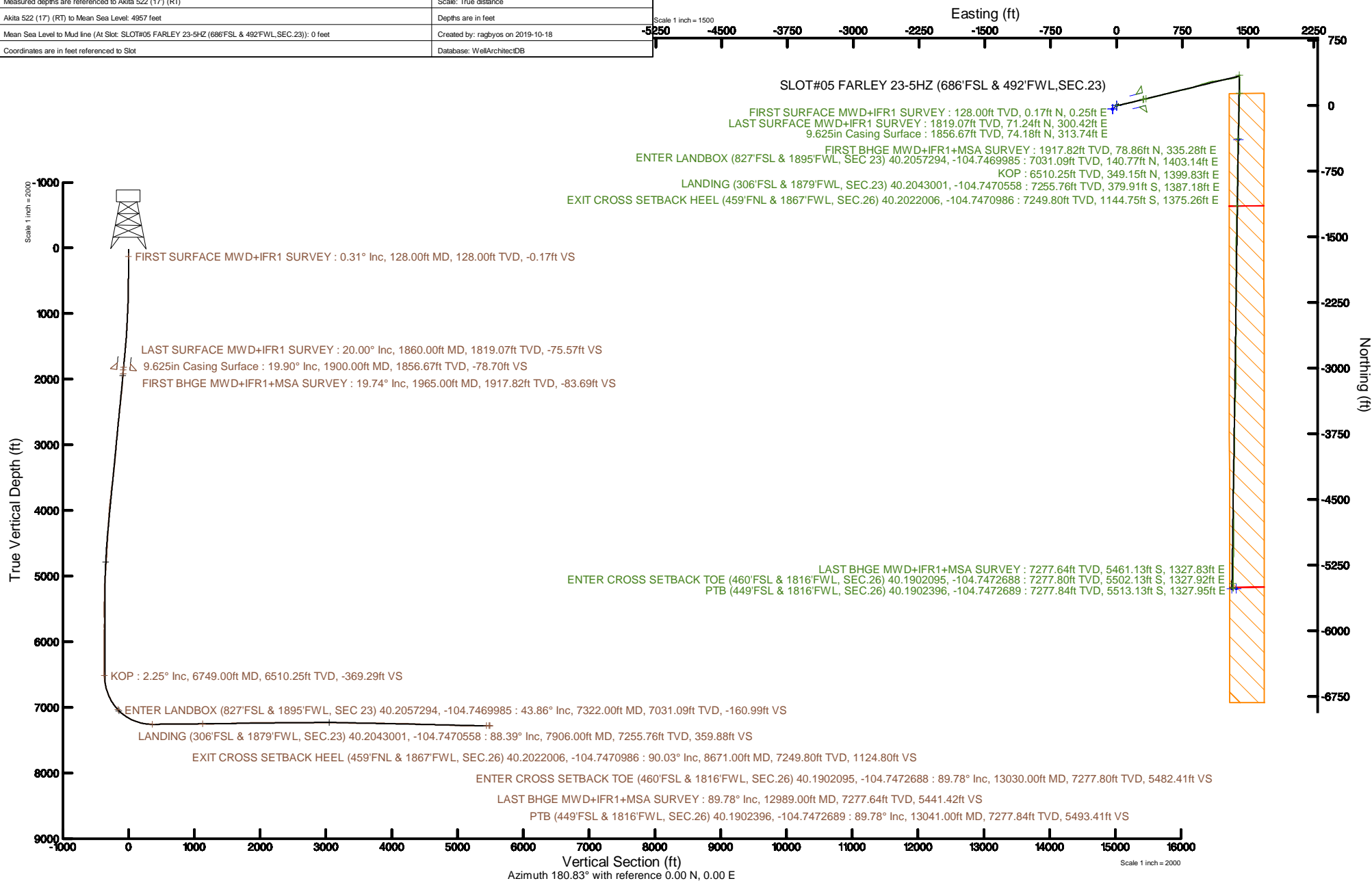


Location:	COLORADO	Slot:	SLOT#05 FARLEY 23-5HZ (686'FSL & 492'FWL,SEC.23)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	FARLEY 23-5HZ
Facility:	SEC.23-T3N-R66W	Wellbore:	FARLEY 23-5HZ PWB
Plot reference wellpath is FARLEY 23-5HZ PWP Rev-B.0		Grid System: NAD83 / UTM Zone 13 North, US feet	
True vertical depths are referenced to Akita 522 (17) (RT)		North Reference: True north	
Measured depths are referenced to Akita 522 (17) (RT)		Scale: True distance	
Akita 522 (17) (RT) to Mean Sea Level: 4957 feet		Depths are in feet	
Mean Sea Level to Mud line (At Slot: SLOT#05 FARLEY 23-5HZ (686'FSL & 492'FWL,SEC.23)): 0 feet		Created by: ragbyos on 2019-10-18	
Coordinates are in feet referenced to Slot		Database: WellArchitectIDB	



## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 FARLEY 23-5HZ (686'FSL & 492'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 23-5HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-5HZ AWB
Facility	SEC.23-T3N-R66W		

## REPORT SETUP INFORMATION

Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.1
North Reference	True	User	Ragbyos
Scale	0.999605	Report Generated	10/18/2019 at 11:02:04 AM
Convergence at slot	0.16° East	Database/Source file	WellArchitectDB/FARLEY_23-5HZ_AWP.xml

## WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	40.07	44.46	1709654.72	14601605.23	40°12'19.235"N	104°45'07.279"W
Facility Reference Pt			1709610.40	14601565.05	40°12'18.839"N	104°45'07.852"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

## WELLPATH DATUM

Calculation method	Minimum curvature	Akita 522 (17') (RT) to Facility Vertical Datum	4957.00ft
Horizontal Reference Pt	Slot	Akita 522 (17') (RT) to Mean Sea Level	4957.00ft
Vertical Reference Pt	Akita 522 (17') (RT)	Akita 522 (17') (RT) to Mud Line at Slot (SLOT#05 FARLEY 23-5HZ (686'FSL & 492'FWL, SEC.23))	4957.00ft
MD Reference Pt	Akita 522 (17') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	180.83°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 FARLEY 23-5HZ (686°FSL & 492°FWL,SEC.23)
Area	COLORADO	Well	FARLEY 23-5HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-5HZ AWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (155 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	55.260	0.00	0.00	0.00	0.00	1709654.72	14601605.23	40°12'19.235°N	104°45'07.279°W	0.00	
17.00	0.000	55.260	17.00	0.00	0.00	0.00	1709654.72	14601605.23	40°12'19.235°N	104°45'07.279°W	0.00	
128.00	0.310	55.260	128.00	-0.17	0.17	0.25	1709654.97	14601605.40	40°12'19.237°N	104°45'07.276°W	0.28	FIRST SURFACE MWD+IFR1 SURVEY
223.00	0.530	87.690	223.00	-0.35	0.34	0.90	1709655.62	14601605.57	40°12'19.238°N	104°45'07.267°W	0.33	
318.00	1.050	85.310	317.99	-0.46	0.42	2.20	1709656.93	14601605.66	40°12'19.239°N	104°45'07.251°W	0.55	
414.00	1.580	67.820	413.96	-1.06	1.00	4.31	1709659.03	14601606.24	40°12'19.245°N	104°45'07.224°W	0.69	
508.00	2.370	73.800	507.91	-2.13	2.03	7.37	1709662.09	14601607.28	40°12'19.255°N	104°45'07.184°W	0.87	
