

BAYSWATER E&P, LLC

Location	Weld County, CO	Slot	Onyx Federal 7
Field	WATTENBERG	Well	Onyx Federal 7
Installation	Onyx Pad	Wellbore	Onyx Federal 7 (PWB)

Created by cdoke
Date plotted 28-Oct-2022

Plot reference is Onyx Federal 7 (PWB).
Ref wellpath is Onyx Federal 7 (PWP#1).
Coordinates are in Feet reference Onyx Federal 7.
True Vertical Depths are reference Rig Datum.
Measured Depths are reference Rig Datum.
Rig Datum: Planned Datum #1
Rig Datum to Mean Sea Level: 4917.00 ft.
Plot North is aligned to TRUE North.

Scale 1 cm = 5000 ft

East (Feet) ->

000 -70000 -60000 -50000 -40000 -30000 -20000 -10000 0 10000 20000 30000

Surface 0.00 N 0.00 E

Onyx 7 - BHL

Onyx 7 - LP

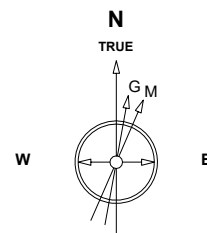
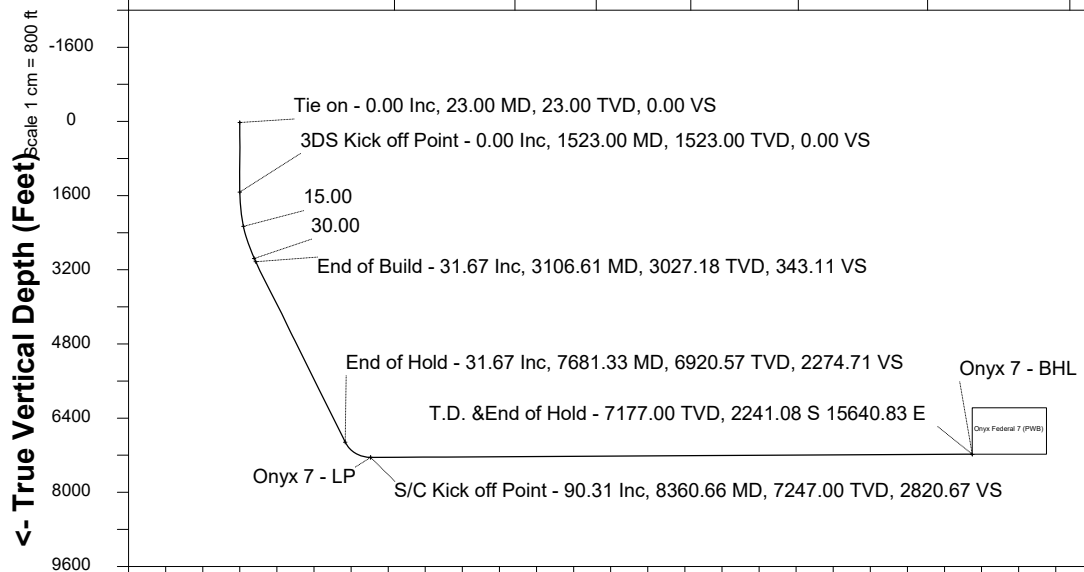
Onyx Federal 7 (PWB)

10000
0
-10000

Scale 1 cm = 5000 ft
-< North (Feet) : South (Feet) ->

WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	23.00	0.00	0.00	23.00	S 0.00	W 0.00		0.00
KOP	1523.00	0.00	134.15	1523.00	S 0.00	W 0.00	0.00	0.00
End of Build	3106.61	31.67	134.15	3027.18	S 297.18	E 306.15	2.00	343.11
End of Hold	7681.33	31.67	134.15	6920.57	S 1970.24	E 2029.66	0.00	2274.71
Target Onyx 7 - LP	8360.66	90.31	90.55	7247.00	S 2115.12	E 2561.03	10.00	2820.67
T.D. & Target Ony...BHL	21441.26	90.31	90.55	7177.00	S 2241.08	E 15640.83	0.00	15800.02



Oct-28-2022
IGRF-13 Dip: 66.72 deg Field: 51889.8 nT
Lat: N40 33 6.6996 Long: W104 45 11.8908 Elev: 4900.00 ft
Magnetic North is 7.72 deg East of TRUE North
To correct azimuth from Magnetic to TRUE add 7.72 deg

