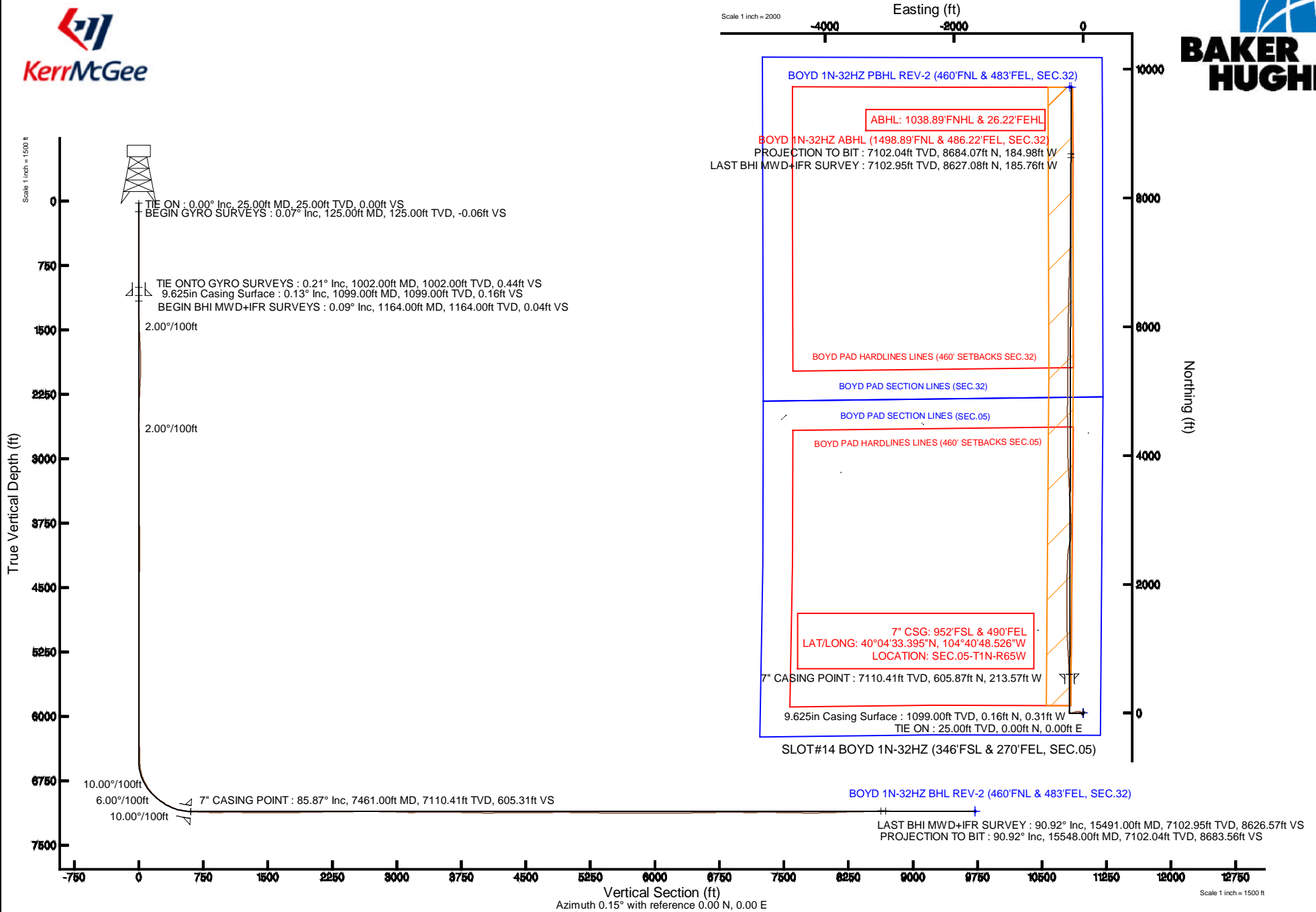


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#14 BOYD 1N-32HZ (346'FSL & 270'FEL, SEC.05)
 Field: WELD COUNTY (KERR MCGEE) Well: BOYD 1N-32HZ
 Facility: SEC.05-T1N-R65W Wellbore: BOYD 1N-32HZ PWB

Plot reference wellpath is BOYD 1N-32HZ (REV-B.0) PWP

True vertical depths are referenced to H&P 307 (25' RKB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to H&P 307 (25' RKB) (RKB)	North Reference: True north
H&P 307 (25' RKB) (RKB) to Mean Sea Level: 4956 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#14 BOYD 1N-32HZ (346'FSL & 270'FEL, SEC.05)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: robiale01 on 16/Dec/2013





