.910	178.280	8107.94	-9.84	-10.23	-12.44	636770.46	585360.47	32°36'30.511"N	103°53'21.028"W	15.85	
8144.00	22.380	180.690	8136.94	-7.32	-21.15	-12.36	636770.54	585349.55	32°36'30.403"N	103°53'21.028"W	11.52	
8176.00	27.350	179.080	8165.97	-4.28	-34.60	-12.32	636770.58	585336.10	32°36'30.269"N	103°53'21.028"W	15.67	
8208.00	30.370	179.520	8193.99	-0.65	-50.05	-12.13	636770.77	585320.66	32°36'30.117"N	103°53'21.027"W	9.46	
8239.00	30.020	180.310	8220.78	2.86	-65.64	-12.11	636770.79	585305.07	32°36'29.962"N	103°53'21.027"W	1.71	
8271.00	29.710	178.770	8248.53	6.54	-81.57	-11.98	636770.92	585289.14	32°36'29.805"N	103°53'21.026"W	2.58	
8303.00	31.820	176.910	8276.03	10.80	-97.92	-11.35	636771.55	585272.78	32°36'29.643"N	103°53'21.020"W	7.23	
8335.00	32.390	173.660	8303.14	15.95	-114.87	-9.95	636772.95	585255.84	32°36'29.475"N	103°53'21.004"W	5.68	
8366.00	33.810	174.960	8329.11	21.35	-131.71	-8.28	636774.62	585239.00	32°36'29.308"N	103°53'20.985"W	5.12	
8397.00	33.710	176.500	8354.88	26.43	-148.89	-7.00	636775.90	585221.82	32°36'29.138"N	103°53'20.971"W	2.78	
8429.00	37.580	176.100	8380.88	31.77	-167.50	-5.79	636777.11	585203.22	32°36'28.954"N	103°53'20.958"W	12.12	
8461.00	41.050	176.310	8405.63	37.59	-187.72	-4.45	636778.45	585182.99	32°36'28.754"N	103°53'20.943"W	10.85	
8493.00	44.170	176.040	8429.18	43.83	-209.34	-3.00	636779.90	585161.38	32°36'28.540"N	103°53'20.928"W	9.77	
8524.00	46.740	176.120	8450.93	50.22	-231.38	-1.49	636781.41	585139.34	32°36'28.322"N	103°53'20.911"W	8.29	
8556.00	49.060	175.280	8472.38	57.25	-255.05	0.29	636783.19	585115.67	32°36'28.088"N	103°53'20.891"W	7.51	
8588.00	52.380	175.070	8492.64	64.79	-279.73	2.37	636785.27	585090.99	32°36'27.843"N	103°53'20.868"W	10.39	
8620.00	56.300	174.730	8511.29	72.83	-305.62	4.69	636787.59	585065.10	32°36'27.587"N	103°53'20.842"W	12.28	
8651.00	60.210	174.400	8527.59	81.12	-331.86	7.19	636790.09	585038.87	32°36'27.327"N	103°53'20.814"W	12.65	
8683.00	64.700	175.340	8542.39	89.90	-360.11	9.72	636792.62	585010.62	32°36'27.048"N	103°53'20.786"W	14.27	
8715.00	68.230	176.620	8555.17	98.43	-389.37	11.77	636794.67	584981.36	32°36'26.758"N	103°53'20.764"W	11.62	
8746.00	70.320	177.490	8566.14	106.35	-418.32	13.26	636796.16	584952.41	32°36'26.472"N	103°53'20.748"W	7.23	
8778.00	69.300	177.170	8577.18	114.42	-448.33	14.66	636797.55	584922.41	32°36'26.175"N	103°53'20.733"W	3.32	
8809.00	68.920	177.560	8588.23	122.17	-477.26	15.99	636798.89	584893.48	32°36'25.888"N	103°53'20.719"W	1.70	
8841.00	68.480	177.570	8599.86	130.06	-507.04	17.25	636800.15	584863.69	32°36'25.594"N	103°53'20.705"W	1.38	
8873.00	67.610	177.220	8611.82	138.00	-536.69	18.60	636801.50	584834.05	32°36'25.300"N	103°53'20.691"W	2.90	
8904.00	66.940	177.090	8623.80	145.76	-565.25	20.02	636802.92	584805.49	32°36'25.017"N	103°53'20.676"W	2.20	
8936.00	66.390	176.640	8636.47	153.88	-594.59	21.63	636804.53	584776.15	32°36'24.727"N	103°53'20.658"W	2.15	
8967.00	65.950	173.040	8649.00	162.67	-622.82	24.18	636807.08	584747.92	32°36'24.448"N	103°53'20.630"W	10.72	
8999.00	66.140	171.080	8661.99	173.07	-651.79	28.22	636811.11	584718.96	32°36'24.161"N	103°53'20.584"W	5.63	
9031.00	66.140	169.180	8674.94	184.40	-680.62	33.23	636816.13	584690.13	32°36'23.875"N	103°53'20.527"W	5.43	
9062.00	65.380	167.440	8687.67	196.17	-708.30	38.96	636821.86	584662.45	32°36'23.601"N	103°53'20.461"W	5.67	
9094.00	64.360	167.700	8701.26	208.56	-736.59	45.19	636828.09	584634.17	32°36'23.321"N	103°53'20.390"W	3.27	
9126.00	63.580	167.020	8715.30	220.96	-764.64	51.49	636834.38	584606.11	32°36'23.043"N	103°53'20.318"W	3.10	
9157.00	64.260	164.950	8728.93	233.57	-791.66	58.23	636841.13	584579.10	32°36'22.776"N	103°53'20.240"W	6.39	
9189.00	66.090	162.040	8742.37	247.83	-819.50	66.48	636849.38	584551.26	32°36'22.500"N	103°53'20.145"W	10.04	
9220.00	66.800	159.100	8754.76	263.03	-846.29	75.94	636858.83	584524.47	32°36'22.234"N	103°53'20.036"W	8.99	
9252.00	66.250	156.060	8767.51	280.00	-873.42	87.13	636870.02	584497.34	32°36'21.965"N	103°53'19.906"W	8.88	
9284.00	65.320	155.100	8780.63	297.69	-899.99	99.19	636882.09	584470.77	32°36'21.702"N	103°53'19.767"W	3.99	
9315.00	65.370	153.530	8793.56	315.27	-925.38	111.40	636894.30	584445.38	32°36'21.450"N	103°53'19.625"W	4.61	
9347.00	68.010	152.600	8806.23	334.09	-951.58	124.72	636907.61	584419.19	32°36'21.191"N	103°53'19.471"W	8.67	



