

30-015-38308

BOPCO, L.P.

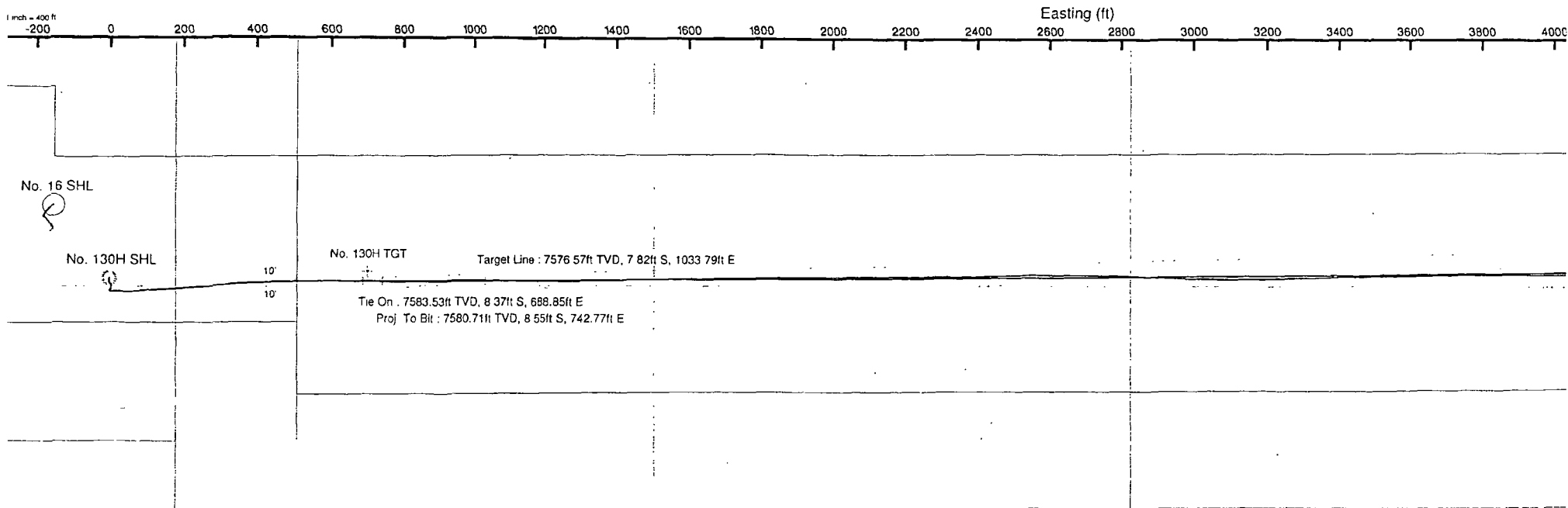
Location: Eddy County, NM
Field: (JRU) Quahada Ridge, SE (Delaware)
Facility: James Ranch Unit No. 130H

Slot: No. 130H SHL
Well: No. 130H
Wellbore: No. 130H PWB

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Well Profile Data

Design Comment	MD (ft)	Inc (°)	Az (°)	TVD (ft)	Local N (ft)	Local E (ft)	DLS (%100)
Tie On	8078.00	93.000	90.200	7583.53	-8.37	688.85	0.00
Proj. To Bit	8132.00	93.000	90.200	7580.71	-8.55	742.77	0.00
Target Line	8423.12	88.629	89.511	7576.57	-7.82	1033.79	1.52
No. 130H PBHL	12536.74	88.629	89.511	7675.00	27.29	5146.08	0.00



Plot reference wellpath is Plan #3	Grid System: NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet
True vertical depths are referenced to Rig on No. 130H SHL (KB)	North Reference: Grid north
Measured depths are referenced to Rig on No. 130H SHL (KB)	Scale: True distance
Rig on No. 130H SHL (KB) to Mean Sea Level: 3340.5 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: No. 130H SHL): -3321 feet	Created by: gentbry on 6/22/2011
Coordinates are in feet referenced to Slot	



Actual Wellpath Report

No.130H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 130H SHL
Area	Eddy County, NM	Well	No. 130H
Field	(JRU) Quahada Ridge, SE (Delaware)	Wellbore	No.130H AWB
Facility	James Ranch Unit No. 130H		

REPORT SETUP INFORMATION

Projection System	NAD83 / TM New Mexico SP, Eastern Zone (3001), US feet	Software System	WellArchitect® 3.0.0
North Reference	Grid	User	Calhphik
Scale	0.999937	Report Generated	7/4/2011 at 12:04:48 PM
Convergence at slot	0.27° East	Database/Source file	WA Midland/No.130H_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	697943.95	491365.31	32°20'59.333"N	103°49'34.319"W
Facility Reference Pt			697943.95	491365.31	32°20'59.333"N	103°49'34.319"W
Field Reference Pt			696627.35	492798.47	32°21'13.576"N	103°49'49.589"W

