

# Cub Creek Energy, LLC

<b>Location</b>	<b>Weld County, CO</b>	<b>Slot</b>	<b>OLANDER 7</b>
<b>Field</b>	<b>WATTENBERG</b>	<b>Well</b>	<b>OLANDER 7</b>
<b>Installation</b>	<b>Olander Pad Rework 04-09-2019</b>	<b>Wellbore</b>	<b>OLANDER 7 (PWB)</b>

N  
 GRID  
 T  
 M  
 W  
 E  
 Jul-12-2017  
 EMM-2015 Dip: 66.61 deg Field: 52203.1 nT  
 Lat: N40 12 10.3680 Long: W105 1 31 6200 Elev: 5033.00 ft  
 Magnetic North is 8.59 deg East of True North  
 GRID North is 0.31 deg East of True North  
 To correct azimuth from True to GRID subtract 0.31 deg  
 To correct azimuth from Magnetic to GRID add 8.28 deg

Created by sean.dolfinger  
 Date plotted 11-Apr-2019  
 Plot reference is OLANDER 7 (PWB).  
 Ref wellpath is OLANDER 7 (PWP#1).  
 Coordinates are in Feet reference OLANDER 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: 5050.00 ft.  
 Plot North is aligned to GRID North.

Scale 1 cm = 400 ft East (Feet) ->

-2400 -1600 -800 0 800

1600

Surface 0.00 N 0.00 E

800

0

OLANDER 7 - LP

-800

-1600

-2400

-3200

-4000

-4800

-5600

-6400

-7200

-8000

-8800

-9600

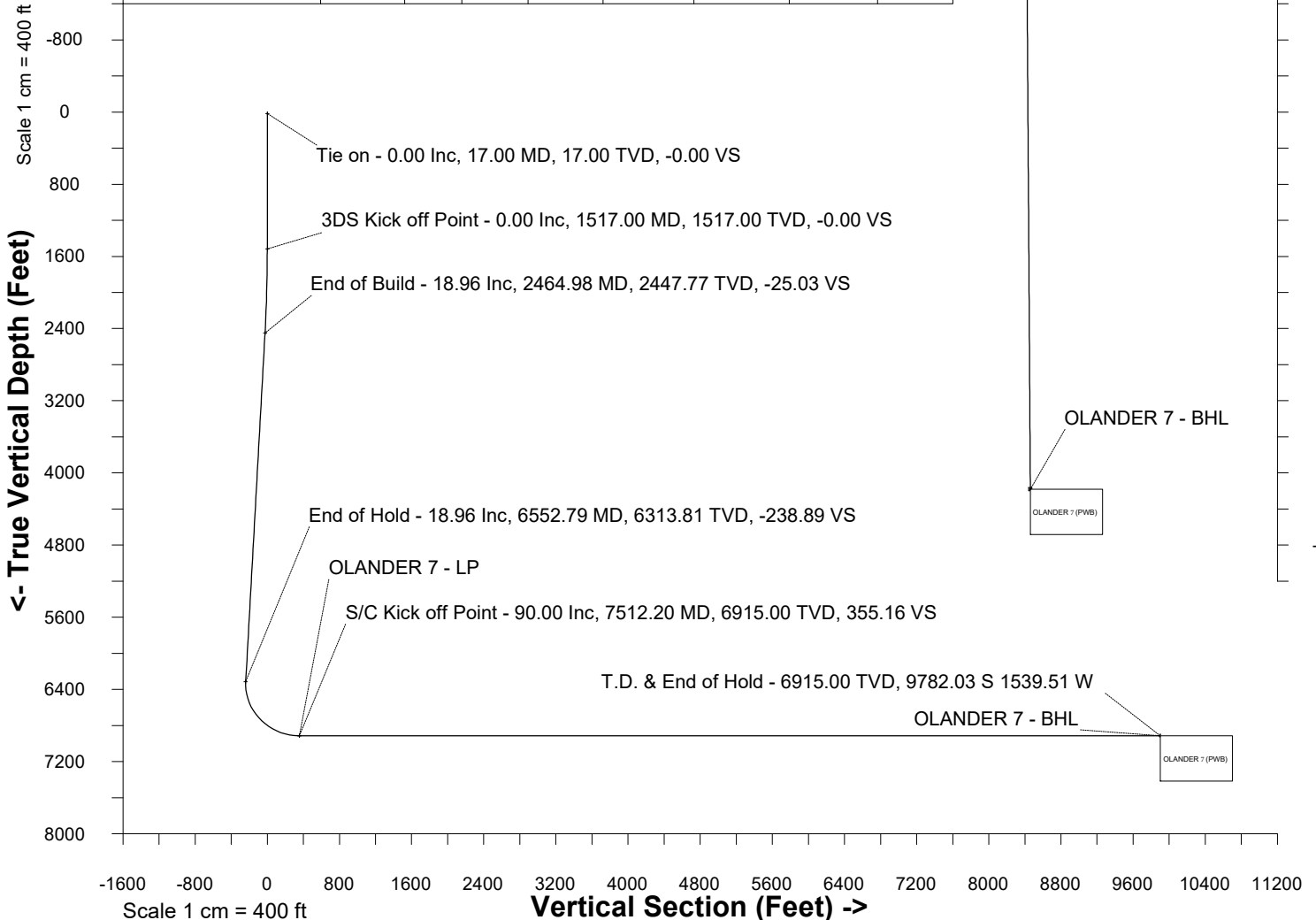
-10400

<- North(Feet)

Scale 1 cm = 400 ft

## WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	17.00	0.00	0.00	17.00	S 0.00	W 0.00		-0.00
KOP	1517.00	0.00	288.21	1517.00	S 0.00	W 0.00	0.00	-0.00
End of Build	2464.98	18.96	288.21	2447.77	N 48.57	W 147.64	2.00	-25.03
