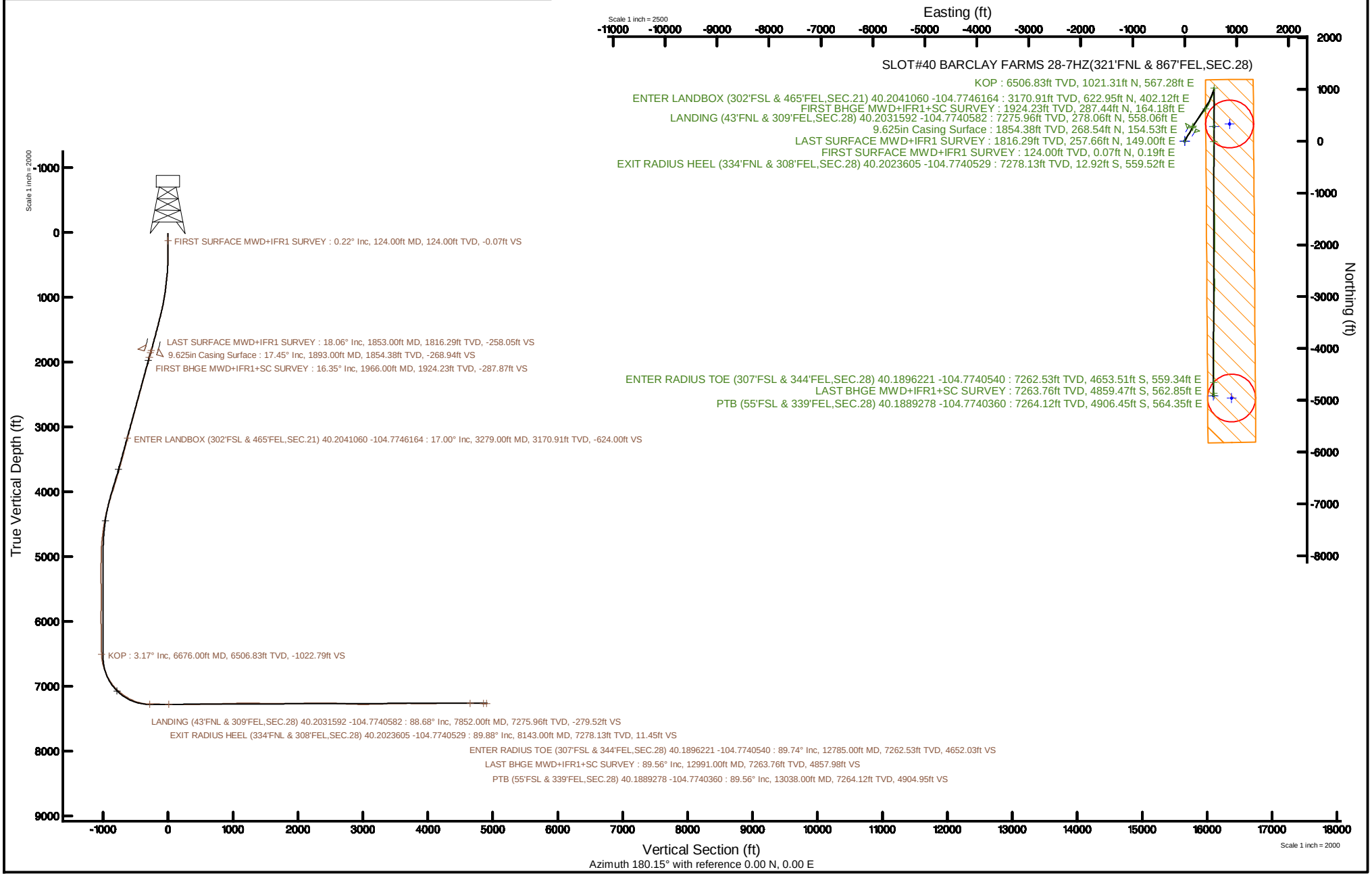
KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location:	COLORADO	Slot:	SLOT#40 BARCLAY FARMS 28-7HZ(321'FNL & 867'FEL,SEC.28)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	BARCLAY FARMS 28-7HZ
Facility:	SEC.28-T3N-R66W	Wellbore:	BARCLAY FARMS 28-7HZ PWB

Plot reference wellpath is BARCLAY FARMS 28-7HZ 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: 4963 feet	Depths are in feet
Mean Sea Level to Mud line (At Slot: SLOT#40 BARCLAY FARMS 28-7HZ(321'FNL & 867'FEL,SEC.28)): 0 feet	Created by: pairsetr on 2019-08-01
Coordinates are in feet referenced to Slot	Database: WA_DEN_Anadarko_Defn

