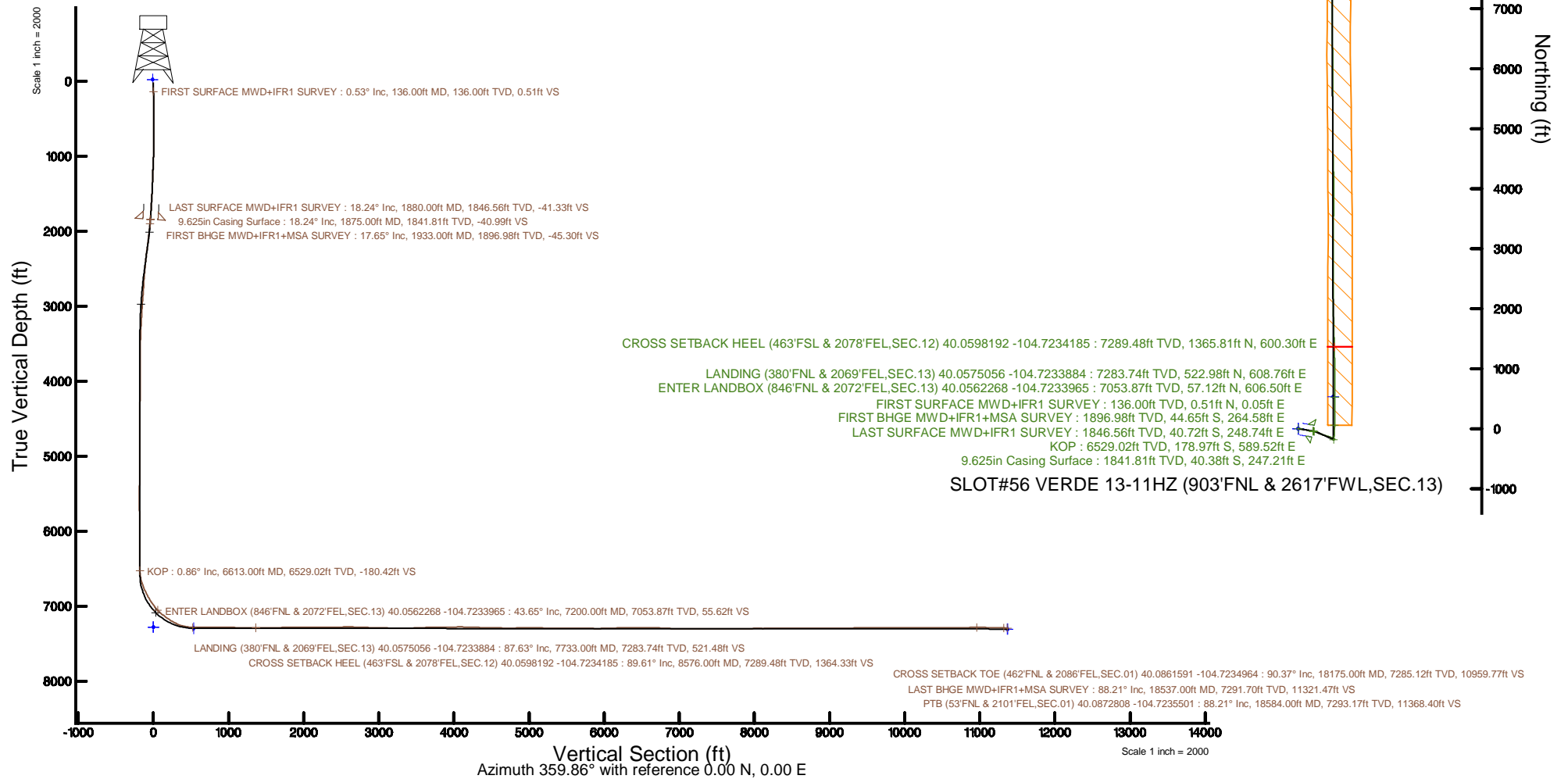


Location:	COLORADO	Slot:	SLOT#56 VERDE 13-11HZ (903FNL & 2617FWL,SEC.13)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	VERDE 13-11HZ
Facility:	SEC.13-T1N-R66W	Wellbore:	VERDE 13-11HZ PWB
Plot reference wellpath is VERDE 13-11HZ PWP Rev-A.0		Grid System: NAD83 / UTM Zone 13 North, US feet	
True vertical depths are referenced to PD 564 (26) (RT)		* = Wellpath was transformed from a different geoidic datum	
Measured depths are referenced to PD 564 (26) (RT)		North Reference: True north	
PD 564 (26) (RT) to Mean Sea Level: 5098 feet		Scale: True distance	
Mean Sea Level to Mud line (At Slot: SLOT#56 VERDE 13-11HZ (903FNL & 2617FWL,SEC.13)): 0 feet		Depths are in feet	
Coordinates are in feet referenced to Slot		Created by: painsear on 2018-05-10	
		Database: WA_DEN_Anadarko_Defn	



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#56 VERDE 13-11HZ (903'FNL & 2617'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-11HZ AWB
Facility	SEC.13-T1N-R66W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999607	Report Generated	5/10/2018 at 9:02 AM
Convergence at slot	0.18° East	Database/Source file	WA_DEN_Anadarko_Defn/VERDE_13-11HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-686.28	-262.28	1717210.15	14547269.28	40°03'21.852"N	104°43'32.027"W
Facility Reference Pt			1717470.20	14547956.10	40°03'28.634"N	104°43'28.654"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	PD 564 (26') (RT) to Facility Vertical Datum	5098.00ft
Horizontal Reference Pt	Slot	PD 564 (26') (RT) to Mean Sea Level	5098.00ft
Vertical Reference Pt	PD 564 (26') (RT)	PD 564 (26') (RT) to Mud Line at Slot (SLOT#56 VERDE 13-11HZ (903'FNL & 2617'FWL,SEC.13))	5098.00ft
MD Reference Pt	PD 564 (26') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	359.86°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#56 VERDE 13-11HZ (903'FNL & 2617'FWL, SEC.13)
Area	COLORADO	Well	VERDE 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-11HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (245 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	5.190	0.00	0.00	0.00	0.00	1717210.15	14547269.28	40°03'21.852"N	104°43'32.027"W	0.00	
26.00	0.000	5.190	26.00	0.00	0.00	0.00	1717210.15	14547269.28	40°03'21.852"N	104°43'32.027"W	0.00	
136.00	0.530	5.190	136.00	0.51	0.51	0.05	1717210.19	14547269.79	40°03'21.857"N	104°43'32.026"W	0.48	FIRST SURFACE MWD+IFR1 SURVEY
167.00	0.790	6.330	167.00	0.86	0.86	0.08	1717210.23	14547270.14	40°03'21.861"N	104°43'32.026"W	0.84	
199.00	1.360	2.730	198.99	1.46	1.46	0.12	1717210.27	14547270.74	40°03'21.866"N	104°43'32.025"W	1.79	
231.00	1.270	2.460	230.98	2.19	2.19	0.16	1717210.30	14547271.48	40°03'21.874"N	104°43'32.025"W	0.28	
262.00	0.970	0.970	261.98	2.80	2.80	0.18	1717210.31	14547272.08	40°03'21.880"N	104°43'32.025"W	0.97	
294.00	0.570	15.650	293.97	3.22	3.22	0.22	1717210.36	14547272.51	40°03'21.884"N	104°43'32.024"W	1.38	
325.00	0.350	355.610	324.97	3.47	3.47	0.26	1717210.39	14547272.75	40°03'21.886"N	104°43'32.024"W	0.87	
357.00	0.260	321.860	356.97	3.62	3.62	0.21	1717210.34	14547272.90	40°03'21.888"N	104°43'32.024"W	0.62	
388.00	0.220	324.850	387.97	3.72	3.73	0.13	1717210.26	14547273.01	40°03'21.889"N	104°43'32.025"W	0.14	
420.00	0.310	294.960	419.97	3.81	3.81	0.02	1717210.15	14547273.09	40°03'21.890"N	104°43'32.027"W	0.51	
451.00	0.310	292.500	450.97	3.88	3.88	-0.14	1717210.00	14547273.16	40°03'21.890"N	104°43'32.029"W	0.04	
483.00	0.400	287.850	482.97	3.95	3.95	-0.32	1717209.81	14547273.23	40°03'21.891"N	104°43'32.031"W	0.30	
514.00	0.440	303.230	513.97	4.05	4.05	-0.53	1717209.61	14547273.32	40°03'21.892"N	104°43'32.034"W	0.38	
546.00	0.350	315.880	545.97	4.18	4.18	-0.70	1717209.43	14547273.46	40°03'21.893"N	104°43'32.036"W	0.39	
578.00	0.350	306.650	577.97	4.31	4.31	-0.84	1717209.29	14547273.59	40°03'21.895"N	104°43'32.038"W	0.18	
610.00	0.350	30.060	609.97	4.46	4.45	-0.87	1717209.26	14547273.73	40°03'21.896"N	104°43'32.038"W	1.46	
642.00	1.050	75.240	641.97	4.61	4.61	-0.54	1717209.59	14547273.89	40°03'21.898"N	104°43'32.034"W	2.63	
673.00	1.450	80.340	672.96	4.75	4.75	0.12	1717210.25	14547274.03	40°03'21.899"N	104°43'32.025"W	1.34	
705.00	1.930	90.090	704.94	4.82	4.82	1.06	1717211.19	14547274.10	40°03'21.900"N	104°43'32.013"W	1.74	