WELLPATH DATUM

Calculation method	Minimum curvature	Rig on No. 130H SHL (KB) to GL	19.50ft
Horizontal Reference Pt	Slot	Rig on No. 130H SHL (KB) to Mean Sea Level	3340.50ft
Vertical Reference Pt	Rig on No. 130H SHL (KB)	Rig on No. 130H SHL (KB) to Mud Line at Slot (No. 130H SHL)	19.50ft
MD Reference Pt	Rig on No. 130H SHL (KB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	89.70°



Actual Wellpath Report

No.130H AWP

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REFERENCE WELL IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 130H SHL
Area	Eddy County, NM	Well	No. 130H
Field	(JRU) Quahada Ridge, SE (Delaware)	Wellbore	No.130H AWB
Facility	James Ranch Unit No. 130H		

WELLPATH DATA (174 stations) † = interpolated/extrapolated station

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	209.060	0.00	0.00	0.00	0.00	697943.95	491365.31	32°20'59.333"N	103°49'34.319"W	0.00	
19.50	0.000	209.060	19.50	0.00	0.00	0.00	697943.95	491365.31	32°20'59.333"N	103°49'34.319"W	0.00	
100.00	0.590	209.060	100.00	-0.20	-0.36	-0.20	697943.75	491364.95	32°20'59.329"N	103°49'34.321"W	0.73	
200.00	1.130	189.170	199.99	-0.62	-1.79	-0.61	697943.34	491363.52	32°20'59.315"N	103°49'34.326"W	0.61	
300.00	1.070	184.470	299.97	-0.86	-3.69	-0.84	697943.11	491361.62	32°20'59.296"N	103°49'34.329"W	0.11	
400.00	0.810	159.030	399.96	-0.69	-5.28	-0.66	697943.29	491360.03	32°20'59.281"N	103°49'34.327"W	0.49	
500.00	0.690	175.450	499.95	-0.39	-6.54	-0.36	697943.59	491358.77	32°20'59.268"N	103°49'34.324"W	0.24	
600.00	0.480	160.590	599.94	-0.21	-7.54	-0.17	697943.78	491357.77	32°20'59.258"N	103°49'34.322"W	0.26	
700.00	0.540	179.810	699.94	-0.07	-8.40	-0.03	697943.92	491356.91	32°20'59.250"N	103°49'34.320"W	0.18	
800.00	0.330	195.090	799.94	-0.15	-9.15	-0.10	697943.85	491356.16	32°20'59.242"N	103°49'34.321"W	0.24	
900.00	0.450	202.100	899.93	-0.38	-9.79	-0.33	697943.62	491355.52	32°20'59.236"N	103°49'34.323"W	0.13	
1000.00	0.310	189.360	999.93	-0.57	-10.42	-0.52	697943.43	491354.89	32°20'59.230"N	103°49'34.326"W	0.16	
1100.00	0.240	194.960	1099.93	-0.67	-10.89	-0.62	697943.33	491354.42	32°20'59.225"N	103°49'34.327"W	0.07	
1200.00	0.150	177.860	1199.93	-0.72	-11.23	-0.66	697943.29	491354.08	32°20'59.222"N	103°49'34.327"W	0.11	
1300.00	0.140	189.620	1299.93	-0.74	-11.48	-0.68	697943.27	491353.83	32°20'59.219"N	103°49'34.328"W	0.03	
1400.00	0.250	152.040	1399.93	-0.66	-11.79	-0.60	697943.35	491353.52	32°20'59.216"N	103°49'34.327"W	0.16	
1500.00	0.090	222.670	1499.93	-0.61	-12.04	-0.55	697943.40	491353.27	32°20'59.214"N	103°49'34.326"W	0.24	
1600.00	0.070	226.870	1599.93	-0.71	-12.14	-0.65	697943.30	491353.17	32°20'59.213"N	103°49'34.327"W	0.02	
1700.00	0.080	324.250	1699.93	-0.80	-12.13	-0.73	697943.22	491353.18	32°20'59.213"N	103°49'34.328"W	0.11	
1800.00	0.130	289.010	1799.93	-0.72	-12.07	-0.66	697943.29	491353.24	32°20'59.213"N	103°49'34.327"W	0.19	
