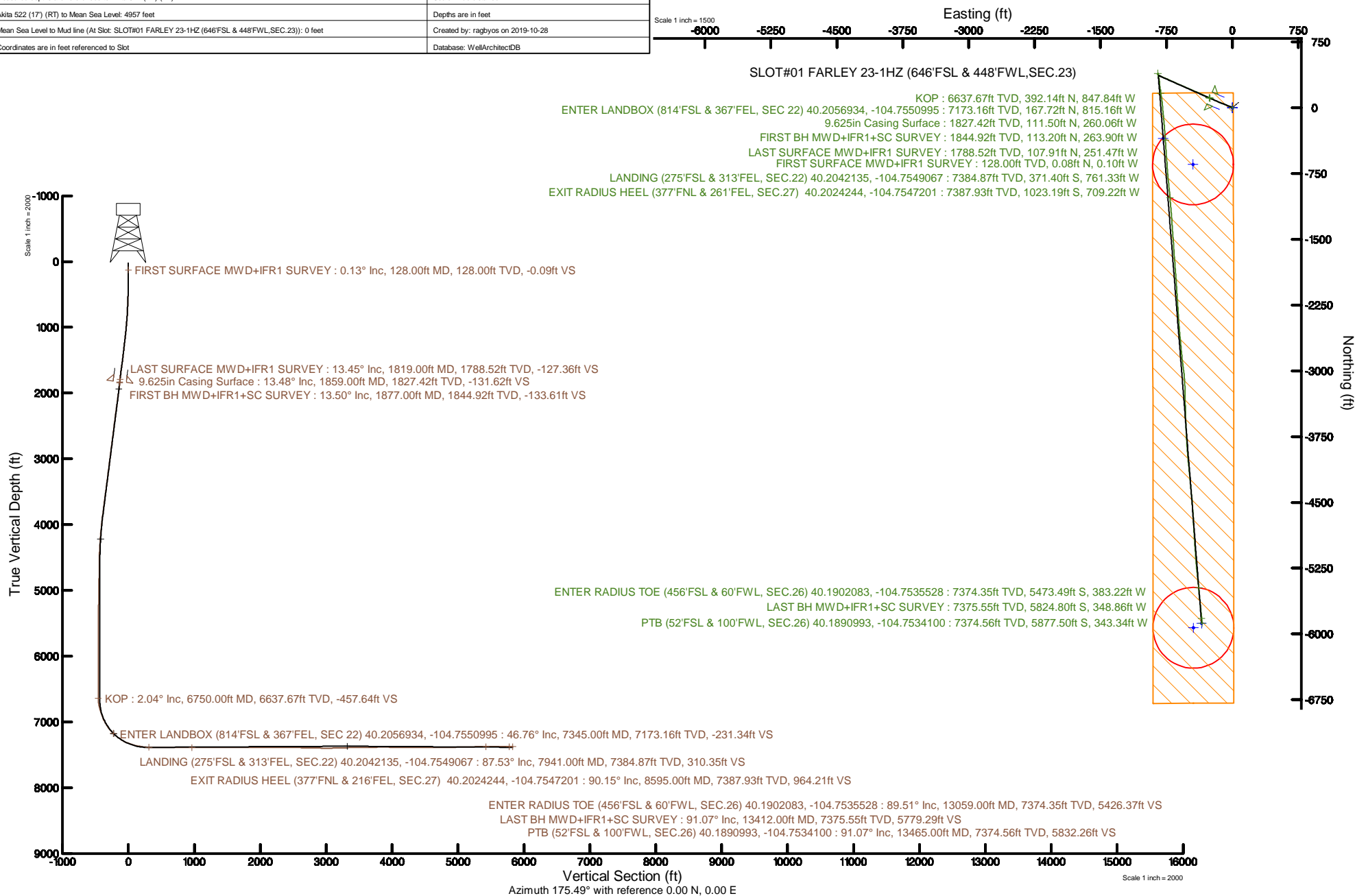


KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#01 FARLEY 23-1HZ (646'FSL & 448'FWL,SEC.23)
Field: WELD COUNTY (UTM/TRUE NORTH) Well: FARLEY 23-1HZ
Facility: SEC.23-T3N-R66W Wellbore: FARLEY 23-1HZ PWB

Plot reference wellpath is FARLEY 23-1HZ PWP Rev-A.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#01 FARLEY 23-1HZ (646'FSL & 448'FWL,SEC.23)): 0 feet	Created by: ragbyos on 2019-10-28
Coordinates are in feet referenced to Slot	Database: WellArchitectDB



REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#01 FARLEY 23-1HZ (646'FSL & 448'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 23-1HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-1HZ AWP
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	10/30/2019 at 7:59:09 AM
Convergence at slot	0.16° East	Database/Source file	WellArchitectDB/FARLEY_23-1HZ_AWP.xml

WELLPATH LOCATION

	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	0.00	0.00	1709610.40	14601565.05	40°12'18.839"N	104°45'07.852"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#01 FARLEY 23-1HZ (646'FSL & 448'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	175.49°

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#01 FARLEY 23-1HZ (646'FSL & 448'FWL,SEC.23)
Area	COLORADO	Well	FARLEY 23-1HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-1HZ AWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (160 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	308.120	0.00	0.00	0.00	0.00	1709610.39	14601565.05	40°12'18.839"N	104°45'07.852"W	0.00	
17.00	0.000	308.120	17.00	0.00	0.00	0.00	1709610.39	14601565.05	40°12'18.839"N	104°45'07.852"W	0.00	
128.00	0.130	308.120	128.00	-0.09	0.08	-0.10	1709610.30	14601565.13	40°12'18.840"N	104°45'07.853"W	0.12	FIRST SURFACE MWD+IFR1 SURVEY
223.00	0.260	340.020	223.00	-0.37	0.35	-0.26	1709610.14	14601565.39	40°12'18.842"N	104°45'07.855"W	0.17	
318.00	0.570	333.960	318.00	-1.01	0.97	-0.54	1709609.85	14601566.02	40°12'18.849"N	104°45'07.859"W	0.33	
414.00	2.290	301.350	413.96	-2.58	2.40	-2.39	1709608.00	14601567.44	40°12'18.863"N	104°45'07.883"W	1.91	
508.00	3.690	304.070	507.83	-5.57	5.07	-6.50	1709603.89	14601570.10	40°12'18.889"N	104°45'07.936"W	1.50	
604.00	5.010	291.510	603.56	-9.33	8.34	-12.96	1709597.42	14601573.35	40°12'18.921"N	104°45'08.019"W	1.69	
698.00	5.930	292.910	697.13	-13.37	11.74	-21.25	1709589.12	14601576.72	40°12'18.955"N	104°45'08.126"W	0.99	
793.00	7.080	290.800	791.52	-18.13	15.73	-31.24	1709579.12	14601580.68	40°12'18.994"N	104°45'08.255"W	1.24	
888.00	9.050	292.380	885.57	-24.02	20.65	-43.62	1709566.73	14601585.57	40°12'19.043"N	104°45'08.414"W	2.09	
984.00	11.730	292.120	979.99	-31.81	27.20	-59.65	1709550.69	14601592.07	40°12'19.108"N	104°45'08.621"W	2.79	
1079.00	13.270	291.420	1072.73	-40.91	34.82	-78.75	1709531.58	14601599.63	40°12'19.183"N	104°45'08.867"W	1.63	
1174.00	14.110	292.300	1165.03	-50.90	43.19	-99.61	1709510.70	14601607.95	40°12'19.266"N	104°45'09.136"W	0.91	
