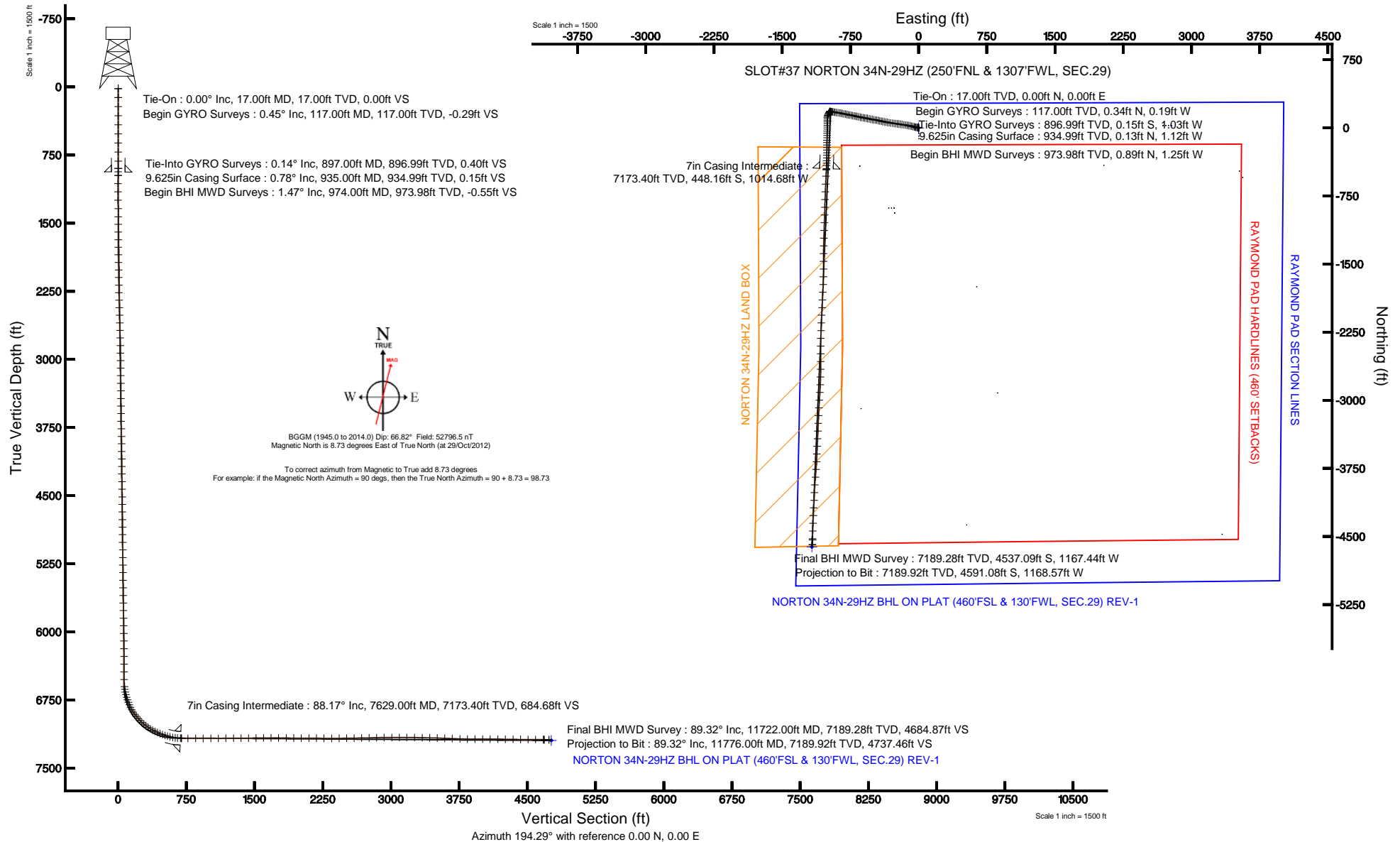


Location:	COLORADO	Slot:	SLOT#37 NORTON 34N-29HZ (250'FNL & 1307'FWL, SEC.29)
Field:	WELD COUNTY (KERR MCGEE)	Well:	NORTON 34N-29HZ
Facility:	SEC.29-T3N-R66W	Wellbore:	NORTON 34N-29HZ PWB