Anadarko Petroleum Corporation

BAKER HUGHES a GE company



Actual Wellpath Report

BARCLAY FARMS 28-7HZ AWP

REFERENCE WELLPATH IDENTIFICATION			
Operator	**KERR-MCGEE OIL & GAS ONSHORE LP (WA)**	Slot	**SLOT#40 BARCLAY FARMS 28-7HZ(321'FNL & 867'FEL,SEC.28)**
Area	**COLORADO**	Well	**BARCLAY FARMS 28-7HZ**
Field	**WELD COUNTY (UTM/TRUE NORTH)**	Wellbore	**BARCLAY FARMS 28-7HZ AWB**
Facility	**SEC.28-T3N-R66W**		

REPORT SETUP INFORMATION			
Projection System	**NAD83 / UTM Zone 13 North, US feet**	Software System	**WellArchitect® 5.1**
North Reference	**True**	User	**Painsetr**
Scale	**0.999604**	Report Generated	**8/1/2019** at **9:38:18 AM**
Convergence at slot	**0.14° East**	Database/Source file	**WA_DEN_Anadarko_Defn/BARCLAY_FARMS_28-7HZ_AWP.xml**

WELLPATH LOCATION	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	**East[ft]**	**Easting[US ft]**	**Northing[US ft]**	**Latitude**	**Longitude**
Slot Location	4787.17	3946.02	1702946.87	14600514.21	**40°12'08.626"N**	**104°46'33.802"W**
Facility Reference Pt			1699013.74	14595719.64	**40°11'21.322"N**	**104°47'24.657"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	**4963.00ft**
Horizontal Reference Pt	**Slot**	Akita 522 (17') (RT) to Mean Sea Level	**4963.00ft**
Vertical Reference Pt	**Akita 522 (17') (RT)**	Akita 522 (17') (RT) to Mud Line at Slot (SLOT#40 BARCLAY FARMS 28-7HZ(321'FNL & 867'FEL,SEC.28))	**4963.00ft**
MD Reference Pt	**Akita 522 (17') (RT)**	Section Origin	**N 0.00, E 0.00 ft**
Field Vertical Reference	**Mean Sea Level**	Section Azimuth	**180.15°**

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#40 BARCLAY FARMS 28-7HZ(321'FNL & 867'FEL,SEC.28)
Area	COLORADO	Well	BARCLAY FARMS 28-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BARCLAY FARMS 28-7HZ AWB
Facility	SEC.28-T3N-R66W		