End of Hold	6552.79	18.96	288.21	6313.81	N 463.62	W 1409.25	0.00	-238.89
Target OLANDER 7 - LP	7512.20	90.00	179.63	6915.00	S 107.50	W 1601.37	10.00	355.16
T.D. & Target OLA...BHL	17186.93	90.00	179.63	6915.00	S 9782.03	W 1539.51	0.00	9902.44



SYSDRILL  
Well Design Combined Report  
Wellbore: OLANDER 7 (PWB)



Wellhead Details							
Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Ground
OLANDER 7	40.20288000	-105.02535000	1317106.4230	3132578.6787	0.15N	27.93E	0.00

Declination		
Date	Source	Time
Jul-12-2017	EMM-2015	14:01

Installation Details						
Name	Installation Position (Latitude)	Installation Position (Longitude)	Northing	Easting	Coord System Name	North Alignment
Olander Pad Rework 04-09-2019	40.20288000	-105.02545000	1317106.2735	3132550.7471	NAD83 Based Colorado State Planes, Northern Zone, US Feet	Grid

Summary Wellpath								
MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	Vertical Depth SS	North[ft]	East[ft]	Dogleg [deg/100ft]	Vertical Section[ft]
17.00	0.00	0.00	17.00	-5033.00	0.00N	0.00E		0.00
1517.00	0.00	288.21	1517.00	-3533.00	0.00N	0.00E	==>	0.00
2464.98	18.96	288.21	2447.77	-2602.23	48.57N	147.64W	2.00	-25.03
6552.79	18.96	288.21	6313.81	1263.81	463.62N	1409.25W	==>	-238.89
7512.20	90.00	179.63	6915.00	1865.00	107.50S	1601.37W	10.00	355.16
17186.93	90.00	179.63	6915.00	1865.00	9782.03S	1539.51W	==>	9902.44

