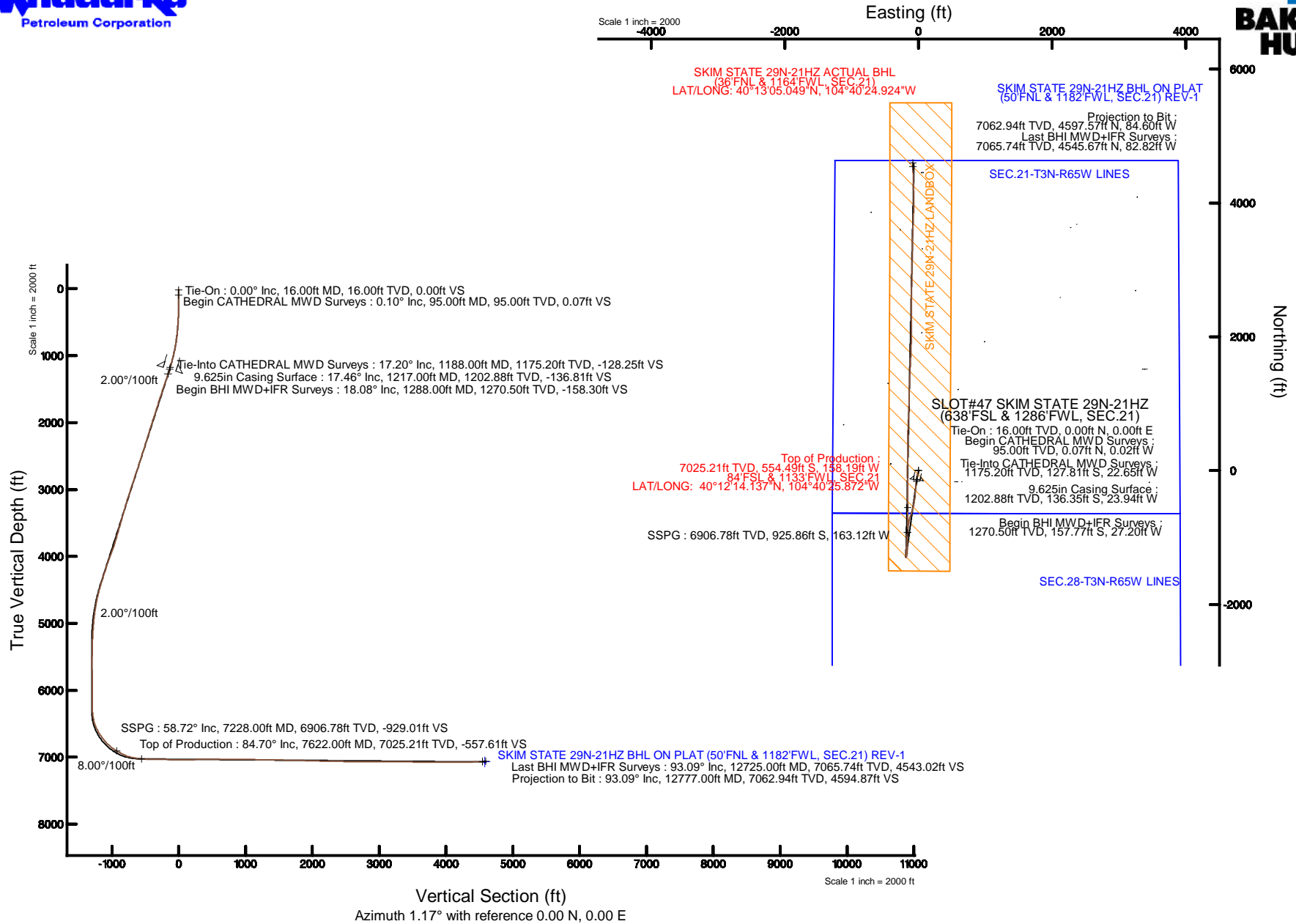


# KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#47 SKIM STATE 29N-21HZ (638'FSL & 1286'FWL, SEC.21)  
 Field: WELD COUNTY (UTM/TRUE NORTH) Well: SKIM STATE 29N-21HZ  
 Facility: SEC.21-T3N-R65W Wellbore: SKIM STATE 29N-21HZ PWB

Plot reference wellpath is SKIM STATE 29N-21HZ (REV-A.0) PWB	
True vertical depths are referenced to XTREME 23 (16'KB) (RKB)	Grid System: NAD83 / UTM Zone 13 North, US feet
Measured depths are referenced to XTREME 23 (16'KB) (RKB)	North Reference: True north
XTREME 23 (16'KB) (RKB) to Mean Sea Level: 4862 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#47 SKIM STATE 29N-21HZ (638'FSL & 1286'FWL, SEC.21)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: precain on 6/10/2015



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#47 SKIM STATE 29N-21HZ (638'FSL & 1286'FWL, SEC.21)
Area	COLORADO	Well	SKIM STATE 29N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	SKIM STATE 29N-21HZ AWB <12777>
Facility	SEC.21-T3N-R65W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 4.1.1
North Reference	True	User	Precain
Scale	0.99961	Report Generated	6/10/2015 at 11:49:12 AM
Convergence at slot	0.21° East	Database/Source file	WellArchitectAPC/SKIM_STATE_29N-21HZ_AWB__12777_.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-3679.68	-2367.81	1731638.23	14601714.98	40°12'19.616"N	104°40'23.833"W
Facility Reference Pt			1733991.21	14605402.13	40°12'55.980"N	104°39'53.316"W
Field Reference Pt			1698235.31	14552047.82	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	XTREME 23 (16'KB) (RKB) to Facility Vertical Datum	4862.00ft
Horizontal Reference Pt	Slot	XTREME 23 (16'KB) (RKB) to Mean Sea Level	4862.00ft
Vertical Reference Pt	XTREME 23 (16'KB) (RKB)	XTREME 23 (16'KB) (RKB) to Mud Line at Slot (SLOT#47 SKIM STATE 29N-21HZ (638'FSL & 1286'FWL, SEC.21))	4862.00ft
MD Reference Pt	XTREME 23 (16'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	1.17°

REFERENCE WELLPATH IDENTIFICATION			
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Area	COLORADO	Well	SKIM STATE 29N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	SKIM STATE 29N-21HZ AWB <12777>
Facility	SEC.21-T3N-R65W		

WELLPATH DATA (133 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
0.00†	0.000	343.500	0.00	0.00	0.00	0.00	40°12'19.616"N	104°40'23.833"W	0.00	
16.00	0.000	343.500	16.00	0.00	0.00	0.00	40°12'19.616"N	104°40'23.833"W	0.00	Tie-On
95.00	0.100	343.500	95.00	0.07	0.07	-0.02	40°12'19.617"N	104°40'23.833"W	0.13	Begin CATHEDRAL MWD Surveys