1900.00	0.120	211.510	1899.93	-0.67	-12.16	-0.60	697943.35	491353.16	32°20'59.212"N	103°49'34.327"W	0.22	
2000.00	0.120	55.310	1999.93	-0.63	-12.19	-0.57	697943.38	491353.13	32°20'59.212"N	103°49'34.326"W	0.23	
2100.00	0.130	186.160	2099.93	-0.56	-12.24	-0.50	697943.45	491353.07	32°20'59.212"N	103°49'34.326"W	0.23	
2200.00	0.070	5.180	2199.93	-0.57	-12.29	-0.50	697943.45	491353.02	32°20'59.211"N	103°49'34.326"W	0.20	
2300.00	0.090	20.220	2299.93	-0.53	-12.16	-0.47	697943.48	491353.16	32°20'59.212"N	103°49'34.325"W	0.03	
2400.00	0.060	342.960	2399.93	-0.52	-12.03	-0.46	697943.49	491353.28	32°20'59.214"N	103°49'34.325"W	0.06	
2500.00	0.110	185.530	2499.93	-0.55	-12.08	-0.48	697943.47	491353.23	32°20'59.213"N	103°49'34.325"W	0.17	
2600.00	0.050	302.370	2599.93	-0.59	-12.15	-0.53	697943.42	491353.16	32°20'59.213"N	103°49'34.326"W	0.14	
2700.00	0.050	272.700	2699.93	-0.67	-12.12	-0.61	697943.34	491353.19	32°20'59.213"N	103°49'34.327"W	0.03	
2800.00	0.060	254.550	2799.93	-0.77	-12.14	-0.70	697943.25	491353.17	32°20'59.213"N	103°49'34.328"W	0.02	
2900.00	0.100	284.530	2899.93	-0.90	-12.13	-0.84	697943.11	491353.18	32°20'59.213"N	103°49'34.330"W	0.06	
3000.00	0.150	293.930	2999.93	-1.11	-12.05	-1.04	697942.91	491353.26	32°20'59.214"N	103°49'34.332"W	0.05	
3100.00	0.110	48.710	3099.93	-1.15	-11.94	-1.09	697942.86	491353.37	32°20'59.215"N	103°49'34.332"W	0.22	
3200.00	0.470	150.630	3199.93	-0.88	-12.23	-0.82	697943.13	491353.08	32°20'59.212"N	103°49'34.329"W	0.50	
3300.00	0.410	144.300	3299.92	-0.48	-12.88	-0.41	697943.54	491352.43	32°20'59.205"N	103°49'34.325"W	0.08	
3400.00	0.730	140.880	3399.92	0.13	-13.66	0.20	697944.15	491351.65	32°20'59.198"N	103°49'34.317"W	0.32	
3500.00	0.650	144.250	3499.91	0.86	-14.62	0.94	697944.89	491350.69	32°20'59.188"N	103°49'34.309"W	0.09	
3600.00	0.620	139.000	3599.90	1.54	-15.49	1.62	697945.57	491349.82	32°20'59.179"N	103°49'34.301"W	0.07	
3700.00	0.720	148.170	3699.90	2.22	-16.43	2.31	697946.26	491348.88	32°20'59.170"N	103°49'34.293"W	0.15	
3800.00	0.530	139.380	3799.89	2.85	-17.31	2.94	697946.89	491348.00	32°20'59.161"N	103°49'34.286"W	0.21	
3900.00	0.400	123.610	3899.89	3.44	-17.86	3.53	697947.48	491347.45	32°20'59.156"N	103°49'34.279"W	0.18	
4000.00	0.340	116.620	3999.89	3.99	-18.18	4.09	697948.04	491347.13	32°20'59.153"N	103°49'34.272"W	0.07	
4100.00	0.120	122.930	4099.88	4.35	-18.37	4.44	697948.39	491346.94	32°20'59.151"N	103°49'34.268"W	0.22	
4200.00	0.170	77.060	4199.88	4.58	-18.40	4.68	697948.63	491346.91	32°20'59.150"N	103°49'34.266"W	0.12	
4300.00	0.370	124.620	4299.88	4.99	-18.55	5.09	697949.04	491346.76	32°20'59.149"N	103°49'34.261"W	0.28	



Actual Wellpath Report

No.130H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 130H SHL
Area	Eddy County, NM	Well	No. 130H
Field	(JRU) Quahada Ridge, SE (Delaware)	Wellbore	No.130H AWP
Facility	James Ranch Unit No. 130H		