604.00	3.080	76.880	603.80	-3.34	3.17	11.79	1709666.50	14601608.43	40°12'19.266°N	104°45'07.127°W	0.75	
698.00	5.450	79.690	697.53	-4.81	4.54	18.64	1709673.35	14601609.82	40°12'19.280°N	104°45'07.039°W	2.53	
793.00	8.530	81.360	791.81	-6.84	6.41	30.05	1709684.74	14601611.72	40°12'19.298°N	104°45'06.892°W	3.25	
888.00	9.800	78.900	885.60	-9.67	9.02	44.95	1709699.63	14601614.37	40°12'19.324°N	104°45'06.700°W	1.40	
984.00	10.060	76.000	980.16	-13.50	12.62	61.10	1709715.77	14601618.02	40°12'19.360°N	104°45'06.491°W	0.59	
1079.00	10.940	76.170	1073.57	-17.91	16.78	77.91	1709732.55	14601622.22	40°12'19.401°N	104°45'06.275°W	0.93	
1174.00	12.000	75.910	1166.67	-22.73	21.34	96.24	1709750.86	14601626.83	40°12'19.446°N	104°45'06.039°W	1.12	
1268.00	14.680	76.960	1258.13	-28.10	26.41	117.32	1709771.93	14601631.96	40°12'19.496°N	104°45'05.767°W	2.86	
1363.00	16.660	78.110	1349.59	-33.98	31.93	142.38	1709796.96	14601637.55	40°12'19.551°N	104°45'05.444°W	2.11	
1458.00	18.190	76.000	1440.23	-40.77	38.33	170.09	1709824.64	14601644.02	40°12'19.614°N	104°45'05.087°W	1.74	
1553.00	19.420	76.700	1530.16	-48.42	45.55	199.85	1709854.37	14601651.32	40°12'19.685°N	104°45'04.703°W	1.32	
1648.00	19.640	75.290	1619.69	-56.55	53.23	230.67	1709885.15	14601659.09	40°12'19.761°N	104°45'04.306°W	0.55	
1743.00	19.860	74.680	1709.10	-65.32	61.55	261.67	1709916.12	14601667.49	40°12'19.843°N	104°45'03.906°W	0.32	
1838.00	20.040	76.700	1798.40	-73.78	69.56	293.07	1709947.49	14601675.58	40°12'19.922°N	104°45'03.502°W	0.75	
1860.00	20.000	77.490	1819.07	-75.57	71.24	300.42	1709954.82	14601677.28	40°12'19.939°N	104°45'03.407°W	1.24	LAST SURFACE MWD+IFR1 SURVEY
1965.00	19.740	77.860	1917.82	-83.69	78.86	335.28	1709989.65	14601684.99	40°12'20.014°N	104°45'02.958°W	0.28	FIRST BHGE MWD+IFR1+MSA SURVEY
2053.00	18.880	78.310	2000.87	-90.11	84.87	363.75	1710018.09	14601691.08	40°12'20.074°N	104°45'02.591°W	0.99	
2141.00	20.210	78.450	2083.80	-96.45	90.80	392.59	1710046.90	14601697.09	40°12'20.132°N	104°45'02.219°W	1.51	
2228.00	21.210	76.370	2165.18	-103.60	97.52	422.61	1710076.89	14601703.89	40°12'20.199°N	104°45'01.832°W	1.43	
2315.00	20.040	74.620	2246.60	-111.69	105.18	452.28	1710106.53	14601711.63	40°12'20.274°N	104°45'01.450°W	1.52	
2403.00	22.190	75.160	2328.69	-120.38	113.44	482.88	1710137.10	14601719.97	40°12'20.356°N	104°45'01.055°W	2.45	
2490.00	20.820	73.210	2409.63	-129.50	122.11	513.57	1710167.74	14601728.73	40°12'20.442°N	104°45'00.660°W	1.78	
2578.00	21.330	74.830	2491.74	-138.64	130.82	543.99	1710198.13	14601737.51	40°12'20.528°N	104°45'00.268°W	0.88	
2665.00	21.500	76.790	2572.74	-146.87	138.60	574.78	1710228.89	14601745.38	40°12'20.605°N	104°44'59.871°W	0.85	
2753.00	20.050	75.390	2655.02	-154.80	146.09	605.08	1710259.15	14601752.95	40°12'20.679°N	104°44'59.481°W	1.74	
2840.00	19.770	74.020	2736.82	-163.02	153.90	633.65	1710287.69	14601760.84	40°12'20.756°N	104°44'59.112°W	0.63	
2928.00	21.990	77.030	2819.03	-171.25	161.70	664.02	1710318.03	14601768.72	40°12'20.833°N	104°44'58.721°W	2.80	