1268.00	14.370	291.150	1256.15	-61.12	51.75	-121.09	1709489.21	14601616.44	40°12'19.350"N	104°45'09.413"W	0.41	
1363.00	15.250	292.820	1347.99	-71.96	60.85	-143.60	1709466.68	14601625.47	40°12'19.440"N	104°45'09.703"W	1.03	
1458.00	14.990	292.820	1439.70	-83.34	70.46	-166.44	1709443.82	14601635.02	40°12'19.535"N	104°45'09.997"W	0.27	
1553.00	14.680	293.530	1531.53	-94.64	80.03	-188.80	1709421.45	14601644.52	40°12'19.630"N	104°45'10.285"W	0.38	
1648.00	16.080	295.460	1623.13	-106.87	90.49	-211.72	1709398.51	14601654.92	40°12'19.733"N	104°45'10.581"W	1.57	
1743.00	14.500	293.260	1714.77	-118.99	100.85	-234.53	1709375.68	14601665.20	40°12'19.836"N	104°45'10.875"W	1.77	
1819.00	13.450	291.940	1788.52	-127.36	107.91	-251.47	1709358.73	14601672.21	40°12'19.905"N	104°45'11.093"W	1.44	LAST SURFACE MWD+IFR1 SURVEY
1877.00	13.500	294.160	1844.92	-133.61	113.20	-263.90	1709346.29	14601677.46	40°12'19.958"N	104°45'11.253"W	0.90	FIRST BH MWD+IFR1+SC SURVEY
1964.00	13.340	294.820	1929.54	-143.40	121.57	-282.27	1709327.89	14601685.78	40°12'20.040"N	104°45'11.490"W	0.25	
2052.00	15.050	295.680	2014.85	-154.12	130.78	-301.79	1709308.36	14601694.93	40°12'20.131"N	104°45'11.742"W	1.96	
2139.00	14.410	294.410	2098.99	-165.04	140.15	-321.82	1709288.31	14601704.24	40°12'20.224"N	104°45'12.000"W	0.82	
2227.00	15.610	295.380	2183.99	-176.23	149.75	-342.49	1709267.62	14601713.78	40°12'20.319"N	104°45'12.266"W	1.39	
2314.00	15.020	294.540	2267.90	-187.54	159.45	-363.32	1709246.77	14601723.42	40°12'20.415"N	104°45'12.535"W	0.72	
2401.00	14.620	294.880	2352.01	-198.41	168.75	-383.54	1709226.54	14601732.66	40°12'20.507"N	104°45'12.795"W	0.47	
2489.00	16.190	292.380	2436.84	-209.41	178.09	-404.96	1709205.10	14601741.94	40°12'20.599"N	104°45'13.071"W	1.94	
2577.00	15.040	292.950	2521.59	-220.22	187.22	-426.82	1709183.22	14601751.00	40°12'20.689"N	104°45'13.353"W	1.32	
2664.00	14.120	294.150	2605.79	-230.52	195.96	-446.90	1709163.13	14601759.68	40°12'20.775"N	104°45'13.612"W	1.11	
2752.00	15.770	293.960	2690.81	-241.37	205.21	-467.62	1709142.39	14601768.87	40°12'20.867"N	104°45'13.879"W	1.88	
2839.00	15.160	293.760	2774.66	-252.39	214.59	-488.84	1709121.15	14601778.19	40°12'20.960"N	104°45'14.152"W	0.70	
2926.00	14.740	293.660	2858.72	-263.01	223.62	-509.39	1709100.59	14601787.16	40°12'21.049"N	104°45'14.417"W	0.48	
3014.00	14.250	293.940	2943.91	-273.45	232.51	-529.54	1709080.42	14601795.98	40°12'21.137"N	104°45'14.677"W	0.56	
3101.00	16.260	293.320	3027.84	-284.24	241.67	-550.51	1709059.43	14601805.09	40°12'21.227"N	104°45'14.947"W	2.32	
3189.00	15.520	293.480	3112.48	-295.52	251.24	-572.63	1709037.30	14601814.59	40°12'21.322"N	104°45'15.232"W	0.84	
3277.00	14.080	294.170	3197.56	-306.18	260.32	-593.19	1709016.72	14601823.61	40°12'21.411"N	104°45'15.497"W	1.65	
3364.00	15.560	292.940	3281.66	-316.64	269.20	-613.59	1708996.30	14601832.43	40°12'21.499"N	104°45'15.760"W	1.74	
3451.00	13.920	293.940	3365.80	-327.01	277.99	-633.90	1708975.97	14601841.16	40°12'21.586"N	104°45'16.022"W	1.91	