Actual Wellpath Report

BEU DI-4 No. 271H AWP

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BAKER HUGHES

REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.271H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2078 FEL
Field	Big Eddy	Wellbore	BEU DI-4 No. 271H AWP
Facility	Big Eddy Unit DI-4		

WELLPATH DATA (193 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
9379.00	68.530	149.720	8818.08	353.88	-977.61	139.06	636921.95	584393.16	32°36'20.932"N	103°53'19.305"W	8.52	
9410.00	69.530	148.720	8829.17	373.88	-1002.48	153.87	636936.76	584368.29	32°36'20.686"N	103°53'19.133"W	4.41	
9442.00	69.700	147.730	8840.32	394.97	-1027.98	169.66	636952.55	584342.79	32°36'20.433"N	103°53'18.949"W	2.95	
9473.00	71.450	145.320	8850.63	416.13	-1052.36	185.79	636968.68	584318.41	32°36'20.191"N	103°53'18.762"W	9.25	
9505.00	73.750	144.560	8860.20	438.81	-1077.35	203.33	636986.22	584293.42	32°36'19.943"N	103°53'18.558"W	7.54	
9537.00	74.970	144.600	8868.82	461.83	-1102.47	221.19	637004.07	584268.31	32°36'19.694"N	103°53'18.351"W	3.81	
9568.00	74.500	144.100	8876.98	484.25	-1126.77	238.62	637021.50	584244.01	32°36'19.452"N	103°53'18.148"W	2.17	
9600.00	74.370	143.320	8885.57	507.58	-1151.61	256.87	637039.75	584219.17	32°36'19.206"N	103°53'17.936"W	2.38	
9632.00	75.090	140.810	8894.00	531.51	-1175.96	275.84	637058.72	584194.83	32°36'18.964"N	103°53'17.715"W	7.89	
9663.00	75.750	138.950	8901.80	555.48	-1198.90	295.17	637078.05	584171.89	32°36'18.736"N	103°53'17.490"W	6.18	
9695.00	75.810	137.230	8909.67	580.83	-1221.98	315.89	637098.77	584148.80	32°36'18.507"N	103°53'17.249"W	5.21	
9726.00	75.350	136.790	8917.39	605.69	-1243.94	336.37	637119.24	584126.85	32°36'18.289"N	103°53'17.011"W	2.02	
9758.00	75.590	134.160	8925.42	631.80	-1266.03	358.09	637140.96	584104.76	32°36'18.069"N	103°53'16.758"W	7.99	
9789.00	75.690	131.690	8933.11	657.80	-1286.48	380.07	637162.95	584084.32	32°36'17.866"N	103°53'16.502"W	7.73	
9821.00	75.940	129.180	8940.95	685.31	-1306.60	403.69	637186.56	584064.20	32°36'17.666"N	103°53'16.227"W	7.64	
9853.00	76.460	128.740	8948.58	713.22	-1326.14	427.85	637210.72	584044.66	32°36'17.472"N	103°53'15.946"W	2.10	
9885.00	76.720	127.850	8956.00	741.34	-1345.43	452.28	637235.15	584025.37	32°36'17.280"N	103°53'15.661"W	2.82	
9916.00	77.880	125.940	8962.82	768.97	-1363.58	476.46	637259.33	584007.22	32°36'17.099"N	103°53'15.379"W	7.08	
9948.00	79.410	124.420	8969.12	798.00	-1381.65	502.11	637284.97	583989.15	32°36'16.919"N	103°53'15.080"W	6.67	
9980.00	81.790	122.960	8974.35	827.52	-1399.16	528.37	637311.23	583971.64	32°36'16.745"N	103°53'14.774"W	8.69	
10011.00	82.420	122.910	8978.60	856.37	-1415.86	554.14	637337.00	583954.94	32°36'16.579"N	103°53'14.474"W	2.04	