Actual Wellpath Report

BOYD 1N-32HZ AWP
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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 BOYD 1N-32HZ (346'FSL & 270'FEL, SEC.05)
Area	COLORADO	Well	BOYD 1N-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BOYD 1N-32HZ AWB
Facility	SEC.05-T1N-R65W		

REPORT SETUP INFORMATION

Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Robiale01
Scale	0.999962	Report Generated	16/Dec/2013 at 13:31
Convergence at slot	n/a	Database/Source file	WellArchitectDB/BOYD_1N-32HZ_AWB.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-2291.41	2348.10	3229645.10	1270967.80	40°04'27.408"N	104°40'45.779"W
Facility Reference Pt			3227276.21	1273237.51	40°04'50.053"N	104°41'15.984"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM

Calculation method	Minimum curvature	H&P 307 (25' RKB) (RKB) to Facility Vertical Datum	4956.00ft
Horizontal Reference Pt	Slot	H&P 307 (25' RKB) (RKB) to Mean Sea Level	4956.00ft
Vertical Reference Pt	H&P 307 (25' RKB) (RKB)	H&P 307 (25' RKB) (RKB) to Mud Line at Slot (SLOT#14 BOYD 1N-32HZ (346'FSL & 270'FEL, SEC.05))	4956.00ft
MD Reference Pt	H&P 307 (25' RKB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.15°



Actual Wellpath Report

BOYD 1N-32HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 BOYD 1N-32HZ (346'FSL & 270'FEL, SEC.05)
Area	COLORADO	Well	BOYD 1N-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BOYD 1N-32HZ AWP
Facility	SEC.05-T1N-R65W		

WELLPATH DATA (167 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	201.190	0.00	0.00	0.00	0.00	40°04'27.408"N	104°40'45.779"W	0.00	
25.00	0.000	201.190	25.00	0.00	0.00	0.00	40°04'27.408"N	104°40'45.779"W	0.00	TIE ON
125.00	0.070	201.190	125.00	-0.06	-0.06	-0.02	40°04'27.407"N	104°40'45.779"W	0.07	BEGIN GYRO SURVEYS
225.00	0.130	208.570	225.00	-0.21	-0.21	-0.10	40°04'27.406"N	104°40'45.780"W	0.06	
325.00	0.290	20.030	325.00	-0.08	-0.08	-0.07	40°04'27.407"N	104°40'45.780"W	0.42	
425.00	0.130	27.970	425.00	0.26	0.26	0.07	40°04'27.411"N	104°40'45.778"W	0.16	
525.00	0.150	339.630	525.00	0.49	0.49	0.08	40°04'27.413"N	104°40'45.778"W	0.12	
625.00	0.040	254.370	625.00	0.60	0.60	0.00	40°04'27.414"N	104°40'45.779"W	0.15	
725.00	0.210	293.090	725.00	0.66	0.66	-0.20	40°04'27.415"N	104°40'45.782"W	0.18	
825.00	0.060	324.900	825.00	0.77	0.78	-0.40	40°04'27.416"N	104°40'45.784"W	0.16	
925.00	0.160	161.300	925.00	0.69	0.69	-0.38	40°04'27.415"N	104°40'45.784"W	0.22	
1002.00	0.210	171.440	1002.00	0.44	0.45	-0.33	40°04'27.412"N	104°40'45.783"W	0.08	TIE ONTO GYRO SURVEYS
1164.00	0.090	206.280	1164.00	0.04	0.04	-0.34	40°04'27.408"N	104°40'45.783"W	0.09	BEGIN BHI MWD+IFR SURVEYS
1257.00	1.690	285.340	1256.98	0.33	0.33	-1.70	40°04'27.411"N	104°40'45.801"W	1.80	
1350.00	3.190	300.690	1349.90	2.00	2.02	-5.24	40°04'27.428"N	104°40'45.846"W	1.75	
1438.00	4.290	292.300	1437.71	4.49	4.52	-10.39	40°04'27.453"N	104°40'45.913"W	1.39	
1531.00	5.570	298.030	1530.36	7.91	7.96	-17.60	40°04'27.487"N	104°40'46.005"W	1.47	
1624.00	7.900	292.960	1622.72	12.50	12.57	-27.47	40°04'27.532"N	104°40'46.132"W	2.58	
1718.00	9.640	286.250	1715.62	17.19	17.30	-40.97	40°04'27.579"N	104°40'46.306"W	2.14	
1811.00	11.550	278.220	1807.03	20.66	20.81	-57.67	40°04'27.614"N	104°40'46.521"W	2.59	
1904.00	11.550	270.480	1898.15	22.02	22.22	-76.19	40°04'27.628"N	104°40'46.759"W	1.67	
1996.00	12.100	260.620	1988.21	20.47	20.72	-94.92	40°04'27.613"N	104°40'47.000"W	2.27	
2090.00	11.620	257.900	2080.20	16.83	17.13	-113.89	40°04'27.577"N	104°40'47.244"W	0.78	
2183.00	11.250	256.650	2171.36	12.73	13.07	-131.88	40°04'27.537"N	104°40'47.475"W	0.48	
2276.00	10.850	255.590	2262.63	8.41	8.80	-149.18	40°04'27.495"N	104°40'47.698"W	0.48	
2370.00	8.100	261.050	2355.34	5.14	5.57	-164.30	40°04'27.463"N	104°40'47.892"W	3.07	
2462.00	6.470	257.340	2446.60	2.97	3.42	-175.76	40°04'27.442"N	104°40'48.040"W	1.84	
2555.00	5.660	273.480	2539.08	2.07	2.55	-185.45	40°04'27.433"N	104°40'48.165"W	2.02	
2648.00	4.020	276.430	2631.75	2.69	3.20	-193.27	40°04'27.440"N	104°40'48.265"W	1.78	
2748.00	3.420	279.840	2731.54	3.58	4.10	-199.69	40°04'27.448"N	104°40'48.348"W	0.64	
2841.00	1.530	275.270	2824.45	4.16	4.69	-203.66	40°04'27.454"N	104°40'48.399"W	2.04	
2935.00	0.120	290.550	2918.44	4.30	4.84	-205.00	40°04'27.456"N	104°40'48.416"W	1.50	

