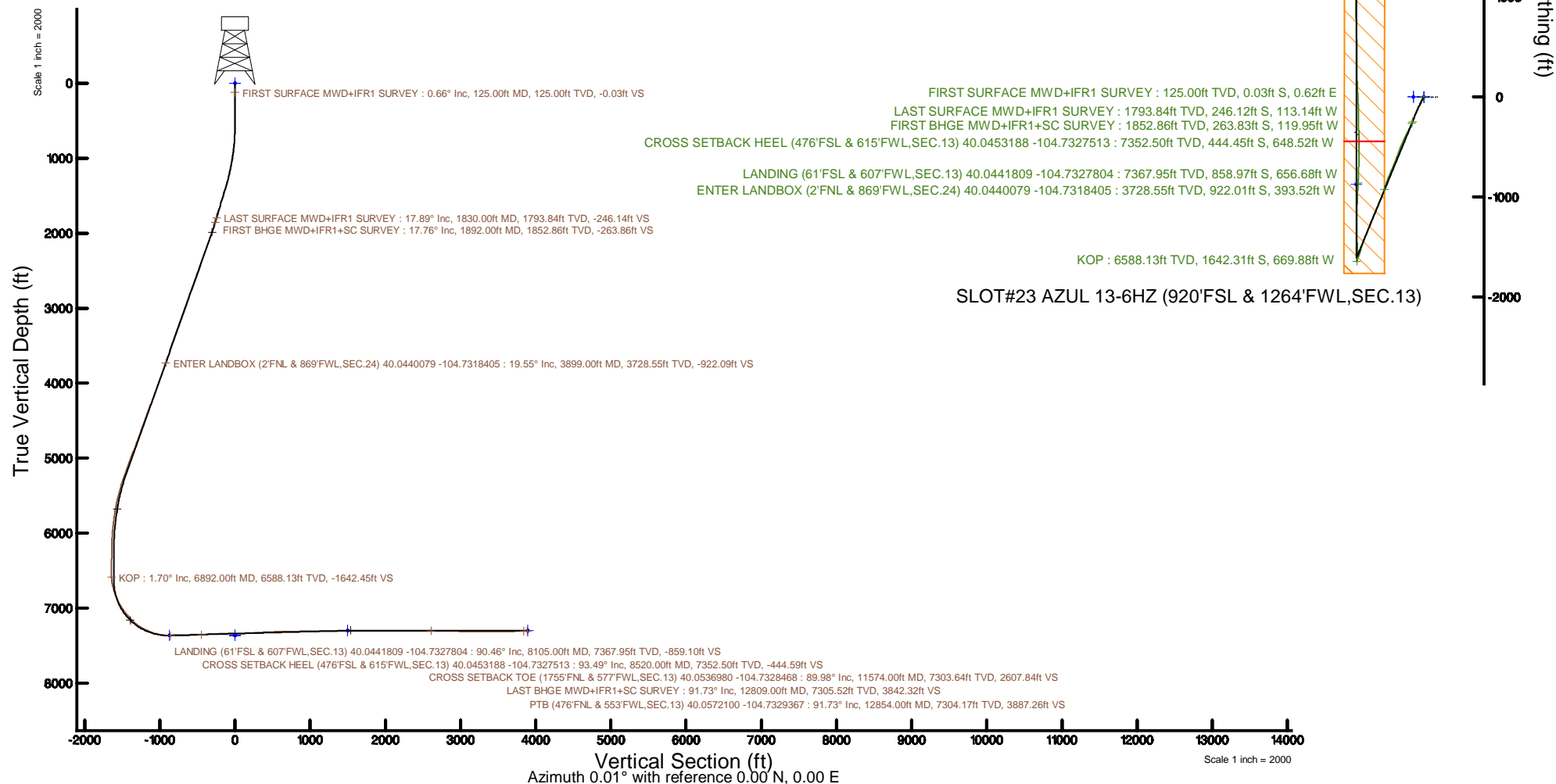


Location:	COLORADO	Slot:	SLOT#23 AZUL 13-6HZ (920'FSL & 1264'FWL, SEC.13)
Field:	WELD COUNTY (UTM/TRUE NORTH)	Well:	AZUL 13-6HZ
Facility:	SEC 13-T1N-R66W	Wellbore:	AZUL 13-6HZ PWB
Plot reference wellpath is AZUL 13-6HZ PWP Rev-A.0			
True vertical depths are referenced to Xreme 22 (17) (RT)	Grid System: NAD83 / UTM Zone 13 North, US feet		
Measured depths are referenced to Xreme 22 (17) (RT)	* = Wellpath was transformed from a different geoidetic datum		
Xreme 22 (17) (RT) to Mean Sea Level: 5088 feet	North Reference: True north		
Mean Sea Level to Mud line (At Slot: SLOT#23 AZUL 13-6HZ (920'FSL & 1264'FWL, SEC.13)): 0 feet	Scale: True distance		
Coordinates are in feet referenced to Slot	Depths are in feet		
	Created by: painsear on 2018-04-06		
	Database: WA_DEN_Anadarko_DeIn		



# Actual Wellpath Report

AZUL 13-6HZ AWP

Page 1 of 7

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#23 AZUL 13-6HZ (920'FSL & 1264'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-6HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-6HZ 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	4/6/2018 at 10:58 AM
Convergence at slot	0.18° East	Database/Source file	WA_DEN_Anadarko_Defn/AZUL_13-6HZ_AWP.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	-4158.32	-1626.33	1715857.37	14543794.42	40°02'47.540"N	104°43'49.566"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	Xtreme 22 (17") (RT) to Facility Vertical Datum	5088.00ft
Horizontal Reference Pt	Slot	Xtreme 22 (17") (RT) to Mean Sea Level	5088.00ft
Vertical Reference Pt	Xtreme 22 (17") (RT)	Xtreme 22 (17") (RT) to Mud Line at Slot (SLOT#23 AZUL 13-6HZ (920'FSL & 1264'FWL,SEC.13))	5088.00ft
MD Reference Pt	Xtreme 22 (17") (RT)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.01°

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#23 AZUL 13-6HZ (920'FSL & 1264'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-6HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-6HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (187 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	92.390	0.00	0.00	0.00	0.00	1715857.37	14543794.42	40°02'47.540"N	104°43'49.566"W	0.00	
17.00	0.000	92.390	17.00	0.00	0.00	0.00	1715857.37	14543794.42	40°02'47.540"N	104°43'49.566"W	0.00	
125.00	0.660	92.390	125.00	-0.03	-0.03	0.62	1715858.00	14543794.39	40°02'47.540"N	104°43'49.558"W	0.61	FIRST SURFACE MWD+IFR1 SURVEY
157.00	0.790	68.130	157.00	0.05	0.05	1.01	1715858.38	14543794.47	40°02'47.540"N	104°43'49.553"W	1.03	
188.00	0.400	51.520	187.99	0.20	0.20	1.29	1715858.67	14543794.62	40°02'47.542"N	104°43'49.549"W	1.36	
220.00	0.570	70.150	219.99	0.32	0.32	1.53	1715858.90	14543794.74	40°02'47.543"N	104°43'49.546"W	0.72	
251.00	0.660	66.690	250.99	0.44	0.44	1.84	1715859.21	14543794.86	40°02'47.544"N	104°43'49.542"W	0.31	
283.00	0.750	89.930	282.99	0.52	0.52	2.22	1715859.59	14543794.94	40°02'47.545"N	104°43'49.537"W	0.93	
314.00	0.920	78.940	313.98	0.56	0.56	2.67	1715860.04	14543794.99	40°02'47.546"N	104°43'49.532"W	0.75	
346.00	1.100	85.530	345.98	0.64	0.64	3.22	1715860.59	14543795.06	40°02'47.546"N	104°43'49.525"W	0.67	
377.00	0.130	110.490	376.98	0.65	0.65	3.55	1715860.92	14543795.08	40°02'47.546"N	104°43'49.520"W	3.17	
409.00	0.400	307.100	408.98	0.70	0.70	3.50	1715860.87	14543795.13	40°02'47.547"N	104°43'49.521"W	1.64	
441.00	0.400	332.500	440.98	0.87	0.87	3.36	1715860.73	14543795.30	40°02'47.549"N	104°43'49.523"W	0.55	