10043.00	82.480	122.090	8982.81	886.25	-1432.90	580.90	637363.76	583937.90	32°36'16.409"N	103°53'14.162"W	2.55	
10075.00	83.130	119.490	8986.82	916.46	-1449.15	608.17	637391.03	583921.65	32°36'16.247"N	103°53'13.844"W	8.31	
10106.00	82.540	117.650	8990.68	946.08	-1463.86	635.18	637418.03	583906.95	32°36'16.100"N	103°53'13.529"W	6.19	
10138.00	81.820	115.240	8995.04	976.89	-1477.98	663.56	637446.42	583892.83	32°36'15.960"N	103°53'13.198"W	7.79	
10170.00	82.020	114.700	8999.54	1007.88	-1491.35	692.28	637475.13	583879.45	32°36'15.826"N	103°53'12.863"W	1.78	
10202.00	83.110	112.050	9003.68	1039.08	-1503.94	721.41	637504.26	583866.87	32°36'15.700"N	103°53'12.523"W	8.89	
10233.00	84.750	109.420	9006.96	1069.61	-1514.85	750.23	637533.08	583855.96	32°36'15.591"N	103°53'12.187"W	9.96	
10265.00	85.090	107.880	9009.79	1101.33	-1525.04	780.43	637563.28	583845.77	32°36'15.489"N	103°53'11.834"W	4.91	
10296.00	85.310	106.480	9012.38	1132.13	-1534.17	809.95	637592.79	583836.64	32°36'15.397"N	103°53'11.490"W	4.56	
10328.00	85.060	104.080	9015.07	1163.99	-1542.57	840.70	637623.54	583828.24	32°36'15.313"N	103°53'11.130"W	7.51	
10359.00	84.810	103.260	9017.81	1194.86	-1549.87	870.71	637653.54	583820.94	32°36'15.240"N	103°53'10.780"W	2.76	
10392.00	84.620	102.760	9020.85	1227.72	-1557.26	902.72	637685.56	583813.55	32°36'15.165"N	103°53'10.406"W	1.61	
10424.00	84.630	101.660	9023.84	1259.58	-1564.00	933.86	637716.69	583806.81	32°36'15.097"N	103°53'10.043"W	3.42	
10456.00	84.990	101.110	9026.74	1291.44	-1570.29	965.10	637747.93	583800.52	32°36'15.034"N	103°53'09.678"W	2.05	
10488.00	85.900	99.430	9029.28	1323.30	-1575.98	996.49	637779.32	583794.83	32°36'14.976"N	103°53'09.311"W	5.96	
10519.00	87.350	97.220	9031.11	1354.14	-1580.46	1027.11	637809.93	583790.35	32°36'14.930"N	103°53'08.953"W	8.52	
10551.00	88.610	95.120	9032.23	1385.90	-1583.90	1058.90	637841.72	583786.92	32°36'14.895"N	103°53'08.582"W	7.65	
10583.00	89.320	93.470	9032.81	1417.53	-1586.29	1090.80	637873.62	583784.52	32°36'14.870"N	103°53'08.209"W	5.61	
10614.00	89.720	93.080	9033.07	1448.10	-1588.06	1121.75	637904.57	583782.75	32°36'14.851"N	103°53'07.847"W	1.80	
10646.00	89.880	93.520	9033.18	1479.65	-1589.91	1153.70	637936.52	583780.91	32°36'14.832"N	103°53'07.474"W	1.46	
10741.00	90.490	90.800	9032.88	1572.97	-1593.49	1248.62	638031.43	583777.33	32°36'14.792"N	103°53'06.365"W	2.93	
10836.00	88.890	88.880	9033.39	1665.50	-1593.22	1343.61	638126.41	583777.59	32°36'14.791"N	103°53'05.254"W	2.63	
10931.00	89.010	88.010	9035.13	1757.48	-1590.64	1438.56	638221.36	583780.17	32°36'14.812"N	103°53'04.144"W	0.92	
11026.00	88.740	87.850	9037.00	1849.23	-1587.21	1533.48	638316.27	583783.60	32°36'14.842"N	103°53'03.035"W	0.33	