737.00	2.240	89.300	736.92	4.82	4.83	2.22	1717212.35	14547274.11	40°03'21.900"N	104°43'31.998"W	0.97	
769.00	2.810	89.130	768.89	4.84	4.85	3.63	1717213.76	14547274.14	40°03'21.900"N	104°43'31.980"W	1.78	
800.00	3.430	97.560	799.85	4.72	4.73	5.31	1717215.44	14547274.03	40°03'21.899"N	104°43'31.959"W	2.48	
832.00	4.040	98.790	831.78	4.42	4.44	7.37	1717217.50	14547273.74	40°03'21.896"N	104°43'31.932"W	1.92	
864.00	4.610	99.580	863.69	4.03	4.05	9.76	1717219.88	14547273.36	40°03'21.892"N	104°43'31.902"W	1.79	
896.00	5.230	101.080	895.57	3.53	3.56	12.46	1717222.58	14547272.88	40°03'21.887"N	104°43'31.867"W	1.98	
927.00	5.670	102.750	926.43	2.91	2.95	15.34	1717225.47	14547272.27	40°03'21.881"N	104°43'31.830"W	1.51	
959.00	5.930	102.310	958.26	2.20	2.24	18.49	1717228.62	14547271.58	40°03'21.874"N	104°43'31.789"W	0.82	
991.00	6.720	103.280	990.07	1.41	1.46	21.93	1717232.06	14547270.81	40°03'21.866"N	104°43'31.745"W	2.49	
1023.00	7.560	103.450	1021.82	0.48	0.54	25.80	1717235.93	14547269.90	40°03'21.857"N	104°43'31.695"W	2.63	
1054.00	8.790	103.890	1052.50	-0.57	-0.50	30.08	1717240.22	14547268.88	40°03'21.847"N	104°43'31.640"W	3.97	
1086.00	9.400	104.150	1084.10	-1.81	-1.73	34.99	1717245.13	14547267.66	40°03'21.835"N	104°43'31.577"W	1.91	
1118.00	10.110	103.360	1115.64	-3.11	-3.01	40.26	1717250.39	14547266.39	40°03'21.822"N	104°43'31.509"W	2.26	
1149.00	10.590	103.720	1146.14	-4.43	-4.32	45.67	1717255.81	14547265.11	40°03'21.809"N	104°43'31.440"W	1.56	
1181.00	11.070	103.360	1177.57	-5.85	-5.73	51.52	1717261.66	14547263.72	40°03'21.795"N	104°43'31.364"W	1.51	
1213.00	11.910	101.250	1208.92	-7.22	-7.08	57.74	1717267.89	14547262.38	40°03'21.782"N	104°43'31.284"W	2.93	
1245.00	12.880	100.380	1240.18	-8.53	-8.37	64.49	1717274.64	14547261.12	40°03'21.769"N	104°43'31.198"W	3.09	
1277.00	13.800	99.580	1271.31	-9.82	-9.64	71.76	1717281.91	14547259.86	40°03'21.757"N	104°43'31.104"W	2.93	
1309.00	14.110	99.320	1302.37	-11.11	-10.91	79.37	1717289.52	14547258.62	40°03'21.744"N	104°43'31.006"W	0.99	
1340.00	14.410	99.580	1332.41	-12.38	-12.16	86.91	1717297.06	14547257.39	40°03'21.732"N	104°43'30.909"W	0.99	
1372.00	14.940	98.710	1363.37	-13.69	-13.45	94.91	1717305.06	14547256.13	40°03'21.719"N	104°43'30.806"W	1.79	
1404.00	15.290	98.350	1394.26	-14.94	-14.69	103.16	1717313.31	14547254.92	40°03'21.707"N	104°43'30.700"W	1.13	
1435.00	15.420	97.650	1424.16	-16.11	-15.83	111.29	1717321.44	14547253.80	40°03'21.696"N	104°43'30.596"W	0.73	
1467.00	16.040	98.180	1454.96	-17.32	-17.03	119.88	1717330.03	14547252.63	40°03'21.684"N	104°43'30.485"W	1.99	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#56 VERDE 13-11HZ (903'FNL & 2617'FWL, SEC.13)
Area	COLORADO	Well	VERDE 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-11HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (245 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
1499.00	17.050	99.940	1485.63	-18.78	-18.47	128.88	1717339.03	14547251.22	40°03'21.670"N	104°43'30.370"W	3.52	
1530.00	17.800	100.380	1515.21	-20.44	-20.10	138.02	1717348.17	14547249.61	40°03'21.653"N	104°43'30.252"W	2.46	
1562.00	17.840	100.990	1545.67	-22.28	-21.92	147.64	1717357.80	14547247.83	40°03'21.635"N	104°43'30.128"W	0.60	
1594.00	18.280	100.550	1576.10	-24.16	-23.77	157.39	1717367.54	14547246.00	40°03'21.617"N	104°43'30.003"W	1.44	
1625.00	18.330	100.020	1605.53	-25.92	-25.51	166.97	1717377.12	14547244.30	40°03'21.600"N	104°43'29.880"W	0.56	
1657.00	18.720	98.530	1635.87	-27.58	-27.15	177.00	1717387.16	14547242.69	40°03'21.584"N	104°43'29.751"W	1.92	
1689.00	19.420	97.830	1666.12	-29.10	-28.64	187.35	1717397.51	14547241.24	40°03'21.569"N	104°43'29.618"W	2.30	
1721.00	19.780	98.440	1696.26	-30.64	-30.15	197.98	1717408.13	14547239.75	40°03'21.554"N	104°43'29.481"W	1.29	
1784.00	19.380	102.750	1755.62	-34.56	-34.03	218.72	1717428.88	14547235.94	40°03'21.516"N	104°43'29.214"W	2.38	
1816.00	19.120	102.310	1785.83	-36.88	-36.32	229.01	1717439.18	14547233.69	40°03'21.493"N	104°43'29.082"W	0.93	
1840.00	18.240	102.660	1808.57	-38.56	-37.98	236.52	1717446.69	14547232.05	40°03'21.477"N	104°43'28.985"W	3.70	
1880.00	18.240	102.660	1846.56	-41.33	-40.72	248.74	1717458.91	14547229.34	40°03'21.450"N	104°43'28.828"W	0.00	LAST SURFACE MWD+IFR1 SURVEY
1933.00	17.650	105.230	1896.98	-45.30	-44.65	264.58	1717474.76	14547225.47	40°03'21.411"N	104°43'28.624"W	1.86	FIRST BHGE MWD+IFR1+MSA SURVEY