472.00	0.480	289.350	471.98	1.01	1.01	3.19	1715860.55	14543795.43	40°02'47.550"N	104°43'49.525"W	1.07	
504.00	0.660	308.250	503.97	1.17	1.17	2.91	1715860.28	14543795.59	40°02'47.552"N	104°43'49.529"W	0.81	
535.00	1.670	232.310	534.97	1.00	1.00	2.42	1715859.79	14543795.42	40°02'47.550"N	104°43'49.535"W	5.29	
567.00	1.930	230.810	566.95	0.38	0.37	1.63	1715859.00	14543794.80	40°02'47.544"N	104°43'49.545"W	0.83	
599.00	2.420	228.530	598.93	-0.41	-0.41	0.71	1715858.08	14543794.01	40°02'47.536"N	104°43'49.557"W	1.55	
631.00	2.770	229.940	630.90	-1.36	-1.36	-0.39	1715856.99	14543793.06	40°02'47.527"N	104°43'49.571"W	1.11	
663.00	3.210	227.910	662.85	-2.46	-2.46	-1.65	1715855.73	14543791.96	40°02'47.516"N	104°43'49.587"W	1.41	
695.00	3.520	222.200	694.80	-3.79	-3.78	-2.97	1715854.41	14543790.63	40°02'47.503"N	104°43'49.604"W	1.43	
726.00	4.090	217.460	725.73	-5.37	-5.37	-4.29	1715853.11	14543789.04	40°02'47.487"N	104°43'49.621"W	2.10	
758.00	4.830	214.820	757.63	-7.38	-7.38	-5.75	1715851.65	14543787.02	40°02'47.467"N	104°43'49.640"W	2.40	
790.00	5.410	213.680	789.51	-9.74	-9.74	-7.35	1715850.05	14543784.66	40°02'47.444"N	104°43'49.661"W	1.84	
822.00	5.800	211.920	821.35	-12.37	-12.37	-9.05	1715848.37	14543782.03	40°02'47.418"N	104°43'49.682"W	1.33	
854.00	6.720	209.460	853.16	-15.37	-15.37	-10.82	1715846.60	14543779.02	40°02'47.388"N	104°43'49.705"W	2.99	
885.00	7.560	210.070	883.92	-18.72	-18.71	-12.74	1715844.70	14543775.67	40°02'47.355"N	104°43'49.730"W	2.72	
917.00	8.570	205.590	915.60	-22.69	-22.69	-14.82	1715842.63	14543771.69	40°02'47.316"N	104°43'49.757"W	3.72	
949.00	8.920	207.880	947.23	-27.03	-27.03	-17.01	1715840.45	14543767.35	40°02'47.273"N	104°43'49.785"W	1.54	
980.00	9.270	205.850	977.84	-31.41	-31.40	-19.22	1715838.25	14543762.97	40°02'47.230"N	104°43'49.813"W	1.53	
1012.00	10.500	204.970	1009.37	-36.37	-36.36	-21.58	1715835.91	14543758.00	40°02'47.181"N	104°43'49.843"W	3.87	
1044.00	11.120	204.800	1040.80	-41.81	-41.81	-24.10	1715833.41	14543752.55	40°02'47.127"N	104°43'49.876"W	1.94	
1076.00	11.870	204.710	1072.16	-47.61	-47.60	-26.77	1715830.76	14543746.75	40°02'47.070"N	104°43'49.910"W	2.34	
1107.00	12.480	205.330	1102.46	-53.53	-53.52	-29.54	1715828.01	14543740.83	40°02'47.011"N	104°43'49.946"W	2.01	
1139.00	13.320	207.260	1133.65	-59.93	-59.93	-32.71	1715824.86	14543734.42	40°02'46.948"N	104°43'49.987"W	2.95	
1171.00	13.450	204.270	1164.78	-66.60	-66.60	-35.92	1715821.67	14543727.74	40°02'46.882"N	104°43'50.028"W	2.20	
1202.00	13.970	204.100	1194.90	-73.31	-73.30	-38.93	1715818.68	14543721.03	40°02'46.816"N	104°43'50.067"W	1.68	
1234.00	14.190	204.890	1225.94	-80.39	-80.38	-42.16	1715815.47	14543713.94	40°02'46.746"N	104°43'50.108"W	0.91	
1266.00	14.770	207.350	1256.92	-87.57	-87.56	-45.69	1715811.97	14543706.75	40°02'46.675"N	104°43'50.153"W	2.64	
1298.00	15.510	206.640	1287.81	-95.02	-95.01	-49.48	1715808.20	14543699.29	40°02'46.601"N	104°43'50.202"W	2.38	
1330.00	16.610	207.080	1318.56	-102.92	-102.91	-53.48	1715804.23	14543691.39	40°02'46.523"N	104°43'50.254"W	3.46	
1361.00	17.670	204.970	1348.18	-111.13	-111.12	-57.48	1715800.25	14543683.17	40°02'46.442"N	104°43'50.305"W	3.96	
1393.00	18.240	203.660	1378.63	-120.12	-120.11	-61.54	1715796.22	14543674.17	40°02'46.353"N	104°43'50.357"W	2.18	
1425.00	18.850	205.330	1408.96	-129.38	-129.37	-65.77	1715792.03	14543664.90	40°02'46.262"N	104°43'50.412"W	2.53	
