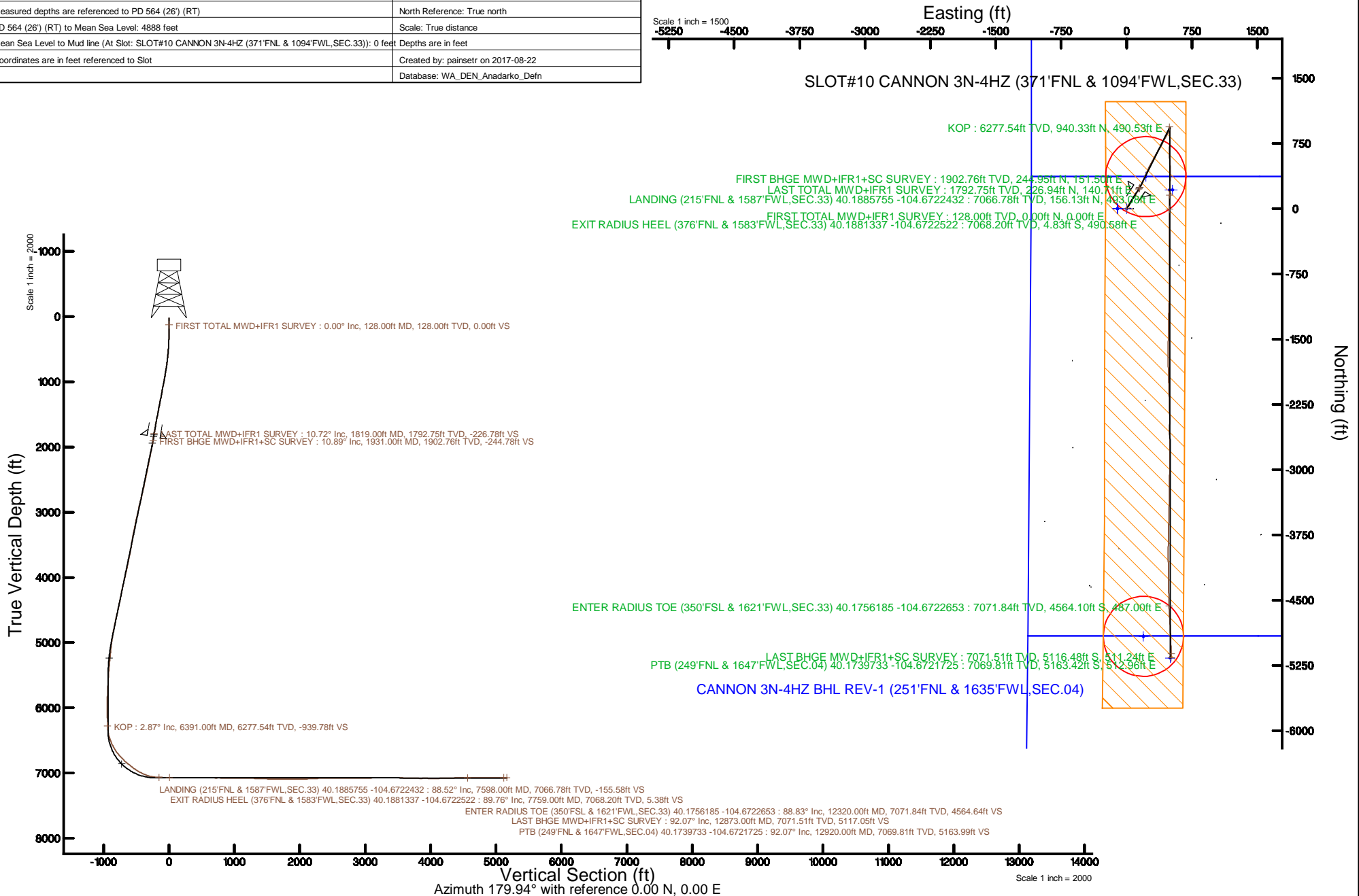


# KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Location: COLORADO Slot: SLOT#10 CANNON 3N-4HZ (371'FNL & 1094'FWL,SEC.33)  
 Field: WELD COUNTY (UTM/TRUE NORTH) Well: CANNON 3N-4HZ  
 Facility: SEC.33-T3N-R65W Wellbore: CANNON 3N-4HZ PWB

Plot reference wellpath is CANNON 3N-4HZ 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 geodetic datum
Measured depths are referenced to PD 564 (26') (RT)	North Reference: True north
PD 564 (26') (RT) to Mean Sea Level: 4888 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#10 CANNON 3N-4HZ (371'FNL & 1094'FWL,SEC.33)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: painsetr on 2017-08-22
	Database: WA_DEN_Anadarko_Defn



REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#10 CANNON 3N-4HZ (371'FNL & 1094'FWL,SEC.33)
Area	COLORADO	Well	CANNON 3N-4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CANNON 3N-4HZ AWB
Facility	SEC.33-T3N-R65W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / UTM Zone 13 North, US feet	Software System	WellArchitect® 5.0
North Reference	True	User	Painsetr
Scale	0.999609	Report Generated	8/22/2017 at 2:00 PM
Convergence at slot	0.22° East	Database/Source file	WA_DEN_Anadarko_Defn/CANNON_3N-4HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	1587.31	-2041.82	1731460.05	14595413.63	40°11'17.329"N	104°40'26.429"W
Facility Reference Pt			1733507.01	14593834.61	40°11'01.644"N	104°40'00.120"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	4888.00ft
Horizontal Reference Pt	Slot	PD 564 (26') (RT) to Mean Sea Level	4888.00ft
Vertical Reference Pt	PD 564 (26') (RT)	PD 564 (26') (RT) to Mud Line at Slot (SLOT#10 CANNON 3N-4HZ (371'FNL & 1094'FWL,SEC.33))	4888.00ft
MD Reference Pt	PD 564 (26') (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	179.94°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#10 CANNON 3N-4HZ (371'FNL & 1094'FWL,SEC.33)
Area	COLORADO	Well	CANNON 3N-4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CANNON 3N-4HZ AWB
Facility	SEC.33-T3N-R65W		

**WELLPATH DATA (184 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 (ft/100ft)	Comments
0.00†	0.000	278.140	0.00	0.00	0.00	0.00	1731460.05	14595413.63	40°11'17.329"N	104°40'26.429"W	0.00	
26.00	0.000	278.140	26.00	0.00	0.00	0.00	1731460.05	14595413.63	40°11'17.329"N	104°40'26.429"W	0.00	
128.00	0.000	278.140	128.00	0.00	0.00	0.00	1731460.05	14595413.63	40°11'17.329"N	104°40'26.429"W	0.00	FIRST TOTAL MWD+IFR1 SURVEY
160.00	0.260	278.140	160.00	-0.01	0.01	-0.07	1731459.97	14595413.64	40°11'17.329"N	104°40'26.430"W	0.81	
191.00	0.530	11.740	191.00	-0.16	0.16	-0.11	1731459.93	14595413.79	40°11'17.331"N	104°40'26.430"W	1.95	
223.00	0.620	11.130	223.00	-0.48	0.48	-0.05	1731459.99	14595414.11	40°11'17.334"N	104°40'26.430"W	0.28	
255.00	0.790	29.230	255.00	-0.84	0.84	0.09	1731460.13	14595414.47	40°11'17.337"N	104°40'26.428"W	0.87	
287.00	1.450	31.870	286.99	-1.37	1.37	0.41	1731460.45	14595415.01	40°11'17.343"N	104°40'26.424"W	2.07	
318.00	1.980	34.680	317.98	-2.15	2.15	0.93	1731460.96	14595415.78	40°11'17.350"N	104°40'26.417"W	1.73	
350.00	1.980	42.240	349.96	-3.01	3.01	1.61	1731461.65	14595416.65	40°11'17.359"N	104°40'26.408"W	0.82	
382.00	2.200	35.910	381.93	-3.92	3.92	2.34	1731462.37	14595417.56	40°11'17.368"N	104°40'26.399"W	1.00	