2022.00	18.130	109.810	1981.68	-53.60	-52.89	290.63	1717500.82	14547217.31	40°03'21.329"N	104°43'28.289"W	1.67	
2111.00	17.610	109.290	2066.39	-62.81	-62.03	316.36	1717526.57	14547208.25	40°03'21.239"N	104°43'27.959"W	0.61	
2201.00	18.980	114.110	2151.84	-73.35	-72.50	342.58	1717552.81	14547197.86	40°03'21.135"N	104°43'27.621"W	2.27	
2291.00	18.630	112.420	2237.04	-84.87	-83.97	369.22	1717579.48	14547186.49	40°03'21.022"N	104°43'27.279"W	0.72	
2380.00	18.170	110.850	2321.49	-95.30	-94.33	395.33	1717605.61	14547176.21	40°03'20.920"N	104°43'26.943"W	0.76	
2469.00	17.330	109.690	2406.25	-104.77	-103.73	420.78	1717631.08	14547166.89	40°03'20.827"N	104°43'26.616"W	1.02	
2559.00	16.750	108.180	2492.30	-113.39	-112.30	445.72	1717656.04	14547158.41	40°03'20.742"N	104°43'26.295"W	0.81	
2648.00	15.490	106.430	2577.80	-120.81	-119.66	469.31	1717679.64	14547151.12	40°03'20.669"N	104°43'25.992"W	1.52	
2737.00	14.770	104.040	2663.71	-126.98	-125.77	491.72	1717702.05	14547145.08	40°03'20.609"N	104°43'25.703"W	1.07	
2827.00	11.980	104.230	2751.26	-132.11	-130.85	511.90	1717722.25	14547140.06	40°03'20.559"N	104°43'25.444"W	3.10	
2916.00	11.460	114.220	2838.42	-138.05	-136.75	528.92	1717739.28	14547134.22	40°03'20.501"N	104°43'25.225"W	2.35	
3006.00	10.330	114.600	2926.79	-145.12	-143.78	544.41	1717754.78	14547127.24	40°03'20.431"N	104°43'25.026"W	1.26	
3096.00	9.600	112.670	3015.44	-151.40	-150.03	558.67	1717769.06	14547121.03	40°03'20.369"N	104°43'24.842"W	0.89	
3185.00	8.540	110.880	3103.32	-156.65	-155.25	571.70	1717782.09	14547115.86	40°03'20.318"N	104°43'24.675"W	1.23	
3274.00	8.080	111.450	3191.39	-161.32	-159.89	583.69	1717794.10	14547111.26	40°03'20.272"N	104°43'24.521"W	0.53	
3364.00	5.850	122.940	3280.72	-166.16	-164.70	593.43	1717803.85	14547106.48	40°03'20.224"N	104°43'24.395"W	2.91	
3453.00	3.380	125.260	3369.43	-170.15	-168.68	599.38	1717809.81	14547102.52	40°03'20.185"N	104°43'24.319"W	2.78	
3542.00	2.720	122.610	3458.30	-172.81	-171.33	603.30	1717813.73	14547099.88	40°03'20.159"N	104°43'24.268"W	0.76	
3632.00	0.250	215.290	3548.27	-174.13	-172.64	604.99	1717815.42	14547098.57	40°03'20.146"N	104°43'24.247"W	3.05	
3721.00	0.320	260.120	3637.26	-174.33	-172.84	604.63	1717815.07	14547098.37	40°03'20.144"N	104°43'24.251"W	0.25	
3811.00	0.470	299.610	3727.26	-174.19	-172.70	604.06	1717814.50	14547098.51	40°03'20.145"N	104°43'24.259"W	0.34	
3901.00	1.330	229.450	3817.25	-174.68	-173.20	602.95	1717813.38	14547098.01	40°03'20.140"N	104°43'24.273"W	1.39	
3990.00	0.990	237.280	3906.23	-175.77	-174.29	601.52	1717811.96	14547096.92	40°03'20.130"N	104°43'24.291"W	0.42	
4080.00	0.710	258.460	3996.22	-176.30	-174.82	600.31	1717810.76	14547096.38	40°03'20.124"N	104°43'24.307"W	0.46	
4169.00	0.480	291.030	4085.22	-176.27	-174.80	599.43	1717809.87	14547096.40	40°03'20.125"N	104°43'24.318"W	0.45	
4259.00	1.510	206.570	4175.21	-177.19	-175.72	598.54	1717808.99	14547095.48	40°03'20.115"N	104°43'24.330"W	1.71	
4348.00	1.030	203.760	4264.19	-178.97	-177.50	597.70	1717808.15	14547093.69	40°03'20.098"N	104°43'24.341"W	0.54	
4437.00	0.660	208.620	4353.18	-180.15	-178.68	597.13	1717807.59	14547092.51	40°03'20.086"N	104°43'24.348"W	0.42	
4526.00	0.310	221.730	4442.17	-180.78	-179.31	596.72	1717807.18	14547091.88	40°03'20.080"N	104°43'24.353"W	0.41	
4616.00	0.520	283.410	4532.17	-180.87	-179.40	596.16	1717806.62	14547091.79	40°03'20.079"N	104°43'24.360"W	0.51	
4706.00	1.230	289.700	4622.16	-180.44	-178.98	594.86	1717805.32	14547092.21	40°03'20.083"N	104°43'24.377"W	0.79	
4821.00	1.450	293.330	4737.13	-179.44	-177.99	592.36	1717802.82	14547093.19	40°03'20.093"N	104°43'24.409"W	0.20	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#56 VERDE 13-11HZ (903°FNL & 2617°FWL, SEC.13)
Area	COLORADO	Well	VERDE 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-11HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (245 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
4911.00	1.000	235.330	4827.11	-179.44	-177.98	590.67	1717801.13	14547093.19	40°03'20.093"N	104°43'24.431"W	1.39	
5001.00	0.990	259.380	4917.10	-180.02	-178.57	589.26	1717799.72	14547092.60	40°03'20.087"N	104°43'24.449"W	0.46	
5090.00	1.070	196.230	5006.09	-180.96	-179.51	588.27	1717798.73	14547091.65	40°03'20.078"N	104°43'24.462"W	1.21	