3539.00	14.740	295.970	3451.06	-337.73	287.19	-653.64	1708956.21	14601850.30	40°12'21.677"N	104°45'16.276"W	1.09	
3626.00	15.540	295.050	3535.04	-349.10	296.97	-674.15	1708935.68	14601860.02	40°12'21.774"N	104°45'16.541"W	0.96	
3714.00	15.950	293.910	3619.74	-360.67	306.86	-695.88	1708913.93	14601869.85	40°12'21.871"N	104°45'16.821"W	0.58	
3802.00	14.070	294.300	3704.73	-371.58	316.17	-716.69	1708893.11	14601879.09	40°12'21.963"N	104°45'17.089"W	2.14	
3889.00	14.950	293.580	3788.96	-381.96	325.01	-736.61	1708873.17	14601887.87	40°12'22.051"N	104°45'17.346"W	1.03	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#01 FARLEY 23-1HZ (646'FSL & 448'FWL, SEC.23)
Area	COLORADO	Well	FARLEY 23-1HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-1HZ AWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (160 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
3977.00	15.190	292.560	3873.93	-392.55	333.97	-757.66	1708852.10	14601896.77	40°12'22.139"N	104°45'17.617"W	0.41	
4064.00	14.210	290.930	3958.08	-402.33	342.16	-778.16	1708831.59	14601904.90	40°12'22.220"N	104°45'17.881"W	1.22	
4151.00	12.450	294.870	4042.74	-411.52	349.92	-796.65	1708813.09	14601912.60	40°12'22.297"N	104°45'18.120"W	2.28	
4239.00	9.260	297.310	4129.15	-419.91	357.16	-811.55	1708798.18	14601919.80	40°12'22.368"N	104°45'18.312"W	3.66	
4326.00	7.960	299.710	4215.17	-426.99	363.36	-823.00	1708786.71	14601925.96	40°12'22.430"N	104°45'18.459"W	1.55	
4414.00	6.290	301.230	4302.49	-433.23	368.88	-832.42	1708777.28	14601931.45	40°12'22.484"N	104°45'18.581"W	1.91	
4501.00	4.580	295.470	4389.09	-437.75	372.84	-839.63	1708770.06	14601935.40	40°12'22.523"N	104°45'18.674"W	2.06	
4588.00	2.880	304.700	4475.91	-440.87	375.58	-844.56	1708765.12	14601938.12	40°12'22.550"N	104°45'18.737"W	2.07	
4676.00	0.950	304.650	4563.85	-442.73	377.25	-846.98	1708762.70	14601939.79	40°12'22.567"N	104°45'18.768"W	2.19	
4763.00	0.850	309.900	4650.84	-443.63	378.08	-848.07	1708761.61	14601940.61	40°12'22.575"N	104°45'18.782"W	0.15	
4851.00	0.670	322.330	4738.83	-444.52	378.90	-848.88	1708760.80	14601941.43	40°12'22.583"N	104°45'18.793"W	0.28	
4939.00	1.290	343.610	4826.82	-445.92	380.26	-849.48	1708760.20	14601942.79	40°12'22.597"N	104°45'18.800"W	0.81	
4965.00	1.550	343.230	4852.81	-446.55	380.88	-849.66	1708760.01	14601943.40	40°12'22.603"N	104°45'18.803"W	1.00	
5052.00	1.810	347.730	4939.77	-449.06	383.35	-850.29	1708759.37	14601945.87	40°12'22.627"N	104°45'18.811"W	0.33	
5140.00	0.800	54.850	5027.75	-450.75	385.06	-850.08	1708759.58	14601947.58	40°12'22.644"N	104°45'18.808"W	1.90	
5227.00	0.810	51.550	5114.75	-451.41	385.79	-849.11	1708760.55	14601948.32	40°12'22.651"N	104°45'18.796"W	0.05	
5315.00	0.920	46.780	5202.74	-452.20	386.66	-848.10	1708761.55	14601949.19	40°12'22.660"N	104°45'18.783"W	0.15	
5402.00	0.840	58.310	5289.73	-452.92	387.47	-847.05	1708762.60	14601950.00	40°12'22.668"N	104°45'18.769"W	0.22	
