

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#29 ROBIN 9-15HZ(318'FSL & 874'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-15HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-15HZ 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	11/20/2017 at 3:00 PM
Convergence at slot	0.22° East	Database/Source file	WA_DEN_Anadarko_Defn/ROBIN_9-15HZ_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	3736.07	1734789.30	14548619.47	40°03'34.603"N	104°39'45.803"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#29 ROBIN 9-15HZ(318'FSL & 874'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	179.85°

Actual Wellpath Report

ROBIN 9-15HZ AWP

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Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-15HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH DATA (233 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	112.950	0.00	0.00	0.00	0.00	1734789.30	14548619.47	40°03'34.603"N	104°39'45.803"W	0.00	
32.00	0.000	112.950	32.00	0.00	0.00	0.00	1734789.30	14548619.47	40°03'34.603"N	104°39'45.803"W	0.00	
144.00	0.400	112.950	144.00	0.15	-0.15	0.36	1734789.66	14548619.32	40°03'34.601"N	104°39'45.798"W	0.36	FIRST SURFACE MWD+IFR1 SURVEY
176.00	0.660	114.970	176.00	0.28	-0.27	0.63	1734789.93	14548619.20	40°03'34.600"N	104°39'45.795"W	0.81	
207.00	0.530	81.660	207.00	0.33	-0.33	0.93	1734790.24	14548619.15	40°03'34.600"N	104°39'45.791"W	1.17	
239.00	0.090	89.100	239.00	0.31	-0.31	1.11	1734790.41	14548619.17	40°03'34.600"N	104°39'45.789"W	1.38	
270.00	0.260	315.630	270.00	0.26	-0.26	1.08	1734790.38	14548619.22	40°03'34.600"N	104°39'45.789"W	1.06	
302.00	0.480	328.730	301.99	0.09	-0.09	0.96	1734790.26	14548619.39	40°03'34.602"N	104°39'45.791"W	0.73	
333.00	0.750	351.930	332.99	-0.22	0.22	0.86	1734790.16	14548619.70	40°03'34.605"N	104°39'45.792"W	1.17	
365.00	0.620	349.820	364.99	-0.60	0.60	0.80	1734790.10	14548620.08	40°03'34.609"N	104°39'45.793"W	0.41	
396.00	1.050	341.560	395.99	-1.03	1.03	0.68	1734789.98	14548620.51	40°03'34.613"N	104°39'45.794"W	1.44	
428.00	1.270	341.640	427.98	-1.65	1.65	0.48	1734789.78	14548621.12	40°03'34.619"N	104°39'45.797"W	0.69	
459.00	1.050	341.730	458.97	-2.24	2.25	0.28	1734789.58	14548621.72	40°03'34.625"N	104°39'45.799"W	0.71	
491.00	1.190	343.750	490.97	-2.84	2.84	0.10	1734789.39	14548622.31	40°03'34.631"N	104°39'45.802"W	0.45	
522.00	1.580	336.640	521.96	-3.54	3.54	-0.16	1734789.13	14548623.01	40°03'34.638"N	104°39'45.805"W	1.37	
554.00	2.290	342.960	553.94	-4.56	4.56	-0.52	1734788.76	14548624.03	40°03'34.648"N	104°39'45.810"W	2.31	
586.00	2.460	344.720	585.91	-5.84	5.83	-0.89	1734788.39	14548625.30	40°03'34.661"N	104°39'45.814"W	0.58	
618.00	2.990	337.340	617.88	-7.27	7.27	-1.39	1734787.88	14548626.73	40°03'34.675"N	104°39'45.821"W	1.98	
650.00	3.560	339.800	649.82	-8.97	8.97	-2.06	1734787.21	14548628.43	40°03'34.692"N	104°39'45.829"W	1.83	
713.00	4.480	340.060	712.67	-13.13	13.12	-3.57	1734785.68	14548632.57	40°03'34.733"N	104°39'45.849"W	1.46	
745.00	5.010	341.210	744.56	-15.63	15.62	-4.45	1734784.79	14548635.06	40°03'34.757"N	104°39'45.860"W	1.68	
777.00	5.580	338.920	776.42	-18.40	18.39	-5.46	1734783.77	14548637.83	40°03'34.785"N	104°39'45.873"W	1.90	
808.00	5.890	338.390	807.27	-21.29	21.28	-6.59	1734782.64	14548640.71	40°03'34.813"N	104°39'45.888"W	1.01	
840.00	6.280	340.330	839.09	-24.47	24.45	-7.78	1734781.43	14548643.88	40°03'34.845"N	104°39'45.903"W	1.38	
872.00	6.500	340.150	870.89	-27.83	27.80	-8.99	1734780.21	14548647.23	40°03'34.878"N	104°39'45.919"W	0.69	
904.00	6.720	337.870	902.68	-31.27	31.24	-10.31	1734778.88	14548650.66	40°03'34.912"N	104°39'45.936"W	1.07	
935.00	7.120	339.270	933.45	-34.75	34.72	-11.67	1734777.51	14548654.13	40°03'34.946"N	104°39'45.953"W	1.40	
967.00	7.600	342.080	965.19	-38.62	38.58	-13.02	1734776.14	14548657.99	40°03'34.984"N	104°39'45.970"W	1.87	
999.00	7.950	342.080	996.89	-42.74	42.70	-14.35	1734774.79	14548662.10	40°03'35.025"N	104°39'45.988"W	1.09	
