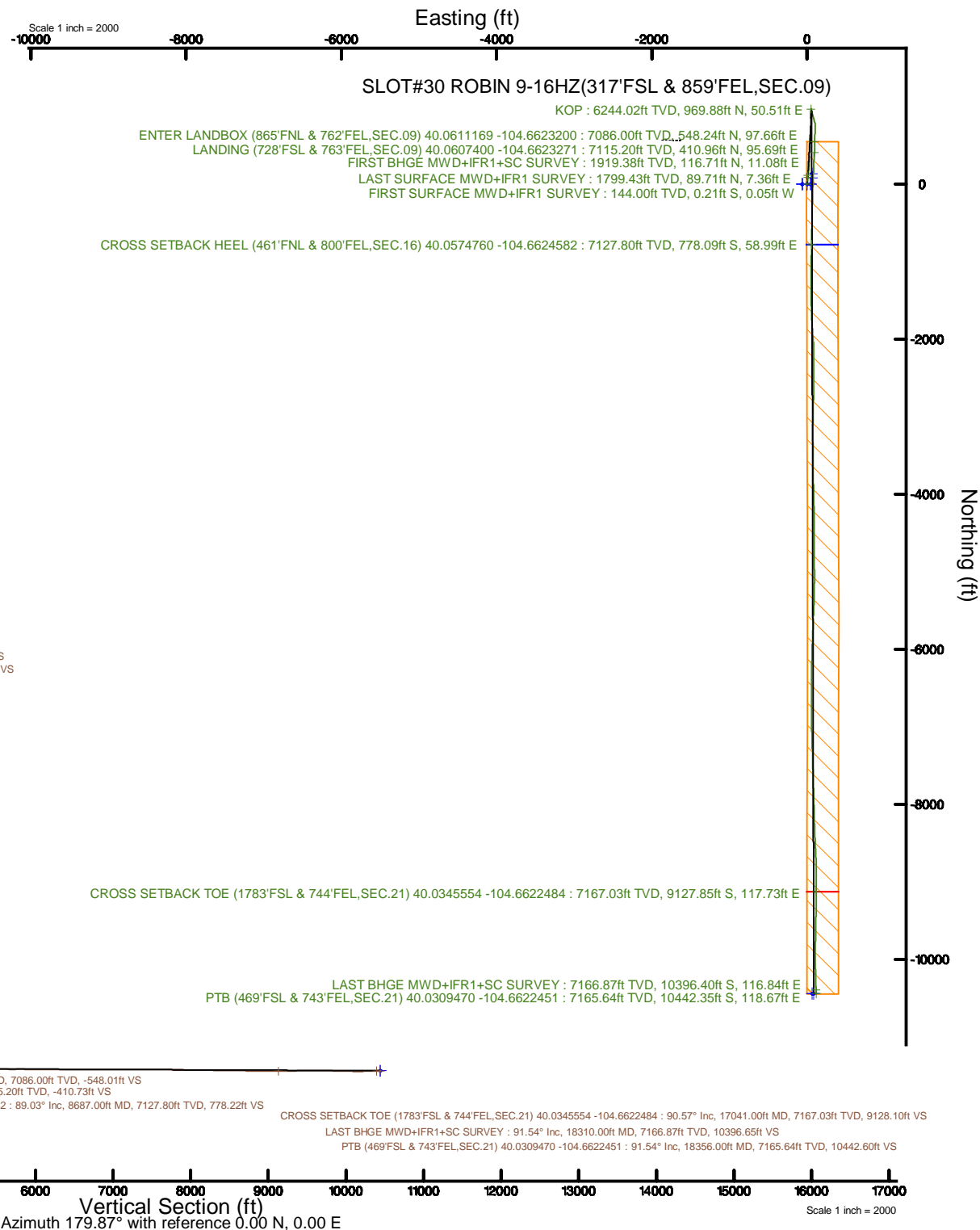


Location: COLORADO	Slot: SLOT#30 ROBIN 9-16HZ(317FSL & 859FEL,SEC.09)
Field: WELD COUNTY (UTM/TRUE NORTH)	Well: ROBIN 9-16HZ
Facility: SEC.09-T1N-R65W	Wellbore: ROBIN 9-16HZ PWB
Plot reference wellpath is ROBIN 9-16HZ PWP Rev-A.0	
True vertical depths are referenced to NABORS X22 (32') (RT)	Grid System: NAD83 / UTM Zone 13 North, US feet
Measured depths are referenced to NABORS X22 (32') (RT)	* e Wellpath was transformed from a different geoidic datum
NABORS X22 (32') (RT) to Mean Sea Level: 5006 feet	North Reference: True north
Mean Sea Level to Mud line (At Slot: SLOT#30 ROBIN 9-16HZ(317FSL & 859FEL,SEC.09)): 0 feet	Scale: True distance
Coordinates are in feet referenced to Slot	Depths are in feet
	Created by: painsear on 2017-11-16
	Database: WA_DEN_Anadarko_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#30 ROBIN 9-16HZ(317'FSL & 859'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-16HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-16HZ AWB
Facility	SEC.09-T1N-R65W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999610	Report Generated	11/16/2017 at 8:32 AM
Convergence at slot	0.22° East	Database/Source file	WA_DEN_Anadarko_Defn/ROBIN_9-16HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4439.72	3751.24	1734804.46	14548619.53	40°03'34.603"N	104°39'45.608"W
Facility Reference Pt			1731038.57	14553043.83	40°04'18.480"N	104°40'33.852"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	NABORS X22 (32') (RT) to Facility Vertical Datum	5006.00ft
Horizontal Reference Pt	Slot	NABORS X22 (32') (RT) to Mean Sea Level	5006.00ft
Vertical Reference Pt	NABORS X22 (32') (RT)	NABORS X22 (32') (RT) to Mud Line at Slot (SLOT#30 ROBIN 9-16HZ(317'FSL & 859'FEL,SEC.09))	5006.00ft
MD Reference Pt	NABORS X22 (32') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.87°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#30 ROBIN 9-16HZ(317'FSL & 859'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-16HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-16HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH DATA (237 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	192.580	0.00	0.00	0.00	0.00	1734804.46	14548619.53	40°03'34.603"N	104°39'45.608"W	0.00	
32.00	0.000	192.580	32.00	0.00	0.00	0.00	1734804.46	14548619.53	40°03'34.603"N	104°39'45.608"W	0.00	
144.00	0.220	192.580	144.00	0.21	-0.21	-0.05	1734804.41	14548619.32	40°03'34.601"N	104°39'45.609"W	0.20	FIRST SURFACE MWD+IFR1 SURVEY
176.00	0.220	169.030	176.00	0.33	-0.33	-0.05	1734804.41	14548619.20	40°03'34.600"N	104°39'45.609"W	0.28	
207.00	0.180	278.100	207.00	0.38	-0.38	-0.09	1734804.37	14548619.15	40°03'34.599"N	104°39'45.609"W	1.05	
239.00	0.130	98.100	239.00	0.38	-0.38	-0.10	1734804.36	14548619.15	40°03'34.599"N	104°39'45.609"W	0.97	
270.00	0.040	98.100	270.00	0.39	-0.39	-0.05	1734804.41	14548619.14	40°03'34.599"N	104°39'45.609"W	0.29	
302.00	0.040	98.100	302.00	0.39	-0.39	-0.03	1734804.43	14548619.14	40°03'34.599"N	104°39'45.608"W	0.00	
333.00	0.090	300.950	333.00	0.38	-0.38	-0.04	1734804.42	14548619.15	40°03'34.599"N	104°39'45.609"W	0.41	
365.00	0.220	199.350	365.00	0.42	-0.42	-0.08	1734804.38	14548619.11	40°03'34.599"N	104°39'45.609"W	0.79	
396.00	0.090	164.980	396.00	0.50	-0.50	-0.10	1734804.36	14548619.03	40°03'34.598"N	104°39'45.609"W	0.50	
428.00	0.310	289.090	428.00	0.50	-0.50	-0.17	1734804.29	14548619.03	40°03'34.598"N	104°39'45.610"W	1.15	
459.00	0.310	290.320	459.00	0.44	-0.44	-0.33	1734804.13	14548619.09	40°03'34.599"N	104°39'45.612"W	0.02	
491.00	0.130	237.930	491.00	0.43	-0.43	-0.44	1734804.02	14548619.10	40°03'34.599"N	104°39'45.614"W	0.79	
522.00	0.310	244.970	522.00	0.48	-0.49	-0.55	1734803.91	14548619.04	40°03'34.598"N	104°39'45.615"W	0.59	
554.00	0.570	278.100	554.00	0.50	-0.50	-0.78	1734803.68	14548619.03	40°03'34.598"N	104°39'45.618"W	1.11	
586.00	0.530	288.300	586.00	0.43	-0.43	-1.08	1734803.38	14548619.09	40°03'34.599"N	104°39'45.622"W	0.33	
618.00	0.350	250.770	617.99	0.41	-0.42	-1.31	1734803.15	14548619.11	40°03'34.599"N	104°39'45.625"W	1.03	
650.00	0.570	278.100	649.99	0.42	-0.43	-1.56	1734802.90	14548619.10	40°03'34.599"N	104°39'45.628"W	0.95	