152.00	0.200	97.200	152.00	0.10	0.10	0.06	40°12'19.617"N	104°40'23.832"W	0.45	
213.00	0.400	175.100	213.00	-0.12	-0.12	0.19	40°12'19.615"N	104°40'23.831"W	0.67	
271.00	0.900	186.100	271.00	-0.78	-0.78	0.16	40°12'19.609"N	104°40'23.831"W	0.88	
329.00	1.600	180.200	328.98	-2.04	-2.04	0.11	40°12'19.596"N	104°40'23.832"W	1.23	
387.00	2.200	182.700	386.95	-3.96	-3.96	0.05	40°12'19.577"N	104°40'23.833"W	1.04	
445.00	2.700	181.500	444.90	-6.44	-6.44	-0.04	40°12'19.553"N	104°40'23.834"W	0.87	
510.00	3.200	186.000	509.81	-9.78	-9.78	-0.27	40°12'19.520"N	104°40'23.837"W	0.85	
573.00	4.400	187.300	572.67	-13.93	-13.92	-0.76	40°12'19.479"N	104°40'23.843"W	1.91	
638.00	5.800	186.800	637.41	-19.68	-19.66	-1.46	40°12'19.422"N	104°40'23.852"W	2.15	
701.00	6.900	192.100	700.02	-26.57	-26.52	-2.63	40°12'19.354"N	104°40'23.867"W	1.98	
765.00	8.400	194.900	763.45	-34.88	-34.79	-4.64	40°12'19.273"N	104°40'23.893"W	2.41	
829.00	9.600	193.000	826.66	-44.65	-44.51	-7.04	40°12'19.177"N	104°40'23.924"W	1.93	
894.00	10.900	190.100	890.63	-56.02	-55.84	-9.34	40°12'19.065"N	104°40'23.954"W	2.15	
957.00	12.400	191.100	952.33	-68.57	-68.35	-11.69	40°12'18.941"N	104°40'23.984"W	2.40	
1020.00	14.200	192.000	1013.63	-82.83	-82.54	-14.60	40°12'18.801"N	104°40'24.021"W	2.88	
1084.00	15.900	190.900	1075.44	-99.18	-98.83	-17.89	40°12'18.640"N	104°40'24.064"W	2.69	
1147.00	16.400	188.700	1135.95	-116.50	-116.10	-20.86	40°12'18.469"N	104°40'24.102"W	1.25	
1188.00	17.200	188.600	1175.20	-128.25	-127.81	-22.65	40°12'18.353"N	104°40'24.125"W	1.95	Tie-Into CATHEDRAL MWD Surveys
1288.00	18.080	188.700	1270.50	-158.30	-157.77	-27.20	40°12'18.057"N	104°40'24.184"W	0.88	Begin BHI MWD+IFR Surveys
1383.00	18.790	188.500	1360.62	-188.09	-187.48	-31.70	40°12'17.764"N	104°40'24.242"W	0.75	
1574.00	19.270	184.750	1541.19	-250.05	-249.31	-38.85	40°12'17.153"N	104°40'24.334"W	0.69	
1669.00	17.600	186.740	1631.31	-280.00	-279.20	-41.84	40°12'16.857"N	104°40'24.372"W	1.88	
1859.00	17.050	183.670	1812.70	-336.42	-335.52	-46.99	40°12'16.301"N	104°40'24.439"W	0.56	
1955.00	18.560	183.190	1904.09	-365.75	-364.82	-48.74	40°12'16.011"N	104°40'24.461"W	1.58	
2050.00	17.920	186.330	1994.32	-395.41	-394.45	-51.20	40°12'15.718"N	104°40'24.493"W	1.23	
2145.00	17.740	191.720	2084.77	-424.20	-423.15	-55.75	40°12'15.435"N	104°40'24.552"W	1.75	
2335.00	16.780	187.270	2266.22	-479.93	-478.70	-65.10	40°12'14.886"N	104°40'24.672"W	0.86	
2430.00	17.790	190.130	2356.93	-507.91	-506.59	-69.39	40°12'14.610"N	104°40'24.727"W	1.39	
