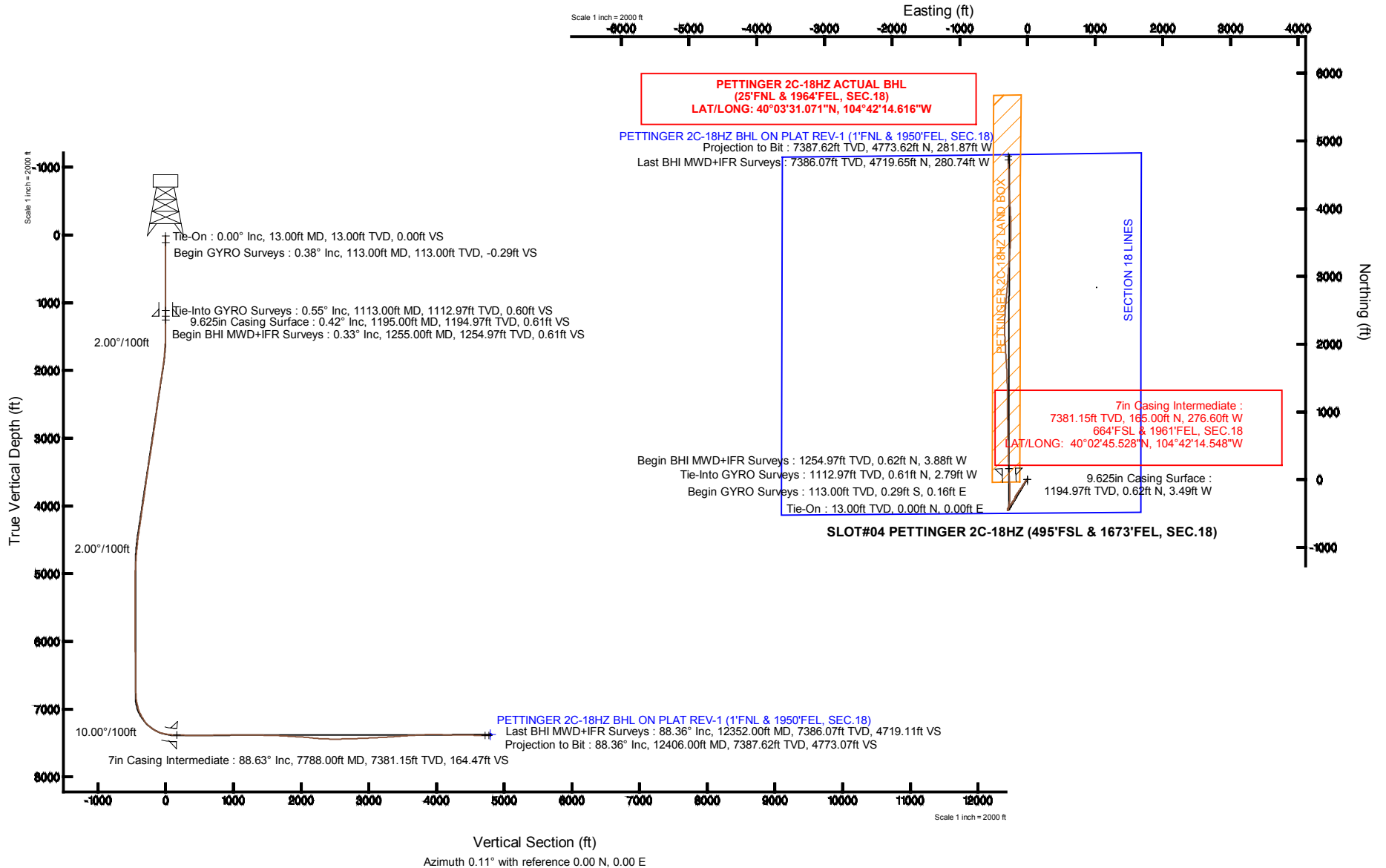


KERR-MCGEE OIL & GAS ONSHORE LP

Location: COLORADO Slot: SLOT#04 PETTINGER 2C-18HZ (495'FSL & 1673'FEL, SEC.18)
 Field: WELD COUNTY (KERR MCGEE) Well: PETTINGER 2C-18HZ
 Facility: SEC.18-T1N-R65W Wellbore: PETTINGER 2C-18HZ PWB

