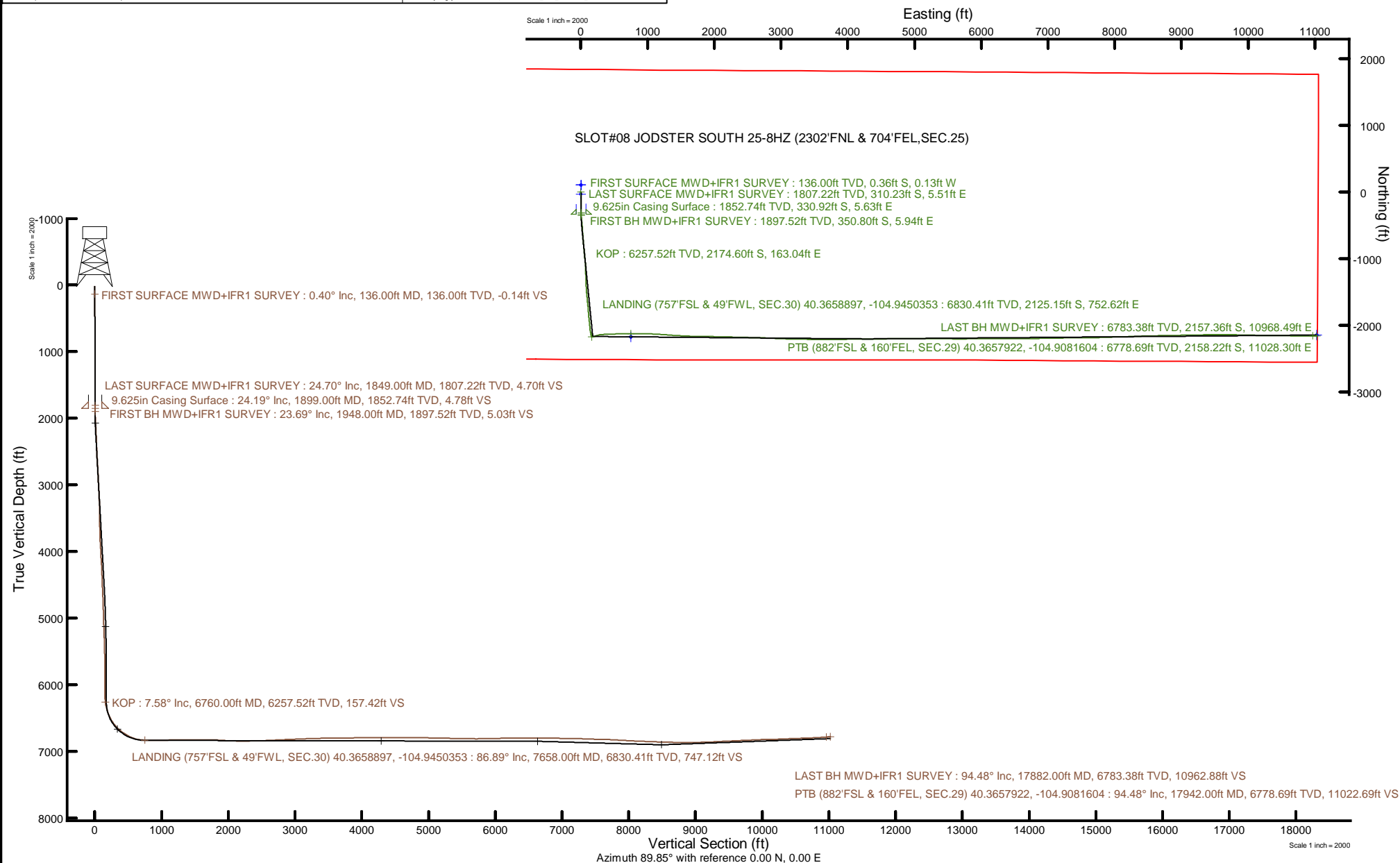


# KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#08 JODSTER SOUTH 25-8HZ (2302'FNL & 704'FEL,SEC.25)  
Field: LARIMER COUNTY Well: JODSTER SOUTH 25-8HZ  
Facility: SEC.25-T5N-R68W Wellbore: JODSTER SOUTH 25-8HZ PWB



Plot reference wellpath is JODSTER SOUTH 25-8HZ PWP Rev-B.0	Grid System: NAD83 / UTM Zone 13 North, US feet
True vertical depths are referenced to PD 564 (26) (RT)	North Reference: True north
Reference wellpath measured depths are referenced to PD 564 (26) (RT)	Scale: True distance
PD 564 (26) (RT) to Mean Sea Level: 4887 feet	Coordinates are in feet referenced to Slot
Mean Sea Level to Mud line (At Slot: SLOT#08 JODSTER SOUTH 25-8HZ (2302'FNL & 704'FEL,SEC.25)): 0 feet	Depths are in feet
Offset wellpath MDs are referenced to each path's default MD datum	Created by: raggyos on 2019-11-13; Database: WA_OEN_Anadarko_Oeln



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Well	JODSTER SOUTH 25-8HZ
Field	LARIMER COUNTY	API/Legal	
Facility	SEC.25-T5N-R68W	Wellbore	JODSTER SOUTH 25-8HZ AWB
Slot	SLOT#08 JODSTER SOUTH 25-8HZ (2302'FNL & 704'FEL,SEC.25)		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 6.0
North Reference	True	User	Ragbyos
Scale	0.999600	Report Generated	11/13/2019 at 5:54:39 PM
Convergence at slot	0.03° East	Database	WA_DEN_Anardarko_Defn

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-104.94	-1.08	1654973.54	14662101.52	40°22'18.2030"N	104°56'51.8500"W
Facility Reference Pt			1654974.57	14662206.42	40°22'19.2400"N	104°56'51.8360"W
Field Reference Pt			0.00	0.00	0°00'0.0000"	109°29'19.4780"W