5180.00	0.900	193.290	5096.07	-182.45	-181.01	587.87	1717798.34	14547090.16	40°03'20.063"N	104°43'24.467"W	0.20	
5269.00	0.740	165.540	5185.06	-183.69	-182.24	587.86	1717798.33	14547088.92	40°03'20.051"N	104°43'24.467"W	0.48	
5359.00	0.610	176.320	5275.06	-184.73	-183.29	588.03	1717798.51	14547087.88	40°03'20.041"N	104°43'24.465"W	0.20	
5449.00	0.450	192.530	5365.05	-185.55	-184.11	587.99	1717798.46	14547087.06	40°03'20.033"N	104°43'24.465"W	0.24	
5538.00	0.260	229.160	5454.05	-186.03	-184.58	587.76	1717798.24	14547086.59	40°03'20.028"N	104°43'24.468"W	0.32	
5627.00	0.190	243.930	5543.05	-186.22	-184.78	587.47	1717797.95	14547086.39	40°03'20.026"N	104°43'24.472"W	0.10	
5717.00	0.190	334.860	5633.05	-186.15	-184.71	587.27	1717797.75	14547086.46	40°03'20.027"N	104°43'24.475"W	0.30	
5807.00	0.310	328.510	5723.05	-185.81	-184.37	587.08	1717797.56	14547086.80	40°03'20.030"N	104°43'24.477"W	0.14	
5896.00	0.310	25.400	5812.05	-185.39	-183.94	587.06	1717797.54	14547087.22	40°03'20.034"N	104°43'24.477"W	0.33	
5986.00	0.400	19.660	5902.05	-184.87	-183.43	587.27	1717797.75	14547087.74	40°03'20.039"N	104°43'24.475"W	0.11	
6075.00	0.280	14.900	5991.05	-184.37	-182.93	587.43	1717797.91	14547088.24	40°03'20.044"N	104°43'24.473"W	0.14	
6165.00	0.490	9.760	6081.04	-183.78	-182.33	587.55	1717798.03	14547088.83	40°03'20.050"N	104°43'24.471"W	0.24	
6254.00	0.450	57.260	6170.04	-183.22	-181.77	587.91	1717798.38	14547089.40	40°03'20.056"N	104°43'24.466"W	0.43	
6343.00	0.630	38.820	6259.04	-182.65	-181.20	588.51	1717798.98	14547089.97	40°03'20.061"N	104°43'24.459"W	0.28	
6433.00	0.500	33.520	6349.03	-181.94	-180.49	589.04	1717799.51	14547090.68	40°03'20.068"N	104°43'24.452"W	0.16	
6523.00	0.410	23.180	6439.03	-181.31	-179.86	589.38	1717799.85	14547091.31	40°03'20.074"N	104°43'24.447"W	0.13	
6612.00	0.760	0.740	6528.02	-180.43	-178.98	589.52	1717799.98	14547092.19	40°03'20.083"N	104°43'24.446"W	0.46	
6613.00†	0.860	1.883	6529.02	-180.42	-178.97	589.52	1717799.98	14547092.20	40°03'20.083"N	104°43'24.446"W	10.11	KOP
6702.00	9.850	9.760	6617.55	-172.23	-170.78	590.83	1717801.27	14547100.39	40°03'20.164"N	104°43'24.429"W	10.11	
6791.00	20.500	7.380	6703.32	-149.22	-147.75	594.13	1717804.50	14547123.42	40°03'20.392"N	104°43'24.386"W	11.98	
6881.00	24.220	3.970	6786.54	-115.17	-113.70	597.44	1717807.69	14547157.47	40°03'20.728"N	104°43'24.344"W	4.38	
6971.00	27.430	0.250	6867.55	-76.01	-74.54	598.81	1717808.94	14547196.62	40°03'21.115"N	104°43'24.326"W	3.99	
7060.00	33.700	3.260	6944.15	-30.82	-29.34	600.30	1717810.30	14547241.80	40°03'21.562"N	104°43'24.307"W	7.25	
7150.00	39.370	4.930	7016.43	22.59	24.07	604.18	1717814.01	14547295.21	40°03'22.090"N	104°43'24.257"W	6.40	
7200.00†	43.647	3.171	7053.87	55.62	57.12	606.50	1717816.22	14547328.25	40°03'22.416"N	104°43'24.227"W	8.87	ENTER LANDBOX (846°FNL & 2072°FEL, SEC.13) 40.0562268 -104.7233965
7239.00	47.000	1.980	7081.29	83.32	84.82	607.73	1717817.37	14547355.94	40°03'22.690"N	104°43'24.211"W	8.87	
7329.00	53.150	359.640	7139.02	152.29	153.79	608.65	1717818.07	14547424.89	40°03'23.372"N	104°43'24.200"W	7.12	
7418.00	57.890	358.630	7189.40	225.63	227.12	607.52	1717816.72	14547498.19	40°03'24.096"N	104°43'24.214"W	5.41	
7508.00	63.830	0.120	7233.20	304.19	305.69	606.69	1717815.65	14547576.72	40°03'24.873"N	104°43'24.225"W	6.76	
7597.00	74.120	1.390	7265.09	387.15	388.64	607.82	1717816.52	14547659.64	40°03'25.693"N	104°43'24.210"W	11.64	
7687.00	85.500	359.930	7280.99	475.57	477.07	608.82	1717817.25	14547748.04	40°03'26.566"N	104°43'24.197"W	12.74	
7733.00†	87.635	359.930	7283.74	521.48	522.98	608.76	1717817.05	14547793.93	40°03'27.020"N	104°43'24.198"W	4.64	LANDING (380°FNL & 2069°FEL, SEC.13) 40.0575056 -104.7233884
7776.00	89.630	359.930	7284.77	564.47	565.97	608.71	1717816.86	14547836.90	40°03'27.445"N	104°43'24.199"W	4.64	
7866.00	90.680	0.510	7284.53	654.47	655.97	609.05	1717816.93	14547926.86	40°03'28.334"N	104°43'24.194"W	1.33	
7955.00	89.940	0.240	7284.04	743.46	744.96	609.64	1717817.24	14548015.83	40°03'29.214"N	104°43'24.187"W	0.89	
8045.00	90.430	359.950	7283.75	833.46	834.96	609.78	1717817.11	14548105.79	40°03'30.103"N	104°43'24.185"W	0.63	
8134.00	90.280	359.290	7283.20	922.46	923.96	609.19	1717816.25	14548194.75	40°03'30.983"N	104°43'24.192"W	0.76	
