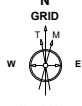


Cub Creek Energy, LLC

Location	Weld County, CO	Slot	KNIGHT 3
Field	WATTENBERG	Well	W KNIGHT 3
Installation	Knight Pad	Wellbore	W KNIGHT 3 (PWB)

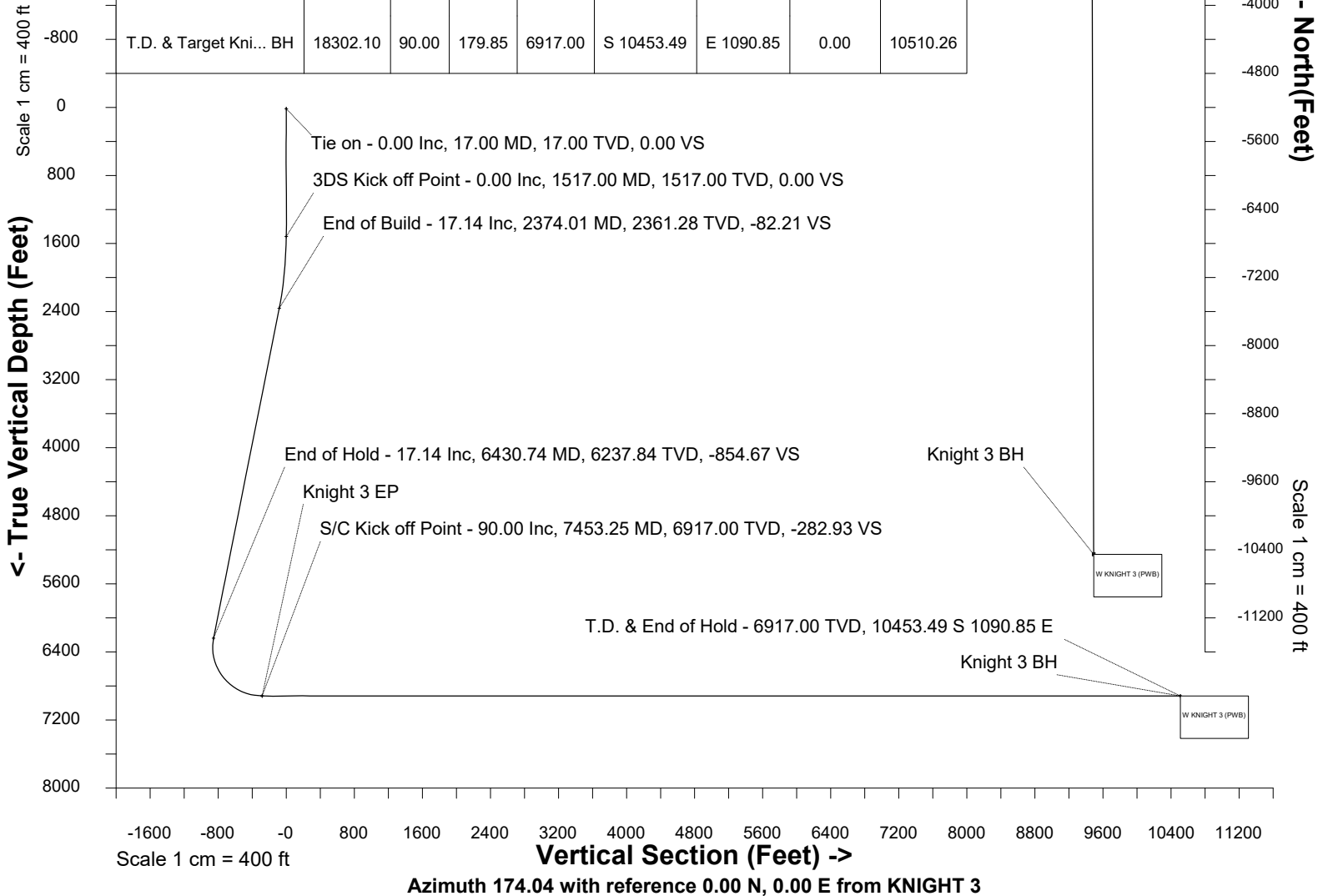
N
GRID

 Nov-8-2017
 EMM-2015 Dip: 66.59 deg Field: 52154.0 nT
 Lat: N40 11 52.9440 Long: W105 2 31.0920 Elev: 4993.00 ft
 Magnetic North is 8.54 deg East of True North
 GRID North is 0.30 deg East of True North
 To correct azimuth from True to GRID subtract 0.30 deg
 To correct azimuth from Magnetic to GRID add 8.25 deg

Created by sean.dolfinger
 Date plotted 14-Jul-2020
 Plot reference is W KNIGHT 3 (PWB).
 Ref wellpath is W KNIGHT 3 (PWP#1).
 Coordinates are in Feet reference KNIGHT 3.
 True Vertical Depths are reference Rig Datum.
 Measured Depths are reference Rig Datum.
 Rig Datum: Planned Datum #1
 Rig Datum to Mean Sea Level: 5011.00 ft.
 Plot North is aligned to GRID North.

Scale 1 cm = 400 ft
 East (Feet) ->
 -800 0 800 1600 2400

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	43.79	1517.00	S 0.00	W 0.00	0.00	0.00
End of Build	2374.01	17.14	43.79	2361.28	N 91.84	E 88.06	2.00	-82.21