WELLPATH DATUM			
Calculation method	Minimum curvature	PD 564 (26') (RT) to Facility Vertical Datum	4887.00ft
Horizontal Reference Pt	Slot	PD 564 (26') (RT) to Mean Sea Level	4887.00ft
Vertical Reference Pt	PD 564 (26') (RT)	PD 564 (26') (RT) to Mud Line at Slot (SLOT#08 JODSTER SOUTH 25-8HZ (2302'FNL & 704'FEL,SEC.25))	4887.00ft
MD Reference Pt	PD 564 (26') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	89.85°

### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Well	JODSTER SOUTH 25-8HZ
Field	LARIMER COUNTY	API/Legal	
Facility	SEC.25-T5N-R68W	Wellbore	JODSTER SOUTH 25-8HZ AWP
Slot	SLOT#08 JODSTER SOUTH 25-8HZ (2302°FNL & 704°FEL, SEC.25)		

### WELLPATH DATA (203 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	200.470	0.00	0.00	0.00	0.00	1654973.54	14662101.52	40°22'18.2030"N	104°56'51.8500"W	0.00	
26.00	0.000	200.470	26.00	0.00	0.00	0.00	1654973.54	14662101.52	40°22'18.2030"N	104°56'51.8500"W	0.00	
136.00	0.400	200.470	136.00	-0.14	-0.36	-0.13	1654973.41	14662101.16	40°22'18.1994"N	104°56'51.8517"W	0.36	FIRST SURFACE MWD+IFR1 SURVEY
231.00	0.880	210.140	230.99	-0.62	-1.30	-0.62	1654972.93	14662100.22	40°22'18.1901"N	104°56'51.8580"W	0.52	
327.00	0.660	162.940	326.99	-0.83	-2.47	-0.82	1654972.72	14662099.05	40°22'18.1786"N	104°56'51.8607"W	0.68	
422.00	2.110	159.250	421.95	-0.06	-4.63	-0.04	1654973.50	14662096.89	40°22'18.1573"N	104°56'51.8506"W	1.53	
517.00	3.120	161.360	516.85	1.38	-8.71	1.40	1654974.95	14662092.81	40°22'18.1169"N	104°56'51.8319"W	1.07	
611.00	4.880	178.320	610.63	2.30	-15.13	2.34	1654975.89	14662086.39	40°22'18.0535"N	104°56'51.8198"W	2.24	
706.00	6.330	181.140	705.17	2.29	-24.41	2.35	1654975.91	14662077.12	40°22'17.9618"N	104°56'51.8196"W	1.55	
802.00	7.470	177.880	800.47	2.38	-35.94	2.48	1654976.04	14662065.60	40°22'17.8479"N	104°56'51.8180"W	1.26	
897.00	9.710	182.630	894.40	2.21	-50.11	2.34	1654975.91	14662051.43	40°22'17.7078"N	104°56'51.8198"W	2.47	
992.00	11.070	181.660	987.84	1.53	-67.23	1.71	1654975.29	14662034.31	40°22'17.5386"N	104°56'51.8280"W	1.44	
1088.00	11.870	179.990	1081.92	1.22	-86.32	1.44	1654975.03	14662015.24	40°22'17.3500"N	104°56'51.8314"W	0.90	
1183.00	12.700	178.150	1174.75	1.50	-106.53	1.78	1654975.38	14661995.04	40°22'17.1503"N	104°56'51.8270"W	0.97	
1278.00	13.580	178.940	1267.26	1.99	-128.12	2.32	1654975.94	14661973.46	40°22'16.9370"N	104°56'51.8200"W	0.95	
1373.00	14.110	177.180	1359.50	2.71	-150.83	3.10	1654976.73	14661950.75	40°22'16.7125"N	104°56'51.8100"W	0.71	
1468.00	16.170	177.710	1451.20	3.74	-175.62	4.20	1654977.84	14661925.97	40°22'16.4676"N	104°56'51.7958"W	2.17	
1563.00	18.760	178.410	1541.81	4.62	-204.11	5.15	1654978.81	14661897.49	40°22'16.1860"N	104°56'51.7835"W	2.74	
1658.00	20.300	180.080	1631.34	4.94	-235.86	5.55	1654979.23	14661865.75	40°22'15.8723"N	104°56'51.7783"W	1.72	
1753.00	23.330	180.080	1719.53	4.80	-271.16	5.50	1654979.20	14661830.47	40°22'15.5235"N	104°56'51.7789"W	3.19	
1849.00	24.700	179.910	1807.22	4.70	-310.23	5.51	1654979.23	14661791.42	40°22'15.1374"N	104°56'51.7789"W	1.43	LAST SURFACE MWD+IFR1 SURVEY