1456.00	19.160	205.770	1438.27	-138.49	-138.48	-70.12	1715787.70	14543655.79	40°02'46.172"N	104°43'50.468"W	1.10	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#23 AZUL 13-6HZ (920'FSL & 1264'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-6HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-6HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (187 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
1488.00	18.330	204.450	1468.58	-147.80	-147.78	-74.49	1715783.37	14543646.47	40°02'46.080"N	104°43'50.524"W	2.91	
1519.00	17.930	202.510	1498.04	-156.65	-156.63	-78.33	1715779.55	14543637.61	40°02'45.992"N	104°43'50.573"W	2.34	
1551.00	18.280	200.840	1528.45	-165.89	-165.87	-82.00	1715775.91	14543628.36	40°02'45.901"N	104°43'50.620"W	1.96	
1615.00	17.580	201.020	1589.35	-184.29	-184.27	-89.04	1715768.93	14543609.95	40°02'45.719"N	104°43'50.711"W	1.10	
1646.00	17.490	201.110	1618.90	-193.01	-192.99	-92.40	1715765.60	14543601.22	40°02'45.633"N	104°43'50.754"W	0.30	
1678.00	17.840	200.840	1649.40	-202.08	-202.06	-95.87	1715762.15	14543592.15	40°02'45.543"N	104°43'50.799"W	1.12	
1710.00	18.190	199.970	1679.83	-211.35	-211.33	-99.32	1715758.73	14543582.87	40°02'45.452"N	104°43'50.843"W	1.38	
1742.00	18.540	201.370	1710.20	-220.79	-220.76	-102.88	1715755.20	14543573.43	40°02'45.358"N	104°43'50.889"W	1.76	
1773.00	18.060	202.340	1739.63	-229.82	-229.80	-106.50	1715751.61	14543564.39	40°02'45.269"N	104°43'50.935"W	1.83	
1805.00	18.020	202.430	1770.06	-238.99	-238.96	-110.28	1715747.86	14543555.22	40°02'45.179"N	104°43'50.984"W	0.15	
1830.00	17.890	201.110	1793.84	-246.14	-246.12	-113.14	1715745.03	14543548.05	40°02'45.108"N	104°43'51.021"W	1.71	LAST SURFACE MWD+IFR1 SURVEY
1892.00	17.760	200.990	1852.86	-263.86	-263.83	-119.95	1715738.27	14543530.33	40°02'44.933"N	104°43'51.108"W	0.22	FIRST BHGE MWD+IFR1+SC SURVEY
1979.00	19.460	206.910	1935.32	-289.17	-289.15	-131.27	1715727.04	14543504.99	40°02'44.683"N	104°43'51.254"W	2.92	
2067.00	20.700	206.130	2017.97	-316.21	-316.18	-144.75	1715713.64	14543477.92	40°02'44.415"N	104°43'51.427"W	1.44	
2155.00	21.900	208.180	2099.96	-344.65	-344.61	-159.35	1715699.13	14543449.46	40°02'44.134"N	104°43'51.615"W	1.60	
2243.00	21.250	206.560	2181.79	-373.38	-373.34	-174.23	1715684.34	14543420.70	40°02'43.851"N	104°43'51.806"W	1.00	
2331.00	20.850	205.710	2263.92	-401.76	-401.72	-188.16	1715670.51	14543392.29	40°02'43.570"N	104°43'51.985"W	0.57	
2419.00	21.550	203.170	2345.96	-430.73	-430.69	-201.31	1715657.45	14543363.29	40°02'43.284"N	104°43'52.154"W	1.31	
2506.00	20.420	203.460	2427.19	-459.35	-459.30	-213.64	1715645.21	14543334.65	40°02'43.001"N	104°43'52.313"W	1.30	
2594.00	20.580	204.170	2509.62	-487.54	-487.49	-226.08	1715632.86	14543306.43	40°02'42.722"N	104°43'52.473"W	0.34	
2681.00	21.070	201.220	2590.94	-516.07	-516.02	-238.01	1715621.03	14543277.88	40°02'42.441"N	104°43'52.626"W	1.33	
2769.00	21.610	200.750	2672.90	-545.98	-545.92	-249.47	1715609.65	14543247.96	40°02'42.145"N	104°43'52.774"W	0.64	
2856.00	21.590	199.900	2753.79	-576.01	-575.96	-260.60	1715598.62	14543217.90	40°02'41.848"N	104°43'52.917"W	0.36	
2944.00	19.860	199.530	2836.10	-605.33	-605.27	-271.10	1715588.21	14543188.57	40°02'41.559"N	104°43'53.052"W	1.97	
3031.00	20.460	201.860	2917.77	-633.37	-633.31	-281.71	1715577.70	14543160.51	40°02'41.281"N	104°43'53.188"W	1.15	
3119.00	21.360	201.440	2999.97	-662.56	-662.50	-293.29	1715566.20	14543131.29	40°02'40.993"N	104°43'53.337"W	1.04	