Plot reference wellpath is PETTINGER 2C-18HZ (REV-B.0) PWB

True vertical depths are referenced to ENSIGN 145 (13KB) (RKB)	Grid System: NAD83 / Lambert Colorado SP, Northern Zone (501), US feet
Measured depths are referenced to ENSIGN 145 (13KB) (RKB)	North Reference: True north
ENSIGN 145 (13KB) (RKB) to Mean Sea Level: 50.10 feet	Scale: True distance
Mean Sea Level to Mud line (At Slot: SLOT#04 PETTINGER 2C-18HZ (495'FSL & 1673'FEL, SEC.18)): 0 feet	Depths are in feet
Coordinates are in feet referenced to Slot	Created by: precain on 16/Apr/2014



Actual Wellpath Report

PETTINGER 2C-18HZ AWP

Page 1 of 5

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 PETTINGER 2C-18HZ (495'FSL & 1673'FEL, SEC.18)
Area	COLORADO	Well	PETTINGER 2C-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	PETTINGER 2C-18HZ AWB
Facility	SEC.18-T1N-R65W		

REPORT SETUP INFORMATION			
Projection System	NAD83 / Lambert Colorado SP, Northern Zone (501), US feet	Software System	WellArchitect® 4.0.0
North Reference	True	User	Precain
Scale	0.999963	Report Generated	16/Apr/2014 at 08:13
Convergence at slot	n/a	Database/Source file	WellArchitectDB/PETTINGER_2C-18HZ_AWB.xml

WELLPATH LOCATION						
	Local coordinates		Grid coordinates		Geographic coordinates	
	North[ft]	East[ft]	Easting[US ft]	Northing[US ft]	Latitude	Longitude
Slot Location	78.22	0.23	3223115.50	1260433.75	40°02'43.897"N	104°42'10.991"W
Facility Reference Pt			3223115.97	1260355.54	40°02'43.124"N	104°42'10.994"W
Field Reference Pt			3197771.84	1268891.29	40°04'09.600"N	104°47'36.000"W

WELLPATH DATUM			
Calculation method	Minimum curvature	ENSIGN 145 (13'KB) (RKB) to Facility Vertical Datum	5010.00ft
Horizontal Reference Pt	Slot	ENSIGN 145 (13'KB) (RKB) to Mean Sea Level	5010.00ft
Vertical Reference Pt	ENSIGN 145 (13'KB) (RKB)	ENSIGN 145 (13'KB) (RKB) to Mud Line at Slot (SLOT#04 PETTINGER 2C-18HZ (495'FSL & 1673'FEL, SEC.18))	5010.00ft
MD Reference Pt	ENSIGN 145 (13'KB) (RKB)	Section Origin	N 0.00, E 0.00 ft
Field Vertical Reference	Mean Sea Level	Section Azimuth	0.11°

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 PETTINGER 2C-18HZ (495'FSL & 1673'FEL, SEC.18)
Area	COLORADO	Well	PETTINGER 2C-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	PETTINGER 2C-18HZ AWB
Facility	SEC.18-T1N-R65W		