3313.00	0.800	326.710	3296.42	6.64	7.18	-206.82	40°04'27.479"N	104°40'48.439"W	0.19
3407.00	0.700	230.090	3390.42	6.82	7.36	-207.62	40°04'27.481"N	104°40'48.450"W	1.19
3691.00	0.630	314.900	3674.40	6.80	7.35	-210.06	40°04'27.481"N	104°40'48.481"W	0.32
4068.00	0.860	349.290	4051.37	11.04	11.59	-212.05	40°04'27.523"N	104°40'48.507"W	0.13
4162.00	1.280	177.940	4145.37	10.69	11.24	-212.14	40°04'27.519"N	104°40'48.508"W	2.27
4351.00	0.560	169.130	4334.34	7.67	8.22	-211.89	40°04'27.489"N	104°40'48.505"W	0.39
4729.00	0.280	230.890	4712.33	5.27	5.82	-212.26	40°04'27.466"N	104°40'48.509"W	0.13
5107.00	1.330	62.910	5090.30	6.70	7.24	-209.07	40°04'27.480"N	104°40'48.468"W	0.42
5196.00	0.630	252.720	5179.30	7.02	7.56	-208.62	40°04'27.483"N	104°40'48.463"W	2.20
5291.00	0.310	246.340	5274.29	6.76	7.31	-209.35	40°04'27.480"N	104°40'48.472"W	0.34
5668.00	0.330	110.610	5651.29	5.97	6.51	-209.27	40°04'27.472"N	104°40'48.471"W	0.16
5762.00	0.880	224.350	5745.29	5.36	5.90	-209.52	40°04'27.466"N	104°40'48.474"W	1.12
6139.00	0.760	330.860	6122.27	5.46	6.02	-212.76	40°04'27.467"N	104°40'48.516"W	0.35



Actual Wellpath Report

BOYD 1N-32HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 BOYD 1N-32HZ (346'FSL & 270'FEL, SEC.05)
Area	COLORADO	Well	BOYD 1N-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BOYD 1N-32HZ AWP
Facility	SEC.05-T1N-R65W		