Plot reference wellpath is NORTON 34N-29HZ (REV-C.0) PWP	
True vertical depths are referenced to XTREME 6 (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to XTREME 6 (RKB)	North Reference: True north
XTREME 6 (RKB) to Mean Sea Level: 4913 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#37 NORTON 34N-29HZ (250FNL & 1307FWL, SEC.29)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: augunora on 19/Nov/2012





Actual Wellpath Report

NORTON 34N-29HZ AWP

Page 1 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#37 NORTON 34N-29HZ (250'FNL & 1307'FWL, SEC.29)
Area	COLORADO	Well	NORTON 34N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NORTON 34N-29HZ AWB
Facility	SEC.29-T3N-R66W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 3.0.0
North Reference	True	User	Augunora
Scale	0.999957	Report Generated	19/Nov/2012 at 13:43
Convergence at slot	0.45° East	Database/Source file	WA_ANADARKO/NORTON_34N-29HZ_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	884.14	264.82	3193858.39	1317312.42	40°12'08.413"N	104°48'21.463"W
Facility Reference Pt			3193600.49	1316426.28	40°11'59.676"N	104°48'24.876"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	XTREME 6 (RKB) to Facility Vertical Datum
Horizontal Reference Pt	Slot	XTREME 6 (RKB) to Mean Sea Level
Vertical Reference Pt	XTREME 6 (RKB)	XTREME 6 (RKB) to Mud Line at Slot (SLOT#37 NORTON 34N-29HZ (250'FNL & 1307'FWL))
MD Reference Pt	XTREME 6 (RKB)	Section Origin
Field Vertical Reference	Mean Sea Level	Section Azimuth



Actual Wellpath Report

NORTON 34N-29HZ AWP

Page 2 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#37 NORTON 34N-29HZ (250'FNL & 1307'FWL, SEC.29)
Area	COLORADO	Well	NORTON 34N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NORTON 34N-29HZ AWB
Facility	SEC.29-T3N-R66W		