WELLPATH DATA (139 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	151.620	0.00	0.00	0.00	0.00	40°02'43.897"N	104°42'10.991"W	0.00	
13.00	0.000	151.620	13.00	0.00	0.00	0.00	40°02'43.897"N	104°42'10.991"W	0.00	Tie-On
113.00	0.380	151.620	113.00	-0.29	-0.29	0.16	40°02'43.894"N	104°42'10.989"W	0.38	Begin GYRO Surveys
213.00	0.080	87.160	213.00	-0.58	-0.58	0.38	40°02'43.891"N	104°42'10.986"W	0.35	
313.00	0.660	166.820	313.00	-1.14	-1.14	0.59	40°02'43.886"N	104°42'10.983"W	0.65	
413.00	0.380	123.680	412.99	-1.88	-1.88	0.99	40°02'43.878"N	104°42'10.978"W	0.46	
513.00	0.310	312.600	512.99	-1.88	-1.88	1.07	40°02'43.878"N	104°42'10.977"W	0.69	
613.00	0.370	305.410	612.99	-1.51	-1.51	0.61	40°02'43.882"N	104°42'10.983"W	0.07	
713.00	0.420	327.270	712.99	-1.02	-1.02	0.15	40°02'43.887"N	104°42'10.989"W	0.16	
813.00	0.540	311.630	812.98	-0.40	-0.40	-0.40	40°02'43.893"N	104°42'10.996"W	0.18	
913.00	0.480	300.090	912.98	0.13	0.13	-1.12	40°02'43.898"N	104°42'11.005"W	0.12	
1013.00	0.500	287.610	1012.98	0.47	0.47	-1.90	40°02'43.902"N	104°42'11.015"W	0.11	
1113.00	0.550	270.880	1112.97	0.60	0.61	-2.79	40°02'43.903"N	104°42'11.027"W	0.16	Tie-Into GYRO Surveys
1255.00	0.330	270.270	1254.97	0.61	0.62	-3.88	40°02'43.903"N	104°42'11.041"W	0.15	Begin BHI MWD+IFR Surveys
1349.00	0.220	267.420	1348.97	0.61	0.61	-4.33	40°02'43.903"N	104°42'11.047"W	0.12	
1442.00	1.380	215.290	1441.96	-0.32	-0.31	-5.16	40°02'43.894"N	104°42'11.057"W	1.35	
1536.00	2.870	220.610	1535.89	-3.03	-3.02	-7.35	40°02'43.867"N	104°42'11.085"W	1.60	
1629.00	4.440	226.960	1628.70	-7.27	-7.24	-11.49	40°02'43.825"N	104°42'11.139"W	1.74	
1723.00	6.430	223.990	1722.27	-13.55	-13.51	-17.81	40°02'43.763"N	104°42'11.220"W	2.14	
1816.00	8.540	223.360	1814.47	-22.33	-22.28	-26.17	40°02'43.677"N	104°42'11.327"W	2.27	
1910.00	9.330	215.690	1907.34	-33.61	-33.55	-35.40	40°02'43.565"N	104°42'11.446"W	1.52	
2003.00	10.780	215.050	1998.90	-46.87	-46.79	-44.80	40°02'43.435"N	104°42'11.567"W	1.56	
2097.00	10.480	213.550	2091.29	-61.21	-61.11	-54.57	40°02'43.293"N	104°42'11.693"W	0.43	
2190.00	10.270	212.860	2182.77	-75.24	-75.12	-63.74	40°02'43.155"N	104°42'11.811"W	0.26	