Scale 1 cm = 800 ft

Vertical Section (Feet) ->

Azimuth 97.68 with reference 0.00 N, 0.00 E from Onyx Federal 7



SYSDRILL
Well Design Combined Report
Wellbore: Onyx Federal 7 (PWB)



Wellhead Details							
Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Ground
Onyx Federal 7	40.55177900	-104.75335100	1444727.4992	3207481.4510	29.88S	13.34W	0.00

Declination		
Date	Source	Time
Oct-28-2022	IGRF-13	10:40

Installation Details						
Name	Installation Position (Latitude)	Installation Position (Longitude)	Northing	Easting	Coord System Name	North Alignment
Onyx Pad	40.55186100	-104.75330300	1444757.4852	3207494.5375	NAD83 Colorado State Planes, North Zone, US Foot	True

Summary Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	Vertical Depth SS	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]
23.00	0.00	0.00	23.00	-4894.00	0.00N	0.00E		0.00
1523.00	0.00	134.15	1523.00	-3394.00	0.00N	0.00E	==>	0.00
3106.61	31.67	134.15	3027.18	-1889.82	297.18S	306.15E	2.00	343.11
7681.33	31.67	134.15	6920.57	2003.57	1970.24S	2029.66E	==>	2274.71
8360.66	90.31	90.55	7247.00	2330.00	2115.12S	2561.03E	10.00	2820.67
21441.26	90.31	90.55	7177.00	2260.00	2241.08S	15640.83E	==>	15800.02

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Station Position (Latitude)	Station Position (Longitude)
0.00	0.00	0.00	0.00	0.00N	0.00E		0.00	40.55177900	-104.75335100
23.00	0.00	0.00	23.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
100.00	0.00	0.00	100.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
200.00	0.00	0.00	200.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
300.00	0.00	0.00	300.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
400.00	0.00	0.00	400.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
500.00	0.00	0.00	500.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
600.00	0.00	0.00	600.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
700.00	0.00	0.00	700.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
800.00	0.00	0.00	800.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
900.00	0.00	0.00	900.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
1000.00	0.00	0.00	1000.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
1100.00	0.00	0.00	1100.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
1200.00	0.00	0.00	1200.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
1300.00	0.00	0.00	1300.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
1400.00	0.00	0.00	1400.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
1500.00	0.00	0.00	1500.00	0.00N	0.00E	==>	0.00	40.55177900	-104.75335100
1600.00	1.54	134.15	1599.99	0.72S	0.74E	2.00	0.83	40.55177702	-104.75334833
1700.00	3.54	134.15	1699.89	3.81S	3.92E	2.00	4.40	40.55176855	-104.75333689
1800.00	5.54	134.15	1799.57	9.32S	9.60E	2.00	10.76	40.55175341	-104.75331645
1900.00	7.54	134.15	1898.91	17.25S	17.77E	2.00	19.92	40.55173164	-104.75328704
2000.00	9.54	134.15	1997.80	27.60S	28.43E	2.00	31.86	40.55170325	-104.75324870
2100.00	11.54	134.15	2096.11	40.34S	41.55E	2.00	46.57	40.55166828	-104.75320147
2200.00	13.54	134.15	2193.72	55.46S	57.13E	2.00	64.03	40.55162677	-104.75314542
2300.00	15.54	134.15	2290.51	72.94S	75.14E	2.00	84.22	40.55157878	-104.75308060
2400.00	17.54	134.15	2386.37	92.77S	95.57E	2.00	107.11	40.55152435	-104.75300709
2500.00	19.54	134.15	2481.17	114.92S	118.38E	2.00	132.68	40.55146356	-104.75292500
2600.00	21.54	134.15	2574.81	139.36S	143.56E	2.00	160.89	40.55139649	-104.75283441
2700.00	23.54	134.15	2667.17	166.05S	171.06E	2.00	191.72	40.55132320	-104.75273544
2800.00	25.54	134.15	2758.13	194.98S	200.86E	2.00	225.11	40.55124380	-104.75262821
2900.00	27.54	134.15	2847.59	226.10S	232.92E	2.00	261.04	40.55115838	-104.75251285
3000.00	29.54	134.15	2935.43	259.38S	267.20E	2.00	299.46	40.55106704	-104.75238949
3100.00	31.54	134.15	3021.55	294.77S	303.66E	2.00	340.32	40.55096990	-104.75225830