3206.00	21.410	203.910	3080.98	-691.83	-691.77	-305.52	1715554.07	14543102.00	40°02'40.704"N	104°43'53.494"W	1.04	
3294.00	21.330	202.970	3162.93	-721.25	-721.19	-318.28	1715541.41	14543072.56	40°02'40.413"N	104°43'53.658"W	0.40	
3381.00	19.640	202.270	3244.43	-749.35	-749.29	-329.99	1715529.78	14543044.43	40°02'40.135"N	104°43'53.809"W	1.96	
3469.00	21.130	203.350	3326.92	-777.61	-777.54	-341.88	1715517.98	14543016.16	40°02'39.856"N	104°43'53.962"W	1.75	
3556.00	21.250	201.680	3408.03	-806.66	-806.58	-353.92	1715506.03	14542987.09	40°02'39.569"N	104°43'54.117"W	0.71	
3644.00	21.650	200.050	3489.94	-836.73	-836.65	-365.38	1715494.67	14542956.99	40°02'39.272"N	104°43'54.264"W	0.82	
3731.00	21.270	199.090	3570.91	-866.72	-866.64	-376.04	1715484.10	14542926.99	40°02'38.976"N	104°43'54.401"W	0.59	
3818.00	20.000	196.780	3652.33	-895.88	-895.80	-385.50	1715474.74	14542897.81	40°02'38.687"N	104°43'54.523"W	1.73	
3899.00†	19.553	197.245	3728.55	-922.09	-922.01	-393.52	1715466.80	14542871.59	40°02'38.428"N	104°43'54.626"W	0.58	ENTER LANDBOX (2'FNL & 869'FWL,SEC.24) 40.0440079 -104.7318405
3905.00	19.520	197.280	3734.20	-924.01	-923.92	-394.11	1715466.21	14542869.67	40°02'38.410"N	104°43'54.633"W	0.58	
3993.00	20.250	200.840	3816.96	-952.28	-952.20	-403.90	1715456.52	14542841.38	40°02'38.130"N	104°43'54.759"W	1.61	
4080.00	21.770	201.630	3898.17	-981.35	-981.27	-415.20	1715445.31	14542812.29	40°02'37.843"N	104°43'54.905"W	1.78	
4168.00	21.440	203.860	3979.99	-1011.23	-1011.14	-427.72	1715432.88	14542782.38	40°02'37.548"N	104°43'55.066"W	1.01	
4255.00	21.580	201.980	4060.93	-1040.61	-1040.52	-440.14	1715420.56	14542752.98	40°02'37.257"N	104°43'55.225"W	0.81	
4343.00	21.100	202.390	4142.90	-1070.27	-1070.18	-452.23	1715408.56	14542723.30	40°02'36.964"N	104°43'55.381"W	0.57	
4430.00	21.590	203.970	4223.93	-1099.38	-1099.28	-464.70	1715396.18	14542694.17	40°02'36.677"N	104°43'55.541"W	0.87	
4518.00	21.970	202.080	4305.65	-1129.43	-1129.33	-477.47	1715383.51	14542664.09	40°02'36.380"N	104°43'55.705"W	0.91	
4605.00	21.940	201.940	4386.34	-1159.59	-1159.49	-489.66	1715371.42	14542633.91	40°02'36.082"N	104°43'55.862"W	0.07	
4693.00	22.850	202.550	4467.70	-1190.62	-1190.52	-502.35	1715358.82	14542602.86	40°02'35.775"N	104°43'56.025"W	1.07	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#23 AZUL 13-6HZ (920'FSL & 1264'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-6HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-6HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (187 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
4780.00	21.110	201.760	4548.38	-1220.78	-1220.67	-514.64	1715346.63	14542572.68	40°02'35.477"N	104°43'56.183"W	2.03	
4868.00	21.700	202.980	4630.31	-1250.48	-1250.37	-526.87	1715334.50	14542542.96	40°02'35.184"N	104°43'56.340"W	0.84	
4955.00	21.170	200.030	4711.29	-1280.05	-1279.93	-538.53	1715322.94	14542513.37	40°02'34.891"N	104°43'56.490"W	1.38	
5043.00	20.850	201.400	4793.44	-1309.56	-1309.44	-549.68	1715311.87	14542483.83	40°02'34.600"N	104°43'56.634"W	0.67	
5130.00	21.830	203.360	4874.48	-1338.83	-1338.71	-561.75	1715299.90	14542454.54	40°02'34.310"N	104°43'56.789"W	1.39	
5218.00	22.310	201.750	4956.03	-1369.36	-1369.24	-574.42	1715287.32	14542423.98	40°02'34.009"N	104°43'56.952"W	0.88	
5305.00	22.910	202.370	5036.34	-1400.37	-1400.24	-586.99	1715274.86	14542392.96	40°02'33.702"N	104°43'57.113"W	0.74	