WELLPATH DATA (167 stations) † = interpolated/extrapolated station

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
6422.00	0.640	318.160	6405.25	8.28	8.83	-214.73	40°04'27.495"N	104°40'48.541"W	0.07	
6469.00	0.720	304.430	6452.24	8.64	9.20	-215.15	40°04'27.499"N	104°40'48.547"W	0.38	
6522.00	1.460	331.320	6505.23	9.42	9.98	-215.75	40°04'27.507"N	104°40'48.554"W	1.66	
6569.00	4.320	356.070	6552.17	11.71	12.27	-216.16	40°04'27.529"N	104°40'48.560"W	6.50	
6616.00	7.460	6.080	6598.92	16.51	17.07	-215.96	40°04'27.577"N	104°40'48.557"W	7.00	
6663.00	11.960	9.760	6645.23	24.35	24.91	-214.81	40°04'27.654"N	104°40'48.542"W	9.66	
6710.00	19.070	8.080	6690.49	36.77	37.32	-212.90	40°04'27.777"N	104°40'48.518"W	15.16	
6757.00	23.260	6.980	6734.31	53.60	54.15	-210.69	40°04'27.943"N	104°40'48.489"W	8.95	
6804.00	27.370	3.640	6776.79	73.60	74.15	-208.88	40°04'28.141"N	104°40'48.466"W	9.25	
6851.00	31.460	359.810	6817.73	96.66	97.21	-208.23	40°04'28.369"N	104°40'48.458"W	9.57	
6899.00	36.010	359.150	6857.63	123.31	123.86	-208.48	40°04'28.632"N	104°40'48.461"W	9.51	
6946.00	40.870	0.090	6894.44	152.52	153.06	-208.66	40°04'28.921"N	104°40'48.463"W	10.41	
6993.00	46.350	0.060	6928.45	184.93	185.47	-208.62	40°04'29.241"N	104°40'48.463"W	11.66	
7040.00	51.290	358.990	6959.39	220.29	220.83	-208.93	40°04'29.590"N	104°40'48.467"W	10.65	
7088.00	55.200	359.370	6988.11	258.73	259.28	-209.48	40°04'29.970"N	104°40'48.474"W	8.17	
7135.00	58.710	0.310	7013.73	298.12	298.67	-209.58	40°04'30.359"N	104°40'48.475"W	7.65	
7182.00	61.090	0.550	7037.30	338.78	339.33	-209.27	40°04'30.761"N	104°40'48.471"W	5.08	
7229.00	64.860	1.040	7058.65	380.64	381.18	-208.69	40°04'31.175"N	104°40'48.464"W	8.07	
7276.00	70.640	359.500	7076.44	424.12	424.66	-208.50	40°04'31.605"N	104°40'48.461"W	12.67	
7323.00	76.210	358.540	7089.85	469.14	469.68	-209.27	40°04'32.050"N	104°40'48.471"W	12.01	
7370.00	79.390	358.520	7099.78	515.05	515.60	-210.45	40°04'32.503"N	104°40'48.486"W	6.77	
7417.00	84.050	357.950	7106.54	561.52	562.08	-211.88	40°04'32.963"N	104°40'48.505"W	9.99	
7461.00†	85.869	357.651	7110.41	605.31	605.87	-213.57	40°04'33.395"N	104°40'48.526"W	4.19	7" CASING POINT
7507.00	87.770	357.340	7112.96	651.19	651.76	-215.57	40°04'33.849"N	104°40'48.552"W	4.19	
7600.00	88.020	356.980	7116.38	744.00	744.58	-220.18	40°04'34.766"N	104°40'48.611"W	0.47	
7694.00	88.430	356.860	7119.29	837.81	838.40	-225.23	40°04'35.693"N	104°40'48.676"W	0.45	
7787.00	91.070	356.450	7119.70	930.63	931.23	-230.65	40°04'36.611"N	104°40'48.746"W	2.87	
7880.00	91.130	356.900	7117.91	1023.44	1024.06	-236.04	40°04'37.528"N	104°40'48.816"W	0.49	
7973.00	89.350	357.460	7117.52	1116.31	1116.94	-240.62	40°04'38.446"N	104°40'48.874"W	2.01	
8065.00	88.700	357.410	7119.09	1208.19	1208.83	-244.74	40°04'39.354"N	104°40'48.927"W	0.71	
8159.00	89.290	357.400	7120.73	1302.07	1302.72	-248.99	40°04'40.282"N	104°40'48.982"W	0.63	
8252.00	90.360	359.380	7121.02	1395.02	1395.68	-251.60	40°04'41.200"N	104°40'49.016"W	2.42	