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	40.20288000	-105.02535000
17.00	0.00	0.00	17.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
100.00	0.00	0.00	100.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
200.00	0.00	0.00	200.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
300.00	0.00	0.00	300.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
400.00	0.00	0.00	400.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
500.00	0.00	0.00	500.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
600.00	0.00	0.00	600.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
700.00	0.00	0.00	700.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
800.00	0.00	0.00	800.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
900.00	0.00	0.00	900.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
1000.00	0.00	0.00	1000.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
1100.00	0.00	0.00	1100.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
1200.00	0.00	0.00	1200.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
1300.00	0.00	0.00	1300.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
1400.00	0.00	0.00	1400.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
1500.00	0.00	0.00	1500.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
1517.00	0.00	288.21	1517.00	0.00N	0.00E	==>	0.00	40.20288000	-105.02535000
1600.00	1.66	288.21	1599.99	0.38N	1.14W	2.00	-0.19	40.20288105	-105.02535408
1700.00	3.66	288.21	1699.88	1.83N	5.55W	2.00	-0.94	40.20288509	-105.02536983
1800.00	5.66	288.21	1799.54	4.36N	13.27W	2.00	-2.25	40.20289218	-105.02539741
1900.00	7.66	288.21	1898.86	7.99N	24.28W	2.00	-4.12	40.20290229	-105.02543678
2000.00	9.66	288.21	1997.71	12.69N	38.59W	2.00	-6.54	40.20291541	-105.02548789
2100.00	11.66	288.21	2095.98	18.47N	56.16W	2.00	-9.52	40.20293154	-105.02555068
2200.00	13.66	288.21	2193.55	25.32N	76.97W	2.00	-13.05	40.20295064	-105.02562508
2300.00	15.66	288.21	2290.29	33.23N	101.01W	2.00	-17.12	40.20297270	-105.02571098
2400.00	17.66	288.21	2386.09	42.19N	128.25W	2.00	-21.74	40.20299769	-105.02580830
2464.98	18.96	288.21	2447.77	48.57N	147.64W	2.00	-25.03	40.20301549	-105.02587759
2500.00	18.96	288.21	2480.89	52.13N	158.44W	==>	-26.86	40.20302541	-105.02591622
2600.00	18.96	288.21	2575.47	62.28N	189.31W	==>	-32.09	40.20305373	-105.02602651
2700.00	18.96	288.21	2670.04	72.43N	220.17W	==>	-37.32	40.20308206	-105.02613680
2800.00	18.96	288.21	2764.62	82.59N	251.03W	==>	-42.55	40.20311038	-105.02624710

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Vertical Section is from 0.00N 0.00E on azimuth 188.94 degrees  
Bottom hole distance is 9902.44 Feet on azimuth 188.94 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by  
Date Printed: 11-Apr-2019