WELLPATH DATA (154 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	70.150	0.00	0.00	0.00	0.00	1702946.87	14600514.21	40°12'08.626"N	104°46'33.802"W	0.00	
17.00	0.000	70.150	17.00	0.00	0.00	0.00	1702946.87	14600514.21	40°12'08.626"N	104°46'33.802"W	0.00	
124.00	0.220	70.150	124.00	-0.07	0.07	0.19	1702947.06	14600514.28	40°12'08.626"N	104°46'33.799"W	0.21	FIRST SURFACE MWD+IFR1 SURVEY
218.00	0.130	80.960	218.00	-0.15	0.15	0.47	1702947.33	14600514.36	40°12'08.627"N	104°46'33.796"W	0.10	
313.00	0.700	63.640	313.00	-0.43	0.42	1.09	1702947.96	14600514.63	40°12'08.630"N	104°46'33.787"W	0.61	
409.00	1.710	44.310	408.97	-1.71	1.71	2.62	1702949.48	14600515.92	40°12'08.642"N	104°46'33.768"W	1.12	
504.00	3.080	31.130	503.89	-4.92	4.91	4.93	1702951.78	14600519.13	40°12'08.674"N	104°46'33.738"W	1.54	
599.00	4.570	29.720	598.68	-10.40	10.38	8.13	1702954.96	14600524.60	40°12'08.728"N	104°46'33.697"W	1.57	
695.00	6.720	24.450	694.20	-18.85	18.81	12.35	1702959.16	14600533.05	40°12'08.812"N	104°46'33.642"W	2.30	
789.00	7.380	26.640	787.49	-29.26	29.22	17.33	1702964.12	14600543.46	40°12'08.914"N	104°46'33.578"W	0.76	
885.00	8.040	27.170	882.63	-40.76	40.70	23.16	1702969.92	14600554.95	40°12'09.028"N	104°46'33.503"W	0.69	
980.00	9.930	26.470	976.46	-54.02	53.95	29.85	1702976.57	14600568.21	40°12'09.159"N	104°46'33.417"W	1.99	
1075.00	12.000	29.630	1069.72	-69.96	69.86	38.38	1702985.06	14600584.14	40°12'09.316"N	104°46'33.307"W	2.27	
1171.00	14.240	32.270	1163.21	-88.65	88.52	49.62	1702996.24	14600602.82	40°12'09.500"N	104°46'33.162"W	2.41	
1265.00	16.700	32.530	1253.79	-109.86	109.69	63.06	1703009.62	14600624.01	40°12'09.710"N	104°46'32.989"W	2.62	
1360.00	16.260	32.970	1344.89	-132.56	132.36	77.64	1703024.14	14600646.71	40°12'09.934"N	104°46'32.801"W	0.48	
1455.00	16.610	32.880	1436.01	-155.16	154.92	92.25	1703038.68	14600669.30	40°12'10.156"N	104°46'32.613"W	0.37	
1550.00	17.670	29.100	1526.79	-179.20	178.92	106.63	1703053.00	14600693.33	40°12'10.394"N	104°46'32.427"W	1.62	
1645.00	16.960	28.660	1617.49	-203.99	203.68	120.29	1703066.59	14600718.11	40°12'10.638"N	104°46'32.251"W	0.76	
1740.00	16.740	27.870	1708.41	-228.28	227.93	133.33	1703079.57	14600742.38	40°12'10.878"N	104°46'32.083"W	0.33	
1836.00	17.670	27.870	1800.11	-253.41	253.03	146.60	1703092.77	14600767.51	40°12'11.126"N	104°46'31.912"W	0.97	
1853.00	18.060	26.910	1816.29	-258.05	257.66	149.00	1703095.16	14600772.14	40°12'11.172"N	104°46'31.881"W	2.87	LAST SURFACE MWD+IFR1 SURVEY
1966.00	16.350	27.120	1924.23	-287.87	287.44	164.18	1703110.26	14600801.95	40°12'11.466"N	104°46'31.686"W	1.51	FIRST BHGE MWD+IFR1+SC SURVEY
2054.00	17.470	30.680	2008.43	-310.29	309.83	176.57	1703122.58	14600824.36	40°12'11.687"N	104°46'31.526"W	1.73	
2141.00	18.550	35.430	2091.17	-332.83	332.34	191.25	1703137.21	14600846.89	40°12'11.910"N	104°46'31.337"W	2.09	
2229.00	18.200	33.550	2174.68	-355.73	355.19	206.96	1703152.85	14600869.78	40°12'12.136"N	104°46'31.134"W	0.78	
2316.00	17.780	32.590	2257.43	-378.29	377.71	221.63	1703167.45	14600892.33	40°12'12.358"N	104°46'30.945"W	0.59	
2403.00	19.040	36.270	2339.98	-400.96	400.34	237.18	1703182.94	14600914.99	40°12'12.582"N	104°46'30.745"W	1.97	
2490.00	18.440	34.370	2422.36	-423.80	423.14	253.34	1703199.04	14600937.82	40°12'12.807"N	104°46'30.537"W	0.98	
2578.00	17.570	33.430	2506.05	-446.42	445.72	268.52	1703214.15	14600960.42	40°12'13.030"N	104°46'30.341"W	1.04	
2665.00	18.590	36.710	2588.76	-468.54	467.79	284.04	1703229.61	14600982.53	40°12'13.248"N	104°46'30.141"W	1.66	
2753.00	17.790	36.660	2672.36	-490.61	489.82	300.45	1703245.96	14601004.59	40°12'13.466"N	104°46'29.929"W	0.91	
2840.00	19.440	39.100	2754.81	-512.55	511.72	317.52	1703262.97	14601026.53	40°12'13.682"N	104°46'29.709"W	2.10	
2928.00	19.360	38.170	2837.81	-535.43	534.55	335.77	1703281.15	14601049.39	40°12'13.908"N	104°46'29.474"W	0.36	
3015.00	18.960	37.990	2919.99	-557.95	557.03	353.38	1703298.70	14601071.91	40°12'14.130"N	104°46'29.247"W	0.46	
3103.00	18.520	38.660	3003.33	-580.18	579.21	370.91	1703316.17	14601094.12	40°12'14.349"N	104°46'29.021"W	0.56	
3190.00	17.840	34.640	3085.99	-601.98	600.96	387.12	1703332.31	14601115.91	40°12'14.564"N	104°46'28.812"W	1.64	
3277.00	16.980	33.980	3169.00	-623.51	622.46	401.79	1703346.93	14601137.44	40°12'14.777"N	104°46'28.623"W	1.01	
3279.00†	17.003	33.971	3170.91	-624.00	622.95	402.12	1703347.26	14601137.92	40°12'14.782"N	104°46'28.619"W	1.17	ENTER LANDBOX (302'FSL & 465'FEL,SEC.21) 40.2041060 -104.7746164
3365.00	18.000	33.620	3252.93	-645.53	644.44	416.50	1703361.58	14601159.44	40°12'14.994"N	104°46'28.434"W	1.17	
3452.00	17.060	33.880	3335.89	-667.36	666.23	431.06	1703376.08	14601181.26	40°12'15.209"N	104°46'28.246"W	1.08	
3539.00	16.890	30.580	3419.10	-688.87	687.71	444.61	1703389.56	14601202.76	40°12'15.421"N	104°46'28.071"W	1.12	
3627.00	17.440	27.790	3503.18	-711.57	710.38	457.26	1703402.15	14601225.46	40°12'15.646"N	104°46'27.908"W	1.13	
3714.00	17.210	24.280	3586.24	-734.87	733.65	468.63	1703413.46	14601248.74	40°12'15.875"N	104°46'27.762"W	1.23	
3802.00	16.980	19.190	3670.35	-758.90	757.65	478.21	1703422.97	14601272.76	40°12'16.113"N	104°46'27.638"W	1.72	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#40 BARCLAY FARMS 28-7HZ(321'FNL & 867'FEL,SEC.28)
Area	COLORADO	Well	BARCLAY FARMS 28-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BARCLAY FARMS 28-7HZ AWB
Facility	SEC.28-T3N-R66W		