1948.00	23.690	178.840	1897.52	5.03	-350.80	5.94	1654979.69	14661750.86	40°22'14.7365"N	104°56'51.7732"W	1.11	FIRST BH MWD+IFR1 SURVEY
2037.00	24.080	174.300	1978.91	7.11	-386.75	8.11	1654981.88	14661714.93	40°22'14.3813"N	104°56'51.7453"W	2.11	
2127.00	25.510	174.370	2060.61	10.74	-424.31	11.83	1654985.62	14661677.39	40°22'14.0102"N	104°56'51.6971"W	1.59	
2216.00	27.160	174.410	2140.37	14.49	-463.60	15.69	1654989.50	14661638.12	40°22'13.6219"N	104°56'51.6473"W	1.85	
2306.00	29.070	174.120	2219.74	18.63	-505.79	19.93	1654993.77	14661595.94	40°22'13.2049"N	104°56'51.5925"W	2.13	
2395.00	31.150	176.480	2296.73	22.14	-550.28	23.56	1654997.42	14661551.47	40°22'12.7653"N	104°56'51.5456"W	2.69	
2484.00	32.530	176.400	2372.34	24.93	-597.14	26.48	1655000.36	14661504.63	40°22'12.3022"N	104°56'51.5079"W	1.55	
2574.00	31.540	176.230	2448.63	27.88	-644.78	29.54	1655003.46	14661457.01	40°22'11.8314"N	104°56'51.4683"W	1.10	
2664.00	31.840	175.290	2525.21	31.25	-691.93	33.04	1655006.98	14661409.88	40°22'11.3655"N	104°56'51.4231"W	0.64	
2753.00	32.800	175.270	2600.43	35.05	-739.35	36.96	1655010.92	14661362.48	40°22'10.8969"N	104°56'51.3725"W	1.08	
2843.00	32.070	174.680	2676.39	39.15	-787.44	41.18	1655015.17	14661314.42	40°22'10.4218"N	104°56'51.3179"W	0.88	
2932.00	30.850	174.760	2752.30	43.30	-833.69	45.46	1655019.47	14661268.19	40°22'9.9647"N	104°56'51.2627"W	1.37	
3022.00	30.390	174.210	2829.75	47.59	-879.32	49.86	1655023.90	14661222.58	40°22'9.5139"N	104°56'51.2058"W	0.60	
3111.00	29.980	176.100	2906.69	51.26	-923.90	53.64	1655027.71	14661178.02	40°22'9.0733"N	104°56'51.1569"W	1.16	
3200.00	29.150	174.420	2984.10	54.77	-967.66	57.26	1655031.36	14661134.28	40°22'8.6409"N	104°56'51.1102"W	1.32	
3290.00	28.720	173.540	3062.86	59.22	-1010.96	61.83	1655035.95	14661091.00	40°22'8.2130"N	104°56'51.0512"W	0.67	
3379.00	28.990	174.380	3140.81	63.63	-1053.67	66.35	1655040.49	14661048.31	40°22'7.7909"N	104°56'50.9928"W	0.55	
3469.00	29.310	176.710	3219.42	66.91	-1097.37	69.75	1655043.91	14661004.63	40°22'7.3591"N	104°56'50.9489"W	1.31	
3558.00	30.310	178.800	3296.64	68.52	-1141.58	71.47	1655045.66	14660960.44	40°22'6.9223"N	104°56'50.9267"W	1.62	
3647.00	31.460	178.250	3373.02	69.58	-1187.25	72.65	1655046.86	14660914.79	40°22'6.4710"N	104°56'50.9114"W	1.33	
3737.00	32.270	178.680	3449.46	70.73	-1234.74	73.92	1655048.16	14660867.32	40°22'6.0017"N	104°56'50.8950"W	0.93	
3826.00	32.720	177.990	3524.52	72.00	-1282.53	75.31	1655049.58	14660819.54	40°22'5.5294"N	104°56'50.8771"W	0.66	
3915.00	33.320	178.310	3599.15	73.44	-1331.01	76.87	1655051.17	14660771.09	40°22'5.0504"N	104°56'50.8568"W	0.70	
4005.00	33.200	177.350	3674.40	75.18	-1380.33	78.74	1655053.07	14660721.79	40°22'4.5630"N	104°56'50.8327"W	0.60	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Well	JODSTER SOUTH 25-8HZ
Field	LARIMER COUNTY	API/Legal	
Facility	SEC.25-T5N-R68W	Wellbore	JODSTER SOUTH 25-8HZ AWP
Slot	SLOT#08 JODSTER SOUTH 25-8HZ (2302'FNL & 704'FEL, SEC.25)		