2284.00	9.910	211.180	2275.32	-89.22	-89.08	-72.48	40°02'43.017"N	104°42'11.923"W	0.49	
2377.00	9.270	209.390	2367.02	-102.61	-102.46	-80.30	40°02'42.885"N	104°42'12.023"W	0.76	
2471.00	9.420	206.580	2459.77	-116.10	-115.93	-87.45	40°02'42.751"N	104°42'12.116"W	0.51	
2564.00	8.870	214.200	2551.59	-128.85	-128.67	-94.89	40°02'42.625"N	104°42'12.211"W	1.43	
2657.00	9.290	220.240	2643.43	-140.53	-140.33	-103.77	40°02'42.510"N	104°42'12.325"W	1.12	
2751.00	9.630	218.790	2736.15	-152.47	-152.25	-113.60	40°02'42.392"N	104°42'12.452"W	0.44	
2841.00	10.180	216.930	2824.81	-164.71	-164.48	-123.09	40°02'42.272"N	104°42'12.574"W	0.71	
2931.00	10.390	215.290	2913.36	-177.71	-177.46	-132.56	40°02'42.143"N	104°42'12.695"W	0.40	
3021.00	10.660	212.510	3001.85	-191.37	-191.10	-141.72	40°02'42.008"N	104°42'12.813"W	0.64	
3111.00	9.930	212.990	3090.40	-204.92	-204.63	-150.42	40°02'41.875"N	104°42'12.925"W	0.82	
3201.00	10.340	212.850	3178.99	-218.23	-217.92	-159.03	40°02'41.743"N	104°42'13.036"W	0.46	
3291.00	10.780	208.160	3267.47	-232.45	-232.13	-167.38	40°02'41.603"N	104°42'13.143"W	1.07	
3381.00	9.370	206.010	3356.08	-246.47	-246.14	-174.57	40°02'41.465"N	104°42'13.236"W	1.62	
3471.00	9.320	202.420	3444.89	-259.80	-259.46	-180.56	40°02'41.333"N	104°42'13.313"W	0.65	
3561.00	9.810	202.890	3533.64	-273.61	-273.26	-186.32	40°02'41.197"N	104°42'13.387"W	0.55	
3651.00	9.230	207.450	3622.40	-287.09	-286.73	-192.63	40°02'41.063"N	104°42'13.468"W	1.06	
3741.00	8.930	215.150	3711.27	-299.22	-298.84	-199.98	40°02'40.944"N	104°42'13.562"W	1.39	
3831.00	9.680	214.440	3800.09	-311.19	-310.80	-208.28	40°02'40.826"N	104°42'13.669"W	0.84	
3921.00	10.290	213.440	3888.72	-324.16	-323.74	-216.99	40°02'40.698"N	104°42'13.781"W	0.70	
4011.00	10.300	216.540	3977.28	-337.35	-336.92	-226.21	40°02'40.567"N	104°42'13.900"W	0.62	
4101.00	9.180	210.600	4065.98	-350.01	-349.56	-234.65	40°02'40.443"N	104°42'14.008"W	1.67	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 PETTINGER 2C-18HZ (495'FSL & 1673'FEL, SEC.18)
Area	COLORADO	Well	PETTINGER 2C-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	PETTINGER 2C-18HZ AWB
Facility	SEC.18-T1N-R65W		