1031.00	8.130	343.140	1028.58	-47.02	46.97	-15.69	1734773.44	14548666.37	40°03'35.067"N	104°39'46.005"W	0.73	
1062.00	8.130	341.210	1059.27	-51.19	51.15	-17.03	1734772.08	14548670.53	40°03'35.108"N	104°39'46.022"W	0.88	
1094.00	8.040	341.120	1090.95	-55.46	55.41	-18.49	1734770.61	14548674.79	40°03'35.151"N	104°39'46.041"W	0.28	
1157.00	7.730	341.030	1153.35	-63.64	63.58	-21.29	1734767.78	14548682.95	40°03'35.231"N	104°39'46.077"W	0.49	
1189.00	8.040	339.270	1185.05	-67.77	67.71	-22.78	1734766.27	14548687.07	40°03'35.272"N	104°39'46.096"W	1.23	
1221.00	7.910	338.220	1216.74	-71.91	71.85	-24.39	1734764.65	14548691.20	40°03'35.313"N	104°39'46.117"W	0.61	
1253.00	7.950	339.710	1248.43	-76.04	75.97	-25.97	1734763.05	14548695.31	40°03'35.354"N	104°39'46.137"W	0.65	
1285.00	8.040	343.400	1280.12	-80.26	80.19	-27.38	1734761.63	14548699.53	40°03'35.395"N	104°39'46.155"W	1.63	
1317.00	7.820	348.680	1311.82	-84.54	84.47	-28.45	1734760.55	14548703.80	40°03'35.438"N	104°39'46.169"W	2.38	
1348.00	8.090	346.740	1342.52	-88.74	88.66	-29.36	1734759.62	14548707.99	40°03'35.479"N	104°39'46.181"W	1.23	
1380.00	7.730	343.670	1374.21	-93.00	92.92	-30.48	1734758.48	14548712.24	40°03'35.521"N	104°39'46.195"W	1.73	
1412.00	7.730	343.310	1405.92	-97.13	97.04	-31.71	1734757.24	14548716.36	40°03'35.562"N	104°39'46.211"W	0.15	
1443.00	7.730	344.900	1436.64	-101.14	101.05	-32.85	1734756.08	14548720.36	40°03'35.602"N	104°39'46.225"W	0.69	
1507.00	8.040	340.850	1500.04	-109.53	109.44	-35.44	1734753.46	14548728.73	40°03'35.684"N	104°39'46.259"W	0.99	
1538.00	8.000	340.060	1530.73	-113.61	113.51	-36.88	1734752.00	14548732.80	40°03'35.725"N	104°39'46.277"W	0.38	
1570.00	7.950	339.360	1562.43	-117.78	117.68	-38.42	1734750.45	14548736.96	40°03'35.766"N	104°39'46.297"W	0.34	

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WELLPATH DATA (233 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
1601.00	8.260	338.220	1593.12	-121.86	121.75	-40.01	1734748.85	14548741.02	40°03'35.806"N	104°39'46.318"W	1.13	
1633.00	8.660	338.130	1624.77	-126.23	126.12	-41.76	1734747.08	14548745.38	40°03'35.849"N	104°39'46.340"W	1.25	
1665.00	8.530	340.850	1656.41	-130.71	130.60	-43.43	1734745.39	14548749.85	40°03'35.894"N	104°39'46.362"W	1.33	
1697.00	8.570	345.950	1688.05	-135.27	135.15	-44.79	1734744.02	14548754.40	40°03'35.939"N	104°39'46.379"W	2.37	
1729.00	8.880	345.420	1719.68	-139.98	139.86	-45.99	1734742.80	14548759.10	40°03'35.985"N	104°39'46.394"W	1.00	
1760.00	9.050	343.580	1750.30	-144.63	144.51	-47.28	1734741.49	14548763.75	40°03'36.031"N	104°39'46.411"W	1.08	
1792.00	9.490	344.110	1781.89	-149.59	149.46	-48.72	1734740.04	14548768.69	40°03'36.080"N	104°39'46.430"W	1.40	
1811.00	9.580	343.400	1800.62	-152.61	152.48	-49.60	1734739.15	14548771.71	40°03'36.110"N	104°39'46.441"W	0.78	LAST SURFACE MWD+IFR1 SURVEY
1930.00	11.550	338.760	1917.60	-173.23	173.08	-56.74	1734731.93	14548792.27	40°03'36.313"N	104°39'46.533"W	1.80	FIRST BHGE MWD+IFR1+MSA SURVEY
2024.00	12.650	345.560	2009.52	-191.98	191.82	-62.72	1734725.88	14548810.98	40°03'36.499"N	104°39'46.610"W	1.91	
2118.00	13.680	347.150	2101.05	-212.80	212.63	-67.76	1734720.77	14548831.76	40°03'36.704"N	104°39'46.674"W	1.16	
2212.00	14.690	349.630	2192.18	-235.38	235.19	-72.37	1734716.07	14548854.29	40°03'36.927"N	104°39'46.734"W	1.25	
2305.00	15.820	347.310	2281.90	-259.36	259.16	-77.28	1734711.07	14548878.23	40°03'37.164"N	104°39'46.797"W	1.38	
2398.00	16.450	347.520	2371.24	-284.60	284.38	-82.91	1734705.35	14548903.42	40°03'37.413"N	104°39'46.869"W	0.68	
2492.00	15.720	346.120	2461.56	-309.97	309.74	-88.84	1734699.32	14548928.75	40°03'37.664"N	104°39'46.946"W	0.88	
2586.00	17.060	344.830	2551.74	-335.66	335.41	-95.51	1734692.56	14548954.38	40°03'37.918"N	104°39'47.031"W	1.48	
2680.00	16.250	344.800	2641.79	-361.68	361.41	-102.56	1734685.41	14548980.35	40°03'38.175"N	104°39'47.122"W	0.86	
2774.00	15.290	350.580	2732.26	-386.61	386.33	-108.04	1734679.84	14549005.24	40°03'38.421"N	104°39'47.193"W	1.96	