WELLPATH DATA (174 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
4400.00	0.190	114.530	4399.88	5.40	-18.80	5.50	697949.45	491346.51	32°20'59.146"N	103°49'34.256"W	0.19	
4500.00	0.430	194.570	4499.88	5.46	-19.23	5.56	697949.51	491346.08	32°20'59.142"N	103°49'34.255"W	0.44	
4600.00	0.300	197.090	4599.88	5.28	-19.85	5.39	697949.34	491345.47	32°20'59.136"N	103°49'34.257"W	0.13	
4700.00	0.470	209.370	4699.88	5.00	-20.45	5.11	697949.06	491344.86	32°20'59.130"N	103°49'34.261"W	0.19	
4800.00	0.330	196.740	4799.87	4.71	-21.09	4.83	697948.78	491344.22	32°20'59.124"N	103°49'34.264"W	0.16	
4900.00	0.380	182.810	4899.87	4.61	-21.69	4.73	697948.68	491343.62	32°20'59.118"N	103°49'34.265"W	0.10	
5000.00	0.500	214.370	4999.87	4.35	-22.38	4.46	697948.41	491342.93	32°20'59.111"N	103°49'34.268"W	0.27	
5100.00	0.390	203.550	5099.87	3.96	-23.06	4.08	697948.03	491342.25	32°20'59.104"N	103°49'34.273"W	0.14	
5200.00	0.400	192.430	5199.86	3.74	-23.71	3.87	697947.82	491341.60	32°20'59.098"N	103°49'34.275"W	0.08	
5300.00	0.360	180.240	5299.86	3.66	-24.36	3.79	697947.74	491340.95	32°20'59.091"N	103°49'34.276"W	0.09	
5400.00	0.300	158.570	5399.86	3.76	-24.92	3.89	697947.84	491340.39	32°20'59.086"N	103°49'34.275"W	0.14	
5500.00	0.260	158.970	5499.86	3.93	-25.38	4.07	697948.02	491339.93	32°20'59.081"N	103°49'34.273"W	0.04	
5600.00	0.450	151.580	5599.86	4.20	-25.94	4.33	697948.28	491339.38	32°20'59.076"N	103°49'34.270"W	0.20	
5700.00	0.290	167.310	5699.85	4.44	-26.53	4.58	697948.53	491338.78	32°20'59.070"N	103°49'34.267"W	0.19	
5800.00	0.260	180.640	5799.85	4.49	-27.00	4.63	697948.58	491338.31	32°20'59.065"N	103°49'34.267"W	0.07	
5900.00	0.340	169.510	5899.85	4.53	-27.52	4.68	697948.63	491337.79	32°20'59.060"N	103°49'34.266"W	0.10	
6000.00	0.280	189.390	5999.85	4.55	-28.05	4.69	697948.64	491337.26	32°20'59.055"N	103°49'34.266"W	0.12	
6100.00	0.460	198.250	6099.85	4.38	-28.68	4.53	697948.48	491336.64	32°20'59.049"N	103°49'34.268"W	0.19	
6200.00	0.500	212.640	6199.85	4.01	-29.42	4.17	697948.12	491335.89	32°20'59.041"N	103°49'34.272"W	0.13	
6300.00	0.610	213.070	6299.84	3.48	-30.24	3.64	697947.59	491335.07	32°20'59.033"N	103°49'34.278"W	0.11	
6400.00	0.750	216.890	6399.83	2.79	-31.21	2.96	697946.91	491334.11	32°20'59.024"N	103°49'34.286"W	0.15	
6500.00	0.720	210.440	6499.83	2.08	-32.27	2.25	697946.20	491333.04	32°20'59.013"N	103°49'34.295"W	0.09	
6600.00	0.660	219.070	6599.82	1.39	-33.26	1.57	697945.52	491332.05	32°20'59.004"N	103°49'34.303"W	0.12	
6700.00	0.430	210.720	6699.81	0.83	-34.03	1.01	697944.96	491331.28	32°20'58.996"N	103°49'34.309"W	0.24	
6800.00	0.370	221.550	6799.81	0.42	-34.59	0.61	697944.56	491330.72	32°20'58.990"N	103°49'34.314"W	0.10	
6900.00	0.450	187.160	6899.81	0.16	-35.23	0.34	697944.29	491330.09	32°20'58.984"N	103°49'34.317"W	0.25	
7000.00	0.520	166.080	6999.81	0.21	-36.06	0.40	697944.35	491329.26	32°20'58.976"N	103°49'34.316"W	0.19	
7036.00	0.570	163.280	7035.80	0.30	-36.39	0.49	697944.44	491328.93	32°20'58.973"N	103°49'34.315"W	0.16	
7054.00	0.700	165.500	7053.80	0.35	-36.58	0.55	697944.50	491328.73	32°20'58.971"N	103°49'34.315"W	0.73	
7085.00	1.000	131.700	7084.80	0.60	-36.94	0.80	697944.75	491328.37	32°20'58.967"N	103°49'34.312"W	1.84	
7117.00	3.000	99.700	7116.78	1.63	-37.27	1.83	697945.78	491328.04	32°20'58.964"N	103°49'34.300"W	6.93	
7148.00	5.900	89.500	7147.68	4.03	-37.39	4.22	697948.17	491327.92	32°20'58.963"N	103°49'34.272"W	9.66	
7178.00	8.900	88.200	7177.43	7.89	-37.31	8.09	697952.04	491328.01	32°20'58.963"N	103°49'34.227"W	10.01	
7209.00	12.300	88.800	7207.90	13.59	-37.16	13.79	697957.74	491328.15	32°20'58.964"N	103°49'34.160"W	10.97	
7241.00	15.700	90.400	7238.94	21.53	-37.42	21.53	697965.47	491328.19	32°20'58.964"N	103°49'34.070"W	10.69	
7272.00	18.900	92.600	7268.53	30.54	-37.38	30.74	697974.69	491327.94	32°20'58.961"N	103°49'33.963"W	10.53	
7304.00	22.200	90.900	7298.49	41.76	-37.71	41.96	697985.91	491327.61	32°20'58.958"N	103°49'33.832"W	10.48	
7335.00	25.000	86.800	7326.90	54.16	-37.43	54.36	697998.31	491327.88	32°20'58.960"N	103°49'33.688"W	10.46	
7367.00	28.600	85.300	7355.46	68.56	-36.43	68.75	698012.70	491328.88	32°20'58.969"N	103°49'33.520"W	11.45	
7398.00	31.900	85.100	7382.23	84.12	-35.12	84.31	698028.26	491330.19	32°20'58.981"N	103°49'33.338"W	10.65	
7429.00	35.600	86.300	7408.01	101.30	-33.84	101.48	698045.43	491331.47	32°20'58.993"N	103°49'33.138"W	12.13	
7460.00	38.700	86.200	7432.71	119.99	-32.61	120.16	698064.10	491332.70	32°20'59.004"N	103°49'32.920"W	10.00	
7490.00	42.200	86.200	7455.54	139.41	-31.32	139.58	698083.52	491333.99	32°20'59.016"N	103°49'32.694"W	11.67	
7521.00	45.600	86.600	7477.87	160.87	-29.98	161.03	698104.97	491335.34	32°20'59.029"N	103°49'32.444"W	11.00	
7552.00	50.300	86.200	7498.63	183.84	-28.53	184.00	698127.93	491336.78	32°20'59.042"N	103°49'32.176"W	15.19	