WELLPATH DATA (154 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
3889.00	17.160	19.660	3753.52	-783.01	781.73	486.70	1703431.40	14601296.86	40°12'16.351"N	104°46'27.529"W	0.26	
3977.00	17.920	23.910	3837.43	-807.63	806.34	496.56	1703441.19	14601321.47	40°12'16.594"N	104°46'27.402"W	1.69	
4065.00	18.560	23.960	3921.01	-832.84	831.51	507.73	1703452.30	14601346.67	40°12'16.843"N	104°46'27.258"W	0.73	
4152.00	19.080	22.020	4003.36	-858.70	857.35	518.68	1703463.18	14601372.52	40°12'17.098"N	104°46'27.117"W	0.94	
4240.00	18.370	20.620	4086.70	-885.04	883.66	528.96	1703473.39	14601398.85	40°12'17.358"N	104°46'26.984"W	0.95	
4327.00	17.410	18.050	4169.50	-910.27	908.87	537.82	1703482.18	14601424.07	40°12'17.607"N	104°46'26.870"W	1.43	
4414.00	14.110	16.700	4253.21	-932.83	931.41	544.90	1703489.20	14601446.61	40°12'17.830"N	104°46'26.779"W	3.82	
4502.00	12.200	14.140	4338.90	-952.14	950.70	550.26	1703494.51	14601465.91	40°12'18.020"N	104°46'26.710"W	2.27	
4589.00	11.130	13.120	4424.10	-969.24	967.79	554.41	1703498.61	14601483.01	40°12'18.189"N	104°46'26.656"W	1.25	
4677.00	9.660	7.910	4510.66	-984.83	983.38	557.35	1703501.52	14601498.60	40°12'18.343"N	104°46'26.618"W	1.98	
4764.00	8.160	11.410	4596.61	-998.12	996.66	559.58	1703503.71	14601511.88	40°12'18.475"N	104°46'26.590"W	1.83	
4852.00	7.030	7.210	4683.83	-1009.59	1008.12	561.49	1703505.59	14601523.35	40°12'18.588"N	104°46'26.565"W	1.43	
4940.00	5.240	354.080	4771.33	-1018.93	1017.47	561.75	1703505.83	14601532.68	40°12'18.680"N	104°46'26.562"W	2.57	
5051.00	1.850	331.190	4882.11	-1025.54	1024.08	560.37	1703504.43	14601539.29	40°12'18.745"N	104°46'26.579"W	3.25	
5138.00	1.860	0.790	4969.06	-1028.18	1026.72	559.71	1703503.76	14601541.93	40°12'18.772"N	104°46'26.588"W	1.09	
5226.00	0.990	317.020	5057.04	-1030.17	1028.71	559.21	1703503.26	14601543.91	40°12'18.791"N	104°46'26.594"W	1.52	
5314.00	0.770	308.520	5145.03	-1031.09	1029.63	558.23	1703502.28	14601544.83	40°12'18.800"N	104°46'26.607"W	0.29	
5402.00	0.570	300.730	5233.02	-1031.68	1030.22	557.39	1703501.44	14601545.42	40°12'18.806"N	104°46'26.618"W	0.25	
5489.00	0.420	240.920	5320.02	-1031.74	1030.29	556.74	1703500.79	14601545.49	40°12'18.807"N	104°46'26.626"W	0.59	
5577.00	1.250	138.930	5408.01	-1030.86	1029.41	557.09	1703501.14	14601544.61	40°12'18.798"N	104°46'26.622"W	1.59	
5664.00	0.710	125.050	5495.00	-1029.84	1028.38	558.15	1703502.20	14601543.59	40°12'18.788"N	104°46'26.608"W	0.67	
5752.00	0.520	99.570	5582.99	-1029.46	1028.00	558.99	1703503.04	14601543.21	40°12'18.784"N	104°46'26.597"W	0.37	
5839.00	0.500	82.680	5669.99	-1029.45	1027.99	559.76	1703503.81	14601543.19	40°12'18.784"N	104°46'26.587"W	0.17	
5927.00	0.650	38.430	5757.99	-1029.89	1028.43	560.45	1703504.50	14601543.64	40°12'18.788"N	104°46'26.578"W	0.52	
6014.00	0.590	12.180	5844.98	-1030.72	1029.25	560.85	1703504.90	14601544.46	40°12'18.797"N	104°46'26.573"W	0.33	
6102.00	0.480	147.450	5932.98	-1030.85	1029.38	561.15	1703505.19	14601544.59	40°12'18.798"N	104°46'26.569"W	1.13	
6190.00	0.090	10.130	6020.98	-1030.61	1029.14	561.36	1703505.40	14601544.35	40°12'18.795"N	104°46'26.567"W	0.62	
6277.00	2.060	163.060	6107.96	-1029.18	1027.71	561.82	1703505.87	14601542.92	40°12'18.781"N	104°46'26.561"W	2.46	
6365.00	1.780	165.330	6195.91	-1026.35	1024.88	562.63	1703506.69	14601540.09	40°12'18.753"N	104°46'26.550"W	0.33	
6452.00	1.330	100.580	6282.88	-1024.86	1023.38	563.97	1703508.03	14601538.60	40°12'18.739"N	104°46'26.533"W	1.96	
6540.00	0.950	90.950	6370.87	-1024.66	1023.18	565.70	1703509.76	14601538.41	40°12'18.737"N	104°46'26.511"W	0.48	
6627.00	0.700	129.360	6457.86	-1024.32	1022.83	566.83	1703510.89	14601538.06	40°12'18.733"N	104°46'26.496"W	0.68	
6676.00†	3.172	170.603	6506.83	-1022.79	1021.31	567.28	1703511.35	14601536.54	40°12'18.718"N	104°46'26.490"W	5.48	KOP
6715.00	5.290	174.590	6545.72	-1019.94	1018.45	567.63	1703511.70	14601533.68	40°12'18.690"N	104°46'26.486"W	5.48	
6802.00	11.660	182.480	6631.73	-1007.15	1005.66	567.63	1703511.73	14601520.90	40°12'18.563"N	104°46'26.486"W	7.43	
6890.00	16.920	185.340	6716.98	-985.49	984.01	566.05	1703510.21	14601499.26	40°12'18.350"N	104°46'26.506"W	6.03	
6977.00	22.840	186.270	6798.76	-956.07	954.60	563.02	1703507.26	14601469.84	40°12'18.059"N	104°46'26.545"W	6.81	
7065.00	28.170	182.770	6878.16	-918.31	916.84	560.15	1703504.48	14601432.10	40°12'17.686"N	104°46'26.582"W	6.29	
7152.00	35.400	178.410	6952.07	-872.54	871.08	559.86	1703504.31	14601386.35	40°12'17.233"N	104°46'26.586"W	8.71	
7239.00	42.080	177.260	7019.89	-818.17	816.71	561.96	1703506.54	14601332.00	40°12'16.696"N	104°46'26.559"W	7.72	
7327.00	48.890	178.620	7081.55	-755.51	754.04	564.17	1703508.90	14601269.36	40°12'16.077"N	104°46'26.531"W	7.82	
7414.00	54.550	180.310	7135.43	-687.25	685.78	564.76	1703509.67	14601201.13	40°12'15.402"N	104°46'26.523"W	6.68	
7502.00	60.210	181.280	7182.85	-613.17	611.70	563.72	1703508.81	14601127.08	40°12'14.670"N	104°46'26.536"W	6.50	
7589.00	67.370	180.560	7221.25	-535.17	533.70	562.48	1703507.77	14601049.11	40°12'13.900"N	104°46'26.552"W	8.26	
7677.00	74.280	181.200	7250.14	-452.11	450.64	561.19	1703506.70	14600966.09	40°12'13.079"N	104°46'26.569"W	7.88	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#40 BARCLAY FARMS 28-7HZ(321'FNL & 867'FEL,SEC.28)
Area	COLORADO	Well	BARCLAY FARMS 28-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BARCLAY FARMS 28-7HZ AWB
Facility	SEC.28-T3N-R66W		