2526.00	18.880	195.050	2448.06	-537.47	-536.03	-76.00	40°12'14.319"N	104°40'24.813"W	1.97	
2621.00	18.290	194.470	2538.10	-566.90	-565.31	-83.72	40°12'14.030"N	104°40'24.912"W	0.65	
2716.00	17.480	196.140	2628.51	-595.19	-593.45	-91.41	40°12'13.752"N	104°40'25.011"W	1.01	
2812.00	19.560	197.650	2719.54	-624.54	-622.61	-100.29	40°12'13.464"N	104°40'25.126"W	2.22	
3002.00	19.520	198.690	2898.59	-685.31	-682.99	-120.10	40°12'12.867"N	104°40'25.381"W	0.18	
3097.00	19.140	198.700	2988.24	-715.29	-712.78	-130.18	40°12'12.573"N	104°40'25.511"W	0.40	
3192.00	18.090	194.710	3078.27	-744.49	-741.80	-138.92	40°12'12.286"N	104°40'25.624"W	1.74	
3287.00	17.940	188.170	3168.62	-773.35	-770.55	-144.75	40°12'12.002"N	104°40'25.699"W	2.13	
3383.00	15.630	187.920	3260.53	-800.87	-798.00	-148.63	40°12'11.731"N	104°40'25.749"W	2.41	
3478.00	15.600	186.600	3352.02	-826.30	-823.36	-151.86	40°12'11.480"N	104°40'25.790"W	0.38	
3573.00	15.830	187.050	3443.47	-851.90	-848.91	-154.92	40°12'11.228"N	104°40'25.830"W	0.27	
3668.00	16.820	187.080	3534.64	-878.47	-875.41	-158.20	40°12'10.966"N	104°40'25.872"W	1.04	
3763.00	15.300	182.090	3625.93	-904.67	-901.58	-160.36	40°12'10.707"N	104°40'25.900"W	2.16	
3858.00	16.690	183.400	3717.25	-930.84	-927.72	-161.62	40°12'10.449"N	104°40'25.916"W	1.51	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#47 SKIM STATE 29N-21HZ (638'FSL & 1286'FWL, SEC.21)
Area	COLORADO	Well	SKIM STATE 29N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	SKIM STATE 29N-21HZ AWB <12777>
Facility	SEC.21-T3N-R65W		

WELLPATH DATA (133 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
3953.00	17.730	184.520	3808.00	-958.91	-955.76	-163.57	40°12'10.172"N	104°40'25.941"W	1.15	
4048.00	20.360	187.030	3897.79	-989.80	-986.59	-166.73	40°12'09.867"N	104°40'25.982"W	2.90	
4239.00	19.600	184.660	4077.30	-1054.83	-1051.50	-173.40	40°12'09.226"N	104°40'26.068"W	0.58	
4431.00	16.790	179.110	4259.69	-1114.70	-1111.34	-175.59	40°12'08.634"N	104°40'26.096"W	1.72	
4526.00	17.850	186.630	4350.40	-1142.91	-1139.52	-177.06	40°12'08.356"N	104°40'26.115"W	2.61	
4622.00	16.260	186.360	4442.17	-1170.95	-1167.50	-180.25	40°12'08.079"N	104°40'26.156"W	1.66	
4718.00	15.170	185.370	4534.58	-1196.86	-1193.36	-182.91	40°12'07.824"N	104°40'26.190"W	1.17	
4813.00	12.740	188.930	4626.77	-1219.64	-1216.09	-185.70	40°12'07.599"N	104°40'26.226"W	2.71	
4909.00	9.630	186.180	4720.94	-1238.13	-1234.53	-188.21	40°12'07.417"N	104°40'26.259"W	3.29	
5004.00	8.060	180.580	4814.81	-1252.71	-1249.09	-189.13	40°12'07.273"N	104°40'26.271"W	1.88	