5392.00	21.040	200.330	5117.02	-1430.67	-1430.55	-598.86	1715263.08	14542362.63	40°02'33.403"N	104°43'57.266"W	2.32	
5480.00	20.690	200.590	5199.25	-1460.04	-1459.92	-609.82	1715252.22	14542333.24	40°02'33.113"N	104°43'57.407"W	0.41	
5567.00	19.320	197.530	5281.00	-1488.16	-1488.03	-619.56	1715242.57	14542305.11	40°02'32.835"N	104°43'57.532"W	1.98	
5655.00	17.610	194.270	5364.47	-1514.94	-1514.81	-627.22	1715234.99	14542278.31	40°02'32.570"N	104°43'57.631"W	2.27	
5742.00	15.600	196.970	5447.84	-1538.89	-1538.76	-633.88	1715228.40	14542254.36	40°02'32.334"N	104°43'57.716"W	2.47	
5829.00	14.300	199.490	5531.89	-1560.21	-1560.08	-640.88	1715221.47	14542233.03	40°02'32.123"N	104°43'57.806"W	1.67	
5917.00	12.630	196.870	5617.47	-1579.67	-1579.53	-647.30	1715215.11	14542213.56	40°02'31.931"N	104°43'57.889"W	2.02	
6004.00	9.420	202.340	5702.86	-1595.36	-1595.22	-652.77	1715209.69	14542197.86	40°02'31.776"N	104°43'57.959"W	3.88	
6092.00	8.330	200.590	5789.80	-1607.99	-1607.85	-657.75	1715204.76	14542185.22	40°02'31.651"N	104°43'58.023"W	1.28	
6180.00	7.130	197.570	5877.00	-1619.16	-1619.03	-661.64	1715200.90	14542174.04	40°02'31.540"N	104°43'58.073"W	1.44	
6267.00	5.160	201.810	5963.50	-1627.94	-1627.81	-664.72	1715197.84	14542165.25	40°02'31.454"N	104°43'58.113"W	2.32	
6355.00	3.190	198.240	6051.26	-1633.95	-1633.81	-666.96	1715195.63	14542159.25	40°02'31.394"N	104°43'58.141"W	2.26	
6442.00	1.280	213.170	6138.19	-1637.06	-1636.92	-668.25	1715194.35	14542156.13	40°02'31.363"N	104°43'58.158"W	2.28	
6530.00	1.390	194.980	6226.17	-1638.91	-1638.77	-669.06	1715193.54	14542154.28	40°02'31.345"N	104°43'58.168"W	0.50	
6618.00	1.040	190.750	6314.15	-1640.73	-1640.59	-669.49	1715193.12	14542152.46	40°02'31.327"N	104°43'58.174"W	0.41	
6705.00	0.570	189.410	6401.14	-1641.93	-1641.79	-669.70	1715192.91	14542151.26	40°02'31.315"N	104°43'58.177"W	0.54	
6792.00	0.340	188.520	6488.13	-1642.61	-1642.47	-669.81	1715192.80	14542150.57	40°02'31.309"N	104°43'58.178"W	0.26	
6879.00	0.260	350.010	6575.13	-1642.67	-1642.53	-669.89	1715192.73	14542150.51	40°02'31.308"N	104°43'58.179"W	0.68	
6892.00†	1.702	1.723	6588.13	-1642.45	-1642.31	-669.88	1715192.73	14542150.74	40°02'31.310"N	104°43'58.179"W	11.14	KOP
6967.00	10.060	3.460	6662.67	-1634.79	-1634.65	-669.46	1715193.13	14542158.40	40°02'31.386"N	104°43'58.174"W	11.14	
7055.00	16.740	9.930	6748.23	-1614.61	-1614.47	-666.80	1715195.72	14542178.58	40°02'31.585"N	104°43'58.139"W	7.77	
7142.00	21.200	3.280	6830.50	-1586.54	-1586.40	-663.74	1715198.70	14542206.64	40°02'31.863"N	104°43'58.100"W	5.69	
7230.00	25.950	358.990	6911.13	-1551.38	-1551.24	-663.17	1715199.16	14542241.79	40°02'32.210"N	104°43'58.093"W	5.74	
7317.00	31.940	358.650	6987.23	-1509.31	-1509.17	-664.05	1715198.16	14542283.84	40°02'32.626"N	104°43'58.104"W	6.89	
7405.00	37.290	358.470	7059.63	-1459.35	-1459.21	-665.31	1715196.75	14542333.78	40°02'33.120"N	104°43'58.120"W	6.08	
7492.00	41.480	356.800	7126.86	-1404.21	-1404.07	-667.62	1715194.27	14542388.89	40°02'33.665"N	104°43'58.150"W	4.97	
7581.00	49.150	359.390	7189.40	-1341.03	-1340.89	-669.63	1715192.07	14542452.04	40°02'34.289"N	104°43'58.176"W	8.86	
7668.00	57.140	1.660	7241.55	-1271.48	-1271.34	-668.92	1715192.57	14542521.56	40°02'34.976"N	104°43'58.167"W	9.42	
7756.00	64.160	0.820	7284.65	-1194.84	-1194.70	-667.28	1715193.98	14542598.17	40°02'35.734"N	104°43'58.146"W	8.02	
7843.00	69.820	0.610	7318.65	-1114.80	-1114.66	-666.28	1715194.73	14542678.18	40°02'36.525"N	104°43'58.133"W	6.51	