681.00	0.310	248.830	680.99	0.43	-0.44	-1.80	1734802.66	14548619.09	40°03'34.599"N	104°39'45.631"W	1.08	
713.00	0.350	278.100	712.99	0.45	-0.45	-1.97	1734802.49	14548619.07	40°03'34.599"N	104°39'45.633"W	0.53	
745.00	0.480	258.680	744.99	0.46	-0.47	-2.20	1734802.26	14548619.06	40°03'34.598"N	104°39'45.636"W	0.59	
777.00	0.620	253.750	776.99	0.53	-0.54	-2.50	1734801.96	14548618.98	40°03'34.598"N	104°39'45.640"W	0.46	
808.00	0.620	250.850	807.99	0.64	-0.64	-2.82	1734801.64	14548618.88	40°03'34.597"N	104°39'45.644"W	0.10	
840.00	0.920	271.070	839.99	0.69	-0.69	-3.24	1734801.22	14548618.82	40°03'34.596"N	104°39'45.650"W	1.25	
872.00	0.920	252.080	871.98	0.76	-0.77	-3.74	1734800.72	14548618.75	40°03'34.595"N	104°39'45.656"W	0.95	
904.00	0.830	233.450	903.98	0.98	-0.99	-4.17	1734800.29	14548618.53	40°03'34.593"N	104°39'45.662"W	0.93	
935.00	0.750	224.400	934.97	1.25	-1.26	-4.49	1734799.97	14548618.25	40°03'34.591"N	104°39'45.666"W	0.48	
967.00	0.440	197.500	966.97	1.52	-1.53	-4.68	1734799.79	14548617.98	40°03'34.588"N	104°39'45.668"W	1.28	
999.00	0.350	181.680	998.97	1.73	-1.75	-4.72	1734799.75	14548617.77	40°03'34.586"N	104°39'45.669"W	0.44	
1031.00	0.310	123.850	1030.97	1.88	-1.89	-4.65	1734799.82	14548617.62	40°03'34.584"N	104°39'45.668"W	1.00	
1062.00	0.480	21.460	1061.97	1.81	-1.82	-4.53	1734799.94	14548617.70	40°03'34.585"N	104°39'45.666"W	2.02	
1094.00	1.190	39.560	1093.97	1.43	-1.44	-4.27	1734800.20	14548618.08	40°03'34.589"N	104°39'45.663"W	2.34	
1126.00	1.710	29.280	1125.96	0.75	-0.76	-3.82	1734800.64	14548618.75	40°03'34.595"N	104°39'45.657"W	1.81	
1157.00	2.290	27.080	1156.94	-0.20	0.19	-3.32	1734801.14	14548619.71	40°03'34.605"N	104°39'45.651"W	1.89	
1189.00	2.550	23.390	1188.91	-1.42	1.41	-2.74	1734801.71	14548620.93	40°03'34.617"N	104°39'45.643"W	0.95	
1221.00	2.990	17.150	1220.87	-2.87	2.86	-2.21	1734802.23	14548622.38	40°03'34.631"N	104°39'45.636"W	1.66	
1253.00	3.650	16.800	1252.82	-4.64	4.64	-1.67	1734802.77	14548624.16	40°03'34.649"N	104°39'45.630"W	2.06	
1285.00	4.040	17.240	1284.75	-6.69	6.69	-1.04	1734803.39	14548626.21	40°03'34.669"N	104°39'45.621"W	1.22	
1317.00	4.660	9.330	1316.65	-9.05	9.05	-0.50	1734803.92	14548628.57	40°03'34.692"N	104°39'45.614"W	2.69	
1348.00	5.360	9.330	1347.54	-11.72	11.72	-0.06	1734804.35	14548631.24	40°03'34.719"N	104°39'45.609"W	2.26	
1380.00	6.110	9.770	1379.38	-14.87	14.87	0.47	1734804.87	14548634.40	40°03'34.750"N	104°39'45.602"W	2.35	
1412.00	6.680	6.780	1411.18	-18.40	18.40	0.98	1734805.37	14548637.93	40°03'34.785"N	104°39'45.595"W	2.06	
1443.00	7.470	4.670	1441.94	-22.19	22.20	1.36	1734805.73	14548641.72	40°03'34.822"N	104°39'45.591"W	2.68	
1475.00	8.220	4.140	1473.64	-26.55	26.55	1.69	1734806.05	14548646.08	40°03'34.865"N	104°39'45.586"W	2.35	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#30 ROBIN 9-16HZ(317'FSL & 859'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-16HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-16HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH DATA (237 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
1507.00	8.790	3.440	1505.29	-31.27	31.28	2.00	1734806.34	14548650.80	40°03'34.912"N	104°39'45.582"W	1.81	
1538.00	9.620	4.500	1535.89	-36.22	36.22	2.35	1734806.67	14548655.75	40°03'34.961"N	104°39'45.578"W	2.73	
1570.00	10.230	5.990	1567.41	-41.71	41.71	2.85	1734807.15	14548661.24	40°03'35.015"N	104°39'45.571"W	2.07	
1601.00	10.770	6.780	1597.89	-47.32	47.33	3.48	1734807.76	14548666.85	40°03'35.071"N	104°39'45.563"W	1.80	
1633.00	11.340	5.640	1629.30	-53.42	53.43	4.15	1734808.40	14548672.95	40°03'35.131"N	104°39'45.555"W	1.91	
1665.00	11.690	7.310	1660.65	-59.76	59.77	4.87	1734809.10	14548679.30	40°03'35.194"N	104°39'45.545"W	1.51	
1697.00	11.730	4.060	1691.99	-66.22	66.23	5.51	1734809.71	14548685.76	40°03'35.258"N	104°39'45.537"W	2.06	
1729.00	12.220	3.620	1723.29	-72.84	72.86	5.95	1734810.13	14548692.38	40°03'35.323"N	104°39'45.531"W	1.56	
1760.00	12.570	3.790	1753.57	-79.48	79.50	6.38	1734810.54	14548699.02	40°03'35.389"N	104°39'45.526"W	1.14	
1807.00	12.660	7.130	1799.43	-89.70	89.71	7.36	1734811.48	14548709.23	40°03'35.490"N	104°39'45.513"W	1.56	LAST SURFACE MWD+IFR1 SURVEY
1930.00	12.940	8.550	1919.38	-116.68	116.71	11.08	1734815.09	14548736.23	40°03'35.756"N	104°39'45.465"W	0.34	FIRST BHGE MWD+IFR1+SC SURVEY