All data is in Feet unless otherwise stated
Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 4917.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 97.68 degrees
Bottom hole distance is 15800.57 Feet on azimuth 98.15 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 28-Aug-2023

Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Station Position (Latitude)	Station Position (Longitude)
3200.00	31.67	134.15	3106.66	331.34S	341.33E	==>	382.54	40.55086953	-104.75212275
3300.00	31.67	134.15	3191.77	367.91S	379.00E	==>	424.76	40.55076914	-104.75198718
3400.00	31.67	134.15	3276.88	404.48S	416.68E	==>	466.99	40.55066876	-104.75185162
3500.00	31.67	134.15	3361.98	441.05S	454.35E	==>	509.21	40.55056837	-104.75171605
3600.00	31.67	134.15	3447.09	477.62S	492.03E	==>	551.43	40.55046799	-104.75158048
3700.00	31.67	134.15	3532.20	514.20S	529.70E	==>	593.66	40.55036760	-104.75144492
3800.00	31.67	134.15	3617.30	550.77S	567.38E	==>	635.88	40.55026722	-104.75130935
3900.00	31.67	134.15	3702.41	587.34S	605.05E	==>	678.10	40.55016683	-104.75117379
4000.00	31.67	134.15	3787.52	623.91S	642.73E	==>	720.33	40.55006644	-104.75103822
4100.00	31.67	134.15	3872.62	660.48S	680.40E	==>	762.55	40.54996606	-104.75090266
4200.00	31.67	134.15	3957.73	697.05S	718.08E	==>	804.77	40.54986567	-104.75076709
4300.00	31.67	134.15	4042.84	733.63S	755.75E	==>	847.00	40.54976529	-104.75063153
4400.00	31.67	134.15	4127.94	770.20S	793.43E	==>	889.22	40.54966490	-104.75049597
4500.00	31.67	134.15	4213.05	806.77S	831.10E	==>	931.44	40.54956451	-104.75036040
4600.00	31.67	134.15	4298.16	843.34S	868.77E	==>	973.67	40.54946413	-104.75022484
4700.00	31.67	134.15	4383.26	879.91S	906.45E	==>	1015.89	40.54936374	-104.75008928
4800.00	31.67	134.15	4468.37	916.49S	944.12E	==>	1058.11	40.54926335	-104.74995372
4900.00	31.67	134.15	4553.48	953.06S	981.80E	==>	1100.34	40.54916296	-104.74981816
5000.00	31.67	134.15	4638.58	989.63S	1019.47E	==>	1142.56	40.54906258	-104.74968260
5100.00	31.67	134.15	4723.69	1026.20S	1057.15E	==>	1184.78	40.54896219	-104.74954704
5200.00	31.67	134.15	4808.79	1062.77S	1094.82E	==>	1227.01	40.54886180	-104.74941148
5300.00	31.67	134.15	4893.90	1099.34S	1132.50E	==>	1269.23	40.54876141	-104.74927592
5400.00	31.67	134.15	4979.01	1135.92S	1170.17E	==>	1311.45	40.54866103	-104.74914036
5500.00	31.67	134.15	5064.11	1172.49S	1207.85E	==>	1353.68	40.54856064	-104.74900480
5600.00	31.67	134.15	5149.22	1209.06S	1245.52E	==>	1395.90	40.54846025	-104.74886924
5700.00	31.67	134.15	5234.33	1245.63S	1283.20E	==>	1438.12	40.54835986	-104.74873368
5800.00	31.67	134.15	5319.43	1282.20S	1320.87E	==>	1480.34	40.54825947	-104.74859813
5900.00	31.67	134.15	5404.54	1318.77S	1358.55E	==>	1522.57	40.54815908	-104.74846257
6000.00	31.67	134.15	5489.65	1355.35S	1396.22E	==>	1564.79	40.54805869	-104.74832701
6100.00	31.67	134.15	5574.75	1391.92S	1433.89E	==>	1607.01	40.54795831	-104.74819146
6200.00	31.67	134.15	5659.86	1428.49S	1471.57E	==>	1649.24	40.54785792	-104.74805590
6300.00	31.67	134.15	5744.97	1465.06S	1509.24E	==>	1691.46	40.54775753	-104.74792035
6400.00	31.67	134.15	5830.07	1501.63S	1546.92E	==>	1733.68	40.54765714	-104.74778479
6500.00	31.67	134.15	5915.18	1538.21S	1584.59E	==>	1775.91	40.54755675	-104.74764924
6600.00	31.67	134.15	6000.29	1574.78S	1622.27E	==>	1818.13	40.54745636	-104.74751368
6700.00	31.67	134.15	6085.39	1611.35S	1659.94E	==>	1860.35	40.54735597	-104.74737813
6800.00	31.67	134.15	6170.50	1647.92S	1697.62E	==>	1902.58	40.54725558	-104.74724258
6900.00	31.67	134.15	6255.61	1684.49S	1735.29E	==>	1944.80	40.54715519	-104.74710702
7000.00	31.67	134.15	6340.71	1721.06S	1772.97E	==>	1987.02	40.54705480	-104.74697147
7100.00	31.67	134.15	6425.82	1757.64S	1810.64E	==>	2029.25	40.54695440	-104.74683592
7200.00	31.67	134.15	6510.93	1794.21S	1848.32E	==>	2071.47	40.54685401	-104.74670037
7300.00	31.67	134.15	6596.03	1830.78S	1885.99E	==>	2113.69	40.54675362	-104.74656481
7400.00	31.67	134.15	6681.14	1867.35S	1923.67E	==>	2155.92	40.54665323	-104.74642926
7500.00	31.67	134.15	6766.25	1903.92S	1961.34E	==>	2198.14	40.54655284	-104.74629371
7600.00	31.67	134.15	6851.35	1940.49S	1999.01E	==>	2240.36	40.54645245	-104.74615816
7700.00	32.95	131.59	6936.35	1977.02S	2036.97E	10.00	2282.86	40.54635217	-104.74602160
7800.00	40.47	120.51	7016.55	2011.64S	2085.39E	10.00	2335.47	40.54625715	-104.74587440
7900.00	48.76	112.52	7087.73	2042.60S	2148.24E	10.00	2401.89	40.54617215	-104.74562127
7956.29	53.63	108.89	7123.00	2058.06S	2189.26E	10.00	2444.61	40.54612971	-104.74547365
8000.00	57.48	106.38	7147.72	2068.96S	2223.61E	10.00	2480.11	40.54609978	-104.74535008
8100.00	66.44	101.35	7194.70	2089.92S	2309.21E	10.00	2567.74	40.54604222	-104.74504207
8200.00	75.55	96.96	7227.25	2104.84S	2402.44E	10.00	2662.13	40.54600124	-104.74470661
8300.00	84.72	92.93	7244.37	2113.28S	2500.48E	10.00	2760.41	40.54597806	-104.74435387
8360.66	90.31	90.55	7247.00	2115.12S	2561.03E	10.00	2820.67	40.54597300	-104.74413600
8400.00	90.31	90.55	7246.79	2115.49S	2600.36E	==>	2859.70	40.54597195	-104.74399447
8500.00	90.31	90.55	7246.25	2116.46S	2700.35E	==>	2958.93	40.54596928	-104.74363468
8600.00	90.31	90.55	7245.72	2117.42S	2800.35E	==>	3058.15	40.54596660	-104.74327488