WELLPATH DATA (154 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
7764.00	81.460	181.300	7268.41	-367.13	365.66	559.34	1703505.06	14600881.14	40°12'12.239"N	104°46'26.593"W	8.25	
7852.00	88.680	180.380	7275.96	-279.52	278.06	558.06	1703504.00	14600793.56	40°12'11.373"N	104°46'26.609"W	8.27	LANDING (43'FNL & 309'FEL,SEC.28) 40.2031592 -104.7740582
7939.00	90.500	179.690	7276.59	-192.52	191.06	558.00	1703504.17	14600706.60	40°12'10.514"N	104°46'26.610"W	2.24	
8027.00	88.910	179.180	7277.04	-104.53	103.07	558.87	1703505.25	14600618.65	40°12'09.644"N	104°46'26.599"W	1.90	
8115.00	89.780	179.980	7278.05	-16.55	15.08	559.52	1703506.12	14600530.70	40°12'08.775"N	104°46'26.591"W	1.34	
8143.00†	89.883	179.996	7278.13	11.45	-12.92	559.52	1703506.20	14600502.71	40°12'08.498"N	104°46'26.591"W	0.37	EXIT RADIUS HEEL (334'FNL & 308'FEL,SEC.28) 40.2023605 -104.7740529
8202.00	90.100	180.030	7278.14	70.45	-71.92	559.51	1703506.33	14600443.73	40°12'07.915"N	104°46'26.591"W	0.37	
8290.00	90.080	179.470	7278.00	158.45	-159.92	559.89	1703506.94	14600355.77	40°12'07.045"N	104°46'26.586"W	0.64	
8377.00	89.350	178.660	7278.43	245.43	-246.90	561.31	1703508.58	14600268.82	40°12'06.186"N	104°46'26.568"W	1.25	
8465.00	89.820	179.760	7279.07	333.42	-334.89	562.53	1703510.01	14600180.87	40°12'05.316"N	104°46'26.552"W	1.36	
8552.00	91.100	181.080	7278.37	420.41	-421.88	561.89	1703509.59	14600093.91	40°12'04.457"N	104°46'26.560"W	2.11	
8639.00	91.210	180.900	7276.62	507.38	-508.85	560.39	1703508.31	14600006.97	40°12'03.597"N	104°46'26.580"W	0.24	
8727.00	90.180	179.710	7275.55	595.37	-596.84	559.92	1703508.06	14599919.02	40°12'02.728"N	104°46'26.586"W	1.79	
8814.00	90.850	180.160	7274.77	682.37	-683.84	560.02	1703508.38	14599832.06	40°12'01.868"N	104°46'26.584"W	0.93	
8902.00	92.210	180.340	7272.42	770.33	-771.80	559.63	1703508.22	14599744.13	40°12'00.999"N	104°46'26.589"W	1.56	
8989.00	92.550	179.950	7268.80	857.26	-858.73	559.41	1703508.22	14599657.24	40°12'00.140"N	104°46'26.592"W	0.59	
9077.00	91.190	179.110	7265.93	945.20	-946.67	560.13	1703509.16	14599569.33	40°11'59.271"N	104°46'26.583"W	1.82	
9164.00	91.490	177.860	7263.90	1032.14	-1033.62	562.43	1703511.68	14599482.42	40°11'58.411"N	104°46'26.553"W	1.48	
9252.00	90.250	178.690	7262.56	1120.08	-1121.57	565.08	1703514.55	14599394.52	40°11'57.542"N	104°46'26.519"W	1.70	
9340.00	90.640	178.310	7261.88	1208.04	-1209.53	567.39	1703517.08	14599306.59	40°11'56.673"N	104°46'26.490"W	0.62	
9427.00	89.420	178.750	7261.83	1295.01	-1296.50	569.62	1703519.53	14599219.66	40°11'55.814"N	104°46'26.461"W	1.49	
9515.00	89.040	177.380	7263.02	1382.94	-1384.44	572.59	1703522.72	14599131.77	40°11'54.945"N	104°46'26.423"W	1.62	
9602.00	89.070	179.730	7264.45	1469.89	-1471.40	574.78	1703525.13	14599044.85	40°11'54.085"N	104°46'26.394"W	2.70	