5100.00	6.490	175.900	4910.03	-1264.84	-1261.24	-188.81	40°12'07.153"N	104°40'26.267"W	1.75	
5195.00	5.410	165.520	5004.52	-1274.50	-1270.93	-187.31	40°12'07.057"N	104°40'26.247"W	1.60	
5290.00	3.760	183.770	5099.22	-1281.92	-1278.37	-186.39	40°12'06.984"N	104°40'26.235"W	2.30	
5385.00	2.850	183.440	5194.06	-1287.40	-1283.84	-186.74	40°12'06.930"N	104°40'26.240"W	0.96	
5481.00	2.030	184.640	5289.97	-1291.48	-1287.92	-187.02	40°12'06.889"N	104°40'26.243"W	0.86	
5672.00	0.950	224.690	5480.91	-1296.00	-1292.41	-188.41	40°12'06.845"N	104°40'26.261"W	0.75	
5862.00	0.520	333.490	5670.90	-1296.38	-1292.76	-189.90	40°12'06.841"N	104°40'26.281"W	0.64	
6243.00	2.150	85.540	6051.81	-1294.15	-1290.66	-183.55	40°12'06.862"N	104°40'26.199"W	0.63	
6338.00	0.960	137.970	6146.78	-1294.55	-1291.11	-181.24	40°12'06.858"N	104°40'26.169"W	1.83	
6433.00	0.440	45.160	6241.77	-1294.87	-1291.45	-180.44	40°12'06.854"N	104°40'26.159"W	1.13	
6529.00	7.140	17.040	6337.51	-1288.86	-1285.47	-178.43	40°12'06.913"N	104°40'26.133"W	7.04	
6624.00	10.120	13.730	6431.43	-1275.03	-1271.72	-174.72	40°12'07.049"N	104°40'26.085"W	3.18	
6718.00	21.710	8.310	6521.67	-1249.63	-1246.41	-170.23	40°12'07.299"N	104°40'26.027"W	12.42	
6813.00	28.590	1.590	6607.63	-1209.41	-1206.24	-167.06	40°12'07.696"N	104°40'25.986"W	7.83	
6908.00	35.050	0.280	6688.31	-1159.35	-1156.19	-166.29	40°12'08.191"N	104°40'25.976"W	6.84	
7004.00	41.030	359.290	6763.89	-1100.24	-1097.06	-166.55	40°12'08.775"N	104°40'25.980"W	6.26	
7099.00	48.640	0.810	6831.21	-1033.33	-1030.13	-166.43	40°12'09.437"N	104°40'25.978"W	8.09	
7194.00	56.870	2.320	6888.66	-957.77	-954.61	-164.31	40°12'10.183"N	104°40'25.951"W	8.75	
7228.00†	58.722	2.452	6906.78	-929.01	-925.86	-163.12	40°12'10.467"N	104°40'25.935"W	5.46	SSPG
7290.00	62.100	2.680	6937.39	-875.12	-872.01	-160.70	40°12'10.999"N	104°40'25.904"W	5.46	
7385.00	68.560	1.300	6977.02	-788.85	-785.78	-157.73	40°12'11.851"N	104°40'25.866"W	6.93	
7480.00	78.390	359.180	7004.01	-697.90	-694.82	-157.39	40°12'12.750"N	104°40'25.862"W	10.57	
7575.00	82.340	359.890	7019.91	-604.30	-601.18	-158.15	40°12'13.676"N	104°40'25.871"W	4.22	
7622.00†	84.705	0.008	7025.21	-557.61	-554.49	-158.19	40°12'14.137"N	104°40'25.872"W	5.04	Top of Production
7671.00	87.170	0.130	7028.68	-508.75	-505.61	-158.13	40°12'14.620"N	104°40'25.871"W	5.04	
7766.00	87.780	359.810	7032.87	-413.86	-410.71	-158.18	40°12'15.558"N	104°40'25.872"W	0.72	
7861.00	89.020	359.040	7035.52	-318.95	-315.75	-159.13	40°12'16.496"N	104°40'25.884"W	1.54	