3015.00	21.270	76.230	2899.91	-179.12	169.11	695.22	1710349.20	14601776.21	40°12'20.906°N	104°44'58.319°W	0.89	
3102.00	22.080	80.260	2980.76	-186.09	175.63	726.67	1710380.61	14601782.82	40°12'20.971°N	104°44'57.913°W	1.95	
3190.00	21.160	79.790	3062.57	-192.16	181.25	758.60	1710412.51	14601788.52	40°12'21.026°N	104°44'57.502°W	1.06	
3278.00	21.030	78.390	3144.67	-198.61	187.24	789.70	1710443.58	14601794.60	40°12'21.085°N	104°44'57.101°W	0.59	
3365.00	21.380	77.040	3225.78	-205.75	193.94	820.44	1710474.30	14601801.38	40°12'21.151°N	104°44'56.705°W	0.69	
3452.00	21.890	74.040	3306.65	-214.21	201.95	851.49	1710505.31	14601809.48	40°12'21.231°N	104°44'56.305°W	1.40	
3540.00	18.750	71.640	3389.17	-223.60	210.92	880.69	1710534.48	14601818.53	40°12'21.319°N	104°44'55.928°W	3.69	
3627.00	19.070	70.370	3471.47	-233.16	220.10	907.35	1710561.10	14601827.78	40°12'21.410°N	104°44'55.585°W	0.60	
3715.00	19.430	71.920	3554.55	-242.93	229.47	934.81	1710588.52	14601837.22	40°12'21.502°N	104°44'55.231°W	0.71	
3803.00	20.140	69.750	3637.36	-253.12	239.26	962.94	1710616.61	14601847.08	40°12'21.599°N	104°44'54.868°W	1.16	
3890.00	20.520	74.700	3718.95	-262.74	248.47	991.70	1710645.33	14601856.37	40°12'21.690°N	104°44'54.498°W	2.02	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 FARLEY 23-5HZ (686°FSL & 492°FWL, SEC.23)
Area	COLORADO	Well	FARLEY 23-5HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-5HZ AWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (155 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
3978.00	22.090	74.830	3800.93	-271.58	256.87	1022.55	1710676.14	14601864.85	40°12'21.773"N	104°44'54.100"W	1.78	
4065.00	22.290	72.880	3881.49	-281.18	266.01	1054.10	1710707.66	14601874.07	40°12'21.863"N	104°44'53.693"W	0.88	
4152.00	19.500	78.930	3962.77	-289.25	273.65	1084.13	1710737.66	14601881.80	40°12'21.939"N	104°44'53.306"W	4.05	
4240.00	22.370	82.340	4044.95	-294.75	278.71	1115.15	1710768.65	14601886.94	40°12'21.989"N	104°44'52.906"W	3.54	
4327.00	21.460	80.830	4125.67	-299.96	283.45	1147.27	1710800.74	14601891.77	40°12'22.036"N	104°44'52.492"W	1.23	
4415.00	19.540	80.170	4208.09	-305.48	288.53	1177.66	1710831.11	14601896.93	40°12'22.086"N	104°44'52.101"W	2.20	
4502.00	20.310	81.530	4289.88	-310.61	293.24	1206.94	1710860.36	14601901.72	40°12'22.132"N	104°44'51.723"W	1.03	
4589.00	19.560	81.040	4371.67	-315.52	297.73	1236.26	1710889.65	14601906.29	40°12'22.177"N	104°44'51.346"W	0.88	
4677.00	19.810	80.990	4454.52	-320.57	302.36	1265.53	1710918.91	14601911.00	40°12'22.223"N	104°44'50.968"W	0.28	
4765.00	17.210	81.070	4537.97	-325.33	306.72	1293.13	1710946.48	14601915.43	40°12'22.266"N	104°44'50.613"W	2.95	
4852.00	15.570	80.280	4621.43	-329.64	310.69	1317.35	1710970.68	14601919.47	40°12'22.305"N	104°44'50.300"W	1.90	
4966.00	12.690	73.020	4731.97	-336.27	316.93	1344.42	1710997.72	14601925.78	40°12'22.367"N	104°44'49.952"W	2.96	
5053.00	11.370	73.540	4817.06	-341.75	322.15	1361.78	1711015.06	14601931.05	40°12'22.418"N	104°44'49.728"W	1.52	
5141.00	7.610	55.790	4903.86	-347.67	327.88	1374.93	1711028.18	14601936.82	40°12'22.475"N	104°44'49.558"W	5.37	