8224.00	88.430	358.950	7284.22	1012.44	1013.94	607.81	1717814.59	14548284.69	40°03'31.872"N	104°43'24.210"W	2.09	
8313.00	89.200	359.040	7286.06	1101.41	1102.90	606.25	1717812.76	14548373.61	40°03'32.751"N	104°43'24.230"W	0.87	
8403.00	89.080	358.470	7287.41	1191.38	1192.87	604.30	1717810.52	14548463.54	40°03'33.640"N	104°43'24.255"W	0.65	
8492.00	89.290	358.770	7288.67	1280.35	1281.84	602.15	1717808.11	14548552.46	40°03'34.519"N	104°43'24.283"W	0.41	
8576.00†	89.607	358.705	7289.48	1364.33	1365.81	600.30	1717806.00	14548636.40	40°03'35.349"N	104°43'24.307"W	0.39	CROSS SETBACK HEEL (463°FSL & 2078°FEL, SEC.12) 40.0598192 -104.7234185

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#56 VERDE 13-11HZ (903'FNL & 2617'FWL, SEC.13)
Area	COLORADO	Well	VERDE 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-11HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (245 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
8582.00	89.630	358.700	7289.52	1370.33	1371.81	600.17	1717805.84	14548642.39	40°03'35.408"N	104°43'24.308"W	0.39	
8671.00	90.490	358.670	7289.43	1459.31	1460.79	598.12	1717803.53	14548731.33	40°03'36.288"N	104°43'24.335"W	0.97	
8761.00	90.770	358.130	7288.44	1549.28	1550.75	595.61	1717800.74	14548821.24	40°03'37.177"N	104°43'24.367"W	0.68	
8851.00	91.080	358.530	7286.99	1639.23	1640.70	592.99	1717797.84	14548911.15	40°03'38.066"N	104°43'24.401"W	0.56	
8940.00	90.860	358.030	7285.48	1728.18	1729.64	590.32	1717794.90	14549000.05	40°03'38.945"N	104°43'24.435"W	0.61	
9030.00	90.150	359.510	7284.69	1818.16	1819.61	588.39	1717792.69	14549089.98	40°03'39.834"N	104°43'24.460"W	1.82	
9119.00	90.960	359.430	7283.82	1907.15	1908.61	587.56	1717791.59	14549178.94	40°03'40.713"N	104°43'24.470"W	0.91	
9209.00	90.920	359.750	7282.35	1997.14	1998.59	586.92	1717790.67	14549268.88	40°03'41.602"N	104°43'24.479"W	0.36	
9298.00	91.350	359.700	7280.58	2086.12	2087.57	586.49	1717789.97	14549357.83	40°03'42.482"N	104°43'24.484"W	0.49	
9388.00	89.970	359.590	7279.55	2176.11	2177.56	585.93	1717789.14	14549447.78	40°03'43.371"N	104°43'24.491"W	1.54	
9477.00	89.820	0.010	7279.71	2265.11	2266.56	585.62	1717788.55	14549536.74	40°03'44.251"N	104°43'24.495"W	0.50	
9566.00	89.910	359.360	7279.92	2354.11	2355.56	585.13	1717787.79	14549625.70	40°03'45.130"N	104°43'24.501"W	0.74	
9656.00	90.180	359.100	7279.85	2444.11	2445.55	583.92	1717786.30	14549715.66	40°03'46.019"N	104°43'24.517"W	0.42	
9745.00	91.200	359.400	7278.78	2533.09	2534.54	582.76	1717784.86	14549804.60	40°03'46.899"N	104°43'24.532"W	1.19	
9835.00	89.200	359.890	7278.46	2623.09	2624.53	582.20	1717784.03	14549894.56	40°03'47.788"N	104°43'24.539"W	2.29	
9924.00	88.250	359.710	7280.44	2712.07	2713.51	581.89	1717783.44	14549983.50	40°03'48.667"N	104°43'24.543"W	1.09	
10014.00	87.660	359.320	7283.66	2802.01	2803.44	581.13	1717782.40	14550073.40	40°03'49.556"N	104°43'24.553"W	0.79	
10103.00	88.400	0.230	7286.72	2890.95	2892.39	580.78	1717781.78	14550162.30	40°03'50.435"N	104°43'24.557"W	1.32	
10193.00	87.750	0.060	7289.74	2980.90	2982.34	581.01	1717781.73	14550252.22	40°03'51.324"N	104°43'24.554"W	0.75	
10282.00	89.510	0.740	7291.87	3069.87	3071.31	581.63	1717782.08	14550341.15	40°03'52.203"N	104°43'24.546"W	2.12	
10372.00	88.950	0.110	7293.08	3159.85	3161.30	582.30	1717782.47	14550431.11	40°03'53.093"N	104°43'24.538"W	0.94	
10461.00	90.060	1.630	7293.84	3248.83	3250.28	583.65	1717783.55	14550520.06	40°03'53.972"N	104°43'24.520"W	2.11	
10551.00	89.570	0.920	7294.14	3338.80	3340.25	585.65	1717785.27	14550610.00	40°03'54.861"N	104°43'24.494"W	0.96	
10640.00	91.170	0.550	7293.56	3427.79	3429.24	586.79	1717786.14	14550698.96	40°03'55.740"N	104°43'24.480"W	1.85	
10729.00	92.090	0.550	7291.03	3516.74	3518.20	587.65	1717786.72	14550787.89	40°03'56.620"N	104°43'24.469"W	1.03	
10819.00	93.110	0.860	7286.95	3606.64	3608.10	588.75	1717787.55	14550877.75	40°03'57.508"N	104°43'24.454"W	1.18	
10909.00	92.160	359.490	7282.81	3696.54	3698.00	589.03	1717787.54	14550967.62	40°03'58.396"N	104°43'24.451"W	1.85	
10998.00	90.460	0.820	7280.77	3785.51	3786.97	589.27	1717787.51	14551056.56	40°03'59.276"N	104°43'24.448"W	2.42	
11088.00	90.340	0.420	7280.15	3875.50	3876.96	590.24	1717788.21	14551146.51	40°04'00.165"N	104°43'24.435"W	0.46	