5490.00	0.680	56.650	5377.72	-453.47	388.10	-846.07	1708763.58	14601950.63	40°12'22.674"N	104°45'18.757"W	0.18	
5577.00	0.640	61.590	5464.71	-453.92	388.62	-845.21	1708764.44	14601951.15	40°12'22.679"N	104°45'18.745"W	0.08	
5665.00	0.300	43.890	5552.71	-454.27	389.02	-844.62	1708765.03	14601951.55	40°12'22.683"N	104°45'18.738"W	0.42	
5752.00	0.230	6.590	5639.71	-454.59	389.35	-844.44	1708765.21	14601951.89	40°12'22.686"N	104°45'18.736"W	0.21	
5839.00	0.230	327.020	5726.71	-454.92	389.67	-844.51	1708765.13	14601952.21	40°12'22.690"N	104°45'18.737"W	0.18	
5927.00	0.200	299.450	5814.71	-455.16	389.90	-844.74	1708764.90	14601952.43	40°12'22.692"N	104°45'18.739"W	0.12	
6015.00	0.340	300.850	5902.71	-455.39	390.11	-845.10	1708764.54	14601952.64	40°12'22.694"N	104°45'18.744"W	0.16	
6102.00	0.740	253.150	5989.70	-455.42	390.08	-845.86	1708763.78	14601952.61	40°12'22.694"N	104°45'18.754"W	0.65	
6190.00	0.880	274.570	6077.69	-455.41	389.96	-847.08	1708762.57	14601952.49	40°12'22.692"N	104°45'18.770"W	0.38	
6277.00	0.430	13.000	6164.69	-455.82	390.34	-847.67	1708761.97	14601952.86	40°12'22.696"N	104°45'18.777"W	1.19	
6365.00	0.410	334.490	6252.69	-456.43	390.94	-847.73	1708761.91	14601953.47	40°12'22.702"N	104°45'18.778"W	0.32	
6452.00	0.360	283.410	6339.69	-456.81	391.29	-848.13	1708761.51	14601953.81	40°12'22.706"N	104°45'18.783"W	0.39	
6540.00	0.560	41.160	6427.68	-457.19	391.67	-848.12	1708761.52	14601954.20	40°12'22.709"N	104°45'18.783"W	0.90	
6627.00	0.420	23.150	6514.68	-457.77	392.29	-847.71	1708761.93	14601954.81	40°12'22.715"N	104°45'18.778"W	0.24	
6714.00	0.340	303.550	6601.68	-458.22	392.72	-847.80	1708761.84	14601955.25	40°12'22.720"N	104°45'18.779"W	0.56	
6750.00†	2.043	175.448	6637.67	-457.64	392.14	-847.84	1708761.80	14601954.67	40°12'22.714"N	104°45'18.779"W	6.30	KOP
6802.00	5.310	171.270	6689.56	-454.31	388.84	-847.40	1708762.25	14601951.37	40°12'22.681"N	104°45'18.774"W	6.30	
6890.00	12.870	168.180	6776.39	-440.51	375.20	-844.77	1708764.91	14601937.74	40°12'22.547"N	104°45'18.740"W	8.61	
6977.00	18.470	164.540	6860.13	-417.35	352.42	-839.11	1708770.64	14601914.98	40°12'22.321"N	104°45'18.667"W	6.53	
7065.00	23.860	170.390	6942.17	-385.91	321.41	-832.42	1708777.41	14601884.00	40°12'22.015"N	104°45'18.581"W	6.57	
7152.00	28.820	175.910	7020.12	-347.38	283.11	-827.98	1708781.96	14601845.74	40°12'21.637"N	104°45'18.523"W	6.35	
7240.00	35.380	175.000	7094.63	-300.65	236.53	-824.24	1708785.82	14601799.18	40°12'21.176"N	104°45'18.475"W	7.47	
7328.00	45.750	171.020	7161.40	-243.59	179.85	-817.08	1708793.14	14601742.55	40°12'20.616"N	104°45'18.383"W	12.14	
7345.00†	46.760	170.993	7173.16	-231.34	167.72	-815.16	1708795.09	14601730.43	40°12'20.496"N	104°45'18.358"W	5.94	ENTER LANDBOX (814'FSL & 367'FEL, SEC 22) 40.2056934, -104.7550995
7416.00	50.980	170.890	7219.85	-178.04	114.92	-806.74	1708803.65	14601677.67	40°12'19.975"N	104°45'18.250"W	5.94	
7503.00	58.230	174.260	7270.21	-107.28	44.65	-797.68	1708812.91	14601607.45	40°12'19.280"N	104°45'18.133"W	8.91	