WELLPATH DATA (161 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	331.040	0.00	0.00	0.00	0.00	40°12'08.413"N	104°48'21.463"W	0.00	
17.00	0.000	331.040	17.00	0.00	0.00	0.00	40°12'08.413"N	104°48'21.463"W	0.00	Tie-On
117.00	0.450	331.040	117.00	-0.29	0.34	-0.19	40°12'08.416"N	104°48'21.465"W	0.45	Begin GYRO Surveys
217.00	0.420	316.150	217.00	-0.77	0.95	-0.63	40°12'08.422"N	104°48'21.471"W	0.12	
317.00	0.200	300.370	316.99	-1.01	1.30	-1.04	40°12'08.426"N	104°48'21.476"W	0.23	
417.00	0.300	259.740	416.99	-0.95	1.35	-1.45	40°12'08.426"N	104°48'21.482"W	0.20	
517.00	0.280	175.970	516.99	-0.61	1.06	-1.69	40°12'08.423"N	104°48'21.485"W	0.39	
617.00	0.330	192.280	616.99	-0.09	0.53	-1.73	40°12'08.418"N	104°48'21.485"W	0.10	
717.00	0.340	131.280	716.99	0.34	0.05	-1.57	40°12'08.414"N	104°48'21.483"W	0.34	
817.00	0.250	101.740	816.99	0.46	-0.19	-1.13	40°12'08.411"N	104°48'21.478"W	0.17	
897.00	0.140	313.860	896.99	0.40	-0.15	-1.03	40°12'08.411"N	104°48'21.476"W	0.47	Tie-Into GYRO Surveys
974.00	1.470	351.090	973.98	-0.55	0.89	-1.25	40°12'08.422"N	104°48'21.479"W	1.77	Begin BHI MWD Surveys
1065.00	2.100	309.660	1064.94	-2.34	3.10	-2.72	40°12'08.444"N	104°48'21.498"W	1.53	
1155.00	2.770	280.290	1154.86	-2.89	4.54	-6.13	40°12'08.458"N	104°48'21.542"W	1.55	
1248.00	4.180	278.840	1247.69	-2.41	5.47	-11.69	40°12'08.467"N	104°48'21.614"W	1.52	
1339.00	5.680	276.400	1338.35	-1.48	6.48	-19.44	40°12'08.477"N	104°48'21.714"W	1.66	
1430.00	6.510	280.890	1428.83	-0.56	7.96	-28.98	40°12'08.492"N	104°48'21.837"W	1.05	
1515.00	7.840	282.220	1513.17	-0.07	10.09	-39.38	40°12'08.513"N	104°48'21.971"W	1.58	
1600.00	8.600	282.690	1597.29	0.32	12.72	-51.25	40°12'08.539"N	104°48'22.123"W	0.90	
1685.00	9.600	284.460	1681.22	0.47	15.88	-64.31	40°12'08.570"N	104°48'22.292"W	1.22	
1770.00	11.040	286.030	1764.84	0.20	19.90	-79.00	40°12'08.610"N	104°48'22.481"W	1.73	
1855.00	11.420	279.990	1848.22	0.58	23.61	-95.11	40°12'08.646"N	104°48'22.689"W	1.45	
1940.00	10.850	277.130	1931.62	2.21	26.06	-111.33	40°12'08.671"N	104°48'22.898"W	0.93	
2025.00	12.150	281.450	2014.91	3.65	28.83	-128.04	40°12'08.698"N	104°48'23.113"W	1.83	
2110.00	11.950	280.000	2098.04	4.74	32.13	-145.47	40°12'08.731"N	104°48'23.338"W	0.43	
2196.00	12.670	279.900	2182.06	6.13	35.30	-163.53	40°12'08.762"N	104°48'23.571"W	0.84	
2281.00	12.550	278.390	2265.01	7.79	38.25	-181.85	40°12'08.791"N	104°48'23.807"W	0.41	
2366.00	12.370	278.210	2348.01	9.70	40.90	-200.00	40°12'08.817"N	104°48'24.041"W	0.22	
2451.00	11.970	276.900	2431.10	11.79	43.26	-217.76	40°12'08.840"N	104°48'24.269"W	0.57	
2536.00	11.360	276.700	2514.34	14.03	45.29	-234.82	40°12'08.861"N	104°48'24.489"W	0.72	
2621.00	12.120	276.470	2597.56	16.35	47.27	-252.00	40°12'08.880"N	104°48'24.711"W	0.90	
2707.00	12.320	276.210	2681.62	18.86	49.28	-270.10	40°12'08.900"N	104°48'24.944"W	0.24	
2792.00	12.670	277.460	2764.60	21.24	51.48	-288.35	40°12'08.922"N	104°48'25.179"W	0.52	
2877.00	12.830	276.930	2847.51	23.56	53.82	-306.97	40°12'08.945"N	104°48'25.419"W	0.23	
2962.00	12.570	282.170	2930.43	25.10	56.91	-325.38	40°12'08.975"N	104°48'25.656"W	1.39	
3047.00	12.150	281.710	3013.46	25.85	60.68	-343.18	40°12'09.013"N	104°48'25.886"W	0.51	
3132.00	11.920	281.960	3096.59	26.60	64.31	-360.52	40°12'09.049"N	104°48'26.109"W	0.28	
3217.00	11.450	282.200	3179.83	27.26	67.92	-377.36	40°12'09.084"N	104°48'26.326"W	0.56	
3302.00	11.470	279.980	3263.14	28.20	71.16	-393.93	40°12'09.116"N	104°48'26.540"W	0.52	
3388.00	11.110	280.770	3347.47	29.35	74.19	-410.49	40°12'09.146"N	104°48'26.753"W	0.46	
3473.00	11.280	282.060	3430.85	30.18	77.46	-426.66	40°12'09.178"N	104°48'26.962"W	0.36	
3558.00	11.400	282.330	3514.19	30.78	80.99	-443.00	40°12'09.213"N	104°48'27.172"W	0.15	
3643.00	11.460	283.000	3597.51	31.26	84.68	-459.43	40°12'09.250"N	104°48'27.384"W	0.17	
3728.00	11.370	279.920	3680.83	32.08	88.03	-475.92	40°12'09.283"N	104°48'27.597"W	0.72	
3813.00	11.770	277.750	3764.10	33.71	90.64	-492.76	40°12'09.309"N	104°48'27.814"W	0.70	