WELLPATH DATA (139 stations) † = interpolated/extrapolated station										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
4191.00	9.880	214.080	4154.74	-362.60	-362.14	-242.64	40°02'40.318"N	104°42'14.111"W	1.01	
4281.00	10.540	216.030	4243.31	-375.67	-375.19	-251.80	40°02'40.189"N	104°42'14.229"W	0.83	
4371.00	12.070	218.610	4331.56	-389.70	-389.20	-262.52	40°02'40.051"N	104°42'14.366"W	1.79	
4461.00	9.270	217.660	4420.00	-402.81	-402.29	-272.82	40°02'39.921"N	104°42'14.499"W	3.12	
4551.00	7.720	219.700	4509.01	-413.22	-412.68	-281.11	40°02'39.819"N	104°42'14.606"W	1.75	
4641.00	7.130	213.950	4598.26	-422.52	-421.97	-288.09	40°02'39.727"N	104°42'14.695"W	1.05	
4731.00	6.160	208.010	4687.65	-431.42	-430.86	-293.48	40°02'39.639"N	104°42'14.765"W	1.32	
4821.00	4.550	205.400	4777.26	-438.92	-438.35	-297.28	40°02'39.565"N	104°42'14.813"W	1.81	
4911.00	3.230	194.200	4867.05	-444.61	-444.04	-299.43	40°02'39.509"N	104°42'14.841"W	1.69	
5001.00	1.840	151.360	4956.96	-448.33	-447.76	-299.36	40°02'39.472"N	104°42'14.840"W	2.51	
5091.00	3.310	124.440	5046.87	-451.06	-450.50	-296.53	40°02'39.445"N	104°42'14.804"W	2.07	
5271.00	1.420	110.310	5226.71	-454.77	-454.21	-290.15	40°02'39.408"N	104°42'14.722"W	1.09	
5452.00	0.910	66.440	5407.68	-454.96	-454.42	-286.73	40°02'39.406"N	104°42'14.678"W	0.55	
5812.00	1.200	27.280	5767.62	-450.46	-449.92	-282.38	40°02'39.451"N	104°42'14.622"W	0.21	
5902.00	0.400	95.820	5857.61	-449.65	-449.12	-281.64	40°02'39.459"N	104°42'14.612"W	1.24	
6262.00	0.970	317.170	6217.60	-447.55	-447.01	-282.46	40°02'39.480"N	104°42'14.623"W	0.36	
6352.00	0.650	91.420	6307.59	-447.00	-446.47	-282.46	40°02'39.485"N	104°42'14.623"W	1.66	
6712.00	1.610	316.540	6667.55	-443.38	-442.84	-283.90	40°02'39.521"N	104°42'14.641"W	0.59	
6772.00	1.940	316.010	6727.52	-442.04	-441.50	-285.19	40°02'39.534"N	104°42'14.658"W	0.55	
6847.00	3.100	356.370	6802.46	-439.11	-438.56	-286.20	40°02'39.563"N	104°42'14.671"W	2.73	
6892.00	6.770	12.000	6847.28	-435.30	-434.75	-285.72	40°02'39.601"N	104°42'14.665"W	8.61	
6937.00	10.310	14.050	6891.78	-428.79	-428.25	-284.19	40°02'39.665"N	104°42'14.645"W	7.89	
6982.00	13.520	12.330	6935.80	-419.74	-419.20	-282.09	40°02'39.754"N	104°42'14.618"W	7.18	
7027.00	17.270	12.860	6979.18	-408.08	-407.55	-279.48	40°02'39.869"N	104°42'14.585"W	8.34	
7072.00	20.930	12.600	7021.70	-393.71	-393.19	-276.24	40°02'40.011"N	104°42'14.543"W	8.14	
7117.00	24.490	10.400	7063.20	-376.68	-376.16	-272.80	40°02'40.180"N	104°42'14.499"W	8.13	
7162.00	28.190	9.610	7103.52	-357.02	-356.50	-269.34	40°02'40.374"N	104°42'14.454"W	8.26	
7207.00	32.310	9.130	7142.39	-334.65	-334.14	-265.66	40°02'40.595"N	104°42'14.407"W	9.17	
7252.00	37.630	7.360	7179.25	-309.12	-308.62	-261.99	40°02'40.847"N	104°42'14.360"W	12.03	
7297.00	43.510	4.040	7213.42	-280.01	-279.52	-259.13	40°02'41.135"N	104°42'14.323"W	13.92	
7342.00	47.900	0.190	7244.84	-247.84	-247.35	-257.99	40°02'41.453"N	104°42'14.308"W	11.51	
7387.00	52.490	358.940	7273.65	-213.28	-212.79	-258.26	40°02'41.794"N	104°42'14.312"W	10.42	
7432.00	57.030	359.280	7299.60	-176.54	-176.05	-258.83	40°02'42.157"N	104°42'14.319"W	10.11	
7477.00	62.450	358.760	7322.27	-137.70	-137.20	-259.50	40°02'42.541"N	104°42'14.328"W	12.09	
7522.00	68.860	356.490	7340.82	-96.76	-96.27	-261.22	40°02'42.946"N	104°42'14.350"W	14.97	
7567.00	75.160	355.220	7354.71	-54.10	-53.60	-264.32	40°02'43.367"N	104°42'14.390"W	14.25	
7612.00	79.610	356.330	7364.53	-10.33	-9.82	-267.55	40°02'43.800"N	104°42'14.431"W	10.18	
7657.00	83.060	356.680	7371.31	34.07	34.58	-270.26	40°02'44.239"N	104°42'14.466"W	7.71	
7702.00	84.680	356.990	7376.12	78.73	79.25	-272.73	40°02'44.680"N	104°42'14.498"W	3.66	
7741.00	86.450	357.070	7379.13	117.56	118.08	-274.74	40°02'45.064"N	104°42'14.524"W	4.54	
7788.00†	88.634	358.394	7381.15	164.47	165.00	-276.60	40°02'45.528"N	104°42'14.548"W	5.43	7" Casing Point
7806.00	89.470	358.900	7381.45	182.46	182.99	-277.02	40°02'45.705"N	104°42'14.553"W	5.43	
7896.00	88.670	359.020	7382.91	272.43	272.96	-278.66	40°02'46.594"N	104°42'14.574"W	0.90	
7986.00	88.860	358.970	7384.85	362.39	362.93	-280.24	40°02'47.484"N	104°42'14.594"W	0.22	
8076.00	89.660	358.540	7386.01	452.36	452.90	-282.19	40°02'48.373"N	104°42'14.620"W	1.01	