End of Hold	6430.74	17.14	43.79	6237.84	N 954.84	E 915.46	0.00	-854.67
Target Knight 3 EP	7453.25	90.00	179.85	6917.00	N 395.32	E 1062.29	10.00	-282.93
T.D. & Target Kni... BH	18302.10	90.00	179.85	6917.00	S 10453.49	E 1090.85	0.00	10510.26



SYSDRILL
Well Design Combined Report
Wellbore: W KNIGHT 3 (PWB)



Wellhead Details							
Name	Latitude	Longitude	Northing	Easting	North	East	Slot Elevation Above Ground
KNIGHT 3	40.19784000	-105.04197000	1315246.0466	3127945.9253	72.86S	0.38E	0.00

Declination		
Date	Source	Time
Nov-6-2017	EMM-2015	14:52

Installation Details						
Name	Installation Position (Latitude)	Installation Position (Longitude)	Northing	Easting	Coord System Name	North Alignment
Knight Pad	40.19804000	-105.04197000	1315318.9022	3127945.5490	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	-4994.00	0.00N	0.00E		0.00
1517.00	0.00	43.79	1517.00	-3494.00	0.00N	0.00E	==>	0.00
2374.01	17.14	43.79	2361.28	-2649.72	91.84N	88.06E	2.00	-82.21
6430.74	17.14	43.79	6237.84	1226.84	954.84N	915.46E	==>	-854.67
7453.25	90.00	179.85	6917.00	1906.00	395.32N	1062.29E	10.00	-282.93
18302.10	90.00	179.85	6917.00	1906.00	10453.49S	1090.85E	==>	10510.26