5228.00	6.270	53.550	4990.22	-353.86	333.95	1383.51	1711036.75	14601942.91	40°12'22.535"N	104°44'49.448"W	1.57	
5316.00	5.470	50.060	5077.76	-359.51	339.49	1390.59	1711043.81	14601948.47	40°12'22.589"N	104°44'49.356"W	1.00	
5403.00	3.360	49.960	5164.50	-363.88	343.80	1395.72	1711048.93	14601952.79	40°12'22.632"N	104°44'49.290"W	2.43	
5491.00	1.090	39.520	5252.42	-366.22	346.10	1398.23	1711051.43	14601955.10	40°12'22.655"N	104°44'49.258"W	2.61	
5578.00	1.370	65.760	5339.40	-367.31	347.17	1399.71	1711052.90	14601956.17	40°12'22.665"N	104°44'49.239"W	0.71	
5666.00	1.450	76.700	5427.38	-368.03	347.86	1401.75	1711054.94	14601956.86	40°12'22.672"N	104°44'49.213"W	0.32	
5753.00	1.770	85.200	5514.34	-368.43	348.22	1404.16	1711057.35	14601957.23	40°12'22.676"N	104°44'49.181"W	0.46	
5840.00	0.810	148.770	5601.32	-368.04	347.81	1405.82	1711059.01	14601956.82	40°12'22.672"N	104°44'49.160"W	1.82	
5928.00	0.600	292.030	5689.32	-367.68	347.45	1405.71	1711058.90	14601956.46	40°12'22.668"N	104°44'49.161"W	1.52	
6016.00	1.010	265.270	5777.31	-367.77	347.56	1404.51	1711057.70	14601956.57	40°12'22.669"N	104°44'49.177"W	0.62	
6103.00	1.050	292.620	5864.30	-367.99	347.80	1403.01	1711056.20	14601956.81	40°12'22.672"N	104°44'49.196"W	0.56	
6191.00	1.040	277.690	5952.29	-368.39	348.22	1401.48	1711054.67	14601957.22	40°12'22.676"N	104°44'49.216"W	0.31	
6278.00	0.960	268.390	6039.27	-368.45	348.30	1399.97	1711053.16	14601957.30	40°12'22.677"N	104°44'49.236"W	0.21	
6366.00	0.270	34.890	6127.27	-368.59	348.45	1399.35	1711052.54	14601957.45	40°12'22.678"N	104°44'49.244"W	1.30	
6453.00	0.140	299.680	6214.27	-368.81	348.67	1399.37	1711052.56	14601957.67	40°12'22.680"N	104°44'49.243"W	0.36	
6540.00	0.410	271.280	6301.27	-368.86	348.73	1398.97	1711052.16	14601957.73	40°12'22.681"N	104°44'49.248"W	0.34	
6628.00	0.670	44.040	6389.26	-369.24	349.11	1399.01	1711052.20	14601958.11	40°12'22.684"N	104°44'49.248"W	1.13	
6715.00	0.410	42.510	6476.26	-369.84	349.70	1399.58	1711052.76	14601958.70	40°12'22.690"N	104°44'49.241"W	0.30	
6749.00†	2.249	165.456	6510.25	-369.29	349.15	1399.83	1711053.01	14601958.15	40°12'22.685"N	104°44'49.237"W	7.34	KOP
6803.00	6.200	170.520	6564.10	-365.40	345.24	1400.57	1711053.77	14601954.25	40°12'22.646"N	104°44'49.228"W	7.34	
6891.00	11.450	173.780	6651.02	-352.05	331.87	1402.30	1711055.54	14601940.88	40°12'22.514"N	104°44'49.205"W	5.99	
6978.00	17.580	178.110	6735.21	-330.33	310.13	1403.67	1711056.97	14601919.15	40°12'22.299"N	104°44'49.188"W	7.15	
7066.00	22.720	179.380	6817.80	-300.05	279.83	1404.30	1711057.68	14601888.87	40°12'22.000"N	104°44'49.180"W	5.86	
7153.00	30.040	180.900	6895.68	-261.42	241.21	1404.13	1711057.62	14601850.26	40°12'21.618"N	104°44'49.182"W	8.45	
7241.00	36.470	180.240	6969.23	-213.19	192.98	1403.68	1711057.30	14601802.05	40°12'21.142"N	104°44'49.188"W	7.32	
7322.00†	43.861	180.883	7031.09	-160.99	140.77	1403.14	1711056.91	14601749.86	40°12'20.626"N	104°44'49.195"W	9.14	ENTER LANDBOX (827°FSL & 1895°FWL, SEC 23) 40.2057294, -104.7469985