7591.00	65.380	175.000	7311.77	-29.78	-32.52	-790.44	1708820.36	14601530.34	40°12'18.518"N	104°45'18.039"W	8.16	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#01 FARLEY 23-1HZ (646'FSL & 448'FWL,SEC.23)
Area	COLORADO	Well	FARLEY 23-1HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-1HZ AWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (160 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
7678.00	72.980	174.970	7342.67	51.48	-113.47	-783.34	1708827.69	14601449.44	40°12'17.718"N	104°45'17.948"W	8.74	
7766.00	78.720	174.200	7364.17	136.76	-198.38	-775.28	1708835.98	14601364.58	40°12'16.878"N	104°45'17.844"W	6.58	
7853.00	83.250	175.300	7377.80	222.66	-283.92	-767.43	1708844.07	14601279.10	40°12'16.033"N	104°45'17.743"W	5.35	
7941.00	87.530	176.720	7384.87	310.35	-371.40	-761.33	1708850.41	14601191.67	40°12'15.169"N	104°45'17.664"W	5.12	
8028.00	89.750	176.420	7386.93	397.30	-458.22	-756.13	1708855.85	14601104.90	40°12'14.311"N	104°45'17.597"W	2.57	
8115.00	89.920	176.230	7387.19	484.29	-545.04	-750.55	1708861.67	14601018.13	40°12'13.453"N	104°45'17.525"W	0.29	
8203.00	90.150	175.960	7387.13	572.29	-632.83	-744.56	1708867.90	14600930.39	40°12'12.585"N	104°45'17.448"W	0.40	
8291.00	90.080	175.970	7386.95	660.28	-720.62	-738.36	1708874.34	14600842.66	40°12'11.718"N	104°45'17.368"W	0.08	
8378.00	89.720	174.670	7387.11	747.28	-807.32	-731.27	1708881.68	14600756.01	40°12'10.861"N	104°45'17.276"W	1.55	
8465.00	89.300	173.340	7387.85	834.25	-893.84	-722.18	1708891.00	14600669.55	40°12'10.006"N	104°45'17.159"W	1.60	
8553.00	90.360	174.620	7388.11	922.21	-981.35	-712.95	1708900.47	14600582.10	40°12'09.141"N	104°45'17.040"W	1.89	
8595.00†	90.148	175.194	7387.93	964.21	-1023.19	-709.22	1708904.31	14600540.29	40°12'08.728"N	104°45'16.992"W	1.46	EXIT RADIUS HEEL (377'FNL & 261'FEL, SEC.27) 40.2024244, -104.7547201
8640.00	89.920	175.810	7387.90	1009.21	-1068.05	-705.69	1708907.96	14600495.46	40°12'08.284"N	104°45'16.947"W	1.46	
8728.00	89.640	175.400	7388.24	1097.21	-1155.79	-698.95	1708914.95	14600407.77	40°12'07.417"N	104°45'16.860"W	0.56	
8815.00	89.330	175.210	7389.02	1184.20	-1242.49	-691.83	1708922.31	14600321.12	40°12'06.561"N	104°45'16.768"W	0.42	
8902.00	91.690	176.370	7388.24	1271.19	-1329.25	-685.44	1708928.94	14600234.42	40°12'05.703"N	104°45'16.686"W	3.02	
8990.00	90.490	176.080	7386.57	1359.17	-1417.04	-679.65	1708934.97	14600146.68	40°12'04.836"N	104°45'16.611"W	1.40	
9077.00	89.780	175.120	7386.37	1446.16	-1503.78	-672.98	1708941.89	14600059.99	40°12'03.979"N	104°45'16.525"W	1.37	
9164.00	90.650	176.580	7386.04	1533.16	-1590.55	-666.68	1708948.42	14599973.28	40°12'03.121"N	104°45'16.444"W	1.95	
9252.00	90.360	176.020	7385.26	1621.15	-1678.36	-661.00	1708954.34	14599885.51	40°12'02.253"N	104°45'16.371"W	0.72	
9339.00	90.050	175.840	7384.95	1708.14	-1765.14	-654.83	1708960.76	14599798.79	40°12'01.396"N	104°45'16.291"W	0.41	
9427.00	89.950	175.910	7384.95	1796.14	-1852.91	-648.50	1708967.33	14599711.07	40°12'00.528"N	104°45'16.209"W	0.14	