Actual Wellpath Report

NORTON 34N-29HZ AWP

Page 3 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#37 NORTON 34N-29HZ (250'FNL & 1307'FWL, SEC.29)
Area	COLORADO	Well	NORTON 34N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NORTON 34N-29HZ AWB
Facility	SEC.29-T3N-R66W		

WELLPATH DATA (161 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3899.00	11.410	279.140	3848.35	35.47	93.17	-509.85	40°12'09.334"N	104°48'28.034"W	0.53	
3983.00	12.160	281.390	3930.58	36.66	96.24	-526.73	40°12'09.364"N	104°48'28.251"W	1.05	
4068.00	12.140	281.150	4013.67	37.60	99.74	-544.27	40°12'09.399"N	104°48'28.477"W	0.06	
4153.00	12.000	282.010	4096.79	38.44	103.30	-561.68	40°12'09.434"N	104°48'28.702"W	0.27	
4238.00	10.880	281.640	4180.10	39.15	106.76	-578.18	40°12'09.468"N	104°48'28.915"W	1.32	
4323.00	11.110	281.200	4263.54	39.96	109.97	-594.07	40°12'09.500"N	104°48'29.119"W	0.29	
4408.00	10.710	278.020	4347.01	41.27	112.66	-609.93	40°12'09.526"N	104°48'29.324"W	0.85	
4493.00	11.270	280.180	4430.45	42.72	115.23	-625.92	40°12'09.552"N	104°48'29.530"W	0.82	
4579.00	11.640	281.940	4514.74	43.68	118.51	-642.68	40°12'09.584"N	104°48'29.746"W	0.59	
4664.00	11.960	282.350	4597.94	44.32	122.17	-659.68	40°12'09.620"N	104°48'29.965"W	0.39	
4749.00	11.650	281.670	4681.14	45.01	125.79	-676.68	40°12'09.656"N	104°48'30.184"W	0.40	
4834.00	10.500	281.470	4764.56	45.78	129.07	-692.68	40°12'09.688"N	104°48'30.390"W	1.35	
4919.00	10.470	282.210	4848.14	46.44	132.24	-707.82	40°12'09.720"N	104°48'30.585"W	0.16	
5004.00	11.310	282.300	4931.61	47.01	135.65	-723.51	40°12'09.753"N	104°48'30.787"W	0.99	
5089.00	12.260	280.380	5014.81	47.91	139.05	-740.53	40°12'09.787"N	104°48'31.007"W	1.21	
5175.00	11.690	281.450	5098.94	48.96	142.43	-758.05	40°12'09.820"N	104°48'31.233"W	0.71	
5260.00	10.370	280.730	5182.37	49.86	145.56	-774.01	40°12'09.851"N	104°48'31.438"W	1.56	
5345.00	10.660	282.660	5265.94	50.55	148.71	-789.20	40°12'09.882"N	104°48'31.634"W	0.54	
5430.00	11.650	280.680	5349.34	51.32	152.02	-805.30	40°12'09.915"N	104°48'31.842"W	1.25	
5516.00	11.820	281.510	5433.54	52.29	155.39	-822.47	40°12'09.948"N	104°48'32.063"W	0.28	
5601.00	10.570	281.210	5516.92	53.13	158.64	-838.64	40°12'09.981"N	104°48'32.271"W	1.47	
5686.00	10.980	280.260	5600.42	54.11	161.60	-854.26	40°12'10.010"N	104°48'32.473"W	0.53	
5771.00	11.290	278.320	5683.82	55.54	164.24	-870.46	40°12'10.036"N	104°48'32.681"W	0.57	
5856.00	11.270	279.970	5767.18	57.03	166.89	-886.87	40°12'10.062"N	104°48'32.893"W	0.38	
5942.00	11.170	280.580	5851.54	58.20	169.87	-903.33	40°12'10.091"N	104°48'33.105"W	0.18	
6027.00	10.340	279.480	5935.04	59.37	172.64	-918.95	40°12'10.119"N	104°48'33.306"W	1.01	
6112.00	9.030	279.240	6018.83	60.59	174.97	-933.06	40°12'10.142"N	104°48'33.488"W	1.54	
6197.00	7.490	277.970	6102.95	61.79	176.81	-945.13	40°12'10.160"N	104°48'33.644"W	1.82	
6282.00	6.010	277.260	6187.35	62.94	178.14	-955.03	40°12'10.173"N	104°48'33.771"W	1.74	
6367.00	4.940	281.240	6271.97	63.68	179.41	-963.04	40°12'10.186"N	104°48'33.874"W	1.34	
6452.00	3.590	278.690	6356.73	64.13	180.53	-969.26	40°12'10.197"N	104°48'33.955"W	1.60	
6538.00	2.330	278.340	6442.61	64.58	181.19	-973.65	40°12'10.203"N	104°48'34.011"W	1.47	
6623.00	0.950	262.220	6527.57	65.02	181.34	-976.06	40°12'10.205"N	104°48'34.042"W	1.70	
6700.00	4.610	210.680	6604.48	68.23	178.59	-978.27	40°12'10.178"N	104°48'34.071"W	5.31	
6730.00	8.930	206.890	6634.26	71.66	175.48	-979.94	40°12'10.147"N	104°48'34.092"W	14.47	
6760.00	12.410	217.330	6663.74	76.90	170.84	-982.95	40°12'10.101"N	104°48'34.131"W	13.22	
6790.00	15.660	220.180	6692.84	83.51	165.18	-987.51	40°12'10.045"N	104°48'34.190"W	11.07	
6820.00	17.050	212.040	6721.63	91.34	158.36	-992.46	40°12'09.978"N	104°48'34.254"W	8.92	
6850.00	18.860	204.160	6750.17	100.31	150.20	-996.78	40°12'09.897"N	104°48'34.309"W	10.09	
6880.00	21.040	193.800	6778.38	110.48	140.54	-1000.05	40°12'09.802"N	104°48'34.351"W	13.82	
6910.00	23.810	185.220	6806.12	121.85	129.28	-1001.89	40°12'09.690"N	104°48'34.375"W	14.27	
6940.00	27.540	182.880	6833.15	134.63	116.32	-1002.79	40°12'09.562"N	104°48'34.387"W	12.88	
6970.00	31.370	180.470	6859.27	149.02	101.58	-1003.20	40°12'09.417"N	104°48'34.392"W	13.36	
7000.00	34.130	180.020	6884.50	164.76	85.35	-1003.27	40°12'09.256"N	104°48'34.393"W	9.24	
7030.00	37.120	180.360	6908.88	181.71	67.88	-1003.33	40°12'09.084"N	104°48'34.394"W	9.99	