REFERENCE WELLPATH IDENTIFICATION			
Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 PETTINGER 2C-18HZ (495'FSL & 1673'FEL, SEC.18)
Area	COLORADO	Well	PETTINGER 2C-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	PETTINGER 2C-18HZ AWB
Facility	SEC.18-T1N-R65W		

WELLPATH DATA (139 stations)										
MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
8166.00	90.300	358.340	7386.04	542.32	542.86	-284.64	40°02'49.262"N	104°42'14.651"W	0.75	
8256.00	91.570	358.830	7384.57	632.28	632.82	-286.86	40°02'50.151"N	104°42'14.680"W	1.51	
8346.00	90.800	358.330	7382.71	722.22	722.78	-289.09	40°02'51.040"N	104°42'14.708"W	1.02	
8436.00	90.580	358.890	7381.63	812.19	812.74	-291.28	40°02'51.929"N	104°42'14.736"W	0.67	
8526.00	90.330	358.830	7380.91	902.16	902.72	-293.07	40°02'52.818"N	104°42'14.759"W	0.29	
8616.00	90.390	359.390	7380.35	992.15	992.71	-294.47	40°02'53.707"N	104°42'14.777"W	0.63	
8706.00	90.490	359.350	7379.66	1082.14	1082.70	-295.45	40°02'54.596"N	104°42'14.790"W	0.12	
8796.00	90.090	359.310	7379.20	1172.13	1172.69	-296.51	40°02'55.486"N	104°42'14.804"W	0.45	
8886.00	89.130	358.860	7379.81	1262.11	1262.68	-297.94	40°02'56.375"N	104°42'14.822"W	1.18	
8976.00	88.950	359.760	7381.32	1352.09	1352.66	-299.03	40°02'57.264"N	104°42'14.836"W	1.02	
9066.00	88.670	359.130	7383.19	1442.06	1442.63	-299.90	40°02'58.153"N	104°42'14.847"W	0.77	
9156.00	88.520	358.510	7385.40	1532.01	1532.59	-301.75	40°02'59.042"N	104°42'14.871"W	0.71	
9246.00	88.490	356.970	7387.74	1621.90	1622.48	-305.30	40°02'59.931"N	104°42'14.917"W	1.71	
9336.00	86.580	356.030	7391.61	1711.63	1712.23	-310.79	40°03'00.818"N	104°42'14.987"W	2.36	
9426.00	86.330	355.800	7397.18	1801.22	1801.83	-317.19	40°03'01.703"N	104°42'15.070"W	0.38	
9516.00	86.700	356.950	7402.65	1890.86	1891.48	-322.87	40°03'02.589"N	104°42'15.143"W	1.34	
9606.00	86.650	357.540	7407.87	1980.60	1981.22	-327.19	40°03'03.476"N	104°42'15.198"W	0.66	
9696.00	85.710	356.680	7413.87	2070.27	2070.91	-331.71	40°03'04.362"N	104°42'15.257"W	1.41	
9786.00	83.350	357.590	7422.45	2159.73	2160.38	-336.19	40°03'05.246"N	104°42'15.314"W	2.81	
9849.00	84.830	358.760	7428.93	2222.36	2223.01	-338.19	40°03'05.865"N	104°42'15.340"W	2.99	
9939.00	87.130	1.420	7435.24	2312.13	2312.77	-338.04	40°03'06.752"N	104°42'15.338"W	3.90	