11177.00	90.250	0.460	7279.69	3964.49	3965.96	590.93	1717788.61	14551235.48	40°04'01.044"N	104°43'24.426"W	0.11	
11267.00	90.550	0.110	7279.06	4054.49	4055.96	591.37	1717788.78	14551325.44	40°04'01.934"N	104°43'24.421"W	0.51	
11356.00	88.920	359.380	7279.47	4143.48	4144.95	590.98	1717788.11	14551414.40	40°04'02.813"N	104°43'24.426"W	2.01	
11446.00	88.150	358.300	7281.77	4233.44	4234.90	589.16	1717786.02	14551504.31	40°04'03.702"N	104°43'24.449"W	1.47	
11535.00	88.030	358.410	7284.74	4322.36	4323.82	586.60	1717783.19	14551593.18	40°04'04.581"N	104°43'24.482"W	0.18	
11624.00	87.600	358.010	7288.13	4411.26	4412.71	583.82	1717780.14	14551682.02	40°04'05.459"N	104°43'24.518"W	0.66	
11714.00	89.200	358.500	7290.64	4501.18	4502.63	581.09	1717777.12	14551771.90	40°04'06.348"N	104°43'24.553"W	1.86	
11803.00	89.320	358.620	7291.79	4590.15	4591.59	578.85	1717774.61	14551860.82	40°04'07.227"N	104°43'24.582"W	0.19	
11892.00	88.710	358.730	7293.32	4679.12	4680.55	576.79	1717772.28	14551949.74	40°04'08.106"N	104°43'24.608"W	0.70	
11982.00	91.020	359.990	7293.54	4769.11	4770.54	575.79	1717771.00	14552039.69	40°04'08.995"N	104°43'24.621"W	2.92	
12071.00	91.050	0.170	7291.93	4858.09	4859.53	575.91	1717770.85	14552128.64	40°04'09.875"N	104°43'24.619"W	0.21	
12165.00	90.550	359.780	7290.62	4952.08	4953.52	575.87	1717770.52	14552222.59	40°04'10.804"N	104°43'24.620"W	0.67	
12258.00	89.910	359.780	7290.24	5045.08	5046.51	575.51	1717769.88	14552315.55	40°04'11.723"N	104°43'24.624"W	0.69	
12350.00	88.740	359.790	7291.33	5137.07	5138.51	575.17	1717769.25	14552407.50	40°04'12.632"N	104°43'24.629"W	1.27	
12441.00	89.140	0.500	7293.01	5228.06	5229.49	575.40	1717769.20	14552498.45	40°04'13.531"N	104°43'24.626"W	0.90	
12533.00	89.880	0.630	7293.80	5320.05	5321.48	576.30	1717769.82	14552590.41	40°04'14.440"N	104°43'24.614"W	0.82	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#56 VERDE 13-11HZ (903'FNL & 2617'FWL, SEC.13)
Area	COLORADO	Well	VERDE 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-11HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (245 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
12625.00	89.970	0.710	7293.92	5412.04	5413.47	577.38	1717770.61	14552682.37	40°04'15.349"N	104°43'24.600"W	0.13	
12715.00	89.820	0.320	7294.08	5502.03	5503.47	578.19	1717771.15	14552772.33	40°04'16.238"N	104°43'24.590"W	0.46	
12807.00	89.290	0.020	7294.80	5594.03	5595.47	578.46	1717771.14	14552864.29	40°04'17.148"N	104°43'24.586"W	0.66	
12899.00	89.350	0.480	7295.89	5686.02	5687.46	578.86	1717771.25	14552956.25	40°04'18.057"N	104°43'24.581"W	0.50	
12993.00	88.920	359.760	7297.31	5780.00	5781.45	579.06	1717771.16	14553050.20	40°04'18.985"N	104°43'24.578"W	0.89	
13083.00	88.770	359.520	7299.12	5869.99	5871.43	578.50	1717770.32	14553140.14	40°04'19.875"N	104°43'24.586"W	0.31	
13172.00	91.390	359.650	7299.00	5958.98	5960.42	577.85	1717769.40	14553229.10	40°04'20.754"N	104°43'24.594"W	2.95	
13261.00	91.720	358.990	7296.58	6047.94	6049.38	576.79	1717768.07	14553318.02	40°04'21.633"N	104°43'24.607"W	0.83	
13350.00	92.160	358.730	7293.57	6136.87	6138.31	575.03	1717766.03	14553406.91	40°04'22.512"N	104°43'24.630"W	0.57	
13440.00	90.990	359.210	7291.10	6226.83	6228.26	573.41	1717764.13	14553496.82	40°04'23.401"N	104°43'24.651"W	1.41	
13529.00	90.860	358.920	7289.66	6315.81	6317.23	571.96	1717762.41	14553585.75	40°04'24.280"N	104°43'24.670"W	0.36	
13619.00	90.740	358.630	7288.40	6405.78	6407.20	570.03	1717760.21	14553675.68	40°04'25.169"N	104°43'24.694"W	0.35	
13708.00	89.940	359.930	7287.87	6494.77	6496.19	568.91	1717758.82	14553764.63	40°04'26.049"N	104°43'24.709"W	1.72	
13797.00	89.020	359.960	7288.68	6583.77	6585.19	568.83	1717758.46	14553853.59	40°04'26.928"N	104°43'24.710"W	1.03	
13886.00	88.520	359.530	7290.59	6672.75	6674.17	568.43	1717757.79	14553942.53	40°04'27.807"N	104°43'24.715"W	0.74	
13976.00	87.880	0.090	7293.42	6762.70	6764.12	568.13	1717757.21	14554032.45	40°04'28.696"N	104°43'24.719"W	0.94	
14065.00	86.920	359.890	7297.46	6851.61	6853.03	568.12	1717756.92	14554121.32	40°04'29.575"N	104°43'24.719"W	1.10	
14154.00	88.950	0.070	7300.66	6940.55	6941.97	568.09	1717756.62	14554210.22	40°04'30.454"N	104°43'24.719"W	2.29	
14243.00	88.610	0.200	7302.56	7029.53	7030.95	568.30	1717756.55	14554299.17	40°04'31.333"N	104°43'24.716"W	0.41	