413.00	2.940	32.130	412.90	-5.07	5.07	3.12	1731463.14	14595418.71	40°11'17.379"N	104°40'26.389"W	2.45	
445.00	3.300	33.100	444.86	-6.54	6.54	4.05	1731464.07	14595420.18	40°11'17.394"N	104°40'26.377"W	1.14	
477.00	4.170	36.350	476.79	-8.24	8.25	5.25	1731465.26	14595421.90	40°11'17.411"N	104°40'26.361"W	2.80	
509.00	4.790	32.130	508.69	-10.31	10.32	6.65	1731466.65	14595423.97	40°11'17.431"N	104°40'26.343"W	2.19	
541.00	5.760	30.380	540.55	-12.82	12.83	8.17	1731468.17	14595426.49	40°11'17.456"N	104°40'26.324"W	3.07	
571.00	6.150	29.760	570.39	-15.52	15.53	9.73	1731469.71	14595429.19	40°11'17.482"N	104°40'26.304"W	1.32	
603.00	6.770	31.690	602.19	-18.61	18.62	11.57	1731471.54	14595432.29	40°11'17.513"N	104°40'26.280"W	2.05	
635.00	7.780	30.730	633.93	-22.07	22.09	13.67	1731473.63	14595435.76	40°11'17.547"N	104°40'26.253"W	3.18	
667.00	8.220	31.340	665.62	-25.89	25.90	15.97	1731475.91	14595439.58	40°11'17.585"N	104°40'26.223"W	1.40	
698.00	8.660	34.770	696.28	-29.69	29.71	18.45	1731478.38	14595443.40	40°11'17.623"N	104°40'26.191"W	2.16	
730.00	8.700	34.950	727.92	-33.65	33.68	21.21	1731481.12	14595447.37	40°11'17.662"N	104°40'26.156"W	0.15	
762.00	9.320	33.010	759.52	-37.81	37.83	24.01	1731483.90	14595451.54	40°11'17.703"N	104°40'26.120"W	2.16	
793.00	9.890	30.730	790.09	-42.20	42.23	26.74	1731486.61	14595455.94	40°11'17.746"N	104°40'26.085"W	2.21	
825.00	10.330	31.780	821.59	-46.99	47.03	29.65	1731489.51	14595460.75	40°11'17.794"N	104°40'26.047"W	1.49	
857.00	11.250	32.310	853.02	-52.07	52.10	32.83	1731492.67	14595465.83	40°11'17.844"N	104°40'26.006"W	2.89	
888.00	11.690	31.170	883.41	-57.31	57.35	36.07	1731495.89	14595471.09	40°11'17.896"N	104°40'25.964"W	1.60	
920.00	11.950	30.020	914.73	-62.95	62.99	39.41	1731499.21	14595476.74	40°11'17.951"N	104°40'25.921"W	1.10	
951.00	12.390	29.230	945.03	-68.62	68.67	42.64	1731502.41	14595482.43	40°11'18.008"N	104°40'25.880"W	1.52	
983.00	12.260	32.220	976.29	-74.49	74.54	46.12	1731505.88	14595488.31	40°11'18.066"N	104°40'25.835"W	2.04	
1015.00	12.080	33.010	1007.57	-80.17	80.22	49.76	1731509.49	14595494.00	40°11'18.122"N	104°40'25.788"W	0.77	
1046.00	12.220	30.820	1037.88	-85.70	85.76	53.21	1731512.92	14595499.55	40°11'18.176"N	104°40'25.743"W	1.55	
1078.00	12.520	28.710	1069.14	-91.65	91.71	56.61	1731516.30	14595505.51	40°11'18.235"N	104°40'25.700"W	1.70	
1109.00	12.570	28.350	1099.40	-97.56	97.63	59.83	1731519.49	14595511.44	40°11'18.294"N	104°40'25.658"W	0.30	
1141.00	12.170	30.290	1130.65	-103.53	103.60	63.18	1731522.82	14595517.43	40°11'18.353"N	104°40'25.615"W	1.80	
1173.00	11.730	31.610	1161.96	-109.21	109.29	66.59	1731526.20	14595523.12	40°11'18.409"N	104°40'25.571"W	1.62	
1204.00	12.300	31.520	1192.28	-114.71	114.79	69.96	1731529.56	14595528.63	40°11'18.463"N	104°40'25.527"W	1.84	
1236.00	12.130	30.640	1223.56	-120.50	120.58	73.46	1731533.03	14595534.44	40°11'18.521"N	104°40'25.482"W	0.79	
1268.00	12.570	29.060	1254.82	-126.43	126.52	76.87	1731536.42	14595540.38	40°11'18.579"N	104°40'25.439"W	1.73	
1300.00	12.570	31.340	1286.05	-132.45	132.54	80.37	1731539.89	14595546.41	40°11'18.639"N	104°40'25.393"W	1.55	
1331.00	12.520	31.780	1316.31	-138.18	138.28	83.89	1731543.40	14595552.16	40°11'18.695"N	104°40'25.348"W	0.35	
1363.00	12.790	30.820	1347.53	-144.17	144.27	87.53	1731547.01	14595558.16	40°11'18.755"N	104°40'25.301"W	1.07	