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	40.19784000	-105.04197000
17.00	0.00	0.00	17.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
100.00	0.00	0.00	100.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
200.00	0.00	0.00	200.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
300.00	0.00	0.00	300.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
400.00	0.00	0.00	400.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
500.00	0.00	0.00	500.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
600.00	0.00	0.00	600.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
700.00	0.00	0.00	700.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
800.00	0.00	0.00	800.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
900.00	0.00	0.00	900.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
1000.00	0.00	0.00	1000.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
1100.00	0.00	0.00	1100.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
1200.00	0.00	0.00	1200.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
1300.00	0.00	0.00	1300.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
1400.00	0.00	0.00	1400.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
1500.00	0.00	0.00	1500.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
1517.00	0.00	43.79	1517.00	0.00N	0.00E	==>	0.00	40.19784000	-105.04197000
1617.00	2.00	43.79	1616.98	1.26N	1.21E	2.00	-1.13	40.19784344	-105.04196565
1717.00	4.00	43.79	1716.84	5.04N	4.83E	2.00	-4.51	40.19785376	-105.04195262
1817.00	6.00	43.79	1816.45	11.33N	10.86E	2.00	-10.14	40.19787094	-105.04193091
1917.00	8.00	43.79	1915.70	20.12N	19.29E	2.00	-18.01	40.19789497	-105.04190056
2017.00	10.00	43.79	2014.47	31.42N	30.12E	2.00	-28.12	40.19792581	-105.04186160
2117.00	12.00	43.79	2112.62	45.19N	43.33E	2.00	-40.45	40.19796343	-105.04181408
2217.00	14.00	43.79	2210.06	61.43N	58.89E	2.00	-54.98	40.19800778	-105.04175805
2317.00	16.00	43.79	2306.64	80.11N	76.80E	2.00	-71.70	40.19805880	-105.04169359
2374.01	17.14	43.79	2361.28	91.84N	88.06E	2.00	-82.21	40.19809086	-105.04165309
2417.00	17.14	43.79	2402.37	100.99N	96.82E	==>	-90.39	40.19811584	-105.04162154
2517.00	17.14	43.79	2497.92	122.26N	117.22E	==>	-109.44	40.19817394	-105.04154813
2617.00	17.14	43.79	2593.48	143.53N	137.62E	==>	-128.48	40.19823204	-105.04147473
2717.00	17.14	43.79	2689.04	164.81N	158.01E	==>	-147.52	40.19829015	-105.04140132
2817.00	17.14	43.79	2784.60	186.08N	178.41E	==>	-166.56	40.19834825	-105.04132792

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 5011.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 174.04 degrees
Bottom hole distance is 10510.26 Feet on azimuth 174.04 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 14-Jul-2020

