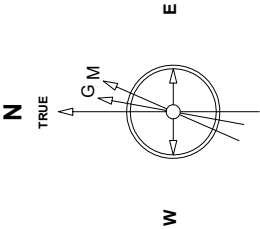


Great Western Operating Company, LLC

Created by	mmount
Date plotted	25-Nov-2020
Plot reference is Tower LD 19-182HC (AWB).	
Ref wellpath is Tower LD 19-182HC (AWP#1).	
Coordinates are in Feet reference N15 - Tower LD 19-182HC.	
True Vertical Depths are reference Rig Datum.	
Measured Depths are reference Rig Datum.	
Rig Datum: Actual Datum #1	
Rig Datum to Mean Sea Level 5244.00 ft.	
Plot North is aligned to TRUE North.	

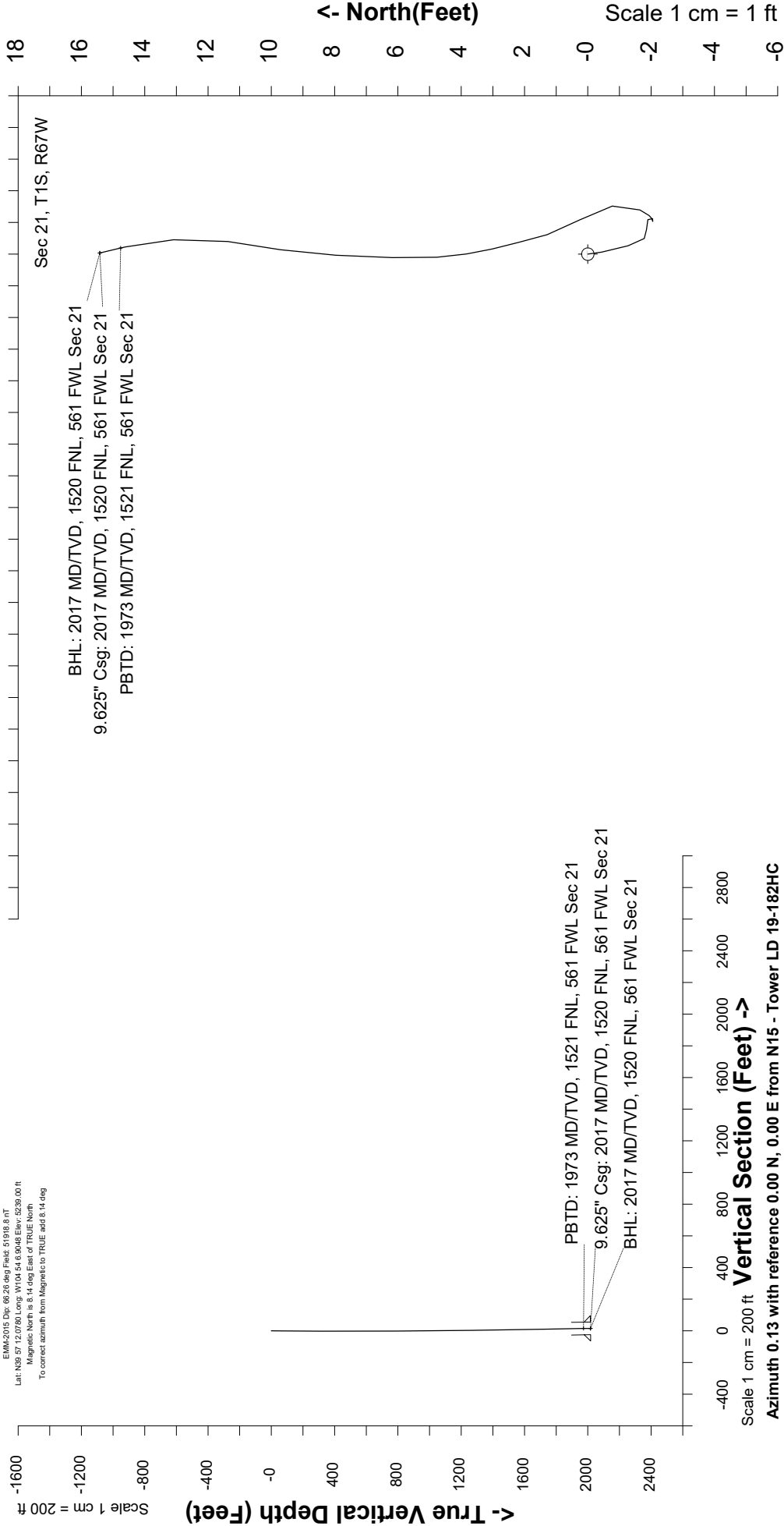
Location	Colorado	Slot	N15 - Tower LD 19-182HC
Field	Wattenburg	Well	Tower LD 19-182HC
Installation	Tower	Wellbore	Tower LD 19-182HC (AWB)