2024.00	13.610	8.370	2010.87	-138.02	138.06	14.26	1734818.19	14548757.58	40°03'35.967"N	104°39'45.425"W	0.71	
2118.00	14.470	6.440	2102.06	-160.63	160.67	17.18	1734821.03	14548780.20	40°03'36.191"N	104°39'45.387"W	1.04	
2212.00	15.290	5.510	2192.90	-184.63	184.68	19.69	1734823.44	14548804.21	40°03'36.428"N	104°39'45.355"W	0.91	
2305.00	15.760	2.720	2282.51	-209.45	209.50	21.47	1734825.12	14548829.02	40°03'36.673"N	104°39'45.332"W	0.95	
2398.00	16.230	4.230	2371.91	-235.02	235.07	23.03	1734826.58	14548854.60	40°03'36.926"N	104°39'45.312"W	0.67	
2492.00	16.650	1.780	2462.07	-261.58	261.64	24.41	1734827.87	14548881.15	40°03'37.189"N	104°39'45.294"W	0.86	
2586.00	17.070	358.980	2552.03	-288.83	288.89	24.59	1734827.94	14548908.40	40°03'37.458"N	104°39'45.292"W	0.97	
2680.00	16.260	357.960	2642.08	-315.78	315.84	23.87	1734827.12	14548935.33	40°03'37.724"N	104°39'45.301"W	0.92	
2774.00	16.060	0.880	2732.37	-341.93	341.99	23.60	1734826.76	14548961.47	40°03'37.983"N	104°39'45.304"W	0.89	
2868.00	15.140	5.330	2822.91	-367.15	367.21	24.94	1734828.00	14548986.69	40°03'38.232"N	104°39'45.287"W	1.61	
2962.00	14.970	6.960	2913.68	-391.42	391.49	27.55	1734830.52	14549010.96	40°03'38.472"N	104°39'45.254"W	0.49	
3056.00	14.970	5.570	3004.49	-415.55	415.62	30.20	1734833.08	14549035.10	40°03'38.710"N	104°39'45.220"W	0.38	
3150.00	15.890	2.830	3095.10	-440.48	440.56	32.02	1734834.79	14549060.03	40°03'38.957"N	104°39'45.196"W	1.25	
3244.00	16.520	1.470	3185.37	-466.69	466.77	33.00	1734835.67	14549086.24	40°03'39.216"N	104°39'45.184"W	0.78	
3338.00	16.350	1.590	3275.53	-493.28	493.36	33.71	1734836.28	14549112.82	40°03'39.478"N	104°39'45.175"W	0.18	
3431.00	15.810	4.230	3364.89	-518.99	519.08	35.00	1734837.48	14549138.53	40°03'39.733"N	104°39'45.158"W	0.98	
3525.00	14.990	8.910	3455.52	-543.77	543.86	37.83	1734840.21	14549163.31	40°03'39.978"N	104°39'45.121"W	1.58	
3619.00	14.610	5.350	3546.40	-567.58	567.67	40.82	1734843.11	14549187.13	40°03'40.213"N	104°39'45.083"W	1.05	
3713.00	13.540	2.340	3637.58	-590.37	590.47	42.37	1734844.58	14549209.93	40°03'40.438"N	104°39'45.063"W	1.38	
3807.00	14.290	1.990	3728.82	-612.96	613.06	43.23	1734845.35	14549232.51	40°03'40.661"N	104°39'45.052"W	0.80	
3901.00	14.140	3.690	3819.94	-636.01	636.11	44.37	1734846.40	14549255.56	40°03'40.889"N	104°39'45.037"W	0.47	
3995.00	13.450	7.710	3911.23	-658.29	658.40	46.57	1734848.52	14549277.85	40°03'41.109"N	104°39'45.009"W	1.26	
4089.00	13.900	6.530	4002.57	-680.34	680.46	49.32	1734851.19	14549299.90	40°03'41.327"N	104°39'44.974"W	0.56	
4184.00	14.630	3.630	4094.64	-703.64	703.77	51.38	1734853.15	14549323.21	40°03'41.558"N	104°39'44.947"W	1.08	
4278.00	16.070	2.470	4185.28	-728.49	728.61	52.69	1734854.37	14549348.05	40°03'41.803"N	104°39'44.930"W	1.57	
4372.00	17.360	0.490	4275.31	-755.51	755.64	53.37	1734854.95	14549375.07	40°03'42.070"N	104°39'44.922"W	1.50	
4492.00	15.100	358.590	4390.52	-789.04	789.17	53.14	1734854.59	14549408.58	40°03'42.402"N	104°39'44.925"W	1.93	
4586.00	14.890	357.570	4481.32	-813.35	813.47	52.33	1734853.69	14549432.88	40°03'42.642"N	104°39'44.935"W	0.36	
4680.00	15.930	354.380	4571.94	-838.26	838.38	50.55	1734851.82	14549457.77	40°03'42.888"N	104°39'44.958"W	1.43	
4774.00	15.780	357.490	4662.37	-863.87	863.99	48.73	1734849.90	14549483.36	40°03'43.141"N	104°39'44.981"W	0.92	
4869.00	15.000	356.940	4753.96	-889.06	889.17	47.51	1734848.58	14549508.52	40°03'43.390"N	104°39'44.997"W	0.84	
4963.00	13.880	1.210	4844.99	-912.48	912.59	47.10	1734848.08	14549531.93	40°03'43.621"N	104°39'45.002"W	1.64	
5057.00	11.250	4.300	4936.73	-932.89	933.01	48.02	1734848.93	14549552.35	40°03'43.823"N	104°39'44.990"W	2.89	
5151.00	8.970	5.320	5029.27	-949.33	949.45	49.39	1734850.23	14549568.79	40°03'43.986"N	104°39'44.973"W	2.43	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#30 ROBIN 9-16HZ(317'FSL & 859'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-16HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-16HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH DATA (237 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
5245.00	5.770	358.430	5122.48	-961.36	961.47	49.94	1734850.74	14549580.81	40°03'44.104"N	104°39'44.966"W	3.53	