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Coordinates are from Slot MD's are from Rig and TVD's are from Rig (Planned Datum #1 4917.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 97.68 degrees
Bottom hole distance is 15800.57 Feet on azimuth 98.15 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 28-Aug-2023



SYS DRILL
Well Design Combined Report
Wellbore: Onyx Federal 7 (PWB)



Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Station Position (Latitude)	Station Position (Longitude)
8700.00	90.31	90.55	7245.18	2118.38S	2900.34E	==>	3157.38	40.54596393	-104.74291509
8800.00	90.31	90.55	7244.65	2119.35S	3000.34E	==>	3256.60	40.54596125	-104.74255530
8900.00	90.31	90.55	7244.11	2120.31S	3100.33E	==>	3355.83	40.54595857	-104.74219550
9000.00	90.31	90.55	7243.58	2121.27S	3200.32E	==>	3455.06	40.54595590	-104.74183571
9100.00	90.31	90.55	7243.04	2122.24S	3300.32E	==>	3554.28	40.54595322	-104.74147591
9200.00	90.31	90.55	7242.51	2123.20S	3400.31E	==>	3653.51	40.54595054	-104.74111612
9300.00	90.31	90.55	7241.97	2124.16S	3500.31E	==>	3752.73	40.54594785	-104.74075632
9400.00	90.31	90.55	7241.44	2125.12S	3600.30E	==>	3851.96	40.54594517	-104.74039653
9500.00	90.31	90.55	7240.90	2126.09S	3700.29E	==>	3951.19	40.54594249	-104.74003674
9600.00	90.31	90.55	7240.37	2127.05S	3800.29E	==>	4050.41	40.54593980	-104.73967694
9700.00	90.31	90.55	7239.83	2128.01S	3900.28E	==>	4149.64	40.54593712	-104.73931715
9800.00	90.31	90.55	7239.30	2128.98S	4000.28E	==>	4248.86	40.54593443	-104.73895735
9900.00	90.31	90.55	7238.76	2129.94S	4100.27E	==>	4348.09	40.54593174	-104.73859756
10000.00	90.31	90.55	7238.23	2130.90S	4200.26E	==>	4447.32	40.54592905	-104.73823777
10100.00	90.31	90.55	7237.69	2131.86S	4300.26E	==>	4546.54	40.54592636	-104.73787797
10200.00	90.31	90.55	7237.16	2132.83S	4400.25E	==>	4645.77	40.54592367	-104.73751818
10300.00	90.31	90.55	7236.62	2133.79S	4500.24E	==>	4744.99	40.54592098	-104.73715838
10400.00	90.31	90.55	7236.09	2134.75S	4600.24E	==>	4844.22	40.54591828	-104.73679859
10500.00	90.31	90.55	7235.55	2135.72S	4700.23E	==>	4943.45	40.54591559	-104.73643880
10600.00	90.31	90.55	7235.02	2136.68S	4800.23E	==>	5042.67	40.54591289	-104.73607900
10700.00	90.31	90.55	7234.48	2137.64S	4900.22E	==>	5141.90	40.54591020	-104.73571921
10800.00	90.31	90.55	7233.95	2138.61S	5000.21E	==>	5241.12	40.54590750	-104.73535942
10900.00	90.31	90.55	7233.41	2139.57S	5100.21E	==>	5340.35	40.54590480	-104.73499962
11000.00	90.31	90.55	7232.88	2140.53S	5200.20E	==>	5439.58	40.54590210	-104.73463983
11100.00	90.31	90.55	7232.34	2141.49S	5300.20E	==>	5538.80	40.54589940	-104.73428004
11200.00	90.31	90.55	7231.81	2142.46S	5400.19E	==>	5638.03	40.54589669	-104.73392024