9514.00	89.390	175.200	7385.45	1883.14	-1939.65	-641.75	1708974.31	14599624.39	40°11'59.671"N	104°45'16.122"W	1.04	
9601.00	89.930	176.700	7385.97	1970.13	-2026.43	-635.61	1708980.69	14599537.66	40°11'58.814"N	104°45'16.043"W	1.83	
9689.00	90.040	176.680	7385.99	2058.11	-2114.28	-630.53	1708986.02	14599449.86	40°11'57.946"N	104°45'15.978"W	0.13	
9777.00	90.450	176.570	7385.62	2146.09	-2202.13	-625.35	1708991.44	14599362.06	40°11'57.078"N	104°45'15.911"W	0.48	
9864.00	90.280	176.400	7385.06	2233.08	-2288.96	-620.01	1708997.02	14599275.27	40°11'56.219"N	104°45'15.842"W	0.28	
9952.00	90.210	175.710	7384.69	2321.07	-2376.75	-613.96	1709003.31	14599187.54	40°11'55.352"N	104°45'15.764"W	0.79	
10039.00	89.450	175.980	7384.94	2408.07	-2463.52	-607.66	1709009.86	14599100.82	40°11'54.494"N	104°45'15.683"W	0.93	
10127.00	88.280	174.820	7386.69	2496.05	-2551.22	-600.60	1709017.15	14599013.18	40°11'53.628"N	104°45'15.592"W	1.87	
10214.00	88.170	174.050	7389.38	2582.99	-2637.77	-592.17	1709025.83	14598926.69	40°11'52.773"N	104°45'15.483"W	0.89	
10301.00	89.730	174.930	7390.98	2669.96	-2724.35	-583.82	1709034.42	14598840.16	40°11'51.917"N	104°45'15.376"W	2.06	
10389.00	88.500	174.890	7392.34	2757.94	-2811.99	-576.01	1709042.46	14598752.58	40°11'51.051"N	104°45'15.275"W	1.40	
10476.00	88.270	173.070	7394.79	2844.88	-2898.47	-566.89	1709051.82	14598666.16	40°11'50.196"N	104°45'15.157"W	2.11	
10564.00	88.510	172.800	7397.26	2932.75	-2985.77	-556.07	1709062.88	14598578.93	40°11'49.334"N	104°45'15.018"W	0.41	
10651.00	90.500	175.160	7398.01	3019.71	-3072.27	-546.95	1709072.24	14598492.48	40°11'48.479"N	104°45'14.900"W	3.55	
10739.00	91.780	177.500	7396.26	3107.68	-3160.07	-541.32	1709078.11	14598404.74	40°11'47.611"N	104°45'14.828"W	3.03	
10826.00	91.010	178.570	7394.14	3194.56	-3246.99	-538.34	1709081.34	14598317.86	40°11'46.752"N	104°45'14.789"W	1.51	
10914.00	91.840	178.960	7391.95	3282.39	-3334.94	-536.44	1709083.48	14598229.95	40°11'45.883"N	104°45'14.765"W	1.04	
11001.00	92.160	179.600	7388.92	3369.15	-3421.88	-535.35	1709084.81	14598143.05	40°11'45.024"N	104°45'14.751"W	0.82	
11088.00	90.470	177.620	7386.92	3455.99	-3508.82	-533.24	1709087.17	14598056.14	40°11'44.165"N	104°45'14.724"W	2.99	
11176.00	90.420	177.550	7386.24	3543.92	-3596.74	-529.53	1709091.12	14597968.27	40°11'43.296"N	104°45'14.676"W	0.10	
11263.00	90.480	177.120	7385.55	3630.88	-3683.65	-525.48	1709095.40	14597881.41	40°11'42.437"N	104°45'14.624"W	0.50	
11350.00	91.120	177.250	7384.34	3717.83	-3770.53	-521.21	1709099.92	14597794.57	40°11'41.579"N	104°45'14.568"W	0.75	
11438.00	90.350	175.970	7383.21	3805.80	-3858.37	-516.01	1709105.36	14597706.79	40°11'40.711"N	104°45'14.501"W	1.70	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#01 FARLEY 23-1HZ (646'FSL & 448'FWL,SEC.23)
Area	COLORADO	Well	FARLEY 23-1HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-1HZ AWB
Facility	SEC.23-T3N-R66W		

WELLPATH DATA (160 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