9689.00	89.850	179.170	7265.27	1556.87	-1558.39	575.62	1703526.18	14598957.90	40°11'53.226"N	104°46'26.384"W	1.10	
9777.00	90.960	179.720	7264.65	1644.86	-1646.38	576.47	1703527.26	14598869.94	40°11'52.356"N	104°46'26.373"W	1.41	
9863.00	89.820	180.890	7264.06	1730.86	-1732.37	576.01	1703527.02	14598783.98	40°11'51.506"N	104°46'26.379"W	1.90	
9951.00	89.530	180.550	7264.56	1818.85	-1820.36	574.91	1703526.13	14598696.02	40°11'50.637"N	104°46'26.393"W	0.51	
10038.00	89.580	180.500	7265.24	1905.85	-1907.36	574.11	1703525.56	14598609.06	40°11'49.777"N	104°46'26.403"W	0.08	
10126.00	90.360	180.380	7265.28	1993.85	-1995.35	573.43	1703525.10	14598521.10	40°11'48.907"N	104°46'26.412"W	0.90	
10213.00	91.750	180.800	7263.68	2080.83	-2082.33	572.54	1703524.43	14598434.15	40°11'48.048"N	104°46'26.423"W	1.67	
10301.00	90.080	180.440	7262.28	2168.81	-2170.31	571.58	1703523.70	14598346.21	40°11'47.179"N	104°46'26.436"W	1.94	
10389.00	90.870	180.280	7261.55	2256.80	-2258.31	571.03	1703523.37	14598258.25	40°11'46.309"N	104°46'26.443"W	0.92	
10476.00	89.130	180.540	7261.55	2343.80	-2345.30	570.41	1703522.96	14598171.28	40°11'45.449"N	104°46'26.451"W	2.02	
10564.00	88.880	180.020	7263.08	2431.79	-2433.29	569.98	1703522.75	14598083.33	40°11'44.580"N	104°46'26.457"W	0.66	
10651.00	91.010	179.510	7263.16	2518.78	-2520.28	570.34	1703523.33	14597996.38	40°11'43.720"N	104°46'26.452"W	2.52	
10739.00	87.700	179.210	7264.15	2606.75	-2608.26	571.32	1703524.53	14597908.44	40°11'42.851"N	104°46'26.439"W	3.78	
10826.00	87.480	178.730	7267.81	2693.66	-2695.17	572.88	1703526.32	14597821.57	40°11'41.992"N	104°46'26.419"W	0.61	
10914.00	86.510	180.690	7272.42	2781.53	-2783.04	573.33	1703526.98	14597733.73	40°11'41.124"N	104°46'26.414"W	2.48	
11001.00	88.850	180.780	7275.94	2868.45	-2869.95	572.21	1703526.09	14597646.85	40°11'40.265"N	104°46'26.428"W	2.69	
11089.00	88.880	180.330	7277.69	2956.43	-2957.93	571.36	1703525.46	14597558.90	40°11'39.395"N	104°46'26.439"W	0.51	
11176.00	90.820	181.830	7277.91	3043.41	-3044.91	569.72	1703524.04	14597471.96	40°11'38.536"N	104°46'26.460"W	2.82	
11263.00	91.520	181.360	7276.14	3130.36	-3131.86	567.30	1703521.84	14597385.04	40°11'37.677"N	104°46'26.491"W	0.97	
11351.00	92.700	181.480	7272.90	3218.28	-3219.77	565.12	1703519.88	14597297.15	40°11'36.808"N	104°46'26.519"W	1.35	
11439.00	90.810	180.990	7270.20	3306.22	-3307.70	563.22	1703518.21	14597209.25	40°11'35.939"N	104°46'26.544"W	2.22	
11526.00	90.640	180.180	7269.10	3393.21	-3394.69	562.34	1703517.54	14597122.30	40°11'35.079"N	104°46'26.555"W	0.95	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#40 BARCLAY FARMS 28-7HZ(321'FNL & 867'FEL,SEC.28)
Area	COLORADO	Well	BARCLAY FARMS 28-7HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	BARCLAY FARMS 28-7HZ AWB
Facility	SEC.28-T3N-R66W		