Actual Wellpath Report

NORTON 34N-29HZ AWP

Page 4 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#37 NORTON 34N-29HZ (250'FNL & 1307'FWL, SEC.29)
Area	COLORADO	Well	NORTON 34N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NORTON 34N-29HZ AWB
Facility	SEC.29-T3N-R66W		

WELLPATH DATA (161 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
7060.00	39.510	181.060	6932.42	199.79	49.28	-1003.56	40°12'08.900"N	104°48'34.397"W	8.10	
7090.00	42.180	181.580	6955.11	218.91	29.67	-1004.01	40°12'08.706"N	104°48'34.403"W	8.97	
7120.00	44.980	180.650	6976.84	239.04	8.99	-1004.41	40°12'08.502"N	104°48'34.408"W	9.57	
7150.00	47.420	181.180	6997.60	260.11	-12.66	-1004.76	40°12'08.288"N	104°48'34.412"W	8.23	
7180.00	50.000	181.690	7017.40	282.08	-35.19	-1005.33	40°12'08.065"N	104°48'34.419"W	8.69	
7210.00	52.860	181.750	7036.10	304.97	-58.63	-1006.03	40°12'07.833"N	104°48'34.428"W	9.53	
7240.00	56.350	181.450	7053.47	328.83	-83.07	-1006.71	40°12'07.592"N	104°48'34.437"W	11.66	
7270.00	59.040	181.510	7069.50	353.55	-108.42	-1007.37	40°12'07.341"N	104°48'34.446"W	8.97	
7300.00	61.570	180.780	7084.36	378.93	-134.47	-1007.89	40°12'07.084"N	104°48'34.452"W	8.69	
7330.00	64.100	180.160	7098.06	404.84	-161.16	-1008.10	40°12'06.820"N	104°48'34.455"W	8.63	
7360.00	66.440	179.510	7110.61	431.23	-188.41	-1008.02	40°12'06.551"N	104°48'34.454"W	8.04	
7390.00	68.670	179.900	7122.06	458.06	-216.13	-1007.88	40°12'06.277"N	104°48'34.452"W	7.53	
7420.00	70.620	180.870	7132.50	485.36	-244.26	-1008.07	40°12'05.999"N	104°48'34.455"W	7.17	
7450.00	72.540	180.770	7141.98	513.04	-272.71	-1008.48	40°12'05.718"N	104°48'34.460"W	6.41	
7480.00	74.690	181.060	7150.44	541.04	-301.49	-1008.94	40°12'05.433"N	104°48'34.466"W	7.23	
7510.00	76.200	181.990	7157.98	569.36	-330.52	-1009.71	40°12'05.147"N	104°48'34.476"W	5.86	
7540.00	79.030	182.370	7164.41	598.01	-359.79	-1010.83	40°12'04.857"N	104°48'34.490"W	9.51	
7570.00	82.910	182.760	7169.12	627.02	-389.39	-1012.15	40°12'04.565"N	104°48'34.507"W	13.00	
7594.00	85.640	182.390	7171.51	650.40	-413.24	-1013.23	40°12'04.329"N	104°48'34.521"W	11.48	
7639.00†	88.893	182.390	7173.66	694.38	-458.14	-1015.10	40°12'03.885"N	104°48'34.545"W	7.23	7" Casing Point
7642.00	89.110	182.390	7173.71	697.31	-461.14	-1015.23	40°12'03.856"N	104°48'34.547"W	7.23	