SYSDRILL  
Well Design Combined Report  
Wellbore: OLANDER 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)
2900.00	18.96	288.21	2859.19	92.74N	281.90W	==>	-47.79	40.20313870	-105.02635739
3000.00	18.96	288.21	2953.77	102.89N	312.76W	==>	-53.02	40.20316702	-105.02646768
3100.00	18.96	288.21	3048.34	113.05N	343.62W	==>	-58.25	40.20319535	-105.02657797
3200.00	18.96	288.21	3142.92	123.20N	374.48W	==>	-63.48	40.20322367	-105.02668827
3300.00	18.96	288.21	3237.49	133.35N	405.35W	==>	-68.71	40.20325199	-105.02679856
3400.00	18.96	288.21	3332.07	143.51N	436.21W	==>	-73.94	40.20328032	-105.02690885
3500.00	18.96	288.21	3426.64	153.66N	467.07W	==>	-79.18	40.20330864	-105.02701914
3600.00	18.96	288.21	3521.22	163.81N	497.94W	==>	-84.41	40.20333696	-105.02712944
3700.00	18.96	288.21	3615.79	173.97N	528.80W	==>	-89.64	40.20336528	-105.02723973
3800.00	18.96	288.21	3710.37	184.12N	559.66W	==>	-94.87	40.20339360	-105.02735002
3900.00	18.96	288.21	3804.94	194.27N	590.52W	==>	-100.10	40.20342193	-105.02746032
4000.00	18.96	288.21	3899.52	204.43N	621.39W	==>	-105.33	40.20345025	-105.02757061
4100.00	18.96	288.21	3994.09	214.58N	652.25W	==>	-110.57	40.20347857	-105.02768090
4200.00	18.96	288.21	4088.67	224.73N	683.11W	==>	-115.80	40.20350689	-105.02779120
4300.00	18.96	288.21	4183.24	234.89N	713.98W	==>	-121.03	40.20353521	-105.02790149
4400.00	18.96	288.21	4277.82	245.04N	744.84W	==>	-126.26	40.20356353	-105.02801178
4500.00	18.96	288.21	4372.39	255.19N	775.70W	==>	-131.49	40.20359186	-105.02812208
4600.00	18.96	288.21	4466.97	265.35N	806.56W	==>	-136.72	40.20362018	-105.02823237
4700.00	18.96	288.21	4561.54	275.50N	837.43W	==>	-141.96	40.20364850	-105.02834266
4800.00	18.96	288.21	4656.11	285.65N	868.29W	==>	-147.19	40.20367682	-105.02845296
4900.00	18.96	288.21	4750.69	295.81N	899.15W	==>	-152.42	40.20370514	-105.02856325
5000.00	18.96	288.21	4845.26	305.96N	930.01W	==>	-157.65	40.20373346	-105.02867355
5100.00	18.96	288.21	4939.84	316.11N	960.88W	==>	-162.88	40.20376178	-105.02878384
5200.00	18.96	288.21	5034.41	326.27N	991.74W	==>	-168.12	40.20379010	-105.02889414
5300.00	18.96	288.21	5128.99	336.42N	1022.60W	==>	-173.35	40.20381842	-105.02900443
5400.00	18.96	288.21	5223.56	346.57N	1053.47W	==>	-178.58	40.20384674	-105.02911472
5500.00	18.96	288.21	5318.14	356.73N	1084.33W	==>	-183.81	40.20387506	-105.02922502
5600.00	18.96	288.21	5412.71	366.88N	1115.19W	==>	-189.04	40.20390338	-105.02933531
5700.00	18.96	288.21	5507.29	377.03N	1146.05W	==>	-194.27	40.20393170	-105.02944561
5800.00	18.96	288.21	5601.86	387.19N	1176.92W	==>	-199.51	40.20396002	-105.02955590
5900.00	18.96	288.21	5696.44	397.34N	1207.78W	==>	-204.74	40.20398834	-105.02966620
6000.00	18.96	288.21	5791.01	407.49N	1238.64W	==>	-209.97	40.20401666	-105.02977649
6100.00	18.96	288.21	5885.59	417.65N	1269.51W	==>	-215.20	40.20404498	-105.02988679
6200.00	18.96	288.21	5980.16	427.80N	1300.37W	==>	-220.43	40.20407330	-105.02999708
6300.00	18.96	288.21	6074.74	437.95N	1331.23W	==>	-225.66	40.20410162	-105.03010738
6400.00	18.96	288.21	6169.31	448.11N	1362.09W	==>	-230.90	40.20412994	-105.03021768
6500.00	18.96	288.21	6263.89	458.26N	1392.96W	==>	-236.13	40.20415826	-105.03032797
6552.79	18.96	288.21	6313.81	463.62N	1409.25W	==>	-238.89	40.20417321	-105.03038619
6600.00	18.08	273.57	6358.60	466.47N	1423.85W	10.00	-239.44	40.20418126	-105.03043842
6700.00	20.00	243.12	6453.36	459.69N	1454.67W	10.00	-227.95	40.20416309	-105.03054887
6800.00	25.81	221.95	6545.59	435.71N	1484.55W	10.00	-199.61	40.20409770	-105.03065629
6900.00	33.55	209.04	6632.49	395.26N	1512.59W	10.00	-155.29	40.20398706	-105.03075745
7000.00	42.16	200.71	6711.43	339.56N	1537.94W	10.00	-96.34	40.20383456	-105.03084925
7100.00	51.20	194.81	6779.99	270.32N	1559.82W	10.00	-24.53	40.20364480	-105.03092890
7200.00	60.47	190.26	6836.11	189.63N	1577.58W	10.00	57.93	40.20342358	-105.03099400
7300.00	69.87	186.49	6878.06	99.95N	1590.67W	10.00	148.56	40.20317759	-105.03104256
7400.00	79.34	183.15	6904.59	4.00N	1598.69W	10.00	244.59	40.20291433	-105.03107310
7500.00	88.84	180.01	6914.88	95.30S	1601.41W	10.00	343.11	40.20264178	-105.03108470
7512.20	90.00	179.63	6915.00	107.50S	1601.37W	10.00	355.16	40.20260830	-105.03108480
7600.00	90.00	179.63	6915.00	195.30S	1600.81W	==>	441.80	40.20236728	-105.03108445
7700.00	90.00	179.63	6915.00	295.30S	1600.17W	==>	540.48	40.20209278	-105.03108406
7800.00	90.00	179.63	6915.00	395.30S	1599.53W	==>	639.17	40.20181829	-105.03108366
7900.00	90.00	179.63	6915.00	495.30S	1598.89W	==>	737.85	40.20154379	-105.03108326
8000.00	90.00	179.63	6915.00	595.29S	1598.25W	==>	836.53	40.20126929	-105.03108287
8100.00	90.00	179.63	6915.00	695.29S	1597.61W	==>	935.21	40.20099479	-105.03108247
8200.00	90.00	179.63	6915.00	795.29S	1596.97W	==>	1033.90	40.20072029	-105.03108208
8300.00	90.00	179.63	6915.00	895.29S	1596.33W	==>	1132.58	40.20044579	-105.03108168
8400.00	90.00	179.63	6915.00	995.29S	1595.69W	==>	1231.26	40.20017129	-105.03108128