11300.00	90.31	90.55	7231.27	2143.42S	5500.18E	==>	5737.25	40.54589399	-104.73356045
11400.00	90.31	90.55	7230.74	2144.38S	5600.18E	==>	5836.48	40.54589128	-104.73320065
11500.00	90.31	90.55	7230.20	2145.35S	5700.17E	==>	5935.71	40.54588858	-104.73284086
11600.00	90.31	90.55	7229.66	2146.31S	5800.17E	==>	6034.93	40.54588587	-104.73248107
11700.00	90.31	90.55	7229.13	2147.27S	5900.16E	==>	6134.16	40.54588316	-104.73212127
11800.00	90.31	90.55	7228.59	2148.24S	6000.15E	==>	6233.38	40.54588045	-104.73176148
11900.00	90.31	90.55	7228.06	2149.20S	6100.15E	==>	6332.61	40.54587774	-104.73140169
12000.00	90.31	90.55	7227.52	2150.16S	6200.14E	==>	6431.84	40.54587503	-104.73104189
12100.00	90.31	90.55	7226.99	2151.12S	6300.14E	==>	6531.06	40.54587232	-104.73068210
12200.00	90.31	90.55	7226.45	2152.09S	6400.13E	==>	6630.29	40.54586960	-104.73032231
12300.00	90.31	90.55	7225.92	2153.05S	6500.12E	==>	6729.51	40.54586689	-104.72996251
12400.00	90.31	90.55	7225.38	2154.01S	6600.12E	==>	6828.74	40.54586417	-104.72960272
12500.00	90.31	90.55	7224.85	2154.98S	6700.11E	==>	6927.97	40.54586146	-104.72924293
12600.00	90.31	90.55	7224.31	2155.94S	6800.11E	==>	7027.19	40.54585874	-104.72888313
12700.00	90.31	90.55	7223.78	2156.90S	6900.10E	==>	7126.42	40.54585602	-104.72852334
12800.00	90.31	90.55	7223.24	2157.86S	7000.09E	==>	7225.64	40.54585330	-104.72816355
12900.00	90.31	90.55	7222.71	2158.83S	7100.09E	==>	7324.87	40.54585058	-104.72780375
13000.00	90.31	90.55	7222.17	2159.79S	7200.08E	==>	7424.10	40.54584785	-104.72744396
13100.00	90.31	90.55	7221.64	2160.75S	7300.08E	==>	7523.32	40.54584513	-104.72708417
13200.00	90.31	90.55	7221.10	2161.72S	7400.07E	==>	7622.55	40.54584240	-104.72672438
13300.00	90.31	90.55	7220.57	2162.68S	7500.06E	==>	7721.77	40.54583968	-104.72636458
13400.00	90.31	90.55	7220.03	2163.64S	7600.06E	==>	7821.00	40.54583695	-104.72600479
13500.00	90.31	90.55	7219.50	2164.61S	7700.05E	==>	7920.23	40.54583422	-104.72564500
13600.00	90.31	90.55	7218.96	2165.57S	7800.04E	==>	8019.45	40.54583149	-104.72528520
13700.00	90.31	90.55	7218.43	2166.53S	7900.04E	==>	8118.68	40.54582876	-104.72492541
13800.00	90.31	90.55	7217.89	2167.49S	8000.03E	==>	8217.90	40.54582603	-104.72456562
13900.00	90.31	90.55	7217.36	2168.46S	8100.03E	==>	8317.13	40.54582330	-104.72420583
14000.00	90.31	90.55	7216.82	2169.42S	8200.02E	==>	8416.36	40.54582056	-104.72384603
14100.00	90.31	90.55	7216.29	2170.38S	8300.01E	==>	8515.58	40.54581783	-104.72348624
14200.00	90.31	90.55	7215.75	2171.35S	8400.01E	==>	8614.81	40.54581509	-104.72312645
14300.00	90.31	90.55	7215.22	2172.31S	8500.00E	==>	8714.04	40.54581236	-104.72276665
14400.00	90.31	90.55	7214.68	2173.27S	8600.00E	==>	8813.26	40.54580962	-104.72240686