WELLPATH DATA (203 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
4095.00	31.300	177.230	3750.52	77.32	1428.30	81.01	1655055.37	14660673.84	40°22'4.0890"N	104°56'50.8034"W	2.11	
4184.00	29.980	176.080	3827.09	79.84	1473.58	83.65	1655058.03	14660628.58	40°22'3.6416"N	104°56'50.7693"W	1.62	
4273.00	29.790	173.640	3904.26	83.70	1517.74	87.62	1655062.02	14660584.44	40°22'3.2052"N	104°56'50.7180"W	1.38	
4362.00	29.400	174.660	3981.65	88.07	1561.46	92.10	1655066.53	14660540.74	40°22'2.7731"N	104°56'50.6601"W	0.72	
4452.00	29.440	175.070	4060.04	91.91	1605.49	96.06	1655070.51	14660496.73	40°22'2.3380"N	104°56'50.6090"W	0.23	
4541.00	30.190	173.170	4137.26	96.34	1649.50	100.60	1655075.08	14660452.74	40°22'1.9031"N	104°56'50.5504"W	1.36	
4631.00	29.500	174.740	4215.33	100.94	1694.04	105.32	1655079.82	14660408.22	40°22'1.4630"N	104°56'50.4893"W	1.16	
4721.00	29.750	175.190	4293.56	104.73	1738.36	109.22	1655083.75	14660363.93	40°22'1.0251"N	104°56'50.4389"W	0.37	
4810.00	28.000	176.670	4371.50	107.69	1781.22	112.29	1655086.84	14660321.08	40°22'0.6015"N	104°56'50.3993"W	2.12	
4899.00	27.450	175.340	4450.28	110.46	1822.52	115.17	1655089.74	14660279.80	40°22'0.1934"N	104°56'50.3621"W	0.93	
4989.00	25.770	175.350	4530.74	113.63	1862.70	118.44	1655093.04	14660239.64	40°21'59.7964"N	104°56'50.3199"W	1.87	
5078.00	23.400	173.680	4611.67	117.05	1899.55	121.96	1655096.57	14660202.80	40°21'59.4322"N	104°56'50.2744"W	2.77	
5167.00	20.780	173.220	4694.13	120.77	1932.80	125.77	1655100.40	14660169.57	40°21'59.1036"N	104°56'50.2252"W	2.95	
5257.00	18.910	174.170	4778.78	124.06	1963.17	129.13	1655103.78	14660139.22	40°21'58.8036"N	104°56'50.1817"W	2.11	
5346.00	19.240	174.190	4862.89	126.94	1992.10	132.08	1655106.75	14660110.29	40°21'58.5176"N	104°56'50.1436"W	0.37	
5436.00	17.460	174.920	4948.31	129.56	2020.31	134.78	1655109.46	14660082.10	40°21'58.2389"N	104°56'50.1088"W	1.99	
5525.00	15.390	173.920	5033.68	131.93	2045.35	137.21	1655111.91	14660057.07	40°21'57.9915"N	104°56'50.0774"W	2.35	
5640.00	12.480	173.310	5145.28	134.92	2072.87	140.28	1655114.99	14660029.56	40°21'57.7195"N	104°56'50.0378"W	2.53	
5730.00	12.070	167.470	5233.23	138.05	2091.72	143.45	1655118.17	14660010.73	40°21'57.5333"N	104°56'49.9968"W	1.45	
5819.00	10.330	168.180	5320.53	141.66	2108.61	147.10	1655121.83	14659993.84	40°21'57.3663"N	104°56'49.9496"W	1.96	
5908.00	8.830	168.420	5408.28	144.63	2123.12	150.11	1655124.85	14659979.34	40°21'57.2230"N	104°56'49.9107"W	1.69	
5997.00	7.650	173.820	5496.37	146.60	2135.70	152.12	1655126.86	14659966.77	40°21'57.0987"N	104°56'49.8848"W	1.58	
6087.00	6.170	171.090	5585.71	147.97	2146.43	153.51	1655128.26	14659956.04	40°21'56.9926"N	104°56'49.8668"W	1.68	
6176.00	5.100	167.180	5674.28	149.57	2155.02	155.13	1655129.89	14659947.46	40°21'56.9078"N	104°56'49.8459"W	1.28	
6266.00	3.630	177.520	5764.02	150.56	2161.76	156.14	1655130.90	14659940.72	40°21'56.8411"N	104°56'49.8328"W	1.85	
6355.00	3.290	169.020	5852.85	151.15	2167.08	156.75	1655131.51	14659935.40	40°21'56.7885"N	104°56'49.8249"W	0.69	
6444.00	1.060	188.640	5941.79	151.51	2170.41	157.11	1655131.88	14659932.08	40°21'56.7557"N	104°56'49.8203"W	2.61	
6534.00	1.030	178.070	6031.77	151.41	2172.04	157.02	1655131.78	14659930.45	40°21'56.7396"N	104°56'49.8215"W	0.22	
6623.00	1.130	188.210	6120.75	151.30	2173.71	156.92	1655131.68	14659928.78	40°21'56.7231"N	104°56'49.8228"W	0.24	
6713.00	2.630	90.840	6210.72	153.24	2174.61	158.86	1655133.62	14659927.87	40°21'56.7141"N	104°56'49.7978"W	3.33	
6760.00†	7.583	89.528	6257.52	157.42	2174.60	163.04	1655137.80	14659927.88	40°21'56.7142"N	104°56'49.7437"W	10.54	KOP
6802.00	12.010	89.270	6298.90	164.57	2174.53	170.18	1655144.94	14659927.97	40°21'56.7150"N	104°56'49.6514"W	10.54	
6892.00	18.100	71.140	6385.81	187.20	2169.88	192.81	1655167.56	14659932.62	40°21'56.7609"N	104°56'49.3591"W	8.48	
6981.00	25.210	70.060	6468.48	218.17	2158.93	223.75	1655198.48	14659943.58	40°21'56.8691"N	104°56'48.9594"W	8.00	
7071.00	32.340	76.410	6547.33	259.68	2146.72	265.23	1655239.93	14659955.82	40°21'56.9897"N	104°56'48.4235"W	8.61	
7160.00	41.260	83.820	6618.56	312.15	2137.95	317.68	1655292.35	14659964.62	40°21'57.0764"N	104°56'47.7460"W	11.18	
7250.00	49.860	89.290	6681.54	376.21	2134.32	381.72	1655356.37	14659968.28	40°21'57.1123"N	104°56'46.9186"W	10.49	
7339.00	57.710	88.010	6734.08	447.94	2132.59	453.45	1655428.07	14659970.06	40°21'57.1294"N	104°56'45.9920"W	8.90	
7428.00	63.070	86.870	6778.04	525.22	2129.11	530.72	1655505.31	14659973.58	40°21'57.1637"N	104°56'44.9937"W	6.12	
7518.00	74.190	88.920	6810.79	608.85	2126.10	614.34	1655588.89	14659976.64	40°21'57.1935"N	104°56'43.9134"W	12.54	
7607.00	85.030	90.100	6826.82	696.25	2125.36	701.74	1655676.26	14659977.42	40°21'57.2007"N	104°56'42.7843"W	12.25	
7658.00†	86.894	89.413	6830.41	747.12	2125.15	752.62	1655727.11	14659977.67	40°21'57.2028"N	104°56'42.1271"W	3.89	LANDING (757'FSL & 49'FWL, SEC.30) 40.3658897, -104.9450353
7697.00	88.320	88.890	6832.04	786.09	2124.57	791.58	1655766.06	14659978.27	40°21'57.2085"N	104°56'41.6237"W	3.89	
7786.00	89.160	90.420	6833.99	875.06	2124.03	880.55	1655854.99	14659978.86	40°21'57.2138"N	104°56'40.4743"W	1.96	
7875.00	91.110	92.180	6833.78	964.02	2126.05	969.52	1655943.93	14659976.89	40°21'57.1938"N	104°56'39.3249"W	2.95	

### REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Well	JODSTER SOUTH 25-8HZ
Field	LARIMER COUNTY	API/Legal	
Facility	SEC.25-T5N-R68W	Wellbore	JODSTER SOUTH 25-8HZ AWP
Slot	SLOT#08 JODSTER SOUTH 25-8HZ (2302°FNL & 704°FEL, SEC.25)		

### WELLPATH DATA (203 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
7965.00	92.390	91.790	6831.04	1053.92	-2129.17	1059.42	1656033.80	14659973.83	40°21'57.1630"N	104°56'38.1635"W	1.49	
8054.00	92.880	93.350	6826.94	1142.72	-2133.16	1148.23	1656122.58	14659969.90	40°21'57.1235"N	104°56'37.0161"W	1.84	
8143.00	91.640	94.530	6823.43	1231.42	-2139.27	1236.95	1656211.26	14659963.84	40°21'57.0631"N	104°56'35.8700"W	1.92	
8233.00	89.420	94.710	6822.60	1321.10	-2146.52	1326.65	1656300.93	14659956.65	40°21'56.9914"N	104°56'34.7112"W	2.47	
8322.00	88.700	92.890	6824.06	1409.87	-2152.41	1415.44	1656389.68	14659950.81	40°21'56.9331"N	104°56'33.5642"W	2.20	
8412.00	89.180	92.800	6825.73	1499.73	-2156.88	1505.31	1656479.52	14659946.40	40°21'56.8889"N	104°56'32.4031"W	0.54	
8501.00	90.120	93.120	6826.27	1588.60	-2161.47	1594.19	1656568.37	14659941.85	40°21'56.8435"N	104°56'31.2549"W	1.12	
8590.00	89.240	91.350	6826.77	1677.52	-2164.95	1683.12	1656657.26	14659938.44	40°21'56.8091"N	104°56'30.1061"W	2.22	
8680.00	90.040	91.530	6827.33	1767.48	-2167.21	1773.08	1656747.20	14659936.23	40°21'56.7867"N	104°56'28.9438"W	0.91	
8768.00	86.510	90.210	6829.98	1855.41	-2168.54	1861.02	1656835.10	14659934.95	40°21'56.7734"N	104°56'27.8078"W	4.28	
8858.00	86.370	90.460	6835.57	1945.23	-2169.07	1950.84	1656924.88	14659934.47	40°21'56.7682"N	104°56'26.6474"W	0.32	
8947.00	88.190	91.330	6839.79	2034.11	-2170.46	2039.73	1657013.73	14659933.14	40°21'56.7544"N	104°56'25.4991"W	2.27	
9036.00	88.240	91.500	6842.57	2123.04	-2172.65	2128.66	1657102.63	14659930.99	40°21'56.7326"N	104°56'24.3502"W	0.20	
9125.00	90.500	91.430	6843.54	2211.99	-2174.93	2217.62	1657191.55	14659928.77	40°21'56.7100"N	104°56'23.2010"W	2.54	
9215.00	90.720	91.610	6842.59	2301.95	-2177.32	2307.58	1657281.48	14659926.44	40°21'56.6886"N	104°56'22.0388"W	0.32	
9304.00	91.040	91.520	6841.22	2390.90	-2179.75	2396.54	1657370.40	14659924.06	40°21'56.6623"N	104°56'20.8896"W	0.37	
9394.00	92.150	91.610	6838.71	2480.82	-2182.20	2486.47	1657460.30	14659921.66	40°21'56.6379"N	104°56'19.7278"W	1.24	
9484.00	92.430	91.490	6835.12	2570.71	-2184.64	2576.36	1657550.16	14659919.28	40°21'56.6138"N	104°56'18.5664"W	0.34	
9573.00	93.120	91.010	6830.81	2659.58	-2186.58	2665.24	1657639.00	14659917.40	40°21'56.5945"N	104°56'17.4183"W	0.94	
9662.00	92.940	92.140	6826.10	2748.41	-2189.02	2754.08	1657727.81	14659915.01	40°21'56.5703"N	104°56'16.2706"W	1.28	
9752.00	91.820	92.640	6822.37	2838.24	-2192.77	2843.92	1657817.61	14659911.31	40°21'56.5331"N	104°56'15.1099"W	1.36	
9841.00	92.330	92.550	6819.14	2927.08	-2196.80	2932.77	1657906.43	14659907.34	40°21'56.4932"N	104°56'13.9621"W	0.58	