10029.00	88.020	2.950	7439.05	2401.98	2402.62	-334.61	40°03'07.640"N	104°42'15.294"W	1.97	
10119.00	89.590	4.370	7440.93	2491.78	2492.41	-328.87	40°03'08.528"N	104°42'15.220"W	2.35	
10209.00	91.720	4.870	7439.90	2581.49	2582.11	-321.62	40°03'09.414"N	104°42'15.127"W	2.43	
10299.00	91.530	5.260	7437.35	2671.12	2671.72	-313.68	40°03'10.300"N	104°42'15.025"W	0.48	
10389.00	91.410	4.910	7435.04	2760.75	2761.34	-305.71	40°03'11.185"N	104°42'14.922"W	0.41	
10479.00	92.890	4.470	7431.66	2850.40	2850.97	-298.35	40°03'12.071"N	104°42'14.828"W	1.72	
10569.00	92.520	4.240	7427.41	2940.05	2940.61	-291.53	40°03'12.957"N	104°42'14.740"W	0.48	
10659.00	92.400	3.350	7423.55	3029.78	3030.33	-285.57	40°03'13.843"N	104°42'14.663"W	1.00	
10749.00	92.950	4.140	7419.35	3119.50	3120.04	-279.70	40°03'14.730"N	104°42'14.588"W	1.07	
10839.00	92.770	4.270	7414.86	3209.16	3209.69	-273.11	40°03'15.616"N	104°42'14.503"W	0.25	
10929.00	93.970	4.750	7409.57	3298.74	3299.25	-266.05	40°03'16.501"N	104°42'14.412"W	1.44	
11019.00	93.940	4.330	7403.36	3388.26	3388.75	-258.94	40°03'17.385"N	104°42'14.321"W	0.47	
11109.00	94.280	3.740	7396.91	3477.81	3478.30	-252.62	40°03'18.270"N	104°42'14.240"W	0.76	
11199.00	93.870	0.810	7390.51	3567.51	3567.99	-249.06	40°03'19.157"N	104°42'14.194"W	3.28	
11289.00	93.510	0.550	7384.72	3657.32	3657.80	-247.99	40°03'20.044"N	104°42'14.180"W	0.49	
11379.00	92.890	0.120	7379.70	3747.18	3747.66	-247.47	40°03'20.932"N	104°42'14.173"W	0.84	
11469.00	91.690	358.500	7376.10	3837.09	3837.57	-248.55	40°03'21.821"N	104°42'14.187"W	2.24	
11559.00	90.830	357.510	7374.12	3927.01	3927.49	-251.68	40°03'22.709"N	104°42'14.228"W	1.46	
11649.00	88.670	356.100	7374.52	4016.85	4017.35	-256.70	40°03'23.597"N	104°42'14.292"W	2.87	
11739.00	88.490	356.210	7376.75	4106.61	4107.12	-262.73	40°03'24.484"N	104°42'14.370"W	0.23	
11829.00	88.350	356.790	7379.23	4196.40	4196.91	-268.23	40°03'25.372"N	104°42'14.440"W	0.66	
11919.00	89.130	357.430	7381.21	4286.25	4286.78	-272.76	40°03'26.260"N	104°42'14.499"W	1.12	
12009.00	90.210	359.340	7381.73	4376.20	4376.73	-275.30	40°03'27.149"N	104°42'14.531"W	2.44	
12099.00	89.410	359.160	7382.02	4466.19	4466.72	-276.48	40°03'28.038"N	104°42'14.547"W	0.91	