Actual Wellpath Report

BEU DI-4 No. 271H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.271H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2078 FEL
Field	Big Eddy	Wellbore	BEU DI-4 No. 271H AWP
Facility	Big Eddy Unit DI-4		

WELLPATH DATA (193 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
11121.00	89.480	89.620	9038.47	1941.33	-1585.12	1628.44	638411.22	583785.70	32°36'14.859"N	103°53'01.924"W	2.02	
11215.00	90.220	88.490	9038.72	2032.59	-1583.57	1722.42	638505.20	583787.25	32°36'14.871"N	103°53'00.826"W	1.44	
11310.00	90.460	88.540	9038.15	2124.61	-1581.10	1817.39	638600.16	583789.71	32°36'14.891"N	103°52'59.716"W	0.26	
11405.00	90.400	89.510	9037.44	2216.83	-1579.49	1912.37	638695.14	583791.33	32°36'14.903"N	103°52'58.605"W	1.02	
11500.00	90.960	88.840	9036.31	2309.11	-1578.12	2007.36	638790.11	583792.69	32°36'14.913"N	103°52'57.495"W	0.92	
11595.00	91.630	88.470	9034.17	2401.16	-1575.89	2102.30	638885.05	583794.92	32°36'14.931"N	103°52'56.385"W	0.81	
11689.00	91.080	90.060	9031.94	2492.48	-1574.68	2196.27	638979.01	583796.13	32°36'14.939"N	103°52'55.287"W	1.79	
11784.00	88.710	90.230	9032.12	2585.13	-1574.93	2291.26	639074.00	583795.89	32°36'14.932"N	103°52'54.176"W	2.50	
11879.00	86.950	90.750	9035.72	2677.84	-1575.74	2386.18	639168.91	583795.08	32°36'14.920"N	103°52'53.067"W	1.93	
11974.00	86.670	90.470	9041.00	2770.51	-1576.75	2481.03	639263.75	583794.07	32°36'14.906"N	103°52'51.958"W	0.42	
12069.00	86.300	89.280	9046.83	2862.89	-1576.54	2575.85	639358.57	583794.27	32°36'14.904"N	103°52'50.850"W	1.31	
12195.00	88.090	88.000	9052.99	2984.85	-1573.55	2701.66	639484.36	583797.26	32°36'14.929"N	103°52'49.379"W	1.75	
12290.00	88.400	87.330	9055.90	3076.47	-1569.68	2796.53	639579.23	583801.13	32°36'14.963"N	103°52'48.270"W	0.78	
12385.00	89.570	88.870	9057.58	3168.30	-1566.53	2891.46	639674.15	583804.28	32°36'14.990"N	103°52'47.160"W	2.04	
12480.00	89.570	90.150	9058.30	3260.71	-1565.72	2986.45	639769.14	583805.09	32°36'14.994"N	103°52'46.049"W	1.35	
12575.00	90.030	88.840	9058.63	3353.11	-1564.88	3081.45	639864.13	583805.93	32°36'14.998"N	103°52'44.939"W	1.46	
12669.00	89.440	90.730	9059.06	3444.65	-1564.53	3175.44	639958.11	583806.28	32°36'14.998"N	103°52'43.840"W	2.11	
12764.00	89.940	91.980	9059.58	3537.73	-1566.78	3270.41	640053.08	583804.03	32°36'14.972"N	103°52'42.730"W	1.42	
12859.00	90.340	90.990	9059.35	3630.84	-1569.24	3365.38	640148.04	583801.57	32°36'14.943"N	103°52'41.620"W	1.12	
12954.00	88.980	91.750	9059.91	3723.92	-1571.51	3460.34	640243.00	583799.30	32°36'14.917"N	103°52'40.510"W	1.64	
13049.00	89.140	90.840	9061.47	3816.96	-1573.66	3555.31	640337.95	583797.15	32°36'14.891"N	103°52'39.400"W	0.97	