14421.00	90.710	359.270	7303.61	7207.51	7208.93	567.47	1717755.18	14554477.08	40°04'33.092"N	104°43'24.727"W	1.29	
14511.00	90.340	359.250	7302.79	7297.50	7298.92	566.31	1717753.74	14554567.03	40°04'33.981"N	104°43'24.742"W	0.41	
14600.00	89.970	358.860	7302.55	7386.49	7387.90	564.84	1717752.00	14554655.97	40°04'34.861"N	104°43'24.761"W	0.60	
14689.00	90.430	359.250	7302.24	7475.48	7476.89	563.38	1717750.26	14554744.92	40°04'35.740"N	104°43'24.780"W	0.68	
14778.00	89.720	358.310	7302.12	7564.46	7565.87	561.48	1717748.09	14554833.86	40°04'36.619"N	104°43'24.804"W	1.32	
14867.00	90.890	358.100	7301.65	7653.43	7654.82	558.69	1717745.03	14554922.77	40°04'37.498"N	104°43'24.840"W	1.34	
14956.00	90.460	357.750	7300.60	7742.37	7743.76	555.47	1717741.53	14555011.65	40°04'38.377"N	104°43'24.881"W	0.62	
15046.00	90.580	359.040	7299.78	7832.33	7833.72	552.95	1717738.74	14555101.57	40°04'39.266"N	104°43'24.914"W	1.44	
15135.00	90.120	358.580	7299.24	7921.32	7922.70	551.10	1717736.62	14555190.51	40°04'40.146"N	104°43'24.937"W	0.73	
15225.00	90.180	0.230	7299.00	8011.31	8012.69	550.17	1717735.40	14555280.46	40°04'41.035"N	104°43'24.949"W	1.83	
15314.00	89.720	359.940	7299.08	8100.31	8101.69	550.30	1717735.26	14555369.42	40°04'41.914"N	104°43'24.948"W	0.61	
15404.00	91.260	359.730	7298.31	8190.30	8191.68	550.04	1717734.73	14555459.38	40°04'42.804"N	104°43'24.951"W	1.73	
15583.00	90.180	0.260	7296.06	8369.28	8370.66	550.02	1717734.16	14555638.29	40°04'44.573"N	104°43'24.951"W	0.67	
15672.00	89.540	0.730	7296.28	8458.28	8459.66	550.79	1717734.65	14555727.25	40°04'45.452"N	104°43'24.941"W	0.89	
15761.00	88.740	358.860	7297.62	8547.26	8548.64	550.48	1717734.06	14555816.20	40°04'46.331"N	104°43'24.945"W	2.29	
15851.00	90.090	1.210	7298.53	8637.25	8638.63	550.53	1717733.84	14555906.15	40°04'47.221"N	104°43'24.945"W	3.01	
15941.00	90.340	2.620	7298.20	8727.19	8728.58	553.54	1717736.57	14555996.07	40°04'48.110"N	104°43'24.906"W	1.59	
16030.00	90.250	359.750	7297.74	8816.15	8817.55	555.38	1717738.13	14556085.01	40°04'48.989"N	104°43'24.882"W	3.23	
16120.00	90.460	358.830	7297.18	8906.15	8907.54	554.26	1717736.74	14556174.97	40°04'49.878"N	104°43'24.896"W	1.05	
16209.00	90.860	358.240	7296.16	8995.12	8996.50	551.99	1717734.19	14556263.89	40°04'50.757"N	104°43'24.926"W	0.80	
16298.00	90.120	357.440	7295.39	9084.06	9085.43	548.63	1717730.57	14556352.77	40°04'51.636"N	104°43'24.969"W	1.22	
16388.00	90.090	358.050	7295.23	9174.00	9175.36	545.09	1717726.75	14556442.66	40°04'52.525"N	104°43'25.014"W	0.68	
16477.00	91.540	0.020	7293.96	9262.97	9264.34	543.59	1717724.98	14556531.59	40°04'53.404"N	104°43'25.034"W	2.75	
16567.00	91.330	0.120	7291.71	9352.94	9354.31	543.70	1717724.81	14556621.52	40°04'54.293"N	104°43'25.032"W	0.26	
16656.00	90.620	358.950	7290.19	9441.93	9443.29	542.98	1717723.81	14556710.47	40°04'55.172"N	104°43'25.041"W	1.54	
16745.00	89.320	357.650	7290.24	9530.89	9532.25	540.34	1717720.90	14556799.38	40°04'56.052"N	104°43'25.075"W	2.07	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#56 VERDE 13-11HZ (903'FNL & 2617'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-11HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (245 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
16835.00	90.710	0.850	7290.22	9620.87	9622.23	539.16	1717719.44	14556889.32	40°04'56.941"N	104°43'25.090"W	3.88	
16924.00	90.460	0.920	7289.31	9709.85	9711.21	540.54	1717720.54	14556978.27	40°04'57.820"N	104°43'25.073"W	0.29	
17103.00	89.880	0.430	7288.78	9888.83	9890.20	542.65	1717722.10	14557157.19	40°04'59.589"N	104°43'25.046"W	0.42	
17192.00	89.910	0.930	7288.94	9977.82	9979.19	543.70	1717722.88	14557246.15	40°05'00.468"N	104°43'25.032"W	0.56	
17282.00	89.850	1.270	7289.13	10067.80	10069.17	545.43	1717724.33	14557336.11	40°05'01.358"N	104°43'25.010"W	0.38	
17371.00	90.340	2.900	7288.98	10156.73	10158.11	548.67	1717727.29	14557425.02	40°05'02.236"N	104°43'24.968"W	1.91	
17460.00	90.220	3.020	7288.55	10245.60	10246.99	553.26	1717731.61	14557513.88	40°05'03.115"N	104°43'24.909"W	0.19	
17550.00	89.880	2.260	7288.47	10335.49	10336.89	557.41	1717735.48	14557603.76	40°05'04.003"N	104°43'24.856"W	0.93	
17639.00	90.120	4.810	7288.47	10424.30	10425.72	562.90	1717740.69	14557692.56	40°05'04.881"N	104°43'24.785"W	2.88	
17728.00	90.740	4.210	7287.80	10513.00	10514.44	569.89	1717747.41	14557781.27	40°05'05.758"N	104°43'24.695"W	0.97	