SYSDRILL
Well Design Combined Report
Wellbore: W KNIGHT 3 (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)
2917.00	17.14	43.79	2880.16	207.35N	198.80E	==>	-185.60	40.19840636	-105.04125452
3017.00	17.14	43.79	2975.72	228.63N	219.20E	==>	-204.64	40.19846446	-105.04118111
3117.00	17.14	43.79	3071.28	249.90N	239.59E	==>	-223.68	40.19852257	-105.04110771
3217.00	17.14	43.79	3166.83	271.17N	259.99E	==>	-242.73	40.19858067	-105.04103430
3317.00	17.14	43.79	3262.39	292.45N	280.39E	==>	-261.77	40.19863878	-105.04096090
3417.00	17.14	43.79	3357.95	313.72N	300.78E	==>	-280.81	40.19869688	-105.04088749
3517.00	17.14	43.79	3453.51	334.99N	321.18E	==>	-299.85	40.19875498	-105.04081408
3617.00	17.14	43.79	3549.07	356.27N	341.57E	==>	-318.89	40.19881309	-105.04074068
3717.00	17.14	43.79	3644.63	377.54N	361.97E	==>	-337.93	40.19887119	-105.04066727
3817.00	17.14	43.79	3740.19	398.81N	382.37E	==>	-356.97	40.19892930	-105.04059387
3917.00	17.14	43.79	3835.74	420.09N	402.76E	==>	-376.02	40.19898740	-105.04052046
4017.00	17.14	43.79	3931.30	441.36N	423.16E	==>	-395.06	40.19904550	-105.04044706
4117.00	17.14	43.79	4026.86	462.63N	443.55E	==>	-414.10	40.19910361	-105.04037365
4217.00	17.14	43.79	4122.42	483.91N	463.95E	==>	-433.14	40.19916171	-105.04030024
4317.00	17.14	43.79	4217.98	505.18N	484.35E	==>	-452.18	40.19921982	-105.04022684
4417.00	17.14	43.79	4313.54	526.45N	504.74E	==>	-471.22	40.19927792	-105.04015343
4517.00	17.14	43.79	4409.10	547.73N	525.14E	==>	-490.26	40.19933602	-105.04008002
4617.00	17.14	43.79	4504.66	569.00N	545.53E	==>	-509.31	40.19939413	-105.04000662
4717.00	17.14	43.79	4600.21	590.27N	565.93E	==>	-528.35	40.19945223	-105.03993321
4817.00	17.14	43.79	4695.77	611.55N	586.33E	==>	-547.39	40.19951034	-105.03985980
4917.00	17.14	43.79	4791.33	632.82N	606.72E	==>	-566.43	40.19956844	-105.03978640
5017.00	17.14	43.79	4886.89	654.09N	627.12E	==>	-585.47	40.19962654	-105.03971299
5117.00	17.14	43.79	4982.45	675.37N	647.51E	==>	-604.51	40.19968465	-105.03963958
5217.00	17.14	43.79	5078.01	696.64N	667.91E	==>	-623.55	40.19974275	-105.03956617
5317.00	17.14	43.79	5173.57	717.91N	688.30E	==>	-642.60	40.19980085	-105.03949277
5417.00	17.14	43.79	5269.12	739.19N	708.70E	==>	-661.64	40.19985896	-105.03941936
5517.00	17.14	43.79	5364.68	760.46N	729.10E	==>	-680.68	40.19991706	-105.03934595
5617.00	17.14	43.79	5460.24	781.73N	749.49E	==>	-699.72	40.19997516	-105.03927254
5717.00	17.14	43.79	5555.80	803.00N	769.89E	==>	-718.76	40.20003327	-105.03919913