2868.00	16.080	350.560	2822.76	-411.69	411.40	-112.20	1734675.58	14549030.28	40°03'38.669"N	104°39'47.246"W	0.84	
2962.00	16.740	350.850	2912.93	-437.91	437.61	-116.49	1734671.20	14549056.46	40°03'38.928"N	104°39'47.301"W	0.71	
3056.00	15.630	349.750	3003.20	-463.75	463.43	-120.90	1734666.70	14549082.26	40°03'39.183"N	104°39'47.358"W	1.23	
3150.00	16.440	348.840	3093.54	-489.27	488.94	-125.73	1734661.77	14549107.74	40°03'39.435"N	104°39'47.420"W	0.90	
3244.00	15.340	346.480	3183.95	-514.43	514.08	-131.21	1734656.20	14549132.85	40°03'39.683"N	104°39'47.490"W	1.36	
3338.00	15.450	347.650	3274.58	-538.76	538.40	-136.79	1734650.52	14549157.14	40°03'39.924"N	104°39'47.562"W	0.35	
3432.00	15.680	350.020	3365.13	-563.51	563.15	-141.67	1734645.55	14549181.86	40°03'40.168"N	104°39'47.625"W	0.72	
3525.00	16.410	349.700	3454.51	-588.83	588.45	-146.20	1734640.93	14549207.13	40°03'40.418"N	104°39'47.683"W	0.79	
3619.00	15.230	348.520	3544.95	-614.01	613.61	-151.03	1734636.01	14549232.27	40°03'40.667"N	104°39'47.745"W	1.30	
3713.00	15.250	345.290	3635.64	-638.08	637.67	-156.63	1734630.32	14549256.29	40°03'40.905"N	104°39'47.817"W	0.90	
3807.00	15.160	348.160	3726.35	-662.08	661.66	-162.29	1734624.57	14549280.25	40°03'41.142"N	104°39'47.890"W	0.81	
3901.00	16.440	349.450	3816.80	-687.20	686.76	-167.25	1734619.52	14549305.33	40°03'41.390"N	104°39'47.954"W	1.41	
3995.00	14.940	345.410	3907.30	-712.02	711.57	-172.73	1734613.94	14549330.10	40°03'41.635"N	104°39'48.025"W	1.97	
4089.00	15.380	350.830	3998.03	-736.07	735.60	-177.77	1734608.81	14549354.11	40°03'41.872"N	104°39'48.089"W	1.58	
4184.00	17.100	349.690	4089.24	-762.26	761.78	-182.28	1734604.21	14549380.26	40°03'42.131"N	104°39'48.147"W	1.84	
4278.00	16.580	348.210	4179.21	-789.00	788.51	-187.49	1734598.90	14549406.96	40°03'42.395"N	104°39'48.214"W	0.72	
4372.00	15.700	347.150	4269.50	-814.54	814.04	-193.06	1734593.23	14549432.45	40°03'42.647"N	104°39'48.286"W	0.99	
4490.00	13.350	341.990	4383.73	-843.09	842.56	-200.83	1734585.36	14549460.94	40°03'42.929"N	104°39'48.386"W	2.27	
4585.00	14.140	342.810	4476.01	-864.62	864.08	-207.65	1734578.46	14549482.42	40°03'43.142"N	104°39'48.474"W	0.86	
4679.00	15.450	341.920	4566.89	-887.51	886.95	-214.93	1734571.10	14549505.26	40°03'43.368"N	104°39'48.567"W	1.41	
4773.00	14.290	340.860	4657.74	-910.40	909.82	-222.62	1734563.33	14549528.08	40°03'43.594"N	104°39'48.666"W	1.27	
4867.00	13.630	347.050	4748.97	-932.17	931.57	-228.90	1734556.96	14549549.80	40°03'43.809"N	104°39'48.747"W	1.74	
4961.00	12.970	347.810	4840.44	-953.28	952.68	-233.61	1734552.17	14549570.88	40°03'44.018"N	104°39'48.808"W	0.73	
5056.00	13.050	344.200	4933.01	-974.04	973.42	-238.78	1734546.93	14549591.60	40°03'44.223"N	104°39'48.874"W	0.86	
5150.00	9.830	352.320	5025.13	-992.22	991.59	-242.75	1734542.90	14549609.74	40°03'44.402"N	104°39'48.925"W	3.82	
5244.00	6.380	345.530	5118.18	-1005.24	1004.60	-245.13	1734540.47	14549622.74	40°03'44.531"N	104°39'48.956"W	3.80	
5338.00	3.410	344.220	5211.83	-1012.99	1012.35	-247.19	1734538.37	14549630.48	40°03'44.607"N	104°39'48.982"W	3.16	

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Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-15HZ AWB
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5431.00	1.920	8.840	5304.73	-1017.20	1016.55	-247.70	1734537.85	14549634.68	40°03'44.649"N	104°39'48.989"W	1.99	
5526.00	0.760	294.640	5399.71	-1019.03	1018.39	-248.03	1734537.51	14549636.51	40°03'44.667"N	104°39'48.993"W	1.96	
5619.00	0.940	123.200	5492.70	-1018.87	1018.23	-247.96	1734537.59	14549636.35	40°03'44.665"N	104°39'48.992"W	1.82	
5713.00	0.650	83.370	5586.69	-1018.51	1017.87	-246.78	1734538.77	14549636.00	40°03'44.662"N	104°39'48.977"W	0.65	
5807.00	0.560	70.150	5680.69	-1018.72	1018.08	-245.82	1734539.73	14549636.22	40°03'44.664"N	104°39'48.965"W	0.18	
5900.00	2.190	127.940	5773.66	-1017.78	1017.14	-243.99	1734541.56	14549635.29	40°03'44.655"N	104°39'48.941"W	2.10	