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SYSDRILL
Well Design Combined Report
Wellbore: Onyx Federal 7 (PWB)



Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Station Position (Latitude)	Station Position (Longitude)
14500.00	90.31	90.55	7214.15	2174.24S	8699.99E	==>	8912.49	40.54580688	-104.72204707
14600.00	90.31	90.55	7213.61	2175.20S	8799.98E	==>	9011.71	40.54580414	-104.72168728
14700.00	90.31	90.55	7213.08	2176.16S	8899.98E	==>	9110.94	40.54580140	-104.72132748
14800.00	90.31	90.55	7212.54	2177.12S	8999.97E	==>	9210.17	40.54579865	-104.72096769
14900.00	90.31	90.55	7212.01	2178.09S	9099.97E	==>	9309.39	40.54579591	-104.72060790
15000.00	90.31	90.55	7211.47	2179.05S	9199.96E	==>	9408.62	40.54579316	-104.72024811
15100.00	90.31	90.55	7210.93	2180.01S	9299.95E	==>	9507.84	40.54579042	-104.71988831
15200.00	90.31	90.55	7210.40	2180.98S	9399.95E	==>	9607.07	40.54578767	-104.71952852
15300.00	90.31	90.55	7209.86	2181.94S	9499.94E	==>	9706.30	40.54578492	-104.71916873
15400.00	90.31	90.55	7209.33	2182.90S	9599.94E	==>	9805.52	40.54578217	-104.71880894
15500.00	90.31	90.55	7208.79	2183.86S	9699.93E	==>	9904.75	40.54577942	-104.71844914
15600.00	90.31	90.55	7208.26	2184.83S	9799.92E	==>	10003.97	40.54577667	-104.71808935
15700.00	90.31	90.55	7207.72	2185.79S	9899.92E	==>	10103.20	40.54577392	-104.71772956
15800.00	90.31	90.55	7207.19	2186.75S	9999.91E	==>	10202.43	40.54577116	-104.71736977
15900.00	90.31	90.55	7206.65	2187.72S	10099.91E	==>	10301.65	40.54576841	-104.71700998
16000.00	90.31	90.55	7206.12	2188.68S	10199.90E	==>	10400.88	40.54576565	-104.71665018
16100.00	90.31	90.55	7205.58	2189.64S	10299.89E	==>	10500.10	40.54576289	-104.71629039
16200.00	90.31	90.55	7205.05	2190.61S	10399.89E	==>	10599.33	40.54576014	-104.71593060
16300.00	90.31	90.55	7204.51	2191.57S	10499.88E	==>	10698.56	40.54575738	-104.71557081
16400.00	90.31	90.55	7203.98	2192.53S	10599.87E	==>	10797.78	40.54575462	-104.71521101
16500.00	90.31	90.55	7203.44	2193.49S	10699.87E	==>	10897.01	40.54575185	-104.71485122
16600.00	90.31	90.55	7202.91	2194.46S	10799.86E	==>	10996.23	40.54574909	-104.71449143
16700.00	90.31	90.55	7202.37	2195.42S	10899.86E	==>	11095.46	40.54574633	-104.71413164
16800.00	90.31	90.55	7201.84	2196.38S	10999.85E	==>	11194.69	40.54574356	-104.71377185
16900.00	90.31	90.55	7201.30	2197.35S	11099.84E	==>	11293.91	40.54574080	-104.71341205
17000.00	90.31	90.55	7200.77	2198.31S	11199.84E	==>	11393.14	40.54573803	-104.71305226
17100.00	90.31	90.55	7200.23	2199.27S	11299.83E	==>	11492.36	40.54573526	-104.71269247