9931.00	93.220	92.620	6814.79	3016.88	-2200.85	3022.57	1657996.20	14659903.34	40°21'56.4531"N	104°56'12.8020"W	0.99	
10020.00	92.190	91.830	6810.59	3105.70	-2204.30	3111.40	1658085.00	14659899.94	40°21'56.4188"N	104°56'11.6544"W	1.46	
10110.00	91.220	91.000	6807.91	3195.62	-2206.52	3201.33	1658174.89	14659897.77	40°21'56.3968"N	104°56'10.4926"W	1.42	
10199.00	91.620	90.770	6805.70	3284.58	-2207.90	3290.30	1658263.82	14659896.45	40°21'56.3831"N	104°56'9.3433"W	0.52	
10289.00	92.200	91.180	6802.70	3374.51	-2209.43	3380.23	1658353.72	14659894.98	40°21'56.3678"N	104°56'8.1814"W	0.79	
10378.00	90.410	91.030	6800.68	3463.47	-2211.14	3469.19	1658442.64	14659893.31	40°21'56.3508"N	104°56'7.0322"W	2.02	
10468.00	90.850	90.960	6799.69	3553.44	-2212.71	3559.17	1658532.59	14659891.80	40°21'56.3352"N	104°56'5.8698"W	0.50	
10557.00	91.480	91.460	6797.88	3642.40	-2214.58	3648.13	1658621.52	14659889.98	40°21'56.3165"N	104°56'4.7205"W	0.90	
10646.00	90.100	89.470	6796.65	3731.38	-2215.31	3737.11	1658710.46	14659889.31	40°21'56.3092"N	104°56'3.5710"W	2.72	
10735.00	90.300	88.150	6796.34	3820.36	-2213.46	3826.09	1658799.40	14659891.21	40°21'56.3274"N	104°56'2.4215"W	1.50	
10825.00	91.270	88.520	6795.11	3910.32	-2210.84	3916.04	1658889.32	14659893.88	40°21'56.3531"N	104°56'1.2594"W	1.15	
10915.00	89.590	89.340	6794.43	4000.30	-2209.16	4006.02	1658979.26	14659895.61	40°21'56.3695"N	104°56'0.0970"W	2.08	
11005.00	89.960	88.960	6794.78	4090.29	-2207.83	4096.01	1659069.21	14659897.00	40°21'56.3826"N	104°55'58.9344"W	0.59	
11094.00	90.640	89.220	6794.32	4179.28	-2206.41	4185.00	1659158.16	14659898.46	40°21'56.3964"N	104°55'57.7848"W	0.82	
11184.00	91.560	88.600	6792.59	4269.25	-2204.70	4274.96	1659248.09	14659900.23	40°21'56.4132"N	104°55'56.6226"W	1.23	
11273.00	91.130	90.310	6790.50	4358.22	-2203.86	4363.93	1659337.02	14659901.13	40°21'56.4214"N	104°55'55.4732"W	1.98	
11362.00	89.410	90.230	6790.08	4447.22	-2204.28	4452.92	1659425.98	14659900.76	40°21'56.4171"N	104°55'54.3235"W	1.93	
11452.00	88.240	88.900	6791.93	4537.19	-2203.59	4542.90	1659515.92	14659901.49	40°21'56.4236"N	104°55'53.1611"W	1.97	
11542.00	88.880	88.610	6794.19	4627.15	-2201.64	4632.85	1659605.83	14659903.50	40°21'56.4428"N	104°55'51.9991"W	0.78	
11631.00	90.380	89.170	6794.76	4716.13	-2199.91	4721.83	1659694.77	14659905.28	40°21'56.4597"N	104°55'50.8496"W	1.80	
11721.00	89.460	89.810	6794.89	4806.13	-2199.11	4811.82	1659784.73	14659906.13	40°21'56.4674"N	104°55'49.6870"W	1.25	
11810.00	90.210	89.450	6795.15	4895.12	-2198.54	4900.82	1659873.69	14659906.76	40°21'56.4729"N	104°55'48.5372"W	0.93	
11899.00	89.360	90.730	6795.48	4984.12	-2198.68	4989.82	1659962.65	14659906.67	40°21'56.4714"N	104°55'47.3875"W	1.73	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Well	JODSTER SOUTH 25-8HZ
Field	LARIMER COUNTY	API/Legal	
Facility	SEC.25-T5N-R68W	Wellbore	JODSTER SOUTH 25-8HZ AWP
Slot	SLOT#08 JODSTER SOUTH 25-8HZ (2302°FNL & 704°FEL, SEC.25)		