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Vertical Section is from 0.00N 0.00E on azimuth 188.94 degrees  
Bottom hole distance is 9902.44 Feet on azimuth 188.94 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by  
Date Printed: 11-Apr-2019

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Well Design Combined Report  
Wellbore: OLANDER 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)
8500.00	90.00	179.63	6915.00	1095.28S	1595.05W	==>	1329.95	40.19989679	-105.03108089
8600.00	90.00	179.63	6915.00	1195.28S	1594.42W	==>	1428.63	40.19962229	-105.03108049
8700.00	90.00	179.63	6915.00	1295.28S	1593.78W	==>	1527.31	40.19934779	-105.03108010
8800.00	90.00	179.63	6915.00	1395.28S	1593.14W	==>	1625.99	40.19907329	-105.03107970
8900.00	90.00	179.63	6915.00	1495.28S	1592.50W	==>	1724.68	40.19879879	-105.03107930
9000.00	90.00	179.63	6915.00	1595.27S	1591.86W	==>	1823.36	40.19852429	-105.03107891
9100.00	90.00	179.63	6915.00	1695.27S	1591.22W	==>	1922.04	40.19824979	-105.03107851
9200.00	90.00	179.63	6915.00	1795.27S	1590.58W	==>	2020.72	40.19797530	-105.03107812
9300.00	90.00	179.63	6915.00	1895.27S	1589.94W	==>	2119.41	40.19770080	-105.03107772
9400.00	90.00	179.63	6915.00	1995.27S	1589.30W	==>	2218.09	40.19742630	-105.03107732
9500.00	90.00	179.63	6915.00	2095.26S	1588.66W	==>	2316.77	40.19715180	-105.03107693
9600.00	90.00	179.63	6915.00	2195.26S	1588.02W	==>	2415.45	40.19687730	-105.03107653
9700.00	90.00	179.63	6915.00	2295.26S	1587.38W	==>	2514.14	40.19660280	-105.03107614
9800.00	90.00	179.63	6915.00	2395.26S	1586.74W	==>	2612.82	40.19632830	-105.03107574
9900.00	90.00	179.63	6915.00	2495.26S	1586.10W	==>	2711.50	40.19605380	-105.03107534
10000.00	90.00	179.63	6915.00	2595.25S	1585.46W	==>	2810.19	40.19577930	-105.03107495
10100.00	90.00	179.63	6915.00	2695.25S	1584.82W	==>	2908.87	40.19550480	-105.03107455
10200.00	90.00	179.63	6915.00	2795.25S	1584.18W	==>	3007.55	40.19523030	-105.03107416
10300.00	90.00	179.63	6915.00	2895.25S	1583.55W	==>	3106.23	40.19495580	-105.03107376
10400.00	90.00	179.63	6915.00	2995.24S	1582.91W	==>	3204.92	40.19468130	-105.03107336
10500.00	90.00	179.63	6915.00	3095.24S	1582.27W	==>	3303.60	40.19440680	-105.03107297
10600.00	90.00	179.63	6915.00	3195.24S	1581.63W	==>	3402.28	40.19413230	-105.03107257
10700.00	90.00	179.63	6915.00	3295.24S	1580.99W	==>	3500.96	40.19385780	-105.03107218
10800.00	90.00	179.63	6915.00	3395.24S	1580.35W	==>	3599.65	40.19358330	-105.03107178
10900.00	90.00	179.63	6915.00	3495.23S	1579.71W	==>	3698.33	40.19330880	-105.03107139
11000.00	90.00	179.63	6915.00	3595.23S	1579.07W	==>	3797.01	40.19303431	-105.03107099
11100.00	90.00	179.63	6915.00	3695.23S	1578.43W	==>	3895.69	40.19275981	-105.03107059
11200.00	90.00	179.63	6915.00	3795.23S	1577.79W	==>	3994.38	40.19248531	-105.03107020
11300.00	90.00	179.63	6915.00	3895.23S	1577.15W	==>	4093.06	40.19221081	-105.03106980