5817.00	17.14	43.79	5651.36	824.28N	790.28E	==>	-737.80	40.20009137	-105.03912572
5917.00	17.14	43.79	5746.92	845.55N	810.68E	==>	-756.85	40.20014947	-105.03905232
6017.00	17.14	43.79	5842.48	866.82N	831.08E	==>	-775.89	40.20020757	-105.03897891
6117.00	17.14	43.79	5938.04	888.10N	851.47E	==>	-794.93	40.20026568	-105.03890550
6217.00	17.14	43.79	6033.59	909.37N	871.87E	==>	-813.97	40.20032378	-105.03883209
6317.00	17.14	43.79	6129.15	930.64N	892.26E	==>	-833.01	40.20038188	-105.03875868
6417.00	17.14	43.79	6224.71	951.92N	912.66E	==>	-852.05	40.20043999	-105.03868527
6430.74	17.14	43.79	6237.84	954.84N	915.46E	==>	-854.67	40.20044797	-105.03867518
6517.00	12.60	73.01	6321.30	966.79N	933.29E	10.00	-864.70	40.20048051	-105.03861113
6617.00	13.64	117.94	6418.94	964.45N	954.20E	10.00	-860.20	40.20047379	-105.03853635
6717.00	20.25	144.39	6514.68	944.80N	974.74E	10.00	-838.54	40.20041958	-105.03846317
6817.00	28.83	156.97	6605.62	908.46N	994.30E	10.00	-800.35	40.20031952	-105.03839383
6917.00	38.06	163.99	6689.01	856.51N	1012.28E	10.00	-746.82	40.20017666	-105.03833043
7017.00	47.57	168.57	6762.29	790.53N	1028.14E	10.00	-679.55	40.19999534	-105.03827489
7117.00	57.21	171.93	6823.25	712.54N	1041.39E	10.00	-600.61	40.19978107	-105.03822890
7217.00	66.93	174.62	6870.04	624.90N	1051.64E	10.00	-512.38	40.19954036	-105.03819386
7317.00	76.68	176.95	6901.23	530.28N	1058.56E	10.00	-417.55	40.19928052	-105.03817084
7417.00	86.46	179.09	6915.88	431.54N	1061.96E	10.00	-318.99	40.19900945	-105.03816052
7453.25	90.00	179.85	6917.00	395.32N	1062.29E	10.00	-282.93	40.19891000	-105.03816000
7517.00	90.00	179.85	6917.00	331.57N	1062.46E	==>	-219.51	40.19873502	-105.03816059
7617.00	90.00	179.85	6917.00	231.57N	1062.72E	==>	-120.02	40.19846052	-105.03816151
7717.00	90.00	179.85	6917.00	131.57N	1062.99E	==>	-20.53	40.19818602	-105.03816243
7817.00	90.00	179.85	6917.00	31.57N	1063.25E	==>	78.95	40.19791152	-105.03816335
7917.00	90.00	179.85	6917.00	68.43S	1063.51E	==>	178.44	40.19763702	-105.03816428
8017.00	90.00	179.85	6917.00	168.43S	1063.78E	==>	277.93	40.19736252	-105.03816520
8117.00	90.00	179.85	6917.00	268.43S	1064.04E	==>	377.41	40.19708802	-105.03816612
8217.00	90.00	179.85	6917.00	368.43S	1064.30E	==>	476.90	40.19681353	-105.03816704
8317.00	90.00	179.85	6917.00	468.43S	1064.57E	==>	576.39	40.19653903	-105.03816796
8417.00	90.00	179.85	6917.00	568.43S	1064.83E	==>	675.88	40.19626453	-105.03816889