7930.00	75.220	2.680	7344.77	-1031.89	-1031.75	-663.88	1715196.88	14542761.07	40°02'37.344"N	104°43'58.102"W	6.61	
8018.00	81.940	1.920	7362.18	-945.75	-945.61	-660.43	1715200.07	14542847.19	40°02'38.195"N	104°43'58.058"W	7.68	
8105.00	90.460	3.030	7367.95	-859.10	-858.97	-656.68	1715203.56	14542933.81	40°02'39.051"N	104°43'58.010"W	9.88	LANDING (61'FSL & 607'FWL,SEC.13) 40.0441809 -104.7327804
8193.00	91.630	1.890	7366.34	-771.20	-771.06	-652.90	1715207.07	14543021.69	40°02'39.920"N	104°43'57.961"W	1.86	
8280.00	91.540	2.040	7363.93	-684.29	-684.15	-649.92	1715209.78	14543108.58	40°02'40.779"N	104°43'57.923"W	0.20	
8368.00	92.770	0.080	7360.62	-596.37	-596.23	-648.29	1715211.14	14543196.46	40°02'41.648"N	104°43'57.902"W	2.63	
8455.00	93.050	359.830	7356.21	-509.48	-509.34	-648.36	1715210.81	14543283.31	40°02'42.506"N	104°43'57.903"W	0.43	
8520.00†	93.486	359.896	7352.50	-444.59	-444.45	-648.52	1715210.46	14543348.18	40°02'43.148"N	104°43'57.905"W	0.68	CROSS SETBACK HEEL (476'FSL & 615'FWL,SEC.13) 40.0453188 -104.7327513

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#23 AZUL 13-6HZ (920'FSL & 1264'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-6HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-6HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (187 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
8543.00	93.640	359.920	7351.07	-421.63	-421.50	-648.55	1715210.36	14543371.13	40°02'43.375"N	104°43'57.905"W	0.68	
8630.00	92.340	357.920	7346.54	-334.77	-334.64	-650.19	1715208.46	14543457.95	40°02'44.233"N	104°43'57.926"W	2.74	
8718.00	92.160	359.550	7343.08	-246.86	-246.73	-652.13	1715206.25	14543545.82	40°02'45.102"N	104°43'57.951"W	1.86	
8805.00	91.570	359.150	7340.25	-159.92	-159.78	-653.12	1715205.00	14543632.73	40°02'45.961"N	104°43'57.964"W	0.82	
8893.00	90.890	357.890	7338.36	-71.97	-71.83	-655.39	1715202.46	14543720.63	40°02'46.830"N	104°43'57.993"W	1.63	
8980.00	90.650	356.930	7337.19	14.93	15.07	-659.32	1715198.27	14543807.49	40°02'47.689"N	104°43'58.044"W	1.14	
9068.00	91.540	357.690	7335.51	102.82	102.96	-663.45	1715193.88	14543895.32	40°02'48.557"N	104°43'58.097"W	1.33	
9155.00	92.900	359.050	7332.14	189.71	189.85	-665.92	1715191.14	14543982.18	40°02'49.416"N	104°43'58.129"W	2.21	
9243.00	93.920	359.020	7326.90	277.54	277.68	-667.40	1715189.40	14544069.97	40°02'50.284"N	104°43'58.148"W	1.16	
9330.00	92.620	359.180	7321.94	364.39	364.53	-668.77	1715187.77	14544156.78	40°02'51.142"N	104°43'58.165"W	1.51	
9418.00	92.440	0.440	7318.06	452.30	452.44	-669.06	1715187.21	14544244.65	40°02'52.011"N	104°43'58.169"W	1.44	
9505.00	91.970	359.030	7314.71	539.23	539.37	-669.46	1715186.55	14544331.55	40°02'52.870"N	104°43'58.174"W	1.71	
9592.00	90.400	358.880	7312.91	626.20	626.34	-671.05	1715184.70	14544418.47	40°02'53.730"N	104°43'58.195"W	1.81	
9679.00	90.890	358.330	7311.93	713.16	713.30	-673.17	1715182.32	14544505.40	40°02'54.589"N	104°43'58.222"W	0.85	
9766.00	91.820	358.080	7309.87	800.09	800.24	-675.89	1715179.33	14544592.29	40°02'55.448"N	104°43'58.257"W	1.11	
9854.00	90.120	358.950	7308.38	888.05	888.19	-678.17	1715176.79	14544680.20	40°02'56.317"N	104°43'58.286"W	2.17	
9942.00	90.490	358.840	7307.92	976.03	976.17	-679.87	1715174.83	14544768.14	40°02'57.187"N	104°43'58.308"W	0.44	
10029.00	89.450	359.680	7307.96	1063.02	1063.16	-680.99	1715173.44	14544855.09	40°02'58.046"N	104°43'58.323"W	1.54	