8345.00	89.630	359.730	7121.03	1488.01	1488.67	-252.33	40°04'42.119"N	104°40'49.025"W	0.87
8440.00	89.690	0.260	7121.59	1583.01	1583.67	-252.34	40°04'43.058"N	104°40'49.025"W	0.56
8534.00	90.550	0.350	7121.39	1677.01	1677.67	-251.83	40°04'43.987"N	104°40'49.019"W	0.92
8628.00	90.890	0.420	7120.21	1771.00	1771.66	-251.20	40°04'44.916"N	104°40'49.011"W	0.37
8722.00	90.550	0.230	7119.03	1864.99	1865.65	-250.67	40°04'45.845"N	104°40'49.004"W	0.41
8817.00	90.950	0.510	7117.79	1959.98	1960.64	-250.06	40°04'46.783"N	104°40'48.996"W	0.51
8911.00	91.230	0.730	7116.00	2053.96	2054.62	-249.04	40°04'47.712"N	104°40'48.983"W	0.38
9005.00	91.870	1.040	7113.46	2147.92	2148.57	-247.59	40°04'48.641"N	104°40'48.964"W	0.76
9099.00	91.040	1.530	7111.07	2241.87	2242.52	-245.48	40°04'49.569"N	104°40'48.937"W	1.03
9193.00	90.400	1.920	7109.89	2335.83	2336.47	-242.65	40°04'50.497"N	104°40'48.901"W	0.80
9287.00	90.270	3.760	7109.34	2429.72	2430.34	-237.99	40°04'51.425"N	104°40'48.841"W	1.96
9382.00	90.520	7.870	7108.68	2524.23	2524.83	-228.37	40°04'52.359"N	104°40'48.717"W	4.33
9453.00	91.260	12.030	7107.58	2594.17	2594.74	-216.11	40°04'53.050"N	104°40'48.559"W	5.95



Actual Wellpath Report

BOYD 1N-32HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 BOYD 1N-32HZ (346'FSL & 270'FEL, SEC.05)
Area	COLORADO	Well	BOYD 1N-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BOYD 1N-32HZ AWP
Facility	SEC.05-T1N-R65W		

WELLPATH DATA (167 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
9478.00	90.980	12.840	7107.09	2618.59	2619.15	-210.73	40°04'53.291"N	104°40'48.490"W	3.43	
9509.00	91.070	13.230	7106.54	2648.81	2649.35	-203.74	40°04'53.589"N	104°40'48.400"W	1.29	
9541.00	90.700	10.720	7106.04	2680.12	2680.64	-197.10	40°04'53.899"N	104°40'48.315"W	7.93	
9572.00	90.000	7.080	7105.85	2710.75	2711.26	-192.30	40°04'54.201"N	104°40'48.253"W	11.96	
9604.00	87.930	4.200	7106.43	2742.60	2743.10	-189.16	40°04'54.516"N	104°40'48.213"W	11.08	
9636.00	87.030	3.260	7107.84	2774.50	2775.00	-187.08	40°04'54.831"N	104°40'48.186"W	4.06	
9667.00	87.710	2.230	7109.26	2805.44	2805.93	-185.60	40°04'55.137"N	104°40'48.167"W	3.98	
9698.00	88.730	1.110	7110.22	2836.41	2836.90	-184.69	40°04'55.443"N	104°40'48.155"W	4.89	
9730.00	89.900	359.770	7110.61	2868.41	2868.90	-184.45	40°04'55.759"N	104°40'48.152"W	5.56	
9761.00	89.250	358.710	7110.84	2899.40	2899.89	-184.86	40°04'56.065"N	104°40'48.157"W	4.01	
9808.00	87.900	357.270	7112.01	2946.35	2946.85	-186.51	40°04'56.529"N	104°40'48.178"W	4.20	
9856.00	87.930	357.150	7113.75	2994.26	2994.76	-188.84	40°04'57.003"N	104°40'48.208"W	0.26	
9903.00	87.720	356.710	7115.54	3041.15	3041.66	-191.36	40°04'57.466"N	104°40'48.241"W	1.04	
9950.00	87.420	357.600	7117.53	3088.04	3088.56	-193.69	40°04'57.930"N	104°40'48.271"W	2.00	
9997.00	88.540	356.960	7119.19	3134.95	3135.47	-195.92	40°04'58.393"N	104°40'48.299"W	2.74	
10044.00	91.010	356.690	7119.37	3181.87	3182.40	-198.52	40°04'58.857"N	104°40'48.333"W	5.29	
10091.00	91.720	357.430	7118.25	3228.79	3229.32	-200.93	40°04'59.321"N	104°40'48.364"W	2.18	
10138.00	91.230	357.260	7117.04	3275.72	3276.26	-203.10	40°04'59.785"N	104°40'48.392"W	1.10	
10185.00	89.560	357.330	7116.72	3322.66	3323.20	-205.32	40°05'00.248"N	104°40'48.421"W	3.56	
10232.00	89.810	357.250	7116.97	3369.60	3370.15	-207.54	40°05'00.712"N	104°40'48.449"W	0.56	
10327.00	89.470	357.400	7117.57	3464.48	3465.04	-211.98	40°05'01.650"N	104°40'48.506"W	0.39	
10421.00	89.810	357.360	7118.16	3558.37	3558.94	-216.28	40°05'02.578"N	104°40'48.561"W	0.36	
10516.00	90.060	357.190	7118.27	3653.25	3653.83	-220.79	40°05'03.516"N	104°40'48.620"W	0.32	
10610.00	89.350	357.100	7118.75	3747.12	3747.71	-225.47	40°05'04.444"N	104°40'48.680"W	0.76	
10705.00	88.270	357.300	7120.73	3841.97	3842.58	-230.11	40°05'05.381"N	104°40'48.740"W	1.16	
10799.00	88.890	358.300	7123.06	3935.86	3936.48	-233.72	40°05'06.309"N	104°40'48.786"W	1.25	
10893.00	89.660	359.410	7124.25	4029.83	4030.45	-235.60	40°05'07.238"N	104°40'48.810"W	1.44	
10988.00	90.580	0.320	7124.05	4124.82	4125.45	-235.82	40°05'08.176"N	104°40'48.813"W	1.36	
11082.00	91.100	0.180	7122.67	4218.81	4219.44	-235.41	40°05'09.105"N	104°40'48.808"W	0.57	
11176.00	89.260	359.220	7122.37	4312.80	4313.43	-235.90	40°05'10.034"N	104°40'48.814"W	2.21	
11271.00	89.780	358.850	7123.17	4407.78	4408.41	-237.50	40°05'10.973"N	104°40'48.835"W	0.67	
11365.00	90.240	359.300	7123.15	4501.76	4502.40	-239.02	40°05'11.902"N	104°40'48.854"W	0.68	