11526.00	89.700	175.090	7383.17	3893.80	-3946.10	-509.15	1709112.46	14597619.11	40°11'39.844"N	104°45'14.413"W	1.24	
11613.00	89.760	174.730	7383.58	3980.80	-4032.75	-501.43	1709120.42	14597532.51	40°11'38.987"N	104°45'14.314"W	0.42	
11700.00	89.150	174.410	7384.41	4067.78	-4119.36	-493.20	1709128.89	14597445.96	40°11'38.132"N	104°45'14.207"W	0.79	
11787.00	88.960	174.290	7385.85	4154.75	-4205.92	-484.63	1709137.69	14597359.46	40°11'37.276"N	104°45'14.097"W	0.26	
11875.00	89.130	174.200	7387.31	4242.72	-4293.47	-475.81	1709146.76	14597271.97	40°11'36.411"N	104°45'13.983"W	0.22	
11962.00	89.190	174.440	7388.59	4329.69	-4380.03	-467.20	1709155.60	14597185.47	40°11'35.556"N	104°45'13.872"W	0.28	
12050.00	90.280	175.510	7388.99	4417.68	-4467.69	-459.49	1709163.55	14597097.86	40°11'34.689"N	104°45'13.773"W	1.74	
12138.00	89.610	175.940	7389.08	4505.68	-4555.45	-452.93	1709170.36	14597010.16	40°11'33.822"N	104°45'13.688"W	0.90	
12225.00	90.840	176.650	7388.74	4592.67	-4642.26	-447.31	1709176.22	14596923.40	40°11'32.964"N	104°45'13.616"W	1.63	
12312.00	90.380	176.940	7387.81	4679.64	-4729.12	-442.45	1709181.32	14596836.59	40°11'32.106"N	104°45'13.553"W	0.63	
12400.00	90.580	176.910	7387.07	4767.61	-4816.99	-437.73	1709186.29	14596748.77	40°11'31.238"N	104°45'13.492"W	0.23	
12487.00	90.750	175.870	7386.06	4854.59	-4903.81	-432.25	1709192.00	14596662.00	40°11'30.380"N	104°45'13.422"W	1.21	
12575.00	91.350	176.050	7384.45	4942.58	-4991.58	-426.05	1709198.44	14596574.28	40°11'29.512"N	104°45'13.342"W	0.71	
12662.00	91.470	175.970	7382.31	5029.55	-5078.34	-420.00	1709204.74	14596487.57	40°11'28.655"N	104°45'13.264"W	0.17	
12750.00	91.870	175.750	7379.75	5117.51	-5166.07	-413.65	1709211.33	14596399.89	40°11'27.788"N	104°45'13.182"W	0.52	
12837.00	90.670	173.910	7377.82	5204.47	-5252.69	-405.81	1709219.40	14596313.33	40°11'26.932"N	104°45'13.081"W	2.52	
12925.00	91.950	173.840	7375.81	5292.41	-5340.16	-396.43	1709229.03	14596225.92	40°11'26.068"N	104°45'12.960"W	1.46	
13012.00	90.150	174.590	7374.21	5379.37	-5426.70	-387.66	1709238.04	14596139.44	40°11'25.212"N	104°45'12.847"W	2.24	
13059.00†	89.514	174.574	7374.35	5426.37	-5473.49	-383.22	1709242.60	14596092.68	40°11'24.750"N	104°45'12.790"W	1.35	ENTER RADIUS TOE (456'FSL & 60'FWL, SEC.26) 40.1902083, -104.7535528
13100.00	88.960	174.560	7374.89	5467.36	-5514.30	-379.34	1709246.60	14596051.89	40°11'24.347"N	104°45'12.740"W	1.35	
13187.00	89.780	174.820	7375.85	5554.34	-5600.92	-371.29	1709254.89	14595965.33	40°11'23.491"N	104°45'12.636"W	0.99	
13274.00	89.680	174.250	7376.26	5641.33	-5687.53	-363.00	1709263.41	14595878.79	40°11'22.635"N	104°45'12.529"W	0.67	
13362.00	90.410	174.070	7376.19	5729.31	-5775.07	-354.05	1709272.61	14595791.30	40°11'21.770"N	104°45'12.414"W	0.85	
13412.00	91.070	174.020	7375.55	5779.29	-5824.80	-348.86	1709277.93	14595741.61	40°11'21.278"N	104°45'12.347"W	1.32	LAST BH MWD+IFR1+SC SURVEY