5339.00	3.330	351.230	5216.18	-968.78	968.90	49.40	1734850.16	14549588.23	40°03'44.178"N	104°39'44.973"W	2.66	
5433.00	1.760	8.540	5310.08	-972.91	973.02	49.19	1734849.95	14549592.35	40°03'44.219"N	104°39'44.975"W	1.84	
5527.00	0.810	117.400	5404.07	-974.03	974.14	50.00	1734850.75	14549593.47	40°03'44.230"N	104°39'44.965"W	2.30	
5621.00	0.530	106.300	5498.06	-973.60	973.72	51.01	1734851.75	14549593.05	40°03'44.225"N	104°39'44.952"W	0.33	
5714.00	0.290	85.960	5591.06	-973.49	973.61	51.65	1734852.40	14549592.95	40°03'44.224"N	104°39'44.944"W	0.30	
5808.00	0.410	30.680	5685.06	-973.80	973.92	52.06	1734852.81	14549593.26	40°03'44.227"N	104°39'44.938"W	0.36	
5901.00	0.340	358.260	5778.06	-974.36	974.48	52.22	1734852.97	14549593.82	40°03'44.233"N	104°39'44.936"W	0.24	
5994.00	0.680	189.840	5871.06	-974.09	974.21	52.12	1734852.87	14549593.55	40°03'44.230"N	104°39'44.938"W	1.09	
6088.00	0.660	254.670	5965.05	-973.40	973.52	51.50	1734852.25	14549592.86	40°03'44.224"N	104°39'44.946"W	0.76	
6182.00	1.290	205.220	6059.04	-972.30	972.42	50.53	1734851.28	14549591.75	40°03'44.213"N	104°39'44.958"W	1.06	
6276.00	0.620	176.460	6153.02	-970.84	970.95	50.11	1734850.87	14549590.29	40°03'44.198"N	104°39'44.964"W	0.86	
6367.00†	0.869	148.004	6244.02	-969.76	969.88	50.51	1734851.27	14549589.21	40°03'44.188"N	104°39'44.958"W	0.48	KOP
6370.00	0.880	147.370	6247.02	-969.72	969.84	50.53	1734851.30	14549589.17	40°03'44.187"N	104°39'44.958"W	0.48	
6464.00	6.710	166.970	6340.77	-963.75	963.88	52.16	1734852.95	14549583.22	40°03'44.128"N	104°39'44.937"W	6.26	
6559.00	10.850	164.430	6434.64	-949.72	949.85	55.81	1734856.65	14549569.21	40°03'43.990"N	104°39'44.890"W	4.38	
6653.00	15.360	162.530	6526.17	-929.29	929.44	61.93	1734862.84	14549548.83	40°03'43.788"N	104°39'44.812"W	4.82	
6747.00	19.570	163.510	6615.81	-902.29	902.46	70.14	1734871.15	14549521.89	40°03'43.521"N	104°39'44.706"W	4.49	
6842.00	22.940	164.170	6704.34	-869.19	869.38	79.71	1734880.84	14549488.86	40°03'43.194"N	104°39'44.583"W	3.56	
6935.00	27.180	164.770	6788.56	-831.22	831.43	90.24	1734891.51	14549450.97	40°03'42.819"N	104°39'44.447"W	4.57	
7028.00	31.470	164.430	6869.63	-787.29	787.53	102.34	1734903.77	14549407.13	40°03'42.386"N	104°39'44.292"W	4.62	
7122.00	41.740	181.350	6945.18	-732.07	732.33	108.22	1734909.86	14549351.97	40°03'41.840"N	104°39'44.216"W	15.23	
7216.00	48.870	185.120	7011.26	-665.44	665.69	104.31	1734906.21	14549285.35	40°03'41.181"N	104°39'44.266"W	8.10	
7310.00	60.100	183.180	7065.78	-589.27	589.50	98.88	1734901.06	14549209.17	40°03'40.429"N	104°39'44.336"W	12.06	
7356.00†	67.716	180.298	7086.00	-548.01	548.24	97.66	1734900.00	14549167.92	40°03'40.021"N	104°39'44.352"W	17.49	ENTER LANDBOX (865'FNL & 762'FEL,SEC.09) 40.0611169 -104.6623200
7377.00	71.210	179.090	7093.37	-528.35	528.58	97.77	1734900.18	14549148.27	40°03'39.827"N	104°39'44.351"W	17.49	
7404.00	76.130	179.150	7100.96	-502.45	502.68	98.16	1734900.68	14549122.38	40°03'39.571"N	104°39'44.346"W	18.22	
7497.00	86.240	183.880	7115.20	-410.73	410.96	95.69	1734898.55	14549030.68	40°03'38.664"N	104°39'44.377"W	11.97	LANDING (728'FSL & 763'FEL,SEC.09) 40.0607400 -104.6623271
7590.00	89.410	183.410	7118.73	-318.01	318.22	89.78	1734893.00	14548937.97	40°03'37.748"N	104°39'44.453"W	3.45	
7685.00	90.280	182.410	7118.99	-223.15	223.35	84.96	1734888.53	14548843.11	40°03'36.810"N	104°39'44.515"W	1.40	
7779.00	91.660	181.750	7117.40	-129.24	129.43	81.54	1734885.48	14548749.21	40°03'35.882"N	104°39'44.559"W	1.63	
7873.00	90.710	182.230	7115.45	-35.32	35.50	78.28	1734882.57	14548655.32	40°03'34.954"N	104°39'44.601"W	1.13	
7967.00	89.660	182.210	7115.15	-58.60	-58.42	74.64	1734879.29	14548561.41	40°03'34.026"N	104°39'44.648"W	1.12	
8061.00	88.180	181.820	7116.92	-152.51	-152.35	71.34	1734876.34	14548467.51	40°03'33.097"N	104°39'44.691"W	1.63	
8154.00	89.440	180.910	7118.85	-245.46	-245.30	69.12	1734874.48	14548374.59	40°03'32.179"N	104°39'44.719"W	1.67	
8248.00	90.180	180.350	7119.16	-339.45	-339.29	68.09	1734873.80	14548280.63	40°03'31.250"N	104°39'44.732"W	0.99	
8342.00	88.710	181.890	7120.07	-433.41	-433.26	66.25	1734872.32	14548186.69	40°03'30.321"N	104°39'44.756"W	2.26	