7956.00	90.090	358.750	7036.26	-224.03	-220.77	-160.97	40°12'17.435"N	104°40'25.908"W	1.17	
8051.00	89.110	358.640	7036.92	-129.12	-125.80	-163.13	40°12'18.373"N	104°40'25.936"W	1.04	
8147.00	89.200	359.590	7038.33	-33.19	-29.83	-164.61	40°12'19.322"N	104°40'25.955"W	0.99	
8242.00	89.940	1.190	7039.05	61.79	65.17	-163.97	40°12'20.260"N	104°40'25.946"W	1.86	
8337.00	91.260	0.200	7038.05	156.78	160.15	-162.81	40°12'21.199"N	104°40'25.932"W	1.74	
8432.00	90.830	0.730	7036.32	251.76	255.13	-162.04	40°12'22.138"N	104°40'25.922"W	0.72	
8527.00	90.000	1.030	7035.63	346.75	350.12	-160.58	40°12'23.076"N	104°40'25.903"W	0.93	
8622.00	90.680	0.410	7035.07	441.75	445.11	-159.39	40°12'24.015"N	104°40'25.888"W	0.97	

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Area	COLORADO	Well	SKIM STATE 29N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	SKIM STATE 29N-21HZ AWB <12777>
Facility	SEC.21-T3N-R65W		

WELLPATH DATA (133 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8717.00	91.820	1.070	7033.00	536.72	540.07	-158.16	40°12'24.953"N	104°40'25.872"W	1.39	
8812.00	91.070	2.610	7030.60	631.68	634.99	-155.11	40°12'25.891"N	104°40'25.832"W	1.80	
8908.00	89.350	2.490	7030.25	727.65	730.89	-150.84	40°12'26.839"N	104°40'25.777"W	1.80	
9003.00	88.670	1.970	7031.89	822.62	825.80	-147.15	40°12'27.777"N	104°40'25.730"W	0.90	
9099.00	89.040	1.990	7033.81	918.59	921.73	-143.83	40°12'28.725"N	104°40'25.687"W	0.39	
9195.00	89.810	1.100	7034.77	1014.58	1017.69	-141.24	40°12'29.673"N	104°40'25.654"W	1.23	
9290.00	88.950	1.250	7035.80	1109.57	1112.66	-139.29	40°12'30.612"N	104°40'25.629"W	0.92	
9386.00	89.040	1.520	7037.48	1205.56	1208.62	-136.97	40°12'31.560"N	104°40'25.599"W	0.30	
9482.00	88.140	2.080	7039.85	1301.52	1304.54	-133.96	40°12'32.508"N	104°40'25.560"W	1.10	
9577.00	89.590	3.120	7041.73	1396.47	1399.42	-129.65	40°12'33.445"N	104°40'25.504"W	1.88	
9673.00	89.440	3.520	7042.54	1492.40	1495.25	-124.09	40°12'34.392"N	104°40'25.433"W	0.44	
9768.00	88.420	2.700	7044.31	1587.33	1590.10	-118.94	40°12'35.330"N	104°40'25.366"W	1.38	
9864.00	88.980	2.450	7046.49	1683.27	1685.97	-114.63	40°12'36.277"N	104°40'25.311"W	0.64	
9959.00	88.670	2.120	7048.44	1778.23	1780.88	-110.84	40°12'37.215"N	104°40'25.262"W	0.48	
10054.00	89.190	1.760	7050.21	1873.21	1875.81	-107.63	40°12'38.153"N	104°40'25.220"W	0.67	
10149.00	87.750	0.770	7052.75	1968.17	1970.75	-105.53	40°12'39.091"N	104°40'25.193"W	1.84	
10245.00	88.090	1.180	7056.24	2064.11	2066.67	-103.90	40°12'40.039"N	104°40'25.172"W	0.55	