1394.00	13.580	30.730	1377.71	-150.24	150.34	91.15	1731550.61	14595564.25	40°11'18.815"N	104°40'25.255"W	2.55	
1426.00	13.270	32.930	1408.84	-156.55	156.65	95.07	1731554.50	14595570.57	40°11'18.877"N	104°40'25.204"W	1.87	
1458.00	12.920	33.010	1440.01	-162.63	162.74	99.01	1731558.42	14595576.67	40°11'18.937"N	104°40'25.153"W	1.10	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#10 CANNON 3N-4HZ (371'FNL & 1094'FWL,SEC.33)
Area	COLORADO	Well	CANNON 3N-4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CANNON 3N-4HZ AWB
Facility	SEC.33-T3N-R65W		

### WELLPATH DATA (184 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
1489.00	13.230	32.570	1470.20	-168.52	168.63	102.81	1731562.20	14595582.57	40°11'18.995"N	104°40'25.104"W	1.05	
1521.00	13.450	32.310	1501.34	-174.74	174.86	106.77	1731566.13	14595588.82	40°11'19.057"N	104°40'25.053"W	0.71	
1553.00	12.790	34.070	1532.51	-180.82	180.94	110.74	1731570.08	14595594.91	40°11'19.117"N	104°40'25.002"W	2.41	
1585.00	12.520	35.210	1563.73	-186.58	186.71	114.73	1731574.04	14595600.69	40°11'19.174"N	104°40'24.951"W	1.15	
1616.00	12.830	33.890	1593.97	-192.18	192.31	118.59	1731577.88	14595606.30	40°11'19.229"N	104°40'24.901"W	1.37	
1647.00	13.050	33.360	1624.19	-197.96	198.09	122.43	1731581.70	14595612.09	40°11'19.287"N	104°40'24.851"W	0.81	
1679.00	12.220	33.890	1655.41	-203.78	203.92	126.30	1731585.55	14595617.94	40°11'19.344"N	104°40'24.802"W	2.62	
1710.00	11.600	33.280	1685.74	-209.11	209.25	129.84	1731589.07	14595623.27	40°11'19.397"N	104°40'24.756"W	2.04	
1742.00	10.900	31.780	1717.13	-214.36	214.51	133.20	1731592.41	14595628.55	40°11'19.449"N	104°40'24.713"W	2.37	
1774.00	10.990	31.430	1748.55	-219.53	219.69	136.39	1731595.57	14595633.73	40°11'19.500"N	104°40'24.672"W	0.35	
1806.00	10.720	30.290	1779.97	-224.70	224.86	139.48	1731598.64	14595638.91	40°11'19.551"N	104°40'24.632"W	1.08	
1819.00	10.720	30.900	1792.75	-226.78	226.94	140.71	1731599.87	14595641.00	40°11'19.572"N	104°40'24.616"W	0.87	LAST TOTAL MWD+IFR1 SURVEY
1931.00	10.890	30.980	1902.76	-244.78	244.95	151.50	1731610.59	14595659.04	40°11'19.750"N	104°40'24.477"W	0.15	FIRST BHGE MWD+IFR1+SC SURVEY
2020.00	11.840	29.210	1990.01	-259.95	260.13	160.29	1731619.31	14595674.24	40°11'19.900"N	104°40'24.364"W	1.14	
2110.00	12.580	25.240	2077.98	-276.86	277.05	168.97	1731627.93	14595691.19	40°11'20.067"N	104°40'24.252"W	1.24	
2199.00	13.060	25.350	2164.76	-294.71	294.91	177.41	1731636.30	14595709.07	40°11'20.243"N	104°40'24.143"W	0.54	
2288.00	11.940	24.300	2251.65	-312.18	312.39	185.51	1731644.33	14595726.57	40°11'20.416"N	104°40'24.039"W	1.28	
2378.00	12.700	22.060	2339.58	-329.82	330.04	193.05	1731651.81	14595744.25	40°11'20.590"N	104°40'23.941"W	1.00	
2468.00	12.570	26.620	2427.40	-347.74	347.96	201.16	1731659.84	14595762.19	40°11'20.768"N	104°40'23.837"W	1.12	
2557.00	13.270	24.440	2514.15	-365.69	365.92	209.72	1731668.34	14595780.18	40°11'20.945"N	104°40'23.727"W	0.96	
2647.00	13.350	23.090	2601.73	-384.64	384.88	218.07	1731676.62	14595799.16	40°11'21.132"N	104°40'23.619"W	0.36	
2736.00	13.810	22.410	2688.24	-403.90	404.16	226.15	1731684.62	14595818.46	40°11'21.323"N	104°40'23.515"W	0.55	
2826.00	14.540	24.390	2775.50	-424.11	424.38	234.91	1731693.30	14595838.70	40°11'21.523"N	104°40'23.402"W	0.97	
2916.00	14.390	23.590	2862.65	-444.64	444.91	244.05	1731702.37	14595859.26	40°11'21.726"N	104°40'23.284"W	0.28	