5993.00	1.960	134.020	5866.60	-1015.58	1014.95	-241.44	1734544.11	14549633.10	40°03'44.633"N	104°39'48.908"W	0.34	
6087.00	1.610	131.500	5960.56	-1013.58	1012.95	-239.30	1734546.26	14549631.12	40°03'44.613"N	104°39'48.881"W	0.38	
6181.00	1.340	108.080	6054.52	-1012.36	1011.74	-237.27	1734548.30	14549629.91	40°03'44.601"N	104°39'48.855"W	0.70	
6275.00	1.170	76.570	6148.50	-1012.23	1011.62	-235.29	1734550.28	14549629.80	40°03'44.600"N	104°39'48.829"W	0.75	
6368.00	0.890	92.970	6241.49	-1012.41	1011.80	-233.64	1734551.92	14549629.99	40°03'44.602"N	104°39'48.808"W	0.43	
6414.00†	3.156	169.840	6287.46	-1011.14	1010.54	-233.06	1734552.51	14549628.72	40°03'44.589"N	104°39'48.800"W	6.69	KOP
6463.00	6.370	178.190	6336.29	-1007.10	1006.49	-232.74	1734552.84	14549624.68	40°03'44.549"N	104°39'48.796"W	6.69	
6557.00	17.780	192.080	6428.07	-987.79	987.18	-235.59	1734550.07	14549605.36	40°03'44.359"N	104°39'48.833"W	12.44	
6651.00	21.030	193.850	6516.72	-957.39	956.76	-242.63	1734543.15	14549574.93	40°03'44.058"N	104°39'48.924"W	3.51	
6746.00	28.750	185.020	6602.86	-918.03	917.38	-248.72	1734537.21	14549535.54	40°03'43.669"N	104°39'49.002"W	9.00	
6840.00	28.090	179.890	6685.54	-873.37	872.72	-250.66	1734535.44	14549490.90	40°03'43.227"N	104°39'49.027"W	2.69	
6934.00	34.400	174.740	6765.88	-824.74	824.09	-248.18	1734538.10	14549442.29	40°03'42.747"N	104°39'48.995"W	7.28	
7027.00	38.320	175.210	6840.76	-769.81	769.18	-243.36	1734543.13	14549387.42	40°03'42.204"N	104°39'48.933"W	4.23	
7121.00	44.790	185.060	6911.14	-707.66	707.02	-243.85	1734542.87	14549325.29	40°03'41.590"N	104°39'48.939"W	9.77	
7215.00	52.000	181.170	6973.53	-637.55	636.90	-247.53	1734539.46	14549255.18	40°03'40.897"N	104°39'48.987"W	8.27	
7309.00	52.540	180.210	7031.05	-563.21	562.56	-248.42	1734538.85	14549180.87	40°03'40.162"N	104°39'48.998"W	0.99	
7323.00†	54.490	180.017	7039.38	-551.96	551.31	-248.44	1734538.87	14549169.62	40°03'40.051"N	104°39'48.998"W	13.97	ENTER LANDBOX (869'FSL & 1124'FEL,SEC.09) 40.0611253 -104.6636106
7402.00	65.500	179.070	7078.82	-483.65	483.00	-247.87	1734539.70	14549101.34	40°03'39.376"N	104°39'48.991"W	13.97	
7496.00	68.130	180.290	7115.83	-397.25	396.61	-247.40	1734540.50	14549014.98	40°03'38.522"N	104°39'48.985"W	3.04	
7589.00	72.250	178.320	7147.34	-309.78	309.14	-246.31	1734541.91	14548927.56	40°03'37.658"N	104°39'48.971"W	4.86	
7683.00	83.980	176.830	7166.67	-218.04	217.40	-242.40	1734546.17	14548835.87	40°03'36.751"N	104°39'48.921"W	12.57	
7729.00†	86.999	177.684	7170.29	-172.23	171.60	-240.21	1734548.54	14548790.10	40°03'36.299"N	104°39'48.892"W	6.82	LANDING (490'FSL & 1114'FEL,SEC.09) 40.0600830 -104.6635812
7777.00	90.150	178.570	7171.48	-124.27	123.65	-238.64	1734550.29	14548742.17	40°03'35.825"N	104°39'48.872"W	6.82	
7872.00	91.200	177.960	7170.36	-29.32	28.70	-235.77	1734553.52	14548647.27	40°03'34.887"N	104°39'48.835"W	1.28	
8059.00	88.520	178.920	7170.82	157.60	-158.21	-230.68	1734559.32	14548460.45	40°03'33.040"N	104°39'48.770"W	1.52	
8152.00	89.720	178.830	7172.25	250.58	-251.18	-228.85	1734561.49	14548367.53	40°03'32.121"N	104°39'48.746"W	1.29	
8246.00	90.430	179.010	7172.12	344.56	-345.16	-227.08	1734563.62	14548273.59	40°03'31.192"N	104°39'48.723"W	0.78	
8341.00	88.740	179.030	7172.81	439.55	-440.14	-225.45	1734565.60	14548178.65	40°03'30.253"N	104°39'48.702"W	1.78	
8435.00	88.890	178.710	7174.76	533.51	-534.10	-223.60	1734567.81	14548084.74	40°03'29.325"N	104°39'48.679"W	0.38	
8528.00	90.370	179.640	7175.36	626.50	-627.09	-222.26	1734569.50	14547991.79	40°03'28.406"N	104°39'48.661"W	1.88	
8619.00†	88.330	178.548	7176.39	717.48	-718.06	-220.82	1734571.29	14547900.86	40°03'27.507"N	104°39'48.643"W	2.54	EXIT RADIUS HEEL (400'FNL & 1095'FEL,SEC.16) 40.0576408 -104.6635119
8623.00	88.240	178.500	7176.51	721.48	-722.06	-220.72	1734571.40	14547896.86	40°03'27.467"N	104°39'48.642"W	2.54	
8717.00	88.460	178.290	7179.21	815.41	-815.98	-218.09	1734574.39	14547802.99	40°03'26.539"N	104°39'48.608"W	0.32	
8810.00	88.090	178.260	7182.01	908.33	-908.90	-215.29	1734577.54	14547710.12	40°03'25.621"N	104°39'48.572"W	0.40	