10340.00	88.360	0.450	7059.18	2159.06	2161.61	-102.55	40°12'40.977"N	104°40'25.155"W	0.82	
10435.00	88.790	0.140	7061.54	2254.02	2256.58	-102.06	40°12'41.916"N	104°40'25.149"W	0.56	
10530.00	88.980	359.590	7063.39	2348.97	2351.56	-102.28	40°12'42.854"N	104°40'25.152"W	0.61	
10625.00	89.720	359.270	7064.47	2443.92	2446.55	-103.23	40°12'43.793"N	104°40'25.164"W	0.85	
10721.00	89.720	0.570	7064.94	2539.90	2542.55	-103.36	40°12'44.742"N	104°40'25.165"W	1.35	
10816.00	89.010	0.730	7065.99	2634.89	2637.54	-102.28	40°12'45.680"N	104°40'25.152"W	0.77	
10911.00	89.160	1.250	7067.51	2729.87	2732.51	-100.64	40°12'46.619"N	104°40'25.130"W	0.57	
11007.00	90.490	1.190	7067.80	2825.87	2828.48	-98.60	40°12'47.567"N	104°40'25.104"W	1.39	
11102.00	89.040	1.040	7068.19	2920.87	2923.46	-96.75	40°12'48.506"N	104°40'25.080"W	1.53	
11197.00	89.570	0.930	7069.34	3015.86	3018.44	-95.11	40°12'49.445"N	104°40'25.059"W	0.57	
11292.00	90.430	0.890	7069.34	3110.86	3113.43	-93.61	40°12'50.383"N	104°40'25.040"W	0.91	
11388.00	89.820	1.100	7069.13	3206.86	3209.41	-91.94	40°12'51.332"N	104°40'25.018"W	0.67	
11482.00	90.590	0.490	7068.80	3300.85	3303.40	-90.63	40°12'52.261"N	104°40'25.001"W	1.05	
11577.00	88.610	1.380	7069.46	3395.84	3398.38	-89.08	40°12'53.199"N	104°40'24.981"W	2.29	
11672.00	89.140	2.020	7071.32	3490.82	3493.32	-86.27	40°12'54.137"N	104°40'24.945"W	0.87	
11768.00	90.060	2.380	7071.99	3586.80	3589.25	-82.58	40°12'55.085"N	104°40'24.898"W	1.03	
11863.00	89.880	3.170	7072.04	3681.76	3684.13	-77.98	40°12'56.023"N	104°40'24.838"W	0.85	
11958.00	90.000	1.590	7072.14	3776.74	3779.05	-74.04	40°12'56.961"N	104°40'24.788"W	1.67	
12053.00	89.630	1.110	7072.45	3871.74	3874.02	-71.80	40°12'57.899"N	104°40'24.759"W	0.64	
12148.00	89.040	0.170	7073.55	3966.73	3969.01	-70.74	40°12'58.838"N	104°40'24.745"W	1.17	
12244.00	89.480	0.040	7074.79	4062.70	4065.00	-70.56	40°12'59.787"N	104°40'24.743"W	0.48	
12339.00	90.250	358.680	7075.02	4157.65	4159.99	-71.62	40°13'00.725"N	104°40'24.756"W	1.65	
12434.00	90.550	358.450	7074.35	4252.55	4254.96	-74.00	40°13'01.664"N	104°40'24.787"W	0.40	
12530.00	91.140	358.350	7072.94	4348.43	4350.91	-76.68	40°13'02.612"N	104°40'24.822"W	0.62	
12725.00	93.090	358.040	7065.74	4543.02	4545.67	-82.82	40°13'04.537"N	104°40'24.901"W	1.01	Last BHI MWD+IFR Surveys
12777.00	93.090	358.040	7062.94	4594.87	4597.57	-84.60	40°13'05.049"N	104°40'24.924"W	0.00	Projection to Bit

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#47 SKIM STATE 29N-21HZ (638'FSL & 1286'FWL, SEC.21)