3005.00	13.600	23.260	2949.01	-464.38	464.66	252.61	1731710.85	14595879.04	40°11'21.921"N	104°40'23.174"W	0.89	
3095.00	14.270	27.830	3036.36	-483.90	484.19	261.97	1731720.13	14595898.59	40°11'22.114"N	104°40'23.053"W	1.43	
3184.00	12.980	27.590	3122.85	-502.45	502.75	271.72	1731729.81	14595917.18	40°11'22.297"N	104°40'22.928"W	1.45	
3274.00	12.780	27.370	3210.59	-520.24	520.55	280.97	1731739.00	14595935.01	40°11'22.473"N	104°40'22.809"W	0.23	
3363.00	13.690	30.390	3297.22	-538.05	538.38	290.83	1731748.78	14595952.86	40°11'22.649"N	104°40'22.682"W	1.28	
3453.00	11.890	28.330	3384.99	-555.39	555.73	300.62	1731758.50	14595970.24	40°11'22.821"N	104°40'22.555"W	2.06	
3542.00	10.670	23.920	3472.27	-570.99	571.33	308.31	1731766.13	14595985.87	40°11'22.975"N	104°40'22.456"W	1.68	
3632.00	11.060	30.680	3560.66	-586.02	586.37	316.09	1731773.86	14596000.93	40°11'23.124"N	104°40'22.356"W	1.48	
3722.00	12.000	31.650	3648.84	-601.40	601.76	325.41	1731783.11	14596016.35	40°11'23.276"N	104°40'22.236"W	1.07	
3811.00	12.930	29.690	3735.74	-617.91	618.29	335.19	1731792.84	14596032.90	40°11'23.439"N	104°40'22.110"W	1.15	
3901.00	13.800	27.870	3823.31	-636.14	636.53	345.20	1731802.77	14596051.17	40°11'23.619"N	104°40'21.981"W	1.07	
3990.00	14.120	29.480	3909.68	-654.96	655.36	355.50	1731813.00	14596070.03	40°11'23.805"N	104°40'21.848"W	0.57	
4080.00	15.500	31.220	3996.69	-674.79	675.20	367.14	1731824.56	14596089.91	40°11'24.001"N	104°40'21.698"W	1.61	
4169.00	15.130	30.360	4082.52	-694.97	695.39	379.17	1731836.52	14596110.14	40°11'24.201"N	104°40'21.543"W	0.49	
4259.00	13.400	30.490	4169.75	-714.08	714.52	390.40	1731847.67	14596129.29	40°11'24.390"N	104°40'21.398"W	1.92	
4349.00	11.910	26.760	4257.56	-731.35	731.80	399.88	1731857.08	14596146.60	40°11'24.561"N	104°40'21.276"W	1.89	
4438.00	12.630	24.360	4344.53	-748.40	748.86	408.02	1731865.16	14596163.69	40°11'24.729"N	104°40'21.171"W	0.99	
4528.00	13.380	25.750	4432.22	-766.74	767.20	416.61	1731873.67	14596182.06	40°11'24.910"N	104°40'21.061"W	0.90	
4617.00	13.920	26.330	4518.70	-785.60	786.07	425.83	1731882.82	14596200.95	40°11'25.097"N	104°40'20.942"W	0.63	
4706.00	14.300	30.910	4605.02	-804.61	805.10	436.22	1731893.14	14596220.01	40°11'25.285"N	104°40'20.808"W	1.32	
4822.00	13.860	29.340	4717.54	-829.00	829.50	450.39	1731907.21	14596244.46	40°11'25.526"N	104°40'20.625"W	0.50	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#10 CANNON 3N-4HZ (371'FNL & 1094'FWL,SEC.33)
Area	COLORADO	Well	CANNON 3N-4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CANNON 3N-4HZ AWB
Facility	SEC.33-T3N-R65W		

WELLPATH DATA (184 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 (ft/100ft)	Comments
4911.00	12.090	28.890	4804.26	-846.44	846.96	460.12	1731916.87	14596261.94	40°11'25.699"N	104°40'20.500"W	1.99	
5001.00	10.370	28.300	4892.53	-861.82	862.34	468.51	1731925.21	14596277.35	40°11'25.851"N	104°40'20.392"W	1.92	
5091.00	9.170	28.660	4981.23	-875.24	875.77	475.79	1731932.43	14596290.79	40°11'25.983"N	104°40'20.298"W	1.34	
5180.00	6.850	31.660	5069.35	-885.97	886.51	481.98	1731938.58	14596301.56	40°11'26.089"N	104°40'20.218"W	2.65	
5270.00	7.100	27.640	5158.69	-895.46	896.01	487.38	1731943.94	14596311.07	40°11'26.183"N	104°40'20.149"W	0.61	
5359.00	6.180	23.730	5247.09	-904.71	905.26	491.86	1731948.38	14596320.34	40°11'26.275"N	104°40'20.091"W	1.15	