Feb-13-2019
EMM2015 Dip: 68.26 deg Field: 51918.8 nT
Lat: N39 57 12.0760 Long: W104 54 6.9048 Elev: 5239.00 ft
Magnetic North is 8.14 deg East of TRUE North.
To correct azimuth from Magnetic to TRUE add 8.14 deg

Scale 1 cm = 1 ft

East (Feet) ->



Scale 1 cm = 200 ft

Vertical Section (Feet) ->

Azimuth 0.13 with reference 0.00 N, 0.00 E from N15 - Tower LD 19-182HC

Great Western Operating Co, LLC
 Directional Survey Report
 Wellpath: Tower LD 19-182HC
 MDs and TVDs are from Rig Floor 5244.0ft above Mean Sea Level

Wellpath Report

MD[ft]	Inc[deg]	Azi[deg]	TVD[ft]	North[ft]	East[ft]	DLS [deg/100ft]	Vertical Section[ft]
0.00	0.00	0.00	0.00	0.00	0.00		0.00
82.00	0.62	171.95	82.00	-0.44	0.06	0.76	-0.44
168.00	0.53	160.00	167.99	-1.27	0.26	0.17	-1.27
254.00	0.22	146.29	253.99	-1.78	0.49	0.37	-1.78
343.00	0.26	69.03	342.99	-1.85	0.77	0.34	-1.85
432.00	0.22	132.67	431.99	-1.90	1.09	0.29	-1.90
522.00	0.13	251.76	521.99	-2.05	1.12	0.34	-2.04
612.00	0.04	18.94	611.99	-2.05	1.03	0.17	-2.05
702.00	0.09	97.95	701.99	-2.03	1.11	0.10	-2.03
792.00	0.57	28.43	791.99	-1.65	1.40	0.61	-1.64
882.00	0.62	349.05	881.98	-0.77	1.52	0.45	-0.77
972.00	0.83	328.05	971.98	0.26	1.08	0.37	0.26
1062.00	0.62	345.71	1061.97	1.28	0.61	0.34	1.28
1152.00	0.53	344.31	1151.97	2.15	0.38	0.10	2.16
1241.00	0.62	346.94	1240.96	3.02	0.16	0.11	3.02
1331.00	0.44	352.22	1330.96	3.84	0.00	0.21	3.84
1421.00	0.75	354.50	1420.95	4.77	-0.10	0.35	4.77
1511.00	1.05	3.20	1510.94	6.18	-0.11	0.37	6.17
1601.00	1.23	1.71	1600.92	7.96	-0.04	0.20	7.96
1691.00	1.01	10.59	1690.91	9.71	0.14	0.31	9.71
1781.00	1.14	7.33	1780.89	11.38	0.40	0.16	11.38
1871.00	1.05	355.82	1870.87	13.09	0.45	0.26	13.09
1962.00	0.88	346.59	1961.86	14.60	0.23	0.25	14.60
2017.00	0.88	346.59	2016.85	15.42	0.03	==>	15.42