8436.00	88.610	181.430	7122.27	-527.34	-527.20	63.53	1734869.96	14548092.78	40°03'29.393"N	104°39'44.791"W	0.50	
8530.00	88.650	181.340	7124.52	-621.28	-621.14	61.26	1734868.04	14547998.87	40°03'28.465"N	104°39'44.820"W	0.10	
8624.00	88.800	180.570	7126.61	-715.24	-715.10	59.69	1734866.83	14547904.94	40°03'27.536"N	104°39'44.840"W	0.83	
8687.00†	89.028	180.711	7127.80	-778.22	-778.09	58.99	1734866.37	14547841.97	40°03'26.914"N	104°39'44.849"W	0.43	CROSS SETBACK HEEL (461'FNL & 800'FEL,SEC.16) 40.0574760 -104.6624582
8718.00	89.140	180.780	7128.30	-809.22	-809.08	58.58	1734866.08	14547810.99	40°03'26.607"N	104°39'44.855"W	0.43	
8811.00	89.780	182.480	7129.18	-902.16	-902.04	55.94	1734863.79	14547718.06	40°03'25.689"N	104°39'44.889"W	1.95	
8905.00	90.310	182.120	7129.10	-996.08	-995.96	52.17	1734860.38	14547624.16	40°03'24.761"N	104°39'44.937"W	0.68	
8999.00	89.970	180.660	7128.87	-1090.04	-1089.93	49.89	1734858.45	14547530.22	40°03'23.832"N	104°39'44.966"W	1.59	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#30 ROBIN 9-16HZ(317'FSL & 859'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-16HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-16HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH DATA (237 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
9094.00	90.400	180.230	7128.57	1185.04	-1184.93	49.15	1734858.07	14547435.26	40°03'22.893"N	104°39'44.976"W	0.64	
9188.00	90.620	179.270	7127.73	1279.03	-1278.92	49.56	1734858.84	14547341.31	40°03'21.964"N	104°39'44.971"W	1.05	
9282.00	90.710	179.150	7126.64	1373.02	-1372.91	50.85	1734860.49	14547247.36	40°03'21.036"N	104°39'44.954"W	0.16	
9376.00	91.540	178.500	7124.79	1466.99	-1466.87	52.78	1734862.77	14547153.45	40°03'20.107"N	104°39'44.929"W	1.12	
9471.00	90.250	178.040	7123.31	1561.93	-1561.81	55.65	1734866.00	14547058.55	40°03'19.169"N	104°39'44.892"W	1.44	
9565.00	90.890	178.210	7122.37	1655.89	-1655.75	58.72	1734869.43	14546964.66	40°03'18.240"N	104°39'44.853"W	0.70	
9658.00	89.850	177.580	7121.77	1748.83	-1748.69	62.14	1734873.20	14546871.78	40°03'17.322"N	104°39'44.809"W	1.31	
9751.00	89.970	175.670	7121.92	1841.67	-1841.52	67.61	1734879.02	14546779.00	40°03'16.405"N	104°39'44.738"W	2.06	
9845.00	89.880	175.650	7122.04	1935.42	-1935.25	74.73	1734886.49	14546685.33	40°03'15.478"N	104°39'44.647"W	0.10	
9939.00	90.000	176.050	7122.14	2029.19	-2029.01	81.53	1734893.64	14546591.64	40°03'14.552"N	104°39'44.560"W	0.44	
10033.00	91.320	178.240	7121.06	2123.07	-2122.87	86.21	1734898.68	14546497.83	40°03'13.624"N	104°39'44.499"W	2.72	
10127.00	90.220	180.830	7119.79	2217.05	-2216.85	86.97	1734899.79	14546403.89	40°03'12.696"N	104°39'44.490"W	2.99	
10221.00	89.660	178.930	7119.89	2311.04	-2310.85	87.17	1734900.35	14546309.93	40°03'11.767"N	104°39'44.487"W	2.11	
10314.00	89.050	179.470	7120.94	2404.03	-2403.83	88.47	1734902.00	14546216.99	40°03'10.848"N	104°39'44.470"W	0.88	
10408.00	89.510	181.130	7122.12	2498.02	-2497.82	87.98	1734901.86	14546123.04	40°03'09.919"N	104°39'44.477"W	1.83	
10503.00	89.850	180.000	7122.65	2593.01	-2592.81	87.04	1734901.28	14546028.08	40°03'08.980"N	104°39'44.489"W	1.24	
10596.00	90.740	181.920	7122.17	2685.98	-2685.79	85.48	1734900.08	14545935.13	40°03'08.061"N	104°39'44.509"W	2.28	
10690.00	91.670	181.380	7120.20	2779.92	-2779.73	82.78	1734897.73	14545841.22	40°03'07.133"N	104°39'44.544"W	1.14	
10783.00	90.220	182.030	7118.66	2872.85	-2872.68	80.01	1734895.32	14545748.30	40°03'06.215"N	104°39'44.579"W	1.71	
10876.00	91.970	181.190	7116.89	2965.79	-2965.62	77.40	1734893.06	14545655.39	40°03'05.296"N	104°39'44.613"W	2.09	
10970.00	90.860	180.580	7114.56	3059.74	-3059.58	75.95	1734891.96	14545561.46	40°03'04.368"N	104°39'44.631"W	1.35	
11063.00	90.150	179.940	7113.74	3152.74	-3152.57	75.52	1734891.89	14545468.50	40°03'03.449"N	104°39'44.637"W	1.03	
11157.00	88.310	179.980	7115.01	3246.72	-3246.56	75.59	1734892.31	14545374.55	40°03'02.520"N	104°39'44.636"W	1.96	
11250.00	87.960	179.910	7118.03	3339.67	-3339.51	75.68	1734892.76	14545281.64	40°03'01.601"N	104°39'44.635"W	0.38	
11344.00	88.030	180.030	7121.32	3433.62	-3433.45	75.73	1734893.16	14545187.74	40°03'00.673"N	104°39'44.634"W	0.15	
11438.00	88.370	179.620	7124.28	3527.57	-3527.40	76.02	1734893.80	14545093.82	40°02'59.744"N	104°39'44.631"W	0.57	