17818.00	90.490	1.800	7286.83	10602.86	10604.30	574.61	1717751.85	14557871.11	40°05'06.646"N	104°43'24.634"W	2.69	
17907.00	90.490	1.540	7286.07	10691.81	10693.26	577.21	1717754.17	14557960.04	40°05'07.525"N	104°43'24.601"W	0.29	
17996.00	89.780	1.070	7285.86	10780.78	10782.24	579.23	1717755.92	14558048.99	40°05'08.404"N	104°43'24.575"W	0.96	
18086.00	90.400	359.230	7285.72	10870.77	10872.23	579.47	1717755.88	14558138.95	40°05'09.294"N	104°43'24.572"W	2.16	
18175.00	90.370	359.230	7285.12	10959.77	10961.22	578.27	1717754.41	14558227.90	40°05'10.173"N	104°43'24.587"W	0.03	CROSS SETBACK TOE (462'FNL & 2086'FEL,SEC.01) 40.0861591 -104.7234964
18264.00	89.350	358.390	7285.34	11048.75	11050.20	576.42	1717752.29	14558316.84	40°05'11.052"N	104°43'24.611"W	1.48	
18354.00	88.680	357.690	7286.89	11138.69	11140.13	573.35	1717748.94	14558406.73	40°05'11.941"N	104°43'24.650"W	1.08	
18443.00	88.550	357.530	7289.04	11227.59	11229.03	569.64	1717744.95	14558495.58	40°05'12.819"N	104°43'24.698"W	0.23	
18537.00	88.210	357.330	7291.70	11321.47	11322.90	565.42	1717740.45	14558589.39	40°05'13.747"N	104°43'24.752"W	0.42	LAST BHGE MWD+IFR1+MSA SURVEY
18584.00	88.210	357.330	7293.17	11368.40	11369.82	563.23	1717738.12	14558636.29	40°05'14.211"N	104°43'24.780"W	0.00	PTB (53'FNL & 2101'FEL,SEC.01) 40.0872808 -104.7235501

HOLE & CASING SECTIONS - Ref Wellbore: VERDE 13-11HZ AWB Ref Wellpath: VERDE 13-11HZ 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	1875.00	1849.00	26.00	1841.81	0.00	0.00	-40.38	247.21

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#56 VERDE 13-11HZ (903'FNL & 2617'FWL, SEC.13)
Area	COLORADO	Well	VERDE 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-11HZ AWB
Facility	SEC.13-T1N-R66W		

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.01-T1N-R66W	-24.00	-16.73	-1836.91	1715374.02	14547246.90	40°03'21.686"N	104°43'55.650"W	polygon
SEC.12-T1N-R66W	-24.00	-16.73	-1836.91	1715374.02	14547246.90	40°03'21.686"N	104°43'55.650"W	polygon
VERDE 13-11HZ LANDBOX	7280.00	0.00	0.00	1717210.15	14547269.28	40°03'21.852"N	104°43'32.027"W	polygon
VERDE 13-11HZ SETBACK 1	7280.00	0.00	0.00	1717210.15	14547269.28	40°03'21.852"N	104°43'32.027"W	polygon
VERDE 13-11HZ SETBACK 2	7280.00	0.00	0.00	1717210.15	14547269.28	40°03'21.852"N	104°43'32.027"W	polygon
VERDE 13-11HZ HEEL REV-1(370'FNL & 2094'FEL, SEC.13)	7296.00	536.93	583.65	1717791.91	14547807.80	40°03'27.158"N	104°43'24.521"W	point
VERDE 13-11HZ BHL REV-1(52'FNL & 2082'FEL, SEC.01)	7306.00	11370.65	581.99	1717756.86	14558637.18	40°05'14.219"N	104°43'24.539"W	point
VERDE 13-11HZ BHL REV-2(52'FNL & 2107'FEL, SEC.01)	7306.00	11370.65	556.99	1717731.87	14558637.11	40°05'14.219"N	104°43'24.861"W	point

WELLPATH COMPOSITION - Ref Wellbore: VERDE 13-11HZ AWB					Ref Wellpath: VERDE 13-11HZ AWP			
Start MD [ft]	End MD [ft]	Positional Uncertainty Model			Log Name/Comment			Wellbore
26.00	1880.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)			Custom APC ISCWSA Rev-2 MWD+IFR1 <136 - 1880>			VERDE 13-11HZ AWB
1880.00	18537.00	Custom APC ISCWSA REV 2 MWD+IFR1+MSA (approximation)			BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+MSA <1933 - 18537>			VERDE 13-11HZ AWB
18537.00	18584.00	Blind Drilling (std)			Projection to bit			VERDE 13-11HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#56 VERDE 13-11HZ (903'FNL & 2617'FWL,SEC.13)
Area	COLORADO	Well	VERDE 13-11HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	VERDE 13-11HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
136.00	0.530	5.190	136.00	FIRST SURFACE MWD+IFR1 SURVEY
1880.00	18.240	102.660	1846.56	LAST SURFACE MWD+IFR1 SURVEY
1933.00	17.650	105.230	1896.98	FIRST BHGE MWD+IFR1+MSA SURVEY
6613.00	0.860	1.883	6529.02	KOP
7200.00	43.647	3.171	7053.87	ENTER LANDBOX (846'FNL & 2072'FEL,SEC.13) 40.0562268 -104.7233965
7733.00	87.635	359.930	7283.74	LANDING (380'FNL & 2069'FEL,SEC.13) 40.0575056 -104.7233884
8576.00	89.607	358.705	7289.48	CROSS SETBACK HEEL (463'FSL & 2078'FEL,SEC.12) 40.0598192 -104.7234185
18175.00	90.370	359.230	7285.12	CROSS SETBACK TOE (462'FNL & 2086'FEL,SEC.01) 40.0861591 -104.7234964
18537.00	88.210	357.330	7291.70	LAST BHGE MWD+IFR1+MSA SURVEY
18584.00	88.210	357.330	7293.17	PTB (53'FNL & 2101'FEL,SEC.01) 40.0872808 -104.7235501