10117.00	90.180	359.700	7308.25	1151.02	1151.16	-681.47	1715172.70	14544943.06	40°02'58.916"N	104°43'58.329"W	0.83	
10205.00	91.110	359.950	7307.25	1239.01	1239.15	-681.74	1715172.16	14545031.01	40°02'59.786"N	104°43'58.332"W	1.09	
10293.00	90.150	1.150	7306.29	1327.00	1327.14	-680.89	1715172.74	14545118.97	40°03'00.655"N	104°43'58.322"W	1.75	
10380.00	90.650	0.980	7305.68	1413.98	1414.12	-679.27	1715174.09	14545205.92	40°03'01.515"N	104°43'58.301"W	0.61	
10468.00	91.450	0.560	7304.07	1501.96	1502.10	-678.09	1715175.01	14545293.86	40°03'02.384"N	104°43'58.286"W	1.03	
10555.00	88.980	0.760	7303.74	1588.95	1589.09	-677.09	1715175.75	14545380.82	40°03'03.244"N	104°43'58.273"W	2.85	
10643.00	89.290	0.510	7305.07	1676.93	1677.07	-676.11	1715176.46	14545468.77	40°03'04.113"N	104°43'58.260"W	0.45	
10730.00	90.550	0.990	7305.19	1763.92	1764.06	-674.98	1715177.33	14545555.73	40°03'04.973"N	104°43'58.246"W	1.55	
10818.00	90.280	0.390	7304.55	1851.91	1852.05	-673.92	1715178.12	14545643.69	40°03'05.842"N	104°43'58.232"W	0.75	
10906.00	89.820	359.800	7304.48	1939.91	1940.05	-673.77	1715178.00	14545731.65	40°03'06.712"N	104°43'58.230"W	0.85	
10993.00	91.420	0.210	7303.54	2026.90	2027.04	-673.76	1715177.75	14545818.61	40°03'07.572"N	104°43'58.230"W	1.90	
11081.00	89.510	0.660	7302.82	2114.89	2115.03	-673.09	1715178.15	14545906.57	40°03'08.441"N	104°43'58.222"W	2.23	
11168.00	89.380	0.440	7303.66	2201.89	2202.03	-672.26	1715178.72	14545993.53	40°03'09.301"N	104°43'58.211"W	0.29	
11255.00	89.820	0.310	7304.27	2288.88	2289.02	-671.69	1715179.03	14546080.49	40°03'10.161"N	104°43'58.204"W	0.53	
11344.00	89.850	359.900	7304.53	2377.88	2378.02	-671.53	1715178.92	14546169.46	40°03'11.040"N	104°43'58.202"W	0.46	
11431.00	90.180	359.080	7304.50	2464.88	2465.02	-672.30	1715177.88	14546256.41	40°03'11.900"N	104°43'58.212"W	1.02	
11518.00	90.590	358.780	7303.92	2551.86	2552.00	-673.93	1715176.00	14546343.36	40°03'12.759"N	104°43'58.232"W	0.58	
11574.00†	89.979	358.685	7303.64	2607.84	2607.98	-675.16	1715174.59	14546399.32	40°03'13.313"N	104°43'58.248"W	1.10	CROSS SETBACK TOE (1755'FNL & 577'FWL, SEC.13) 40.0536980 -104.7328468
11606.00	89.630	358.630	7303.75	2639.83	2639.98	-675.91	1715173.74	14546431.29	40°03'13.629"N	104°43'58.258"W	1.10	
11693.00	89.380	357.960	7304.50	2726.79	2726.93	-678.50	1715170.89	14546518.21	40°03'14.488"N	104°43'58.291"W	0.82	
11781.00	89.510	357.360	7305.36	2814.71	2814.86	-682.10	1715167.03	14546606.08	40°03'15.357"N	104°43'58.338"W	0.70	
11868.00	88.640	358.810	7306.76	2901.65	2901.79	-685.00	1715163.86	14546692.98	40°03'16.216"N	104°43'58.375"W	1.94	
11956.00	88.610	358.720	7308.87	2989.60	2989.75	-686.90	1715161.70	14546780.89	40°03'17.085"N	104°43'58.399"W	0.11	
12043.00	88.270	358.490	7311.24	3076.54	3076.69	-689.02	1715159.32	14546867.79	40°03'17.944"N	104°43'58.427"W	0.47	
12131.00	89.200	359.590	7313.18	3164.51	3164.65	-690.49	1715157.58	14546955.71	40°03'18.814"N	104°43'58.446"W	1.64	
12218.00	89.350	358.810	7314.28	3251.49	3251.64	-691.70	1715156.11	14547042.66	40°03'19.673"N	104°43'58.461"W	0.91	
12306.00	90.830	0.350	7314.15	3339.48	3339.63	-692.35	1715155.20	14547130.61	40°03'20.543"N	104°43'58.470"W	2.43	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#23 AZUL 13-6HZ (920'FSL & 1264'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-6HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-6HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH DATA (187 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