11532.00	88.890	179.320	7126.52	3621.54	-3621.37	76.88	1734895.03	14544999.89	40°02'58.816"N	104°39'44.619"W	0.64	
11625.00	89.510	178.630	7127.82	3714.52	-3714.35	78.55	1734897.04	14544906.96	40°02'57.897"N	104°39'44.598"W	1.00	
11719.00	90.220	178.470	7128.04	3808.49	-3808.32	80.93	1734899.78	14544813.04	40°02'56.968"N	104°39'44.567"W	0.77	
11812.00	88.550	178.750	7129.04	3901.46	-3901.28	83.18	1734902.38	14544720.12	40°02'56.050"N	104°39'44.538"W	1.82	
11904.00	89.140	178.780	7130.90	3993.43	-3993.24	85.16	1734904.71	14544628.21	40°02'55.141"N	104°39'44.513"W	0.64	
11996.00	89.600	178.520	7131.91	4085.40	-4085.21	87.33	1734907.23	14544536.28	40°02'54.232"N	104°39'44.485"W	0.57	
12089.00	90.090	178.480	7132.16	4178.37	-4178.18	89.77	1734910.01	14544443.36	40°02'53.313"N	104°39'44.454"W	0.53	
12181.00	88.490	179.830	7133.30	4270.35	-4270.15	91.12	1734911.72	14544351.43	40°02'52.404"N	104°39'44.436"W	2.28	
12273.00	88.120	180.000	7136.02	4362.31	-4362.11	91.26	1734912.20	14544259.50	40°02'51.496"N	104°39'44.435"W	0.44	
12366.00	88.000	180.220	7139.17	4455.26	-4455.06	91.08	1734912.38	14544166.59	40°02'50.577"N	104°39'44.437"W	0.27	
12457.00	88.270	179.570	7142.13	4546.21	-4546.01	91.25	1734912.89	14544075.68	40°02'49.678"N	104°39'44.435"W	0.77	
12550.00	88.370	179.200	7144.86	4639.17	-4638.96	92.25	1734914.24	14543982.77	40°02'48.760"N	104°39'44.422"W	0.41	
12642.00	89.660	179.800	7146.44	4731.15	-4730.95	93.05	1734915.39	14543890.82	40°02'47.851"N	104°39'44.412"W	1.55	
12734.00	90.030	180.110	7146.69	4823.15	-4822.94	93.12	1734915.81	14543798.86	40°02'46.942"N	104°39'44.411"W	0.52	
12827.00	90.250	178.340	7146.46	4916.14	-4915.93	94.38	1734917.42	14543705.92	40°02'46.023"N	104°39'44.394"W	1.92	
12921.00	90.890	179.340	7145.52	5010.12	-5009.91	96.28	1734919.68	14543611.99	40°02'45.094"N	104°39'44.370"W	1.26	
13015.00	89.850	180.660	7144.92	5104.11	-5103.90	96.28	1734920.03	14543518.03	40°02'44.165"N	104°39'44.370"W	1.79	
13109.00	91.260	180.760	7144.01	5198.09	-5197.89	95.12	1734919.22	14543424.08	40°02'43.236"N	104°39'44.385"W	1.50	
13202.00	90.460	181.310	7142.61	5291.06	-5290.86	93.44	1734917.90	14543331.13	40°02'42.317"N	104°39'44.407"W	1.04	

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)		Slot	SLOT#30 ROBIN 9-16HZ(317'FSL & 859'FEL,SEC.09)
Area	COLORADO		Well	ROBIN 9-16HZ
Field	WELD COUNTY (UTM/TRUE NORTH)		Wellbore	ROBIN 9-16HZ AWB
Facility	SEC.09-T1N-R65W			

WELLPATH DATA (237 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
13296.00	89.290	182.160	7142.82	5385.01	-5384.81	90.59	1734915.41	14543237.21	40°02'41.389°N	104°39'44.443°W	1.54	
13391.00	90.890	183.110	7142.67	5479.90	-5479.71	86.22	1734911.40	14543142.33	40°02'40.451°N	104°39'44.499°W	1.96	
13485.00	89.410	182.060	7142.42	5573.79	-5573.61	81.98	1734907.52	14543048.45	40°02'39.523°N	104°39'44.554°W	1.93	
13579.00	89.540	182.350	7143.28	5667.70	-5667.54	78.37	1734904.26	14542954.55	40°02'38.595°N	104°39'44.600°W	0.34	
13673.00	90.710	181.670	7143.08	5761.63	-5761.48	75.07	1734901.32	14542860.64	40°02'37.667°N	104°39'44.643°W	1.44	
13766.00	89.170	181.810	7143.17	5854.58	-5854.43	72.25	1734898.85	14542767.71	40°02'36.748°N	104°39'44.679°W	1.66	
13859.00	90.250	182.680	7143.65	5947.50	-5947.36	68.60	1734895.56	14542674.81	40°02'35.830°N	104°39'44.726°W	1.49	
13953.00	89.040	181.790	7144.23	6041.41	-6041.28	64.94	1734892.25	14542580.91	40°02'34.902°N	104°39'44.773°W	1.60	
14048.00	90.090	181.050	7144.95	6136.37	-6136.25	62.58	1734890.26	14542485.97	40°02'33.963°N	104°39'44.803°W	1.35	
14142.00	88.490	179.550	7146.11	6230.36	-6230.23	62.09	1734890.12	14542392.02	40°02'33.034°N	104°39'44.810°W	2.33	
14236.00	89.540	181.010	7147.73	6324.34	-6324.21	61.63	1734890.02	14542298.07	40°02'32.106°N	104°39'44.815°W	1.91	
14330.00	89.820	181.140	7148.25	6418.32	-6418.19	59.87	1734888.61	14542204.12	40°02'31.177°N	104°39'44.838°W	0.33	
14424.00	90.830	180.500	7147.72	6512.30	-6512.18	58.52	1734887.62	14542110.17	40°02'30.248°N	104°39'44.855°W	1.27	
14519.00	89.260	180.600	7147.65	6607.29	-6607.17	57.61	1734887.07	14542015.21	40°02'29.309°N	104°39'44.867°W	1.66	
14612.00	90.000	179.790	7148.25	6700.28	-6700.17	57.30	1734887.11	14541922.25	40°02'28.390°N	104°39'44.871°W	1.18	