Actual Wellpath Report

No.130H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 130H SHL
Area	Eddy County, NM	Well	No. 130H
Field	(JRU) Quahada Ridge, SE (Delaware)	Wellbore	No.130H AWB
Facility	James Ranch Unit No. 130H		

WELLPATH DATA (174 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
7583.00	54.800	86.300	7517.47	208.40	-26.92	208.55	698152.48	491338.39	32°20'59.057"N	103°49'31.890"W	14.52	
7613.00	59.500	85.800	7533.74	233.55	-25.18	233.68	698177.62	491340.13	32°20'59.073"N	103°49'31.597"W	15.73	
7645.00	64.300	85.300	7548.81	261.69	-22.99	261.82	698205.75	491342.32	32°20'59.093"N	103°49'31.268"W	15.06	
7676.00	69.400	84.900	7560.99	290.10	-20.55	290.21	698234.14	491344.76	32°20'59.116"N	103°49'30.937"W	16.49	
7707.00	74.300	85.000	7570.65	319.44	-17.96	319.54	698263.47	491347.35	32°20'59.140"N	103°49'30.595"W	15.81	
7738.00	78.800	85.700	7577.86	349.50	-15.52	349.59	698293.51	491349.79	32°20'59.163"N	103°49'30.245"W	14.68	
7769.00	83.500	86.700	7582.62	380.06	-13.49	380.14	698324.07	491351.82	32°20'59.181"N	103°49'29.889"W	15.49	
7800.00	87.900	88.300	7584.95	410.94	-12.14	411.01	698354.94	491353.17	32°20'59.193"N	103°49'29.529"W	15.10	
7832.00	88.700	88.600	7585.90	442.92	-11.28	442.99	698386.91	491354.03	32°20'59.200"N	103°49'29.156"W	2.67	
7863.00	89.000	88.300	7586.52	473.91	-10.44	473.97	698417.89	491354.87	32°20'59.207"N	103°49'28.795"W	1.37	
7895.00	89.000	88.300	7587.08	505.89	-9.49	505.95	698449.87	491355.82	32°20'59.215"N	103°49'28.422"W	0.00	
7927.00	89.400	89.500	7587.53	537.89	-8.88	537.94	698481.86	491356.43	32°20'59.220"N	103°49'28.049"W	3.95	
7957.00	89.700	89.500	7587.76	567.89	-8.62	567.94	698511.85	491356.70	32°20'59.221"N	103°49'27.699"W	1.00	
7988.00	91.300	89.700	7587.49	598.88	-8.40	598.94	698542.85	491356.91	32°20'59.222"N	103°49'27.338"W	5.20	
8020.00	92.400	90.100	7586.46	630.87	-8.34	630.92	698574.83	491356.97	32°20'59.221"N	103°49'26.965"W	3.66	
8051.00	93.100	89.900	7584.97	661.83	-8.34	661.88	698605.79	491356.97	32°20'59.219"N	103°49'26.604"W	2.35	
8078.00	93.000	90.200	7583.53	688.79	-8.37	688.85	698632.75	491356.94	32°20'59.218"N	103°49'26.290"W	1.17	
8173.00	92.300	89.500	7579.14	783.69	-8.12	783.74	698727.64	491357.19	32°20'59.216"N	103°49'25.184"W	1.04	
8204.00	91.900	89.500	7578.01	814.67	-7.85	814.72	698758.62	491357.46	32°20'59.217"N	103°49'24.823"W	1.29	
8236.00	91.400	89.200	7577.08	846.65	-7.48	846.71	698790.60	491357.83	32°20'59.219"N	103°49'24.450"W	1.82	
8267.00	91.400	89.400	7576.33	877.64	-7.11	877.69	698821.59	491358.20	32°20'59.221"N	103°49'24.089"W	0.64	