13465.00	91.070	174.020	7374.56	5832.26	-5877.50	-343.34	1709283.59	14595688.95	40°11'20.758"N	104°45'12.276"W	0.00	PTB (52'FSL & 100'FWL, SEC.26) 40.1890993, -104.7534100

HOLE & CASING SECTIONS - Ref Wellbore: FARLEY 23-1HZ AWB Ref Wellpath: FARLEY 23-1HZ 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	1859.00	1842.00	17.00	1827.42	0.00	0.00	111.50	-260.06

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#01 FARLEY 23-1HZ (646'FSL & 448'FWL,SEC.23)
Area	COLORADO	Well	FARLEY 23-1HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-1HZ 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	0.00	0.00	1709610.39	14601565.05	40°12'18.839"N	104°45'07.852"W	polygon
SEC.23-T3N-R66W	0.00	0.00	0.00	1709610.39	14601565.05	40°12'18.839"N	104°45'07.852"W	polygon
SEC.26-T3N-R66W	0.00	0.00	0.00	1709610.39	14601565.05	40°12'18.839"N	104°45'07.852"W	polygon
SEC.27-T3N-R66W	0.00	0.00	0.00	1709610.39	14601565.05	40°12'18.839"N	104°45'07.852"W	polygon
FARLEY 23-1HZ BHL REV-1 (50'FSL & 93'FWL,SEC.26)	7385.00	-5879.48	-350.02	1709276.93	14595686.94	40°11'20.738"N	104°45'12.362"W	point
FARLEY 23-1HZ HEEL REV-1 (300'FSL & 339'FEL,SEC.22)	7386.00	-349.41	-786.54	1708825.15	14601213.58	40°12'15.386"N	104°45'17.989"W	point
FARLEY 23-1HZ LANDBOX	7390.00	0.00	0.00	1709610.39	14601565.05	40°12'18.839"N	104°45'07.852"W	polygon
FARLEY 23-1HZ RADIUS 1	7390.00	-5929.69	-442.82	1709184.30	14595636.50	40°11'20.242"N	104°45'13.558"W	polygon
FARLEY 23-1HZ RADIUS 2	7390.00	-645.96	-447.18	1709165.20	14600918.10	40°12'12.456"N	104°45'13.615"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: FARLEY 23-1HZ AWB Ref Wellpath: FARLEY 23-1HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1819.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <128 - 1819>	FARLEY 23-1HZ AWB
1819.00	13412.00	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)	BH Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1877 - 13412>	FARLEY 23-1HZ AWB
13412.00	13465.00	Blind Drilling (std)	Projection to bit	FARLEY 23-1HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#01 FARLEY 23-1HZ (646'FSL & 448'FWL,SEC.23)
Area	COLORADO	Well	FARLEY 23-1HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	FARLEY 23-1HZ AWB
Facility	SEC.23-T3N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
128.00	0.130	308.120	128.00	FIRST SURFACE MWD+IFR1 SURVEY
1819.00	13.450	291.940	1788.52	LAST SURFACE MWD+IFR1 SURVEY
1877.00	13.500	294.160	1844.92	FIRST BH MWD+IFR1+SC SURVEY
6750.00	2.043	175.448	6637.67	KOP
7345.00	46.760	170.993	7173.16	ENTER LANDBOX (814'FSL & 367'FEL, SEC.22) 40.2056934, -104.7550995
7941.00	87.530	176.720	7384.87	LANDING (275'FSL & 313'FEL, SEC.22) 40.2042135, -104.7549067
8595.00	90.148	175.194	7387.93	EXIT RADIUS HEEL (377'FNL & 261'FEL, SEC.27) 40.2024244, -104.7547201
13059.00	89.514	174.574	7374.35	ENTER RADIUS TOE (456'FSL & 60'FWL, SEC.26) 40.1902083, -104.7535528
13412.00	91.070	174.020	7375.55	LAST BH MWD+IFR1+SC SURVEY
13465.00	91.070	174.020	7374.56	PTB (52'FSL & 100'FWL, SEC.26) 40.1890993, -104.7534100