5449.00	5.290	21.230	5336.64	-913.01	913.57	495.31	1731951.80	14596328.65	40°11'26.357"N	104°40'20.047"W	1.03	
5538.00	4.600	15.980	5425.31	-920.26	920.82	497.78	1731954.25	14596335.91	40°11'26.429"N	104°40'20.015"W	0.93	
5628.00	3.680	12.340	5515.07	-926.55	927.11	499.39	1731955.83	14596342.21	40°11'26.491"N	104°40'19.994"W	1.06	
5717.00	3.500	1.560	5603.90	-932.06	932.62	500.07	1731956.50	14596347.71	40°11'26.545"N	104°40'19.985"W	0.78	
5807.00	3.020	343.830	5693.75	-937.08	937.64	499.49	1731955.89	14596352.73	40°11'26.595"N	104°40'19.993"W	1.23	
5896.00	2.060	327.970	5782.67	-940.69	941.25	497.99	1731954.38	14596356.33	40°11'26.630"N	104°40'20.012"W	1.33	
5986.00	1.910	273.200	5872.62	-942.15	942.70	495.63	1731952.02	14596357.78	40°11'26.645"N	104°40'20.043"W	2.03	
6076.00	1.050	267.260	5962.59	-942.20	942.75	493.31	1731949.70	14596357.81	40°11'26.645"N	104°40'20.072"W	0.97	
6165.00	0.930	266.770	6051.58	-942.12	942.67	491.77	1731948.16	14596357.73	40°11'26.644"N	104°40'20.092"W	0.14	
6255.00	0.530	230.900	6141.57	-941.82	942.37	490.72	1731947.11	14596357.42	40°11'26.641"N	104°40'20.106"W	0.65	
6344.00	0.510	178.100	6230.57	-941.16	941.71	490.42	1731946.81	14596356.77	40°11'26.635"N	104°40'20.110"W	0.52	
6391.00†	2.870	174.815	6277.54	-939.78	940.33	490.53	1731946.93	14596355.38	40°11'26.621"N	104°40'20.108"W	5.02	KOP
6434.00	5.030	174.510	6320.44	-936.83	937.38	490.81	1731947.22	14596352.44	40°11'26.592"N	104°40'20.105"W	5.02	
6523.00	13.090	178.800	6408.26	-922.85	923.40	491.39	1731947.85	14596338.46	40°11'26.454"N	104°40'20.097"W	9.08	
6613.00	20.160	174.870	6494.44	-897.18	897.73	492.99	1731949.55	14596312.81	40°11'26.200"N	104°40'20.077"W	7.95	
6703.00	26.940	179.180	6576.90	-861.30	861.85	494.67	1731951.36	14596276.95	40°11'25.846"N	104°40'20.055"W	7.77	
6792.00	33.520	181.710	6653.76	-816.53	817.08	494.23	1731951.08	14596232.20	40°11'25.403"N	104°40'20.061"W	7.53	
6882.00	40.640	179.680	6725.52	-762.31	762.86	493.65	1731950.70	14596178.00	40°11'24.868"N	104°40'20.068"W	8.03	
6971.00	45.630	181.280	6790.45	-701.48	702.03	493.10	1731950.37	14596117.19	40°11'24.266"N	104°40'20.075"W	5.74	
7061.00	49.190	180.030	6851.35	-635.24	635.79	492.36	1731949.88	14596050.97	40°11'23.612"N	104°40'20.085"W	4.09	
7150.00	53.040	177.960	6907.21	-565.99	566.54	493.61	1731951.38	14595981.76	40°11'22.928"N	104°40'20.069"W	4.69	
7240.00	57.310	174.770	6958.60	-492.29	492.85	498.35	1731956.39	14595908.11	40°11'22.199"N	104°40'20.008"W	5.56	
7329.00	65.330	180.250	7001.31	-414.38	414.94	501.59	1731959.92	14595830.25	40°11'21.429"N	104°40'19.966"W	10.50	
7419.00	71.230	183.090	7034.60	-330.86	331.42	499.12	1731957.75	14595746.75	40°11'20.604"N	104°40'19.998"W	7.18	
7508.00	79.290	181.910	7057.23	-244.94	245.50	495.38	1731954.33	14595660.85	40°11'19.755"N	104°40'20.046"W	9.15	
7598.00	88.520	181.050	7066.78	-155.58	156.13	493.08	1731952.35	14595571.51	40°11'18.872"N	104°40'20.076"W	10.30	LANDING (215'FNL & 1587'FWL,SEC.33) 40.1885755 -104.6722432
7687.00	89.910	180.600	7068.00	-66.60	67.15	491.80	1731951.40	14595482.56	40°11'17.993"N	104°40'20.092"W	1.64	
7759.00†	89.758	181.344	7068.20	5.38	-4.83	490.58	1731950.44	14595410.60	40°11'17.281"N	104°40'20.108"W	1.05	EXIT RADIUS HEEL (376'FNL & 1583'FWL,SEC.33) 40.1881337 -104.6722522
7777.00	89.720	181.530	7068.29	23.38	-22.83	490.12	1731950.06	14595392.61	40°11'17.103"N	104°40'20.114"W	1.05	