7713.00	89.040	183.050	7174.86	766.86	-532.05	-1018.59	40°12'03.155"N	104°48'34.590"W	0.93	
7799.00	89.750	182.560	7175.77	851.14	-617.94	-1022.80	40°12'02.306"N	104°48'34.644"W	1.00	
7884.00	89.470	181.760	7176.34	934.24	-702.88	-1026.01	40°12'01.467"N	104°48'34.686"W	1.00	
7969.00	90.770	182.250	7176.17	1017.30	-787.83	-1028.98	40°12'00.628"N	104°48'34.724"W	1.63	
8054.00	90.840	181.020	7174.97	1100.22	-872.78	-1031.40	40°11'59.788"N	104°48'34.755"W	1.45	
8140.00	91.110	181.720	7173.51	1184.04	-958.74	-1033.46	40°11'58.939"N	104°48'34.781"W	0.87	
8225.00	89.600	182.900	7172.98	1267.18	-1043.67	-1036.89	40°11'58.099"N	104°48'34.826"W	2.25	
8310.00	90.530	181.630	7172.89	1350.32	-1128.60	-1040.25	40°11'57.260"N	104°48'34.869"W	1.85	
8395.00	90.550	182.020	7172.08	1433.31	-1213.55	-1042.95	40°11'56.420"N	104°48'34.904"W	0.46	
8480.00	90.530	180.860	7171.28	1516.18	-1298.52	-1045.09	40°11'55.581"N	104°48'34.931"W	1.36	
8565.00	90.640	180.420	7170.42	1598.78	-1383.51	-1046.04	40°11'54.741"N	104°48'34.943"W	0.53	
8650.00	90.860	180.130	7169.30	1681.25	-1468.50	-1046.45	40°11'53.901"N	104°48'34.949"W	0.43	
8735.00	88.930	180.590	7169.46	1763.75	-1553.50	-1046.98	40°11'53.061"N	104°48'34.955"W	2.33	
8821.00	89.100	180.310	7170.94	1847.24	-1639.48	-1047.66	40°11'52.211"N	104°48'34.964"W	0.38	
8906.00	89.840	182.270	7171.72	1930.06	-1724.45	-1049.57	40°11'51.372"N	104°48'34.989"W	2.46	
8991.00	89.750	183.130	7172.03	2013.33	-1809.35	-1053.57	40°11'50.533"N	104°48'35.040"W	1.02	
9076.00	89.620	183.010	7172.49	2096.70	-1894.23	-1058.12	40°11'49.694"N	104°48'35.099"W	0.21	
9161.00	89.440	183.020	7173.19	2180.06	-1979.11	-1062.60	40°11'48.855"N	104°48'35.156"W	0.21	
9246.00	89.250	183.120	7174.16	2263.44	-2063.98	-1067.15	40°11'48.017"N	104°48'35.215"W	0.25	
9331.00	90.060	181.860	7174.68	2346.64	-2148.90	-1070.84	40°11'47.177"N	104°48'35.263"W	1.76	
9415.00	90.400	181.890	7174.34	2428.68	-2232.85	-1073.59	40°11'46.348"N	104°48'35.298"W	0.41	
9501.00	90.990	181.140	7173.30	2512.54	-2318.82	-1075.86	40°11'45.498"N	104°48'35.327"W	1.11	
9586.00	90.710	180.340	7172.03	2595.17	-2403.80	-1076.96	40°11'44.658"N	104°48'35.341"W	1.00	
9671.00	90.710	180.150	7170.98	2677.63	-2488.79	-1077.32	40°11'43.819"N	104°48'35.346"W	0.22	