11459.00	89.780	358.830	7123.14	4595.75	4596.39	-240.56	40°05'12.830"N	104°40'48.874"W	0.70
11553.00	91.040	0.290	7122.46	4689.73	4690.38	-241.28	40°05'13.759"N	104°40'48.883"W	2.05
11648.00	92.000	0.740	7119.94	4784.70	4785.34	-240.42	40°05'14.698"N	104°40'48.872"W	1.12
11742.00	90.700	0.900	7117.73	4878.66	4879.30	-239.08	40°05'15.626"N	104°40'48.855"W	1.39
11836.00	88.730	0.820	7118.20	4972.65	4973.29	-237.67	40°05'16.555"N	104°40'48.837"W	2.10
11931.00	89.440	0.320	7119.71	5067.63	5068.27	-236.72	40°05'17.494"N	104°40'48.825"W	0.91
12025.00	90.270	359.980	7119.95	5161.63	5162.27	-236.48	40°05'18.422"N	104°40'48.822"W	0.95
12119.00	88.110	0.030	7121.28	5255.62	5256.25	-236.47	40°05'19.351"N	104°40'48.821"W	2.30
12219.00	88.550	1.030	7124.20	5355.57	5356.20	-235.54	40°05'20.339"N	104°40'48.810"W	1.09
12313.00	89.380	0.420	7125.89	5449.55	5450.18	-234.36	40°05'21.268"N	104°40'48.794"W	1.10
12407.00	89.190	0.200	7127.07	5543.54	5544.17	-233.85	40°05'22.197"N	104°40'48.788"W	0.31
12502.00	90.360	0.350	7127.44	5638.54	5639.17	-233.39	40°05'23.135"N	104°40'48.782"W	1.24
12596.00	90.670	0.030	7126.59	5732.54	5733.16	-233.08	40°05'24.064"N	104°40'48.778"W	0.47



Actual Wellpath Report

BOYD 1N-32HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 BOYD 1N-32HZ (346'FSL & 270'FEL, SEC.05)
Area	COLORADO	Well	BOYD 1N-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BOYD 1N-32HZ AWP
Facility	SEC.05-T1N-R65W		