WELLPATH DATA (154 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
11614.00	91.730	179.300	7267.28	3481.18	-3482.67	562.73	1703518.16	14597034.35	40°11'34.210"N	104°46'26.550"W	1.59	
11701.00	90.590	180.240	7265.52	3568.16	-3569.65	563.08	1703518.73	14596947.41	40°11'33.350"N	104°46'26.546"W	1.70	
11789.00	91.530	179.960	7263.89	3656.15	-3657.63	562.93	1703518.80	14596859.46	40°11'32.481"N	104°46'26.548"W	1.11	
11877.00	88.880	180.440	7263.58	3744.14	-3745.62	562.62	1703518.71	14596771.51	40°11'31.611"N	104°46'26.552"W	3.06	
11964.00	89.110	180.180	7265.10	3831.12	-3832.61	562.15	1703518.46	14596684.55	40°11'30.752"N	104°46'26.558"W	0.40	
12052.00	89.920	179.920	7265.85	3919.12	-3920.60	562.08	1703518.60	14596596.59	40°11'29.882"N	104°46'26.559"W	0.97	
12138.00	90.920	179.470	7265.22	4005.11	-4006.60	562.53	1703519.28	14596510.63	40°11'29.032"N	104°46'26.553"W	1.28	
12226.00	90.480	181.090	7264.14	4093.10	-4094.59	562.10	1703519.07	14596422.68	40°11'28.163"N	104°46'26.559"W	1.91	
12313.00	91.330	181.550	7262.77	4180.07	-4181.55	560.10	1703517.29	14596335.74	40°11'27.303"N	104°46'26.584"W	1.11	
12401.00	89.780	180.640	7261.92	4268.05	-4269.53	558.42	1703515.83	14596247.80	40°11'26.434"N	104°46'26.606"W	2.04	
12488.00	89.880	179.940	7262.17	4355.05	-4356.53	557.98	1703515.61	14596160.83	40°11'25.574"N	104°46'26.612"W	0.81	
12576.00	90.390	178.680	7261.97	4443.04	-4444.52	559.04	1703516.89	14596072.88	40°11'24.705"N	104°46'26.598"W	1.54	
12664.00	89.650	180.590	7261.94	4531.03	-4532.51	559.60	1703517.67	14595984.92	40°11'23.835"N	104°46'26.591"W	2.33	
12751.00	89.760	179.910	7262.38	4618.03	-4619.51	559.22	1703517.51	14595897.96	40°11'22.976"N	104°46'26.596"W	0.79	
12785.00†	89.745	179.678	7262.53	4652.03	-4653.51	559.34	1703517.72	14595863.97	40°11'22.640"N	104°46'26.594"W	0.68	ENTER RADIUS TOE (307'FSL & 344'FEL,SEC.28) 40.1896221 -104.7740540
12839.00	89.720	179.310	7262.78	4706.03	-4707.51	559.82	1703518.33	14595810.00	40°11'22.106"N	104°46'26.588"W	0.68	
12926.00	89.610	178.890	7263.29	4793.01	-4794.49	561.18	1703519.92	14595723.05	40°11'21.246"N	104°46'26.571"W	0.50	
12991.00	89.560	178.170	7263.76	4857.98	-4859.47	562.85	1703521.75	14595658.10	40°11'20.604"N	104°46'26.549"W	1.11	LAST BHGE MWD+IFR1+SC SURVEY
13038.00	89.560	178.170	7264.12	4904.95	-4906.45	564.35	1703523.37	14595611.15	40°11'20.140"N	104°46'26.530"W	0.00	PTB (55'FSL & 339'FEL,SEC.28) 40.1889278 -104.7740360