8904.00	88.240	178.250	7185.02	1002.25	-1002.81	-212.43	1734580.76	14547616.26	40°03'24.693"N	104°39'48.535"W	0.16	
8998.00	89.600	179.940	7186.80	1096.22	-1096.77	-210.95	1734582.59	14547522.34	40°03'23.764"N	104°39'48.516"W	2.31	
9092.00	89.690	179.670	7187.38	1190.22	-1190.77	-210.63	1734583.27	14547428.38	40°03'22.836"N	104°39'48.512"W	0.30	
9186.00	89.750	179.300	7187.84	1284.21	-1284.77	-209.78	1734584.47	14547334.42	40°03'21.907"N	104°39'48.501"W	0.40	
9281.00	90.250	179.340	7187.84	1379.21	-1379.76	-208.65	1734585.96	14547239.47	40°03'20.968"N	104°39'48.486"W	0.53	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#29 ROBIN 9-15HZ(318'FSL & 874'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-15HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-15HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH DATA (233 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
9375.00	90.250	179.100	7187.43	1473.20	-1473.75	-207.37	1734587.59	14547145.52	40°03'20.039"N	104°39'48.470"W	0.26	
9469.00	90.120	178.150	7187.12	1567.18	-1567.72	-205.12	1734590.20	14547051.60	40°03'19.110"N	104°39'48.441"W	1.02	
9563.00	89.260	180.170	7187.63	1661.16	-1661.70	-203.74	1734591.94	14546957.66	40°03'18.182"N	104°39'48.423"W	2.34	
9657.00	89.290	180.350	7188.82	1755.16	-1755.70	-204.17	1734591.87	14546863.70	40°03'17.253"N	104°39'48.429"W	0.19	
9750.00	88.950	179.970	7190.25	1848.14	-1848.68	-204.43	1734591.96	14546770.75	40°03'16.334"N	104°39'48.432"W	0.55	
9844.00	88.980	182.290	7191.95	1942.10	-1942.64	-206.28	1734590.46	14546676.82	40°03'15.405"N	104°39'48.456"W	2.47	
9938.00	90.770	183.070	7192.15	2035.98	-2036.54	-210.67	1734586.42	14546582.95	40°03'14.477"N	104°39'48.512"W	2.08	
10033.00	91.170	180.110	7190.55	2130.91	-2131.48	-213.31	1734584.15	14546488.04	40°03'13.539"N	104°39'48.546"W	3.14	
10127.00	91.200	178.030	7188.60	2224.88	-2225.44	-211.78	1734586.03	14546394.12	40°03'12.611"N	104°39'48.526"W	2.21	
10220.00	89.750	179.770	7187.83	2317.85	-2318.41	-210.00	1734588.17	14546301.19	40°03'11.692"N	104°39'48.504"W	2.44	
10314.00	89.510	182.030	7188.44	2411.83	-2412.39	-211.48	1734587.05	14546207.24	40°03'10.763"N	104°39'48.522"W	2.42	
10408.00	91.540	180.930	7187.58	2505.78	-2506.35	-213.90	1734584.98	14546113.31	40°03'09.835"N	104°39'48.554"W	2.46	
10502.00	91.230	180.420	7185.30	2599.74	-2600.32	-215.01	1734584.22	14546019.38	40°03'08.906"N	104°39'48.568"W	0.63	
10596.00	90.950	179.970	7183.52	2693.72	-2694.30	-215.33	1734584.26	14545925.43	40°03'07.977"N	104°39'48.572"W	0.56	
10689.00	90.920	179.980	7182.00	2786.71	-2787.29	-215.29	1734584.65	14545832.48	40°03'07.058"N	104°39'48.571"W	0.03	
10783.00	91.110	179.790	7180.33	2880.70	-2881.27	-215.10	1734585.20	14545738.54	40°03'06.130"N	104°39'48.569"W	0.29	
10876.00	89.570	180.560	7179.78	2973.69	-2974.26	-215.39	1734585.27	14545645.58	40°03'05.211"N	104°39'48.573"W	1.85	
10969.00	89.970	180.250	7180.15	3066.69	-3067.26	-216.04	1734584.96	14545552.62	40°03'04.292"N	104°39'48.581"W	0.54	
11062.00	88.680	179.880	7181.25	3159.68	-3160.25	-216.15	1734585.21	14545459.66	40°03'03.373"N	104°39'48.582"W	1.44	
11156.00	88.710	179.090	7183.39	3253.65	-3254.22	-215.30	1734586.41	14545365.73	40°03'02.444"N	104°39'48.572"W	0.84	
11250.00	89.260	178.860	7185.06	3347.62	-3348.19	-213.62	1734588.44	14545271.81	40°03'01.515"N	104°39'48.550"W	0.63	
11344.00	88.180	178.440	7187.16	3441.58	-3442.14	-211.41	1734591.01	14545177.90	40°03'00.587"N	104°39'48.521"W	1.23	
11438.00	87.690	177.960	7190.54	3535.48	-3536.03	-208.46	1734594.32	14545084.06	40°02'59.659"N	104°39'48.484"W	0.73	
11531.00	86.860	178.670	7194.96	3628.34	-3628.89	-205.73	1734597.40	14544991.25	40°02'58.741"N	104°39'48.448"W	1.17	
11625.00	89.690	179.340	7197.79	3722.27	-3722.82	-204.09	1734599.39	14544897.36	40°02'57.813"N	104°39'48.427"W	3.09	
11718.00	88.580	179.130	7199.20	3815.26	-3815.80	-202.85	1734600.98	14544804.43	40°02'56.894"N	104°39'48.411"W	1.21	