REFERENCE WELLPATH IDENTIFICATION

Operator	KERR-MCGEE OIL & GAS ONSHORE LP	Slot	SLOT#04 PETTINGER 2C-18HZ (495'FSL & 1673'FEL, SEC.18)
Area	COLORADO	Well	PETTINGER 2C-18HZ
Field	WELD COUNTY (KERR MCGEE)	Wellbore	PETTINGER 2C-18HZ AWB
Facility	SEC.18-T1N-R65W		

WELLPATH DATA (139 stations)

MD [ft]	Inclination [°]	Azimuth [°]	TVD [ft]	Vert Sect [ft]	North [ft]	East [ft]	Latitude	Longitude	DLS [°/100ft]	Comments
12189.00	88.890	358.810	7383.36	4556.16	4556.70	-278.07	40°03'28.927"N	104°42'14.567"W	0.70	
12279.00	89.440	359.310	7384.67	4646.14	4646.68	-279.55	40°03'29.817"N	104°42'14.586"W	0.83	
12352.00	88.360	358.810	7386.07	4719.11	4719.65	-280.74	40°03'30.538"N	104°42'14.602"W	1.63	Last BHI MWD+IFR Surveys
12406.00	88.360	358.810	7387.62	4773.07	4773.62	-281.87	40°03'31.071"N	104°42'14.616"W	0.00	Projection to Bit

HOLE & CASING SECTIONS - Ref Wellbore: PETTINGER 2C-18HZ AWB Ref Wellpath: PETTINGER 2C-18HZ 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	13.00	1197.00	1184.00	13.00	1196.97	0.00	0.00	0.62	-3.50
9.625in Casing Surface	13.00	1195.00	1182.00	13.00	1194.97	0.00	0.00	0.62	-3.49
8.75in Open Hole	1197.00	7798.00	6601.00	1196.97	7381.35	0.62	-3.50	174.99	-276.86
7in Casing Intermediate	13.00	7788.00	7775.00	13.00	7381.15	0.00	0.00	165.00	-276.60
6.125in Open Hole	7798.00	12406.00	4608.00	7381.35	7387.62	174.99	-276.86	4773.62	-281.87

TARGETS

Name	MD [ft]	TVD [ft]	North [ft]	East [ft]	Grid East [US ft]	Grid North [US ft]	Latitude	Longitude	Shape
SECTION 18 LINES		2.00	-78.32	-0.23	3223115.97	1260355.44	40°02'43.123"N	104°42'10.994"W	polygon
ROSSI XX 18-8 (150' RADIUS)		7366.00	2931.32	974.41	3224063.48	1263373.60	40°03'12.865"N	104°41'58.460"W	circle
PETTINGER 2C-18HZ BHL ON PLAT REV-1 (1'FNL & 1950'FEL, SEC.18)		7375.00	4798.41	-267.56	3222804.83	1265229.38	40°03'31.316"N	104°42'14.432"W	point
STEWARD 44-7 (150' RADIUS)		7387.00	5334.57	1216.79	3224284.25	1265778.83	40°03'36.614"N	104°41'55.342"W	circle
STEWARD USX XX 07-15 (150' RADIUS)		7387.00	5471.95	-355.86	3222710.49	1265902.07	40°03'37.972"N	104°42'15.568"W	circle
PETTINGER 2C-18HZ LAND BOX		7397.00	0.00	0.00	3223115.50	1260433.75	40°02'43.897"N	104°42'10.991"W	polygon

WELLPATH COMPOSITION - Ref Wellbore: PETTINGER 2C-18HZ AWB Ref Wellpath: PETTINGER 2C-18HZ AWP

Start MD [ft]	End MD [ft]	Positional Uncertainty Model	Log Name/Comment	Wellbore
13.00	1113.00	Generic gyro - continuous (Standard)	MS GYRODATA SURVEYS <116-1116>	PETTINGER 2C-18HZ AWB
1113.00	7741.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 8 3/4" HOLE <1255-7741>	PETTINGER 2C-18HZ AWB
7741.00	12352.00	NaviTrak (MAGCORR,IFR)	BHI MWD+IFR SURVEYS 6 1/8" HOLE <7806-12352>	PETTINGER 2C-18HZ AWB
12352.00	12406.00	Blind Drilling (std)	Projection to bit	PETTINGER 2C-18HZ AWB