17200.00	90.31	90.55	7199.70	2200.24S	11399.83E	==>	11591.59	40.54573249	-104.71233268
17300.00	90.31	90.55	7199.16	2201.20S	11499.82E	==>	11690.82	40.54572972	-104.71197289
17400.00	90.31	90.55	7198.63	2202.16S	11599.81E	==>	11790.04	40.54572695	-104.71161310
17500.00	90.31	90.55	7198.09	2203.12S	11699.81E	==>	11889.27	40.54572417	-104.71125330
17600.00	90.31	90.55	7197.56	2204.09S	11799.80E	==>	11988.49	40.54572140	-104.71089351
17700.00	90.31	90.55	7197.02	2205.05S	11899.80E	==>	12087.72	40.54571863	-104.71053372
17800.00	90.31	90.55	7196.49	2206.01S	11999.79E	==>	12186.95	40.54571585	-104.71017393
17900.00	90.31	90.55	7195.95	2206.98S	12099.78E	==>	12286.17	40.54571307	-104.70981414
18000.00	90.31	90.55	7195.42	2207.94S	12199.78E	==>	12385.40	40.54571029	-104.70945435
18100.00	90.31	90.55	7194.88	2208.90S	12299.77E	==>	12484.62	40.54570751	-104.70909455
18200.00	90.31	90.55	7194.35	2209.86S	12399.77E	==>	12583.85	40.54570473	-104.70873476
18300.00	90.31	90.55	7193.81	2210.83S	12499.76E	==>	12683.08	40.54570195	-104.70837497
18400.00	90.31	90.55	7193.28	2211.79S	12599.75E	==>	12782.30	40.54569917	-104.70801518
18500.00	90.31	90.55	7192.74	2212.75S	12699.75E	==>	12881.53	40.54569638	-104.70765539
18600.00	90.31	90.55	7192.20	2213.72S	12799.74E	==>	12980.75	40.54569360	-104.70729560
18700.00	90.31	90.55	7191.67	2214.68S	12899.74E	==>	13079.98	40.54569081	-104.70693581
18800.00	90.31	90.55	7191.13	2215.64S	12999.73E	==>	13179.21	40.54568803	-104.70657601
18900.00	90.31	90.55	7190.60	2216.61S	13099.72E	==>	13278.43	40.54568524	-104.70621622
19000.00	90.31	90.55	7190.06	2217.57S	13199.72E	==>	13377.66	40.54568245	-104.70585643
19100.00	90.31	90.55	7189.53	2218.53S	13299.71E	==>	13476.88	40.54567966	-104.70549664
19200.00	90.31	90.55	7188.99	2219.49S	13399.70E	==>	13576.11	40.54567686	-104.70513685
19300.00	90.31	90.55	7188.46	2220.46S	13499.70E	==>	13675.34	40.54567407	-104.70477706
19400.00	90.31	90.55	7187.92	2221.42S	13599.69E	==>	13774.56	40.54567128	-104.70441727
19500.00	90.31	90.55	7187.39	2222.38S	13699.69E	==>	13873.79	40.54566848	-104.70405748
19600.00	90.31	90.55	7186.85	2223.35S	13799.68E	==>	13973.01	40.54566569	-104.70369768
19700.00	90.31	90.55	7186.32	2224.31S	13899.67E	==>	14072.24	40.54566289	-104.70333789
19800.00	90.31	90.55	7185.78	2225.27S	13999.67E	==>	14171.47	40.54566009	-104.70297810
19900.00	90.31	90.55	7185.25	2226.24S	14099.66E	==>	14270.69	40.54565729	-104.70261831
20000.00	90.31	90.55	7184.71	2227.20S	14199.66E	==>	14369.92	40.54565449	-104.70225852
20100.00	90.31	90.55	7184.18	2228.16S	14299.65E	==>	14469.14	40.54565169	-104.70189873