11812.00	87.260	179.020	7202.61	3909.18	-3909.72	-201.34	1734602.85	14544710.55	40°02'55.966"N	104°39'48.392"W	1.41	
11904.00	87.410	180.970	7206.89	4001.08	-4001.62	-201.33	1734603.21	14544618.69	40°02'55.058"N	104°39'48.392"W	2.12	
11996.00	90.490	181.580	7208.57	4093.02	-4093.57	-203.38	1734601.51	14544526.76	40°02'54.149"N	104°39'48.418"W	3.41	
12088.00	91.080	181.660	7207.31	4184.97	-4185.52	-205.98	1734599.26	14544434.84	40°02'53.241"N	104°39'48.452"W	0.65	
12181.00	90.580	181.230	7205.97	4277.92	-4278.48	-208.32	1734597.27	14544341.91	40°02'52.322"N	104°39'48.482"W	0.71	
12273.00	90.120	181.010	7205.40	4369.90	-4370.47	-210.12	1734595.82	14544249.95	40°02'51.413"N	104°39'48.505"W	0.55	
12366.00	89.600	180.770	7205.63	4462.88	-4463.45	-211.56	1734594.73	14544157.00	40°02'50.494"N	104°39'48.523"W	0.62	
12460.00	90.060	180.580	7205.91	4556.87	-4557.45	-212.67	1734593.97	14544063.04	40°02'49.565"N	104°39'48.538"W	0.53	
12554.00	90.060	180.840	7205.81	4650.86	-4651.44	-213.84	1734593.17	14543969.08	40°02'48.636"N	104°39'48.553"W	0.28	
12647.00	89.880	179.960	7205.86	4743.86	-4744.44	-214.49	1734592.87	14543876.12	40°02'47.717"N	104°39'48.561"W	0.97	
12741.00	89.630	179.490	7206.26	4837.86	-4838.43	-214.03	1734593.68	14543782.16	40°02'46.788"N	104°39'48.555"W	0.57	
12835.00	88.980	179.240	7207.40	4931.85	-4932.42	-212.99	1734595.07	14543688.21	40°02'45.860"N	104°39'48.542"W	0.74	
12929.00	89.850	180.060	7208.36	5025.84	-5026.41	-212.42	1734596.00	14543594.26	40°02'44.931"N	104°39'48.534"W	1.27	
13024.00	89.940	180.190	7208.54	5120.84	-5121.41	-212.63	1734596.16	14543499.30	40°02'43.992"N	104°39'48.537"W	0.17	
13117.00	89.450	180.370	7209.03	5213.83	-5214.41	-213.08	1734596.05	14543406.34	40°02'43.073"N	104°39'48.543"W	0.56	
13211.00	88.770	179.780	7210.49	5307.82	-5308.40	-213.20	1734596.29	14543312.39	40°02'42.144"N	104°39'48.544"W	0.96	
13305.00	91.750	179.760	7210.06	5401.81	-5402.38	-212.83	1734597.02	14543218.44	40°02'41.215"N	104°39'48.539"W	3.17	
13398.00	91.600	179.530	7207.35	5494.77	-5495.34	-212.25	1734597.95	14543125.52	40°02'40.297"N	104°39'48.532"W	0.30	
13492.00	91.200	179.400	7205.05	5588.74	-5589.31	-211.37	1734599.18	14543031.59	40°02'39.368"N	104°39'48.521"W	0.45	

REFERENCE WELLPATH IDENTIFICATION				
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)		Slot	SLOT#29 ROBIN 9-15HZ(318'FSL & 874'FEL,SEC.09)
Area	COLORADO		Well	ROBIN 9-15HZ
Field	WELD COUNTY (UTM/TRUE NORTH)		Wellbore	ROBIN 9-15HZ AWB
Facility	SEC.09-T1N-R65W			

WELLPATH DATA (233 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	
13586.00	90.340	178.330	7203.79	5682.71	-5683.28	-209.51	1734601.40	14542937.67	40°02'38.439"N	104°39'48.497"W	1.46		
13680.00	90.400	178.390	7203.18	5776.68	-5777.24	-206.82	1734604.44	14542843.75	40°02'37.511"N	104°39'48.462"W	0.09		
13774.00	89.540	178.020	7203.23	5870.64	-5871.19	-203.88	1734607.74	14542749.85	40°02'36.582"N	104°39'48.424"W	1.00		
13869.00	89.260	177.180	7204.22	5965.56	-5966.10	-199.90	1734612.08	14542654.99	40°02'35.645"N	104°39'48.373"W	0.93		
13963.00	90.220	178.520	7204.65	6059.50	-6060.03	-196.37	1734615.96	14542561.11	40°02'34.716"N	104°39'48.328"W	1.75		
14057.00	89.540	178.210	7204.85	6153.47	-6153.99	-193.69	1734618.99	14542467.20	40°02'33.788"N	104°39'48.293"W	0.80		
14150.00	90.770	180.500	7204.60	6246.45	-6246.98	-192.64	1734620.39	14542374.26	40°02'32.869"N	104°39'48.280"W	2.80		
14244.00	90.180	179.870	7203.82	6340.45	-6340.98	-192.95	1734620.45	14542280.30	40°02'31.940"N	104°39'48.284"W	0.92		
14338.00	90.310	179.800	7203.41	6434.45	-6434.97	-192.68	1734621.07	14542186.34	40°02'31.011"N	104°39'48.280"W	0.16		
14431.00	89.910	179.240	7203.24	6527.45	-6527.97	-191.90	1734622.20	14542093.38	40°02'30.092"N	104°39'48.270"W	0.74		
14525.00	88.830	179.970	7204.27	6621.44	-6621.96	-191.25	1734623.21	14541999.43	40°02'29.163"N	104°39'48.262"W	1.39		
14619.00	88.740	181.580	7206.26	6715.40	-6715.93	-192.52	1734622.29	14541905.50	40°02'28.235"N	104°39'48.278"W	1.72		