7329.00	44.500	180.930	7036.11	-156.11	135.89	1403.07	1711056.85	14601744.99	40°12'20.578"N	104°44'49.196"W	9.14	
7417.00	50.310	181.280	7095.65	-91.35	71.15	1401.81	1711055.77	14601680.27	40°12'19.938"N	104°44'49.212"W	6.61	
7504.00	56.710	181.380	7147.36	-21.45	1.26	1400.18	1711054.34	14601610.40	40°12'19.247"N	104°44'49.233"W	7.36	
7592.00	65.250	182.600	7190.01	55.41	-75.57	1397.48	1711051.86	14601533.60	40°12'18.488"N	104°44'49.268"W	9.78	
7679.00	71.750	181.010	7221.88	136.30	-156.43	1394.96	1711049.56	14601452.76	40°12'17.689"N	104°44'49.300"W	7.66	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 FARLEY 23-5HZ (686°FSL & 492°FWL, SEC.23)
Area	COLORADO	Well	FARLEY 23-5HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-5HZ AWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (155 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
7767.00	80.430	181.710	7243.01	221.64	-241.74	1392.92	1711047.76	14601367.48	40°12'16.846"N	104°44'49.327"W	9.89	
7854.00	86.060	183.040	7253.24	307.96	-328.03	1389.34	1711044.42	14601281.22	40°12'15.993"N	104°44'49.373"W	6.65	
7906.00†	88.394	181.721	7255.76	359.88	-379.91	1387.18	1711042.41	14601229.34	40°12'15.480"N	104°44'49.401"W	5.15	LANDING (306°FSL & 1879°FWL, SEC.23) 40.2043001, -104.7470558
7942.00	90.010	180.810	7256.26	395.87	-415.90	1386.39	1711041.72	14601193.37	40°12'15.125"N	104°44'49.411"W	5.15	
8029.00	91.440	180.500	7255.16	482.86	-502.89	1385.39	1711040.97	14601106.41	40°12'14.265"N	104°44'49.424"W	1.68	
8116.00	89.810	181.030	7254.21	569.85	-589.87	1384.23	1711040.05	14601019.46	40°12'13.406"N	104°44'49.439"W	1.97	
8204.00	90.950	181.240	7253.63	657.85	-677.85	1382.49	1711038.55	14600931.51	40°12'12.536"N	104°44'49.462"W	1.32	
8291.00	90.780	180.740	7252.31	744.84	-764.83	1380.98	1711037.29	14600844.57	40°12'11.677"N	104°44'49.481"W	0.61	
8379.00	91.190	179.920	7250.80	832.82	-852.81	1380.48	1711037.03	14600756.62	40°12'10.807"N	104°44'49.488"W	1.04	
8466.00	89.480	180.800	7250.29	919.81	-939.80	1379.93	1711036.73	14600669.66	40°12'09.948"N	104°44'49.495"W	2.21	
8554.00	90.500	181.540	7250.31	1007.81	-1027.78	1378.13	1711035.18	14600581.71	40°12'09.078"N	104°44'49.518"W	1.43	
8641.00	90.120	181.300	7249.84	1094.80	-1114.76	1375.98	1711033.26	14600494.76	40°12'08.219"N	104°44'49.546"W	0.52	
8671.00†	90.028	181.464	7249.80	1124.80	-1144.75	1375.26	1711032.63	14600464.78	40°12'07.922"N	104°44'49.555"W	0.63	EXIT CROSS SETBACK HEEL (459°FNL & 1867°FWL, SEC.26) 40.2022006, -104.7470986
8729.00	89.850	181.780	7249.86	1182.80	-1202.72	1373.61	1711031.15	14600406.82	40°12'07.349"N	104°44'49.576"W	0.63	
8816.00	90.620	181.470	7249.50	1269.79	-1289.69	1371.15	1711028.92	14600319.89	40°12'06.490"N	104°44'49.608"W	0.95	
8903.00	91.130	181.240	7248.17	1356.77	-1376.65	1369.09	1711027.11	14600232.95	40°12'05.631"N	104°44'49.635"W	0.64	
8991.00	91.490	180.480	7246.16	1444.75	-1464.62	1367.77	1711026.04	14600145.02	40°12'04.761"N	104°44'49.652"W	0.96	
9078.00	92.230	179.890	7243.34	1531.70	-1551.57	1367.49	1711026.00	14600058.10	40°12'03.902"N	104°44'49.655"W	1.09	