13144.00	88.180	90.670	9063.69	3909.81	-1574.91	3650.27	640432.91	583795.90	32°36'14.875"N	103°52'38.290"W	1.03	
13239.00	86.920	92.450	9067.75	4002.86	-1577.49	3745.14	640527.78	583793.32	32°36'14.845"N	103°52'37.182"W	2.29	
13333.00	87.660	91.390	9072.20	4095.03	-1580.64	3838.98	640621.61	583790.17	32°36'14.810"N	103°52'36.085"W	1.37	
13428.00	87.880	89.360	9075.89	4187.70	-1581.26	3933.90	640716.52	583789.55	32°36'14.800"N	103°52'34.975"W	2.15	
13523.00	87.750	90.710	9079.51	4280.24	-1581.32	4028.83	640811.44	583789.50	32°36'14.796"N	103°52'33.866"W	1.43	
13618.00	87.350	93.120	9083.58	4373.40	-1584.49	4123.69	640906.29	583786.32	32°36'14.760"N	103°52'32.757"W	2.57	
13713.00	87.840	92.660	9087.56	4466.87	-1589.27	4218.48	641001.08	583781.54	32°36'14.709"N	103°52'31.649"W	0.71	
13808.00	87.570	91.440	9091.37	4560.10	-1592.67	4313.34	641095.93	583778.14	32°36'14.671"N	103°52'30.541"W	1.31	
13902.00	88.520	90.120	9094.57	4651.94	-1593.95	4407.28	641189.86	583776.87	32°36'14.654"N	103°52'29.443"W	1.73	
13997.00	89.540	88.670	9096.18	4744.30	-1592.95	4502.25	641284.83	583777.87	32°36'14.660"N	103°52'28.332"W	1.87	
14093.00	88.580	89.820	9097.76	4837.57	-1591.68	4598.23	641380.80	583779.13	32°36'14.669"N	103°52'27.210"W	1.56	
14187.00	86.940	91.390	9101.43	4929.33	-1592.67	4692.15	641474.71	583778.14	32°36'14.655"N	103°52'26.113"W	2.41	
14282.00	87.350	90.150	9106.16	5022.09	-1593.95	4787.02	641569.57	583776.87	32°36'14.638"N	103°52'25.004"W	1.37	
14377.00	89.630	91.310	9108.67	5114.92	-1595.16	4881.97	641664.52	583775.66	32°36'14.622"N	103°52'23.894"W	2.69	
14472.00	90.340	90.050	9108.69	5207.76	-1596.28	4976.96	641759.50	583774.53	32°36'14.607"N	103°52'22.784"W	1.52	
14542.00	90.710	88.690	9108.05	5275.81	-1595.51	5046.95	641829.49	583775.30	32°36'14.612"N	103°52'21.965"W	2.01	
14637.00	89.780	88.310	9107.64	5367.82	-1593.03	5141.92	641924.45	583777.79	32°36'14.632"N	103°52'20.855"W	1.06	
14732.00	89.970	89.350	9107.85	5459.97	-1591.09	5236.89	642019.42	583779.73	32°36'14.647"N	103°52'19.745"W	1.11	
14827.00	88.890	93.400	9108.80	5553.02	-1593.37	5331.84	642114.36	583777.45	32°36'14.621"N	103°52'18.635"W	4.41	
14922.00	88.830	91.730	9110.69	5646.46	-1597.62	5426.72	642209.24	583773.20	32°36'14.574"N	103°52'17.526"W	1.76	
15017.00	88.920	89.790	9112.55	5739.31	-1598.88	5521.69	642304.20	583771.94	32°36'14.558"N	103°52'16.416"W	2.04	
15113.00	88.830	88.630	9114.44	5832.56	-1597.55	5617.66	642400.16	583773.26	32°36'14.567"N	103°52'15.294"W	1.21	
15207.00	88.920	87.860	9116.28	5923.48	-1594.68	5711.60	642494.09	583776.14	32°36'14.591"N	103°52'14.196"W	0.82	
15302.00	88.800	87.480	9118.17	6015.13	-1590.81	5806.50	642588.99	583780.00	32°36'14.625"N	103°52'13.087"W	0.42	