7866.00	89.140	179.730	7069.17	112.36	-111.81	489.15	1731949.41	14595303.66	40°11'16.224"N	104°40'20.126"W	2.12	
7956.00	90.060	179.320	7069.80	202.36	-201.81	489.89	1731950.48	14595213.70	40°11'15.335"N	104°40'20.117"W	1.12	
8045.00	88.950	179.570	7070.57	291.35	-290.80	490.75	1731951.67	14595124.75	40°11'14.455"N	104°40'20.106"W	1.28	
8135.00	89.290	179.420	7071.95	381.33	-380.79	491.55	1731952.79	14595034.80	40°11'13.566"N	104°40'20.095"W	0.41	
8225.00	89.110	180.890	7073.21	471.32	-470.77	491.30	1731952.88	14594944.85	40°11'12.677"N	104°40'20.099"W	1.65	
8314.00	90.250	180.470	7073.71	560.31	-559.76	490.25	1731952.15	14594855.89	40°11'11.797"N	104°40'20.112"W	1.37	
8404.00	89.290	179.420	7074.07	650.31	-649.76	490.33	1731952.57	14594765.93	40°11'10.908"N	104°40'20.111"W	1.58	
8493.00	90.180	179.630	7074.48	739.30	-738.76	491.07	1731953.63	14594676.97	40°11'10.029"N	104°40'20.102"W	1.03	
8583.00	89.290	180.790	7074.89	829.30	-828.75	490.74	1731953.63	14594587.01	40°11'09.139"N	104°40'20.106"W	1.62	
8673.00	89.570	180.250	7075.79	919.29	-918.74	489.92	1731953.15	14594497.05	40°11'08.250"N	104°40'20.117"W	0.68	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#10 CANNON 3N-4HZ (371'FNL & 1094'FWL,SEC.33)
Area	COLORADO	Well	CANNON 3N-4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CANNON 3N-4HZ AWB
Facility	SEC.33-T3N-R65W		

WELLPATH DATA (184 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
8762.00	90.060	180.230	7076.08	1008.29	-1007.74	489.55	1731953.10	14594408.09	40°11'07.370"N	104°40'20.121"W	0.55	
8852.00	88.770	182.180	7077.00	1098.26	-1097.71	487.66	1731951.54	14594318.15	40°11'06.481"N	104°40'20.146"W	2.60	
8941.00	89.720	182.540	7078.17	1187.17	-1186.63	483.99	1731948.20	14594229.25	40°11'05.603"N	104°40'20.193"W	1.14	
9031.00	87.600	180.540	7080.27	1277.10	-1276.56	481.58	1731946.11	14594139.35	40°11'04.714"N	104°40'20.224"W	3.24	
9120.00	88.000	180.940	7083.69	1366.02	-1365.49	480.43	1731945.29	14594050.45	40°11'03.835"N	104°40'20.239"W	0.64	
9210.00	88.340	180.650	7086.56	1455.97	-1455.43	479.18	1731944.38	14593960.54	40°11'02.946"N	104°40'20.255"W	0.50	
9300.00	89.010	180.770	7088.65	1545.93	-1545.40	478.06	1731943.59	14593870.60	40°11'02.057"N	104°40'20.269"W	0.76	
9389.00	89.260	181.200	7089.99	1634.91	-1634.38	476.54	1731942.39	14593781.66	40°11'01.178"N	104°40'20.289"W	0.56	
9479.00	88.800	179.330	7091.51	1724.89	-1724.36	476.12	1731942.30	14593691.71	40°11'00.289"N	104°40'20.295"W	2.14	
9569.00	89.040	178.430	7093.21	1814.86	-1814.32	477.88	1731944.39	14593601.78	40°10'59.400"N	104°40'20.272"W	1.03	
9658.00	90.120	178.660	7093.86	1903.83	-1903.29	480.14	1731946.98	14593512.86	40°10'58.521"N	104°40'20.243"W	1.24	
9748.00	91.570	178.080	7092.53	1993.78	-1993.24	482.70	1731949.86	14593422.96	40°10'57.632"N	104°40'20.210"W	1.74	
9838.00	92.680	177.840	7089.20	2083.66	-2083.12	485.90	1731953.39	14593333.12	40°10'56.744"N	104°40'20.169"W	1.26	
9927.00	91.940	178.780	7085.61	2172.55	-2172.01	488.52	1731956.34	14593244.28	40°10'55.865"N	104°40'20.135"W	1.34	
10017.00	92.960	178.260	7081.76	2262.44	-2261.90	490.84	1731958.99	14593154.44	40°10'54.977"N	104°40'20.105"W	1.27	
10106.00	91.290	178.910	7078.46	2351.35	-2350.80	493.04	1731961.52	14593065.57	40°10'54.098"N	104°40'20.077"W	2.01	