8298.00	90.800	89.500	7575.73	908.64	-6.81	908.69	698852.58	491358.50	32°20'59.223"N	103°49'23.727"W	1.96	
8330.00	90.300	89.400	7575.42	940.64	-6.50	940.68	698884.57	491358.81	32°20'59.224"N	103°49'23.354"W	1.59	
8361.00	89.100	89.000	7575.59	971.63	-6.07	971.68	698915.57	491359.24	32°20'59.227"N	103°49'22.993"W	4.08	
8392.00	88.700	89.600	7576.18	1002.63	-5.69	1002.67	698946.56	491359.62	32°20'59.229"N	103°49'22.632"W	2.33	
8423.00	88.900	91.100	7576.83	1033.62	-5.88	1033.66	698977.55	491359.43	32°20'59.226"N	103°49'22.270"W	4.88	
8455.00	88.800	91.000	7577.47	1065.60	-6.47	1065.65	699009.53	491358.84	32°20'59.219"N	103°49'21.898"W	0.44	
8518.00	88.200	90.900	7579.12	1128.56	-7.51	1128.62	699072.50	491357.80	32°20'59.205"N	103°49'21.164"W	0.97	
8580.00	89.400	91.200	7580.42	1190.53	-8.65	1190.60	699134.47	491356.66	32°20'59.191"N	103°49'20.441"W	2.00	
8643.00	89.300	89.900	7581.12	1253.52	-9.25	1253.59	699197.46	491356.06	32°20'59.182"N	103°49'19.707"W	2.07	
8705.00	87.300	88.500	7582.97	1315.49	-8.39	1315.55	699259.41	491356.92	32°20'59.188"N	103°49'18.985"W	3.94	
8768.00	87.600	88.500	7585.78	1378.41	-6.74	1378.46	699322.33	491358.57	32°20'59.201"N	103°49'18.251"W	0.48	
8830.00	87.900	88.400	7588.21	1440.35	-5.06	1440.39	699384.25	491360.25	32°20'59.215"N	103°49'17.529"W	0.51	
8893.00	89.100	89.600	7589.86	1503.32	-3.96	1503.36	699447.21	491361.35	32°20'59.223"N	103°49'16.795"W	2.69	
8955.00	88.800	88.900	7591.00	1565.31	-3.15	1565.34	699509.19	491362.16	32°20'59.228"N	103°49'16.073"W	1.23	
9018.00	89.100	88.900	7592.15	1628.29	-1.94	1628.32	699572.17	491363.37	32°20'59.237"N	103°49'15.339"W	0.48	
9080.00	88.600	88.900	7593.40	1690.27	-0.75	1690.30	699634.14	491364.56	32°20'59.246"N	103°49'14.616"W	0.81	
9143.00	89.400	89.500	7594.50	1753.26	0.13	1753.28	699697.12	491365.44	32°20'59.251"N	103°49'13.882"W	1.59	
9205.00	89.300	88.900	7595.20	1815.25	0.99	1815.27	699759.10	491366.30	32°20'59.257"N	103°49'13.159"W	0.98	
9268.00	89.800	89.100	7595.69	1878.24	2.09	1878.26	699822.09	491367.40	32°20'59.265"N	103°49'12.425"W	0.85	
9331.00	89.600	90.000	7596.02	1941.24	2.59	1941.26	699885.08	491367.90	32°20'59.267"N	103°49'11.691"W	1.46	
9393.00	86.900	88.800	7597.92	2003.21	3.23	2003.22	699947.04	491368.54	32°20'59.270"N	103°49'10.968"W	4.77	
9456.00	87.500	88.800	7600.99	2066.12	4.55	2066.13	700009.94	491369.86	32°20'59.280"N	103°49'10.235"W	0.95	
9518.00	89.700	89.800	7602.51	2128.10	5.31	2128.10	700071.91	491370.62	32°20'59.285"N	103°49'09.512"W	3.90	
9581.00	89.800	90.200	7602.78	2191.10	5.31	2191.10	700134.91	491370.62	32°20'59.282"N	103°49'08.778"W	10.65	