Actual Wellpath Report

BEU DI-4 No. 271H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, LP	Slot	No.271H SHL
Area	Eddy County, NM	Well	SL 358 FNL, 2078 FEL
Field	Big Eddy	Wellbore	BEU DI-4 No. 271H AWP
Facility	Big Eddy Unit DI-4		

WELLPATH DATA (193 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
15397.00	88.950	87.830	9120.04	6106.76	-1586.93	5901.40	642683.88	583783.89	32°36'14.660"N	103°52'11.977"W	0.40	
15492.00	88.860	90.700	9121.85	6199.06	-1585.71	5996.37	642778.84	583785.10	32°36'14.668"N	103°52'10.867"W	3.02	
15586.00	88.890	92.380	9123.70	6291.19	-1588.23	6090.31	642872.78	583782.58	32°36'14.639"N	103°52'09.769"W	1.79	
15681.00	88.890	94.630	9125.54	6384.89	-1594.04	6185.11	642967.57	583776.77	32°36'14.577"N	103°52'08.661"W	2.37	
15776.00	88.800	95.130	9127.46	6478.94	-1602.12	6279.75	643062.20	583768.69	32°36'14.493"N	103°52'07.555"W	0.53	
15870.00	88.770	95.190	9129.45	6572.07	-1610.57	6373.35	643155.79	583760.24	32°36'14.405"N	103°52'06.462"W	0.07	
15965.00	88.800	93.900	9131.46	6666.03	-1618.10	6468.02	643250.46	583752.72	32°36'14.327"N	103°52'05.355"W	1.36	
16059.00	88.800	91.560	9133.43	6758.53	-1622.58	6561.89	643344.32	583748.24	32°36'14.279"N	103°52'04.258"W	2.49	
16154.00	88.860	86.760	9135.37	6850.76	-1621.18	6656.83	643439.26	583749.63	32°36'14.288"N	103°52'03.149"W	5.05	
16249.00	88.800	86.640	9137.31	6941.97	-1615.72	6751.66	643534.07	583755.10	32°36'14.338"N	103°52'02.040"W	0.14	
16344.00	89.010	86.590	9139.13	7033.14	-1610.11	6846.47	643628.88	583760.71	32°36'14.390"N	103°52'00.931"W	0.23	
16403.00	88.830	86.250	9140.24	7089.70	-1606.42	6905.35	643687.75	583764.39	32°36'14.423"N	103°52'00.243"W	0.65	
16475.00	88.830	86.250	9141.71	7158.67	-1601.72	6977.18	643759.58	583769.10	32°36'14.467"N	103°51'59.403"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: BEU DI-4 No. 271H AWP Ref Wellpath: BEU DI-4 No. 271H AWP

String/Diameter	Start MD [ft]	End MD [ft]	Interval [ft]	Start TVD [ft]	End TVD [ft]	Start N/S [ft]	Start E/W [ft]	End N/S [ft]	End E/W [ft]
16in Casing	26.00	769.00	743.00	26.00	768.99	0.00	0.00	1.25	-1.89
9.625in Casing	26.00	3651.00	3625.00	26.00	3649.28	0.00	0.00	44.91	-6.43
7in Casing	26.00	4257.00	4231.00	26.00	4254.95	0.00	0.00	25.66	-9.85
6.125in Open Hole	26.00	20000.00	19974.00	26.00	NA	0.00	0.00	NA	NA

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
BEU No.271H PBHL Rev-2		9140.00	-299.12	7035.30	643817.70	585071.60	32°36'27.353"N	103°51'58.657"W	point

WELLPATH COMPOSITION - Ref Wellbore: BEU DI-4 No. 271H AWP Ref Wellpath: BEU DI-4 No. 271H AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	2632.75	Generic gyro - northseeking (Standard)	Gyro Data 9 5/8" Csg <73.95-2632.75>	BEU DI-4 No. 271H AWP
2632.75	4110.00	NaviTrak (Standard)	BHI NavTrak 7" Csg. <2789-4110>	BEU DI-4 No. 271H AWP
4110.00	16403.00	NaviTrak (Standard)	BHI NaviTrak 6 1/8" OH <4282-16403>	BEU DI-4 No. 271H AWP
16403.00	16475.00	Blind Drilling (std)	Projection to bit	BEU DI-4 No. 271H AWP