Area	COLORADO	Well	SKIM STATE 29N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	SKIM STATE 29N-21HZ AWB <12777>
Facility	SEC.21-T3N-R65W		

HOLE & CASING SECTIONS - Ref Wellbore: SKIM STATE 29N-21HZ AWB <12777> Ref Wellpath: SKIM STATE 29N-21HZ 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]
13.5in Open Hole	16.00	1231.00	1215.00	16.00	1216.24	0.00	0.00	-140.52	-24.57
9.625in Casing Surface	16.00	1217.00	1201.00	16.00	1202.88	0.00	0.00	-136.35	-23.94
8.5in Open Hole	16.00	7622.00	7606.00	16.00	7025.21	0.00	0.00	-554.49	-158.19
7.875in Open Hole	7622.00	12777.00	5155.00	7025.21	7062.94	-554.49	-158.19	4597.57	-84.60

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.21-T3N-R65W LINES	18.00	-1064.37	2543.04	1734184.18	14600660.39	40°12'09.097"N	104°39'51.059"W	polygon
SEC.28-T3N-R65W LINES	18.00	-1064.37	2543.04	1734184.18	14600660.39	40°12'09.097"N	104°39'51.059"W	polygon
SKIM STATE 29N-21HZ BHL ON PLAT (50'FNL & 1182'FWL, SEC.21) REV-1	7071.00	4584.35	-66.47	1731554.92	14606297.26	40°13'04.919"N	104°40'24.690"W	point
SKIM STATE 29N-21HZ LANDBOX	7071.00	0.00	0.00	1731638.23	14601714.98	40°12'19.616"N	104°40'23.833"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: SKIM STATE 29N-21HZ AWB <12777> Ref Wellpath: SKIM STATE 29N-21HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
16.00	1188.00	Custom APC_ISCWSA REV 2 MWD	CATHEDRAL ENERGY MWD SURVEYS <95-1188>	SKIM STATE 29N-21HZ AWB <12777>
1188.00	7575.00	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHI MWD+IFR 8 1/2" HOLE <1288-2050>	SKIM STATE 29N-21HZ AWB <12777>
7575.00	12725.00	Custom APC_ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHI MWD+IFR SURVEYS 7 7/8" HOLE <7671-12725>	SKIM STATE 29N-21HZ AWB <12777>
12725.00	12777.00	Blind Drilling (std)	Projection to bit	SKIM STATE 29N-21HZ AWB <12777>

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#47 SKIM STATE 29N-21HZ (638'FSL & 1286'FWL, SEC.21)
Area	COLORADO	Well	SKIM STATE 29N-21HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	SKIM STATE 29N-21HZ AWB <12777>
Facility	SEC.21-T3N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
16.00	0.000	343.500	16.00	Tie-On
95.00	0.100	343.500	95.00	Begin CATHEDRAL MWD Surveys
1188.00	17.200	188.600	1175.20	Tie-Into CATHEDRAL MWD Surveys
1288.00	18.080	188.700	1270.50	Begin BHI MWD+IFR Surveys
7228.00	58.722	2.452	6906.78	SSPG
7622.00	84.705	0.008	7025.21	Top of Production
12725.00	93.090	358.040	7065.74	Last BHI MWD+IFR Surveys
12777.00	93.090	358.040	7062.94	Projection to Bit