12393.00	90.860	359.940	7312.86	3426.47	3426.62	-692.13	1715155.15	14547217.57	40°03'21.403"N	104°43'58.467"W	0.47	
12481.00	90.770	0.050	7311.61	3514.46	3514.61	-692.14	1715154.88	14547305.53	40°03'22.272"N	104°43'58.467"W	0.16	
12568.00	90.770	359.500	7310.44	3601.46	3601.60	-692.48	1715154.27	14547392.48	40°03'23.132"N	104°43'58.471"W	0.63	
12656.00	90.860	358.850	7309.19	3689.44	3689.58	-693.75	1715152.74	14547480.42	40°03'24.001"N	104°43'58.488"W	0.75	
12743.00	91.510	358.150	7307.39	3776.39	3776.53	-696.02	1715150.20	14547567.33	40°03'24.860"N	104°43'58.517"W	1.10	
12809.00	91.730	357.640	7305.52	3842.32	3842.46	-698.45	1715147.58	14547633.23	40°03'25.512"N	104°43'58.548"W	0.84	LAST BHGE MWD+IFR1+SC SURVEY
12854.00	91.730	357.640	7304.17	3887.26	3887.40	-700.30	1715145.59	14547678.15	40°03'25.956"N	104°43'58.572"W	0.00	PTB (476'FNL & 553'FWL,SEC.13) 40.0572100 -104.7329367

TARGETS								
Name	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SEC.13-T1N-R66W	0.00	1.11	-104.99	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
SEC.24-T1N-R66W	0.00	1.11	-104.99	1715752.42	14543795.21	40°02'47.551"N	104°43'50.916"W	polygon
AZUL 13-6HZ BHL REV-1(468'FNL & 581'FWL,SEC.13)	7298.00	3895.04	-671.83	1715174.02	14547685.87	40°03'26.032"N	104°43'58.206"W	point
AZUL 13-6HZ INT. TARGET @1500'VS	7298.00	1500.14	-672.32	1715180.78	14545291.92	40°03'02.365"N	104°43'58.211"W	point
AZUL 13-6HZ HEEL REV-1(50'FSL & 594'FWL,SEC.13)	7363.00	-874.61	-672.80	1715187.49	14542918.12	40°02'38.897"N	104°43'58.217"W	point
AZUL 13-6HZ LANDBOX	7363.00	0.00	0.00	1715857.37	14543794.42	40°02'47.540"N	104°43'49.566"W	polygon
AZUL 13-6HZ SETBACK 1	7363.00	0.00	0.00	1715857.37	14543794.42	40°02'47.540"N	104°43'49.566"W	polygon
AZUL 13-6HZ SETBACK 2	7363.00	0.00	0.00	1715857.37	14543794.42	40°02'47.540"N	104°43'49.566"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: AZUL 13-6HZ AWB Ref Wellpath: AZUL 13-6HZ AWP				
Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
17.00	1830.00	Custom APC ISCWSA REV 2 MWD+IFR1 (approximation)	Custom APC ISCWSA Rev-2 MWD+IFR1 <125 - 1830>	AZUL 13-6HZ AWB
1830.00	12809.00	Custom APC ISCWSA REV 2 MWD+IFR1+SC (approximation)	BHGE Custom APC ISCWSA Rev-2 MWD+IFR1+SC <1892 - 12809>	AZUL 13-6HZ AWB
12809.00	12854.00	Blind Drilling (std)	Projection to bit	AZUL 13-6HZ AWB

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP (WA)	Slot	SLOT#23 AZUL 13-6HZ (920'FSL & 1264'FWL,SEC.13)
Area	COLORADO	Well	AZUL 13-6HZ
Field	WELD COUNTY (UTM/TRUE NORTH)	Wellbore	AZUL 13-6HZ AWB
Facility	SEC.13-T1N-R66W		

WELLPATH COMMENTS				
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Comment
125.00	0.660	92.390	125.00	FIRST SURFACE MWD+IFR1 SURVEY
1830.00	17.890	201.110	1793.84	LAST SURFACE MWD+IFR1 SURVEY
1892.00	17.760	200.990	1852.86	FIRST BHGE MWD+IFR1+SC SURVEY
3899.00	19.553	197.245	3728.55	ENTER LANDBOX (2'FNL & 869'FWL,SEC.24) 40.0440079 -104.7318405
6892.00	1.702	1.723	6588.13	KOP
8105.00	90.460	3.030	7367.95	LANDING (61'FSL & 607'FWL,SEC.13) 40.0441809 -104.7327804
8520.00	93.486	359.896	7352.50	CROSS SETBACK HEEL (476'FSL & 615'FWL,SEC.13) 40.0453188 -104.7327513
11574.00	89.979	358.685	7303.64	CROSS SETBACK TOE (1755'FNL & 577'FWL,SEC.13) 40.0536980 -104.7328468
12809.00	91.730	357.640	7305.52	LAST BHGE MWD+IFR1+SC SURVEY
12854.00	91.730	357.640	7304.17	PTB (476'FNL & 553'FWL,SEC.13) 40.0572100 -104.7329367