WELLPATH DATA (203 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
11989.00	89.960	90.470	6796.01	5074.11	-2199.62	5079.81	1660052.61	14659905.78	40°21'56.4619"N	104°55'46.2249"W	0.73	
12079.00	88.150	90.600	6797.50	5164.09	-2200.46	5169.79	1660142.55	14659905.00	40°21'56.4534"N	104°55'45.0625"W	2.02	
12168.00	88.090	90.540	6800.42	5253.03	-2201.35	5258.74	1660231.47	14659904.16	40°21'56.4444"N	104°55'43.9134"W	0.10	
12258.00	88.530	90.310	6803.07	5342.99	-2202.01	5348.70	1660321.39	14659903.55	40°21'56.4377"N	104°55'42.7512"W	0.55	
12347.00	88.550	90.060	6805.34	5431.96	-2202.30	5437.67	1660410.32	14659903.32	40°21'56.4346"N	104°55'41.6018"W	0.28	
12437.00	88.910	90.290	6807.34	5521.94	-2202.57	5527.64	1660500.27	14659903.09	40°21'56.4317"N	104°55'40.4394"W	0.47	
12526.00	89.530	90.320	6808.55	5610.92	-2203.05	5616.63	1660589.22	14659902.67	40°21'56.4268"N	104°55'39.2898"W	0.70	
12616.00	89.930	89.980	6808.97	5700.92	-2203.28	5706.63	1660679.18	14659902.49	40°21'56.4243"N	104°55'38.1271"W	0.58	
12705.00	90.380	89.080	6808.73	5789.92	-2202.55	5795.63	1660768.14	14659903.27	40°21'56.4313"N	104°55'36.9774"W	1.13	
12795.00	90.990	88.970	6807.65	5879.90	-2201.02	5885.61	1660858.09	14659904.86	40°21'56.4462"N	104°55'35.8149"W	0.69	
12884.00	91.940	88.690	6805.38	5968.86	-2199.21	5974.56	1660947.00	14659906.72	40°21'56.4640"N	104°55'34.6658"W	1.11	
12973.00	91.320	90.330	6802.85	6057.82	-2198.45	6063.52	1661035.92	14659907.54	40°21'56.4713"N	104°55'33.5166"W	1.97	
13063.00	90.160	90.310	6801.68	6147.80	-2198.95	6153.51	1661125.87	14659907.09	40°21'56.4661"N	104°55'32.3540"W	1.29	
13152.00	90.410	89.860	6801.24	6236.80	-2199.08	6242.50	1661214.84	14659907.01	40°21'56.4646"N	104°55'31.2043"W	0.58	
13242.00	91.740	89.600	6799.55	6326.78	-2198.81	6332.49	1661304.78	14659907.33	40°21'56.4670"N	104°55'30.0418"W	1.48	
13331.00	89.620	89.740	6798.50	6415.77	-2198.46	6421.47	1661393.73	14659907.74	40°21'56.4703"N	104°55'28.8922"W	2.38	
13420.00	90.150	90.250	6798.68	6504.77	-2198.45	6510.47	1661482.70	14659907.80	40°21'56.4701"N	104°55'27.7424"W	0.83	
13510.00	90.960	90.100	6797.80	6594.77	-2198.72	6600.47	1661572.66	14659907.58	40°21'56.4672"N	104°55'26.5798"W	0.92	
13599.00	89.470	89.320	6797.47	6683.76	-2198.27	6689.46	1661661.62	14659908.08	40°21'56.4714"N	104°55'25.4301"W	1.89	
13689.00	89.490	89.360	6798.29	6773.75	-2197.24	6779.45	1661751.57	14659909.17	40°21'56.4814"N	104°55'24.2675"W	0.05	
13778.00	88.550	89.240	6799.81	6862.41	-2196.15	6868.43	1661840.51	14659910.31	40°21'56.4919"N	104°55'23.1180"W	1.06	
13868.00	88.690	89.060	6801.98	6952.70	-2194.81	6958.40	1661930.44	14659911.70	40°21'56.5048"N	104°55'21.9558"W	0.25	
13957.00	89.590	89.080	6803.31	7041.68	-2193.37	7047.37	1662019.38	14659913.19	40°21'56.5188"N	104°55'20.8063"W	1.01	
14047.00	88.450	88.620	6804.85	7131.66	-2191.56	7137.34	1662109.31	14659915.05	40°21'56.5364"N	104°55'19.6440"W	1.37	
14136.00	89.100	88.850	6806.75	7220.62	-2189.60	7226.30	1662198.23	14659917.07	40°21'56.5556"N	104°55'18.4948"W	0.77	
14226.00	87.630	89.640	6809.32	7310.57	-2188.41	7316.25	1662288.15	14659918.31	40°21'56.5670"N	104°55'17.3327"W	1.85	
14316.00	88.030	89.730	6812.73	7400.51	-2187.92	7406.18	1662378.04	14659918.85	40°21'56.5717"N	104°55'16.1709"W	0.46	
14405.00	88.150	89.510	6815.70	7489.46	-2187.33	7495.13	1662466.96	14659919.49	40°21'56.5772"N	104°55'15.0217"W	0.28	
14495.00	88.360	89.260	6818.44	7579.41	-2186.36	7585.09	1662556.87	14659920.51	40°21'56.5865"N	104°55'13.8597"W	0.36	
14584.00	88.520	89.320	6820.86	7668.38	-2185.26	7674.05	1662645.80	14659921.67	40°21'56.5971"N	104°55'12.7104"W	0.19	
14674.00	86.800	87.750	6824.53	7758.27	-2182.96	7763.93	1662735.65	14659924.02	40°21'56.6196"N	104°55'11.5491"W	2.59	
14764.00	86.810	88.000	6829.55	7848.08	-2179.63	7853.73	1662825.41	14659927.40	40°21'56.6522"N	104°55'10.3890"W	0.28	
14853.00	86.730	88.170	6834.57	7936.89	-2176.66	7942.54	1662914.18	14659930.42	40°21'56.6813"N	104°55'9.2417"W	0.21	
14943.00	86.880	88.360	6839.58	8026.72	-2173.94	8032.36	1663003.96	14659933.19	40°21'56.7079"N	104°55'8.0813"W	0.27	
15032.00	86.970	88.770	6844.36	8115.57	-2171.72	8121.20	1663092.77	14659935.47	40°21'56.7296"N	104°55'6.9336"W	0.47	
15122.00	88.240	87.990	6848.12	8205.46	-2169.17	8211.09	1663182.61	14659938.07	40°21'56.7544"N	104°55'5.7724"W	1.66	
15211.00	88.070	88.040	6850.98	8294.37	-2166.09	8299.99	1663271.48	14659941.20	40°21'56.7845"N	104°55'4.6239"W	0.20	
15300.00	87.900	88.280	6854.11	8383.27	-2163.24	8388.89	1663360.34	14659944.11	40°21'56.8125"N	104°55'3.4754"W	0.33	
15390.00	88.050	88.320	6857.29	8473.18	-2160.57	8478.79	1663450.20	14659946.83	40°21'56.8385"N	104°55'2.3139"W	0.17	
15479.00	88.420	88.470	6860.03	8562.11	-2158.08	8567.71	1663539.09	14659949.37	40°21'56.8628"N	104°55'1.1651"W	0.45	
15569.00	88.900	88.580	6862.14	8652.06	-2155.76	8657.66	1663629.00	14659951.74	40°21'56.8854"N	104°55'0.0031"W	0.55	
15658.00	89.440	88.910	6863.43	8741.04	-2153.81	8746.63	1663717.93	14659953.74	40°21'56.9044"N	104°54'58.8538"W	0.71	
15748.00	90.070	89.670	6863.81	8831.03	-2152.70	8836.62	1663807.88	14659954.91	40°21'56.9151"N	104°54'57.6912"W	1.10	
15837.00	89.960	88.310	6863.79	8920.02	-2151.13	8925.60	1663896.83	14659956.53	40°21'56.9303"N	104°54'56.5416"W	1.53	
15927.00	90.470	88.550	6863.45	9009.99	-2148.66	9015.57	1663986.76	14659959.05	40°21'56.9543"N	104°54'55.3793"W	0.63	

## REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Well	JODSTER SOUTH 25-8HZ
Field	LARIMER COUNTY	API/Legal	
Facility	SEC.25-T5N-R68W	Wellbore	JODSTER SOUTH 25-8HZ AWB
Slot	SLOT#08 JODSTER SOUTH 25-8HZ (2302'FNL & 704'FEL, SEC.25)		

## WELLPATH DATA (203 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
16016.00	91.310	88.920	6862.07	9098.96	2146.70	9104.54	1664075.69	14659961.06	40°21'56.9734"N	104°54'54.2300"W	1.03	
16105.00	92.210	89.010	6859.33	9187.91	2145.09	9193.48	1664164.59	14659962.72	40°21'56.9889"N	104°54'53.0809"W	1.02	
16195.00	92.980	89.010	6855.26	9277.80	2143.54	9283.37	1664254.45	14659964.33	40°21'57.0040"N	104°54'51.9196"W	0.86	
16284.00	93.200	88.660	6850.46	9366.66	2141.73	9372.22	1664343.26	14659966.18	40°21'57.0215"N	104°54'50.7717"W	0.46	
16374.00	92.220	89.600	6846.21	9456.55	2140.37	9462.11	1664433.11	14659967.60	40°21'57.0346"N	104°54'49.6105"W	1.51	
16463.00	92.730	89.600	6842.36	9545.47	2139.74	9551.02	1664521.99	14659968.28	40°21'57.0404"N	104°54'48.4618"W	0.57	
16553.00	93.290	89.430	6837.64	9635.34	2138.98	9640.90	1664611.83	14659969.09	40°21'57.0476"N	104°54'47.3008"W	0.65	
16642.00	92.070	91.850	6833.48	9724.23	2139.98	9729.79	1664700.68	14659968.15	40°21'57.0374"N	104°54'46.1524"W	3.04	
16732.00	92.460	91.520	6829.92	9814.11	2142.62	9819.68	1664790.54	14659965.56	40°21'57.0110"N	104°54'44.9912"W	0.57	
16821.00	93.270	91.380	6825.47	9902.96	2144.87	9908.54	1664879.36	14659963.36	40°21'56.9884"N	104°54'43.8432"W	0.92	
16911.00	91.250	91.380	6821.92	9992.86	2147.04	9998.44	1664969.23	14659961.25	40°21'56.9666"N	104°54'42.6818"W	2.24	
17000.00	91.450	91.450	6819.82	10081.80	2149.23	10087.38	1665058.14	14659959.11	40°21'56.9445"N	104°54'41.5327"W	0.24	
17090.00	91.730	91.110	6817.33	10171.74	2151.24	10177.33	1665148.05	14659957.15	40°21'56.9243"N	104°54'40.3708"W	0.49	
17179.00	91.680	90.780	6814.68	10260.68	2152.71	10266.27	1665236.96	14659955.74	40°21'56.9095"N	104°54'39.2217"W	0.37	
17269.00	92.320	90.480	6811.54	10350.62	2153.70	10356.21	1665326.87	14659954.80	40°21'56.8993"N	104°54'38.0598"W	0.79	
17358.00	93.290	90.270	6807.18	10439.50	2154.28	10445.10	1665415.72	14659954.27	40°21'56.8932"N	104°54'36.9114"W	1.12	
17448.00	91.380	90.620	6803.52	10529.42	2154.98	10535.02	1665505.60	14659953.63	40°21'56.8859"N	104°54'35.7498"W	2.16	
17537.00	91.650	90.690	6801.16	10618.38	2156.00	10623.98	1665594.53	14659952.66	40°21'56.8755"N	104°54'34.6005"W	0.31	
17626.00	92.230	89.920	6798.15	10707.33	2156.47	10712.93	1665683.44	14659952.24	40°21'56.8704"N	104°54'33.4514"W	1.08	
17716.00	93.410	89.750	6793.72	10797.21	2156.21	10802.82	1665773.30	14659952.55	40°21'56.8726"N	104°54'32.2902"W	1.32	
17805.00	93.240	90.540	6788.56	10886.06	2156.44	10891.67	1665862.11	14659952.38	40°21'56.8700"N	104°54'31.1423"W	0.91	
17882.00	94.480	90.830	6783.38	10962.88	2157.36	10968.49	1665938.90	14659951.51	40°21'56.8606"N	104°54'30.1499"W	1.65	LAST BH MWD+IFR1 SURVEY
17942.00‡	94.480	90.830	6778.69	11022.69	2158.22	11028.30	1665998.68	14659950.68	40°21'56.8517"N	104°54'29.3773"W	0.00	PTB (882'FSL & 160'FEL, SEC.29) 40.3657922, -104.9081604

## HOLE & CASING SECTIONS - Ref Wellbore: JODSTER SOUTH 25-8HZ AWB Ref Wellpath: JODSTER SOUTH 25-8HZ 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	26.00	1899.00	1873.00	26.00	1852.74	0.00	0.00	-330.92	5.63



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Well	JODSTER SOUTH 25-8HZ
Field	LARIMER COUNTY	API/Legal	
Facility	SEC.25-T5N-R68W	Wellbore	JODSTER SOUTH 25-8HZ AWB
Slot	SLOT#08 JODSTER SOUTH 25-8HZ (2302'FNL & 704'FEL,SEC.25)		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.25-T5N-R68W	0.00	104.94	1.08	1654974.57	14662206.42	40°22'19.2400"N	104°56'51.8360"W	polygon
	2D Polygon: dimensions not calculated							
SEC.29-T5N-R67W	0.00	104.94	1.08	1654974.56	14662206.42	40°22'19.2400"N	104°56'51.8360"W	polygon
	2D Polygon: dimensions not calculated							
SEC.30-T5N-R67W	0.00	104.94	1.08	1654974.56	14662206.42	40°22'19.2400"N	104°56'51.8360"W	polygon
	2D Polygon: dimensions not calculated							
JODSTER SOUTH 25-8HZ BHL REV-1(870'FSL & 160'FEL,SEC.29)	6807.00	-2145.89	11027.55	1665997.93	14659963.00	40°21'56.9736"N	104°54'29.3868"W	point
JODSTER SOUTH 25-8HZ HEEL REV-1 (804'FSL & 75'FWL,SEC.30)	6833.00	-2172.39	749.91	1655724.44	14659930.44	40°21'56.7360"N	104°56'42.1620"W	point
JODSTER SOUTH 25-10HZ DSU	6970.00	-29.85	-0.23	1654973.33	14662071.68	40°22'17.9080"N	104°56'51.8530"W	polygon
	2D Polygon: dimensions not calculated							

WELLPATH COMPOSITION - Ref Wellbore: JODSTER SOUTH 25-8HZ AWB Ref Wellpath: JODSTER SOUTH 25-8HZ AWP					
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore	Survey Date
26.00	1849.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <137 - 1849>	JODSTER SOUTH 25-8HZ AWB	
1849.00	17942.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	BH Custom APC ISCWSA Rev-2 MWD+IFR1 <1948 - 17882>	JODSTER SOUTH 25-8HZ AWB	11/12/2019



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Well	JODSTER SOUTH 25-8HZ
Field	LARIMER COUNTY	API/Legal	
Facility	SEC.25-T5N-R68W	Wellbore	JODSTER SOUTH 25-8HZ AWB
Slot	SLOT#08 JODSTER SOUTH 25-8HZ (2302'FNL & 704'FEL,SEC.25)		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
136.00	0.400	200.470	136.00	FIRST SURFACE MWD+IFR1 SURVEY
1849.00	24.700	179.910	1807.22	LAST SURFACE MWD+IFR1 SURVEY
1948.00	23.690	178.840	1897.52	FIRST BH MWD+IFR1 SURVEY
6760.00	7.583	89.528	6257.52	KOP
7658.00	86.894	89.413	6830.41	LANDING (757'FSL & 49'FWL, SEC.30) 40.3658897, -104.9450353
17882.00	94.480	90.830	6783.38	LAST BH MWD+IFR1 SURVEY
17942.00	94.480	90.830	6778.69	PTB (882'FSL & 160'FEL, SEC.29) 40.3657922, -104.9081604