14712.00	88.150	181.020	7208.79	6808.34	-6808.87	-194.63	1734620.54	14541812.58	40°02'27.316"N	104°39'48.305"W	0.87		
14806.00	90.370	181.000	7210.00	6902.30	-6902.84	-196.29	1734619.24	14541718.64	40°02'26.387"N	104°39'48.327"W	2.36		
14900.00	89.630	180.230	7210.00	6996.29	-6996.83	-197.29	1734618.58	14541624.68	40°02'25.459"N	104°39'48.340"W	1.14		
14994.00	88.740	179.240	7211.34	7090.28	-7090.82	-196.86	1734619.37	14541530.74	40°02'24.530"N	104°39'48.334"W	1.42		
15088.00	91.080	180.930	7211.48	7184.27	-7184.81	-197.00	1734619.59	14541436.78	40°02'23.601"N	104°39'48.336"W	3.07		
15182.00	91.480	180.660	7209.38	7278.23	-7278.78	-198.30	1734618.64	14541342.85	40°02'22.672"N	104°39'48.353"W	0.51		
15276.00	91.630	180.590	7206.83	7372.19	-7372.74	-199.33	1734617.97	14541248.92	40°02'21.744"N	104°39'48.366"W	0.18		
15370.00	90.280	179.650	7205.27	7466.17	-7466.72	-199.53	1734618.13	14541154.97	40°02'20.815"N	104°39'48.368"W	1.75		
15464.00	90.060	179.630	7204.99	7560.17	-7560.72	-198.93	1734619.08	14541061.02	40°02'19.886"N	104°39'48.361"W	0.24		
15558.00	89.850	179.250	7205.06	7654.17	-7654.71	-198.02	1734620.35	14540967.06	40°02'18.957"N	104°39'48.349"W	0.46		
15652.00	89.910	178.760	7205.26	7748.16	-7748.70	-196.38	1734622.34	14540873.12	40°02'18.029"N	104°39'48.328"W	0.53		
15747.00	89.820	180.480	7205.48	7843.15	-7843.69	-195.75	1734623.33	14540778.17	40°02'17.090"N	104°39'48.320"W	1.81		
15841.00	88.920	180.280	7206.52	7937.14	-7937.68	-196.38	1734623.06	14540684.21	40°02'16.161"N	104°39'48.328"W	0.98		
15935.00	88.610	180.170	7208.54	8031.12	-8031.66	-196.75	1734623.05	14540590.27	40°02'15.232"N	104°39'48.332"W	0.35		
16028.00	89.350	179.850	7210.20	8124.10	-8124.65	-196.76	1734623.39	14540497.32	40°02'14.313"N	104°39'48.333"W	0.87		
16123.00	89.750	180.790	7210.94	8219.10	-8219.64	-197.29	1734623.22	14540402.36	40°02'13.375"N	104°39'48.339"W	1.08		
16217.00	90.030	180.160	7211.12	8313.09	-8313.64	-198.07	1734622.79	14540308.40	40°02'12.446"N	104°39'48.349"W	0.73		
16311.00	90.650	179.480	7210.57	8407.09	-8407.63	-197.78	1734623.44	14540214.44	40°02'11.517"N	104°39'48.346"W	0.98		
16405.00	89.200	179.610	7210.69	8501.08	-8501.63	-197.03	1734624.55	14540120.49	40°02'10.588"N	104°39'48.336"W	1.55		
16498.00	89.690	178.920	7211.59	8594.07	-8594.61	-195.84	1734626.09	14540027.54	40°02'09.669"N	104°39'48.321"W	0.91		
16593.00	90.460	178.610	7211.47	8689.05	-8689.59	-193.79	1734628.50	14539932.61	40°02'08.730"N	104°39'48.294"W	0.87		
16686.00	89.910	178.750	7211.17	8782.03	-8782.57	-191.65	1734630.99	14539839.68	40°02'07.812"N	104°39'48.267"W	0.61		
16781.00	90.370	178.220	7210.93	8877.01	-8877.53	-189.14	1734633.86	14539744.77	40°02'06.873"N	104°39'48.234"W	0.74		
16874.00	88.520	178.340	7211.83	8969.96	-8970.48	-186.34	1734637.00	14539651.86	40°02'05.955"N	104°39'48.199"W	1.99		
16968.00	88.090	176.050	7214.62	9063.81	-9064.32	-181.75	1734641.95	14539558.08	40°02'05.027"N	104°39'48.139"W	2.48		
17061.00	88.150	178.640	7217.67	9156.67	-9157.16	-177.44	1734646.61	14539465.29	40°02'04.110"N	104°39'48.084"W	2.78		
17120.00†	88.922	179.487	7219.17	9215.64	-9216.14	-176.48	1734647.80	14539406.34	40°02'03.527"N	104°39'48.072"W	1.94	ENTER RADIUS TOE (1697'FSL & 1054'FEL,SEC.21) 40.0343130 -104.6633532	
17155.00	89.380	179.990	7219.69	9250.64	-9251.13	-176.32	1734648.09	14539371.36	40°02'03.181"N	104°39'48.070"W	1.94		
17249.00	89.200	180.210	7220.86	9344.63	-9345.12	-176.48	1734648.28	14539277.41	40°02'02.252"N	104°39'48.072"W	0.30		
17343.00	88.710	179.050	7222.57	9438.61	-9439.10	-175.88	1734649.24	14539183.47	40°02'01.323"N	104°39'48.064"W	1.34		
17436.00	90.030	180.570	7223.59	9531.60	-9532.09	-175.57	1734649.90	14539090.52	40°02'00.405"N	104°39'48.060"W	2.16		
17530.00	91.170	179.750	7222.61	9625.59	-9626.09	-175.83	1734650.00	14538996.56	40°01'59.476"N	104°39'48.063"W	1.49		
17624.00	91.390	180.590	7220.51	9719.57	-9720.06	-176.11	1734650.07	14538902.62	40°01'58.547"N	104°39'48.067"W	0.92		