9165.00	90.790	180.770	7241.05	1618.66	-1638.54	1366.99	1711025.74	14599971.17	40°12'03.043"N	104°44'49.662"W	1.94	
9253.00	91.190	180.250	7239.52	1706.64	-1726.52	1366.20	1711025.20	14599883.22	40°12'02.173"N	104°44'49.672"W	0.75	
9340.00	91.930	179.430	7237.16	1793.60	-1813.48	1366.45	1711025.69	14599796.29	40°12'01.314"N	104°44'49.669"W	1.27	
9428.00	90.610	180.450	7235.21	1881.56	-1901.46	1366.54	1711026.03	14599708.35	40°12'00.444"N	104°44'49.668"W	1.90	
9515.00	91.410	179.610	7233.67	1968.54	-1988.44	1366.49	1711026.22	14599621.40	40°11'59.585"N	104°44'49.669"W	1.33	
9602.00	90.840	181.020	7231.96	2055.52	-2075.42	1366.01	1711025.99	14599534.45	40°11'58.725"N	104°44'49.675"W	1.75	
9690.00	89.450	181.500	7231.74	2143.51	-2163.40	1364.08	1711024.30	14599446.51	40°11'57.856"N	104°44'49.700"W	1.67	
9778.00	89.810	180.780	7232.31	2231.51	-2251.38	1362.33	1711022.79	14599358.56	40°11'56.987"N	104°44'49.722"W	0.91	
9865.00	89.650	180.300	7232.72	2318.50	-2338.38	1361.51	1711022.22	14599271.59	40°11'56.127"N	104°44'49.733"W	0.58	
9953.00	90.020	179.550	7232.97	2406.49	-2426.37	1361.62	1711022.58	14599183.63	40°11'55.257"N	104°44'49.732"W	0.95	
10040.00	89.930	179.010	7233.01	2493.46	-2513.37	1362.72	1711023.91	14599096.68	40°11'54.398"N	104°44'49.718"W	0.63	
10128.00	90.150	180.800	7232.95	2581.45	-2601.36	1362.86	1711024.31	14599008.71	40°11'53.528"N	104°44'49.716"W	2.05	
10215.00	90.270	180.130	7232.63	2668.44	-2688.36	1362.16	1711023.84	14598921.75	40°11'52.668"N	104°44'49.725"W	0.78	
10302.00	90.530	179.520	7232.02	2755.43	-2775.36	1362.42	1711024.35	14598834.79	40°11'51.809"N	104°44'49.722"W	0.76	
10390.00	89.420	180.980	7232.06	2843.42	-2863.35	1362.04	1711024.21	14598746.83	40°11'50.939"N	104°44'49.727"W	2.08	
10477.00	89.870	180.100	7232.60	2930.42	-2950.34	1361.22	1711023.64	14598659.87	40°11'50.079"N	104°44'49.737"W	1.14	
10565.00	90.320	179.550	7232.45	3018.40	-3038.34	1361.49	1711024.15	14598571.90	40°11'49.210"N	104°44'49.734"W	0.81	
10652.00	89.420	181.830	7232.65	3105.39	-3125.33	1360.44	1711023.35	14598484.95	40°11'48.350"N	104°44'49.747"W	2.82	
10740.00	90.130	181.230	7233.00	3193.39	-3213.30	1358.09	1711021.24	14598397.01	40°11'47.481"N	104°44'49.778"W	1.06	
10827.00	88.330	182.410	7234.17	3280.36	-3300.24	1355.33	1711018.73	14598310.10	40°11'46.622"N	104°44'49.813"W	2.47	
10915.00	88.710	181.880	7236.44	3368.31	-3388.15	1352.04	1711015.68	14598222.21	40°11'45.753"N	104°44'49.856"W	0.74	
11002.00	89.160	181.570	7238.06	3455.28	-3475.09	1349.42	1711013.31	14598135.30	40°11'44.894"N	104°44'49.890"W	0.63	
11089.00	88.920	180.900	7239.51	3542.27	-3562.06	1347.54	1711011.67	14598048.36	40°11'44.034"N	104°44'49.914"W	0.82	
11177.00	89.150	180.440	7241.00	3630.25	-3650.04	1346.51	1711010.89	14597960.41	40°11'43.165"N	104°44'49.927"W	0.58	
11264.00	89.440	179.890	7242.07	3717.24	-3737.04	1346.26	1711010.88	14597873.45	40°11'42.305"N	104°44'49.931"W	0.71	
11351.00	90.450	179.930	7242.15	3804.23	-3824.03	1346.40	1711011.26	14597786.49	40°11'41.446"N	104°44'49.929"W	1.16	