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Interpolated Wellpath									
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]	Station Position (Latitude)	Station Position (Longitude)
20200.00	90.31	90.55	7183.64	2229.12S	14399.64E	==>	14568.37	40.54564888	-104.70153894
20300.00	90.31	90.55	7183.11	2230.09S	14499.64E	==>	14667.60	40.54564608	-104.70117915
20400.00	90.31	90.55	7182.57	2231.05S	14599.63E	==>	14766.82	40.54564328	-104.70081936
20500.00	90.31	90.55	7182.04	2232.01S	14699.63E	==>	14866.05	40.54564047	-104.70045957
20600.00	90.31	90.55	7181.50	2232.98S	14799.62E	==>	14965.27	40.54563766	-104.70009977
20700.00	90.31	90.55	7180.97	2233.94S	14899.61E	==>	15064.50	40.54563485	-104.69973998
20800.00	90.31	90.55	7180.43	2234.90S	14999.61E	==>	15163.73	40.54563204	-104.69938019
20900.00	90.31	90.55	7179.90	2235.86S	15099.60E	==>	15262.95	40.54562923	-104.69902040
21000.00	90.31	90.55	7179.36	2236.83S	15199.60E	==>	15362.18	40.54562642	-104.69866061
21100.00	90.31	90.55	7178.83	2237.79S	15299.59E	==>	15461.40	40.54562361	-104.69830082
21200.00	90.31	90.55	7178.29	2238.75S	15399.58E	==>	15560.63	40.54562079	-104.69794103
21300.00	90.31	90.55	7177.76	2239.72S	15499.58E	==>	15659.86	40.54561798	-104.69758124
21400.00	90.31	90.55	7177.22	2240.68S	15599.57E	==>	15759.08	40.54561516	-104.69722145
21441.26	90.31	90.55	7177.00	2241.08S	15640.83E	==>	15800.02	40.54561400	-104.69707300

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Targets

Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
Onyx 7 - BHL	2241.08S	15640.83E	7177.00	40.54561400	-104.69707300	1442618.26	3223140.10
Onyx 7 - LP	2115.12S	2561.03E	7247.00	40.54597300	-104.74413600	1442634.09	3210060.12

Formations

Formation Name	Formation MD	Formation TVD	Wellpath Inc	Incidence Angle	North	East
Niobrara	7956.29	7123.00	53.63		2058.06S	2189.26E

Survey Tool Program

Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
1073254	Planned	21441.26	7177.00	WdW Rate Gyro	Standard

Notes

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