14705.00	89.050	179.230	7149.02	6793.28	-6793.16	58.09	1734888.26	14541829.30	40°02'27.471°N	104°39'44.861°W	1.19	
14799.00	90.430	179.420	7149.45	6887.27	-6887.15	59.20	1734889.72	14541735.35	40°02'26.543°N	104°39'44.847°W	1.48	
14893.00	91.660	178.890	7147.73	6981.25	-6981.12	60.58	1734891.46	14541641.42	40°02'25.614°N	104°39'44.829°W	1.42	
14987.00	90.680	178.560	7145.81	7075.21	-7075.08	62.68	1734893.91	14541547.51	40°02'24.685°N	104°39'44.802°W	1.10	
15080.00	90.220	177.900	7145.08	7168.16	-7168.03	65.55	1734897.13	14541454.61	40°02'23.767°N	104°39'44.765°W	0.87	
15173.00	90.370	178.800	7144.60	7261.13	-7260.99	68.23	1734900.16	14541361.69	40°02'22.848°N	104°39'44.731°W	0.98	
15267.00	88.860	178.760	7145.23	7355.11	-7354.97	70.23	1734902.52	14541267.76	40°02'21.919°N	104°39'44.705°W	1.61	
15361.00	89.850	178.340	7146.29	7449.08	-7448.93	72.61	1734905.25	14541173.85	40°02'20.991°N	104°39'44.674°W	1.14	
15456.00	91.020	177.950	7145.57	7544.03	-7543.87	75.68	1734908.68	14541078.95	40°02'20.053°N	104°39'44.635°W	1.30	
15550.00	89.630	178.420	7145.04	7637.98	-7637.82	78.66	1734912.01	14540985.05	40°02'19.124°N	104°39'44.597°W	1.56	
15644.00	88.580	178.780	7146.51	7731.95	-7731.78	80.95	1734914.66	14540891.14	40°02'18.196°N	104°39'44.567°W	1.18	
15738.00	88.830	178.120	7148.63	7825.89	-7825.72	83.50	1734917.56	14540797.25	40°02'17.267°N	104°39'44.534°W	0.75	
15832.00	89.420	178.160	7150.07	7919.84	-7919.66	86.55	1734920.97	14540703.36	40°02'16.339°N	104°39'44.495°W	0.63	
15925.00	88.890	178.710	7151.44	8012.80	-8012.62	89.09	1734923.86	14540610.45	40°02'15.420°N	104°39'44.463°W	0.82	
16020.00	89.380	178.550	7152.87	8107.77	-8107.58	91.36	1734926.49	14540515.53	40°02'14.482°N	104°39'44.433°W	0.54	
16114.00	88.460	178.070	7154.64	8201.71	-8201.52	94.13	1734929.61	14540421.64	40°02'13.554°N	104°39'44.398°W	1.10	
16208.00	89.200	178.570	7156.56	8295.66	-8295.46	96.88	1734932.72	14540327.75	40°02'12.625°N	104°39'44.362°W	0.95	
16302.00	88.920	177.430	7158.10	8389.60	-8389.39	100.16	1734936.36	14540233.87	40°02'11.697°N	104°39'44.320°W	1.25	
16396.00	90.000	176.960	7158.99	8483.49	-8483.27	104.76	1734941.31	14540140.04	40°02'10.769°N	104°39'44.261°W	1.25	
16490.00	89.290	176.710	7159.57	8577.35	-8577.12	109.95	1734946.86	14540046.25	40°02'09.842°N	104°39'44.194°W	0.80	
16584.00	87.840	177.620	7161.93	8671.22	-8670.97	114.60	1734951.86	14539952.45	40°02'08.914°N	104°39'44.135°W	1.82	
16679.00	88.770	178.710	7164.74	8766.13	-8765.88	117.64	1734955.26	14539857.59	40°02'07.976°N	104°39'44.095°W	1.51	
16773.00	89.140	180.170	7166.45	8860.11	-8859.86	118.56	1734956.53	14539763.66	40°02'07.048°N	104°39'44.084°W	1.60	
16867.00	90.090	179.690	7167.08	8954.11	-8953.85	118.68	1734957.00	14539669.70	40°02'06.119°N	104°39'44.082°W	1.13	
16960.00	89.720	180.640	7167.24	9047.10	-9046.85	118.41	1734957.08	14539576.73	40°02'05.200°N	104°39'44.086°W	1.10	
17041.00†	90.573	180.313	7167.03	9128.10	-9127.85	117.73	1734956.72	14539495.77	40°02'04.399°N	104°39'44.094°W	1.13	CROSS SETBACK TOE (1783'FSL & 744'FEL, SEC.21) 40.0345554 -104.6622484
17054.00	90.710	180.260	7166.88	9141.10	-9140.85	117.67	1734956.70	14539482.77	40°02'04.271°N	104°39'44.095°W	1.13	
17148.00	91.330	179.310	7165.21	9235.08	-9234.83	118.02	1734957.41	14539388.83	40°02'03.342°N	104°39'44.091°W	1.21	
17242.00	90.550	181.300	7163.67	9329.06	-9328.81	117.52	1734957.27	14539294.89	40°02'02.413°N	104°39'44.097°W	2.27	
17336.00	91.110	180.490	7162.31	9423.03	-9422.79	116.05	1734956.16	14539200.94	40°02'01.485°N	104°39'44.116°W	1.05	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#30 ROBIN 9-16HZ(317'FSL & 859'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-16HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-16HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH DATA (237 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
17430.00	89.970	181.700	7161.42	9517.00	-9516.76	114.26	1734954.72	14539106.99	40°02'00.556"N	104°39'44.139"W	1.77	
17523.00	90.920	181.000	7160.70	9609.97	-9609.73	112.07	1734952.88	14539014.05	40°01'59.637"N	104°39'44.167"W	1.27	
17617.00	89.630	181.190	7160.25	9703.94	-9703.71	110.27	1734951.44	14538920.10	40°01'58.709"N	104°39'44.190"W	1.39	