11439.00	89.150	181.540	7242.46	3892.22	-3912.02	1345.27	1711010.38	14597698.53	40°11'40.576"N	104°44'49.943"W	2.35	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 FARLEY 23-5HZ (686'FSL & 492'FWL,SEC.23)
Area	COLORADO	Well	FARLEY 23-5HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-5HZ AWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (155 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
11527.00	89.390	181.760	7243.58	3980.21	-3999.98	1342.74	1711008.09	14597610.60	40°11'39.707"N	104°44'49.976"W	0.37	
11614.00	90.520	181.630	7243.65	4067.19	-4086.94	1340.16	1711005.77	14597523.67	40°11'38.848"N	104°44'50.009"W	1.31	
11701.00	87.610	181.390	7245.07	4154.17	-4173.89	1337.87	1711003.72	14597436.75	40°11'37.988"N	104°44'50.039"W	3.36	
11788.00	87.700	181.290	7248.63	4241.09	-4260.79	1335.84	1711001.93	14597349.88	40°11'37.130"N	104°44'50.065"W	0.15	
11876.00	87.650	181.100	7252.20	4329.02	-4348.70	1334.01	1711000.34	14597262.00	40°11'36.261"N	104°44'50.089"W	0.22	
11963.00	88.360	180.740	7255.23	4415.96	-4435.63	1332.61	1710999.19	14597175.09	40°11'35.402"N	104°44'50.107"W	0.91	
12051.00	88.880	180.350	7257.34	4503.94	-4523.60	1331.77	1710998.60	14597087.16	40°11'34.532"N	104°44'50.118"W	0.74	
12138.00	87.930	178.740	7259.77	4590.88	-4610.56	1332.46	1710999.53	14597000.23	40°11'33.673"N	104°44'50.109"W	2.15	
12226.00	87.980	180.100	7262.91	4678.79	-4698.50	1333.35	1711000.66	14596912.33	40°11'32.804"N	104°44'50.098"W	1.55	
12313.00	88.270	180.030	7265.75	4765.74	-4785.45	1333.25	1711000.81	14596825.41	40°11'31.945"N	104°44'50.099"W	0.34	
12401.00	88.300	179.980	7268.39	4853.69	-4873.42	1333.25	1711001.05	14596737.49	40°11'31.076"N	104°44'50.099"W	0.07	
12488.00	87.350	179.050	7271.69	4940.60	-4960.35	1333.98	1711002.03	14596650.59	40°11'30.217"N	104°44'50.090"W	1.53	
12576.00	87.810	180.600	7275.40	5028.51	-5048.27	1334.25	1711002.54	14596562.71	40°11'29.348"N	104°44'50.086"W	1.84	
12663.00	88.300	180.890	7278.36	5115.46	-5135.21	1333.12	1711001.65	14596475.80	40°11'28.489"N	104°44'50.101"W	0.65	
12751.00	90.010	181.680	7279.66	5203.44	-5223.17	1331.15	1710999.92	14596387.87	40°11'27.619"N	104°44'50.126"W	2.14	
12838.00	90.520	181.030	7279.25	5290.43	-5310.15	1329.09	1710998.11	14596300.92	40°11'26.760"N	104°44'50.153"W	0.95	
12926.00	91.010	180.410	7278.08	5378.43	-5398.13	1327.98	1710997.25	14596212.97	40°11'25.890"N	104°44'50.167"W	0.90	
12989.00	89.780	179.870	7277.64	5441.42	-5461.13	1327.83	1710997.27	14596150.00	40°11'25.268"N	104°44'50.169"W	2.13	LAST BHGE MWD+IFR1+MSA SURVEY
13030.00†	89.780	179.870	7277.80	5482.41	-5502.13	1327.92	1710997.48	14596109.01	40°11'24.863"N	104°44'50.168"W	0.00	ENTER CROSS SETBACK TOE (460'FSL & 1816'FWL, SEC.26) 40.1902095, -104.7472688
13041.00	89.780	179.870	7277.84	5493.41	-5513.13	1327.95	1710997.54	14596098.02	40°11'24.754"N	104°44'50.168"W	0.00	PTB (449'FSL & 1816'FWL, SEC.26) 40.1902396, -104.7472689