Actual Wellpath Report

NORTON 34N-29HZ AWP

Page 5 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#37 NORTON 34N-29HZ (250'FNL & 1307'FWL, SEC.29)
Area	COLORADO	Well	NORTON 34N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NORTON 34N-29HZ AWB
Facility	SEC.29-T3N-R66W		

WELLPATH DATA (161 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
9756.00	91.610	179.640	7169.26	2759.94	-2573.77	-1077.17	40°11'42.979"N	104°48'35.344"W	1.22	
9841.00	91.270	180.480	7167.12	2842.31	-2658.74	-1077.26	40°11'42.139"N	104°48'35.345"W	1.07	
9926.00	90.560	181.130	7165.77	2924.96	-2743.72	-1078.45	40°11'41.299"N	104°48'35.360"W	1.13	
10011.00	90.400	182.860	7165.05	3008.01	-2828.67	-1081.41	40°11'40.460"N	104°48'35.398"W	2.04	
10096.00	89.780	183.900	7164.92	3091.47	-2913.52	-1086.42	40°11'39.621"N	104°48'35.463"W	1.42	
10181.00	90.030	183.090	7165.06	3174.97	-2998.36	-1091.60	40°11'38.783"N	104°48'35.530"W	1.00	
10266.00	88.830	182.910	7165.91	3258.32	-3083.24	-1096.05	40°11'37.944"N	104°48'35.587"W	1.43	
10352.00	88.800	182.670	7167.69	3342.58	-3169.12	-1100.24	40°11'37.096"N	104°48'35.641"W	0.28	
10437.00	89.130	182.440	7169.22	3425.79	-3254.02	-1104.02	40°11'36.257"N	104°48'35.690"W	0.47	
10522.00	88.170	182.490	7171.22	3508.97	-3338.91	-1107.68	40°11'35.418"N	104°48'35.737"W	1.13	
10607.00	87.990	182.670	7174.07	3592.16	-3423.78	-1111.50	40°11'34.579"N	104°48'35.786"W	0.30	
10690.00	87.770	182.400	7177.14	3673.36	-3506.64	-1115.17	40°11'33.760"N	104°48'35.833"W	0.42	
10776.00	88.450	182.480	7179.98	3757.49	-3592.52	-1118.83	40°11'32.912"N	104°48'35.880"W	0.80	
10860.00	88.880	183.020	7181.94	3839.77	-3676.40	-1122.86	40°11'32.083"N	104°48'35.932"W	0.82	
10946.00	90.300	184.310	7182.55	3924.29	-3762.21	-1128.36	40°11'31.235"N	104°48'36.003"W	2.23	
11031.00	90.400	184.560	7182.03	4008.04	-3846.96	-1134.93	40°11'30.397"N	104°48'36.087"W	0.32	
11116.00	89.440	183.530	7182.15	4091.68	-3931.74	-1140.93	40°11'29.559"N	104°48'36.165"W	1.66	
11201.00	89.170	183.120	7183.18	4175.13	-4016.60	-1145.86	40°11'28.721"N	104°48'36.228"W	0.58	
11286.00	89.070	182.400	7184.49	4258.41	-4101.49	-1149.95	40°11'27.882"N	104°48'36.281"W	0.86	
11371.00	89.290	183.040	7185.70	4341.67	-4186.38	-1153.98	40°11'27.043"N	104°48'36.333"W	0.80	
11456.00	89.160	182.660	7186.85	4424.98	-4271.27	-1158.21	40°11'26.204"N	104°48'36.387"W	0.47	
11541.00	89.440	181.850	7187.89	4508.11	-4356.19	-1161.55	40°11'25.365"N	104°48'36.430"W	1.01	
11626.00	89.720	181.960	7188.51	4591.13	-4441.15	-1164.38	40°11'24.525"N	104°48'36.467"W	0.35	
11711.00	89.410	181.780	7189.16	4674.14	-4526.10	-1167.15	40°11'23.686"N	104°48'36.502"W	0.42	
11722.00	89.320	181.200	7189.28	4684.87	-4537.09	-1167.44	40°11'23.577"N	104°48'36.506"W	5.34	Final BHI MWD Survey
11776.00	89.320	181.200	7189.92	4737.46	-4591.08	-1168.57	40°11'23.044"N	104°48'36.520"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: NORTON 34N-29HZ AWB Ref Wellpath: NORTON 34N-29HZ 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]
12.25in Open Hole	17.00	935.00	918.00	17.00	934.99	0.00	0.00	0.13	-1.12
9.625in Casing Surface	17.00	935.00	918.00	17.00	934.99	0.00	0.00	0.13	-1.12
8.75in Open Hole	935.00	7639.00	6704.00	934.99	7173.66	0.13	-1.12	-458.14	-1015.10
7in Casing Intermediate	17.00	7629.00	7612.00	17.00	7173.40	0.00	0.00	-448.16	-1014.68
6.125in Open Hole	7629.00	11776.00	4147.00	7173.40	7189.92	-448.16	-1014.68	-4591.08	-1168.57