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 5011.0ft above Mean Sea Level)
Vertical Section is from 0.00N 0.00E on azimuth 174.04 degrees
Bottom hole distance is 10510.26 Feet on azimuth 174.04 degrees from Wellhead
Calculation method uses Minimum Curvature method
Prepared by
Date Printed: 14-Jul-2020

SYSDRILL
Well Design Combined Report
Wellbore: W KNIGHT 3 (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)
8517.00	90.00	179.85	6917.00	668.43S	1065.09E	==>	775.36	40.19599003	-105.03816981
8617.00	90.00	179.85	6917.00	768.43S	1065.36E	==>	874.85	40.19571553	-105.03817073
8717.00	90.00	179.85	6917.00	868.43S	1065.62E	==>	974.34	40.19544103	-105.03817165
8817.00	90.00	179.85	6917.00	968.43S	1065.88E	==>	1073.82	40.19516653	-105.03817258
8917.00	90.00	179.85	6917.00	1068.43S	1066.14E	==>	1173.31	40.19489203	-105.03817350
9017.00	90.00	179.85	6917.00	1168.43S	1066.41E	==>	1272.80	40.19461754	-105.03817442
9117.00	90.00	179.85	6917.00	1268.43S	1066.67E	==>	1372.28	40.19434304	-105.03817534
9217.00	90.00	179.85	6917.00	1368.43S	1066.93E	==>	1471.77	40.19406854	-105.03817626
9317.00	90.00	179.85	6917.00	1468.42S	1067.20E	==>	1571.26	40.19379404	-105.03817719
9417.00	90.00	179.85	6917.00	1568.42S	1067.46E	==>	1670.74	40.19351954	-105.03817811
9517.00	90.00	179.85	6917.00	1668.42S	1067.72E	==>	1770.23	40.19324504	-105.03817903
9617.00	90.00	179.85	6917.00	1768.42S	1067.99E	==>	1869.72	40.19297054	-105.03817995
9717.00	90.00	179.85	6917.00	1868.42S	1068.25E	==>	1969.21	40.19269604	-105.03818087
9817.00	90.00	179.85	6917.00	1968.42S	1068.51E	==>	2068.69	40.19242155	-105.03818180
9917.00	90.00	179.85	6917.00	2068.42S	1068.78E	==>	2168.18	40.19214705	-105.03818272
10017.00	90.00	179.85	6917.00	2168.42S	1069.04E	==>	2267.67	40.19187255	-105.03818364
10117.00	90.00	179.85	6917.00	2268.42S	1069.30E	==>	2367.15	40.19159805	-105.03818456
10217.00	90.00	179.85	6917.00	2368.42S	1069.57E	==>	2466.64	40.19132355	-105.03818548
10317.00	90.00	179.85	6917.00	2468.42S	1069.83E	==>	2566.13	40.19104905	-105.03818641
10417.00	90.00	179.85	6917.00	2568.42S	1070.09E	==>	2665.61	40.19077455	-105.03818733
10517.00	90.00	179.85	6917.00	2668.42S	1070.36E	==>	2765.10	40.19050005	-105.03818825
10617.00	90.00	179.85	6917.00	2768.42S	1070.62E	==>	2864.59	40.19022555	-105.03818917
10717.00	90.00	179.85	6917.00	2868.42S	1070.88E	==>	2964.07	40.18995106	-105.03819009
10817.00	90.00	179.85	6917.00	2968.42S	1071.15E	==>	3063.56	40.18967656	-105.03819101
10917.00	90.00	179.85	6917.00	3068.42S	1071.41E	==>	3163.05	40.18940206	-105.03819194
11017.00	90.00	179.85	6917.00	3168.42S	1071.67E	==>	3262.54	40.18912756	-105.03819286
11117.00	90.00	179.85	6917.00	3268.42S	1071.94E	==>	3362.02	40.18885306	-105.03819378