HOLE & CASING SECTIONS - Ref Wellbore: FARLEY 23-5HZ AWB      Ref Wellpath: FARLEY 23-5HZ 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]
9.625in Casing Surface	17.00	1900.00	1883.00	17.00	1856.67	0.00	0.00	74.18	313.74

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 FARLEY 23-5HZ (686'FSL & 492'FWL,SEC.23)
Area	COLORADO	Well	FARLEY 23-5HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-5HZ AWB
Facility	SEC.23-T3N-R66W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.22-T3N-R66W	0.00	-40.07	-44.46	1709610.39	14601565.05	40°12'18.839"N	104°45'07.852"W	polygon
SEC.23-T3N-R66W	0.00	-40.07	-44.46	1709610.39	14601565.05	40°12'18.839"N	104°45'07.852"W	polygon
SEC.26-T3N-R66W	0.00	-40.07	-44.46	1709610.39	14601565.05	40°12'18.839"N	104°45'07.852"W	polygon
SEC.27-T3N-R66W	0.00	-40.07	-44.46	1709610.39	14601565.05	40°12'18.839"N	104°45'07.852"W	polygon
FARLEY 23-5HZ HEEL REV-1 (300'FSL & 1882'FWL,SEC.23)	7257.00	-385.41	1390.19	1711045.44	14601223.86	40°12'15.426"N	104°44'49.362"W	point
FARLEY 23-5HZ LANDBOX	7260.00	0.00	0.00	1709654.72	14601605.23	40°12'19.235"N	104°45'07.279"W	polygon
FARLEY 23-5HZ SETBACK 1	7260.00	0.00	0.00	1709654.72	14601605.23	40°12'19.235"N	104°45'07.279"W	polygon
FARLEY 23-5HZ SETBACK 2	7260.00	0.00	0.00	1709654.72	14601605.23	40°12'19.235"N	104°45'07.279"W	polygon
FARLEY 23-5HZ BHL REV-1 (445'FSL & 1854'FWL,SEC.26)	7281.00	-5517.30	1366.17	1711035.76	14596093.96	40°11'24.713"N	104°44'49.675"W	point
FARLEY 23-5HZ BHL REV-2 (445'FSL & 1804'FWL,SEC.26)	7281.00	-5517.30	1316.16	1710985.77	14596093.81	40°11'24.713"N	104°44'50.320"W	point

WELLPATH COMPOSITION - Ref Wellbore: FARLEY 23-5HZ AWB Ref Wellpath: FARLEY 23-5HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1860.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC_ISCWSA Rev-2 MWD+IFR1 <128 - 1860>	FARLEY 23-5HZ AWB
1860.00	12989.00	Custom APC_ISCWSA REV 2 MWD+IFR1+MSA (approximation)	BH Custom APC_ISCWSA Rev-2 MWD+IFR1+MSA <1965 - 12989>	FARLEY 23-5HZ AWB
12989.00	13041.00	Blind Drilling (std)	Projection to bit	FARLEY 23-5HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#05 FARLEY 23-5HZ (686'FSL & 492'FWL,SEC.23)
Area	COLORADO	Well	FARLEY 23-5HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-5HZ AWB
Facility	SEC.23-T3N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
128.00	0.310	55.260	128.00	FIRST SURFACE MWD+IFR1 SURVEY
1860.00	20.000	77.490	1819.07	LAST SURFACE MWD+IFR1 SURVEY
1965.00	19.740	77.860	1917.82	FIRST BHGE MWD+IFR1+MSA SURVEY
6749.00	2.249	165.456	6510.25	KOP
7322.00	43.861	180.883	7031.09	ENTER LANDBOX (827'FSL & 1895'FWL, SEC.23) 40.2057294, -104.7469985
7906.00	88.394	181.721	7255.76	LANDING (306'FSL & 1879'FWL, SEC.23) 40.2043001, -104.7470558
8671.00	90.028	181.464	7249.80	EXIT CROSS SETBACK HEEL (459'FNL & 1867'FWL, SEC.26) 40.2022006, -104.7470986
12989.00	89.780	179.870	7277.64	LAST BHGE MWD+IFR1+MSA SURVEY
13030.00	89.780	179.870	7277.80	ENTER CROSS SETBACK TOE (460'FSL & 1816'FWL, SEC.26) 40.1902095, -104.7472688
13041.00	89.780	179.870	7277.84	PTB (449'FSL & 1816'FWL, SEC.26) 40.1902396, -104.7472689