WELLPATH DATA (167 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12691.00	90.300	0.590	7125.79	5827.53	5828.16	-232.57	40°05'25.003"N	104°40'48.771"W	0.71	
12812.00	89.900	0.590	7125.58	5948.53	5949.15	-231.32	40°05'26.199"N	104°40'48.755"W	0.33	
12906.00	89.900	0.700	7125.74	6042.52	6043.14	-230.26	40°05'27.127"N	104°40'48.742"W	0.12	
13000.00	90.550	1.190	7125.37	6136.51	6137.13	-228.71	40°05'28.056"N	104°40'48.722"W	0.87	
13094.00	90.270	0.820	7124.70	6230.50	6231.11	-227.06	40°05'28.985"N	104°40'48.701"W	0.49	
13189.00	90.210	0.750	7124.30	6325.49	6326.10	-225.76	40°05'29.924"N	104°40'48.684"W	0.10	
13283.00	90.300	1.220	7123.88	6419.48	6420.09	-224.14	40°05'30.852"N	104°40'48.663"W	0.51	
13378.00	90.700	1.050	7123.06	6514.46	6515.06	-222.26	40°05'31.791"N	104°40'48.639"W	0.46	
13472.00	91.380	1.520	7121.35	6608.43	6609.02	-220.16	40°05'32.720"N	104°40'48.612"W	0.88	
13566.00	91.660	2.570	7118.86	6702.34	6702.93	-216.80	40°05'33.648"N	104°40'48.569"W	1.16	
13661.00	90.300	2.760	7117.23	6797.24	6797.81	-212.39	40°05'34.585"N	104°40'48.512"W	1.45	
13755.00	89.380	0.850	7117.49	6891.19	6891.76	-209.43	40°05'35.514"N	104°40'48.474"W	2.26	
13849.00	89.410	0.910	7118.49	6985.18	6985.74	-207.98	40°05'36.442"N	104°40'48.455"W	0.07	
13944.00	90.000	1.810	7118.98	7080.15	7080.71	-205.73	40°05'37.381"N	104°40'48.426"W	1.13	
14038.00	90.090	2.040	7118.90	7174.11	7174.66	-202.57	40°05'38.309"N	104°40'48.386"W	0.26	
14133.00	90.920	2.310	7118.06	7269.05	7269.59	-198.96	40°05'39.247"N	104°40'48.339"W	0.92	
14228.00	89.010	0.050	7118.12	7364.02	7364.56	-197.01	40°05'40.186"N	104°40'48.314"W	3.11	
14322.00	88.850	0.030	7119.88	7458.00	7458.54	-196.94	40°05'41.115"N	104°40'48.313"W	0.17	
14417.00	89.070	359.980	7121.60	7552.99	7553.52	-196.93	40°05'42.053"N	104°40'48.313"W	0.24	
14511.00	89.130	0.080	7123.08	7646.97	7647.51	-196.88	40°05'42.982"N	104°40'48.312"W	0.12	
14605.00	89.590	0.730	7124.13	7740.97	7741.50	-196.22	40°05'43.911"N	104°40'48.304"W	0.85	
14700.00	90.060	0.300	7124.42	7835.96	7836.50	-195.37	40°05'44.850"N	104°40'48.293"W	0.67	
14794.00	90.830	0.570	7123.69	7929.96	7930.49	-194.65	40°05'45.779"N	104°40'48.284"W	0.87	
14889.00	91.530	0.840	7121.73	8024.93	8025.46	-193.48	40°05'46.717"N	104°40'48.269"W	0.79	
14983.00	92.150	1.020	7118.71	8118.88	8119.40	-191.96	40°05'47.645"N	104°40'48.249"W	0.69	
15073.00	92.440	0.860	7115.11	8208.80	8209.32	-190.48	40°05'48.534"N	104°40'48.230"W	0.37	
15167.00	91.880	0.610	7111.57	8302.72	8303.24	-189.28	40°05'49.462"N	104°40'48.215"W	0.65	
15214.00	90.650	359.310	7110.53	8349.71	8350.23	-189.31	40°05'49.926"N	104°40'48.215"W	3.81	
15309.00	92.000	0.860	7108.33	8444.68	8445.20	-189.17	40°05'50.865"N	104°40'48.213"W	2.16	
15403.00	91.910	1.320	7105.13	8538.61	8539.13	-187.38	40°05'51.793"N	104°40'48.190"W	0.50	
15491.00	90.920	0.790	7102.95	8626.57	8627.08	-185.76	40°05'52.662"N	104°40'48.169"W	1.28	LAST BHI MWD+IFR SURVEY
15548.00	90.920	0.790	7102.04	8683.56	8684.07	-184.98	40°05'53.226"N	104°40'48.159"W	0.00	PROJECTION TO BIT



Actual Wellpath Report

BOYD 1N-32HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 BOYD 1N-32HZ (346'FSL & 270'FEL, SEC.05)
Area	COLORADO	Well	BOYD 1N-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BOYD 1N-32HZ AWB
Facility	SEC.05-T1N-R65W		