Actual Wellpath Report

NORTON 34N-29HZ AWP

Page 6 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#37 NORTON 34N-29HZ (250'FNL & 1307'FWL, SEC.29)
Area	COLORADO	Well	NORTON 34N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NORTON 34N-29HZ AWB
Facility	SEC.29-T3N-R66W		

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
RAYMOND PAD SECTION LINES		-29.00	26.06	2778.22	3196636.19	1317360.22	40°12'08.669"N	104°47'45.658"W	polygon
NORTON 34N-29HZ BHL ON PLAT (460'FSL & 130'FWL, SEC.29) REV-1		7198.00	-4615.95	-1175.37	3192719.24	1312687.62	40°11'22.798"N	104°48'36.608"W	point
NORTON 34N-29HZ LAND BOX		7200.00	0.00	0.00	3193858.39	1317312.42	40°12'08.413"N	104°48'21.463"W	polygon
RAYMOND PAD HARDLINES (460' SETBACKS)		7471.00	26.06	2778.22	3196636.19	1317360.22	40°12'08.669"N	104°47'45.658"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: NORTON 34N-29HZ AWB Ref Wellpath: NORTON 34N-29HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	897.00	Generic gyro - continuous (Standard)	GYRODATA SURVEYS <117-897>	NORTON 34N-29HZ AWB
897.00	7594.00	NaviTrak (MagCorr)	BHI MWD SURVEYS 8 3/4" HOLE <974-7594>	NORTON 34N-29HZ AWB
7594.00	11722.00	OnTrak (MagCorr)	BHI MWD SURVEYS 6 1/8" HOLE <7642-11722>	NORTON 34N-29HZ AWB
11722.00	11776.00	Blind Drilling (std)	Projection to bit	NORTON 34N-29HZ AWB



Actual Wellpath Report

NORTON 34N-29HZ AWP

Page 7 of 7



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#37 NORTON 34N-29HZ (250'FNL & 1307'FWL, SEC.29)
Area	COLORADO	Well	NORTON 34N-29HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	NORTON 34N-29HZ AWB
Facility	SEC.29-T3N-R66W		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
17.00	0.000	331.040	17.00	Tie-On
117.00	0.450	331.040	117.00	Begin GYRO Surveys
897.00	0.140	313.860	896.99	Tie-Into GYRO Surveys
974.00	1.470	351.090	973.98	Begin BHI MWD Surveys
7639.00	88.893	182.390	7173.66	7" Casing Point
11722.00	89.320	181.200	7189.28	Final BHI MWD Survey
11776.00	89.320	181.200	7189.92	Projection to Bit