10196.00	89.050	180.500	7078.20	2441.34	-2440.79	493.50	1731962.31	14592975.62	40°10'53.209"N	104°40'20.071"W	3.05	
10286.00	89.320	180.140	7079.48	2531.33	-2530.78	493.00	1731962.14	14592885.67	40°10'52.320"N	104°40'20.077"W	0.50	
10375.00	90.180	179.290	7079.86	2620.33	-2619.78	493.44	1731962.91	14592796.71	40°10'51.440"N	104°40'20.072"W	1.36	
10465.00	91.020	179.070	7078.92	2710.32	-2709.76	494.73	1731964.52	14592706.76	40°10'50.551"N	104°40'20.055"W	0.96	
10554.00	89.880	179.500	7078.22	2799.31	-2798.75	495.84	1731965.96	14592617.81	40°10'49.672"N	104°40'20.041"W	1.37	
10644.00	91.050	179.980	7077.49	2889.30	-2888.75	496.25	1731966.70	14592527.86	40°10'48.782"N	104°40'20.036"W	1.41	
10733.00	90.430	181.430	7076.34	2978.28	-2977.73	495.15	1731965.93	14592438.91	40°10'47.903"N	104°40'20.050"W	1.77	
10823.00	91.020	180.990	7075.20	3068.25	-3067.70	493.25	1731964.36	14592348.96	40°10'47.014"N	104°40'20.074"W	0.82	
10912.00	91.940	180.310	7072.91	3157.21	-3156.67	492.24	1731963.68	14592260.03	40°10'46.135"N	104°40'20.087"W	1.29	
11002.00	89.970	180.730	7071.41	3247.19	-3246.65	491.43	1731963.19	14592170.09	40°10'45.246"N	104°40'20.098"W	2.24	
11091.00	88.460	181.130	7072.62	3336.17	-3335.62	489.98	1731962.08	14592081.14	40°10'44.366"N	104°40'20.116"W	1.76	
11181.00	90.220	181.560	7073.66	3426.13	-3425.59	487.87	1731960.29	14591991.20	40°10'43.477"N	104°40'20.144"W	2.01	
11271.00	89.510	180.860	7073.87	3516.11	-3515.57	485.97	1731958.72	14591901.25	40°10'42.588"N	104°40'20.168"W	1.11	
11360.00	89.420	181.880	7074.70	3605.07	-3604.54	483.84	1731956.92	14591812.31	40°10'41.709"N	104°40'20.196"W	1.15	
11450.00	87.750	180.560	7076.93	3695.02	-3694.48	481.93	1731955.34	14591722.39	40°10'40.820"N	104°40'20.220"W	2.36	
11539.00	88.060	181.060	7080.18	3783.95	-3783.41	480.67	1731954.41	14591633.49	40°10'39.941"N	104°40'20.236"W	0.66	
11629.00	90.740	181.710	7081.12	3873.91	-3873.37	478.49	1731952.56	14591543.56	40°10'39.052"N	104°40'20.265"W	3.06	
11719.00	89.080	179.790	7081.26	3963.89	-3963.36	477.32	1731951.72	14591453.61	40°10'38.163"N	104°40'20.280"W	2.82	
11808.00	89.880	179.160	7082.07	4052.88	-4052.35	478.13	1731952.86	14591364.65	40°10'37.284"N	104°40'20.269"W	1.14	
11897.00	91.630	179.780	7080.90	4141.87	-4141.33	478.95	1731954.01	14591275.71	40°10'36.404"N	104°40'20.259"W	2.09	
11987.00	91.110	179.100	7078.75	4231.84	-4231.30	479.83	1731955.22	14591185.78	40°10'35.515"N	104°40'20.247"W	0.95	
12076.00	92.470	179.000	7075.97	4320.78	-4320.25	481.31	1731957.02	14591096.88	40°10'34.636"N	104°40'20.228"W	1.53	
12166.00	91.720	178.710	7072.68	4410.70	-4410.17	483.11	1731959.14	14591007.00	40°10'33.748"N	104°40'20.205"W	0.89	
12255.00	90.120	178.750	7071.25	4499.67	-4499.13	485.08	1731961.44	14590918.08	40°10'32.868"N	104°40'20.180"W	1.80	
12320.00†	88.834	177.862	7071.84	4564.64	-4564.10	487.00	1731963.60	14590853.14	40°10'32.226"N	104°40'20.155"W	2.40	ENTER RADIUS TOE (350'FSL & 1621'FWL,SEC.33) 40.1756185 -104.6722653
12345.00	88.340	177.520	7072.46	4589.61	-4589.07	488.01	1731964.70	14590828.18	40°10'31.980"N	104°40'20.142"W	2.40	
12434.00	89.350	177.160	7074.25	4678.50	-4677.95	492.14	1731969.15	14590739.35	40°10'31.101"N	104°40'20.089"W	1.20	
12524.00	90.740	176.610	7074.18	4768.37	-4767.82	497.03	1731974.37	14590649.54	40°10'30.213"N	104°40'20.026"W	1.66	