HOLE & CASING SECTIONS - Ref Wellbore: BOYD 1N-32HZ AWB Ref Wellpath: BOYD 1N-32HZ 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]
13.5in Open Hole	25.00	1099.00	1074.00	25.00	1099.00	0.00	0.00	0.16	-0.31
9.625in Casing Surface	25.00	1099.00	1074.00	25.00	1099.00	0.00	0.00	0.16	-0.31
8.75in Open Hole	1099.00	7472.00	6373.00	1099.00	7111.16	0.16	-0.31	616.84	-214.02
7in Casing Intermediate	25.00	7461.00	7436.00	25.00	7110.41	0.00	0.00	605.87	-213.57
6.125in Open Hole	7472.00	15548.00	8076.00	7111.16	7102.04	616.84	-214.02	8684.07	-184.98

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SECTION 5 1/4 1/4 LINES 3		700.00	0.00	0.00	3229645.10	1270967.80	40°04'27.408"N	104°40'45.779"W	polygon
BOYD PAD HARDLINES LINES (460' SETBACKS SEC.05)		7000.00	6.26	-2086.04	3227559.17	1270954.76	40°04'27.469"N	104°41'12.613"W	polygon
BOYD PAD HARDLINES LINES (460' SETBACKS SEC.32)		7000.00	6.26	-2086.04	3227559.17	1270954.76	40°04'27.469"N	104°41'12.613"W	polygon
BOYD PAD SECTION LINES (SEC.05)		7000.00	6.26	-2086.04	3227559.17	1270954.76	40°04'27.469"N	104°41'12.613"W	polygon
BOYD PAD SECTION LINES (SEC.32)		7000.00	6.26	-2086.04	3227559.17	1270954.76	40°04'27.469"N	104°41'12.613"W	polygon
SECTION 5 1/4 1/4 LINES 1		7000.00	0.00	0.00	3229645.10	1270967.80	40°04'27.408"N	104°40'45.779"W	polygon
SECTION 5 1/4 1/4 LINES 2		7000.00	0.00	0.00	3229645.10	1270967.80	40°04'27.408"N	104°40'45.779"W	polygon
SECTION 5 1/4 1/4 LINES 4		7000.00	0.00	0.00	3229645.10	1270967.80	40°04'27.408"N	104°40'45.779"W	polygon
BOYD 1N-32HZ BHL ON PLAT REV-1 (460'FNL & 508'FEL, SEC.32)		7106.00	9722.96	-209.27	3229345.88	1280688.01	40°06'03.492"N	104°40'48.472"W	point

BOYD 1N-32HZ BHL REV-2 (460'FNL & 483'FEL, SEC.32)		7106.00	9722.96	-184.27	3229370.87	1280688.24	40°06'03.492"N	104°40'48.150"W	point
BOYD 1N-32HZ LANDBOX		7106.00	0.00	0.00	3229645.10	1270967.80	40°04'27.408"N	104°40'45.779"W	polygon



Actual Wellpath Report

BOYD 1N-32HZ AWP

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REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 BOYD 1N-32HZ (346'FSL & 270'FEL, SEC.05)
Area	COLORADO	Well	BOYD 1N-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BOYD 1N-32HZ AWB
Facility	SEC.05-T1N-R65W		

WELLPATH COMPOSITION - Ref Wellbore: BOYD 1N-32HZ AWB Ref Wellpath: BOYD 1N-32HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
25.00	1002.00	Generic gyro - continuous (Standard)	LIGHTNING WIRELINE <125-1002>	BOYD 1N-32HZ AWB
1002.00	7417.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <1	BOYD 1N-32HZ AWB
7417.00	15491.00	NaviTrak (MAGCORR,IFR)	BHI NAVITRAK MWD+IFR 6 1/8" HOLE <7507-15491>	BOYD 1N-32HZ AWB
15491.00	15548.00	Blind Drilling (std)	Projection to bit	BOYD 1N-32HZ AWB



Actual Wellpath Report

BOYD 1N-32HZ AWP

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REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#14 BOYD 1N-32HZ (346'FSL & 270'FEL, SEC.05)
Area	COLORADO	Well	BOYD 1N-32HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	BOYD 1N-32HZ AWB
Facility	SEC.05-T1N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
25.00	0.000	201.190	25.00	TIE ON
125.00	0.070	201.190	125.00	BEGIN GYRO SURVEYS
1002.00	0.210	171.440	1002.00	TIE ONTO GYRO SURVEYS
1164.00	0.090	206.280	1164.00	BEGIN BHI MWD+IFR SURVEYS
7461.00	85.869	357.651	7110.41	7" CASING POINT
15491.00	90.920	0.790	7102.95	LAST BHI MWD+IFR SURVEY
15548.00	90.920	0.790	7102.04	PROJECTION TO BIT