11400.00	90.00	179.63	6915.00	3995.22S	1576.51W	==>	4191.74	40.19193631	-105.03106941
11500.00	90.00	179.63	6915.00	4095.22S	1575.87W	==>	4290.43	40.19166181	-105.03106901
11600.00	90.00	179.63	6915.00	4195.22S	1575.23W	==>	4389.11	40.19138731	-105.03106861
11700.00	90.00	179.63	6915.00	4295.22S	1574.59W	==>	4487.79	40.19111281	-105.03106822
11800.00	90.00	179.63	6915.00	4395.22S	1573.95W	==>	4586.47	40.19083831	-105.03106782
11900.00	90.00	179.63	6915.00	4495.21S	1573.31W	==>	4685.16	40.19056381	-105.03106743
12000.00	90.00	179.63	6915.00	4595.21S	1572.67W	==>	4783.84	40.19028931	-105.03106703
12100.00	90.00	179.63	6915.00	4695.21S	1572.04W	==>	4882.52	40.19001481	-105.03106663
12200.00	90.00	179.63	6915.00	4795.21S	1571.40W	==>	4981.20	40.18974031	-105.03106624
12300.00	90.00	179.63	6915.00	4895.21S	1570.76W	==>	5079.89	40.18946581	-105.03106584
12400.00	90.00	179.63	6915.00	4995.20S	1570.12W	==>	5178.57	40.18919131	-105.03106545
12500.00	90.00	179.63	6915.00	5095.20S	1569.48W	==>	5277.25	40.18891681	-105.03106505
12600.00	90.00	179.63	6915.00	5195.20S	1568.84W	==>	5375.93	40.18864231	-105.03106465
12700.00	90.00	179.63	6915.00	5295.20S	1568.20W	==>	5474.62	40.18836781	-105.03106426
12800.00	90.00	179.63	6915.00	5395.20S	1567.56W	==>	5573.30	40.18809331	-105.03106386
12900.00	90.00	179.63	6915.00	5495.19S	1566.92W	==>	5671.98	40.18781881	-105.03106347
13000.00	90.00	179.63	6915.00	5595.19S	1566.28W	==>	5770.67	40.18754431	-105.03106307
13100.00	90.00	179.63	6915.00	5695.19S	1565.64W	==>	5869.35	40.18726981	-105.03106268
13200.00	90.00	179.63	6915.00	5795.19S	1565.00W	==>	5968.03	40.18699531	-105.03106228
13300.00	90.00	179.63	6915.00	5895.19S	1564.36W	==>	6066.71	40.18672081	-105.03106188
13400.00	90.00	179.63	6915.00	5995.18S	1563.72W	==>	6165.40	40.18644631	-105.03106149
13500.00	90.00	179.63	6915.00	6095.18S	1563.08W	==>	6264.08	40.18617181	-105.03106109
13600.00	90.00	179.63	6915.00	6195.18S	1562.44W	==>	6362.76	40.18589731	-105.03106070
13700.00	90.00	179.63	6915.00	6295.18S	1561.80W	==>	6461.44	40.18562281	-105.03106030
13800.00	90.00	179.63	6915.00	6395.18S	1561.17W	==>	6560.13	40.18534831	-105.03105990
13900.00	90.00	179.63	6915.00	6495.17S	1560.53W	==>	6658.81	40.18507381	-105.03105951
14000.00	90.00	179.63	6915.00	6595.17S	1559.89W	==>	6757.49	40.18479931	-105.03105911
14100.00	90.00	179.63	6915.00	6695.17S	1559.25W	==>	6856.18	40.18452481	-105.03105872
14200.00	90.00	179.63	6915.00	6795.17S	1558.61W	==>	6954.86	40.18425031	-105.03105832
14300.00	90.00	179.63	6915.00	6895.17S	1557.97W	==>	7053.54	40.18397581	-105.03105793

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Vertical Section is from 0.00N 0.00E on azimuth 188.94 degrees  
Bottom hole distance is 9902.44 Feet on azimuth 188.94 degrees from Wellhead  
Calculation method uses Minimum Curvature method  
Prepared by  
Date Printed: 11-Apr-2019