11217.00	90.00	179.85	6917.00	3368.42S	1072.20E	==>	3461.51	40.18857856	-105.03819470
11317.00	90.00	179.85	6917.00	3468.42S	1072.46E	==>	3561.00	40.18830406	-105.03819562
11417.00	90.00	179.85	6917.00	3568.42S	1072.73E	==>	3660.48	40.18802956	-105.03819655
11517.00	90.00	179.85	6917.00	3668.42S	1072.99E	==>	3759.97	40.18775506	-105.03819747
11617.00	90.00	179.85	6917.00	3768.42S	1073.25E	==>	3859.46	40.18748056	-105.03819839
11717.00	90.00	179.85	6917.00	3868.42S	1073.51E	==>	3958.94	40.18720606	-105.03819931
11817.00	90.00	179.85	6917.00	3968.42S	1073.78E	==>	4058.43	40.18693157	-105.03820023
11917.00	90.00	179.85	6917.00	4068.42S	1074.04E	==>	4157.92	40.18665707	-105.03820116
12017.00	90.00	179.85	6917.00	4168.42S	1074.30E	==>	4257.40	40.18638257	-105.03820208
12117.00	90.00	179.85	6917.00	4268.42S	1074.57E	==>	4356.89	40.18610807	-105.03820300
12217.00	90.00	179.85	6917.00	4368.41S	1074.83E	==>	4456.38	40.18583357	-105.03820392
12317.00	90.00	179.85	6917.00	4468.41S	1075.09E	==>	4555.86	40.18555907	-105.03820484
12417.00	90.00	179.85	6917.00	4568.41S	1075.36E	==>	4655.35	40.18528457	-105.03820576
12517.00	90.00	179.85	6917.00	4668.41S	1075.62E	==>	4754.84	40.18501007	-105.03820669
12617.00	90.00	179.85	6917.00	4768.41S	1075.88E	==>	4854.33	40.18473557	-105.03820761
12717.00	90.00	179.85	6917.00	4868.41S	1076.15E	==>	4953.81	40.18446107	-105.03820853
12817.00	90.00	179.85	6917.00	4968.41S	1076.41E	==>	5053.30	40.18418657	-105.03820945
12917.00	90.00	179.85	6917.00	5068.41S	1076.67E	==>	5152.79	40.18391208	-105.03821037
13017.00	90.00	179.85	6917.00	5168.41S	1076.94E	==>	5252.27	40.18363758	-105.03821130
13117.00	90.00	179.85	6917.00	5268.41S	1077.20E	==>	5351.76	40.18336308	-105.03821222
13217.00	90.00	179.85	6917.00	5368.41S	1077.46E	==>	5451.25	40.18308858	-105.03821314
13317.00	90.00	179.85	6917.00	5468.41S	1077.73E	==>	5550.73	40.18281408	-105.03821406
13417.00	90.00	179.85	6917.00	5568.41S	1077.99E	==>	5650.22	40.18253958	-105.03821498
13517.00	90.00	179.85	6917.00	5668.41S	1078.25E	==>	5749.71	40.18226508	-105.03821590
13617.00	90.00	179.85	6917.00	5768.41S	1078.52E	==>	5849.19	40.18199058	-105.03821683
13717.00	90.00	179.85	6917.00	5868.41S	1078.78E	==>	5948.68	40.18171608	-105.03821775
13817.00	90.00	179.85	6917.00	5968.41S	1079.04E	==>	6048.17	40.18144158	-105.03821867
13917.00	90.00	179.85	6917.00	6068.41S	1079.31E	==>	6147.66	40.18116708	-105.03821959
14017.00	90.00	179.85	6917.00	6168.41S	1079.57E	==>	6247.14	40.18089258	-105.03822051
14117.00	90.00	179.85	6917.00	6268.41S	1079.83E	==>	6346.63	40.18061808	-105.03822143
14217.00	90.00	179.85	6917.00	6368.41S	1080.10E	==>	6446.12	40.18034358	-105.03822236
14317.00	90.00	179.85	6917.00	6468.41S	1080.36E	==>	6545.60	40.18006908	-105.03822328