17711.00	88.120	180.940	7162.09	9797.90	-9797.68	108.52	1734950.05	14538826.17	40°01'57.780"N	104°39'44.213"W	1.63	
17804.00	88.150	180.190	7165.12	9890.85	-9890.62	107.61	1734949.48	14538733.26	40°01'56.861"N	104°39'44.225"W	0.81	
17898.00	88.340	179.670	7168.00	9984.80	-9984.58	107.72	1734949.95	14538639.34	40°01'55.933"N	104°39'44.223"W	0.59	
17992.00	89.410	179.450	7169.84	10078.78	-10078.56	108.44	1734951.03	14538545.41	40°01'55.004"N	104°39'44.214"W	1.16	
18086.00	90.090	178.710	7170.25	10172.77	-10172.54	109.95	1734952.90	14538451.46	40°01'54.075"N	104°39'44.194"W	1.07	
18180.00	90.830	178.170	7169.50	10266.74	-10266.50	112.51	1734955.81	14538357.55	40°01'53.147"N	104°39'44.161"W	0.97	
18274.00	91.290	178.140	7167.76	10360.68	-10360.44	115.54	1734959.19	14538263.66	40°01'52.219"N	104°39'44.123"W	0.49	
18310.00	91.540	177.720	7166.87	10396.65	-10396.40	116.84	1734960.63	14538227.72	40°01'51.863"N	104°39'44.106"W	1.36	LAST BHGE MWD+IFR1+SC SURVEY
18356.00	91.540	177.720	7165.64	10442.60	-10442.35	118.67	1734962.63	14538181.80	40°01'51.409"N	104°39'44.082"W	0.00	PTB (469'FSL & 743'FEL,SEC.21) 40.0309470 -104.6622451

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.09-T1N-R65W	0.00	0.00	-60.18	1734744.30	14548619.30	40°03'34.603"N	104°39'46.382"W	polygon
SEC.09-T1N-R65W SESE 1/4	0.00	-0.30	44.79	1734849.23	14548619.40	40°03'34.600"N	104°39'45.032"W	polygon
SEC.09-T1N-R65W SESW 1/4	0.00	-0.30	44.79	1734849.23	14548619.40	40°03'34.600"N	104°39'45.032"W	polygon
SEC.16-T1N-R65W	0.00	0.00	-60.18	1734744.30	14548619.30	40°03'34.603"N	104°39'46.382"W	polygon
SEC.21-T1N-R65W	0.00	0.00	-60.18	1734744.30	14548619.30	40°03'34.603"N	104°39'46.382"W	polygon
ROBIN 9-16HZ HEEL REV-1(400'FSL & 797'FEL,SEC.09)	7114.00	82.35	62.39	1734866.51	14548702.08	40°03'35.417"N	104°39'44.806"W	point
ROBIN 9-16HZ HEEL REV-2(455'FSL & 797'FEL,SEC.09)	7114.00	137.37	62.36	1734866.27	14548757.08	40°03'35.961"N	104°39'44.806"W	point
ROBIN 9-16HZ BHL REV-1(468'FSL & 795'FEL,SEC.21)	7162.00	-10443.07	66.89	1734910.87	14538180.88	40°01'51.402"N	104°39'44.748"W	point
ROBIN 9-16HZ BHL REV-2(468'FSL & 775'FEL,SEC.21)	7162.00	-10443.07	86.89	1734930.86	14538180.95	40°01'51.402"N	104°39'44.491"W	point
ROBIN 9-16HZ LANDBOX	7162.00	0.00	0.00	1734804.46	14548619.53	40°03'34.603"N	104°39'45.608"W	polygon
ROBIN 9-16HZ SETBACK 1	7162.00	0.00	0.00	1734804.46	14548619.53	40°03'34.603"N	104°39'45.608"W	polygon
ROBIN 9-16HZ SETBACK 2	7162.00	0.00	0.00	1734804.46	14548619.53	40°03'34.603"N	104°39'45.608"W	polygon

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#30 ROBIN 9-16HZ(317'FSL & 859'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-16HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-16HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH COMPOSITION - Ref Wellbore: ROBIN 9-16HZ AWB Ref Wellpath: ROBIN 9-16HZ AWP				
Start MD (ft)	End MD (ft)	Positional Uncertainty Model	Log Name/Comment	Wellbore
32.00	1807.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <144 - 1807>	ROBIN 9-16HZ AWB
1807.00	18310.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1930 - 18310>	ROBIN 9-16HZ AWB
18310.00	18356.00	Blind Drilling (std)	Projection to bit	ROBIN 9-16HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#30 ROBIN 9-16HZ(317'FSL & 859'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-16HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-16HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
144.00	0.220	192.580	144.00	FIRST SURFACE MWD+IFR1 SURVEY
1807.00	12.660	7.130	1799.43	LAST SURFACE MWD+IFR1 SURVEY
1930.00	12.940	8.550	1919.38	FIRST BHGE MWD+IFR1+SC SURVEY
6367.00	0.869	148.004	6244.02	KOP
7356.00	67.716	180.298	7086.00	ENTER LANDBOX (865'FNL & 762'FEL,SEC.09) 40.0611169 -104.6623200
7497.00	86.240	183.880	7115.20	LANDING (728'FSL & 763'FEL,SEC.09) 40.0607400 -104.6623271
8687.00	89.028	180.711	7127.80	CROSS SETBACK HEEL (461'FNL & 800'FEL,SEC.16) 40.0574760 -104.6624582
17041.00	90.573	180.313	7167.03	CROSS SETBACK TOE (1783'FSL & 744'FEL,SEC.21) 40.0345554 -104.6622484
18310.00	91.540	177.720	7166.87	LAST BHGE MWD+IFR1+SC SURVEY
18356.00	91.540	177.720	7165.64	PTB (469'FSL & 743'FEL,SEC.21) 40.0309470 -104.6622451