12614.00	89.970	177.190	7073.62	4858.24	-4857.68	501.89	1731979.57	14590559.73	40°10'29.325"N	104°40'19.963"W	1.07	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#10 CANNON 3N-4HZ (371'FNL & 1094'FWL,SEC.33)
Area	COLORADO	Well	CANNON 3N-4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CANNON 3N-4HZ AWB
Facility	SEC.33-T3N-R65W		

WELLPATH DATA (184 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
12703.00	89.570	177.920	7073.98	4947.16	-4946.60	505.69	1731983.69	14590470.86	40°10'28.447"N	104°40'19.914"W	0.94	
12793.00	90.920	178.340	7073.60	5037.12	-5036.55	508.63	1731986.95	14590380.96	40°10'27.558"N	104°40'19.877"W	1.57	
12873.00	92.070	177.910	7071.51	5117.05	-5116.48	511.24	1731989.86	14590301.07	40°10'26.768"N	104°40'19.843"W	1.53	LAST BHGE MWD+IFR1+SC SURVEY
12920.00	92.070	177.910	7069.81	5163.99	-5163.42	512.96	1731991.75	14590254.16	40°10'26.304"N	104°40'19.821"W	0.00	PTB (249'FNL & 1647'FWL,SEC.04) 40.1739733 -104.6721725

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.04-T2N-R65W	0.00	1.11	-104.77	1731355.31	14595414.36	40°11'17.340"N	104°40'27.779"W	polygon
SEC.28-T3N-R65W	0.00	1.11	-104.77	1731355.31	14595414.36	40°11'17.340"N	104°40'27.779"W	polygon
SEC.33-T3N-R65W	0.00	1.11	-104.77	1731355.31	14595414.36	40°11'17.340"N	104°40'27.779"W	polygon
CANNON 3N-4HZ HEEL REV-1 (153'FNL & 1620'FWL,SEC.33)	7071.00	217.88	528.06	1731987.10	14595633.36	40°11'19.482"N	104°40'19.625"W	point
CANNON 3N-4HZ HEEL REV-2 (153'FNL & 1587'FWL,SEC.33)	7071.00	217.88	495.06	1731954.11	14595633.24	40°11'19.482"N	104°40'20.050"W	point
CANNON 3N-4HZ BHL REV-1 (251'FNL & 1635'FWL,SEC.04)	7076.00	-5164.63	501.07	1731979.87	14590252.90	40°10'26.292"N	104°40'19.974"W	point
CANNON 3N-4HZ LANDBOX	7076.00	0.00	0.00	1731460.05	14595413.63	40°11'17.329"N	104°40'26.429"W	polygon
CANNON 3N-4HZ RADIUS 1	7076.00	-4916.00	192.89	<b>1731670.90</b>	<b>14590500.30</b>	40°10'28.749"N	104°40'23.944"W	polygon
CANNON 3N-4HZ RADIUS 2	7076.00	368.41	219.99	<b>1731678.60</b>	<b>14595782.70</b>	40°11'20.970"N	104°40'23.594"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: CANNON 3N-4HZ AWB Ref Wellpath: CANNON 3N-4HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
26.00	1819.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	TOTAL Custom APC ISCWSA Rev-2 MWD+IFR1 <128 - 1819>	CANNON 3N-4HZ AWB
1819.00	12873.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1931 - 12873>	CANNON 3N-4HZ AWB
12873.00	12920.00	Blind Drilling (std)	Projection to bit	CANNON 3N-4HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#10 CANNON 3N-4HZ (371'FNL & 1094'FWL,SEC.33)
Area	COLORADO	Well	CANNON 3N-4HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	CANNON 3N-4HZ AWP
Facility	SEC.33-T3N-R65W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
128.00	0.000	278.140	128.00	FIRST TOTAL MWD+IFR1 SURVEY
1819.00	10.720	30.900	1792.75	LAST TOTAL MWD+IFR1 SURVEY
1931.00	10.890	30.980	1902.76	FIRST BHGE MWD+IFR1+SC SURVEY
6391.00	2.870	174.815	6277.54	KOP
7598.00	88.520	181.050	7066.78	LANDING (215'FNL & 1587'FWL,SEC.33) 40.1885755 -104.6722432
7759.00	89.758	181.344	7068.20	EXIT RADIUS HEEL (376'FNL & 1583'FWL,SEC.33) 40.1881337 -104.6722522
12320.00	88.834	177.862	7071.84	ENTER RADIUS TOE (350'FSL & 1621'FWL,SEC.33) 40.1756185 -104.6722653
12873.00	92.070	177.910	7071.51	LAST BHGE MWD+IFR1+SC SURVEY
12920.00	92.070	177.910	7069.81	PTB (249'FNL & 1647'FWL,SEC.04) 40.1739733 -104.6721725