HOLE & CASING SECTIONS - Ref Wellbore: BARCLAY FARMS 28-7HZ AWB Ref Wellpath: BARCLAY FARMS 28-7HZ 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	1893.00	1876.00	17.00	1854.38	0.00	0.00	268.54	154.53

TARGETS

Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.28-T3N-R66W	0.00	0.00	0.00	1702946.87	14600514.21	40°12'08.626"N	104°46'33.802"W	polygon
BARCLAY FARMS 28-7HZ BHL REV-1(50'FSL & 351'FEL,SEC.28)	7257.00	-4910.75	552.07	1703511.10	14595606.82	**40°11'20.098"N**	**104°46'26.688"W**	point
BARCLAY FARMS 28-7HZ HEEL REV-1(50'FNL & 299'FEL,SEC.28)	7279.00	277.24	565.65	1703511.59	14600792.76	**40°12'11.365"N**	**104°46'26.512"W**	point
BARCLAY FARMS 28-7HZ LANDBOX	7279.00	0.00	0.00	1702946.87	14600514.21	40°12'08.626"N	104°46'33.802"W	polygon
BARCLAY FARMS 28-7HZ RADIUS 1	7279.00	-4957.37	903.59	**1703862.60**	**14595561.10**	40°11'19.637"N	104°46'22.159"W	polygon
BARCLAY FARMS 28-7HZ RADIUS 2	7279.00	330.84	864.21	**1703809.90**	**14600847.10**	40°12'11.895"N	104°46'22.664"W	polygon

REFERENCE WELLPATH IDENTIFICATION			
Operator	**KERR-MCGEE OIL & GAS ONSHORE LP (WA)**	Slot	**SLOT#40 BARCLAY FARMS 28-7HZ(321'FNL & 867'FEL,SEC.28)**
Area	**COLORADO**	Well	**BARCLAY FARMS 28-7HZ**
Field	**WELD COUNTY (UTM/TRUE NORTH)**	Wellbore	**BARCLAY FARMS 28-7HZ AWB**
Facility	**SEC.28-T3N-R66W**		

WELLPATH COMPOSITION - Ref Wellbore: BARCLAY FARMS 28-7HZ AWB Ref Wellpath: BARCLAY FARMS 28-7HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1853.00	Custom APC_ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <124 - 1853>	BARCLAY FARMS 28-7HZ AWB
1853.00	12991.00	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1966 - 12991>	BARCLAY FARMS 28-7HZ AWB
12991.00	13038.00	Blind Drilling (std)	Projection to bit	BARCLAY FARMS 28-7HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	**KERR-MCGEE OIL & GAS ONSHORE LP (WA)**	Slot	**SLOT#40 BARCLAY FARMS 28-7HZ(321'FNL & 867'FEL,SEC.28)**
Area	**COLORADO**	Well	**BARCLAY FARMS 28-7HZ**
Field	**WELD COUNTY (UTM/TRUE NORTH)**	Wellbore	**BARCLAY FARMS 28-7HZ AWB**
Facility	**SEC.28-T3N-R66W**		

WELLPATH COMMENTS

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
124.00	0.220	70.150	124.00	FIRST SURFACE MWD+IFR1 SURVEY
1853.00	18.060	26.910	1816.29	LAST SURFACE MWD+IFR1 SURVEY
1966.00	16.350	27.120	1924.23	FIRST BHGE MWD+IFR1+SC SURVEY
3279.00	17.003	33.971	3170.91	ENTER LANDBOX (302'FSL & 465'FEL,SEC.21) 40.2041060 -104.7746164
6676.00	3.172	170.603	6506.83	KOP
7852.00	88.680	180.380	7275.96	LANDING (43'FNL & 309'FEL,SEC.28) 40.2031592 -104.7740582
8143.00	89.883	179.996	7278.13	EXIT RADIUS HEEL (334'FNL & 308'FEL,SEC.28) 40.2023605 -104.7740529
12785.00	89.745	179.678	7262.53	ENTER RADIUS TOE (307'FSL & 344'FEL,SEC.28) 40.1896221 -104.7740540
12991.00	89.560	178.170	7263.76	LAST BHGE MWD+IFR1+SC SURVEY
13038.00	89.560	178.170	7264.12	PTB (55'FSL & 339'FEL,SEC.28) 40.1889278 -104.7740360