Actual Wellpath Report

No.130H AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	BOPCO, L.P.	Slot	No. 130H SHL
Area	Eddy County, NM	Well	No. 130H
Field	(JRU) Quahada Ridge, SE (Delaware)	Wellbore	No.130H AWB
Facility	James Ranch Unit No. 130H		

WELLPATH DATA (174 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
9643.00	89.800	89.600	7603.00	2253.10	5.42	2253.10	700196.90	491370.73	32°20'59.280"N	103°49'08.055"W	0.97	
9706.00	89.100	88.900	7603.60	2316.09	6.24	2316.09	700259.89	491371.55	32°20'59.285"N	103°49'07.321"W	1.57	
9769.00	89.400	89.600	7604.43	2379.08	7.07	2379.08	700322.87	491372.38	32°20'59.290"N	103°49'06.587"W	1.21	
9831.00	87.700	88.400	7606.00	2441.05	8.15	2441.05	700384.84	491373.46	32°20'59.298"N	103°49'05.864"W	3.36	
9925.00	87.500	88.000	7609.93	2534.94	11.10	2534.92	700478.70	491376.41	32°20'59.323"N	103°49'04.770"W	0.48	
9987.00	88.100	90.400	7612.32	2596.89	11.96	2596.86	700540.64	491377.27	32°20'59.328"N	103°49'04.048"W	3.99	
10050.00	87.300	90.500	7614.84	2659.83	11.47	2659.81	700603.58	491376.78	32°20'59.320"N	103°49'03.314"W	1.28	
10113.00	87.100	90.200	7617.92	2722.75	11.08	2722.73	700666.50	491376.39	32°20'59.314"N	103°49'02.581"W	0.57	
10175.00	87.700	91.200	7620.73	2784.68	10.33	2784.66	700728.43	491375.64	32°20'59.303"N	103°49'01.859"W	1.88	
10238.00	89.100	92.500	7622.49	2847.60	8.29	2847.60	700791.37	491373.60	32°20'59.280"N	103°49'01.125"W	3.03	
10300.00	89.400	92.600	7623.30	2909.52	5.54	2909.53	700853.29	491370.85	32°20'59.250"N	103°49'00.404"W	0.51	
10362.00	89.700	91.900	7623.79	2971.46	3.10	2971.48	700915.24	491368.41	32°20'59.223"N	103°48'59.682"W	1.23	
10425.00	87.800	90.600	7625.17	3034.42	1.73	3034.45	700978.20	491367.04	32°20'59.206"N	103°48'58.948"W	3.65	
10487.00	87.500	90.000	7627.71	3096.36	1.40	3096.40	701040.14	491366.71	32°20'59.200"N	103°48'58.226"W	1.08	
10550.00	88.400	90.100	7629.96	3159.32	1.35	3159.35	701103.10	491366.66	32°20'59.197"N	103°48'57.492"W	1.44	
10612.00	88.400	88.700	7631.69	3221.29	2.00	3221.33	701165.07	491367.31	32°20'59.200"N	103°48'56.769"W	2.26	
10675.00	88.300	88.400	7633.51	3284.25	3.59	3284.28	701228.02	491368.90	32°20'59.213"N	103°48'56.035"W	0.50	
10737.00	88.400	87.800	7635.29	3346.20	5.65	3346.22	701289.95	491370.96	32°20'59.230"N	103°48'55.313"W	0.98	
10800.00	88.300	88.300	7637.11	3409.15	7.79	3409.16	701352.89	491373.10	32°20'59.248"N	103°48'54.580"W	0.81	
10863.00	88.300	88.900	7638.97	3472.11	9.33	3472.11	701415.83	491374.64	32°20'59.260"N	103°48'53.846"W	0.95	
10956.00	89.100	90.200	7641.08	3565.08	10.06	3565.08	701508.80	491375.37	32°20'59.263"N	103°48'52.762"W	1.64	
11050.00	87.900	89.000	7643.55	3659.05	10.71	3659.04	701602.75	491376.02	32°20'59.265"N	103°48'51.667"W	1.81	
