

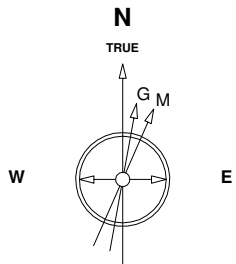
# Great Western Operating Company, LLC

**Location** Colorado  
**Field** Wattenburg  
**Installation** Tower

**Slot** Slot S15 - Tower LD 19-219HN  
**Well** Tower LD 19-219HN  
**Wellbore** Tower LD 19-219HN (PWB)

Created by admin  
Date plotted 15-May-2017

Plot reference is Tower LD 19-219HN (PWB).  
Ref wellpath is Tower LD 19-219HN (PWP#1).  
Coordinates are in Feet reference Slot S15 - Tower LD 19-219HN.  
True Vertical Depths are reference Rig Datum.  
Measured Depths are reference Rig Datum.  
Rig Datum: Planned Datum #1  
Rig Datum to Mean Sea Level: 5259.60 ft.  
Plot North is aligned to TRUE North.



Scale 1 cm = 400 ft

East (Feet) ->

-13600 -12800 -12000 -11200 -10400 -9600 -8800 -8000 -7200 -6400 -5600 -4800 -4000 -3200 -2400 -1600 -800 0 800 1600

10-May-2017  
IGRF Model [1900.0-2020.0] Dip: 66.48 deg Field: 52154.2 nT  
Lat: N39 57 11.0916 Long: W104 54 7.2792 Elev: 5239.60 ft  
Magnetic North is 8.26 deg East of TRUE North  
To correct azimuth from Magnetic to TRUE add 8.26 deg

<- True Vertical Depth (Feet)

Scale 1 cm = 400 ft

-800  
0  
800  
1600  
2400  
3200  
4000  
4800  
5600  
6400  
7200  
8000  
8800

9 5/8in Surface Casing

TPZ - 8359 / 7788 MD/TVD, 2589 FSL, 460 FEL Sec 20

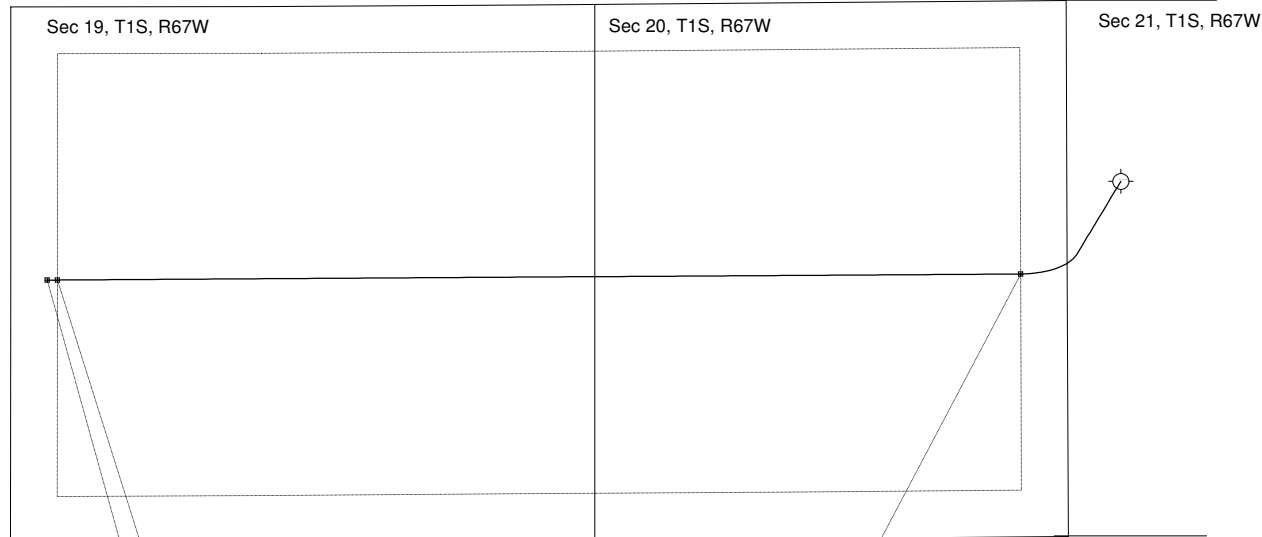
5 1/2in Production Casing

Btm Perf - 17,847 / 7788 MD/TVD, 2593 FSL, 460 FWL Sec 19  
BHL - 17,947 / 7788 MD/TVD, 2593 FSL, 360 FWL Sec 19

Scale 1 cm = 800 ft

Vertical Section (Feet) ->

Azimuth 264.75 with reference 0.00 N, 0.00 E from Slot S15 - Tower LD 19-219HN



Btm Perf - 17,847 / 7788 MD/TVD, 2593 FSL, 460 FWL Sec 19  
BHL - 17,947 / 7788 MD/TVD, 2593 FSL, 360 FWL Sec 19

TPZ - 8359 / 7788 MD/TVD, 2589 FSL, 460 FEL Sec 20

<- North(Feet)

Scale 1 cm = 400 ft

2400  
1600  
800  
0  
-800  
-1600  
-2400  
-3200  
-4000  
-4800  
-5600

## WELL PROFILE DATA

Point	MD	Inc	Azi	TVD	North	East	deg/100ft	V. Sect
Tie on	0.00	0.00	0.00	0.00	S 0.00	W 0.00		-0.00
KOP	5437.50	0.00	211.09	5437.50	S 0.00	W 0.00	0.00	-0.00
End of Build	6437.45	30.00	211.09	6392.39	S 219.09	W 132.13	9.84	151.61
End of Hold	7610.27	30.00	211.09	7408.09	S 721.22	W 434.96	0.00	499.10
Target TPZ - ...Sec 20	8359.04	90.00	269.64	7788.00	S 911.78	W 986.89	32.81	1066.15
Target Btm Pe...Sec 19	17846.60	90.00	269.64	7788.00	S 971.16	W 10474.26	0.00	10519.19
End of Turn	17849.40	90.00	270.01	7788.00	S 971.17	W 10477.06	42.65	10521.97
T.D. & Target BHL... 19	17946.60	90.00	270.01	7788.00	S 971.16	W 10574.26	0.00	10618.76