SYSDRILL  
Well Design Combined Report  
Wellbore: OLANDER 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)
14400.00	90.00	179.63	6915.00	6995.16S	1557.33W	==>	7152.22	40.18370131	-105.03105753
14500.00	90.00	179.63	6915.00	7095.16S	1556.69W	==>	7250.91	40.18342681	-105.03105713
14600.00	90.00	179.63	6915.00	7195.16S	1556.05W	==>	7349.59	40.18315231	-105.03105674
14700.00	90.00	179.63	6915.00	7295.16S	1555.41W	==>	7448.27	40.18287781	-105.03105634
14800.00	90.00	179.63	6915.00	7395.15S	1554.77W	==>	7546.95	40.18260331	-105.03105595
14900.00	90.00	179.63	6915.00	7495.15S	1554.13W	==>	7645.64	40.18232881	-105.03105555
15000.00	90.00	179.63	6915.00	7595.15S	1553.49W	==>	7744.32	40.18205431	-105.03105515
15100.00	90.00	179.63	6915.00	7695.15S	1552.85W	==>	7843.00	40.18177981	-105.03105476
15200.00	90.00	179.63	6915.00	7795.15S	1552.21W	==>	7941.68	40.18150531	-105.03105436
15300.00	90.00	179.63	6915.00	7895.14S	1551.57W	==>	8040.37	40.18123081	-105.03105397
15400.00	90.00	179.63	6915.00	7995.14S	1550.93W	==>	8139.05	40.18095631	-105.03105357
15500.00	90.00	179.63	6915.00	8095.14S	1550.30W	==>	8237.73	40.18068181	-105.03105318
15600.00	90.00	179.63	6915.00	8195.14S	1549.66W	==>	8336.42	40.18040731	-105.03105278
15700.00	90.00	179.63	6915.00	8295.14S	1549.02W	==>	8435.10	40.18013281	-105.03105238
15800.00	90.00	179.63	6915.00	8395.13S	1548.38W	==>	8533.78	40.17985831	-105.03105199
15900.00	90.00	179.63	6915.00	8495.13S	1547.74W	==>	8632.46	40.17958381	-105.03105159
16000.00	90.00	179.63	6915.00	8595.13S	1547.10W	==>	8731.15	40.17930931	-105.03105120
16100.00	90.00	179.63	6915.00	8695.13S	1546.46W	==>	8829.83	40.17903481	-105.03105080
16200.00	90.00	179.63	6915.00	8795.13S	1545.82W	==>	8928.51	40.17876031	-105.03105041
16300.00	90.00	179.63	6915.00	8895.12S	1545.18W	==>	9027.19	40.17848581	-105.03105001
16400.00	90.00	179.63	6915.00	8995.12S	1544.54W	==>	9125.88	40.17821131	-105.03104961
16500.00	90.00	179.63	6915.00	9095.12S	1543.90W	==>	9224.56	40.17793681	-105.03104922
16600.00	90.00	179.63	6915.00	9195.12S	1543.26W	==>	9323.24	40.17766231	-105.03104882
16700.00	90.00	179.63	6915.00	9295.12S	1542.62W	==>	9421.92	40.17738781	-105.03104843
16800.00	90.00	179.63	6915.00	9395.11S	1541.98W	==>	9520.61	40.17711331	-105.03104803
16900.00	90.00	179.63	6915.00	9495.11S	1541.34W	==>	9619.29	40.17683881	-105.03104764
17000.00	90.00	179.63	6915.00	9595.11S	1540.70W	==>	9717.97	40.17656431	-105.03104724
17100.00	90.00	179.63	6915.00	9695.11S	1540.06W	==>	9816.66	40.17628981	-105.03104684
17186.93	90.00	179.63	6915.00	9782.03S	1539.51W	==>	9902.44	40.17605120	-105.03104650

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Targets							
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
OLANDER 7 - LP	107.50S	1601.37W	6915.00	40.20260830	-105.03108480	1316998.93	3130977.38
OLANDER 7 - BHL	9782.03S	1539.51W	6915.00	40.17605120	-105.03104650	1307324.83	3131039.24

Survey Tool Program						
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model	
790998	Planned	1500.00	1500.00	WdW Rate Gyro	Standard	
790997	Planned	17186.93	6915.00	ISCWSA MWD	Rev 4 + SAG + FLT	

Notes