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#29 ROBIN 9-15HZ(318'FSL & 874'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-15HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-15HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH DATA (233 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
17719.00	91.570	181.280	7218.06	9814.52	-9815.02	-177.66	1734648.88	14538807.70	40°01'57.609"N	104°39'48.087"W	0.75	
17812.00	92.220	181.370	7214.98	9907.44	-9907.94	-179.81	1734647.09	14538714.80	40°01'56.690"N	104°39'48.114"W	0.71	
17905.00	89.690	181.190	7213.43	10000.39	-10000.90	-181.88	1734645.36	14538621.88	40°01'55.772"N	104°39'48.141"W	2.73	
17999.00	90.490	180.070	7213.28	10094.37	-10094.89	-182.92	1734644.69	14538527.92	40°01'54.843"N	104°39'48.154"W	1.46	
18093.00	91.230	179.500	7211.87	10188.36	-10188.88	-182.57	1734645.39	14538433.97	40°01'53.914"N	104°39'48.150"W	0.99	
18187.00	91.880	179.270	7209.32	10282.32	-10282.84	-181.56	1734646.76	14538340.05	40°01'52.986"N	104°39'48.137"W	0.73	
18298.00	92.220	178.240	7205.35	10393.23	-10393.74	-179.15	1734649.59	14538229.20	40°01'51.890"N	104°39'48.106"W	0.98	LAST BHGE MWD+IFR1+MSA SURVEY
18345.00	92.220	178.240	7203.53	10440.18	-10440.68	-177.70	1734651.21	14538182.29	40°01'51.426"N	104°39'48.087"W	0.00	PTB (472'FSL & 1055'FEL,SEC.21) 40.0309516 -104.6633576

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	-45.02	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	59.95	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	59.95	1734849.23	14548619.40	40°03'34.600"N	104°39'45.032"W	polygon
SEC.16-T1N-R65W	0.00	0.00	-45.02	1734744.30	14548619.30	40°03'34.603"N	104°39'46.382"W	polygon
SEC.21-T1N-R65W	0.00	0.00	-45.02	1734744.30	14548619.30	40°03'34.603"N	104°39'46.382"W	polygon
ROBIN 9-15HZ HEEL REV-1(400'FSL & 1102'FEL,SEC.09)	7168.00	82.72	-227.56	1734561.52	14548701.29	40°03'35.420"N	104°39'48.730"W	point
ROBIN 9-15HZ HEEL REV-2(460'FSL & 1102'FEL,SEC.09)	7168.00	142.68	-227.59	1734561.26	14548761.23	40°03'36.013"N	104°39'48.730"W	point
ROBIN 9-15HZ BHL REV-1(468'FSL & 1077'FEL,SEC.21)	7247.00	-10444.89	-199.94	1734628.99	14538177.99	40°01'51.384"N	104°39'48.373"W	point
ROBIN 9-15HZ LANDBOX	7247.00	0.00	0.00	1734789.30	14548619.47	40°03'34.603"N	104°39'45.803"W	polygon
ROBIN 9-15HZ RADIUS 1	7247.00	-317.39	-450.48	1734340.20	14548300.50	40°03'31.466"N	104°39'51.597"W	polygon
ROBIN 9-15HZ RADIUS 2	7247.00	-9588.72	-444.19	1734381.60	14539032.90	40°01'59.845"N	104°39'51.513"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: ROBIN 9-15HZ AWP				Ref Wellpath: ROBIN 9-15HZ AWP	
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment		Wellbore
32.00	1811.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <144 - 1811>		ROBIN 9-15HZ AWB
1811.00	18298.00	Custom APC ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <1930 - 18298>		ROBIN 9-15HZ AWB
18298.00	18345.00	Blind Drilling (std)	Projection to bit		ROBIN 9-15HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#29 ROBIN 9-15HZ(318'FSL & 874'FEL,SEC.09)
Area	COLORADO	Well	ROBIN 9-15HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	ROBIN 9-15HZ AWB
Facility	SEC.09-T1N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
144.00	0.400	112.950	144.00	FIRST SURFACE MWD+IFR1 SURVEY
1811.00	9.580	343.400	1800.62	LAST SURFACE MWD+IFR1 SURVEY
1930.00	11.550	338.760	1917.60	FIRST BHGE MWD+IFR1+MSA SURVEY
6414.00	3.156	169.840	6287.46	KOP
7323.00	54.490	180.017	7039.38	ENTER LANDBOX (869'FSL & 1124'FEL,SEC.09) 40.0611253 -104.6636106
7729.00	86.999	177.684	7170.29	LANDING (490'FSL & 1114'FEL,SEC.09) 40.0600830 -104.6635812
8619.00	88.330	178.548	7176.39	EXIT RADIUS HEEL (400'FNL & 1095'FEL,SEC.16) 40.0576408 -104.6635119
17120.00	88.922	179.487	7219.17	ENTER RADIUS TOE (1697'FSL & 1054'FEL,SEC.21) 40.0343130 -104.6633532
18298.00	92.220	178.240	7205.35	LAST BHGE MWD+IFR1+MSA SURVEY
18345.00	92.220	178.240	7203.53	PTB (472'FSL & 1055'FEL,SEC.21) 40.0309516 -104.6633576