11144.00	88.900	89.800	7646.17	3753.01	11.70	3753.00	701696.71	491377.01	32°20'59.270"N	103°48'50.571"W	1.36	
11238.00	88.200	89.300	7648.55	3846.98	12.43	3846.96	701790.67	491377.74	32°20'59.273"N	103°48'49.476"W	0.92	
11332.00	90.600	91.100	7649.53	3940.96	12.11	3940.95	701884.64	491377.42	32°20'59.266"N	103°48'48.380"W	3.19	
11425.00	88.600	89.600	7650.18	4033.94	11.54	4033.94	701977.63	491376.85	32°20'59.255"N	103°48'47.296"W	2.69	
11519.00	88.700	88.600	7652.40	4127.91	13.01	4127.90	702071.58	491378.32	32°20'59.266"N	103°48'46.201"W	1.07	
11613.00	88.400	86.600	7654.78	4221.81	16.95	4221.78	702165.46	491382.26	32°20'59.300"N	103°48'45.107"W	2.15	
11707.00	87.700	85.200	7657.97	4315.55	23.67	4315.48	702259.15	491388.97	32°20'59.362"N	103°48'44.014"W	1.66	
11801.00	87.600	85.600	7661.83	4409.20	31.20	4409.10	702352.76	491396.51	32°20'59.432"N	103°48'42.922"W	0.44	
11895.00	87.700	85.400	7665.68	4502.87	38.57	4502.73	702446.39	491403.87	32°20'59.500"N	103°48'41.830"W	0.24	
11989.00	87.500	84.900	7669.62	4596.49	46.51	4596.31	702539.97	491411.81	32°20'59.574"N	103°48'40.739"W	0.57	
12083.00	87.600	85.000	7673.64	4690.09	54.77	4689.86	702633.51	491420.08	32°20'59.652"N	103°48'39.648"W	0.15	
12176.00	87.500	85.000	7677.61	4782.69	62.87	4782.42	702726.06	491428.18	32°20'59.727"N	103°48'38.569"W	0.11	
12270.00	87.700	86.800	7681.55	4876.40	69.59	4876.10	702819.73	491434.89	32°20'59.789"N	103°48'37.476"W	1.93	
12364.00	88.000	88.000	7685.08	4970.25	73.85	4969.93	702913.56	491439.15	32°20'59.827"N	103°48'36.382"W	1.32	
12458.00	87.600	88.800	7688.69	5064.16	76.47	5063.83	703007.45	491441.77	32°20'59.848"N	103°48'35.288"W	0.95	
12484.00	87.700	88.900	7689.75	5090.14	76.99	5089.80	703033.42	491442.30	32°20'59.852"N	103°48'34.985"W	0.54	
12532.00	87.700	88.900	7691.68	5138.09	77.91	5137.75	703081.37	491443.22	32°20'59.859"N	103°48'34.426"W	0.00	Project to Bit



Actual Wellpath Report

No.130H AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	BOPCO, L.P.	Slot	No. 130H SHL
Area	Eddy County, NM	Well	No. 130H
Field	(JRU) Quahada Ridge, SE (Delaware)	Wellbore	No.130H AWB
Facility	James Ranch Unit No. 130H		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
No. 130H TGT		7570.00	19.69	699.80	698643.70	491385.00	32°20'59.495"N	103°49'26.161"W	point
No. 130H PBHL		7675.00	27.29	5146.08	703089.70	491392.60	32°20'59.358"N	103°48'34.332"W	point

WELLPATH COMPOSITION - Ref Wellbore: No.130H AWB Ref Wellpath: No.130H AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
19.50	7036.00	Generic gyro - northseeking (Standard)	Gyro	No.130H AWB
7036.00	12532.00	NaviTrak (Standard)	MWD	No.130H AWB