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Bottom hole distance is 10510.26 Feet on azimuth 174.04 degrees from Wellhead
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Prepared by
Date Printed: 14-Jul-2020

SYSDRILL
Well Design Combined Report
Wellbore: W KNIGHT 3 (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)
14417.00	90.00	179.85	6917.00	6568.41S	1080.62E	==>	6645.09	40.17979459	-105.03822420
14517.00	90.00	179.85	6917.00	6668.41S	1080.88E	==>	6744.58	40.17952009	-105.03822512
14617.00	90.00	179.85	6917.00	6768.41S	1081.15E	==>	6844.06	40.17924559	-105.03822604
14717.00	90.00	179.85	6917.00	6868.41S	1081.41E	==>	6943.55	40.17897109	-105.03822696
14817.00	90.00	179.85	6917.00	6968.41S	1081.67E	==>	7043.04	40.17869659	-105.03822789
14917.00	90.00	179.85	6917.00	7068.41S	1081.94E	==>	7142.52	40.17842209	-105.03822881
15017.00	90.00	179.85	6917.00	7168.41S	1082.20E	==>	7242.01	40.17814759	-105.03822973
15117.00	90.00	179.85	6917.00	7268.40S	1082.46E	==>	7341.50	40.17787309	-105.03823065
15217.00	90.00	179.85	6917.00	7368.40S	1082.73E	==>	7440.99	40.17759859	-105.03823157
15317.00	90.00	179.85	6917.00	7468.40S	1082.99E	==>	7540.47	40.17732409	-105.03823249
15417.00	90.00	179.85	6917.00	7568.40S	1083.25E	==>	7639.96	40.17704959	-105.03823341
15517.00	90.00	179.85	6917.00	7668.40S	1083.52E	==>	7739.45	40.17677509	-105.03823434
15617.00	90.00	179.85	6917.00	7768.40S	1083.78E	==>	7838.93	40.17650059	-105.03823526
15717.00	90.00	179.85	6917.00	7868.40S	1084.04E	==>	7938.42	40.17622609	-105.03823618
15817.00	90.00	179.85	6917.00	7968.40S	1084.31E	==>	8037.91	40.17595159	-105.03823710
15917.00	90.00	179.85	6917.00	8068.40S	1084.57E	==>	8137.39	40.17567709	-105.03823802
16017.00	90.00	179.85	6917.00	8168.40S	1084.83E	==>	8236.88	40.17540259	-105.03823894
16117.00	90.00	179.85	6917.00	8268.40S	1085.10E	==>	8336.37	40.17512809	-105.03823987
16217.00	90.00	179.85	6917.00	8368.40S	1085.36E	==>	8435.85	40.17485359	-105.03824079
16317.00	90.00	179.85	6917.00	8468.40S	1085.62E	==>	8535.34	40.17457909	-105.03824171
16417.00	90.00	179.85	6917.00	8568.40S	1085.89E	==>	8634.83	40.17430460	-105.03824263
16517.00	90.00	179.85	6917.00	8668.40S	1086.15E	==>	8734.32	40.17403010	-105.03824355
16617.00	90.00	179.85	6917.00	8768.40S	1086.41E	==>	8833.80	40.17375560	-105.03824447
16717.00	90.00	179.85	6917.00	8868.40S	1086.68E	==>	8933.29	40.17348110	-105.03824539
16817.00	90.00	179.85	6917.00	8968.40S	1086.94E	==>	9032.78	40.17320660	-105.03824632
16917.00	90.00	179.85	6917.00	9068.40S	1087.20E	==>	9132.26	40.17293210	-105.03824724
17017.00	90.00	179.85	6917.00	9168.40S	1087.47E	==>	9231.75	40.17265760	-105.03824816
17117.00	90.00	179.85	6917.00	9268.40S	1087.73E	==>	9331.24	40.17238310	-105.03824908
17217.00	90.00	179.85	6917.00	9368.40S	1087.99E	==>	9430.72	40.17210860	-105.03825000
17317.00	90.00	179.85	6917.00	9468.40S	1088.26E	==>	9530.21	40.17183410	-105.03825092
17417.00	90.00	179.85	6917.00	9568.40S	1088.52E	==>	9629.70	40.17155960	-105.03825184
17517.00	90.00	179.85	6917.00	9668.40S	1088.78E	==>	9729.18	40.17128510	-105.03825277
17617.00	90.00	179.85	6917.00	9768.40S	1089.04E	==>	9828.67	40.17101060	-105.03825369
17717.00	90.00	179.85	6917.00	9868.40S	1089.31E	==>	9928.16	40.17073610	-105.03825461
17817.00	90.00	179.85	6917.00	9968.40S	1089.57E	==>	10027.64	40.17046160	-105.03825553
17917.00	90.00	179.85	6917.00	10068.39S	1089.83E	==>	10127.13	40.17018710	-105.03825645
18017.00	90.00	179.85	6917.00	10168.39S	1090.10E	==>	10226.62	40.16991260	-105.03825737
18117.00	90.00	179.85	6917.00	10268.39S	1090.36E	==>	10326.11	40.16963810	-105.03825829
18217.00	90.00	179.85	6917.00	10368.39S	1090.62E	==>	10425.59	40.16936360	-105.03825922
18302.10	90.00	179.85	6917.00	10453.49S	1090.85E	==>	10510.26	40.16913000	-105.03826000

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Wellbore: W KNIGHT 3 (PWB)



Targets							
Name	North[ft]	East[ft]	TVD[ft]	Latitude	Longitude	Northing	Easting
Knight 3 BH	10453.49S	1090.85E	6917.00	40.16913000	-105.03826000	1304793.02	3129036.72
Knight 3 EP	395.32N	1062.29E	6917.00	40.19891000	-105.03816000	1315641.34	3129008.17

Survey Tool Program					
Reference	Survey Name	MD[ft]	TVD[ft]	Survey Tool	Error Model
590195	Planned	1517.00	1517.00	WdW Rate Gyro	Standard
590194	Planned	18302.10	6917.00	ISCWSA MWD	Rev 4 + SAG + FLT

Notes

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